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CN 103237560A WO 2019/169120A1

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(54)名稱

人巨細胞病毒糖蛋白Ｂ（ｇＢ）多肽

(57)摘要

本發明關於多肽及巨細胞病毒(CMV)抗原，該多肽及巨細胞病毒(CMV)抗原包括相對於野生型HCMV 糖蛋白 B (gB)之胺基酸序列之至少二個經導入之胺基酸突變。在一些實施態樣中，多肽呈替代 gB 融合後構形之構形穩定。本發明亦揭示包括該多肽之組成物及其用途。

The present invention relates to polypeptides and cytomegalovirus (CMV) antigens that include at least two introduced amino acid mutations relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB). In some embodiments, the polypeptide is stabilized in a conformation alternative to the gB postfusion conformation. Also disclosed are compositions including the polypeptides and uses thereof.

指定代表圖：

符號簡單說明：

DI:結構域 I

DII:結構域 II

DIII:結構域 III

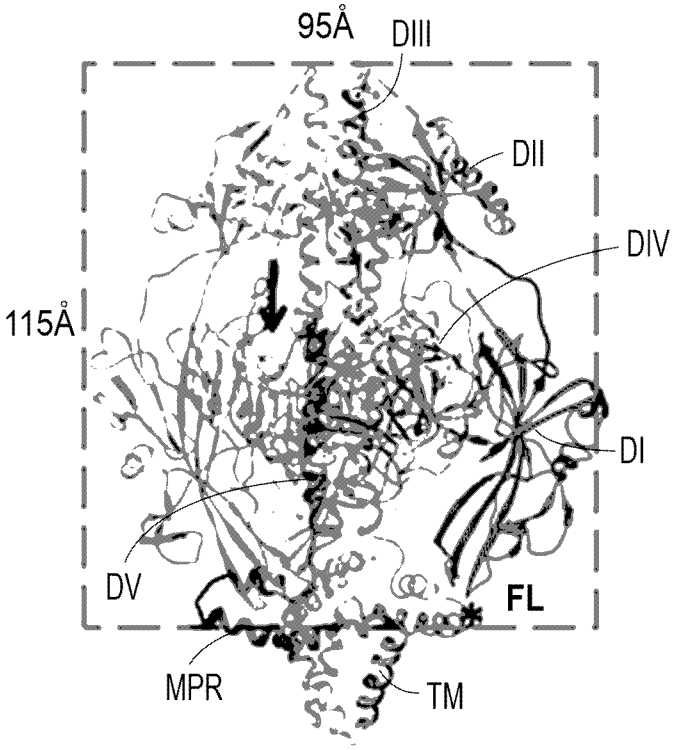
DIV:結構域 IV

DV:結構域

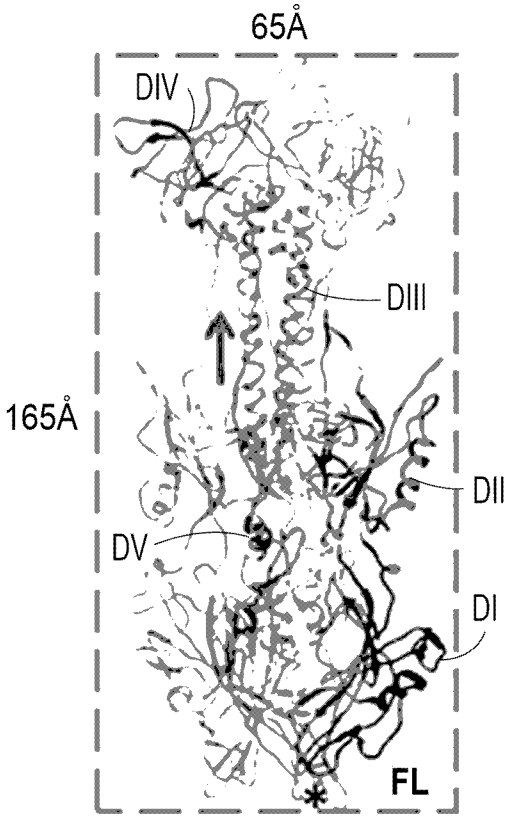
FL:融合圈

TM:跨膜區

MPR:結構域



【圖 4A】



【圖 4B】

公告本

I871709

【發明摘要】

【中文發明名稱】

人巨細胞病毒糖蛋白B（gB）多肽

【英文發明名稱】

HUMAN CYTOMEGALOVIRUS GB POLYPEPTIDE

【中文】

本發明關於多肽及巨細胞病毒(CMV)抗原，該多肽及巨細胞病毒(CMV)抗原包括相對於野生型HCMV糖蛋白B(gB)之胺基酸序列之至少二個經導入之胺基酸突變。在一些實施態樣中，多肽呈替代gB融合後構形之構形穩定。本發明亦揭示包括該多肽之組成物及其用途。

【英文】

The present invention relates to polypeptides and cytomegalovirus (CMV) antigens that include at least two introduced amino acid mutations relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB). In some embodiments, the polypeptide is stabilized in a conformation alternative to the gB postfusion conformation. Also disclosed are compositions including the polypeptides and uses thereof.

【指定代表圖】圖4A、圖4B

【代表圖之符號簡單說明】

DI:結構域I

DII:結構域II

DIII:結構域III

DIV:結構域IV

DV:結構域

FL:融合圈

TM:跨膜區

MPR:結構域

【特徵化學式】無

【發明說明書】

【中文發明名稱】

人巨細胞病毒糖蛋白B（gB）多肽

【英文發明名稱】

HUMAN CYTOMEGALOVIRUS GB POLYPEPTIDE

【技術領域】

本發明關於人巨細胞病毒(HCMV)組成物及其方法。

相關申請案

本申請案主張於2020年6月21日提出之美國臨時申請案第63/041,945號及2021年6月08日提出之美國臨時申請案第63/208,457號之優先權。前述申請案各者之完整內容全文以引用方式併入本文中。

序列表的參照

本申請案係經EFS-Web以電子方式提出，包括以.txt格式之電子資料檢送之序列表。該.txt檔案包含標題為「PC72639_June2021_ST25.txt」之序列表，建立日期2021年06月07日，檔案大小1,427 KB。此.txt檔中含有之序列表係本說明書之一部分，其全文以引用方式併入本文中。

【先前技術】

人巨細胞病毒(HCMV)係β-疱疹病毒家族之雙股DNA病毒。HCMV係起因於懷孕婦女感染或再活化潛伏病毒之後垂直病毒傳播的先天性及新生兒聽力損失的主因。此外，HCMV係影響免疫抑制病患(諸如實體器官及幹細胞移植病患、AIDS病患等)常見的伺機性病原體。雖然發展抗HCMV之疫苗已被醫學研究所列為首要任務，但到目前為止尚未有獲得核准者。

HCMV基因體編碼數個封套糖蛋白，其中之一係糖蛋白B (gB)。糖蛋白B係病毒進入細胞所需之融合劑且係針對感染之中和抗體(nAb)反應的重要目標。併入gB次單元抗原之HCMV疫苗已在發展中。臨床研究已顯示一些基於gB次單元之疫苗候選物係安全且具免疫原性，然而所欲的是改善保護療效及保護的持久性。

因此，需要安全且有效的免疫原性組成物以防範HCMV感染。也需要診斷試劑以偵測對HCMV之免疫反應、導引基於gB之HCMV疫苗的設計及支持抗HCMV之治療性或預防性抗體之發展。

【發明內容】

為了符合這些及其他需求，在一態樣中，本發明關於一種可包括於免疫原性組成物中作為抗原以誘發對HCMV之免疫反應的多肽。

本發明提供一種野生型巨細胞病毒(CMV)糖蛋白B(gB)蛋白之突變體，該突變體包含相對於該野生型CMV

gB蛋白之胺基酸序列之至少二個胺基酸突變，且其中該胺基酸突變係選自由下列所組成之群組：

(1)經工程改造之雙硫鍵突變；

(2)額外突變；及

(3)至少一個經工程改造之雙硫鍵突變與至少一個額外突變之組合。

在一態樣中，胺基酸突變包含至少二個經工程改造之雙硫鍵突變與至少一個額外突變之組合。在另一態樣中，野生型CMV gB蛋白之突變體係呈三聚體之形式。

在本發明之另一態樣中，經工程改造之雙硫鍵突變係選自由下列所組成之群組：D217C及Y589C；M371C及W506C；及N524C及M684C。

在本發明之進一步態樣中，額外突變係選自由下列所組成之群組：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；

(3)以S取代位置246之C；

(4)以S取代位置655之P；

(5)以S取代位置678之F；

(6)以T取代位置680之L；

(7)以A取代位置685之R；

(8)以GSGKDG取代位置648-653之MIALDI；

(9)以V取代位置693之R；

(10)以S取代位置675之I；

(11)以C取代位置767及768之I；

(12)以C取代位置703之D及位置704之P；及

(13)以C取代位置696之Y及位置697之V。

在本發明之另一態樣中，突變體係經分泌。在本發明之另一態樣中，突變體係可溶的。

本發明亦提供一種醫藥組成物，其包含(i)如本文所述之實施態樣及態樣之CMV gB蛋白突變體及(ii)醫藥上可接受之載劑。在一態樣中，醫藥組成物係疫苗。

本發明亦提供一種減少個體之CMV感染之方法，其包含向該個體投予有效量的如本文實施態樣所示之疫苗。

本發明亦提供一種誘發個體對CMV感染之免疫反應之方法，其包含向該個體投予有效量的如本文實施態樣所示之疫苗。

本發明亦提供一種預防個體之CMV感染之方法，其包含向該個體投予有效量的如本文實施態樣所示之疫苗。

在另一態樣中，本發明關於一種多肽，其包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少一個經導入之胺基酸突變。在一些實施態樣中，多肽包括非HCMV gB融合後構形之構形。

在另一態樣中，本發明關於與HCMV gB融合前特異性抗體結合之多肽。

在另一態樣中，本發明關於與雙(芳基)硫脲化合物結合之多肽。在一些實施態樣中，化合物係N-{4-[({(1*S*)-1-[3,5-雙(三氟甲基)苯基]乙基}胺甲醯硫基)胺基]苯基}-1,3-

噻唑-4-羧醯胺。

在一些實施態樣中，多肽的特徵在於包括當保守殘基主鏈原子重疊在由**表 1A**(即 pdb 檔案「Table1A-prefusion_gB_121918pdb」，其全文以引用方式併入本文中)之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。

在一些實施態樣中，多肽的特徵在於包括當保守殘基主鏈原子重疊在由**表 1B**(即 pdb 檔案「Table1B-refine_apply_ncs_14pdb」，其全文以引用方式併入本文中)之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。

在一態樣中，本發明關於一種多肽，其包括相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包括半胱胺酸取代。

在另一態樣中，本發明關於一種多肽，其包括相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包括允許雙硫鍵形成之突變。

在另一態樣中，本發明關於一種多肽，其包括相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包括靜電突變。

在另一態樣中，本發明關於一種多肽，其包括相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包括苯丙胺酸取代。

在另一態樣中，本發明關於一種多肽，其包括相對於

野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包括白胺酸取代。

在另一態樣中，本發明關於一種多肽，其包括相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該突變穩定該多肽之融合前構形，且其中該多肽與HCMV gB融合前特異性抗體特異性結合。

在另一態樣中，本發明關於一種多肽，相較於SEQ ID NO: 1，該多肽在**表2**之欄(ii)所列出之胺基酸位置中任一者包括半胱胺酸。

在另一態樣中，本發明關於一種多肽，相較於SEQ ID NO: 1，該多肽在**表3**之欄(ii)所列出之胺基酸位置中任一者包括胺基酸取代。

在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變Q98C及I653C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變T100C及S269C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變D217C及F584C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變Y242C及K710C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變Y242C及D714C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變S367C及L499C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變T372C及W506C。在另一

態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變S550C及D652C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變T608C及D679C。在另一態樣中，本發明關於一種多肽，其包括根據SEQ ID NO: 1之編號之突變K695C及K724C。在另一態樣中，本發明關於一種多肽，其包括與如SEQ ID NO: 1至43中任一者所示之胺基酸序列具有至少約90%同一性之胺基酸序列，其中該多肽包括相較於SEQ ID NO: 1之突變。

在一些實施態樣中，多肽不包括下列位置中任一者之突變：R562、P577、S587、Y588、G592、G595、L601/H605、C610、L612、P613、Y625、Y627、F632及K633。

在一些實施態樣中，多肽不包括HCMV gB之細胞質尾。在一些實施態樣中，多肽不包括跨膜區。在一些實施態樣中，多肽包括HCMV gB之細胞質尾但不包括跨膜區。

在一些實施態樣中，多肽不含有昆蟲細胞糖基化模式。

在一些實施態樣中，相較於呈融合後構形之天然gB，多肽展現改善的溶解度或穩定性。

在一些實施態樣中，多肽具免疫原性。

在另一態樣中，本發明關於一種核酸，其編碼如本文所述實施態樣中任一項之多肽。在一些實施態樣中，核酸包括自我複製RNA分子。在一些實施態樣中，核酸包括經

修飾之RNA分子。在另一態樣中，本發明關於一種組成物，其包括如本文所述實施態樣中任一項之核酸。

在另一態樣中，本發明關於一種組成物，其包括如本文所述實施態樣中任一項之多肽，且進一步包括CMV抗原。在一些實施態樣中，組成物進一步包括下列多肽中任一者：gO、gH、gL、pUL128、pUL130、pUL131及彼等之任何組合。在一些實施態樣中，組成物進一步包括稀釋劑。在一些實施態樣中，組成物進一步包括佐劑。在一些實施態樣中，組成物具免疫原性。在一些實施態樣中，組成物係用於誘發抗巨細胞病毒之免疫反應。

在另一態樣中，本發明關於一種誘發哺乳動物之免疫反應之方法。該方法包括向哺乳動物投予有效量的如本文所述實施態樣中任一項之多肽。

在另一態樣中，本發明關於一種用於減少哺乳動物之巨細胞病毒病毒脫落之方法。該方法包括向哺乳動物投予有效量的如本文所述實施態樣中任一項之多肽。

在另一態樣中，本發明關於一種組成物，其包括可誘發哺乳動物之免疫反應之多核苷酸。該多核苷酸編碼至少一種受關注多肽(例如抗原)。在本文中揭示之抗原可為野生型(即衍生自感染劑)或較佳為經修飾者(例如經工程改造、經設計或人工)。本文所述之核酸分子(特別是多核苷酸)在一些實施態樣中編碼一或多種受關注肽或多肽。此類肽或多肽可作用為抗原或抗原性分子。用語「核酸(nucleic acid)」包括任何包括核苷酸之聚合物之化合物。

這些聚合物被稱為「多核苷酸(polynucleotide)」。本發明之例示性核酸或多核苷酸包括但不限於核糖核酸(RNA)，包括mRNA及去氧核糖核酸(DNA)。

在一些實施態樣中，組成物包括編碼本文所述多肽或其片段之DNA。在一些實施態樣中，組成物包括編碼本文所述多肽或其片段之RNA。在一些實施態樣中，組成物包括編碼本文所述多肽或其片段之mRNA多核苷酸。此類組成物可在轉譯後生產適當蛋白構形。

在一態樣中，本發明關於一種組成物，其包括至少一種多核苷酸，該至少一種多核苷酸編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變之多肽。

在一些實施態樣中，本發明關於一種組成物，其包括至少一種多核苷酸，該至少一種多核苷酸編碼至少一種hCMV gB多肽或其免疫原性片段或表位。

在一些實施態樣中，組成物包括至少一種多核苷酸，該至少一種多核苷酸編碼二種或超過二種額外多肽或其免疫原性片段或表位。在一些實施態樣中，組成物包括二種或超過二種多核苷酸，該二種或超過二種多核苷酸編碼二種或超過二種額外多肽或其免疫原性片段或表位。該一或多種額外多肽可在單一多核苷酸上編碼或可在多種(例如二種或超過二種)多核苷酸上個別編碼。

在另一態樣中，本發明關於一種組成物，其包括(a)多肽，其包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少一個經導入之胺基酸突變；及(b)額外多肽，較

佳為HCMV多肽，更較佳為HCMV抗原性多肽。額外多肽可選自gH、gL、gB、gO、gN及gM及其免疫原性片段或表位。在一些實施態樣中，額外多肽係pp65。在一些實施態樣中，額外多肽可選自gH、gL、gO、gM、gN、UL128、UL130及UL131A及其片段。在另一態樣中，本發明關於一種組成物，其包括(a)多核苷酸，其編碼包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少一個經導入之胺基酸突變的多肽；及(b)多核苷酸，其編碼額外多肽，較佳為HCMV抗原性多肽。額外多肽可選自HCMV gH、gL、gB、gO、gN及gM及其免疫原性片段或表位。在一些實施態樣中，額外多肽係HCMV pp65。在一些實施態樣中，額外多肽可選自HCMV gH、gL、gO、gM、gN、UL128、UL130及UL131A及其片段。

在另一態樣中，本發明關於誘導哺乳動物之免疫反應之方法，其包括向哺乳動物投予有效誘導免疫反應之量的組成物，其中組成物包括多核苷酸，該多核苷酸編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個經導入之胺基酸突變的多肽。在本文中揭示之組成物可經調配為有效量以在哺乳動物產生抗原特異性免疫反應。

【圖式簡單說明】

[**圖1A**]**至**[**圖1B**]描述gB構形異構物之二維(2D)類別平均。**圖1A**描繪來自融合後gB結構之2D投射。顯示與抗體Fab結合之融合後gB的低溫電子顯微鏡結構之投射影像。

圖1B描繪2D類別平均。右側顯示獲自在融合抑制劑及交聯劑處理後自CMV病毒粒子萃取並與抗體片段結合之gB製劑的低溫電子顯微鏡影像之二維類別平均。不相似於任何參考融合後gB二維投射之類別平均影像係經圈選識別。

[**圖2**]描述來自我們的低溫電子顯微鏡結構之融合前及融合後gB-Fab複合體模型中包括的糖蛋白B胺基酸。可建模於低溫電子顯微鏡密度圖中之胺基酸係以結構域顏色碼強調(結構域I(僅斜體，即上方序列(融合前)殘基133-344；下方序列(融合後)殘基133-344)；結構域II(粗體及底線，即上方序列(融合前)殘基121-132及345-436；下方序列(融合後)殘基121-132及345-439)；結構域III(僅粗體，即上方序列(融合前)殘基86-120及483-550；下方序列(融合後)殘基86-120及474-550)；結構域IV(斜體及底線，即上方序列(融合前)殘基551-641；下方序列(融合後)殘基551-641)；結構域V(斜體及粗體，即上方序列(融合前)殘基642-724；下方序列(融合後)殘基642-697)；MPR(僅底線，即上方序列(融合前)殘基25-7507；下方序列(融合後)無殘基)；TM(斜體、粗體及畫底線，即上方序列(融合前)殘基751-769；下方序列(融合後)無殘基))。上方及下方序列係分別用於融合前及融合後結構模型。

[**圖3A**]至[**圖3B**]描繪模型擬合至密度圖。經抑制劑化合物穩定之融合前(**圖3A**)及融合後gB構形(**圖3B**)的模型係擬合至淺灰色密度圖。gB組分係深灰色，且SM5-1 fab組分係黑色。由融合前結構中之TM區的位置判定之病毒封

套的大約位置係由黑色水平線指示。

[**圖 4A**]至[**圖 4B**]描繪呈二種構形之gB的結構比較。GB穩定的融合前結構(**圖 4A**)及融合後結構(**圖 4B**)係以一個原聚體顯示以指示結構域：I、II、III、IV、V、MPR及TM。自融合前結構之上方延伸之垂直黑色虛線代表因為較少定義之密度圖而自模型遺漏之殘基。結構之可建立胞外結構域部分的整體尺寸係由虛線長方形指示。箭頭指示由各構形之結構域III的中央3螺旋束之C端所指向的方向。融合前結構之115Å尺寸(**圖 4A**)指示胞外結構域之建模部分的高度。

[**圖 5A**]至[**圖 5D**]：**圖 5A**描繪融合前gB模型中之融合抑制劑化合物N-{4-[({(1*S*)-1-[3,5-雙(三氟甲基)苯基]乙基}胺甲醯硫基)胺基]苯基}-1,3-噻唑-4-羧醯胺的位置係顯示為黑色。化合物之化學結構係顯示於**圖 5D**。**圖 5B**：化合物(灰色透明表面)周圍之電子密度的特寫圖。顯示鄰近的胺基酸殘基且標示結構域。**圖 5C**：顯示化合物周圍的交互作用殘基。

[**圖 6A**]至[**圖 6C**]描繪在膜融合期間gB之結構重排模型。FL(及星號)-融合圈。DI -結構域1。DII -結構域2。DV -結構域5。TM -跨膜區。淡藍色線描繪病毒膜。線描繪膜。**圖 6A**(融合前)描繪融合前構形；**圖 6B**(延伸中間物)描繪延伸中間物構形；**圖 6C**(融合後)描繪融合後構形。

[**圖 7A**]至[**圖 7B**]描繪例示性雙硫鍵突變以穩定呈融合前構形之gB。在融合前構形(**圖 7A**)及融合後構形(**圖 7B**)中

參與雙硫鍵之殘基位置係描繪為灰色球形。

[**圖 8**]描繪來自Research Collaboratory for Structural Bioinformatics Protein Data Bank (RCSB PDB)檔案：5CXF，來自人巨細胞病毒之糖蛋白B之胞外結構域之晶體結構，來自人巨細胞病毒(AD169株)，2015-07-28寄存；DOI: 10.2210/pdb5CXF/ pdb之資訊。

單位晶胞：

長度(Å)　　角度(°)

a = 92.183　α = 90.00

b = 133.930 β = 90.00

c = 295.376 γ = 90.00

[**圖 9**]描繪來自臨床及實驗室調適HCMV株之gB的序列(SEQ ID NO: 110至SEQ ID NO: 111)。額外序列可見來自Burke et al., PLoS Pathog. 2015 Oct 20;11(10):e1005227中之S4圖的臨床及實驗室調適HCMV之gB的胺基酸序列比對。根據Burke et al.，比對自NCBI之RefSeq資料庫下載之六十個來自臨床及實驗室調適病毒株之HCMV gB序列並使用ClustalW2及ESPript 3.x比對及分析。在Burke et al.之S4圖中，同一殘基顯示為紅底白字且類似殘基以黃色強調，該S4圖及其說明全文以引用方式併入本文中。

[**圖 10**]描繪SEQ ID NO: 1至43及SEQ ID NO: 47至106之胺基酸序列。

[**圖 11**]描繪經gB1666及野生型gB (Towne)免疫之小鼠

中的劑量依賴性IgG反應。該圖顯示10隻經野生型gB DNA免疫之小鼠中的10隻及10隻經gB1666 DNA免疫之小鼠中的9隻產生可偵測之抗gB IgG力價。平均± SD，LLOQ = 25。

[**圖 12**]描繪經工程改造gB1666之結構模型(淺灰色，結構碼：P-GB-002)與野生型HCMV gB之結構模型(深灰色，結構碼：P-GB-001)重疊。新結構允許將額外殘基437-448及478-482建模在分子的遠膜端及770-779在跨膜結構域中。

[**圖 13**]描繪在pSB1666背景上可進一步穩定融合前gB之額外突變組合之組合實例。在M371, W506處之雙硫鍵可連接結構域II及III。在N524, M684及F541, E681處之雙硫鍵可連接結構域IV及V。在E686處帶負電區塊突變為疏水性殘基可進一步穩定呈融合前構形之gB。識別各結構域。縮寫：近膜區(MPR)及跨膜結構域(TMD)。

[**圖 14**]描繪記錄重組gB2459蛋白之表現及純化的SDS-PAGE。將pSB2459表現質體暫時轉染至Expi293F細胞中。在轉染後68小時收集細胞團塊，且糖蛋白產物gB2459係以25 mM HEPES pH 7.5、250 mM NaCl、0.02%正十二基β-D-麥芽糖苷(DDM)、0.002%膽硬脂基半-琥珀酸鹽(CHS)經由一系列過程的溶解化、親和力及粒徑排阻層析法純化。此圖顯示藉由無染色4至20% SDS-PAGE在還原條件條件下分析之經純化的蛋白。蛋白帶之分布與經高度糖基化之gB2459一致。通道M：蛋白標記；通道1：gB2457；及通

道2：gB2459。

[**圖15**]描繪建構體pSB2459，其在pSB1666背景上含有N524C及M684C突變。蛋白產物gB2459經由親和力標籤在無任何融合抑制劑存在下純化。在2D類別平均影像中觀察到融合前類別(具有明顯融合前特徵之二個類別以數字1及2指示)。此外，融合前gB2459在數天的期間內穩定。將gB2459之樣本溶液儲存在4℃下，在第1天及第7天獲得樣本的等分試樣以製備負染色的網格。在這二個網格上收集並處理影像資料集。以各資料集而言，計數融合前及融合後2D類別中之粒子族群：第1天樣本之融合前與融合後構形之間的比例係5:1且第7天係3:1。

[**圖16A**]至[**圖16D**]描繪可溶性、無清潔劑gB胞外結構域的設計。**圖16A**顯示MPR、TM及CT區經移除之gB胞外結構域(1-707)。**圖16B**顯示經結構域V中之額外半胱胺酸突變(例如D703C及P704C)穩定之gB胞外結構域。**圖16C**顯示融合至C端GCN4三聚模體之gB胞外結構域。**圖16D**顯示融合至C端T4纖維蛋白摺疊子結構域之gB胞外結構域。*圖例*：結構域I(殘基134-344)-深灰色3D體積結構；結構域II(殘基121-133及345-436)-淺灰色3D體積結構；結構域III(殘基97-111、475-539及640-648)-頂部中央淺灰色垂直捲曲；結構域V(殘基649-707)-底部內部深灰色捲曲(見箭頭**圖16B**)；及長方形-三聚化位置。

[**圖17**]描繪經純化之gB胞外結構域gB2264至gB2269之凝膠過濾輪廓，藉由Superose 6 Increase 10/300於20mM

HEPES pH 7.5, 250mM NaCl中分析。

[**圖18A**]至[**圖18B**]描繪重組gB2555在無結合融合抑制劑下之負染色EM影像(**圖18A**)及來自負染色EM之代表性2D類別平均(**圖18B**)，其顯示單分散gB蛋白適合作為架構使用以添加更多穩定用突變而朝在抑制劑及清潔劑不存在下之gB之融合前形式。

[**圖19A**]至[**圖19B**]描繪重組gB2556在無結合融合抑制劑下之負染色EM影像(**圖19A**)及來自負染色EM之代表性2D類別平均(**圖19B**)，其顯示單分散gB蛋白適合作為架構使用以添加更多穩定用突變而朝在抑制劑及清潔劑不存在下之gB之融合前形式。

[**圖20A**]至[**圖20B**]描繪：經純化之蛋白質在還原條件下於Tris/甘胺酸/SDS緩衝劑中在4至20% Mini-PROTEAN® TGX STAIN-FREE®蛋白凝膠(Biorad)上(箭頭顯示在凝膠上之蛋白)的分析(**圖20A**)；及電子顯微鏡之負染色蛋白的影像(**圖20B**)。

[**圖21**]描繪經gB2796及Sanofi gB免疫之小鼠對gB的劑量依賴性IgG反應。

[**圖22A**]至[**圖22B**]描繪(i)**圖22A**：gB1666與gB1764(野生型CMVgB)之間的SEC輪廓比較(SEC係在Superose6 increase 5/150管柱上於緩衝劑25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS, 3ug/ml WAY-174865中運行)；及(ii)**圖22B**：gB1666與gB1764之間的熱穩定性比較(測定係在Tycho NT.6上以20℃/min加熱速率運行)。

[**圖 23A**]至[**圖 23B**]描繪(i)**圖 23A**：gB1666在有或無抑制劑WAY-174865下的SEC輪廓(SEC係在Superose6 increase 5/150管柱上於緩衝劑25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS, 3ug/ml WAY-174865中運行)；及(ii)**圖 23B**：gB1666、gB1666含抑制劑與gB1764之間的熱穩定性比較(測定係在Tycho NT.6上以20℃/min加熱速率運行)。

[**圖 24A**]至[**圖 24B**]描繪(i)**圖 24A**：gB2457及gB2459的SEC輪廓比較(SEC係在Superose6 increase 5/150管柱上於緩衝劑25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS中運行)；及(ii)**圖 24B**：gB2457與gB2459之間的熱穩定性比較(測定係在Tycho NT.6上以20℃/min加熱速率運行)。

[**圖 25A**]至[**圖 25D**]描繪(i)**圖 25A**：gB2555及gB2556的SEC輪廓比較(SEC係在Superose6 increase 5/150管柱上於緩衝劑20mM HEPES pH 7.5, 250mM NaCl中運行)；(ii)**圖 25B**：gB2555與gB2556之間的熱穩定性比較(測定係在Tycho NT.6上以20℃/min加熱速率運行)；(iii)**圖 25C**：來自gB2555之負染色EM影像的2D類別平均；及(iv)**圖 25D**：來自gB2556之負染色EM影像的2D類別平均。在**圖 25C**及**圖 25D**中，融合前gB的代表性類型(錐形)係以圓圈指示且融合後gB係以正方形指示。

[**圖 26A**]至[**圖 26B**]描繪(i)**圖 26A**：gB2796的SEC輪廓比較(SEC係在Superose6 increase 5/150管柱上於緩衝劑

20mM HEPES pH 7.5, 250mM NaCl中運行)；及**圖26B**：gB2796的熱穩定性(測定係在Tycho NT.6上以20℃/min加熱速率運行)。

【實施方式】

如本文所述，發明人闡明HCMV糖蛋白B (gB)多肽之三維結構，該HCMV gB多肽呈異於融合後構形之構形且我們稱之為融合前構形。也發現穩定呈融合前構形之多肽的突變。該結構可用於產生高於先前基於HCMV gB之免疫原所達成之HCMV中和抗體反應。本文所述之多肽及編碼該多肽之核酸可用來例如作為抗HCMV之疫苗中之潛在免疫原及作為診斷工具等其他用途。

發明人進一步發現可導入至巨細胞病毒(CMV) gB多肽中之突變，該突變可(除其他外)大幅促進以融合前構形經穩定之gB抗原的生產及後續純化；顯著改善生產呈融合前構形之gB多肽之效率；改變gB多肽相較於野生型gB多肽之抗原性；促進對融合前gB之集中免疫反應；及減少及/或清除gB之中和表位之立體閉塞。

定義

此處所使用之單數形式「一(a, an)」及「該(the)」係指單數以及複數，除非上下文另外清楚表明。例如用語「一抗原(an antigen)」包括單一或複數個抗原且可視為相當於用語「至少一個抗原(at least one antigen)」。

如本文中所使用，用語「額外突變(additional mutation)」應包括但不限於相較於天然HCMV gB導入靜電突變、填充空腔、改變殘基之堆積、導入N-連接糖基化位點、導入原聚體間雙硫鍵及彼等之組合(包括彼等之保守性取代)的胺基酸取代。「額外突變(additional mutation)」之實例可見於本說明書各處但最具體係如表3及表4及實例所示。

用語「佐劑(adjuvant)」係指能夠增強、加速或延長身體對免疫原或免疫原性組成物諸如疫苗之免疫反應的物質(雖然其本身不具免疫原性)。佐劑可包括在免疫原性組成物諸如疫苗中，或可與免疫原性組成物分開投予。

用語「投予(administration)」係指藉由所選途徑將物質或組成物導入至個體中。投予可為局部或全身性。例如，如果所選途徑係肌肉內，則組成物(諸如包括經揭示之免疫原之組成物)係藉由將組成物導入至個體的肌肉中投予。

用語「抗原(antigen)」係指可被抗體辨識之分子。抗原之實例包括含有抗原決定簇之多肽、肽、脂質、多醣及核酸，諸如該些由免疫細胞辨識者。

用語「保守性取代(conservative substitution)」係指以化學上類似之胺基酸取代胺基酸。提供功能類似之胺基酸的保守性胺基酸取代係該領域所廣為周知。下列六個群組各含有彼此互為保守性取代之胺基酸：

1)丙胺酸(A)、絲胺酸(S)、蘇胺酸(T)；

2)天冬胺酸(D)、麩胺酸(E)；

3)天冬醯胺酸(N)、麩醯胺酸(Q)；

4)精胺酸(R)、離胺酸(K)；

5)異白胺酸(I)、白胺酸(L)、甲硫胺酸(M)、纈胺酸(V)；及

6)苯丙胺酸(F)、酪胺酸(Y)、色胺酸(W)。

用語參考多核苷酸之「簡併變體(degenerate variant)」係指核苷酸序列與參考多核苷酸不同，但編碼由參考多核苷酸所編碼之相同多肽序列的多核苷酸。有20種天然胺基酸，大多係由超過一個密碼子指定。例如，密碼子CGU、CGC、CGA、CGG、AGA及AGG皆編碼胺基酸精胺酸。因此，在蛋白質編碼序列內指定精胺酸之每一位置處，可在不改變經編碼之蛋白質下將密碼子改變成所述對應密碼子之任一者。由於基因密碼之簡併性，大量功能相同之核酸編碼任何給定多肽。

用語「有效量(effective amount)」係指藥劑之足以產生所欲反應之量。例如，此可為抑制病毒複製或可測量地改變病毒感染之外在症狀所需的量。

用語「表位(epitope)」(或「抗原決定簇(antigenic determinant)」或「抗原性位點(antigenic site)」)係指為抗體、B細胞受體或T細胞受體所結合或反應之抗原區域。表位可自毗連胺基酸或藉由蛋白質之二級、三級或四級摺疊相鄰之非毗連胺基酸形成。自毗連胺基酸形成之表位一般在暴露於變性溶劑後保留，然而藉由高級摺疊形成之表

位一般在變性溶劑處理後喪失。

用語「個體(subject)」係指人或非人哺乳動物。用語「哺乳動物(mammal)」係指哺乳動物綱中之任何動物物種。哺乳動物之實例包括：人；非人靈長動物諸如猴；實驗動物諸如大鼠、小鼠、天竺鼠；家畜諸如貓、狗、兔、牛、綿羊、山羊、馬及豬；及捕獲之野生動物諸如獅、虎、象及類似動物。

用語「糖蛋白(glycoprotein)」係指含有共價附接至多肽側鏈之寡醣鏈(聚醣)之蛋白質。碳水化合物在稱為糖基化之共轉譯或轉譯後修飾中被附接至蛋白質。用語「糖基化位點(glycosylation site)」係指多肽(諸如蛋白質)表面上之胺基酸序列，其容納聚醣之附接。N-連接糖基化位點係NX(S/T)之三倍體序列，其中N係天冬醯胺酸，X係除脯胺酸外之任何殘基，且(S/T)係絲胺酸或蘇胺酸殘基。聚醣係多醣寡醣。聚醣亦可用於指稱醣接合物(諸如糖蛋白、醣脂或蛋白聚醣)之碳水化合物部分。

用語「宿主細胞(host cell)」係指其中可增殖載體且表現其DNA或RNA之細胞。細胞可為原核或真核。

在二種或超過二種核酸或多肽序列之上下文中，用語「同一(identical)」或「同一性(identity)」百分比係指當進行比較及比對以達最大對應性時，二個或超過二個序列或子序列係相同或具有指定百分比的相同胺基酸殘基或核苷酸。用於比較之序列比對方法係該領域所廣為周知。比對後，藉由計數兩個序列中存在同一核苷酸或胺基酸殘基

之位置的數量來判定匹配數量。序列同一性百分比係藉由下列判定：將匹配數量除以經識別之序列所示之序列的長度，或除以明示長度(諸如來自經識別之序列所示之序列的100個連續核苷酸或胺基酸殘基)，隨後將所得值乘以100。例如，當與具有1554個胺基酸之測試序列比對時，具有1166個匹配之肽序列與該測試序列係75.0百分比同一(1166÷1554*100=75.0)。

用於比較之序列的最佳比對可藉由例如下列進行：局部同源性演算法，Smith and Waterman, Adv. Appl. Math. 2:482, 1981；同源性比對演算法，Needleman and Wunsch, Mol. Biol. 48:443, 1970；搜尋類似性方法，Pearson and Lipman, Proc. Nat'l. Acad. Sci. USA 85:2444, 1988；電腦化執行這些演算法(Wisconsin Genetics套裝軟體中之GAP、BESTFIT、FASTA及TFASTA，Genetics Computer Group, 575 Science Dr., Madison, WI)或人工比對及目視檢查(見例如Sambrook et al. (Molecular Cloning: A Laboratory Manual, 4th ed, Cold Spring Harbor, New York, 2012)及Ausubel et al. (In Current Protocols in Molecular Biology, John Wiley and Sons, New York, through supplement 104, 2013)。

用語「免疫原(immunogen)」係指具如本文以下定義之免疫原性之化合物、組成物或物質。

用語「免疫原性(immunogenic)」係指物質在佐劑存在或不存在下，在個體中造成、誘發、刺激或誘導抗特定

抗原之免疫反應之能力。

用語「免疫反應(immune response)」係指宿主哺乳動物之免疫系統細胞對刺激(諸如免疫原)之任何可偵測反應，包括但不限於先天免疫反應(例如活化鐸受體信號傳導級聯)、細胞媒介之免疫反應(例如由T細胞(諸如抗原特異性T細胞)及免疫系統之非特異性細胞媒介之反應)及體液性免疫反應(例如由B細胞媒介之反應，諸如產生及分泌抗體至血漿、淋巴液及/或組織液中)。免疫反應之實例包括改變(例如增加)類鐸受體活化、淋巴激素(例如細胞介素(例如Th1、Th2或Th17型細胞介素)或趨化激素)表現或分泌、巨噬細胞活化、樹突細胞活化、T細胞(例如CD4+或CD8+ T細胞)活化、NK細胞活化、B細胞活化(例如抗體產生及/或分泌)、免疫原(例如抗原(例如免疫原性多肽))與MHC分子之結合、誘導細胞毒性T淋巴細胞(「CTL」)反應、誘導B細胞反應(例如抗體生產)及擴增(例如細胞族群之生長)免疫系統細胞(例如T細胞及B細胞)及增加抗原呈現細胞之抗原處理及呈現。用語「免疫反應(immune response)」亦涵蓋由脊椎動物免疫系統之一或多個組分在活體外對特定物質(諸如抗原或免疫原)之任何可偵測反應。

用語「免疫原性組成物(immunogenic composition)」係指包含免疫原之組成物。

用語「突變(mutation)」係指蛋白質或多肽之胺基酸序列中相較於參考蛋白或多肽之胺基酸序列刪除、添加或

取代胺基酸殘基。在通篇說明書及請求項中，蛋白質序列中一個特定位置之胺基酸取代使用「(野生型蛋白中之胺基酸殘基)(胺基酸位置)(經工程改造蛋白中之胺基酸殘基)」之表示法來表示。例如，表示法Y75A係指參考蛋白之胺基酸序列之第75位置的酪胺酸(Y)殘基係由丙胺酸(A)殘基取代(在參考蛋白之突變體中)。在不同野生型序列之間的相同位置之胺基酸殘基有變異的情況下，該表示法之位置編號之前的胺基酸代碼可省略，諸如「75A」。

用語「天然(native)」或「野生型(wild-type)」蛋白質、序列或多肽係指未經選擇性突變人工修飾之天然存在蛋白質、序列或多肽。

用語「醫藥上可接受之載劑(pharmaceutically acceptable carrier)」係指當與活性成分組合時與該活性成分相容且當向個體特別是哺乳動物投予時不造成毒性或其他非所要反應之材料或組成物。醫藥上可接受之載劑之實例包括溶劑、界面活性劑、懸浮劑、緩衝劑、潤滑劑、乳化劑、吸收劑、分散介質、包覆劑及穩定劑。

用語「融合前特異性抗體(pre-fusion-specific antibody)」係指與呈融合前構形之CMV gB糖蛋白特異性結合但不與呈融合後構形之CMV gB蛋白結合之抗體。

用語「融合前三聚體特異性抗體(pre-fusion trimer-specific antibody)」係指與呈融合前、三聚體構形之CMV gB糖蛋白特異性結合但不與呈融合後構形或呈非亦為三聚體之融合前構形之CMV gB蛋白結合之抗體。「融合前三

聚體特異性抗體(Pre-fusion trimer-specific antibodies)」係「融合前特異性抗體」之子集。

用語「初免-加強疫苗接種(prime-boost vaccination)」係指包括向個體投予第一免疫原性組成物(初免疫苗)隨後投予第二免疫原性組成物(加強疫苗)以誘導免疫反應之免疫治療方案。初免疫苗及加強疫苗一般含有相同免疫原且以相同或類似格式呈現。然而，它們亦可以不同格式呈現，例如一者呈載體之形式且另一者呈裸DNA質體之形式。所屬技術領域中具有通常知識者將理解投予初免疫苗與加強疫苗之間的合適時間間隔。另外，初免疫苗、加強疫苗或初免疫苗及加強疫苗兩者額外包括佐劑。

用語「可溶蛋白(soluble protein)」係指能夠溶解於水性液體中且維持溶解之蛋白質。蛋白質之溶解度可取決於下列而變化：蛋白質在基於水之液體中的濃度、液體緩衝條件、液體中其他溶質之濃度(例如鹽及蛋白質濃度)及液體溫度。

在抗體與給定目標分子結合之上下文中，用語「特異性結合(specifically bind)」係指抗體以高於其與其他測試物質結合之親和力與目標分子結合。例如，與呈融合前構形之CMV gB蛋白特異性結合之抗體係以高於其與呈融合後構形之CMV gB蛋白結合之親和力與呈融合前構形之CMV gB蛋白結合之抗體。

用語「治療有效量(therapeutically effective amount)」係指藥劑足以預防、治療(包括預防)、減少及/或改善病

症之症狀及/或潛在病因的量。

用語「疫苗(vaccine)」係指包含能夠誘發個體之預防性或治療性免疫反應之免疫原的醫藥組成物。一般而言，疫苗誘發對病原體(例如病毒病原體)之抗原的抗原特異性免疫反應。

用語「載體(vector)」係指能運送或轉移外來核酸分子之核酸分子。該用語涵蓋表現載體及轉錄載體兩者。用語「表現載體(expression vector)」係指能夠在目標細胞中表現插入物，且通常含有驅動插入物表現之控制序列(諸如增強子、啟動子及終止子序列)之載體。用語「轉錄載體(transcription vector)」係指能夠被轉錄但不被轉譯之載體。轉錄載體係用於擴增其插入物。外來核酸分子稱為「插入物(insert)」或「轉殖基因(transgene)」。載體通常由插入物及作用為載體之主鏈的較大序列組成。基於載體之結構或來源，載體之主要類型包括質體載體、黏質體載體、噬菌體載體諸如λ噬菌體、病毒載體諸如腺病毒(Ad)載體及人工染色體。

天然HCMV gB

天然HCMV gB係合成為906或907個胺基酸多肽(取決於CMV之株)，其經歷大量轉譯後修飾，包括*N*-及*O*-連接位點之糖基化，且藉由遍在的細胞內切蛋白酶切割成胺基端及羧基端片段。gB之N端及C端片段(分別為gp116及gp55)係藉由雙硫鍵共價連接，且成熟、糖基化gB採取三

聚體組態。gB多肽含有大型胞外結構域(其經切割成gp116及gp55之胞外結構域)、跨膜結構域(TM)及病毒內(或細胞質)結構域(胞質結構域)。

已知來自各種病毒株之天然HCMV gB。例如，來自臨床及實驗室調適病毒株之至少六十種HCMV gB序列可得自NCBI之RefSeq資料庫(如Burke et al., "Crystal Structure of the Human Cytomegalovirus Glycoprotein B." *PLoS Pathog.* 2015 Oct 20;11(10):e1005227中所述，見S4圖，其全文藉此併入本文中)。

因此，如本文中所使用之用語「CMV gB」多肽或「HCMV gB」多肽應被理解為來自任何人HCMV株(不限於Towne株)之天然HCMV gB多肽。來自其他人CMV株之gB的實際殘基位置編號可能需要取決於實際序列比對調整。然而，所屬技術領域中具有通常知識者將理解如何比對來自不同病毒株的序列，以識別一個病毒株與另一株的對應殘基位置。

HCMV gB係由HCMV基因體之UL55基因編碼。其係媒介HCMV病毒膜與宿主細胞膜之融合的封套糖蛋白。該蛋白經歷從融合前至融合後形式之一系列構形變化。呈其融合後形式之gB的晶體結構係可取得的(PDB編號5CXF)，且融合前構形係於本文中列示。

構形

HCMV gB融合後構形係指在病毒封套與宿主細胞膜融

合之後HCMV gB所採用的結構構形。天然HCMV gB亦可在融合事件的情況外(例如在應力條件(諸如暴露至熱)下、自膜萃取、表現為胞外結構域或儲存)採取融合後構形。更具體而言，gB融合後構形係描述於例如Burke et al., Crystal Structure of the Human Cytomegalovirus Glycoprotein B. *PLoS Pathog*. 2015 Oct 20;11(10): e1005227中。亦見Research Collaboratory for Structural Bioinformatics Protein Data Bank (RCSB PDB): 5CXF，來自人巨細胞病毒之糖蛋白B之胞外結構域之晶體結構，來自人巨細胞病毒(AD169株)，2015-07-28寄存；DOI: 10.2210/pdb5CXF/pdb；及Burke et al., *PLoS Pathog*. 2015 Oct 20;11(10):e1005227。當表現時可摺疊成融合後構形之蛋白質的序列係提供於SEQ ID NO: 44。當表現時摺疊成融合後構形之蛋白質的另一實例係提供於SEQ ID NO: 45。融合後構形係約165 Å高及65Å寬。

如本文中所使用，「融合前構形(prefusion conformation)」係指多肽所採用之至少就分子尺寸或三維座標方面與HCMV gB融合後構形不同之結構構形。融合前構形係指HCMV gB在觸發導致gB轉變成融合後構形之融合性事件之前所採用的結構構形。單離呈穩定融合前構形之HCMV gB可用於告知及引導改善的疫苗及免疫原性組成物之發展以解決巨細胞病毒感染之重要公衛問題。在一些實施態樣中，融合前構形包括可與融合前特異性抗體結合之構形。在一些實施態樣中，融合前構形包括特徵在於如

表1A(其全文以引用方式併入本文中)所示之座標的構形。在一些實施態樣中，多肽的特徵在於包含當保守殘基主鏈原子重疊在由**表1A**所示之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。在一些實施態樣中，融合前構形包括特徵在於如**表1B**(其全文以引用方式併入本文中)所示之座標的構形。在一些實施態樣中，多肽的特徵在於包含當保守殘基主鏈原子重疊在由**表1B**所示之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。在一些實施態樣中，具有HCMV gB融合前構形之多肽係指包括三聚體螺旋束之多肽，該三聚體螺旋束以在三聚體之三重軸為中心且包含各原聚體之殘基L479至K522，其中該束自N端至C端沿三重軸之方向(由**圖4A**及**圖4B**中之箭頭所示)係朝向三重軸上與各原聚體之殘基W240所定義之平面相交之點，該點係位於靠近三聚體之各結構域I尖端之融合圈中。在一些實施態樣中，螺旋束包含根據SEQ ID NO: 1之編號之L479與K522之間的殘基。

本發明之多肽

本發明關於多肽，其包括相對於對應野生型HCMV gB之胺基酸序列之胺基酸突變。胺基酸突變包括相對於野生型HCMV gB之胺基酸取代、刪除或添加。因此，多肽係野生型HCMV gB之突變體。

在一些實施態樣中，多肽具有某些有益特徵，諸如具免疫原性。在一些實施態樣中，多肽具有相較於對應野生

型HCMV gB增加的免疫原性性質或改善的呈融合前構形的穩定性。穩定性係指HCMV gB構形從融合前轉變至融合後受到阻擾或預防的程度。在仍其他實施態樣中，本揭露提供展示如本文所述之一或多個經導入之突變之多肽，其亦可導致改善的呈融合前構形的穩定性。HCMV gB中經導入之胺基酸突變包括胺基酸取代、刪除或添加。在一些實施態樣中，突變體之胺基酸序列中的唯一突變係相對於野生型HCMV gB之胺基酸取代。

穩定多肽構形之數種模式包括相較於天然HCMV gB導入雙硫鍵、導入靜電突變、填充空腔、改變殘基之堆積、導入N-連接糖基化位點及彼等之組合的胺基酸取代。

在一態樣中，本發明關於一種展現非融合後構形之構形的多肽。也就是說，多肽展現如上述之融合前構形且不展現融合後構形。見例如**圖3A**繪示之融合前構形，相較於**圖3B**繪示之融合後構形；例如**圖4A**繪示之融合前構形，相較於**圖4B**繪示之融合後構形；及例如**圖6A**繪示之融合前構形，相較於**圖6C**繪示之融合後構形。在一些實施態樣中，多肽的特徵在於包含當保守殘基主鏈原子重疊在由**表1A**之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。在一些實施態樣中，多肽的特徵在於包含當保守殘基主鏈原子重疊在由**表1B**之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。

在一些實施態樣中，多肽係經單離，即與具有融合後構形之HCMV gB多肽分離。因此，多肽可為例如至少80%

單離、至少90%、95%、98%、99%或甚至99.9%單離自呈融合後構形之HCMV gB多肽。在一態樣中，本發明關於與HCMV gB融合前特異性抗體特異性結合之多肽。

將理解的是呈特定構形之多肽的均質族群可包括不改變多肽之構形狀態的變異(諸如多肽修飾變異，例如糖基化狀態)。在數個實施態樣中，多肽族群隨時間維持均質。例如在一些實施態樣中，當多肽溶解於水溶液中時，其形成以融合前構形穩定至少12小時(諸如至少24小時、至少48小時、至少一週、至少二週或超過至少二週)之多肽族群。

在不受理論之束縛下，在本文中揭示之多肽據信可促進HCMV gB多肽之穩定的融合前構形。該多肽包括相較於對應天然HCMV gB多肽之至少一個突變。所屬技術領域中具有通常知識者將理解該多肽可用於誘發哺乳動物對CMV之免疫反應。

天然HCMV gB在HCMV進入糖蛋白之間具保守性且係進入至所有細胞類型中所需。有鑑於HCMV gB序列之高度保守性，可比較不同天然HCMV gB序列之間的胺基酸位置以識別不同HCMV株之間之對應HCMV gB胺基酸位置。因此，不同株之間天然HCMV gB序列的保守性允許使用參考HCMV gB序列以比較HCMV gB多肽之特定位置之胺基酸。因此，除非另外明白指示，本文提供之多肽胺基酸位置係指如SEQ ID NO: 1所示之HCMV gB多肽之參考序列。

然而，應注意的是不同天然HCMV gB序列可具有與

SEQ ID NO: 1不同之編號系統，例如衍生自除Towne以外之株的天然HCMV gB序列相較於SEQ ID NO: 1可能有額外胺基酸殘基添加或移除。因此應理解，當藉由其編號提及特定胺基酸殘基時，該說明不僅限於精確位於自給定胺基酸序列開始處計數之該編號位置之胺基酸，而是欲指任何及所有HCMV gB序列之等效或對應胺基酸殘基，即使該殘基不在同一精確編號位置，例如如果HCMV序列短於(例如片段)或長於SEQ ID NO: 1，或相較於SEQ ID NO: 1具有插入或刪除。

在一些實施態樣中，多肽係全長，其中該多肽包括與成熟全長野生型HCMV gB相同數量的胺基酸殘基。在一些實施態樣中，多肽係片段，其中該多肽包括少於成熟全長野生型HCMV gB總數量的胺基酸殘基。如本文中所使用，用語「片段(fragment)」及「經截短(truncated)」可互換。在一些實施態樣中，經截短之gB多肽僅包括胞外結構域序列。

1. 半胱胺酸(C)取代

在一些實施態樣中，多肽包括相較於天然HCMV gB之經導入之半胱胺酸取代。在一些實施態樣中，多肽包括1、2、3、4、5、6、7、8、9或10個半胱胺酸取代中任一者。在不受理論或機制之束縛下，本文所述之半胱胺酸取代據信可促進呈非HCMV gB融合後構形之構形的多肽之穩定性。經導入之半胱胺酸取代可藉由蛋白質工程改造導

入，例如藉由包括一或多個形成雙硫鍵之經取代之半胱胺酸殘基。在數個實施態樣中，半胱胺酸之胺基酸位置係在足夠近的距離內，以在HCMV gB之融合前而非融合後構形中形成雙硫鍵。

形成雙硫鍵之半胱胺酸殘基可藉由二個或超過二個胺基酸取代導入天然HCMV gB序列中。例如，在一些實施態樣中，二個半胱胺酸殘基係導入天然HCMV gB序列中以形成雙硫鍵。

在一些實施態樣中，多肽包括藉由在半胱胺酸之間之雙硫鍵穩定呈融合前構形之重組HCMV gB，該半胱胺酸係經導入一對在融合前構形中彼此靠近且在融合後構形中較為遠離之胺基酸位置。

相較於天然HCMV gB之例示性半胱胺酸取代包括選自**表2**之任何突變，其編號基於SEQ ID NO: 1之編號。

表 2. 用於雙硫鍵穩定化之例示性半胱胺酸對

列	(i) 突變體 ID	(ii) HCMV gB 半胱胺酸取代殘基對(根據 SEQ ID NO: 1 之編號)	(iii) 對應 SEQ ID NO: 1 之取代	(iv) 包括突變之例示性序列係列示於：
1	gB-001; pSB01582	98 及 271	Q98C 及 G271C	SEQ ID NO: 2
2	gB-002	98 及 653	Q98C 及 I653C	SEQ ID NO: 3
3	gB-003; pSB01579	99 及 267	G99C 及 A267C	SEQ ID NO: 4
4	gB-004; pSB01580	100 及 267	T100C 及 A267C	SEQ ID NO: 5
5	gB-005; pSB01581	100 及 269	T100C 及 S269C	SEQ ID NO: 6
6	gB-006	100 及 651	T100C 及 L651C	SEQ ID NO: 7
7	gB-007	217 及 584	D217C 及 F584C	SEQ ID NO: 8
8	gB-008	218 及 585	Y218C 及 A585C	SEQ ID NO: 9
9	gB-009	219 及 654	S219C 及 D654C	SEQ ID NO: 10
10	gB-010	220 及 652	N220C 及 D652C	SEQ ID NO: 11
11	gB-011	221 及 652	T221C 及 D652C	SEQ ID NO: 12
12	gB-012	240 及 718	W240C 及 G718C	SEQ ID NO: 13
13	gB-013	242 及 710	Y242C 及 K710C	SEQ ID NO: 14
14	gB-014	242 及 714	Y242C 及 D714C	SEQ ID NO: 15
15	gB-015	269 及 653	S269C 及 I653C	SEQ ID NO: 16
16	gB-016	271 及 614	G271C 及 P614C	SEQ ID NO: 17
17	gB-017	367 及 499	S367C 及 L499C	SEQ ID NO: 18
18	gB-018	372 及 506	T372C 及 W506C	SEQ ID NO: 19
19	gB-019	541 及 669	F541C 及 Q669C	SEQ ID NO: 20
20	gB-020	548 及 650	L548C 及 A650C	SEQ ID NO: 21
21	gB-021	549 及 653	A549C 及 I653C	SEQ ID NO: 22
22	gB-022	550 及 652	S550C 及 D652C	SEQ ID NO: 23

23	gB-023	604 及 661	G604C 及 F661C	SEQ ID NO: 24
24	gB-024	605 及 665	N605C 及 E665C	SEQ ID NO: 25
25	gB-025	607 及 675	R607C 及 S675C	SEQ ID NO: 26
26	gB-026	608 及 679	T608C 及 D679C	SEQ ID NO: 27
27	gB-027	609 及 678	E609C 及 F678C	SEQ ID NO: 28
28	gB-028	673 及 674	R673C 及 S674C	SEQ ID NO: 29
29	gB-029	676 及 677	N676C 及 V677C	SEQ ID NO: 30
30	gB-030	680 及 681	L680C 及 E681C	SEQ ID NO: 31
31	gB-031	683 及 684	I683C 及 M684C	SEQ ID NO: 32
32	gB-032	687 及 688	F687C 及 N688C	SEQ ID NO: 33
33	gB-033	690 及 691	Y690C 及 K691C	SEQ ID NO: 34
34	gB-034	695 及 724	K695C 及 K724C	SEQ ID NO: 35
35	gB-035	746 及 747	T746C 及 F747C	SEQ ID NO: 36
36	gB-036	749 及 750	K749C 及 N750C	SEQ ID NO: 37
37	gB-043; pSB01656	96 及 660	M96C 及 D660C	SEQ ID NO: 47
38	gB-044; pSB01657	98 及 658	Q98C 及 N658C	SEQ ID NO: 48
39	gB-045; pSB01658	100 及 258	T100C 及 R258C	SEQ ID NO: 49
40	gB-046; pSB01659	100 及 656	T100C 及 L656C	SEQ ID NO: 50
41	gB-047; pSB01660	100 及 658	T100C 及 N658C	SEQ ID NO: 51
42	gB-048; pSB01661	117 及 406	I117C 及 T406C	SEQ ID NO: 52
43	gB-049; pSB01662	117 及 407	I117C 及 S407C	SEQ ID NO: 53
44	gB-050; pSB01663	153 及 712	Y153C 及 L712C	SEQ ID NO: 54
45	gB-051; pSB01664	162 及 716	L162C 及 M716C	SEQ ID NO: 55
46	gB-052; pSB01665	217 及 587	D217C 及 S587C	SEQ ID NO: 56
47	gB-053; pSB01666	217 及 589	D217C 及 Y589C	SEQ ID NO: 57

48	gB-054; pSB01667	219 及 584	S219C 及 F584C	SEQ ID NO: 58
49	gB-055; pSB01668	219 及 585	S219C 及 A585C	SEQ ID NO: 59
50	gB-056; pSB01669	219 及 586	S219C 及 N586C	SEQ ID NO: 60
51	gB-057; pSB01670	220 及 659	N220C 及 T659C	SEQ ID NO: 61
52	gB-058; pSB01671	223 及 659	S223C 及 T659C	SEQ ID NO: 62
53	gB-059; pSB01672	240 及 732	W240C 及 A732C	SEQ ID NO: 63
54	gB-060; pSB01673	240 及 735	W240C 及 G735C	SEQ ID NO: 64
55	gB-061; pSB01674	242 及 728	Y242C 及 V728C	SEQ ID NO: 65
56	gB-062; pSB01675	242 及 731	Y242C 及 G731C	SEQ ID NO: 66
57	gB-063	258 及 656	R258C 及 L656C	SEQ ID NO: 67
58	gB-064	269 及 656	S269C 及 L656C	SEQ ID NO: 68
59	gB-065; pSB01678	269 及 658	S269C 及 N658C	SEQ ID NO: 69
60	gB-066; pSB01679	272 及 614	D272C 及 P614C	SEQ ID NO: 70
61	gB-067; pSB01680	273 及 629	V273C 及 V629C	SEQ ID NO: 71
62	gB-068; pSB01681	349 及 650	W349C 及 A650C	SEQ ID NO: 72
63	gB-069; pSB01682	367 及 500	S367C 及 A500C	SEQ ID NO: 73
64	gB-070; pSB01683	367 及 503	S367C 及 A503C	SEQ ID NO: 74
65	gB-071; pSB01684	370 及 501	K370C 及 Q501C	SEQ ID NO: 75
66	gB-072; pSB01685	522 及 683	K522C 及 I683C	SEQ ID NO: 76

67	gB-073; pSB01686	523 及 683	I523C 及 I683C	SEQ ID NO: 77
68	gB-074; pSB01687	523 及 684	I523C 及 M684C	SEQ ID NO: 78
69	gB-075; pSB01688	524 及 684	N524C 及 M684C	SEQ ID NO: 79
70	gB-076	525 及 681	P525C 及 E681C	SEQ ID NO: 80
71	gB-077	540 及 680	R540C 及 L680C	SEQ ID NO: 81
72	gB-078; pSB01691	541 及 680	F541C 及 L680C	SEQ ID NO: 82
73	gB-079; pSB01692	548 及 655	L548C 及 P655C	SEQ ID NO: 83
74	gB-080; pSB01693	549 及 658	A549C 及 N658C	SEQ ID NO: 84
75	gB-081; pSB01694	550 及 655	S550C 及 P655C	SEQ ID NO: 85
76	gB-082; pSB01695	550 及 657	S550C 及 E657C	SEQ ID NO: 86
77	gB-083; pSB01696	591 及 668	Q591C 及 S668C	SEQ ID NO: 87
78	gB-084; pSB01697	603 及 667	L603C 及 Y667C	SEQ ID NO: 88
79	gB-085; pSB01698	604 及 672	G604C 及 L672C	SEQ ID NO: 89
80	gB-086; pSB01699	607 及 688	R607C 及 N688C	SEQ ID NO: 90
81	gB-087; pSB01700	608 及 692	T608C 及 Q692C	SEQ ID NO: 91
82	gB-088; pSB01701	609 及 691	E609C 及 K691C	SEQ ID NO: 92
83	gB-089; pSB01702	610 及 674	E610C 及 S674C	SEQ ID NO: 93
84	gB-090; pSB01703	610 及 675	E610C 及 S675C	SEQ ID NO: 94
85	gB-091; pSB01704	612 及 663	Q612C 及 V663C	SEQ ID NO: 95

86	gB-092; pSB01705	737 及 755	V737C 及 F755C	SEQ ID NO: 96
87	gB-093; pSB01706	741 及 754	V741C 及 A754C	SEQ ID NO: 97
88	gB-094; pSB01707	741 及 755	V741C 及 F755C	SEQ ID NO: 98
89		356 及 500	I356C 及 A500C	
90		371 及 505	M371C 及 A505C	
91		371 及 506	M371C 及 W506C	
92		374 及 503	T374C 及 A503C	
93		160 及 708	Y160C 及 Y708C	
94		221 及 657	T221C 及 E657C	
95		541 及 681	F541C 及 E681C	
96		605 及 670	N605C 及 K670C	
97		219 及 587	S219C 及 S587C	
98		219 及 588	S219C 及 S588C	
99		219 及 589	S219C 及 Y589C	
100		217 及 586	D217C 及 N586C	
101		217 及 588	D217C 及 S588C	

在一些實施態樣中，多肽在**表2**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、37、38、39、40、41、42、43、44、45、46、47、48、49、50、51、52、53、54、55、56、57、58、59、60、61、62、63、64、65、66、67、68、69、70、71、72、73、74、75、76、77、78、79、80、81、82、83、84、85、86、87、88、

89、90、91、92、93、94、95、96、97、98、99、100或101中一或多者列出的位置中任一者處包括一或多個(諸如2、3、4、5、6、7、8、9或10個)半胱胺酸取代，其中所得多肽不展現HCMV融合後構形。

在一些實施態樣中，多肽在**表2**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、47、69或91中一或多者列出的位置中任一者處包括一或多個(諸如2、3、4、5、6、7、8、9或10個)半胱胺酸取代，其中所得多肽不展現HCMV融合後構形。

在一些實施態樣中，多肽包括如**表2**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、37、38、39、40、41、42、43、44、45、46、47、48、49、50、51、52、53、54、55、56、57、58、59、60、61、62、63、64、65、66、67、68、69、70、71、72、73、74、75、76、77、78、79、80、81、82、83、84、85、86、87、88、89、90、91、92、93、94、95、96、97、98、99、100或101中任一者列出的二個半胱胺酸取代。在一實施態樣中，所得多肽不展現HCMV融合後構形。在一實施態樣中，所得多肽展現HCMV融合前構形。

在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編

號之位置98及653處(列於**表2**之欄(ii)的列2)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置100及269處(列於**表2**之欄(ii)的列5)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置217及584處(列於**表2**之欄(ii)的列7)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置242及710處(列於**表2**之欄(ii)的列13)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置242及714處(列於**表2**之欄(ii)的列14)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置367及499處(列於**表2**之欄(ii)的列17)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置372及506處(列於**表2**之欄(ii)的列18)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置550及652處(列於**表2**之欄(ii)的列22)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置608及679處(列於**表2**之欄(ii)的列26)包括相對於野生型HCMV gB之胺基

酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置695及724處(列於**表2**之欄(ii)的列34)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。

在一些實施態樣中，多肽在**表2**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、37、38、39、40、41、42、43、44、45、46、47、48、49、50、51、52、53、54、55、56、57、58、59、60、61、62、63、64、65、66、67、68、69、70、71、72、73、74、75、76、77、78、79、80、81、82、83、84、85、86、87、88、89、90、91、92、93、94、95、96、97、98、99、100及101中一或多者列出的位置對中任一者處取代的半胱胺酸殘基對之間包括一或多個(諸如2、3、4、5、6、7、8、9或10個)雙硫鍵。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置98及653處(列於**表2**之欄(ii)的列2)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置100及269處(列於**表2**之欄(ii)的列5)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置217及584處(列於**表2**之欄(ii)的列7)取代的半胱胺酸殘基對之間包括雙

硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置242及710處(列於**表2**之欄(ii)的列13)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置242及714處(列於**表2**之欄(ii)的列14)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置367及499處(列於**表2**之欄(ii)的列17)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置372及506處(列於**表2**之欄(ii)的列18)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置550及652處(列於**表2**之欄(ii)的列22)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置608及679處(列於**表2**之欄(ii)的列26)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置695及724處(列於**表2**之欄(ii)的列34)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位

置217及589處(列於**表2**之欄(ii)的列47)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置524及684處(列於**表2**之欄(ii)的列69)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置371及506處(列於**表2**之欄(ii)的列91)取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。

在進一步實施態樣中，多肽在**表2**之欄(iii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35或36中一或多者列出的位置對中任一者處藉由半胱胺酸胺基酸取代導入之半胱胺酸殘基對之間包括一或多個(諸如2、3、4、5、6、7、8、9或10個)雙硫鍵，其中該多肽不展現HCMV融合後構形。

在進一步實施態樣中，多肽在**表2**之欄(iii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、37、38、39、40、41、42、43、44、45、46、47、48、49、50、51、52、53、54、55、56、57、58、59、60、61、62、63、64、65、66、67、68、69、70、71、72、73、74、75、76、77、78、79、80、81、82、83、84、85、86、87、

88、89、90、91、92、93、94、95、96、97、98、99、100或101中一或多者列出的位置對中任一者處藉由半胱胺酸胺基酸取代導入之半胱胺酸殘基對之間包括一或多個(諸如2、3、4、5、6、7、8、9或10個)雙硫鍵，其中該多肽不展現HCMV融合後構形。

在一些實施態樣中，多肽在**表2**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、37、38、39、40、41、42、43、44、45、46、47、48、49、50、51、52、53、54、55、56、57、58、59、60、61、62、63、64、65、66、67、68、69、70、71、72、73、74、75、76、77、78、79、80、81、82、83、84、85、86、87、88、89、90、91、92、93、94、95、96、97、98、99、100或101中任一者列出的位置對中任一者處取代的半胱胺酸殘基對之間包括雙硫鍵。在一實施態樣中，所得多肽不展現HCMV融合後構形。在一實施態樣中，所得多肽展現HCMV融合前構形。

在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之Q98C及I653C處(列於**表2**之欄(iii)的列2)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之T100C及S269C處(列於**表2**之欄(iii)的列5)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一進一步較佳

實施態樣中，多肽在根據SEQ ID NO: 1之編號之D217C及F584C處(列於**表2**之欄(iii)的列7)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之Y242C及K710C處(列於**表2**之欄(iii)的列13)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之Y242C及D714C處(列於**表2**之欄(iii)的列14)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之S367C及L499C處(列於**表2**之欄(iii)的列17)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之T372C及W506C處(列於**表2**之欄(iii)的列18)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之S550C及D652C處(列於**表2**之欄(iii)的列22)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之T608C及D679C處(列於**表2**之欄(iii)的列26)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之K695C及K724C處(列於**表2**之欄(iii)的列34)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之D217C及Y589C

處(列於**表2**之欄(iii)的列47)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之N524C及M684C處(列於**表2**之欄(iii)的列69)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之M371C及W506C處(列於**表2**之欄(iii)的列91)包括相對於野生型HCMV gB之胺基酸序列之半胱胺酸取代。

在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置96及660處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置98及658處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置100及258處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置100及656處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在另一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置100及658處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一進一步較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置117及406處取代的半胱胺酸殘基對之間包括雙硫鍵，相

對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置117及407處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置153及712處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置162及716處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置217及587處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置217及589處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置219及584處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置219及585處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置219及586處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置220及659處取代的半胱胺酸殘基對之

間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置223及659處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置240及732處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置240及735處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置242及728處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置242及731處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置258及656處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置269及656處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置269及658處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置272及614處取代的

半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置273及629處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置349及650處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置367及500處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置367及503處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置370及501處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置522及683處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置523及683處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置523及684處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置

524及684處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置525及681處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置540及680處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置541及680處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置548及655處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置549及658處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置550及655處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置550及657處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置591及668處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO:

1之編號之位置603及667處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置604及672處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置607及688處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置608及692處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置609及691處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置610及674處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置610及675處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置612及663處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置737及755處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽

在根據SEQ ID NO: 1之編號之位置741及754處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。在一較佳實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置741及755處取代的半胱胺酸殘基對之間包括雙硫鍵，相對於野生型HCMV gB之胺基酸序列。

在一些實施態樣中，多肽包括**表2**列出之半胱胺酸殘基之間之雙硫鍵中二個或超過二個的組合。在一些實施態樣中，多肽包括與選自下列之任一序列具有至少80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列：SEQ ID NO: 2；SEQ ID NO: 3；SEQ ID NO: 4；SEQ ID NO: 5；SEQ ID NO: 6；SEQ ID NO: 7；SEQ ID NO: 8；SEQ ID NO: 9；SEQ ID NO: 10；SEQ ID NO: 11；SEQ ID NO: 12；SEQ ID NO: 13；SEQ ID NO: 14；SEQ ID NO: 15；SEQ ID NO: 16；SEQ ID NO: 17；SEQ ID NO: 18；SEQ ID NO: 19；SEQ ID NO: 20；SEQ ID NO: 21；SEQ ID NO: 22；SEQ ID NO: 23；SEQ ID NO: 24；SEQ ID NO: 25；SEQ ID NO: 26；SEQ ID NO: 27；SEQ ID NO: 28；SEQ ID NO: 29；SEQ ID NO: 30；SEQ ID NO: 31；SEQ ID NO: 32；SEQ ID NO: 33；SEQ ID NO: 34；SEQ ID NO: 35；SEQ ID NO: 36；及SEQ ID NO: 37。

在一些實施態樣中，多肽包括與選自下列之任何序列具有至少80%、81%、82%、83%、84%、85%、86%、

87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列：SEQ ID NO: 47、SEQ ID NO: 48、SEQ ID NO: 49、SEQ ID NO: 50、SEQ ID NO: 51、SEQ ID NO: 52、SEQ ID NO: 53、SEQ ID NO: 54、SEQ ID NO: 55、SEQ ID NO: 56、SEQ ID NO: 57、SEQ ID NO: 58、SEQ ID NO: 59、SEQ ID NO: 60、SEQ ID NO: 61、SEQ ID NO: 62、SEQ ID NO: 63、SEQ ID NO: 64、SEQ ID NO: 65、SEQ ID NO: 66、SEQ ID NO: 67、SEQ ID NO: 68、SEQ ID NO: 69、SEQ ID NO: 70、SEQ ID NO: 71、SEQ ID NO: 72、SEQ ID NO: 73、SEQ ID NO: 74、SEQ ID NO: 75、SEQ ID NO: 76、SEQ ID NO: 77、SEQ ID NO: 78、SEQ ID NO: 79、SEQ ID NO: 80、SEQ ID NO: 81、SEQ ID NO: 82、SEQ ID NO: 83、SEQ ID NO: 84、SEQ ID NO: 85、SEQ ID NO: 86、SEQ ID NO: 87、SEQ ID NO: 88、SEQ ID NO: 89、SEQ ID NO: 90、SEQ ID NO: 91、SEQ ID NO: 92、SEQ ID NO: 93、SEQ ID NO: 94、SEQ ID NO: 95、SEQ ID NO: 96、SEQ ID NO: 97及SEQ ID NO: 98。

在一些實施態樣中，多肽包括與選自SEQ ID NO: 56、SEQ ID NO: 57、SEQ ID NO: 58及SEQ ID NO: 60之任何序列具有至少80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、較佳地99%或100%同一性之胺基酸序列。

在一些實施態樣中，多肽包括與選自SEQ ID NO: 51、SEQ ID NO: 73、SEQ ID NO: 70及SEQ ID NO: 78之任何序列具有至少80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、較佳地99%或100%同一性之胺基酸序列。

在一些實施態樣中，組成物較佳地不包括具有如SEQ ID NO: 59、SEQ ID NO: 75、SEQ ID NO: 76、SEQ ID NO: 71、SEQ ID NO: 52、SEQ ID NO: 96及SEQ ID NO: 50中任一者所示之序列之多肽。

在額外實施態樣中，多肽包括如**表2**之欄(iv)列出之SEQ ID NO中任一者所示之胺基酸序列。也就是說，例示性多肽包括具有選自下列任一者之胺基酸序列的多肽：SEQ ID NO: 2；SEQ ID NO: 3；SEQ ID NO: 4；SEQ ID NO: 5；SEQ ID NO: 6；SEQ ID NO: 7；SEQ ID NO: 8；SEQ ID NO: 9；SEQ ID NO: 10；SEQ ID NO: 11；SEQ ID NO: 12；SEQ ID NO: 13；SEQ ID NO: 14；SEQ ID NO: 15；SEQ ID NO: 16；SEQ ID NO: 17；SEQ ID NO: 18；SEQ ID NO: 19；SEQ ID NO: 20；SEQ ID NO: 21；SEQ ID NO: 22；SEQ ID NO: 23；SEQ ID NO: 24；SEQ ID NO: 25；SEQ ID NO: 26；SEQ ID NO: 27；SEQ ID NO: 28；SEQ ID NO: 29；SEQ ID NO: 30；SEQ ID NO: 31；SEQ ID NO: 32；SEQ ID NO: 33；SEQ ID NO: 34；SEQ ID NO: 35；SEQ ID NO: 36；及SEQ ID NO: 37。

在一些實施態樣中，多肽具有選自下列任一者之胺基酸序列：SEQ ID NO: 47、SEQ ID NO: 48、SEQ ID NO: 49、SEQ ID NO: 50、SEQ ID NO: 51、SEQ ID NO: 52、SEQ ID NO: 53、SEQ ID NO: 54、SEQ ID NO: 55、SEQ ID NO: 56、SEQ ID NO: 57、SEQ ID NO: 58、SEQ ID NO: 59、SEQ ID NO: 60、SEQ ID NO: 61、SEQ ID NO: 62、SEQ ID NO: 63、SEQ ID NO: 64、SEQ ID NO: 65、SEQ ID NO: 66、SEQ ID NO: 67、SEQ ID NO: 68、SEQ ID NO: 69、SEQ ID NO: 70、SEQ ID NO: 71、SEQ ID NO: 72、SEQ ID NO: 73、SEQ ID NO: 74、SEQ ID NO: 75、SEQ ID NO: 76、SEQ ID NO: 77、SEQ ID NO: 78、SEQ ID NO: 79、SEQ ID NO: 80、SEQ ID NO: 81、SEQ ID NO: 82、SEQ ID NO: 83、SEQ ID NO: 84、SEQ ID NO: 85、SEQ ID NO: 86、SEQ ID NO: 87、SEQ ID NO: 88、SEQ ID NO: 89、SEQ ID NO: 90、SEQ ID NO: 91、SEQ ID NO: 92、SEQ ID NO: 93、SEQ ID NO: 94、SEQ ID NO: 95、SEQ ID NO: 96、SEQ ID NO: 97及SEQ ID NO: 98。

在一較佳實施態樣中，多肽包括如下列任一者所示之胺基酸序列：SEQ ID NO: 3；SEQ ID NO: 6；SEQ ID NO: 8；SEQ ID NO: 14；SEQ ID NO: 15；SEQ ID NO: 18；SEQ ID NO: 19；SEQ ID NO: 23；SEQ ID NO: 27；及SEQ ID NO: 35。

在一些實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少70%、75%、80%、81%、82%、83%、

84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少90%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少94%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少95%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少96%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少97%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少97%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少98%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少99%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少99.5%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少99.6%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少99.7%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至907具有至少99.8%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至

907具有至少99.85%同一性之胺基酸序列。

在一些實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少70%、75%、80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少90%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少94%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少95%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少96%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少97%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少97%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少98%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少99%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少99.5%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少99.6%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少99.7%同一性之

胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少99.8%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至707具有至少99.85%同一性之胺基酸序列。

在一些實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少70%、75%、80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少90%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少94%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少95%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少96%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少97%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少97%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少98%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少99%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少99.5%同一性之胺基酸序列。在一實施態樣

中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少99.6%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少99.7%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少99.8%同一性之胺基酸序列。在一實施態樣中，多肽包含與SEQ ID NO: 1之胺基酸23至646具有至少99.85%同一性之胺基酸序列。

在一些實施態樣中，胺基酸可自天然HCMV gB序列插入(或刪除)以調整多肽結構中殘基的比對，以使特定殘基對係在足夠近的距離內以在融合前而非融合後構形中形成雙硫鍵。在數個此類實施態樣中，除了包括至少一個胺基酸插入，多肽包括位於**表2**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30、31、32、33、34、35、36、37、38、39、40、41、42、43、44、45、46、47、48、49、50、51、52、53、54、55、56、57、58、59、60、61、62、63、64、65、66、67、68、69、70、71、72、73、74、75、76、77、78、79、80、81、82、83、84、85、86、87、88、89、90、91、92、93、94、95、96、97、98、99、100或101中一或多者列出的位置對中任一者處之半胱胺酸殘基之間的雙硫鍵。

在一些實施態樣中，多肽包括相較於天然HCMV gB之苯丙胺酸取代。在一些實施態樣中，多肽包括相較於天然

HCMV gB之白胺酸取代。在一些實施態樣中，相較於呈融合後構形之HCMV gB多肽，多肽可藉由降低在多肽之摺疊結構中彼此靠近之殘基之間的離子互斥力之胺基酸突變(諸如例如苯丙胺酸(F)及白胺酸(L)取代)來穩定。在一些實施態樣中，相較於呈融合後構形之HCMV gB，多肽可藉由增加在多肽之摺疊結構中彼此靠近之殘基之間的離子吸引力之胺基酸突變來穩定。

相較於天然HCMV gB之例示性突變包括選自**表3**之任何突變(根據SEQ ID NO: 1之編號)：

表3. 例示性苯丙胺酸(F)及白胺酸(L)取代

列	(i) 突變體 ID	(ii) 經突變之殘基位置(根據 SEQ ID NO: 1 之編號)	(iii) 對應 SEQ ID NO: 1 之取代	(iv) 包括突變之例示性序列係列示於：
1	gB-037	670	K670L	SEQ ID NO: 38
2	gB-038	670	K670F	SEQ ID NO: 39
3	gB-039	673	R673L	SEQ ID NO: 40
4	gB-040	673	R673F	SEQ ID NO: 41
5	gB-041	691	K691L	SEQ ID NO: 42
6	gB-042	691	K691F	SEQ ID NO: 43
7	pSB02041	686	E686F	
8		686	E686L	
9		354	R354F	
10		573	R573F	
11		101 及 260	D101L 及 K260L	

表4. 額外取代

列	(i) 突變體 ID	(ii) 經突變之殘基位置(根據 SEQ ID NO: 1 之編號)	(iii) 對應 SEQ ID NO: 1 之取代	(iv) 包括突變之例示性序列係列示於：
1	gB-095; pSB01708	679	D679S	SEQ ID NO: 99
2	gB-096; pSB01709	679	D679N	SEQ ID NO: 100
3	gB-097	682	E682S	SEQ ID NO: 101
4	gB-098	682	E682Q	SEQ ID NO: 102
5	gB-099; pSB01712	686	E686S	SEQ ID NO: 103
6	gB-100; pSB01713	686	E686Q	SEQ ID NO: 104
7	gB-101	118	N118P	SEQ ID NO: 105
8	gB-102; pSB01715	646	D646P	SEQ ID NO: 106
9		240	W240A	
10		246	C246S	
11		675	I675S	
12		155-157	Y155G I156H H157R	
13	pSB02043	686	E686I	
14	pSB02044	686	E686V	
15		679	D679A	
16		696 及 697	Y696C 及 V697C	
17		703 及 704	D703C 及 P704C	
18		767 及 768	I767C 及 I768C	
19		217, 589, 703,及 704	D217C, Y589C, D703C,及 P704C	
20		217, 589, 696,及 697	D217C, Y589C, Y696C,及 V697C	
21	pSB2795	217, 371, 506, 524 及 589	D217C, M371C, W506C, N524C 及 Y589C	
22	pSB2796	217, 371, 506,及 589	D217C, M371C, W506C,及 Y589C	

23		217, 524, 589,及 684	D217C, N524C, Y589C, M684C	
24		217, 524, 589, 684, 703,及 704	D217C, N524C, Y589C, M684C, D703C,及 P704C	
25		655	P655S	
26	pSB2797; pSB2968	217, 371, 506, 524 589 及 684	D217C, M371C, W506C, N524C Y589C 及 M684C	
27	pSB2797; pSB2968	648 -653	M648G I649S A650G L651K D652D I653G	
28		693	R693V	
29		685	R685A	
30		678	F678S	
31		680	L680T	

在一些實施態樣中，多肽包括在**表3**之欄(ii)的列1、2、3、4、5、6、7、8、9、10或11中一或多者列出的位置中任一者處取代的一或多個(諸如2、3、4、5、6、7、8、9或10個)殘基，其中該多肽不展現HCMV gB融合後構形。在一實施態樣中，所得多肽展現HCMV gB融合前構形。

在一些實施態樣中，多肽包括在**表4**之欄(ii)的列1、2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30或31中一或多者列出的位置中任一者處取代的一或多個(諸如2、3、4、5、6、7、8、9或10個)殘基，其中該多肽不展現HCMV gB融合後構形。在一實施態樣中，所得多肽展現HCMV gB融合前構形。

在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置670處(列於**表3**之欄(ii)的列1及2)包括突變。在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置673

處(列於**表3**之欄(ii)的列3及4)包括突變。在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置691處(列於**表3**之欄(ii)的列5及6)包括突變。

在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置670處包括突變。在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置682處包括突變。在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置686處包括突變。在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置118處包括突變。在一些實施態樣中，多肽在根據SEQ ID NO: 1之編號之位置646處包括突變。

在進一步實施態樣中，多肽包括靜電突變，其係藉由在**表3**之欄(iii)的列1、2、3、4、5、6、7、8、9、10或11中一或多者列出的位置中任一者處之取代導入，其中該多肽不展現HCMV融合後構形。

在一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K670L(列於**表3**之欄(iii)的列1)。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K670F(列於**表3**之欄(iii)的列2)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代R673L(列於**表3**之欄(iii)的列3)。在一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代R673F(列於**表3**之欄(iii)的列4)。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K691L(列於**表3**之欄(iii)的列5)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之

取代K691F(列於**表3**之欄(iii)的列6)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K691F(列於**表3**之欄(iii)的列7)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K691F(列於**表3**之欄(iii)的列8)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K691F(列於**表3**之欄(iii)的列9)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K691F(列於**表3**之欄(iii)的列10)。在一進一步較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代K691F(列於**表3**之欄(iii)的列11)。

在一些實施態樣中，多肽包括**表3**列出之苯丙胺酸(F)及白胺酸(L)取代中二個或超過二個的組合。

在一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代D679S。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代D679N。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代E682S。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代E682Q。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代E686S。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代E686Q。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代N118P。在另一較佳實施態樣中，多肽包括根據SEQ ID NO: 1之編號之取代D646P。

在一些實施態樣中，多肽包括**表3**列出之苯丙胺酸(F)

及白胺酸(L)取代中二個或超過二個的組合。在一些實施態樣中，多肽包括與選自下列之任何序列具有至少70%、75%、80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列：SEQ ID NO: 38；SEQ ID NO: 39；SEQ ID NO: 40；SEQ ID NO: 41；SEQ ID NO: 42；及SEQ ID NO: 43。

在一些實施態樣中，多肽包括與選自下列之任何序列具有至少70%、75%、80%、81%、82%、83%、84%、85%、86%、87%、88%、89%、90%、91%、92%、93%、94%、95%、96%、97%、98%、99%或100%同一性之胺基酸序列：SEQ ID NO: 99；SEQ ID NO: 100、SEQ ID NO: 102、SEQ ID NO: 103、SEQ ID NO: 104、SEQ ID NO: 105及SEQ ID NO: 106。

在額外實施態樣中，多肽包括如**表3**之欄(iv)列出之SEQ ID NO中任一者所示之胺基酸序列。也就是說，例示性多肽包括具有選自下列任一者之胺基酸序列的多肽：SEQ ID NO: 38；SEQ ID NO: 39；SEQ ID NO: 40；SEQ ID NO: 41；SEQ ID NO: 42；及SEQ ID NO: 43。在一些實施態樣中，多肽具有選自下列任一者之胺基酸序列：SEQ ID NO: 99；SEQ ID NO: 100；SEQ ID NO: 102、SEQ ID NO: 103、SEQ ID NO: 104、SEQ ID NO: 105及SEQ ID NO: 106。

在一些實施態樣中，多肽包括在**表4**之欄(iii)的列1、

2、3、4、5、6、7、8、9、10、11、12、13、14、15、16、17、18、19、20、21、22、23、24、25、26、27、28、29、30或31中一或多者列出的位置中任一者處取代的一或多個(諸如2、3、4、5、6、7、8、9或10個)殘基，其中該多肽不展現HCMV gB融合後構形。在一實施態樣中，所得多肽展現HCMV gB融合前構形。

在一些實施態樣中，胺基酸可自天然HCMV gB序列插入(或刪除)以調整多肽結構中殘基的比對，以使特定殘基對係在足夠近的距離內以在融合前而非融合後構形中形成所欲之靜電交互作用。在數個此類實施態樣中，多肽在**表3**之欄(ii)的列1、2、3、4、5、6、7、8、9、10或11中一或多者列出的位置中任一者處包括所欲之靜電交互作用，其中該多肽不展現HCMV融合後構形。

本發明提供一種野生型巨細胞病毒(CMV)糖蛋白B(gB)蛋白之突變體，該突變體包含相對於該野生型CMV gB蛋白之胺基酸序列之至少二個胺基酸突變，且其中該胺基酸突變係選自由下列所組成之群組：

(1)經工程改造之雙硫鍵突變；

(2)額外突變；及

(3)至少一個經工程改造之雙硫鍵突變與至少一個額外突變之組合。

在一態樣中，胺基酸突變包含至少二個經工程改造之雙硫鍵突變與至少一個額外突變之組合。在另一態樣中，野生型CMV gB蛋白之突變體係呈三聚體之形式。

在另一態樣中，野生型CMV gB蛋白之突變體之融合前形式相較於該對應之野生型CMV gB蛋白具有增加之穩定性，其中該穩定性係藉由融合前特異性抗體之結合、熱偏移測定或EM成像測量。

在另一態樣中，野生型CMV gB之突變體係Towne株。

在本發明之另一態樣中，經工程改造之雙硫鍵突變係選自由下列所組成之群組：D217C及Y589C；M371C及W506C；及N524C及M684C。

在本發明之進一步態樣中，額外突變係選自由下列所組成之群組：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；

(3)以S取代位置246之C；

(4)以S取代位置655之P；

(5)以S取代位置678之F；

(6)以T取代位置680之L；

(7)以A取代位置685之R；

(8)以GSGKDG取代位置648-653之MIALDI；

(9)以V取代位置693之R；

(10)以S取代位置675之I；

(11)以C取代位置767及768之I；

(12)以C取代位置703之D及位置704之P；及

(13)以C取代位置696之Y及位置697之V。

在本發明之另一態樣中，額外突變係選自由下列所組

成之群組：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；

(3)以S取代位置246之C；及

(4)以S取代位置675之I。

在本發明之另一態樣中，胺基酸突變係至少二個經工程改造之雙硫鍵突變與至少一個額外突變之組合，且其中：

(i)該經工程改造之雙硫鍵突變係選自由下列所組成之群組：D217C及Y589C；M371C及W506C；及N524C及M684C；且

(ii)該額外突變係選自由下列所組成之群組：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；

(3)以S取代位置246之C；

(4)以S取代位置655之P；

(5)以S取代位置678之F；

(6)以T取代位置680之L；

(7)以A取代位置685之R；

(8)以GSGKDG取代位置648-653之MIALDI；

(9)以V取代位置693之R；

(10)以S取代位置675之I；

(11)以C取代位置767及768之I；

(12)以C取代位置703之D及位置704之P；及

(13)以C取代位置696之Y及位置697之V。

在本發明之另一態樣中，胺基酸突變係選自由下列所組成之群組的突變之組合：

(1) D217C及Y589C、M371C及W506C、及I675S之組合；

(2) D217C及Y589C、N524C及M684C、及I675S之組合；

(3) D217C及Y589C、M371C及W506C、及Y155G、I156H、H157R、W240A、C246S及I675S之組合；及

(4) D217C及Y589C、N524C及M684C、及Y155G、I156H、H157R、W240A、C246S及I675S之組合。

在本發明之另一態樣中，突變體包含位置217 (217C)及位置589 (589C)之半胱胺酸(C)、位置371 (371C)及位置506 (506C)之半胱胺酸(C)及位置675 (675S)之絲胺酸(S)，且其中該突變體係選自由下列所組成之群組：

(1) 包含如SEQ ID NO:257所示之胺基酸序列的突變體；及

(2) 包含與SEQ ID NO:257之胺基酸序列具有至少97%、98%或99%同一性之胺基酸序列的突變體。

在本發明之另一態樣中，突變體包含位置217 (217C)及位置589 (589C)之半胱胺酸(C)、位置524 (524C)及位置684 (684C)之半胱胺酸(C)及位置675 (675S)之絲胺酸(S)，且其中該突變體係選自由下列所組成之群組：

(1)包含SEQ ID NO: 259之胺基酸序列的突變體；及

(2)包含與SEQ ID NO: 259之胺基酸序列具有至少97%、98%或99%同一性之胺基酸序列的突變體。

在本發明之另一態樣中，突變體包含位置217 (217C)及位置589 (589C)之半胱胺酸(C)、位置371 (371C)及位置506 (506C)之半胱胺酸(C)、位置675 (675S)之絲胺酸(S)、位置155 (155G)之甘胺酸(G)、位置156 (156H)之組胺酸、位置157 (157R)之精胺酸、位置240 (240A)之丙胺酸及位置246 (246S)之絲胺酸且其中該突變體係選自由下列所組成之群組：

(1)包含如SEQ ID NO:261所示之胺基酸序列的突變體；及

(2)包含與SEQ ID NO: 261之胺基酸序列具有至少97%、98%或99%同一性之胺基酸序列的突變體；(1)包含如SEQ ID NO: 261所示之胺基酸序列的突變體；

(3)包含如SEQ ID NO: 265所示之胺基酸序列的突變體；及

(4)包含與SEQ ID NO:265之胺基酸序列具有至少97%、98%或99%同一性之胺基酸序列的突變體。

在本發明之另一態樣中，突變體包含位置217 (217C)及位置589 (589C)之半胱胺酸(C)、位置524 (524C)及位置684 (684C)之半胱胺酸(C)、位置675 (675S)之絲胺酸(S)、位置155 (155G)之甘胺酸(G)、位置156 (156H)之組胺酸、位置157 (157R)之精胺酸、位置240 (240A)之丙胺酸及位置246 (246S)之絲胺酸且其中該突變體係選自由下列所組

成之群組：

(1)包含SEQ ID NO: 263之胺基酸序列的突變體；及

(2)包含與SEQ ID NO:263之胺基酸序列具有至少97%、98%或99%同一性之胺基酸序列的突變體。

在本發明之另一態樣中，野生型CMV gB多肽之胺基酸序列係如SEQ ID NO: 1所示。

在本發明之另一態樣中，突變體之胺基酸序列不包含信號序列。在本發明之另一態樣中，突變體包含SEQ ID NO: 1之殘基23-907。

在本發明之另一態樣中，突變體之胺基酸序列不包含MPR、TM或CT結構域。在本發明之另一態樣中，突變體包含SEQ ID NO: 1之殘基23-707。

在本發明之另一態樣中，突變體之胺基酸序列包含經截短之結構域V區。在本發明之另一態樣中，突變體包含SEQ ID NO: 1之殘基23-702或23-703。

在本發明之另一態樣中，突變體之胺基酸序列不包含結構域V區。在本發明之另一態樣中，突變體包含SEQ ID NO: 1之殘基23-646。

在本發明之另一態樣中，突變體進一步包含與該突變體之C端連接之三聚模體。在本發明之另一態樣中，三聚模體係選自由下列所組成之群組：

(i)原聚體間雙硫環；

(ii) GCN4；

(iii) T4纖維蛋白摺疊子；及

(iv) C端融合序列。

在本發明之另一態樣中，

(i)該GCN4包含如SEQ ID NO: 269、272或273所示之胺基酸序列；

(ii)該T4纖維蛋白摺疊子包含如SEQ ID NO: 271所示之胺基酸序列；或

(iii)該C端融合序列包含如SEQ ID NO: 274所示之胺基酸序列。

在本發明之另一態樣中，原聚體間雙硫環包含選自下列之至少二個經工程改造之半胱胺酸突變：

(i) 696C及697C；

(ii) 703C及704C；或

(iii) 767C及768C。

數種促進可溶蛋白之穩定三聚體形成的外源性多聚結構域係所屬技術領域中已知。本揭露提供之可與突變體連接之此類多聚結構域之實例包括但不限於：(1) GCN4白胺酸拉鍊(Harbury et al. 1993 Science 262: 1401-1407)；(2)來自肺部表面活性蛋白之三聚模體(Hoppe et al. 1994 FEB S Lett 344: 191-195)；(3)膠原蛋白(McAlinden et al. 2003 Biol Chem 278:42200-42207)；及(4)噬菌體T4纖維蛋白摺疊子(Miroshnikov et al. 1998 Protein Eng 11:329-414)。在一些實施態樣中，多聚結構域係與CMV gB突變體之C端連接。在具體實施態樣中，三聚結構域係如SEQ ID NO: 269至274所示。用於連接多聚結構域與gB多肽之方法係所屬

技術領域中廣知的。

如本文中所使用，「原聚體間雙硫環」係指由包含相鄰半胱胺酸殘基對之環系所形成之三個螺旋間雙硫鍵達成之三個螺旋之間的共價環形成，其建立功能性拓撲學及多聚體(例如三聚體)之穩定化。見Stewart-Jones GBE, et al. (2015) A Cysteine Zipper Stabilizes a Pre-Fusion F Glycoprotein Vaccine for Respiratory Syncytial Virus. PLoS ONE 10(6): e0128779. doi:10.1371/journal.pone.0128779。

在本發明之另一態樣中，突變體係經分泌。在本發明之另一態樣中，突變體係可溶的。

在本發明之另一態樣中，野生型CMV gB多肽序列係選自SEQ ID NO: 107至140或224。

在本發明之另一態樣中，野生型CMV gB多肽序列係由如SEQ ID NO: 225至254所示之多核苷酸序列編碼。

本發明亦提供一種核酸分子，其包含編碼根據本文所述實施態樣及態樣之CMV gB蛋白突變體之胺基酸序列的核苷酸。

在一態樣中，核酸包含具有如SEQ ID NO: 225至254所示之序列的核苷酸。

本發明亦提供一種醫藥組成物，其包含(i)如本文所述之實施態樣及態樣之CMV gB蛋白突變體及(ii)醫藥上可接受之載劑。

在一態樣中，醫藥組成物係疫苗。

本發明亦提供一種減少個體之CMV感染之方法，其包

含向該個體投予有效量的如本文實施態樣所示之疫苗。

本發明亦提供一種誘發個體對CMV感染之免疫反應之方法，其包含向該個體投予有效量的如本文實施態樣所示之疫苗。

本發明亦提供一種預防個體之CMV感染之方法，其包含向該個體投予有效量的如本文實施態樣所示之疫苗。

在一態樣中，個體係人。

2. 多肽之進一步實施態樣

在一些實施態樣中，多肽不包括在下列胺基酸位置：280、281、283、284、285、286、290、292、295、297、298、299中任一者之突變或彼等之任何組合(根據參考序列SEQ ID NO: 46之編號)。在一些例示性實施態樣中，多肽不包括根據參考序列SEQ ID NO: 46之編號之下列殘基：Y280；N281；T283；N284；R285；N286；F290；E292；N293；F297；F298；I299；F298中任一者之取代及彼等之任何組合。在不受理論或機制之束縛下，對於中和抗體而言重要的殘基可包括Y280/N284及Y280/N293/D295。因此，在一較佳實施態樣中，多肽不包括相較於參考序列SEQ ID NO: 46在Y280、N293、N284及D295之突變。

在一些實施態樣中，多肽不包括在下列胺基酸位置：R562、P577、S587、Y588、G592、G595、L601/H605、C610、L612、P613、Y625、Y627、F632及K633中任一者

之突變及彼等之任何組合(根據參考序列SEQ ID NO: 44之編號)。在一些實施態樣中，多肽不包括下列胺基酸突變：R562C、P577L、S587L、Y588C、G592S、G595D、L601P/H605N、C610Y、L612F、P613Y、Y625C、Y627C、F632L及K633T中任一者或彼等之任何組合(根據參考序列SEQ ID NO: 44之編號)。在不受理論或機制之束縛下，P577及Y627據信係緊鄰彼此位於結構域IV核心內而C610參與保守性雙硫鍵。因此，所有三個殘基可幫助維持融合前結構中結構域IV之位置，且因此幫助維持整個抗原性位點AD-1之穩定性。再者，在不受理論或機制之束縛下，F632及G595據信係暴露在gB之融合前形式的表面上。因此，在一較佳實施態樣中，多肽不包括在P577、Y627、C610、F632及G595之突變或彼等之任何組合(根據參考序列SEQ ID NO: 44之編號)。

3. 空腔填充突變

在仍其他實施態樣中，多肽包括係一或多個空腔填充突變之胺基酸突變。可以空腔填充之目的置換之胺基酸之實例包括小型脂族(例如Gly、Ala及Val)或小型極性胺基酸(例如Ser及Thr)及於融合前構形中被包埋但在融合後構形中暴露至溶劑之胺基酸。置換胺基酸之實例包括大型脂族胺基酸(Ile、Leu及Met)或大型芳族胺基酸(His、Phe、Tyr及Trp)。

4. 突變之組合

在另一態樣中，本發明關於一種多肽，其包括二個或超過二個不同類型之突變的組合，該突變選自至少二個經工程改造之雙硫鍵突變及至少一個額外突變諸如各如本文所述之空腔填充突變、靜電突變、原聚體間雙硫環。在一些實施態樣中，多肽包括至少二個雙硫鍵突變及至少一個靜電突變。更具體而言，在一些實施態樣中，多肽包括至少二個半胱胺酸取代及至少一個苯丙胺酸取代。在一些實施態樣中，多肽包括至少二個半胱胺酸取代及至少一個白胺酸取代。

在一些進一步實施態樣中，多肽包括至少二個選自**表2**中任一突變之突變及至少一個選自**表3**中任一突變之突變。在一些進一步實施態樣中，多肽包括至少二個選自**表2**中任一突變之突變及至少一個選自**表4**中任一突變之突變。在一些進一步實施態樣中，多肽包括至少二個選自**表2**中任一突變之突變、至少一個選自**表3**中任一突變之突變及至少一個選自**表4**中任一突變之突變。

多肽之製備

本文所述之多肽可藉由所屬技術領域中已知之例行方法來製備，諸如在重組宿主系統中使用合適載體表現。合適重組宿主細胞包括例如昆蟲細胞、哺乳動物細胞、禽細胞、細菌及酵母菌細胞。合適昆蟲細胞之實例包括例如Sf9細胞、Sf21細胞、Tn5細胞、Schneider S2細胞及HIGH

FIVE細胞(衍生自親代粉紋夜蛾(Trichoplusia ni) BTI- TN-5B1-4細胞系之選殖單離物)。合適哺乳動物細胞之實例包括中國倉鼠卵巢(CHO)細胞、人胚胎腎細胞(HEK293或Expi 293細胞，一般藉由經剪切之腺病毒5型DNA轉形)、NIH-3T3細胞、293-T細胞、Vero細胞及HeLa細胞。合適禽細胞包括例如雞胚胎幹細胞(例如EBx.RTM.細胞)、雞胚胎纖維母細胞、雞胚胎生殖細胞、鵪鶉纖維母細胞(例如ELL-O)及鴨細胞。合適昆蟲細胞表現系統(諸如桿狀病毒載體系統)係所屬技術領域中具有通常知識者已知。用於桿狀病毒/昆蟲細胞表現系統之材料及方法可以套組形式購入。禽細胞表現系統亦為所屬技術領域中具有通常知識者已知。類似地，細菌及哺乳動物細胞表現系統亦為所屬技術領域中已知。

許多用於在昆蟲或哺乳動物細胞中表現重組蛋白之合適載體係該領域所廣為周知且慣用。合適載體可含有許多組分，包括但不限於下列一或多者：複製起點；可選擇之標記基因；一或多種表現控制元件，諸如轉錄控制元件(例如啟動子、增強子、終止子)及/或一或多種轉譯信號；及用於靶向經選擇之宿主細胞(例如哺乳動物來源或來自異源性哺乳動物或非哺乳動物物種)中之分泌途徑之信號序列或前導序列。例如，以在昆蟲細胞中表現而言，使用合適桿狀病毒表現載體(諸如PFASTBAC)以生產重組桿狀病毒顆粒。桿狀病毒顆粒係經擴增且用於感染昆蟲細胞以表現重組蛋白。以在哺乳動物細胞中表現而言，使用將在

所欲哺乳動物宿主細胞(例如中國倉鼠卵巢細胞)中驅動建構體表現之載體。

多肽可使用任何合適方法純化。例如，藉由免疫親和層析法純化多肽之方法係該領域所知。純化所欲多肽之合適方法係該領域眾所周知，包括沉澱及各種類型之層析法，諸如疏水性交互作用、離子交換、親和性、螯合及粒徑排阻。合適純化程序可使用二種或超過二種這些或其他合適方法產生。若為所欲，多肽可包括促進純化之「標籤(tag)」，諸如表位標籤或組胺酸標籤。此類經標籤之多肽可藉由螯合層析法或親和層析法自例如條件培養基純化。

編碼多肽之核酸

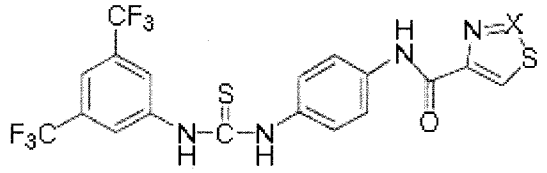
在另一態樣中，本發明關於編碼本文所述多肽之核酸分子。這些核酸分子包括DNA、cDNA及RNA序列。僅編碼多肽之胞外結構域之核酸分子亦涵蓋於本發明中。核酸分子可併入載體(諸如表現載體)中。

在一些實施態樣中，核酸包括自我複製RNA分子。在一些實施態樣中，核酸包括經修飾之RNA分子。在另一態樣中，本發明關於一種組成物，其包括如本文所述實施態樣中任一項之核酸。

經化合物穩定之多肽

發明人發現以融合前構形穩定的多肽，該融合前構形可藉由例如雙(芳基)硫脲化合物與HCMV gB之結合來識

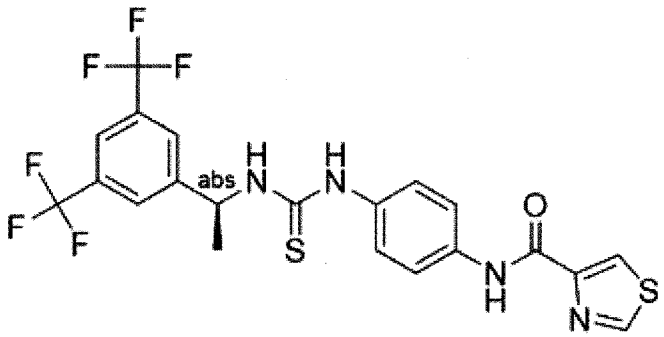
別。如結構1a、b(式I)所例示之雙(芳基)硫脲化合物係CMV之高度強效及特異性抑制劑。在一態樣中，本發明關於一種能夠與雙(芳基)硫脲化合物結合之多肽。在較佳實施態樣中，化合物不與HCMV gB多肽之融合後構形結合。



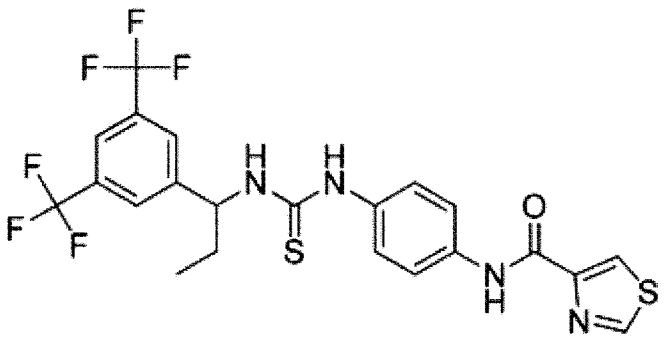
1a (X = CH)
1b (X = N)

(式I)

在一較佳實施態樣中，化合物係其雙(芳基)硫脲噻唑類似物。最佳的是，化合物係N-{4-[({(1*S*)-1-[3,5-雙(三氟甲基)苯基]乙基}胺甲醯硫基)胺基]苯基}-1,3-噻唑-4-羧醯胺，其具有下列結構：



在另一實施態樣中，化合物具有下列結構：



在數個實施態樣中，多肽包括HCMV gB融合前表位，

其不存在於天然HCMV gB融合後構形中。

在一些實施態樣中，均質族群中至少約90%之多肽(諸如至少約91%、92%、93%、94%、95%、96%、97%、98%、99%或99.9%之多肽)係與雙(芳基)硫脲化合物(例如諸如雙(芳基)硫脲化合物之噻唑類似物，更佳的是N-{4-[({(1*S*)-1-[3,5-雙(三氟甲基)苯基]乙基}胺甲醯硫基)胺基]苯基}-1,3-噻唑-4-羧醯胺)結合。在一些實施態樣中，可與雙(芳基)硫脲化合物結合之多肽不具有融合後構形。相反地，多肽具有融合前構形，諸如HCMV gB融合前構形。

在另一實施態樣中，多肽可為至少80%單離、至少90%、95%、98%、99%或較佳地99.9%單離自不與雙(芳基)硫脲化合物特異性結合之HCMV gB多肽。

包括多肽之組成物及其使用方法

本發明關於組成物及使用本文所述多肽或編碼該多肽之本文所述核酸之方法。例如，本發明之多肽可作為免疫原性組成物之組分直接遞送。替代地，可投予編碼本發明之多肽之核酸以在活體內生產多肽或免疫原性片段。某些較佳實施態樣諸如蛋白調配物、重組核酸(例如DNA、RNA、自我複製RNA或彼等之任何變異)及含有編碼多肽之序列的病毒載體(例如活、單一回合、非複製型組裝病毒粒子或其他病毒樣粒子或α病毒VRP)係進一步描述於本文且可包括於組成物中。

在一態樣中，本發明提供一種包含本文所述多肽之免

疫原性組成物。免疫原性組成物可包括額外CMV蛋白，諸如gO、gH、gL、pUL128、pUL130、pUL131、pp65、彼等之免疫原性片段或彼等之組合。例如多肽可與CMV五聚複合體組合，該CMV五聚複合體包含：gH或其五聚體形成片段、gL或其五聚體形成片段、pUL128或其五聚體形成片段、pUL130或其五聚體形成片段及pUL131或其五聚體形成片段。本發明之多肽亦可與CMV三聚複合體組合，該CMV三聚複合體包含：gH或其三聚體形成片段、gL或其三聚體形成片段及gO或其三聚體形成片段。

在另一態樣中，本發明關於一種組成物，其包括可誘發哺乳動物之免疫反應之多核苷酸。該多核苷酸編碼至少一種受關注多肽(例如抗原)。在本文中揭示之抗原可為野生型(即衍生自感染劑)或較佳為經修飾者(例如經工程改造、經設計或人工)。本文所述之核酸分子(特別是多核苷酸)在一些實施態樣中編碼一或多種受關注肽或多肽。此類肽或多肽可作用為抗原或抗原性分子。用語「核酸(nucleic acid)」包括任何包括核苷酸之聚合物之化合物。這些聚合物被稱為「多核苷酸(polynucleotide)」。本發明之例示性核酸或多核苷酸包括但不限於核糖核酸(RNA)，包括mRNA及去氧核糖核酸(DNA)。

在一些實施態樣中，組成物包括編碼本文所述多肽或其片段之DNA。在一些實施態樣中，組成物包括編碼本文所述多肽或其片段之RNA。在一些實施態樣中，組成物包括編碼本文所述多肽或其片段之mRNA多核苷酸。此類組

成物可在轉譯後生產適當蛋白構形。

在一態樣中，本發明關於一種組成物，其包括至少一種多核苷酸，該至少一種多核苷酸編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變之多肽。

在一態樣中，本發明關於一種組成物，其包括至少一種DNA多核苷酸，該至少一種DNA多核苷酸編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變之多肽。

在一態樣中，本發明關於一種組成物，其包括至少一種RNA多核苷酸，該至少一種RNA多核苷酸編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變之多肽。

在一些實施態樣中，本發明關於一種組成物，其包括至少一種多核苷酸，該至少一種多核苷酸編碼至少一種hCMV gB多肽或其免疫原性片段或表位。

在一些實施態樣中，組成物包括至少一種多核苷酸，該至少一種多核苷酸編碼二種或超過二種抗原性多肽或其免疫原性片段或表位。在一些實施態樣中，組成物包括二種或超過二種多核苷酸，該二種或超過二種多核苷酸編碼二種或超過二種抗原性多肽或其免疫原性片段或表位。該一或多種抗原性多肽可在單一多核苷酸上編碼或可在多種(例如二種或超過二種)多核苷酸上個別編碼。

在另一態樣中，本發明關於一種組成物，其包括(a)多核苷酸，其編碼包括相對於野生型HCMV糖蛋白B (gB)之

胺基酸序列之至少一個經導入之胺基酸突變的多肽；及(b)多核苷酸，其編碼額外多肽。

在另一態樣中，本發明關於一種組成物，其包括(a)多核苷酸，其編碼包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少一個經導入之胺基酸突變的多肽；及(b)多核苷酸，其編碼額外多肽，較佳為HCMV抗原性多肽。額外多肽可選自HCMV gH、gL、gB、gO、gN及gM及其免疫原性片段或表位。在一些實施態樣中，額外多肽係HCMV pp65。在一些實施態樣中，額外多肽可選自gH、gL、gO、gM、gN、UL128、UL130及UL131A及其片段。在一些實施態樣中，額外多肽係HCMV gH多肽。在一些實施態樣中，額外多肽係HCMV gL多肽。在一些實施態樣中，額外多肽係HCMV gB多肽。在一些實施態樣中，額外多肽係HCMV gO多肽。在一些實施態樣中，額外多肽係HCMV gN多肽。在一些實施態樣中，額外多肽係HCMV gM多肽。在一些實施態樣中，額外多肽係變體gH多肽、變體gL多肽或變體gB多肽。在一些實施態樣中，變體HCMV gH、gL或gB多肽係缺乏一或多個下列結構域序列之經截短之多肽：(1)疏水性近膜結構域、(2)跨膜結構域及(3)細胞質結構域。在一些實施態樣中，經截短之HCMV gH、gL或gB多肽缺乏疏水性近膜結構域、跨膜結構域及細胞質結構域。在一些實施態樣中，經截短之HCMV gH、gL或gB多肽僅包括胞外結構域序列。在一些實施態樣中，抗原性多肽係選自UL83、UL123、UL128、UL130及

UL131A或其免疫原性片段或表位之HCMV蛋白。在一些實施態樣中，抗原性多肽係HCMV UL83多肽。在一些實施態樣中，抗原性多肽係HCMV UL123多肽。在一些實施態樣中，抗原性多肽係HCMV UL128多肽。在一些實施態樣中，抗原性多肽係HCMV UL130多肽。在一些實施態樣中，抗原性多肽係HCMV UL131多肽。

在另一態樣中，本發明關於一種組成物，其包括(a)多核苷酸，其編碼包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少二個經導入之胺基酸突變的多肽；及(b)多核苷酸，其編碼具有如SEQ ID NO: 211至223所示之胺基酸序列中任一者之額外多肽。在另一態樣中，本發明關於一種組成物，其包括(a)多核苷酸，其編碼包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少二個經導入之胺基酸突變的多肽；及(b)具有選自SEQ ID NO: 141至210之序列中任一者之多核苷酸。在另一態樣中，本發明關於一種組成物，其包括(a)多核苷酸，其編碼包括相對於野生型HCMV糖蛋白B (gB)之胺基酸序列之至少二個經導入之胺基酸突變的多肽；及(b)具有選自SEQ ID NO: 211至223之胺基酸序列中任一者之額外多肽。在一些實施態樣中，編碼額外多肽之多核苷酸包括至少一個選自SEQ ID NO: 225至254中任一者之核酸序列。在一些實施態樣中，編碼額外多肽之多核苷酸包括至少一個選自SEQ ID NO: 141至147中任一者之核酸序列。在一些實施態樣中，編碼額外多肽之多核苷酸具有至少一個選自SEQ ID NO: 220至

223中任一者之序列。

在一些實施態樣中，抗原性多肽包括二種或超過二種HCMV蛋白質、其片段或表位。在一些實施態樣中，抗原性多肽包括二種或超過二種糖蛋白、其片段或表位。在一些實施態樣中，抗原性多肽包括至少一個HCMV多肽、其片段或表位及至少一個其他HCMV蛋白、其片段或表位。在一些實施態樣中，二種或超過二種HCMV多肽係由單一RNA多核苷酸編碼。在一些實施態樣中，二種或超過二種HCMV多肽係由二種或超過二種RNA多核苷酸編碼，例如各HCMV多肽係由分開的RNA多核苷酸編碼。在一些實施態樣中，二種或超過二種HCMV多肽可為HCMV gH、gL、gB、gO、gN及gM多肽或其免疫原性片段或表位之任何組合。在一些實施態樣中，二種或超過二種糖蛋白包括pp65或其免疫原性片段或表位；及HCMV gH、gL、gB、gO、gN及gM多肽或其免疫原性片段或表位之任何組合。在一些實施態樣中，二種或超過二種糖蛋白可為HCMV gB與一或多種HCMV多肽之任何組合，該一或多種HCMV多肽選自gH、gL、gO、gN及gM多肽或其免疫原性片段或表位。在一些實施態樣中，二種或超過二種糖蛋白可為HCMV gH與一或多種HCMV多肽之任何組合，該一或多種HCMV多肽選自gL、gO、gN及gM多肽或其免疫原性片段或表位。在一些實施態樣中，二種或超過二種糖蛋白可為HCMV gL與一或多種HCMV多肽之任何組合，該一或多種HCMV多肽選自gB、gH、gO、gN及gM多肽或其免疫原性片段或表

位。在一些實施態樣中，二種或超過二種HCMV多肽係gB及gH。在一些實施態樣中，二種或超過二種HCMV多肽係gB及gL。在一些實施態樣中，二種或超過二種HCMV多肽係gH及gL。在一些實施態樣中，二種或超過二種HCMV多肽係gB、gL及gH。在一些實施態樣中，二種或超過二種HCMV蛋白可為HCMV UL83、UL123、UL128、UL130及UL131A多肽或其免疫原性片段或表位之任何組合。在一些實施態樣中，二種或超過二種HCMV多肽係UL123及UL130。在一些實施態樣中，二種或超過二種HCMV多肽係UL123及131 A。在一些實施態樣中，二種或超過二種HCMV多肽係UL130及131 A。在一些實施態樣中，二種或超過二種HCMV多肽係UL 128、UL130及131 A。在一些實施態樣中，二種或超過二種HCMV蛋白可為HCMV gB、gH、gL、gO、gM、gN、UL83、UL123、UL128、UL130及UL131A多肽或其免疫原性片段或表位之任何組合。在一些實施態樣中，二種或超過二種糖蛋白可為HCMV gH與一或多種HCMV多肽之任何組合，該一或多種HCMV多肽選自gL、UL128、UL130及UL131A多肽或其免疫原性片段或表位。在一些實施態樣中，二種或超過二種糖蛋白可為HCMV gL與一或多種HCMV多肽之任何組合，該一或多種HCMV多肽選自gH、UL128、UL130及UL131A多肽或其免疫原性片段或表位。在一些實施態樣中，二種或超過二種HCMV多肽係gL、gH、UL 128、UL130及131 A。在任何這些其中組成物包括二種或超過二種HCMV蛋白之實施態樣

中，HCMV gH可為變體gH，諸如在本文中揭示之任何變體HCMV gH糖蛋白，例如在本文中揭示之任何變體HCMV gH。在任何這些其中組成物包括二種或超過二種HCMV蛋白之實施態樣中，HCMV gB可為變體gB，諸如在本文中揭示之任何變體HCMV gB糖蛋白，例如在本文中揭示之任何變體HCMV gB。在任何這些其中組成物包括二種或超過二種HCMV gL蛋白之實施態樣中，HCMV gL可為變體gL，諸如在本文中揭示之任何變體HCMV gL糖蛋白，例如在本文中揭示之任何變體HCMV gL。

在某些其中組成物包括編碼二種或超過二種HCMV抗原性多肽或其免疫原性片段或表位之二種或超過二種RNA多核苷酸之實施態樣中(不論由單一RNA多核苷酸編碼或由二種或超過二種RNA多核苷酸編碼，例如各蛋白由分開的RNA多核苷酸編碼)，該二種或超過二種HCMV蛋白係變體gB(例如在本文中揭示之任何變體gB多肽)及選自gH、gL、gO、gM、gN、UL128、UL130及UL131多肽或其免疫原性片段或表位之HCMV蛋白。在一些實施態樣中，二種或超過二種HCMV蛋白係變體gH(例如在本文中揭示之任何變體gH多肽)及選自gH、gL、gO、gM、gN、UL128、UL130及UL131A多肽或其免疫原性片段或表位之HCMV蛋白。在一些實施態樣中，二種或超過二種HCMV蛋白係變體gH(例如在本文中揭示之任何變體gH多肽)及選自gH、gL、gO、gM、gN、UL128、UL130及UL131多肽或其免疫原性片段或表位之HCMV蛋白。在一些其中變體HCMV蛋

白係變體HCMV gB、變體HCMV gL及變體HCMV gH之實施態樣中，變體HCMV多肽係經截短之多肽，其選自下列經截短之多肽：缺乏疏水性近膜結構域；缺乏跨膜結構域；缺乏細胞質結構域；缺乏疏水性近膜、跨膜及細胞質結構域中的二種或超過二種；及僅包括胞外結構域。在一些實施態樣中，組成物包括編碼至少一種HCMV抗原性多肽或其免疫原性片段或表位之多聚體RNA多核苷酸。在一些實施態樣中，組成物包括至少一種RNA多核苷酸，其編碼至少一種HCMV抗原性多肽或其免疫原性片段或表位，其中RNA多核苷酸之5'UTR包括模式化UTR。在一些實施態樣中，模式化UTR具有重複或交替模式，諸如ABABAB或AABBAABBAABB或ABCABCABC或重複一次、二次或超過3次之彼等之變體。在這些模式中，各字母A、B或C代表在核苷酸層級上的不同UTR。在一些實施態樣中，RNA多核苷酸(例如第一核酸)之5' UTR具有與另一RNA多核苷酸(第二核酸)之UTR互補之區域。例如，二個尋求聯結之多核苷酸(例如在多聚體分子中)的UTR核苷酸序列可經修飾以包括互補區，以使該二個UTR雜交以形成多聚體分子。在一些實施態樣中，編碼HCMV抗原性多肽之RNA多核苷酸之5' UTR係經修飾以允許形成多聚體序列。在一些實施態樣中，編碼選自UL128、UL130、UL131之HCMV蛋白之RNA多核苷酸之5' UTR係經修飾以允許形成多聚體序列。在一些實施態樣中，編碼HCMV多肽之RNA多核苷酸之5' UTR係經修飾以允許形成多聚體序列。在一些實施

態樣中，編碼選自gH、gL、gB、gO、gM及gN之HCMV多肽之RNA多核苷酸之5’UTR係經修飾以允許形成多聚體序列。在任何這些實施態樣中，多聚體可為二聚體、三聚體、五聚體、六聚體、七聚體、八聚體、九聚體或十聚體。因此在一些實施態樣中，編碼選自gH、gL、gB、gO、gM、gN、UL128、UL130及UL131之HCMV蛋白之RNA多核苷酸之5’UTR係經修飾以允許形成二聚體。在一些實施態樣中，編碼選自gH、gL、gB、gO、gM、gN、UL128、UL130及UL131A之HCMV蛋白之RNA多核苷酸之5’UTR係經修飾以允許形成三聚體。在一些實施態樣中，編碼選自gH、gL、gB、gO、gM、gN、UL128、UL130及UL131之HCMV蛋白之RNA多核苷酸之5’UTR係經修飾以允許形成五聚體。在一些實施態樣中，組成物包括至少一種RNA多核苷酸，其具有編碼二種或超過二種(例如二、三、四、五種或超過五種)HCMV抗原性多肽或其免疫原性片段或表位之單一開讀框。在一些實施態樣中，組成物包括至少一種RNA多核苷酸，其具有編碼二、三、四、五種或超過五種HCMV抗原性多肽之超過一個開讀框(例如二、三、四、五個或超過五個開讀框)。在任一這些實施態樣中，至少一種RNA多核苷酸可編碼二種或超過二種選自gH、gB、gL、gO、gM、gN、UL83、UL123、UL128、UL130、UL131A及其片段或表位之HCMV抗原性多肽。在一些實施態樣中，至少一種RNA多核苷酸編碼UL83及UL123。在一些實施態樣中，至少一種RNA多核苷酸編碼

gH及gL。在一些實施態樣中，至少一種RNA多核苷酸編碼UL128、UL130及UL131。在一些實施態樣中，至少一種RNA多核苷酸編碼gH、gL、UL128、UL130及UL131。在一些實施態樣中，其中至少一種RNA多核苷酸具有編碼二種或超過二種(例如二、三、四、五種或超過五種)HCMV抗原性多肽之單一開讀框，該RNA多核苷酸進一步包含額外序列，例如連接子序列或協助處理HCMV RNA轉錄物或多肽之序列例如切割位點序列。在一些實施態樣中，額外序列可為蛋白酶序列，諸如弗林(furin)序列。在一些實施態樣中，額外序列可為自我切割2A肽，諸如P2A、E2A、F2A及T2A序列。在一些實施態樣中，連接子序列及切割位點序列係穿插在編碼HCMV多肽之序列之間。

在一些實施態樣中，至少一種RNA多核苷酸包括選自在本文中揭示之核酸序列中任一者或其同源物之任何核酸序列，該同源物與在本文中揭示之核酸序列具有至少80%(例如85%、90%、95%、98%、99%)同一性。在一些實施態樣中，開讀框編碼密碼子最佳化。一些實施態樣包括一種組成物，該組成物包括至少一種RNA多核苷酸，其編碼至少一種HCMV抗原性多肽或其免疫原性片段及至少一種5’端蓋。在一些實施態樣中，5’端蓋係7mG(5’)ppp(5’)N1mpNp。

在一些實施態樣中，至少一種多核苷酸包括選自SEQ ID NO: 141至210中任一者之核酸序列。在一些實施態樣

中，至少一種多核苷酸編碼與SEQ ID NO: 211至223之胺基酸序列中任一者具有至少90%同一性的多肽。在一些較佳實施態樣中，組成物不包括具有胺基酸序列SEQ ID NO: 216之多肽。在一些較佳實施態樣中，組成物不包括編碼胺基酸序列SEQ ID NO: 216之多核苷酸。在一些較佳實施態樣中，組成物不包括具有序列SEQ ID NO: 152之多核苷酸。

在一些實施態樣中，組成物包括至少一種多核苷酸，其中該至少一種多核苷酸具有至少一個化學修飾。在一些實施態樣中，至少一種多核苷酸進一步包括第二化學修飾。較佳地，多核苷酸係RAN。在一些實施態樣中，具有至少一個化學修飾之至少一種多核苷酸具有5'端蓋。在一些實施態樣中，至少一個化學修飾係選自假尿苷、N1-甲基假尿苷、N1-乙基假尿苷、N1-乙基假尿苷、2-硫尿苷、4'-硫尿苷、5-甲基胞嘧啶、2-硫基-1-甲基-1-去氮雜-假尿苷、2-硫基-1-甲基-假尿苷、2-硫基-5-氮雜-尿苷、2-硫基-二氫假尿苷、2-硫基-二氫尿苷、2-硫基-假尿苷、4-甲氧基-2-硫基-假尿苷、4-甲氧基-假尿苷、4-硫基-1-甲基-假尿苷、4-硫基-假尿苷、5-氮雜-尿苷、二氫假尿苷、5-甲氧基尿苷及2'-O-甲基尿苷。在一些實施態樣中，組成物包括至少一種多核苷酸，其中開讀框中至少80%(例如85%、90%、95%、98%、99%、100%)之尿嘧啶具有化學修飾，可選地其中組成物係經調配為脂質奈米粒子。在一些實施態樣中，開讀框中100%之尿嘧啶具有化學修飾。

在一些實施態樣中，化學修飾係位於尿嘧啶之5-位置。在一些實施態樣中，化學修飾係N1-甲基假尿苷。

在一些實施態樣中，由(例如在mRNA組成物中之)多核苷酸編碼之額外多肽或免疫原性片段係選自gB、gH、gL、gO、gM、gN、UL83、UL123、UL128、UL130、UL131A、pp65及IE1抗原。

在一些實施態樣中，向哺乳動物投予第一組成物及第二組成物。在一些實施態樣中，第一組成物包括編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個經導入之胺基酸突變的多肽之多核苷酸；且第二組成物包括編碼HCMV pp65或其抗原性片段或表位之多核苷酸。在一些實施態樣中，第一組成物包括編碼包括相對於野生型HCMV gB之胺基酸序列之至少一個經導入之胺基酸突變的多肽之多核苷酸；且第二組成物包括多核苷酸，該多核苷酸編碼至少一種多核苷酸，該至少一種多核苷酸編碼選自HCMV gH、gL、UL128、UL130及UL131或其抗原性片段或表位之額外多肽。

在另一態樣中，本發明關於誘導哺乳動物之免疫反應之方法，其包括向哺乳動物投予有效誘導免疫反應之量的組成物，其中組成物包括多核苷酸，該多核苷酸編碼包括相對於野生型HCMV gB之胺基酸序列之至少二個經導入之胺基酸突變的多肽。

在一些實施態樣中，免疫反應包括T細胞反應或B細胞反應。在一些實施態樣中，免疫反應包括T細胞反應及

B細胞反應。在一些實施態樣中，方法涉及單一投予組成物。在一些實施態樣中，方法進一步包括向個體投予組成物之加強劑量。包括在本文中揭示之多核苷酸之組成物可經調配為有效量以在哺乳動物產生抗原特異性免疫反應。

免疫原性組成物可包括佐劑。增強組成物有效性之例示性佐劑包括：(1)鋁鹽(alum)，諸如氫氧化鋁、磷酸鋁、硫酸鋁等；(2)油在水中乳液調配物(含有或不含其他特定佐劑諸如胞壁醯肽(見以下)或細菌細胞壁組分)，諸如例如(a) MF59(PCT公開案號WO 90/14837)，含有5%角鯊烯、0.5% TWEEN 80及0.5% Span 85，使用微流體機調配為次微米粒子，(b) SAF，含有10%角鯊烷、0.4% Tween 80、5% pluronic嵌段聚合物L121及thr-MDP，經微流體化成為次微米乳液或震盪以產生較大粒徑乳液，及(c) RIBI™佐劑系統(RAS) (Ribi Immunochem, Hamilton, Mont.)，含有2%角鯊烯、0.2% Tween 80及一或多種來自由單磷醯脂質A (MPL)、二黴酸海藻糖(TDM)及細胞壁骨架(CWS)所組成之群組的細菌細胞壁組分，較佳地MPL+CWS (DETOX™)；(3)皂素佐劑，可使用諸如QS-21、STIMULON™ (Cambridge Bioscience, Worcester, Mass.)或自其產生之粒子諸如ISCOM(免疫刺激複合物)；(4)完整弗氏佐劑(CFA)及不完整弗氏佐劑(IFA)；(5)細胞介素，諸如介白素(IL-1、IL-2等)、巨噬細胞群落刺激因子(M-CSF)、腫瘤壞死因子(TNF)等；及(6)其他作用為佐劑以增強組成物之有效性的物質。在一較佳實施態樣中，佐劑係皂素佐劑，也就是

QS-21。在一些實施態樣中，組成物不包括佐劑。在一些實施態樣中，組成物進一步包括脂質奈米粒子。在一些實施態樣中，組成物係經調配為奈米粒子。在一些實施態樣中，組成物進一步包括陽離子或多價陽離子化合物，包括魚精蛋白或其他陽離子肽或蛋白質，諸如聚-L-離胺酸(PLL)。

本文討論之免疫原性組成物各者可單獨使用或與一或多種其他抗原組合使用，該其他抗原來自相同病毒病原體或來自另一致病性來源。這些組成物可用於預防性(以預防感染)或治療性(以在感染後治療疾病)目的。

在一實施態樣中，組成物可包括「醫藥上可接受之載劑」，其包括本身不誘導對接受組成物之個體有害之抗體的生產之任何載劑。合適載劑一般係大型、緩慢代謝巨分子諸如蛋白質、多醣、聚乳酸、聚乙醇酸、多聚體胺基酸、胺基酸共聚物、脂質聚集體(諸如油滴或脂質體)及非活性病毒顆粒。此類載劑係所屬技術領域中具有通常知識者所廣為周知。此外，這些載劑可作為佐劑。另外，抗原可與細菌類毒素接合，諸如來自白喉、破傷風、霍亂、幽門螺旋桿菌(*H. pylori*)等病原體之類毒素。

在一實施態樣中，組成物包括稀釋劑，諸如水、鹽水、甘油、乙醇等。此外，輔助物質(諸如潤濕劑或乳化劑、pH緩衝物質及類似物)可存在於此類媒劑中。

本文所述之組成物可包括免疫有效量的多肽或多核苷酸，以及視需要之任何其他以上提及之組分。所謂「免疫

有效量(immunologically effective amount)」是指以單一劑量或作為一系列之部分向個體投予之該量可有效誘發免疫反應。經誘發之免疫反應可足以例如治療及/或預防及/或減少疾患、感染或疾病之發生率。此量取決於欲治療之個體的健康和身體條件、欲治療之個體的生物分類群組(例如非人靈長動物、靈長動物等)、個體之免疫反應合成抗體的能力、所欲之保護程度、疫苗之調配、主治醫師對醫學情況之評估及其他相關因素而異。預期該量將落入一個相當寬廣之範圍，該範圍可經由例行試驗決定。

組成物可經腸胃外投予，例如藉由皮下或肌肉內注射。在一些實施態樣中，組成物係藉由皮內或肌肉內注射向哺乳動物投予。適用於其他投予模式之額外調配物包括口服及肺調配物、鼻調配物、栓劑及穿皮施用。口服調配物可較佳用於某些病毒蛋白。劑量治療可為單一劑量計畫或多重劑量計畫。免疫原性組成物可與其他免疫調節劑搭配投予。

在另一態樣中，本發明提供一種誘發抗巨細胞病毒之免疫反應之方法，其包含向有此需要之個體投予免疫有效量的本文所述多肽及/或免疫原性組成物，其包含如上述之蛋白質、DNA分子、RNA分子(例如自我複製RNA分子)或VRP。在某些實施態樣中，免疫反應包含生產抗CMV之中和抗體。

免疫反應可包含體液性免疫反應、細胞媒介之免疫反應或兩者。在一些實施態樣中，誘導抗各經遞送之CMV蛋

白之免疫反應。細胞媒介之免疫反應可包含輔助T細胞(Th)反應、CD8+細胞毒性T細胞(CTL)反應或兩者。在一些實施態樣中，免疫反應包含體液性免疫反應且抗體係中和抗體。

中和抗體阻斷病毒感染細胞。CMV感染上皮細胞，也感染纖維母細胞。在一些實施態樣中，免疫反應減少或預防感染這兩種細胞類型。中和抗體反應可為補體依賴性或補體非依賴性。在一些實施態樣中，中和抗體反應係補體非依賴性。在一些實施態樣中，中和抗體反應係交叉中和；即針對經投予之組成物所產生之抗體中和除組成物使用之病毒株以外的CMV病毒株。

本文所述多肽及/或免疫原性組成物亦可誘發有效免疫反應以減少非經感染哺乳動物之CMV感染的可能性，或減少經感染之哺乳動物的症狀，例如減少爆發次數、CMV脫落及向其他哺乳動物散播病毒的風險。

在一態樣中，本發明關於一種用於減少哺乳動物之CMV病毒脫落之方法。在一些實施態樣中，本發明關於一種用於減少哺乳動物之尿液中CMV病毒脫落之方法。在一些實施態樣中，本發明關於一種用於減少哺乳動物之唾液中CMV病毒脫落之方法。在另一態樣中，本發明關於一種用於減少哺乳動物之CMV病毒力價之方法。在一態樣中，本發明關於一種用於減少哺乳動物之血清中的CMV核酸之方法。用語「病毒脫落(viral shedding)」在本文中係根據其在醫學及病毒學之明白尋常意義使用且係指病毒自感染

細胞的生產及釋放。在一些實施態樣中，病毒係自哺乳動物之細胞釋放。在一些實施態樣中，病毒係自經感染哺乳動物釋放至環境中。在一些實施態樣中，病毒係自哺乳動物體內之細胞釋放。

在一態樣中，本發明關於一種用於減少哺乳動物之CMV病毒脫落之方法。該方法包括向經CMV感染或具有CMV感染風險之哺乳動物投予本文所述之經修飾之CMV gB多肽及/或免疫原性組成物。在一實施態樣中，哺乳動物之CMV病毒脫落的減少係相較於未投予經修飾之CMV gB之哺乳動物的病毒脫落。在另一實施態樣中，哺乳動物之CMV病毒脫落的減少係相較於在單獨投予CMV五聚體之後或在多肽不存在下投予CMV五聚體之後的病毒脫落。

在一些實施態樣中，哺乳動物係人。在一些實施態樣中，人係兒童，諸如嬰兒。在一些其他實施態樣中，人係女性，包括青少年女性、懷孕年齡之女性、計畫懷孕之女性、懷孕女性及近來生產之女性。在一些實施態樣中，人係移植病患。

在一實施態樣中，挑戰巨細胞病毒株係人CMV株。在一實施態樣中，挑戰巨細胞病毒株係與自其衍生該多肽之CMV株同源。在另一實施態樣中，挑戰巨細胞病毒株係與CMV株VR1814同源。在另一實施態樣中，挑戰巨細胞病毒株係與CMV Towne株同源。

在一實施態樣中，挑戰巨細胞病毒株係人CMV株，其與自其衍生經修飾之CMV gB多肽之CMV株異源。在另一

實施態樣中，挑戰巨細胞病毒株係人CMV株，其與VR1814 CMV株之CMV株異源。在另一實施態樣中，挑戰巨細胞病毒株係VR1814 CMV株。在另一實施態樣中，挑戰巨細胞病毒株係人CMV株，其與CMV Towne株異源。在另一實施態樣中，挑戰巨細胞病毒株係CMV Towne株。

在另一實施態樣中，挑戰巨細胞病毒株係與猴疱疹病毒3型單離物21252 CMV株同源之恆河猴CMV株。在另一實施態樣中，挑戰巨細胞病毒株係猴疱疹病毒3型單離物21252 CMV株。

抗體效力在所屬技術領域中之有用量度係「50%中和力價(50% neutralization titer)」。抗體效力之另一有用量度係下列中任一項：「60%中和力價」；「70%中和力價」；「80%中和力價」；及「90%中和力價」。為了判定例如50%中和力價，將來自經免疫之動物的血清稀釋以評估血清可稀釋多少而仍保留阻斷50%之感染性病毒進入細胞的能力。例如，力價700是指在經稀釋700倍之後，血清保留中和50%之感染性病毒的能力。因此，較高力價指示更強效之中和抗體反應。在一些實施態樣中，此力價的範圍具有約200、約400、約600、約800、約1000、約1500、約2000、約2500、約3000、約3500、約4000、約4500、約5000、約5500、約6000、約6500或約7000之下限。50%、60%、70%、80%或90%中和力價範圍可具有約400、約600、約800、約1000、約1500、約2000、約2500、約3000、約3500、約4000、約4500、約5000、約

5500、約6000、約6500、約7000、約8000、約9000、約10000、約1 1000、約12000、約13000、約14000、約15000、約16000、約17000、約18000、約19000、約20000、約21000、約22000、約23000、約24000、約25000、約26000、約27000、約28000、約29000或約30000之上限。例如50%中和力價可為約3000至約6500。「約(about)」是指加或減該記述值之10%。中和力價可如以下具體實例所述測量。

免疫反應可藉由向個體(一般為哺乳動物，包括人)投予蛋白質、DNA分子、RNA分子(例如自我複製RNA分子或核苷經修飾之RNA分子)、或VRP來刺激。在一些實施態樣中，經誘導之免疫反應係保護性免疫反應，即該反應減少CMV感染之臨床後果的風險或嚴重性。刺激保護性免疫反應特別是一些族群特別是具有來自CMV感染及疾病之風險族群所欲。例如風險族群包括實體器官移植(SOT)病患、骨髓移植病患及造血幹細胞移植(HSCT)病患。VRP可在移植前向移植供體投予，或在移植前及/或後向移植接受者投予。由於自母體至兒童的垂直傳播係感染嬰兒之常見來源，因此向懷孕或可懷孕婦女投予VRP特別有用。

本揭露提供之組成物(諸如醫藥組成物)的投予可使用標準投予途徑進行。可使用任何合適的投予途徑。例如，組成物可經肌肉內、腹膜內、皮下或穿皮投予。一些實施態樣將經由黏膜內途徑投予，諸如口內、鼻內、陰道內及直腸內。組成物可根據任何合適計畫投予。

本文亦提供一種抑制巨細胞病毒進入細胞之方法，其包含使細胞與本文所述免疫原性組成物接觸。

在一態樣中，本發明關於包括上述多肽之組成物。在另一態樣中，本發明關於包括編碼此類多肽之核酸分子或載體的組成物。在進一步態樣中，本發明關於包括上述多肽及編碼此類多肽之核酸分子或載體的組成物。

在一些實施態樣中，組成物係能夠誘發個體抗CMV之免疫反應的免疫原性組成物。在一些具體實施態樣中，免疫原性組成物係醫藥組成物，其包括本揭露提供之多肽及醫藥上可接受之載劑。在仍其他實施態樣中，醫藥組成物係疫苗。

在一些實施態樣中，組成物(諸如免疫原性組成物或疫苗)包括二種或超過二種不同上述多肽。二種或超過二種不同多肽可包括相同的經導入之胺基酸突變但可衍生自來自不同HCMV株或亞型之gB。在另一實施態樣中，二種或超過二種不同多肽可包括互相不同的相較於天然HCMV gB之胺基酸突變。

在較佳實施態樣中，多肽可溶於水溶液中。在一些實施態樣中，多肽可溶於缺乏清潔劑之溶液中。

抗體及診斷用途

上述多肽可用於生產抗體(包括多株及單株)。如果多株抗體係為所欲，則將選定之哺乳動物(例如小鼠、兔、山羊、天竺鼠、馬等)經帶有CMV表位之免疫原性多肽免

疫。收集來自經免疫之動物的血清並根據已知程序處理。如果含有抗CMV表位之多株抗體的血清含有抗其他抗原之抗體，則可藉由免疫親和層析法純化該多株抗體。用於生產及處理多株抗血清之技術係所屬技術領域中已知。

針對抗CMV表位之單株抗體亦可由所屬技術領域中具有通常知識者輕易生產。藉由雜交瘤製造單株抗體之常規方法係已知。永生化抗體生產細胞系可藉由細胞融合產生，且亦藉由其他技術諸如以致癌性DNA直接轉形B淋巴細胞或以EB病毒轉染產生。可篩選針對CMV表位所生產之單株抗體組的各種性質；即同型、表位親和力等。

針對抗CMV表位之抗體(包括單株及多株)在診斷上特別有用，而該些具中和性者可用於被動免疫治療。特別是單株抗體可用於升高抗獨特型抗體。

與含有CMV抗體之血清起免疫反應之多肽及針對這些多肽所升高之抗體皆可用於免疫測定，以偵測生物樣本包括例如血液或血清樣本中CMV抗體之存在或病毒之存在。免疫測定之設計可能有大量變異且其中多者係所屬技術領域中已知。例如，免疫測定可利用具有如SEQ ID NO: 2至106中任一者所示之序列的多肽。

替代地，免疫測定可使用衍生自本文所述之多肽的病毒抗原之組合。可使用例如朝著針對至少一種本文所述多肽之單株抗體、朝著針對本文所述多肽之單株抗體的組合、朝著針對不同病毒抗原之單株抗體、朝著針對本文所述多肽之多株抗體或朝著針對不同病毒抗原之多株抗體。

規程可基於例如競爭或直接反應或可為夾心式測定。規程亦可例如使用固體撐體或可藉由免疫沉澱進行。大多數測定涉及使用經標示之抗體或多肽；標示可為例如螢光、化學發光、放射性或染料分子。擴增來自探針的信號之測定亦為已知；其實例係利用生物素及抗生物素蛋白之測定及酶標示及媒介之免疫測定諸如ELISA測定。

適用於免疫診斷且含有適當標示試劑之套組係藉由將適當材料(包括含有CMV表位之本發明多肽或針對抗表位之抗體)，連同進行測定所需之剩餘試劑及材料，以及合適測定說明組包裝於合適容器中來建構。

亦可將多核苷酸探針包裝於診斷套組中。診斷套組包括探針DNA，其可經標示；替代地，探針DNA可未經標示且用於標示之成分可包括於套組中。套組亦可含有其他經合適包裝之特定雜交規程所需之試劑及材料，例如標準物，以及進行測試之說明。

本揭露之一些實施態樣提供HCMV疫苗，其包括至少一種具有編碼至少一種HCMV抗原性多肽或其免疫原性片段及至少一種5'端蓋之開讀框之核糖核酸(RNA)多核苷酸。在一些實施態樣中，5'端蓋係7mG(5')ppp(5')NlmpNp。

本揭露之一些實施態樣提供HCMV疫苗，其包括至少一種具有編碼至少一種HCMV抗原性多肽或其免疫原性片段之開讀框之核糖核酸(RNA)多核苷酸，其中該至少一種核糖核酸(RNA)多核苷酸具有至少一個化學修飾。在一些實施態樣中，至少一種核糖核酸(RNA)多核苷酸進一步包

含第二化學修飾。在一些實施態樣中，具有至少一個化學修飾之至少一種核糖核酸(RNA)多核苷酸具有5'端蓋。在一些實施態樣中，至少一個化學修飾係選自假尿苷、N1-甲基假尿苷、N1-乙基假尿苷、N1-乙基假尿苷、2-硫尿苷、4'-硫尿苷、5-甲基胞嘧啶、2-硫基-1-甲基-1-去氮雜-假尿苷、2-硫基-1-甲基-假尿苷、2-硫基-5-氮雜-尿苷、2-硫基-二氫假尿苷、2-硫基-二氫尿苷、2-硫基-假尿苷、4-甲氧基-2-硫基-假尿苷、4-甲氧基-假尿苷、4-硫基-1-甲基-假尿苷、4-硫基-假尿苷、5-氮雜-尿苷、二氫假尿苷、5-甲氧基尿苷及2'-O-甲基尿苷。

在一些實施態樣中，化學修飾係選自由下列所組成之群組：假尿苷、N1-甲基假尿苷、N1-乙基假尿苷、2-硫尿苷、4'-硫尿苷、5-甲基胞嘧啶、2-硫基-1-甲基-1-去氮雜-假尿苷、2-硫基-1-甲基-假尿苷、2-硫基-5-氮雜-尿苷、2-硫基-二氫假尿苷、2-硫基-二氫尿苷、2-硫基-假尿苷、4-甲氧基-2-硫基-假尿苷、4-甲氧基-假尿苷、4-硫基-1-甲基-假尿苷、4-硫基-假尿苷、5-氮雜-尿苷、二氫假尿苷、5-甲氧基尿苷及2'-O-甲基尿苷。

本揭露之一些實施態樣提供一種HCMV疫苗，其包括至少一種具有編碼至少一種HCMV抗原性多肽或其免疫原性片段之開讀框的核糖核酸(RNA)多核苷酸，其中開讀框中至少80%(例如85%、90%、95%、98%、99%、100%)之尿嘧啶具有化學修飾，可選地其中疫苗係經調配為脂質奈米粒子。在一些實施態樣中，開讀框中100%之尿嘧啶具

有化學修飾。在一些實施態樣中，化學修飾係位於尿嘧啶之5-位置。在一些實施態樣中，化學修飾係N1-甲基假尿苷。

本揭露之一些實施態樣提供經調配於陽離子脂質奈米粒子內之HCMV疫苗，該陽離子脂質奈米粒子在本文中亦稱為可離子化陽離子脂質奈米粒子、可離子化脂質奈米粒子及脂質奈米粒子(彼等可互換使用)。在一些實施態樣中，脂質奈米粒子包含陽離子脂質、經PEG修飾之脂質、固醇及非陽離子脂質。在一些實施態樣中，陽離子脂質係可離子化陽離子脂質，且非陽離子脂質係中性脂質，且固醇係膽固醇。在一些實施態樣中，陽離子脂質係選自由下列所組成之群組：2,2-二亞油烯基-4-二甲基胺基乙基-[1,3]-二噁戊烷(DLin-KC2-DMA)、二亞油烯基-甲基-4-二甲基胺基丁酸酯(DLin-MC3-DMA)及二((Z)-壬-2-烯-1-基)9-((4-(二甲基胺基)丁醯基)氧基)十七烷二酯(L319)。在一些實施態樣中，脂質奈米粒子具有約20至60%陽離子脂質、約5至25%非陽離子脂質、約25至55%固醇及約0.5至15%經PEG修飾之脂質的莫耳比。在一些實施態樣中，奈米粒子具有小於0.4之多分散性值。在一些實施態樣中，奈米粒子在中性pH下具有淨中性電荷。在一些實施態樣中，奈米粒子具有50至200 nm之平均直徑。

在一些實施態樣中，開讀框中80%之尿嘧啶具有化學修飾。在一些實施態樣中，開讀框中100%之尿嘧啶具有化學修飾。在一些實施態樣中，化學修飾係位於尿嘧啶之

5-位置。在一些實施態樣中，化學修飾係N1-甲基假尿苷、N1-乙基假尿苷。在一些實施態樣中，疫苗係經調配於脂質奈米粒子內。在一些實施態樣中，脂質奈米粒子包含陽離子脂質、經PEG修飾之脂質、固醇及非陽離子脂質。在一些實施態樣中，陽離子脂質係可離子化陽離子脂質，且非陽離子脂質係中性脂質，且固醇係膽固醇。在一些實施態樣中，陽離子脂質係選自由下列所組成之群組：2,2-二亞油烯基-4-二甲基胺基乙基-[1,3]-二噁戊烷(DLin-KC2-DMA)、二亞油烯基-甲基-4-二甲基胺基丁酸酯(DLin-MC3-DMA)及二((Z)-壬-2-烯-1-基) 9-((4-(二甲基胺基)丁醯基)氧基)十七烷二酯(L319)。

本揭露之一些實施態樣提供誘導個體之抗原特異性免疫反應之方法，其包含向該個體投予有效產生抗原特異性免疫反應的量之HCMV RNA疫苗。在一些實施態樣中，抗原特異性免疫反應包含T細胞反應或B細胞反應。在一些實施態樣中，抗原特異性免疫反應包含T細胞反應及B細胞反應。在一些實施態樣中，生產抗原特異性免疫反應之方法涉及疫苗之單一投予。在一些實施態樣中，方法進一步包括向個體投予疫苗之加強劑量。在一些實施態樣中，疫苗係藉由皮內或肌肉內注射向個體投予。

本文亦提供用於誘導個體之抗原特異性免疫反應之方法的HCMV RNA疫苗，該方法包含向該個體投予有效產生抗原特異性免疫反應的量之疫苗。

本文進一步提供HCMV RNA疫苗於製造藥物之用途，

該藥物用於誘導個體之抗原特異性免疫反應之方法，該方法包含向該個體投予有效產生抗原特異性免疫反應的量之疫苗。

本文進一步提供預防或治療HCMV感染之方法，該方法包含向個體投予本揭露之疫苗。在本文中揭示之HCMV疫苗可經調配為有效量以在個體產生抗原特異性免疫反應。

用語「多肽變體(polypeptide variant)」係指其胺基酸序列與天然或參考序列不同之分子。胺基酸序列變體在胺基酸序列內之某些位置可具有相較於天然或參考序列之取代、刪除及/或插入。通常，變體與天然或參考序列具有至少50%同一性。在一些實施態樣中，變體與天然或參考序列共用至少80%或至少90%同一性。

在一些實施態樣中，提供「變體擬似物(variant mimic)」。如本文中所使用，用語「變體擬似物」係含有至少一個將擬似活化序列之胺基酸者。例如麩胺酸可作用為偶磷基-蘇胺酸及/或偶磷基-絲胺酸之擬似物。替代地，變體擬似物可導致去活化或導致含有擬似物之失活產物，例如苯丙胺酸可作為酪胺酸之失活取代；或丙胺酸可作為絲胺酸之失活取代。「異種同源物(Ortholog)」係指不同物種中藉由物種形成從共同祖先基因演化而來的基因。通常，異種同源物在演化過程中保留相同功能。異種同源物之識別對於新定序基因體中基因功能之可靠預測至關重要。「類似物(Analog)」意在包括有一或多個胺基酸改變

(例如取代、添加或刪除胺基酸殘基)之差異而仍維持親代或起始多肽之一或多種性質的多肽變體。

本揭露提供數種類型之基於多核苷酸或多肽之組成物，包括變體及衍生物。這些包括例如取代、插入、刪除及共價變體及衍生物。用語「衍生物(derivative)」與用語「變體(variant)」同義使用，但通常係指相對於參考分子或起始分子以任何方式修飾及/或變化之分子。

因此，編碼相對於參考序列含有取代、插入及/或添加、刪除及共價修飾之肽或多肽的多核苷酸，特別是在本文中揭示之多肽序列係包括於本揭露之範疇內。例如，可添加序列標籤或胺基酸(諸如一或多個離胺酸)至肽序列中(例如在N端或C端)。序列標籤可用於肽偵測、純化或定位。離胺酸可用於增加肽溶解度或允許生物素化。替代地，可選地可刪除位於肽或蛋白質之胺基酸序列的羧基及胺基末端區域之胺基酸殘基，以提供經截短之序列。某些胺基酸(例如C端或N端殘基)可替代地取決於序列之用途而刪除，例如將序列表現為可溶性或連接至固體撐體之較大序列之一部分。當提及多肽時，「取代變體(substitutional variant)」係該些移除天然或起始序列中之至少一個胺基酸殘基並將不同胺基酸插入其相同位置處者。取代可為單一的，其中分子中僅一個胺基酸經取代，或取代可為多重的，其中相同分子中之二個或超過二個胺基酸係經取代。

在一些實施態樣中，突變體CMV gB多肽係相較於SEQ ID NO: 1缺乏一或多個下列結構域序列之經截短之多

肽：(1)結構域V(殘基124-344)、(2) MPR結構域(殘基705-750)、(3) TM結構域(殘基751-772)或(3) CT結構域(殘基773-907)。如本文中所使用，用語「經截短」表示序列遺漏構成如本文所示之結構域的一些或所有殘基。

如本文所述，CMV gB多肽包含下列結構域及殘基(SEQ ID NO:1)：(i)結構域I(殘基134-344)、(ii)結構域II(殘基121-133及345-436)、(iii)結構域III(殘基97-111、475-539及640-648)、(iv)結構域IV(殘基88-96、540-639及551-641)、(v)結構域V(殘基649-707)、(vi)近膜區(MPR)(殘基705-750)、(vii)跨膜結構域(TM)(殘基751-772)及(viii)細胞質結構域(CT)(殘基773-907)。在另一態樣中，CMV gB之胞外結構域包含SEQ ID NO: 1之殘基1-707或23-707(不含信號序列)。在另一態樣中，胞外結構域缺乏結構域V且包含殘基1-646或23-646(不含信號序列)。

實例

本發明進一步藉由下列例示性實例描述。實例不以任何方式限制本發明。它們僅用於澄清本發明。

實例1：以融合抑制劑單離及純化經交聯及天然HCMV gB(Towne株)

在樣本製備期間，將HCMV融合抑制劑(Bloom et al., *Bioorganic & Medicinal Chemistry Letters* 14 (2004) 3401-3406中描述之化合物28；亦見**圖5D**)添加至病毒濃縮、處

理、萃取及純化期間之各步驟以抑制gB轉化成融合後形式。

在病毒粒子表面上之蛋白與雙(磺琥珀醯亞胺)戊二酸酯(BS^{2}G)交聯並以清潔劑自病毒粒子萃取gB之後，添加SM5-1 His/Strep標籤Fab (Potzsch et al., *PLoS pathogens* 7(8):e1002172, 2011)以協助純化且藉由低溫電子顯微鏡識別gB。Fab-gB複合體係藉由親和力管柱純化。

接著這些經萃取及純化之蛋白係藉由低溫電子顯微鏡分析融合前gB之存在且用於解出融合前形式之結構。

實例2：電子顯微鏡

製備氧化石墨烯膜支持之電子顯微鏡網格。使用Vitrobot (ThermoFisher)，將gB樣本溶液玻璃化。將經冷凍之網格轉移至在300kV下操作之FEI Titan Krios穿透式電子顯微鏡。在SerialEM程式中設定目標位置，且程式使用K2直接偵測器相機(Gatan)使用超解析度影片模式自動收集高倍數(18000X)影像。未合併像素大小係0.638 Å且束強度係約8e/未合併像素/s。各影片在樣本上的總電子劑量係約40e/Å^2。在三次操作中收集總共7,771部影片，各具有28幀。

影像處理

使用MotionCor2程式進行漂移校正(Zheng S et al. *Nature Methods* 14, 331-332 (2017))，且自所有幀將最終顯

微圖像合併2X及平均。以Gctf (Kai Zhang, *Journal of Structural Biology* 193(1), 1-12 (2016))計算對比轉移函數參數。以粒子挑選而言，呈融合後構形之HCMV gB的公開結構(PDB:5CXF)係用於使用pdb2mrc (EMAN)產生30Å密度圖(Ludtke, S. et al. *Journal of Structural Biology* 128(1), 82-97 (1999))。以project3d (EMAN)自此密度圖產生投射影像(**圖1**)且用來作為使用Gautomatch程式之自動粒子挑選的模板(Urnavicius L, et al. *Science* 347(6229):1441-1446 (2015))。Relion v2.1-β (Scheres, S.H. *Journal of Structural Biology* 180(3): 519-530 (2012))係用於萃取所得約1.9百萬個粒子及進行所有後續影像處理步驟，包括2D分類、3D分類、自動精細化及後處理。基於影像特徵將2D類別分為三組：第一組由顯示相似於結晶學判定之融合後gB結構之特徵的2D類別組成(>50%)；第二組含有的2D類型具有不相似於來自融合後gB之結構特徵之清楚解出的蛋白特徵(<10%)；第三組含有的2D類型不含有清楚定義之蛋白(約40%)(**圖1**)。第一組及第二組進一步經Relion之3D分類、自動精細化及後處理程序處理。在此處理之後，約3.5 Å解析度電子密度圖顯示自第一組重構融合後構形結構；約3.6 Å解析度電子密度圖顯示自第二組重構融合前構形結構。基於這些密度圖及已知的HCMV gB胺基酸序列(Towne株P13201，SEQ ID NO:1)，以Coot程式(Emsley P. et al *Acta Crystallogr D Biol Crystallogr* 66(Pt 4): 486-501 (2010))建立融合前及融合後構形結構的原子模型。融合後

gB晶體結構(PDB編號5CXF)及SM5-1 fab與gB結構域II之間的複合體之晶體結構(PDB編號4OT1)係用來作為兩種結構的初始模型。以融合後結構模型而言，微小調整足以獲得電子密度之良好擬合。以融合前構形模型而言，可將來自參考PDB模型之結構域I、II、III及IV作為剛體對接至電子密度圖作為起始點。接著，進行個別殘基之調整以達最佳擬合。重新建立結構域V、MPR及TM之模型。模型以Phenix.real_space_refine工具(Afonine PV et al. *Acta Crystallogr D Struct Biol* 74(Pt 6): 531-544 (2018))反覆精細化，隨後局部手動調整數個回合。

結果

藉由cryoEM篩選樣本

gB之融合前構形係不穩定的，傾向於重排成融合後狀態，包括在樣本操作期間。因此，所研究之樣本含有gB構形異構物之混合物，使結構判定複雜化。此外，關於融合前gB之結構域排列或獨特結構特徵並無既有的可靠資訊。我們使用電子顯微鏡直接目視及影像處理以篩選不同的樣本製備條件。藉由2D及3D分類之影像分選允許自異質性樣本判定多個結構。然而，其需要大型資料集，以使各結構之足夠粒子可經組合以產生具有良好信號之類別平均。此對於gB樣本而言特別為真，因為融合前gB係混合物中之小型族群。因此，我們收集各條件約1,000部影片，並決定是否以來自相同樣本之更多資料進行影像處理或在2D

分類階段切換至另一者。經抗體Fab結合之融合後構形gB的結構係輕易獲自許多資料集。使用來自這些經Fab結合之融合後構形結構的投射影像作為參考以避免選擇用於融合前影像重新建構之影像。我們選擇具有不相似於任何融合後gB投射影像之蛋白特徵的任何良好類別平均以進一步影像處理。我們用此策略篩選數十個樣本製備條件且最終找到產生一些替代2D類別作為粒子族群中之次要物種的樣本(**圖1B**，經圈選)。接著自該樣本收集總共7,771部影片並用於判定融合前gB結構。

經抗體Fab結合之融合後gB結構的投射影像顯示於**圖1A**。來自所收集之資料集的2D類別平均顯示於**圖1B**。圈選一些不相似於任何融合後gB參考2D投射的類別。

獲得融合前構形結構

自資料集自動選擇大約1.9百萬個原始粒子影像。在2D分類之後，將影像分組成融合後類別(55%之粒子族群)及融合前類別(10%之粒子族群)。進一步在3D中施用C3對稱處理二組以產生經SM5-1 Fab結合之融合後gB在3.5 Å解析度下的密度圖及經SM5-1 Fab結合之融合前gB在3.6 Å解析度下的密度圖。

將SM5-1 Fab及融合後gB之胞外結構域的基於X射線結晶學之模型擬合至經剛體對接之融合後密度圖。除了Fab之恆定結構域以外(其可能太過可撓以致無法生產強烈電子密度)，融合後gB-Fab複合體之密度圖與模型彼此高

度同意(**圖3A**)。近膜區、跨膜區及細胞質結構域在我們的最終融合後gB密度圖中未解出，表示融合後gB之這些區域本質上係可撓的或在樣本製劑中經由清潔劑溶解化(**圖2**，底線)。Fab與融合後gB之DII在基於低溫電子顯微鏡之模型中之交互作用與先前判定之複合體的晶體結構(PDB編號4OT1)高度同意。為了建立藉由已知Fab結合位置引導之融合前gB模型，將來自融合後gB晶體結構之結構域I、II、III及結構域IV之一部分個別對接至融合前gB-Fab複合體之密度圖且視需要手動調整個別殘基以最佳擬合電子密度。重新建立剩餘的融合前gB結構。建模於融合前結構之gB的胺基酸係指示於**圖2**之上方行。融合前gB-Fab複合體之模型擬合融合前密度圖的大多部分，且Fab密度之存在證實gB在新穎結構中之身份(**圖3B**)。

與本實例相關聯之融合前gB的模型之座標及結構因子係提供於**表1A**。

呈融合前構形之gB的結構及與融合後gB之比較

融合前gB與SM5-1 Fab之複合體的電子密度允許建立包括gB胞外結構域、近膜區(MPR -方向平行於病毒膜之螺旋區)及單跨跨膜螺旋(TM)之融合前gB模型(**圖3B**及**圖4B**)。MPR及TM區並未在融合後gB之結構資料中解出或包括於融合後gB模型中。

融合前及融合後gB之整體尺寸不同(**圖4A**對比**圖4B**)。融合後gB三聚體胞外結構域具有桿形狀，大約高度為

165Å (由在膜遠端之各原聚體的脯胺酸570及在膜近端之各原聚體的色胺酸240所形成的平面之間的距離；**圖4A**)。其寬度大約為65Å(相鄰原聚體上之丙胺酸315之間的距離)。此處描述之結構係衍生自HCMV Towne株之gB。雖然gB胺基酸序列有一些天然變異，但Towne gB之整體融合後結構與來自病毒株AD169之gB的融合後結構(PDB編號5CXF)幾乎同一。因此，融合後gB結構之說明適用於兩個病毒株，具有從來自序列比對之等效胺基酸的測量值。

融合前gB三聚體比起融合後gB三聚體具有較為矮胖的形狀(**圖4A**對比**圖4B**)。由各原聚體之W240及融合前結構中最遠離膜的建模殘基Q483形成的平面之間的距離大約為115Å。融合前模型的寬度係95Å(由來自不同原聚體之任二個A315之間的距離測量)。

融合前及融合後構形中之結構域I、II、III及IV的個別次單元結構類似。然而，這些結構域在二種構形中的整體排列非常不同(**圖4A至圖4B**及**圖6A至圖6C**)。在融合前構形中，DI尖端之融合圈及結構域III之中央螺旋束之C端皆指向相同方向，朝向如由TM區之位置所識別之病毒粒子封套(**圖4A**及**圖6A**)。相對地，在融合後構形中，融合圈及中央螺旋束之C端指向相反方向(**圖4B**及**圖6C**)。

在融合前結構中，融合圈中之疏水性殘基(殘基Y155、I156、H157及W240、L241)係與MPR靠近且有可能被清潔劑環繞(**圖4A**及**圖6A**)。

在自融合前至融合後的轉變中，結構域II從結構域III

中央捲曲螺旋中間高度的位置轉換至捲曲螺旋之近膜端處及靠近融合圈相反之結構域I末端處的位置(**圖4A**及**圖4B**)。

DIII之結構(**圖4A至圖4B**及**圖6A至圖6C**)在融合前及融合後構形中非常類似。兩種構形中的中央螺旋橫跨L479至P525，指示在融合前至融合後轉變期間的最小重排。然而，其他結構域相對於結構域III之中央螺旋改變位置，使得如上所述之DIII螺旋束之方向(從N端至C端)遠離融合圈指向呈融合後構形之三聚體的遠端且朝向病毒膜(與融合前構形中之融合圈方向相同)。

在融合前結構中，結構域IV(**圖4A**及**圖6A**)係包埋在結構域I(位於三聚體外部)與結構域III及V(位於三聚體中央)之間的界面。相對地，在融合後結構中，結構域IV形成位於三聚體之遠膜尖端處的高度暴露「冠」。

結構域V在融合前gB(**圖4A**及**圖6A**)及融合後gB(**圖4B**及**圖6C**)中具有不同結構。在融合前gB中，結構域之N端半(約殘基642-660)夾在相鄰原聚體之結構域I與結構域IV之間且不與溶劑接觸。結構域V之殘基683-704之間的區域與其他原聚體中之其對應體形成三聚體螺旋束。此螺旋束大部分位於由結構域IV所形成之「冠」的囊袋內。有額外短螺旋(大約殘基710-719)連接來自結構域V之螺旋束至MPR區。相對地，在融合後構形(**圖4B**及**圖6C**)中，結構域V暴露於溶劑且沿著結構域III螺旋束之外側及相鄰原聚體之結構域I之間的界面所形成之溝槽延伸。

融合前及融合後gB結構之比較建議可從其他廣為研究之融合蛋白熟悉之構形變化之進展(Harrison, S.C. *Virology* 0:498-507 (2015))。該比較提供本發明描述之結構事實上係呈融合前構形之信心。在融合前狀態(**圖6A**)中，結構域I之融合圈係藉由與MPR及潛在地與病毒膜之交互作用包埋。在遠距gB同源物水泡性口腔炎病毒G糖蛋白之融合前結構中，融合圈亦指向病毒膜(亦為MPR區之預期位置，其未見於該結構中)(Roche et al. *Science* 315:843-8 (2007))。

基於與其他融合蛋白之類似性，很有可能的是重排隨著中央螺旋的延長進行，該中央螺旋的延長作為轉變至介於融合前與融合後狀態之間的提議延伸中間物的一部分(**圖6B**)。在提議延伸中間物狀態中，TM區仍將錨定於病毒膜，而現在延伸遠離病毒膜且在經旋轉及易位之結構域I尖端處的融合圈將與細胞膜交互作用。從提議延伸中間物至融合後構形的轉變將涉及向後摺疊，以使跨膜區及融合圈再次在分子的同一端彼此靠近，這一次兩者皆與經融合之病毒及細胞膜交互作用(**圖6C**)。

我們推測在融合前gB中，中央螺旋之長度可能有動態變化，其中我們判定之融合前結構代表「呼吸」分子之「快照」，其藉由製備低溫電子顯微鏡研究樣本所使用之融合抑制劑及交聯劑被鎖在我們在電子密度中見到之構形中。

觀察到的融合前構形之穩定用因子

在將gB胺基酸建模成電子密度圖之後，在MPR、結構域V與含有融合圈之結構域I尖端之間維持未被胺基酸殘基填滿之密度區(**圖5A**)。未填滿之密度的大小及形狀擬合HCMV融合抑制劑N-{4-[({(1*S*)-1-[3,5-雙(三氟甲基)苯基]乙基}胺甲醯硫基)胺基]苯基}-1,3-噻唑-4-羧醯胺之化學結構(**圖5D**)，其存在於低溫電子顯微鏡研究樣本的整個生產中(**圖5B**)。該化合物採用在三氟甲基苯基部份與剩餘化合物之間具有扭結的姿勢。噻唑與來自相鄰原聚體之L712、A738及Y153、Y155疏水性殘基形成接觸。苯基被環繞在由相鄰原聚體之L715之殘基、來自結構域V之D714的脂族烴、來自MPR之G734及I730及來自TM結構域的F752所形成之疏水性環境中。三氟甲基苯基殘基位於靠近介於來自另一原聚體之MPR與TM螺旋之間的鉸鏈之疏水性環境中。其可作用為鉤子以預防MPR及TM結構域向外移動。除了由抑制劑化合物協調之交互作用以外，來自其他融合圈之W240、Y242分別與來自MPR區之疏水性區塊及結構域V中之L715形成凡得瓦交互作用。(**圖5C**)。預期這些在融合抑制劑周圍之特異性交互作用可將結構域I、結構域V及MPR固持在一起並限制移動結構域I、結構域V及MPR在融合過程期間移動(**圖6A至圖6C**)。

亦測試交聯對於融合前構形之穩定性的效應。在樣本製備步驟期間，添加或不添加BS^2G交聯試劑。在交聯劑不存在下，呈融合前對比融合後構形之粒子的比例係

1:100，然而經BS^{2}G試劑交聯之樣本中的比例係1:4。交聯劑無法以電子密度識別。

如本文圖式所示之CMV gB之融合前結構及彩色版本之融合前及融合後結構亦可見於Liu et al. *Science Advances* 7(10): eabf3178 (2021)，其全文特此以引用方式併入本文中。

實例3：表現及純化gB1666

以生產gB1666而言，將PSB1666建構體暫時轉染至Expi293F細胞中。在轉染後96小時收集細胞團塊。PSB1666蛋白係以25mM HEPES pH 7.5、250mM NaCl、0.02% DDM、0.002% CHS、3μg/ml WAY-174865(抑制劑，見**圖5D**)經由一系列或過程的溶解化、親和力管柱及粒徑排阻層析法純化。蛋白質在SDS-PAGE上分析且藉由EM負染色以確保至少50%之蛋白展示融合前構形。PSB1666蛋白在Expi293F細胞轉染中有效率表現且1L表現將產生約0.1mg之經純化之高品質PSB1666。

多肽gB1666 (PSB1666) (SEQ ID NO: 57)包括結構域I及IV中之突變。多肽相對於如SEQ ID NO: 1所示之對應野生型gB (Towne)包括下列突變：D217C及Y589C。

實例4：DNA表現之gB1666在Balb/c小鼠具免疫原性

一種提議經穩定之全長融合前gB建構體gB1666 (SEQ ID NO: 57)已由EM顯示在融合抑制劑(WAY-174865；見**圖**

5D)存在下自經轉染的哺乳動物細胞純化後相對於Towne株之野生型gB具有增加比例之分子呈融合前構形。為了評估此分子是否可誘發活體內免疫反應，將對應gB1666及野生型gB之DNA序列選殖至實驗室內部哺乳動物表現載體中。將十隻Balb/c小鼠以100 ug之編碼gB1666之DNA以三週間隔(D0及D21)電穿孔二次。額外10隻小鼠藉由相同規程以編碼野生型gB之DNA電穿孔，且第三組以由磷酸鹽緩衝鹽水所組成之安慰劑電穿孔。在第28天收集血清樣本。基於Towne株之野生型序列但移除跨膜結構域(Sino Biologicals)實施針對自哺乳動物細胞生產之重組gB蛋白之ELISA以根據標準規程判定抗gB IgG反應。十隻來自經野生型gB DNA免疫之小鼠動物中的十隻及十隻經gB1666 DNA免疫之小鼠中的九隻產生可偵測之抗gB IgG力價(**圖11**，顯示平均± SD，LLOQ = 25)。本研究顯示gB1666在Balb/c小鼠具免疫原性。

實例5：經穩定之融合前gB1666蛋白的免疫原性研究

GB1666在小鼠的免疫原性研究。為了評估小鼠的抗體反應，將遵照下列免疫接種方案。在第8週，將小鼠放血且測定來自經免疫之動物血清的中和力價並與該些經gB705(融合後)及/或gB野生型蛋白免疫者比較。

表 5. 使用gB1666蛋白之小鼠免疫原性研究設計

組別	小鼠數量	免疫原	佐劑	途徑	投藥計畫
1	10	gB705 (融合後) (1.25 mcg/0.2ml)	-	0.2ml/SC	第 0、3、6 週
2	10	gB705 (融合後) (0.25 mcg/0.2ml)	-	0.2ml/SC	第 0、3、6 週
3	10	gB1666 (在含有抑制劑之緩衝劑中) (1.25 mcg/0.2ml)	-	0.2ml/SC	第 0、3、6 週
4	10	gB1666 (在含有抑制劑之緩衝劑中) (0.25 mcg/0.2ml)	-	0.2ml/SC	第 0、3、6 週
5	10	gB wt (在含有抑制劑之緩衝劑中) (1.25 mcg/0.2ml)	-	0.2ml/SC	第 0、3、6 週
6	10	gB wt (在含有抑制劑之緩衝劑中) (0.25 mcg/0.2ml)	-	0.2ml/SC	第 0、3、6 週
7	5	緩衝劑(+抑制劑)	-	0.2ml/SC	第 0、3、6 週
8	5	僅緩衝劑	-	0.2ml/SC	第 0、3、6 週

實例 6

在實例2中，我們揭示融合前人巨細胞病毒(HCMV) Towne株糖蛋白B (gB)與抗體片段複合之低溫電子顯微鏡(cryoEM)結構。用於結構測定之gB係藉由下列獲得：添加小分子融合抑制劑WAY-174865至真正HCMV於哺乳動物細胞培養中之醱酵液且在gB整個生產及分析中維持抑制劑之存在；純化病毒、以化學交聯劑雙(磺琥珀醯亞胺)戊二酸酯(BS^2G；7.7Å間隔子臂)處理病毒；使用清潔劑自病毒萃取gB；使用親和力標籤抗體片段結合在病毒粒子上之gB；及藉由親和力及粒徑排阻管柱純化gB。我們亦揭示使用融合前gB cryoEM結構來工程改造將呈融合前狀態之

gB穩定的突變。具體而言，我們揭示重組gB蛋白gB1666，其中二個殘基經突變為半胱胺酸(D217C、Y589C)。在C217與C589之間所導致形成的經工程改造雙硫鍵增加呈融合前狀態之重組gB的構形穩定性。當gB1666在Expi293F細胞中表現且在融合抑制劑化合物WAY-174865存在下純化時，其維持融合前結構特徵。在抑制劑不存在下，gB1666易於經歷構形變化且失去其融合前結構狀態。在抑制劑不存在下失去融合前構形穩定性不是使用重組糖蛋白作為用於免疫接種之抗原之所欲特徵。即使將gB1666與抑制劑調配，但在注射至人或動物後，仍有活體內稀釋抑制劑導致其自gB1666解離且失去gB1666之融合前構形之風險。因此，所欲的是HCMV gB的融合前構形經足夠穩定以在WAY-174865不存在下維持融合前狀態。亦較佳的是融合前gB免疫原包括可溶性胞外結構域以改善可製造性、改善溶解度、改善均質狀態及減少或清除以清潔劑或其他賦形劑調配之需求以預防由gB跨膜區媒介之聚集或沉澱。

我們現在經由基於結構之工程改造方案報告本發明之HCMV gB中之新穎突變，該新穎突變授予這些使用融合前gB作為免疫原之改善特徵。首先，我們藉由cryoEM測定gB1666之結構，gB1666係藉由錨定在奈米圓盤來溶解且藉由WAY-174865之存在以融合前構形穩定(**圖12**)。重組D217C及Y589C突變體gB之新穎結構大多與我們先前測定之病毒粒子衍生性、經化學交聯及抗體片段結合之HCMV

Towne融合前gB的結構類似，但在某些局部區域中這二個結構之間有微小差異。結構差異可反映數個製劑差異：第一，gB1666中存在經工程改造雙硫鍵，此限制糖蛋白之呼吸動作；第二，gB1666錨定在奈米圓盤，此比起在先前結構測定中用於萃取及維持gB在溶液中之清潔劑提供較為天然的局部脂質環境給跨膜結構域 ；第三，gB1666之化學交聯不存在；第四，相較於先前結構之3.6Å解析度，新穎結構在3.3Å下之較高解析度允許更正確的胺基酸側鏈建模。

基於新穎結構資訊，我們在全長gB建構體pSB1666的背景上設計了額外穩定用突變(**表6**及**表7**)。我們假設在pSB1666背景上添加這些額外突變將進一步穩定呈融合前狀態之gB(**圖13**)。例如，在殘基M371及W506處之半胱胺酸突變可在結構域II與III之間導入雙硫鍵；在成對(F541, E681)及(N524,M684)處之半胱胺酸突變可在結構域IV與V之間導入雙硫鍵；殘基E686、D679突變為疏水性殘基可移除局部去穩定化相同電荷互斥區塊且增加蛋白質穩定性。具有選擇的新穎、添加突變之重組糖蛋白係在融合抑制劑不存在下且無化學交聯下表現及純化。經表現之糖蛋白的SDS-PAGE電泳移動性顯示與糖基化一致之預期表觀分子量及異質性(**圖14**)。將樣本儲存在4 ℃下，並在第1天及第7天採集等分試樣進行負染色電子顯微鏡分析。在2D類別平均影像中，相似於gB融合前構形之「俯視圖」的三角形形狀特徵係清晰可見的。屬於融合前及融合後類

別之族群中粒子的比例在第1天係5:1且第7天係3:1(**圖15**)。

基於新的結構資訊，我們設計數種如**圖16A至圖16D**所示之具有融合前穩定用突變之可溶性、無清潔劑gB胞外結構域(**表8**)。經純化之HCMV gB胞外結構域殘基1-707形成玫瑰花簇樣聚集體，其中gB蛋白經由彼等之暴露融合圈相連。為了清除聚集及增加蛋白分泌至條件培養基，我們將融合圈內四個暴露的疏水性殘基置換為來自單純疱疹病毒1 (HSV-1) gB之對應更具親水性胺基酸，例如YIH (155-157)→GHR、W240→A。我們亦使暴露的Cys246突變為Ser (C246→S)以預防虛假雙硫鍵形成。為了進一步穩定抗原的融合前三聚體狀態，我們導入能夠形成原聚體間雙硫鍵之半胱胺酸殘基或附加C端三聚模體例如來自T4-噬菌體纖維蛋白之GCN4或摺疊子。進一步導入雙硫鍵突變(例如D217C-Y589C、M317C-W506C、N524C-M684C)以將蛋白鎖在融合前狀態。重組糖蛋白係在融合抑制劑不存在下且無化學清潔劑下表現、分泌至條件培養基且經純化。值得注意的是，融合至GCN4三聚模體之重組變體顯示最佳粒徑排阻層析法輪廓(**圖17**)。負染色電子顯微鏡顯示重組蛋白gB2555及gB2556在抑制劑及清潔劑不存在下為單分散蛋白。在2D類別平均影像中觀察到預期gB蛋白特徵(**圖18**及**圖19**)。這些結果證實這些經工程改造之建構體適合作為架構使用以在需要時添加更多穩定用突變而朝在抑制劑及清潔劑不存在下之gB之融合前形式。

與本實例相關聯之融合前gB的模型之座標及結構因子係提供於**表1B**。

表6. 用於雙硫鍵穩定化之例示性半胱胺酸對突變

列	突變
1	D217C, Y589C
2	I356C, A500C
3	S367C, A500C
4	S367C, A503C
5	M371C, A505C
6	M371C, W506C
7	T374C, A503C
8	Y160C, Y708C
9	L162C, M716C
10	N524C, M684C
11	G99C, A267C
12	T100C, R258C
13	T221C, E657C
14	S223C, T659C
15	F541C, E681C
16	L603C, Y667C
17	N605C, K670C
18	R607C, N688C
19	E609C, K691C

表7. 用於穩定化之例示性帶電突變

列	突變
1	E686L
2	E686I
3	D679A
4	R354F
5	R573F
6	D101L, K260L

表8. 建構體突變。

建構體	突變1	突變2	突變3	突變4
pSB1688	N524C	M684C		
pSB2455	M371C	W506C		
pSB2456	F541C	E681C		
pSB2457	D217C	Y589C	M371C	W506C
pSB2459	D217C	Y589C	N524C	M684C
pSB1666	D217C	Y589C		

如**表8**所示之建構體係出於不同條件下測試融合前gB在經純化之重組蛋白製劑中的存在之目的製造。

表9. 例示性可溶性、無清潔劑gB胞外結構域蛋白

代碼	gB*	突變	C端融合序列
gB707	gB (1-707)	D217C, Y589C	
gB2264	gB (1-707)	D217C, Y589C, D703C, P704C	
gB2265	gB (1-707)	D217C, Y589C, Y696C, V697C	
gB2266	gB (1-702)	D217C, Y589C	RIKQIEDKIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 272)
gB2267	gB (1-702)	D217C, Y589C	KIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 269)
gB2268	gB (1-702)	D217C, Y589C	KIYHIENEIARIKKLIG (SEQ ID NO: 273)
gB2269	gB (1-703)	D217C, Y589C	LSAIGGYIPEAPRDGQAYVRKDGEWVLLSTFL (SEQ ID NO: 274)
gB2555	gB (1-702)	D217C, M371C, W506C, Y589C	KIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 269)
gB2556	gB (1-702)	D217C, N524C, Y589C, M684C	KIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 269)
gB2557	gB (1-707)	D217C, N524C, Y589C, M684C, D703C, P704C	

*突變包括YIH (155-157) →GHR、W240→A及C246→S被併入gB以降低聚集及增加蛋白分泌。

實例7：工程改造經穩定之融合前gB的整體策略

為了工程改造經穩定之融合前gB，使用二種策略：

i)第一策略係強化融合前結構中之交互作用，其包括

工程改造在融合前結構中靠近的殘基之間的雙硫鍵及在不破壞分子其他部分的結構下移植穩定結構模體至C端；及

ii)第二策略係自融合前構形移除不利能量局部結構。這些包括：(a)移除表面暴露疏水性殘基、(b)將圈區域中之脯胺酸改變為非脯胺酸及親水性殘基及(c)移除且工程化結構域V，其在融合過程期間經歷巨大構形變化。此類設計之組合係用於獲得融合前gB之足夠穩定化。藉由進行此類經設計之突變的蛋白於粒徑排阻層析法(SEC)之性質、熱熔測定(TM)及彼等之電子顯微鏡影像(EM)特徵，對彼等個別純化及篩選。

針對CMV gB全長融合後建構體pSB1764篩選一組突變體半胱胺酸對建構體。以第一回合而言，各新穎建構體包括一對突變體半胱胺酸。**表10**係經篩選之突變體的完整清單。

表10：在全長CMV gB上篩選之一對雙硫鍵突變體清單

融合後**gB**全長建構體	pSB1764
建構體架構	CMV gB HAss FLAG / V23..V907 (ACM48044.1) I675S / 凝血酶 His6 StrepTagII ** 於 pcDNA3.1(+) 中

建構體名稱	突變**1**	突變**2**
pSB01579	G99C	A267C
pSB01581	T100C	S269C
pSB01582	Q98C	G271C
pSB01656	M96C	D660C
pSB01657	Q98C	N658C
pSB01658	T100C	R258C
pSB01659	T100C	L656C
pSB01660	T100C	N658C
pSB01662	I117C	S407C
pSB01663	Y153C	L712C
pSB01664	L162C	M716C
pSB01665	D217C	S587C
pSB01666	D217C	Y589C
pSB01667	S219C	F584C
pSB01668	S219C	A585C
pSB01669	S219C	N586C
pSB01671	S223C	T659C
pSB01672	W240C	A732C
pSB01673	W240C	G735C
pSB01674	Y242C	V728C
pSB01675	Y242C	G731C
pSB01678	S269C	N658C

pSB01679	D272C	P614C
pSB01680	V273C	V629C
pSB01681	W349C	A650C
pSB01682	S367C	A500C
pSB01683	S367C	A503C
pSB01684	K370C	Q501C
pSB01686	I523C	I683C
pSB01687	I523C	M684C
pSB01688	N524C	M684C
pSB01691	F541C	L680C
pSB01692	L548C	P655C
pSB01693	A549C	N658C
pSB01694	S550C	P655C
pSB01695	S550C	E657C
pSB01696	Q591C	S668C
pSB01697	L603C	Y667C
pSB01698	G604C	L672C
pSB01699	R607C	N688C
pSB01700	T608C	Q692C
pSB01702	E610C	S674C
pSB01703	E610C	S675C
pSB01704	Q612C	V663C
pSB01705	V737C	F755C
pSB01707	V741C	F755C
pSB01708	D679S	N/A
pSB01709	D679N	N/A
pSB01712	E686S	N/A
pSB01713	E686Q	N/A
pSB01715	D646P	N/A
pSB02041	E686F	N/A
pSB02043	E686I	N/A
pSB02044	E686V	N/A

從篩選判定半胱胺酸對D217C-Y589C (pSB1666)與抑制劑WAY-174865之組合穩定呈融合前狀態之CMV gB。

在融合抑制劑存在下，建構體gB1666(藉由突變D217C及Y589C工程改造雙硫鍵)顯示SEC滯留體積向右偏移及在約73℃下之明顯相變溫度，指示與野生型gB不同構形(**圖22A及圖22B**)。進一步藉由EM成像實驗表徵gB1666。從cryoEM資料集2D分類結果來看，觀察到融合前類別係顯性族群且3D結構密度圖確認融合前gB結構(資料未顯示)。然而，在抑制劑不存在下，SEC之向右偏移尖峰及在約73℃下之相變溫度尖峰較不明顯(**圖23**)。此建議單一雙硫鍵保留gB1666呈融合前狀態之效應有限。

因此，在gB1666之架構下篩選第二回合的突變以在抑制劑不存在下產生融合前構形之進一步穩定性(**表11**)。選殖及篩選新穎突變體組，其中第二半胱胺酸對係經導入至建構體pSB1666中。目的是添加另一穩定用雙硫鍵，以進一步穩定呈融合前狀態之CMV gB。

表11：在全長CMV gB上篩選之二對雙硫鍵突變體清單

全長融合前建構體	pSB1666
建構體說明	CMV HAss FLAG / V23..V907 (ACM48044.1)[**D217C-Y589C**] I675S / 凝血酶 His6 StrepTagII ** 於 pcDNA3.1(+)中。

建構體名稱	突變 1	突變 2
pSB02145	T100C	N658C
pSB02146	S367C	A500C
pSB02147	D272C	P614C
pSB02148	S219C	F584C
pSB02149	E686V	
pSB02191	D217C	F584C
pSB02193	D217C	N586C
pSB02194	D217C	S588C
pSB02195	S219C	S587C
pSB02196	S219C	S588C
pSB02197	S219C	Y589C
pSB02455	M371C	W506C
pSB02456	F541C	E681C
pSB02457	M371C	W506C
pSB02459	N524C	M684C

從此篩選判定半胱胺酸對D217C-Y589C與對M371C-W506C (pSB2457)或對N524C-M684C (pSB2459)之組合在不需要穩定用抑制劑下穩定呈融合前狀態之CMV gB。gB2457及gB2459蛋白顯示和融合前形式(gB1666 +抑制劑)類似之SEC輪廓及TM結果(**圖24A至圖24B**)。在熱穩定性測定中，gB2457在約73℃下具有更明顯的相變(**圖24B**)。此外，gB2457及gB2459兩者皆在負染色EM 2D類別平均影像中顯示融合前gB特徵(資料未顯示)。在融合抑制劑不存在

下，gB2457及gB2459比起它們的親代設計即gB1666代表更穩定版本的融合前gB。此類改善亦證實穩定用突變位點之正確組合可協同性貢獻融合前構形之整體穩定性。

與融合前gB之全長及膜結合形式比較，可溶性格式融合前gB不需要清潔劑，從而提供蛋白質生產規模可擴充性及易於純化之優點。基於已知結構，來自gB之膜交互作用結構域係近膜區(MPR)、跨膜(TM)結構域及融合圈。細胞質尾結構域亦可與胞質液側的膜交互作用。因此，這些膜交互作用疏水性區域被移除或轉換成可溶性形式融合前gB之設計中的親水性類型。此外，結構穩定之三聚標籤(例如GCN4、半胱胺酸環、三聚體摺疊子)被添加至MPR結構域之前經截短的蛋白羧基端。在選擇GCN4標籤(gB2267)作為胞外結構域建構體架構之前測試數種截短設計。在此胞外結構域架構上製造自全長架構識別之穩定用突變位點並篩選(**表12**)。

在所得gB2555及gB2556(彼等係在純化之後行為良好之蛋白質)中(**圖25A**)，在較低溫度約73°下之相變尖峰並不明顯(**圖25B**)。但來自負染色EM影像之2D分類指示融合前及融合後兩種形式皆存在(資料未顯示)且胞外結構域融合前gB仍需進一步穩定化。第三對雙硫鍵係pSB2556背景上篩選(**表12**)，但未觀察到大幅改善。

表12. 具有三個雙硫鍵對之胞外結構域CMV gB突變體

胞外結構域建構體	pSB2556
建構體說明	pSB2556:CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH 至GHR (155-157)**[D217C-Y589C] [N524C-M684C]** W240A C246S I675S / GCN4 CC tri2 **於 pcDNA3.1(+) 中。

建構體名稱	突變1	突變2
pSB2558	I356C	A500C
pSB2559	S367C	A500C
pSB2560	S367C	A503C
pSB2561	M371C	A505C
pSB2562	M371C	W506C
pSB2563	T374C	A503C
pSB2564	G99C	A267C
pSB2565	T100C	R258C
pSB2567	L603C	Y667C
pSB2568	N605C	K670C
pSB2570	E609C	K691C
pSB2571	T221C	E657C
pSB2572	S223C	T659C

由於結構域V經歷巨大構形變化且預期提供能量以驅動病毒及宿主細胞之間的膜融合，因此新方案係自胞外結構域gB移除結構域V。選擇SB2562作為起始建構體(**表13**及**表14**)。

表13. 額外胞外結構域設計

pSB2795	CMV HAss FLAG / V23..D646 gB CMV (ACM48044) YIH 至 GHR (155-157) D217C W240A C246S M371C N524C W506C Y589C I675S **於 pcDNA3.1(+)中。
pSB2797	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH 至 GHR (155-157) 648 MIALDI 至 GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C / GCN4 CC tri2 **於 pcDNA3.1(+)中。
pSB2968	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) PI116117GS YIH 至 GHR (155-157) 648 MIALDI 至 GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C / GCN4 CC tri2 **於 pcDNA3.1(+)中。
A	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH 至 GHR (155-157) 648 MIALDI 至 GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C R693V, 最後 res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG **於 pcDNA3.1(+)中
B	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH 至 GHR (155-157) 648 MIALDI 至 GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C R685A R693V,最後 res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG **於 pcDNA3.1(+)中
C	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH 至 GHR (155-157) 648 MIALDI 至 GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C F678S, L680T R693V,最後 res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG **於 pcDNA3.1(+)中
D	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH 至 GHR (155-157) 648 MIALDI 至 GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C P655S R693V,最後 res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG **於 pcDNA3.1(+)中

其中的一個設計移除整個結構域V，其中在D646之後的殘基經截短。由於不再能夠在N524C及M684C處形成二硫化物對，因此將N524C回復成其野生型天冬醯胺酸殘基(N)以移除游離半胱胺酸(pSB2796)(**表14**)。此建構體被命名為gB2796且顯示在SEC輪廓中為單一尖峰且具有在約70℃下之明顯相變溫度之行為良好蛋白質(**圖26A及圖26B**)。從cryoEM資料集，2D類別平均顯示對應於來自胞外結構域融合前gB之模型的結構特徵之清楚預期蛋白密度。3D重新建構密度封套亦對應於預期胞外結構域結構。(資料未顯示)。

表14. 具有雙硫鍵對之結構域V經截短之胞外結構域CMV gB突變體

CMV胞外結構域gB融合前	pSB2796
說明	CMV HAss FLAG / V23..**D646** gB CMV (ACM48044) YIH 至 GHR (155-157) [**D217C-Y589C**] [**M371C-W506C**]W240A C246S I675S ** 於 pcDNA3.1(+)中。

將建構體pSB2796重新設計成用於動物研究之不同N端標籤版本(**表15**)。將Flag標籤換成6xHis標籤，其較適用於純化規模擴大。亦產生未經標籤之版本。亦將HA信號序列置換成IgK信號序列，因為其與His標籤較為相容。

表15. CMV gB胞外結構域融合前小鼠研究的建構體設計

pSB3075	CMV: IgKss **6xHis rTEV** / V23..D646 gB CMV (ACM48044) YIH 至 GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S **於 pcDNA3.1(+)中。
pSB3076	CMV: IgKss **6xHis PP** / V23..D646 gB CMV (ACM48044) YIH 至 GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S **於 pcDNA3.1(+)中。
pSB3077	CMV: IgKss **6xHis** / V23..D646 gB CMV (ACM48044) YIH 至 GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S **於 pcDNA3.1(+)中。
pSB3078	CMV: IgKss/ V23..D646 gB CMV (ACM48044) YIH 至 GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S **於 pcDNA3.1(+)中。

這些資料顯示融合前gB係亞穩定且需要在多個位點之穩定用突變以達成足夠限制以維持其融合前結構。雙硫鍵及不穩定結構域V修飾之組合提供鎖住融合前構形之實例。經穩定之gB可經工程改造為全長(gB1666、gB2457、gB2459)及胞外結構域蛋白格式(gB2796)，其適用於作為融合前gB抗原使用。此外，SEC、熱偏移測定及EM成像方案提供在不需要融合前或融合後特異性抗體下評估gB樣本之構形狀態之方法。

方法

半胱胺酸突變體建構體設計及選殖

將所有建構體選殖至pcDNA3.1(+)載體主鏈(ThermoFisher Scientific, Waltham, MA)中。自IDT(Coralville, Iowa)訂購各含有半胱胺酸點突變之引子。使用QuikChange多定點突變形成套組(Agilient, Santa Clara, CA)實施定點突變形成。將突變形成DNA轉形至DH5 α細胞中。選擇群落並寄送以定序。陽性轉形物係藉由DNA定序分析證實。使用DNA製備套組擴增質體DNA。

哺乳動物細胞表現

使EXPI293細胞生長至OD為3 x 10^6個細胞/mL。質體DNA用OptiMem培養基稀釋並以PEI溶液1:1混合。接著將DNA-PEI混合物以1ug DNA /mL培養液之濃度轉染至EXPI293細胞。在轉染後24小時添加增強子。監測細胞並在轉染後4至5天藉由離心收集。

蛋白純化

CMVgB蛋白係經由一系列或過程的溶解化、親和力管柱及粒徑排阻層析法(SEC)純化。SEC係在Superose6 increase管柱上於緩衝劑25 mM HEPES pH 7.5, 250 mM NaCl, 0.02% DDM, 0.002% CHS中運行。以含有抑制劑之實驗而言，添加3ug/ml WAY-174865。

熱穩定性測定

作為gB突變體之互補生物物理學研究以幫助識別融合

前穩定突變體，經純化之gB蛋白的熱穩定性係在Tycho NT.6上以20℃/min加熱速率自35℃至95℃分析。

負染色網格製備

薄碳支持網格在使用前藉由EZ輝光以-20mA電流輝光放電30秒。將蛋白濃度0.02mg/ml之4ul樣本溶液等分試樣施用至網格碳表面並靜置45秒。接著用濾紙吸掉樣本溶液且用過濾水潤洗相同碳表面並用濾紙吸掉多餘的水。網格以2%乙酸氧鈾溶液染色且在裝載至TF20電子顯微鏡以成像之前經風乾。

低溫網格製備

Quantifoil網格以氬/氧進行電漿清潔。將經稀釋至0.2mg/ml濃度(Sigma)之氧化石墨烯原液施用至經處理之網格表面且靜置2分鐘。多餘溶液用濾紙吸掉並用一滴水洗滌以移除多餘氧化石墨烯。網格在使用前隔夜乾燥。使用Vitrobot (ThermoFisher)，將樣本溶液之等分試樣在氧化石墨烯膜支持網格上玻璃化。將網格儲存在液態氮中直到在低溫條件下裝載於顯微鏡中以成像。

CryoEM資料收集、影像處理

在Thermo Fisher Titan Krios穿透式電子顯微鏡上進行資料收集，該顯微鏡在300 kV下以標稱放大率(165,000 X)之SerialEM程式使用K2直接偵測器相機(Gatan)以超解析度

影片模式操作。未合併像素大小係0.434 Å，且束強度係約8e/未合併像素。各影片在樣本上的總電子劑量係約40e/Å2。Relion及cisTEM程式皆用於資料處理。

實例8：gB2796免疫原性

其中的一種含有胺基酸23-646有突變YIH至GHR (155-157)、D217C、W240A、C246S、M371C、W506C及Y589C之經設計之融合前穩定胞外結構域gB蛋白(gB2796)係經由FLAG標籤在融合抑制劑不存在下自經轉染之哺乳動物純化。簡言之，蛋白係藉由添加20mM Tris pH 7.5, 200mM NaCl至過度表現SB2796之3L細胞培養基來純化。在與10ml之M2管柱在4℃下旋轉培育4小時之後，移除上清液且以PBS徹底洗滌管柱。接著用含有150μg/ml FLAG肽之PBS洗提蛋白且後續濃縮。粒徑排阻層析法係在Superose6 increase 10/300上於PBS中以0.5ml/min實施並收集流份。經純化之蛋白係在4至20% Mini-PROTEAN® TGX Stain-Free™蛋白質凝膠(Biorad)上於Tris/甘胺酸/SDS緩衝劑中(**圖20A**)以及藉由電子顯微鏡檢用負染色(**圖20B**)分析。EM影像顯示典型融合前構形之三角形的蛋白粒子。

為了評估gB2796相較於融合後gB是否可誘發較佳免疫反應，基於移除跨膜結構域之相同HCMV株生產經分泌之融合後gB。將蛋白命名為Sanofi gB，因為其相當於先前Sanofi之臨床試驗所使用的gB蛋白(Pass, *et al.* 2009)。此無標籤gB之純化係使用在Lentil Lectin-Sepharose (GE

Healthcare)管柱上之親和性層析法，隨後在Toyopearl GigaCap Q-650M (Tosoh)上之陰離子交換層析法及在Superdex 200 (GE Healthcare)管柱上之粒徑排阻層析法達成。

活體內免疫原性研究係以上述融合前及融合後gB在小鼠進行(如下**表16**所示)。

表16. 免疫接種劑量及計畫

組別	小鼠數量	免疫原	佐劑	途徑	投藥計畫
1	10	gB2796 (4 mcg/0.2ml)	-	0.2ml/SC	第0、3、6週
2	10	gB2796 (1 mcg/0.2ml)	-	0.2ml/SC	第0、3、6週
3	10	gB2796 (0.25 mcg/0.2ml)	-	0.2ml/SC	第0、3、6週
6	10	Sanofi gB (4 mcg/0.2ml)	-	0.2ml/SC	第0、3、6週
7	10	Sanofi gB (1 mcg/0.2ml)	-	0.2ml/SC	第0、3、6週
8	10	Sanofi gB (0.25 mcg/0.2ml)	-	0.2ml/SC	第0、3、6週

在第5週(第二劑之後的2週)，藉由ELISA分析小鼠血清樣本以測定抗gB2796之IgG力價。結果顯示經gB2796及Sanofi gB免疫之小鼠中的劑量依賴性IgG反應(**圖21**)。

原始序列表

建構體	序列*	SEQ ID NO:
	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER	255

CMV gB1666: SEQ ID NO: 1 (Towne) 之 V23..V907 (ACM48044.1) **[D217C Y589C I675S]**	NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPPYLK GLDDLMSGLGAAGKAVGVAIGAVGGAVASVVEGVATFLKNP FGAFTIILVAIAVVIIIYLIYTRQRRLCMQPLQNLFPYLVSADGTT VTSGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPY TNEQAYQMLLALVRLDAEQRAQQNGTDSLDGQTGTQDKGQ KPNLLDRLRHRKNGYRHLKDSDEEENV	
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCTACATCCATACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAT GGCTGTATAGAGAGACCTGTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGATGACCGCAACCTTCCTG TCTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGA CTGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTT TCAATACCTCCTACAATCAGACATATGAAAAATACGGAAAC GTGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTG GCAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACG CCTGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGG	**256**

	ACAAAGAGGAGCACCGACGGAAACAATGCTACACACCTTT CCAACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTT CAGTTCACTTATGACACACTGCGGGGCTACATAAACAGGGC TCTGGCACAGATAGCCGAGGCTTGGTGTGTGGACCAGCGG AGAACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCC CTCTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGC ACGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGA CAATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAA CGTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTG GTGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGT CAACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATC GGACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATT GCAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAA AAGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTA TGATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTT CGCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAG CAACGTCTTTGATCTTGAGGAGATCATGAGGGAGTTTAACT CTTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGT CGACCCTCTGCCACCCTACCTCAAAGGACTGGACGATCTGA TGAGCGGACTTGGAGCTGCCGGCAAAGCCGTCGGGGTGG CTATCGGTGCCGTGGGCGGCGCCGTGGCTTCTGTGGTTGA GGGAGTGGCCACTTTTCTTAAAAATCCTTTCGGAGCTTTTAC CATTATTCTGGTCGCCATCGCCGTGGTGATCATCATTTATCT GATCTACACCCGCCAGCGCCGCTTGTGCATGCAGCCACTTC AGAACCTGTTTCCCTATCTGGTCAGTGCTGACGGTACAACC GTGACCAGCGGCAACACAAAGGACACAAGCCTTCAGGCTC CTCCAAGTTATGAAGAGTCCGTGTATAATTCTGGGAGGAA GGGACCTGGTCCCCCCTCTTCCGACGCCTCAACAGCGGCAC CCCCCTACACCAATGAGCAGGCATATCAGATGCTCCTGGCC CTTGTGCGGCTCGATGCCGAGCAACGCGCACAACAGAACG GGACGGATTCTCTCGACGGACAGACAGGCACTCAGGACAA AGGCCAGAAGCCCAACCTTCTGGATCGGTTGCGGCATAGA AAAAACGGCTATAGACACCTCAAGGACTCAGACGAAGAAG AGAACGTC	
CMV gB2457 (融合前，全長) **SEQ ID NO: 1 (Towne)** 之 **V23** 至 **V907** [D217C M371C W506C Y589C I675S]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKCTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNTS YNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRSS LNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTLR GYINRALAQIAEACCVDQRRTLEVFKELSKINPSAILSAIYNKPIA ARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVV IFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNS AYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELYSQ KELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPPYLKGL DDLMSGLGAAGKAVGVAIGAVGGAVASVVEGVATFLKNPFG	**257**

	AFTIILVAIAVVIIIYLIYTRQRRLCMQPLQNLFPYLVSADGTTVT SGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPYTN EQAYQMLLALVRLDAEQRAQQNGTDSLDGQTGTQDKGQKP NLLDRLRHRKNGYRHLKDSDEEENV	
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCTACATCCATACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAT GGCTGTATAGAGAGACCTGTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGTGCACCGCAACCTTCCTGT CTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGAC TGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTTT CAATACCTCCTACAATCAGACATATGAAAAATACGGAAACG TGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTGG CAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACGCC TGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGGAC AAAGAGGAGCACCGACGGAAACAATGCTACACACCTTTCC AACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTTCA GTTCACTTATGACACACTGCGGGGCTACATAAACAGGGCTC TGGCACAGATAGCCGAGGCTTGCTGTGTGGACCAGCGGAG AACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCCCT CTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGCA CGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGAC AATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAAC GTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTGG TGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGTC AACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATCG GACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATTG CAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAAA AGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTAT GATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTTC	258

	GCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAGC AACGTCTTTGATCTTGAGGAGATCATGAGGGAGTTTAACTC TTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGTC GACCCTCTGCCACCCTACCTCAAAGGACTGGACGATCTGAT GAGCGGACTTGGAGCTGCCGGCAAAGCCGTCGGGGTGGC TATCGGTGCCGTGGGCGGCGCCGTGGCTTCTGTGGTTGAG GGAGTGGCCACTTTTCTTAAAAATCCTTTCGGAGCTTTTACC ATTATTCTGGTCGCCATCGCCGTGGTGATCATCATTTATCTG ATCTACACCCGCCAGCGCCGCTTGTGCATGCAGCCACTTCA GAACCTGTTTCCCTATCTGGTCAGTGCTGACGGTACAACCG TGACCAGCGGCAACACAAAGGACACAAGCCTTCAGGCTCC TCCAAGTTATGAAGAGTCCGTGTATAATTCTGGGAGGAAG GGACCTGGTCCCCCCTCTTCCGACGCCTCAACAGCGGCACC CCCCTACACCAATGAGCAGGCATATCAGATGCTCCTGGCCC TTGTGCGGCTCGATGCCGAGCAACGCGCACAACAGAACGG GACGGATTCTCTCGACGGACAGACAGGCACTCAGGACAAA GGCCAGAAGCCCAACCTTCTGGATCGGTTGCGGCATAGAA AAAACGGCTATAGACACCTCAAGGACTCAGACGAAGAAGA GAACGTC	
CMV gB2459 (融合前，全長) **SEQ ID NO: 1 (Towne)** 之 **V23** 至 **V907** [D217C N524C Y589C M684C I675S]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKICPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEICREFNSYKQRVKYVEDKVVDPLPPYLKG LDDLMSGLGAAGKAVGVAIGAVGGAVASVVEGVATFLKNPF GAFTIILVAIAVVIIIYLIYTRQRRLCMQPLQNLFPYLVSADGTTV TSGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPYT NEQAYQMLLALVRLDAEQRAQQNGTDSLDGQTGTQDKGQK PNLLDRLRHRKNGYRHLKDSDEEENV	**259**
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCTACATCCATACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC	**260**

	AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAT GGCTGTATAGAGAGACCTGTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGATGACCGCAACCTTCCTG TCTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGA CTGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTT TCAATACCTCCTACAATCAGACATATGAAAAATACGGAAAC GTGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTG GCAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACG CCTGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGG ACAAAGAGGAGCACCGACGGAAACAATGCTACACACCTTT CCAACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTT CAGTTCACTTATGACACACTGCGGGGCTACATAAACAGGGC TCTGGCACAGATAGCCGAGGCTTGGTGTGTGGACCAGCGG AGAACCCTGGAGGTATTTAAAGAACTGTCTAAGATCTGTCC CTCTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGC ACGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGA CAATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAA CGTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTG GTGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGT CAACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATC GGACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATT GCAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAA AAGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTA TGATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTT CGCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAG CAACGTCTTTGATCTTGAGGAGATCTGTAGGGAGTTTAACT CTTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGT CGACCCTCTGCCACCCTACCTCAAAGGACTGGACGATCTGA TGAGCGGACTTGGAGCTGCCGGCAAAGCCGTCGGGGTGG CTATCGGTGCCGTGGGCGGCGCCGTGGCTTCTGTGGTTGA GGGAGTGGCCACTTTTCTTAAAAATCCTTTCGGAGCTTTTAC CATTATTCTGGTCGCCATCGCCGTGGTGATCATCATTTATCT GATCTACACCCGCCAGCGCCGCTTGTGCATGCAGCCACTTC AGAACCTGTTTCCCTATCTGGTCAGTGCTGACGGTACAACC GTGACCAGCGGCAACACAAAGGACACAAGCCTTCAGGCTC CTCCAAGTTATGAAGAGTCCGTGTATAATTCTGGGAGGAA GGGACCTGGTCCCCCCTCTTCCGACGCCTCAACAGCGGCAC CCCCCTACACCAATGAGCAGGCATATCAGATGCTCCTGGCC CTTGTGCGGCTCGATGCCGAGCAACGCGCACAACAGAACG	

	GGACGGATTCTCTCGACGGACAGACAGGCACTCAGGACAA AGGCCAGAAGCCCAACCTTCTGGATCGGTTGCGGCATAGA AAAAACGGCTATAGACACCTCAAGGACTCAGACGAAGAAG AGAACGTC	
CMV gB2555: SEQ ID NO: 1 (Towne) 之 **V23..V702 gB CMV (ACM48044)**，其包括三聚結構域 **(GCN4 CC tri2)** [YIH 至 GHR (155-157) D217C W240A M371C C246S W506C Y589C I675S / **GCN4 CC tri2**]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAGHRTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVI AGTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQW HSRGSTALYRETSNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKCTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNTS YNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRSS LNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTLR GYINRALAQIAEACCVDQRRTLEVFKELSKINPSAILSAIYNKPIA ARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVV IFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNS AYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELYSQ KELRSSNVFDLEEIMREFNSYKQRVKYVEDKVV**KIEEILSKQYHI ENEIARIKKLIG**	**261**
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCGGTCATCGTACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAG CACTGTATAGAGAGACCTCTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGTGCACCGCAACCTTCCTGT CTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGAC TGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTTT CAATACCTCCTACAATCAGACATATGAAAAATACGGAAACG TGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTGG	**262**

	CAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACGCC TGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGGAC AAAGAGGAGCACCGACGGAAACAATGCTACACACCTTTCC AACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTTCA GTTCACTTATGACACACTGCGGGGCTACATAAACAGGGCTC TGGCACAGATAGCCGAGGCTTGCTGTGTGGACCAGCGGAG AACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCCCT CTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGCA CGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGAC AATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAAC GTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTGG TGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGTC AACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATCG GACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATTG CAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAAA AGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTAT GATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTTC GCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAGC AACGTCTTTGATCTTGAGGAGATCATGAGGGAGTTTAACTC TTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGTC **AAGATCGAGGAGATCCTGTCCAAGCAGTACCACATCGAG AACGAGATCGCCCGCATCAAGAAGCTGATCGGC**	
CMV gB2556: SEQ ID NO: 1 (Towne) 之 **V23..V702 gB CMV (ACM48044)** ，其包括三聚結構域 **(GCN4 CC tri2)** [YIH 至 GHR (155-157) D217C W240A C246S N524C Y589C I675S M684C / **GCN4 CC tri2**]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAGHRTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVI AGTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQW HSRGSTALYRETSNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKICPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEICREFNSYKQRVKYVEDKVV**KIEEILSKQY HIENEIARIKKLIG**	**263**
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCGGTCATCGTACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT	**264**

	ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAG CACTGTATAGAGAGACCTCTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGATGACCGCAACCTTCCTG TCTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGA CTGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTT TCAATACCTCCTACAATCAGACATATGAAAAATACGGAAAC GTGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTG GCAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACG CCTGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGG ACAAAGAGGAGCACCGACGGAAACAATGCTACACACCTTT CCAACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTT CAGTTCACTTATGACACACTGCGGGGCTACATAAACAGGGC TCTGGCACAGATAGCCGAGGCTTGGTGTGTGGACCAGCGG AGAACCCTGGAGGTATTTAAAGAACTGTCTAAGATCTGTCC CTCTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGC ACGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGA CAATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAA CGTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTG GTGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGT CAACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATC GGACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATT GCAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAA AAGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTA TGATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTT CGCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAG CAACGTCTTTGATCTTGAGGAGATCTGTAGGGAGTTTAACT CTTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGT **CAAGATCGAGGAGATCCTGTCCAAGCAGTACCACATCGA GAACGAGATCGCCCGCATCAAGAAGCTGATCGGC**	
CMV gB2796 (融合前，胞外結構域) **SEQ ID NO: 1 (Towne)** 之 **V23** 至 **D646** [YIH 至 GHR (155-157) D217C W240A C246S M371C W506C Y589C]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAGHRTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVI AGTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQW HSRGSTALYRETSNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKCTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNTS YNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRSS LNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTLR	**265**

	GYINRALAQIAEACCVDQRRTLEVFKELSKINPSAILSAIYNKPIA ARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVV IFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNS AYEYVDYLFKRMIDLSSISTVD	
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCGGTCATCGTACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAG CACTGTATAGAGAGACCTCTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGTGCACCGCAACCTTCCTGT CTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGAC TGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTTT CAATACCTCCTACAATCAGACATATGAAAAATACGGAAACG TGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTGG CAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACGCC TGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGGAC AAAGAGGAGCACCGACGGAAACAATGCTACACACCTTTCC AACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTTCA GTTCACTTATGACACACTGCGGGGCTACATAAACAGGGCTC TGGCACAGATAGCCGAGGCTTGCTGTGTGGACCAGCGGAG AACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCCCT CTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGCA CGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGAC AATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAAC GTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTGG TGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGTC AACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATCG GACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATTG CAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAAA AGAATGATTGATCTGAGCAGCATTTCCACTGTGGAC	**266**
	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH	

CMV gB 胞外結構域，SEQ ID NO:1 (Towne 株) 之 V23 至 P707	GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPDDYSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSYVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPP	**267**

*信號序列 M1..A22 (SEQ ID NO: 268) 移除

wt HCMV gB (Towne)之信號序列	MESRIWCLVVCVNLCIVCLGAA	**268**
GCN4 CC tri2 三聚結構域 (表9)	KIEEILSKQYHIENEIARIKKLIG	**269**
	AAGATCGAGGAGATCCTGTCCAAGCAGTACCACATCGA GAACGAGATCGCCCGCATCAAGAAGCTGATCGGC	**270**
T4 纖維蛋白摺疊子結構域	GYIPEAPRDGQAYVRKDGEWVLLSTFL	**271**
GCN4 (表9)	RIKQIEDKIEEILSKQYHIENEIARIKKLIG	**272**
GCN4 (表9)	KIYHIENEIARIKKLIG	**273**
C端融合序列(表9)	LSAIGGYIPEAPRDGQAYVRKDGEWVLLSTFL	**274**

序列識別符

SEQ ID NO: 1列示衍生自天然HCMV gB(Towne株)之胺基酸序列。

SEQ ID NO: 2列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：Q98C、G271C。

SEQ ID NO: 3列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：Q98C、I653C。

SEQ ID NO: 4列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：G99C、A267C。

SEQ ID NO: 5列示SEQ ID NO: 1之胺基酸序列，其中

包括下列突變：T100C、A267C。

SEQ ID NO: 6列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：T100C、S269C。

SEQ ID NO: 7列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：T100C、L651C。

SEQ ID NO: 8列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：D217C、F584C。

SEQ ID NO: 9列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：Y218C、A585C。

SEQ ID NO: 10列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：S219C、D654C。

SEQ ID NO: 11列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：N220C、D652C。

SEQ ID NO: 12列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：T221C、D652C。

SEQ ID NO: 13列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：W240C、G718C。

SEQ ID NO: 14列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：Y242C、K710C。

SEQ ID NO: 15列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：Y242C、D714C。

SEQ ID NO: 16列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：S269C、I653C。

SEQ ID NO: 17列示SEQ ID NO: 1之胺基酸序列，其中

包括下列突變：G271C、P614C。

SEQ ID NO: 18列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：S367C、L499C。

SEQ ID NO: 19列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：T372C、W506C。

SEQ ID NO: 20列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：F541C、Q669C。

SEQ ID NO: 21列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：L548C、A650C。

SEQ ID NO: 22列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：A549C、I653C。

SEQ ID NO: 23列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：S550C、D652C。

SEQ ID NO: 24列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：G604C、F661C。

SEQ ID NO: 25列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：N605C、E665C。

SEQ ID NO: 26列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：R607C、S675C。

SEQ ID NO: 27列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：T608C、D679C。

SEQ ID NO: 28列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：E609C、F678C。

SEQ ID NO: 29列示SEQ ID NO: 1之胺基酸序列，其中

包括下列突變：R673C、S674C。

SEQ ID NO: 30列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：N676C、V677C。

SEQ ID NO: 31列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：L680C、E681C。

SEQ ID NO: 32列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：I683C、M684C。

SEQ ID NO: 33列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：F687C、N688C。

SEQ ID NO: 34列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：Y690C、K691C。

SEQ ID NO: 35列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：K695C、K724C。

SEQ ID NO: 36列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：T746C、F747C。

SEQ ID NO: 37列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：K749C、N750C。

SEQ ID NO: 38列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：K670L。

SEQ ID NO: 39列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：K670F。

SEQ ID NO: 40列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：R673L。

SEQ ID NO: 41列示SEQ ID NO: 1之胺基酸序列，其中

包括下列突變：R673F。

SEQ ID NO: 42列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：K691L。

SEQ ID NO: 43列示SEQ ID NO: 1之胺基酸序列，其中包括下列突變：K691F。

SEQ ID NO: 44列示天然HCMV gB (AD169; PDB: 5CXF)之胺基酸序列，其表現時摺疊成融合後構形。

SEQ ID NO: 45列示HCMV gB變體(gB705)之胺基酸序列，其表現時摺疊成融合後構形。

SEQ ID NO: 46列示天然HCMV gB(Merlin株)之胺基酸序列，其表現時摺疊成融合後構形。

SEQ ID NO: 47列示SEQ ID NO: 1之胺基酸，其中包括下列突變：M96C及D660C。

SEQ ID NO: 48列示SEQ ID NO: 1之胺基酸，其中包括下列突變：Q98C及N658C。

SEQ ID NO: 49列示SEQ ID NO: 1之胺基酸，其中包括下列突變：T100C及R258C。

SEQ ID NO: 50列示SEQ ID NO: 1之胺基酸，其中包括下列突變：T100C及L656C。

SEQ ID NO: 51列示SEQ ID NO: 1之胺基酸，其中包括下列突變：T100C及N658C。

SEQ ID NO: 52列示SEQ ID NO: 1之胺基酸，其中包括下列突變：I117C及T406C。

SEQ ID NO: 53列示SEQ ID NO: 1之胺基酸，其中包括

下列突變：I117C及S407C。

SEQ ID NO: 54列示SEQ ID NO: 1之胺基酸，其中包括下列突變：Y153C及L712C。

SEQ ID NO: 55列示SEQ ID NO: 1之胺基酸，其中包括下列突變：L162C及M716C。

SEQ ID NO: 56列示SEQ ID NO: 1之胺基酸，其中包括下列突變：D217C及S587C。

SEQ ID NO: 57列示SEQ ID NO: 1之胺基酸，其中包括下列突變：D217C及Y589C。

SEQ ID NO: 58列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S219C及F584C。

SEQ ID NO: 59列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S219C及A585C。

SEQ ID NO: 60列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S219C及N586C。

SEQ ID NO: 61列示SEQ ID NO: 1之胺基酸，其中包括下列突變：N220C及T659C。

SEQ ID NO: 62列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S223C及T659C。

SEQ ID NO: 63列示SEQ ID NO: 1之胺基酸，其中包括下列突變：W240C及A732A。

SEQ ID NO: 64列示SEQ ID NO: 1之胺基酸，其中包括下列突變：W240C及G735C。

SEQ ID NO: 65列示SEQ ID NO: 1之胺基酸，其中包括

下列突變：Y242C及V728C。

SEQ ID NO: 66列示SEQ ID NO: 1之胺基酸，其中包括下列突變：Y242C及G731C。

SEQ ID NO: 67列示SEQ ID NO: 1之胺基酸，其中包括下列突變：R258C及L656C。

SEQ ID NO: 68列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S269C及L656C。

SEQ ID NO: 69列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S269C及N658C。

SEQ ID NO: 70列示SEQ ID NO: 1之胺基酸，其中包括下列突變：D272C及P614C。

SEQ ID NO: 71列示SEQ ID NO: 1之胺基酸，其中包括下列突變：V273C及V629C。

SEQ ID NO: 72列示SEQ ID NO: 1之胺基酸，其中包括下列突變：W349C及A650C。

SEQ ID NO: 73列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S367C及A500C。

SEQ ID NO: 74列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S367C及A503C。

SEQ ID NO: 75列示SEQ ID NO: 1之胺基酸，其中包括下列突變：K370C及Q501C。

SEQ ID NO: 76列示SEQ ID NO: 1之胺基酸，其中包括下列突變：K522C及I683C。

SEQ ID NO: 77列示SEQ ID NO: 1之胺基酸，其中包括

下列突變：I523C及I683C。

SEQ ID NO: 78列示SEQ ID NO: 1之胺基酸，其中包括下列突變：I523C及M684C。

SEQ ID NO: 79列示SEQ ID NO: 1之胺基酸，其中包括下列突變：N524C及M684C。

SEQ ID NO: 80列示SEQ ID NO: 1之胺基酸，其中包括下列突變：P525C及E681C。

SEQ ID NO: 81列示SEQ ID NO: 1之胺基酸，其中包括下列突變：R540C及L680C。

SEQ ID NO: 82列示SEQ ID NO: 1之胺基酸，其中包括下列突變：F541C及L680C。

SEQ ID NO: 83列示SEQ ID NO: 1之胺基酸，其中包括下列突變：L548C及P655C。

SEQ ID NO: 84列示SEQ ID NO: 1之胺基酸，其中包括下列突變：A549C及N658C。

SEQ ID NO: 85列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S550C及P655C。

SEQ ID NO: 86列示SEQ ID NO: 1之胺基酸，其中包括下列突變：S550C及E657C。

SEQ ID NO: 87列示SEQ ID NO: 1之胺基酸，其中包括下列突變：Q591C及S668C。

SEQ ID NO: 88列示SEQ ID NO: 1之胺基酸，其中包括下列突變：L603C及Y667C。

SEQ ID NO: 89列示SEQ ID NO: 1之胺基酸，其中包括

下列突變：G604C及L672C。

SEQ ID NO: 90列示SEQ ID NO: 1之胺基酸，其中包括下列突變：R607C及N688C。

SEQ ID NO: 91列示SEQ ID NO: 1之胺基酸，其中包括下列突變：T608C及Q692C。

SEQ ID NO: 92列示SEQ ID NO: 1之胺基酸，其中包括下列突變：E609C及K691C。

SEQ ID NO: 93列示SEQ ID NO: 1之胺基酸，其中包括下列突變：E610C及S674C。

SEQ ID NO: 94列示SEQ ID NO: 1之胺基酸，其中包括下列突變：E610C及S675C。

SEQ ID NO: 95列示SEQ ID NO: 1之胺基酸，其中包括下列突變：Q612C及V663C。

SEQ ID NO: 96列示SEQ ID NO: 1之胺基酸，其中包括下列突變：V737C及F755C。

SEQ ID NO: 97列示SEQ ID NO: 1之胺基酸，其中包括下列突變：V741C及A754C。

SEQ ID NO: 98列示SEQ ID NO: 1之胺基酸，其中包括下列突變：V741C及F755C。

SEQ ID NO: 99列示SEQ ID NO: 1之胺基酸，其中包括下列突變：D679S。

SEQ ID NO: 100列示SEQ ID NO: 1之胺基酸，其中包括下列突變：D679N。

SEQ ID NO: 101列示SEQ ID NO: 1之胺基酸，其中包

括下列突變：E682S。

SEQ ID NO: 102列示SEQ ID NO: 1之胺基酸，其中包括下列突變：E682Q。

SEQ ID NO: 103列示SEQ ID NO: 1之胺基酸，其中包括下列突變：E686S。

SEQ ID NO: 104列示SEQ ID NO: 1之胺基酸，其中包括下列突變：E686Q。

SEQ ID NO: 105列示SEQ ID NO: 1之胺基酸，其中包括下列突變：N118P。

SEQ ID NO: 106列示SEQ ID NO: 1之胺基酸，其中包括下列突變：D646P。

SEQ ID NO: 107列示來自圖8之>5CXF:A|PDBID|鏈|序列之胺基酸序列。

SEQ ID NO: 108列示來自圖8之>5CXF:B|PDBID|鏈|序列之胺基酸序列。

SEQ ID NO: 109列示來自圖8之>5CXF:C|PDBID|鏈|序列之胺基酸序列。

SEQ ID NO: 110列示來自HAN13 gi|242345614|gb|GQ221973.1|:81988-84705人疱疹病毒5 HAN13株(完整基因體反向互補序列)之gB多肽之胺基酸序列，參照圖9之說明。

SEQ ID NO: 111列示來自VR1814 gi|270355759|gb|GU179289.1|:81925-84642人疱疹病毒5 VR1814株(完整基因體反向互補序列)之gB多肽之胺基酸序列，參照圖9之說

明。

SEQ ID NO: 112至140列示圖9所述之來自各種CMV gB株之gB多肽的胺基酸序列。

SEQ ID NO: 141至SEQ ID NO: 210列示編碼衍生自HCMV之多肽(諸如例如gH、gL、UL128、UL130、UL131、gB或pp65)的多核苷酸序列。

SEQ ID NO: 211至SEQ ID NO: 223列示衍生自HCMV之多肽(諸如例如gH、gL、UL128、UL130、UL131、gB或pp65)的胺基酸序列。

SEQ ID NO: 224列示衍生自HCMV之多肽的胺基酸序列。

SEQ ID NO: 225至SEQ ID NO: 254列示編碼衍生自HCMV之多肽的多核苷酸序列。

SEQ ID NO: 255列示CMV gB1666之胺基酸序列，即具有下列突變：D217C、Y589C及I675S之SEQ ID NO: 1(Towne)之殘基V23至V907。不包括信號序列(SEQ ID NO: 1之殘基M1-A22)。

SEQ ID NO: 256列示CMV gB1666之核酸序列，其編碼具有下列突變：D217C、Y589C及I675S之SEQ ID NO: 1(Towne)之殘基V23至V907。不包括編碼信號序列(SEQ ID NO: 1之殘基M1-A22)之核苷酸。

SEQ ID NO: 257列示CMV gB2457(融合前，全長)之胺基酸序列，即具有下列突變：D217C、M371C、W506C、Y589C及I675S之SEQ ID NO: 1 (Towne)之殘基V23至

V907。不包括信號序列(SEQ ID NO: 1之殘基M1-A22)。

SEQ ID NO: 258列示CMV gB2457(融合前，全長)之核酸序列，其編碼具有下列突變：D217C、M371C、W506C、Y589C及I675S之SEQ ID NO: 1 (Towne)之殘基V23至V907。不包括編碼信號序列(SEQ ID NO: 1之殘基M1-A22)之核苷酸。

SEQ ID NO: 259列示CMV gB2459(融合前，全長)之胺基酸序列，即具有下列突變：D217C、N524C、Y589C、M684C及I675S之SEQ ID NO: 1 (Towne)之殘基V23至V907。不包括信號序列(SEQ ID NO: 1之殘基M1-A22)。

SEQ ID NO: 260列示CMV gB2459(融合前，全長)之核酸序列，其編碼具有下列突變：D217C、N524C、Y589C、M684C及I675S之SEQ ID NO: 1 (Towne)之殘基V23至V907。不包括編碼信號序列(SEQ ID NO: 1之殘基M1-A22)之核苷酸。

SEQ ID NO: 261列示CMV gB2555(融合前，包括三聚結構域(GCN4 CC tri2))之胺基酸序列，即具有下列突變：YIH至GHR (155-157)、D217C、W240A、M371C、C246S、W506C、Y589C及I675S之SEQ ID NO: 1 (Towne)之殘基V23至V702。不包括信號序列(SEQ ID NO: 1之殘基M1-A22)。

SEQ ID NO: 262列示CMV gB2555(融合前，包括三聚結構域(GCN4 CC tri2))之核酸序列，其編碼具有下列突變：YIH至GHR (155-157)、D217C、W240A、M371C、

C246S、W506C、Y589C及I675S之SEQ ID NO: 1 (Towne)之殘基V23至V702。不包括編碼信號序列(SEQ ID NO: 1之殘基M1-A22)之核苷酸。

SEQ ID NO: 263列示CMV gB2556(融合前，包括三聚結構域(GCN4 CC tri2))之胺基酸序列，即具有下列突變：YIH至GHR (155-157)、D217C、W240A、C246S、N524C、Y589C、I675S及M684C之SEQ ID NO: 1 (Towne)之殘基V23至V702。不包括信號序列(SEQ ID NO: 1之殘基M1-A22)。

SEQ ID NO: 264列示CMV gB2556(融合前，包括三聚結構域(GCN4 CC tri2))之核酸序列，其編碼具有下列突變：YIH至GHR (155-157)、D217C、W240A、C246S、N524C、Y589C、I675S及M684C之SEQ ID NO: 1 (Towne)之殘基V23至V702。不包括編碼信號序列(SEQ ID NO: 1之殘基M1-A22)之核苷酸。

SEQ ID NO: 265列示CMV gB2796(融合前，胞外結構域)之胺基酸序列，即具有下列突變：YIH至GHR (155-157)、D217C、W240A、C246S、M371C、W506C及Y589C之SEQ ID NO: 1 (Towne)之殘基V23至D646。不包括信號序列(SEQ ID NO: 1之殘基M1-A22)。

SEQ ID NO: 266列示CMV gB2796(融合前，胞外結構域)之核酸序列，其編碼具有下列胺基酸突變：YIH至GHR (155-157)、D217C、W240A、C246S、M371C、W506C及Y589C之SEQ ID NO: 1 (Towne)之胺基酸V23至D646。不包

括編碼信號序列(SEQ ID NO: 1之殘基M1-A22)之核苷酸。

SEQ ID NO: 267列示CMV gB胞外結構域，即SEQ ID NO:1(Towne株)之V23至P707。

SEQ ID NO: 268列示wt HCMV gB (Towne)之信號序列的胺基酸序列。

SEQ ID NO: 269列示GCN4 CC tri2三聚結構域之胺基酸序列(見表9)。

SEQ ID NO: 270列示編碼GCN4 CC tri2三聚結構域之核酸序列。

SEQ ID NO: 271列示T4纖維蛋白摺疊子結構域之胺基酸序列(見表9)。

SEQ ID NO:272至273列示各種GCN4三聚結構域之胺基酸序列。

SEQ ID NO: 274列示表9所述之C端融合序列之胺基酸序列。

本發明之實施態樣列示於下列編號條款：

C1. 一種多肽，其包含相對於野生型HCMV糖蛋白B(gB)之胺基酸序列之至少一個經導入之胺基酸突變，其中該多肽包含非HCMV gB融合後構形之構形。

C2. 一種與HCMV gB融合前特異性抗體結合之多肽。

C3. 一種多肽，其包含相對於野生型HCMV糖蛋白B

(gB)之胺基酸序列之至少一個經導入之胺基酸突變，其中該多肽能夠與HCMV gB融合前特異性抗體結合。

C4. 一種多肽，其包含相對於野生型HCMV糖蛋白B(gB)之胺基酸序列之至少一個經導入之胺基酸突變，其中該多肽能夠與雙(芳基)硫脲化合物結合。

C5. 如條款C3之多肽，其中該化合物係N-{4-[({(1*S*)-1-[3,5-雙(三氟甲基)苯基]乙基}胺甲醯硫基)胺基]苯基}-1,3-噻唑-4-羧醯胺。

C6. 如條款C1之多肽，其中該多肽的特徵在於包含當保守殘基主鏈原子重疊在由表1A之結構座標所述之主鏈原子上時之均方根離差(RMSD)的結構座標。

C7. 一種多肽，其包含相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包含半胱胺酸取代。

C8. 一種多肽，其包含相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包含允許雙硫鍵形成之突變。

C9. 一種多肽，其包含相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包含靜電突變。

C10. 一種多肽，其包含相對於野生型HCMV gB多肽

之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包含苯丙胺酸取代。

C11. 一種多肽，其包含相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該胺基酸突變包含白胺酸取代。

C12. 一種多肽，其包含相對於野生型HCMV gB多肽之胺基酸序列之至少一個胺基酸突變，其中該突變穩定該多肽之融合前構形，且其中該多肽與HCMV gB融合前特異性抗體特異性結合。

C13. 一種多肽，其包含相較於SEQ ID NO: 1在表2之欄(ii)所列出之胺基酸位置中任一者包括半胱胺酸。

C14. 一種多肽，其包含相較於SEQ ID NO: 1在表2之欄(ii)所列出之胺基酸位置中任一者包括胺基酸取代。

C15. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變Q98C及I653C。

C16. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變T100C及S269C。

C17. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變D217C及F584C。

C18. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變Y242C及K710C。

C19. 一種多肽，其包含根據SEQ ID NO: 1之編號之突

變Y242C及D714C。

C20. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變S367C及L499C。

C21. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變T372C及W506C。

C22. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變S550C及D652C。

C23. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變T608C及D679C。

C24. 一種多肽，其包含根據SEQ ID NO: 1之編號之突變K695C及K724C。

C25. 一種多肽，其包含與如SEQ ID NO: 1至43中任一者所示之胺基酸序列具有至少約90%同一性之胺基酸序列，其中該多肽包含相較於SEQ ID NO: 1之突變。

C26. 如條款C1至C25中任一項之多肽，其中該多肽不包含下列位置中任一者之突變：R562、P577、S587、Y588、G592、G595、L601/H605、C610、L612、P613、Y625、Y627、F632及K633。

C27. 如條款C1至C26中任一項之多肽，其中該多肽不包含HCMV gB之細胞質尾。

C28. 如條款C1至C26中任一項之多肽，其中該多肽不包含跨膜區。

C29. 如條款C1至C26中任一項之多肽，其中該多肽包含HCMV gB之細胞質尾且不包含跨膜區。

C30. 如條款C1至C29中任一項之多肽，其中該多肽不含有昆蟲細胞糖基化模式。

C31. 如條款C1至C30中任一項之多肽，其中該多肽相較於呈融合後構形之天然gB展現改善的溶解度或穩定性。

C32. 如條款C1至C31中任一項之多肽，其中該多肽具免疫原性。

C33. 一種核酸，其編碼如條款C1至C32中任一項之多肽。

C34. 如條款C33之核酸，其中該核酸包含自我複製RNA分子。

C35. 如條款C33之核酸，其中該核酸包含經修飾之RNA分子。

C36. 一種組成物，其包含如條款C33至C35中任一項之核酸。

C37. 一種組成物，其包含如條款C1至C32中任一項之多肽且進一步包含CMV抗原。

C38. 如條款C36至C37中任一項之組成物，其進一步包含下列多肽中任一者：gO、gH、gL、pUL128、pUL130、pUL131及彼等之任何組合。

C39. 一種組成物，其包含如條款C1至C32中任一項之多肽及稀釋劑。

C40. 一種組成物，其包含如條款C1至C32中任一項之多肽及佐劑。

C41. 如條款C36至C40中任一項之組成物，其中該組成物具免疫原性。

C42. 如條款C36至C41中任一項之組成物，其用於誘發抗巨細胞病毒之免疫反應。

C43. 一種誘發哺乳動物之免疫反應之方法，該方法包含向該哺乳動物投予有效量的如條款C1至C32中任一項之多肽。

C44. 一種用於減少哺乳動物之巨細胞病毒病毒脫落之方法，該方法包含向該哺乳動物投予有效量的如條款C1至C32中任一項之多肽。

C45. 一種多肽，其包含相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變，其中該多肽包含與如SEQ ID NO: 1至43中任一項所示之胺基酸序列具有至少95%同一性之胺基酸序列。

C46. 一種多肽，其包含相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變，其中該多肽包含與如SEQ ID NO: 1至106中任一項所示之胺基酸序列具有至少95%同一性之胺基酸序列。

C47. 一種多肽，其包含相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變，其中該多肽包含與如SEQ ID NO: 47至106中任一項所示之胺基酸序列具有至少95%同一性之胺基酸序列。

C48. 一種多肽，其包含與如SEQ ID NO: 57所示之序列具有至少95%同一性之胺基酸序列。

C49. 一種組成物，其包含至少一種編碼選自gH、gL、UL128、UL130及UL131中任一項之HCMV多肽的多核苷酸；編碼HCMV gB或其片段之多核苷酸；編碼pp65或其片段之多核苷酸；及醫藥上可接受之載劑或稀釋劑。

C50. 一種組成物，其包含至少一種包含序列之多核苷酸，該序列與選自SEQ ID NO: 141至210中任一項之序列具有至少95%同一性；編碼多肽之多核苷酸，該多肽包含與如SEQ ID NO: 1至106中任一項所示之胺基酸序列具有至少95%同一性之胺基酸序列；及醫藥上可接受之載劑或稀釋劑。

C51. 一種組成物，其包含至少一種包含序列之多核苷酸，該序列與選自SEQ ID NO: 224至254中任一項之序列具有至少95%同一性；編碼多肽之多核苷酸，該多肽包含選自如SEQ ID NO: 1至106中任一項所示之胺基酸序列中任一者的胺基酸序列；及醫藥上可接受之載劑或稀釋劑。

C52. 一種組成物，其包含至少一種包含胺基酸序列之多肽，該胺基酸序列與選自SEQ ID NO: 211至223中任一項之胺基酸序列具有至少95%同一性；包含與如SEQ ID NO: 1至106中任一項所示

之胺基酸序列具有至少95%同一性之胺基酸序列的多肽；及醫藥上可接受之載劑或稀釋劑。

C53. 一種多肽，其包含相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變，其中該多肽包含如SEQ ID NO: 1至43中任一項所示之胺基酸序列，其中該多肽包含相較於SEQ ID NO: 1之突變。

C54. 一種多肽，其包含相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變，其中該多肽包含如SEQ ID NO: 1至106中任一項所示之胺基酸序列，其中該多肽包含相較於SEQ ID NO: 1之突變。

C55. 一種多肽，其包含相對於野生型HCMV gB之胺基酸序列之至少一個胺基酸突變，其中該多肽包含如SEQ ID NO: 47至106中任一項所示之胺基酸序列，其中該多肽包含相較於SEQ ID NO: 1之突變。

C56. 一種多肽，其包含如SEQ ID NO:57所示之序列。

C57. 一種組成物，其包含至少一種編碼選自gH、gL、UL128、UL130及UL131中任一項之HCMV多肽的多核苷酸；編碼HCMV gB或其片段之多核苷酸；編碼pp65或其片段之多核苷酸；及醫藥上可接受之載劑或稀釋劑。

C58. 一種組成物，其包含至少一種包含選自SEQ ID NO: 141至210中任一項之序列的多核苷酸；編碼包含如SEQ ID NO: 1至106中任一項所示之胺基酸序列之多肽的多核苷酸；及醫藥上可接受之載劑或稀釋劑。

C59. 一種組成物，其包含至少一種包含選自SEQ ID NO: 224至254中任一項之序列的多核苷酸；編碼包含如SEQ ID NO: 1至106中任一項所示之胺基酸序列之多肽的多核苷酸；及醫藥上可接受之載劑或稀釋劑。

C60. 一種組成物，其包含至少一種包含選自SEQ ID NO: 211至223中任一項之序列的多肽；包含如SEQ ID NO: 1至106中任一項所示之胺基酸序列的多肽；及醫藥上可接受之載劑或稀釋劑。

C61. 如條款C49至C51及C57至C59中任一項之組成物，其中該多核苷酸係DNA。

C62. 如條款C49至C51及C57至C59中任一項之組成物，其中該多核苷酸係RNA。

C63. 如條款C49至C51及C57至C59中任一項之組成物，其中至少一種多核苷酸包含至少一個化學修飾。

C64. 如條款C61之組成物，其中化學修飾係選自由假尿苷、N1-甲基假尿苷、N1-乙基假尿苷、N1-乙基假尿苷、2-硫尿苷、4'-硫尿苷、5-甲基胞嘧

啶、2-硫基-1-甲基-1-去氮雜-假尿苷、2-硫基-1-甲基-假尿苷、2-硫基-5-氮雜-尿苷、2-硫基-二氫假尿苷、2-硫基-二氫尿苷、2-硫基-假尿苷、4-甲氧基-2-硫基-假尿苷、4-甲氧基-假尿苷、4-硫基-1-甲基-假尿苷、4-硫基-假尿苷、5-氮雜-尿苷、二氫假尿苷、5-甲氧基尿苷及2'-O-甲基尿苷所組成之群組。

C65. 如條款C49至C51及C57至C59中任一項之組成物，其中該組成物係經調配於陽離子脂質奈米粒子內。

C66. 一種組成物，其包含至少一種包含選自SEQ ID NO: 153、SEQ ID NO: 156、SEQ ID NO: 155、SEQ ID NO: 157、SEQ ID NO: 210、SEQ ID NO: 152及SEQ ID NO: 158中任一項之序列的多核苷酸；編碼包含如SEQ ID NO: 1至106中任一項所示之胺基酸序列之多肽的多核苷酸；及醫藥上可接受之載劑或稀釋劑。

C67. 一種組成物，其包含至少一種包含選自SEQ ID NO: 211、SEQ ID NO: 213、SEQ ID NO: 214、SEQ ID NO: 215、SEQ ID NO: 216及SEQ ID NO: 217中任一項之序列的多肽；包含如SEQ ID NO: 1至106中任一項所示之胺基酸序列的多肽；及醫藥上可接受之載劑或稀釋劑。

C68. 一種多肽，其包含如SEQ ID NO: 1至106中任一

者所示之胺基酸序列。

C69. 如條款C68之多肽，其中該序列包含SEQ ID NO: 56。

C70. 如條款C68之多肽，其中該序列包含SEQ ID NO: 57。

C71. 如條款C68之多肽，其中該序列包含SEQ ID NO: 58。

C72. 如條款C68之多肽，其中該序列包含SEQ ID NO: 75。

C73. 一種多核苷酸，其編碼包含如SEQ ID NO: 1至106中任一者所示之胺基酸序列的多肽。

C74. 一種組成物，其包含多肽及稀釋劑，該多肽包含如SEQ ID NO:1至106中任一項所示之序列。

C75. 如條款C74之組成物，其中該序列不包含SEQ ID NO: 59、SEQ ID NO: 75、SEQ ID NO: 76、SEQ ID NO: 71、SEQ ID NO: 52、SEQ ID NO: 96及SEQ ID NO: 50中任一項。

C76. 如條款C74之組成物，其進一步包含多肽，該多肽包含選自SEQ ID NO: 211至224中任一項之序列。

C77. 一種組成物，其包含多核苷酸及稀釋劑，該多核苷酸編碼包含選自SEQ ID NO:1至106中任一項之序列的多肽。

C78. 如條款C77之組成物，其進一步包含多核苷酸，

該多核苷酸包含選自SEQ ID NO: 141至210中任一項之序列。

C79. 如條款C77之組成物，其進一步包含多核苷酸，該多核苷酸包含選自SEQ ID NO: 224至254中任一項之序列。

C80. 一種誘發哺乳動物之免疫反應之方法，其包含投予有效量的組成物，該組成物包含多肽及稀釋劑，該多肽包含如SEQ ID NO:1至106中任一項所示之序列。

C81. 一種誘發哺乳動物之免疫反應之方法，其包含投予有效量的組成物，該組成物包含多核苷酸及稀釋劑，該多核苷酸編碼包含如SEQ ID NO:1至106中任一項所示之序列的多肽。

表 1A

REMARK 3
REMARK 3 精製。
REMARK 3 程式 : PHENIX (dev_3092: phenix.real_space_refine)
REMARK 3 作者 : Adams,Afonine,Bunkoczi,Burnley,Chen,Dar,Davis,
REMARK 3 : Draizen,Echols,Gildea,Gros,Grosse-Kunstleve,Headd,
REMARK 3 : Hintze,Hung,Ioerger,Liebschner,McCoy,McKee,Moriarty,
REMARK 3 : Oeffner,Poon,Read,Richardson,Richardson,Sacchettini,
REMARK 3 : Sauter,Sobolev,Storoni,Terwilliger,Williams,Zwart
REMARK 3
REMARK 3
REMARK 3 散射表: N_GAUSSIAN
REMARK 3
REMARK 3 精製靶: REAL-SPACE (加權 MAP SUM AT ATOM CENTERS)
REMARK 3
REMARK 3 MODEL TO MAP FIT.
REMARK 3 CC_遮蔽 : 0.7786
REMARK 3 CC_體積: 0.7566
REMARK 3 CC_峰 : 0.5466
REMARK 3

GEOMETRY RESTRAINTS LIBRARY: CDL v1.2
DEVIATIONS FROM IDEAL VALUES.
BOND : 0.004 0.033 17103
ANGLE : 0.769 10.302 23835
CHIRALITY : 0.056 0.568 2595
PLANARITY : 0.004 0.043 2907
DIHEDRAL : 11.547 179.989 9717
MIN NONBONDED DISTANCE : 1.763

MOLPROBITY STATISTICS.
ALL-ATOM CLASHSCORE : 7.96
RAMACHANDRAN PLOT:
OUTLIERS : 0.00 %
ALLOWED : 15.80 %
FAVORED : 84.20 %

ROTAMER OUTLIERS : 0.36 %
CBETA DEVIATIONS : 0
PEPTIDE PLANE:
CIS-PROLINE : 10.5263157895
CIS-GENERAL : 0.162337662338
TWISTED PROLINE : 0.0
TWISTED GENERAL : 0.162337662338
REMARK 3
HELIX 1 1 TRP A 174 ILE A 179 1 6
HELIX 2 2 ASP A 390 SER A 407 1 18
HELIX 3 3 LEU A 484 LYS A 522 1 39
HELIX 4 4 SER A 526 ILE A 532 1 7
HELIX 5 5 PHE A 661 TYR A 667 1 7
HELIX 6 6 ILE A 683 PRO A 704 1 22
HELIX 7 7 LYS A 710 LEU A 719 1 10
HELIX 8 8 VAL A 726 LYS A 749 1 24
HELIX 9 9 PHE A 752 TYR A 769 1 18
HELIX 10 1 TRP B 174 ILE B 179 1 6
HELIX 11 2 ASP B 390 SER B 407 1 18
HELIX 12 3 LEU B 484 LYS B 522 1 39
HELIX 13 4 SER B 526 ILE B 532 1 7
HELIX 14 5 PHE B 661 TYR B 667 1 7
HELIX 15 6 ILE B 683 PRO B 704 1 22
HELIX 16 7 LYS B 710 LEU B 719 1 10
HELIX 17 8 VAL B 726 LYS B 749 1 24
HELIX 18 9 PHE B 752 TYR B 769 1 18
HELIX 19 1 TRP C 174 ILE C 179 1 6
HELIX 20 2 ASP C 390 SER C 407 1 18
HELIX 21 3 LEU C 484 LYS C 522 1 39
HELIX 22 4 SER C 526 ILE C 532 1 7
HELIX 23 5 PHE C 661 TYR C 667 1 7
HELIX 24 6 ILE C 683 PRO C 704 1 22
HELIX 25 7 LYS C 710 LEU C 719 1 10
HELIX 26 8 VAL C 726 LYS C 749 1 24
HELIX 27 9 PHE C 752 TYR C 769 1 18
SHEET 1 1 1 LEU A 102 ILE A 103 0
SHEET 2 2 1 LEU A 121 LYS A 130 0

SHEET 3 3 1 HIS A 136 ALA A 154 0
SHEET 4 4 1 TYR A 160 VAL A 169 0
SHEET 5 5 1 TYR A 186 VAL A 192 0
SHEET 6 6 1 VAL A 197 TYR A 201 0
SHEET 7 7 1 LYS A 209 THR A 210 0
SHEET 8 8 1 ARG A 225 VAL A 227 0
SHEET 9 9 1 LEU A 241 SER A 259 0
SHEET 10 10 1 PHE A 266 THR A 268 0
SHEET 11 11 1 ASP A 272 VAL A 274 0
SHEET 12 12 1 PHE A 297 SER A 307 0
SHEET 13 13 1 ALA A 315 ARG A 327 0
SHEET 14 14 1 SER A 330 ASP A 335 0
SHEET 15 15 1 LEU A 346 GLU A 359 0
SHEET 16 16 1 TYR A 364 SER A 368 0
SHEET 17 17 1 ALA A 373 SER A 377 0
SHEET 18 18 1 GLU A 413 TYR A 415 0
SHEET 19 19 1 SER A 419 GLU A 422 0
SHEET 20 20 1 VAL A 428 LYS A 435 0
SHEET 21 21 1 ALA A 539 MET A 542 0
SHEET 22 22 1 VAL A 545 LEU A 548 0
SHEET 23 23 1 VAL A 559 LEU A 562 0
SHEET 24 24 1 VAL A 579 ASN A 583 0
SHEET 25 25 1 VAL A 590 GLY A 596 0
SHEET 26 26 1 GLU A 600 LEU A 602 0
SHEET 27 27 1 LEU A 616 ILE A 620 0
SHEET 28 28 1 ALA A 625 VAL A 629 0
SHEET 29 29 1 LEU A 632 ILE A 637 0
SHEET 30 1 1 LEU B 102 ILE B 103 0
SHEET 31 2 1 LEU B 121 LYS B 130 0
SHEET 32 3 1 HIS B 136 ALA B 154 0
SHEET 33 4 1 TYR B 160 VAL B 169 0
SHEET 34 5 1 TYR B 186 VAL B 192 0
SHEET 35 6 1 VAL B 197 TYR B 201 0
SHEET 36 7 1 LYS B 209 THR B 210 0
SHEET 37 8 1 ARG B 225 VAL B 227 0
SHEET 38 9 1 LEU B 241 SER B 259 0
SHEET 39 10 1 PHE B 266 THR B 268 0

SHEET 40 11 1 ASP B 272 VAL B 274 0
SHEET 41 12 1 PHE B 297 SER B 307 0
SHEET 42 13 1 ALA B 315 ARG B 327 0
SHEET 43 14 1 SER B 330 ASP B 335 0
SHEET 44 15 1 LEU B 346 GLU B 359 0
SHEET 45 16 1 TYR B 364 SER B 368 0
SHEET 46 17 1 ALA B 373 SER B 377 0
SHEET 47 18 1 GLU B 413 TYR B 415 0
SHEET 48 19 1 SER B 419 GLU B 422 0
SHEET 49 20 1 VAL B 428 LYS B 435 0
SHEET 50 21 1 ALA B 539 MET B 542 0
SHEET 51 22 1 VAL B 545 LEU B 548 0
SHEET 52 23 1 VAL B 559 LEU B 562 0
SHEET 53 24 1 VAL B 579 ASN B 583 0
SHEET 54 25 1 VAL B 590 GLY B 596 0
SHEET 55 26 1 GLU B 600 LEU B 602 0
SHEET 56 27 1 LEU B 616 ILE B 620 0
SHEET 57 28 1 ALA B 625 VAL B 629 0
SHEET 58 29 1 LEU B 632 ILE B 637 0
SHEET 59 1 1 LEU C 102 ILE C 103 0
SHEET 60 2 1 LEU C 121 LYS C 130 0
SHEET 61 3 1 HIS C 136 ALA C 154 0
SHEET 62 4 1 TYR C 160 VAL C 169 0
SHEET 63 5 1 TYR C 186 VAL C 192 0
SHEET 64 6 1 VAL C 197 TYR C 201 0
SHEET 65 7 1 LYS C 209 THR C 210 0
SHEET 66 8 1 ARG C 225 VAL C 227 0
SHEET 67 9 1 LEU C 241 SER C 259 0
SHEET 68 10 1 PHE C 266 THR C 268 0
SHEET 69 11 1 ASP C 272 VAL C 274 0
SHEET 70 12 1 PHE C 297 SER C 307 0
SHEET 71 13 1 ALA C 315 ARG C 327 0
SHEET 72 14 1 SER C 330 ASP C 335 0
SHEET 73 15 1 LEU C 346 GLU C 359 0
SHEET 74 16 1 TYR C 364 SER C 368 0
SHEET 75 17 1 ALA C 373 SER C 377 0
SHEET 76 18 1 GLU C 413 TYR C 415 0

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SHEET    77  19 1 SER C 419  GLU C 422   0
SHEET    78  20 1 VAL C 428  LYS C 435   0
SHEET    79  21 1 ALA C 539  MET C 542   0
SHEET    80  22 1 VAL C 545  LEU C 548   0
SHEET    81  23 1 VAL C 559  LEU C 562   0
SHEET    82  24 1 VAL C 579  ASN C 583   0
SHEET    83  25 1 VAL C 590  GLY C 596   0
SHEET    84  26 1 GLU C 600  LEU C 602   0
SHEET    85  27 1 LEU C 616  ILE C 620   0
SHEET    86  28 1 ALA C 625  VAL C 629   0
SHEET    87  29 1 LEU C 632  ILE C 637   0
LINK         C1  NAG A1003                 O3  NAG A1002
LINK         C1  NAG A1008                 O3  NAG A1007
LINK         C1  NAG B1003                 O3  NAG B1002
LINK         C1  NAG B1008                 O3  NAG B1007
LINK         C1  NAG C1003                 O3  NAG C1002
LINK         C1  NAG C1008                 O3  NAG C1007
LINK         C1  NAG A1002                 O4  NAG A1001
LINK         C1  NAG B1002                 O4  NAG B1001
LINK         C1  NAG C1002                 O4  NAG C1001
LINK         C1  NAG A1001                 ND2 ASN A 208
LINK         C1  NAG A1004                 ND2 ASN A 281
LINK         C1  NAG A1005                 ND2 ASN A 286
LINK         C1  NAG A1007                 ND2 ASN A 383
LINK         C1  NAG A1009                 ND2 ASN A 417
LINK         C1  NAG A1010                 ND2 ASN A 555
LINK         C1  NAG A1011                 ND2 ASN A 586
LINK         C1  NAG A1012                 ND2 ASN A 341
LINK         C1  NAG A1013                 ND2 ASN A 405
LINK         C1  NAG A1014                 ND2 ASN A 118
LINK         C1  NAG A1015                 ND2 ASN A 338
LINK         C1  NAG B1001                 ND2 ASN B 208
LINK         C1  NAG B1004                 ND2 ASN B 281
LINK         C1  NAG B1005                 ND2 ASN B 286
LINK         C1  NAG B1007                 ND2 ASN B 383
LINK         C1  NAG B1009                 ND2 ASN B 417
LINK         C1  NAG B1010                 ND2 ASN B 555
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LINK         C1  NAG B1011                 ND2 ASN B 586
LINK         C1  NAG B1012                 ND2 ASN B 341
LINK         C1  NAG B1013                 ND2 ASN B 405
LINK         C1  NAG B1014                 ND2 ASN B 118
LINK         C1  NAG B1015                 ND2 ASN B 338
LINK         C1  NAG C1001                 ND2 ASN C 208
LINK         C1  NAG C1004                 ND2 ASN C 281
LINK         C1  NAG C1005                 ND2 ASN C 286
LINK         C1  NAG C1007                 ND2 ASN C 383
LINK         C1  NAG C1009                 ND2 ASN C 417
LINK         C1  NAG C1010                 ND2 ASN C 555
LINK         C1  NAG C1011                 ND2 ASN C 586
LINK         C1  NAG C1012                 ND2 ASN C 341
LINK         C1  NAG C1013                 ND2 ASN C 405
LINK         C1  NAG C1014                 ND2 ASN C 118
LINK         C1  NAG C1015                 ND2 ASN C 338
SSBOND   1 CYS A   94     CYS A  551
SSBOND   2 CYS A  111     CYS A  507
SSBOND   3 CYS A  185     CYS A  250
SSBOND   4 CYS A  344     CYS A  391
SSBOND   5 CYS A  574     CYS A  611
SSBOND   6 CYS B   94     CYS B  551
SSBOND   7 CYS B  111     CYS B  507
SSBOND   8 CYS B  185     CYS B  250
SSBOND   9 CYS B  344     CYS B  391
SSBOND  10 CYS B  574     CYS B  611
SSBOND  11 CYS C   94     CYS C  551
SSBOND  12 CYS C  111     CYS C  507
SSBOND  13 CYS C  185     CYS C  250
SSBOND  14 CYS C  344     CYS C  391
SSBOND  15 CYS C  574     CYS C  611
CRYST1  385.280  385.280  385.280  90.00  90.00  90.00 P 1
SCALE1      0.002596  0.000000  0.000000        0.00000
SCALE2      0.000000  0.002596  0.000000        0.00000
SCALE3      0.000000  0.000000  0.002596        0.00000
ATOM      1  N    THR A  87      183.022 162.064 195.194  1.00 73.34           N
ATOM      2  CA   THR A  87      183.305 163.436 195.596  1.00 73.34           C
```

ATOM	3	C	THR	A	87	184.805	163.704	195.604	1.00 73.34	C
ATOM	4	O	THR	A	87	185.591	162.880	196.069	1.00 73.34	O
ATOM	5	CB	THR	A	87	182.731	163.746	196.991	1.00 73.34	C
ATOM	6	OG1	THR	A	87	181.312	163.555	196.981	1.00 73.34	O
ATOM	7	CG2	THR	A	87	183.040	165.181	197.387	1.00 73.34	C
ATOM	8	N	LYS	A	88	185.196	164.865	195.080	1.00 65.97	N
ATOM	9	CA	LYS	A	88	186.590	165.285	195.056	1.00 65.97	C
ATOM	10	C	LYS	A	88	186.914	166.277	196.167	1.00 65.97	C
ATOM	11	O	LYS	A	88	187.902	167.011	196.066	1.00 65.97	O
ATOM	12	CB	LYS	A	88	186.937	165.888	193.694	1.00 65.97	C
ATOM	13	CG	LYS	A	88	186.203	167.181	193.383	1.00 65.97	C
ATOM	14	CD	LYS	A	88	186.561	167.697	191.999	1.00 65.97	C
ATOM	15	CE	LYS	A	88	185.846	169.001	191.690	1.00 65.97	C
ATOM	16	NZ	LYS	A	88	186.189	169.509	190.334	1.00 65.97	N
ATOM	17	N	TYR	A	89	186.103	166.313	197.222	1.00 56.58	N
ATOM	18	CA	TYR	A	89	186.300	167.222	198.350	1.00 56.58	C
ATOM	19	C	TYR	A	89	186.288	166.411	199.638	1.00 56.58	C
ATOM	20	O	TYR	A	89	185.298	166.416	200.380	1.00 56.58	O
ATOM	21	CB	TYR	A	89	185.229	168.311	198.376	1.00 56.58	C
ATOM	22	CG	TYR	A	89	185.302	169.265	197.210	1.00 56.58	C
ATOM	23	CD1	TYR	A	89	186.228	170.297	197.192	1.00 56.58	C
ATOM	24	CD2	TYR	A	89	184.443	169.138	196.129	1.00 56.58	C
ATOM	25	CE1	TYR	A	89	186.300	171.173	196.130	1.00 56.58	C
ATOM	26	CE2	TYR	A	89	184.507	170.009	195.061	1.00 56.58	C
ATOM	27	CZ	TYR	A	89	185.437	171.025	195.068	1.00 56.58	C
ATOM	28	OH	TYR	A	89	185.505	171.897	194.007	1.00 56.58	O
ATOM	29	N	PRO	A	90	187.370	165.699	199.932	1.00 48.30	N
ATOM	30	CA	PRO	A	90	187.438	164.942	201.183	1.00 48.30	C
ATOM	31	C	PRO	A	90	187.843	165.830	202.348	1.00 48.30	C
ATOM	32	O	PRO	A	90	188.481	166.871	202.182	1.00 48.30	O
ATOM	33	CB	PRO	A	90	188.516	163.893	200.897	1.00 48.30	C
ATOM	34	CG	PRO	A	90	189.408	164.563	199.915	1.00 48.30	C
ATOM	35	CD	PRO	A	90	188.521	165.424	199.057	1.00 48.30	C
ATOM	36	N	TYR	A	91	187.448	165.397	203.542	1.00 40.22	N
ATOM	37	CA	TYR	A	91	187.784	166.124	204.760	1.00 40.22	C
ATOM	38	C	TYR	A	91	189.296	166.225	204.890	1.00 40.22	C
ATOM	39	O	TYR	A	91	190.000	165.215	204.812	1.00 40.22	O

ATOM	40	CB	TYR	A	91	187.197	165.415	205.981	1.00 40.22	C
ATOM	41	CG	TYR	A	91	185.687	165.327	206.010	1.00 40.22	C
ATOM	42	CD1	TYR	A	91	184.905	166.099	205.169	1.00 40.22	C
ATOM	43	CD2	TYR	A	91	185.044	164.460	206.880	1.00 40.22	C
ATOM	44	CE1	TYR	A	91	183.531	166.008	205.189	1.00 40.22	C
ATOM	45	CE2	TYR	A	91	183.669	164.367	206.908	1.00 40.22	C
ATOM	46	CZ	TYR	A	91	182.919	165.147	206.060	1.00 40.22	C
ATOM	47	OH	TYR	A	91	181.548	165.068	206.074	1.00 40.22	O
ATOM	48	N	ARG	A	92	189.803	167.438	205.087	1.00 37.78	N
ATOM	49	CA	ARG	A	92	191.241	167.647	205.120	1.00 37.78	C
ATOM	50	C	ARG	A	92	191.578	168.770	206.091	1.00 37.78	C
ATOM	51	O	ARG	A	92	190.698	169.460	206.610	1.00 37.78	O
ATOM	52	CB	ARG	A	92	191.777	167.926	203.717	1.00 37.78	C
ATOM	53	CG	ARG	A	92	191.252	169.189	203.094	1.00 37.78	C
ATOM	54	CD	ARG	A	92	191.640	169.237	201.636	1.00 37.78	C
ATOM	55	NE	ARG	A	92	191.302	170.514	201.022	1.00 37.78	N
ATOM	56	CZ	ARG	A	92	190.112	170.802	200.509	1.00 37.78	C
ATOM	57	NH1	ARG	A	92	189.140	169.904	200.544	1.00 37.78	N
ATOM	58	NH2	ARG	A	92	189.895	171.990	199.966	1.00 37.78	N
ATOM	59	N	VAL	A	93	192.875	168.939	206.340	1.00 32.43	N
ATOM	60	CA	VAL	A	93	193.369	169.752	207.446	1.00 32.43	C
ATOM	61	C	VAL	A	93	194.285	170.854	206.920	1.00 32.43	C
ATOM	62	O	VAL	A	93	195.354	171.111	207.483	1.00 32.43	O
ATOM	63	CB	VAL	A	93	194.072	168.881	208.503	1.00 32.43	C
ATOM	64	CG1	VAL	A	93	194.368	169.686	209.763	1.00 32.43	C
ATOM	65	CG2	VAL	A	93	193.224	167.678	208.833	1.00 32.43	C
ATOM	66	N	CYS	A	94	193.898	171.496	205.817	1.00 41.32	N
ATOM	67	CA	CYS	A	94	194.795	172.415	205.122	1.00 41.32	C
ATOM	68	C	CYS	A	94	195.091	173.643	205.972	1.00 41.32	C
ATOM	69	O	CYS	A	94	194.589	174.736	205.692	1.00 41.32	O
ATOM	70	CB	CYS	A	94	194.175	172.879	203.803	1.00 41.32	C
ATOM	71	SG	CYS	A	94	193.803	171.599	202.601	1.00 41.32	S
ATOM	72	N	SER	A	95	195.897	173.474	207.008	1.00 43.21	N
ATOM	73	CA	SER	A	95	196.237	174.561	207.918	1.00 43.21	C
ATOM	74	C	SER	A	95	197.730	174.703	208.162	1.00 43.21	C
ATOM	75	O	SER	A	95	198.213	175.824	208.331	1.00 43.21	O
ATOM	76	CB	SER	A	95	195.519	174.361	209.260	1.00 43.21	C

ATOM	77	OG	SER	A	95	195.881	175.371	210.184	1.00 43.21	O
ATOM	78	N	MET	A	96	198.470	173.601	208.195	1.00 44.84	N
ATOM	79	CA	MET	A	96	199.854	173.603	208.644	1.00 44.84	C
ATOM	80	C	MET	A	96	200.801	173.435	207.465	1.00 44.84	C
ATOM	81	O	MET	A	96	200.516	172.689	206.525	1.00 44.84	O
ATOM	82	CB	MET	A	96	200.080	172.489	209.665	1.00 44.84	C
ATOM	83	CG	MET	A	96	199.896	171.095	209.098	1.00 44.84	C
ATOM	84	SD	MET	A	96	199.923	169.814	210.365	1.00 44.84	S
ATOM	85	CE	MET	A	96	198.306	170.020	211.106	1.00 44.84	C
ATOM	86	N	ALA	A	97	201.933	174.132	207.525	1.00 42.33	N
ATOM	87	CA	ALA	A	97	202.926	174.065	206.465	1.00 42.33	C
ATOM	88	C	ALA	A	97	204.274	174.491	207.024	1.00 42.33	C
ATOM	89	O	ALA	A	97	204.362	175.120	208.080	1.00 42.33	O
ATOM	90	CB	ALA	A	97	202.540	174.941	205.271	1.00 42.33	C
ATOM	91	N	GLN	A	98	205.319	174.148	206.282	1.00 45.39	N
ATOM	92	CA	GLN	A	98	206.710	174.310	206.688	1.00 45.39	C
ATOM	93	C	GLN	A	98	207.544	174.356	205.412	1.00 45.39	C
ATOM	94	O	GLN	A	98	207.021	174.655	204.333	1.00 45.39	O
ATOM	95	CB	GLN	A	98	207.136	173.195	207.659	1.00 45.39	C
ATOM	96	CG	GLN	A	98	206.530	173.315	209.043	1.00 45.39	C
ATOM	97	CD	GLN	A	98	206.918	172.172	209.950	1.00 45.39	C
ATOM	98	OE1	GLN	A	98	207.539	171.205	209.514	1.00 45.39	O
ATOM	99	NE2	GLN	A	98	206.566	172.283	211.225	1.00 45.39	N
ATOM	100	N	GLY	A	99	208.837	174.081	205.530	1.00 46.28	N
ATOM	101	CA	GLY	A	99	209.693	174.138	204.365	1.00 46.28	C
ATOM	102	C	GLY	A	99	209.459	172.972	203.425	1.00 46.28	C
ATOM	103	O	GLY	A	99	208.311	172.594	203.176	1.00 46.28	O
ATOM	104	N	THR	A	100	210.537	172.404	202.891	1.00 42.54	N
ATOM	105	CA	THR	A	100	210.597	171.424	201.813	1.00 42.54	C
ATOM	106	C	THR	A	100	210.409	172.083	200.449	1.00 42.54	C
ATOM	107	O	THR	A	100	210.626	171.423	199.433	1.00 42.54	O
ATOM	108	CB	THR	A	100	209.558	170.292	201.943	1.00 42.54	C
ATOM	109	OG1	THR	A	100	208.248	170.824	201.720	1.00 42.54	O
ATOM	110	CG2	THR	A	100	209.595	169.680	203.327	1.00 42.54	C
ATOM	111	N	ASP	A	101	210.026	173.360	200.387	1.00 41.94	N
ATOM	112	CA	ASP	A	101	209.945	174.113	199.141	1.00 41.94	C
ATOM	113	C	ASP	A	101	209.545	175.557	199.420	1.00 41.94	C

ATOM	114	O	ASP A 101	208.847	175.831	200.400	1.00 41.94	O
ATOM	115	CB	ASP A 101	208.967	173.449	198.173	1.00 41.94	C
ATOM	116	CG	ASP A 101	207.615	173.210	198.794	1.00 41.94	C
ATOM	117	OD1	ASP A 101	207.451	173.516	199.993	1.00 41.94	O
ATOM	118	OD2	ASP A 101	206.721	172.701	198.089	1.00 41.94	O
ATOM	119	N	LEU A 102	209.966	176.483	198.564	1.00 40.67	N
ATOM	120	CA	LEU A 102	209.739	177.899	198.808	1.00 40.67	C
ATOM	121	C	LEU A 102	209.415	178.587	197.491	1.00 40.67	C
ATOM	122	O	LEU A 102	209.878	178.165	196.429	1.00 40.67	O
ATOM	123	CB	LEU A 102	210.962	178.563	199.451	1.00 40.67	C
ATOM	124	CG	LEU A 102	211.281	178.345	200.932	1.00 40.67	C
ATOM	125	CD1	LEU A 102	211.852	176.967	201.172	1.00 40.67	C
ATOM	126	CD2	LEU A 102	212.256	179.403	201.412	1.00 40.67	C
ATOM	127	N	ILE A 103	208.615	179.652	197.566	1.00 42.52	N
ATOM	128	CA	ILE A 103	208.299	180.454	196.387	1.00 42.52	C
ATOM	129	C	ILE A 103	208.127	181.920	196.765	1.00 42.52	C
ATOM	130	O	ILE A 103	207.306	182.266	197.620	1.00 42.52	O
ATOM	131	CB	ILE A 103	207.042	179.933	195.662	1.00 42.52	C
ATOM	132	CG1	ILE A 103	205.828	179.942	196.587	1.00 42.52	C
ATOM	133	CG2	ILE A 103	207.269	178.546	195.083	1.00 42.52	C
ATOM	134	CD1	ILE A 103	204.525	179.696	195.863	1.00 42.52	C
ATOM	135	N	ARG A 104	208.907	182.788	196.129	1.00 55.38	N
ATOM	136	CA	ARG A 104	208.772	184.231	196.260	1.00 55.38	C
ATOM	137	C	ARG A 104	207.847	184.754	195.162	1.00 55.38	C
ATOM	138	O	ARG A 104	207.128	183.990	194.513	1.00 55.38	O
ATOM	139	CB	ARG A 104	210.141	184.897	196.208	1.00 55.38	C
ATOM	140	CG	ARG A 104	210.837	184.689	194.888	1.00 55.38	C
ATOM	141	CD	ARG A 104	212.175	185.384	194.839	1.00 55.38	C
ATOM	142	NE	ARG A 104	212.838	185.138	193.566	1.00 55.38	N
ATOM	143	CZ	ARG A 104	213.989	185.690	193.207	1.00 55.38	C
ATOM	144	NH1	ARG A 104	214.599	186.536	194.022	1.00 55.38	N
ATOM	145	NH2	ARG A 104	214.523	185.407	192.029	1.00 55.38	N
ATOM	146	N	PHE A 105	207.845	186.073	194.944	1.00 61.78	N
ATOM	147	CA	PHE A 105	206.981	186.681	193.941	1.00 61.78	C
ATOM	148	C	PHE A 105	207.699	187.528	192.895	1.00 61.78	C
ATOM	149	O	PHE A 105	207.109	187.780	191.839	1.00 61.78	O
ATOM	150	CB	PHE A 105	205.899	187.538	194.613	1.00 61.78	C

ATOM	151	CG	PHE	A	105	204.849	186.735	195.324	1.00 61.78	C
ATOM	152	CD1	PHE	A	105	203.789	186.185	194.624	1.00 61.78	C
ATOM	153	CD2	PHE	A	105	204.925	186.524	196.689	1.00 61.78	C
ATOM	154	CE1	PHE	A	105	202.822	185.447	195.273	1.00 61.78	C
ATOM	155	CE2	PHE	A	105	203.960	185.786	197.344	1.00 61.78	C
ATOM	156	CZ	PHE	A	105	202.907	185.246	196.634	1.00 61.78	C
ATOM	157	N	GLU	A	106	208.936	187.968	193.144	1.00 76.47	N
ATOM	158	CA	GLU	A	106	209.783	188.575	192.111	1.00 76.47	C
ATOM	159	C	GLU	A	106	209.134	189.829	191.514	1.00 76.47	C
ATOM	160	O	GLU	A	106	208.664	189.835	190.375	1.00 76.47	O
ATOM	161	CB	GLU	A	106	210.113	187.554	191.017	1.00 76.47	C
ATOM	162	CG	GLU	A	106	211.032	188.084	189.933	1.00 76.47	C
ATOM	163	CD	GLU	A	106	212.395	188.462	190.469	1.00 76.47	C
ATOM	164	OE1	GLU	A	106	212.797	187.909	191.513	1.00 76.47	O
ATOM	165	OE2	GLU	A	106	213.064	189.313	189.847	1.00 76.47	O
ATOM	166	N	ARG	A	107	209.097	190.877	192.347	1.00 87.65	N
ATOM	167	CA	ARG	A	107	208.391	192.127	192.063	1.00 87.65	C
ATOM	168	C	ARG	A	107	208.548	192.637	190.629	1.00 87.65	C
ATOM	169	O	ARG	A	107	207.563	192.759	189.893	1.00 87.65	O
ATOM	170	CB	ARG	A	107	208.867	193.220	193.030	1.00 87.65	C
ATOM	171	CG	ARG	A	107	208.352	193.122	194.458	1.00 87.65	C
ATOM	172	CD	ARG	A	107	209.321	192.376	195.358	1.00 87.65	C
ATOM	173	NE	ARG	A	107	208.972	192.524	196.769	1.00 87.65	N
ATOM	174	CZ	ARG	A	107	208.284	191.631	197.473	1.00 87.65	C
ATOM	175	NH1	ARG	A	107	208.007	191.857	198.749	1.00 87.65	N
ATOM	176	NH2	ARG	A	107	207.874	190.507	196.898	1.00 87.65	N
ATOM	177	N	ASN	A	108	209.777	192.931	190.209	1.00104.17	N
ATOM	178	CA	ASN	A	108	209.992	193.635	188.948	1.00104.17	C
ATOM	179	C	ASN	A	108	209.913	192.681	187.757	1.00104.17	C
ATOM	180	O	ASN	A	108	210.726	191.761	187.622	1.00104.17	O
ATOM	181	CB	ASN	A	108	211.326	194.383	188.967	1.00104.17	C
ATOM	182	CG	ASN	A	108	212.500	193.493	189.322	1.00104.17	C
ATOM	183	OD1	ASN	A	108	212.340	192.304	189.593	1.00104.17	O
ATOM	184	ND2	ASN	A	108	213.697	194.066	189.299	1.00104.17	N
ATOM	185	N	ILE	A	109	208.925	192.912	186.893	1.00111.55	N
ATOM	186	CA	ILE	A	109	208.701	192.129	185.682	1.00111.55	C
ATOM	187	C	ILE	A	109	208.735	193.086	184.495	1.00111.55	C

ATOM	188	O	ILE A 109	207.919	192.972	183.573	1.00111.55	O
ATOM	189	CB	ILE A 109	207.374	191.350	185.747	1.00111.55	C
ATOM	190	CG1	ILE A 109	207.296	190.556	187.047	1.00111.55	C
ATOM	191	CG2	ILE A 109	207.263	190.358	184.593	1.00111.55	C
ATOM	192	CD1	ILE A 109	208.398	189.536	187.200	1.00111.55	C
ATOM	193	N	VAL A 110	209.638	194.070	184.552	1.00124.50	N
ATOM	194	CA	VAL A 110	209.718	195.191	183.613	1.00124.50	C
ATOM	195	C	VAL A 110	209.615	194.742	182.160	1.00124.50	C
ATOM	196	O	VAL A 110	210.365	193.871	181.704	1.00124.50	O
ATOM	197	CB	VAL A 110	211.015	195.993	183.832	1.00124.50	C
ATOM	198	CG1	VAL A 110	211.030	196.604	185.223	1.00124.50	C
ATOM	199	CG2	VAL A 110	212.237	195.108	183.622	1.00124.50	C
ATOM	200	N	CYS A 111	208.675	195.337	181.431	1.00128.31	N
ATOM	201	CA	CYS A 111	208.356	194.943	180.070	1.00128.31	C
ATOM	202	C	CYS A 111	209.149	195.782	179.073	1.00128.31	C
ATOM	203	O	CYS A 111	209.786	196.779	179.422	1.00128.31	O
ATOM	204	CB	CYS A 111	206.855	195.088	179.819	1.00128.31	C
ATOM	205	SG	CYS A 111	205.824	194.095	180.924	1.00128.31	S
ATOM	206	N	THR A 112	209.101	195.369	177.810	1.00137.95	N
ATOM	207	CA	THR A 112	209.823	196.046	176.742	1.00137.95	C
ATOM	208	C	THR A 112	208.880	196.310	175.579	1.00137.95	C
ATOM	209	O	THR A 112	208.140	195.416	175.156	1.00137.95	O
ATOM	210	CB	THR A 112	211.032	195.223	176.274	1.00137.95	C
ATOM	211	OG1	THR A 112	211.767	195.964	175.291	1.00137.95	O
ATOM	212	CG2	THR A 112	210.591	193.889	175.685	1.00137.95	C
ATOM	213	N	SER A 113	208.898	197.540	175.079	1.00136.24	N
ATOM	214	CA	SER A 113	208.144	197.898	173.890	1.00136.24	C
ATOM	215	C	SER A 113	209.009	197.629	172.660	1.00136.24	C
ATOM	216	O	SER A 113	210.067	197.000	172.743	1.00136.24	O
ATOM	217	CB	SER A 113	207.681	199.350	173.974	1.00136.24	C
ATOM	218	OG	SER A 113	206.772	199.532	175.045	1.00136.24	O
ATOM	219	N	MET A 114	208.570	198.104	171.502	1.00129.10	N
ATOM	220	CA	MET A 114	209.253	197.854	170.242	1.00129.10	C
ATOM	221	C	MET A 114	209.385	199.167	169.470	1.00129.10	C
ATOM	222	O	MET A 114	208.786	200.186	169.824	1.00129.10	O
ATOM	223	CB	MET A 114	208.494	196.796	169.433	1.00129.10	C
ATOM	224	CG	MET A 114	209.213	196.273	168.200	1.00129.10	C

ATOM	225	SD	MET	A	114	208.210	195.111	167.262	1.00129.10	S
ATOM	226	CE	MET	A	114	207.022	196.231	166.527	1.00129.10	C
ATOM	227	N	LYS	A	115	210.178	199.135	168.403	1.00131.31	N
ATOM	228	CA	LYS	A	115	210.332	200.281	167.520	1.00131.31	C
ATOM	229	C	LYS	A	115	209.617	199.992	166.202	1.00131.31	C
ATOM	230	O	LYS	A	115	210.234	199.525	165.240	1.00131.31	O
ATOM	231	CB	LYS	A	115	211.824	200.613	167.342	1.00131.31	C
ATOM	232	CG	LYS	A	115	212.731	199.508	166.771	1.00131.31	C
ATOM	233	CD	LYS	A	115	213.073	199.726	165.296	1.00131.31	C
ATOM	234	CE	LYS	A	115	214.037	198.681	164.759	1.00131.31	C
ATOM	235	NZ	LYS	A	115	214.317	198.890	163.308	1.00131.31	N
ATOM	236	N	PRO	A	116	208.302	200.212	166.123	1.00130.15	N
ATOM	237	CA	PRO	A	116	207.623	199.981	164.844	1.00130.15	C
ATOM	238	C	PRO	A	116	207.996	201.074	163.864	1.00130.15	C
ATOM	239	O	PRO	A	116	207.422	202.169	163.881	1.00130.15	O
ATOM	240	CB	PRO	A	116	206.138	200.029	165.219	1.00130.15	C
ATOM	241	CG	PRO	A	116	206.098	200.918	166.416	1.00130.15	C
ATOM	242	CD	PRO	A	116	207.371	200.660	167.174	1.00130.15	C
ATOM	243	N	ILE	A	117	208.964	200.776	163.003	1.00134.54	N
ATOM	244	CA	ILE	A	117	209.476	201.758	162.059	1.00134.54	C
ATOM	245	C	ILE	A	117	210.110	201.052	160.863	1.00134.54	C
ATOM	246	O	ILE	A	117	211.080	200.300	161.024	1.00134.54	O
ATOM	247	CB	ILE	A	117	210.466	202.697	162.780	1.00134.54	C
ATOM	248	CG1	ILE	A	117	210.900	203.857	161.887	1.00134.54	C
ATOM	249	CG2	ILE	A	117	211.661	201.933	163.340	1.00134.54	C
ATOM	250	CD1	ILE	A	117	211.652	204.938	162.631	1.00134.54	C
ATOM	251	N	ASN	A	118	209.569	201.285	159.659	1.00142.40	N
ATOM	252	CA	ASN	A	118	210.235	200.929	158.398	1.00142.40	C
ATOM	253	C	ASN	A	118	210.638	199.452	158.348	1.00142.40	C
ATOM	254	O	ASN	A	118	211.665	199.085	157.773	1.00142.40	O
ATOM	255	CB	ASN	A	118	211.446	201.842	158.192	1.00142.40	C
ATOM	256	CG	ASN	A	118	211.048	203.296	157.999	1.00142.40	C
ATOM	257	OD1	ASN	A	118	210.835	204.006	158.979	1.00142.40	O
ATOM	258	ND2	ASN	A	118	211.000	203.773	156.755	1.00142.40	N
ATOM	259	N	GLU	A	119	209.824	198.596	158.969	1.00123.74	N
ATOM	260	CA	GLU	A	119	210.201	197.205	159.184	1.00123.74	C
ATOM	261	C	GLU	A	119	209.066	196.275	158.777	1.00123.74	C

ATOM	262	O	GLU A 119	207.896	196.664	158.733	1.00123.74	O
ATOM	263	CB	GLU A 119	210.572	196.936	160.650	1.00123.74	C
ATOM	264	CG	GLU A 119	209.390	197.005	161.612	1.00123.74	C
ATOM	265	CD	GLU A 119	209.790	196.789	163.062	1.00123.74	C
ATOM	266	OE1	GLU A 119	210.998	196.621	163.332	1.00123.74	O
ATOM	267	OE2	GLU A 119	208.894	196.787	163.933	1.00123.74	O
ATOM	268	N	ASP A 120	209.438	195.028	158.491	1.00108.02	N
ATOM	269	CA	ASP A 120	208.514	193.936	158.218	1.00108.02	C
ATOM	270	C	ASP A 120	208.755	192.822	159.234	1.00108.02	C
ATOM	271	O	ASP A 120	209.507	192.988	160.199	1.00108.02	O
ATOM	272	CB	ASP A 120	208.654	193.432	156.774	1.00108.02	C
ATOM	273	CG	ASP A 120	210.060	192.967	156.446	1.00108.02	C
ATOM	274	OD1	ASP A 120	210.960	193.105	157.301	1.00108.02	O
ATOM	275	OD2	ASP A 120	210.265	192.459	155.324	1.00108.02	O
ATOM	276	N	LEU A 121	208.115	191.674	159.020	1.00 94.90	N
ATOM	277	CA	LEU A 121	208.103	190.635	160.042	1.00 94.90	C
ATOM	278	C	LEU A 121	207.711	189.300	159.421	1.00 94.90	C
ATOM	279	O	LEU A 121	207.075	189.246	158.365	1.00 94.90	O
ATOM	280	CB	LEU A 121	207.158	191.013	161.189	1.00 94.90	C
ATOM	281	CG	LEU A 121	205.649	191.025	160.928	1.00 94.90	C
ATOM	282	CD1	LEU A 121	204.890	191.120	162.237	1.00 94.90	C
ATOM	283	CD2	LEU A 121	205.249	192.169	160.009	1.00 94.90	C
ATOM	284	N	ASP A 122	208.104	188.221	160.099	1.00 95.78	N
ATOM	285	CA	ASP A 122	207.905	186.847	159.660	1.00 95.78	C
ATOM	286	C	ASP A 122	206.901	186.140	160.570	1.00 95.78	C
ATOM	287	O	ASP A 122	206.271	186.755	161.437	1.00 95.78	O
ATOM	288	CB	ASP A 122	209.244	186.105	159.625	1.00 95.78	C
ATOM	289	CG	ASP A 122	210.161	186.605	158.528	1.00 95.78	C
ATOM	290	OD1	ASP A 122	209.649	187.091	157.499	1.00 95.78	O
ATOM	291	OD2	ASP A 122	211.395	186.505	158.692	1.00 95.78	O
ATOM	292	N	GLU A 123	206.749	184.832	160.366	1.00102.67	N
ATOM	293	CA	GLU A 123	205.846	184.029	161.182	1.00102.67	C
ATOM	294	C	GLU A 123	206.245	182.566	161.073	1.00102.67	C
ATOM	295	O	GLU A 123	206.483	182.069	159.968	1.00102.67	O
ATOM	296	CB	GLU A 123	204.391	184.224	160.745	1.00102.67	C
ATOM	297	CG	GLU A 123	204.092	183.742	159.339	1.00102.67	C
ATOM	298	CD	GLU A 123	202.659	184.010	158.930	1.00102.67	C

ATOM	299	OE1	GLU A 123	201.905	184.580	159.747	1.00102.67	O
ATOM	300	OE2	GLU A 123	202.284	183.654	157.793	1.00102.67	O
ATOM	301	N	GLY A 124	206.323	181.887	162.211	1.00103.93	N
ATOM	302	CA	GLY A 124	206.702	180.484	162.235	1.00103.93	C
ATOM	303	C	GLY A 124	206.171	179.800	163.473	1.00103.93	C
ATOM	304	O	GLY A 124	206.056	180.411	164.540	1.00103.93	O
ATOM	305	N	ILE A 125	205.852	178.515	163.330	1.00111.88	N
ATOM	306	CA	ILE A 125	205.282	177.731	164.421	1.00111.88	C
ATOM	307	C	ILE A 125	206.400	177.219	165.319	1.00111.88	C
ATOM	308	O	ILE A 125	207.432	176.737	164.837	1.00111.88	O
ATOM	309	CB	ILE A 125	204.427	176.578	163.859	1.00111.88	C
ATOM	310	CG1	ILE A 125	205.251	175.673	162.940	1.00111.88	C
ATOM	311	CG2	ILE A 125	203.236	177.124	163.093	1.00111.88	C
ATOM	312	CD1	ILE A 125	205.906	174.503	163.636	1.00111.88	C
ATOM	313	N	MET A 126	206.197	177.311	166.634	1.00115.13	N
ATOM	314	CA	MET A 126	207.241	176.972	167.591	1.00115.13	C
ATOM	315	C	MET A 126	206.629	176.412	168.865	1.00115.13	C
ATOM	316	O	MET A 126	205.559	176.852	169.296	1.00115.13	O
ATOM	317	CB	MET A 126	208.113	178.193	167.915	1.00115.13	C
ATOM	318	CG	MET A 126	207.383	179.365	168.567	1.00115.13	C
ATOM	319	SD	MET A 126	207.276	179.304	170.366	1.00115.13	S
ATOM	320	CE	MET A 126	205.805	180.287	170.645	1.00115.13	C
ATOM	321	N	VAL A 127	207.322	175.445	169.464	1.00113.61	N
ATOM	322	CA	VAL A 127	206.956	174.869	170.751	1.00113.61	C
ATOM	323	C	VAL A 127	208.072	175.169	171.741	1.00113.61	C
ATOM	324	O	VAL A 127	209.253	175.155	171.380	1.00113.61	O
ATOM	325	CB	VAL A 127	206.710	173.351	170.649	1.00113.61	C
ATOM	326	CG1	VAL A 127	205.547	173.068	169.717	1.00113.61	C
ATOM	327	CG2	VAL A 127	207.966	172.645	170.169	1.00113.61	C
ATOM	328	N	VAL A 128	207.695	175.438	172.991	1.00114.43	N
ATOM	329	CA	VAL A 128	208.655	175.849	174.010	1.00114.43	C
ATOM	330	C	VAL A 128	208.740	174.790	175.100	1.00114.43	C
ATOM	331	O	VAL A 128	207.988	173.809	175.090	1.00114.43	O
ATOM	332	CB	VAL A 128	208.273	177.213	174.608	1.00114.43	C
ATOM	333	CG1	VAL A 128	208.236	178.272	173.522	1.00114.43	C
ATOM	334	CG2	VAL A 128	206.933	177.121	175.316	1.00114.43	C
ATOM	335	N	TYR A 129	209.651	174.984	176.049	1.00113.69	N

ATOM	336	CA	TYR A 129	209.794	174.079	177.182	1.00113.69	C
ATOM	337	C	TYR A 129	210.769	174.704	178.172	1.00113.69	C
ATOM	338	O	TYR A 129	211.405	175.723	177.887	1.00113.69	O
ATOM	339	CB	TYR A 129	210.244	172.687	176.732	1.00113.69	C
ATOM	340	CG	TYR A 129	211.588	172.632	176.056	1.00113.69	C
ATOM	341	CD1	TYR A 129	211.709	172.853	174.693	1.00113.69	C
ATOM	342	CD2	TYR A 129	212.732	172.321	176.773	1.00113.69	C
ATOM	343	CE1	TYR A 129	212.937	172.791	174.068	1.00113.69	C
ATOM	344	CE2	TYR A 129	213.964	172.253	176.160	1.00113.69	C
ATOM	345	CZ	TYR A 129	214.062	172.489	174.806	1.00113.69	C
ATOM	346	OH	TYR A 129	215.289	172.424	174.188	1.00113.69	O
ATOM	347	N	LYS A 130	210.874	174.082	179.346	1.00112.52	N
ATOM	348	CA	LYS A 130	211.514	174.699	180.499	1.00112.52	C
ATOM	349	C	LYS A 130	212.475	173.719	181.166	1.00112.52	C
ATOM	350	O	LYS A 130	212.364	172.501	181.013	1.00112.52	O
ATOM	351	CB	LYS A 130	210.447	175.189	181.493	1.00112.52	C
ATOM	352	CG	LYS A 130	210.961	175.960	182.693	1.00112.52	C
ATOM	353	CD	LYS A 130	209.800	176.532	183.496	1.00112.52	C
ATOM	354	CE	LYS A 130	209.248	175.516	184.485	1.00112.52	C
ATOM	355	NZ	LYS A 130	208.244	174.612	183.856	1.00112.52	N
ATOM	356	N	ARG A 131	213.429	174.278	181.911	1.00115.96	N
ATOM	357	CA	ARG A 131	214.448	173.511	182.618	1.00115.96	C
ATOM	358	C	ARG A 131	213.889	172.920	183.911	1.00115.96	C
ATOM	359	O	ARG A 131	212.951	173.456	184.507	1.00115.96	O
ATOM	360	CB	ARG A 131	215.648	174.410	182.926	1.00115.96	C
ATOM	361	CG	ARG A 131	216.782	173.767	183.717	1.00115.96	C
ATOM	362	CD	ARG A 131	217.540	172.731	182.910	1.00115.96	C
ATOM	363	NE	ARG A 131	218.661	172.165	183.657	1.00115.96	N
ATOM	364	CZ	ARG A 131	219.404	171.145	183.237	1.00115.96	C
ATOM	365	NH1	ARG A 131	220.402	170.699	183.988	1.00115.96	N
ATOM	366	NH2	ARG A 131	219.154	170.574	182.069	1.00115.96	N
ATOM	367	N	ASN A 132	214.477	171.802	184.346	1.00108.47	N
ATOM	368	CA	ASN A 132	214.061	171.120	185.566	1.00108.47	C
ATOM	369	C	ASN A 132	215.265	170.805	186.446	1.00108.47	C
ATOM	370	O	ASN A 132	216.360	170.514	185.957	1.00108.47	O
ATOM	371	CB	ASN A 132	213.294	169.830	185.256	1.00108.47	C
ATOM	372	CG	ASN A 132	211.908	170.097	184.710	1.00108.47	C

ATOM	373	OD1	ASN A 132	211.199	170.981	185.192	1.00108.47		O
ATOM	374	ND2	ASN A 132	211.512	169.334	183.698	1.00108.47		N
ATOM	375	N	ILE A 133	215.038	170.869	187.759	1.00	94.76	N
ATOM	376	CA	ILE A 133	216.076	170.743	188.779	1.00	94.76	C
ATOM	377	C	ILE A 133	215.706	169.617	189.742	1.00	94.76	C
ATOM	378	O	ILE A 133	215.852	169.762	190.961	1.00	94.76	O
ATOM	379	CB	ILE A 133	216.293	172.078	189.516	1.00	94.76	C
ATOM	380	CG1	ILE A 133	216.477	173.207	188.503	1.00	94.76	C
ATOM	381	CG2	ILE A 133	217.551	172.026	190.371	1.00	94.76	C
ATOM	382	CD1	ILE A 133	217.673	173.023	187.593	1.00	94.76	C
ATOM	383	N	VAL A 134	215.186	168.512	189.196	1.00	85.55	N
ATOM	384	CA	VAL A 134	214.476	167.436	189.897	1.00	85.55	C
ATOM	385	C	VAL A 134	215.079	167.068	191.252	1.00	85.55	C
ATOM	386	O	VAL A 134	216.300	166.953	191.398	1.00	85.55	O
ATOM	387	CB	VAL A 134	214.412	166.190	188.994	1.00	85.55	C
ATOM	388	CG1	VAL A 134	213.767	165.028	189.726	1.00	85.55	C
ATOM	389	CG2	VAL A 134	213.664	166.505	187.709	1.00	85.55	C
ATOM	390	N	ALA A 135	214.209	166.890	192.250	1.00	66.23	N
ATOM	391	CA	ALA A 135	214.576	166.807	193.657	1.00	66.23	C
ATOM	392	C	ALA A 135	214.796	165.357	194.096	1.00	66.23	C
ATOM	393	O	ALA A 135	214.921	164.444	193.277	1.00	66.23	O
ATOM	394	CB	ALA A 135	213.511	167.493	194.507	1.00	66.23	C
ATOM	395	N	HIS A 136	214.849	165.139	195.412	1.00	54.30	N
ATOM	396	CA	HIS A 136	215.210	163.850	195.988	1.00	54.30	C
ATOM	397	C	HIS A 136	214.482	163.680	197.319	1.00	54.30	C
ATOM	398	O	HIS A 136	214.306	164.653	198.056	1.00	54.30	O
ATOM	399	CB	HIS A 136	216.731	163.776	196.177	1.00	54.30	C
ATOM	400	CG	HIS A 136	217.257	162.395	196.400	1.00	54.30	C
ATOM	401	ND1	HIS A 136	218.541	162.154	196.836	1.00	54.30	N
ATOM	402	CD2	HIS A 136	216.685	161.180	196.224	1.00	54.30	C
ATOM	403	CE1	HIS A 136	218.735	160.852	196.930	1.00	54.30	C
ATOM	404	NE2	HIS A 136	217.624	160.238	196.566	1.00	54.30	N
ATOM	405	N	THR A 137	214.057	162.450	197.624	1.00	45.28	N
ATOM	406	CA	THR A 137	213.307	162.157	198.849	1.00	45.28	C
ATOM	407	C	THR A 137	213.739	160.803	199.395	1.00	45.28	C
ATOM	408	O	THR A 137	213.697	159.807	198.667	1.00	45.28	O
ATOM	409	CB	THR A 137	211.798	162.158	198.590	1.00	45.28	C

ATOM	410	OG1	THR	A	137	211.477	161.152	197.623	1.00 45.28	O
ATOM	411	CG2	THR	A	137	211.333	163.510	198.078	1.00 45.28	C
ATOM	412	N	PHE	A	138	214.143	160.752	200.679	1.00 40.92	N
ATOM	413	CA	PHE	A	138	214.796	159.546	201.181	1.00 40.92	C
ATOM	414	C	PHE	A	138	214.491	159.128	202.623	1.00 40.92	C
ATOM	415	O	PHE	A	138	215.157	158.215	203.125	1.00 40.92	O
ATOM	416	CB	PHE	A	138	216.313	159.683	200.994	1.00 40.92	C
ATOM	417	CG	PHE	A	138	216.899	160.908	201.629	1.00 40.92	C
ATOM	418	CD1	PHE	A	138	216.937	162.106	200.939	1.00 40.92	C
ATOM	419	CD2	PHE	A	138	217.442	160.859	202.894	1.00 40.92	C
ATOM	420	CE1	PHE	A	138	217.477	163.230	201.507	1.00 40.92	C
ATOM	421	CE2	PHE	A	138	217.990	161.984	203.462	1.00 40.92	C
ATOM	422	CZ	PHE	A	138	218.003	163.169	202.766	1.00 40.92	C
ATOM	423	N	LYS	A	139	213.505	159.718	203.303	1.00 37.64	N
ATOM	424	CA	LYS	A	139	212.978	159.164	204.559	1.00 37.64	C
ATOM	425	C	LYS	A	139	214.034	159.095	205.673	1.00 37.64	C
ATOM	426	O	LYS	A	139	214.521	158.025	206.041	1.00 37.64	O
ATOM	427	CB	LYS	A	139	212.374	157.775	204.324	1.00 37.64	C
ATOM	428	CG	LYS	A	139	211.106	157.769	203.496	1.00 37.64	C
ATOM	429	CD	LYS	A	139	210.542	156.363	203.362	1.00 37.64	C
ATOM	430	CE	LYS	A	139	209.220	156.371	202.615	1.00 37.64	C
ATOM	431	NZ	LYS	A	139	209.397	156.784	201.197	1.00 37.64	N
ATOM	432	N	VAL	A	140	214.389	160.270	206.194	1.00 33.55	N
ATOM	433	CA	VAL	A	140	215.262	160.368	207.366	1.00 33.55	C
ATOM	434	C	VAL	A	140	214.552	159.847	208.611	1.00 33.55	C
ATOM	435	O	VAL	A	140	213.340	159.609	208.593	1.00 33.55	O
ATOM	436	CB	VAL	A	140	215.729	161.814	207.599	1.00 33.55	C
ATOM	437	CG1	VAL	A	140	216.479	162.328	206.396	1.00 33.55	C
ATOM	438	CG2	VAL	A	140	214.549	162.701	207.923	1.00 33.55	C
ATOM	439	N	ARG	A	141	215.304	159.667	209.699	1.00 30.47	N
ATOM	440	CA	ARG	A	141	214.773	159.153	210.963	1.00 30.47	C
ATOM	441	C	ARG	A	141	215.327	159.995	212.104	1.00 30.47	C
ATOM	442	O	ARG	A	141	216.540	160.008	212.328	1.00 30.47	O
ATOM	443	CB	ARG	A	141	215.145	157.687	211.166	1.00 30.47	C
ATOM	444	CG	ARG	A	141	214.505	156.735	210.191	1.00 30.47	C
ATOM	445	CD	ARG	A	141	214.771	155.303	210.605	1.00 30.47	C
ATOM	446	NE	ARG	A	141	216.198	155.001	210.606	1.00 30.47	N

ATOM	447	CZ	ARG A 141	216.870	154.584	209.540	1.00 30.47	C
ATOM	448	NH1	ARG A 141	216.245	154.422	208.384	1.00 30.47	N
ATOM	449	NH2	ARG A 141	218.167	154.332	209.629	1.00 30.47	N
ATOM	450	N	VAL A 142	214.451	160.685	212.829	1.00 26.41	N
ATOM	451	CA	VAL A 142	214.852	161.563	213.924	1.00 26.41	C
ATOM	452	C	VAL A 142	214.576	160.875	215.252	1.00 26.41	C
ATOM	453	O	VAL A 142	213.487	160.327	215.462	1.00 26.41	O
ATOM	454	CB	VAL A 142	214.122	162.912	213.851	1.00 26.41	C
ATOM	455	CG1	VAL A 142	214.465	163.749	215.061	1.00 26.41	C
ATOM	456	CG2	VAL A 142	214.491	163.639	212.577	1.00 26.41	C
ATOM	457	N	TYR A 143	215.555	160.906	216.150	1.00 28.53	N
ATOM	458	CA	TYR A 143	215.404	160.402	217.506	1.00 28.53	C
ATOM	459	C	TYR A 143	215.268	161.566	218.479	1.00 28.53	C
ATOM	460	O	TYR A 143	215.586	162.712	218.158	1.00 28.53	O
ATOM	461	CB	TYR A 143	216.598	159.530	217.892	1.00 28.53	C
ATOM	462	CG	TYR A 143	216.727	158.281	217.065	1.00 28.53	C
ATOM	463	CD1	TYR A 143	215.989	157.151	217.362	1.00 28.53	C
ATOM	464	CD2	TYR A 143	217.584	158.235	215.980	1.00 28.53	C
ATOM	465	CE1	TYR A 143	216.106	156.008	216.605	1.00 28.53	C
ATOM	466	CE2	TYR A 143	217.707	157.100	215.217	1.00 28.53	C
ATOM	467	CZ	TYR A 143	216.968	155.988	215.532	1.00 28.53	C
ATOM	468	OH	TYR A 143	217.092	154.853	214.768	1.00 28.53	O
ATOM	469	N	GLN A 144	214.807	161.257	219.691	1.00 19.12	N
ATOM	470	CA	GLN A 144	214.622	162.291	220.703	1.00 19.12	C
ATOM	471	C	GLN A 144	214.187	161.656	222.019	1.00 19.12	C
ATOM	472	O	GLN A 144	213.922	160.452	222.069	1.00 19.12	O
ATOM	473	CB	GLN A 144	213.603	163.322	220.210	1.00 19.12	C
ATOM	474	CG	GLN A 144	213.560	164.619	220.985	1.00 19.12	C
ATOM	475	CD	GLN A 144	212.677	165.650	220.317	1.00 19.12	C
ATOM	476	OE1	GLN A 144	212.007	165.359	219.326	1.00 19.12	O
ATOM	477	NE2	GLN A 144	212.699	166.873	220.833	1.00 19.12	N
ATOM	478	N	LYS A 145	214.125	162.444	223.092	1.00 35.49	N
ATOM	479	CA	LYS A 145	213.691	161.933	224.392	1.00 35.49	C
ATOM	480	C	LYS A 145	213.191	163.113	225.211	1.00 35.49	C
ATOM	481	O	LYS A 145	213.950	164.053	225.464	1.00 35.49	O
ATOM	482	CB	LYS A 145	214.822	161.209	225.110	1.00 35.49	C
ATOM	483	CG	LYS A 145	214.396	160.564	226.418	1.00 35.49	C

ATOM	484	CD	LYS A 145	215.562	159.902	227.129	1.00 35.49 C
ATOM	485	CE	LYS A 145	215.993	158.626	226.435	1.00 35.49 C
ATOM	486	NZ	LYS A 145	214.958	157.567	226.545	1.00 35.49 N
ATOM	487	N	VAL A 146	211.929	163.059	225.626	1.00 39.03 N
ATOM	488	CA	VAL A 146	211.276	164.156	226.328	1.00 39.03 C
ATOM	489	C	VAL A 146	211.155	163.800	227.800	1.00 39.03 C
ATOM	490	O	VAL A 146	210.816	162.662	228.145	1.00 39.03 O
ATOM	491	CB	VAL A 146	209.891	164.446	225.731	1.00 39.03 C
ATOM	492	CG1	VAL A 146	209.220	165.583	226.478	1.00 39.03 C
ATOM	493	CG2	VAL A 146	210.008	164.743	224.258	1.00 39.03 C
ATOM	494	N	LEU A 147	211.413	164.774	228.667	1.00 40.06 N
ATOM	495	CA	LEU A 147	211.192	164.611	230.097	1.00 40.06 C
ATOM	496	C	LEU A 147	210.624	165.906	230.649	1.00 40.06 C
ATOM	497	O	LEU A 147	211.162	166.984	230.383	1.00 40.06 O
ATOM	498	CB	LEU A 147	212.483	164.235	230.833	1.00 40.06 C
ATOM	499	CG	LEU A 147	213.544	165.312	231.041	1.00 40.06 C
ATOM	500	CD1	LEU A 147	214.501	164.888	232.133	1.00 40.06 C
ATOM	501	CD2	LEU A 147	214.297	165.550	229.759	1.00 40.06 C
ATOM	502	N	THR A 148	209.542	165.798	231.416	1.00 44.50 N
ATOM	503	CA	THR A 148	208.832	166.959	231.934	1.00 44.50 C
ATOM	504	C	THR A 148	208.671	166.828	233.438	1.00 44.50 C
ATOM	505	O	THR A 148	208.320	165.756	233.938	1.00 44.50 O
ATOM	506	CB	THR A 148	207.458	167.107	231.283	1.00 44.50 C
ATOM	507	OG1	THR A 148	206.641	165.986	231.634	1.00 44.50 O
ATOM	508	CG2	THR A 148	207.602	167.154	229.781	1.00 44.50 C
ATOM	509	N	PHE A 149	208.923	167.918	234.150	1.00 50.81 N
ATOM	510	CA	PHE A 149	208.711	167.965	235.585	1.00 50.81 C
ATOM	511	C	PHE A 149	207.325	168.523	235.897	1.00 50.81 C
ATOM	512	O	PHE A 149	206.676	169.158	235.066	1.00 50.81 O
ATOM	513	CB	PHE A 149	209.789	168.813	236.255	1.00 50.81 C
ATOM	514	CG	PHE A 149	211.159	168.210	236.191	1.00 50.81 C
ATOM	515	CD1	PHE A 149	211.542	167.238	237.096	1.00 50.81 C
ATOM	516	CD2	PHE A 149	212.065	168.616	235.229	1.00 50.81 C
ATOM	517	CE1	PHE A 149	212.802	166.682	237.044	1.00 50.81 C
ATOM	518	CE2	PHE A 149	213.328	168.063	235.172	1.00 50.81 C
ATOM	519	CZ	PHE A 149	213.696	167.094	236.080	1.00 50.81 C
ATOM	520	N	ARG A 150	206.874	168.272	237.122	1.00 62.61 N

ATOM	521	CA	ARG A 150	205.630	168.839	237.618	1.00 62.61 C
ATOM	522	C	ARG A 150	205.759	169.041	239.116	1.00 62.61 C
ATOM	523	O	ARG A 150	206.544	168.369	239.787	1.00 62.61 O
ATOM	524	CB	ARG A 150	204.422	167.949	237.312	1.00 62.61 C
ATOM	525	CG	ARG A 150	204.032	167.884	235.852	1.00 62.61 C
ATOM	526	CD	ARG A 150	202.827	166.979	235.673	1.00 62.61 C
ATOM	527	NE	ARG A 150	202.433	166.850	234.275	1.00 62.61 N
ATOM	528	CZ	ARG A 150	201.463	166.048	233.849	1.00 62.61 C
ATOM	529	NH1	ARG A 150	200.792	165.301	234.715	1.00 62.61 N
ATOM	530	NH2	ARG A 150	201.168	165.989	232.558	1.00 62.61 N
ATOM	531	N	ARG A 151	204.972	169.977	239.637	1.00 67.13 N
ATOM	532	CA	ARG A 151	204.974	170.284	241.061	1.00 67.13 C
ATOM	533	C	ARG A 151	203.543	170.567	241.477	1.00 67.13 C
ATOM	534	O	ARG A 151	202.945	171.543	241.017	1.00 67.13 O
ATOM	535	CB	ARG A 151	205.886	171.475	241.364	1.00 67.13 C
ATOM	536	CG	ARG A 151	207.355	171.181	241.111	1.00 67.13 C
ATOM	537	CD	ARG A 151	208.250	172.309	241.580	1.00 67.13 C
ATOM	538	NE	ARG A 151	208.013	173.538	240.832	1.00 67.13 N
ATOM	539	CZ	ARG A 151	208.625	173.844	239.694	1.00 67.13 C
ATOM	540	NH1	ARG A 151	209.509	173.006	239.171	1.00 67.13 N
ATOM	541	NH2	ARG A 151	208.352	174.985	239.077	1.00 67.13 N
ATOM	542	N	SER A 152	202.990	169.712	242.334	1.00 71.05 N
ATOM	543	CA	SER A 152	201.573	169.774	242.668	1.00 71.05 C
ATOM	544	C	SER A 152	201.390	169.534	244.156	1.00 71.05 C
ATOM	545	O	SER A 152	201.892	168.543	244.693	1.00 71.05 O
ATOM	546	CB	SER A 152	200.778	168.744	241.861	1.00 71.05 C
ATOM	547	OG	SER A 152	201.143	167.424	242.224	1.00 71.05 O
ATOM	548	N	TYR A 153	200.674	170.438	244.814	1.00 70.20 N
ATOM	549	CA	TYR A 153	200.240	170.242	246.188	1.00 70.20 C
ATOM	550	C	TYR A 153	198.776	169.828	246.180	1.00 70.20 C
ATOM	551	O	TYR A 153	197.974	170.367	245.412	1.00 70.20 O
ATOM	552	CB	TYR A 153	200.432	171.515	247.012	1.00 70.20 C
ATOM	553	CG	TYR A 153	200.107	171.349	248.475	1.00 70.20 C
ATOM	554	CD1	TYR A 153	200.966	170.666	249.319	1.00 70.20 C
ATOM	555	CD2	TYR A 153	198.948	171.882	249.014	1.00 70.20 C
ATOM	556	CE1	TYR A 153	200.678	170.511	250.657	1.00 70.20 C
ATOM	557	CE2	TYR A 153	198.652	171.733	250.352	1.00 70.20 C

ATOM	558	CZ	TYR A 153	199.521	171.045	251.168	1.00 70.20	C
ATOM	559	OH	TYR A 153	199.235	170.890	252.503	1.00 70.20	O
ATOM	560	N	ALA A 154	198.430	168.871	247.037	1.00 76.52	N
ATOM	561	CA	ALA A 154	197.139	168.195	246.969	1.00 76.52	C
ATOM	562	C	ALA A 154	196.370	168.430	248.261	1.00 76.52	C
ATOM	563	O	ALA A 154	196.762	167.928	249.319	1.00 76.52	O
ATOM	564	CB	ALA A 154	197.322	166.699	246.716	1.00 76.52	C
ATOM	565	N	TYR A 155	195.276	169.187	248.177	1.00 75.88	N
ATOM	566	CA	TYR A 155	194.361	169.317	249.304	1.00 75.88	C
ATOM	567	C	TYR A 155	193.634	168.008	249.567	1.00 75.88	C
ATOM	568	O	TYR A 155	193.844	167.018	248.860	1.00 75.88	O
ATOM	569	CB	TYR A 155	193.332	170.424	249.070	1.00 75.88	C
ATOM	570	CG	TYR A 155	193.865	171.820	249.247	1.00 75.88	C
ATOM	571	CD1	TYR A 155	195.116	172.040	249.795	1.00 75.88	C
ATOM	572	CD2	TYR A 155	193.095	172.920	248.907	1.00 75.88	C
ATOM	573	CE1	TYR A 155	195.601	173.319	249.970	1.00 75.88	C
ATOM	574	CE2	TYR A 155	193.569	174.202	249.078	1.00 75.88	C
ATOM	575	CZ	TYR A 155	194.821	174.397	249.613	1.00 75.88	C
ATOM	576	OH	TYR A 155	195.294	175.675	249.785	1.00 75.88	O
ATOM	577	N	ILE A 156	192.770	167.998	250.585	1.00 81.92	N
ATOM	578	CA	ILE A 156	191.935	166.835	250.848	1.00 81.92	C
ATOM	579	C	ILE A 156	190.875	166.643	249.772	1.00 81.92	C
ATOM	580	O	ILE A 156	190.319	165.546	249.645	1.00 81.92	O
ATOM	581	CB	ILE A 156	191.284	166.953	252.239	1.00 81.92	C
ATOM	582	CG1	ILE A 156	190.596	165.644	252.628	1.00 81.92	C
ATOM	583	CG2	ILE A 156	190.311	168.116	252.273	1.00 81.92	C
ATOM	584	CD1	ILE A 156	191.547	164.491	252.823	1.00 81.92	C
ATOM	585	N	HIS A 157	190.572	167.681	248.992	1.00 84.48	N
ATOM	586	CA	HIS A 157	189.608	167.577	247.904	1.00 84.48	C
ATOM	587	C	HIS A 157	190.254	167.770	246.538	1.00 84.48	C
ATOM	588	O	HIS A 157	190.138	166.898	245.674	1.00 84.48	O
ATOM	589	CB	HIS A 157	188.474	168.593	248.098	1.00 84.48	C
ATOM	590	CG	HIS A 157	187.604	168.309	249.282	1.00 84.48	C
ATOM	591	ND1	HIS A 157	187.849	168.840	250.529	1.00 84.48	N
ATOM	592	CD2	HIS A 157	186.495	167.543	249.409	1.00 84.48	C
ATOM	593	CE1	HIS A 157	186.925	168.417	251.374	1.00 84.48	C
ATOM	594	NE2	HIS A 157	186.092	167.629	250.720	1.00 84.48	N

ATOM	595	N	THR A 158	190.938	168.888	246.319	1.00 82.91	N
ATOM	596	CA	THR A 158	191.485	169.229	245.015	1.00 82.91	C
ATOM	597	C	THR A 158	193.006	169.279	245.064	1.00 82.91	C
ATOM	598	O	THR A 158	193.607	169.460	246.127	1.00 82.91	O
ATOM	599	CB	THR A 158	190.942	170.575	244.528	1.00 82.91	C
ATOM	600	OG1	THR A 158	191.312	171.603	245.454	1.00 82.91	O
ATOM	601	CG2	THR A 158	189.428	170.524	244.413	1.00 82.91	C
ATOM	602	N	THR A 159	193.622	169.117	243.897	1.00 78.81	N
ATOM	603	CA	THR A 159	195.071	169.149	243.749	1.00 78.81	C
ATOM	604	C	THR A 159	195.444	170.234	242.749	1.00 78.81	C
ATOM	605	O	THR A 159	194.881	170.291	241.651	1.00 78.81	O
ATOM	606	CB	THR A 159	195.603	167.792	243.284	1.00 78.81	C
ATOM	607	OG1	THR A 159	195.097	167.504	241.976	1.00 78.81	O
ATOM	608	CG2	THR A 159	195.151	166.697	244.236	1.00 78.81	C
ATOM	609	N	TYR A 160	196.383	171.092	243.131	1.00 74.16	N
ATOM	610	CA	TYR A 160	196.784	172.223	242.309	1.00 74.16	C
ATOM	611	C	TYR A 160	198.002	171.877	241.457	1.00 74.16	C
ATOM	612	O	TYR A 160	198.712	170.902	241.708	1.00 74.16	O
ATOM	613	CB	TYR A 160	197.077	173.437	243.190	1.00 74.16	C
ATOM	614	CG	TYR A 160	195.848	174.005	243.858	1.00 74.16	C
ATOM	615	CD1	TYR A 160	194.995	174.853	243.171	1.00 74.16	C
ATOM	616	CD2	TYR A 160	195.535	173.687	245.173	1.00 74.16	C
ATOM	617	CE1	TYR A 160	193.868	175.375	243.772	1.00 74.16	C
ATOM	618	CE2	TYR A 160	194.406	174.206	245.782	1.00 74.16	C
ATOM	619	CZ	TYR A 160	193.580	175.048	245.074	1.00 74.16	C
ATOM	620	OH	TYR A 160	192.453	175.572	245.667	1.00 74.16	O
ATOM	621	N	LEU A 161	198.234	172.695	240.432	1.00 70.40	N
ATOM	622	CA	LEU A 161	199.375	172.541	239.531	1.00 70.40	C
ATOM	623	C	LEU A 161	200.280	173.752	239.732	1.00 70.40	C
ATOM	624	O	LEU A 161	199.982	174.850	239.253	1.00 70.40	O
ATOM	625	CB	LEU A 161	198.917	172.409	238.081	1.00 70.40	C
ATOM	626	CG	LEU A 161	199.992	172.147	237.022	1.00 70.40	C
ATOM	627	CD1	LEU A 161	200.677	170.809	237.256	1.00 70.40	C
ATOM	628	CD2	LEU A 161	199.399	172.208	235.622	1.00 70.40	C
ATOM	629	N	LEU A 162	201.389	173.546	240.443	1.00 68.87	N
ATOM	630	CA	LEU A 162	202.245	174.660	240.832	1.00 68.87	C
ATOM	631	C	LEU A 162	203.231	175.044	239.734	1.00 68.87	C

ATOM	632	O	LEU A 162	203.568	176.224	239.590	1.00 68.87 O
ATOM	633	CB	LEU A 162	202.983	174.316	242.123	1.00 68.87 C
ATOM	634	CG	LEU A 162	202.058	174.239	243.334	1.00 68.87 C
ATOM	635	CD1	LEU A 162	202.780	173.686	244.540	1.00 68.87 C
ATOM	636	CD2	LEU A 162	201.531	175.621	243.630	1.00 68.87 C
ATOM	637	N	GLY A 163	203.711	174.078	238.960	1.00 66.57 N
ATOM	638	CA	GLY A 163	204.660	174.409	237.914	1.00 66.57 C
ATOM	639	C	GLY A 163	204.852	173.250	236.965	1.00 66.57 C
ATOM	640	O	GLY A 163	204.349	172.145	237.181	1.00 66.57 O
ATOM	641	N	SER A 164	205.593	173.525	235.895	1.00 58.31 N
ATOM	642	CA	SER A 164	205.951	172.509	234.916	1.00 58.31 C
ATOM	643	C	SER A 164	206.930	173.121	233.929	1.00 58.31 C
ATOM	644	O	SER A 164	206.868	174.318	233.638	1.00 58.31 O
ATOM	645	CB	SER A 164	204.720	171.970	234.179	1.00 58.31 C
ATOM	646	OG	SER A 164	204.141	172.966	233.356	1.00 58.31 O
ATOM	647	N	ASN A 165	207.842	172.290	233.428	1.00 56.35 N
ATOM	648	CA	ASN A 165	208.817	172.757	232.447	1.00 56.35 C
ATOM	649	C	ASN A 165	209.325	171.559	231.644	1.00 56.35 C
ATOM	650	O	ASN A 165	210.167	170.798	232.127	1.00 56.35 O
ATOM	651	CB	ASN A 165	209.951	173.512	233.125	1.00 56.35 C
ATOM	652	CG	ASN A 165	210.547	172.750	234.289	1.00 56.35 C
ATOM	653	OD1	ASN A 165	210.110	171.646	234.613	1.00 56.35 O
ATOM	654	ND2	ASN A 165	211.564	173.331	234.916	1.00 56.35 N
ATOM	655	N	THR A 166	208.811	171.408	230.426	1.00 47.78 N
ATOM	656	CA	THR A 166	209.345	170.396	229.531	1.00 47.78 C
ATOM	657	C	THR A 166	210.806	170.709	229.217	1.00 47.78 C
ATOM	658	O	THR A 166	211.271	171.843	229.357	1.00 47.78 O
ATOM	659	CB	THR A 166	208.526	170.334	228.242	1.00 47.78 C
ATOM	660	OG1	THR A 166	208.643	171.577	227.539	1.00 47.78 O
ATOM	661	CG2	THR A 166	207.054	170.083	228.554	1.00 47.78 C
ATOM	662	N	GLU A 167	211.541	169.682	228.797	1.00 46.33 N
ATOM	663	CA	GLU A 167	212.950	169.868	228.455	1.00 46.33 C
ATOM	664	C	GLU A 167	213.339	168.786	227.459	1.00 46.33 C
ATOM	665	O	GLU A 167	213.459	167.616	227.831	1.00 46.33 O
ATOM	666	CB	GLU A 167	213.826	169.819	229.701	1.00 46.33 C
ATOM	667	CG	GLU A 167	215.299	170.095	229.440	1.00 46.33 C
ATOM	668	CD	GLU A 167	216.121	170.129	230.714	1.00 46.33 C

ATOM	669	OE1	GLU A 167	215.539	169.923	231.799	1.00 46.33	O
ATOM	670	OE2	GLU A 167	217.346	170.362	230.632	1.00 46.33	O
ATOM	671	N	TYR A 168	213.531	169.179	226.205	1.00 41.15	N
ATOM	672	CA	TYR A 168	213.873	168.232	225.156	1.00 41.15	C
ATOM	673	C	TYR A 168	215.380	168.027	225.105	1.00 41.15	C
ATOM	674	O	TYR A 168	216.154	168.986	225.155	1.00 41.15	O
ATOM	675	CB	TYR A 168	213.358	168.746	223.817	1.00 41.15	C
ATOM	676	CG	TYR A 168	211.856	168.875	223.785	1.00 41.15	C
ATOM	677	CD1	TYR A 168	211.054	167.797	223.459	1.00 41.15	C
ATOM	678	CD2	TYR A 168	211.240	170.070	224.119	1.00 41.15	C
ATOM	679	CE1	TYR A 168	209.677	167.911	223.441	1.00 41.15	C
ATOM	680	CE2	TYR A 168	209.868	170.196	224.104	1.00 41.15	C
ATOM	681	CZ	TYR A 168	209.090	169.112	223.767	1.00 41.15	C
ATOM	682	OH	TYR A 168	207.723	169.232	223.756	1.00 41.15	O
ATOM	683	N	VAL A 169	215.799	166.770	224.999	1.00 38.77	N
ATOM	684	CA	VAL A 169	217.220	166.447	225.025	1.00 38.77	C
ATOM	685	C	VAL A 169	217.454	165.131	224.298	1.00 38.77	C
ATOM	686	O	VAL A 169	216.693	164.173	224.467	1.00 38.77	O
ATOM	687	CB	VAL A 169	217.742	166.387	226.472	1.00 38.77	C
ATOM	688	CG1	VAL A 169	217.122	165.215	227.211	1.00 38.77	C
ATOM	689	CG2	VAL A 169	219.254	166.304	226.490	1.00 38.77	C
ATOM	690	N	ALA A 170	218.499	165.078	223.477	1.00 34.69	N
ATOM	691	CA	ALA A 170	218.780	163.874	222.717	1.00 34.69	C
ATOM	692	C	ALA A 170	219.355	162.790	223.625	1.00 34.69	C
ATOM	693	O	ALA A 170	219.951	163.090	224.663	1.00 34.69	O
ATOM	694	CB	ALA A 170	219.755	164.169	221.583	1.00 34.69	C
ATOM	695	N	PRO A 171	219.191	161.525	223.258	1.00 32.53	N
ATOM	696	CA	PRO A 171	219.644	160.437	224.120	1.00 32.53	C
ATOM	697	C	PRO A 171	221.129	160.188	223.947	1.00 32.53	C
ATOM	698	O	PRO A 171	221.772	160.794	223.078	1.00 32.53	O
ATOM	699	CB	PRO A 171	218.824	159.239	223.623	1.00 32.53	C
ATOM	700	CG	PRO A 171	218.603	159.538	222.189	1.00 32.53	C
ATOM	701	CD	PRO A 171	218.454	161.031	222.085	1.00 32.53	C
ATOM	702	N	PRO A 172	221.711	159.303	224.753	1.00 35.57	N
ATOM	703	CA	PRO A 172	223.119	158.939	224.556	1.00 35.57	C
ATOM	704	C	PRO A 172	223.318	158.148	223.277	1.00 35.57	C
ATOM	705	O	PRO A 172	222.362	157.908	222.535	1.00 35.57	O

ATOM	706	CB	PRO A 172	223.440	158.092	225.793	1.00 35.57	C
ATOM	707	CG	PRO A 172	222.410	158.478	226.800	1.00 35.57	C
ATOM	708	CD	PRO A 172	221.172	158.752	226.006	1.00 35.57	C
ATOM	709	N	MET A 173	224.550	157.725	223.010	1.00 43.04	N
ATOM	710	CA	MET A 173	224.830	156.986	221.788	1.00 43.04	C
ATOM	711	C	MET A 173	224.573	155.494	221.923	1.00 43.04	C
ATOM	712	O	MET A 173	224.144	154.862	220.952	1.00 43.04	O
ATOM	713	CB	MET A 173	226.276	157.217	221.348	1.00 43.04	C
ATOM	714	CG	MET A 173	226.609	156.604	220.001	1.00 43.04	C
ATOM	715	SD	MET A 173	225.671	157.347	218.655	1.00 43.04	S
ATOM	716	CE	MET A 173	225.731	156.033	217.442	1.00 43.04	C
ATOM	717	N	TRP A 174	224.825	154.908	223.097	1.00 55.11	N
ATOM	718	CA	TRP A 174	224.556	153.484	223.267	1.00 55.11	C
ATOM	719	C	TRP A 174	223.075	153.172	223.114	1.00 55.11	C
ATOM	720	O	TRP A 174	222.714	152.080	222.663	1.00 55.11	O
ATOM	721	CB	TRP A 174	225.054	152.998	224.629	1.00 55.11	C
ATOM	722	CG	TRP A 174	224.399	153.663	225.804	1.00 55.11	C
ATOM	723	CD1	TRP A 174	223.216	153.316	226.394	1.00 55.11	C
ATOM	724	CD2	TRP A 174	224.905	154.773	226.550	1.00 55.11	C
ATOM	725	NE1	TRP A 174	222.951	154.150	227.449	1.00 55.11	N
ATOM	726	CE2	TRP A 174	223.973	155.053	227.568	1.00 55.11	C
ATOM	727	CE3	TRP A 174	226.054	155.563	226.452	1.00 55.11	C
ATOM	728	CZ2	TRP A 174	224.153	156.088	228.480	1.00 55.11	C
ATOM	729	CZ3	TRP A 174	226.231	156.589	227.360	1.00 55.11	C
ATOM	730	CH2	TRP A 174	225.286	156.843	228.360	1.00 55.11	C
ATOM	731	N	GLU A 175	222.206	154.112	223.481	1.00 44.00	N
ATOM	732	CA	GLU A 175	220.772	153.869	223.449	1.00 44.00	C
ATOM	733	C	GLU A 175	220.203	153.888	222.038	1.00 44.00	C
ATOM	734	O	GLU A 175	219.103	153.368	221.826	1.00 44.00	O
ATOM	735	CB	GLU A 175	220.055	154.896	224.327	1.00 44.00	C
ATOM	736	CG	GLU A 175	218.571	154.649	224.499	1.00 44.00	C
ATOM	737	CD	GLU A 175	217.937	155.604	225.490	1.00 44.00	C
ATOM	738	OE1	GLU A 175	218.657	156.472	226.027	1.00 44.00	O
ATOM	739	OE2	GLU A 175	216.720	155.485	225.740	1.00 44.00	O
ATOM	740	N	ILE A 176	220.920	154.456	221.074	1.00 32.07	N
ATOM	741	CA	ILE A 176	220.544	154.354	219.674	1.00 32.07	C
ATOM	742	C	ILE A 176	221.167	153.108	219.037	1.00 32.07	C

ATOM	743	O	ILE A 176	221.064	152.901	217.830	1.00 32.07	O
ATOM	744	CB	ILE A 176	220.903	155.634	218.903	1.00 32.07	C
ATOM	745	CG1	ILE A 176	220.308	156.846	219.611	1.00 32.07	C
ATOM	746	CG2	ILE A 176	220.294	155.632	217.520	1.00 32.07	C
ATOM	747	CD1	ILE A 176	220.804	158.166	219.075	1.00 32.07	C
ATOM	748	N	HIS A 177	221.806	152.266	219.845	1.00 41.04	N
ATOM	749	CA	HIS A 177	222.120	150.897	219.469	1.00 41.04	C
ATOM	750	C	HIS A 177	221.210	149.902	220.166	1.00 41.04	C
ATOM	751	O	HIS A 177	221.335	148.694	219.940	1.00 41.04	O
ATOM	752	CB	HIS A 177	223.580	150.564	219.787	1.00 41.04	C
ATOM	753	CG	HIS A 177	224.565	151.341	218.977	1.00 41.04	C
ATOM	754	ND1	HIS A 177	224.784	151.095	217.640	1.00 41.04	N
ATOM	755	CD2	HIS A 177	225.398	152.352	219.316	1.00 41.04	C
ATOM	756	CE1	HIS A 177	225.705	151.927	217.188	1.00 41.04	C
ATOM	757	NE2	HIS A 177	226.094	152.699	218.186	1.00 41.04	N
ATOM	758	N	HIS A 178	220.304	150.380	221.013	1.00 45.86	N
ATOM	759	CA	HIS A 178	219.306	149.541	221.645	1.00 45.86	C
ATOM	760	C	HIS A 178	217.905	149.878	221.165	1.00 45.86	C
ATOM	761	O	HIS A 178	216.976	149.101	221.407	1.00 45.86	O
ATOM	762	CB	HIS A 178	219.390	149.677	223.169	1.00 45.86	C
ATOM	763	CG	HIS A 178	218.563	148.677	223.910	1.00 45.86	C
ATOM	764	ND1	HIS A 178	217.232	148.882	224.199	1.00 45.86	N
ATOM	765	CD2	HIS A 178	218.877	147.462	224.417	1.00 45.86	C
ATOM	766	CE1	HIS A 178	216.761	147.837	224.855	1.00 45.86	C
ATOM	767	NE2	HIS A 178	217.739	146.961	225.000	1.00 45.86	N
ATOM	768	N	ILE A 179	217.731	151.005	220.478	1.00 37.69	N
ATOM	769	CA	ILE A 179	216.478	151.300	219.798	1.00 37.69	C
ATOM	770	C	ILE A 179	216.469	150.746	218.378	1.00 37.69	C
ATOM	771	O	ILE A 179	215.385	150.483	217.837	1.00 37.69	O
ATOM	772	CB	ILE A 179	216.201	152.818	219.782	1.00 37.69	C
ATOM	773	CG1	ILE A 179	216.031	153.348	221.202	1.00 37.69	C
ATOM	774	CG2	ILE A 179	214.967	153.140	218.966	1.00 37.69	C
ATOM	775	CD1	ILE A 179	215.981	154.855	221.278	1.00 37.69	C
ATOM	776	N	ASN A 180	217.636	150.541	217.769	1.00 34.14	N
ATOM	777	CA	ASN A 180	217.728	149.968	216.434	1.00 34.14	C
ATOM	778	C	ASN A 180	218.122	148.498	216.464	1.00 34.14	C
ATOM	779	O	ASN A 180	218.608	147.970	215.461	1.00 34.14	O

ATOM	780	CB	ASN A 180	218.714	150.762	215.580	1.00 34.14	C
ATOM	781	CG	ASN A 180	218.182	152.122	215.196	1.00 34.14	C
ATOM	782	OD1	ASN A 180	217.002	152.271	214.886	1.00 34.14	O
ATOM	783	ND2	ASN A 180	219.051	153.124	215.202	1.00 34.14	N
ATOM	784	N	SER A 181	217.923	147.825	217.595	1.00 42.06	N
ATOM	785	CA	SER A 181	218.154	146.386	217.667	1.00 42.06	C
ATOM	786	C	SER A 181	217.023	145.607	218.318	1.00 42.06	C
ATOM	787	O	SER A 181	216.884	144.414	218.028	1.00 42.06	O
ATOM	788	CB	SER A 181	219.455	146.088	218.422	1.00 42.06	C
ATOM	789	OG	SER A 181	220.579	146.587	217.719	1.00 42.06	O
ATOM	790	N	HIS A 182	216.216	146.214	219.183	1.00 44.56	N
ATOM	791	CA	HIS A 182	215.064	145.531	219.754	1.00 44.56	C
ATOM	792	C	HIS A 182	213.831	146.406	219.879	1.00 44.56	C
ATOM	793	O	HIS A 182	212.794	145.904	220.322	1.00 44.56	O
ATOM	794	CB	HIS A 182	215.413	144.962	221.132	1.00 44.56	C
ATOM	795	CG	HIS A 182	216.447	143.884	221.089	1.00 44.56	C
ATOM	796	ND1	HIS A 182	217.798	144.149	221.134	1.00 44.56	N
ATOM	797	CD2	HIS A 182	216.330	142.539	220.995	1.00 44.56	C
ATOM	798	CE1	HIS A 182	218.469	143.013	221.075	1.00 44.56	C
ATOM	799	NE2	HIS A 182	217.602	142.021	220.991	1.00 44.56	N
ATOM	800	N	SER A 183	213.895	147.685	219.512	1.00 45.48	N
ATOM	801	CA	SER A 183	212.768	148.607	219.642	1.00 45.48	C
ATOM	802	C	SER A 183	212.340	148.777	221.097	1.00 45.48	C
ATOM	803	O	SER A 183	211.179	149.076	221.380	1.00 45.48	O
ATOM	804	CB	SER A 183	211.582	148.163	218.782	1.00 45.48	C
ATOM	805	OG	SER A 183	211.019	146.955	219.259	1.00 45.48	O
ATOM	806	N	GLN A 184	213.268	148.593	222.031	1.00 48.22	N
ATOM	807	CA	GLN A 184	213.015	148.797	223.453	1.00 48.22	C
ATOM	808	C	GLN A 184	213.786	150.028	223.909	1.00 48.22	C
ATOM	809	O	GLN A 184	214.970	150.182	223.593	1.00 48.22	O
ATOM	810	CB	GLN A 184	213.408	147.572	224.274	1.00 48.22	C
ATOM	811	CG	GLN A 184	212.511	146.372	224.063	1.00 48.22	C
ATOM	812	CD	GLN A 184	212.895	145.207	224.946	1.00 48.22	C
ATOM	813	OE1	GLN A 184	213.877	145.273	225.684	1.00 48.22	O
ATOM	814	NE2	GLN A 184	212.121	144.131	224.878	1.00 48.22	N
ATOM	815	N	CYS A 185	213.113	150.898	224.650	1.00 51.93	N
ATOM	816	CA	CYS A 185	213.692	152.142	225.124	1.00 51.93	C

ATOM	817	C	CYS A 185	213.775	152.143	226.645	1.00 51.93 C
ATOM	818	O	CYS A 185	212.859	151.690	227.336	1.00 51.93 O
ATOM	819	CB	CYS A 185	212.851	153.317	224.630	1.00 51.93 C
ATOM	820	SG	CYS A 185	213.413	154.961	225.062	1.00 51.93 S
ATOM	821	N	TYR A 186	214.886	152.663	227.164	1.00 55.06 N
ATOM	822	CA	TYR A 186	215.142	152.640	228.596	1.00 55.06 C
ATOM	823	C	TYR A 186	214.244	153.638	229.323	1.00 55.06 C
ATOM	824	O	TYR A 186	213.483	154.394	228.714	1.00 55.06 O
ATOM	825	CB	TYR A 186	216.614	152.926	228.874	1.00 55.06 C
ATOM	826	CG	TYR A 186	217.525	151.794	228.484	1.00 55.06 C
ATOM	827	CD1	TYR A 186	217.024	150.519	228.278	1.00 55.06 C
ATOM	828	CD2	TYR A 186	218.883	151.999	228.313	1.00 55.06 C
ATOM	829	CE1	TYR A 186	217.850	149.479	227.921	1.00 55.06 C
ATOM	830	CE2	TYR A 186	219.718	150.965	227.953	1.00 55.06 C
ATOM	831	CZ	TYR A 186	219.195	149.706	227.758	1.00 55.06 C
ATOM	832	OH	TYR A 186	220.021	148.667	227.398	1.00 55.06 O
ATOM	833	N	SER A 187	214.343	153.648	230.650	1.00 53.71 N
ATOM	834	CA	SER A 187	213.512	154.504	231.488	1.00 53.71 C
ATOM	835	C	SER A 187	214.348	155.171	232.568	1.00 53.71 C
ATOM	836	O	SER A 187	213.932	155.272	233.726	1.00 53.71 O
ATOM	837	CB	SER A 187	212.367	153.713	232.114	1.00 53.71 C
ATOM	838	OG	SER A 187	212.864	152.750	233.026	1.00 53.71 O
ATOM	839	N	SER A 188	215.542	155.632	232.206	1.00 54.51 N
ATOM	840	CA	SER A 188	216.406	156.343	233.145	1.00 54.51 C
ATOM	841	C	SER A 188	217.425	157.125	232.338	1.00 54.51 C
ATOM	842	O	SER A 188	218.247	156.525	231.640	1.00 54.51 O
ATOM	843	CB	SER A 188	217.100	155.374	234.099	1.00 54.51 C
ATOM	844	OG	SER A 188	218.026	154.557	233.407	1.00 54.51 O
ATOM	845	N	TYR A 189	217.381	158.448	232.434	1.00 53.36 N
ATOM	846	CA	TYR A 189	218.226	159.321	231.624	1.00 53.36 C
ATOM	847	C	TYR A 189	219.251	160.002	232.525	1.00 53.36 C
ATOM	848	O	TYR A 189	219.035	161.116	233.002	1.00 53.36 O
ATOM	849	CB	TYR A 189	217.380	160.337	230.876	1.00 53.36 C
ATOM	850	CG	TYR A 189	218.183	161.250	229.988	1.00 53.36 C
ATOM	851	CD1	TYR A 189	218.791	160.765	228.843	1.00 53.36 C
ATOM	852	CD2	TYR A 189	218.309	162.599	230.274	1.00 53.36 C
ATOM	853	CE1	TYR A 189	219.521	161.589	228.020	1.00 53.36 C

ATOM	854	CE2	TYR A 189	219.032	163.433	229.450	1.00 53.36	C
ATOM	855	CZ	TYR A 189	219.638	162.923	228.328	1.00 53.36	C
ATOM	856	OH	TYR A 189	220.366	163.747	227.504	1.00 53.36	O
ATOM	857	N	SER A 190	220.379	159.330	232.740	1.00 61.72	N
ATOM	858	CA	SER A 190	221.463	159.925	233.504	1.00 61.72	C
ATOM	859	C	SER A 190	222.030	161.128	232.758	1.00 61.72	C
ATOM	860	O	SER A 190	221.876	161.267	231.543	1.00 61.72	O
ATOM	861	CB	SER A 190	222.561	158.896	233.767	1.00 61.72	C
ATOM	862	OG	SER A 190	223.187	158.502	232.559	1.00 61.72	O
ATOM	863	N	ARG A 191	222.695	162.008	233.503	1.00 70.75	N
ATOM	864	CA	ARG A 191	223.211	163.246	232.936	1.00 70.75	C
ATOM	865	C	ARG A 191	224.435	163.696	233.719	1.00 70.75	C
ATOM	866	O	ARG A 191	224.864	163.050	234.679	1.00 70.75	O
ATOM	867	CB	ARG A 191	222.149	164.349	232.943	1.00 70.75	C
ATOM	868	CG	ARG A 191	220.998	164.123	231.993	1.00 70.75	C
ATOM	869	CD	ARG A 191	219.979	165.242	232.096	1.00 70.75	C
ATOM	870	NE	ARG A 191	220.522	166.523	231.656	1.00 70.75	N
ATOM	871	CZ	ARG A 191	219.894	167.686	231.799	1.00 70.75	C
ATOM	872	NH1	ARG A 191	218.701	167.729	232.373	1.00 70.75	N
ATOM	873	NH2	ARG A 191	220.459	168.805	231.368	1.00 70.75	N
ATOM	874	N	VAL A 192	224.996	164.824	233.287	1.00 86.36	N
ATOM	875	CA	VAL A 192	226.077	165.513	233.981	1.00 86.36	C
ATOM	876	C	VAL A 192	225.883	167.004	233.759	1.00 86.36	C
ATOM	877	O	VAL A 192	225.973	167.481	232.622	1.00 86.36	O
ATOM	878	CB	VAL A 192	227.462	165.069	233.474	1.00 86.36	C
ATOM	879	CG1	VAL A 192	228.556	165.903	234.124	1.00 86.36	C
ATOM	880	CG2	VAL A 192	227.688	163.590	233.724	1.00 86.36	C
ATOM	881	N	ILE A 193	225.614	167.758	234.823	1.00 95.83	N
ATOM	882	CA	ILE A 193	225.517	169.201	234.647	1.00 95.83	C
ATOM	883	C	ILE A 193	226.748	169.871	235.245	1.00 95.83	C
ATOM	884	O	ILE A 193	226.728	170.378	236.372	1.00 95.83	O
ATOM	885	CB	ILE A 193	224.207	169.743	235.254	1.00 95.83	C
ATOM	886	CG1	ILE A 193	224.085	171.251	235.022	1.00 95.83	C
ATOM	887	CG2	ILE A 193	224.053	169.343	236.725	1.00 95.83	C
ATOM	888	CD1	ILE A 193	222.704	171.796	235.296	1.00 95.83	C
ATOM	889	N	ALA A 194	227.829	169.877	234.467	1.00104.14	N
ATOM	890	CA	ALA A 194	229.032	170.682	234.653	1.00104.14	C

ATOM	891	C	ALA A 194	229.870	170.319	235.876	1.00104.14 C
ATOM	892	O	ALA A 194	231.047	170.688	235.941	1.00104.14 O
ATOM	893	CB	ALA A 194	228.650	172.163	234.728	1.00104.14 C
ATOM	894	N	GLY A 195	229.306	169.599	236.843	1.00102.38 N
ATOM	895	CA	GLY A 195	230.113	169.104	237.940	1.00102.38 C
ATOM	896	C	GLY A 195	229.600	167.860	238.633	1.00102.38 C
ATOM	897	O	GLY A 195	230.203	167.407	239.610	1.00102.38 O
ATOM	898	N	THR A 196	228.498	167.291	238.152	1.00 93.29 N
ATOM	899	CA	THR A 196	227.779	166.282	238.919	1.00 93.29 C
ATOM	900	C	THR A 196	227.114	165.294	237.971	1.00 93.29 C
ATOM	901	O	THR A 196	227.275	165.360	236.749	1.00 93.29 O
ATOM	902	CB	THR A 196	226.726	166.917	239.842	1.00 93.29 C
ATOM	903	OG1	THR A 196	225.818	167.709	239.066	1.00 93.29 O
ATOM	904	CG2	THR A 196	227.369	167.778	240.924	1.00 93.29 C
ATOM	905	N	VAL A 197	226.359	164.368	238.558	1.00 78.88 N
ATOM	906	CA	VAL A 197	225.562	163.397	237.819	1.00 78.88 C
ATOM	907	C	VAL A 197	224.261	163.181	238.581	1.00 78.88 C
ATOM	908	O	VAL A 197	224.271	162.668	239.705	1.00 78.88 O
ATOM	909	CB	VAL A 197	226.302	162.062	237.616	1.00 78.88 C
ATOM	910	CG1	VAL A 197	227.470	162.251	236.676	1.00 78.88 C
ATOM	911	CG2	VAL A 197	226.808	161.517	238.943	1.00 78.88 C
ATOM	912	N	PHE A 198	223.147	163.590	237.986	1.00 74.12 N
ATOM	913	CA	PHE A 198	221.829	163.321	238.535	1.00 74.12 C
ATOM	914	C	PHE A 198	221.099	162.355	237.615	1.00 74.12 C
ATOM	915	O	PHE A 198	221.108	162.519	236.392	1.00 74.12 O
ATOM	916	CB	PHE A 198	221.024	164.612	238.715	1.00 74.12 C
ATOM	917	CG	PHE A 198	220.711	165.323	237.431	1.00 74.12 C
ATOM	918	CD1	PHE A 198	221.611	166.220	236.886	1.00 74.12 C
ATOM	919	CD2	PHE A 198	219.504	165.113	236.781	1.00 74.12 C
ATOM	920	CE1	PHE A 198	221.323	166.879	235.708	1.00 74.12 C
ATOM	921	CE2	PHE A 198	219.212	165.770	235.603	1.00 74.12 C
ATOM	922	CZ	PHE A 198	220.121	166.656	235.069	1.00 74.12 C
ATOM	923	N	VAL A 199	220.472	161.345	238.210	1.00 59.69 N
ATOM	924	CA	VAL A 199	219.846	160.277	237.444	1.00 59.69 C
ATOM	925	C	VAL A 199	218.336	160.437	237.495	1.00 59.69 C
ATOM	926	O	VAL A 199	217.703	160.099	238.499	1.00 59.69 O
ATOM	927	CB	VAL A 199	220.261	158.895	237.977	1.00 59.69 C

ATOM	928	CG1	VAL A 199	219.563	157.804	237.194	1.00 59.69	C
ATOM	929	CG2	VAL A 199	221.766	158.729	237.915	1.00 59.69	C
ATOM	930	N	ALA A 200	217.748	160.963	236.426	1.00 54.28	N
ATOM	931	CA	ALA A 200	216.299	161.033	236.364	1.00 54.28	C
ATOM	932	C	ALA A 200	215.709	159.628	236.313	1.00 54.28	C
ATOM	933	O	ALA A 200	216.400	158.641	236.050	1.00 54.28	O
ATOM	934	CB	ALA A 200	215.849	161.844	235.151	1.00 54.28	C
ATOM	935	N	TYR A 201	214.411	159.543	236.582	1.00 56.33	N
ATOM	936	CA	TYR A 201	213.693	158.280	236.543	1.00 56.33	C
ATOM	937	C	TYR A 201	212.286	158.539	236.029	1.00 56.33	C
ATOM	938	O	TYR A 201	211.786	159.665	236.082	1.00 56.33	O
ATOM	939	CB	TYR A 201	213.672	157.602	237.920	1.00 56.33	C
ATOM	940	CG	TYR A 201	215.019	157.053	238.341	1.00 56.33	C
ATOM	941	CD1	TYR A 201	215.443	155.804	237.915	1.00 56.33	C
ATOM	942	CD2	TYR A 201	215.871	157.790	239.148	1.00 56.33	C
ATOM	943	CE1	TYR A 201	216.671	155.299	238.290	1.00 56.33	C
ATOM	944	CE2	TYR A 201	217.105	157.294	239.525	1.00 56.33	C
ATOM	945	CZ	TYR A 201	217.498	156.047	239.096	1.00 56.33	C
ATOM	946	OH	TYR A 201	218.725	155.549	239.470	1.00 56.33	O
ATOM	947	N	HIS A 202	211.656	157.481	235.516	1.00 55.22	N
ATOM	948	CA	HIS A 202	210.381	157.632	234.821	1.00 55.22	C
ATOM	949	C	HIS A 202	209.305	158.196	235.738	1.00 55.22	C
ATOM	950	O	HIS A 202	208.807	159.306	235.527	1.00 55.22	O
ATOM	951	CB	HIS A 202	209.934	156.289	234.245	1.00 55.22	C
ATOM	952	CG	HIS A 202	208.651	156.363	233.479	1.00 55.22	C
ATOM	953	ND1	HIS A 202	207.418	156.248	234.084	1.00 55.22	N
ATOM	954	CD2	HIS A 202	208.409	156.544	232.160	1.00 55.22	C
ATOM	955	CE1	HIS A 202	206.471	156.353	233.169	1.00 55.22	C
ATOM	956	NE2	HIS A 202	207.045	156.532	231.994	1.00 55.22	N
ATOM	957	N	ARG A 203	208.936	157.442	236.767	1.00 68.37	N
ATOM	958	CA	ARG A 203	207.825	157.795	237.639	1.00 68.37	C
ATOM	959	C	ARG A 203	208.307	157.981	239.074	1.00 68.37	C
ATOM	960	O	ARG A 203	207.568	157.749	240.031	1.00 68.37	O
ATOM	961	CB	ARG A 203	206.737	156.724	237.546	1.00 68.37	C
ATOM	962	CG	ARG A 203	205.427	157.042	238.234	1.00 68.37	C
ATOM	963	CD	ARG A 203	204.431	155.922	238.008	1.00 68.37	C
ATOM	964	NE	ARG A 203	203.984	155.861	236.620	1.00 68.37	N

ATOM	965	CZ	ARG A 203	203.250	154.874	236.119	1.00 68.37	C
ATOM	966	NH1	ARG A 203	202.883	153.864	236.893	1.00 68.37	N
ATOM	967	NH2	ARG A 203	202.884	154.897	234.845	1.00 68.37	N
ATOM	968	N	ASP A 204	209.562	158.399	239.231	1.00 72.76	N
ATOM	969	CA	ASP A 204	210.219	158.495	240.532	1.00 72.76	C
ATOM	970	C	ASP A 204	210.303	157.144	241.234	1.00 72.76	C
ATOM	971	O	ASP A 204	210.457	157.084	242.458	1.00 72.76	O
ATOM	972	CB	ASP A 204	209.524	159.522	241.432	1.00 72.76	C
ATOM	973	CG	ASP A 204	209.725	160.946	240.950	1.00 72.76	C
ATOM	974	OD1	ASP A 204	210.766	161.216	240.316	1.00 72.76	O
ATOM	975	OD2	ASP A 204	208.845	161.795	241.208	1.00 72.76	O
ATOM	976	N	SER A 205	210.210	156.058	240.472	1.00 72.84	N
ATOM	977	CA	SER A 205	210.381	154.704	240.981	1.00 72.84	C
ATOM	978	C	SER A 205	211.779	154.248	240.588	1.00 72.84	C
ATOM	979	O	SER A 205	212.063	154.046	239.403	1.00 72.84	O
ATOM	980	CB	SER A 205	209.317	153.769	240.417	1.00 72.84	C
ATOM	981	OG	SER A 205	209.481	153.618	239.018	1.00 72.84	O
ATOM	982	N	TYR A 206	212.646	154.079	241.581	1.00 68.11	N
ATOM	983	CA	TYR A 206	214.060	153.850	241.318	1.00 68.11	C
ATOM	984	C	TYR A 206	214.315	152.445	240.795	1.00 68.11	C
ATOM	985	O	TYR A 206	214.948	151.631	241.473	1.00 68.11	O
ATOM	986	CB	TYR A 206	214.876	154.093	242.588	1.00 68.11	C
ATOM	987	CG	TYR A 206	214.866	155.530	243.045	1.00 68.11	C
ATOM	988	CD1	TYR A 206	215.740	156.458	242.500	1.00 68.11	C
ATOM	989	CD2	TYR A 206	213.968	155.964	244.008	1.00 68.11	C
ATOM	990	CE1	TYR A 206	215.730	157.774	242.910	1.00 68.11	C
ATOM	991	CE2	TYR A 206	213.949	157.278	244.424	1.00 68.11	C
ATOM	992	CZ	TYR A 206	214.832	158.179	243.872	1.00 68.11	C
ATOM	993	OH	TYR A 206	214.817	159.489	244.284	1.00 68.11	O
ATOM	994	N	GLU A 207	213.832	152.149	239.592	1.00 67.94	N
ATOM	995	CA	GLU A 207	214.107	150.873	238.951	1.00 67.94	C
ATOM	996	C	GLU A 207	214.569	151.112	237.523	1.00 67.94	C
ATOM	997	O	GLU A 207	214.113	152.046	236.857	1.00 67.94	O
ATOM	998	CB	GLU A 207	212.887	149.953	238.967	1.00 67.94	C
ATOM	999	CG	GLU A 207	213.192	148.561	238.449	1.00 67.94	C
ATOM	1000	CD	GLU A 207	212.018	147.621	238.575	1.00 67.94	C
ATOM	1001	OE1	GLU A 207	210.942	148.071	239.019	1.00 67.94	O

ATOM	1002	OE2	GLU A 207	212.175	146.428	238.242	1.00 67.94	O
ATOM	1003	N	ASN A 208	215.483	150.263	237.067	1.00 66.59	N
ATOM	1004	CA	ASN A 208	216.198	150.441	235.805	1.00 66.59	C
ATOM	1005	C	ASN A 208	215.550	149.659	234.665	1.00 66.59	C
ATOM	1006	O	ASN A 208	216.196	148.858	233.992	1.00 66.59	O
ATOM	1007	CB	ASN A 208	217.649	150.035	236.013	1.00 66.59	C
ATOM	1008	CG	ASN A 208	218.564	150.564	234.942	1.00 66.59	C
ATOM	1009	OD1	ASN A 208	218.110	151.073	233.916	1.00 66.59	O
ATOM	1010	ND2	ASN A 208	219.874	150.478	235.202	1.00 66.59	N
ATOM	1011	N	LYS A 209	214.262	149.899	234.430	1.00 61.57	N
ATOM	1012	CA	LYS A 209	213.469	149.087	233.519	1.00 61.57	C
ATOM	1013	C	LYS A 209	213.775	149.412	232.058	1.00 61.57	C
ATOM	1014	O	LYS A 209	214.563	150.305	231.737	1.00 61.57	O
ATOM	1015	CB	LYS A 209	211.982	149.277	233.804	1.00 61.57	C
ATOM	1016	CG	LYS A 209	211.553	148.778	235.164	1.00 61.57	C
ATOM	1017	CD	LYS A 209	211.769	147.279	235.271	1.00 61.57	C
ATOM	1018	CE	LYS A 209	210.803	146.517	234.379	1.00 61.57	C
ATOM	1019	NZ	LYS A 209	210.956	145.045	234.536	1.00 61.57	N
ATOM	1020	N	THR A 210	213.124	148.671	231.160	1.00 56.29	N
ATOM	1021	CA	THR A 210	213.241	148.860	229.716	1.00 56.29	C
ATOM	1022	C	THR A 210	211.838	148.960	229.133	1.00 56.29	C
ATOM	1023	O	THR A 210	211.114	147.961	229.079	1.00 56.29	O
ATOM	1024	CB	THR A 210	214.010	147.712	229.064	1.00 56.29	C
ATOM	1025	OG1	THR A 210	213.292	146.488	229.257	1.00 56.29	O
ATOM	1026	CG2	THR A 210	215.397	147.582	229.674	1.00 56.29	C
ATOM	1027	N	MET A 211	211.460	150.154	228.689	1.00 53.45	N
ATOM	1028	CA	MET A 211	210.118	150.393	228.184	1.00 53.45	C
ATOM	1029	C	MET A 211	209.948	149.809	226.782	1.00 53.45	C
ATOM	1030	O	MET A 211	210.865	149.223	226.203	1.00 53.45	O
ATOM	1031	CB	MET A 211	209.815	151.888	228.173	1.00 53.45	C
ATOM	1032	CG	MET A 211	209.742	152.524	229.549	1.00 53.45	C
ATOM	1033	SD	MET A 211	208.401	151.862	230.552	1.00 53.45	S
ATOM	1034	CE	MET A 211	209.301	150.753	231.630	1.00 53.45	C
ATOM	1035	N	GLN A 212	208.745	149.981	226.239	1.00 49.83	N
ATOM	1036	CA	GLN A 212	208.382	149.495	224.916	1.00 49.83	C
ATOM	1037	C	GLN A 212	207.823	150.642	224.084	1.00 49.83	C
ATOM	1038	O	GLN A 212	207.266	151.602	224.622	1.00 49.83	O

ATOM	1039	CB	GLN A 212	207.348	148.367	225.012	1.00 49.83	C
ATOM	1040	CG	GLN A 212	206.938	147.763	223.684	1.00 49.83	C
ATOM	1041	CD	GLN A 212	208.056	146.990	223.032	1.00 49.83	C
ATOM	1042	OE1	GLN A 212	208.791	146.261	223.696	1.00 49.83	O
ATOM	1043	NE2	GLN A 212	208.190	147.139	221.722	1.00 49.83	N
ATOM	1044	N	LEU A 213	207.973	150.539	222.767	1.00 44.43	N
ATOM	1045	CA	LEU A 213	207.444	151.553	221.867	1.00 44.43	C
ATOM	1046	C	LEU A 213	206.052	151.164	221.377	1.00 44.43	C
ATOM	1047	O	LEU A 213	205.633	150.008	221.461	1.00 44.43	O
ATOM	1048	CB	LEU A 213	208.384	151.770	220.683	1.00 44.43	C
ATOM	1049	CG	LEU A 213	209.600	152.663	220.919	1.00 44.43	C
ATOM	1050	CD1	LEU A 213	210.621	151.962	221.786	1.00 44.43	C
ATOM	1051	CD2	LEU A 213	210.216	153.074	219.599	1.00 44.43	C
ATOM	1052	N	MET A 214	205.334	152.150	220.856	1.00 42.76	N
ATOM	1053	CA	MET A 214	203.959	151.960	220.419	1.00 42.76	C
ATOM	1054	C	MET A 214	203.676	152.933	219.291	1.00 42.76	C
ATOM	1055	O	MET A 214	204.472	153.842	219.025	1.00 42.76	O
ATOM	1056	CB	MET A 214	202.970	152.178	221.570	1.00 42.76	C
ATOM	1057	CG	MET A 214	203.063	151.157	222.688	1.00 42.76	C
ATOM	1058	SD	MET A 214	201.905	151.510	224.024	1.00 42.76	S
ATOM	1059	CE	MET A 214	202.341	150.229	225.196	1.00 42.76	C
ATOM	1060	N	PRO A 215	202.549	152.773	218.604	1.00 37.60	N
ATOM	1061	CA	PRO A 215	202.155	153.756	217.593	1.00 37.60	C
ATOM	1062	C	PRO A 215	201.528	154.982	218.230	1.00 37.60	C
ATOM	1063	O	PRO A 215	201.089	154.964	219.382	1.00 37.60	O
ATOM	1064	CB	PRO A 215	201.134	152.994	216.743	1.00 37.60	C
ATOM	1065	CG	PRO A 215	200.562	151.990	217.674	1.00 37.60	C
ATOM	1066	CD	PRO A 215	201.681	151.585	218.590	1.00 37.60	C
ATOM	1067	N	ASP A 216	201.484	156.059	217.458	1.00 43.93	N
ATOM	1068	CA	ASP A 216	201.042	157.345	217.968	1.00 43.93	C
ATOM	1069	C	ASP A 216	199.812	157.826	217.212	1.00 43.93	C
ATOM	1070	O	ASP A 216	199.550	157.436	216.071	1.00 43.93	O
ATOM	1071	CB	ASP A 216	202.169	158.378	217.877	1.00 43.93	C
ATOM	1072	CG	ASP A 216	201.856	159.647	218.636	1.00 43.93	C
ATOM	1073	OD1	ASP A 216	201.901	159.618	219.883	1.00 43.93	O
ATOM	1074	OD2	ASP A 216	201.560	160.672	217.989	1.00 43.93	O
ATOM	1075	N	ASP A 217	199.059	158.699	217.876	1.00 48.37	N

ATOM	1076	CA	ASP A 217	197.795	159.209	217.370	1.00 48.37	C
ATOM	1077	C	ASP A 217	197.945	160.073	216.130	1.00 48.37	C
ATOM	1078	O	ASP A 217	196.939	160.352	215.470	1.00 48.37	O
ATOM	1079	CB	ASP A 217	197.107	160.030	218.459	1.00 48.37	C
ATOM	1080	CG	ASP A 217	196.778	159.208	219.681	1.00 48.37	C
ATOM	1081	OD1	ASP A 217	196.500	158.000	219.533	1.00 48.37	O
ATOM	1082	OD2	ASP A 217	196.826	159.770	220.794	1.00 48.37	O
ATOM	1083	N	TYR A 218	199.155	160.513	215.799	1.00 43.71	N
ATOM	1084	CA	TYR A 218	199.360	161.490	214.735	1.00 43.71	C
ATOM	1085	C	TYR A 218	200.114	160.791	213.612	1.00 43.71	C
ATOM	1086	O	TYR A 218	201.331	160.903	213.479	1.00 43.71	O
ATOM	1087	CB	TYR A 218	200.122	162.701	215.273	1.00 43.71	C
ATOM	1088	CG	TYR A 218	199.374	163.451	216.350	1.00 43.71	C
ATOM	1089	CD1	TYR A 218	198.000	163.330	216.479	1.00 43.71	C
ATOM	1090	CD2	TYR A 218	200.044	164.246	217.263	1.00 43.71	C
ATOM	1091	CE1	TYR A 218	197.314	163.990	217.468	1.00 43.71	C
ATOM	1092	CE2	TYR A 218	199.363	164.927	218.252	1.00 43.71	C
ATOM	1093	CZ	TYR A 218	197.997	164.785	218.356	1.00 43.71	C
ATOM	1094	OH	TYR A 218	197.308	165.444	219.345	1.00 43.71	O
ATOM	1095	N	SER A 219	199.367	160.071	212.786	1.00 40.40	N
ATOM	1096	CA	SER A 219	199.939	159.363	211.655	1.00 40.40	C
ATOM	1097	C	SER A 219	199.783	160.229	210.411	1.00 40.40	C
ATOM	1098	O	SER A 219	199.362	161.387	210.484	1.00 40.40	O
ATOM	1099	CB	SER A 219	199.283	157.995	211.506	1.00 40.40	C
ATOM	1100	OG	SER A 219	199.533	157.195	212.647	1.00 40.40	O
ATOM	1101	N	ASN A 220	200.114	159.677	209.250	1.00 35.06	N
ATOM	1102	CA	ASN A 220	200.095	160.461	208.021	1.00 35.06	C
ATOM	1103	C	ASN A 220	200.412	159.515	206.871	1.00 35.06	C
ATOM	1104	O	ASN A 220	200.704	158.333	207.080	1.00 35.06	O
ATOM	1105	CB	ASN A 220	201.109	161.601	208.081	1.00 35.06	C
ATOM	1106	CG	ASN A 220	200.659	162.812	207.311	1.00 35.06	C
ATOM	1107	OD1	ASN A 220	201.271	163.875	207.391	1.00 35.06	O
ATOM	1108	ND2	ASN A 220	199.549	162.678	206.602	1.00 35.06	N
ATOM	1109	N	THR A 221	200.341	160.045	205.646	1.00 35.53	N
ATOM	1110	CA	THR A 221	200.805	159.276	204.495	1.00 35.53	C
ATOM	1111	C	THR A 221	202.291	158.975	204.615	1.00 35.53	C
ATOM	1112	O	THR A 221	202.732	157.859	204.325	1.00 35.53	O

ATOM	1113	CB	THR	A	221	200.486	160.011	203.190	1.00 35.53	C
ATOM	1114	OG1	THR	A	221	200.892	159.210	202.073	1.00 35.53	O
ATOM	1115	CG2	THR	A	221	201.171	161.371	203.124	1.00 35.53	C
ATOM	1116	N	HIS	A	222	203.089	159.965	205.032	1.00 36.09	N
ATOM	1117	CA	HIS	A	222	204.443	159.672	205.487	1.00 36.09	C
ATOM	1118	C	HIS	A	222	204.828	160.721	206.535	1.00 36.09	C
ATOM	1119	O	HIS	A	222	205.466	161.740	206.260	1.00 36.09	O
ATOM	1120	CB	HIS	A	222	205.411	159.642	204.305	1.00 36.09	C
ATOM	1121	CG	HIS	A	222	205.362	160.874	203.454	1.00 36.09	C
ATOM	1122	ND1	HIS	A	222	206.134	161.986	203.712	1.00 36.09	N
ATOM	1123	CD2	HIS	A	222	204.622	161.177	202.361	1.00 36.09	C
ATOM	1124	CE1	HIS	A	222	205.882	162.914	202.806	1.00 36.09	C
ATOM	1125	NE2	HIS	A	222	204.966	162.449	201.977	1.00 36.09	N
ATOM	1126	N	SER	A	223	204.412	160.470	207.780	1.00 36.47	N
ATOM	1127	CA	SER	A	223	204.965	161.235	208.903	1.00 36.47	C
ATOM	1128	C	SER	A	223	204.952	160.452	210.210	1.00 36.47	C
ATOM	1129	O	SER	A	223	204.939	161.092	211.266	1.00 36.47	O
ATOM	1130	CB	SER	A	223	204.207	162.554	209.066	1.00 36.47	C
ATOM	1131	OG	SER	A	223	204.711	163.300	210.159	1.00 36.47	O
ATOM	1132	N	THR	A	224	204.931	159.121	210.192	1.00 37.10	N
ATOM	1133	CA	THR	A	224	204.579	158.347	211.375	1.00 37.10	C
ATOM	1134	C	THR	A	224	205.561	158.587	212.516	1.00 37.10	C
ATOM	1135	O	THR	A	224	206.757	158.801	212.312	1.00 37.10	O
ATOM	1136	CB	THR	A	224	204.540	156.858	211.048	1.00 37.10	C
ATOM	1137	OG1	THR	A	224	204.036	156.136	212.178	1.00 37.10	O
ATOM	1138	CG2	THR	A	224	205.932	156.359	210.725	1.00 37.10	C
ATOM	1139	N	ARG	A	225	205.036	158.532	213.737	1.00 37.92	N
ATOM	1140	CA	ARG	A	225	205.837	158.753	214.931	1.00 37.92	C
ATOM	1141	C	ARG	A	225	205.475	157.707	215.969	1.00 37.92	C
ATOM	1142	O	ARG	A	225	204.313	157.313	216.084	1.00 37.92	O
ATOM	1143	CB	ARG	A	225	205.629	160.158	215.505	1.00 37.92	C
ATOM	1144	CG	ARG	A	225	206.467	160.447	216.743	1.00 37.92	C
ATOM	1145	CD	ARG	A	225	206.328	161.896	217.193	1.00 37.92	C
ATOM	1146	NE	ARG	A	225	204.984	162.221	217.656	1.00 37.92	N
ATOM	1147	CZ	ARG	A	225	204.568	162.054	218.905	1.00 37.92	C
ATOM	1148	NH1	ARG	A	225	203.328	162.374	219.241	1.00 37.92	N
ATOM	1149	NH2	ARG	A	225	205.397	161.578	219.821	1.00 37.92	N

ATOM	1150	N	TYR A 226	206.476	157.258	216.712	1.00 40.03	N
ATOM	1151	CA	TYR A 226	206.299	156.287	217.778	1.00 40.03	C
ATOM	1152	C	TYR A 226	206.591	156.949	219.117	1.00 40.03	C
ATOM	1153	O	TYR A 226	207.180	158.029	219.187	1.00 40.03	O
ATOM	1154	CB	TYR A 226	207.210	155.079	217.552	1.00 40.03	C
ATOM	1155	CG	TYR A 226	206.880	154.317	216.292	1.00 40.03	C
ATOM	1156	CD1	TYR A 226	205.874	153.364	216.277	1.00 40.03	C
ATOM	1157	CD2	TYR A 226	207.559	154.567	215.111	1.00 40.03	C
ATOM	1158	CE1	TYR A 226	205.567	152.671	215.125	1.00 40.03	C
ATOM	1159	CE2	TYR A 226	207.258	153.881	213.956	1.00 40.03	C
ATOM	1160	CZ	TYR A 226	206.262	152.935	213.968	1.00 40.03	C
ATOM	1161	OH	TYR A 226	205.960	152.251	212.817	1.00 40.03	O
ATOM	1162	N	VAL A 227	206.175	156.289	220.194	1.00 38.23	N
ATOM	1163	CA	VAL A 227	206.310	156.876	221.521	1.00 38.23	C
ATOM	1164	C	VAL A 227	206.158	155.795	222.582	1.00 38.23	C
ATOM	1165	O	VAL A 227	205.492	154.780	222.357	1.00 38.23	O
ATOM	1166	CB	VAL A 227	205.282	158.003	221.725	1.00 38.23	C
ATOM	1167	CG1	VAL A 227	203.879	157.438	221.721	1.00 38.23	C
ATOM	1168	CG2	VAL A 227	205.556	158.751	223.013	1.00 38.23	C
ATOM	1169	N	THR A 228	206.779	156.003	223.742	1.00 40.69	N
ATOM	1170	CA	THR A 228	206.687	155.055	224.847	1.00 40.69	C
ATOM	1171	C	THR A 228	205.558	155.413	225.808	1.00 40.69	C
ATOM	1172	O	THR A 228	204.645	154.613	226.028	1.00 40.69	O
ATOM	1173	CB	THR A 228	208.016	154.995	225.604	1.00 40.69	C
ATOM	1174	OG1	THR A 228	209.035	154.468	224.748	1.00 40.69	O
ATOM	1175	CG2	THR A 228	207.879	154.126	226.835	1.00 40.69	C
ATOM	1176	N	VAL A 229	205.610	156.610	226.386	1.00 41.60	N
ATOM	1177	CA	VAL A 229	204.629	157.042	227.375	1.00 41.60	C
ATOM	1178	C	VAL A 229	203.481	157.688	226.608	1.00 41.60	C
ATOM	1179	O	VAL A 229	203.603	158.805	226.105	1.00 41.60	O
ATOM	1180	CB	VAL A 229	205.240	158.000	228.395	1.00 41.60	C
ATOM	1181	CG1	VAL A 229	204.203	158.397	229.427	1.00 41.60	C
ATOM	1182	CG2	VAL A 229	206.452	157.366	229.045	1.00 41.60	C
ATOM	1183	N	LYS A 230	202.356	156.979	226.520	1.00 54.05	N
ATOM	1184	CA	LYS A 230	201.273	157.426	225.652	1.00 54.05	C
ATOM	1185	C	LYS A 230	200.582	158.665	226.208	1.00 54.05	C
ATOM	1186	O	LYS A 230	200.628	159.740	225.600	1.00 54.05	O

ATOM	1187	CB	LYS A 230	200.269	156.291	225.446	1.00 54.05	C
ATOM	1188	CG	LYS A 230	199.121	156.637	224.511	1.00 54.05	C
ATOM	1189	CD	LYS A 230	199.617	156.954	223.112	1.00 54.05	C
ATOM	1190	CE	LYS A 230	200.251	155.736	222.467	1.00 54.05	C
ATOM	1191	NZ	LYS A 230	199.248	154.673	222.193	1.00 54.05	N
ATOM	1192	N	ASP A 231	199.932	158.539	227.366	1.00 68.23	N
ATOM	1193	CA	ASP A 231	199.060	159.617	227.816	1.00 68.23	C
ATOM	1194	C	ASP A 231	199.699	160.585	228.804	1.00 68.23	C
ATOM	1195	O	ASP A 231	199.922	161.753	228.471	1.00 68.23	O
ATOM	1196	CB	ASP A 231	197.797	159.026	228.447	1.00 68.23	C
ATOM	1197	CG	ASP A 231	196.796	160.090	228.852	1.00 68.23	C
ATOM	1198	OD1	ASP A 231	196.132	160.656	227.958	1.00 68.23	O
ATOM	1199	OD2	ASP A 231	196.674	160.362	230.065	1.00 68.23	O
ATOM	1200	N	GLN A 232	200.021	160.110	230.008	1.00 74.49	N
ATOM	1201	CA	GLN A 232	200.337	161.030	231.094	1.00 74.49	C
ATOM	1202	C	GLN A 232	200.623	160.265	232.383	1.00 74.49	C
ATOM	1203	O	GLN A 232	200.463	159.042	232.431	1.00 74.49	O
ATOM	1204	CB	GLN A 232	199.168	162.007	231.282	1.00 74.49	C
ATOM	1205	CG	GLN A 232	199.408	163.200	232.193	1.00 74.49	C
ATOM	1206	CD	GLN A 232	198.187	164.095	232.290	1.00 74.49	C
ATOM	1207	OE1	GLN A 232	197.138	163.798	231.716	1.00 74.49	O
ATOM	1208	NE2	GLN A 232	198.316	165.197	233.017	1.00 74.49	N
ATOM	1209	N	TRP A 233	201.052	160.971	233.429	1.00 78.14	N
ATOM	1210	CA	TRP A 233	201.019	160.430	234.786	1.00 78.14	C
ATOM	1211	C	TRP A 233	200.745	161.586	235.738	1.00 78.14	C
ATOM	1212	O	TRP A 233	201.625	162.421	235.970	1.00 78.14	O
ATOM	1213	CB	TRP A 233	202.317	159.717	235.146	1.00 78.14	C
ATOM	1214	CG	TRP A 233	202.248	159.104	236.504	1.00 78.14	C
ATOM	1215	CD1	TRP A 233	202.854	159.552	237.641	1.00 78.14	C
ATOM	1216	CD2	TRP A 233	201.488	157.952	236.880	1.00 78.14	C
ATOM	1217	NE1	TRP A 233	202.535	158.736	238.699	1.00 78.14	N
ATOM	1218	CE2	TRP A 233	201.694	157.748	238.258	1.00 78.14	C
ATOM	1219	CE3	TRP A 233	200.659	157.068	236.183	1.00 78.14	C
ATOM	1220	CZ2	TRP A 233	201.107	156.693	238.952	1.00 78.14	C
ATOM	1221	CZ3	TRP A 233	200.074	156.024	236.873	1.00 78.14	C
ATOM	1222	CH2	TRP A 233	200.300	155.845	238.243	1.00 78.14	C
ATOM	1223	N	HIS A 234	199.529	161.636	236.281	1.00 79.86	N

ATOM	1224	CA	HIS A 234	199.089	162.740	237.129	1.00 79.86 C
ATOM	1225	C	HIS A 234	198.293	162.225	238.323	1.00 79.86 C
ATOM	1226	O	HIS A 234	197.253	162.785	238.686	1.00 79.86 O
ATOM	1227	CB	HIS A 234	198.272	163.749	236.322	1.00 79.86 C
ATOM	1228	CG	HIS A 234	197.010	163.182	235.748	1.00 79.86 C
ATOM	1229	ND1	HIS A 234	196.999	162.378	234.629	1.00 79.86 N
ATOM	1230	CD2	HIS A 234	195.718	163.311	236.132	1.00 79.86 C
ATOM	1231	CE1	HIS A 234	195.755	162.029	234.353	1.00 79.86 C
ATOM	1232	NE2	HIS A 234	194.959	162.583	235.249	1.00 79.86 N
ATOM	1233	N	SER A 235	198.774	161.160	238.960	1.00 83.73 N
ATOM	1234	CA	SER A 235	198.059	160.590	240.092	1.00 83.73 C
ATOM	1235	C	SER A 235	197.996	161.583	241.251	1.00 83.73 C
ATOM	1236	O	SER A 235	198.796	162.518	241.353	1.00 83.73 O
ATOM	1237	CB	SER A 235	198.720	159.290	240.545	1.00 83.73 C
ATOM	1238	OG	SER A 235	198.602	158.294	239.546	1.00 83.73 O
ATOM	1239	N	ARG A 236	197.020	161.366	242.135	1.00 86.32 N
ATOM	1240	CA	ARG A 236	196.749	162.323	243.202	1.00 86.32 C
ATOM	1241	C	ARG A 236	197.898	162.373	244.202	1.00 86.32 C
ATOM	1242	O	ARG A 236	198.518	163.423	244.404	1.00 86.32 O
ATOM	1243	CB	ARG A 236	195.436	161.963	243.904	1.00 86.32 C
ATOM	1244	CG	ARG A 236	194.900	163.031	244.856	1.00 86.32 C
ATOM	1245	CD	ARG A 236	195.486	162.925	246.256	1.00 86.32 C
ATOM	1246	NE	ARG A 236	195.296	161.602	246.844	1.00 86.32 N
ATOM	1247	CZ	ARG A 236	194.179	161.204	247.444	1.00 86.32 C
ATOM	1248	NH1	ARG A 236	193.144	162.027	247.536	1.00 86.32 N
ATOM	1249	NH2	ARG A 236	194.098	159.982	247.952	1.00 86.32 N
ATOM	1250	N	GLY A 237	198.190	161.249	244.841	1.00 86.87 N
ATOM	1251	CA	GLY A 237	199.203	161.198	245.871	1.00 86.87 C
ATOM	1252	C	GLY A 237	198.619	161.331	247.263	1.00 86.87 C
ATOM	1253	O	GLY A 237	197.438	161.081	247.510	1.00 86.87 O
ATOM	1254	N	SER A 238	199.481	161.731	248.191	1.00 82.05 N
ATOM	1255	CA	SER A 238	199.079	161.931	249.574	1.00 82.05 C
ATOM	1256	C	SER A 238	198.634	163.370	249.798	1.00 82.05 C
ATOM	1257	O	SER A 238	199.070	164.292	249.104	1.00 82.05 O
ATOM	1258	CB	SER A 238	200.226	161.589	250.525	1.00 82.05 C
ATOM	1259	OG	SER A 238	201.301	162.497	250.369	1.00 82.05 O
ATOM	1260	N	THR A 239	197.755	163.553	250.779	1.00 78.57 N

ATOM	1261	CA	THR A 239	197.242	164.875	251.103	1.00 78.57	C
ATOM	1262	C	THR A 239	198.243	165.646	251.952	1.00 78.57	C
ATOM	1263	O	THR A 239	198.862	165.093	252.865	1.00 78.57	O
ATOM	1264	CB	THR A 239	195.910	164.768	251.843	1.00 78.57	C
ATOM	1265	OG1	THR A 239	196.096	164.032	253.058	1.00 78.57	O
ATOM	1266	CG2	THR A 239	194.879	164.063	250.982	1.00 78.57	C
ATOM	1267	N	TRP A 240	198.401	166.934	251.639	1.00 71.98	N
ATOM	1268	CA	TRP A 240	199.273	167.829	252.399	1.00 71.98	C
ATOM	1269	C	TRP A 240	200.737	167.408	252.269	1.00 71.98	C
ATOM	1270	O	TRP A 240	201.472	167.335	253.254	1.00 71.98	O
ATOM	1271	CB	TRP A 240	198.855	167.889	253.870	1.00 71.98	C
ATOM	1272	CG	TRP A 240	197.518	168.508	254.109	1.00 71.98	C
ATOM	1273	CD1	TRP A 240	196.724	169.134	253.195	1.00 71.98	C
ATOM	1274	CD2	TRP A 240	196.813	168.558	255.353	1.00 71.98	C
ATOM	1275	NE1	TRP A 240	195.568	169.572	253.793	1.00 71.98	N
ATOM	1276	CE2	TRP A 240	195.600	169.230	255.119	1.00 71.98	C
ATOM	1277	CE3	TRP A 240	197.093	168.100	256.643	1.00 71.98	C
ATOM	1278	CZ2	TRP A 240	194.668	169.455	256.125	1.00 71.98	C
ATOM	1279	CZ3	TRP A 240	196.167	168.324	257.639	1.00 71.98	C
ATOM	1280	CH2	TRP A 240	194.970	168.995	257.376	1.00 71.98	C
ATOM	1281	N	LEU A 241	201.158	167.128	251.038	1.00 75.66	N
ATOM	1282	CA	LEU A 241	202.524	166.683	250.787	1.00 75.66	C
ATOM	1283	C	LEU A 241	202.974	167.233	249.443	1.00 75.66	C
ATOM	1284	O	LEU A 241	202.302	167.025	248.429	1.00 75.66	O
ATOM	1285	CB	LEU A 241	202.618	165.157	250.815	1.00 75.66	C
ATOM	1286	CG	LEU A 241	204.017	164.538	250.801	1.00 75.66	C
ATOM	1287	CD1	LEU A 241	204.007	163.210	251.537	1.00 75.66	C
ATOM	1288	CD2	LEU A 241	204.518	164.351	249.379	1.00 75.66	C
ATOM	1289	N	TYR A 242	204.107	167.928	249.443	1.00 72.77	N
ATOM	1290	CA	TYR A 242	204.619	168.600	248.254	1.00 72.77	C
ATOM	1291	C	TYR A 242	205.552	167.657	247.505	1.00 72.77	C
ATOM	1292	O	TYR A 242	206.677	167.409	247.948	1.00 72.77	O
ATOM	1293	CB	TYR A 242	205.348	169.875	248.659	1.00 72.77	C
ATOM	1294	CG	TYR A 242	205.886	170.677	247.504	1.00 72.77	C
ATOM	1295	CD1	TYR A 242	205.062	171.521	246.778	1.00 72.77	C
ATOM	1296	CD2	TYR A 242	207.218	170.583	247.136	1.00 72.77	C
ATOM	1297	CE1	TYR A 242	205.553	172.258	245.726	1.00 72.77	C

ATOM	1298	CE2	TYR A 242	207.715	171.313	246.082	1.00 72.77	C
ATOM	1299	CZ	TYR A 242	206.880	172.149	245.382	1.00 72.77	C
ATOM	1300	OH	TYR A 242	207.373	172.881	244.331	1.00 72.77	O
ATOM	1301	N	ARG A 243	205.098	167.138	246.366	1.00 72.87	N
ATOM	1302	CA	ARG A 243	205.874	166.183	245.589	1.00 72.87	C
ATOM	1303	C	ARG A 243	205.964	166.631	244.138	1.00 72.87	C
ATOM	1304	O	ARG A 243	204.982	167.109	243.564	1.00 72.87	O
ATOM	1305	CB	ARG A 243	205.259	164.785	245.658	1.00 72.87	C
ATOM	1306	CG	ARG A 243	203.910	164.677	244.978	1.00 72.87	C
ATOM	1307	CD	ARG A 243	203.352	163.270	245.085	1.00 72.87	C
ATOM	1308	NE	ARG A 243	202.032	163.166	244.472	1.00 72.87	N
ATOM	1309	CZ	ARG A 243	201.828	162.880	243.191	1.00 72.87	C
ATOM	1310	NH1	ARG A 243	202.858	162.664	242.390	1.00 72.87	N
ATOM	1311	NH2	ARG A 243	200.596	162.806	242.710	1.00 72.87	N
ATOM	1312	N	GLU A 244	207.149	166.468	243.553	1.00 67.82	N
ATOM	1313	CA	GLU A 244	207.390	166.740	242.144	1.00 67.82	C
ATOM	1314	C	GLU A 244	207.762	165.442	241.442	1.00 67.82	C
ATOM	1315	O	GLU A 244	208.515	164.627	241.984	1.00 67.82	O
ATOM	1316	CB	GLU A 244	208.500	167.777	241.957	1.00 67.82	C
ATOM	1317	CG	GLU A 244	209.880	167.276	242.325	1.00 67.82	C
ATOM	1318	CD	GLU A 244	210.155	167.390	243.808	1.00 67.82	C
ATOM	1319	OE1	GLU A 244	209.188	167.565	244.577	1.00 67.82	O
ATOM	1320	OE2	GLU A 244	211.335	167.305	244.206	1.00 67.82	O
ATOM	1321	N	THR A 245	207.236	165.251	240.235	1.00 59.55	N
ATOM	1322	CA	THR A 245	207.375	163.991	239.523	1.00 59.55	C
ATOM	1323	C	THR A 245	207.991	164.211	238.151	1.00 59.55	C
ATOM	1324	O	THR A 245	207.964	165.317	237.607	1.00 59.55	O
ATOM	1325	CB	THR A 245	206.025	163.289	239.366	1.00 59.55	C
ATOM	1326	OG1	THR A 245	205.124	164.137	238.645	1.00 59.55	O
ATOM	1327	CG2	THR A 245	205.441	162.970	240.722	1.00 59.55	C
ATOM	1328	N	CYS A 246	208.548	163.138	237.603	1.00 51.18	N
ATOM	1329	CA	CYS A 246	209.113	163.126	236.264	1.00 51.18	C
ATOM	1330	C	CYS A 246	208.199	162.359	235.318	1.00 51.18	C
ATOM	1331	O	CYS A 246	207.383	161.534	235.734	1.00 51.18	O
ATOM	1332	CB	CYS A 246	210.507	162.497	236.272	1.00 51.18	C
ATOM	1333	SG	CYS A 246	211.734	163.418	237.222	1.00 51.18	S
ATOM	1334	N	ASN A 247	208.330	162.659	234.032	1.00 44.80	N

ATOM	1335	CA	ASN A 247	207.506	162.039	233.001	1.00 44.80	C
ATOM	1336	C	ASN A 247	208.367	161.661	231.801	1.00 44.80	C
ATOM	1337	O	ASN A 247	208.085	162.053	230.668	1.00 44.80	O
ATOM	1338	CB	ASN A 247	206.360	162.958	232.589	1.00 44.80	C
ATOM	1339	CG	ASN A 247	205.321	162.248	231.747	1.00 44.80	C
ATOM	1340	OD1	ASN A 247	205.444	161.057	231.466	1.00 44.80	O
ATOM	1341	ND2	ASN A 247	204.293	162.977	231.335	1.00 44.80	N
ATOM	1342	N	LEU A 248	209.466	160.944	232.060	1.00 45.00	N
ATOM	1343	CA	LEU A 248	210.400	160.534	231.014	1.00 45.00	C
ATOM	1344	C	LEU A 248	209.676	159.888	229.841	1.00 45.00	C
ATOM	1345	O	LEU A 248	208.699	159.155	230.009	1.00 45.00	O
ATOM	1346	CB	LEU A 248	211.434	159.555	231.571	1.00 45.00	C
ATOM	1347	CG	LEU A 248	212.690	160.151	232.199	1.00 45.00	C
ATOM	1348	CD1	LEU A 248	213.472	160.904	231.145	1.00 45.00	C
ATOM	1349	CD2	LEU A 248	212.344	161.059	233.363	1.00 45.00	C
ATOM	1350	N	ASN A 249	210.168	160.174	228.640	1.00 40.42	N
ATOM	1351	CA	ASN A 249	209.486	159.777	227.418	1.00 40.42	C
ATOM	1352	C	ASN A 249	210.439	159.863	226.236	1.00 40.42	C
ATOM	1353	O	ASN A 249	211.163	160.852	226.087	1.00 40.42	O
ATOM	1354	CB	ASN A 249	208.261	160.661	227.186	1.00 40.42	C
ATOM	1355	CG	ASN A 249	207.412	160.193	226.024	1.00 40.42	C
ATOM	1356	OD1	ASN A 249	207.733	159.211	225.359	1.00 40.42	O
ATOM	1357	ND2	ASN A 249	206.319	160.901	225.770	1.00 40.42	N
ATOM	1358	N	CYS A 250	210.443	158.836	225.394	1.00 39.26	N
ATOM	1359	CA	CYS A 250	211.304	158.775	224.222	1.00 39.26	C
ATOM	1360	C	CYS A 250	210.468	158.447	222.996	1.00 39.26	C
ATOM	1361	O	CYS A 250	209.494	157.695	223.081	1.00 39.26	O
ATOM	1362	CB	CYS A 250	212.404	157.735	224.406	1.00 39.26	C
ATOM	1363	SG	CYS A 250	211.773	156.079	224.647	1.00 39.26	S
ATOM	1364	N	MET A 251	210.855	159.011	221.855	1.00 38.67	N
ATOM	1365	CA	MET A 251	210.060	158.898	220.643	1.00 38.67	C
ATOM	1366	C	MET A 251	210.980	158.877	219.433	1.00 38.67	C
ATOM	1367	O	MET A 251	211.987	159.587	219.400	1.00 38.67	O
ATOM	1368	CB	MET A 251	209.058	160.050	220.545	1.00 38.67	C
ATOM	1369	CG	MET A 251	209.693	161.421	220.475	1.00 38.67	C
ATOM	1370	SD	MET A 251	208.462	162.732	220.550	1.00 38.67	S
ATOM	1371	CE	MET A 251	207.985	162.632	222.272	1.00 38.67	C

ATOM	1372	N	VAL	A	252	210.623	158.064	218.440	1.00	56.06	N
ATOM	1373	CA	VAL	A	252	211.448	157.846	217.252	1.00	56.06	C
ATOM	1374	C	VAL	A	252	210.569	158.142	216.041	1.00	56.06	C
ATOM	1375	O	VAL	A	252	209.861	157.264	215.540	1.00	56.06	O
ATOM	1376	CB	VAL	A	252	212.013	156.425	217.184	1.00	56.06	C
ATOM	1377	CG1	VAL	A	252	212.753	156.217	215.881	1.00	56.06	C
ATOM	1378	CG2	VAL	A	252	212.918	156.158	218.367	1.00	56.06	C
ATOM	1379	N	THR	A	253	210.619	159.376	215.553	1.00	23.11	N
ATOM	1380	CA	THR	A	253	209.825	159.748	214.393	1.00	23.11	C
ATOM	1381	C	THR	A	253	210.480	159.253	213.107	1.00	23.11	C
ATOM	1382	O	THR	A	253	211.664	158.917	213.070	1.00	23.11	O
ATOM	1383	CB	THR	A	253	209.642	161.262	214.331	1.00	23.11	C
ATOM	1384	OG1	THR	A	253	208.768	161.592	213.246	1.00	23.11	O
ATOM	1385	CG2	THR	A	253	210.973	161.944	214.119	1.00	23.11	C
ATOM	1386	N	ILE	A	254	209.684	159.210	212.038	1.00	31.93	N
ATOM	1387	CA	ILE	A	254	210.178	158.823	210.721	1.00	31.93	C
ATOM	1388	C	ILE	A	254	209.576	159.731	209.658	1.00	31.93	C
ATOM	1389	O	ILE	A	254	208.450	159.510	209.203	1.00	31.93	O
ATOM	1390	CB	ILE	A	254	209.860	157.350	210.417	1.00	31.93	C
ATOM	1391	CG1	ILE	A	254	210.611	156.432	211.377	1.00	31.93	C
ATOM	1392	CG2	ILE	A	254	210.200	157.021	208.979	1.00	31.93	C
ATOM	1393	CD1	ILE	A	254	210.169	154.997	211.303	1.00	31.93	C
ATOM	1394	N	THR	A	255	210.325	160.744	209.244	1.00	34.08	N
ATOM	1395	CA	THR	A	255	209.879	161.700	208.247	1.00	34.08	C
ATOM	1396	C	THR	A	255	210.456	161.340	206.881	1.00	34.08	C
ATOM	1397	O	THR	A	255	211.052	160.276	206.693	1.00	34.08	O
ATOM	1398	CB	THR	A	255	210.274	163.111	208.670	1.00	34.08	C
ATOM	1399	OG1	THR	A	255	211.700	163.216	208.700	1.00	34.08	O
ATOM	1400	CG2	THR	A	255	209.738	163.401	210.051	1.00	34.08	C
ATOM	1401	N	THR	A	256	210.280	162.237	205.910	1.00	34.80	N
ATOM	1402	CA	THR	A	256	210.859	162.075	204.575	1.00	34.80	C
ATOM	1403	C	THR	A	256	211.456	163.418	204.167	1.00	34.80	C
ATOM	1404	O	THR	A	256	210.720	164.379	203.932	1.00	34.80	O
ATOM	1405	CB	THR	A	256	209.820	161.614	203.563	1.00	34.80	C
ATOM	1406	OG1	THR	A	256	208.818	162.628	203.424	1.00	34.80	O
ATOM	1407	CG2	THR	A	256	209.162	160.330	204.024	1.00	34.80	C
ATOM	1408	N	ALA	A	257	212.782	163.480	204.079	1.00	37.87	N

ATOM	1409	CA	ALA A 257	213.446	164.719	203.710	1.00 37.87	C
ATOM	1410	C	ALA A 257	213.346	164.950	202.206	1.00 37.87	C
ATOM	1411	O	ALA A 257	212.957	164.070	201.437	1.00 37.87	O
ATOM	1412	CB	ALA A 257	214.910	164.694	204.141	1.00 37.87	C
ATOM	1413	N	ARG A 258	213.710	166.163	201.785	1.00 46.88	N
ATOM	1414	CA	ARG A 258	213.650	166.516	200.368	1.00 46.88	C
ATOM	1415	C	ARG A 258	214.650	167.643	200.115	1.00 46.88	C
ATOM	1416	O	ARG A 258	214.371	168.800	200.438	1.00 46.88	O
ATOM	1417	CB	ARG A 258	212.242	166.920	199.969	1.00 46.88	C
ATOM	1418	CG	ARG A 258	212.079	167.226	198.496	1.00 46.88	C
ATOM	1419	CD	ARG A 258	210.625	167.478	198.162	1.00 46.88	C
ATOM	1420	NE	ARG A 258	210.434	167.800	196.754	1.00 46.88	N
ATOM	1421	CZ	ARG A 258	209.249	168.025	196.200	1.00 46.88	C
ATOM	1422	NH1	ARG A 258	209.161	168.313	194.911	1.00 46.88	N
ATOM	1423	NH2	ARG A 258	208.150	167.959	196.937	1.00 46.88	N
ATOM	1424	N	SER A 259	215.795	167.296	199.539	1.00 53.64	N
ATOM	1425	CA	SER A 259	216.806	168.270	199.159	1.00 53.64	C
ATOM	1426	C	SER A 259	216.802	168.450	197.648	1.00 53.64	C
ATOM	1427	O	SER A 259	216.410	167.551	196.901	1.00 53.64	O
ATOM	1428	CB	SER A 259	218.195	167.834	199.624	1.00 53.64	C
ATOM	1429	OG	SER A 259	218.619	166.678	198.926	1.00 53.64	O
ATOM	1430	N	LYS A 260	217.251	169.621	197.202	1.00 58.66	N
ATOM	1431	CA	LYS A 260	217.239	169.956	195.787	1.00 58.66	C
ATOM	1432	C	LYS A 260	218.601	170.500	195.379	1.00 58.66	C
ATOM	1433	O	LYS A 260	219.392	170.932	196.221	1.00 58.66	O
ATOM	1434	CB	LYS A 260	216.126	170.961	195.460	1.00 58.66	C
ATOM	1435	CG	LYS A 260	216.277	172.325	196.105	1.00 58.66	C
ATOM	1436	CD	LYS A 260	216.962	173.300	195.168	1.00 58.66	C
ATOM	1437	CE	LYS A 260	216.995	174.694	195.754	1.00 58.66	C
ATOM	1438	NZ	LYS A 260	217.677	175.654	194.845	1.00 58.66	N
ATOM	1439	N	TYR A 261	218.864	170.446	194.075	1.00 65.61	N
ATOM	1440	CA	TYR A 261	220.164	170.794	193.520	1.00 65.61	C
ATOM	1441	C	TYR A 261	220.544	172.221	193.915	1.00 65.61	C
ATOM	1442	O	TYR A 261	219.675	173.099	193.964	1.00 65.61	O
ATOM	1443	CB	TYR A 261	220.113	170.651	191.996	1.00 65.61	C
ATOM	1444	CG	TYR A 261	221.403	170.914	191.253	1.00 65.61	C
ATOM	1445	CD1	TYR A 261	222.424	169.975	191.237	1.00 65.61	C

ATOM	1446	CD2	TYR A 261	221.584	172.090	190.540	1.00 65.61	C
ATOM	1447	CE1	TYR A 261	223.597	170.208	190.547	1.00 65.61	C
ATOM	1448	CE2	TYR A 261	222.752	172.331	189.848	1.00 65.61	C
ATOM	1449	CZ	TYR A 261	223.755	171.387	189.855	1.00 65.61	C
ATOM	1450	OH	TYR A 261	224.923	171.623	189.167	1.00 65.61	O
ATOM	1451	N	PRO A 262	221.830	172.501	194.191	1.00 60.32	N
ATOM	1452	CA	PRO A 262	222.988	171.603	194.094	1.00 60.32	C
ATOM	1453	C	PRO A 262	223.252	170.718	195.316	1.00 60.32	C
ATOM	1454	O	PRO A 262	224.411	170.401	195.577	1.00 60.32	O
ATOM	1455	CB	PRO A 262	224.151	172.575	193.905	1.00 60.32	C
ATOM	1456	CG	PRO A 262	223.727	173.784	194.636	1.00 60.32	C
ATOM	1457	CD	PRO A 262	222.241	173.890	194.448	1.00 60.32	C
ATOM	1458	N	TYR A 263	222.206	170.331	196.045	1.00 63.47	N
ATOM	1459	CA	TYR A 263	222.283	169.242	197.019	1.00 63.47	C
ATOM	1460	C	TYR A 263	223.253	169.543	198.165	1.00 63.47	C
ATOM	1461	O	TYR A 263	224.246	168.840	198.359	1.00 63.47	O
ATOM	1462	CB	TYR A 263	222.698	167.937	196.327	1.00 63.47	C
ATOM	1463	CG	TYR A 263	221.731	167.393	195.305	1.00 63.47	C
ATOM	1464	CD1	TYR A 263	220.424	167.832	195.249	1.00 63.47	C
ATOM	1465	CD2	TYR A 263	222.136	166.436	194.389	1.00 63.47	C
ATOM	1466	CE1	TYR A 263	219.543	167.338	194.311	1.00 63.47	C
ATOM	1467	CE2	TYR A 263	221.265	165.933	193.449	1.00 63.47	C
ATOM	1468	CZ	TYR A 263	219.969	166.388	193.414	1.00 63.47	C
ATOM	1469	OH	TYR A 263	219.095	165.888	192.477	1.00 63.47	O
ATOM	1470	N	HIS A 264	222.975	170.600	198.929	1.00 54.98	N
ATOM	1471	CA	HIS A 264	223.765	170.791	200.145	1.00 54.98	C
ATOM	1472	C	HIS A 264	222.921	171.301	201.312	1.00 54.98	C
ATOM	1473	O	HIS A 264	223.369	172.151	202.088	1.00 54.98	O
ATOM	1474	CB	HIS A 264	224.967	171.705	199.894	1.00 54.98	C
ATOM	1475	CG	HIS A 264	224.609	173.100	199.493	1.00 54.98	C
ATOM	1476	ND1	HIS A 264	224.286	173.443	198.198	1.00 54.98	N
ATOM	1477	CD2	HIS A 264	224.547	174.245	200.212	1.00 54.98	C
ATOM	1478	CE1	HIS A 264	224.029	174.737	198.139	1.00 54.98	C
ATOM	1479	NE2	HIS A 264	224.179	175.247	199.348	1.00 54.98	N
ATOM	1480	N	PHE A 265	221.698	170.777	201.468	1.00 45.34	N
ATOM	1481	CA	PHE A 265	220.974	170.848	202.739	1.00 45.34	C
ATOM	1482	C	PHE A 265	219.650	170.093	202.681	1.00 45.34	C

ATOM	1483	O	PHE A 265	219.030	169.997	201.618	1.00 45.34	O
ATOM	1484	CB	PHE A 265	220.729	172.298	203.180	1.00 45.34	C
ATOM	1485	CG	PHE A 265	219.813	173.078	202.284	1.00 45.34	C
ATOM	1486	CD1	PHE A 265	220.309	173.761	201.191	1.00 45.34	C
ATOM	1487	CD2	PHE A 265	218.462	173.173	202.568	1.00 45.34	C
ATOM	1488	CE1	PHE A 265	219.469	174.496	200.377	1.00 45.34	C
ATOM	1489	CE2	PHE A 265	217.618	173.904	201.759	1.00 45.34	C
ATOM	1490	CZ	PHE A 265	218.122	174.567	200.663	1.00 45.34	C
ATOM	1491	N	PHE A 266	219.211	169.554	203.817	1.00 40.16	N
ATOM	1492	CA	PHE A 266	217.934	168.861	203.884	1.00 40.16	C
ATOM	1493	C	PHE A 266	216.809	169.848	204.185	1.00 40.16	C
ATOM	1494	O	PHE A 266	217.035	170.999	204.563	1.00 40.16	O
ATOM	1495	CB	PHE A 266	217.936	167.780	204.965	1.00 40.16	C
ATOM	1496	CG	PHE A 266	218.893	166.653	204.718	1.00 40.16	C
ATOM	1497	CD1	PHE A 266	219.530	166.505	203.503	1.00 40.16	C
ATOM	1498	CD2	PHE A 266	219.135	165.724	205.711	1.00 40.16	C
ATOM	1499	CE1	PHE A 266	220.410	165.469	203.295	1.00 40.16	C
ATOM	1500	CE2	PHE A 266	220.009	164.686	205.510	1.00 40.16	C
ATOM	1501	CZ	PHE A 266	220.647	164.554	204.301	1.00 40.16	C
ATOM	1502	N	ALA A 267	215.578	169.380	204.010	1.00 40.11	N
ATOM	1503	CA	ALA A 267	214.388	170.130	204.397	1.00 40.11	C
ATOM	1504	C	ALA A 267	213.357	169.187	205.008	1.00 40.11	C
ATOM	1505	O	ALA A 267	212.184	169.205	204.639	1.00 40.11	O
ATOM	1506	CB	ALA A 267	213.807	170.889	203.208	1.00 40.11	C
ATOM	1507	N	THR A 268	213.811	168.330	205.931	1.00 37.31	N
ATOM	1508	CA	THR A 268	213.011	167.228	206.465	1.00 37.31	C
ATOM	1509	C	THR A 268	211.636	167.692	206.932	1.00 37.31	C
ATOM	1510	O	THR A 268	211.466	168.813	207.417	1.00 37.31	O
ATOM	1511	CB	THR A 268	213.745	166.563	207.627	1.00 37.31	C
ATOM	1512	OG1	THR A 268	213.931	167.517	208.678	1.00 37.31	O
ATOM	1513	CG2	THR A 268	215.100	166.056	207.172	1.00 37.31	C
ATOM	1514	N	SER A 269	210.648	166.809	206.786	1.00 40.17	N
ATOM	1515	CA	SER A 269	209.249	167.201	206.904	1.00 40.17	C
ATOM	1516	C	SER A 269	208.768	167.279	208.347	1.00 40.17	C
ATOM	1517	O	SER A 269	207.698	166.760	208.678	1.00 40.17	O
ATOM	1518	CB	SER A 269	208.376	166.215	206.127	1.00 40.17	C
ATOM	1519	OG	SER A 269	207.001	166.489	206.309	1.00 40.17	O

ATOM	1520	N	THR A 270	209.548	167.937	209.205	1.00 39.52	N
ATOM	1521	CA	THR A 270	209.078	168.383	210.510	1.00 39.52	C
ATOM	1522	C	THR A 270	209.682	169.728	210.889	1.00 39.52	C
ATOM	1523	O	THR A 270	209.466	170.189	212.016	1.00 39.52	O
ATOM	1524	CB	THR A 270	209.383	167.358	211.610	1.00 39.52	C
ATOM	1525	OG1	THR A 270	210.781	167.047	211.609	1.00 39.52	O
ATOM	1526	CG2	THR A 270	208.566	166.096	211.423	1.00 39.52	C
ATOM	1527	N	GLY A 271	210.426	170.367	209.991	1.00 40.09	N
ATOM	1528	CA	GLY A 271	211.088	171.625	210.265	1.00 40.09	C
ATOM	1529	C	GLY A 271	212.590	171.524	210.402	1.00 40.09	C
ATOM	1530	O	GLY A 271	213.277	172.540	210.240	1.00 40.09	O
ATOM	1531	N	ASP A 272	213.122	170.341	210.693	1.00 39.03	N
ATOM	1532	CA	ASP A 272	214.557	170.182	210.868	1.00 39.03	C
ATOM	1533	C	ASP A 272	215.300	170.473	209.570	1.00 39.03	C
ATOM	1534	O	ASP A 272	214.794	170.237	208.470	1.00 39.03	O
ATOM	1535	CB	ASP A 272	214.876	168.769	211.346	1.00 39.03	C
ATOM	1536	CG	ASP A 272	214.385	168.510	212.753	1.00 39.03	C
ATOM	1537	OD1	ASP A 272	214.328	169.471	213.546	1.00 39.03	O
ATOM	1538	OD2	ASP A 272	214.048	167.349	213.065	1.00 39.03	O
ATOM	1539	N	VAL A 273	216.516	170.991	209.707	1.00 39.64	N
ATOM	1540	CA	VAL A 273	217.357	171.336	208.564	1.00 39.64	C
ATOM	1541	C	VAL A 273	218.808	171.097	208.947	1.00 39.64	C
ATOM	1542	O	VAL A 273	219.236	171.462	210.045	1.00 39.64	O
ATOM	1543	CB	VAL A 273	217.153	172.795	208.113	1.00 39.64	C
ATOM	1544	CG1	VAL A 273	218.166	173.160	207.048	1.00 39.64	C
ATOM	1545	CG2	VAL A 273	215.751	172.992	207.585	1.00 39.64	C
ATOM	1546	N	VAL A 274	219.565	170.487	208.042	1.00 43.99	N
ATOM	1547	CA	VAL A 274	220.979	170.226	208.265	1.00 43.99	C
ATOM	1548	C	VAL A 274	221.745	170.604	207.008	1.00 43.99	C
ATOM	1549	O	VAL A 274	221.244	170.465	205.888	1.00 43.99	O
ATOM	1550	CB	VAL A 274	221.240	168.755	208.638	1.00 43.99	C
ATOM	1551	CG1	VAL A 274	220.474	168.389	209.891	1.00 43.99	C
ATOM	1552	CG2	VAL A 274	220.855	167.854	207.496	1.00 43.99	C
ATOM	1553	N	ASP A 275	222.971	171.089	207.199	1.00 49.48	N
ATOM	1554	CA	ASP A 275	223.808	171.543	206.091	1.00 49.48	C
ATOM	1555	C	ASP A 275	224.795	170.438	205.729	1.00 49.48	C
ATOM	1556	O	ASP A 275	225.987	170.503	206.025	1.00 49.48	O

ATOM	1557	CB	ASP A 275	224.517	172.841	206.456	1.00 49.48	C
ATOM	1558	CG	ASP A 275	223.565	174.011	206.560	1.00 49.48	C
ATOM	1559	OD1	ASP A 275	222.524	173.988	205.872	1.00 49.48	O
ATOM	1560	OD2	ASP A 275	223.857	174.954	207.324	1.00 49.48	O
ATOM	1561	N	ILE A 276	224.276	169.407	205.068	1.00 48.45	N
ATOM	1562	CA	ILE A 276	225.091	168.322	204.536	1.00 48.45	C
ATOM	1563	C	ILE A 276	224.425	167.806	203.274	1.00 48.45	C
ATOM	1564	O	ILE A 276	223.202	167.656	203.222	1.00 48.45	O
ATOM	1565	CB	ILE A 276	225.273	167.173	205.550	1.00 48.45	C
ATOM	1566	CG1	ILE A 276	226.070	167.633	206.767	1.00 48.45	C
ATOM	1567	CG2	ILE A 276	225.961	165.998	204.890	1.00 48.45	C
ATOM	1568	CD1	ILE A 276	226.084	166.629	207.890	1.00 48.45	C
ATOM	1569	N	SER A 277	225.228	167.536	202.255	1.00 53.03	N
ATOM	1570	CA	SER A 277	224.696	166.880	201.075	1.00 53.03	C
ATOM	1571	C	SER A 277	224.232	165.475	201.448	1.00 53.03	C
ATOM	1572	O	SER A 277	224.853	164.823	202.291	1.00 53.03	O
ATOM	1573	CB	SER A 277	225.750	166.809	199.975	1.00 53.03	C
ATOM	1574	OG	SER A 277	226.816	165.959	200.354	1.00 53.03	O
ATOM	1575	N	PRO A 278	223.136	164.992	200.855	1.00 47.21	N
ATOM	1576	CA	PRO A 278	222.624	163.666	201.238	1.00 47.21	C
ATOM	1577	C	PRO A 278	223.624	162.544	201.035	1.00 47.21	C
ATOM	1578	O	PRO A 278	223.789	161.700	201.924	1.00 47.21	O
ATOM	1579	CB	PRO A 278	221.396	163.498	200.335	1.00 47.21	C
ATOM	1580	CG	PRO A 278	220.982	164.886	200.005	1.00 47.21	C
ATOM	1581	CD	PRO A 278	222.250	165.671	199.898	1.00 47.21	C
ATOM	1582	N	PHE A 279	224.295	162.505	199.888	1.00 58.58	N
ATOM	1583	CA	PHE A 279	225.250	161.442	199.587	1.00 58.58	C
ATOM	1584	C	PHE A 279	226.680	161.922	199.842	1.00 58.58	C
ATOM	1585	O	PHE A 279	227.540	161.953	198.967	1.00 58.58	O
ATOM	1586	CB	PHE A 279	225.041	160.934	198.159	1.00 58.58	C
ATOM	1587	CG	PHE A 279	225.110	162.005	197.097	1.00 58.58	C
ATOM	1588	CD1	PHE A 279	223.997	162.773	196.799	1.00 58.58	C
ATOM	1589	CD2	PHE A 279	226.260	162.193	196.349	1.00 58.58	C
ATOM	1590	CE1	PHE A 279	224.049	163.741	195.822	1.00 58.58	C
ATOM	1591	CE2	PHE A 279	226.317	163.160	195.368	1.00 58.58	C
ATOM	1592	CZ	PHE A 279	225.210	163.933	195.103	1.00 58.58	C
ATOM	1593	N	TYR A 280	226.932	162.272	201.095	1.00 59.66	N

ATOM	1594	CA	TYR A 280	228.278	162.582	201.565	1.00 59.66	C
ATOM	1595	C	TYR A 280	228.804	161.366	202.313	1.00 59.66	C
ATOM	1596	O	TYR A 280	228.589	161.232	203.519	1.00 59.66	O
ATOM	1597	CB	TYR A 280	228.292	163.810	202.466	1.00 59.66	C
ATOM	1598	CG	TYR A 280	229.670	164.119	203.003	1.00 59.66	C
ATOM	1599	CD1	TYR A 280	230.617	164.749	202.214	1.00 59.66	C
ATOM	1600	CD2	TYR A 280	230.031	163.756	204.291	1.00 59.66	C
ATOM	1601	CE1	TYR A 280	231.882	165.026	202.700	1.00 59.66	C
ATOM	1602	CE2	TYR A 280	231.291	164.024	204.784	1.00 59.66	C
ATOM	1603	CZ	TYR A 280	232.212	164.659	203.987	1.00 59.66	C
ATOM	1604	OH	TYR A 280	233.466	164.927	204.481	1.00 59.66	O
ATOM	1605	N	ASN A 281	229.502	160.485	201.611	1.00 66.12	N
ATOM	1606	CA	ASN A 281	230.167	159.388	202.296	1.00 66.12	C
ATOM	1607	C	ASN A 281	231.465	159.923	202.902	1.00 66.12	C
ATOM	1608	O	ASN A 281	231.686	161.134	202.982	1.00 66.12	O
ATOM	1609	CB	ASN A 281	230.355	158.197	201.357	1.00 66.12	C
ATOM	1610	CG	ASN A 281	231.170	158.529	200.127	1.00 66.12	C
ATOM	1611	OD1	ASN A 281	231.664	159.643	199.970	1.00 66.12	O
ATOM	1612	ND2	ASN A 281	231.314	157.547	199.240	1.00 66.12	N
ATOM	1613	N	GLY A 282	232.335	159.027	203.363	1.00 66.56	N
ATOM	1614	CA	GLY A 282	233.504	159.462	204.104	1.00 66.56	C
ATOM	1615	C	GLY A 282	234.529	160.225	203.289	1.00 66.56	C
ATOM	1616	O	GLY A 282	235.373	160.913	203.873	1.00 66.56	O
ATOM	1617	N	THR A 283	234.479	160.128	201.962	1.00 71.11	N
ATOM	1618	CA	THR A 283	235.559	160.618	201.105	1.00 71.11	C
ATOM	1619	C	THR A 283	235.021	161.423	199.926	1.00 71.11	C
ATOM	1620	O	THR A 283	235.397	161.202	198.774	1.00 71.11	O
ATOM	1621	CB	THR A 283	236.417	159.461	200.598	1.00 71.11	C
ATOM	1622	OG1	THR A 283	235.615	158.582	199.800	1.00 71.11	O
ATOM	1623	CG2	THR A 283	237.006	158.682	201.764	1.00 71.11	C
ATOM	1624	N	ASN A 284	234.127	162.379	200.190	1.00 70.78	N
ATOM	1625	CA	ASN A 284	233.644	163.246	199.120	1.00 70.78	C
ATOM	1626	C	ASN A 284	233.558	164.703	199.552	1.00 70.78	C
ATOM	1627	O	ASN A 284	232.662	165.427	199.107	1.00 70.78	O
ATOM	1628	CB	ASN A 284	232.274	162.807	198.610	1.00 70.78	C
ATOM	1629	CG	ASN A 284	232.334	161.540	197.803	1.00 70.78	C
ATOM	1630	OD1	ASN A 284	233.271	161.322	197.038	1.00 70.78	O

ATOM	1631	ND2	ASN A 284	231.317	160.704	197.948	1.00 70.78	N
ATOM	1632	N	ARG A 285	234.468	165.155	200.415	1.00 75.35	N
ATOM	1633	CA	ARG A 285	234.394	166.540	200.867	1.00 75.35	C
ATOM	1634	C	ARG A 285	234.735	167.510	199.742	1.00 75.35	C
ATOM	1635	O	ARG A 285	234.156	168.600	199.661	1.00 75.35	O
ATOM	1636	CB	ARG A 285	235.314	166.765	202.064	1.00 75.35	C
ATOM	1637	CG	ARG A 285	235.204	168.164	202.648	1.00 75.35	C
ATOM	1638	CD	ARG A 285	236.027	168.310	203.914	1.00 75.35	C
ATOM	1639	NE	ARG A 285	236.020	169.687	204.394	1.00 75.35	N
ATOM	1640	CZ	ARG A 285	235.083	170.200	205.183	1.00 75.35	C
ATOM	1641	NH1	ARG A 285	234.070	169.448	205.586	1.00 75.35	N
ATOM	1642	NH2	ARG A 285	235.158	171.467	205.566	1.00 75.35	N
ATOM	1643	N	ASN A 286	235.669	167.138	198.863	1.00 83.41	N
ATOM	1644	CA	ASN A 286	235.988	168.002	197.731	1.00 83.41	C
ATOM	1645	C	ASN A 286	234.890	167.978	196.675	1.00 83.41	C
ATOM	1646	O	ASN A 286	234.611	169.006	196.049	1.00 83.41	O
ATOM	1647	CB	ASN A 286	237.321	167.596	197.104	1.00 83.41	C
ATOM	1648	CG	ASN A 286	238.529	168.048	197.916	1.00 83.41	C
ATOM	1649	OD1	ASN A 286	238.543	169.141	198.480	1.00 83.41	O
ATOM	1650	ND2	ASN A 286	239.559	167.205	197.954	1.00 83.41	N
ATOM	1651	N	ALA A 287	234.262	166.823	196.463	1.00 75.35	N
ATOM	1652	CA	ALA A 287	233.238	166.690	195.435	1.00 75.35	C
ATOM	1653	C	ALA A 287	231.840	167.010	195.943	1.00 75.35	C
ATOM	1654	O	ALA A 287	231.000	167.475	195.165	1.00 75.35	O
ATOM	1655	CB	ALA A 287	233.257	165.275	194.853	1.00 75.35	C
ATOM	1656	N	SER A 288	231.572	166.773	197.225	1.00 67.21	N
ATOM	1657	CA	SER A 288	230.262	167.005	197.811	1.00 67.21	C
ATOM	1658	C	SER A 288	230.398	167.842	199.076	1.00 67.21	C
ATOM	1659	O	SER A 288	231.375	167.722	199.821	1.00 67.21	O
ATOM	1660	CB	SER A 288	229.558	165.687	198.131	1.00 67.21	C
ATOM	1661	OG	SER A 288	230.257	164.980	199.136	1.00 67.21	O
ATOM	1662	N	TYR A 289	229.402	168.689	199.307	1.00 56.70	N
ATOM	1663	CA	TYR A 289	229.441	169.679	200.370	1.00 56.70	C
ATOM	1664	C	TYR A 289	229.329	169.015	201.741	1.00 56.70	C
ATOM	1665	O	TYR A 289	228.738	167.944	201.897	1.00 56.70	O
ATOM	1666	CB	TYR A 289	228.313	170.690	200.171	1.00 56.70	C
ATOM	1667	CG	TYR A 289	228.297	171.831	201.156	1.00 56.70	C

ATOM	1668	CD1	TYR A 289	229.169	172.898	201.025	1.00 56.70	C
ATOM	1669	CD2	TYR A 289	227.407	171.839	202.216	1.00 56.70	C
ATOM	1670	CE1	TYR A 289	229.153	173.943	201.923	1.00 56.70	C
ATOM	1671	CE2	TYR A 289	227.384	172.877	203.118	1.00 56.70	C
ATOM	1672	CZ	TYR A 289	228.258	173.927	202.969	1.00 56.70	C
ATOM	1673	OH	TYR A 289	228.235	174.965	203.871	1.00 56.70	O
ATOM	1674	N	PHE A 290	229.921	169.666	202.740	1.00 58.21	N
ATOM	1675	CA	PHE A 290	229.805	169.229	204.130	1.00 58.21	C
ATOM	1676	C	PHE A 290	230.233	170.377	205.028	1.00 58.21	C
ATOM	1677	O	PHE A 290	231.361	170.862	204.906	1.00 58.21	O
ATOM	1678	CB	PHE A 290	230.664	168.000	204.396	1.00 58.21	C
ATOM	1679	CG	PHE A 290	230.569	167.499	205.803	1.00 58.21	C
ATOM	1680	CD1	PHE A 290	229.493	166.733	206.207	1.00 58.21	C
ATOM	1681	CD2	PHE A 290	231.540	167.822	206.731	1.00 58.21	C
ATOM	1682	CE1	PHE A 290	229.401	166.279	207.504	1.00 58.21	C
ATOM	1683	CE2	PHE A 290	231.452	167.374	208.026	1.00 58.21	C
ATOM	1684	CZ	PHE A 290	230.381	166.602	208.414	1.00 58.21	C
ATOM	1685	N	GLY A 291	229.347	170.815	205.920	1.00 56.59	N
ATOM	1686	CA	GLY A 291	229.675	171.942	206.772	1.00 56.59	C
ATOM	1687	C	GLY A 291	229.173	171.909	208.202	1.00 56.59	C
ATOM	1688	O	GLY A 291	228.921	172.972	208.777	1.00 56.59	O
ATOM	1689	N	GLU A 292	229.017	170.728	208.804	1.00 55.26	N
ATOM	1690	CA	GLU A 292	228.456	170.646	210.148	1.00 55.26	C
ATOM	1691	C	GLU A 292	229.517	170.495	211.230	1.00 55.26	C
ATOM	1692	O	GLU A 292	229.662	171.386	212.071	1.00 55.26	O
ATOM	1693	CB	GLU A 292	227.459	169.486	210.231	1.00 55.26	C
ATOM	1694	CG	GLU A 292	226.195	169.716	209.439	1.00 55.26	C
ATOM	1695	CD	GLU A 292	225.364	170.849	210.000	1.00 55.26	C
ATOM	1696	OE1	GLU A 292	225.376	171.048	211.234	1.00 55.26	O
ATOM	1697	OE2	GLU A 292	224.702	171.545	209.204	1.00 55.26	O
ATOM	1698	N	ASN A 293	230.283	169.404	211.222	1.00 60.72	N
ATOM	1699	CA	ASN A 293	231.247	169.169	212.290	1.00 60.72	C
ATOM	1700	C	ASN A 293	232.025	167.887	212.028	1.00 60.72	C
ATOM	1701	O	ASN A 293	231.794	167.210	211.023	1.00 60.72	O
ATOM	1702	CB	ASN A 293	230.532	169.091	213.641	1.00 60.72	C
ATOM	1703	CG	ASN A 293	231.377	169.631	214.778	1.00 60.72	C
ATOM	1704	OD1	ASN A 293	230.888	169.822	215.892	1.00 60.72	O

ATOM	1705	ND2	ASN A 293	232.637	169.932	214.492	1.00 60.72	N
ATOM	1706	N	ALA A 294	232.950	167.537	212.914	1.00 61.84	N
ATOM	1707	CA	ALA A 294	233.633	166.255	212.865	1.00 61.84	C
ATOM	1708	C	ALA A 294	233.425	165.409	214.110	1.00 61.84	C
ATOM	1709	O	ALA A 294	233.459	164.183	214.015	1.00 61.84	O
ATOM	1710	CB	ALA A 294	235.139	166.450	212.645	1.00 61.84	C
ATOM	1711	N	ASP A 295	233.209	166.030	215.269	1.00 61.29	N
ATOM	1712	CA	ASP A 295	232.906	165.314	216.499	1.00 61.29	C
ATOM	1713	C	ASP A 295	231.407	165.085	216.670	1.00 61.29	C
ATOM	1714	O	ASP A 295	230.973	164.643	217.736	1.00 61.29	O
ATOM	1715	CB	ASP A 295	233.468	166.084	217.697	1.00 61.29	C
ATOM	1716	CG	ASP A 295	233.609	165.223	218.938	1.00 61.29	C
ATOM	1717	OD1	ASP A 295	233.293	164.015	218.869	1.00 61.29	O
ATOM	1718	OD2	ASP A 295	234.041	165.754	219.982	1.00 61.29	O
ATOM	1719	N	LYS A 296	230.613	165.378	215.644	1.00 52.49	N
ATOM	1720	CA	LYS A 296	229.161	165.237	215.661	1.00 52.49	C
ATOM	1721	C	LYS A 296	228.690	164.540	214.394	1.00 52.49	C
ATOM	1722	O	LYS A 296	227.761	164.980	213.714	1.00 52.49	O
ATOM	1723	CB	LYS A 296	228.483	166.594	215.813	1.00 52.49	C
ATOM	1724	CG	LYS A 296	228.844	167.322	217.093	1.00 52.49	C
ATOM	1725	CD	LYS A 296	228.285	166.609	218.309	1.00 52.49	C
ATOM	1726	CE	LYS A 296	228.663	167.330	219.590	1.00 52.49	C
ATOM	1727	NZ	LYS A 296	227.983	168.649	219.706	1.00 52.49	N
ATOM	1728	N	PHE A 297	229.341	163.431	214.056	1.00 45.87	N
ATOM	1729	CA	PHE A 297	229.058	162.742	212.805	1.00 45.87	C
ATOM	1730	C	PHE A 297	229.658	161.348	212.879	1.00 45.87	C
ATOM	1731	O	PHE A 297	230.789	161.185	213.344	1.00 45.87	O
ATOM	1732	CB	PHE A 297	229.636	163.526	211.625	1.00 45.87	C
ATOM	1733	CG	PHE A 297	229.316	162.940	210.288	1.00 45.87	C
ATOM	1734	CD1	PHE A 297	228.072	163.125	209.716	1.00 45.87	C
ATOM	1735	CD2	PHE A 297	230.262	162.210	209.599	1.00 45.87	C
ATOM	1736	CE1	PHE A 297	227.780	162.589	208.481	1.00 45.87	C
ATOM	1737	CE2	PHE A 297	229.976	161.673	208.368	1.00 45.87	C
ATOM	1738	CZ	PHE A 297	228.733	161.861	207.807	1.00 45.87	C
ATOM	1739	N	PHE A 298	228.902	160.351	212.432	1.00 42.19	N
ATOM	1740	CA	PHE A 298	229.336	158.963	212.484	1.00 42.19	C
ATOM	1741	C	PHE A 298	228.789	158.218	211.278	1.00 42.19	C

ATOM	1742	O	PHE A 298	227.626	158.394	210.909	1.00 42.19	O
ATOM	1743	CB	PHE A 298	228.860	158.275	213.768	1.00 42.19	C
ATOM	1744	CG	PHE A 298	229.493	158.806	215.018	1.00 42.19	C
ATOM	1745	CD1	PHE A 298	230.749	158.381	215.409	1.00 42.19	C
ATOM	1746	CD2	PHE A 298	228.826	159.722	215.810	1.00 42.19	C
ATOM	1747	CE1	PHE A 298	231.329	158.864	216.563	1.00 42.19	C
ATOM	1748	CE2	PHE A 298	229.401	160.208	216.964	1.00 42.19	C
ATOM	1749	CZ	PHE A 298	230.653	159.779	217.341	1.00 42.19	C
ATOM	1750	N	ILE A 299	229.628	157.385	210.669	1.00 39.81	N
ATOM	1751	CA	ILE A 299	229.226	156.540	209.550	1.00 39.81	C
ATOM	1752	C	ILE A 299	229.526	155.096	209.921	1.00 39.81	C
ATOM	1753	O	ILE A 299	230.654	154.772	210.313	1.00 39.81	O
ATOM	1754	CB	ILE A 299	229.937	156.928	208.247	1.00 39.81	C
ATOM	1755	CG1	ILE A 299	229.543	158.341	207.822	1.00 39.81	C
ATOM	1756	CG2	ILE A 299	229.603	155.937	207.151	1.00 39.81	C
ATOM	1757	CD1	ILE A 299	230.364	158.869	206.676	1.00 39.81	C
ATOM	1758	N	PHE A 300	228.519	154.235	209.800	1.00 38.82	N
ATOM	1759	CA	PHE A 300	228.631	152.830	210.151	1.00 38.82	C
ATOM	1760	C	PHE A 300	228.396	151.957	208.932	1.00 38.82	C
ATOM	1761	O	PHE A 300	227.403	152.157	208.220	1.00 38.82	O
ATOM	1762	CB	PHE A 300	227.617	152.470	211.242	1.00 38.82	C
ATOM	1763	CG	PHE A 300	227.934	153.049	212.590	1.00 38.82	C
ATOM	1764	CD1	PHE A 300	228.824	152.415	213.435	1.00 38.82	C
ATOM	1765	CD2	PHE A 300	227.337	154.221	213.017	1.00 38.82	C
ATOM	1766	CE1	PHE A 300	229.113	152.938	214.677	1.00 38.82	C
ATOM	1767	CE2	PHE A 300	227.626	154.748	214.259	1.00 38.82	C
ATOM	1768	CZ	PHE A 300	228.514	154.105	215.089	1.00 38.82	C
ATOM	1769	N	PRO A 301	229.269	150.989	208.655	1.00 41.73	N
ATOM	1770	CA	PRO A 301	228.976	150.002	207.609	1.00 41.73	C
ATOM	1771	C	PRO A 301	228.226	148.805	208.172	1.00 41.73	C
ATOM	1772	O	PRO A 301	228.585	148.245	209.210	1.00 41.73	O
ATOM	1773	CB	PRO A 301	230.374	149.589	207.134	1.00 41.73	C
ATOM	1774	CG	PRO A 301	231.211	149.725	208.355	1.00 41.73	C
ATOM	1775	CD	PRO A 301	230.666	150.907	209.113	1.00 41.73	C
ATOM	1776	N	ASN A 302	227.175	148.399	207.460	1.00 43.93	N
ATOM	1777	CA	ASN A 302	226.336	147.270	207.864	1.00 43.93	C
ATOM	1778	C	ASN A 302	225.737	147.496	209.253	1.00 43.93	C

ATOM	1779	O	ASN A 302	226.028	146.779	210.211	1.00 43.93	O
ATOM	1780	CB	ASN A 302	227.122	145.958	207.828	1.00 43.93	C
ATOM	1781	CG	ASN A 302	227.442	145.512	206.426	1.00 43.93	C
ATOM	1782	OD1	ASN A 302	226.621	145.634	205.519	1.00 43.93	O
ATOM	1783	ND2	ASN A 302	228.638	144.977	206.240	1.00 43.93	N
ATOM	1784	N	TYR A 303	224.893	148.517	209.349	1.00 41.28	N
ATOM	1785	CA	TYR A 303	224.218	148.844	210.602	1.00 41.28	C
ATOM	1786	C	TYR A 303	222.824	148.228	210.549	1.00 41.28	C
ATOM	1787	O	TYR A 303	221.903	148.783	209.951	1.00 41.28	O
ATOM	1788	CB	TYR A 303	224.171	150.350	210.821	1.00 41.28	C
ATOM	1789	CG	TYR A 303	223.579	150.750	212.149	1.00 41.28	C
ATOM	1790	CD1	TYR A 303	224.276	150.539	213.329	1.00 41.28	C
ATOM	1791	CD2	TYR A 303	222.335	151.355	212.224	1.00 41.28	C
ATOM	1792	CE1	TYR A 303	223.746	150.903	214.546	1.00 41.28	C
ATOM	1793	CE2	TYR A 303	221.799	151.728	213.438	1.00 41.28	C
ATOM	1794	CZ	TYR A 303	222.508	151.499	214.595	1.00 41.28	C
ATOM	1795	OH	TYR A 303	221.977	151.868	215.809	1.00 41.28	O
ATOM	1796	N	THR A 304	222.683	147.056	211.168	1.00 41.05	N
ATOM	1797	CA	THR A 304	221.404	146.362	211.192	1.00 41.05	C
ATOM	1798	C	THR A 304	220.344	147.228	211.859	1.00 41.05	C
ATOM	1799	O	THR A 304	220.626	147.982	212.794	1.00 41.05	O
ATOM	1800	CB	THR A 304	221.535	145.029	211.930	1.00 41.05	C
ATOM	1801	OG1	THR A 304	221.868	145.270	213.302	1.00 41.05	O
ATOM	1802	CG2	THR A 304	222.629	144.188	211.304	1.00 41.05	C
ATOM	1803	N	ILE A 305	219.113	147.122	211.367	1.00 41.87	N
ATOM	1804	CA	ILE A 305	218.017	147.965	211.834	1.00 41.87	C
ATOM	1805	C	ILE A 305	216.740	147.141	211.852	1.00 41.87	C
ATOM	1806	O	ILE A 305	216.527	146.284	210.991	1.00 41.87	O
ATOM	1807	CB	ILE A 305	217.852	149.219	210.947	1.00 41.87	C
ATOM	1808	CG1	ILE A 305	219.062	150.142	211.085	1.00 41.87	C
ATOM	1809	CG2	ILE A 305	216.571	149.959	211.282	1.00 41.87	C
ATOM	1810	CD1	ILE A 305	219.071	151.277	210.089	1.00 41.87	C
ATOM	1811	N	VAL A 306	215.893	147.399	212.851	1.00 47.60	N
ATOM	1812	CA	VAL A 306	214.563	146.811	212.859	1.00 47.60	C
ATOM	1813	C	VAL A 306	213.792	147.304	211.644	1.00 47.60	C
ATOM	1814	O	VAL A 306	213.898	148.471	211.247	1.00 47.60	O
ATOM	1815	CB	VAL A 306	213.830	147.157	214.165	1.00 47.60	C

ATOM	1816	CG1	VAL	A	306	212.398	146.662	214.116	1.00 47.60	C
ATOM	1817	CG2	VAL	A	306	214.560	146.556	215.351	1.00 47.60	C
ATOM	1818	N	SER	A	307	213.014	146.406	211.039	1.00 53.75	N
ATOM	1819	CA	SER	A	307	212.266	146.750	209.837	1.00 53.75	C
ATOM	1820	C	SER	A	307	211.012	147.559	210.132	1.00 53.75	C
ATOM	1821	O	SER	A	307	210.509	148.243	209.234	1.00 53.75	O
ATOM	1822	CB	SER	A	307	211.884	145.482	209.073	1.00 53.75	C
ATOM	1823	OG	SER	A	307	210.980	144.693	209.826	1.00 53.75	O
ATOM	1824	N	ASP	A	308	210.497	147.498	211.358	1.00 52.86	N
ATOM	1825	CA	ASP	A	308	209.318	148.272	211.720	1.00 52.86	C
ATOM	1826	C	ASP	A	308	209.165	148.331	213.233	1.00 52.86	C
ATOM	1827	O	ASP	A	308	209.269	147.306	213.913	1.00 52.86	O
ATOM	1828	CB	ASP	A	308	208.067	147.675	211.077	1.00 52.86	C
ATOM	1829	CG	ASP	A	308	206.845	148.549	211.262	1.00 52.86	C
ATOM	1830	OD1	ASP	A	308	206.762	149.600	210.592	1.00 52.86	O
ATOM	1831	OD2	ASP	A	308	205.966	148.185	212.071	1.00 52.86	O
ATOM	1832	N	PHE	A	309	208.916	149.524	213.765	1.00 45.56	N
ATOM	1833	CA	PHE	A	309	208.835	149.712	215.205	1.00 45.56	C
ATOM	1834	C	PHE	A	309	207.415	149.485	215.703	1.00 45.56	C
ATOM	1835	O	PHE	A	309	206.440	149.713	214.982	1.00 45.56	O
ATOM	1836	CB	PHE	A	309	209.302	151.115	215.583	1.00 45.56	C
ATOM	1837	CG	PHE	A	309	210.749	151.364	215.297	1.00 45.56	C
ATOM	1838	CD1	PHE	A	309	211.725	150.899	216.154	1.00 45.56	C
ATOM	1839	CD2	PHE	A	309	211.133	152.063	214.168	1.00 45.56	C
ATOM	1840	CE1	PHE	A	309	213.057	151.126	215.890	1.00 45.56	C
ATOM	1841	CE2	PHE	A	309	212.463	152.294	213.900	1.00 45.56	C
ATOM	1842	CZ	PHE	A	309	213.426	151.825	214.761	1.00 45.56	C
ATOM	1843	N	GLY	A	310	207.306	149.037	216.948	1.00 50.34	N
ATOM	1844	CA	GLY	A	310	206.021	148.716	217.530	1.00 50.34	C
ATOM	1845	C	GLY	A	310	205.909	147.233	217.802	1.00 50.34	C
ATOM	1846	O	GLY	A	310	205.397	146.816	218.843	1.00 50.34	O
ATOM	1847	N	ARG	A	311	206.394	146.429	216.866	1.00 57.26	N
ATOM	1848	CA	ARG	A	311	206.416	144.992	217.068	1.00 57.26	C
ATOM	1849	C	ARG	A	311	207.413	144.637	218.168	1.00 57.26	C
ATOM	1850	O	ARG	A	311	208.497	145.223	218.236	1.00 57.26	O
ATOM	1851	CB	ARG	A	311	206.795	144.274	215.775	1.00 57.26	C
ATOM	1852	CG	ARG	A	311	205.834	144.512	214.624	1.00 57.26	C

ATOM	1853	CD	ARG A 311	204.499	143.835	214.873	1.00 57.26	C
ATOM	1854	NE	ARG A 311	203.565	144.059	213.775	1.00 57.26	N
ATOM	1855	CZ	ARG A 311	203.469	143.275	212.707	1.00 57.26	C
ATOM	1856	NH1	ARG A 311	204.256	142.214	212.589	1.00 57.26	N
ATOM	1857	NH2	ARG A 311	202.589	143.554	211.755	1.00 57.26	N
ATOM	1858	N	PRO A 312	207.070	143.699	219.053	1.00 60.90	N
ATOM	1859	CA	PRO A 312	208.066	143.231	220.030	1.00 60.90	C
ATOM	1860	C	PRO A 312	209.293	142.629	219.371	1.00 60.90	C
ATOM	1861	O	PRO A 312	210.410	142.780	219.881	1.00 60.90	O
ATOM	1862	CB	PRO A 312	207.287	142.195	220.851	1.00 60.90	C
ATOM	1863	CG	PRO A 312	205.854	142.578	220.678	1.00 60.90	C
ATOM	1864	CD	PRO A 312	205.747	143.096	219.278	1.00 60.90	C
ATOM	1865	N	ASN A 313	209.110	141.947	218.243	1.00 60.23	N
ATOM	1866	CA	ASN A 313	210.213	141.430	217.450	1.00 60.23	C
ATOM	1867	C	ASN A 313	209.809	141.456	215.985	1.00 60.23	C
ATOM	1868	O	ASN A 313	208.628	141.328	215.650	1.00 60.23	O
ATOM	1869	CB	ASN A 313	210.604	140.009	217.870	1.00 60.23	C
ATOM	1870	CG	ASN A 313	211.325	139.974	219.200	1.00 60.23	C
ATOM	1871	OD1	ASN A 313	212.187	140.808	219.472	1.00 60.23	O
ATOM	1872	ND2	ASN A 313	210.977	139.006	220.037	1.00 60.23	N
ATOM	1873	N	SER A 314	210.797	141.625	215.117	1.00 62.90	N
ATOM	1874	CA	SER A 314	210.550	141.680	213.683	1.00 62.90	C
ATOM	1875	C	SER A 314	211.777	141.123	212.972	1.00 62.90	C
ATOM	1876	O	SER A 314	212.631	140.480	213.592	1.00 62.90	O
ATOM	1877	CB	SER A 314	210.207	143.115	213.252	1.00 62.90	C
ATOM	1878	OG	SER A 314	211.322	143.970	213.418	1.00 62.90	O
ATOM	1879	N	ALA A 315	211.867	141.366	211.669	1.00 62.16	N
ATOM	1880	CA	ALA A 315	212.979	140.906	210.851	1.00 62.16	C
ATOM	1881	C	ALA A 315	213.872	142.094	210.519	1.00 62.16	C
ATOM	1882	O	ALA A 315	213.417	143.062	209.901	1.00 62.16	O
ATOM	1883	CB	ALA A 315	212.476	140.234	209.574	1.00 62.16	C
ATOM	1884	N	LEU A 316	215.134	142.019	210.932	1.00 52.18	N
ATOM	1885	CA	LEU A 316	216.065	143.104	210.671	1.00 52.18	C
ATOM	1886	C	LEU A 316	216.309	143.249	209.172	1.00 52.18	C
ATOM	1887	O	LEU A 316	215.950	142.386	208.367	1.00 52.18	O
ATOM	1888	CB	LEU A 316	217.385	142.863	211.400	1.00 52.18	C
ATOM	1889	CG	LEU A 316	217.415	143.159	212.901	1.00 52.18	C

ATOM	1890	CD1	LEU A 316	216.634	142.115	213.675	1.00 52.18	C
ATOM	1891	CD2	LEU A 316	218.846	143.228	213.403	1.00 52.18	C
ATOM	1892	N	GLU A 317	216.936	144.366	208.803	1.00 49.07	N
ATOM	1893	CA	GLU A 317	217.241	144.659	207.403	1.00 49.07	C
ATOM	1894	C	GLU A 317	218.543	145.455	207.384	1.00 49.07	C
ATOM	1895	O	GLU A 317	218.532	146.670	207.600	1.00 49.07	O
ATOM	1896	CB	GLU A 317	216.105	145.423	206.738	1.00 49.07	C
ATOM	1897	CG	GLU A 317	216.336	145.717	205.269	1.00 49.07	C
ATOM	1898	CD	GLU A 317	216.402	144.456	204.435	1.00 49.07	C
ATOM	1899	OE1	GLU A 317	215.819	143.437	204.859	1.00 49.07	O
ATOM	1900	OE2	GLU A 317	217.033	144.481	203.357	1.00 49.07	O
ATOM	1901	N	THR A 318	219.649	144.769	207.116	1.00 47.02	N
ATOM	1902	CA	THR A 318	220.974	145.369	207.227	1.00 47.02	C
ATOM	1903	C	THR A 318	221.202	146.315	206.055	1.00 47.02	C
ATOM	1904	O	THR A 318	221.366	145.873	204.914	1.00 47.02	O
ATOM	1905	CB	THR A 318	222.044	144.284	207.255	1.00 47.02	C
ATOM	1906	OG1	THR A 318	222.091	143.630	205.982	1.00 47.02	O
ATOM	1907	CG2	THR A 318	221.710	143.255	208.318	1.00 47.02	C
ATOM	1908	N	HIS A 319	221.227	147.613	206.334	1.00 43.96	N
ATOM	1909	CA	HIS A 319	221.510	148.603	205.305	1.00 43.96	C
ATOM	1910	C	HIS A 319	223.013	148.634	205.040	1.00 43.96	C
ATOM	1911	O	HIS A 319	223.776	147.805	205.543	1.00 43.96	O
ATOM	1912	CB	HIS A 319	220.971	149.968	205.716	1.00 43.96	C
ATOM	1913	CG	HIS A 319	219.480	150.025	205.803	1.00 43.96	C
ATOM	1914	ND1	HIS A 319	218.804	151.122	206.289	1.00 43.96	N
ATOM	1915	CD2	HIS A 319	218.533	149.113	205.478	1.00 43.96	C
ATOM	1916	CE1	HIS A 319	217.505	150.888	206.252	1.00 43.96	C
ATOM	1917	NE2	HIS A 319	217.314	149.676	205.765	1.00 43.96	N
ATOM	1918	N	ARG A 320	223.459	149.605	204.246	1.00 49.32	N
ATOM	1919	CA	ARG A 320	224.854	149.693	203.831	1.00 49.32	C
ATOM	1920	C	ARG A 320	225.623	150.775	204.576	1.00 49.32	C
ATOM	1921	O	ARG A 320	226.689	150.504	205.136	1.00 49.32	O
ATOM	1922	CB	ARG A 320	224.929	149.939	202.322	1.00 49.32	C
ATOM	1923	CG	ARG A 320	226.335	149.963	201.765	1.00 49.32	C
ATOM	1924	CD	ARG A 320	226.308	150.115	200.257	1.00 49.32	C
ATOM	1925	NE	ARG A 320	225.760	148.931	199.603	1.00 49.32	N
ATOM	1926	CZ	ARG A 320	225.456	148.868	198.311	1.00 49.32	C

ATOM	1927	NH1	ARG A 320	225.644	149.926	197.534	1.00 49.32	N
ATOM	1928	NH2	ARG A 320	224.964	147.751	197.795	1.00 49.32	N
ATOM	1929	N	LEU A 321	225.108	152.001	204.590	1.00 45.96	N
ATOM	1930	CA	LEU A 321	225.736	153.081	205.334	1.00 45.96	C
ATOM	1931	C	LEU A 321	224.653	153.980	205.905	1.00 45.96	C
ATOM	1932	O	LEU A 321	223.619	154.194	205.270	1.00 45.96	O
ATOM	1933	CB	LEU A 321	226.686	153.897	204.452	1.00 45.96	C
ATOM	1934	CG	LEU A 321	227.920	153.162	203.935	1.00 45.96	C
ATOM	1935	CD1	LEU A 321	228.716	154.064	203.011	1.00 45.96	C
ATOM	1936	CD2	LEU A 321	228.777	152.676	205.089	1.00 45.96	C
ATOM	1937	N	VAL A 322	224.898	154.507	207.105	1.00 38.68	N
ATOM	1938	CA	VAL A 322	223.974	155.426	207.757	1.00 38.68	C
ATOM	1939	C	VAL A 322	224.787	156.446	208.537	1.00 38.68	C
ATOM	1940	O	VAL A 322	225.899	156.170	208.990	1.00 38.68	O
ATOM	1941	CB	VAL A 322	222.984	154.695	208.692	1.00 38.68	C
ATOM	1942	CG1	VAL A 322	222.083	153.780	207.894	1.00 38.68	C
ATOM	1943	CG2	VAL A 322	223.744	153.902	209.731	1.00 38.68	C
ATOM	1944	N	ALA A 323	224.222	157.636	208.694	1.00 37.74	N
ATOM	1945	CA	ALA A 323	224.882	158.728	209.390	1.00 37.74	C
ATOM	1946	C	ALA A 323	224.207	158.990	210.730	1.00 37.74	C
ATOM	1947	O	ALA A 323	223.123	158.482	211.025	1.00 37.74	O
ATOM	1948	CB	ALA A 323	224.883	159.998	208.533	1.00 37.74	C
ATOM	1949	N	PHE A 324	224.873	159.808	211.543	1.00 36.41	N
ATOM	1950	CA	PHE A 324	224.389	160.153	212.879	1.00 36.41	C
ATOM	1951	C	PHE A 324	224.872	161.570	213.174	1.00 36.41	C
ATOM	1952	O	PHE A 324	226.004	161.758	213.626	1.00 36.41	O
ATOM	1953	CB	PHE A 324	224.896	159.168	213.923	1.00 36.41	C
ATOM	1954	CG	PHE A 324	224.229	157.827	213.877	1.00 36.41	C
ATOM	1955	CD1	PHE A 324	223.037	157.620	214.533	1.00 36.41	C
ATOM	1956	CD2	PHE A 324	224.795	156.775	213.186	1.00 36.41	C
ATOM	1957	CE1	PHE A 324	222.417	156.393	214.499	1.00 36.41	C
ATOM	1958	CE2	PHE A 324	224.176	155.543	213.152	1.00 36.41	C
ATOM	1959	CZ	PHE A 324	222.985	155.354	213.808	1.00 36.41	C
ATOM	1960	N	LEU A 325	224.009	162.553	212.931	1.00 35.62	N
ATOM	1961	CA	LEU A 325	224.360	163.960	213.110	1.00 35.62	C
ATOM	1962	C	LEU A 325	223.841	164.399	214.475	1.00 35.62	C
ATOM	1963	O	LEU A 325	222.778	165.000	214.606	1.00 35.62	O

ATOM	1964	CB	LEU	A	325	223.786	164.800	211.973	1.00 35.62	C
ATOM	1965	CG	LEU	A	325	224.261	166.244	211.792	1.00 35.62	C
ATOM	1966	CD1	LEU	A	325	223.629	167.191	212.792	1.00 35.62	C
ATOM	1967	CD2	LEU	A	325	225.771	166.311	211.882	1.00 35.62	C
ATOM	1968	N	GLU	A	326	224.619	164.087	215.509	1.00 38.60	N
ATOM	1969	CA	GLU	A	326	224.201	164.366	216.877	1.00 38.60	C
ATOM	1970	C	GLU	A	326	224.123	165.863	217.138	1.00 38.60	C
ATOM	1971	O	GLU	A	326	225.150	166.533	217.277	1.00 38.60	O
ATOM	1972	CB	GLU	A	326	225.158	163.713	217.871	1.00 38.60	C
ATOM	1973	CG	GLU	A	326	225.117	162.204	217.859	1.00 38.60	C
ATOM	1974	CD	GLU	A	326	226.095	161.598	218.837	1.00 38.60	C
ATOM	1975	OE1	GLU	A	326	226.892	162.358	219.424	1.00 38.60	O
ATOM	1976	OE2	GLU	A	326	226.068	160.365	219.020	1.00 38.60	O
ATOM	1977	N	ARG	A	327	222.908	166.391	217.211	1.00 35.43	N
ATOM	1978	CA	ARG	A	327	222.693	167.805	217.457	1.00 35.43	C
ATOM	1979	C	ARG	A	327	222.598	168.040	218.963	1.00 35.43	C
ATOM	1980	O	ARG	A	327	222.910	167.163	219.772	1.00 35.43	O
ATOM	1981	CB	ARG	A	327	221.453	168.281	216.707	1.00 35.43	C
ATOM	1982	CG	ARG	A	327	221.588	168.151	215.203	1.00 35.43	C
ATOM	1983	CD	ARG	A	327	220.331	168.572	214.466	1.00 35.43	C
ATOM	1984	NE	ARG	A	327	220.102	170.010	214.529	1.00 35.43	N
ATOM	1985	CZ	ARG	A	327	219.006	170.606	214.074	1.00 35.43	C
ATOM	1986	NH1	ARG	A	327	218.041	169.882	213.526	1.00 35.43	N
ATOM	1987	NH2	ARG	A	327	218.874	171.923	214.164	1.00 35.43	N
ATOM	1988	N	ALA	A	328	222.166	169.238	219.358	1.00 40.68	N
ATOM	1989	CA	ALA	A	328	222.109	169.572	220.775	1.00 40.68	C
ATOM	1990	C	ALA	A	328	220.901	168.960	221.469	1.00 40.68	C
ATOM	1991	O	ALA	A	328	220.945	168.727	222.682	1.00 40.68	O
ATOM	1992	CB	ALA	A	328	222.097	171.090	220.955	1.00 40.68	C
ATOM	1993	N	ASP	A	329	219.820	168.696	220.731	1.00 40.51	N
ATOM	1994	CA	ASP	A	329	218.608	168.173	221.348	1.00 40.51	C
ATOM	1995	C	ASP	A	329	217.934	167.084	220.519	1.00 40.51	C
ATOM	1996	O	ASP	A	329	216.730	166.856	220.679	1.00 40.51	O
ATOM	1997	CB	ASP	A	329	217.611	169.306	221.613	1.00 40.51	C
ATOM	1998	CG	ASP	A	329	217.232	170.056	220.352	1.00 40.51	C
ATOM	1999	OD1	ASP	A	329	217.814	169.767	219.286	1.00 40.51	O
ATOM	2000	OD2	ASP	A	329	216.348	170.934	220.425	1.00 40.51	O

ATOM	2001	N	SER A 330	218.664	166.406	219.644	1.00 34.97	N
ATOM	2002	CA	SER A 330	218.084	165.349	218.823	1.00 34.97	C
ATOM	2003	C	SER A 330	219.216	164.635	218.096	1.00 34.97	C
ATOM	2004	O	SER A 330	220.380	165.038	218.169	1.00 34.97	O
ATOM	2005	CB	SER A 330	217.055	165.910	217.843	1.00 34.97	C
ATOM	2006	OG	SER A 330	217.672	166.759	216.893	1.00 34.97	O
ATOM	2007	N	VAL A 331	218.861	163.565	217.389	1.00 29.47	N
ATOM	2008	CA	VAL A 331	219.827	162.793	216.620	1.00 29.47	C
ATOM	2009	C	VAL A 331	219.220	162.430	215.273	1.00 29.47	C
ATOM	2010	O	VAL A 331	218.427	161.489	215.172	1.00 29.47	O
ATOM	2011	CB	VAL A 331	220.263	161.532	217.385	1.00 29.47	C
ATOM	2012	CG1	VAL A 331	221.139	160.664	216.512	1.00 29.47	C
ATOM	2013	CG2	VAL A 331	220.995	161.916	218.650	1.00 29.47	C
ATOM	2014	N	ILE A 332	219.588	163.164	214.233	1.00 32.19	N
ATOM	2015	CA	ILE A 332	219.113	162.893	212.884	1.00 32.19	C
ATOM	2016	C	ILE A 332	220.010	161.833	212.268	1.00 32.19	C
ATOM	2017	O	ILE A 332	221.218	161.790	212.523	1.00 32.19	O
ATOM	2018	CB	ILE A 332	219.090	164.176	212.030	1.00 32.19	C
ATOM	2019	CG1	ILE A 332	218.138	165.198	212.643	1.00 32.19	C
ATOM	2020	CG2	ILE A 332	218.663	163.865	210.615	1.00 32.19	C
ATOM	2021	CD1	ILE A 332	218.231	166.565	212.020	1.00 32.19	C
ATOM	2022	N	SER A 333	219.419	160.960	211.454	1.00 35.76	N
ATOM	2023	CA	SER A 333	220.171	159.849	210.873	1.00 35.76	C
ATOM	2024	C	SER A 333	219.488	159.441	209.573	1.00 35.76	C
ATOM	2025	O	SER A 333	218.477	158.736	209.598	1.00 35.76	O
ATOM	2026	CB	SER A 333	220.246	158.685	211.846	1.00 35.76	C
ATOM	2027	OG	SER A 333	220.925	159.072	213.023	1.00 35.76	O
ATOM	2028	N	TRP A 334	220.047	159.877	208.451	1.00 39.64	N
ATOM	2029	CA	TRP A 334	219.520	159.506	207.147	1.00 39.64	C
ATOM	2030	C	TRP A 334	220.189	158.215	206.680	1.00 39.64	C
ATOM	2031	O	TRP A 334	220.889	157.536	207.436	1.00 39.64	O
ATOM	2032	CB	TRP A 334	219.706	160.655	206.160	1.00 39.64	C
ATOM	2033	CG	TRP A 334	221.129	161.031	205.924	1.00 39.64	C
ATOM	2034	CD1	TRP A 334	221.948	160.555	204.948	1.00 39.64	C
ATOM	2035	CD2	TRP A 334	221.911	161.951	206.690	1.00 39.64	C
ATOM	2036	NE1	TRP A 334	223.189	161.129	205.050	1.00 39.64	N
ATOM	2037	CE2	TRP A 334	223.193	161.989	206.115	1.00 39.64	C

ATOM	2038	CE3	TRP	A	334	221.651	162.748	207.806	1.00 39.64	C
ATOM	2039	CZ2	TRP	A	334	224.210	162.789	206.617	1.00 39.64	C
ATOM	2040	CZ3	TRP	A	334	222.660	163.542	208.301	1.00 39.64	C
ATOM	2041	CH2	TRP	A	334	223.925	163.558	207.708	1.00 39.64	C
ATOM	2042	N	ASP	A	335	219.975	157.860	205.420	1.00 44.05	N
ATOM	2043	CA	ASP	A	335	220.590	156.693	204.807	1.00 44.05	C
ATOM	2044	C	ASP	A	335	221.459	157.175	203.657	1.00 44.05	C
ATOM	2045	O	ASP	A	335	220.982	157.912	202.788	1.00 44.05	O
ATOM	2046	CB	ASP	A	335	219.526	155.707	204.319	1.00 44.05	C
ATOM	2047	CG	ASP	A	335	220.110	154.375	203.897	1.00 44.05	C
ATOM	2048	OD1	ASP	A	335	221.347	154.230	203.922	1.00 44.05	O
ATOM	2049	OD2	ASP	A	335	219.328	153.467	203.547	1.00 44.05	O
ATOM	2050	N	ILE	A	336	222.735	156.779	203.670	1.00 47.16	N
ATOM	2051	CA	ILE	A	336	223.699	157.309	202.710	1.00 47.16	C
ATOM	2052	C	ILE	A	336	223.244	156.973	201.299	1.00 47.16	C
ATOM	2053	O	ILE	A	336	223.136	155.800	200.924	1.00 47.16	O
ATOM	2054	CB	ILE	A	336	225.100	156.770	202.995	1.00 47.16	C
ATOM	2055	CG1	ILE	A	336	225.559	157.216	204.379	1.00 47.16	C
ATOM	2056	CG2	ILE	A	336	226.069	157.269	201.950	1.00 47.16	C
ATOM	2057	CD1	ILE	A	336	225.645	158.714	204.519	1.00 47.16	C
ATOM	2058	N	GLN	A	337	222.973	158.007	200.510	1.00 54.18	N
ATOM	2059	CA	GLN	A	337	222.307	157.843	199.226	1.00 54.18	C
ATOM	2060	C	GLN	A	337	223.301	157.402	198.152	1.00 54.18	C
ATOM	2061	O	GLN	A	337	224.425	156.979	198.434	1.00 54.18	O
ATOM	2062	CB	GLN	A	337	221.581	159.127	198.843	1.00 54.18	C
ATOM	2063	CG	GLN	A	337	220.422	159.457	199.757	1.00 54.18	C
ATOM	2064	CD	GLN	A	337	219.370	158.371	199.765	1.00 54.18	C
ATOM	2065	OE1	GLN	A	337	219.183	157.682	200.764	1.00 54.18	O
ATOM	2066	NE2	GLN	A	337	218.686	158.202	198.644	1.00 54.18	N
ATOM	2067	N	ASN	A	338	222.875	157.504	196.896	1.00 79.21	N
ATOM	2068	CA	ASN	A	338	223.500	156.801	195.778	1.00 79.21	C
ATOM	2069	C	ASN	A	338	223.212	157.609	194.522	1.00 79.21	C
ATOM	2070	O	ASN	A	338	222.046	157.854	194.200	1.00 79.21	O
ATOM	2071	CB	ASN	A	338	222.923	155.381	195.719	1.00 79.21	C
ATOM	2072	CG	ASN	A	338	223.712	154.409	194.839	1.00 79.21	C
ATOM	2073	OD1	ASN	A	338	223.755	153.220	195.159	1.00 79.21	O
ATOM	2074	ND2	ASN	A	338	224.280	154.878	193.721	1.00 79.21	N

ATOM	2075	N	GLU A 339	224.266	158.021	193.822	1.00 86.57	N
ATOM	2076	CA	GLU A 339	224.143	159.085	192.829	1.00 86.57	C
ATOM	2077	C	GLU A 339	223.275	158.675	191.643	1.00 86.57	C
ATOM	2078	O	GLU A 339	223.259	157.514	191.228	1.00 86.57	O
ATOM	2079	CB	GLU A 339	225.528	159.509	192.341	1.00 86.57	C
ATOM	2080	CG	GLU A 339	226.365	160.206	193.403	1.00 86.57	C
ATOM	2081	CD	GLU A 339	227.714	160.665	192.879	1.00 86.57	C
ATOM	2082	OE1	GLU A 339	228.043	160.344	191.718	1.00 86.57	O
ATOM	2083	OE2	GLU A 339	228.445	161.350	193.625	1.00 86.57	O
ATOM	2084	N	LYS A 340	222.555	159.653	191.097	1.00103.76	N
ATOM	2085	CA	LYS A 340	221.649	159.433	189.980	1.00103.76	C
ATOM	2086	C	LYS A 340	222.417	159.442	188.655	1.00103.76	C
ATOM	2087	O	LYS A 340	223.639	159.602	188.612	1.00103.76	O
ATOM	2088	CB	LYS A 340	220.552	160.494	189.986	1.00103.76	C
ATOM	2089	CG	LYS A 340	221.073	161.909	189.810	1.00103.76	C
ATOM	2090	CD	LYS A 340	219.939	162.916	189.775	1.00103.76	C
ATOM	2091	CE	LYS A 340	219.322	163.103	191.147	1.00103.76	C
ATOM	2092	NZ	LYS A 340	218.307	164.190	191.138	1.00103.76	N
ATOM	2093	N	ASN A 341	221.683	159.252	187.555	1.00131.08	N
ATOM	2094	CA	ASN A 341	222.317	159.234	186.236	1.00131.08	C
ATOM	2095	C	ASN A 341	222.514	160.637	185.668	1.00131.08	C
ATOM	2096	O	ASN A 341	223.644	161.117	185.534	1.00131.08	O
ATOM	2097	CB	ASN A 341	221.481	158.408	185.251	1.00131.08	C
ATOM	2098	CG	ASN A 341	221.555	156.915	185.498	1.00131.08	C
ATOM	2099	OD1	ASN A 341	222.565	156.396	185.971	1.00131.08	O
ATOM	2100	ND2	ASN A 341	220.480	156.212	185.120	1.00131.08	N
ATOM	2101	N	VAL A 342	221.410	161.310	185.342	1.00128.04	N
ATOM	2102	CA	VAL A 342	221.451	162.487	184.482	1.00128.04	C
ATOM	2103	C	VAL A 342	220.111	163.211	184.531	1.00128.04	C
ATOM	2104	O	VAL A 342	219.076	162.604	184.829	1.00128.04	O
ATOM	2105	CB	VAL A 342	221.816	162.089	183.040	1.00128.04	C
ATOM	2106	CG1	VAL A 342	220.705	161.254	182.424	1.00128.04	C
ATOM	2107	CG2	VAL A 342	222.114	163.317	182.196	1.00128.04	C
ATOM	2108	N	THR A 343	220.117	164.511	184.233	1.00127.88	N
ATOM	2109	CA	THR A 343	218.907	165.321	184.231	1.00127.88	C
ATOM	2110	C	THR A 343	218.851	166.177	182.973	1.00127.88	C
ATOM	2111	O	THR A 343	219.847	166.790	182.581	1.00127.88	O

ATOM	2112	CB	THR	A	343	218.839	166.218	185.469	1.00	127.88	C
ATOM	2113	OG1	THR	A	343	218.866	165.405	186.649	1.00	127.88	O
ATOM	2114	CG2	THR	A	343	217.562	167.041	185.456	1.00	127.88	C
ATOM	2115	N	CYS	A	344	217.675	166.219	182.350	1.00	125.65	N
ATOM	2116	CA	CYS	A	344	217.456	166.972	181.125	1.00	125.65	C
ATOM	2117	C	CYS	A	344	216.942	168.376	181.444	1.00	125.65	C
ATOM	2118	O	CYS	A	344	216.993	168.842	182.585	1.00	125.65	O
ATOM	2119	CB	CYS	A	344	216.492	166.224	180.207	1.00	125.65	C
ATOM	2120	SG	CYS	A	344	217.149	164.708	179.486	1.00	125.65	S
ATOM	2121	N	ALA	A	345	216.449	169.070	180.419	1.00	117.14	N
ATOM	2122	CA	ALA	A	345	215.946	170.434	180.541	1.00	117.14	C
ATOM	2123	C	ALA	A	345	214.642	170.596	179.775	1.00	117.14	C
ATOM	2124	O	ALA	A	345	214.382	171.646	179.180	1.00	117.14	O
ATOM	2125	CB	ALA	A	345	216.975	171.443	180.035	1.00	117.14	C
ATOM	2126	N	LEU	A	346	213.793	169.572	179.787	1.00	113.46	N
ATOM	2127	CA	LEU	A	346	212.609	169.544	178.941	1.00	113.46	C
ATOM	2128	C	LEU	A	346	211.344	169.540	179.786	1.00	113.46	C
ATOM	2129	O	LEU	A	346	211.271	168.861	180.814	1.00	113.46	O
ATOM	2130	CB	LEU	A	346	212.613	168.316	178.023	1.00	113.46	C
ATOM	2131	CG	LEU	A	346	212.211	166.981	178.654	1.00	113.46	C
ATOM	2132	CD1	LEU	A	346	211.938	165.947	177.575	1.00	113.46	C
ATOM	2133	CD2	LEU	A	346	213.267	166.483	179.625	1.00	113.46	C
ATOM	2134	N	THR	A	347	210.360	170.306	179.349	1.00	114.94	N
ATOM	2135	CA	THR	A	347	209.016	170.293	179.916	1.00	114.94	C
ATOM	2136	C	THR	A	347	207.934	170.109	178.862	1.00	114.94	C
ATOM	2137	O	THR	A	347	206.955	169.402	179.115	1.00	114.94	O
ATOM	2138	CB	THR	A	347	208.767	171.586	180.698	1.00	114.94	C
ATOM	2139	OG1	THR	A	347	209.012	172.710	179.845	1.00	114.94	O
ATOM	2140	CG2	THR	A	347	209.677	171.659	181.910	1.00	114.94	C
ATOM	2141	N	PHE	A	348	208.093	170.720	177.686	1.00	114.73	N
ATOM	2142	CA	PHE	A	348	207.196	170.550	176.543	1.00	114.73	C
ATOM	2143	C	PHE	A	348	205.752	170.895	176.921	1.00	114.73	C
ATOM	2144	O	PHE	A	348	204.846	170.063	176.895	1.00	114.73	O
ATOM	2145	CB	PHE	A	348	207.304	169.126	175.986	1.00	114.73	C
ATOM	2146	CG	PHE	A	348	208.625	168.834	175.337	1.00	114.73	C
ATOM	2147	CD1	PHE	A	348	209.468	169.866	174.962	1.00	114.73	C
ATOM	2148	CD2	PHE	A	348	209.031	167.531	175.117	1.00	114.73	C

ATOM	2149	CE1	PHE A 348	210.686	169.603	174.370	1.00114.73	C
ATOM	2150	CE2	PHE A 348	210.249	167.262	174.526	1.00114.73	C
ATOM	2151	CZ	PHE A 348	211.078	168.300	174.152	1.00114.73	C
ATOM	2152	N	TRP A 349	205.567	172.165	177.272	1.00115.60	N
ATOM	2153	CA	TRP A 349	204.286	172.654	177.764	1.00115.60	C
ATOM	2154	C	TRP A 349	203.613	173.594	176.770	1.00115.60	C
ATOM	2155	O	TRP A 349	202.773	174.408	177.153	1.00115.60	O
ATOM	2156	CB	TRP A 349	204.462	173.342	179.118	1.00115.60	C
ATOM	2157	CG	TRP A 349	205.377	174.528	179.074	1.00115.60	C
ATOM	2158	CD1	TRP A 349	206.736	174.510	179.151	1.00115.60	C
ATOM	2159	CD2	TRP A 349	205.001	175.909	178.980	1.00115.60	C
ATOM	2160	NE1	TRP A 349	207.234	175.787	179.091	1.00115.60	N
ATOM	2161	CE2	TRP A 349	206.189	176.665	178.989	1.00115.60	C
ATOM	2162	CE3	TRP A 349	203.778	176.578	178.886	1.00115.60	C
ATOM	2163	CZ2	TRP A 349	206.189	178.054	178.903	1.00115.60	C
ATOM	2164	CZ3	TRP A 349	203.781	177.956	178.797	1.00115.60	C
ATOM	2165	CH2	TRP A 349	204.978	178.680	178.808	1.00115.60	C
ATOM	2166	N	GLU A 350	203.942	173.483	175.486	1.00118.58	N
ATOM	2167	CA	GLU A 350	203.324	174.409	174.550	1.00118.58	C
ATOM	2168	C	GLU A 350	203.504	173.920	173.122	1.00118.58	C
ATOM	2169	O	GLU A 350	204.536	173.340	172.772	1.00118.58	O
ATOM	2170	CB	GLU A 350	203.905	175.818	174.703	1.00118.58	C
ATOM	2171	CG	GLU A 350	203.253	176.823	173.788	1.00118.58	C
ATOM	2172	CD	GLU A 350	201.769	176.935	174.049	1.00118.58	C
ATOM	2173	OE1	GLU A 350	201.346	176.643	175.187	1.00118.58	O
ATOM	2174	OE2	GLU A 350	201.024	177.304	173.118	1.00118.58	O
ATOM	2175	N	ALA A 351	202.480	174.168	172.305	1.00121.28	N
ATOM	2176	CA	ALA A 351	202.527	173.922	170.864	1.00121.28	C
ATOM	2177	C	ALA A 351	201.796	175.078	170.187	1.00121.28	C
ATOM	2178	O	ALA A 351	200.575	175.033	170.015	1.00121.28	O
ATOM	2179	CB	ALA A 351	201.904	172.580	170.503	1.00121.28	C
ATOM	2180	N	SER A 352	202.545	176.110	169.809	1.00113.72	N
ATOM	2181	CA	SER A 352	201.987	177.304	169.186	1.00113.72	C
ATOM	2182	C	SER A 352	202.155	177.195	167.676	1.00113.72	C
ATOM	2183	O	SER A 352	203.270	177.313	167.158	1.00113.72	O
ATOM	2184	CB	SER A 352	202.663	178.563	169.722	1.00113.72	C
ATOM	2185	OG	SER A 352	202.400	178.732	171.103	1.00113.72	O

ATOM	2186	N	GLU A 353	201.046	176.970	166.972	1.00118.07	N
ATOM	2187	CA	GLU A 353	201.039	176.943	165.518	1.00118.07	C
ATOM	2188	C	GLU A 353	200.706	178.301	164.911	1.00118.07	C
ATOM	2189	O	GLU A 353	200.383	178.378	163.721	1.00118.07	O
ATOM	2190	CB	GLU A 353	200.057	175.884	165.011	1.00118.07	C
ATOM	2191	CG	GLU A 353	198.596	176.198	165.283	1.00118.07	C
ATOM	2192	CD	GLU A 353	198.149	175.738	166.655	1.00118.07	C
ATOM	2193	OE1	GLU A 353	199.021	175.460	167.504	1.00118.07	O
ATOM	2194	OE2	GLU A 353	196.925	175.654	166.884	1.00118.07	O
ATOM	2195	N	ARG A 354	200.780	179.372	165.703	1.00112.98	N
ATOM	2196	CA	ARG A 354	200.493	180.716	165.206	1.00112.98	C
ATOM	2197	C	ARG A 354	201.258	181.705	166.080	1.00112.98	C
ATOM	2198	O	ARG A 354	200.829	182.012	167.196	1.00112.98	O
ATOM	2199	CB	ARG A 354	198.997	180.999	165.219	1.00112.98	C
ATOM	2200	CG	ARG A 354	198.633	182.399	164.753	1.00112.98	C
ATOM	2201	CD	ARG A 354	198.970	182.597	163.284	1.00112.98	C
ATOM	2202	NE	ARG A 354	198.144	181.761	162.420	1.00112.98	N
ATOM	2203	CZ	ARG A 354	198.392	181.543	161.133	1.00112.98	C
ATOM	2204	NH1	ARG A 354	199.449	182.098	160.556	1.00112.98	N
ATOM	2205	NH2	ARG A 354	197.584	180.768	160.423	1.00112.98	N
ATOM	2206	N	THR A 355	202.386	182.193	165.569	1.00102.67	N
ATOM	2207	CA	THR A 355	203.196	183.188	166.254	1.00102.67	C
ATOM	2208	C	THR A 355	203.707	184.186	165.223	1.00102.67	C
ATOM	2209	O	THR A 355	203.347	184.131	164.044	1.00102.67	O
ATOM	2210	CB	THR A 355	204.359	182.543	167.015	1.00102.67	C
ATOM	2211	OG1	THR A 355	205.211	181.855	166.093	1.00102.67	O
ATOM	2212	CG2	THR A 355	203.841	181.560	168.056	1.00102.67	C
ATOM	2213	N	ILE A 356	204.554	185.108	165.674	1.00 95.86	N
ATOM	2214	CA	ILE A 356	205.110	186.154	164.823	1.00 95.86	C
ATOM	2215	C	ILE A 356	206.566	186.356	165.212	1.00 95.86	C
ATOM	2216	O	ILE A 356	206.868	186.611	166.383	1.00 95.86	O
ATOM	2217	CB	ILE A 356	204.339	187.479	164.942	1.00 95.86	C
ATOM	2218	CG1	ILE A 356	202.931	187.338	164.361	1.00 95.86	C
ATOM	2219	CG2	ILE A 356	205.106	188.597	164.266	1.00 95.86	C
ATOM	2220	CD1	ILE A 356	201.893	186.908	165.366	1.00 95.86	C
ATOM	2221	N	ARG A 357	207.465	186.246	164.239	1.00 98.05	N
ATOM	2222	CA	ARG A 357	208.905	186.288	164.485	1.00 98.05	C

ATOM	2223	C	ARG A 357	209.430	187.638	164.006	1.00 98.05	C
ATOM	2224	O	ARG A 357	209.887	187.781	162.872	1.00 98.05	O
ATOM	2225	CB	ARG A 357	209.592	185.130	163.773	1.00 98.05	C
ATOM	2226	CG	ARG A 357	211.049	184.935	164.116	1.00 98.05	C
ATOM	2227	CD	ARG A 357	211.972	185.735	163.224	1.00 98.05	C
ATOM	2228	NE	ARG A 357	213.356	185.318	163.399	1.00 98.05	N
ATOM	2229	CZ	ARG A 357	214.010	184.517	162.564	1.00 98.05	C
ATOM	2230	NH1	ARG A 357	215.266	184.174	162.816	1.00 98.05	N
ATOM	2231	NH2	ARG A 357	213.422	184.101	161.450	1.00 98.05	N
ATOM	2232	N	SER A 358	209.359	188.639	164.877	1.00101.66	N
ATOM	2233	CA	SER A 358	209.855	189.960	164.529	1.00101.66	C
ATOM	2234	C	SER A 358	211.369	190.035	164.722	1.00101.66	C
ATOM	2235	O	SER A 358	212.014	189.095	165.192	1.00101.66	O
ATOM	2236	CB	SER A 358	209.157	191.032	165.360	1.00101.66	C
ATOM	2237	OG	SER A 358	209.486	190.905	166.729	1.00101.66	O
ATOM	2238	N	GLU A 359	211.939	191.185	164.353	1.00108.15	N
ATOM	2239	CA	GLU A 359	213.387	191.376	164.426	1.00108.15	C
ATOM	2240	C	GLU A 359	213.650	192.881	164.461	1.00108.15	C
ATOM	2241	O	GLU A 359	213.478	193.556	163.442	1.00108.15	O
ATOM	2242	CB	GLU A 359	214.077	190.714	163.243	1.00108.15	C
ATOM	2243	CG	GLU A 359	215.591	190.657	163.332	1.00108.15	C
ATOM	2244	CD	GLU A 359	216.262	191.914	162.819	1.00108.15	C
ATOM	2245	OE1	GLU A 359	215.678	192.584	161.941	1.00108.15	O
ATOM	2246	OE2	GLU A 359	217.372	192.231	163.293	1.00108.15	O
ATOM	2247	N	ALA A 360	214.055	193.398	165.623	1.00112.90	N
ATOM	2248	CA	ALA A 360	214.287	194.840	165.704	1.00112.90	C
ATOM	2249	C	ALA A 360	215.689	195.222	165.231	1.00112.90	C
ATOM	2250	O	ALA A 360	215.858	195.751	164.129	1.00112.90	O
ATOM	2251	CB	ALA A 360	214.047	195.321	167.139	1.00112.90	C
ATOM	2252	N	GLU A 361	216.712	194.954	166.045	1.00116.07	N
ATOM	2253	CA	GLU A 361	218.087	195.128	165.586	1.00116.07	C
ATOM	2254	C	GLU A 361	218.965	193.920	165.883	1.00116.07	C
ATOM	2255	O	GLU A 361	219.645	193.395	164.996	1.00116.07	O
ATOM	2256	CB	GLU A 361	218.709	196.379	166.208	1.00116.07	C
ATOM	2257	CG	GLU A 361	220.132	196.646	165.734	1.00116.07	C
ATOM	2258	CD	GLU A 361	220.209	196.910	164.241	1.00116.07	C
ATOM	2259	OE1	GLU A 361	219.196	197.354	163.662	1.00116.07	O

ATOM	2260	OE2	GLU A 361	221.281	196.671	163.646	1.00116.07	O
ATOM	2261	N	ASP A 362	218.945	193.477	167.142	1.00115.01	N
ATOM	2262	CA	ASP A 362	219.954	192.558	167.652	1.00115.01	C
ATOM	2263	C	ASP A 362	219.336	191.484	168.539	1.00115.01	C
ATOM	2264	O	ASP A 362	220.070	190.784	169.248	1.00115.01	O
ATOM	2265	CB	ASP A 362	221.023	193.342	168.434	1.00115.01	C
ATOM	2266	CG	ASP A 362	222.309	192.561	168.628	1.00115.01	C
ATOM	2267	OD1	ASP A 362	222.409	191.431	168.110	1.00115.01	O
ATOM	2268	OD2	ASP A 362	223.220	193.075	169.311	1.00115.01	O
ATOM	2269	N	SER A 363	218.015	191.342	168.533	1.00108.52	N
ATOM	2270	CA	SER A 363	217.343	190.366	169.384	1.00108.52	C
ATOM	2271	C	SER A 363	215.956	190.125	168.817	1.00108.52	C
ATOM	2272	O	SER A 363	215.137	191.050	168.780	1.00108.52	O
ATOM	2273	CB	SER A 363	217.269	190.868	170.823	1.00108.52	C
ATOM	2274	OG	SER A 363	216.452	192.021	170.920	1.00108.52	O
ATOM	2275	N	TYR A 364	215.688	188.896	168.377	1.00102.50	N
ATOM	2276	CA	TYR A 364	214.397	188.569	167.787	1.00102.50	C
ATOM	2277	C	TYR A 364	213.295	188.647	168.834	1.00102.50	C
ATOM	2278	O	TYR A 364	213.571	188.849	170.020	1.00102.50	O
ATOM	2279	CB	TYR A 364	214.419	187.172	167.161	1.00102.50	C
ATOM	2280	CG	TYR A 364	215.386	187.013	166.012	1.00102.50	C
ATOM	2281	CD1	TYR A 364	215.092	187.518	164.755	1.00102.50	C
ATOM	2282	CD2	TYR A 364	216.584	186.334	166.180	1.00102.50	C
ATOM	2283	CE1	TYR A 364	215.971	187.363	163.699	1.00102.50	C
ATOM	2284	CE2	TYR A 364	217.471	186.176	165.134	1.00102.50	C
ATOM	2285	CZ	TYR A 364	217.160	186.693	163.895	1.00102.50	C
ATOM	2286	OH	TYR A 364	218.038	186.539	162.848	1.00102.50	O
ATOM	2287	N	HIS A 365	212.047	188.479	168.407	1.00100.14	N
ATOM	2288	CA	HIS A 365	210.909	188.472	169.313	1.00100.14	C
ATOM	2289	C	HIS A 365	209.911	187.423	168.850	1.00100.14	C
ATOM	2290	O	HIS A 365	209.780	187.153	167.654	1.00100.14	O
ATOM	2291	CB	HIS A 365	210.223	189.839	169.383	1.00100.14	C
ATOM	2292	CG	HIS A 365	211.086	190.922	169.947	1.00100.14	C
ATOM	2293	ND1	HIS A 365	211.336	191.048	171.296	1.00100.14	N
ATOM	2294	CD2	HIS A 365	211.759	191.929	169.343	1.00100.14	C
ATOM	2295	CE1	HIS A 365	212.123	192.090	171.499	1.00100.14	C
ATOM	2296	NE2	HIS A 365	212.395	192.640	170.330	1.00100.14	N

ATOM	2297	N	PHE A 366	209.201	186.841	169.813	1.00 94.92	N
ATOM	2298	CA	PHE A 366	208.220	185.791	169.549	1.00 94.92	C
ATOM	2299	C	PHE A 366	206.906	186.234	170.180	1.00 94.92	C
ATOM	2300	O	PHE A 366	206.604	185.879	171.321	1.00 94.92	O
ATOM	2301	CB	PHE A 366	208.698	184.458	170.099	1.00 94.92	C
ATOM	2302	CG	PHE A 366	209.942	183.949	169.439	1.00 94.92	C
ATOM	2303	CD1	PHE A 366	209.876	183.273	168.236	1.00 94.92	C
ATOM	2304	CD2	PHE A 366	211.182	184.161	170.015	1.00 94.92	C
ATOM	2305	CE1	PHE A 366	211.021	182.808	167.626	1.00 94.92	C
ATOM	2306	CE2	PHE A 366	212.330	183.698	169.408	1.00 94.92	C
ATOM	2307	CZ	PHE A 366	212.249	183.021	168.213	1.00 94.92	C
ATOM	2308	N	SER A 367	206.125	187.010	169.430	1.00 97.00	N
ATOM	2309	CA	SER A 367	204.859	187.549	169.923	1.00 97.00	C
ATOM	2310	C	SER A 367	203.772	186.498	169.724	1.00 97.00	C
ATOM	2311	O	SER A 367	202.974	186.545	168.786	1.00 97.00	O
ATOM	2312	CB	SER A 367	204.521	188.854	169.215	1.00 97.00	C
ATOM	2313	OG	SER A 367	204.280	188.632	167.837	1.00 97.00	O
ATOM	2314	N	SER A 368	203.753	185.526	170.632	1.00107.80	N
ATOM	2315	CA	SER A 368	202.742	184.481	170.584	1.00107.80	C
ATOM	2316	C	SER A 368	201.349	185.079	170.746	1.00107.80	C
ATOM	2317	O	SER A 368	201.151	186.069	171.454	1.00107.80	O
ATOM	2318	CB	SER A 368	203.001	183.438	171.672	1.00107.80	C
ATOM	2319	OG	SER A 368	202.869	184.005	172.964	1.00107.80	O
ATOM	2320	N	ALA A 369	200.376	184.462	170.078	1.00109.99	N
ATOM	2321	CA	ALA A 369	199.006	184.954	170.057	1.00109.99	C
ATOM	2322	C	ALA A 369	198.051	184.069	170.840	1.00109.99	C
ATOM	2323	O	ALA A 369	197.333	184.557	171.718	1.00109.99	O
ATOM	2324	CB	ALA A 369	198.518	185.087	168.607	1.00109.99	C
ATOM	2325	N	LYS A 370	198.023	182.769	170.541	1.00116.06	N
ATOM	2326	CA	LYS A 370	197.150	181.864	171.278	1.00116.06	C
ATOM	2327	C	LYS A 370	197.573	181.758	172.737	1.00116.06	C
ATOM	2328	O	LYS A 370	196.744	181.468	173.607	1.00116.06	O
ATOM	2329	CB	LYS A 370	197.142	180.494	170.602	1.00116.06	C
ATOM	2330	CG	LYS A 370	196.529	180.530	169.209	1.00116.06	C
ATOM	2331	CD	LYS A 370	196.533	179.171	168.532	1.00116.06	C
ATOM	2332	CE	LYS A 370	195.951	179.272	167.129	1.00116.06	C
ATOM	2333	NZ	LYS A 370	195.961	177.972	166.408	1.00116.06	N

ATOM	2334	N	MET A 371	198.853	181.983	173.019	1.00116.90	N
ATOM	2335	CA	MET A 371	199.349	182.146	174.375	1.00116.90	C
ATOM	2336	C	MET A 371	199.392	183.632	174.724	1.00116.90	C
ATOM	2337	O	MET A 371	198.851	184.481	174.011	1.00116.90	O
ATOM	2338	CB	MET A 371	200.723	181.499	174.521	1.00116.90	C
ATOM	2339	CG	MET A 371	200.711	179.995	174.414	1.00116.90	C
ATOM	2340	SD	MET A 371	199.713	179.244	175.711	1.00116.90	S
ATOM	2341	CE	MET A 371	200.709	179.611	177.154	1.00116.90	C
ATOM	2342	N	THR A 372	200.045	183.959	175.834	1.00110.81	N
ATOM	2343	CA	THR A 372	200.305	185.334	176.242	1.00110.81	C
ATOM	2344	C	THR A 372	201.786	185.511	176.542	1.00110.81	C
ATOM	2345	O	THR A 372	202.181	186.098	177.551	1.00110.81	O
ATOM	2346	CB	THR A 372	199.459	185.715	177.451	1.00110.81	C
ATOM	2347	OG1	THR A 372	199.786	184.858	178.552	1.00110.81	O
ATOM	2348	CG2	THR A 372	197.982	185.575	177.127	1.00110.81	C
ATOM	2349	N	ALA A 373	202.629	184.996	175.653	1.00101.76	N
ATOM	2350	CA	ALA A 373	204.069	184.959	175.860	1.00101.76	C
ATOM	2351	C	ALA A 373	204.775	185.930	174.926	1.00101.76	C
ATOM	2352	O	ALA A 373	204.372	186.108	173.773	1.00101.76	O
ATOM	2353	CB	ALA A 373	204.615	183.545	175.644	1.00101.76	C
ATOM	2354	N	THR A 374	205.835	186.554	175.437	1.00 94.32	N
ATOM	2355	CA	THR A 374	206.704	187.423	174.653	1.00 94.32	C
ATOM	2356	C	THR A 374	208.136	187.148	175.084	1.00 94.32	C
ATOM	2357	O	THR A 374	208.481	187.346	176.252	1.00 94.32	O
ATOM	2358	CB	THR A 374	206.349	188.900	174.850	1.00 94.32	C
ATOM	2359	OG1	THR A 374	206.496	189.250	176.231	1.00 94.32	O
ATOM	2360	CG2	THR A 374	204.916	189.167	174.415	1.00 94.32	C
ATOM	2361	N	PHE A 375	208.962	186.694	174.148	1.00 94.35	N
ATOM	2362	CA	PHE A 375	210.271	186.131	174.450	1.00 94.35	C
ATOM	2363	C	PHE A 375	211.366	187.015	173.852	1.00 94.35	C
ATOM	2364	O	PHE A 375	211.107	188.116	173.360	1.00 94.35	O
ATOM	2365	CB	PHE A 375	210.361	184.695	173.929	1.00 94.35	C
ATOM	2366	CG	PHE A 375	209.446	183.731	174.632	1.00 94.35	C
ATOM	2367	CD1	PHE A 375	208.892	184.043	175.862	1.00 94.35	C
ATOM	2368	CD2	PHE A 375	209.131	182.515	174.054	1.00 94.35	C
ATOM	2369	CE1	PHE A 375	208.048	183.159	176.502	1.00 94.35	C
ATOM	2370	CE2	PHE A 375	208.288	181.626	174.691	1.00 94.35	C

ATOM	2371	CZ	PHE A 375	207.746	181.949	175.916	1.00 94.35	C
ATOM	2372	N	LEU A 376	212.605	186.525	173.907	1.00100.89	N
ATOM	2373	CA	LEU A 376	213.736	187.282	173.386	1.00100.89	C
ATOM	2374	C	LEU A 376	214.979	186.408	173.254	1.00100.89	C
ATOM	2375	O	LEU A 376	215.352	185.705	174.198	1.00100.89	O
ATOM	2376	CB	LEU A 376	214.026	188.479	174.291	1.00100.89	C
ATOM	2377	CG	LEU A 376	215.092	189.460	173.809	1.00100.89	C
ATOM	2378	CD1	LEU A 376	214.622	190.143	172.543	1.00100.89	C
ATOM	2379	CD2	LEU A 376	215.413	190.481	174.887	1.00100.89	C
ATOM	2380	N	SER A 377	215.624	186.447	172.093	1.00105.01	N
ATOM	2381	CA	SER A 377	216.876	185.742	171.841	1.00105.01	C
ATOM	2382	C	SER A 377	217.929	186.742	171.373	1.00105.01	C
ATOM	2383	O	SER A 377	217.669	187.942	171.265	1.00105.01	O
ATOM	2384	CB	SER A 377	216.679	184.622	170.817	1.00105.01	C
ATOM	2385	OG	SER A 377	217.897	183.943	170.571	1.00105.01	O
ATOM	2386	N	LYS A 378	219.131	186.245	171.087	1.00105.37	N
ATOM	2387	CA	LYS A 378	220.294	187.106	170.879	1.00105.37	C
ATOM	2388	C	LYS A 378	220.997	186.786	169.562	1.00105.37	C
ATOM	2389	O	LYS A 378	222.221	186.649	169.500	1.00105.37	O
ATOM	2390	CB	LYS A 378	221.271	186.988	172.046	1.00105.37	C
ATOM	2391	CG	LYS A 378	221.063	188.015	173.156	1.00105.37	C
ATOM	2392	CD	LYS A 378	219.707	187.858	173.824	1.00105.37	C
ATOM	2393	CE	LYS A 378	219.446	188.970	174.824	1.00105.37	C
ATOM	2394	NZ	LYS A 378	220.449	188.967	175.922	1.00105.37	N
ATOM	2395	N	LYS A 379	220.225	186.654	168.485	1.00110.36	N
ATOM	2396	CA	LYS A 379	220.703	186.601	167.103	1.00110.36	C
ATOM	2397	C	LYS A 379	221.477	185.338	166.749	1.00110.36	C
ATOM	2398	O	LYS A 379	221.829	185.164	165.576	1.00110.36	O
ATOM	2399	CB	LYS A 379	221.609	187.790	166.753	1.00110.36	C
ATOM	2400	CG	LYS A 379	220.984	189.147	166.943	1.00110.36	C
ATOM	2401	CD	LYS A 379	219.919	189.432	165.911	1.00110.36	C
ATOM	2402	CE	LYS A 379	218.552	189.058	166.442	1.00110.36	C
ATOM	2403	NZ	LYS A 379	217.479	189.488	165.515	1.00110.36	N
ATOM	2404	N	GLN A 380	221.756	184.453	167.702	1.00102.37	N
ATOM	2405	CA	GLN A 380	222.661	183.334	167.475	1.00102.37	C
ATOM	2406	C	GLN A 380	221.951	182.042	167.837	1.00102.37	C
ATOM	2407	O	GLN A 380	221.503	181.875	168.975	1.00102.37	O

ATOM	2408	CB	GLN A 380	223.946	183.497	168.292	1.00102.37	C
ATOM	2409	CG	GLN A 380	224.794	184.682	167.855	1.00102.37	C
ATOM	2410	CD	GLN A 380	226.032	184.870	168.710	1.00102.37	C
ATOM	2411	OE1	GLN A 380	226.237	184.161	169.694	1.00102.37	O
ATOM	2412	NE2	GLN A 380	226.865	185.833	168.335	1.00102.37	N
ATOM	2413	N	GLU A 381	221.849	181.135	166.869	1.00106.96	N
ATOM	2414	CA	GLU A 381	221.205	179.856	167.109	1.00106.96	C
ATOM	2415	C	GLU A 381	221.995	179.049	168.133	1.00106.96	C
ATOM	2416	O	GLU A 381	223.150	179.348	168.446	1.00106.96	O
ATOM	2417	CB	GLU A 381	221.078	179.067	165.808	1.00106.96	C
ATOM	2418	CG	GLU A 381	220.135	179.688	164.797	1.00106.96	C
ATOM	2419	CD	GLU A 381	220.065	178.896	163.508	1.00106.96	C
ATOM	2420	OE1	GLU A 381	220.846	177.932	163.362	1.00106.96	O
ATOM	2421	OE2	GLU A 381	219.232	179.239	162.643	1.00106.96	O
ATOM	2422	N	VAL A 382	221.358	178.008	168.652	1.00104.50	N
ATOM	2423	CA	VAL A 382	221.972	177.149	169.654	1.00104.50	C
ATOM	2424	C	VAL A 382	222.708	176.019	168.949	1.00104.50	C
ATOM	2425	O	VAL A 382	222.155	175.363	168.059	1.00104.50	O
ATOM	2426	CB	VAL A 382	220.922	176.605	170.635	1.00104.50	C
ATOM	2427	CG1	VAL A 382	221.561	175.629	171.602	1.00104.50	C
ATOM	2428	CG2	VAL A 382	220.255	177.749	171.382	1.00104.50	C
ATOM	2429	N	ASN A 383	223.966	175.816	169.333	1.00109.20	N
ATOM	2430	CA	ASN A 383	224.797	174.755	168.776	1.00109.20	C
ATOM	2431	C	ASN A 383	224.115	173.403	168.955	1.00109.20	C
ATOM	2432	O	ASN A 383	223.753	173.026	170.074	1.00109.20	O
ATOM	2433	CB	ASN A 383	226.148	174.762	169.483	1.00109.20	C
ATOM	2434	CG	ASN A 383	227.284	174.262	168.615	1.00109.20	C
ATOM	2435	OD1	ASN A 383	228.441	174.463	168.979	1.00109.20	O
ATOM	2436	ND2	ASN A 383	226.961	173.630	167.466	1.00109.20	N
ATOM	2437	N	MET A 384	223.939	172.671	167.858	1.00109.20	N
ATOM	2438	CA	MET A 384	223.230	171.396	167.899	1.00109.20	C
ATOM	2439	C	MET A 384	224.121	170.221	168.282	1.00109.20	C
ATOM	2440	O	MET A 384	223.693	169.072	168.126	1.00109.20	O
ATOM	2441	CB	MET A 384	222.570	171.115	166.550	1.00109.20	C
ATOM	2442	CG	MET A 384	221.453	172.073	166.210	1.00109.20	C
ATOM	2443	SD	MET A 384	220.122	172.021	167.423	1.00109.20	S
ATOM	2444	CE	MET A 384	219.445	170.391	167.118	1.00109.20	C

ATOM	2445	N	SER A 385	225.334	170.471	168.768	1.00116.31 N
ATOM	2446	CA	SER A 385	226.247	169.419	169.203	1.00116.31 C
ATOM	2447	C	SER A 385	226.327	169.346	170.725	1.00116.31 C
ATOM	2448	O	SER A 385	227.385	169.071	171.295	1.00116.31 O
ATOM	2449	CB	SER A 385	227.638	169.623	168.607	1.00116.31 C
ATOM	2450	OG	SER A 385	228.251	170.801	169.103	1.00116.31 O
ATOM	2451	N	ASP A 386	225.207	169.590	171.398	1.00121.06 N
ATOM	2452	CA	ASP A 386	225.133	169.549	172.852	1.00121.06 C
ATOM	2453	C	ASP A 386	224.442	168.263	173.283	1.00121.06 C
ATOM	2454	O	ASP A 386	223.370	167.925	172.768	1.00121.06 O
ATOM	2455	CB	ASP A 386	224.386	170.769	173.396	1.00121.06 C
ATOM	2456	CG	ASP A 386	224.438	170.858	174.907	1.00121.06 C
ATOM	2457	OD1	ASP A 386	225.514	171.191	175.444	1.00121.06 O
ATOM	2458	OD2	ASP A 386	223.403	170.602	175.557	1.00121.06 O
ATOM	2459	N	SER A 387	225.059	167.550	174.228	1.00122.33 N
ATOM	2460	CA	SER A 387	224.528	166.264	174.664	1.00122.33 C
ATOM	2461	C	SER A 387	223.198	166.398	175.392	1.00122.33 C
ATOM	2462	O	SER A 387	222.433	165.429	175.439	1.00122.33 O
ATOM	2463	CB	SER A 387	225.542	165.553	175.564	1.00122.33 C
ATOM	2464	OG	SER A 387	225.039	164.310	176.021	1.00122.33 O
ATOM	2465	N	ALA A 388	222.902	167.572	175.954	1.00124.10 N
ATOM	2466	CA	ALA A 388	221.637	167.775	176.650	1.00124.10 C
ATOM	2467	C	ALA A 388	220.442	167.818	175.707	1.00124.10 C
ATOM	2468	O	ALA A 388	219.302	167.817	176.183	1.00124.10 O
ATOM	2469	CB	ALA A 388	221.690	169.064	177.472	1.00124.10 C
ATOM	2470	N	LEU A 389	220.670	167.858	174.396	1.00124.94 N
ATOM	2471	CA	LEU A 389	219.592	167.885	173.420	1.00124.94 C
ATOM	2472	C	LEU A 389	219.163	166.498	172.964	1.00124.94 C
ATOM	2473	O	LEU A 389	218.140	166.381	172.282	1.00124.94 O
ATOM	2474	CB	LEU A 389	220.008	168.711	172.199	1.00124.94 C
ATOM	2475	CG	LEU A 389	220.248	170.202	172.435	1.00124.94 C
ATOM	2476	CD1	LEU A 389	220.798	170.855	171.177	1.00124.94 C
ATOM	2477	CD2	LEU A 389	218.970	170.890	172.883	1.00124.94 C
ATOM	2478	N	ASP A 390	219.920	165.454	173.319	1.00123.83 N
ATOM	2479	CA	ASP A 390	219.587	164.101	172.883	1.00123.83 C
ATOM	2480	C	ASP A 390	218.201	163.694	173.364	1.00123.83 C
ATOM	2481	O	ASP A 390	217.398	163.149	172.599	1.00123.83 O

ATOM	2482	CB	ASP A 390	220.641	163.116	173.389	1.00123.83 C
ATOM	2483	CG	ASP A 390	221.987	163.312	172.724	1.00123.83 C
ATOM	2484	OD1	ASP A 390	222.017	163.761	171.559	1.00123.83 O
ATOM	2485	OD2	ASP A 390	223.017	163.019	173.367	1.00123.83 O
ATOM	2486	N	CYS A 391	217.902	163.954	174.633	1.00127.06 N
ATOM	2487	CA	CYS A 391	216.576	163.705	175.180	1.00127.06 C
ATOM	2488	C	CYS A 391	215.561	164.767	174.782	1.00127.06 C
ATOM	2489	O	CYS A 391	214.409	164.694	175.225	1.00127.06 O
ATOM	2490	CB	CYS A 391	216.655	163.609	176.705	1.00127.06 C
ATOM	2491	SG	CYS A 391	217.228	165.123	177.502	1.00127.06 S
ATOM	2492	N	VAL A 392	215.951	165.742	173.967	1.00122.90 N
ATOM	2493	CA	VAL A 392	215.095	166.860	173.596	1.00122.90 C
ATOM	2494	C	VAL A 392	214.934	166.965	172.083	1.00122.90 C
ATOM	2495	O	VAL A 392	213.820	167.110	171.578	1.00122.90 O
ATOM	2496	CB	VAL A 392	215.633	168.182	174.187	1.00122.90 C
ATOM	2497	CG1	VAL A 392	214.773	169.351	173.738	1.00122.90 C
ATOM	2498	CG2	VAL A 392	215.695	168.101	175.705	1.00122.90 C
ATOM	2499	N	ARG A 393	216.044	166.896	171.342	1.00121.53 N
ATOM	2500	CA	ARG A 393	215.988	167.139	169.903	1.00121.53 C
ATOM	2501	C	ARG A 393	215.212	166.054	169.170	1.00121.53 C
ATOM	2502	O	ARG A 393	214.556	166.342	168.162	1.00121.53 O
ATOM	2503	CB	ARG A 393	217.399	167.258	169.326	1.00121.53 C
ATOM	2504	CG	ARG A 393	218.198	165.968	169.351	1.00121.53 C
ATOM	2505	CD	ARG A 393	219.588	166.176	168.782	1.00121.53 C
ATOM	2506	NE	ARG A 393	219.547	166.492	167.358	1.00121.53 N
ATOM	2507	CZ	ARG A 393	219.467	165.580	166.396	1.00121.53 C
ATOM	2508	NH1	ARG A 393	219.436	165.953	165.124	1.00121.53 N
ATOM	2509	NH2	ARG A 393	219.415	164.292	166.706	1.00121.53 N
ATOM	2510	N	ASP A 394	215.279	164.807	169.643	1.00122.11 N
ATOM	2511	CA	ASP A 394	214.530	163.738	168.990	1.00122.11 C
ATOM	2512	C	ASP A 394	213.032	163.996	169.043	1.00122.11 C
ATOM	2513	O	ASP A 394	212.307	163.639	168.107	1.00122.11 O
ATOM	2514	CB	ASP A 394	214.868	162.392	169.627	1.00122.11 C
ATOM	2515	CG	ASP A 394	216.275	161.933	169.301	1.00122.11 C
ATOM	2516	OD1	ASP A 394	216.788	162.313	168.227	1.00122.11 O
ATOM	2517	OD2	ASP A 394	216.866	161.189	170.112	1.00122.11 O
ATOM	2518	N	GLU A 395	212.551	164.615	170.117	1.00121.65 N

ATOM	2519	CA	GLU A 395	211.173	165.076	170.182	1.00121.65 C
ATOM	2520	C	GLU A 395	210.991	166.445	169.541	1.00121.65 C
ATOM	2521	O	GLU A 395	209.852	166.847	169.277	1.00121.65 O
ATOM	2522	CB	GLU A 395	210.698	165.110	171.639	1.00121.65 C
ATOM	2523	CG	GLU A 395	209.249	165.521	171.815	1.00121.65 C
ATOM	2524	CD	GLU A 395	208.293	164.566	171.134	1.00121.65 C
ATOM	2525	OE1	GLU A 395	208.663	163.388	170.944	1.00121.65 O
ATOM	2526	OE2	GLU A 395	207.172	164.992	170.788	1.00121.65 O
ATOM	2527	N	ALA A 396	212.087	167.159	169.275	1.00119.44 N
ATOM	2528	CA	ALA A 396	211.993	168.458	168.617	1.00119.44 C
ATOM	2529	C	ALA A 396	211.387	168.331	167.225	1.00119.44 C
ATOM	2530	O	ALA A 396	210.656	169.220	166.774	1.00119.44 O
ATOM	2531	CB	ALA A 396	213.376	169.105	168.543	1.00119.44 C
ATOM	2532	N	ILE A 397	211.683	167.232	166.530	1.00119.44 N
ATOM	2533	CA	ILE A 397	211.155	167.029	165.186	1.00119.44 C
ATOM	2534	C	ILE A 397	209.743	166.455	165.205	1.00119.44 C
ATOM	2535	O	ILE A 397	209.012	166.589	164.215	1.00119.44 O
ATOM	2536	CB	ILE A 397	212.104	166.116	164.390	1.00119.44 C
ATOM	2537	CG1	ILE A 397	213.490	166.755	164.289	1.00119.44 C
ATOM	2538	CG2	ILE A 397	211.562	165.841	162.997	1.00119.44 C
ATOM	2539	CD1	ILE A 397	214.549	165.825	163.745	1.00119.44 C
ATOM	2540	N	ASN A 398	209.330	165.840	166.313	1.00122.33 N
ATOM	2541	CA	ASN A 398	208.055	165.129	166.342	1.00122.33 C
ATOM	2542	C	ASN A 398	206.876	166.092	166.259	1.00122.33 C
ATOM	2543	O	ASN A 398	206.066	166.023	165.327	1.00122.33 O
ATOM	2544	CB	ASN A 398	207.964	164.276	167.609	1.00122.33 C
ATOM	2545	CG	ASN A 398	208.921	163.100	167.591	1.00122.33 C
ATOM	2546	OD1	ASN A 398	209.103	162.449	166.563	1.00122.33 O
ATOM	2547	ND2	ASN A 398	209.531	162.817	168.736	1.00122.33 N
ATOM	2548	N	LYS A 399	206.764	167.002	167.228	1.00120.61 N
ATOM	2549	CA	LYS A 399	205.547	167.796	167.358	1.00120.61 C
ATOM	2550	C	LYS A 399	205.379	168.797	166.220	1.00120.61 C
ATOM	2551	O	LYS A 399	204.250	169.044	165.782	1.00120.61 O
ATOM	2552	CB	LYS A 399	205.540	168.524	168.701	1.00120.61 C
ATOM	2553	CG	LYS A 399	205.410	167.609	169.908	1.00120.61 C
ATOM	2554	CD	LYS A 399	205.372	168.414	171.197	1.00120.61 C
ATOM	2555	CE	LYS A 399	205.258	167.515	172.415	1.00120.61 C

ATOM	2556	NZ	LYS A 399	205.231	168.306	173.676	1.00120.61	N
ATOM	2557	N	LEU A 400	206.477	169.378	165.732	1.00120.30	N
ATOM	2558	CA	LEU A 400	206.382	170.456	164.751	1.00120.30	C
ATOM	2559	C	LEU A 400	205.754	169.972	163.448	1.00120.30	C
ATOM	2560	O	LEU A 400	204.774	170.550	162.965	1.00120.30	O
ATOM	2561	CB	LEU A 400	207.764	171.062	164.505	1.00120.30	C
ATOM	2562	CG	LEU A 400	208.200	172.107	165.534	1.00120.30	C
ATOM	2563	CD1	LEU A 400	208.465	171.467	166.885	1.00120.30	C
ATOM	2564	CD2	LEU A 400	209.430	172.858	165.049	1.00120.30	C
ATOM	2565	N	GLN A 401	206.315	168.914	162.856	1.00121.71	N
ATOM	2566	CA	GLN A 401	205.680	168.311	161.687	1.00121.71	C
ATOM	2567	C	GLN A 401	204.272	167.831	162.012	1.00121.71	C
ATOM	2568	O	GLN A 401	203.392	167.847	161.144	1.00121.71	O
ATOM	2569	CB	GLN A 401	206.531	167.158	161.159	1.00121.71	C
ATOM	2570	CG	GLN A 401	207.872	167.591	160.592	1.00121.71	C
ATOM	2571	CD	GLN A 401	208.697	166.424	160.089	1.00121.71	C
ATOM	2572	OE1	GLN A 401	208.295	165.268	160.208	1.00121.71	O
ATOM	2573	NE2	GLN A 401	209.862	166.722	159.526	1.00121.71	N
ATOM	2574	N	GLN A 402	204.044	167.401	163.254	1.00122.38	N
ATOM	2575	CA	GLN A 402	202.690	167.107	163.706	1.00122.38	C
ATOM	2576	C	GLN A 402	201.843	168.373	163.744	1.00122.38	C
ATOM	2577	O	GLN A 402	200.697	168.382	163.280	1.00122.38	O
ATOM	2578	CB	GLN A 402	202.740	166.446	165.083	1.00122.38	C
ATOM	2579	CG	GLN A 402	201.393	166.026	165.634	1.00122.38	C
ATOM	2580	CD	GLN A 402	201.516	165.347	166.983	1.00122.38	C
ATOM	2581	OE1	GLN A 402	202.613	165.220	167.527	1.00122.38	O
ATOM	2582	NE2	GLN A 402	200.389	164.908	167.532	1.00122.38	N
ATOM	2583	N	ILE A 403	202.395	169.456	164.297	1.00125.90	N
ATOM	2584	CA	ILE A 403	201.654	170.710	164.365	1.00125.90	C
ATOM	2585	C	ILE A 403	201.621	171.398	163.008	1.00125.90	C
ATOM	2586	O	ILE A 403	200.624	172.040	162.656	1.00125.90	O
ATOM	2587	CB	ILE A 403	202.249	171.627	165.448	1.00125.90	C
ATOM	2588	CG1	ILE A 403	202.162	170.956	166.819	1.00125.90	C
ATOM	2589	CG2	ILE A 403	201.524	172.958	165.469	1.00125.90	C
ATOM	2590	CD1	ILE A 403	200.745	170.666	167.262	1.00125.90	C
ATOM	2591	N	PHE A 404	202.700	171.291	162.228	1.00126.78	N
ATOM	2592	CA	PHE A 404	202.676	171.811	160.864	1.00126.78	C

ATOM	2593	C	PHE	A	404	201.614	171.104	160.035	1.00	126.78	C
ATOM	2594	O	PHE	A	404	200.815	171.746	159.343	1.00	126.78	O
ATOM	2595	CB	PHE	A	404	204.047	171.654	160.208	1.00	126.78	C
ATOM	2596	CG	PHE	A	404	204.084	172.114	158.779	1.00	126.78	C
ATOM	2597	CD1	PHE	A	404	204.141	173.461	158.471	1.00	126.78	C
ATOM	2598	CD2	PHE	A	404	204.039	171.197	157.743	1.00	126.78	C
ATOM	2599	CE1	PHE	A	404	204.167	173.884	157.155	1.00	126.78	C
ATOM	2600	CE2	PHE	A	404	204.062	171.615	156.428	1.00	126.78	C
ATOM	2601	CZ	PHE	A	404	204.127	172.959	156.134	1.00	126.78	C
ATOM	2602	N	ASN	A	405	201.597	169.775	160.090	1.00	128.68	N
ATOM	2603	CA	ASN	A	405	200.610	168.992	159.366	1.00	128.68	C
ATOM	2604	C	ASN	A	405	199.272	168.942	160.093	1.00	128.68	C
ATOM	2605	O	ASN	A	405	198.316	168.358	159.572	1.00	128.68	O
ATOM	2606	CB	ASN	A	405	201.151	167.578	159.132	1.00	128.68	C
ATOM	2607	CG	ASN	A	405	200.396	166.838	158.054	1.00	128.68	C
ATOM	2608	OD1	ASN	A	405	199.478	167.389	157.447	1.00	128.68	O
ATOM	2609	ND2	ASN	A	405	200.784	165.581	157.808	1.00	128.68	N
ATOM	2610	N	THR	A	406	199.186	169.532	161.287	1.00	128.87	N
ATOM	2611	CA	THR	A	406	197.893	169.690	161.942	1.00	128.87	C
ATOM	2612	C	THR	A	406	196.943	170.506	161.075	1.00	128.87	C
ATOM	2613	O	THR	A	406	195.906	170.004	160.628	1.00	128.87	O
ATOM	2614	CB	THR	A	406	198.073	170.347	163.313	1.00	128.87	C
ATOM	2615	OG1	THR	A	406	198.882	169.508	164.148	1.00	128.87	O
ATOM	2616	CG2	THR	A	406	196.726	170.572	163.980	1.00	128.87	C
ATOM	2617	N	SER	A	407	197.298	171.763	160.800	1.00	132.14	N
ATOM	2618	CA	SER	A	407	196.439	172.662	160.042	1.00	132.14	C
ATOM	2619	C	SER	A	407	197.042	173.142	158.730	1.00	132.14	C
ATOM	2620	O	SER	A	407	196.472	174.043	158.105	1.00	132.14	O
ATOM	2621	CB	SER	A	407	196.065	173.888	160.888	1.00	132.14	C
ATOM	2622	OG	SER	A	407	195.284	174.800	160.136	1.00	132.14	O
ATOM	2623	N	TYR	A	408	198.171	172.586	158.299	1.00	131.17	N
ATOM	2624	CA	TYR	A	408	198.838	172.998	157.066	1.00	131.17	C
ATOM	2625	C	TYR	A	408	199.302	171.737	156.340	1.00	131.17	C
ATOM	2626	O	TYR	A	408	200.374	171.199	156.628	1.00	131.17	O
ATOM	2627	CB	TYR	A	408	199.998	173.938	157.361	1.00	131.17	C
ATOM	2628	CG	TYR	A	408	199.584	175.192	158.090	1.00	131.17	C
ATOM	2629	CD1	TYR	A	408	198.940	176.230	157.429	1.00	131.17	C

ATOM	2630	CD2	TYR A 408	199.853	175.351	159.445	1.00131.17	C
ATOM	2631	CE1	TYR A 408	198.567	177.379	158.098	1.00131.17	C
ATOM	2632	CE2	TYR A 408	199.480	176.494	160.120	1.00131.17	C
ATOM	2633	CZ	TYR A 408	198.831	177.504	159.440	1.00131.17	C
ATOM	2634	OH	TYR A 408	198.456	178.648	160.106	1.00131.17	O
ATOM	2635	N	ASN A 409	198.481	171.263	155.404	1.00133.86	N
ATOM	2636	CA	ASN A 409	198.813	170.059	154.650	1.00133.86	C
ATOM	2637	C	ASN A 409	199.764	170.362	153.494	1.00133.86	C
ATOM	2638	O	ASN A 409	200.909	169.899	153.480	1.00133.86	O
ATOM	2639	CB	ASN A 409	197.519	169.397	154.168	1.00133.86	C
ATOM	2640	CG	ASN A 409	196.549	170.393	153.556	1.00133.86	C
ATOM	2641	OD1	ASN A 409	196.877	171.568	153.389	1.00133.86	O
ATOM	2642	ND2	ASN A 409	195.346	169.934	153.237	1.00133.86	N
ATOM	2643	N	GLN A 410	199.305	171.137	152.513	1.00132.53	N
ATOM	2644	CA	GLN A 410	200.210	171.649	151.491	1.00132.53	C
ATOM	2645	C	GLN A 410	199.887	173.089	151.110	1.00132.53	C
ATOM	2646	O	GLN A 410	200.492	173.602	150.159	1.00132.53	O
ATOM	2647	CB	GLN A 410	200.191	170.753	150.243	1.00132.53	C
ATOM	2648	CG	GLN A 410	198.876	170.743	149.488	1.00132.53	C
ATOM	2649	CD	GLN A 410	197.917	169.693	150.011	1.00132.53	C
ATOM	2650	OE1	GLN A 410	198.077	169.188	151.121	1.00132.53	O
ATOM	2651	NE2	GLN A 410	196.921	169.349	149.204	1.00132.53	N
ATOM	2652	N	THR A 411	198.955	173.751	151.798	1.00128.25	N
ATOM	2653	CA	THR A 411	198.679	175.156	151.523	1.00128.25	C
ATOM	2654	C	THR A 411	199.926	176.001	151.747	1.00128.25	C
ATOM	2655	O	THR A 411	200.468	176.592	150.807	1.00128.25	O
ATOM	2656	CB	THR A 411	197.525	175.648	152.398	1.00128.25	C
ATOM	2657	OG1	THR A 411	197.881	175.519	153.780	1.00128.25	O
ATOM	2658	CG2	THR A 411	196.266	174.838	152.123	1.00128.25	C
ATOM	2659	N	TYR A 412	200.408	176.054	152.988	1.00121.68	N
ATOM	2660	CA	TYR A 412	201.687	176.692	153.261	1.00121.68	C
ATOM	2661	C	TYR A 412	202.821	175.702	153.029	1.00121.68	C
ATOM	2662	O	TYR A 412	202.720	174.523	153.379	1.00121.68	O
ATOM	2663	CB	TYR A 412	201.776	177.214	154.697	1.00121.68	C
ATOM	2664	CG	TYR A 412	200.867	178.370	155.053	1.00121.68	C
ATOM	2665	CD1	TYR A 412	200.042	178.960	154.109	1.00121.68	C
ATOM	2666	CD2	TYR A 412	200.880	178.904	156.332	1.00121.68	C

ATOM	2667	CE1	TYR A 412	199.218	180.016	154.447	1.00121.68	C
ATOM	2668	CE2	TYR A 412	200.074	179.974	156.669	1.00121.68	C
ATOM	2669	CZ	TYR A 412	199.248	180.527	155.722	1.00121.68	C
ATOM	2670	OH	TYR A 412	198.436	181.588	156.053	1.00121.68	O
ATOM	2671	N	GLU A 413	203.904	176.193	152.439	1.00120.56	N
ATOM	2672	CA	GLU A 413	205.118	175.416	152.257	1.00120.56	C
ATOM	2673	C	GLU A 413	206.120	175.766	153.347	1.00120.56	C
ATOM	2674	O	GLU A 413	206.230	176.926	153.756	1.00120.56	O
ATOM	2675	CB	GLU A 413	205.737	175.672	150.883	1.00120.56	C
ATOM	2676	CG	GLU A 413	204.906	175.158	149.727	1.00120.56	C
ATOM	2677	CD	GLU A 413	205.562	175.409	148.388	1.00120.56	C
ATOM	2678	OE1	GLU A 413	206.608	176.089	148.355	1.00120.56	O
ATOM	2679	OE2	GLU A 413	205.032	174.924	147.367	1.00120.56	O
ATOM	2680	N	LYS A 414	206.843	174.753	153.816	1.00120.41	N
ATOM	2681	CA	LYS A 414	207.849	174.962	154.844	1.00120.41	C
ATOM	2682	C	LYS A 414	208.953	175.886	154.337	1.00120.41	C
ATOM	2683	O	LYS A 414	209.225	175.978	153.137	1.00120.41	O
ATOM	2684	CB	LYS A 414	208.449	173.627	155.281	1.00120.41	C
ATOM	2685	CG	LYS A 414	207.504	172.743	156.071	1.00120.41	C
ATOM	2686	CD	LYS A 414	208.097	171.360	156.276	1.00120.41	C
ATOM	2687	CE	LYS A 414	209.283	171.390	157.222	1.00120.41	C
ATOM	2688	NZ	LYS A 414	209.788	170.018	157.497	1.00120.41	N
ATOM	2689	N	TYR A 415	209.595	176.575	155.276	1.00117.92	N
ATOM	2690	CA	TYR A 415	210.703	177.470	154.969	1.00117.92	C
ATOM	2691	C	TYR A 415	211.864	177.152	155.895	1.00117.92	C
ATOM	2692	O	TYR A 415	211.734	177.265	157.118	1.00117.92	O
ATOM	2693	CB	TYR A 415	210.296	178.937	155.114	1.00117.92	C
ATOM	2694	CG	TYR A 415	211.415	179.902	154.797	1.00117.92	C
ATOM	2695	CD1	TYR A 415	211.810	180.130	153.485	1.00117.92	C
ATOM	2696	CD2	TYR A 415	212.070	180.592	155.807	1.00117.92	C
ATOM	2697	CE1	TYR A 415	212.829	181.013	153.191	1.00117.92	C
ATOM	2698	CE2	TYR A 415	213.090	181.479	155.521	1.00117.92	C
ATOM	2699	CZ	TYR A 415	213.465	181.686	154.211	1.00117.92	C
ATOM	2700	OH	TYR A 415	214.479	182.567	153.918	1.00117.92	O
ATOM	2701	N	GLY A 416	212.994	176.765	155.314	1.00116.10	N
ATOM	2702	CA	GLY A 416	214.174	176.477	156.102	1.00116.10	C
ATOM	2703	C	GLY A 416	214.007	175.287	157.022	1.00116.10	C

ATOM	2704	O	GLY A 416	213.033	174.538	156.916	1.00116.10	O
ATOM	2705	N	ASN A 417	214.959	175.098	157.924	1.00107.37	N
ATOM	2706	CA	ASN A 417	214.963	173.967	158.831	1.00107.37	C
ATOM	2707	C	ASN A 417	214.582	174.452	160.225	1.00107.37	C
ATOM	2708	O	ASN A 417	214.196	175.608	160.415	1.00107.37	O
ATOM	2709	CB	ASN A 417	216.337	173.306	158.785	1.00107.37	C
ATOM	2710	CG	ASN A 417	216.718	172.892	157.386	1.00107.37	C
ATOM	2711	OD1	ASN A 417	215.936	172.262	156.672	1.00107.37	O
ATOM	2712	ND2	ASN A 417	217.914	173.279	156.971	1.00107.37	N
ATOM	2713	N	VAL A 418	214.683	173.569	161.217	1.00103.67	N
ATOM	2714	CA	VAL A 418	214.464	173.990	162.593	1.00103.67	C
ATOM	2715	C	VAL A 418	215.596	174.914	163.015	1.00103.67	C
ATOM	2716	O	VAL A 418	216.750	174.747	162.597	1.00103.67	O
ATOM	2717	CB	VAL A 418	214.359	172.774	163.528	1.00103.67	C
ATOM	2718	CG1	VAL A 418	215.677	172.023	163.561	1.00103.67	C
ATOM	2719	CG2	VAL A 418	213.959	173.214	164.929	1.00103.67	C
ATOM	2720	N	SER A 419	215.270	175.903	163.841	1.00102.75	N
ATOM	2721	CA	SER A 419	216.249	176.857	164.340	1.00102.75	C
ATOM	2722	C	SER A 419	216.016	177.048	165.828	1.00102.75	C
ATOM	2723	O	SER A 419	214.907	177.389	166.248	1.00102.75	O
ATOM	2724	CB	SER A 419	216.149	178.194	163.599	1.00102.75	C
ATOM	2725	OG	SER A 419	217.118	179.117	164.063	1.00102.75	O
ATOM	2726	N	VAL A 420	217.062	176.836	166.617	1.00103.53	N
ATOM	2727	CA	VAL A 420	216.980	176.850	168.071	1.00103.53	C
ATOM	2728	C	VAL A 420	217.510	178.188	168.564	1.00103.53	C
ATOM	2729	O	VAL A 420	218.626	178.590	168.216	1.00103.53	O
ATOM	2730	CB	VAL A 420	217.756	175.676	168.682	1.00103.53	C
ATOM	2731	CG1	VAL A 420	217.065	174.368	168.355	1.00103.53	C
ATOM	2732	CG2	VAL A 420	219.157	175.648	168.118	1.00103.53	C
ATOM	2733	N	PHE A 421	216.702	178.881	169.364	1.00102.24	N
ATOM	2734	CA	PHE A 421	217.037	180.197	169.899	1.00102.24	C
ATOM	2735	C	PHE A 421	216.943	180.134	171.417	1.00102.24	C
ATOM	2736	O	PHE A 421	215.843	180.036	171.970	1.00102.24	O
ATOM	2737	CB	PHE A 421	216.099	181.271	169.348	1.00102.24	C
ATOM	2738	CG	PHE A 421	216.248	181.514	167.876	1.00102.24	C
ATOM	2739	CD1	PHE A 421	217.240	182.347	167.393	1.00102.24	C
ATOM	2740	CD2	PHE A 421	215.392	180.909	166.976	1.00102.24	C

ATOM	2741	CE1	PHE	A	421	217.374	182.572	166.039	1.00	102.24	C
ATOM	2742	CE2	PHE	A	421	215.522	181.131	165.622	1.00	102.24	C
ATOM	2743	CZ	PHE	A	421	216.515	181.962	165.153	1.00	102.24	C
ATOM	2744	N	GLU	A	422	218.088	180.188	172.090	1.00	101.93	N
ATOM	2745	CA	GLU	A	422	218.083	180.225	173.545	1.00	101.93	C
ATOM	2746	C	GLU	A	422	217.592	181.584	174.026	1.00	101.93	C
ATOM	2747	O	GLU	A	422	218.108	182.625	173.611	1.00	101.93	O
ATOM	2748	CB	GLU	A	422	219.479	179.936	174.092	1.00	101.93	C
ATOM	2749	CG	GLU	A	422	219.538	179.888	175.609	1.00	101.93	C
ATOM	2750	CD	GLU	A	422	220.912	179.526	176.132	1.00	101.93	C
ATOM	2751	OE1	GLU	A	422	221.827	179.317	175.308	1.00	101.93	O
ATOM	2752	OE2	GLU	A	422	221.077	179.451	177.367	1.00	101.93	O
ATOM	2753	N	THR	A	423	216.591	181.572	174.900	1.00	100.35	N
ATOM	2754	CA	THR	A	423	215.988	182.802	175.395	1.00	100.35	C
ATOM	2755	C	THR	A	423	216.859	183.396	176.500	1.00	100.35	C
ATOM	2756	O	THR	A	423	217.999	182.979	176.722	1.00	100.35	O
ATOM	2757	CB	THR	A	423	214.567	182.539	175.882	1.00	100.35	C
ATOM	2758	OG1	THR	A	423	214.603	181.609	176.971	1.00	100.35	O
ATOM	2759	CG2	THR	A	423	213.720	181.964	174.759	1.00	100.35	C
ATOM	2760	N	THR	A	424	216.324	184.392	177.204	1.00	105.25	N
ATOM	2761	CA	THR	A	424	217.032	185.022	178.312	1.00	105.25	C
ATOM	2762	C	THR	A	424	216.858	184.245	179.612	1.00	105.25	C
ATOM	2763	O	THR	A	424	217.831	184.010	180.335	1.00	105.25	O
ATOM	2764	CB	THR	A	424	216.551	186.465	178.497	1.00	105.25	C
ATOM	2765	OG1	THR	A	424	215.153	186.467	178.811	1.00	105.25	O
ATOM	2766	CG2	THR	A	424	216.781	187.269	177.229	1.00	105.25	C
ATOM	2767	N	GLY	A	425	215.628	183.841	179.922	1.00	101.74	N
ATOM	2768	CA	GLY	A	425	215.358	183.114	181.146	1.00	101.74	C
ATOM	2769	C	GLY	A	425	215.549	181.616	181.025	1.00	101.74	C
ATOM	2770	O	GLY	A	425	214.787	180.839	181.606	1.00	101.74	O
ATOM	2771	N	GLY	A	426	216.565	181.196	180.270	1.00	96.87	N
ATOM	2772	CA	GLY	A	426	216.891	179.795	180.124	1.00	96.87	C
ATOM	2773	C	GLY	A	426	215.988	179.002	179.206	1.00	96.87	C
ATOM	2774	O	GLY	A	426	216.344	177.876	178.839	1.00	96.87	O
ATOM	2775	N	LEU	A	427	214.833	179.541	178.822	1.00	97.73	N
ATOM	2776	CA	LEU	A	427	213.915	178.809	177.961	1.00	97.73	C
ATOM	2777	C	LEU	A	427	214.538	178.584	176.589	1.00	97.73	C

ATOM	2778	O	LEU A 427	215.053	179.517	175.967	1.00 97.73	O
ATOM	2779	CB	LEU A 427	212.595	179.569	177.824	1.00 97.73	C
ATOM	2780	CG	LEU A 427	211.623	179.517	179.005	1.00 97.73	C
ATOM	2781	CD1	LEU A 427	212.125	180.367	180.162	1.00 97.73	C
ATOM	2782	CD2	LEU A 427	210.236	179.963	178.575	1.00 97.73	C
ATOM	2783	N	VAL A 428	214.489	177.341	176.121	1.00 98.45	N
ATOM	2784	CA	VAL A 428	215.064	176.951	174.840	1.00 98.45	C
ATOM	2785	C	VAL A 428	213.923	176.718	173.860	1.00 98.45	C
ATOM	2786	O	VAL A 428	213.024	175.912	174.126	1.00 98.45	O
ATOM	2787	CB	VAL A 428	215.942	175.698	174.979	1.00 98.45	C
ATOM	2788	CG1	VAL A 428	216.447	175.249	173.620	1.00 98.45	C
ATOM	2789	CG2	VAL A 428	217.103	175.967	175.920	1.00 98.45	C
ATOM	2790	N	VAL A 429	213.954	177.422	172.729	1.00102.31	N
ATOM	2791	CA	VAL A 429	212.913	177.310	171.718	1.00102.31	C
ATOM	2792	C	VAL A 429	213.542	176.922	170.387	1.00102.31	C
ATOM	2793	O	VAL A 429	214.750	177.050	170.174	1.00102.31	O
ATOM	2794	CB	VAL A 429	212.097	178.609	171.566	1.00102.31	C
ATOM	2795	CG1	VAL A 429	211.401	178.952	172.868	1.00102.31	C
ATOM	2796	CG2	VAL A 429	212.992	179.746	171.115	1.00102.31	C
ATOM	2797	N	PHE A 430	212.692	176.447	169.483	1.00110.59	N
ATOM	2798	CA	PHE A 430	213.113	176.003	168.164	1.00110.59	C
ATOM	2799	C	PHE A 430	211.886	175.955	167.268	1.00110.59	C
ATOM	2800	O	PHE A 430	210.772	175.717	167.741	1.00110.59	O
ATOM	2801	CB	PHE A 430	213.803	174.637	168.232	1.00110.59	C
ATOM	2802	CG	PHE A 430	212.936	173.548	168.789	1.00110.59	C
ATOM	2803	CD1	PHE A 430	212.883	173.320	170.153	1.00110.59	C
ATOM	2804	CD2	PHE A 430	212.179	172.748	167.952	1.00110.59	C
ATOM	2805	CE1	PHE A 430	212.087	172.320	170.671	1.00110.59	C
ATOM	2806	CE2	PHE A 430	211.381	171.749	168.465	1.00110.59	C
ATOM	2807	CZ	PHE A 430	211.336	171.532	169.825	1.00110.59	C
ATOM	2808	N	TRP A 431	212.094	176.176	165.975	1.00105.56	N
ATOM	2809	CA	TRP A 431	210.964	176.365	165.073	1.00105.56	C
ATOM	2810	C	TRP A 431	211.480	176.465	163.642	1.00105.56	C
ATOM	2811	O	TRP A 431	212.686	176.391	163.384	1.00105.56	O
ATOM	2812	CB	TRP A 431	210.173	177.604	165.479	1.00105.56	C
ATOM	2813	CG	TRP A 431	210.976	178.844	165.392	1.00105.56	C
ATOM	2814	CD1	TRP A 431	211.838	179.326	166.329	1.00105.56	C

ATOM	2815	CD2	TRP A 431	210.983	179.785	164.321	1.00105.56	C
ATOM	2816	NE1	TRP A 431	212.399	180.503	165.900	1.00105.56	N
ATOM	2817	CE2	TRP A 431	211.885	180.808	164.669	1.00105.56	C
ATOM	2818	CE3	TRP A 431	210.318	179.862	163.097	1.00105.56	C
ATOM	2819	CZ2	TRP A 431	212.143	181.889	163.838	1.00105.56	C
ATOM	2820	CZ3	TRP A 431	210.571	180.939	162.272	1.00105.56	C
ATOM	2821	CH2	TRP A 431	211.476	181.940	162.648	1.00105.56	C
ATOM	2822	N	GLN A 432	210.543	176.632	162.708	1.00112.42	N
ATOM	2823	CA	GLN A 432	210.849	176.731	161.288	1.00112.42	C
ATOM	2824	C	GLN A 432	209.849	177.667	160.623	1.00112.42	C
ATOM	2825	O	GLN A 432	208.731	177.861	161.106	1.00112.42	O
ATOM	2826	CB	GLN A 432	210.826	175.353	160.613	1.00112.42	C
ATOM	2827	CG	GLN A 432	209.460	174.687	160.613	1.00112.42	C
ATOM	2828	CD	GLN A 432	209.491	173.295	160.017	1.00112.42	C
ATOM	2829	OE1	GLN A 432	210.533	172.823	159.563	1.00112.42	O
ATOM	2830	NE2	GLN A 432	208.342	172.631	160.010	1.00112.42	N
ATOM	2831	N	GLY A 433	210.268	178.249	159.496	1.00115.93	N
ATOM	2832	CA	GLY A 433	209.434	179.208	158.804	1.00115.93	C
ATOM	2833	C	GLY A 433	208.350	178.557	157.963	1.00115.93	C
ATOM	2834	O	GLY A 433	208.464	177.416	157.520	1.00115.93	O
ATOM	2835	N	ILE A 434	207.276	179.311	157.739	1.00115.36	N
ATOM	2836	CA	ILE A 434	206.110	178.819	157.016	1.00115.36	C
ATOM	2837	C	ILE A 434	205.596	179.911	156.087	1.00115.36	C
ATOM	2838	O	ILE A 434	205.665	181.101	156.412	1.00115.36	O
ATOM	2839	CB	ILE A 434	205.000	178.359	157.983	1.00115.36	C
ATOM	2840	CG1	ILE A 434	203.893	177.633	157.219	1.00115.36	C
ATOM	2841	CG2	ILE A 434	204.440	179.546	158.748	1.00115.36	C
ATOM	2842	CD1	ILE A 434	202.934	176.876	158.109	1.00115.36	C
ATOM	2843	N	LYS A 435	205.084	179.502	154.929	1.00115.41	N
ATOM	2844	CA	LYS A 435	204.481	180.411	153.961	1.00115.41	C
ATOM	2845	C	LYS A 435	203.915	179.576	152.821	1.00115.41	C
ATOM	2846	O	LYS A 435	204.117	178.362	152.758	1.00115.41	O
ATOM	2847	CB	LYS A 435	205.482	181.439	153.430	1.00115.41	C
ATOM	2848	CG	LYS A 435	206.631	180.846	152.637	1.00115.41	C
ATOM	2849	CD	LYS A 435	207.465	181.939	152.003	1.00115.41	C
ATOM	2850	CE	LYS A 435	208.209	182.724	153.054	1.00115.41	C
ATOM	2851	NZ	LYS A 435	209.184	181.859	153.757	1.00115.41	N

ATOM	2852	N	GLN A 436	203.211	180.246	151.912	1.00111.95	N
ATOM	2853	CA	GLN A 436	202.602	179.565	150.772	1.00111.95	C
ATOM	2854	C	GLN A 436	202.917	180.264	149.456	1.00111.95	C
ATOM	2855	O	GLN A 436	202.217	180.067	148.462	1.00111.95	O
ATOM	2856	CB	GLN A 436	201.088	179.473	150.948	1.00111.95	C
ATOM	2857	CG	GLN A 436	200.360	180.780	150.726	1.00111.95	C
ATOM	2858	CD	GLN A 436	200.404	181.670	151.941	1.00111.95	C
ATOM	2859	OE1	GLN A 436	201.259	181.506	152.810	1.00111.95	O
ATOM	2860	NE2	GLN A 436	199.460	182.596	152.031	1.00111.95	N
ATOM	2861	N	GLN A 483	200.073	192.743	138.721	1.00100.67	N
ATOM	2862	CA	GLN A 483	200.489	191.569	139.480	1.00100.67	C
ATOM	2863	C	GLN A 483	199.345	190.983	140.299	1.00100.67	C
ATOM	2864	O	GLN A 483	199.110	189.774	140.265	1.00100.67	O
ATOM	2865	CB	GLN A 483	201.656	191.916	140.404	1.00100.67	C
ATOM	2866	CG	GLN A 483	202.153	190.742	141.231	1.00100.67	C
ATOM	2867	CD	GLN A 483	202.680	189.610	140.376	1.00100.67	C
ATOM	2868	OE1	GLN A 483	202.019	188.587	140.203	1.00100.67	O
ATOM	2869	NE2	GLN A 483	203.880	189.785	139.836	1.00100.67	N
ATOM	2870	N	LEU A 484	198.668	191.852	141.056	1.00100.36	N
ATOM	2871	CA	LEU A 484	197.542	191.498	141.919	1.00100.36	C
ATOM	2872	C	LEU A 484	197.994	190.779	143.187	1.00100.36	C
ATOM	2873	O	LEU A 484	197.178	190.503	144.073	1.00100.36	O
ATOM	2874	CB	LEU A 484	196.518	190.648	141.156	1.00100.36	C
ATOM	2875	CG	LEU A 484	195.247	190.220	141.894	1.00100.36	C
ATOM	2876	CD1	LEU A 484	194.450	191.435	142.335	1.00100.36	C
ATOM	2877	CD2	LEU A 484	194.400	189.308	141.022	1.00100.36	C
ATOM	2878	N	GLN A 485	199.288	190.485	143.301	1.00 98.86	N
ATOM	2879	CA	GLN A 485	199.811	189.865	144.511	1.00 98.86	C
ATOM	2880	C	GLN A 485	200.340	190.890	145.500	1.00 98.86	C
ATOM	2881	O	GLN A 485	200.220	190.687	146.714	1.00 98.86	O
ATOM	2882	CB	GLN A 485	200.917	188.865	144.160	1.00 98.86	C
ATOM	2883	CG	GLN A 485	201.351	187.969	145.316	1.00 98.86	C
ATOM	2884	CD	GLN A 485	202.456	188.579	146.157	1.00 98.86	C
ATOM	2885	OE1	GLN A 485	203.271	189.355	145.660	1.00 98.86	O
ATOM	2886	NE2	GLN A 485	202.484	188.237	147.439	1.00 98.86	N
ATOM	2887	N	PHE A 486	200.926	191.984	145.007	1.00 99.61	N
ATOM	2888	CA	PHE A 486	201.471	193.001	145.899	1.00 99.61	C

ATOM	2889	C	PHE	A	486	200.384	193.647	146.747	1.00	99.61	C
ATOM	2890	O	PHE	A	486	200.662	194.129	147.850	1.00	99.61	O
ATOM	2891	CB	PHE	A	486	202.215	194.059	145.089	1.00	99.61	C
ATOM	2892	CG	PHE	A	486	202.849	195.125	145.928	1.00	99.61	C
ATOM	2893	CD1	PHE	A	486	204.000	194.861	146.648	1.00	99.61	C
ATOM	2894	CD2	PHE	A	486	202.297	196.391	145.997	1.00	99.61	C
ATOM	2895	CE1	PHE	A	486	204.588	195.840	147.422	1.00	99.61	C
ATOM	2896	CE2	PHE	A	486	202.880	197.374	146.768	1.00	99.61	C
ATOM	2897	CZ	PHE	A	486	204.028	197.098	147.482	1.00	99.61	C
ATOM	2898	N	THR	A	487	199.147	193.672	146.249	1.00	97.26	N
ATOM	2899	CA	THR	A	487	198.039	194.173	147.054	1.00	97.26	C
ATOM	2900	C	THR	A	487	197.793	193.282	148.264	1.00	97.26	C
ATOM	2901	O	THR	A	487	197.490	193.776	149.356	1.00	97.26	O
ATOM	2902	CB	THR	A	487	196.776	194.268	146.203	1.00	97.26	C
ATOM	2903	OG1	THR	A	487	196.410	192.960	145.751	1.00	97.26	O
ATOM	2904	CG2	THR	A	487	197.017	195.159	144.998	1.00	97.26	C
ATOM	2905	N	TYR	A	488	197.917	191.966	148.086	1.00	94.52	N
ATOM	2906	CA	TYR	A	488	197.608	191.038	149.168	1.00	94.52	C
ATOM	2907	C	TYR	A	488	198.650	191.100	150.279	1.00	94.52	C
ATOM	2908	O	TYR	A	488	198.309	190.975	151.460	1.00	94.52	O
ATOM	2909	CB	TYR	A	488	197.498	189.618	148.619	1.00	94.52	C
ATOM	2910	CG	TYR	A	488	197.135	188.585	149.658	1.00	94.52	C
ATOM	2911	CD1	TYR	A	488	195.837	188.477	150.131	1.00	94.52	C
ATOM	2912	CD2	TYR	A	488	198.091	187.717	150.164	1.00	94.52	C
ATOM	2913	CE1	TYR	A	488	195.499	187.533	151.079	1.00	94.52	C
ATOM	2914	CE2	TYR	A	488	197.763	186.770	151.113	1.00	94.52	C
ATOM	2915	CZ	TYR	A	488	196.466	186.682	151.567	1.00	94.52	C
ATOM	2916	OH	TYR	A	488	196.135	185.740	152.513	1.00	94.52	O
ATOM	2917	N	ASP	A	489	199.923	191.279	149.921	1.00	95.71	N
ATOM	2918	CA	ASP	A	489	200.979	191.286	150.929	1.00	95.71	C
ATOM	2919	C	ASP	A	489	200.803	192.446	151.901	1.00	95.71	C
ATOM	2920	O	ASP	A	489	200.684	192.240	153.115	1.00	95.71	O
ATOM	2921	CB	ASP	A	489	202.351	191.354	150.258	1.00	95.71	C
ATOM	2922	CG	ASP	A	489	203.491	191.080	151.225	1.00	95.71	C
ATOM	2923	OD1	ASP	A	489	203.220	190.816	152.416	1.00	95.71	O
ATOM	2924	OD2	ASP	A	489	204.662	191.133	150.796	1.00	95.71	O
ATOM	2925	N	THR	A	490	200.794	193.677	151.384	1.00	94.70	N

ATOM	2926	CA	THR A 490	200.673	194.845	152.249	1.00 94.70	C
ATOM	2927	C	THR A 490	199.362	194.828	153.021	1.00 94.70	C
ATOM	2928	O	THR A 490	199.307	195.258	154.179	1.00 94.70	O
ATOM	2929	CB	THR A 490	200.787	196.126	151.426	1.00 94.70	C
ATOM	2930	OG1	THR A 490	199.709	196.186	150.484	1.00 94.70	O
ATOM	2931	CG2	THR A 490	202.104	196.151	150.676	1.00 94.70	C
ATOM	2932	N	LEU A 491	198.293	194.331	152.398	1.00 95.94	N
ATOM	2933	CA	LEU A 491	197.018	194.245	153.094	1.00 95.94	C
ATOM	2934	C	LEU A 491	196.963	193.057	154.045	1.00 95.94	C
ATOM	2935	O	LEU A 491	196.011	192.947	154.825	1.00 95.94	O
ATOM	2936	CB	LEU A 491	195.878	194.190	152.078	1.00 95.94	C
ATOM	2937	CG	LEU A 491	194.457	194.197	152.630	1.00 95.94	C
ATOM	2938	CD1	LEU A 491	194.255	195.401	153.523	1.00 95.94	C
ATOM	2939	CD2	LEU A 491	193.488	194.249	151.473	1.00 95.94	C
ATOM	2940	N	ARG A 492	197.956	192.171	153.999	1.00 94.49	N
ATOM	2941	CA	ARG A 492	198.136	191.166	155.038	1.00 94.49	C
ATOM	2942	C	ARG A 492	199.286	191.489	155.976	1.00 94.49	C
ATOM	2943	O	ARG A 492	199.218	191.151	157.161	1.00 94.49	O
ATOM	2944	CB	ARG A 492	198.379	189.785	154.427	1.00 94.49	C
ATOM	2945	CG	ARG A 492	198.473	188.681	155.464	1.00 94.49	C
ATOM	2946	CD	ARG A 492	198.760	187.346	154.817	1.00 94.49	C
ATOM	2947	NE	ARG A 492	200.096	187.313	154.230	1.00 94.49	N
ATOM	2948	CZ	ARG A 492	200.543	186.332	153.455	1.00 94.49	C
ATOM	2949	NH1	ARG A 492	201.772	186.379	152.962	1.00 94.49	N
ATOM	2950	NH2	ARG A 492	199.757	185.304	153.175	1.00 94.49	N
ATOM	2951	N	GLY A 493	200.341	192.131	155.473	1.00 93.42	N
ATOM	2952	CA	GLY A 493	201.403	192.601	156.343	1.00 93.42	C
ATOM	2953	C	GLY A 493	200.970	193.706	157.279	1.00 93.42	C
ATOM	2954	O	GLY A 493	201.634	193.943	158.293	1.00 93.42	O
ATOM	2955	N	TYR A 494	199.874	194.392	156.957	1.00 91.60	N
ATOM	2956	CA	TYR A 494	199.334	195.407	157.850	1.00 91.60	C
ATOM	2957	C	TYR A 494	198.548	194.793	159.000	1.00 91.60	C
ATOM	2958	O	TYR A 494	198.565	195.331	160.112	1.00 91.60	O
ATOM	2959	CB	TYR A 494	198.448	196.373	157.067	1.00 91.60	C
ATOM	2960	CG	TYR A 494	197.857	197.474	157.909	1.00 91.60	C
ATOM	2961	CD1	TYR A 494	198.630	198.550	158.320	1.00 91.60	C
ATOM	2962	CD2	TYR A 494	196.525	197.439	158.294	1.00 91.60	C

ATOM	2963	CE1	TYR A 494	198.093	199.561	159.091	1.00	91.60	C
ATOM	2964	CE2	TYR A 494	195.978	198.444	159.065	1.00	91.60	C
ATOM	2965	CZ	TYR A 494	196.766	199.502	159.461	1.00	91.60	C
ATOM	2966	OH	TYR A 494	196.225	200.507	160.229	1.00	91.60	O
ATOM	2967	N	ILE A 495	197.856	193.679	158.755	1.00	87.12	N
ATOM	2968	CA	ILE A 495	197.118	193.013	159.824	1.00	87.12	C
ATOM	2969	C	ILE A 495	198.079	192.490	160.883	1.00	87.12	C
ATOM	2970	O	ILE A 495	197.872	192.689	162.086	1.00	87.12	O
ATOM	2971	CB	ILE A 495	196.243	191.886	159.252	1.00	87.12	C
ATOM	2972	CG1	ILE A 495	195.189	192.459	158.307	1.00	87.12	C
ATOM	2973	CG2	ILE A 495	195.583	191.109	160.374	1.00	87.12	C
ATOM	2974	CD1	ILE A 495	194.456	191.408	157.510	1.00	87.12	C
ATOM	2975	N	ASN A 496	199.141	191.805	160.452	1.00	88.27	N
ATOM	2976	CA	ASN A 496	200.192	191.413	161.384	1.00	88.27	C
ATOM	2977	C	ASN A 496	200.835	192.631	162.030	1.00	88.27	C
ATOM	2978	O	ASN A 496	201.286	192.562	163.179	1.00	88.27	O
ATOM	2979	CB	ASN A 496	201.248	190.576	160.664	1.00	88.27	C
ATOM	2980	CG	ASN A 496	200.719	189.231	160.220	1.00	88.27	C
ATOM	2981	OD1	ASN A 496	199.974	188.573	160.946	1.00	88.27	O
ATOM	2982	ND2	ASN A 496	201.104	188.811	159.022	1.00	88.27	N
ATOM	2983	N	ARG A 497	200.888	193.750	161.306	1.00	94.34	N
ATOM	2984	CA	ARG A 497	201.397	194.989	161.880	1.00	94.34	C
ATOM	2985	C	ARG A 497	200.563	195.443	163.070	1.00	94.34	C
ATOM	2986	O	ARG A 497	201.087	196.093	163.981	1.00	94.34	O
ATOM	2987	CB	ARG A 497	201.434	196.078	160.809	1.00	94.34	C
ATOM	2988	CG	ARG A 497	201.988	197.400	161.294	1.00	94.34	C
ATOM	2989	CD	ARG A 497	203.499	197.358	161.379	1.00	94.34	C
ATOM	2990	NE	ARG A 497	203.947	196.682	162.591	1.00	94.34	N
ATOM	2991	CZ	ARG A 497	203.937	197.235	163.799	1.00	94.34	C
ATOM	2992	NH1	ARG A 497	204.364	196.549	164.849	1.00	94.34	N
ATOM	2993	NH2	ARG A 497	203.493	198.474	163.957	1.00	94.34	N
ATOM	2994	N	ALA A 498	199.268	195.119	163.079	1.00	88.19	N
ATOM	2995	CA	ALA A 498	198.400	195.555	164.167	1.00	88.19	C
ATOM	2996	C	ALA A 498	198.398	194.562	165.322	1.00	88.19	C
ATOM	2997	O	ALA A 498	198.327	194.966	166.488	1.00	88.19	O
ATOM	2998	CB	ALA A 498	196.979	195.772	163.651	1.00	88.19	C
ATOM	2999	N	LEU A 499	198.479	193.266	165.025	1.00	83.65	N

ATOM	3000	CA	LEU A 499	198.451	192.247	166.067	1.00 83.65	C
ATOM	3001	C	LEU A 499	199.716	192.218	166.912	1.00 83.65	C
ATOM	3002	O	LEU A 499	199.753	191.497	167.914	1.00 83.65	O
ATOM	3003	CB	LEU A 499	198.217	190.868	165.450	1.00 83.65	C
ATOM	3004	CG	LEU A 499	196.850	190.656	164.803	1.00 83.65	C
ATOM	3005	CD1	LEU A 499	196.787	189.297	164.128	1.00 83.65	C
ATOM	3006	CD2	LEU A 499	195.745	190.799	165.836	1.00 83.65	C
ATOM	3007	N	ALA A 500	200.749	192.972	166.539	1.00 89.05	N
ATOM	3008	CA	ALA A 500	201.955	193.044	167.351	1.00 89.05	C
ATOM	3009	C	ALA A 500	201.860	194.123	168.419	1.00 89.05	C
ATOM	3010	O	ALA A 500	202.317	193.917	169.547	1.00 89.05	O
ATOM	3011	CB	ALA A 500	203.177	193.293	166.464	1.00 89.05	C
ATOM	3012	N	GLN A 501	201.261	195.268	168.094	1.00 91.39	N
ATOM	3013	CA	GLN A 501	201.098	196.335	169.072	1.00 91.39	C
ATOM	3014	C	GLN A 501	199.954	196.077	170.042	1.00 91.39	C
ATOM	3015	O	GLN A 501	199.708	196.912	170.919	1.00 91.39	O
ATOM	3016	CB	GLN A 501	200.888	197.675	168.365	1.00 91.39	C
ATOM	3017	CG	GLN A 501	199.608	197.768	167.561	1.00 91.39	C
ATOM	3018	CD	GLN A 501	199.483	199.091	166.834	1.00 91.39	C
ATOM	3019	OE1	GLN A 501	200.333	199.969	166.974	1.00 91.39	O
ATOM	3020	NE2	GLN A 501	198.422	199.240	166.052	1.00 91.39	N
ATOM	3021	N	ILE A 502	199.251	194.955	169.906	1.00 87.33	N
ATOM	3022	CA	ILE A 502	198.281	194.555	170.917	1.00 87.33	C
ATOM	3023	C	ILE A 502	198.975	193.817	172.053	1.00 87.33	C
ATOM	3024	O	ILE A 502	198.841	194.182	173.226	1.00 87.33	O
ATOM	3025	CB	ILE A 502	197.168	193.701	170.284	1.00 87.33	C
ATOM	3026	CG1	ILE A 502	196.448	194.490	169.192	1.00 87.33	C
ATOM	3027	CG2	ILE A 502	196.181	193.245	171.343	1.00 87.33	C
ATOM	3028	CD1	ILE A 502	195.763	195.735	169.697	1.00 87.33	C
ATOM	3029	N	ALA A 503	199.732	192.769	171.721	1.00 89.44	N
ATOM	3030	CA	ALA A 503	200.450	192.023	172.748	1.00 89.44	C
ATOM	3031	C	ALA A 503	201.552	192.857	173.388	1.00 89.44	C
ATOM	3032	O	ALA A 503	201.963	192.576	174.518	1.00 89.44	O
ATOM	3033	CB	ALA A 503	201.028	190.738	172.157	1.00 89.44	C
ATOM	3034	N	GLU A 504	202.054	193.874	172.683	1.00 97.02	N
ATOM	3035	CA	GLU A 504	203.018	194.780	173.300	1.00 97.02	C
ATOM	3036	C	GLU A 504	202.383	195.540	174.455	1.00 97.02	C

ATOM	3037	O	GLU A 504	203.032	195.791	175.477	1.00 97.02	O
ATOM	3038	CB	GLU A 504	203.575	195.749	172.260	1.00 97.02	C
ATOM	3039	CG	GLU A 504	204.453	195.086	171.219	1.00 97.02	C
ATOM	3040	CD	GLU A 504	204.953	196.058	170.172	1.00 97.02	C
ATOM	3041	OE1	GLU A 504	204.534	197.234	170.201	1.00 97.02	O
ATOM	3042	OE2	GLU A 504	205.757	195.642	169.313	1.00 97.02	O
ATOM	3043	N	ALA A 505	201.113	195.910	174.311	1.00 94.81	N
ATOM	3044	CA	ALA A 505	200.335	196.470	175.405	1.00 94.81	C
ATOM	3045	C	ALA A 505	199.704	195.394	176.273	1.00 94.81	C
ATOM	3046	O	ALA A 505	198.743	195.676	176.996	1.00 94.81	O
ATOM	3047	CB	ALA A 505	199.250	197.402	174.859	1.00 94.81	C
ATOM	3048	N	TRP A 506	200.224	194.171	176.207	1.00101.20	N
ATOM	3049	CA	TRP A 506	199.716	193.055	176.990	1.00101.20	C
ATOM	3050	C	TRP A 506	200.597	192.712	178.178	1.00101.20	C
ATOM	3051	O	TRP A 506	200.080	192.298	179.220	1.00101.20	O
ATOM	3052	CB	TRP A 506	199.570	191.815	176.106	1.00101.20	C
ATOM	3053	CG	TRP A 506	198.961	190.681	176.825	1.00101.20	C
ATOM	3054	CD1	TRP A 506	199.591	189.570	177.296	1.00101.20	C
ATOM	3055	CD2	TRP A 506	197.587	190.551	177.186	1.00101.20	C
ATOM	3056	NE1	TRP A 506	198.688	188.745	177.920	1.00101.20	N
ATOM	3057	CE2	TRP A 506	197.449	189.328	177.866	1.00101.20	C
ATOM	3058	CE3	TRP A 506	196.457	191.350	176.995	1.00101.20	C
ATOM	3059	CZ2	TRP A 506	196.226	188.884	178.356	1.00101.20	C
ATOM	3060	CZ3	TRP A 506	195.246	190.909	177.481	1.00101.20	C
ATOM	3061	CH2	TRP A 506	195.139	189.689	178.152	1.00101.20	C
ATOM	3062	N	CYS A 507	201.915	192.870	178.042	1.00100.93	N
ATOM	3063	CA	CYS A 507	202.819	192.609	179.154	1.00100.93	C
ATOM	3064	C	CYS A 507	202.557	193.532	180.336	1.00100.93	C
ATOM	3065	O	CYS A 507	202.871	193.168	181.474	1.00100.93	O
ATOM	3066	CB	CYS A 507	204.268	192.749	178.687	1.00100.93	C
ATOM	3067	SG	CYS A 507	205.516	192.346	179.927	1.00100.93	S
ATOM	3068	N	VAL A 508	201.991	194.715	180.095	1.00 92.73	N
ATOM	3069	CA	VAL A 508	201.697	195.635	181.188	1.00 92.73	C
ATOM	3070	C	VAL A 508	200.522	195.134	182.016	1.00 92.73	C
ATOM	3071	O	VAL A 508	200.473	195.341	183.232	1.00 92.73	O
ATOM	3072	CB	VAL A 508	201.437	197.046	180.636	1.00 92.73	C
ATOM	3073	CG1	VAL A 508	201.016	197.977	181.758	1.00 92.73	C

ATOM	3074	CG2	VAL A 508	202.677	197.573	179.933	1.00 92.73	C
ATOM	3075	N	ASP A 509	199.557	194.481	181.376	1.00 94.61	N
ATOM	3076	CA	ASP A 509	198.420	193.911	182.084	1.00 94.61	C
ATOM	3077	C	ASP A 509	198.725	192.546	182.677	1.00 94.61	C
ATOM	3078	O	ASP A 509	197.864	191.971	183.350	1.00 94.61	O
ATOM	3079	CB	ASP A 509	197.223	193.820	181.143	1.00 94.61	C
ATOM	3080	CG	ASP A 509	196.686	195.179	180.767	1.00 94.61	C
ATOM	3081	OD1	ASP A 509	196.726	196.093	181.618	1.00 94.61	O
ATOM	3082	OD2	ASP A 509	196.261	195.345	179.609	1.00 94.61	O
ATOM	3083	N	GLN A 510	199.923	192.019	182.438	1.00 87.33	N
ATOM	3084	CA	GLN A 510	200.388	190.809	183.095	1.00 87.33	C
ATOM	3085	C	GLN A 510	201.181	191.109	184.357	1.00 87.33	C
ATOM	3086	O	GLN A 510	201.285	190.239	185.228	1.00 87.33	O
ATOM	3087	CB	GLN A 510	201.236	189.981	182.115	1.00 87.33	C
ATOM	3088	CG	GLN A 510	201.593	188.563	182.553	1.00 87.33	C
ATOM	3089	CD	GLN A 510	202.817	188.503	183.445	1.00 87.33	C
ATOM	3090	OE1	GLN A 510	202.777	187.931	184.533	1.00 87.33	O
ATOM	3091	NE2	GLN A 510	203.910	189.104	182.992	1.00 87.33	N
ATOM	3092	N	ARG A 511	201.718	192.320	184.489	1.00 78.54	N
ATOM	3093	CA	ARG A 511	202.413	192.709	185.706	1.00 78.54	C
ATOM	3094	C	ARG A 511	201.480	193.286	186.758	1.00 78.54	C
ATOM	3095	O	ARG A 511	201.859	193.353	187.932	1.00 78.54	O
ATOM	3096	CB	ARG A 511	203.511	193.724	185.384	1.00 78.54	C
ATOM	3097	CG	ARG A 511	202.991	195.029	184.830	1.00 78.54	C
ATOM	3098	CD	ARG A 511	204.130	195.961	184.472	1.00 78.54	C
ATOM	3099	NE	ARG A 511	204.859	196.415	185.650	1.00 78.54	N
ATOM	3100	CZ	ARG A 511	206.049	197.002	185.605	1.00 78.54	C
ATOM	3101	NH1	ARG A 511	206.643	197.206	184.438	1.00 78.54	N
ATOM	3102	NH2	ARG A 511	206.645	197.387	186.725	1.00 78.54	N
ATOM	3103	N	ARG A 512	200.276	193.709	186.370	1.00 67.15	N
ATOM	3104	CA	ARG A 512	199.279	194.092	187.363	1.00 67.15	C
ATOM	3105	C	ARG A 512	198.844	192.885	188.181	1.00 67.15	C
ATOM	3106	O	ARG A 512	198.847	192.924	189.417	1.00 67.15	O
ATOM	3107	CB	ARG A 512	198.072	194.735	186.681	1.00 67.15	C
ATOM	3108	CG	ARG A 512	198.374	196.008	185.915	1.00 67.15	C
ATOM	3109	CD	ARG A 512	198.734	197.151	186.843	1.00 67.15	C
ATOM	3110	NE	ARG A 512	198.874	198.407	186.113	1.00 67.15	N

ATOM	3111	CZ	ARG A 512	199.260	199.554	186.663	1.00	67.15	C
ATOM	3112	NH1	ARG A 512	199.553	199.606	187.954	1.00	67.15	N
ATOM	3113	NH2	ARG A 512	199.355	200.648	185.921	1.00	67.15	N
ATOM	3114	N	THR A 513	198.462	191.800	187.503	1.00	61.00	N
ATOM	3115	CA	THR A 513	198.023	190.598	188.203	1.00	61.00	C
ATOM	3116	C	THR A 513	199.124	190.020	189.083	1.00	61.00	C
ATOM	3117	O	THR A 513	198.833	189.432	190.129	1.00	61.00	O
ATOM	3118	CB	THR A 513	197.540	189.554	187.198	1.00	61.00	C
ATOM	3119	OG1	THR A 513	196.425	190.077	186.466	1.00	61.00	O
ATOM	3120	CG2	THR A 513	197.116	188.287	187.913	1.00	61.00	C
ATOM	3121	N	LEU A 514	200.388	190.181	188.691	1.00	64.68	N
ATOM	3122	CA	LEU A 514	201.503	189.760	189.530	1.00	64.68	C
ATOM	3123	C	LEU A 514	201.858	190.784	190.596	1.00	64.68	C
ATOM	3124	O	LEU A 514	202.920	190.680	191.218	1.00	64.68	O
ATOM	3125	CB	LEU A 514	202.732	189.448	188.673	1.00	64.68	C
ATOM	3126	CG	LEU A 514	202.840	188.017	188.144	1.00	64.68	C
ATOM	3127	CD1	LEU A 514	202.999	187.040	189.296	1.00	64.68	C
ATOM	3128	CD2	LEU A 514	201.632	187.652	187.302	1.00	64.68	C
ATOM	3129	N	GLU A 515	200.997	191.773	190.811	1.00	58.71	N
ATOM	3130	CA	GLU A 515	201.099	192.663	191.956	1.00	58.71	C
ATOM	3131	C	GLU A 515	199.815	192.737	192.759	1.00	58.71	C
ATOM	3132	O	GLU A 515	199.881	192.994	193.967	1.00	58.71	O
ATOM	3133	CB	GLU A 515	201.498	194.078	191.506	1.00	58.71	C
ATOM	3134	CG	GLU A 515	201.921	195.014	192.631	1.00	58.71	C
ATOM	3135	CD	GLU A 515	200.757	195.749	193.262	1.00	58.71	C
ATOM	3136	OE1	GLU A 515	199.754	195.987	192.558	1.00	58.71	O
ATOM	3137	OE2	GLU A 515	200.839	196.077	194.463	1.00	58.71	O
ATOM	3138	N	VAL A 516	198.655	192.517	192.141	1.00	53.53	N
ATOM	3139	CA	VAL A 516	197.423	192.379	192.902	1.00	53.53	C
ATOM	3140	C	VAL A 516	197.400	191.078	193.687	1.00	53.53	C
ATOM	3141	O	VAL A 516	196.785	191.020	194.757	1.00	53.53	O
ATOM	3142	CB	VAL A 516	196.203	192.464	191.974	1.00	53.53	C
ATOM	3143	CG1	VAL A 516	194.929	192.214	192.753	1.00	53.53	C
ATOM	3144	CG2	VAL A 516	196.156	193.818	191.291	1.00	53.53	C
ATOM	3145	N	PHE A 517	198.065	190.031	193.196	1.00	50.80	N
ATOM	3146	CA	PHE A 517	198.200	188.812	193.978	1.00	50.80	C
ATOM	3147	C	PHE A 517	199.224	188.954	195.089	1.00	50.80	C

ATOM	3148	O	PHE A 517	199.180	188.189	196.056	1.00 50.80	O
ATOM	3149	CB	PHE A 517	198.593	187.634	193.087	1.00 50.80	C
ATOM	3150	CG	PHE A 517	197.500	187.170	192.177	1.00 50.80	C
ATOM	3151	CD1	PHE A 517	196.193	187.570	192.381	1.00 50.80	C
ATOM	3152	CD2	PHE A 517	197.780	186.326	191.119	1.00 50.80	C
ATOM	3153	CE1	PHE A 517	195.186	187.141	191.542	1.00 50.80	C
ATOM	3154	CE2	PHE A 517	196.778	185.894	190.279	1.00 50.80	C
ATOM	3155	CZ	PHE A 517	195.479	186.302	190.490	1.00 50.80	C
ATOM	3156	N	LYS A 518	200.141	189.912	194.980	1.00 55.54	N
ATOM	3157	CA	LYS A 518	201.124	190.091	196.036	1.00 55.54	C
ATOM	3158	C	LYS A 518	200.498	190.618	197.318	1.00 55.54	C
ATOM	3159	O	LYS A 518	201.107	190.498	198.385	1.00 55.54	O
ATOM	3160	CB	LYS A 518	202.227	191.031	195.565	1.00 55.54	C
ATOM	3161	CG	LYS A 518	203.406	191.108	196.506	1.00 55.54	C
ATOM	3162	CD	LYS A 518	204.441	192.067	195.967	1.00 55.54	C
ATOM	3163	CE	LYS A 518	205.483	191.350	195.132	1.00 55.54	C
ATOM	3164	NZ	LYS A 518	204.970	190.996	193.778	1.00 55.54	N
ATOM	3165	N	GLU A 519	199.302	191.197	197.238	1.00 50.79	N
ATOM	3166	CA	GLU A 519	198.557	191.645	198.407	1.00 50.79	C
ATOM	3167	C	GLU A 519	197.442	190.685	198.795	1.00 50.79	C
ATOM	3168	O	GLU A 519	197.301	190.355	199.975	1.00 50.79	O
ATOM	3169	CB	GLU A 519	197.971	193.035	198.158	1.00 50.79	C
ATOM	3170	CG	GLU A 519	199.021	194.111	197.965	1.00 50.79	C
ATOM	3171	CD	GLU A 519	199.841	194.347	199.212	1.00 50.79	C
ATOM	3172	OE1	GLU A 519	199.300	194.153	200.320	1.00 50.79	O
ATOM	3173	OE2	GLU A 519	201.022	194.734	199.090	1.00 50.79	O
ATOM	3174	N	LEU A 520	196.645	190.226	197.826	1.00 44.63	N
ATOM	3175	CA	LEU A 520	195.621	189.226	198.113	1.00 44.63	C
ATOM	3176	C	LEU A 520	196.208	187.929	198.651	1.00 44.63	C
ATOM	3177	O	LEU A 520	195.506	187.190	199.349	1.00 44.63	O
ATOM	3178	CB	LEU A 520	194.789	188.943	196.864	1.00 44.63	C
ATOM	3179	CG	LEU A 520	193.640	189.917	196.612	1.00 44.63	C
ATOM	3180	CD1	LEU A 520	194.160	191.279	196.209	1.00 44.63	C
ATOM	3181	CD2	LEU A 520	192.712	189.362	195.549	1.00 44.63	C
ATOM	3182	N	SER A 521	197.470	187.631	198.352	1.00 44.05	N
ATOM	3183	CA	SER A 521	198.143	186.489	198.956	1.00 44.05	C
ATOM	3184	C	SER A 521	198.456	186.713	200.424	1.00 44.05	C

ATOM	3185	O	SER A 521	198.862	185.772	201.113	1.00 44.05	O
ATOM	3186	CB	SER A 521	199.435	186.172	198.203	1.00 44.05	C
ATOM	3187	OG	SER A 521	200.385	187.207	198.376	1.00 44.05	O
ATOM	3188	N	LYS A 522	198.273	187.936	200.914	1.00 40.01	N
ATOM	3189	CA	LYS A 522	198.476	188.255	202.313	1.00 40.01	C
ATOM	3190	C	LYS A 522	197.204	188.138	203.135	1.00 40.01	C
ATOM	3191	O	LYS A 522	197.290	188.018	204.361	1.00 40.01	O
ATOM	3192	CB	LYS A 522	199.047	189.670	202.448	1.00 40.01	C
ATOM	3193	CG	LYS A 522	199.478	190.039	203.841	1.00 40.01	C
ATOM	3194	CD	LYS A 522	200.105	191.412	203.832	1.00 40.01	C
ATOM	3195	CE	LYS A 522	201.607	191.315	203.635	1.00 40.01	C
ATOM	3196	NZ	LYS A 522	201.960	191.040	202.214	1.00 40.01	N
ATOM	3197	N	ILE A 523	196.036	188.165	202.501	1.00 39.85	N
ATOM	3198	CA	ILE A 523	194.799	187.856	203.204	1.00 39.85	C
ATOM	3199	C	ILE A 523	194.682	186.365	203.470	1.00 39.85	C
ATOM	3200	O	ILE A 523	194.716	185.934	204.623	1.00 39.85	O
ATOM	3201	CB	ILE A 523	193.586	188.374	202.408	1.00 39.85	C
ATOM	3202	CG1	ILE A 523	193.589	189.898	202.357	1.00 39.85	C
ATOM	3203	CG2	ILE A 523	192.298	187.864	203.017	1.00 39.85	C
ATOM	3204	CD1	ILE A 523	192.553	190.468	201.426	1.00 39.85	C
ATOM	3205	N	ASN A 524	194.588	185.558	202.419	1.00 38.60	N
ATOM	3206	CA	ASN A 524	194.503	184.113	202.567	1.00 38.60	C
ATOM	3207	C	ASN A 524	195.429	183.445	201.560	1.00 38.60	C
ATOM	3208	O	ASN A 524	195.078	183.318	200.380	1.00 38.60	O
ATOM	3209	CB	ASN A 524	193.066	183.630	202.375	1.00 38.60	C
ATOM	3210	CG	ASN A 524	192.882	182.184	202.779	1.00 38.60	C
ATOM	3211	OD1	ASN A 524	193.826	181.525	203.210	1.00 38.60	O
ATOM	3212	ND2	ASN A 524	191.663	181.681	202.639	1.00 38.60	N
ATOM	3213	N	PRO A 525	196.617	183.011	201.984	1.00 35.26	N
ATOM	3214	CA	PRO A 525	197.563	182.425	201.025	1.00 35.26	C
ATOM	3215	C	PRO A 525	197.091	181.110	200.439	1.00 35.26	C
ATOM	3216	O	PRO A 525	197.404	180.817	199.279	1.00 35.26	O
ATOM	3217	CB	PRO A 525	198.835	182.237	201.861	1.00 35.26	C
ATOM	3218	CG	PRO A 525	198.682	183.180	203.005	1.00 35.26	C
ATOM	3219	CD	PRO A 525	197.222	183.196	203.309	1.00 35.26	C
ATOM	3220	N	SER A 526	196.353	180.306	201.204	1.00 36.57	N
ATOM	3221	CA	SER A 526	195.939	178.997	200.712	1.00 36.57	C

ATOM	3222	C	SER A 526	194.983	179.121	199.534	1.00 36.57	C
ATOM	3223	O	SER A 526	195.111	178.391	198.546	1.00 36.57	O
ATOM	3224	CB	SER A 526	195.295	178.195	201.840	1.00 36.57	C
ATOM	3225	OG	SER A 526	196.227	177.937	202.874	1.00 36.57	O
ATOM	3226	N	ALA A 527	194.021	180.039	199.616	1.00 37.58	N
ATOM	3227	CA	ALA A 527	193.037	180.169	198.548	1.00 37.58	C
ATOM	3228	C	ALA A 527	193.665	180.746	197.286	1.00 37.58	C
ATOM	3229	O	ALA A 527	193.439	180.239	196.182	1.00 37.58	O
ATOM	3230	CB	ALA A 527	191.869	181.037	199.013	1.00 37.58	C
ATOM	3231	N	ILE A 528	194.453	181.812	197.430	1.00 40.36	N
ATOM	3232	CA	ILE A 528	195.061	182.450	196.266	1.00 40.36	C
ATOM	3233	C	ILE A 528	196.057	181.510	195.601	1.00 40.36	C
ATOM	3234	O	ILE A 528	195.964	181.222	194.402	1.00 40.36	O
ATOM	3235	CB	ILE A 528	195.726	183.777	196.667	1.00 40.36	C
ATOM	3236	CG1	ILE A 528	194.686	184.729	197.253	1.00 40.36	C
ATOM	3237	CG2	ILE A 528	196.412	184.403	195.472	1.00 40.36	C
ATOM	3238	CD1	ILE A 528	193.585	185.084	196.286	1.00 40.36	C
ATOM	3239	N	LEU A 529	197.030	181.022	196.370	1.00 39.94	N
ATOM	3240	CA	LEU A 529	198.079	180.175	195.819	1.00 39.94	C
ATOM	3241	C	LEU A 529	197.557	178.847	195.290	1.00 39.94	C
ATOM	3242	O	LEU A 529	198.239	178.219	194.475	1.00 39.94	O
ATOM	3243	CB	LEU A 529	199.149	179.925	196.879	1.00 39.94	C
ATOM	3244	CG	LEU A 529	200.369	179.128	196.429	1.00 39.94	C
ATOM	3245	CD1	LEU A 529	201.101	179.880	195.339	1.00 39.94	C
ATOM	3246	CD2	LEU A 529	201.286	178.865	197.607	1.00 39.94	C
ATOM	3247	N	SER A 530	196.381	178.402	195.725	1.00 41.34	N
ATOM	3248	CA	SER A 530	195.778	177.182	195.210	1.00 41.34	C
ATOM	3249	C	SER A 530	194.778	177.448	194.097	1.00 41.34	C
ATOM	3250	O	SER A 530	194.185	176.499	193.577	1.00 41.34	O
ATOM	3251	CB	SER A 530	195.093	176.408	196.339	1.00 41.34	C
ATOM	3252	OG	SER A 530	194.457	175.245	195.843	1.00 41.34	O
ATOM	3253	N	ALA A 531	194.572	178.708	193.725	1.00 45.28	N
ATOM	3254	CA	ALA A 531	193.679	179.041	192.627	1.00 45.28	C
ATOM	3255	C	ALA A 531	194.409	179.219	191.306	1.00 45.28	C
ATOM	3256	O	ALA A 531	193.786	179.086	190.247	1.00 45.28	O
ATOM	3257	CB	ALA A 531	192.895	180.316	192.948	1.00 45.28	C
ATOM	3258	N	ILE A 532	195.710	179.516	191.341	1.00 51.65	N

ATOM	3259	CA	ILE	A	532	196.504	179.660	190.129	1.00 51.65	C
ATOM	3260	C	ILE	A	532	197.232	178.379	189.760	1.00 51.65	C
ATOM	3261	O	ILE	A	532	197.947	178.350	188.750	1.00 51.65	O
ATOM	3262	CB	ILE	A	532	197.507	180.821	190.262	1.00 51.65	C
ATOM	3263	CG1	ILE	A	532	198.511	180.531	191.374	1.00 51.65	C
ATOM	3264	CG2	ILE	A	532	196.775	182.116	190.549	1.00 51.65	C
ATOM	3265	CD1	ILE	A	532	199.651	181.515	191.428	1.00 51.65	C
ATOM	3266	N	TYR	A	533	197.075	177.317	190.552	1.00 55.10	N
ATOM	3267	CA	TYR	A	533	197.655	176.019	190.245	1.00 55.10	C
ATOM	3268	C	TYR	A	533	196.617	174.935	190.008	1.00 55.10	C
ATOM	3269	O	TYR	A	533	196.959	173.891	189.446	1.00 55.10	O
ATOM	3270	CB	TYR	A	533	198.588	175.567	191.378	1.00 55.10	C
ATOM	3271	CG	TYR	A	533	199.860	176.370	191.494	1.00 55.10	C
ATOM	3272	CD1	TYR	A	533	200.290	177.180	190.455	1.00 55.10	C
ATOM	3273	CD2	TYR	A	533	200.630	176.322	192.645	1.00 55.10	C
ATOM	3274	CE1	TYR	A	533	201.453	177.916	190.558	1.00 55.10	C
ATOM	3275	CE2	TYR	A	533	201.791	177.059	192.759	1.00 55.10	C
ATOM	3276	CZ	TYR	A	533	202.199	177.850	191.712	1.00 55.10	C
ATOM	3277	OH	TYR	A	533	203.357	178.583	191.820	1.00 55.10	O
ATOM	3278	N	ASN	A	534	195.368	175.154	190.418	1.00 53.71	N
ATOM	3279	CA	ASN	A	534	194.293	174.178	190.248	1.00 53.71	C
ATOM	3280	C	ASN	A	534	194.607	172.881	190.995	1.00 53.71	C
ATOM	3281	O	ASN	A	534	194.700	171.798	190.416	1.00 53.71	O
ATOM	3282	CB	ASN	A	534	194.026	173.914	188.764	1.00 53.71	C
ATOM	3283	CG	ASN	A	534	193.488	175.134	188.044	1.00 53.71	C
ATOM	3284	OD1	ASN	A	534	194.139	175.686	187.158	1.00 53.71	O
ATOM	3285	ND2	ASN	A	534	192.290	175.561	188.424	1.00 53.71	N
ATOM	3286	N	LYS	A	535	194.770	173.015	192.313	1.00 50.47	N
ATOM	3287	CA	LYS	A	535	195.009	171.872	193.177	1.00 50.47	C
ATOM	3288	C	LYS	A	535	194.873	172.328	194.617	1.00 50.47	C
ATOM	3289	O	LYS	A	535	195.254	173.465	194.925	1.00 50.47	O
ATOM	3290	CB	LYS	A	535	196.398	171.272	192.940	1.00 50.47	C
ATOM	3291	CG	LYS	A	535	196.663	169.997	193.721	1.00 50.47	C
ATOM	3292	CD	LYS	A	535	198.074	169.483	193.486	1.00 50.47	C
ATOM	3293	CE	LYS	A	535	198.105	168.417	192.406	1.00 50.47	C
ATOM	3294	NZ	LYS	A	535	197.995	169.009	191.046	1.00 50.47	N
ATOM	3295	N	PRO	A	536	194.347	171.498	195.513	1.00 46.60	N

ATOM	3296	CA	PRO A 536	194.262	171.900	196.923	1.00 46.60 C
ATOM	3297	C	PRO A 536	195.633	171.963	197.574	1.00 46.60 C
ATOM	3298	O	PRO A 536	196.303	170.937	197.726	1.00 46.60 O
ATOM	3299	CB	PRO A 536	193.387	170.808	197.546	1.00 46.60 C
ATOM	3300	CG	PRO A 536	193.593	169.624	196.670	1.00 46.60 C
ATOM	3301	CD	PRO A 536	193.772	170.163	195.281	1.00 46.60 C
ATOM	3302	N	ILE A 537	196.058	173.163	197.963	1.00 42.41 N
ATOM	3303	CA	ILE A 537	197.388	173.394	198.511	1.00 42.41 C
ATOM	3304	C	ILE A 537	197.257	174.150	199.824	1.00 42.41 C
ATOM	3305	O	ILE A 537	196.407	175.035	199.960	1.00 42.41 O
ATOM	3306	CB	ILE A 537	198.278	174.174	197.523	1.00 42.41 C
ATOM	3307	CG1	ILE A 537	198.544	173.342	196.271	1.00 42.41 C
ATOM	3308	CG2	ILE A 537	199.582	174.574	198.175	1.00 42.41 C
ATOM	3309	CD1	ILE A 537	199.212	174.117	195.164	1.00 42.41 C
ATOM	3310	N	ALA A 538	198.103	173.801	200.788	1.00 40.05 N
ATOM	3311	CA	ALA A 538	198.155	174.466	202.083	1.00 40.05 C
ATOM	3312	C	ALA A 538	199.477	175.210	202.195	1.00 40.05 C
ATOM	3313	O	ALA A 538	200.541	174.584	202.232	1.00 40.05 O
ATOM	3314	CB	ALA A 538	198.004	173.462	203.224	1.00 40.05 C
ATOM	3315	N	ALA A 539	199.408	176.534	202.249	1.00 38.30 N
ATOM	3316	CA	ALA A 539	200.586	177.382	202.322	1.00 38.30 C
ATOM	3317	C	ALA A 539	200.569	178.182	203.616	1.00 38.30 C
ATOM	3318	O	ALA A 539	199.588	178.186	204.362	1.00 38.30 O
ATOM	3319	CB	ALA A 539	200.663	178.323	201.116	1.00 38.30 C
ATOM	3320	N	ARG A 540	201.678	178.868	203.876	1.00 37.64 N
ATOM	3321	CA	ARG A 540	201.829	179.659	205.087	1.00 37.64 C
ATOM	3322	C	ARG A 540	203.071	180.520	204.952	1.00 37.64 C
ATOM	3323	O	ARG A 540	204.090	180.059	204.436	1.00 37.64 O
ATOM	3324	CB	ARG A 540	201.941	178.764	206.326	1.00 37.64 C
ATOM	3325	CG	ARG A 540	202.057	179.528	207.626	1.00 37.64 C
ATOM	3326	CD	ARG A 540	202.169	178.587	208.811	1.00 37.64 C
ATOM	3327	NE	ARG A 540	203.395	177.798	208.778	1.00 37.64 N
ATOM	3328	CZ	ARG A 540	204.574	178.233	209.210	1.00 37.64 C
ATOM	3329	NH1	ARG A 540	205.638	177.447	209.146	1.00 37.64 N
ATOM	3330	NH2	ARG A 540	204.691	179.457	209.703	1.00 37.64 N
ATOM	3331	N	PHE A 541	202.982	181.765	205.413	1.00 37.98 N
ATOM	3332	CA	PHE A 541	204.144	182.638	205.367	1.00 37.98 C

ATOM	3333	C	PHE	A	541	205.246	182.098	206.264	1.00	37.98	C
ATOM	3334	O	PHE	A	541	204.985	181.494	207.307	1.00	37.98	O
ATOM	3335	CB	PHE	A	541	203.776	184.058	205.786	1.00	37.98	C
ATOM	3336	CG	PHE	A	541	202.948	184.784	204.779	1.00	37.98	C
ATOM	3337	CD1	PHE	A	541	203.534	185.329	203.652	1.00	37.98	C
ATOM	3338	CD2	PHE	A	541	201.586	184.929	204.957	1.00	37.98	C
ATOM	3339	CE1	PHE	A	541	202.778	185.999	202.719	1.00	37.98	C
ATOM	3340	CE2	PHE	A	541	200.824	185.600	204.028	1.00	37.98	C
ATOM	3341	CZ	PHE	A	541	201.420	186.136	202.906	1.00	37.98	C
ATOM	3342	N	MET	A	542	206.484	182.320	205.846	1.00	36.94	N
ATOM	3343	CA	MET	A	542	207.667	181.822	206.532	1.00	36.94	C
ATOM	3344	C	MET	A	542	208.683	182.946	206.667	1.00	36.94	C
ATOM	3345	O	MET	A	542	209.868	182.807	206.360	1.00	36.94	O
ATOM	3346	CB	MET	A	542	208.214	180.606	205.790	1.00	36.94	C
ATOM	3347	CG	MET	A	542	209.344	179.887	206.489	1.00	36.94	C
ATOM	3348	SD	MET	A	542	209.769	178.333	205.679	1.00	36.94	S
ATOM	3349	CE	MET	A	542	210.559	178.916	204.184	1.00	36.94	C
ATOM	3350	N	GLY	A	543	208.205	184.091	207.144	1.00	35.86	N
ATOM	3351	CA	GLY	A	543	208.970	185.320	207.184	1.00	35.86	C
ATOM	3352	C	GLY	A	543	208.726	186.202	205.977	1.00	35.86	C
ATOM	3353	O	GLY	A	543	208.048	187.226	206.089	1.00	35.86	O
ATOM	3354	N	ASP	A	544	209.256	185.816	204.817	1.00	36.95	N
ATOM	3355	CA	ASP	A	544	208.974	186.532	203.579	1.00	36.95	C
ATOM	3356	C	ASP	A	544	208.788	185.596	202.394	1.00	36.95	C
ATOM	3357	O	ASP	A	544	208.709	186.074	201.256	1.00	36.95	O
ATOM	3358	CB	ASP	A	544	210.088	187.532	203.253	1.00	36.95	C
ATOM	3359	CG	ASP	A	544	210.054	188.758	204.137	1.00	36.95	C
ATOM	3360	OD1	ASP	A	544	208.951	189.176	204.541	1.00	36.95	O
ATOM	3361	OD2	ASP	A	544	211.137	189.306	204.429	1.00	36.95	O
ATOM	3362	N	VAL	A	545	208.711	184.287	202.617	1.00	36.04	N
ATOM	3363	CA	VAL	A	545	208.699	183.307	201.539	1.00	36.04	C
ATOM	3364	C	VAL	A	545	207.662	182.247	201.873	1.00	36.04	C
ATOM	3365	O	VAL	A	545	207.736	181.618	202.933	1.00	36.04	O
ATOM	3366	CB	VAL	A	545	210.077	182.658	201.337	1.00	36.04	C
ATOM	3367	CG1	VAL	A	545	210.000	181.595	200.266	1.00	36.04	C
ATOM	3368	CG2	VAL	A	545	211.109	183.708	200.979	1.00	36.04	C
ATOM	3369	N	LEU	A	546	206.695	182.054	200.980	1.00	37.57	N

ATOM	3370	CA	LEU A 546	205.654	181.063	201.210	1.00 37.57	C
ATOM	3371	C	LEU A 546	206.247	179.662	201.286	1.00 37.57	C
ATOM	3372	O	LEU A 546	207.242	179.346	200.630	1.00 37.57	O
ATOM	3373	CB	LEU A 546	204.612	181.123	200.097	1.00 37.57	C
ATOM	3374	CG	LEU A 546	203.797	182.409	199.997	1.00 37.57	C
ATOM	3375	CD1	LEU A 546	202.912	182.369	198.769	1.00 37.57	C
ATOM	3376	CD2	LEU A 546	202.968	182.602	201.247	1.00 37.57	C
ATOM	3377	N	GLY A 547	205.620	178.816	202.097	1.00 37.20	N
ATOM	3378	CA	GLY A 547	206.026	177.430	202.205	1.00 37.20	C
ATOM	3379	C	GLY A 547	204.953	176.481	201.717	1.00 37.20	C
ATOM	3380	O	GLY A 547	203.904	176.343	202.351	1.00 37.20	O
ATOM	3381	N	LEU A 548	205.202	175.821	200.592	1.00 39.81	N
ATOM	3382	CA	LEU A 548	204.202	174.948	200.002	1.00 39.81	C
ATOM	3383	C	LEU A 548	204.124	173.622	200.751	1.00 39.81	C
ATOM	3384	O	LEU A 548	205.095	173.150	201.345	1.00 39.81	O
ATOM	3385	CB	LEU A 548	204.518	174.685	198.530	1.00 39.81	C
ATOM	3386	CG	LEU A 548	204.059	175.716	197.503	1.00 39.81	C
ATOM	3387	CD1	LEU A 548	202.551	175.792	197.475	1.00 39.81	C
ATOM	3388	CD2	LEU A 548	204.655	177.072	197.803	1.00 39.81	C
ATOM	3389	N	ALA A 549	202.938	173.024	200.716	1.00 40.99	N
ATOM	3390	CA	ALA A 549	202.714	171.677	201.216	1.00 40.99	C
ATOM	3391	C	ALA A 549	201.277	171.303	200.895	1.00 40.99	C
ATOM	3392	O	ALA A 549	200.398	172.166	200.832	1.00 40.99	O
ATOM	3393	CB	ALA A 549	202.975	171.567	202.719	1.00 40.99	C
ATOM	3394	N	SER A 550	201.047	170.010	200.700	1.00 44.44	N
ATOM	3395	CA	SER A 550	199.698	169.521	200.451	1.00 44.44	C
ATOM	3396	C	SER A 550	199.007	169.298	201.794	1.00 44.44	C
ATOM	3397	O	SER A 550	199.509	169.695	202.848	1.00 44.44	O
ATOM	3398	CB	SER A 550	199.733	168.271	199.579	1.00 44.44	C
ATOM	3399	OG	SER A 550	200.356	167.196	200.249	1.00 44.44	O
ATOM	3400	N	CYS A 551	197.845	168.653	201.776	1.00 40.61	N
ATOM	3401	CA	CYS A 551	196.955	168.631	202.928	1.00 40.61	C
ATOM	3402	C	CYS A 551	196.834	167.227	203.499	1.00 40.61	C
ATOM	3403	O	CYS A 551	196.867	166.241	202.756	1.00 40.61	O
ATOM	3404	CB	CYS A 551	195.580	169.165	202.541	1.00 40.61	C
ATOM	3405	SG	CYS A 551	195.622	170.893	202.044	1.00 40.61	S
ATOM	3406	N	VAL A 552	196.696	167.146	204.824	1.00 35.13	N

ATOM	3407	CA	VAL A 552	196.440	165.871	205.471	1.00 35.13	C
ATOM	3408	C	VAL A 552	195.064	165.366	205.037	1.00 35.13	C
ATOM	3409	O	VAL A 552	194.211	166.127	204.568	1.00 35.13	O
ATOM	3410	CB	VAL A 552	196.517	166.025	206.999	1.00 35.13	C
ATOM	3411	CG1	VAL A 552	196.448	164.676	207.703	1.00 35.13	C
ATOM	3412	CG2	VAL A 552	197.755	166.804	207.406	1.00 35.13	C
ATOM	3413	N	THR A 553	194.848	164.063	205.199	1.00 34.48	N
ATOM	3414	CA	THR A 553	193.562	163.438	204.913	1.00 34.48	C
ATOM	3415	C	THR A 553	193.099	162.685	206.151	1.00 34.48	C
ATOM	3416	O	THR A 553	193.776	161.758	206.607	1.00 34.48	O
ATOM	3417	CB	THR A 553	193.656	162.494	203.713	1.00 34.48	C
ATOM	3418	OG1	THR A 553	194.043	163.232	202.548	1.00 34.48	O
ATOM	3419	CG2	THR A 553	192.317	161.829	203.458	1.00 34.48	C
ATOM	3420	N	ILE A 554	191.945	163.078	206.688	1.00 38.37	N
ATOM	3421	CA	ILE A 554	191.395	162.470	207.895	1.00 38.37	C
ATOM	3422	C	ILE A 554	190.719	161.171	207.475	1.00 38.37	C
ATOM	3423	O	ILE A 554	190.584	160.901	206.278	1.00 38.37	O
ATOM	3424	CB	ILE A 554	190.423	163.423	208.616	1.00 38.37	C
ATOM	3425	CG1	ILE A 554	191.077	164.781	208.824	1.00 38.37	C
ATOM	3426	CG2	ILE A 554	190.074	162.913	210.002	1.00 38.37	C
ATOM	3427	CD1	ILE A 554	190.781	165.760	207.732	1.00 38.37	C
ATOM	3428	N	ASN A 555	190.306	160.357	208.455	1.00 46.26	N
ATOM	3429	CA	ASN A 555	189.844	158.995	208.202	1.00 46.26	C
ATOM	3430	C	ASN A 555	188.708	158.923	207.185	1.00 46.26	C
ATOM	3431	O	ASN A 555	188.515	157.869	206.571	1.00 46.26	O
ATOM	3432	CB	ASN A 555	189.381	158.340	209.504	1.00 46.26	C
ATOM	3433	CG	ASN A 555	189.431	156.833	209.431	1.00 46.26	C
ATOM	3434	OD1	ASN A 555	189.967	156.283	208.470	1.00 46.26	O
ATOM	3435	ND2	ASN A 555	188.865	156.153	210.427	1.00 46.26	N
ATOM	3436	N	GLN A 556	187.937	160.002	207.021	1.00 44.62	N
ATOM	3437	CA	GLN A 556	186.917	160.132	205.981	1.00 44.62	C
ATOM	3438	C	GLN A 556	185.667	159.306	206.260	1.00 44.62	C
ATOM	3439	O	GLN A 556	184.696	159.377	205.501	1.00 44.62	O
ATOM	3440	CB	GLN A 556	187.474	159.736	204.610	1.00 44.62	C
ATOM	3441	CG	GLN A 556	188.610	160.595	204.100	1.00 44.62	C
ATOM	3442	CD	GLN A 556	188.188	162.018	203.832	1.00 44.62	C
ATOM	3443	OE1	GLN A 556	187.087	162.271	203.347	1.00 44.62	O

ATOM	3444	NE2	GLN	A	556	189.064	162.962	204.147	1.00 44.62	N
ATOM	3445	N	THR	A	557	185.670	158.520	207.336	1.00 48.54	N
ATOM	3446	CA	THR	A	557	184.539	157.644	207.609	1.00 48.54	C
ATOM	3447	C	THR	A	557	184.122	157.641	209.073	1.00 48.54	C
ATOM	3448	O	THR	A	557	183.298	156.803	209.462	1.00 48.54	O
ATOM	3449	CB	THR	A	557	184.852	156.213	207.173	1.00 48.54	C
ATOM	3450	OG1	THR	A	557	183.681	155.404	207.321	1.00 48.54	O
ATOM	3451	CG2	THR	A	557	185.965	155.638	208.025	1.00 48.54	C
ATOM	3452	N	SER	A	558	184.658	158.541	209.898	1.00 43.86	N
ATOM	3453	CA	SER	A	558	184.276	158.608	211.302	1.00 43.86	C
ATOM	3454	C	SER	A	558	184.113	160.050	211.760	1.00 43.86	C
ATOM	3455	O	SER	A	558	184.322	160.359	212.937	1.00 43.86	O
ATOM	3456	CB	SER	A	558	185.297	157.892	212.186	1.00 43.86	C
ATOM	3457	OG	SER	A	558	184.951	158.006	213.554	1.00 43.86	O
ATOM	3458	N	VAL	A	559	183.742	160.939	210.846	1.00 35.64	N
ATOM	3459	CA	VAL	A	559	183.532	162.351	211.140	1.00 35.64	C
ATOM	3460	C	VAL	A	559	182.044	162.593	211.334	1.00 35.64	C
ATOM	3461	O	VAL	A	559	181.215	162.076	210.575	1.00 35.64	O
ATOM	3462	CB	VAL	A	559	184.096	163.234	210.014	1.00 35.64	C
ATOM	3463	CG1	VAL	A	559	183.746	164.683	210.260	1.00 35.64	C
ATOM	3464	CG2	VAL	A	559	185.597	163.056	209.913	1.00 35.64	C
ATOM	3465	N	LYS	A	560	181.698	163.390	212.347	1.00 32.00	N
ATOM	3466	CA	LYS	A	560	180.300	163.593	212.739	1.00 32.00	C
ATOM	3467	C	LYS	A	560	180.101	165.067	213.084	1.00 32.00	C
ATOM	3468	O	LYS	A	560	180.411	165.501	214.195	1.00 32.00	O
ATOM	3469	CB	LYS	A	560	179.933	162.689	213.908	1.00 32.00	C
ATOM	3470	CG	LYS	A	560	179.949	161.211	213.569	1.00 32.00	C
ATOM	3471	CD	LYS	A	560	179.484	160.367	214.742	1.00 32.00	C
ATOM	3472	CE	LYS	A	560	180.554	160.303	215.820	1.00 32.00	C
ATOM	3473	NZ	LYS	A	560	180.191	159.372	216.924	1.00 32.00	N
ATOM	3474	N	VAL	A	561	179.575	165.830	212.128	1.00 29.55	N
ATOM	3475	CA	VAL	A	561	179.281	167.237	212.370	1.00 29.55	C
ATOM	3476	C	VAL	A	561	178.135	167.338	213.368	1.00 29.55	C
ATOM	3477	O	VAL	A	561	177.031	166.843	213.118	1.00 29.55	O
ATOM	3478	CB	VAL	A	561	178.938	167.959	211.063	1.00 29.55	C
ATOM	3479	CG1	VAL	A	561	178.502	169.378	211.355	1.00 29.55	C
ATOM	3480	CG2	VAL	A	561	180.130	167.951	210.131	1.00 29.55	C

ATOM	3481	N	LEU A 562	178.391	167.987	214.499	1.00 31.47 N
ATOM	3482	CA	LEU A 562	177.369	168.120	215.526	1.00 31.47 C
ATOM	3483	C	LEU A 562	176.262	169.057	215.062	1.00 31.47 C
ATOM	3484	O	LEU A 562	176.518	170.086	214.433	1.00 31.47 O
ATOM	3485	CB	LEU A 562	177.981	168.637	216.825	1.00 31.47 C
ATOM	3486	CG	LEU A 562	178.977	167.699	217.505	1.00 31.47 C
ATOM	3487	CD1	LEU A 562	179.577	168.351	218.735	1.00 31.47 C
ATOM	3488	CD2	LEU A 562	178.311	166.385	217.863	1.00 31.47 C
ATOM	3489	N	ARG A 563	175.023	168.694	215.381	1.00 40.66 N
ATOM	3490	CA	ARG A 563	173.852	169.482	214.999	1.00 40.66 C
ATOM	3491	C	ARG A 563	173.478	170.490	216.081	1.00 40.66 C
ATOM	3492	O	ARG A 563	172.330	170.585	216.510	1.00 40.66 O
ATOM	3493	CB	ARG A 563	172.688	168.552	214.683	1.00 40.66 C
ATOM	3494	CG	ARG A 563	172.194	167.743	215.870	1.00 40.66 C
ATOM	3495	CD	ARG A 563	171.039	166.836	215.489	1.00 40.66 C
ATOM	3496	NE	ARG A 563	171.446	165.800	214.544	1.00 40.66 N
ATOM	3497	CZ	ARG A 563	171.064	165.757	213.273	1.00 40.66 C
ATOM	3498	NH1	ARG A 563	171.487	164.777	212.486	1.00 40.66 N
ATOM	3499	NH2	ARG A 563	170.256	166.689	212.789	1.00 40.66 N
ATOM	3500	N	ASP A 564	174.457	171.274	216.519	1.00 41.59 N
ATOM	3501	CA	ASP A 564	174.225	172.257	217.567	1.00 41.59 C
ATOM	3502	C	ASP A 564	175.392	173.229	217.579	1.00 41.59 C
ATOM	3503	O	ASP A 564	176.519	172.866	217.233	1.00 41.59 O
ATOM	3504	CB	ASP A 564	174.068	171.584	218.935	1.00 41.59 C
ATOM	3505	CG	ASP A 564	173.566	172.535	219.996	1.00 41.59 C
ATOM	3506	OD1	ASP A 564	173.352	173.724	219.681	1.00 41.59 O
ATOM	3507	OD2	ASP A 564	173.384	172.093	221.150	1.00 41.59 O
ATOM	3508	N	MET A 565	175.111	174.467	217.980	1.00 39.48 N
ATOM	3509	CA	MET A 565	176.124	175.509	217.993	1.00 39.48 C
ATOM	3510	C	MET A 565	176.126	176.341	219.266	1.00 39.48 C
ATOM	3511	O	MET A 565	176.935	177.269	219.373	1.00 39.48 O
ATOM	3512	CB	MET A 565	175.952	176.436	216.781	1.00 39.48 C
ATOM	3513	CG	MET A 565	176.239	175.762	215.454	1.00 39.48 C
ATOM	3514	SD	MET A 565	175.934	176.832	214.038	1.00 39.48 S
ATOM	3515	CE	MET A 565	177.277	178.001	214.200	1.00 39.48 C
ATOM	3516	N	ASN A 566	175.251	176.052	220.223	1.00 39.48 N
ATOM	3517	CA	ASN A 566	175.260	176.761	221.493	1.00 39.48 C

ATOM	3518	C	ASN A 566	176.345	176.191	222.396	1.00 39.48 C
ATOM	3519	O	ASN A 566	176.443	174.972	222.565	1.00 39.48 O
ATOM	3520	CB	ASN A 566	173.898	176.654	222.175	1.00 39.48 C
ATOM	3521	CG	ASN A 566	172.828	177.454	221.467	1.00 39.48 C
ATOM	3522	OD1	ASN A 566	173.061	178.582	221.039	1.00 39.48 O
ATOM	3523	ND2	ASN A 566	171.643	176.872	221.339	1.00 39.48 N
ATOM	3524	N	VAL A 567	177.164	177.071	222.971	1.00 43.51 N
ATOM	3525	CA	VAL A 567	178.159	176.628	223.940	1.00 43.51 C
ATOM	3526	C	VAL A 567	177.431	176.070	225.152	1.00 43.51 C
ATOM	3527	O	VAL A 567	176.589	176.746	225.754	1.00 43.51 O
ATOM	3528	CB	VAL A 567	179.095	177.775	224.321	1.00 43.51 C
ATOM	3529	CG1	VAL A 567	180.051	177.327	225.407	1.00 43.51 C
ATOM	3530	CG2	VAL A 567	179.861	178.253	223.105	1.00 43.51 C
ATOM	3531	N	LYS A 568	177.757	174.829	225.518	1.00 47.40 N
ATOM	3532	CA	LYS A 568	176.948	174.106	226.494	1.00 47.40 C
ATOM	3533	C	LYS A 568	177.001	174.740	227.878	1.00 47.40 C
ATOM	3534	O	LYS A 568	176.071	174.562	228.672	1.00 47.40 O
ATOM	3535	CB	LYS A 568	177.399	172.649	226.567	1.00 47.40 C
ATOM	3536	CG	LYS A 568	176.572	171.800	227.513	1.00 47.40 C
ATOM	3537	CD	LYS A 568	177.039	170.357	227.503	1.00 47.40 C
ATOM	3538	CE	LYS A 568	176.161	169.491	228.386	1.00 47.40 C
ATOM	3539	NZ	LYS A 568	176.315	169.843	229.822	1.00 47.40 N
ATOM	3540	N	GLU A 569	178.065	175.474	228.192	1.00 49.42 N
ATOM	3541	CA	GLU A 569	178.233	176.015	229.536	1.00 49.42 C
ATOM	3542	C	GLU A 569	177.953	177.508	229.629	1.00 49.42 C
ATOM	3543	O	GLU A 569	177.315	177.950	230.589	1.00 49.42 O
ATOM	3544	CB	GLU A 569	179.647	175.723	230.050	1.00 49.42 C
ATOM	3545	CG	GLU A 569	180.759	176.382	229.255	1.00 49.42 C
ATOM	3546	CD	GLU A 569	182.134	176.012	229.768	1.00 49.42 C
ATOM	3547	OE1	GLU A 569	182.215	175.232	230.739	1.00 49.42 O
ATOM	3548	OE2	GLU A 569	183.134	176.498	229.199	1.00 49.42 O
ATOM	3549	N	SER A 570	178.406	178.302	228.660	1.00 48.43 N
ATOM	3550	CA	SER A 570	178.265	179.749	228.734	1.00 48.43 C
ATOM	3551	C	SER A 570	176.909	180.162	228.181	1.00 48.43 C
ATOM	3552	O	SER A 570	176.687	180.044	226.967	1.00 48.43 O
ATOM	3553	CB	SER A 570	179.383	180.435	227.965	1.00 48.43 C
ATOM	3554	OG	SER A 570	180.640	180.157	228.552	1.00 48.43 O

ATOM	3555	N	PRO A 571	175.982	180.646	229.011	1.00 47.82	N
ATOM	3556	CA	PRO A 571	174.682	181.105	228.501	1.00 47.82	C
ATOM	3557	C	PRO A 571	174.850	182.405	227.731	1.00 47.82	C
ATOM	3558	O	PRO A 571	175.425	183.370	228.238	1.00 47.82	O
ATOM	3559	CB	PRO A 571	173.856	181.307	229.776	1.00 47.82	C
ATOM	3560	CG	PRO A 571	174.872	181.618	230.818	1.00 47.82	C
ATOM	3561	CD	PRO A 571	176.091	180.805	230.471	1.00 47.82	C
ATOM	3562	N	GLY A 572	174.347	182.429	226.500	1.00 44.96	N
ATOM	3563	CA	GLY A 572	174.473	183.604	225.663	1.00 44.96	C
ATOM	3564	C	GLY A 572	175.823	183.659	224.984	1.00 44.96	C
ATOM	3565	O	GLY A 572	176.452	184.717	224.909	1.00 44.96	O
ATOM	3566	N	ARG A 573	176.278	182.513	224.485	1.00 43.66	N
ATOM	3567	CA	ARG A 573	177.596	182.432	223.865	1.00 43.66	C
ATOM	3568	C	ARG A 573	177.560	181.274	222.880	1.00 43.66	C
ATOM	3569	O	ARG A 573	177.476	180.113	223.289	1.00 43.66	O
ATOM	3570	CB	ARG A 573	178.675	182.246	224.922	1.00 43.66	C
ATOM	3571	CG	ARG A 573	180.083	182.270	224.389	1.00 43.66	C
ATOM	3572	CD	ARG A 573	180.348	183.586	223.693	1.00 43.66	C
ATOM	3573	NE	ARG A 573	180.108	184.726	224.569	1.00 43.66	N
ATOM	3574	CZ	ARG A 573	180.087	185.988	224.153	1.00 43.66	C
ATOM	3575	NH1	ARG A 573	180.313	186.266	222.879	1.00 43.66	N
ATOM	3576	NH2	ARG A 573	179.847	186.970	225.009	1.00 43.66	N
ATOM	3577	N	CYS A 574	177.612	181.590	221.593	1.00 40.43	N
ATOM	3578	CA	CYS A 574	177.346	180.627	220.541	1.00 40.43	C
ATOM	3579	C	CYS A 574	178.578	180.481	219.658	1.00 40.43	C
ATOM	3580	O	CYS A 574	179.349	181.425	219.479	1.00 40.43	O
ATOM	3581	CB	CYS A 574	176.136	181.076	219.713	1.00 40.43	C
ATOM	3582	SG	CYS A 574	174.610	181.317	220.688	1.00 40.43	S
ATOM	3583	N	TYR A 575	178.768	179.282	219.109	1.00 36.80	N
ATOM	3584	CA	TYR A 575	179.880	179.060	218.196	1.00 36.80	C
ATOM	3585	C	TYR A 575	179.671	179.857	216.913	1.00 36.80	C
ATOM	3586	O	TYR A 575	178.630	180.480	216.691	1.00 36.80	O
ATOM	3587	CB	TYR A 575	180.039	177.580	217.862	1.00 36.80	C
ATOM	3588	CG	TYR A 575	180.478	176.709	219.009	1.00 36.80	C
ATOM	3589	CD1	TYR A 575	181.782	176.742	219.468	1.00 36.80	C
ATOM	3590	CD2	TYR A 575	179.601	175.816	219.598	1.00 36.80	C
ATOM	3591	CE1	TYR A 575	182.189	175.941	220.507	1.00 36.80	C

ATOM	3592	CE2	TYR A 575	180.000	175.007	220.634	1.00 36.80	C
ATOM	3593	CZ	TYR A 575	181.295	175.073	221.084	1.00 36.80	C
ATOM	3594	OH	TYR A 575	181.701	174.268	222.119	1.00 36.80	O
ATOM	3595	N	SER A 576	180.678	179.821	216.043	1.00 36.53	N
ATOM	3596	CA	SER A 576	180.604	180.488	214.755	1.00 36.53	C
ATOM	3597	C	SER A 576	180.669	179.534	213.575	1.00 36.53	C
ATOM	3598	O	SER A 576	180.379	179.953	212.450	1.00 36.53	O
ATOM	3599	CB	SER A 576	181.730	181.523	214.618	1.00 36.53	C
ATOM	3600	OG	SER A 576	181.695	182.146	213.347	1.00 36.53	O
ATOM	3601	N	ARG A 577	181.035	178.275	213.793	1.00 35.85	N
ATOM	3602	CA	ARG A 577	181.049	177.262	212.750	1.00 35.85	C
ATOM	3603	C	ARG A 577	180.780	175.915	213.397	1.00 35.85	C
ATOM	3604	O	ARG A 577	181.081	175.731	214.582	1.00 35.85	O
ATOM	3605	CB	ARG A 577	182.385	177.236	211.996	1.00 35.85	C
ATOM	3606	CG	ARG A 577	182.631	178.475	211.166	1.00 35.85	C
ATOM	3607	CD	ARG A 577	183.923	178.377	210.392	1.00 35.85	C
ATOM	3608	NE	ARG A 577	184.187	179.601	209.647	1.00 35.85	N
ATOM	3609	CZ	ARG A 577	183.718	179.843	208.428	1.00 35.85	C
ATOM	3610	NH1	ARG A 577	182.956	178.946	207.820	1.00 35.85	N
ATOM	3611	NH2	ARG A 577	184.007	180.984	207.819	1.00 35.85	N
ATOM	3612	N	PRO A 578	180.210	174.966	212.660	1.00 30.61	N
ATOM	3613	CA	PRO A 578	179.816	173.687	213.266	1.00 30.61	C
ATOM	3614	C	PRO A 578	181.023	172.926	213.788	1.00 30.61	C
ATOM	3615	O	PRO A 578	181.966	172.642	213.048	1.00 30.61	O
ATOM	3616	CB	PRO A 578	179.142	172.946	212.107	1.00 30.61	C
ATOM	3617	CG	PRO A 578	178.741	174.017	211.150	1.00 30.61	C
ATOM	3618	CD	PRO A 578	179.806	175.057	211.251	1.00 30.61	C
ATOM	3619	N	VAL A 579	180.989	172.592	215.077	1.00 29.75	N
ATOM	3620	CA	VAL A 579	182.092	171.852	215.675	1.00 29.75	C
ATOM	3621	C	VAL A 579	182.073	170.417	215.169	1.00 29.75	C
ATOM	3622	O	VAL A 579	181.021	169.765	215.125	1.00 29.75	O
ATOM	3623	CB	VAL A 579	182.013	171.914	217.208	1.00 29.75	C
ATOM	3624	CG1	VAL A 579	180.754	171.238	217.697	1.00 29.75	C
ATOM	3625	CG2	VAL A 579	183.241	171.272	217.825	1.00 29.75	C
ATOM	3626	N	VAL A 580	183.244	169.918	214.779	1.00 27.99	N
ATOM	3627	CA	VAL A 580	183.381	168.613	214.148	1.00 27.99	C
ATOM	3628	C	VAL A 580	184.264	167.736	215.021	1.00 27.99	C

ATOM	3629	O	VAL	A	580	185.179	168.222	215.693	1.00	27.99	O
ATOM	3630	CB	VAL	A	580	183.972	168.742	212.727	1.00	27.99	C
ATOM	3631	CG1	VAL	A	580	184.158	167.383	212.093	1.00	27.99	C
ATOM	3632	CG2	VAL	A	580	183.091	169.620	211.868	1.00	27.99	C
ATOM	3633	N	ILE	A	581	183.991	166.438	215.008	1.00	30.37	N
ATOM	3634	CA	ILE	A	581	184.789	165.456	215.741	1.00	30.37	C
ATOM	3635	C	ILE	A	581	185.333	164.467	214.715	1.00	30.37	C
ATOM	3636	O	ILE	A	581	184.696	163.471	214.364	1.00	30.37	O
ATOM	3637	CB	ILE	A	581	183.990	164.760	216.846	1.00	30.37	C
ATOM	3638	CG1	ILE	A	581	182.703	164.141	216.300	1.00	30.37	C
ATOM	3639	CG2	ILE	A	581	183.651	165.738	217.945	1.00	30.37	C
ATOM	3640	CD1	ILE	A	581	181.997	163.244	217.284	1.00	30.37	C
ATOM	3641	N	PHE	A	582	186.532	164.741	214.214	1.00	35.58	N
ATOM	3642	CA	PHE	A	582	187.184	163.860	213.259	1.00	35.58	C
ATOM	3643	C	PHE	A	582	188.103	162.895	214.003	1.00	35.58	C
ATOM	3644	O	PHE	A	582	188.068	162.790	215.231	1.00	35.58	O
ATOM	3645	CB	PHE	A	582	187.928	164.676	212.204	1.00	35.58	C
ATOM	3646	CG	PHE	A	582	189.031	165.522	212.757	1.00	35.58	C
ATOM	3647	CD1	PHE	A	582	188.780	166.808	213.189	1.00	35.58	C
ATOM	3648	CD2	PHE	A	582	190.321	165.039	212.833	1.00	35.58	C
ATOM	3649	CE1	PHE	A	582	189.790	167.591	213.695	1.00	35.58	C
ATOM	3650	CE2	PHE	A	582	191.335	165.820	213.339	1.00	35.58	C
ATOM	3651	CZ	PHE	A	582	191.069	167.097	213.770	1.00	35.58	C
ATOM	3652	N	ASN	A	583	188.939	162.175	213.261	1.00	41.91	N
ATOM	3653	CA	ASN	A	583	189.841	161.199	213.865	1.00	41.91	C
ATOM	3654	C	ASN	A	583	190.944	160.890	212.869	1.00	41.91	C
ATOM	3655	O	ASN	A	583	190.658	160.462	211.746	1.00	41.91	O
ATOM	3656	CB	ASN	A	583	189.084	159.934	214.250	1.00	41.91	C
ATOM	3657	CG	ASN	A	583	189.913	158.996	215.094	1.00	41.91	C
ATOM	3658	OD1	ASN	A	583	191.077	159.267	215.385	1.00	41.91	O
ATOM	3659	ND2	ASN	A	583	189.315	157.883	215.498	1.00	41.91	N
ATOM	3660	N	PHE	A	584	192.194	161.103	213.271	1.00	40.57	N
ATOM	3661	CA	PHE	A	584	193.315	160.838	212.383	1.00	40.57	C
ATOM	3662	C	PHE	A	584	193.399	159.353	212.047	1.00	40.57	C
ATOM	3663	O	PHE	A	584	192.787	158.503	212.697	1.00	40.57	O
ATOM	3664	CB	PHE	A	584	194.627	161.300	213.011	1.00	40.57	C
ATOM	3665	CG	PHE	A	584	194.773	162.788	213.084	1.00	40.57	C

ATOM	3666	CD1	PHE	A	584	195.135	163.512	211.965	1.00	40.57	C
ATOM	3667	CD2	PHE	A	584	194.564	163.462	214.271	1.00	40.57	C
ATOM	3668	CE1	PHE	A	584	195.274	164.881	212.024	1.00	40.57	C
ATOM	3669	CE2	PHE	A	584	194.704	164.833	214.334	1.00	40.57	C
ATOM	3670	CZ	PHE	A	584	195.061	165.542	213.208	1.00	40.57	C
ATOM	3671	N	ALA	A	585	194.170	159.050	211.006	1.00	43.86	N
ATOM	3672	CA	ALA	A	585	194.329	157.671	210.570	1.00	43.86	C
ATOM	3673	C	ALA	A	585	194.998	156.834	211.654	1.00	43.86	C
ATOM	3674	O	ALA	A	585	195.832	157.321	212.420	1.00	43.86	O
ATOM	3675	CB	ALA	A	585	195.148	157.614	209.282	1.00	43.86	C
ATOM	3676	N	ASN	A	586	194.587	155.566	211.733	1.00	52.34	N
ATOM	3677	CA	ASN	A	586	195.157	154.570	212.638	1.00	52.34	C
ATOM	3678	C	ASN	A	586	194.771	154.775	214.097	1.00	52.34	C
ATOM	3679	O	ASN	A	586	195.063	153.919	214.937	1.00	52.34	O
ATOM	3680	CB	ASN	A	586	196.683	154.565	212.568	1.00	52.34	C
ATOM	3681	CG	ASN	A	586	197.224	154.095	211.244	1.00	52.34	C
ATOM	3682	OD1	ASN	A	586	197.798	154.877	210.491	1.00	52.34	O
ATOM	3683	ND2	ASN	A	586	197.074	152.811	210.958	1.00	52.34	N
ATOM	3684	N	SER	A	587	194.120	155.884	214.420	1.00	49.61	N
ATOM	3685	CA	SER	A	587	193.977	156.291	215.808	1.00	49.61	C
ATOM	3686	C	SER	A	587	192.623	155.876	216.371	1.00	49.61	C
ATOM	3687	O	SER	A	587	191.726	155.421	215.659	1.00	49.61	O
ATOM	3688	CB	SER	A	587	194.172	157.803	215.944	1.00	49.61	C
ATOM	3689	OG	SER	A	587	193.137	158.512	215.289	1.00	49.61	O
ATOM	3690	N	SER	A	588	192.493	156.039	217.688	1.00	53.97	N
ATOM	3691	CA	SER	A	588	191.246	155.745	218.381	1.00	53.97	C
ATOM	3692	C	SER	A	588	190.930	156.802	219.431	1.00	53.97	C
ATOM	3693	O	SER	A	588	190.158	156.531	220.358	1.00	53.97	O
ATOM	3694	CB	SER	A	588	191.302	154.364	219.035	1.00	53.97	C
ATOM	3695	OG	SER	A	588	190.116	154.095	219.759	1.00	53.97	O
ATOM	3696	N	TYR	A	589	191.508	157.992	219.311	1.00	51.16	N
ATOM	3697	CA	TYR	A	589	191.358	159.065	220.290	1.00	51.16	C
ATOM	3698	C	TYR	A	589	190.750	160.257	219.560	1.00	51.16	C
ATOM	3699	O	TYR	A	589	191.418	160.904	218.748	1.00	51.16	O
ATOM	3700	CB	TYR	A	589	192.702	159.409	220.926	1.00	51.16	C
ATOM	3701	CG	TYR	A	589	193.270	158.309	221.801	1.00	51.16	C
ATOM	3702	CD1	TYR	A	589	192.459	157.302	222.306	1.00	51.16	C

ATOM	3703	CD2	TYR A 589	194.623	158.265	222.102	1.00 51.16	C
ATOM	3704	CE1	TYR A 589	192.978	156.292	223.099	1.00 51.16	C
ATOM	3705	CE2	TYR A 589	195.153	157.261	222.889	1.00 51.16	C
ATOM	3706	CZ	TYR A 589	194.326	156.277	223.386	1.00 51.16	C
ATOM	3707	OH	TYR A 589	194.851	155.278	224.172	1.00 51.16	O
ATOM	3708	N	VAL A 590	189.478	160.539	219.846	1.00 42.52	N
ATOM	3709	CA	VAL A 590	188.740	161.544	219.093	1.00 42.52	C
ATOM	3710	C	VAL A 590	189.293	162.933	219.380	1.00 42.52	C
ATOM	3711	O	VAL A 590	189.967	163.166	220.391	1.00 42.52	O
ATOM	3712	CB	VAL A 590	187.243	161.468	219.434	1.00 42.52	C
ATOM	3713	CG1	VAL A 590	186.687	160.107	219.058	1.00 42.52	C
ATOM	3714	CG2	VAL A 590	187.033	161.744	220.909	1.00 42.52	C
ATOM	3715	N	GLN A 591	189.004	163.869	218.478	1.00 40.12	N
ATOM	3716	CA	GLN A 591	189.408	165.256	218.669	1.00 40.12	C
ATOM	3717	C	GLN A 591	188.259	166.206	218.365	1.00 40.12	C
ATOM	3718	O	GLN A 591	187.114	165.774	218.210	1.00 40.12	O
ATOM	3719	CB	GLN A 591	190.614	165.597	217.799	1.00 40.12	C
ATOM	3720	CG	GLN A 591	191.864	164.850	218.185	1.00 40.12	C
ATOM	3721	CD	GLN A 591	193.061	165.287	217.380	1.00 40.12	C
ATOM	3722	OE1	GLN A 591	192.954	166.139	216.501	1.00 40.12	O
ATOM	3723	NE2	GLN A 591	194.214	164.706	217.675	1.00 40.12	N
ATOM	3724	N	TYR A 592	188.551	167.502	218.289	1.00 35.98	N
ATOM	3725	CA	TYR A 592	187.527	168.507	218.045	1.00 35.98	C
ATOM	3726	C	TYR A 592	188.074	169.573	217.114	1.00 35.98	C
ATOM	3727	O	TYR A 592	189.159	170.111	217.349	1.00 35.98	O
ATOM	3728	CB	TYR A 592	187.061	169.147	219.353	1.00 35.98	C
ATOM	3729	CG	TYR A 592	186.343	168.189	220.263	1.00 35.98	C
ATOM	3730	CD1	TYR A 592	184.992	167.930	220.105	1.00 35.98	C
ATOM	3731	CD2	TYR A 592	187.025	167.525	221.266	1.00 35.98	C
ATOM	3732	CE1	TYR A 592	184.336	167.048	220.934	1.00 35.98	C
ATOM	3733	CE2	TYR A 592	186.381	166.641	222.097	1.00 35.98	C
ATOM	3734	CZ	TYR A 592	185.038	166.405	221.928	1.00 35.98	C
ATOM	3735	OH	TYR A 592	184.397	165.520	222.762	1.00 35.98	O
ATOM	3736	N	GLY A 593	187.316	169.877	216.068	1.00 31.69	N
ATOM	3737	CA	GLY A 593	187.694	170.919	215.136	1.00 31.69	C
ATOM	3738	C	GLY A 593	186.458	171.448	214.446	1.00 31.69	C
ATOM	3739	O	GLY A 593	185.439	170.761	214.339	1.00 31.69	O

ATOM	3740	N	GLN A 594	186.558	172.683	213.973	1.00 29.95 N
ATOM	3741	CA	GLN A 594	185.422	173.387	213.405	1.00 29.95 C
ATOM	3742	C	GLN A 594	185.475	173.341	211.886	1.00 29.95 C
ATOM	3743	O	GLN A 594	186.533	173.544	211.285	1.00 29.95 O
ATOM	3744	CB	GLN A 594	185.387	174.833	213.888	1.00 29.95 C
ATOM	3745	CG	GLN A 594	185.131	174.961	215.370	1.00 29.95 C
ATOM	3746	CD	GLN A 594	185.122	176.396	215.813	1.00 29.95 C
ATOM	3747	OE1	GLN A 594	185.357	177.294	215.014	1.00 29.95 O
ATOM	3748	NE2	GLN A 594	184.855	176.625	217.090	1.00 29.95 N
ATOM	3749	N	LEU A 595	184.324	173.067	211.277	1.00 33.45 N
ATOM	3750	CA	LEU A 595	184.227	172.989	209.828	1.00 33.45 C
ATOM	3751	C	LEU A 595	184.604	174.320	209.191	1.00 33.45 C
ATOM	3752	O	LEU A 595	184.470	175.381	209.804	1.00 33.45 O
ATOM	3753	CB	LEU A 595	182.809	172.596	209.420	1.00 33.45 C
ATOM	3754	CG	LEU A 595	182.550	172.376	207.932	1.00 33.45 C
ATOM	3755	CD1	LEU A 595	183.355	171.196	207.432	1.00 33.45 C
ATOM	3756	CD2	LEU A 595	181.072	172.168	207.674	1.00 33.45 C
ATOM	3757	N	GLY A 596	185.078	174.258	207.951	1.00 39.74 N
ATOM	3758	CA	GLY A 596	185.504	175.452	207.249	1.00 39.74 C
ATOM	3759	C	GLY A 596	184.918	175.570	205.859	1.00 39.74 C
ATOM	3760	O	GLY A 596	183.958	174.872	205.521	1.00 39.74 O
ATOM	3761	N	GLU A 597	185.489	176.450	205.042	1.00 50.37 N
ATOM	3762	CA	GLU A 597	184.965	176.671	203.703	1.00 50.37 C
ATOM	3763	C	GLU A 597	185.422	175.569	202.756	1.00 50.37 C
ATOM	3764	O	GLU A 597	186.541	175.061	202.860	1.00 50.37 O
ATOM	3765	CB	GLU A 597	185.414	178.033	203.172	1.00 50.37 C
ATOM	3766	CG	GLU A 597	184.862	179.227	203.940	1.00 50.37 C
ATOM	3767	CD	GLU A 597	185.706	179.589	205.150	1.00 50.37 C
ATOM	3768	OE1	GLU A 597	186.764	178.954	205.350	1.00 50.37 O
ATOM	3769	OE2	GLU A 597	185.314	180.508	205.901	1.00 50.37 O
ATOM	3770	N	ASP A 598	184.542	175.204	201.826	1.00 51.12 N
ATOM	3771	CA	ASP A 598	184.845	174.225	200.782	1.00 51.12 C
ATOM	3772	C	ASP A 598	185.192	172.862	201.377	1.00 51.12 C
ATOM	3773	O	ASP A 598	185.970	172.097	200.805	1.00 51.12 O
ATOM	3774	CB	ASP A 598	185.967	174.726	199.869	1.00 51.12 C
ATOM	3775	CG	ASP A 598	185.991	174.016	198.529	1.00 51.12 C
ATOM	3776	OD1	ASP A 598	185.154	173.114	198.320	1.00 51.12 O

ATOM	3777	OD2	ASP	A	598	186.833	174.374	197.678	1.00 51.12	O
ATOM	3778	N	ASN	A	599	184.602	172.558	202.533	1.00 44.02	N
ATOM	3779	CA	ASN	A	599	184.684	171.250	203.180	1.00 44.02	C
ATOM	3780	C	ASN	A	599	186.132	170.882	203.525	1.00 44.02	C
ATOM	3781	O	ASN	A	599	186.710	169.932	202.997	1.00 44.02	O
ATOM	3782	CB	ASN	A	599	184.048	170.170	202.300	1.00 44.02	C
ATOM	3783	CG	ASN	A	599	183.530	169.005	203.106	1.00 44.02	C
ATOM	3784	OD1	ASN	A	599	182.798	168.158	202.597	1.00 44.02	O
ATOM	3785	ND2	ASN	A	599	183.872	168.979	204.386	1.00 44.02	N
ATOM	3786	N	GLU	A	600	186.699	171.664	204.441	1.00 39.19	N
ATOM	3787	CA	GLU	A	600	188.024	171.365	204.973	1.00 39.19	C
ATOM	3788	C	GLU	A	600	188.046	171.699	206.455	1.00 39.19	C
ATOM	3789	O	GLU	A	600	187.711	172.819	206.846	1.00 39.19	O
ATOM	3790	CB	GLU	A	600	189.112	172.130	204.211	1.00 39.19	C
ATOM	3791	CG	GLU	A	600	189.034	173.646	204.263	1.00 39.19	C
ATOM	3792	CD	GLU	A	600	189.837	174.232	205.403	1.00 39.19	C
ATOM	3793	OE1	GLU	A	600	190.695	173.511	205.951	1.00 39.19	O
ATOM	3794	OE2	GLU	A	600	189.621	175.413	205.743	1.00 39.19	O
ATOM	3795	N	ILE	A	601	188.413	170.715	207.278	1.00 31.80	N
ATOM	3796	CA	ILE	A	601	188.456	170.917	208.720	1.00 31.80	C
ATOM	3797	C	ILE	A	601	189.589	171.866	209.075	1.00 31.80	C
ATOM	3798	O	ILE	A	601	190.661	171.846	208.455	1.00 31.80	O
ATOM	3799	CB	ILE	A	601	188.618	169.572	209.449	1.00 31.80	C
ATOM	3800	CG1	ILE	A	601	187.390	168.690	209.242	1.00 31.80	C
ATOM	3801	CG2	ILE	A	601	188.866	169.787	210.927	1.00 31.80	C
ATOM	3802	CD1	ILE	A	601	187.584	167.277	209.736	1.00 31.80	C
ATOM	3803	N	LEU	A	602	189.356	172.706	210.077	1.00 30.73	N
ATOM	3804	CA	LEU	A	602	190.383	173.560	210.651	1.00 30.73	C
ATOM	3805	C	LEU	A	602	190.444	173.316	212.152	1.00 30.73	C
ATOM	3806	O	LEU	A	602	189.410	173.179	212.810	1.00 30.73	O
ATOM	3807	CB	LEU	A	602	190.115	175.036	210.342	1.00 30.73	C
ATOM	3808	CG	LEU	A	602	188.779	175.644	210.766	1.00 30.73	C
ATOM	3809	CD1	LEU	A	602	188.810	176.109	212.206	1.00 30.73	C
ATOM	3810	CD2	LEU	A	602	188.417	176.794	209.845	1.00 30.73	C
ATOM	3811	N	LEU	A	603	191.661	173.271	212.685	1.00 31.47	N
ATOM	3812	CA	LEU	A	603	191.888	172.775	214.033	1.00 31.47	C
ATOM	3813	C	LEU	A	603	191.359	173.747	215.084	1.00 31.47	C

ATOM	3814	O	LEU A 603	191.055	174.909	214.806	1.00 31.47 O
ATOM	3815	CB	LEU A 603	193.378	172.533	214.256	1.00 31.47 C
ATOM	3816	CG	LEU A 603	194.008	171.439	213.399	1.00 31.47 C
ATOM	3817	CD1	LEU A 603	195.514	171.445	213.556	1.00 31.47 C
ATOM	3818	CD2	LEU A 603	193.442	170.088	213.782	1.00 31.47 C
ATOM	3819	N	GLY A 604	191.254	173.246	216.309	1.00 32.70 N
ATOM	3820	CA	GLY A 604	190.878	174.054	217.448	1.00 32.70 C
ATOM	3821	C	GLY A 604	189.374	174.196	217.601	1.00 32.70 C
ATOM	3822	O	GLY A 604	188.599	174.030	216.662	1.00 32.70 O
ATOM	3823	N	ASN A 605	188.957	174.499	218.835	1.00 35.84 N
ATOM	3824	CA	ASN A 605	187.552	174.762	219.152	1.00 35.84 C
ATOM	3825	C	ASN A 605	187.486	176.047	219.973	1.00 35.84 C
ATOM	3826	O	ASN A 605	187.351	176.005	221.197	1.00 35.84 O
ATOM	3827	CB	ASN A 605	186.968	173.579	219.910	1.00 35.84 C
ATOM	3828	CG	ASN A 605	185.469	173.502	219.810	1.00 35.84 C
ATOM	3829	OD1	ASN A 605	184.870	172.482	220.146	1.00 35.84 O
ATOM	3830	ND2	ASN A 605	184.850	174.570	219.332	1.00 35.84 N
ATOM	3831	N	HIS A 606	187.572	177.201	219.299	1.00 38.37 N
ATOM	3832	CA	HIS A 606	187.455	178.452	220.042	1.00 38.37 C
ATOM	3833	C	HIS A 606	186.824	179.606	219.265	1.00 38.37 C
ATOM	3834	O	HIS A 606	187.027	180.761	219.655	1.00 38.37 O
ATOM	3835	CB	HIS A 606	188.823	178.874	220.559	1.00 38.37 C
ATOM	3836	CG	HIS A 606	189.816	179.146	219.477	1.00 38.37 C
ATOM	3837	ND1	HIS A 606	190.499	178.142	218.826	1.00 38.37 N
ATOM	3838	CD2	HIS A 606	190.249	180.308	218.936	1.00 38.37 C
ATOM	3839	CE1	HIS A 606	191.303	178.675	217.924	1.00 38.37 C
ATOM	3840	NE2	HIS A 606	191.175	179.988	217.975	1.00 38.37 N
ATOM	3841	N	ARG A 607	186.079	179.356	218.192	1.00 35.08 N
ATOM	3842	CA	ARG A 607	185.516	180.449	217.398	1.00 35.08 C
ATOM	3843	C	ARG A 607	184.126	180.836	217.911	1.00 35.08 C
ATOM	3844	O	ARG A 607	183.139	180.823	217.179	1.00 35.08 O
ATOM	3845	CB	ARG A 607	185.454	180.063	215.925	1.00 35.08 C
ATOM	3846	CG	ARG A 607	186.746	180.189	215.134	1.00 35.08 C
ATOM	3847	CD	ARG A 607	187.712	179.049	215.418	1.00 35.08 C
ATOM	3848	NE	ARG A 607	188.818	179.014	214.463	1.00 35.08 N
ATOM	3849	CZ	ARG A 607	189.837	178.160	214.520	1.00 35.08 C
ATOM	3850	NH1	ARG A 607	189.893	177.258	215.486	1.00 35.08 N

ATOM	3851	NH2	ARG	A	607	190.797	178.206	213.603	1.00 35.08	N
ATOM	3852	N	THR	A	608	184.055	181.187	219.193	1.00 38.90	N
ATOM	3853	CA	THR	A	608	182.782	181.560	219.791	1.00 38.90	C
ATOM	3854	C	THR	A	608	182.330	182.925	219.274	1.00 38.90	C
ATOM	3855	O	THR	A	608	183.030	183.595	218.513	1.00 38.90	O
ATOM	3856	CB	THR	A	608	182.884	181.558	221.315	1.00 38.90	C
ATOM	3857	OG1	THR	A	608	183.884	182.492	221.732	1.00 38.90	O
ATOM	3858	CG2	THR	A	608	183.247	180.174	221.820	1.00 38.90	C
ATOM	3859	N	GLU	A	609	181.135	183.339	219.687	1.00 41.95	N
ATOM	3860	CA	GLU	A	609	180.583	184.628	219.291	1.00 41.95	C
ATOM	3861	C	GLU	A	609	179.308	184.875	220.080	1.00 41.95	C
ATOM	3862	O	GLU	A	609	178.624	183.929	220.479	1.00 41.95	O
ATOM	3863	CB	GLU	A	609	180.284	184.684	217.789	1.00 41.95	C
ATOM	3864	CG	GLU	A	609	179.123	183.813	217.336	1.00 41.95	C
ATOM	3865	CD	GLU	A	609	178.878	183.889	215.836	1.00 41.95	C
ATOM	3866	OE1	GLU	A	609	179.632	184.600	215.140	1.00 41.95	O
ATOM	3867	OE2	GLU	A	609	177.928	183.238	215.352	1.00 41.95	O
ATOM	3868	N	GLU	A	610	178.991	186.151	220.289	1.00 44.92	N
ATOM	3869	CA	GLU	A	610	177.736	186.499	220.935	1.00 44.92	C
ATOM	3870	C	GLU	A	610	176.572	186.015	220.072	1.00 44.92	C
ATOM	3871	O	GLU	A	610	176.733	185.695	218.892	1.00 44.92	O
ATOM	3872	CB	GLU	A	610	177.666	188.007	221.180	1.00 44.92	C
ATOM	3873	CG	GLU	A	610	176.454	188.479	221.953	1.00 44.92	C
ATOM	3874	CD	GLU	A	610	176.425	187.945	223.369	1.00 44.92	C
ATOM	3875	OE1	GLU	A	610	177.505	187.661	223.928	1.00 44.92	O
ATOM	3876	OE2	GLU	A	610	175.316	187.802	223.922	1.00 44.92	O
ATOM	3877	N	CYS	A	611	175.393	185.928	220.679	1.00 44.65	N
ATOM	3878	CA	CYS	A	611	174.245	185.302	220.041	1.00 44.65	C
ATOM	3879	C	CYS	A	611	173.234	186.376	219.660	1.00 44.65	C
ATOM	3880	O	CYS	A	611	172.858	187.207	220.492	1.00 44.65	O
ATOM	3881	CB	CYS	A	611	173.626	184.262	220.974	1.00 44.65	C
ATOM	3882	SG	CYS	A	611	174.875	183.103	221.629	1.00 44.65	S
ATOM	3883	N	GLN	A	612	172.801	186.355	218.403	1.00 46.16	N
ATOM	3884	CA	GLN	A	612	172.024	187.428	217.793	1.00 46.16	C
ATOM	3885	C	GLN	A	612	170.806	186.867	217.073	1.00 46.16	C
ATOM	3886	O	GLN	A	612	170.613	187.082	215.874	1.00 46.16	O
ATOM	3887	CB	GLN	A	612	172.894	188.258	216.855	1.00 46.16	C

ATOM	3888	CG	GLN A 612	173.920	189.104	217.573	1.00 46.16	C
ATOM	3889	CD	GLN A 612	173.286	190.097	218.525	1.00 46.16	C
ATOM	3890	OE1	GLN A 612	173.429	189.989	219.742	1.00 46.16	O
ATOM	3891	NE2	GLN A 612	172.556	191.058	217.973	1.00 46.16	N
ATOM	3892	N	LEU A 613	170.021	186.074	217.800	1.00 38.10	N
ATOM	3893	CA	LEU A 613	168.742	185.567	217.322	1.00 38.10	C
ATOM	3894	C	LEU A 613	167.936	186.684	216.662	1.00 38.10	C
ATOM	3895	O	LEU A 613	167.885	187.802	217.192	1.00 38.10	O
ATOM	3896	CB	LEU A 613	167.936	185.000	218.494	1.00 38.10	C
ATOM	3897	CG	LEU A 613	168.179	183.607	219.072	1.00 38.10	C
ATOM	3898	CD1	LEU A 613	167.911	182.541	218.031	1.00 38.10	C
ATOM	3899	CD2	LEU A 613	169.580	183.480	219.640	1.00 38.10	C
ATOM	3900	N	PRO A 614	167.294	186.431	215.511	1.00 36.55	N
ATOM	3901	CA	PRO A 614	167.335	185.207	214.704	1.00 36.55	C
ATOM	3902	C	PRO A 614	168.586	185.147	213.832	1.00 36.55	C
ATOM	3903	O	PRO A 614	169.249	186.166	213.664	1.00 36.55	O
ATOM	3904	CB	PRO A 614	166.081	185.319	213.831	1.00 36.55	C
ATOM	3905	CG	PRO A 614	165.218	186.333	214.509	1.00 36.55	C
ATOM	3906	CD	PRO A 614	166.183	187.302	215.104	1.00 36.55	C
ATOM	3907	N	SER A 615	168.904	183.977	213.283	1.00 36.05	N
ATOM	3908	CA	SER A 615	170.068	183.824	212.423	1.00 36.05	C
ATOM	3909	C	SER A 615	169.772	182.781	211.358	1.00 36.05	C
ATOM	3910	O	SER A 615	168.959	181.878	211.565	1.00 36.05	O
ATOM	3911	CB	SER A 615	171.309	183.427	213.226	1.00 36.05	C
ATOM	3912	OG	SER A 615	171.658	184.446	214.146	1.00 36.05	O
ATOM	3913	N	LEU A 616	170.424	182.923	210.207	1.00 32.62	N
ATOM	3914	CA	LEU A 616	170.182	182.044	209.066	1.00 32.62	C
ATOM	3915	C	LEU A 616	171.507	181.641	208.429	1.00 32.62	C
ATOM	3916	O	LEU A 616	171.714	181.765	207.223	1.00 32.62	O
ATOM	3917	CB	LEU A 616	169.242	182.714	208.064	1.00 32.62	C
ATOM	3918	CG	LEU A 616	168.563	181.860	206.989	1.00 32.62	C
ATOM	3919	CD1	LEU A 616	167.184	182.416	206.750	1.00 32.62	C
ATOM	3920	CD2	LEU A 616	169.309	181.842	205.671	1.00 32.62	C
ATOM	3921	N	LYS A 617	172.445	181.180	209.250	1.00 34.53	N
ATOM	3922	CA	LYS A 617	173.744	180.772	208.733	1.00 34.53	C
ATOM	3923	C	LYS A 617	173.602	179.586	207.787	1.00 34.53	C
ATOM	3924	O	LYS A 617	172.877	178.630	208.074	1.00 34.53	O

ATOM	3925	CB	LYS A 617	174.675	180.416	209.886	1.00 34.53	C
ATOM	3926	CG	LYS A 617	175.047	181.593	210.757	1.00 34.53	C
ATOM	3927	CD	LYS A 617	176.034	181.184	211.828	1.00 34.53	C
ATOM	3928	CE	LYS A 617	176.350	182.349	212.740	1.00 34.53	C
ATOM	3929	NZ	LYS A 617	177.083	183.420	212.014	1.00 34.53	N
ATOM	3930	N	ILE A 618	174.306	179.648	206.659	1.00 33.26	N
ATOM	3931	CA	ILE A 618	174.264	178.615	205.626	1.00 33.26	C
ATOM	3932	C	ILE A 618	175.699	178.322	205.211	1.00 33.26	C
ATOM	3933	O	ILE A 618	176.336	179.140	204.540	1.00 33.26	O
ATOM	3934	CB	ILE A 618	173.421	179.031	204.418	1.00 33.26	C
ATOM	3935	CG1	ILE A 618	171.943	179.102	204.795	1.00 33.26	C
ATOM	3936	CG2	ILE A 618	173.650	178.081	203.263	1.00 33.26	C
ATOM	3937	CD1	ILE A 618	171.080	179.741	203.738	1.00 33.26	C
ATOM	3938	N	PHE A 619	176.209	177.156	205.593	1.00 33.81	N
ATOM	3939	CA	PHE A 619	177.581	176.777	205.295	1.00 33.81	C
ATOM	3940	C	PHE A 619	177.647	175.896	204.054	1.00 33.81	C
ATOM	3941	O	PHE A 619	176.808	175.017	203.847	1.00 33.81	O
ATOM	3942	CB	PHE A 619	178.199	176.049	206.486	1.00 33.81	C
ATOM	3943	CG	PHE A 619	178.341	176.907	207.703	1.00 33.81	C
ATOM	3944	CD1	PHE A 619	179.401	177.782	207.825	1.00 33.81	C
ATOM	3945	CD2	PHE A 619	177.408	176.848	208.718	1.00 33.81	C
ATOM	3946	CE1	PHE A 619	179.532	178.576	208.940	1.00 33.81	C
ATOM	3947	CE2	PHE A 619	177.534	177.640	209.835	1.00 33.81	C
ATOM	3948	CZ	PHE A 619	178.597	178.505	209.946	1.00 33.81	C
ATOM	3949	N	ILE A 620	178.675	176.125	203.240	1.00 39.30	N
ATOM	3950	CA	ILE A 620	178.830	175.471	201.946	1.00 39.30	C
ATOM	3951	C	ILE A 620	179.738	174.260	202.106	1.00 39.30	C
ATOM	3952	O	ILE A 620	180.672	174.263	202.915	1.00 39.30	O
ATOM	3953	CB	ILE A 620	179.400	176.447	200.898	1.00 39.30	C
ATOM	3954	CG1	ILE A 620	179.198	175.903	199.487	1.00 39.30	C
ATOM	3955	CG2	ILE A 620	180.870	176.702	201.161	1.00 39.30	C
ATOM	3956	CD1	ILE A 620	177.752	175.860	199.065	1.00 39.30	C
ATOM	3957	N	ALA A 621	179.460	173.210	201.325	1.00 42.37	N
ATOM	3958	CA	ALA A 621	180.206	171.967	201.462	1.00 42.37	C
ATOM	3959	C	ALA A 621	180.544	171.260	200.155	1.00 42.37	C
ATOM	3960	O	ALA A 621	181.095	170.157	200.212	1.00 42.37	O
ATOM	3961	CB	ALA A 621	179.444	170.989	202.369	1.00 42.37	C

ATOM	3962	N	GLY A 622	180.239	171.835	198.991	1.00 50.37	N
ATOM	3963	CA	GLY A 622	180.661	171.224	197.743	1.00 50.37	C
ATOM	3964	C	GLY A 622	180.080	169.847	197.480	1.00 50.37	C
ATOM	3965	O	GLY A 622	180.791	168.844	197.592	1.00 50.37	O
ATOM	3966	N	ASN A 623	178.797	169.776	197.138	1.00 50.57	N
ATOM	3967	CA	ASN A 623	178.037	170.953	196.745	1.00 50.57	C
ATOM	3968	C	ASN A 623	176.841	171.228	197.646	1.00 50.57	C
ATOM	3969	O	ASN A 623	176.323	172.338	197.671	1.00 50.57	O
ATOM	3970	CB	ASN A 623	177.570	170.803	195.297	1.00 50.57	C
ATOM	3971	CG	ASN A 623	176.731	169.559	195.080	1.00 50.57	C
ATOM	3972	OD1	ASN A 623	176.430	168.823	196.019	1.00 50.57	O
ATOM	3973	ND2	ASN A 623	176.343	169.321	193.834	1.00 50.57	N
ATOM	3974	N	SER A 624	176.393	170.212	198.375	1.00 43.24	N
ATOM	3975	CA	SER A 624	175.334	170.427	199.348	1.00 43.24	C
ATOM	3976	C	SER A 624	175.817	171.382	200.430	1.00 43.24	C
ATOM	3977	O	SER A 624	177.013	171.465	200.718	1.00 43.24	O
ATOM	3978	CB	SER A 624	174.900	169.098	199.961	1.00 43.24	C
ATOM	3979	OG	SER A 624	174.340	168.249	198.975	1.00 43.24	O
ATOM	3980	N	ALA A 625	174.883	172.116	201.025	1.00 36.89	N
ATOM	3981	CA	ALA A 625	175.202	173.100	202.047	1.00 36.89	C
ATOM	3982	C	ALA A 625	174.291	172.905	203.246	1.00 36.89	C
ATOM	3983	O	ALA A 625	173.079	172.727	203.087	1.00 36.89	O
ATOM	3984	CB	ALA A 625	175.059	174.523	201.510	1.00 36.89	C
ATOM	3985	N	TYR A 626	174.876	172.933	204.438	1.00 35.50	N
ATOM	3986	CA	TYR A 626	174.094	172.879	205.658	1.00 35.50	C
ATOM	3987	C	TYR A 626	173.315	174.180	205.825	1.00 35.50	C
ATOM	3988	O	TYR A 626	173.563	175.177	205.147	1.00 35.50	O
ATOM	3989	CB	TYR A 626	175.008	172.643	206.857	1.00 35.50	C
ATOM	3990	CG	TYR A 626	175.768	171.342	206.784	1.00 35.50	C
ATOM	3991	CD1	TYR A 626	175.207	170.156	207.227	1.00 35.50	C
ATOM	3992	CD2	TYR A 626	177.042	171.299	206.242	1.00 35.50	C
ATOM	3993	CE1	TYR A 626	175.902	168.969	207.151	1.00 35.50	C
ATOM	3994	CE2	TYR A 626	177.742	170.121	206.158	1.00 35.50	C
ATOM	3995	CZ	TYR A 626	177.170	168.958	206.614	1.00 35.50	C
ATOM	3996	OH	TYR A 626	177.869	167.780	206.532	1.00 35.50	O
ATOM	3997	N	GLU A 627	172.362	174.166	206.753	1.00 36.67	N
ATOM	3998	CA	GLU A 627	171.548	175.353	207.009	1.00 36.67	C

ATOM	3999	C	GLU A 627	171.115	175.323	208.470	1.00 36.67 C
ATOM	4000	O	GLU A 627	170.254	174.523	208.846	1.00 36.67 O
ATOM	4001	CB	GLU A 627	170.345	175.414	206.083	1.00 36.67 C
ATOM	4002	CG	GLU A 627	169.513	176.665	206.285	1.00 36.67 C
ATOM	4003	CD	GLU A 627	168.297	176.720	205.388	1.00 36.67 C
ATOM	4004	OE1	GLU A 627	168.066	175.752	204.637	1.00 36.67 O
ATOM	4005	OE2	GLU A 627	167.570	177.734	205.435	1.00 36.67 O
ATOM	4006	N	TYR A 628	171.709	176.190	209.278	1.00 34.02 N
ATOM	4007	CA	TYR A 628	171.303	176.347	210.664	1.00 34.02 C
ATOM	4008	C	TYR A 628	170.352	177.527	210.798	1.00 34.02 C
ATOM	4009	O	TYR A 628	170.522	178.562	210.149	1.00 34.02 O
ATOM	4010	CB	TYR A 628	172.522	176.553	211.559	1.00 34.02 C
ATOM	4011	CG	TYR A 628	173.424	175.348	211.643	1.00 34.02 C
ATOM	4012	CD1	TYR A 628	173.152	174.314	212.524	1.00 34.02 C
ATOM	4013	CD2	TYR A 628	174.539	175.238	210.831	1.00 34.02 C
ATOM	4014	CE1	TYR A 628	173.974	173.211	212.600	1.00 34.02 C
ATOM	4015	CE2	TYR A 628	175.364	174.140	210.899	1.00 34.02 C
ATOM	4016	CZ	TYR A 628	175.077	173.130	211.784	1.00 34.02 C
ATOM	4017	OH	TYR A 628	175.899	172.034	211.853	1.00 34.02 O
ATOM	4018	N	VAL A 629	169.347	177.365	211.655	1.00 34.31 N
ATOM	4019	CA	VAL A 629	168.346	178.399	211.893	1.00 34.31 C
ATOM	4020	C	VAL A 629	168.192	178.560	213.396	1.00 34.31 C
ATOM	4021	O	VAL A 629	167.780	177.620	214.084	1.00 34.31 O
ATOM	4022	CB	VAL A 629	166.991	178.063	211.251	1.00 34.31 C
ATOM	4023	CG1	VAL A 629	165.967	179.120	211.613	1.00 34.31 C
ATOM	4024	CG2	VAL A 629	167.137	177.951	209.750	1.00 34.31 C
ATOM	4025	N	ASP A 630	168.514	179.747	213.906	1.00 39.16 N
ATOM	4026	CA	ASP A 630	168.572	179.989	215.344	1.00 39.16 C
ATOM	4027	C	ASP A 630	169.564	179.054	216.024	1.00 39.16 C
ATOM	4028	O	ASP A 630	169.364	178.647	217.170	1.00 39.16 O
ATOM	4029	CB	ASP A 630	167.192	179.864	215.992	1.00 39.16 C
ATOM	4030	CG	ASP A 630	166.264	180.992	215.599	1.00 39.16 C
ATOM	4031	OD1	ASP A 630	166.766	182.090	215.285	1.00 39.16 O
ATOM	4032	OD2	ASP A 630	165.032	180.787	215.614	1.00 39.16 O
ATOM	4033	N	TYR A 631	170.639	178.706	215.315	1.00 39.25 N
ATOM	4034	CA	TYR A 631	171.719	177.897	215.873	1.00 39.25 C
ATOM	4035	C	TYR A 631	171.242	176.479	216.192	1.00 39.25 C

ATOM	4036	O	TYR A 631	171.473	175.951	217.280	1.00 39.25	O
ATOM	4037	CB	TYR A 631	172.305	178.583	217.107	1.00 39.25	C
ATOM	4038	CG	TYR A 631	173.028	179.867	216.774	1.00 39.25	C
ATOM	4039	CD1	TYR A 631	173.530	180.094	215.503	1.00 39.25	C
ATOM	4040	CD2	TYR A 631	173.163	180.871	217.714	1.00 39.25	C
ATOM	4041	CE1	TYR A 631	174.184	181.268	215.193	1.00 39.25	C
ATOM	4042	CE2	TYR A 631	173.813	182.051	217.415	1.00 39.25	C
ATOM	4043	CZ	TYR A 631	174.320	182.246	216.153	1.00 39.25	C
ATOM	4044	OH	TYR A 631	174.965	183.420	215.848	1.00 39.25	O
ATOM	4045	N	LEU A 632	170.571	175.866	215.220	1.00 38.28	N
ATOM	4046	CA	LEU A 632	170.144	174.475	215.293	1.00 38.28	C
ATOM	4047	C	LEU A 632	170.004	173.956	213.871	1.00 38.28	C
ATOM	4048	O	LEU A 632	169.412	174.631	213.025	1.00 38.28	O
ATOM	4049	CB	LEU A 632	168.818	174.326	216.047	1.00 38.28	C
ATOM	4050	CG	LEU A 632	168.829	174.608	217.548	1.00 38.28	C
ATOM	4051	CD1	LEU A 632	167.420	174.560	218.115	1.00 38.28	C
ATOM	4052	CD2	LEU A 632	169.724	173.611	218.255	1.00 38.28	C
ATOM	4053	N	PHE A 633	170.552	172.772	213.611	1.00 36.72	N
ATOM	4054	CA	PHE A 633	170.528	172.216	212.265	1.00 36.72	C
ATOM	4055	C	PHE A 633	169.098	171.977	211.800	1.00 36.72	C
ATOM	4056	O	PHE A 633	168.257	171.478	212.551	1.00 36.72	O
ATOM	4057	CB	PHE A 633	171.322	170.913	212.221	1.00 36.72	C
ATOM	4058	CG	PHE A 633	171.323	170.251	210.878	1.00 36.72	C
ATOM	4059	CD1	PHE A 633	172.061	170.771	209.835	1.00 36.72	C
ATOM	4060	CD2	PHE A 633	170.593	169.099	210.664	1.00 36.72	C
ATOM	4061	CE1	PHE A 633	172.063	170.161	208.602	1.00 36.72	C
ATOM	4062	CE2	PHE A 633	170.593	168.484	209.433	1.00 36.72	C
ATOM	4063	CZ	PHE A 633	171.328	169.016	208.401	1.00 36.72	C
ATOM	4064	N	LYS A 634	168.823	172.345	210.548	1.00 37.55	N
ATOM	4065	CA	LYS A 634	167.476	172.252	209.997	1.00 37.55	C
ATOM	4066	C	LYS A 634	167.374	171.247	208.857	1.00 37.55	C
ATOM	4067	O	LYS A 634	166.595	170.294	208.954	1.00 37.55	O
ATOM	4068	CB	LYS A 634	167.022	173.640	209.530	1.00 37.55	C
ATOM	4069	CG	LYS A 634	165.614	173.677	208.977	1.00 37.55	C
ATOM	4070	CD	LYS A 634	164.603	173.293	210.039	1.00 37.55	C
ATOM	4071	CE	LYS A 634	164.569	174.315	211.162	1.00 37.55	C
ATOM	4072	NZ	LYS A 634	164.010	175.619	210.711	1.00 37.55	N

ATOM	4073	N	ARG A 635	168.133	171.423	207.780	1.00 40.47 N
ATOM	4074	CA	ARG A 635	168.041	170.512	206.644	1.00 40.47 C
ATOM	4075	C	ARG A 635	169.244	170.740	205.733	1.00 40.47 C
ATOM	4076	O	ARG A 635	170.208	171.411	206.118	1.00 40.47 O
ATOM	4077	CB	ARG A 635	166.704	170.697	205.908	1.00 40.47 C
ATOM	4078	CG	ARG A 635	166.569	172.023	205.191	1.00 40.47 C
ATOM	4079	CD	ARG A 635	165.189	172.168	204.574	1.00 40.47 C
ATOM	4080	NE	ARG A 635	165.066	173.403	203.808	1.00 40.47 N
ATOM	4081	CZ	ARG A 635	164.721	174.574	204.333	1.00 40.47 C
ATOM	4082	NH1	ARG A 635	164.465	174.670	205.630	1.00 40.47 N
ATOM	4083	NH2	ARG A 635	164.634	175.648	203.562	1.00 40.47 N
ATOM	4084	N	MET A 636	169.185	170.180	204.528	1.00 38.33 N
ATOM	4085	CA	MET A 636	170.249	170.285	203.539	1.00 38.33 C
ATOM	4086	C	MET A 636	169.720	170.986	202.296	1.00 38.33 C
ATOM	4087	O	MET A 636	168.645	170.641	201.796	1.00 38.33 O
ATOM	4088	CB	MET A 636	170.785	168.901	203.167	1.00 38.33 C
ATOM	4089	CG	MET A 636	171.471	168.167	204.301	1.00 38.33 C
ATOM	4090	SD	MET A 636	172.957	169.004	204.866	1.00 38.33 S
ATOM	4091	CE	MET A 636	174.022	168.760	203.450	1.00 38.33 C
ATOM	4092	N	ILE A 637	170.471	171.966	201.805	1.00 41.57 N
ATOM	4093	CA	ILE A 637	170.177	172.636	200.545	1.00 41.57 C
ATOM	4094	C	ILE A 637	171.129	172.101	199.487	1.00 41.57 C
ATOM	4095	O	ILE A 637	172.279	171.755	199.778	1.00 41.57 O
ATOM	4096	CB	ILE A 637	170.293	174.168	200.685	1.00 41.57 C
ATOM	4097	CG1	ILE A 637	169.261	174.689	201.682	1.00 41.57 C
ATOM	4098	CG2	ILE A 637	170.115	174.855	199.343	1.00 41.57 C
ATOM	4099	CD1	ILE A 637	169.473	176.130	202.065	1.00 41.57 C
ATOM	4100	N	ASP A 638	170.654	172.034	198.244	1.00 49.41 N
ATOM	4101	CA	ASP A 638	171.417	171.460	197.143	1.00 49.41 C
ATOM	4102	C	ASP A 638	172.076	172.522	196.266	1.00 49.41 C
ATOM	4103	O	ASP A 638	172.478	172.236	195.136	1.00 49.41 O
ATOM	4104	CB	ASP A 638	170.523	170.550	196.303	1.00 49.41 C
ATOM	4105	CG	ASP A 638	169.310	171.273	195.752	1.00 49.41 C
ATOM	4106	OD1	ASP A 638	169.120	172.462	196.080	1.00 49.41 O
ATOM	4107	OD2	ASP A 638	168.542	170.649	194.990	1.00 49.41 O
ATOM	4108	N	LEU A 639	172.206	173.746	196.778	1.00 50.39 N
ATOM	4109	CA	LEU A 639	172.855	174.840	196.053	1.00 50.39 C

ATOM	4110	C	LEU A 639	172.176	175.113	194.713	1.00 50.39	C
ATOM	4111	O	LEU A 639	172.827	175.304	193.685	1.00 50.39	O
ATOM	4112	CB	LEU A 639	174.348	174.570	195.864	1.00 50.39	C
ATOM	4113	CG	LEU A 639	175.245	175.142	196.959	1.00 50.39	C
ATOM	4114	CD1	LEU A 639	175.225	176.650	196.888	1.00 50.39	C
ATOM	4115	CD2	LEU A 639	174.753	174.699	198.310	1.00 50.39	C
ATOM	4116	N	SER A 640	170.854	175.127	194.732	1.00 52.66	N
ATOM	4117	CA	SER A 640	170.077	175.609	193.600	1.00 52.66	C
ATOM	4118	C	SER A 640	169.359	176.910	193.906	1.00 52.66	C
ATOM	4119	O	SER A 640	169.173	177.734	193.008	1.00 52.66	O
ATOM	4120	CB	SER A 640	169.056	174.554	193.157	1.00 52.66	C
ATOM	4121	OG	SER A 640	168.290	175.025	192.061	1.00 52.66	O
ATOM	4122	N	SER A 641	168.953	177.112	195.159	1.00 51.56	N
ATOM	4123	CA	SER A 641	168.297	178.356	195.538	1.00 51.56	C
ATOM	4124	C	SER A 641	169.249	179.540	195.436	1.00 51.56	C
ATOM	4125	O	SER A 641	168.873	180.604	194.932	1.00 51.56	O
ATOM	4126	CB	SER A 641	167.738	178.235	196.955	1.00 51.56	C
ATOM	4127	OG	SER A 641	167.163	179.455	197.386	1.00 51.56	O
ATOM	4128	N	ILE A 642	170.484	179.377	195.907	1.00 49.20	N
ATOM	4129	CA	ILE A 642	171.438	180.478	195.897	1.00 49.20	C
ATOM	4130	C	ILE A 642	171.818	180.808	194.461	1.00 49.20	C
ATOM	4131	O	ILE A 642	172.237	179.932	193.694	1.00 49.20	O
ATOM	4132	CB	ILE A 642	172.675	180.126	196.735	1.00 49.20	C
ATOM	4133	CG1	ILE A 642	172.288	179.935	198.202	1.00 49.20	C
ATOM	4134	CG2	ILE A 642	173.726	181.209	196.605	1.00 49.20	C
ATOM	4135	CD1	ILE A 642	171.905	178.520	198.555	1.00 49.20	C
ATOM	4136	N	SER A 643	171.673	182.076	194.091	1.00 55.55	N
ATOM	4137	CA	SER A 643	171.948	182.538	192.738	1.00 55.55	C
ATOM	4138	C	SER A 643	173.359	183.102	192.666	1.00 55.55	C
ATOM	4139	O	SER A 643	173.726	183.972	193.461	1.00 55.55	O
ATOM	4140	CB	SER A 643	170.935	183.599	192.310	1.00 55.55	C
ATOM	4141	OG	SER A 643	169.626	183.060	192.260	1.00 55.55	O
ATOM	4142	N	THR A 644	174.145	182.603	191.715	1.00 66.26	N
ATOM	4143	CA	THR A 644	175.514	183.071	191.557	1.00 66.26	C
ATOM	4144	C	THR A 644	175.525	184.548	191.177	1.00 66.26	C
ATOM	4145	O	THR A 644	174.599	185.055	190.539	1.00 66.26	O
ATOM	4146	CB	THR A 644	176.237	182.239	190.498	1.00 66.26	C

ATOM	4147	OG1	THR	A	644	176.160	180.854	190.850	1.00 66.26	O
ATOM	4148	CG2	THR	A	644	177.698	182.631	190.421	1.00 66.26	C
ATOM	4149	N	VAL	A	645	176.591	185.244	191.580	1.00 70.08	N
ATOM	4150	CA	VAL	A	645	176.639	186.692	191.410	1.00 70.08	C
ATOM	4151	C	VAL	A	645	176.686	187.083	189.938	1.00 70.08	C
ATOM	4152	O	VAL	A	645	176.080	188.084	189.539	1.00 70.08	O
ATOM	4153	CB	VAL	A	645	177.829	187.284	192.185	1.00 70.08	C
ATOM	4154	CG1	VAL	A	645	179.140	186.767	191.625	1.00 70.08	C
ATOM	4155	CG2	VAL	A	645	177.787	188.798	192.128	1.00 70.08	C
ATOM	4156	N	ASP	A	646	177.397	186.321	189.106	1.00 80.16	N
ATOM	4157	CA	ASP	A	646	177.493	186.626	187.685	1.00 80.16	C
ATOM	4158	C	ASP	A	646	176.343	186.034	186.878	1.00 80.16	C
ATOM	4159	O	ASP	A	646	176.389	186.051	185.643	1.00 80.16	O
ATOM	4160	CB	ASP	A	646	178.841	186.158	187.126	1.00 80.16	C
ATOM	4161	CG	ASP	A	646	179.053	184.664	187.266	1.00 80.16	C
ATOM	4162	OD1	ASP	A	646	178.190	183.984	187.853	1.00 80.16	O
ATOM	4163	OD2	ASP	A	646	180.093	184.167	186.786	1.00 80.16	O
ATOM	4164	N	SER	A	647	175.315	185.513	187.547	1.00 85.01	N
ATOM	4165	CA	SER	A	647	174.107	185.044	186.887	1.00 85.01	C
ATOM	4166	C	SER	A	647	172.943	186.006	187.065	1.00 85.01	C
ATOM	4167	O	SER	A	647	171.860	185.758	186.524	1.00 85.01	O
ATOM	4168	CB	SER	A	647	173.717	183.657	187.410	1.00 85.01	C
ATOM	4169	OG	SER	A	647	174.705	182.695	187.086	1.00 85.01	O
ATOM	4170	N	MET	A	648	173.139	187.091	187.810	1.00 89.71	N
ATOM	4171	CA	MET	A	648	172.144	188.141	187.985	1.00 89.71	C
ATOM	4172	C	MET	A	648	172.810	189.503	187.875	1.00 89.71	C
ATOM	4173	O	MET	A	648	172.535	190.416	188.660	1.00 89.71	O
ATOM	4174	CB	MET	A	648	171.416	188.000	189.321	1.00 89.71	C
ATOM	4175	CG	MET	A	648	170.581	186.738	189.435	1.00 89.71	C
ATOM	4176	SD	MET	A	648	169.243	186.686	188.229	1.00 89.71	S
ATOM	4177	CE	MET	A	648	168.633	185.020	188.470	1.00 89.71	C
ATOM	4178	N	ILE	A	649	173.706	189.649	186.894	1.00 90.67	N
ATOM	4179	CA	ILE	A	649	174.500	190.868	186.757	1.00 90.67	C
ATOM	4180	C	ILE	A	649	173.615	192.081	186.504	1.00 90.67	C
ATOM	4181	O	ILE	A	649	173.996	193.214	186.819	1.00 90.67	O
ATOM	4182	CB	ILE	A	649	175.546	190.691	185.638	1.00 90.67	C
ATOM	4183	CG1	ILE	A	649	176.525	189.570	185.996	1.00 90.67	C

ATOM	4184	CG2	ILE A 649	176.296	191.989	185.389	1.00 90.67	C
ATOM	4185	CD1	ILE A 649	177.428	189.157	184.853	1.00 90.67	C
ATOM	4186	N	ALA A 650	172.429	191.872	185.941	1.00 95.20	N
ATOM	4187	CA	ALA A 650	171.509	192.960	185.642	1.00 95.20	C
ATOM	4188	C	ALA A 650	170.297	193.008	186.557	1.00 95.20	C
ATOM	4189	O	ALA A 650	169.911	194.092	186.999	1.00 95.20	O
ATOM	4190	CB	ALA A 650	171.033	192.863	184.188	1.00 95.20	C
ATOM	4191	N	LEU A 651	169.685	191.866	186.859	1.00 94.98	N
ATOM	4192	CA	LEU A 651	168.374	191.829	187.504	1.00 94.98	C
ATOM	4193	C	LEU A 651	168.493	191.254	188.915	1.00 94.98	C
ATOM	4194	O	LEU A 651	168.446	190.040	189.119	1.00 94.98	O
ATOM	4195	CB	LEU A 651	167.383	191.031	186.659	1.00 94.98	C
ATOM	4196	CG	LEU A 651	165.915	191.093	187.085	1.00 94.98	C
ATOM	4197	CD1	LEU A 651	165.012	190.928	185.877	1.00 94.98	C
ATOM	4198	CD2	LEU A 651	165.595	190.034	188.129	1.00 94.98	C
ATOM	4199	N	ASP A 652	168.660	192.146	189.883	1.00 85.05	N
ATOM	4200	CA	ASP A 652	168.357	191.924	191.293	1.00 85.05	C
ATOM	4201	C	ASP A 652	167.605	193.136	191.818	1.00 85.05	C
ATOM	4202	O	ASP A 652	167.927	193.703	192.864	1.00 85.05	O
ATOM	4203	CB	ASP A 652	169.614	191.646	192.111	1.00 85.05	C
ATOM	4204	CG	ASP A 652	170.615	192.779	192.054	1.00 85.05	C
ATOM	4205	OD1	ASP A 652	170.411	193.730	191.271	1.00 85.05	O
ATOM	4206	OD2	ASP A 652	171.598	192.731	192.816	1.00 85.05	O
ATOM	4207	N	ILE A 653	166.557	193.508	191.072	1.00 83.24	N
ATOM	4208	CA	ILE A 653	166.113	194.898	190.937	1.00 83.24	C
ATOM	4209	C	ILE A 653	165.887	195.571	192.284	1.00 83.24	C
ATOM	4210	O	ILE A 653	166.140	196.771	192.441	1.00 83.24	O
ATOM	4211	CB	ILE A 653	164.850	194.962	190.060	1.00 83.24	C
ATOM	4212	CG1	ILE A 653	165.128	194.343	188.689	1.00 83.24	C
ATOM	4213	CG2	ILE A 653	164.375	196.400	189.915	1.00 83.24	C
ATOM	4214	CD1	ILE A 653	166.244	195.024	187.927	1.00 83.24	C
ATOM	4215	N	ASP A 654	165.411	194.826	193.273	1.00 70.29	N
ATOM	4216	CA	ASP A 654	165.230	195.480	194.561	1.00 70.29	C
ATOM	4217	C	ASP A 654	165.308	194.511	195.733	1.00 70.29	C
ATOM	4218	O	ASP A 654	164.472	193.608	195.863	1.00 70.29	O
ATOM	4219	CB	ASP A 654	163.901	196.240	194.595	1.00 70.29	C
ATOM	4220	CG	ASP A 654	162.708	195.361	194.263	1.00 70.29	C

ATOM	4221	OD1	ASP A 654	162.908	194.202	193.840	1.00 70.29	O
ATOM	4222	OD2	ASP A 654	161.565	195.828	194.444	1.00 70.29	O
ATOM	4223	N	PRO A 655	166.298	194.665	196.602	1.00 58.74	N
ATOM	4224	CA	PRO A 655	166.226	194.020	197.917	1.00 58.74	C
ATOM	4225	C	PRO A 655	165.149	194.681	198.761	1.00 58.74	C
ATOM	4226	O	PRO A 655	164.560	195.676	198.329	1.00 58.74	O
ATOM	4227	CB	PRO A 655	167.630	194.233	198.490	1.00 58.74	C
ATOM	4228	CG	PRO A 655	168.135	195.456	197.792	1.00 58.74	C
ATOM	4229	CD	PRO A 655	167.550	195.415	196.413	1.00 58.74	C
ATOM	4230	N	LEU A 656	164.879	194.167	199.959	1.00 46.93	N
ATOM	4231	CA	LEU A 656	163.737	194.624	200.738	1.00 46.93	C
ATOM	4232	C	LEU A 656	164.073	195.674	201.790	1.00 46.93	C
ATOM	4233	O	LEU A 656	163.151	196.273	202.349	1.00 46.93	O
ATOM	4234	CB	LEU A 656	163.045	193.435	201.414	1.00 46.93	C
ATOM	4235	CG	LEU A 656	162.310	192.468	200.491	1.00 46.93	C
ATOM	4236	CD1	LEU A 656	161.791	191.285	201.284	1.00 46.93	C
ATOM	4237	CD2	LEU A 656	161.173	193.186	199.792	1.00 46.93	C
ATOM	4238	N	GLU A 657	165.350	195.941	202.060	1.00 44.99	N
ATOM	4239	CA	GLU A 657	165.733	196.895	203.100	1.00 44.99	C
ATOM	4240	C	GLU A 657	165.220	196.432	204.468	1.00 44.99	C
ATOM	4241	O	GLU A 657	164.341	197.033	205.085	1.00 44.99	O
ATOM	4242	CB	GLU A 657	165.236	198.301	202.739	1.00 44.99	C
ATOM	4243	CG	GLU A 657	165.798	199.439	203.568	1.00 44.99	C
ATOM	4244	CD	GLU A 657	164.888	199.827	204.704	1.00 44.99	C
ATOM	4245	OE1	GLU A 657	163.661	199.669	204.549	1.00 44.99	O
ATOM	4246	OE2	GLU A 657	165.384	200.281	205.753	1.00 44.99	O
ATOM	4247	N	ASN A 658	165.767	195.305	204.907	1.00 42.03	N
ATOM	4248	CA	ASN A 658	165.385	194.697	206.168	1.00 42.03	C
ATOM	4249	C	ASN A 658	166.064	195.387	207.346	1.00 42.03	C
ATOM	4250	O	ASN A 658	166.982	196.193	207.177	1.00 42.03	O
ATOM	4251	CB	ASN A 658	165.733	193.211	206.145	1.00 42.03	C
ATOM	4252	CG	ASN A 658	167.175	192.962	205.771	1.00 42.03	C
ATOM	4253	OD1	ASN A 658	167.967	193.893	205.649	1.00 42.03	O
ATOM	4254	ND2	ASN A 658	167.517	191.701	205.556	1.00 42.03	N
ATOM	4255	N	THR A 659	165.593	195.065	208.545	1.00 39.12	N
ATOM	4256	CA	THR A 659	166.105	195.635	209.783	1.00 39.12	C
ATOM	4257	C	THR A 659	166.385	194.521	210.789	1.00 39.12	C

ATOM	4258	O	THR A 659	166.268	193.332	210.484	1.00 39.12	O
ATOM	4259	CB	THR A 659	165.121	196.652	210.361	1.00 39.12	C
ATOM	4260	OG1	THR A 659	163.897	195.992	210.702	1.00 39.12	O
ATOM	4261	CG2	THR A 659	164.834	197.740	209.350	1.00 39.12	C
ATOM	4262	N	ASP A 660	166.752	194.924	212.006	1.00 37.81	N
ATOM	4263	CA	ASP A 660	167.027	193.972	213.081	1.00 37.81	C
ATOM	4264	C	ASP A 660	166.792	194.700	214.402	1.00 37.81	C
ATOM	4265	O	ASP A 660	167.627	195.503	214.827	1.00 37.81	O
ATOM	4266	CB	ASP A 660	168.443	193.426	212.983	1.00 37.81	C
ATOM	4267	CG	ASP A 660	168.679	192.261	213.918	1.00 37.81	C
ATOM	4268	OD1	ASP A 660	168.169	191.160	213.631	1.00 37.81	O
ATOM	4269	OD2	ASP A 660	169.372	192.440	214.940	1.00 37.81	O
ATOM	4270	N	PHE A 661	165.666	194.407	215.045	1.00 35.43	N
ATOM	4271	CA	PHE A 661	165.238	195.134	216.233	1.00 35.43	C
ATOM	4272	C	PHE A 661	165.955	194.708	217.505	1.00 35.43	C
ATOM	4273	O	PHE A 661	165.606	195.205	218.580	1.00 35.43	O
ATOM	4274	CB	PHE A 661	163.734	194.962	216.433	1.00 35.43	C
ATOM	4275	CG	PHE A 661	162.909	195.588	215.358	1.00 35.43	C
ATOM	4276	CD1	PHE A 661	162.610	196.936	215.392	1.00 35.43	C
ATOM	4277	CD2	PHE A 661	162.442	194.830	214.304	1.00 35.43	C
ATOM	4278	CE1	PHE A 661	161.851	197.512	214.398	1.00 35.43	C
ATOM	4279	CE2	PHE A 661	161.685	195.400	213.308	1.00 35.43	C
ATOM	4280	CZ	PHE A 661	161.389	196.742	213.354	1.00 35.43	C
ATOM	4281	N	ARG A 662	166.928	193.808	217.433	1.00 37.84	N
ATOM	4282	CA	ARG A 662	167.584	193.326	218.641	1.00 37.84	C
ATOM	4283	C	ARG A 662	169.013	193.816	218.791	1.00 37.84	C
ATOM	4284	O	ARG A 662	169.394	194.245	219.879	1.00 37.84	O
ATOM	4285	CB	ARG A 662	167.559	191.797	218.677	1.00 37.84	C
ATOM	4286	CG	ARG A 662	166.159	191.230	218.779	1.00 37.84	C
ATOM	4287	CD	ARG A 662	166.172	189.723	218.688	1.00 37.84	C
ATOM	4288	NE	ARG A 662	166.803	189.093	219.840	1.00 37.84	N
ATOM	4289	CZ	ARG A 662	166.144	188.703	220.926	1.00 37.84	C
ATOM	4290	NH1	ARG A 662	164.833	188.873	221.004	1.00 37.84	N
ATOM	4291	NH2	ARG A 662	166.800	188.133	221.924	1.00 37.84	N
ATOM	4292	N	VAL A 663	169.820	193.777	217.726	1.00 37.94	N
ATOM	4293	CA	VAL A 663	171.142	194.401	217.769	1.00 37.94	C
ATOM	4294	C	VAL A 663	171.061	195.912	217.662	1.00 37.94	C

ATOM	4295	O	VAL	A	663	172.080	196.596	217.815	1.00	37.94	O
ATOM	4296	CB	VAL	A	663	172.051	193.875	216.641	1.00	37.94	C
ATOM	4297	CG1	VAL	A	663	171.573	194.384	215.301	1.00	37.94	C
ATOM	4298	CG2	VAL	A	663	173.496	194.271	216.876	1.00	37.94	C
ATOM	4299	N	LEU	A	664	169.873	196.458	217.420	1.00	35.68	N
ATOM	4300	CA	LEU	A	664	169.687	197.885	217.231	1.00	35.68	C
ATOM	4301	C	LEU	A	664	169.078	198.564	218.450	1.00	35.68	C
ATOM	4302	O	LEU	A	664	169.001	199.796	218.482	1.00	35.68	O
ATOM	4303	CB	LEU	A	664	168.812	198.121	215.988	1.00	35.68	C
ATOM	4304	CG	LEU	A	664	168.695	199.492	215.326	1.00	35.68	C
ATOM	4305	CD1	LEU	A	664	168.408	199.342	213.849	1.00	35.68	C
ATOM	4306	CD2	LEU	A	664	167.575	200.278	215.975	1.00	35.68	C
ATOM	4307	N	GLU	A	665	168.659	197.800	219.457	1.00	40.48	N
ATOM	4308	CA	GLU	A	665	168.234	198.351	220.735	1.00	40.48	C
ATOM	4309	C	GLU	A	665	169.371	198.416	221.743	1.00	40.48	C
ATOM	4310	O	GLU	A	665	169.190	198.969	222.833	1.00	40.48	O
ATOM	4311	CB	GLU	A	665	167.080	197.530	221.314	1.00	40.48	C
ATOM	4312	CG	GLU	A	665	165.786	197.650	220.534	1.00	40.48	C
ATOM	4313	CD	GLU	A	665	164.655	196.838	221.140	1.00	40.48	C
ATOM	4314	OE1	GLU	A	665	164.907	196.086	222.104	1.00	40.48	O
ATOM	4315	OE2	GLU	A	665	163.512	196.954	220.649	1.00	40.48	O
ATOM	4316	N	LEU	A	666	170.531	197.856	221.410	1.00	41.95	N
ATOM	4317	CA	LEU	A	666	171.738	198.014	222.208	1.00	41.95	C
ATOM	4318	C	LEU	A	666	172.452	199.322	221.916	1.00	41.95	C
ATOM	4319	O	LEU	A	666	173.021	199.931	222.825	1.00	41.95	O
ATOM	4320	CB	LEU	A	666	172.701	196.852	221.954	1.00	41.95	C
ATOM	4321	CG	LEU	A	666	172.243	195.460	222.376	1.00	41.95	C
ATOM	4322	CD1	LEU	A	666	173.262	194.419	221.946	1.00	41.95	C
ATOM	4323	CD2	LEU	A	666	172.015	195.405	223.873	1.00	41.95	C
ATOM	4324	N	TYR	A	667	172.446	199.752	220.654	1.00	39.23	N
ATOM	4325	CA	TYR	A	667	173.077	201.014	220.289	1.00	39.23	C
ATOM	4326	C	TYR	A	667	172.422	202.185	221.005	1.00	39.23	C
ATOM	4327	O	TYR	A	667	173.107	203.006	221.625	1.00	39.23	O
ATOM	4328	CB	TYR	A	667	173.022	201.196	218.775	1.00	39.23	C
ATOM	4329	CG	TYR	A	667	173.975	200.293	218.035	1.00	39.23	C
ATOM	4330	CD1	TYR	A	667	175.078	199.755	218.671	1.00	39.23	C
ATOM	4331	CD2	TYR	A	667	173.755	199.955	216.710	1.00	39.23	C

ATOM	4332	CE1	TYR A 667	175.951	198.930	218.002	1.00 39.23	C
ATOM	4333	CE2	TYR A 667	174.621	199.122	216.033	1.00 39.23	C
ATOM	4334	CZ	TYR A 667	175.718	198.613	216.685	1.00 39.23	C
ATOM	4335	OH	TYR A 667	176.586	197.783	216.016	1.00 39.23	O
ATOM	4336	N	SER A 668	171.098	202.283	220.941	1.00 42.29	N
ATOM	4337	CA	SER A 668	170.419	203.365	221.650	1.00 42.29	C
ATOM	4338	C	SER A 668	170.047	202.958	223.070	1.00 42.29	C
ATOM	4339	O	SER A 668	168.934	203.188	223.538	1.00 42.29	O
ATOM	4340	CB	SER A 668	169.185	203.803	220.872	1.00 42.29	C
ATOM	4341	OG	SER A 668	168.482	204.815	221.572	1.00 42.29	O
ATOM	4342	N	GLN A 669	170.996	202.341	223.767	1.00 48.45	N
ATOM	4343	CA	GLN A 669	170.914	202.189	225.212	1.00 48.45	C
ATOM	4344	C	GLN A 669	172.261	202.360	225.898	1.00 48.45	C
ATOM	4345	O	GLN A 669	172.292	202.474	227.127	1.00 48.45	O
ATOM	4346	CB	GLN A 669	170.313	200.824	225.575	1.00 48.45	C
ATOM	4347	CG	GLN A 669	169.940	200.671	227.040	1.00 48.45	C
ATOM	4348	CD	GLN A 669	169.362	199.306	227.350	1.00 48.45	C
ATOM	4349	OE1	GLN A 669	169.284	198.441	226.478	1.00 48.45	O
ATOM	4350	NE2	GLN A 669	168.949	199.106	228.595	1.00 48.45	N
ATOM	4351	N	LYS A 670	173.369	202.378	225.151	1.00 53.13	N
ATOM	4352	CA	LYS A 670	174.717	202.596	225.684	1.00 53.13	C
ATOM	4353	C	LYS A 670	175.227	201.406	226.501	1.00 53.13	C
ATOM	4354	O	LYS A 670	175.816	201.581	227.568	1.00 53.13	O
ATOM	4355	CB	LYS A 670	174.792	203.882	226.509	1.00 53.13	C
ATOM	4356	CG	LYS A 670	174.998	205.144	225.687	1.00 53.13	C
ATOM	4357	CD	LYS A 670	173.732	205.563	224.964	1.00 53.13	C
ATOM	4358	CE	LYS A 670	173.930	206.889	224.245	1.00 53.13	C
ATOM	4359	NZ	LYS A 670	172.737	207.278	223.443	1.00 53.13	N
ATOM	4360	N	GLU A 671	175.009	200.187	225.997	1.00 56.69	N
ATOM	4361	CA	GLU A 671	175.693	198.998	226.501	1.00 56.69	C
ATOM	4362	C	GLU A 671	176.525	198.334	225.413	1.00 56.69	C
ATOM	4363	O	GLU A 671	176.753	197.121	225.459	1.00 56.69	O
ATOM	4364	CB	GLU A 671	174.710	197.983	227.085	1.00 56.69	C
ATOM	4365	CG	GLU A 671	174.012	198.430	228.348	1.00 56.69	C
ATOM	4366	CD	GLU A 671	172.825	199.293	228.031	1.00 56.69	C
ATOM	4367	OE1	GLU A 671	172.598	199.509	226.826	1.00 56.69	O
ATOM	4368	OE2	GLU A 671	172.123	199.739	228.962	1.00 56.69	O

ATOM	4369	N	LEU A 672	176.985	199.108	224.437	1.00 57.86	N
ATOM	4370	CA	LEU A 672	177.662	198.551	223.278	1.00 57.86	C
ATOM	4371	C	LEU A 672	179.070	198.092	223.643	1.00 57.86	C
ATOM	4372	O	LEU A 672	180.055	198.788	223.381	1.00 57.86	O
ATOM	4373	CB	LEU A 672	177.661	199.582	222.143	1.00 57.86	C
ATOM	4374	CG	LEU A 672	178.457	200.888	222.238	1.00 57.86	C
ATOM	4375	CD1	LEU A 672	178.587	201.529	220.867	1.00 57.86	C
ATOM	4376	CD2	LEU A 672	177.823	201.855	223.228	1.00 57.86	C
ATOM	4377	N	ARG A 673	179.174	196.916	224.254	1.00 61.88	N
ATOM	4378	CA	ARG A 673	180.490	196.390	224.603	1.00 61.88	C
ATOM	4379	C	ARG A 673	180.705	194.936	224.197	1.00 61.88	C
ATOM	4380	O	ARG A 673	181.835	194.563	223.873	1.00 61.88	O
ATOM	4381	CB	ARG A 673	180.712	196.558	226.114	1.00 61.88	C
ATOM	4382	CG	ARG A 673	182.100	196.187	226.594	1.00 61.88	C
ATOM	4383	CD	ARG A 673	182.234	196.459	228.082	1.00 61.88	C
ATOM	4384	NE	ARG A 673	181.366	195.592	228.872	1.00 61.88	N
ATOM	4385	CZ	ARG A 673	181.131	195.753	230.170	1.00 61.88	C
ATOM	4386	NH1	ARG A 673	180.328	194.915	230.809	1.00 61.88	N
ATOM	4387	NH2	ARG A 673	181.694	196.756	230.828	1.00 61.88	N
ATOM	4388	N	SER A 674	179.657	194.107	224.202	1.00 61.68	N
ATOM	4389	CA	SER A 674	179.789	192.686	223.887	1.00 61.68	C
ATOM	4390	C	SER A 674	179.058	192.307	222.608	1.00 61.68	C
ATOM	4391	O	SER A 674	179.680	191.866	221.637	1.00 61.68	O
ATOM	4392	CB	SER A 674	179.243	191.845	225.045	1.00 61.68	C
ATOM	4393	OG	SER A 674	179.931	192.117	226.240	1.00 61.68	O
ATOM	4394	N	SER A 675	177.741	192.486	222.584	1.00 61.04	N
ATOM	4395	CA	SER A 675	176.952	192.428	221.365	1.00 61.04	C
ATOM	4396	C	SER A 675	176.895	193.785	220.688	1.00 61.04	C
ATOM	4397	O	SER A 675	176.007	194.022	219.862	1.00 61.04	O
ATOM	4398	CB	SER A 675	175.540	191.918	221.666	1.00 61.04	C
ATOM	4399	OG	SER A 675	174.763	191.840	220.484	1.00 61.04	O
ATOM	4400	N	ASN A 676	177.793	194.690	221.085	1.00 59.26	N
ATOM	4401	CA	ASN A 676	178.026	195.960	220.413	1.00 59.26	C
ATOM	4402	C	ASN A 676	178.061	195.776	218.912	1.00 59.26	C
ATOM	4403	O	ASN A 676	177.162	196.204	218.181	1.00 59.26	O
ATOM	4404	CB	ASN A 676	179.370	196.515	220.895	1.00 59.26	C
ATOM	4405	CG	ASN A 676	179.685	197.886	220.340	1.00 59.26	C

ATOM	4406	OD1	ASN	A	676	178.892	198.482	219.612	1.00 59.26	O
ATOM	4407	ND2	ASN	A	676	180.862	198.395	220.682	1.00 59.26	N
ATOM	4408	N	VAL	A	677	179.089	195.083	218.458	1.00 60.27	N
ATOM	4409	CA	VAL	A	677	179.280	194.734	217.074	1.00 60.27	C
ATOM	4410	C	VAL	A	677	179.829	193.316	217.043	1.00 60.27	C
ATOM	4411	O	VAL	A	677	180.223	192.756	218.068	1.00 60.27	O
ATOM	4412	CB	VAL	A	677	180.240	195.705	216.354	1.00 60.27	C
ATOM	4413	CG1	VAL	A	677	179.683	197.115	216.375	1.00 60.27	C
ATOM	4414	CG2	VAL	A	677	181.618	195.666	217.004	1.00 60.27	C
ATOM	4415	N	PHE	A	678	179.869	192.744	215.855	1.00 46.94	N
ATOM	4416	CA	PHE	A	678	180.552	191.488	215.654	1.00 46.94	C
ATOM	4417	C	PHE	A	678	181.782	191.607	214.791	1.00 46.94	C
ATOM	4418	O	PHE	A	678	182.631	190.711	214.838	1.00 46.94	O
ATOM	4419	CB	PHE	A	678	179.617	190.450	215.024	1.00 46.94	C
ATOM	4420	CG	PHE	A	678	178.761	189.765	216.012	1.00 46.94	C
ATOM	4421	CD1	PHE	A	678	179.016	189.927	217.353	1.00 46.94	C
ATOM	4422	CD2	PHE	A	678	177.739	188.929	215.619	1.00 46.94	C
ATOM	4423	CE1	PHE	A	678	178.258	189.303	218.282	1.00 46.94	C
ATOM	4424	CE2	PHE	A	678	176.971	188.293	216.556	1.00 46.94	C
ATOM	4425	CZ	PHE	A	678	177.232	188.484	217.894	1.00 46.94	C
ATOM	4426	N	ASP	A	679	181.916	192.679	214.021	1.00 44.52	N
ATOM	4427	CA	ASP	A	679	182.883	192.694	212.941	1.00 44.52	C
ATOM	4428	C	ASP	A	679	182.595	191.516	212.013	1.00 44.52	C
ATOM	4429	O	ASP	A	679	183.339	190.542	211.958	1.00 44.52	O
ATOM	4430	CB	ASP	A	679	184.313	192.653	213.484	1.00 44.52	C
ATOM	4431	CG	ASP	A	679	184.696	193.923	214.217	1.00 44.52	C
ATOM	4432	OD1	ASP	A	679	184.182	195.001	213.855	1.00 44.52	O
ATOM	4433	OD2	ASP	A	679	185.511	193.843	215.160	1.00 44.52	O
ATOM	4434	N	LEU	A	680	181.439	191.559	211.355	1.00 42.05	N
ATOM	4435	CA	LEU	A	680	181.083	190.468	210.457	1.00 42.05	C
ATOM	4436	C	LEU	A	680	181.765	190.639	209.108	1.00 42.05	C
ATOM	4437	O	LEU	A	680	182.338	189.688	208.564	1.00 42.05	O
ATOM	4438	CB	LEU	A	680	179.568	190.392	210.307	1.00 42.05	C
ATOM	4439	CG	LEU	A	680	178.832	190.023	211.597	1.00 42.05	C
ATOM	4440	CD1	LEU	A	680	177.336	190.178	211.428	1.00 42.05	C
ATOM	4441	CD2	LEU	A	680	179.169	188.604	212.016	1.00 42.05	C
ATOM	4442	N	GLU	A	681	181.718	191.846	208.560	1.00 43.19	N

ATOM	4443	CA	GLU A 681	182.567	192.239	207.438	1.00 43.19	C
ATOM	4444	C	GLU A 681	183.878	192.817	207.967	1.00 43.19	C
ATOM	4445	O	GLU A 681	184.321	193.903	207.600	1.00 43.19	O
ATOM	4446	CB	GLU A 681	181.829	193.235	206.551	1.00 43.19	C
ATOM	4447	CG	GLU A 681	181.472	194.542	207.247	1.00 43.19	C
ATOM	4448	CD	GLU A 681	180.636	195.454	206.374	1.00 43.19	C
ATOM	4449	OE1	GLU A 681	180.304	195.052	205.241	1.00 43.19	O
ATOM	4450	OE2	GLU A 681	180.308	196.573	206.820	1.00 43.19	O
ATOM	4451	N	GLU A 682	184.517	192.033	208.835	1.00 45.43	N
ATOM	4452	CA	GLU A 682	185.471	192.590	209.787	1.00 45.43	C
ATOM	4453	C	GLU A 682	186.712	193.187	209.132	1.00 45.43	C
ATOM	4454	O	GLU A 682	187.200	194.232	209.571	1.00 45.43	O
ATOM	4455	CB	GLU A 682	185.813	191.541	210.850	1.00 45.43	C
ATOM	4456	CG	GLU A 682	185.864	190.095	210.408	1.00 45.43	C
ATOM	4457	CD	GLU A 682	185.808	189.166	211.610	1.00 45.43	C
ATOM	4458	OE1	GLU A 682	186.051	189.636	212.738	1.00 45.43	O
ATOM	4459	OE2	GLU A 682	185.392	187.999	211.458	1.00 45.43	O
ATOM	4460	N	ILE A 683	187.212	192.591	208.053	1.00 40.05	N
ATOM	4461	CA	ILE A 683	188.429	193.119	207.434	1.00 40.05	C
ATOM	4462	C	ILE A 683	188.258	194.573	206.981	1.00 40.05	C
ATOM	4463	O	ILE A 683	189.245	195.295	206.809	1.00 40.05	O
ATOM	4464	CB	ILE A 683	188.899	192.204	206.289	1.00 40.05	C
ATOM	4465	CG1	ILE A 683	189.191	190.820	206.857	1.00 40.05	C
ATOM	4466	CG2	ILE A 683	190.162	192.746	205.642	1.00 40.05	C
ATOM	4467	CD1	ILE A 683	190.189	190.855	207.989	1.00 40.05	C
ATOM	4468	N	MET A 684	187.015	195.031	206.827	1.00 42.18	N
ATOM	4469	CA	MET A 684	186.721	196.461	206.802	1.00 42.18	C
ATOM	4470	C	MET A 684	186.252	196.988	208.153	1.00 42.18	C
ATOM	4471	O	MET A 684	186.636	198.088	208.558	1.00 42.18	O
ATOM	4472	CB	MET A 684	185.658	196.779	205.745	1.00 42.18	C
ATOM	4473	CG	MET A 684	185.333	198.257	205.616	1.00 42.18	C
ATOM	4474	SD	MET A 684	186.717	199.225	205.008	1.00 42.18	S
ATOM	4475	CE	MET A 684	186.267	200.857	205.593	1.00 42.18	C
ATOM	4476	N	ARG A 685	185.403	196.242	208.853	1.00 43.12	N
ATOM	4477	CA	ARG A 685	184.823	196.747	210.090	1.00 43.12	C
ATOM	4478	C	ARG A 685	185.721	196.531	211.303	1.00 43.12	C
ATOM	4479	O	ARG A 685	185.603	197.274	212.280	1.00 43.12	O

ATOM	4480	CB	ARG A 685	183.469	196.089	210.332	1.00 43.12	C
ATOM	4481	CG	ARG A 685	182.763	196.549	211.589	1.00 43.12	C
ATOM	4482	CD	ARG A 685	182.379	198.010	211.493	1.00 43.12	C
ATOM	4483	NE	ARG A 685	181.571	198.419	212.635	1.00 43.12	N
ATOM	4484	CZ	ARG A 685	180.242	198.375	212.656	1.00 43.12	C
ATOM	4485	NH1	ARG A 685	179.572	197.957	211.590	1.00 43.12	N
ATOM	4486	NH2	ARG A 685	179.581	198.759	213.735	1.00 43.12	N
ATOM	4487	N	GLU A 686	186.612	195.540	211.259	1.00 38.63	N
ATOM	4488	CA	GLU A 686	187.387	195.172	212.438	1.00 38.63	C
ATOM	4489	C	GLU A 686	188.532	196.133	212.719	1.00 38.63	C
ATOM	4490	O	GLU A 686	189.000	196.192	213.859	1.00 38.63	O
ATOM	4491	CB	GLU A 686	187.909	193.743	212.293	1.00 38.63	C
ATOM	4492	CG	GLU A 686	188.599	193.161	213.504	1.00 38.63	C
ATOM	4493	CD	GLU A 686	190.080	193.453	213.518	1.00 38.63	C
ATOM	4494	OE1	GLU A 686	190.659	193.654	212.431	1.00 38.63	O
ATOM	4495	OE2	GLU A 686	190.665	193.486	214.617	1.00 38.63	O
ATOM	4496	N	PHE A 687	189.000	196.891	211.729	1.00 38.57	N
ATOM	4497	CA	PHE A 687	190.114	197.796	211.963	1.00 38.57	C
ATOM	4498	C	PHE A 687	189.643	199.186	212.374	1.00 38.57	C
ATOM	4499	O	PHE A 687	190.421	199.949	212.951	1.00 38.57	O
ATOM	4500	CB	PHE A 687	191.032	197.874	210.740	1.00 38.57	C
ATOM	4501	CG	PHE A 687	190.443	198.575	209.532	1.00 38.57	C
ATOM	4502	CD1	PHE A 687	189.802	197.857	208.547	1.00 38.57	C
ATOM	4503	CD2	PHE A 687	190.561	199.951	209.373	1.00 38.57	C
ATOM	4504	CE1	PHE A 687	189.302	198.506	207.419	1.00 38.57	C
ATOM	4505	CE2	PHE A 687	190.052	200.584	208.284	1.00 38.57	C
ATOM	4506	CZ	PHE A 687	189.421	199.872	207.308	1.00 38.57	C
ATOM	4507	N	ASN A 688	188.386	199.524	212.095	1.00 37.25	N
ATOM	4508	CA	ASN A 688	187.804	200.726	212.690	1.00 37.25	C
ATOM	4509	C	ASN A 688	187.736	200.621	214.208	1.00 37.25	C
ATOM	4510	O	ASN A 688	187.855	201.626	214.906	1.00 37.25	O
ATOM	4511	CB	ASN A 688	186.396	200.967	212.116	1.00 37.25	C
ATOM	4512	CG	ASN A 688	186.420	201.509	210.706	1.00 37.25	C
ATOM	4513	OD1	ASN A 688	187.281	202.310	210.352	1.00 37.25	O
ATOM	4514	ND2	ASN A 688	185.433	201.118	209.902	1.00 37.25	N
ATOM	4515	N	SER A 689	187.557	199.401	214.731	1.00 38.20	N
ATOM	4516	CA	SER A 689	187.369	199.231	216.170	1.00 38.20	C

ATOM	4517	C	SER A 689	188.638	198.795	216.888	1.00 38.20 C
ATOM	4518	O	SER A 689	188.727	198.964	218.107	1.00 38.20 O
ATOM	4519	CB	SER A 689	186.263	198.201	216.433	1.00 38.20 C
ATOM	4520	OG	SER A 689	185.020	198.646	215.924	1.00 38.20 O
ATOM	4521	N	TYR A 690	189.614	198.227	216.165	1.00 36.81 N
ATOM	4522	CA	TYR A 690	190.793	197.664	216.821	1.00 36.81 C
ATOM	4523	C	TYR A 690	191.551	198.704	217.627	1.00 36.81 C
ATOM	4524	O	TYR A 690	192.105	198.387	218.684	1.00 36.81 O
ATOM	4525	CB	TYR A 690	191.738	197.045	215.794	1.00 36.81 C
ATOM	4526	CG	TYR A 690	192.960	196.420	216.427	1.00 36.81 C
ATOM	4527	CD1	TYR A 690	192.886	195.183	217.046	1.00 36.81 C
ATOM	4528	CD2	TYR A 690	194.181	197.076	216.422	1.00 36.81 C
ATOM	4529	CE1	TYR A 690	193.996	194.610	217.629	1.00 36.81 C
ATOM	4530	CE2	TYR A 690	195.296	196.509	217.004	1.00 36.81 C
ATOM	4531	CZ	TYR A 690	195.196	195.278	217.605	1.00 36.81 C
ATOM	4532	OH	TYR A 690	196.305	194.711	218.186	1.00 36.81 O
ATOM	4533	N	LYS A 691	191.590	199.939	217.150	1.00 37.93 N
ATOM	4534	CA	LYS A 691	192.219	201.016	217.892	1.00 37.93 C
ATOM	4535	C	LYS A 691	191.467	201.354	219.172	1.00 37.93 C
ATOM	4536	O	LYS A 691	192.076	201.870	220.114	1.00 37.93 O
ATOM	4537	CB	LYS A 691	192.307	202.244	216.996	1.00 37.93 C
ATOM	4538	CG	LYS A 691	193.184	203.346	217.494	1.00 37.93 C
ATOM	4539	CD	LYS A 691	193.064	204.499	216.531	1.00 37.93 C
ATOM	4540	CE	LYS A 691	194.086	204.404	215.426	1.00 37.93 C
ATOM	4541	NZ	LYS A 691	193.730	203.356	214.427	1.00 37.93 N
ATOM	4542	N	GLN A 692	190.167	201.067	219.223	1.00 41.59 N
ATOM	4543	CA	GLN A 692	189.353	201.250	220.417	1.00 41.59 C
ATOM	4544	C	GLN A 692	189.642	200.221	221.493	1.00 41.59 C
ATOM	4545	O	GLN A 692	189.646	200.562	222.680	1.00 41.59 O
ATOM	4546	CB	GLN A 692	187.869	201.181	220.050	1.00 41.59 C
ATOM	4547	CG	GLN A 692	186.925	201.222	221.235	1.00 41.59 C
ATOM	4548	CD	GLN A 692	187.046	202.490	222.042	1.00 41.59 C
ATOM	4549	OE1	GLN A 692	187.601	202.489	223.138	1.00 41.59 O
ATOM	4550	NE2	GLN A 692	186.521	203.587	221.506	1.00 41.59 N
ATOM	4551	N	ARG A 693	189.888	198.972	221.108	1.00 43.50 N
ATOM	4552	CA	ARG A 693	190.094	197.886	222.053	1.00 43.50 C
ATOM	4553	C	ARG A 693	191.554	197.732	222.458	1.00 43.50 C

ATOM	4554	O	ARG A 693	191.975	196.635	222.841	1.00 43.50	O
ATOM	4555	CB	ARG A 693	189.524	196.588	221.476	1.00 43.50	C
ATOM	4556	CG	ARG A 693	187.997	196.602	221.483	1.00 43.50	C
ATOM	4557	CD	ARG A 693	187.363	195.432	220.756	1.00 43.50	C
ATOM	4558	NE	ARG A 693	185.905	195.512	220.820	1.00 43.50	N
ATOM	4559	CZ	ARG A 693	185.070	194.770	220.098	1.00 43.50	C
ATOM	4560	NH1	ARG A 693	185.544	193.903	219.215	1.00 43.50	N
ATOM	4561	NH2	ARG A 693	183.762	194.916	220.238	1.00 43.50	N
ATOM	4562	N	VAL A 694	192.334	198.809	222.379	1.00 42.59	N
ATOM	4563	CA	VAL A 694	193.641	198.860	223.018	1.00 42.59	C
ATOM	4564	C	VAL A 694	193.583	199.674	224.305	1.00 42.59	C
ATOM	4565	O	VAL A 694	194.506	199.581	225.127	1.00 42.59	O
ATOM	4566	CB	VAL A 694	194.699	199.433	222.053	1.00 42.59	C
ATOM	4567	CG1	VAL A 694	196.088	199.414	222.674	1.00 42.59	C
ATOM	4568	CG2	VAL A 694	194.673	198.657	220.766	1.00 42.59	C
ATOM	4569	N	LYS A 695	192.524	200.457	224.510	1.00 47.30	N
ATOM	4570	CA	LYS A 695	192.305	201.073	225.809	1.00 47.30	C
ATOM	4571	C	LYS A 695	191.786	200.072	226.825	1.00 47.30	C
ATOM	4572	O	LYS A 695	192.169	200.141	227.997	1.00 47.30	O
ATOM	4573	CB	LYS A 695	191.315	202.228	225.702	1.00 47.30	C
ATOM	4574	CG	LYS A 695	191.846	203.461	225.020	1.00 47.30	C
ATOM	4575	CD	LYS A 695	190.827	204.569	225.145	1.00 47.30	C
ATOM	4576	CE	LYS A 695	189.650	204.309	224.230	1.00 47.30	C
ATOM	4577	NZ	LYS A 695	188.714	205.458	224.264	1.00 47.30	N
ATOM	4578	N	TYR A 696	190.912	199.156	226.398	1.00 49.67	N
ATOM	4579	CA	TYR A 696	190.409	198.120	227.294	1.00 49.67	C
ATOM	4580	C	TYR A 696	191.555	197.349	227.933	1.00 49.67	C
ATOM	4581	O	TYR A 696	191.502	196.998	229.116	1.00 49.67	O
ATOM	4582	CB	TYR A 696	189.500	197.157	226.535	1.00 49.67	C
ATOM	4583	CG	TYR A 696	188.183	197.719	226.062	1.00 49.67	C
ATOM	4584	CD1	TYR A 696	187.713	198.940	226.515	1.00 49.67	C
ATOM	4585	CD2	TYR A 696	187.399	197.007	225.167	1.00 49.67	C
ATOM	4586	CE1	TYR A 696	186.502	199.441	226.075	1.00 49.67	C
ATOM	4587	CE2	TYR A 696	186.196	197.495	224.725	1.00 49.67	C
ATOM	4588	CZ	TYR A 696	185.749	198.709	225.178	1.00 49.67	C
ATOM	4589	OH	TYR A 696	184.541	199.183	224.724	1.00 49.67	O
ATOM	4590	N	VAL A 697	192.599	197.068	227.156	1.00 52.43	N

ATOM	4591	CA	VAL A 697	193.735	196.326	227.682	1.00 52.43	C
ATOM	4592	C	VAL A 697	194.497	197.162	228.702	1.00 52.43	C
ATOM	4593	O	VAL A 697	194.606	196.788	229.875	1.00 52.43	O
ATOM	4594	CB	VAL A 697	194.648	195.868	226.534	1.00 52.43	C
ATOM	4595	CG1	VAL A 697	195.909	195.278	227.092	1.00 52.43	C
ATOM	4596	CG2	VAL A 697	193.928	194.853	225.671	1.00 52.43	C
ATOM	4597	N	GLU A 698	195.021	198.315	228.277	1.00 56.86	N
ATOM	4598	CA	GLU A 698	195.924	199.075	229.135	1.00 56.86	C
ATOM	4599	C	GLU A 698	195.234	199.623	230.373	1.00 56.86	C
ATOM	4600	O	GLU A 698	195.815	199.590	231.464	1.00 56.86	O
ATOM	4601	CB	GLU A 698	196.547	200.234	228.378	1.00 56.86	C
ATOM	4602	CG	GLU A 698	197.491	201.009	229.261	1.00 56.86	C
ATOM	4603	CD	GLU A 698	197.998	202.246	228.594	1.00 56.86	C
ATOM	4604	OE1	GLU A 698	197.557	202.509	227.458	1.00 56.86	O
ATOM	4605	OE2	GLU A 698	198.827	202.961	229.192	1.00 56.86	O
ATOM	4606	N	ASP A 699	194.022	200.162	230.227	1.00 58.49	N
ATOM	4607	CA	ASP A 699	193.303	200.718	231.371	1.00 58.49	C
ATOM	4608	C	ASP A 699	193.119	199.671	232.462	1.00 58.49	C
ATOM	4609	O	ASP A 699	193.048	200.000	233.650	1.00 58.49	O
ATOM	4610	CB	ASP A 699	191.951	201.278	230.929	1.00 58.49	C
ATOM	4611	CG	ASP A 699	191.210	201.962	232.059	1.00 58.49	C
ATOM	4612	OD1	ASP A 699	191.606	203.083	232.440	1.00 58.49	O
ATOM	4613	OD2	ASP A 699	190.235	201.378	232.573	1.00 58.49	O
ATOM	4614	N	LYS A 700	193.035	198.404	232.070	1.00 59.29	N
ATOM	4615	CA	LYS A 700	193.086	197.299	233.011	1.00 59.29	C
ATOM	4616	C	LYS A 700	194.437	196.608	233.010	1.00 59.29	C
ATOM	4617	O	LYS A 700	194.536	195.463	233.462	1.00 59.29	O
ATOM	4618	CB	LYS A 700	191.953	196.332	232.694	1.00 59.29	C
ATOM	4619	CG	LYS A 700	190.628	197.051	232.822	1.00 59.29	C
ATOM	4620	CD	LYS A 700	189.424	196.208	232.490	1.00 59.29	C
ATOM	4621	CE	LYS A 700	188.166	197.035	232.698	1.00 59.29	C
ATOM	4622	NZ	LYS A 700	188.056	198.142	231.710	1.00 59.29	N
ATOM	4623	N	VAL A 701	195.461	197.271	232.478	1.00 60.76	N
ATOM	4624	CA	VAL A 701	196.853	196.874	232.653	1.00 60.76	C
ATOM	4625	C	VAL A 701	197.399	197.491	233.929	1.00 60.76	C
ATOM	4626	O	VAL A 701	198.038	196.810	234.738	1.00 60.76	O
ATOM	4627	CB	VAL A 701	197.716	197.280	231.444	1.00 60.76	C

ATOM	4628	CG1	VAL A 701	199.187	197.270	231.817	1.00 60.76	C
ATOM	4629	CG2	VAL A 701	197.490	196.324	230.294	1.00 60.76	C
ATOM	4630	N	VAL A 702	197.159	198.790	234.114	1.00 65.85	N
ATOM	4631	CA	VAL A 702	197.748	199.495	235.243	1.00 65.85	C
ATOM	4632	C	VAL A 702	197.095	199.109	236.564	1.00 65.85	C
ATOM	4633	O	VAL A 702	197.689	199.321	237.627	1.00 65.85	O
ATOM	4634	CB	VAL A 702	197.659	201.015	235.012	1.00 65.85	C
ATOM	4635	CG1	VAL A 702	196.208	201.465	235.004	1.00 65.85	C
ATOM	4636	CG2	VAL A 702	198.454	201.763	236.069	1.00 65.85	C
ATOM	4637	N	ASP A 703	195.894	198.541	236.531	1.00 64.01	N
ATOM	4638	CA	ASP A 703	195.182	198.196	237.756	1.00 64.01	C
ATOM	4639	C	ASP A 703	195.705	196.922	238.415	1.00 64.01	C
ATOM	4640	O	ASP A 703	196.079	196.957	239.594	1.00 64.01	O
ATOM	4641	CB	ASP A 703	193.684	198.060	237.480	1.00 64.01	C
ATOM	4642	CG	ASP A 703	193.015	199.396	237.233	1.00 64.01	C
ATOM	4643	OD1	ASP A 703	193.507	200.412	237.764	1.00 64.01	O
ATOM	4644	OD2	ASP A 703	191.993	199.431	236.518	1.00 64.01	O
ATOM	4645	N	PRO A 704	195.747	195.784	237.712	1.00 65.82	N
ATOM	4646	CA	PRO A 704	196.112	194.535	238.405	1.00 65.82	C
ATOM	4647	C	PRO A 704	197.551	194.503	238.883	1.00 65.82	C
ATOM	4648	O	PRO A 704	197.810	194.049	240.004	1.00 65.82	O
ATOM	4649	CB	PRO A 704	195.840	193.457	237.348	1.00 65.82	C
ATOM	4650	CG	PRO A 704	195.971	194.162	236.056	1.00 65.82	C
ATOM	4651	CD	PRO A 704	195.449	195.549	236.290	1.00 65.82	C
ATOM	4652	N	LEU A 705	198.497	194.966	238.076	1.00 74.12	N
ATOM	4653	CA	LEU A 705	199.876	195.006	238.542	1.00 74.12	C
ATOM	4654	C	LEU A 705	200.078	196.291	239.336	1.00 74.12	C
ATOM	4655	O	LEU A 705	200.033	197.389	238.769	1.00 74.12	O
ATOM	4656	CB	LEU A 705	200.854	194.888	237.369	1.00 74.12	C
ATOM	4657	CG	LEU A 705	200.899	195.937	236.257	1.00 74.12	C
ATOM	4658	CD1	LEU A 705	201.907	197.032	236.566	1.00 74.12	C
ATOM	4659	CD2	LEU A 705	201.209	195.277	234.926	1.00 74.12	C
ATOM	4660	N	PRO A 706	200.262	196.195	240.650	1.00 82.97	N
ATOM	4661	CA	PRO A 706	200.295	197.395	241.495	1.00 82.97	C
ATOM	4662	C	PRO A 706	201.506	198.255	241.191	1.00 82.97	C
ATOM	4663	O	PRO A 706	202.651	197.832	241.408	1.00 82.97	O
ATOM	4664	CB	PRO A 706	200.371	196.821	242.919	1.00 82.97	C

ATOM	4665	CG	PRO A 706	199.839	195.430	242.798	1.00 82.97	C
ATOM	4666	CD	PRO A 706	200.288	194.960	241.448	1.00 82.97	C
ATOM	4667	N	PRO A 707	201.299	199.474	240.686	1.00 85.22	N
ATOM	4668	CA	PRO A 707	202.442	200.384	240.530	1.00 85.22	C
ATOM	4669	C	PRO A 707	203.000	200.844	241.862	1.00 85.22	C
ATOM	4670	O	PRO A 707	204.209	201.086	241.976	1.00 85.22	O
ATOM	4671	CB	PRO A 707	201.854	201.552	239.726	1.00 85.22	C
ATOM	4672	CG	PRO A 707	200.617	200.998	239.086	1.00 85.22	C
ATOM	4673	CD	PRO A 707	200.075	200.022	240.081	1.00 85.22	C
ATOM	4674	N	TYR A 708	202.148	200.977	242.874	1.00 84.17	N
ATOM	4675	CA	TYR A 708	202.535	201.460	244.187	1.00 84.17	C
ATOM	4676	C	TYR A 708	202.245	200.400	245.243	1.00 84.17	C
ATOM	4677	O	TYR A 708	201.685	199.338	244.963	1.00 84.17	O
ATOM	4678	CB	TYR A 708	201.788	202.752	244.518	1.00 84.17	C
ATOM	4679	CG	TYR A 708	202.071	203.883	243.567	1.00 84.17	C
ATOM	4680	CD1	TYR A 708	203.231	204.629	243.675	1.00 84.17	C
ATOM	4681	CD2	TYR A 708	201.173	204.209	242.562	1.00 84.17	C
ATOM	4682	CE1	TYR A 708	203.494	205.664	242.808	1.00 84.17	C
ATOM	4683	CE2	TYR A 708	201.425	205.244	241.690	1.00 84.17	C
ATOM	4684	CZ	TYR A 708	202.587	205.969	241.817	1.00 84.17	C
ATOM	4685	OH	TYR A 708	202.847	207.004	240.949	1.00 84.17	O
ATOM	4686	N	LEU A 709	202.635	200.695	246.476	1.00 84.82	N
ATOM	4687	CA	LEU A 709	202.162	199.940	247.624	1.00 84.82	C
ATOM	4688	C	LEU A 709	200.924	200.634	248.192	1.00 84.82	C
ATOM	4689	O	LEU A 709	200.297	201.466	247.532	1.00 84.82	O
ATOM	4690	CB	LEU A 709	203.279	199.754	248.650	1.00 84.82	C
ATOM	4691	CG	LEU A 709	204.023	200.952	249.232	1.00 84.82	C
ATOM	4692	CD1	LEU A 709	203.227	201.609	250.339	1.00 84.82	C
ATOM	4693	CD2	LEU A 709	205.366	200.479	249.760	1.00 84.82	C
ATOM	4694	N	LYS A 710	200.544	200.261	249.416	1.00 85.04	N
ATOM	4695	CA	LYS A 710	199.320	200.766	250.034	1.00 85.04	C
ATOM	4696	C	LYS A 710	199.294	202.292	250.088	1.00 85.04	C
ATOM	4697	O	LYS A 710	198.350	202.928	249.607	1.00 85.04	O
ATOM	4698	CB	LYS A 710	199.182	200.179	251.440	1.00 85.04	C
ATOM	4699	CG	LYS A 710	197.923	200.593	252.184	1.00 85.04	C
ATOM	4700	CD	LYS A 710	197.844	199.911	253.542	1.00 85.04	C
ATOM	4701	CE	LYS A 710	198.582	200.714	254.600	1.00 85.04	C

ATOM	4702	NZ	LYS A 710	200.040	200.424	254.598	1.00 85.04 N
ATOM	4703	N	GLY A 711	200.327	202.894	250.669	1.00 81.11 N
ATOM	4704	CA	GLY A 711	200.295	204.296	251.039	1.00 81.11 C
ATOM	4705	C	GLY A 711	200.084	205.338	249.957	1.00 81.11 C
ATOM	4706	O	GLY A 711	199.038	205.994	249.937	1.00 81.11 O
ATOM	4707	N	LEU A 712	201.069	205.499	249.064	1.00 77.32 N
ATOM	4708	CA	LEU A 712	201.238	206.682	248.216	1.00 77.32 C
ATOM	4709	C	LEU A 712	199.975	207.214	247.548	1.00 77.32 C
ATOM	4710	O	LEU A 712	199.777	208.432	247.486	1.00 77.32 O
ATOM	4711	CB	LEU A 712	202.280	206.414	247.129	1.00 77.32 C
ATOM	4712	CG	LEU A 712	203.749	206.605	247.501	1.00 77.32 C
ATOM	4713	CD1	LEU A 712	204.239	205.473	248.380	1.00 77.32 C
ATOM	4714	CD2	LEU A 712	204.602	206.722	246.251	1.00 77.32 C
ATOM	4715	N	ASP A 713	199.117	206.328	247.041	1.00 81.30 N
ATOM	4716	CA	ASP A 713	197.922	206.794	246.348	1.00 81.30 C
ATOM	4717	C	ASP A 713	196.993	207.580	247.263	1.00 81.30 C
ATOM	4718	O	ASP A 713	196.176	208.366	246.771	1.00 81.30 O
ATOM	4719	CB	ASP A 713	197.175	205.615	245.730	1.00 81.30 C
ATOM	4720	CG	ASP A 713	196.046	206.057	244.825	1.00 81.30 C
ATOM	4721	OD1	ASP A 713	196.335	206.539	243.709	1.00 81.30 O
ATOM	4722	OD2	ASP A 713	194.872	205.927	245.227	1.00 81.30 O
ATOM	4723	N	ASP A 714	197.098	207.390	248.577	1.00 79.96 N
ATOM	4724	CA	ASP A 714	196.354	208.189	249.539	1.00 79.96 C
ATOM	4725	C	ASP A 714	197.057	209.492	249.894	1.00 79.96 C
ATOM	4726	O	ASP A 714	196.445	210.352	250.535	1.00 79.96 O
ATOM	4727	CB	ASP A 714	196.107	207.384	250.818	1.00 79.96 C
ATOM	4728	CG	ASP A 714	195.157	206.223	250.600	1.00 79.96 C
ATOM	4729	OD1	ASP A 714	194.293	206.321	249.704	1.00 79.96 O
ATOM	4730	OD2	ASP A 714	195.276	205.212	251.324	1.00 79.96 O
ATOM	4731	N	LEU A 715	198.320	209.653	249.505	1.00 75.66 N
ATOM	4732	CA	LEU A 715	199.066	210.882	249.743	1.00 75.66 C
ATOM	4733	C	LEU A 715	199.031	211.829	248.555	1.00 75.66 C
ATOM	4734	O	LEU A 715	198.850	213.036	248.738	1.00 75.66 O
ATOM	4735	CB	LEU A 715	200.523	210.560	250.098	1.00 75.66 C
ATOM	4736	CG	LEU A 715	201.428	211.705	250.560	1.00 75.66 C
ATOM	4737	CD1	LEU A 715	202.474	211.182	251.522	1.00 75.66 C
ATOM	4738	CD2	LEU A 715	202.105	212.383	249.385	1.00 75.66 C

ATOM	4739	N	MET A 716	199.201 211.308 247.338	1.00 76.20		N
ATOM	4740	CA	MET A 716	199.159 212.158 246.155	1.00 76.20		C
ATOM	4741	C	MET A 716	197.783 212.773 245.947	1.00 76.20		C
ATOM	4742	O	MET A 716	197.672 213.801 245.271	1.00 76.20		O
ATOM	4743	CB	MET A 716	199.585 211.353 244.924	1.00 76.20		C
ATOM	4744	CG	MET A 716	199.671 212.148 243.629	1.00 76.20		C
ATOM	4745	SD	MET A 716	198.148 212.161 242.666	1.00 76.20		S
ATOM	4746	CE	MET A 716	198.586 213.311 241.364	1.00 76.20		C
ATOM	4747	N	SER A 717	196.736 212.174 246.513	1.00 76.90		N
ATOM	4748	CA	SER A 717	195.408 212.774 246.539	1.00 76.90		C
ATOM	4749	C	SER A 717	195.173 213.585 247.806	1.00 76.90		C
ATOM	4750	O	SER A 717	194.643 214.697 247.743	1.00 76.90		O
ATOM	4751	CB	SER A 717	194.331 211.693 246.403	1.00 76.90		C
ATOM	4752	OG	SER A 717	193.037 212.266 246.456	1.00 76.90		O
ATOM	4753	N	GLY A 718	195.562 213.047 248.965	1.00 75.70		N
ATOM	4754	CA	GLY A 718	195.498 213.813 250.196	1.00 75.70		C
ATOM	4755	C	GLY A 718	196.366 215.052 250.180	1.00 75.70		C
ATOM	4756	O	GLY A 718	196.106 215.993 250.937	1.00 75.70		O
ATOM	4757	N	LEU A 719	197.401 215.069 249.341	1.00 74.70		N
ATOM	4758	CA	LEU A 719	198.176 216.272 249.081	1.00 74.70		C
ATOM	4759	C	LEU A 719	197.799 216.931 247.763	1.00 74.70		C
ATOM	4760	O	LEU A 719	198.035 218.132 247.598	1.00 74.70		O
ATOM	4761	CB	LEU A 719	199.677 215.943 249.084	1.00 74.70		C
ATOM	4762	CG	LEU A 719	200.722 217.065 249.102	1.00 74.70		C
ATOM	4763	CD1	LEU A 719	200.941 217.684 247.730	1.00 74.70		C
ATOM	4764	CD2	LEU A 719	200.330 218.129 250.112	1.00 74.70		C
ATOM	4765	N	GLY A 720	197.192 216.186 246.842	1.00 78.79		N
ATOM	4766	CA	GLY A 720	196.868 216.697 245.525	1.00 78.79		C
ATOM	4767	C	GLY A 720	195.647 217.592 245.461	1.00 78.79		C
ATOM	4768	O	GLY A 720	195.047 217.750 244.393	1.00 78.79		O
ATOM	4769	N	ALA A 721	195.262 218.178 246.593	1.00 82.38		N
ATOM	4770	CA	ALA A 721	194.187 219.159 246.638	1.00 82.38		C
ATOM	4771	C	ALA A 721	194.717 220.553 246.945	1.00 82.38		C
ATOM	4772	O	ALA A 721	194.479 221.491 246.180	1.00 82.38		O
ATOM	4773	CB	ALA A 721	193.133 218.745 247.674	1.00 82.38		C
ATOM	4774	N	ALA A 722	195.444 220.708 248.050	1.00 82.34		N
ATOM	4775	CA	ALA A 722	196.051 221.981 248.415	1.00 82.34		C

ATOM	4776	C	ALA A 722	196.913	221.804	249.657	1.00 82.34 C
ATOM	4777	O	ALA A 722	196.665	220.901	250.462	1.00 82.34 O
ATOM	4778	CB	ALA A 722	194.980	223.047	248.655	1.00 82.34 C
ATOM	4779	N	GLY A 723	197.923	222.653	249.828	1.00 81.50 N
ATOM	4780	CA	GLY A 723	198.754	222.546	251.008	1.00 81.50 C
ATOM	4781	C	GLY A 723	200.050	223.331	250.994	1.00 81.50 C
ATOM	4782	O	GLY A 723	200.727	223.439	249.968	1.00 81.50 O
ATOM	4783	N	LYS A 724	200.393	223.881	252.154	1.00 78.87 N
ATOM	4784	CA	LYS A 724	201.688	224.498	252.402	1.00 78.87 C
ATOM	4785	C	LYS A 724	202.684	223.366	252.683	1.00 78.87 C
ATOM	4786	O	LYS A 724	202.412	222.196	252.402	1.00 78.87 O
ATOM	4787	CB	LYS A 724	201.544	225.525	253.531	1.00 78.87 C
ATOM	4788	CG	LYS A 724	202.765	226.385	253.868	1.00 78.87 C
ATOM	4789	CD	LYS A 724	203.126	227.346	252.753	1.00 78.87 C
ATOM	4790	CE	LYS A 724	204.289	228.232	253.171	1.00 78.87 C
ATOM	4791	NZ	LYS A 724	204.731	229.134	252.074	1.00 78.87 N
ATOM	4792	N	ALA A 725	203.860	223.691	253.231	1.00 73.22 N
ATOM	4793	CA	ALA A 725	204.824	222.671	253.636	1.00 73.22 C
ATOM	4794	C	ALA A 725	204.253	221.676	254.644	1.00 73.22 C
ATOM	4795	O	ALA A 725	204.839	220.604	254.834	1.00 73.22 O
ATOM	4796	CB	ALA A 725	206.073	223.334	254.217	1.00 73.22 C
ATOM	4797	N	VAL A 726	203.134	222.004	255.300	1.00 70.41 N
ATOM	4798	CA	VAL A 726	202.421	221.029	256.120	1.00 70.41 C
ATOM	4799	C	VAL A 726	202.037	219.807	255.299	1.00 70.41 C
ATOM	4800	O	VAL A 726	201.969	218.691	255.827	1.00 70.41 O
ATOM	4801	CB	VAL A 726	201.182	221.680	256.761	1.00 70.41 C
ATOM	4802	CG1	VAL A 726	201.597	222.835	257.656	1.00 70.41 C
ATOM	4803	CG2	VAL A 726	200.218	222.149	255.686	1.00 70.41 C
ATOM	4804	N	GLY A 727	201.779	219.988	254.005	1.00 67.34 N
ATOM	4805	CA	GLY A 727	201.500	218.872	253.123	1.00 67.34 C
ATOM	4806	C	GLY A 727	202.749	218.138	252.679	1.00 67.34 C
ATOM	4807	O	GLY A 727	202.678	217.216	251.862	1.00 67.34 O
ATOM	4808	N	VAL A 728	203.901	218.545	253.207	1.00 65.96 N
ATOM	4809	CA	VAL A 728	205.158	217.847	252.969	1.00 65.96 C
ATOM	4810	C	VAL A 728	205.683	217.344	254.304	1.00 65.96 C
ATOM	4811	O	VAL A 728	206.398	216.339	254.366	1.00 65.96 O
ATOM	4812	CB	VAL A 728	206.187	218.754	252.273	1.00 65.96 C

ATOM	4813	CG1	VAL A 728	207.527	218.049	252.170	1.00 65.96	C
ATOM	4814	CG2	VAL A 728	205.687	219.153	250.898	1.00 65.96	C
ATOM	4815	N	ALA A 729	205.327	218.041	255.384	1.00 63.33	N
ATOM	4816	CA	ALA A 729	205.669	217.555	256.715	1.00 63.33	C
ATOM	4817	C	ALA A 729	204.953	216.246	257.015	1.00 63.33	C
ATOM	4818	O	ALA A 729	205.526	215.341	257.632	1.00 63.33	O
ATOM	4819	CB	ALA A 729	205.329	218.610	257.767	1.00 63.33	C
ATOM	4820	N	ILE A 730	203.692	216.131	256.589	1.00 64.36	N
ATOM	4821	CA	ILE A 730	202.969	214.873	256.731	1.00 64.36	C
ATOM	4822	C	ILE A 730	203.645	213.771	255.930	1.00 64.36	C
ATOM	4823	O	ILE A 730	203.579	212.593	256.299	1.00 64.36	O
ATOM	4824	CB	ILE A 730	201.498	215.053	256.314	1.00 64.36	C
ATOM	4825	CG1	ILE A 730	200.796	216.031	257.256	1.00 64.36	C
ATOM	4826	CG2	ILE A 730	200.783	213.716	256.302	1.00 64.36	C
ATOM	4827	CD1	ILE A 730	199.428	216.459	256.780	1.00 64.36	C
ATOM	4828	N	GLY A 731	204.306	214.127	254.829	1.00 62.92	N
ATOM	4829	CA	GLY A 731	205.053	213.153	254.056	1.00 62.92	C
ATOM	4830	C	GLY A 731	206.306	212.639	254.732	1.00 62.92	C
ATOM	4831	O	GLY A 731	206.946	211.729	254.195	1.00 62.92	O
ATOM	4832	N	ALA A 732	206.675	213.198	255.884	1.00 63.41	N
ATOM	4833	CA	ALA A 732	207.832	212.724	256.635	1.00 63.41	C
ATOM	4834	C	ALA A 732	207.425	211.700	257.691	1.00 63.41	C
ATOM	4835	O	ALA A 732	207.917	210.567	257.688	1.00 63.41	O
ATOM	4836	CB	ALA A 732	208.562	213.906	257.282	1.00 63.41	C
ATOM	4837	N	VAL A 733	206.530	212.089	258.603	1.00 63.36	N
ATOM	4838	CA	VAL A 733	206.040	211.148	259.607	1.00 63.36	C
ATOM	4839	C	VAL A 733	205.305	209.996	258.938	1.00 63.36	C
ATOM	4840	O	VAL A 733	205.376	208.847	259.391	1.00 63.36	O
ATOM	4841	CB	VAL A 733	205.150	211.872	260.634	1.00 63.36	C
ATOM	4842	CG1	VAL A 733	205.966	212.888	261.410	1.00 63.36	C
ATOM	4843	CG2	VAL A 733	203.984	212.549	259.939	1.00 63.36	C
ATOM	4844	N	GLY A 734	204.585	210.282	257.853	1.00 64.15	N
ATOM	4845	CA	GLY A 734	203.983	209.213	257.078	1.00 64.15	C
ATOM	4846	C	GLY A 734	205.009	208.273	256.482	1.00 64.15	C
ATOM	4847	O	GLY A 734	204.751	207.076	256.338	1.00 64.15	O
ATOM	4848	N	GLY A 735	206.186	208.795	256.136	1.00 65.06	N
ATOM	4849	CA	GLY A 735	207.211	207.952	255.543	1.00 65.06	C

ATOM	4850	C	GLY A 735	207.748	206.913	256.507	1.00 65.06 C
ATOM	4851	O	GLY A 735	208.011	205.771	256.119	1.00 65.06 O
ATOM	4852	N	ALA A 736	207.922	207.290	257.773	1.00 64.23 N
ATOM	4853	CA	ALA A 736	208.463	206.355	258.754	1.00 64.23 C
ATOM	4854	C	ALA A 736	207.456	205.262	259.083	1.00 64.23 C
ATOM	4855	O	ALA A 736	207.786	204.071	259.055	1.00 64.23 O
ATOM	4856	CB	ALA A 736	208.880	207.104	260.019	1.00 64.23 C
ATOM	4857	N	VAL A 737	206.218	205.649	259.400	1.00 62.02 N
ATOM	4858	CA	VAL A 737	205.207	204.668	259.781	1.00 62.02 C
ATOM	4859	C	VAL A 737	204.880	203.739	258.622	1.00 62.02 C
ATOM	4860	O	VAL A 737	204.500	202.581	258.834	1.00 62.02 O
ATOM	4861	CB	VAL A 737	203.945	205.378	260.301	1.00 62.02 C
ATOM	4862	CG1	VAL A 737	203.295	206.175	259.189	1.00 62.02 C
ATOM	4863	CG2	VAL A 737	202.974	204.365	260.862	1.00 62.02 C
ATOM	4864	N	ALA A 738	205.024	204.214	257.386	1.00 63.72 N
ATOM	4865	CA	ALA A 738	204.755	203.369	256.230	1.00 63.72 C
ATOM	4866	C	ALA A 738	205.830	202.319	255.999	1.00 63.72 C
ATOM	4867	O	ALA A 738	205.677	201.498	255.089	1.00 63.72 O
ATOM	4868	CB	ALA A 738	204.597	204.227	254.975	1.00 63.72 C
ATOM	4869	N	SER A 739	206.909	202.327	256.781	1.00 68.24 N
ATOM	4870	CA	SER A 739	207.918	201.281	256.717	1.00 68.24 C
ATOM	4871	C	SER A 739	207.781	200.256	257.833	1.00 68.24 C
ATOM	4872	O	SER A 739	208.281	199.136	257.689	1.00 68.24 O
ATOM	4873	CB	SER A 739	209.323	201.891	256.766	1.00 68.24 C
ATOM	4874	OG	SER A 739	210.318	200.883	256.738	1.00 68.24 O
ATOM	4875	N	VAL A 740	207.123	200.613	258.932	1.00 69.30 N
ATOM	4876	CA	VAL A 740	206.864	199.672	260.017	1.00 69.30 C
ATOM	4877	C	VAL A 740	205.537	198.954	259.819	1.00 69.30 C
ATOM	4878	O	VAL A 740	205.441	197.740	260.011	1.00 69.30 O
ATOM	4879	CB	VAL A 740	206.911	200.403	261.374	1.00 69.30 C
ATOM	4880	CG1	VAL A 740	206.470	199.474	262.487	1.00 69.30 C
ATOM	4881	CG2	VAL A 740	208.312	200.922	261.642	1.00 69.30 C
ATOM	4882	N	VAL A 741	204.492	199.690	259.434	1.00 66.98 N
ATOM	4883	CA	VAL A 741	203.201	199.060	259.174	1.00 66.98 C
ATOM	4884	C	VAL A 741	203.288	198.131	257.973	1.00 66.98 C
ATOM	4885	O	VAL A 741	202.517	197.170	257.864	1.00 66.98 O
ATOM	4886	CB	VAL A 741	202.112	200.131	258.985	1.00 66.98 C

ATOM	4887	CG1	VAL A 741	200.803	199.489	258.568	1.00 66.98	C
ATOM	4888	CG2	VAL A 741	201.930	200.918	260.268	1.00 66.98	C
ATOM	4889	N	GLU A 742	204.220	198.391	257.057	1.00 74.51	N
ATOM	4890	CA	GLU A 742	204.485	197.438	255.987	1.00 74.51	C
ATOM	4891	C	GLU A 742	205.384	196.305	256.458	1.00 74.51	C
ATOM	4892	O	GLU A 742	205.300	195.191	255.930	1.00 74.51	O
ATOM	4893	CB	GLU A 742	205.113	198.145	254.788	1.00 74.51	C
ATOM	4894	CG	GLU A 742	204.172	199.098	254.076	1.00 74.51	C
ATOM	4895	CD	GLU A 742	203.014	198.379	253.416	1.00 74.51	C
ATOM	4896	OE1	GLU A 742	203.197	197.218	252.994	1.00 74.51	O
ATOM	4897	OE2	GLU A 742	201.921	198.975	253.315	1.00 74.51	O
ATOM	4898	N	GLY A 743	206.243	196.568	257.442	1.00 74.66	N
ATOM	4899	CA	GLY A 743	207.048	195.519	258.039	1.00 74.66	C
ATOM	4900	C	GLY A 743	206.268	194.548	258.897	1.00 74.66	C
ATOM	4901	O	GLY A 743	206.790	193.474	259.215	1.00 74.66	O
ATOM	4902	N	VAL A 744	205.040	194.894	259.276	1.00 68.15	N
ATOM	4903	CA	VAL A 744	204.174	193.998	260.026	1.00 68.15	C
ATOM	4904	C	VAL A 744	202.957	193.595	259.195	1.00 68.15	C
ATOM	4905	O	VAL A 744	201.940	193.184	259.737	1.00 68.15	O
ATOM	4906	CB	VAL A 744	203.753	194.626	261.370	1.00 68.15	C
ATOM	4907	CG1	VAL A 744	202.720	195.721	261.152	1.00 68.15	C
ATOM	4908	CG2	VAL A 744	203.252	193.562	262.338	1.00 68.15	C
ATOM	4909	N	ALA A 745	203.055	193.721	257.873	1.00 69.18	N
ATOM	4910	CA	ALA A 745	202.022	193.242	256.967	1.00 69.18	C
ATOM	4911	C	ALA A 745	202.426	191.989	256.213	1.00 69.18	C
ATOM	4912	O	ALA A 745	201.556	191.202	255.838	1.00 69.18	O
ATOM	4913	CB	ALA A 745	201.646	194.330	255.954	1.00 69.18	C
ATOM	4914	N	THR A 746	203.725	191.786	255.985	1.00 69.69	N
ATOM	4915	CA	THR A 746	204.199	190.507	255.476	1.00 69.69	C
ATOM	4916	C	THR A 746	204.073	189.414	256.525	1.00 69.69	C
ATOM	4917	O	THR A 746	204.031	188.230	256.176	1.00 69.69	O
ATOM	4918	CB	THR A 746	205.651	190.631	255.012	1.00 69.69	C
ATOM	4919	OG1	THR A 746	205.745	191.644	254.004	1.00 69.69	O
ATOM	4920	CG2	THR A 746	206.145	189.316	254.434	1.00 69.69	C
ATOM	4921	N	PHE A 747	203.997	189.791	257.801	1.00 62.61	N
ATOM	4922	CA	PHE A 747	203.760	188.844	258.879	1.00 62.61	C
ATOM	4923	C	PHE A 747	202.347	188.278	258.852	1.00 62.61	C

ATOM	4924	O	PHE A 747	202.091	187.259	259.502	1.00 62.61	O
ATOM	4925	CB	PHE A 747	204.040	189.532	260.218	1.00 62.61	C
ATOM	4926	CG	PHE A 747	203.948	188.624	261.407	1.00 62.61	C
ATOM	4927	CD1	PHE A 747	204.958	187.723	261.687	1.00 62.61	C
ATOM	4928	CD2	PHE A 747	202.856	188.682	262.254	1.00 62.61	C
ATOM	4929	CE1	PHE A 747	204.878	186.892	262.784	1.00 62.61	C
ATOM	4930	CE2	PHE A 747	202.770	187.853	263.352	1.00 62.61	C
ATOM	4931	CZ	PHE A 747	203.782	186.956	263.617	1.00 62.61	C
ATOM	4932	N	LEU A 748	201.431	188.898	258.105	1.00 64.92	N
ATOM	4933	CA	LEU A 748	200.066	188.410	257.956	1.00 64.92	C
ATOM	4934	C	LEU A 748	199.841	187.723	256.614	1.00 64.92	C
ATOM	4935	O	LEU A 748	198.726	187.741	256.083	1.00 64.92	O
ATOM	4936	CB	LEU A 748	199.067	189.551	258.138	1.00 64.92	C
ATOM	4937	CG	LEU A 748	198.967	190.153	259.538	1.00 64.92	C
ATOM	4938	CD1	LEU A 748	198.019	191.339	259.541	1.00 64.92	C
ATOM	4939	CD2	LEU A 748	198.514	189.100	260.529	1.00 64.92	C
ATOM	4940	N	LYS A 749	200.883	187.118	256.053	1.00 68.93	N
ATOM	4941	CA	LYS A 749	200.754	186.300	254.856	1.00 68.93	C
ATOM	4942	C	LYS A 749	201.344	184.912	255.010	1.00 68.93	C
ATOM	4943	O	LYS A 749	200.887	183.990	254.323	1.00 68.93	O
ATOM	4944	CB	LYS A 749	201.411	186.993	253.654	1.00 68.93	C
ATOM	4945	CG	LYS A 749	200.769	188.317	253.296	1.00 68.93	C
ATOM	4946	CD	LYS A 749	199.362	188.102	252.771	1.00 68.93	C
ATOM	4947	CE	LYS A 749	198.694	189.419	252.424	1.00 68.93	C
ATOM	4948	NZ	LYS A 749	199.330	190.071	251.248	1.00 68.93	N
ATOM	4949	N	ASN A 750	202.328	184.730	255.872	1.00 70.45	N
ATOM	4950	CA	ASN A 750	202.788	183.410	256.257	1.00 70.45	C
ATOM	4951	C	ASN A 750	201.724	182.767	257.131	1.00 70.45	C
ATOM	4952	O	ASN A 750	201.475	183.262	258.239	1.00 70.45	O
ATOM	4953	CB	ASN A 750	204.106	183.515	257.011	1.00 70.45	C
ATOM	4954	CG	ASN A 750	205.234	184.001	256.135	1.00 70.45	C
ATOM	4955	OD1	ASN A 750	205.401	183.543	255.006	1.00 70.45	O
ATOM	4956	ND2	ASN A 750	206.002	184.955	256.640	1.00 70.45	N
ATOM	4957	N	PRO A 751	201.077	181.683	256.697	1.00 72.07	N
ATOM	4958	CA	PRO A 751	199.971	181.116	257.487	1.00 72.07	C
ATOM	4959	C	PRO A 751	200.371	180.615	258.869	1.00 72.07	C
ATOM	4960	O	PRO A 751	199.483	180.245	259.646	1.00 72.07	O

ATOM	4961	CB	PRO A 751	199.466	179.967	256.605	1.00 72.07	C
ATOM	4962	CG	PRO A 751	199.873	180.357	255.221	1.00 72.07	C
ATOM	4963	CD	PRO A 751	201.198	181.041	255.379	1.00 72.07	C
ATOM	4964	N	PHE A 752	201.662	180.589	259.202	1.00 70.60	N
ATOM	4965	CA	PHE A 752	202.064	180.343	260.581	1.00 70.60	C
ATOM	4966	C	PHE A 752	201.888	181.593	261.433	1.00 70.60	C
ATOM	4967	O	PHE A 752	201.327	181.527	262.532	1.00 70.60	O
ATOM	4968	CB	PHE A 752	203.517	179.873	260.630	1.00 70.60	C
ATOM	4969	CG	PHE A 752	203.740	178.518	260.027	1.00 70.60	C
ATOM	4970	CD1	PHE A 752	202.683	177.651	259.821	1.00 70.60	C
ATOM	4971	CD2	PHE A 752	205.009	178.118	259.652	1.00 70.60	C
ATOM	4972	CE1	PHE A 752	202.890	176.409	259.263	1.00 70.60	C
ATOM	4973	CE2	PHE A 752	205.222	176.879	259.092	1.00 70.60	C
ATOM	4974	CZ	PHE A 752	204.161	176.023	258.897	1.00 70.60	C
ATOM	4975	N	GLY A 753	202.357	182.738	260.936	1.00 68.31	N
ATOM	4976	CA	GLY A 753	202.240	183.971	261.697	1.00 68.31	C
ATOM	4977	C	GLY A 753	200.801	184.399	261.911	1.00 68.31	C
ATOM	4978	O	GLY A 753	200.430	184.827	263.008	1.00 68.31	O
ATOM	4979	N	ALA A 754	199.974	184.303	260.867	1.00 66.78	N
ATOM	4980	CA	ALA A 754	198.560	184.632	261.011	1.00 66.78	C
ATOM	4981	C	ALA A 754	197.883	183.739	262.040	1.00 66.78	C
ATOM	4982	O	ALA A 754	196.919	184.159	262.690	1.00 66.78	O
ATOM	4983	CB	ALA A 754	197.852	184.521	259.662	1.00 66.78	C
ATOM	4984	N	PHE A 755	198.369	182.509	262.200	1.00 65.16	N
ATOM	4985	CA	PHE A 755	197.884	181.634	263.257	1.00 65.16	C
ATOM	4986	C	PHE A 755	198.465	181.995	264.616	1.00 65.16	C
ATOM	4987	O	PHE A 755	197.847	181.690	265.641	1.00 65.16	O
ATOM	4988	CB	PHE A 755	198.218	180.181	262.920	1.00 65.16	C
ATOM	4989	CG	PHE A 755	197.695	179.189	263.914	1.00 65.16	C
ATOM	4990	CD1	PHE A 755	196.357	178.844	263.927	1.00 65.16	C
ATOM	4991	CD2	PHE A 755	198.544	178.596	264.829	1.00 65.16	C
ATOM	4992	CE1	PHE A 755	195.875	177.928	264.838	1.00 65.16	C
ATOM	4993	CE2	PHE A 755	198.067	177.679	265.741	1.00 65.16	C
ATOM	4994	CZ	PHE A 755	196.731	177.345	265.747	1.00 65.16	C
ATOM	4995	N	THR A 756	199.630	182.642	264.647	1.00 67.13	N
ATOM	4996	CA	THR A 756	200.246	183.065	265.896	1.00 67.13	C
ATOM	4997	C	THR A 756	199.655	184.357	266.442	1.00 67.13	C

ATOM	4998	O	THR	A	756	199.976	184.736	267.573	1.00 67.13	O
ATOM	4999	CB	THR	A	756	201.756	183.240	265.712	1.00 67.13	C
ATOM	5000	OG1	THR	A	756	202.004	184.229	264.706	1.00 67.13	O
ATOM	5001	CG2	THR	A	756	202.397	181.926	265.298	1.00 67.13	C
ATOM	5002	N	ILE	A	757	198.814	185.038	265.672	1.00 66.85	N
ATOM	5003	CA	ILE	A	757	198.065	186.187	266.160	1.00 66.85	C
ATOM	5004	C	ILE	A	757	196.658	185.793	266.584	1.00 66.85	C
ATOM	5005	O	ILE	A	757	196.139	186.309	267.574	1.00 66.85	O
ATOM	5006	CB	ILE	A	757	198.030	187.303	265.096	1.00 66.85	C
ATOM	5007	CG1	ILE	A	757	199.431	187.874	264.876	1.00 66.85	C
ATOM	5008	CG2	ILE	A	757	197.051	188.390	265.499	1.00 66.85	C
ATOM	5009	CD1	ILE	A	757	199.531	188.809	263.693	1.00 66.85	C
ATOM	5010	N	ILE	A	758	196.030	184.877	265.844	1.00 66.66	N
ATOM	5011	CA	ILE	A	758	194.695	184.421	266.211	1.00 66.66	C
ATOM	5012	C	ILE	A	758	194.726	183.679	267.540	1.00 66.66	C
ATOM	5013	O	ILE	A	758	193.733	183.670	268.277	1.00 66.66	O
ATOM	5014	CB	ILE	A	758	194.104	183.554	265.087	1.00 66.66	C
ATOM	5015	CG1	ILE	A	758	193.940	184.385	263.815	1.00 66.66	C
ATOM	5016	CG2	ILE	A	758	192.773	182.966	265.512	1.00 66.66	C
ATOM	5017	CD1	ILE	A	758	193.607	183.570	262.593	1.00 66.66	C
ATOM	5018	N	LEU	A	759	195.854	183.049	267.874	1.00 66.82	N
ATOM	5019	CA	LEU	A	759	195.990	182.436	269.191	1.00 66.82	C
ATOM	5020	C	LEU	A	759	196.077	183.497	270.279	1.00 66.82	C
ATOM	5021	O	LEU	A	759	195.410	183.395	271.315	1.00 66.82	O
ATOM	5022	CB	LEU	A	759	197.220	181.531	269.230	1.00 66.82	C
ATOM	5023	CG	LEU	A	759	197.197	180.265	268.376	1.00 66.82	C
ATOM	5024	CD1	LEU	A	759	198.546	179.572	268.444	1.00 66.82	C
ATOM	5025	CD2	LEU	A	759	196.091	179.334	268.837	1.00 66.82	C
ATOM	5026	N	VAL	A	760	196.904	184.523	270.063	1.00 66.74	N
ATOM	5027	CA	VAL	A	760	197.085	185.562	271.072	1.00 66.74	C
ATOM	5028	C	VAL	A	760	195.788	186.314	271.321	1.00 66.74	C
ATOM	5029	O	VAL	A	760	195.493	186.697	272.459	1.00 66.74	O
ATOM	5030	CB	VAL	A	760	198.215	186.520	270.652	1.00 66.74	C
ATOM	5031	CG1	VAL	A	760	198.321	187.669	271.636	1.00 66.74	C
ATOM	5032	CG2	VAL	A	760	199.532	185.772	270.553	1.00 66.74	C
ATOM	5033	N	ALA	A	761	194.993	186.539	270.274	1.00 70.33	N
ATOM	5034	CA	ALA	A	761	193.733	187.253	270.449	1.00 70.33	C

ATOM	5035	C	ALA A 761	192.735	186.427	271.249	1.00 70.33	C
ATOM	5036	O	ALA A 761	192.052	186.956	272.134	1.00 70.33	O
ATOM	5037	CB	ALA A 761	193.150	187.633	269.089	1.00 70.33	C
ATOM	5038	N	ILE A 762	192.632	185.131	270.948	1.00 67.87	N
ATOM	5039	CA	ILE A 762	191.694	184.272	271.663	1.00 67.87	C
ATOM	5040	C	ILE A 762	192.071	184.174	273.135	1.00 67.87	C
ATOM	5041	O	ILE A 762	191.199	184.132	274.011	1.00 67.87	O
ATOM	5042	CB	ILE A 762	191.632	182.885	271.002	1.00 67.87	C
ATOM	5043	CG1	ILE A 762	191.073	182.997	269.583	1.00 67.87	C
ATOM	5044	CG2	ILE A 762	190.795	181.935	271.837	1.00 67.87	C
ATOM	5045	CD1	ILE A 762	191.215	181.730	268.771	1.00 67.87	C
ATOM	5046	N	ALA A 763	193.370	184.132	273.432	1.00 72.04	N
ATOM	5047	CA	ALA A 763	193.808	184.064	274.820	1.00 72.04	C
ATOM	5048	C	ALA A 763	193.502	185.342	275.588	1.00 72.04	C
ATOM	5049	O	ALA A 763	193.336	185.287	276.810	1.00 72.04	O
ATOM	5050	CB	ALA A 763	195.306	183.765	274.886	1.00 72.04	C
ATOM	5051	N	VAL A 764	193.423	186.483	274.902	1.00 74.11	N
ATOM	5052	CA	VAL A 764	193.160	187.752	275.579	1.00 74.11	C
ATOM	5053	C	VAL A 764	191.794	187.724	276.254	1.00 74.11	C
ATOM	5054	O	VAL A 764	191.666	188.002	277.452	1.00 74.11	O
ATOM	5055	CB	VAL A 764	193.269	188.925	274.591	1.00 74.11	C
ATOM	5056	CG1	VAL A 764	192.798	190.208	275.248	1.00 74.11	C
ATOM	5057	CG2	VAL A 764	194.701	189.075	274.110	1.00 74.11	C
ATOM	5058	N	VAL A 765	190.752	187.398	275.487	1.00 76.69	N
ATOM	5059	CA	VAL A 765	189.399	187.387	276.035	1.00 76.69	C
ATOM	5060	C	VAL A 765	189.264	186.339	277.130	1.00 76.69	C
ATOM	5061	O	VAL A 765	188.490	186.516	278.079	1.00 76.69	O
ATOM	5062	CB	VAL A 765	188.371	187.163	274.909	1.00 76.69	C
ATOM	5063	CG1	VAL A 765	186.969	187.061	275.484	1.00 76.69	C
ATOM	5064	CG2	VAL A 765	188.454	188.287	273.887	1.00 76.69	C
ATOM	5065	N	ILE A 766	190.010	185.237	277.026	1.00 77.40	N
ATOM	5066	CA	ILE A 766	189.963	184.213	278.064	1.00 77.40	C
ATOM	5067	C	ILE A 766	190.579	184.733	279.357	1.00 77.40	C
ATOM	5068	O	ILE A 766	190.099	184.427	280.455	1.00 77.40	O
ATOM	5069	CB	ILE A 766	190.657	182.928	277.580	1.00 77.40	C
ATOM	5070	CG1	ILE A 766	189.905	182.338	276.387	1.00 77.40	C
ATOM	5071	CG2	ILE A 766	190.748	181.917	278.709	1.00 77.40	C

ATOM	5072	CD1	ILE A 766	190.649	181.221	275.691	1.00 77.40	C
ATOM	5073	N	ILE A 767	191.651	185.523	279.252	1.00 79.63	N
ATOM	5074	CA	ILE A 767	192.270	186.104	280.437	1.00 79.63	C
ATOM	5075	C	ILE A 767	191.327	187.064	281.145	1.00 79.63	C
ATOM	5076	O	ILE A 767	191.470	187.297	282.350	1.00 79.63	O
ATOM	5077	CB	ILE A 767	193.594	186.800	280.059	1.00 79.63	C
ATOM	5078	CG1	ILE A 767	194.571	185.789	279.459	1.00 79.63	C
ATOM	5079	CG2	ILE A 767	194.217	187.468	281.271	1.00 79.63	C
ATOM	5080	CD1	ILE A 767	194.944	184.671	280.404	1.00 79.63	C
ATOM	5081	N	ILE A 768	190.357	187.631	280.424	1.00 82.28	N
ATOM	5082	CA	ILE A 768	189.336	188.451	281.067	1.00 82.28	C
ATOM	5083	C	ILE A 768	188.542	187.622	282.066	1.00 82.28	C
ATOM	5084	O	ILE A 768	188.142	188.114	283.128	1.00 82.28	O
ATOM	5085	CB	ILE A 768	188.417	189.087	280.008	1.00 82.28	C
ATOM	5086	CG1	ILE A 768	189.226	189.970	279.058	1.00 82.28	C
ATOM	5087	CG2	ILE A 768	187.310	189.882	280.676	1.00 82.28	C
ATOM	5088	CD1	ILE A 768	189.911	191.130	279.742	1.00 82.28	C
ATOM	5089	N	TYR A 769	188.306	186.354	281.746	1.00 89.52	N
ATOM	5090	CA	TYR A 769	187.526	185.473	282.604	1.00 89.52	C
ATOM	5091	C	TYR A 769	188.275	184.176	282.889	1.00 89.52	C
ATOM	5092	O	TYR A 769	189.351	184.188	283.485	1.00 89.52	O
ATOM	5093	CB	TYR A 769	186.173	185.172	281.961	1.00 89.52	C
ATOM	5094	CG	TYR A 769	185.274	184.293	282.797	1.00 89.52	C
ATOM	5095	CD1	TYR A 769	184.625	184.797	283.916	1.00 89.52	C
ATOM	5096	CD2	TYR A 769	185.067	182.963	282.463	1.00 89.52	C
ATOM	5097	CE1	TYR A 769	183.800	183.997	284.682	1.00 89.52	C
ATOM	5098	CE2	TYR A 769	184.244	182.155	283.222	1.00 89.52	C
ATOM	5099	CZ	TYR A 769	183.612	182.677	284.331	1.00 89.52	C
ATOM	5100	OH	TYR A 769	182.790	181.876	285.090	1.00 89.52	O
TER								
HETATM	5101	C1	NAG A1001	220.984	150.904	234.379	1.00 66.56	C
HETATM	5102	C2	NAG A1001	221.675	149.732	233.637	1.00 66.56	C
HETATM	5103	C3	NAG A1001	222.667	150.230	232.574	1.00 66.56	C
HETATM	5104	C4	NAG A1001	222.163	151.429	231.782	1.00 66.56	C
HETATM	5105	C5	NAG A1001	221.566	152.459	232.722	1.00 66.56	C
HETATM	5106	C6	NAG A1001	220.956	153.642	232.014	1.00 66.56	C
HETATM	5107	C7	NAG A1001	221.784	148.152	235.535	1.00 66.56	C

HETATM	5108	C8	NAG A1001	222.702	147.344	236.404	1.00 66.56	C
HETATM	5109	N2	NAG A1001	222.377	148.875	234.580	1.00 66.56	N
HETATM	5110	O3	NAG A1001	222.912	149.149	231.685	1.00 66.56	O
HETATM	5111	O4	NAG A1001	223.262	152.046	231.120	1.00 66.56	O
HETATM	5112	O5	NAG A1001	220.515	151.838	233.458	1.00 66.56	O
HETATM	5113	O6	NAG A1001	220.140	154.389	232.906	1.00 66.56	O
HETATM	5114	O7	NAG A1001	220.568	148.161	235.703	1.00 66.56	O
HETATM	5115	H1	NAG A1001	221.617	151.327	234.989	1.00 66.56	H
HETATM	5116	H2	NAG A1001	220.985	149.211	233.181	1.00 66.56	H
HETATM	5117	H3	NAG A1001	223.509	150.471	233.005	1.00 66.56	H
HETATM	5118	H4	NAG A1001	221.493	151.148	231.132	1.00 66.56	H
HETATM	5119	H5	NAG A1001	222.255	152.775	233.335	1.00 66.56	H
HETATM	5120	H61	NAG A1001	220.410	153.326	231.275	1.00 66.56	H
HETATM	5121	H62	NAG A1001	221.664	154.214	231.676	1.00 66.56	H
HETATM	5122	H81	NAG A1001	223.165	147.938	237.024	1.00 66.56	H
HETATM	5123	H82	NAG A1001	223.364	146.894	235.848	1.00 66.56	H
HETATM	5124	H83	NAG A1001	222.187	146.683	236.905	1.00 66.56	H
HETATM	5125	HN2	NAG A1001	223.283	148.825	234.510	1.00 66.56	H
HETATM	5126	HO3	NAG A1001	222.391	149.228	230.969	1.00 66.56	H
HETATM	5127	HO6	NAG A1001	220.101	153.974	233.690	1.00 66.56	H
HETATM	5128	C1	NAG A1002	223.850	151.373	229.970	1.00 70.73	C
HETATM	5129	C2	NAG A1002	225.346	151.395	230.215	1.00 70.73	C
HETATM	5130	C3	NAG A1002	226.079	151.021	228.939	1.00 70.73	C
HETATM	5131	C4	NAG A1002	225.262	150.039	228.101	1.00 70.73	C
HETATM	5132	C5	NAG A1002	224.266	149.208	228.924	1.00 70.73	C
HETATM	5133	C6	NAG A1002	224.940	148.173	229.799	1.00 70.73	C
HETATM	5134	C7	NAG A1002	225.973	152.958	232.002	1.00 70.73	C
HETATM	5135	C8	NAG A1002	226.439	154.343	232.327	1.00 70.73	C
HETATM	5136	N2	NAG A1002	225.791	152.690	230.704	1.00 70.73	N
HETATM	5137	O3	NAG A1002	227.338	150.443	229.273	1.00 70.73	O
HETATM	5138	O4	NAG A1002	224.548	150.749	227.097	1.00 70.73	O
HETATM	5139	O5	NAG A1002	223.422	150.014	229.774	1.00 70.73	O
HETATM	5140	O6	NAG A1002	224.188	146.968	229.846	1.00 70.73	O
HETATM	5141	O7	NAG A1002	225.764	152.122	232.876	1.00 70.73	O
HETATM	5142	H1	NAG A1002	223.633	151.904	229.180	1.00 70.73	H
HETATM	5143	H2	NAG A1002	225.560	150.721	230.887	1.00 70.73	H
HETATM	5144	H3	NAG A1002	226.206	151.829	228.408	1.00 70.73	H

HETATM	5145	H4	NAG A1002	225.879	149.428	227.658	1.00 70.73 H
HETATM	5146	H5	NAG A1002	223.690	148.729	228.299	1.00 70.73 H
HETATM	5147	H61	NAG A1002	225.053	148.512	230.704	1.00 70.73 H
HETATM	5148	H62	NAG A1002	225.822	147.971	229.435	1.00 70.73 H
HETATM	5149	H81	NAG A1002	225.717	154.979	232.165	1.00 70.73 H
HETATM	5150	H82	NAG A1002	227.205	154.566	231.766	1.00 70.73 H
HETATM	5151	H83	NAG A1002	226.700	154.379	233.266	1.00 70.73 H
HETATM	5152	HN2	NAG A1002	225.963	153.347	230.095	1.00 70.73 H
HETATM	5153	HO4	NAG A1002	223.896	150.237	226.780	1.00 70.73 H
HETATM	5154	HO6	NAG A1002	224.731	146.274	229.732	1.00 70.73 H
HETATM	5155	C1	NAG A1003	228.488	151.072	228.637	1.00 69.77 C
HETATM	5156	C2	NAG A1003	228.490	150.701	227.152	1.00 69.77 C
HETATM	5157	C3	NAG A1003	229.692	151.331	226.455	1.00 69.77 C
HETATM	5158	C4	NAG A1003	229.722	152.833	226.706	1.00 69.77 C
HETATM	5159	C5	NAG A1003	229.665	153.124	228.204	1.00 69.77 C
HETATM	5160	C6	NAG A1003	229.583	154.599	228.520	1.00 69.77 C
HETATM	5161	C7	NAG A1003	227.903	148.630	225.959	1.00 69.77 C
HETATM	5162	C8	NAG A1003	228.002	147.135	225.961	1.00 69.77 C
HETATM	5163	N2	NAG A1003	228.495	149.257	226.982	1.00 69.77 N
HETATM	5164	O3	NAG A1003	229.623	151.075	225.057	1.00 69.77 O
HETATM	5165	O4	NAG A1003	230.912	153.392	226.161	1.00 69.77 O
HETATM	5166	O5	NAG A1003	228.501	152.512	228.779	1.00 69.77 O
HETATM	5167	O6	NAG A1003	228.520	154.879	229.420	1.00 69.77 O
HETATM	5168	O7	NAG A1003	227.313	149.242	225.074	1.00 69.77 O
HETATM	5169	H1	NAG A1003	229.301	150.714	229.045	1.00 69.77 H
HETATM	5170	H2	NAG A1003	227.689	151.069	226.732	1.00 69.77 H
HETATM	5171	H3	NAG A1003	230.509	150.937	226.813	1.00 69.77 H
HETATM	5172	H4	NAG A1003	228.950	153.243	226.273	1.00 69.77 H
HETATM	5173	H5	NAG A1003	230.461	152.753	228.629	1.00 69.77 H
HETATM	5174	H61	NAG A1003	229.443	155.096	227.692	1.00 69.77 H
HETATM	5175	H62	NAG A1003	230.426	154.884	228.922	1.00 69.77 H
HETATM	5176	H81	NAG A1003	228.081	146.816	226.880	1.00 69.77 H
HETATM	5177	H82	NAG A1003	228.785	146.856	225.450	1.00 69.77 H
HETATM	5178	H83	NAG A1003	227.197	146.756	225.559	1.00 69.77 H
HETATM	5179	HN2	NAG A1003	228.914	148.751	227.615	1.00 69.77 H
HETATM	5180	HO3	NAG A1003	230.272	151.517	224.642	1.00 69.77 H
HETATM	5181	HO4	NAG A1003	231.411	153.734	226.811	1.00 69.77 H

HETATM	5182	HO6	NAG	A1003	228.185	154.117	229.730	1.00 69.77	H
HETATM	5183	C1	NAG	A1004	232.069	157.662	198.016	1.00 76.75	C
HETATM	5184	C2	NAG	A1004	232.526	156.285	197.507	1.00 76.75	C
HETATM	5185	C3	NAG	A1004	233.296	156.428	196.195	1.00 76.75	C
HETATM	5186	C4	NAG	A1004	232.493	157.230	195.182	1.00 76.75	C
HETATM	5187	C5	NAG	A1004	232.091	158.567	195.790	1.00 76.75	C
HETATM	5188	C6	NAG	A1004	231.238	159.407	194.868	1.00 76.75	C
HETATM	5189	C7	NAG	A1004	232.840	154.929	199.533	1.00 76.75	C
HETATM	5190	C8	NAG	A1004	233.838	154.292	200.447	1.00 76.75	C
HETATM	5191	N2	NAG	A1004	233.345	155.606	198.498	1.00 76.75	N
HETATM	5192	O3	NAG	A1004	233.589	155.139	195.670	1.00 76.75	O
HETATM	5193	O4	NAG	A1004	233.273	157.462	194.015	1.00 76.75	O
HETATM	5194	O5	NAG	A1004	231.328	158.340	196.984	1.00 76.75	O
HETATM	5195	O6	NAG	A1004	232.008	159.948	193.803	1.00 76.75	O
HETATM	5196	O7	NAG	A1004	231.633	154.848	199.728	1.00 76.75	O
HETATM	5197	H1	NAG	A1004	232.849	158.194	198.260	1.00 76.75	H
HETATM	5198	H2	NAG	A1004	231.731	155.744	197.341	1.00 76.75	H
HETATM	5199	H3	NAG	A1004	234.136	156.893	196.373	1.00 76.75	H
HETATM	5200	H4	NAG	A1004	231.690	156.732	194.939	1.00 76.75	H
HETATM	5201	H5	NAG	A1004	232.900	159.062	196.018	1.00 76.75	H
HETATM	5202	H61	NAG	A1004	230.843	160.139	195.377	1.00 76.75	H
HETATM	5203	H62	NAG	A1004	230.528	158.854	194.495	1.00 76.75	H
HETATM	5204	H81	NAG	A1004	234.506	154.955	200.703	1.00 76.75	H
HETATM	5205	H82	NAG	A1004	234.274	153.552	199.985	1.00 76.75	H
HETATM	5206	H83	NAG	A1004	233.383	153.963	201.245	1.00 76.75	H
HETATM	5207	HN2	NAG	A1004	234.251	155.631	198.402	1.00 76.75	H
HETATM	5208	HO3	NAG	A1004	234.132	155.224	194.972	1.00 76.75	H
HETATM	5209	HO4	NAG	A1004	234.082	157.114	194.124	1.00 76.75	H
HETATM	5210	HO6	NAG	A1004	232.731	159.449	193.672	1.00 76.75	H
HETATM	5211	C1	NAG	A1005	240.819	167.424	198.629	1.00 89.61	C
HETATM	5212	C2	NAG	A1005	240.745	167.382	200.171	1.00 89.61	C
HETATM	5213	C3	NAG	A1005	242.151	167.405	200.790	1.00 89.61	C
HETATM	5214	C4	NAG	A1005	243.054	166.363	200.147	1.00 89.61	C
HETATM	5215	C5	NAG	A1005	243.065	166.570	198.644	1.00 89.61	C
HETATM	5216	C6	NAG	A1005	243.926	165.570	197.907	1.00 89.61	C
HETATM	5217	C7	NAG	A1005	239.614	168.652	201.950	1.00 89.61	C
HETATM	5218	C8	NAG	A1005	238.813	169.877	202.275	1.00 89.61	C

HETATM	5219	N2	NAG A1005	239.958	168.499	200.666	1.00 89.61 N
HETATM	5220	O3	NAG A1005	242.074	167.150	202.187	1.00 89.61 O
HETATM	5221	O4	NAG A1005	244.377	166.477	200.655	1.00 89.61 O
HETATM	5222	O5	NAG A1005	241.728	166.417	198.156	1.00 89.61 O
HETATM	5223	O6	NAG A1005	244.336	166.074	196.643	1.00 89.61 O
HETATM	5224	O7	NAG A1005	239.943	167.843	202.814	1.00 89.61 O
HETATM	5225	H1	NAG A1005	241.136	168.305	198.352	1.00 89.61 H
HETATM	5226	H2	NAG A1005	240.311	166.549	200.431	1.00 89.61 H
HETATM	5227	H3	NAG A1005	242.545	168.286	200.648	1.00 89.61 H
HETATM	5228	H4	NAG A1005	242.709	165.471	200.348	1.00 89.61 H
HETATM	5229	H5	NAG A1005	243.379	167.472	198.447	1.00 89.61 H
HETATM	5230	H61	NAG A1005	243.424	164.746	197.776	1.00 89.61 H
HETATM	5231	H62	NAG A1005	244.720	165.377	198.435	1.00 89.61 H
HETATM	5232	H81	NAG A1005	239.411	170.643	202.358	1.00 89.61 H
HETATM	5233	H82	NAG A1005	238.342	169.740	203.117	1.00 89.61 H
HETATM	5234	H83	NAG A1005	238.174	170.043	201.557	1.00 89.61 H
HETATM	5235	HN2	NAG A1005	239.691	169.135	200.070	1.00 89.61 H
HETATM	5236	HO3	NAG A1005	242.117	167.918	202.632	1.00 89.61 H
HETATM	5237	HO4	NAG A1005	244.759	165.674	200.663	1.00 89.61 H
HETATM	5238	HO6	NAG A1005	244.659	166.894	196.749	1.00 89.61 H
HETATM	5239	C1	NAG A1006	230.362	144.338	203.778	1.00 54.24 C
HETATM	5240	C2	NAG A1006	229.980	142.874	203.753	1.00 54.24 C
HETATM	5241	C3	NAG A1006	229.624	142.466	202.335	1.00 54.24 C
HETATM	5242	C4	NAG A1006	228.487	143.341	201.824	1.00 54.24 C
HETATM	5243	C5	NAG A1006	228.825	144.827	201.975	1.00 54.24 C
HETATM	5244	C6	NAG A1006	227.634	145.717	201.710	1.00 54.24 C
HETATM	5245	C7	NAG A1006	231.291	141.935	205.597	1.00 54.24 C
HETATM	5246	C8	NAG A1006	232.405	141.011	205.986	1.00 54.24 C
HETATM	5247	N2	NAG A1006	231.036	142.030	204.288	1.00 54.24 N
HETATM	5248	O3	NAG A1006	229.246	141.095	202.308	1.00 54.24 O
HETATM	5249	O4	NAG A1006	228.236	143.057	200.453	1.00 54.24 O
HETATM	5250	O5	NAG A1006	229.263	145.126	203.312	1.00 54.24 O
HETATM	5251	O6	NAG A1006	228.025	147.042	201.380	1.00 54.24 O
HETATM	5252	O7	NAG A1006	230.653	142.570	206.430	1.00 54.24 O
HETATM	5253	H1	NAG A1006	231.133	144.479	203.195	1.00 54.24 H
HETATM	5254	H2	NAG A1006	229.184	142.762	204.307	1.00 54.24 H
HETATM	5255	H3	NAG A1006	230.405	142.591	201.764	1.00 54.24 H

HETATM	5256	H4	NAG A1006	227.683	143.144	202.339	1.00 54.24 H
HETATM	5257	H5	NAG A1006	229.537	145.057	201.349	1.00 54.24 H
HETATM	5258	H61	NAG A1006	227.079	145.744	202.512	1.00 54.24 H
HETATM	5259	H62	NAG A1006	227.110	145.345	200.976	1.00 54.24 H
HETATM	5260	H81	NAG A1006	233.263	141.415	205.757	1.00 54.24 H
HETATM	5261	H82	NAG A1006	232.306	140.163	205.513	1.00 54.24 H
HETATM	5262	H83	NAG A1006	232.369	140.851	206.948	1.00 54.24 H
HETATM	5263	HN2	NAG A1006	231.532	141.534	203.706	1.00 54.24 H
HETATM	5264	HO3	NAG A1006	229.883	140.628	201.903	1.00 54.24 H
HETATM	5265	HO4	NAG A1006	228.359	142.190	200.303	1.00 54.24 H
HETATM	5266	HO6	NAG A1006	227.298	147.526	201.218	1.00 54.24 H
HETATM	5267	C1	NAG A1007	227.807	173.029	166.433	1.00111.92 C
HETATM	5268	C2	NAG A1007	229.322	173.318	166.554	1.00111.92 C
HETATM	5269	C3	NAG A1007	230.155	172.499	165.556	1.00111.92 C
HETATM	5270	C4	NAG A1007	229.681	171.055	165.438	1.00111.92 C
HETATM	5271	C5	NAG A1007	228.169	170.983	165.315	1.00111.92 C
HETATM	5272	C6	NAG A1007	227.642	169.564	165.319	1.00111.92 C
HETATM	5273	C7	NAG A1007	230.768	175.314	166.513	1.00111.92 C
HETATM	5274	C8	NAG A1007	230.824	176.794	166.262	1.00111.92 C
HETATM	5275	N2	NAG A1007	229.569	174.739	166.366	1.00111.92 N
HETATM	5276	O3	NAG A1007	231.474	172.505	166.094	1.00111.92 O
HETATM	5277	O4	NAG A1007	230.258	170.440	164.290	1.00111.92 O
HETATM	5278	O5	NAG A1007	227.583	171.644	166.438	1.00111.92 O
HETATM	5279	O6	NAG A1007	226.331	169.495	165.866	1.00111.92 O
HETATM	5280	O7	NAG A1007	231.765	174.670	166.831	1.00111.92 O
HETATM	5281	H1	NAG A1007	227.466	173.413	165.604	1.00111.92 H
HETATM	5282	H2	NAG A1007	229.626	173.046	167.440	1.00111.92 H
HETATM	5283	H3	NAG A1007	230.138	172.934	164.685	1.00111.92 H
HETATM	5284	H4	NAG A1007	229.953	170.565	166.235	1.00111.92 H
HETATM	5285	H5	NAG A1007	227.891	171.430	164.493	1.00111.92 H
HETATM	5286	H61	NAG A1007	228.239	169.003	165.851	1.00111.92 H
HETATM	5287	H62	NAG A1007	227.626	169.224	164.406	1.00111.92 H
HETATM	5288	H81	NAG A1007	230.698	176.965	165.310	1.00111.92 H
HETATM	5289	H82	NAG A1007	231.693	177.139	166.542	1.00111.92 H
HETATM	5290	H83	NAG A1007	230.115	177.237	166.765	1.00111.92 H
HETATM	5291	HN2	NAG A1007	228.868	175.267	166.124	1.00111.92 H
HETATM	5292	HO4	NAG A1007	230.567	171.064	163.741	1.00111.92 H

HETATM	5293	HO6	NAG	A1007	226.290	168.811	166.431	1.00111.92	H
HETATM	5294	C1	NAG	A1008	232.559	171.972	165.298	1.00112.19	C
HETATM	5295	C2	NAG	A1008	232.999	170.643	165.934	1.00112.19	C
HETATM	5296	C3	NAG	A1008	234.136	170.029	165.124	1.00112.19	C
HETATM	5297	C4	NAG	A1008	233.733	169.902	163.661	1.00112.19	C
HETATM	5298	C5	NAG	A1008	233.276	171.257	163.128	1.00112.19	C
HETATM	5299	C6	NAG	A1008	232.786	171.200	161.700	1.00112.19	C
HETATM	5300	C7	NAG	A1008	232.575	170.685	168.359	1.00112.19	C
HETATM	5301	C8	NAG	A1008	233.174	170.910	169.715	1.00112.19	C
HETATM	5302	N2	NAG	A1008	233.405	170.830	167.319	1.00112.19	N
HETATM	5303	O3	NAG	A1008	234.465	168.751	165.655	1.00112.19	O
HETATM	5304	O4	NAG	A1008	234.838	169.438	162.894	1.00112.19	O
HETATM	5305	O5	NAG	A1008	232.188	171.747	163.923	1.00112.19	O
HETATM	5306	O6	NAG	A1008	233.703	171.824	160.812	1.00112.19	O
HETATM	5307	O7	NAG	A1008	231.396	170.384	168.214	1.00112.19	O
HETATM	5308	H1	NAG	A1008	233.308	172.593	165.327	1.00112.19	H
HETATM	5309	H2	NAG	A1008	232.249	170.022	165.903	1.00112.19	H
HETATM	5310	H3	NAG	A1008	234.918	170.609	165.187	1.00112.19	H
HETATM	5311	H4	NAG	A1008	233.000	169.263	163.588	1.00112.19	H
HETATM	5312	H5	NAG	A1008	234.020	171.885	163.183	1.00112.19	H
HETATM	5313	H61	NAG	A1008	231.927	171.658	161.644	1.00112.19	H
HETATM	5314	H62	NAG	A1008	232.673	170.267	161.440	1.00112.19	H
HETATM	5315	H81	NAG	A1008	233.649	171.762	169.728	1.00112.19	H
HETATM	5316	H82	NAG	A1008	233.795	170.185	169.920	1.00112.19	H
HETATM	5317	H83	NAG	A1008	232.463	170.925	170.383	1.00112.19	H
HETATM	5318	HN2	NAG	A1008	234.273	171.051	167.487	1.00112.19	H
HETATM	5319	HO3	NAG	A1008	235.222	168.813	166.116	1.00112.19	H
HETATM	5320	HO4	NAG	A1008	235.414	169.023	163.428	1.00112.19	H
HETATM	5321	HO6	NAG	A1008	233.678	172.704	160.929	1.00112.19	H
HETATM	5322	C1	NAG	A1009	218.397	172.990	155.647	1.00106.02	C
HETATM	5323	C2	NAG	A1009	219.866	173.352	155.465	1.00106.02	C
HETATM	5324	C3	NAG	A1009	220.262	173.189	154.005	1.00106.02	C
HETATM	5325	C4	NAG	A1009	219.910	171.790	153.515	1.00106.02	C
HETATM	5326	C5	NAG	A1009	218.445	171.476	153.809	1.00106.02	C
HETATM	5327	C6	NAG	A1009	218.058	170.057	153.463	1.00106.02	C
HETATM	5328	C7	NAG	A1009	220.494	175.008	157.167	1.00106.02	C
HETATM	5329	C8	NAG	A1009	220.702	176.463	157.464	1.00106.02	C

HETATM 5330	N2	NAG A1009	220.123	174.710	155.917	1.00106.02 N
HETATM 5331	O3	NAG A1009	221.657	173.428	153.858	1.00106.02 O
HETATM 5332	O4	NAG A1009	220.136	171.687	152.113	1.00106.02 O
HETATM 5333	O5	NAG A1009	218.176	171.652	155.208	1.00106.02 O
HETATM 5334	O6	NAG A1009	217.001	169.582	154.287	1.00106.02 O
HETATM 5335	O7	NAG A1009	220.651	174.142	158.023	1.00106.02 O
HETATM 5336	H1	NAG A1009	217.854	173.611	155.125	1.00106.02 H
HETATM 5337	H2	NAG A1009	220.406	172.729	155.990	1.00106.02 H
HETATM 5338	H3	NAG A1009	219.769	173.839	153.472	1.00106.02 H
HETATM 5339	H4	NAG A1009	220.474	171.145	153.980	1.00106.02 H
HETATM 5340	H5	NAG A1009	217.882	172.088	153.299	1.00106.02 H
HETATM 5341	H61	NAG A1009	218.836	169.480	153.571	1.00106.02 H
HETATM 5342	H62	NAG A1009	217.773	170.030	152.532	1.00106.02 H
HETATM 5343	H81	NAG A1009	219.835	176.906	157.536	1.00106.02 H
HETATM 5344	H82	NAG A1009	221.216	176.878	156.746	1.00106.02 H
HETATM 5345	H83	NAG A1009	221.184	176.557	158.308	1.00106.02 H
HETATM 5346	HN2	NAG A1009	220.013	175.391	155.322	1.00106.02 H
HETATM 5347	HO3	NAG A1009	221.863	173.459	152.994	1.00106.02 H
HETATM 5348	HO4	NAG A1009	220.065	170.838	151.863	1.00106.02 H
HETATM 5349	HO6	NAG A1009	216.805	170.190	154.903	1.00106.02 H
HETATM 5350	C1	NAG A1010	188.895	154.709	210.383	1.00 53.57 C
HETATM 5351	C2	NAG A1010	188.095	153.995	211.470	1.00 53.57 C
HETATM 5352	C3	NAG A1010	188.339	152.489	211.390	1.00 53.57 C
HETATM 5353	C4	NAG A1010	188.082	151.978	209.979	1.00 53.57 C
HETATM 5354	C5	NAG A1010	188.843	152.811	208.952	1.00 53.57 C
HETATM 5355	C6	NAG A1010	188.506	152.447	207.525	1.00 53.57 C
HETATM 5356	C7	NAG A1010	187.762	154.184	213.897	1.00 53.57 C
HETATM 5357	C8	NAG A1010	188.249	154.810	215.171	1.00 53.57 C
HETATM 5358	N2	NAG A1010	188.435	154.507	212.787	1.00 53.57 N
HETATM 5359	O3	NAG A1010	187.488	151.798	212.296	1.00 53.57 O
HETATM 5360	O4	NAG A1010	188.504	150.624	209.878	1.00 53.57 O
HETATM 5361	O5	NAG A1010	188.524	154.200	209.111	1.00 53.57 O
HETATM 5362	O6	NAG A1010	189.463	152.973	206.616	1.00 53.57 O
HETATM 5363	O7	NAG A1010	186.809	153.411	213.876	1.00 53.57 O
HETATM 5364	H1	NAG A1010	189.847	154.556	210.523	1.00 53.57 H
HETATM 5365	H2	NAG A1010	187.146	154.151	211.306	1.00 53.57 H
HETATM 5366	H3	NAG A1010	189.267	152.305	211.625	1.00 53.57 H

HETATM	5367	H4	NAG A1010	187.125 152.028 209.795	1.00 53.57	H
HETATM	5368	H5	NAG A1010	189.799 152.687 209.097	1.00 53.57	H
HETATM	5369	H61	NAG A1010	187.623 152.802 207.304	1.00 53.57	H
HETATM	5370	H62	NAG A1010	188.484 151.476 207.443	1.00 53.57	H
HETATM	5371	H81	NAG A1010	189.217 154.924 215.131	1.00 53.57	H
HETATM	5372	H82	NAG A1010	188.020 154.231 215.921	1.00 53.57	H
HETATM	5373	H83	NAG A1010	187.821 155.677 215.290	1.00 53.57	H
HETATM	5374	HN2	NAG A1010	189.132 155.089 212.857	1.00 53.57	H
HETATM	5375	HO3	NAG A1010	187.947 151.580 213.025	1.00 53.57	H
HETATM	5376	HO4	NAG A1010	188.075 150.229 209.209	1.00 53.57	H
HETATM	5377	HO6	NAG A1010	189.051 153.247 205.879	1.00 53.57	H
HETATM	5378	C1	NAG A1011	197.639 152.339 209.717	1.00 57.73	C
HETATM	5379	C2	NAG A1011	197.478 150.858 209.434	1.00 57.73	C
HETATM	5380	C3	NAG A1011	198.456 150.447 208.346	1.00 57.73	C
HETATM	5381	C4	NAG A1011	198.260 151.323 207.116	1.00 57.73	C
HETATM	5382	C5	NAG A1011	198.290 152.806 207.492	1.00 57.73	C
HETATM	5383	C6	NAG A1011	197.937 153.717 206.342	1.00 57.73	C
HETATM	5384	C7	NAG A1011	196.685 149.704 211.451	1.00 57.73	C
HETATM	5385	C8	NAG A1011	197.076 148.898 212.655	1.00 57.73	C
HETATM	5386	N2	NAG A1011	197.683 150.069 210.638	1.00 57.73	N
HETATM	5387	O3	NAG A1011	198.269 149.074 208.023	1.00 57.73	O
HETATM	5388	O4	NAG A1011	199.288 151.065 206.166	1.00 57.73	O
HETATM	5389	O5	NAG A1011	197.349 153.079 208.542	1.00 57.73	O
HETATM	5390	O6	NAG A1011	198.259 155.070 206.634	1.00 57.73	O
HETATM	5391	O7	NAG A1011	195.518 150.011 211.227	1.00 57.73	O
HETATM	5392	H1	NAG A1011	198.557 152.518 209.994	1.00 57.73	H
HETATM	5393	H2	NAG A1011	196.577 150.703 209.092	1.00 57.73	H
HETATM	5394	H3	NAG A1011	199.364 150.575 208.675	1.00 57.73	H
HETATM	5395	H4	NAG A1011	197.397 151.116 206.715	1.00 57.73	H
HETATM	5396	H5	NAG A1011	199.184 153.034 207.807	1.00 57.73	H
HETATM	5397	H61	NAG A1011	196.980 153.648 206.163	1.00 57.73	H
HETATM	5398	H62	NAG A1011	198.433 153.435 205.551	1.00 57.73	H
HETATM	5399	H81	NAG A1011	197.693 149.413 213.207	1.00 57.73	H
HETATM	5400	H82	NAG A1011	197.506 148.068 212.378	1.00 57.73	H
HETATM	5401	H83	NAG A1011	196.279 148.688 213.177	1.00 57.73	H
HETATM	5402	HN2	NAG A1011	198.533 149.819 210.853	1.00 57.73	H
HETATM	5403	HO3	NAG A1011	198.908 148.600 208.419	1.00 57.73	H

HETATM	5404	HO4	NAG	A	1011	199.704 150.311 206.380	1.00 57.73	H
HETATM	5405	HO6	NAG	A	1011	198.578 155.124 207.461	1.00 57.73	H
HETATM	5406	C1	NAG	A	1012	220.222 154.782 185.159	1.00146.68	C
HETATM	5407	C2	NAG	A	1012	221.433 153.852 185.194	1.00146.68	C
HETATM	5408	C3	NAG	A	1012	220.994 152.417 184.918	1.00146.68	C
HETATM	5409	C4	NAG	A	1012	219.863 152.014 185.855	1.00146.68	C
HETATM	5410	C5	NAG	A	1012	218.738 153.048 185.826	1.00146.68	C
HETATM	5411	C6	NAG	A	1012	217.646 152.766 186.833	1.00146.68	C
HETATM	5412	C7	NAG	A	1012	223.707 153.867 184.258	1.00146.68	C
HETATM	5413	C8	NAG	A	1012	224.599 154.416 183.185	1.00146.68	C
HETATM	5414	N2	NAG	A	1012	222.435 154.276 184.228	1.00146.68	N
HETATM	5415	O3	NAG	A	1012	222.097 151.534 185.090	1.00146.68	O
HETATM	5416	O4	NAG	A	1012	219.340 150.750 185.462	1.00146.68	O
HETATM	5417	O5	NAG	A	1012	219.259 154.352 186.127	1.00146.68	O
HETATM	5418	O6	NAG	A	1012	218.139 152.804 188.165	1.00146.68	O
HETATM	5419	O7	NAG	A	1012	224.118 153.083 185.110	1.00146.68	O
HETATM	5420	H1	NAG	A	1012	219.823 154.762 184.268	1.00146.68	H
HETATM	5421	H2	NAG	A	1012	221.827 153.886 186.086	1.00146.68	H
HETATM	5422	H3	NAG	A	1012	220.676 152.355 183.998	1.00146.68	H
HETATM	5423	H4	NAG	A	1012	220.211 151.949 186.765	1.00146.68	H
HETATM	5424	H5	NAG	A	1012	218.345 153.063 184.932	1.00146.68	H
HETATM	5425	H61	NAG	A	1012	217.277 151.879 186.660	1.00146.68	H
HETATM	5426	H62	NAG	A	1012	216.935 153.428 186.733	1.00146.68	H
HETATM	5427	H81	NAG	A	1012	224.590 155.390 183.234	1.00146.68	H
HETATM	5428	H82	NAG	A	1012	224.277 154.133 182.309	1.00146.68	H
HETATM	5429	H83	NAG	A	1012	225.510 154.093 183.316	1.00146.68	H
HETATM	5430	HN2	NAG	A	1012	222.188 154.866 183.578	1.00146.68	H
HETATM	5431	HO3	NAG	A	1012	221.986 150.819 184.575	1.00146.68	H
HETATM	5432	HO4	NAG	A	1012	219.500 150.619 184.599	1.00146.68	H
HETATM	5433	HO6	NAG	A	1012	217.573 152.375 188.699	1.00146.68	H
HETATM	5434	C1	NAG	A	1013	200.211 164.658 156.850	1.00131.48	C
HETATM	5435	C2	NAG	A	1013	199.574 163.473 157.599	1.00131.48	C
HETATM	5436	C3	NAG	A	1013	198.849 162.543 156.624	1.00131.48	C
HETATM	5437	C4	NAG	A	1013	197.874 163.322 155.754	1.00131.48	C
HETATM	5438	C5	NAG	A	1013	198.603 164.459 155.052	1.00131.48	C
HETATM	5439	C6	NAG	A	1013	197.681 165.356 154.258	1.00131.48	C
HETATM	5440	C7	NAG	A	1013	201.000 163.086 159.569	1.00131.48	C

HETATM	5441	C8	NAG A1013	202.042	162.203	160.184	1.00131.48 C
HETATM	5442	N2	NAG A1013	200.578	162.733	158.349	1.00131.48 N
HETATM	5443	O3	NAG A1013	198.143	161.554	157.364	1.00131.48 O
HETATM	5444	O4	NAG A1013	197.293	162.464	154.780	1.00131.48 O
HETATM	5445	O5	NAG A1013	199.228	165.296	156.031	1.00131.48 O
HETATM	5446	O6	NAG A1013	196.838	164.613	153.389	1.00131.48 O
HETATM	5447	O7	NAG A1013	200.565	164.079	160.146	1.00131.48 O
HETATM	5448	H1	NAG A1013	200.935	164.327	156.287	1.00131.48 H
HETATM	5449	H2	NAG A1013	198.913	163.826	158.225	1.00131.48 H
HETATM	5450	H3	NAG A1013	199.504	162.102	156.050	1.00131.48 H
HETATM	5451	H4	NAG A1013	197.171	163.696	156.319	1.00131.48 H
HETATM	5452	H5	NAG A1013	199.280	164.086	154.455	1.00131.48 H
HETATM	5453	H61	NAG A1013	198.220	165.974	153.729	1.00131.48 H
HETATM	5454	H62	NAG A1013	197.127	165.866	154.880	1.00131.48 H
HETATM	5455	H81	NAG A1013	202.843	162.205	159.626	1.00131.48 H
HETATM	5456	H82	NAG A1013	201.697	161.293	160.254	1.00131.48 H
HETATM	5457	H83	NAG A1013	202.268	162.539	161.073	1.00131.48 H
HETATM	5458	HN2	NAG A1013	200.937	161.986	157.970	1.00131.48 H
HETATM	5459	HO3	NAG A1013	197.481	161.943	157.811	1.00131.48 H
HETATM	5460	HO4	NAG A1013	197.882	162.312	154.132	1.00131.48 H
HETATM	5461	HO6	NAG A1013	196.317	165.175	152.941	1.00131.48 H
HETATM	5462	C1	NAG A1014	211.266	203.119	155.498	1.00152.13 C
HETATM	5463	C2	NAG A1014	212.757	202.867	155.316	1.00152.13 C
HETATM	5464	C3	NAG A1014	213.044	202.512	153.865	1.00152.13 C
HETATM	5465	C4	NAG A1014	212.173	201.340	153.433	1.00152.13 C
HETATM	5466	C5	NAG A1014	210.698	201.615	153.752	1.00152.13 C
HETATM	5467	C6	NAG A1014	209.802	200.432	153.475	1.00152.13 C
HETATM	5468	C7	NAG A1014	214.189	204.105	156.897	1.00152.13 C
HETATM	5469	C8	NAG A1014	214.943	205.375	157.147	1.00152.13 C
HETATM	5470	N2	NAG A1014	213.548	204.023	155.726	1.00152.13 N
HETATM	5471	O3	NAG A1014	214.420	202.179	153.713	1.00152.13 O
HETATM	5472	O4	NAG A1014	212.311	201.117	152.034	1.00152.13 O
HETATM	5473	O5	NAG A1014	210.533	201.942	155.142	1.00152.13 O
HETATM	5474	O6	NAG A1014	209.045	200.068	154.622	1.00152.13 O
HETATM	5475	O7	NAG A1014	214.160	203.187	157.716	1.00152.13 O
HETATM	5476	H1	NAG A1014	210.995	203.871	154.933	1.00152.13 H
HETATM	5477	H2	NAG A1014	213.012	202.098	155.855	1.00152.13 H

HETATM	5478	H3	NAG A1014	212.843	203.284	153.307	1.00152.13 H
HETATM	5479	H4	NAG A1014	212.454	200.536	153.913	1.00152.13 H
HETATM	5480	H5	NAG A1014	210.401	202.371	153.209	1.00152.13 H
HETATM	5481	H61	NAG A1014	210.356	199.676	153.199	1.00152.13 H
HETATM	5482	H62	NAG A1014	209.193	200.658	152.744	1.00152.13 H
HETATM	5483	H81	NAG A1014	214.341	206.133	157.031	1.00152.13 H
HETATM	5484	H82	NAG A1014	215.695	205.451	156.524	1.00152.13 H
HETATM	5485	H83	NAG A1014	215.275	205.379	158.065	1.00152.13 H
HETATM	5486	HN2	NAG A1014	213.592	204.735	155.159	1.00152.13 H
HETATM	5487	HO3	NAG A1014	214.929	202.838	154.021	1.00152.13 H
HETATM	5488	HO4	NAG A1014	212.967	200.534	151.893	1.00152.13 H
HETATM	5489	HO6	NAG A1014	208.530	199.375	154.412	1.00152.13 H
HETATM	5490	C1	NAG A1015	224.965	153.979	192.814	1.00 87.45 C
HETATM	5491	C2	NAG A1015	226.363	153.454	193.235	1.00 87.45 C
HETATM	5492	C3	NAG A1015	226.815	152.295	192.329	1.00 87.45 C
HETATM	5493	C4	NAG A1015	225.728	151.239	192.181	1.00 87.45 C
HETATM	5494	C5	NAG A1015	224.446	151.889	191.696	1.00 87.45 C
HETATM	5495	C6	NAG A1015	223.293	150.918	191.573	1.00 87.45 C
HETATM	5496	C7	NAG A1015	228.631	154.402	193.465	1.00 87.45 C
HETATM	5497	C8	NAG A1015	229.465	155.639	193.332	1.00 87.45 C
HETATM	5498	N2	NAG A1015	227.329	154.541	193.186	1.00 87.45 N
HETATM	5499	O3	NAG A1015	227.978	151.678	192.868	1.00 87.45 O
HETATM	5500	O4	NAG A1015	226.135	150.247	191.246	1.00 87.45 O
HETATM	5501	O5	NAG A1015	224.054	152.878	192.653	1.00 87.45 O
HETATM	5502	O6	NAG A1015	222.045	151.573	191.758	1.00 87.45 O
HETATM	5503	O7	NAG A1015	229.116	153.327	193.805	1.00 87.45 O
HETATM	5504	H1	NAG A1015	225.043	154.464	191.970	1.00 87.45 H
HETATM	5505	H2	NAG A1015	226.305	153.121	194.149	1.00 87.45 H
HETATM	5506	H3	NAG A1015	227.028	152.650	191.445	1.00 87.45 H
HETATM	5507	H4	NAG A1015	225.574	150.816	193.048	1.00 87.45 H
HETATM	5508	H5	NAG A1015	224.603	152.318	190.834	1.00 87.45 H
HETATM	5509	H61	NAG A1015	223.382	150.222	192.249	1.00 87.45 H
HETATM	5510	H62	NAG A1015	223.307	150.509	190.691	1.00 87.45 H
HETATM	5511	H81	NAG A1015	229.163	156.147	192.556	1.00 87.45 H
HETATM	5512	H82	NAG A1015	230.397	155.385	193.200	1.00 87.45 H
HETATM	5513	H83	NAG A1015	229.381	156.184	194.135	1.00 87.45 H
HETATM	5514	HN2	NAG A1015	227.032	155.363	192.928	1.00 87.45 H

HETATM 5515	HO3 NAG A1015	228.690	151.926	192.399	1.00 87.45	H
HETATM 5516	HO4 NAG A1015	225.625	150.285	190.520	1.00 87.45	H
HETATM 5517	HO6 NAG A1015	221.600	151.194	192.425	1.00 87.45	H
HETATM 5518	C1 PFE A1101	192.861	213.815	255.910	1.00 71.07	C
HETATM 5519	C13 PFE A1101	189.817	210.033	257.567	1.00 71.07	C
HETATM 5520	C18 PFE A1101	195.936	211.791	255.899	1.00 71.07	C
HETATM 5521	C2 PFE A1101	193.826	212.907	256.662	1.00 71.07	C
HETATM 5522	C21 PFE A1101	197.655	210.581	254.441	1.00 71.07	C
HETATM 5523	C22 PFE A1101	197.693	209.801	253.292	1.00 71.07	C
HETATM 5524	C23 PFE A1101	198.866	209.178	252.909	1.00 71.07	C
HETATM 5525	C24 PFE A1101	200.019	209.322	253.670	1.00 71.07	C
HETATM 5526	C25 PFE A1101	199.981	210.101	254.817	1.00 71.07	C
HETATM 5527	C26 PFE A1101	198.810	210.726	255.198	1.00 71.07	C
HETATM 5528	C28 PFE A1101	201.613	207.985	252.288	1.00 71.07	C
HETATM 5529	C3 PFE A1101	193.100	211.908	257.544	1.00 71.07	C
HETATM 5530	C30 PFE A1101	202.978	207.419	252.390	1.00 71.07	C
HETATM 5531	C31 PFE A1101	203.524	206.592	251.463	1.00 71.07	C
HETATM 5532	C33 PFE A1101	204.913	207.107	253.325	1.00 71.07	C
HETATM 5533	C4 PFE A1101	191.830	211.464	257.201	1.00 71.07	C
HETATM 5534	C5 PFE A1101	191.171	210.516	257.974	1.00 71.07	C
HETATM 5535	C6 PFE A1101	191.779	209.999	259.111	1.00 71.07	C
HETATM 5536	C7 PFE A1101	193.048	210.440	259.465	1.00 71.07	C
HETATM 5537	C8 PFE A1101	193.696	211.393	258.688	1.00 71.07	C
HETATM 5538	C9 PFE A1101	193.729	209.870	260.666	1.00 71.07	C
HETATM 5539	F10 PFE A1101	192.900	209.189	261.449	1.00 71.07	F
HETATM 5540	F11 PFE A1101	194.706	209.028	260.347	1.00 71.07	F
HETATM 5541	F12 PFE A1101	194.281	210.803	261.435	1.00 71.07	F
HETATM 5542	F14 PFE A1101	188.934	210.088	258.558	1.00 71.07	F
HETATM 5543	F15 PFE A1101	189.299	210.742	256.570	1.00 71.07	F
HETATM 5544	F16 PFE A1101	189.828	208.771	257.151	1.00 71.07	F
HETATM 5545	N17 PFE A1101	194.687	212.227	255.689	1.00 71.07	N
HETATM 5546	N20 PFE A1101	196.427	211.203	254.781	1.00 71.07	N
HETATM 5547	N27 PFE A1101	201.258	208.708	253.372	1.00 71.07	N
HETATM 5548	N34 PFE A1101	203.783	207.720	253.475	1.00 71.07	N
HETATM 5549	O29 PFE A1101	200.906	207.787	251.304	1.00 71.07	O
HETATM 5550	S19 PFE A1101	196.733	211.981	257.369	1.00 71.07	S
HETATM 5551	S32 PFE A1101	205.100	206.151	251.922	1.00 71.07	S

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HETATM 5552  HC2 PFE A1101     194.425 213.563 257.291  1.00 71.07           H
HETATM 5553  HC4 PFE A1101     191.339 211.861 256.314  1.00 71.07           H
HETATM 5554  HC6 PFE A1101     191.275 209.246 259.715  1.00 71.07           H
HETATM 5555  HC8 PFE A1101     194.685 211.745 258.975  1.00 71.07           H
HETATM 5556 HC1A PFE A1101     192.123 214.244 256.586  1.00 71.07           H
HETATM 5557 HC1B PFE A1101     193.391 214.651 255.458  1.00 71.07           H
HETATM 5558 HC1C PFE A1101     192.327 213.317 255.103  1.00 71.07           H
HETATM 5559 HC22 PFE A1101     196.803 209.675 252.679  1.00 71.07           H
HETATM 5560 HC23 PFE A1101     198.841 208.585 251.996  1.00 71.07           H
HETATM 5561 HC25 PFE A1101     200.866 210.228 255.437  1.00 71.07           H
HETATM 5562 HC26 PFE A1101     198.800 211.327 256.106  1.00 71.07           H
HETATM 5563 HC31 PFE A1101     203.055 206.228 250.550  1.00 71.07           H
HETATM 5564 HC33 PFE A1101     205.709 207.193 254.063  1.00 71.07           H
HETATM 5565 HN17 PFE A1101     194.241 212.103 254.786  1.00 71.07           H
HETATM 5566 HN20 PFE A1101     195.819 211.163 253.969  1.00 71.07           H
HETATM 5567 HN27 PFE A1101     201.960 208.852 254.091  1.00 71.07           H
TER
ATOM   5568  N   THR B  87     223.834 199.573 195.194  1.00 82.38           N
ATOM   5569  CA  THR B  87     222.504 199.132 195.596  1.00 82.38           C
ATOM   5570  C   THR B  87     221.522 200.297 195.604  1.00 82.38           C
ATOM   5571  O   THR B  87     221.843 201.390 196.069  1.00 82.38           O
ATOM   5572  CB  THR B  87     222.523 198.481 196.991  1.00 82.38           C
ATOM   5573  OG1 THR B  87     223.398 197.347 196.981  1.00 82.38           O
ATOM   5574  CG2 THR B  87     221.126 198.031 197.387  1.00 82.38           C
ATOM   5575  N   LYS B  88     220.321 200.056 195.080  1.00 72.14           N
ATOM   5576  CA  LYS B  88     219.260 201.052 195.056  1.00 72.14           C
ATOM   5577  C   LYS B  88     218.240 200.838 196.167  1.00 72.14           C
ATOM   5578  O   LYS B  88     217.110 201.326 196.066  1.00 72.14           O
ATOM   5579  CB  LYS B  88     218.565 201.052 193.694  1.00 72.14           C
ATOM   5580  CG  LYS B  88     217.812 199.769 193.383  1.00 72.14           C
ATOM   5581  CD  LYS B  88     217.186 199.822 191.999  1.00 72.14           C
ATOM   5582  CE  LYS B  88     216.414 198.551 191.691  1.00 72.14           C
ATOM   5583  NZ  LYS B  88     215.803 198.594 190.334  1.00 72.14           N
ATOM   5584  N   TYR B  89     218.613 200.117 197.222  1.00 62.21           N
ATOM   5585  CA  TYR B  89     217.728 199.834 198.350  1.00 62.21           C
ATOM   5586  C   TYR B  89     218.436 200.228 199.638  1.00 62.21           C
ATOM   5587  O   TYR B  89     218.927 199.368 200.380  1.00 62.21           O
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ATOM	5588	CB	TYR	B	89	217.321	198.361	198.376	1.00 62.21	C
ATOM	5589	CG	TYR	B	89	216.457	197.947	197.210	1.00 62.21	C
ATOM	5590	CD1	TYR	B	89	215.101	198.233	197.192	1.00 62.21	C
ATOM	5591	CD2	TYR	B	89	216.997	197.267	196.129	1.00 62.21	C
ATOM	5592	CE1	TYR	B	89	214.306	197.857	196.130	1.00 62.21	C
ATOM	5593	CE2	TYR	B	89	216.211	196.887	195.061	1.00 62.21	C
ATOM	5594	CZ	TYR	B	89	214.866	197.184	195.068	1.00 62.21	C
ATOM	5595	OH	TYR	B	89	214.076	196.807	194.007	1.00 62.21	O
ATOM	5596	N	PRO	B	90	218.512	201.521	199.932	1.00 51.46	N
ATOM	5597	CA	PRO	B	90	219.133	201.959	201.183	1.00 51.46	C
ATOM	5598	C	PRO	B	90	218.161	201.865	202.348	1.00 51.46	C
ATOM	5599	O	PRO	B	90	216.941	201.898	202.182	1.00 51.46	O
ATOM	5600	CB	PRO	B	90	219.503	203.417	200.897	1.00 51.46	C
ATOM	5601	CG	PRO	B	90	218.477	203.855	199.915	1.00 51.46	C
ATOM	5602	CD	PRO	B	90	218.174	202.655	199.057	1.00 51.46	C
ATOM	5603	N	TYR	B	91	218.734	201.740	203.542	1.00 42.61	N
ATOM	5604	CA	TYR	B	91	217.937	201.667	204.760	1.00 42.61	C
ATOM	5605	C	TYR	B	91	217.093	202.926	204.890	1.00 42.61	C
ATOM	5606	O	TYR	B	91	217.616	204.040	204.812	1.00 42.61	O
ATOM	5607	CB	TYR	B	91	218.844	201.513	205.981	1.00 42.61	C
ATOM	5608	CG	TYR	B	91	219.676	200.249	206.010	1.00 42.61	C
ATOM	5609	CD1	TYR	B	91	219.398	199.186	205.169	1.00 42.61	C
ATOM	5610	CD2	TYR	B	91	220.748	200.127	206.880	1.00 42.61	C
ATOM	5611	CE1	TYR	B	91	220.164	198.042	205.189	1.00 42.61	C
ATOM	5612	CE2	TYR	B	91	221.516	198.982	206.908	1.00 42.61	C
ATOM	5613	CZ	TYR	B	91	221.216	197.943	206.060	1.00 42.61	C
ATOM	5614	OH	TYR	B	91	221.969	196.795	206.074	1.00 42.61	O
ATOM	5615	N	ARG	B	92	215.790	202.759	205.087	1.00 39.21	N
ATOM	5616	CA	ARG	B	92	214.889	203.900	205.120	1.00 39.21	C
ATOM	5617	C	ARG	B	92	213.749	203.629	206.091	1.00 39.21	C
ATOM	5618	O	ARG	B	92	213.591	202.523	206.610	1.00 39.21	O
ATOM	5619	CB	ARG	B	92	214.380	204.224	203.717	1.00 39.21	C
ATOM	5620	CG	ARG	B	92	213.549	203.138	203.094	1.00 39.21	C
ATOM	5621	CD	ARG	B	92	213.313	203.450	201.636	1.00 39.21	C
ATOM	5622	NE	ARG	B	92	212.376	202.519	201.022	1.00 39.21	N
ATOM	5623	CZ	ARG	B	92	212.721	201.345	200.509	1.00 39.21	C
ATOM	5624	NH1	ARG	B	92	213.985	200.951	200.544	1.00 39.21	N

ATOM	5625	NH2	ARG	B	92	211.801	200.562	199.966	1.00 39.21	N
ATOM	5626	N	VAL	B	93	212.954	204.668	206.340	1.00 32.88	N
ATOM	5627	CA	VAL	B	93	212.002	204.689	207.446	1.00 32.88	C
ATOM	5628	C	VAL	B	93	210.590	204.932	206.920	1.00 32.88	C
ATOM	5629	O	VAL	B	93	209.833	205.730	207.483	1.00 32.88	O
ATOM	5630	CB	VAL	B	93	212.405	205.735	208.503	1.00 32.88	C
ATOM	5631	CG1	VAL	B	93	211.560	205.588	209.763	1.00 32.88	C
ATOM	5632	CG2	VAL	B	93	213.871	205.602	208.833	1.00 32.88	C
ATOM	5633	N	CYS	B	94	210.227	204.276	205.817	1.00 41.65	N
ATOM	5634	CA	CYS	B	94	208.983	204.594	205.122	1.00 41.65	C
ATOM	5635	C	CYS	B	94	207.772	204.235	205.972	1.00 41.65	C
ATOM	5636	O	CYS	B	94	207.076	203.255	205.692	1.00 41.65	O
ATOM	5637	CB	CYS	B	94	208.891	203.824	203.803	1.00 41.65	C
ATOM	5638	SG	CYS	B	94	210.186	204.142	202.601	1.00 41.65	S
ATOM	5639	N	SER	B	95	207.515	205.018	207.008	1.00 42.76	N
ATOM	5640	CA	SER	B	95	206.404	204.770	207.918	1.00 42.76	C
ATOM	5641	C	SER	B	95	205.534	205.992	208.162	1.00 42.76	C
ATOM	5642	O	SER	B	95	204.322	205.849	208.331	1.00 42.76	O
ATOM	5643	CB	SER	B	95	206.936	204.247	209.260	1.00 42.76	C
ATOM	5644	OG	SER	B	95	205.880	204.056	210.184	1.00 42.76	O
ATOM	5645	N	MET	B	96	206.118	207.183	208.195	1.00 45.81	N
ATOM	5646	CA	MET	B	96	205.425	208.380	208.644	1.00 45.81	C
ATOM	5647	C	MET	B	96	205.097	209.285	207.465	1.00 45.81	C
ATOM	5648	O	MET	B	96	205.886	209.411	206.525	1.00 45.81	O
ATOM	5649	CB	MET	B	96	206.277	209.133	209.665	1.00 45.81	C
ATOM	5650	CG	MET	B	96	207.576	209.670	209.098	1.00 45.81	C
ATOM	5651	SD	MET	B	96	208.672	210.335	210.365	1.00 45.81	S
ATOM	5652	CE	MET	B	96	209.302	208.832	211.106	1.00 45.81	C
ATOM	5653	N	ALA	B	97	203.928	209.917	207.525	1.00 44.27	N
ATOM	5654	CA	ALA	B	97	203.488	210.810	206.465	1.00 44.27	C
ATOM	5655	C	ALA	B	97	202.446	211.764	207.024	1.00 44.27	C
ATOM	5656	O	ALA	B	97	201.857	211.526	208.080	1.00 44.27	O
ATOM	5657	CB	ALA	B	97	202.923	210.038	205.271	1.00 44.27	C
ATOM	5658	N	GLN	B	98	202.220	212.841	206.282	1.00 45.88	N
ATOM	5659	CA	GLN	B	98	201.385	213.964	206.688	1.00 45.88	C
ATOM	5660	C	GLN	B	98	200.927	214.664	205.412	1.00 45.88	C
ATOM	5661	O	GLN	B	98	200.930	214.062	204.333	1.00 45.88	O

ATOM	5662	CB	GLN	B	98	202.137	214.891	207.659	1.00 45.88	C
ATOM	5663	CG	GLN	B	98	202.337	214.306	209.043	1.00 45.88	C
ATOM	5664	CD	GLN	B	98	203.132	215.214	209.950	1.00 45.88	C
ATOM	5665	OE1	GLN	B	98	203.659	216.235	209.514	1.00 45.88	O
ATOM	5666	NE2	GLN	B	98	203.212	214.854	211.225	1.00 45.88	N
ATOM	5667	N	GLY	B	99	200.519	215.921	205.530	1.00 45.24	N
ATOM	5668	CA	GLY	B	99	200.042	216.634	204.365	1.00 45.24	C
ATOM	5669	C	GLY	B	99	201.169	217.015	203.425	1.00 45.24	C
ATOM	5670	O	GLY	B	99	202.071	216.209	203.176	1.00 45.24	O
ATOM	5671	N	THR	B	100	201.122	218.231	202.891	1.00 43.08	N
ATOM	5672	CA	THR	B	100	201.940	218.774	201.813	1.00 43.08	C
ATOM	5673	C	THR	B	100	201.464	218.281	200.449	1.00 43.08	C
ATOM	5674	O	THR	B	100	201.927	218.800	199.433	1.00 43.08	O
ATOM	5675	CB	THR	B	100	203.441	218.440	201.943	1.00 43.08	C
ATOM	5676	OG1	THR	B	100	203.635	217.040	201.720	1.00 43.08	O
ATOM	5677	CG2	THR	B	100	203.952	218.778	203.327	1.00 43.08	C
ATOM	5678	N	ASP	B	101	200.550	217.312	200.387	1.00 44.09	N
ATOM	5679	CA	ASP	B	101	199.937	216.865	199.141	1.00 44.09	C
ATOM	5680	C	ASP	B	101	198.887	215.797	199.420	1.00 44.09	C
ATOM	5681	O	ASP	B	101	198.999	215.054	200.400	1.00 44.09	O
ATOM	5682	CB	ASP	B	101	201.002	216.349	198.173	1.00 44.09	C
ATOM	5683	CG	ASP	B	101	201.885	215.298	198.794	1.00 44.09	C
ATOM	5684	OD1	ASP	B	101	201.702	215.003	199.993	1.00 44.09	O
ATOM	5685	OD2	ASP	B	101	202.772	214.778	198.089	1.00 44.09	O
ATOM	5686	N	LEU	B	102	197.875	215.698	198.564	1.00 43.15	N
ATOM	5687	CA	LEU	B	102	196.762	214.793	198.808	1.00 43.15	C
ATOM	5688	C	LEU	B	102	196.328	214.169	197.491	1.00 43.15	C
ATOM	5689	O	LEU	B	102	196.462	214.781	196.429	1.00 43.15	O
ATOM	5690	CB	LEU	B	102	195.575	215.521	199.451	1.00 43.15	C
ATOM	5691	CG	LEU	B	102	195.604	215.906	200.932	1.00 43.15	C
ATOM	5692	CD1	LEU	B	102	196.513	217.089	201.172	1.00 43.15	C
ATOM	5693	CD2	LEU	B	102	194.201	216.221	201.412	1.00 43.15	C
ATOM	5694	N	ILE	B	103	195.806	212.944	197.566	1.00 44.36	N
ATOM	5695	CA	ILE	B	103	195.270	212.269	196.387	1.00 44.36	C
ATOM	5696	C	ILE	B	103	194.085	211.387	196.765	1.00 44.36	C
ATOM	5697	O	ILE	B	103	194.197	210.502	197.620	1.00 44.36	O
ATOM	5698	CB	ILE	B	103	196.349	211.441	195.662	1.00 44.36	C

ATOM	5699	CG1	ILE	B	103	196.948	210.385	196.587	1.00 44.36	C
ATOM	5700	CG2	ILE	B	103	197.437	212.331	195.083	1.00 44.36	C
ATOM	5701	CD1	ILE	B	103	197.813	209.379	195.863	1.00 44.36	C
ATOM	5702	N	ARG	B	104	192.944	211.628	196.129	1.00 56.18	N
ATOM	5703	CA	ARG	B	104	191.762	210.790	196.260	1.00 56.18	C
ATOM	5704	C	ARG	B	104	191.772	209.727	195.162	1.00 56.18	C
ATOM	5705	O	ARG	B	104	192.793	209.487	194.513	1.00 56.18	O
ATOM	5706	CB	ARG	B	104	190.500	211.642	196.208	1.00 56.18	C
ATOM	5707	CG	ARG	B	104	190.333	212.349	194.888	1.00 56.18	C
ATOM	5708	CD	ARG	B	104	189.062	213.161	194.839	1.00 56.18	C
ATOM	5709	NE	ARG	B	104	188.943	213.858	193.566	1.00 56.18	N
ATOM	5710	CZ	ARG	B	104	187.890	214.579	193.207	1.00 56.18	C
ATOM	5711	NH1	ARG	B	104	186.852	214.684	194.022	1.00 56.18	N
ATOM	5712	NH2	ARG	B	104	187.868	215.182	192.029	1.00 56.18	N
ATOM	5713	N	PHE	B	105	190.630	209.066	194.944	1.00 61.51	N
ATOM	5714	CA	PHE	B	105	190.535	208.014	193.941	1.00 61.51	C
ATOM	5715	C	PHE	B	105	189.443	208.212	192.895	1.00 61.51	C
ATOM	5716	O	PHE	B	105	189.520	207.576	191.839	1.00 61.51	O
ATOM	5717	CB	PHE	B	105	190.334	206.648	194.613	1.00 61.51	C
ATOM	5718	CG	PHE	B	105	191.555	206.141	195.324	1.00 61.51	C
ATOM	5719	CD1	PHE	B	105	192.561	205.498	194.624	1.00 61.51	C
ATOM	5720	CD2	PHE	B	105	191.699	206.312	196.689	1.00 61.51	C
ATOM	5721	CE1	PHE	B	105	193.684	205.029	195.273	1.00 61.51	C
ATOM	5722	CE2	PHE	B	105	192.821	205.846	197.344	1.00 61.51	C
ATOM	5723	CZ	PHE	B	105	193.815	205.203	196.634	1.00 61.51	C
ATOM	5724	N	GLU	B	106	188.443	209.063	193.144	1.00 78.59	N
ATOM	5725	CA	GLU	B	106	187.494	209.494	192.111	1.00 78.59	C
ATOM	5726	C	GLU	B	106	186.732	208.305	191.514	1.00 78.59	C
ATOM	5727	O	GLU	B	106	186.962	207.894	190.375	1.00 78.59	O
ATOM	5728	CB	GLU	B	106	188.214	210.290	191.017	1.00 78.59	C
ATOM	5729	CG	GLU	B	106	187.295	210.821	189.933	1.00 78.59	C
ATOM	5730	CD	GLU	B	106	186.286	211.812	190.469	1.00 78.59	C
ATOM	5731	OE1	GLU	B	106	186.564	212.437	191.513	1.00 78.59	O
ATOM	5732	OE2	GLU	B	106	185.215	211.966	189.847	1.00 78.59	O
ATOM	5733	N	ARG	B	107	185.843	207.748	192.347	1.00 86.99	N
ATOM	5734	CA	ARG	B	107	185.114	206.512	192.063	1.00 86.99	C
ATOM	5735	C	ARG	B	107	184.594	206.393	190.629	1.00 86.99	C

ATOM	5736	O	ARG B 107	184.981	205.479	189.893	1.00 86.99	O
ATOM	5737	CB	ARG B 107	183.930	206.378	193.030	1.00 86.99	C
ATOM	5738	CG	ARG B 107	184.272	205.981	194.458	1.00 86.99	C
ATOM	5739	CD	ARG B 107	184.433	207.193	195.358	1.00 86.99	C
ATOM	5740	NE	ARG B 107	184.480	206.816	196.769	1.00 86.99	N
ATOM	5741	CZ	ARG B 107	185.598	206.667	197.473	1.00 86.99	C
ATOM	5742	NH1	ARG B 107	185.540	206.314	198.749	1.00 86.99	N
ATOM	5743	NH2	ARG B 107	186.775	206.874	196.898	1.00 86.99	N
ATOM	5744	N	ASN B 108	183.725	207.311	190.209	1.00106.28	N
ATOM	5745	CA	ASN B 108	183.007	207.144	188.948	1.00106.28	C
ATOM	5746	C	ASN B 108	183.874	207.553	187.757	1.00106.28	C
ATOM	5747	O	ASN B 108	184.264	208.717	187.622	1.00106.28	O
ATOM	5748	CB	ASN B 108	181.693	207.925	188.967	1.00106.28	C
ATOM	5749	CG	ASN B 108	181.877	209.387	189.322	1.00106.28	C
ATOM	5750	OD1	ASN B 108	182.987	209.844	189.593	1.00106.28	O
ATOM	5751	ND2	ASN B 108	180.782	210.138	189.299	1.00106.28	N
ATOM	5752	N	ILE B 109	184.168	206.582	186.893	1.00113.07	N
ATOM	5753	CA	ILE B 109	184.957	206.780	185.682	1.00113.07	C
ATOM	5754	C	ILE B 109	184.112	206.330	184.495	1.00113.07	C
ATOM	5755	O	ILE B 109	184.618	205.681	183.573	1.00113.07	O
ATOM	5756	CB	ILE B 109	186.296	206.020	185.747	1.00113.07	C
ATOM	5757	CG1	ILE B 109	187.022	206.349	187.047	1.00113.07	C
ATOM	5758	CG2	ILE B 109	187.210	206.419	184.593	1.00113.07	C
ATOM	5759	CD1	ILE B 109	187.355	207.814	187.200	1.00113.07	C
ATOM	5760	N	VAL B 110	182.807	206.620	184.552	1.00126.39	N
ATOM	5761	CA	VAL B 110	181.797	206.129	183.613	1.00126.39	C
ATOM	5762	C	VAL B 110	182.238	206.264	182.160	1.00126.39	C
ATOM	5763	O	VAL B 110	182.617	207.350	181.704	1.00126.39	O
ATOM	5764	CB	VAL B 110	180.454	206.851	183.832	1.00126.39	C
ATOM	5765	CG1	VAL B 110	179.918	206.559	185.223	1.00126.39	C
ATOM	5766	CG2	VAL B 110	180.610	208.352	183.622	1.00126.39	C
ATOM	5767	N	CYS B 111	182.192	205.153	181.431	1.00128.79	N
ATOM	5768	CA	CYS B 111	182.693	205.073	180.070	1.00128.79	C
ATOM	5769	C	CYS B 111	181.569	205.341	179.073	1.00128.79	C
ATOM	5770	O	CYS B 111	180.388	205.394	179.422	1.00128.79	O
ATOM	5771	CB	CYS B 111	183.318	203.701	179.819	1.00128.79	C
ATOM	5772	SG	CYS B 111	184.693	203.305	180.924	1.00128.79	S

ATOM	5773	N	THR B 112	181.951	205.506	177.810	1.00133.63	N
ATOM	5774	CA	THR B 112	181.004	205.792	176.742	1.00133.63	C
ATOM	5775	C	THR B 112	181.247	204.844	175.579	1.00133.63	C
ATOM	5776	O	THR B 112	182.391	204.650	175.156	1.00133.63	O
ATOM	5777	CB	THR B 112	181.112	207.251	176.274	1.00133.63	C
ATOM	5778	OG1	THR B 112	180.103	207.517	175.291	1.00133.63	O
ATOM	5779	CG2	THR B 112	182.488	207.536	175.685	1.00133.63	C
ATOM	5780	N	SER B 113	180.173	204.245	175.079	1.00132.61	N
ATOM	5781	CA	SER B 113	180.240	203.413	173.890	1.00132.61	C
ATOM	5782	C	SER B 113	180.040	204.296	172.660	1.00132.61	C
ATOM	5783	O	SER B 113	180.056	205.527	172.743	1.00132.61	O
ATOM	5784	CB	SER B 113	179.214	202.286	173.974	1.00132.61	C
ATOM	5785	OG	SER B 113	179.511	201.407	175.045	1.00132.61	O
ATOM	5786	N	MET B 114	179.848	203.679	171.502	1.00130.30	N
ATOM	5787	CA	MET B 114	179.723	204.395	170.242	1.00130.30	C
ATOM	5788	C	MET B 114	178.521	203.852	169.470	1.00130.30	C
ATOM	5789	O	MET B 114	177.938	202.825	169.824	1.00130.30	O
ATOM	5790	CB	MET B 114	181.019	204.267	169.433	1.00130.30	C
ATOM	5791	CG	MET B 114	181.113	205.151	168.200	1.00130.30	C
ATOM	5792	SD	MET B 114	182.621	204.863	167.262	1.00130.30	S
ATOM	5793	CE	MET B 114	182.244	203.274	166.527	1.00130.30	C
ATOM	5794	N	LYS B 115	178.152	204.555	168.403	1.00135.43	N
ATOM	5795	CA	LYS B 115	177.082	204.116	167.520	1.00135.43	C
ATOM	5796	C	LYS B 115	177.690	203.641	166.202	1.00135.43	C
ATOM	5797	O	LYS B 115	177.786	204.409	165.240	1.00135.43	O
ATOM	5798	CB	LYS B 115	176.049	205.242	167.342	1.00135.43	C
ATOM	5799	CG	LYS B 115	176.552	206.580	166.771	1.00135.43	C
ATOM	5800	CD	LYS B 115	176.192	206.767	165.296	1.00135.43	C
ATOM	5801	CE	LYS B 115	176.615	208.124	164.759	1.00135.43	C
ATOM	5802	NZ	LYS B 115	176.295	208.263	163.308	1.00135.43	N
ATOM	5803	N	PRO B 116	178.157	202.392	166.123	1.00135.87	N
ATOM	5804	CA	PRO B 116	178.696	201.920	164.844	1.00135.87	C
ATOM	5805	C	PRO B 116	177.563	201.696	163.864	1.00135.87	C
ATOM	5806	O	PRO B 116	176.902	200.652	163.881	1.00135.87	O
ATOM	5807	CB	PRO B 116	179.397	200.609	165.219	1.00135.87	C
ATOM	5808	CG	PRO B 116	178.647	200.130	166.416	1.00135.87	C
ATOM	5809	CD	PRO B 116	178.234	201.362	167.174	1.00135.87	C

ATOM	5810	N	ILE B 117	177.337	202.684	163.003	1.00138.25	N
ATOM	5811	CA	ILE B 117	176.231	202.636	162.059	1.00138.25	C
ATOM	5812	C	ILE B 117	176.525	203.538	160.863	1.00138.25	C
ATOM	5813	O	ILE B 117	176.692	204.754	161.024	1.00138.25	O
ATOM	5814	CB	ILE B 117	174.923	203.024	162.780	1.00138.25	C
ATOM	5815	CG1	ILE B 117	173.701	202.820	161.887	1.00138.25	C
ATOM	5816	CG2	ILE B 117	174.987	204.441	163.340	1.00138.25	C
ATOM	5817	CD1	ILE B 117	172.389	202.930	162.631	1.00138.25	C
ATOM	5818	N	ASN B 118	176.594	202.954	159.659	1.00145.83	N
ATOM	5819	CA	ASN B 118	176.569	203.708	158.398	1.00145.83	C
ATOM	5820	C	ASN B 118	177.647	204.796	158.348	1.00145.83	C
ATOM	5821	O	ASN B 118	177.451	205.868	157.773	1.00145.83	O
ATOM	5822	CB	ASN B 118	175.173	204.301	158.192	1.00145.83	C
ATOM	5823	CG	ASN B 118	174.113	203.228	157.999	1.00145.83	C
ATOM	5824	OD1	ASN B 118	173.605	202.689	158.979	1.00145.83	O
ATOM	5825	ND2	ASN B 118	173.724	202.948	156.755	1.00145.83	N
ATOM	5826	N	GLU B 119	178.795	204.518	158.969	1.00127.67	N
ATOM	5827	CA	GLU B 119	179.812	205.540	159.184	1.00127.67	C
ATOM	5828	C	GLU B 119	181.184	205.023	158.777	1.00127.67	C
ATOM	5829	O	GLU B 119	181.432	203.815	158.733	1.00127.67	O
ATOM	5830	CB	GLU B 119	179.858	205.996	160.650	1.00127.67	C
ATOM	5831	CG	GLU B 119	180.390	204.938	161.612	1.00127.67	C
ATOM	5832	CD	GLU B 119	180.377	205.393	163.062	1.00127.67	C
ATOM	5833	OE1	GLU B 119	179.919	206.523	163.332	1.00127.67	O
ATOM	5834	OE2	GLU B 119	180.827	204.618	163.933	1.00127.67	O
ATOM	5835	N	ASP B 120	182.078	205.968	158.491	1.00112.66	N
ATOM	5836	CA	ASP B 120	183.486	205.714	158.218	1.00112.66	C
ATOM	5837	C	ASP B 120	184.330	206.480	159.234	1.00112.66	C
ATOM	5838	O	ASP B 120	183.810	207.048	160.199	1.00112.66	O
ATOM	5839	CB	ASP B 120	183.852	206.087	156.774	1.00112.66	C
ATOM	5840	CG	ASP B 120	183.552	207.537	156.446	1.00112.66	C
ATOM	5841	OD1	ASP B 120	182.983	208.248	157.301	1.00112.66	O
ATOM	5842	OD2	ASP B 120	183.889	207.969	155.324	1.00112.66	O
ATOM	5843	N	LEU B 121	185.645	206.499	159.020	1.00 98.47	N
ATOM	5844	CA	LEU B 121	186.551	207.009	160.042	1.00 98.47	C
ATOM	5845	C	LEU B 121	187.902	207.336	159.421	1.00 98.47	C
ATOM	5846	O	LEU B 121	188.267	206.812	158.365	1.00 98.47	O

ATOM	5847	CB	LEU B 121	186.695	206.001	161.189	1.00 98.47	C
ATOM	5848	CG	LEU B 121	187.439	204.688	160.928	1.00 98.47	C
ATOM	5849	CD1	LEU B 121	187.737	203.983	162.237	1.00 98.47	C
ATOM	5850	CD2	LEU B 121	186.649	203.770	160.009	1.00 98.47	C
ATOM	5851	N	ASP B 122	188.640	208.217	160.099	1.00 99.13	N
ATOM	5852	CA	ASP B 122	189.929	208.731	159.660	1.00 99.13	C
ATOM	5853	C	ASP B 122	191.044	208.216	160.570	1.00 99.13	C
ATOM	5854	O	ASP B 122	190.827	207.362	161.437	1.00 99.13	O
ATOM	5855	CB	ASP B 122	189.902	210.262	159.625	1.00 99.13	C
ATOM	5856	CG	ASP B 122	189.012	210.806	158.528	1.00 99.13	C
ATOM	5857	OD1	ASP B 122	188.847	210.119	157.499	1.00 99.13	O
ATOM	5858	OD2	ASP B 122	188.481	211.924	158.692	1.00 99.13	O
ATOM	5859	N	GLU B 123	192.253	208.738	160.366	1.00103.28	N
ATOM	5860	CA	GLU B 123	193.400	208.357	161.182	1.00103.28	C
ATOM	5861	C	GLU B 123	194.467	209.434	161.073	1.00103.28	C
ATOM	5862	O	GLU B 123	194.778	209.889	159.968	1.00103.28	O
ATOM	5863	CB	GLU B 123	193.958	206.999	160.745	1.00103.28	C
ATOM	5864	CG	GLU B 123	194.525	206.981	159.339	1.00103.28	C
ATOM	5865	CD	GLU B 123	195.010	205.606	158.930	1.00103.28	C
ATOM	5866	OE1	GLU B 123	194.893	204.669	159.747	1.00103.28	O
ATOM	5867	OE2	GLU B 123	195.505	205.460	157.793	1.00103.28	O
ATOM	5868	N	GLY B 124	195.016	209.841	162.211	1.00104.63	N
ATOM	5869	CA	GLY B 124	196.041	210.870	162.235	1.00104.63	C
ATOM	5870	C	GLY B 124	196.899	210.753	163.473	1.00104.63	C
ATOM	5871	O	GLY B 124	196.428	210.348	164.540	1.00104.63	O
ATOM	5872	N	ILE B 125	198.172	211.119	163.330	1.00111.88	N
ATOM	5873	CA	ILE B 125	199.136	211.017	164.421	1.00111.88	C
ATOM	5874	C	ILE B 125	199.020	212.242	165.319	1.00111.88	C
ATOM	5875	O	ILE B 125	198.922	213.376	164.837	1.00111.88	O
ATOM	5876	CB	ILE B 125	200.562	210.853	163.859	1.00111.88	C
ATOM	5877	CG1	ILE B 125	200.934	212.020	162.940	1.00111.88	C
ATOM	5878	CG2	ILE B 125	200.685	209.549	163.093	1.00111.88	C
ATOM	5879	CD1	ILE B 125	201.620	213.172	163.636	1.00111.88	C
ATOM	5880	N	MET B 126	199.043	212.019	166.634	1.00115.54	N
ATOM	5881	CA	MET B 126	198.814	213.094	167.591	1.00115.54	C
ATOM	5882	C	MET B 126	199.605	212.843	168.865	1.00115.54	C
ATOM	5883	O	MET B 126	199.759	211.697	169.296	1.00115.54	O

ATOM	5884	CB	MET B 126	197.320	213.238	167.915	1.00115.54	C
ATOM	5885	CG	MET B 126	196.670	212.020	168.567	1.00115.54	C
ATOM	5886	SD	MET B 126	196.777	211.958	170.366	1.00115.54	S
ATOM	5887	CE	MET B 126	196.661	210.193	170.645	1.00115.54	C
ATOM	5888	N	VAL B 127	200.096	213.927	169.464	1.00112.93	N
ATOM	5889	CA	VAL B 127	200.777	213.898	170.751	1.00112.93	C
ATOM	5890	C	VAL B 127	199.960	214.714	171.741	1.00112.93	C
ATOM	5891	O	VAL B 127	199.381	215.745	171.380	1.00112.93	O
ATOM	5892	CB	VAL B 127	202.216	214.444	170.649	1.00112.93	C
ATOM	5893	CG1	VAL B 127	203.041	213.579	169.717	1.00112.93	C
ATOM	5894	CG2	VAL B 127	202.199	215.885	170.169	1.00112.93	C
ATOM	5895	N	VAL B 128	199.915	214.254	172.991	1.00114.24	N
ATOM	5896	CA	VAL B 128	199.080	214.880	174.010	1.00114.24	C
ATOM	5897	C	VAL B 128	199.954	215.483	175.100	1.00114.24	C
ATOM	5898	O	VAL B 128	201.180	215.322	175.090	1.00114.24	O
ATOM	5899	CB	VAL B 128	198.089	213.866	174.608	1.00114.24	C
ATOM	5900	CG1	VAL B 128	197.191	213.306	173.522	1.00114.24	C
ATOM	5901	CG2	VAL B 128	198.839	212.752	175.316	1.00114.24	C
ATOM	5902	N	TYR B 129	199.330	216.174	176.049	1.00112.65	N
ATOM	5903	CA	TYR B 129	200.043	216.751	177.182	1.00112.65	C
ATOM	5904	C	TYR B 129	199.014	217.283	178.172	1.00112.65	C
ATOM	5905	O	TYR B 129	197.814	217.324	177.887	1.00112.65	O
ATOM	5906	CB	TYR B 129	201.023	217.836	176.732	1.00112.65	C
ATOM	5907	CG	TYR B 129	200.398	219.028	176.056	1.00112.65	C
ATOM	5908	CD1	TYR B 129	200.147	219.023	174.693	1.00112.65	C
ATOM	5909	CD2	TYR B 129	200.097	220.175	176.773	1.00112.65	C
ATOM	5910	CE1	TYR B 129	199.587	220.117	174.068	1.00112.65	C
ATOM	5911	CE2	TYR B 129	199.539	221.275	176.160	1.00112.65	C
ATOM	5912	CZ	TYR B 129	199.286	221.242	174.806	1.00112.65	C
ATOM	5913	OH	TYR B 129	198.729	222.337	174.188	1.00112.65	O
ATOM	5914	N	LYS B 130	199.500	217.685	179.346	1.00111.68	N
ATOM	5915	CA	LYS B 130	198.646	217.931	180.499	1.00111.68	C
ATOM	5916	C	LYS B 130	199.014	219.253	181.166	1.00111.68	C
ATOM	5917	O	LYS B 130	200.125	219.766	181.013	1.00111.68	O
ATOM	5918	CB	LYS B 130	198.755	216.761	181.493	1.00111.68	C
ATOM	5919	CG	LYS B 130	197.830	216.821	182.693	1.00111.68	C
ATOM	5920	CD	LYS B 130	197.916	215.530	183.496	1.00111.68	C

ATOM	5921	CE	LYS B 130	199.071	215.559	184.485	1.00111.68	C
ATOM	5922	NZ	LYS B 130	200.356	215.142	183.856	1.00111.68	N
ATOM	5923	N	ARG B 131	198.053	219.800	181.911	1.00116.31	N
ATOM	5924	CA	ARG B 131	198.208	221.065	182.618	1.00116.31	C
ATOM	5925	C	ARG B 131	198.999	220.877	183.911	1.00116.31	C
ATOM	5926	O	ARG B 131	199.003	219.796	184.507	1.00116.31	O
ATOM	5927	CB	ARG B 131	196.829	221.655	182.926	1.00116.31	C
ATOM	5928	CG	ARG B 131	196.818	222.959	183.717	1.00116.31	C
ATOM	5929	CD	ARG B 131	197.337	224.133	182.910	1.00116.31	C
ATOM	5930	NE	ARG B 131	197.267	225.387	183.657	1.00116.31	N
ATOM	5931	CZ	ARG B 131	197.779	226.540	183.237	1.00116.31	C
ATOM	5932	NH1	ARG B 131	197.666	227.628	183.988	1.00116.31	N
ATOM	5933	NH2	ARG B 131	198.398	226.610	182.069	1.00116.31	N
ATOM	5934	N	ASN B 132	199.673	221.946	184.346	1.00108.97	N
ATOM	5935	CA	ASN B 132	200.472	221.926	185.566	1.00108.97	C
ATOM	5936	C	ASN B 132	200.142	223.126	186.446	1.00108.97	C
ATOM	5937	O	ASN B 132	199.848	224.220	185.957	1.00108.97	O
ATOM	5938	CB	ASN B 132	201.972	221.906	185.256	1.00108.97	C
ATOM	5939	CG	ASN B 132	202.434	220.572	184.710	1.00108.97	C
ATOM	5940	OD1	ASN B 132	202.023	219.517	185.192	1.00108.97	O
ATOM	5941	ND2	ASN B 132	203.292	220.611	183.698	1.00108.97	N
ATOM	5942	N	ILE B 133	200.201	222.897	187.759	1.00 96.05	N
ATOM	5943	CA	ILE B 133	199.790	223.859	188.779	1.00 96.05	C
ATOM	5944	C	ILE B 133	200.951	224.102	189.742	1.00 96.05	C
ATOM	5945	O	ILE B 133	200.752	224.156	190.961	1.00 96.05	O
ATOM	5946	CB	ILE B 133	198.526	223.379	189.516	1.00 96.05	C
ATOM	5947	CG1	ILE B 133	197.457	222.975	188.503	1.00 96.05	C
ATOM	5948	CG2	ILE B 133	197.942	224.496	190.371	1.00 96.05	C
ATOM	5949	CD1	ILE B 133	197.018	224.102	187.593	1.00 96.05	C
ATOM	5950	N	VAL B 134	202.168	224.204	189.196	1.00 84.26	N
ATOM	5951	CA	VAL B 134	203.454	224.128	189.897	1.00 84.26	C
ATOM	5952	C	VAL B 134	203.472	224.833	191.252	1.00 84.26	C
ATOM	5953	O	VAL B 134	202.961	225.949	191.398	1.00 84.26	O
ATOM	5954	CB	VAL B 134	204.566	224.695	188.994	1.00 84.26	C
ATOM	5955	CG1	VAL B 134	205.895	224.717	189.726	1.00 84.26	C
ATOM	5956	CG2	VAL B 134	204.667	223.889	187.709	1.00 84.26	C
ATOM	5957	N	ALA B 135	204.061	224.169	192.250	1.00 64.04	N

ATOM	5958	CA	ALA B 135	203.949	224.529	193.657	1.00 64.04	C
ATOM	5959	C	ALA B 135	205.095	225.443	194.096	1.00 64.04	C
ATOM	5960	O	ALA B 135	205.823	226.008	193.277	1.00 64.04	O
ATOM	5961	CB	ALA B 135	203.888	223.263	194.507	1.00 64.04	C
ATOM	5962	N	HIS B 136	205.258	225.599	195.412	1.00 52.42	N
ATOM	5963	CA	HIS B 136	206.193	226.556	195.988	1.00 52.42	C
ATOM	5964	C	HIS B 136	206.704	226.011	197.319	1.00 52.42	C
ATOM	5965	O	HIS B 136	205.950	225.371	198.056	1.00 52.42	O
ATOM	5966	CB	HIS B 136	205.497	227.910	196.177	1.00 52.42	C
ATOM	5967	CG	HIS B 136	206.430	229.056	196.400	1.00 52.42	C
ATOM	5968	ND1	HIS B 136	205.996	230.288	196.836	1.00 52.42	N
ATOM	5969	CD2	HIS B 136	207.768	229.168	196.224	1.00 52.42	C
ATOM	5970	CE1	HIS B 136	207.027	231.108	196.930	1.00 52.42	C
ATOM	5971	NE2	HIS B 136	208.114	230.452	196.566	1.00 52.42	N
ATOM	5972	N	THR B 137	207.982	226.258	197.624	1.00 45.75	N
ATOM	5973	CA	THR B 137	208.611	225.755	198.849	1.00 45.75	C
ATOM	5974	C	THR B 137	209.568	226.805	199.395	1.00 45.75	C
ATOM	5975	O	THR B 137	210.451	227.267	198.667	1.00 45.75	O
ATOM	5976	CB	THR B 137	209.365	224.446	198.590	1.00 45.75	C
ATOM	5977	OG1	THR B 137	210.396	224.672	197.623	1.00 45.75	O
ATOM	5978	CG2	THR B 137	208.426	223.369	198.078	1.00 45.75	C
ATOM	5979	N	PHE B 138	209.410	227.181	200.679	1.00 40.03	N
ATOM	5980	CA	PHE B 138	210.128	228.349	201.181	1.00 40.03	C
ATOM	5981	C	PHE B 138	210.642	228.294	202.623	1.00 40.03	C
ATOM	5982	O	PHE B 138	211.100	229.328	203.125	1.00 40.03	O
ATOM	5983	CB	PHE B 138	209.251	229.594	200.994	1.00 40.03	C
ATOM	5984	CG	PHE B 138	207.896	229.489	201.629	1.00 40.03	C
ATOM	5985	CD1	PHE B 138	206.840	228.924	200.939	1.00 40.03	C
ATOM	5986	CD2	PHE B 138	207.668	229.984	202.894	1.00 40.03	C
ATOM	5987	CE1	PHE B 138	205.597	228.829	201.507	1.00 40.03	C
ATOM	5988	CE2	PHE B 138	206.419	229.896	203.462	1.00 40.03	C
ATOM	5989	CZ	PHE B 138	205.387	229.315	202.766	1.00 40.03	C
ATOM	5990	N	LYS B 139	210.624	227.145	203.303	1.00 35.09	N
ATOM	5991	CA	LYS B 139	211.368	226.966	204.559	1.00 35.09	C
ATOM	5992	C	LYS B 139	210.900	227.915	205.673	1.00 35.09	C
ATOM	5993	O	LYS B 139	211.582	228.871	206.041	1.00 35.09	O
ATOM	5994	CB	LYS B 139	212.873	227.137	204.324	1.00 35.09	C

ATOM	5995	CG	LYS B 139	213.512	226.042	203.496	1.00 35.09 C
ATOM	5996	CD	LYS B 139	215.011	226.257	203.362	1.00 35.09 C
ATOM	5997	CE	LYS B 139	215.666	225.108	202.615	1.00 35.09 C
ATOM	5998	NZ	LYS B 139	215.219	225.055	201.197	1.00 35.09 N
ATOM	5999	N	VAL B 140	209.704	227.635	206.194	1.00 31.32 N
ATOM	6000	CA	VAL B 140	209.183	228.341	207.366	1.00 31.32 C
ATOM	6001	C	VAL B 140	209.989	227.987	208.611	1.00 31.32 C
ATOM	6002	O	VAL B 140	210.801	227.057	208.593	1.00 31.32 O
ATOM	6003	CB	VAL B 140	207.697	228.024	207.599	1.00 31.32 C
ATOM	6004	CG1	VAL B 140	206.877	228.416	206.396	1.00 31.32 C
ATOM	6005	CG2	VAL B 140	207.519	226.558	207.923	1.00 31.32 C
ATOM	6006	N	ARG B 141	209.769	228.728	209.699	1.00 31.87 N
ATOM	6007	CA	ARG B 141	210.479	228.525	210.963	1.00 31.87 C
ATOM	6008	C	ARG B 141	209.474	228.585	212.104	1.00 31.87 C
ATOM	6009	O	ARG B 141	208.856	229.628	212.328	1.00 31.87 O
ATOM	6010	CB	ARG B 141	211.563	229.581	211.166	1.00 31.87 C
ATOM	6011	CG	ARG B 141	212.708	229.503	210.191	1.00 31.87 C
ATOM	6012	CD	ARG B 141	213.815	230.449	210.605	1.00 31.87 C
ATOM	6013	NE	ARG B 141	213.363	231.836	210.606	1.00 31.87 N
ATOM	6014	CZ	ARG B 141	213.388	232.627	209.540	1.00 31.87 C
ATOM	6015	NH1	ARG B 141	213.841	232.166	208.384	1.00 31.87 N
ATOM	6016	NH2	ARG B 141	212.957	233.876	209.629	1.00 31.87 N
ATOM	6017	N	VAL B 142	209.313	227.481	212.829	1.00 33.41 N
ATOM	6018	CA	VAL B 142	208.353	227.390	213.924	1.00 33.41 C
ATOM	6019	C	VAL B 142	209.087	227.494	215.252	1.00 33.41 C
ATOM	6020	O	VAL B 142	210.105	226.825	215.462	1.00 33.41 O
ATOM	6021	CB	VAL B 142	207.550	226.083	213.851	1.00 33.41 C
ATOM	6022	CG1	VAL B 142	206.653	225.961	215.061	1.00 33.41 C
ATOM	6023	CG2	VAL B 142	206.735	226.039	212.577	1.00 33.41 C
ATOM	6024	N	TYR B 143	208.570	228.326	216.150	1.00 35.46 N
ATOM	6025	CA	TYR B 143	209.082	228.448	217.506	1.00 35.46 C
ATOM	6026	C	TYR B 143	208.142	227.748	218.479	1.00 35.46 C
ATOM	6027	O	TYR B 143	206.991	227.450	218.158	1.00 35.46 O
ATOM	6028	CB	TYR B 143	209.240	229.918	217.892	1.00 35.46 C
ATOM	6029	CG	TYR B 143	210.258	230.654	217.065	1.00 35.46 C
ATOM	6030	CD1	TYR B 143	211.605	230.580	217.362	1.00 35.46 C
ATOM	6031	CD2	TYR B 143	209.869	231.419	215.980	1.00 35.46 C

ATOM	6032	CE1	TYR B 143	212.537	231.253	216.605	1.00 35.46	C
ATOM	6033	CE2	TYR B 143	210.791	232.094	215.217	1.00 35.46	C
ATOM	6034	CZ	TYR B 143	212.123	232.009	215.532	1.00 35.46	C
ATOM	6035	OH	TYR B 143	213.044	232.684	214.768	1.00 35.46	O
ATOM	6036	N	GLN B 144	208.640	227.503	219.691	1.00 56.06	N
ATOM	6037	CA	GLN B 144	207.838	226.826	220.703	1.00 56.06	C
ATOM	6038	C	GLN B 144	208.605	226.767	222.019	1.00 56.06	C
ATOM	6039	O	GLN B 144	209.780	227.139	222.069	1.00 56.06	O
ATOM	6040	CB	GLN B 144	207.454	225.428	220.210	1.00 56.06	C
ATOM	6041	CG	GLN B 144	206.353	224.742	220.985	1.00 56.06	C
ATOM	6042	CD	GLN B 144	205.901	223.462	220.317	1.00 56.06	C
ATOM	6043	OE1	GLN B 144	206.487	223.028	219.326	1.00 56.06	O
ATOM	6044	NE2	GLN B 144	204.831	222.870	220.833	1.00 56.06	N
ATOM	6045	N	LYS B 145	207.953	226.320	223.092	1.00 34.18	N
ATOM	6046	CA	LYS B 145	208.613	226.199	224.392	1.00 34.18	C
ATOM	6047	C	LYS B 145	207.841	225.176	225.211	1.00 34.18	C
ATOM	6048	O	LYS B 145	206.648	225.363	225.464	1.00 34.18	O
ATOM	6049	CB	LYS B 145	208.674	227.540	225.110	1.00 34.18	C
ATOM	6050	CG	LYS B 145	209.446	227.494	226.418	1.00 34.18	C
ATOM	6051	CD	LYS B 145	209.436	228.835	227.129	1.00 34.18	C
ATOM	6052	CE	LYS B 145	210.325	229.846	226.435	1.00 34.18	C
ATOM	6053	NZ	LYS B 145	211.761	229.479	226.545	1.00 34.18	N
ATOM	6054	N	VAL B 146	208.519	224.110	225.626	1.00 39.31	N
ATOM	6055	CA	VAL B 146	207.895	222.996	226.328	1.00 39.31	C
ATOM	6056	C	VAL B 146	208.264	223.069	227.800	1.00 39.31	C
ATOM	6057	O	VAL B 146	209.419	223.344	228.145	1.00 39.31	O
ATOM	6058	CB	VAL B 146	208.336	221.651	225.731	1.00 39.31	C
ATOM	6059	CG1	VAL B 146	207.687	220.502	226.478	1.00 39.31	C
ATOM	6060	CG2	VAL B 146	208.021	221.604	224.258	1.00 39.31	C
ATOM	6061	N	LEU B 147	207.291	222.806	228.667	1.00 42.77	N
ATOM	6062	CA	LEU B 147	207.543	222.696	230.097	1.00 42.77	C
ATOM	6063	C	LEU B 147	206.706	221.556	230.649	1.00 42.77	C
ATOM	6064	O	LEU B 147	205.503	221.483	230.383	1.00 42.77	O
ATOM	6065	CB	LEU B 147	207.223	224.001	230.833	1.00 42.77	C
ATOM	6066	CG	LEU B 147	205.760	224.382	231.041	1.00 42.77	C
ATOM	6067	CD1	LEU B 147	205.649	225.422	232.133	1.00 42.77	C
ATOM	6068	CD2	LEU B 147	205.177	224.915	229.759	1.00 42.77	C

ATOM	6069	N	THR B 148	207.340	220.673	231.416	1.00 46.21 N
ATOM	6070	CA	THR B 148	206.690	219.478	231.934	1.00 46.21 C
ATOM	6071	C	THR B 148	206.884	219.403	233.438	1.00 46.21 C
ATOM	6072	O	THR B 148	207.988	219.636	233.938	1.00 46.21 O
ATOM	6073	CB	THR B 148	207.248	218.214	231.283	1.00 46.21 C
ATOM	6074	OG1	THR B 148	208.628	218.067	231.634	1.00 46.21 O
ATOM	6075	CG2	THR B 148	207.136	218.315	229.781	1.00 46.21 C
ATOM	6076	N	PHE B 149	205.813	219.077	234.150	1.00 54.72 N
ATOM	6077	CA	PHE B 149	205.879	218.870	235.585	1.00 54.72 C
ATOM	6078	C	PHE B 149	206.089	217.391	235.897	1.00 54.72 C
ATOM	6079	O	PHE B 149	205.864	216.511	235.066	1.00 54.72 O
ATOM	6080	CB	PHE B 149	204.606	219.380	236.255	1.00 54.72 C
ATOM	6081	CG	PHE B 149	204.443	220.867	236.191	1.00 54.72 C
ATOM	6082	CD1	PHE B 149	205.093	221.685	237.096	1.00 54.72 C
ATOM	6083	CD2	PHE B 149	203.639	221.449	235.229	1.00 54.72 C
ATOM	6084	CE1	PHE B 149	204.944	223.055	237.044	1.00 54.72 C
ATOM	6085	CE2	PHE B 149	203.486	222.819	235.172	1.00 54.72 C
ATOM	6086	CZ	PHE B 149	204.141	223.623	236.080	1.00 54.72 C
ATOM	6087	N	ARG B 150	206.532	217.126	237.122	1.00 65.00 N
ATOM	6088	CA	ARG B 150	206.663	215.765	237.618	1.00 65.00 C
ATOM	6089	C	ARG B 150	206.423	215.775	239.116	1.00 65.00 C
ATOM	6090	O	ARG B 150	206.613	216.791	239.787	1.00 65.00 O
ATOM	6091	CB	ARG B 150	208.037	215.164	237.312	1.00 65.00 C
ATOM	6092	CG	ARG B 150	208.289	214.858	235.852	1.00 65.00 C
ATOM	6093	CD	ARG B 150	209.675	214.268	235.673	1.00 65.00 C
ATOM	6094	NE	ARG B 150	209.984	213.990	234.275	1.00 65.00 N
ATOM	6095	CZ	ARG B 150	211.163	213.552	233.849	1.00 65.00 C
ATOM	6096	NH1	ARG B 150	212.145	213.344	234.715	1.00 65.00 N
ATOM	6097	NH2	ARG B 150	211.362	213.325	232.558	1.00 65.00 N
ATOM	6098	N	ARG B 151	206.006	214.626	239.637	1.00 68.32 N
ATOM	6099	CA	ARG B 151	205.739	214.475	241.061	1.00 68.32 C
ATOM	6100	C	ARG B 151	206.210	213.093	241.477	1.00 68.32 C
ATOM	6101	O	ARG B 151	205.663	212.087	241.017	1.00 68.32 O
ATOM	6102	CB	ARG B 151	204.252	214.668	241.364	1.00 68.32 C
ATOM	6103	CG	ARG B 151	203.772	216.088	241.111	1.00 68.32 C
ATOM	6104	CD	ARG B 151	202.348	216.298	241.580	1.00 68.32 C
ATOM	6105	NE	ARG B 151	201.402	215.479	240.832	1.00 68.32 N

ATOM	6106	CZ	ARG B 151	200.831	215.856	239.694	1.00 68.32	C
ATOM	6107	NH1	ARG B 151	201.114	217.041	239.171	1.00 68.32	N
ATOM	6108	NH2	ARG B 151	199.979	215.049	239.077	1.00 68.32	N
ATOM	6109	N	SER B 152	207.226	213.042	242.334	1.00 71.89	N
ATOM	6110	CA	SER B 152	207.881	211.784	242.668	1.00 71.89	C
ATOM	6111	C	SER B 152	208.180	211.745	244.156	1.00 71.89	C
ATOM	6112	O	SER B 152	208.788	212.675	244.693	1.00 71.89	O
ATOM	6113	CB	SER B 152	209.171	211.611	241.861	1.00 71.89	C
ATOM	6114	OG	SER B 152	210.132	212.586	242.224	1.00 71.89	O
ATOM	6115	N	TYR B 153	207.756	210.673	244.814	1.00 68.60	N
ATOM	6116	CA	TYR B 153	208.142	210.396	246.188	1.00 68.60	C
ATOM	6117	C	TYR B 153	209.233	209.335	246.180	1.00 68.60	C
ATOM	6118	O	TYR B 153	209.167	208.371	245.412	1.00 68.60	O
ATOM	6119	CB	TYR B 153	206.944	209.925	247.012	1.00 68.60	C
ATOM	6120	CG	TYR B 153	207.251	209.726	248.475	1.00 68.60	C
ATOM	6121	CD1	TYR B 153	207.413	210.812	249.319	1.00 68.60	C
ATOM	6122	CD2	TYR B 153	207.368	208.456	249.014	1.00 68.60	C
ATOM	6123	CE1	TYR B 153	207.691	210.641	250.657	1.00 68.60	C
ATOM	6124	CE2	TYR B 153	207.645	208.274	250.352	1.00 68.60	C
ATOM	6125	CZ	TYR B 153	207.806	209.371	251.168	1.00 68.60	C
ATOM	6126	OH	TYR B 153	208.084	209.201	252.503	1.00 68.60	O
ATOM	6127	N	ALA B 154	210.234	209.514	247.037	1.00 73.92	N
ATOM	6128	CA	ALA B 154	211.466	208.733	246.969	1.00 73.92	C
ATOM	6129	C	ALA B 154	211.647	207.950	248.261	1.00 73.92	C
ATOM	6130	O	ALA B 154	211.886	208.540	249.319	1.00 73.92	O
ATOM	6131	CB	ALA B 154	212.670	209.640	246.716	1.00 73.92	C
ATOM	6132	N	TYR B 155	211.539	206.624	248.177	1.00 74.10	N
ATOM	6133	CA	TYR B 155	211.883	205.767	249.304	1.00 74.10	C
ATOM	6134	C	TYR B 155	213.381	205.792	249.567	1.00 74.10	C
ATOM	6135	O	TYR B 155	214.133	206.469	248.860	1.00 74.10	O
ATOM	6136	CB	TYR B 155	211.439	204.323	249.070	1.00 74.10	C
ATOM	6137	CG	TYR B 155	209.964	204.086	249.247	1.00 74.10	C
ATOM	6138	CD1	TYR B 155	209.148	205.059	249.795	1.00 74.10	C
ATOM	6139	CD2	TYR B 155	209.396	202.869	248.907	1.00 74.10	C
ATOM	6140	CE1	TYR B 155	207.797	204.839	249.970	1.00 74.10	C
ATOM	6141	CE2	TYR B 155	208.049	202.638	249.078	1.00 74.10	C
ATOM	6142	CZ	TYR B 155	207.254	203.625	249.613	1.00 74.10	C

ATOM	6143	OH	TYR B 155	205.911	203.396	249.785	1.00 74.10	O
ATOM	6144	N	ILE B 156	213.820	205.048	250.585	1.00 78.22	N
ATOM	6145	CA	ILE B 156	215.246	204.906	250.848	1.00 78.22	C
ATOM	6146	C	ILE B 156	215.942	204.085	249.772	1.00 78.22	C
ATOM	6147	O	ILE B 156	217.170	204.152	249.645	1.00 78.22	O
ATOM	6148	CB	ILE B 156	215.468	204.284	252.239	1.00 78.22	C
ATOM	6149	CG1	ILE B 156	216.947	204.343	252.628	1.00 78.22	C
ATOM	6150	CG2	ILE B 156	214.948	202.859	252.273	1.00 78.22	C
ATOM	6151	CD1	ILE B 156	217.470	205.743	252.823	1.00 78.22	C
ATOM	6152	N	HIS B 157	215.194	203.304	248.992	1.00 79.93	N
ATOM	6153	CA	HIS B 157	215.766	202.521	247.904	1.00 79.93	C
ATOM	6154	C	HIS B 157	215.277	202.983	246.538	1.00 79.93	C
ATOM	6155	O	HIS B 157	216.090	203.319	245.674	1.00 79.93	O
ATOM	6156	CB	HIS B 157	215.454	201.031	248.098	1.00 79.93	C
ATOM	6157	CG	HIS B 157	216.134	200.419	249.282	1.00 79.93	C
ATOM	6158	ND1	HIS B 157	215.553	200.365	250.529	1.00 79.93	N
ATOM	6159	CD2	HIS B 157	217.352	199.842	249.409	1.00 79.93	C
ATOM	6160	CE1	HIS B 157	216.380	199.777	251.374	1.00 79.93	C
ATOM	6161	NE2	HIS B 157	217.480	199.449	250.720	1.00 79.93	N
ATOM	6162	N	THR B 158	213.966	203.016	246.319	1.00 79.72	N
ATOM	6163	CA	THR B 158	213.398	203.320	245.015	1.00 79.72	C
ATOM	6164	C	THR B 158	212.593	204.612	245.064	1.00 79.72	C
ATOM	6165	O	THR B 158	212.136	205.042	246.127	1.00 79.72	O
ATOM	6166	CB	THR B 158	212.503	202.177	244.528	1.00 79.72	C
ATOM	6167	OG1	THR B 158	211.428	201.983	245.454	1.00 79.72	O
ATOM	6168	CG2	THR B 158	213.304	200.891	244.413	1.00 79.72	C
ATOM	6169	N	THR B 159	212.426	205.227	243.897	1.00 77.35	N
ATOM	6170	CA	THR B 159	211.674	206.465	243.749	1.00 77.35	C
ATOM	6171	C	THR B 159	210.547	206.246	242.749	1.00 77.35	C
ATOM	6172	O	THR B 159	210.780	205.730	241.651	1.00 77.35	O
ATOM	6173	CB	THR B 159	212.583	207.604	243.284	1.00 77.35	C
ATOM	6174	OG1	THR B 159	213.085	207.311	241.976	1.00 77.35	O
ATOM	6175	CG2	THR B 159	213.757	207.761	244.236	1.00 77.35	C
ATOM	6176	N	TYR B 160	209.335	206.630	243.131	1.00 73.95	N
ATOM	6177	CA	TYR B 160	208.155	206.412	242.309	1.00 73.95	C
ATOM	6178	C	TYR B 160	207.845	207.640	241.457	1.00 73.95	C
ATOM	6179	O	TYR B 160	208.335	208.742	241.708	1.00 73.95	O

ATOM	6180	CB	TYR B 160	206.957	206.059	243.190	1.00 73.95	C
ATOM	6181	CG	TYR B 160	207.080	204.711	243.858	1.00 73.95	C
ATOM	6182	CD1	TYR B 160	206.771	203.547	243.171	1.00 73.95	C
ATOM	6183	CD2	TYR B 160	207.512	204.598	245.173	1.00 73.95	C
ATOM	6184	CE1	TYR B 160	206.883	202.311	243.772	1.00 73.95	C
ATOM	6185	CE2	TYR B 160	207.626	203.362	245.782	1.00 73.95	C
ATOM	6186	CZ	TYR B 160	207.311	202.224	245.074	1.00 73.95	C
ATOM	6187	OH	TYR B 160	207.421	200.987	245.667	1.00 73.95	O
ATOM	6188	N	LEU B 161	207.021	207.432	240.432	1.00 70.61	N
ATOM	6189	CA	LEU B 161	206.584	208.496	239.531	1.00 70.61	C
ATOM	6190	C	LEU B 161	205.082	208.675	239.732	1.00 70.61	C
ATOM	6191	O	LEU B 161	204.281	207.868	239.253	1.00 70.61	O
ATOM	6192	CB	LEU B 161	206.927	208.166	238.081	1.00 70.61	C
ATOM	6193	CG	LEU B 161	206.617	209.228	237.022	1.00 70.61	C
ATOM	6194	CD1	LEU B 161	207.433	210.491	237.256	1.00 70.61	C
ATOM	6195	CD2	LEU B 161	206.860	208.684	235.622	1.00 70.61	C
ATOM	6196	N	LEU B 162	204.707	209.738	240.443	1.00 70.59	N
ATOM	6197	CA	LEU B 162	203.313	209.923	240.832	1.00 70.59	C
ATOM	6198	C	LEU B 162	202.488	210.585	239.734	1.00 70.59	C
ATOM	6199	O	LEU B 162	201.298	210.287	239.590	1.00 70.59	O
ATOM	6200	CB	LEU B 162	203.243	210.734	242.123	1.00 70.59	C
ATOM	6201	CG	LEU B 162	203.772	209.971	243.334	1.00 70.59	C
ATOM	6202	CD1	LEU B 162	203.890	210.873	244.540	1.00 70.59	C
ATOM	6203	CD2	LEU B 162	202.839	208.824	243.630	1.00 70.59	C
ATOM	6204	N	GLY B 163	203.085	211.483	238.960	1.00 67.64	N
ATOM	6205	CA	GLY B 163	202.324	212.139	237.914	1.00 67.64	C
ATOM	6206	C	GLY B 163	203.231	212.886	236.965	1.00 67.64	C
ATOM	6207	O	GLY B 163	204.440	213.002	237.181	1.00 67.64	O
ATOM	6208	N	SER B 164	202.623	213.389	235.895	1.00 59.26	N
ATOM	6209	CA	SER B 164	203.323	214.208	234.916	1.00 59.26	C
ATOM	6210	C	SER B 164	202.304	214.750	233.929	1.00 59.26	C
ATOM	6211	O	SER B 164	201.299	214.097	233.638	1.00 59.26	O
ATOM	6212	CB	SER B 164	204.406	213.411	234.179	1.00 59.26	C
ATOM	6213	OG	SER B 164	203.833	212.412	233.356	1.00 59.26	O
ATOM	6214	N	ASN B 165	202.568	215.955	233.428	1.00 53.74	N
ATOM	6215	CA	ASN B 165	201.675	216.566	232.447	1.00 53.74	C
ATOM	6216	C	ASN B 165	202.460	217.605	231.644	1.00 53.74	C

ATOM	6217	O	ASN B 165	202.698	218.715	232.127	1.00 53.74	O
ATOM	6218	CB	ASN B 165	200.455	217.170	233.125	1.00 53.74	C
ATOM	6219	CG	ASN B 165	200.817	218.068	234.289	1.00 53.74	C
ATOM	6220	OD1	ASN B 165	201.991	218.241	234.613	1.00 53.74	O
ATOM	6221	ND2	ASN B 165	199.805	218.658	234.916	1.00 53.74	N
ATOM	6222	N	THR B 166	202.847	217.235	230.426	1.00 46.53	N
ATOM	6223	CA	THR B 166	203.456	218.203	229.531	1.00 46.53	C
ATOM	6224	C	THR B 166	202.455	219.313	229.217	1.00 46.53	C
ATOM	6225	O	THR B 166	201.241	219.148	229.357	1.00 46.53	O
ATOM	6226	CB	THR B 166	203.920	217.525	228.242	1.00 46.53	C
ATOM	6227	OG1	THR B 166	202.785	217.005	227.539	1.00 46.53	O
ATOM	6228	CG2	THR B 166	204.873	216.376	228.554	1.00 46.53	C
ATOM	6229	N	GLU B 167	202.976	220.463	228.797	1.00 47.79	N
ATOM	6230	CA	GLU B 167	202.112	221.590	228.455	1.00 47.79	C
ATOM	6231	C	GLU B 167	202.854	222.468	227.459	1.00 47.79	C
ATOM	6232	O	GLU B 167	203.807	223.157	227.831	1.00 47.79	O
ATOM	6233	CB	GLU B 167	201.716	222.372	229.701	1.00 47.79	C
ATOM	6234	CG	GLU B 167	200.740	223.510	229.440	1.00 47.79	C
ATOM	6235	CD	GLU B 167	200.300	224.205	230.714	1.00 47.79	C
ATOM	6236	OE1	GLU B 167	200.769	223.804	231.799	1.00 47.79	O
ATOM	6237	OE2	GLU B 167	199.486	225.150	230.632	1.00 47.79	O
ATOM	6238	N	TYR B 168	202.417	222.437	226.205	1.00 44.66	N
ATOM	6239	CA	TYR B 168	203.066	223.207	225.156	1.00 44.66	C
ATOM	6240	C	TYR B 168	202.490	224.615	225.105	1.00 44.66	C
ATOM	6241	O	TYR B 168	201.273	224.805	225.155	1.00 44.66	O
ATOM	6242	CB	TYR B 168	202.879	222.504	223.817	1.00 44.66	C
ATOM	6243	CG	TYR B 168	203.519	221.139	223.785	1.00 44.66	C
ATOM	6244	CD1	TYR B 168	204.853	220.983	223.459	1.00 44.66	C
ATOM	6245	CD2	TYR B 168	202.792	220.008	224.119	1.00 44.66	C
ATOM	6246	CE1	TYR B 168	205.443	219.734	223.441	1.00 44.66	C
ATOM	6247	CE2	TYR B 168	203.369	218.757	224.104	1.00 44.66	C
ATOM	6248	CZ	TYR B 168	204.696	218.625	223.767	1.00 44.66	C
ATOM	6249	OH	TYR B 168	205.276	217.381	223.756	1.00 44.66	O
ATOM	6250	N	VAL B 169	203.370	225.607	224.999	1.00 40.62	N
ATOM	6251	CA	VAL B 169	202.939	226.998	225.025	1.00 40.62	C
ATOM	6252	C	VAL B 169	203.962	227.859	224.298	1.00 40.62	C
ATOM	6253	O	VAL B 169	205.172	227.679	224.467	1.00 40.62	O

ATOM	6254	CB	VAL	B	169	202.731 227.480 226.472	1.00 40.62	C
ATOM	6255	CG1	VAL	B	169	204.055 227.530 227.211	1.00 40.62	C
ATOM	6256	CG2	VAL	B	169	202.046 228.831 226.490	1.00 40.62	C
ATOM	6257	N	ALA	B	170	203.486 228.790 223.477	1.00 35.86	N
ATOM	6258	CA	ALA	B	170	204.387 229.636 222.717	1.00 35.86	C
ATOM	6259	C	ALA	B	170	205.039 230.675 223.625	1.00 35.86	C
ATOM	6260	O	ALA	B	170	204.481 231.042 224.663	1.00 35.86	O
ATOM	6261	CB	ALA	B	170	203.645 230.332 221.583	1.00 35.86	C
ATOM	6262	N	PRO	B	171	206.216 231.166 223.258	1.00 34.61	N
ATOM	6263	CA	PRO	B	171	206.932 232.102 224.120	1.00 34.61	C
ATOM	6264	C	PRO	B	171	206.405 233.513 223.947	1.00 34.61	C
ATOM	6265	O	PRO	B	171	205.559 233.767 223.078	1.00 34.61	O
ATOM	6266	CB	PRO	B	171	208.379 231.991 223.623	1.00 34.61	C
ATOM	6267	CG	PRO	B	171	208.231 231.650 222.189	1.00 34.61	C
ATOM	6268	CD	PRO	B	171	207.013 230.775 222.085	1.00 34.61	C
ATOM	6269	N	PRO	B	172	206.881 234.459 224.753	1.00 37.34	N
ATOM	6270	CA	PRO	B	172	206.491 235.860 224.556	1.00 37.34	C
ATOM	6271	C	PRO	B	172	207.077 236.429 223.277	1.00 37.34	C
ATOM	6272	O	PRO	B	172	207.764 235.720 222.535	1.00 37.34	O
ATOM	6273	CB	PRO	B	172	207.065 236.563 225.793	1.00 37.34	C
ATOM	6274	CG	PRO	B	172	207.245 235.477 226.800	1.00 37.34	C
ATOM	6275	CD	PRO	B	172	207.627 234.269 226.006	1.00 37.34	C
ATOM	6276	N	MET	B	173	206.828 237.707 223.010	1.00 43.50	N
ATOM	6277	CA	MET	B	173	207.327 238.319 221.788	1.00 43.50	C
ATOM	6278	C	MET	B	173	208.748 238.843 221.923	1.00 43.50	C
ATOM	6279	O	MET	B	173	209.510 238.786 220.952	1.00 43.50	O
ATOM	6280	CB	MET	B	173	206.405 239.456 221.348	1.00 43.50	C
ATOM	6281	CG	MET	B	173	206.769 240.050 220.001	1.00 43.50	C
ATOM	6282	SD	MET	B	173	206.595 238.867 218.655	1.00 43.50	S
ATOM	6283	CE	MET	B	173	207.702 239.576 217.442	1.00 43.50	C
ATOM	6284	N	TRP	B	174	209.130 239.354 223.097	1.00 56.39	N
ATOM	6285	CA	TRP	B	174	210.498 239.833 223.267	1.00 56.39	C
ATOM	6286	C	TRP	B	174	211.508 238.706 223.114	1.00 56.39	C
ATOM	6287	O	TRP	B	174	212.635 238.939 222.663	1.00 56.39	O
ATOM	6288	CB	TRP	B	174	210.670 240.507 224.629	1.00 56.39	C
ATOM	6289	CG	TRP	B	174	210.421 239.607 225.804	1.00 56.39	C
ATOM	6290	CD1	TRP	B	174	211.313 238.757 226.394	1.00 56.39	C

ATOM	6291	CD2	TRP	B	174	209.206	239.491	226.550	1.00 56.39	C
ATOM	6292	NE1	TRP	B	174	210.724	238.110	227.449	1.00 56.39	N
ATOM	6293	CE2	TRP	B	174	209.430	238.543	227.568	1.00 56.39	C
ATOM	6294	CE3	TRP	B	174	207.948	240.091	226.452	1.00 56.39	C
ATOM	6295	CZ2	TRP	B	174	208.444	238.181	228.480	1.00 56.39	C
ATOM	6296	CZ3	TRP	B	174	206.971	239.731	227.360	1.00 56.39	C
ATOM	6297	CH2	TRP	B	174	207.224	238.786	228.360	1.00 56.39	C
ATOM	6298	N	GLU	B	175	211.129	237.484	223.481	1.00 43.59	N
ATOM	6299	CA	GLU	B	175	212.056	236.364	223.449	1.00 43.59	C
ATOM	6300	C	GLU	B	175	212.324	235.860	222.038	1.00 43.59	C
ATOM	6301	O	GLU	B	175	213.324	235.168	221.826	1.00 43.59	O
ATOM	6302	CB	GLU	B	175	211.526	235.229	224.327	1.00 43.59	C
ATOM	6303	CG	GLU	B	175	212.481	234.067	224.499	1.00 43.59	C
ATOM	6304	CD	GLU	B	175	211.971	233.041	225.490	1.00 43.59	C
ATOM	6305	OE1	GLU	B	175	210.860	233.230	226.027	1.00 43.59	O
ATOM	6306	OE2	GLU	B	175	212.683	232.046	225.740	1.00 43.59	O
ATOM	6307	N	ILE	B	176	211.473	236.197	221.074	1.00 31.83	N
ATOM	6308	CA	ILE	B	176	211.750	235.923	219.674	1.00 31.83	C
ATOM	6309	C	ILE	B	176	212.518	237.085	219.037	1.00 31.83	C
ATOM	6310	O	ILE	B	176	212.748	237.100	217.830	1.00 31.83	O
ATOM	6311	CB	ILE	B	176	210.462	235.594	218.903	1.00 31.83	C
ATOM	6312	CG1	ILE	B	176	209.710	234.473	219.611	1.00 31.83	C
ATOM	6313	CG2	ILE	B	176	210.769	235.068	217.520	1.00 31.83	C
ATOM	6314	CD1	ILE	B	176	208.319	234.243	219.075	1.00 31.83	C
ATOM	6315	N	HIS	B	177	212.927	238.060	219.845	1.00 41.11	N
ATOM	6316	CA	HIS	B	177	213.956	239.017	219.469	1.00 41.11	C
ATOM	6317	C	HIS	B	177	215.273	238.727	220.166	1.00 41.11	C
ATOM	6318	O	HIS	B	177	216.256	239.438	219.940	1.00 41.11	O
ATOM	6319	CB	HIS	B	177	213.514	240.447	219.787	1.00 41.11	C
ATOM	6320	CG	HIS	B	177	212.349	240.912	218.977	1.00 41.11	C
ATOM	6321	ND1	HIS	B	177	212.452	241.225	217.640	1.00 41.11	N
ATOM	6322	CD2	HIS	B	177	211.057	241.128	219.316	1.00 41.11	C
ATOM	6323	CE1	HIS	B	177	211.271	241.606	217.188	1.00 41.11	C
ATOM	6324	NE2	HIS	B	177	210.408	241.557	218.186	1.00 41.11	N
ATOM	6325	N	HIS	B	178	215.311	237.703	221.013	1.00 44.25	N
ATOM	6326	CA	HIS	B	178	216.537	237.258	221.645	1.00 44.25	C
ATOM	6327	C	HIS	B	178	216.945	235.876	221.165	1.00 44.25	C

ATOM	6328	O	HIS B 178	218.083	235.460	221.407	1.00 44.25	O
ATOM	6329	CB	HIS B 178	216.378	237.262	223.169	1.00 44.25	C
ATOM	6330	CG	HIS B 178	217.657	237.046	223.910	1.00 44.25	C
ATOM	6331	ND1	HIS B 178	218.145	235.791	224.199	1.00 44.25	N
ATOM	6332	CD2	HIS B 178	218.552	237.925	224.417	1.00 44.25	C
ATOM	6333	CE1	HIS B 178	219.286	235.906	224.855	1.00 44.25	C
ATOM	6334	NE2	HIS B 178	219.555	237.191	225.000	1.00 44.25	N
ATOM	6335	N	ILE B 179	216.057	235.161	220.478	1.00 36.87	N
ATOM	6336	CA	ILE B 179	216.428	233.929	219.798	1.00 36.87	C
ATOM	6337	C	ILE B 179	216.912	234.198	218.378	1.00 36.87	C
ATOM	6338	O	ILE B 179	217.682	233.391	217.837	1.00 36.87	O
ATOM	6339	CB	ILE B 179	215.251	232.930	219.782	1.00 36.87	C
ATOM	6340	CG1	ILE B 179	214.878	232.518	221.202	1.00 36.87	C
ATOM	6341	CG2	ILE B 179	215.590	231.700	218.966	1.00 36.87	C
ATOM	6342	CD1	ILE B 179	213.598	231.721	221.278	1.00 36.87	C
ATOM	6343	N	ASN B 180	216.506	235.311	217.769	1.00 34.44	N
ATOM	6344	CA	ASN B 180	216.956	235.677	216.434	1.00 34.44	C
ATOM	6345	C	ASN B 180	218.032	236.754	216.464	1.00 34.44	C
ATOM	6346	O	ASN B 180	218.247	237.439	215.461	1.00 34.44	O
ATOM	6347	CB	ASN B 180	215.775	236.134	215.580	1.00 34.44	C
ATOM	6348	CG	ASN B 180	214.864	234.993	215.196	1.00 34.44	C
ATOM	6349	OD1	ASN B 180	215.325	233.897	214.886	1.00 34.44	O
ATOM	6350	ND2	ASN B 180	213.561	235.245	215.202	1.00 34.44	N
ATOM	6351	N	SER B 181	218.714	236.918	217.595	1.00 42.12	N
ATOM	6352	CA	SER B 181	219.846	237.838	217.667	1.00 42.12	C
ATOM	6353	C	SER B 181	221.086	237.248	218.318	1.00 42.12	C
ATOM	6354	O	SER B 181	222.189	237.723	218.028	1.00 42.12	O
ATOM	6355	CB	SER B 181	219.453	239.113	218.422	1.00 42.12	C
ATOM	6356	OG	SER B 181	218.459	239.837	217.719	1.00 42.12	O
ATOM	6357	N	HIS B 182	220.963	236.245	219.183	1.00 43.80	N
ATOM	6358	CA	HIS B 182	222.131	235.589	219.754	1.00 43.80	C
ATOM	6359	C	HIS B 182	221.990	234.083	219.879	1.00 43.80	C
ATOM	6360	O	HIS B 182	222.943	233.437	220.322	1.00 43.80	O
ATOM	6361	CB	HIS B 182	222.449	236.176	221.132	1.00 43.80	C
ATOM	6362	CG	HIS B 182	222.866	237.610	221.089	1.00 43.80	C
ATOM	6363	ND1	HIS B 182	221.961	238.648	221.134	1.00 43.80	N
ATOM	6364	CD2	HIS B 182	224.089	238.181	220.995	1.00 43.80	C

ATOM	6365	CE1	HIS B 182	222.609	239.797	221.075	1.00 43.80	C
ATOM	6366	NE2	HIS B 182	223.902	239.542	220.991	1.00 43.80	N
ATOM	6367	N	SER B 183	220.850	233.500	219.512	1.00 46.61	N
ATOM	6368	CA	SER B 183	220.615	232.063	219.642	1.00 46.61	C
ATOM	6369	C	SER B 183	220.682	231.606	221.097	1.00 46.61	C
ATOM	6370	O	SER B 183	221.004	230.452	221.380	1.00 46.61	O
ATOM	6371	CB	SER B 183	221.593	231.257	218.782	1.00 46.61	C
ATOM	6372	OG	SER B 183	222.920	231.374	219.259	1.00 46.61	O
ATOM	6373	N	GLN B 184	220.377	232.503	222.031	1.00 48.62	N
ATOM	6374	CA	GLN B 184	220.327	232.181	223.453	1.00 48.62	C
ATOM	6375	C	GLN B 184	218.875	232.234	223.909	1.00 48.62	C
ATOM	6376	O	GLN B 184	218.150	233.182	223.593	1.00 48.62	O
ATOM	6377	CB	GLN B 184	221.191	233.134	224.274	1.00 48.62	C
ATOM	6378	CG	GLN B 184	222.679	232.958	224.063	1.00 48.62	C
ATOM	6379	CD	GLN B 184	223.496	233.873	224.946	1.00 48.62	C
ATOM	6380	OE1	GLN B 184	222.948	234.690	225.684	1.00 48.62	O
ATOM	6381	NE2	GLN B 184	224.815	233.740	224.878	1.00 48.62	N
ATOM	6382	N	CYS B 185	218.459	231.216	224.650	1.00 50.88	N
ATOM	6383	CA	CYS B 185	217.091	231.095	225.124	1.00 50.88	C
ATOM	6384	C	CYS B 185	217.049	231.167	226.645	1.00 50.88	C
ATOM	6385	O	CYS B 185	217.899	230.600	227.336	1.00 50.88	O
ATOM	6386	CB	CYS B 185	216.495	229.779	224.630	1.00 50.88	C
ATOM	6387	SG	CYS B 185	214.790	229.444	225.062	1.00 50.88	S
ATOM	6388	N	TYR B 186	216.044	231.869	227.164	1.00 53.73	N
ATOM	6389	CA	TYR B 186	215.936	232.102	228.596	1.00 53.73	C
ATOM	6390	C	TYR B 186	215.520	230.825	229.323	1.00 53.73	C
ATOM	6391	O	TYR B 186	215.246	229.788	228.714	1.00 53.73	O
ATOM	6392	CB	TYR B 186	214.952	233.233	228.874	1.00 53.73	C
ATOM	6393	CG	TYR B 186	215.476	234.589	228.484	1.00 53.73	C
ATOM	6394	CD1	TYR B 186	216.831	234.792	228.278	1.00 53.73	C
ATOM	6395	CD2	TYR B 186	214.619	235.662	228.313	1.00 53.73	C
ATOM	6396	CE1	TYR B 186	217.319	236.027	227.921	1.00 53.73	C
ATOM	6397	CE2	TYR B 186	215.098	236.902	227.953	1.00 53.73	C
ATOM	6398	CZ	TYR B 186	216.450	237.079	227.758	1.00 53.73	C
ATOM	6399	OH	TYR B 186	216.936	238.314	227.398	1.00 53.73	O
ATOM	6400	N	SER B 187	215.462	230.906	230.650	1.00 52.25	N
ATOM	6401	CA	SER B 187	215.136	229.758	231.488	1.00 52.25	C

ATOM	6402	C	SER B 187	214.140	230.149	232.568	1.00 52.25 C
ATOM	6403	O	SER B 187	214.261	229.739	233.726	1.00 52.25 O
ATOM	6404	CB	SER B 187	216.394	229.162	232.114	1.00 52.25 C
ATOM	6405	OG	SER B 187	216.979	230.074	233.026	1.00 52.25 O
ATOM	6406	N	SER B 188	213.144	230.952	232.206	1.00 54.13 N
ATOM	6407	CA	SER B 188	212.097	231.345	233.145	1.00 54.13 C
ATOM	6408	C	SER B 188	210.910	231.836	232.338	1.00 54.13 C
ATOM	6409	O	SER B 188	211.018	232.848	231.640	1.00 54.13 O
ATOM	6410	CB	SER B 188	212.589	232.430	234.099	1.00 54.13 C
ATOM	6411	OG	SER B 188	212.833	233.642	233.407	1.00 54.13 O
ATOM	6412	N	TYR B 189	209.786	231.137	232.434	1.00 53.38 N
ATOM	6413	CA	TYR B 189	208.608	231.432	231.624	1.00 53.38 C
ATOM	6414	C	TYR B 189	207.505	231.979	232.525	1.00 53.38 C
ATOM	6415	O	TYR B 189	206.648	231.235	233.002	1.00 53.38 O
ATOM	6416	CB	TYR B 189	208.150	230.191	230.876	1.00 53.38 C
ATOM	6417	CG	TYR B 189	206.958	230.430	229.988	1.00 53.38 C
ATOM	6418	CD1	TYR B 189	207.075	231.200	228.843	1.00 53.38 C
ATOM	6419	CD2	TYR B 189	205.727	229.865	230.274	1.00 53.38 C
ATOM	6420	CE1	TYR B 189	205.996	231.420	228.020	1.00 53.38 C
ATOM	6421	CE2	TYR B 189	204.643	230.074	229.450	1.00 53.38 C
ATOM	6422	CZ	TYR B 189	204.782	230.854	228.328	1.00 53.38 C
ATOM	6423	OH	TYR B 189	203.705	231.072	227.504	1.00 53.38 O
ATOM	6424	N	SER B 190	207.523	233.292	232.740	1.00 61.23 N
ATOM	6425	CA	SER B 190	206.466	233.933	233.504	1.00 61.23 C
ATOM	6426	C	SER B 190	205.141	233.824	232.758	1.00 61.23 C
ATOM	6427	O	SER B 190	205.097	233.620	231.543	1.00 61.23 O
ATOM	6428	CB	SER B 190	206.808	235.399	233.767	1.00 61.23 C
ATOM	6429	OG	SER B 190	206.837	236.138	232.559	1.00 61.23 O
ATOM	6430	N	ARG B 191	204.046	233.959	233.503	1.00 70.93 N
ATOM	6431	CA	ARG B 191	202.716	233.787	232.936	1.00 70.93 C
ATOM	6432	C	ARG B 191	201.714	234.622	233.719	1.00 70.93 C
ATOM	6433	O	ARG B 191	202.059	235.316	234.679	1.00 70.93 O
ATOM	6434	CB	ARG B 191	202.291	232.316	232.943	1.00 70.93 C
ATOM	6435	CG	ARG B 191	203.063	231.432	231.993	1.00 70.93 C
ATOM	6436	CD	ARG B 191	202.603	229.990	232.096	1.00 70.93 C
ATOM	6437	NE	ARG B 191	201.222	229.819	231.656	1.00 70.93 N
ATOM	6438	CZ	ARG B 191	200.529	228.695	231.799	1.00 70.93 C

ATOM	6439	NH1	ARG	B	191	201.089	227.640	232.373	1.00 70.93	N
ATOM	6440	NH2	ARG	B	191	199.277	228.625	231.368	1.00 70.93	N
ATOM	6441	N	VAL	B	192	200.457	234.544	233.287	1.00 87.61	N
ATOM	6442	CA	VAL	B	192	199.320	235.135	233.981	1.00 87.61	C
ATOM	6443	C	VAL	B	192	198.125	234.222	233.759	1.00 87.61	C
ATOM	6444	O	VAL	B	192	197.667	234.062	232.622	1.00 87.61	O
ATOM	6445	CB	VAL	B	192	199.011	236.557	233.474	1.00 87.61	C
ATOM	6446	CG1	VAL	B	192	197.743	237.088	234.124	1.00 87.61	C
ATOM	6447	CG2	VAL	B	192	200.179	237.492	233.724	1.00 87.61	C
ATOM	6448	N	ILE	B	193	197.607	233.612	234.823	1.00 95.01	N
ATOM	6449	CA	ILE	B	193	196.405	232.807	234.647	1.00 95.01	C
ATOM	6450	C	ILE	B	193	195.210	233.538	235.245	1.00 95.01	C
ATOM	6451	O	ILE	B	193	194.780	233.267	236.372	1.00 95.01	O
ATOM	6452	CB	ILE	B	193	196.591	231.401	235.254	1.00 95.01	C
ATOM	6453	CG1	ILE	B	193	195.346	230.542	235.022	1.00 95.01	C
ATOM	6454	CG2	ILE	B	193	197.015	231.468	236.725	1.00 95.01	C
ATOM	6455	CD1	ILE	B	193	195.565	229.073	235.296	1.00 95.01	C
ATOM	6456	N	ALA	B	194	194.664	234.471	234.467	1.00103.96	N
ATOM	6457	CA	ALA	B	194	193.365	235.110	234.653	1.00103.96	C
ATOM	6458	C	ALA	B	194	193.261	236.017	235.876	1.00103.96	C
ATOM	6459	O	ALA	B	194	192.353	236.852	235.941	1.00103.96	O
ATOM	6460	CB	ALA	B	194	192.274	234.039	234.728	1.00103.96	C
ATOM	6461	N	GLY	B	195	194.167	235.889	236.843	1.00101.51	N
ATOM	6462	CA	GLY	B	195	194.192	236.836	237.940	1.00101.51	C
ATOM	6463	C	GLY	B	195	195.525	237.013	238.633	1.00101.51	C
ATOM	6464	O	GLY	B	195	195.616	237.761	239.610	1.00101.51	O
ATOM	6465	N	THR	B	196	196.569	236.343	238.152	1.00 91.85	N
ATOM	6466	CA	THR	B	196	197.803	236.225	238.919	1.00 91.85	C
ATOM	6467	C	THR	B	196	198.991	236.143	237.971	1.00 91.85	C
ATOM	6468	O	THR	B	196	198.853	236.249	236.749	1.00 91.85	O
ATOM	6469	CB	THR	B	196	197.779	234.996	239.842	1.00 91.85	C
ATOM	6470	OG1	THR	B	196	197.548	233.813	239.066	1.00 91.85	O
ATOM	6471	CG2	THR	B	196	196.712	235.122	240.924	1.00 91.85	C
ATOM	6472	N	VAL	B	197	200.171	235.952	238.558	1.00 76.05	N
ATOM	6473	CA	VAL	B	197	201.410	235.747	237.819	1.00 76.05	C
ATOM	6474	C	VAL	B	197	202.247	234.729	238.581	1.00 76.05	C
ATOM	6475	O	VAL	B	197	202.686	234.994	239.705	1.00 76.05	O

ATOM	6476	CB	VAL B 197	202.196	237.056	237.616	1.00 76.05	C
ATOM	6477	CG1	VAL B 197	201.448	237.972	236.676	1.00 76.05	C
ATOM	6478	CG2	VAL B 197	202.414	237.766	238.943	1.00 76.05	C
ATOM	6479	N	PHE B 198	202.450	233.560	237.986	1.00 71.49	N
ATOM	6480	CA	PHE B 198	203.342	232.552	238.535	1.00 71.49	C
ATOM	6481	C	PHE B 198	204.544	232.403	237.615	1.00 71.49	C
ATOM	6482	O	PHE B 198	204.397	232.329	236.392	1.00 71.49	O
ATOM	6483	CB	PHE B 198	202.626	231.210	238.715	1.00 71.49	C
ATOM	6484	CG	PHE B 198	202.168	230.583	237.431	1.00 71.49	C
ATOM	6485	CD1	PHE B 198	200.940	230.914	236.886	1.00 71.49	C
ATOM	6486	CD2	PHE B 198	202.952	229.643	236.781	1.00 71.49	C
ATOM	6487	CE1	PHE B 198	200.513	230.335	235.708	1.00 71.49	C
ATOM	6488	CE2	PHE B 198	202.529	229.062	235.603	1.00 71.49	C
ATOM	6489	CZ	PHE B 198	201.308	229.406	235.069	1.00 71.49	C
ATOM	6490	N	VAL B 199	205.732	232.366	238.210	1.00 57.38	N
ATOM	6491	CA	VAL B 199	206.970	232.357	237.444	1.00 57.38	C
ATOM	6492	C	VAL B 199	207.586	230.970	237.495	1.00 57.38	C
ATOM	6493	O	VAL B 199	208.195	230.590	238.499	1.00 57.38	O
ATOM	6494	CB	VAL B 199	207.959	233.407	237.977	1.00 57.38	C
ATOM	6495	CG1	VAL B 199	209.253	233.349	237.194	1.00 57.38	C
ATOM	6496	CG2	VAL B 199	207.350	234.794	237.915	1.00 57.38	C
ATOM	6497	N	ALA B 200	207.425	230.197	236.426	1.00 52.16	N
ATOM	6498	CA	ALA B 200	208.088	228.908	236.364	1.00 52.16	C
ATOM	6499	C	ALA B 200	209.600	229.099	236.313	1.00 52.16	C
ATOM	6500	O	ALA B 200	210.109	230.191	236.050	1.00 52.16	O
ATOM	6501	CB	ALA B 200	207.611	228.112	235.151	1.00 52.16	C
ATOM	6502	N	TYR B 201	210.322	228.017	236.582	1.00 55.43	N
ATOM	6503	CA	TYR B 201	211.775	228.028	236.543	1.00 55.43	C
ATOM	6504	C	TYR B 201	212.254	226.679	236.029	1.00 55.43	C
ATOM	6505	O	TYR B 201	211.530	225.683	236.082	1.00 55.43	O
ATOM	6506	CB	TYR B 201	212.373	228.348	237.920	1.00 55.43	C
ATOM	6507	CG	TYR B 201	212.176	229.789	238.341	1.00 55.43	C
ATOM	6508	CD1	TYR B 201	213.045	230.781	237.915	1.00 55.43	C
ATOM	6509	CD2	TYR B 201	211.110	230.158	239.148	1.00 55.43	C
ATOM	6510	CE1	TYR B 201	212.868	232.097	238.290	1.00 55.43	C
ATOM	6511	CE2	TYR B 201	210.923	231.475	239.525	1.00 55.43	C
ATOM	6512	CZ	TYR B 201	211.807	232.439	239.096	1.00 55.43	C

ATOM	6513	OH	TYR B 201	211.624	233.751	239.470	1.00 55.43 O
ATOM	6514	N	HIS B 202	213.486	226.662	235.516	1.00 53.99 N
ATOM	6515	CA	HIS B 202	213.992	225.483	234.821	1.00 53.99 C
ATOM	6516	C	HIS B 202	214.043	224.269	235.738	1.00 53.99 C
ATOM	6517	O	HIS B 202	213.330	223.282	235.527	1.00 53.99 O
ATOM	6518	CB	HIS B 202	215.379	225.767	234.245	1.00 53.99 C
ATOM	6519	CG	HIS B 202	215.956	224.619	233.479	1.00 53.99 C
ATOM	6520	ND1	HIS B 202	216.673	223.609	234.084	1.00 53.99 N
ATOM	6521	CD2	HIS B 202	215.921	224.319	232.160	1.00 53.99 C
ATOM	6522	CE1	HIS B 202	217.056	222.736	233.170	1.00 53.99 C
ATOM	6523	NE2	HIS B 202	216.613	223.144	231.994	1.00 53.99 N
ATOM	6524	N	ARG B 203	214.879	224.327	236.767	1.00 66.93 N
ATOM	6525	CA	ARG B 203	215.130	223.188	237.639	1.00 66.93 C
ATOM	6526	C	ARG B 203	214.727	223.512	239.074	1.00 66.93 C
ATOM	6527	O	ARG B 203	215.298	222.988	240.031	1.00 66.93 O
ATOM	6528	CB	ARG B 203	216.601	222.781	237.546	1.00 66.93 C
ATOM	6529	CG	ARG B 203	216.980	221.487	238.234	1.00 66.93 C
ATOM	6530	CD	ARG B 203	218.449	221.185	238.008	1.00 66.93 C
ATOM	6531	NE	ARG B 203	218.725	220.829	236.620	1.00 66.93 N
ATOM	6532	CZ	ARG B 203	219.946	220.686	236.119	1.00 66.93 C
ATOM	6533	NH1	ARG B 203	221.005	220.873	236.893	1.00 66.93 N
ATOM	6534	NH2	ARG B 203	220.110	220.358	234.845	1.00 66.93 N
ATOM	6535	N	ASP B 204	213.738	224.390	239.231	1.00 70.21 N
ATOM	6536	CA	ASP B 204	213.326	224.911	240.532	1.00 70.21 C
ATOM	6537	C	ASP B 204	214.454	225.659	241.234	1.00 70.21 C
ATOM	6538	O	ASP B 204	214.430	225.823	242.458	1.00 70.21 O
ATOM	6539	CB	ASP B 204	212.784	223.795	241.432	1.00 70.21 C
ATOM	6540	CG	ASP B 204	211.451	223.257	240.950	1.00 70.21 C
ATOM	6541	OD1	ASP B 204	210.696	224.024	240.316	1.00 70.21 O
ATOM	6542	OD2	ASP B 204	211.156	222.071	241.208	1.00 70.21 O
ATOM	6543	N	SER B 205	215.442	226.122	240.472	1.00 71.47 N
ATOM	6544	CA	SER B 205	216.528	226.947	240.981	1.00 71.47 C
ATOM	6545	C	SER B 205	216.225	228.385	240.588	1.00 71.47 C
ATOM	6546	O	SER B 205	216.258	228.733	239.403	1.00 71.47 O
ATOM	6547	CB	SER B 205	217.870	226.493	240.417	1.00 71.47 C
ATOM	6548	OG	SER B 205	217.919	226.711	239.018	1.00 71.47 O
ATOM	6549	N	TYR B 206	215.937	229.221	241.581	1.00 70.58 N

ATOM	6550	CA	TYR B 206	215.428	230.560	241.318	1.00 70.58	C
ATOM	6551	C	TYR B 206	216.518	231.483	240.795	1.00 70.58	C
ATOM	6552	O	TYR B 206	216.906	232.438	241.473	1.00 70.58	O
ATOM	6553	CB	TYR B 206	214.810	231.145	242.588	1.00 70.58	C
ATOM	6554	CG	TYR B 206	213.570	230.418	243.045	1.00 70.58	C
ATOM	6555	CD1	TYR B 206	212.330	230.711	242.500	1.00 70.58	C
ATOM	6556	CD2	TYR B 206	213.644	229.423	244.008	1.00 70.58	C
ATOM	6557	CE1	TYR B 206	211.195	230.044	242.910	1.00 70.58	C
ATOM	6558	CE2	TYR B 206	212.515	228.750	244.424	1.00 70.58	C
ATOM	6559	CZ	TYR B 206	211.294	229.064	243.872	1.00 70.58	C
ATOM	6560	OH	TYR B 206	210.166	228.396	244.284	1.00 70.58	O
ATOM	6561	N	GLU B 207	217.015	231.213	239.592	1.00 66.96	N
ATOM	6562	CA	GLU B 207	217.983	232.089	238.951	1.00 66.96	C
ATOM	6563	C	GLU B 207	217.545	232.370	237.523	1.00 66.96	C
ATOM	6564	O	GLU B 207	216.964	231.508	236.857	1.00 66.96	O
ATOM	6565	CB	GLU B 207	219.390	231.492	238.967	1.00 66.96	C
ATOM	6566	CG	GLU B 207	220.443	232.453	238.449	1.00 66.96	C
ATOM	6567	CD	GLU B 207	221.844	231.906	238.575	1.00 66.96	C
ATOM	6568	OE1	GLU B 207	221.992	230.749	239.019	1.00 66.96	O
ATOM	6569	OE2	GLU B 207	222.798	232.638	238.242	1.00 66.96	O
ATOM	6570	N	ASN B 208	217.823	233.586	237.067	1.00 63.42	N
ATOM	6571	CA	ASN B 208	217.312	234.116	235.805	1.00 63.42	C
ATOM	6572	C	ASN B 208	218.313	233.946	234.665	1.00 63.42	C
ATOM	6573	O	ASN B 208	218.683	234.906	233.992	1.00 63.42	O
ATOM	6574	CB	ASN B 208	216.938	235.576	236.013	1.00 63.42	C
ATOM	6575	CG	ASN B 208	216.022	236.103	234.942	1.00 63.42	C
ATOM	6576	OD1	ASN B 208	215.809	235.456	233.916	1.00 63.42	O
ATOM	6577	ND2	ASN B 208	215.442	237.281	235.202	1.00 63.42	N
ATOM	6578	N	LYS B 209	218.749	232.710	234.430	1.00 59.26	N
ATOM	6579	CA	LYS B 209	219.849	232.430	233.519	1.00 59.26	C
ATOM	6580	C	LYS B 209	219.414	232.532	232.058	1.00 59.26	C
ATOM	6581	O	LYS B 209	218.247	232.768	231.737	1.00 59.26	O
ATOM	6582	CB	LYS B 209	220.428	231.047	233.804	1.00 59.26	C
ATOM	6583	CG	LYS B 209	221.074	230.925	235.164	1.00 59.26	C
ATOM	6584	CD	LYS B 209	222.265	231.862	235.271	1.00 59.26	C
ATOM	6585	CE	LYS B 209	223.407	231.405	234.379	1.00 59.26	C
ATOM	6586	NZ	LYS B 209	224.606	232.274	234.536	1.00 59.26	N

ATOM	6587	N	THR B 210	220.382	232.338	231.160	1.00 56.19 N
ATOM	6588	CA	THR B 210	220.159	232.346	229.716	1.00 56.19 C
ATOM	6589	C	THR B 210	220.774	231.081	229.133	1.00 56.19 C
ATOM	6590	O	THR B 210	222.001	230.953	229.079	1.00 56.19 O
ATOM	6591	CB	THR B 210	220.769	233.586	229.064	1.00 56.19 C
ATOM	6592	OG1	THR B 210	222.188	233.576	229.257	1.00 56.19 O
ATOM	6593	CG2	THR B 210	220.188	234.851	229.674	1.00 56.19 C
ATOM	6594	N	MET B 211	219.929	230.156	228.689	1.00 51.57 N
ATOM	6595	CA	MET B 211	220.393	228.875	228.184	1.00 51.57 C
ATOM	6596	C	MET B 211	220.984	229.019	226.782	1.00 51.57 C
ATOM	6597	O	MET B 211	221.033	230.106	226.203	1.00 51.57 O
ATOM	6598	CB	MET B 211	219.250	227.865	228.173	1.00 51.57 C
ATOM	6599	CG	MET B 211	218.735	227.484	229.549	1.00 51.57 C
ATOM	6600	SD	MET B 211	219.979	226.653	230.552	1.00 51.57 S
ATOM	6601	CE	MET B 211	220.490	227.987	231.630	1.00 51.57 C
ATOM	6602	N	GLN B 212	221.437	227.891	226.239	1.00 50.10 N
ATOM	6603	CA	GLN B 212	222.039	227.820	224.916	1.00 50.10 C
ATOM	6604	C	GLN B 212	221.326	226.762	224.084	1.00 50.10 C
ATOM	6605	O	GLN B 212	220.772	225.800	224.622	1.00 50.10 O
ATOM	6606	CB	GLN B 212	223.533	227.489	225.012	1.00 50.10 C
ATOM	6607	CG	GLN B 212	224.260	227.436	223.684	1.00 50.10 C
ATOM	6608	CD	GLN B 212	224.372	228.790	223.032	1.00 50.10 C
ATOM	6609	OE1	GLN B 212	224.636	229.791	223.696	1.00 50.10 O
ATOM	6610	NE2	GLN B 212	224.175	228.831	221.722	1.00 50.10 N
ATOM	6611	N	LEU B 213	221.339	226.943	222.767	1.00 45.72 N
ATOM	6612	CA	LEU B 213	220.726	225.979	221.867	1.00 45.72 C
ATOM	6613	C	LEU B 213	221.759	224.968	221.377	1.00 45.72 C
ATOM	6614	O	LEU B 213	222.969	225.182	221.461	1.00 45.72 O
ATOM	6615	CB	LEU B 213	220.068	226.684	220.683	1.00 45.72 C
ATOM	6616	CG	LEU B 213	218.686	227.291	220.919	1.00 45.72 C
ATOM	6617	CD1	LEU B 213	218.783	228.526	221.786	1.00 45.72 C
ATOM	6618	CD2	LEU B 213	218.022	227.618	219.599	1.00 45.72 C
ATOM	6619	N	MET B 214	221.263	223.853	220.856	1.00 44.27 N
ATOM	6620	CA	MET B 214	222.116	222.757	220.419	1.00 44.27 C
ATOM	6621	C	MET B 214	221.415	222.025	219.291	1.00 44.27 C
ATOM	6622	O	MET B 214	220.230	222.260	219.025	1.00 44.27 O
ATOM	6623	CB	MET B 214	222.421	221.792	221.570	1.00 44.27 C

ATOM	6624	CG	MET	B	214	223.259 222.383 222.688	1.00 44.27	C
ATOM	6625	SD	MET	B	214	223.532 221.204 224.024	1.00 44.27	S
ATOM	6626	CE	MET	B	214	224.424 222.221 225.196	1.00 44.27	C
ATOM	6627	N	PRO	B	215	222.116 221.130 218.604	1.00 40.57	N
ATOM	6628	CA	PRO	B	215	221.463 220.297 217.593	1.00 40.57	C
ATOM	6629	C	PRO	B	215	220.714 219.141 218.230	1.00 40.57	C
ATOM	6630	O	PRO	B	215	220.949 218.770 219.382	1.00 40.57	O
ATOM	6631	CB	PRO	B	215	222.633 219.793 216.743	1.00 40.57	C
ATOM	6632	CG	PRO	B	215	223.788 219.800 217.674	1.00 40.57	C
ATOM	6633	CD	PRO	B	215	223.579 220.972 218.590	1.00 40.57	C
ATOM	6634	N	ASP	B	216	219.803 218.564 217.458	1.00 43.63	N
ATOM	6635	CA	ASP	B	216	218.911 217.538 217.968	1.00 43.63	C
ATOM	6636	C	ASP	B	216	219.109 216.233 217.212	1.00 43.63	C
ATOM	6637	O	ASP	B	216	219.577 216.201 216.071	1.00 43.63	O
ATOM	6638	CB	ASP	B	216	217.453 217.998 217.877	1.00 43.63	C
ATOM	6639	CG	ASP	B	216	216.510 217.092 218.636	1.00 43.63	C
ATOM	6640	OD1	ASP	B	216	216.513 217.146 219.883	1.00 43.63	O
ATOM	6641	OD2	ASP	B	216	215.771 216.324 217.989	1.00 43.63	O
ATOM	6642	N	ASP	B	217	218.730 215.144 217.876	1.00 50.22	N
ATOM	6643	CA	ASP	B	217	218.920 213.794 217.370	1.00 50.22	C
ATOM	6644	C	ASP	B	217	218.097 213.492 216.130	1.00 50.22	C
ATOM	6645	O	ASP	B	217	218.358 212.482 215.470	1.00 50.22	O
ATOM	6646	CB	ASP	B	217	218.553 212.789 218.459	1.00 50.22	C
ATOM	6647	CG	ASP	B	217	219.429 212.914 219.681	1.00 50.22	C
ATOM	6648	OD1	ASP	B	217	220.615 213.278 219.533	1.00 50.22	O
ATOM	6649	OD2	ASP	B	217	218.918 212.675 220.794	1.00 50.22	O
ATOM	6650	N	TYR	B	218	217.110 214.320 215.799	1.00 45.42	N
ATOM	6651	CA	TYR	B	218	216.162 214.010 214.735	1.00 45.42	C
ATOM	6652	C	TYR	B	218	216.390 215.011 213.612	1.00 45.42	C
ATOM	6653	O	TYR	B	218	215.685 216.010 213.479	1.00 45.42	O
ATOM	6654	CB	TYR	B	218	214.733 214.064 215.273	1.00 45.42	C
ATOM	6655	CG	TYR	B	218	214.457 213.041 216.350	1.00 45.42	C
ATOM	6656	CD1	TYR	B	218	215.249 211.912 216.479	1.00 45.42	C
ATOM	6657	CD2	TYR	B	218	213.433 213.224 217.263	1.00 45.42	C
ATOM	6658	CE1	TYR	B	218	215.020 210.987 217.468	1.00 45.42	C
ATOM	6659	CE2	TYR	B	218	213.184 212.293 218.252	1.00 45.42	C
ATOM	6660	CZ	TYR	B	218	213.990 211.181 218.356	1.00 45.42	C

ATOM	6661	OH	TYR B 218	213.764 210.255 219.345	1.00 45.42		O
ATOM	6662	N	SER B 219	217.387 214.724 212.786	1.00 40.97		N
ATOM	6663	CA	SER B 219	217.715 215.575 211.655	1.00 40.97		C
ATOM	6664	C	SER B 219	217.042 215.006 210.411	1.00 40.97		C
ATOM	6665	O	SER B 219	216.250 214.063 210.484	1.00 40.97		O
ATOM	6666	CB	SER B 219	219.228 215.690 211.506	1.00 40.97		C
ATOM	6667	OG	SER B 219	219.795 216.307 212.647	1.00 40.97		O
ATOM	6668	N	ASN B 220	217.355 215.568 209.250	1.00 37.06		N
ATOM	6669	CA	ASN B 220	216.686 215.161 208.021	1.00 37.06		C
ATOM	6670	C	ASN B 220	217.347 215.908 206.871	1.00 37.06		C
ATOM	6671	O	ASN B 220	218.224 216.752 207.080	1.00 37.06		O
ATOM	6672	CB	ASN B 220	215.192 215.469 208.081	1.00 37.06		C
ATOM	6673	CG	ASN B 220	214.367 214.473 207.311	1.00 37.06		C
ATOM	6674	OD1	ASN B 220	213.141 214.472 207.391	1.00 37.06		O
ATOM	6675	ND2	ASN B 220	215.039 213.579 206.602	1.00 37.06		N
ATOM	6676	N	THR B 221	216.923 215.581 205.646	1.00 38.56		N
ATOM	6677	CA	THR B 221	217.357 216.368 204.495	1.00 38.56		C
ATOM	6678	C	THR B 221	216.875 217.805 204.615	1.00 38.56		C
ATOM	6679	O	THR B 221	217.621 218.745 204.325	1.00 38.56		O
ATOM	6680	CB	THR B 221	216.880 215.724 203.190	1.00 38.56		C
ATOM	6681	OG1	THR B 221	217.371 216.476 202.073	1.00 38.56		O
ATOM	6682	CG2	THR B 221	215.360 215.637 203.124	1.00 38.56		C
ATOM	6683	N	HIS B 222	215.618 218.001 205.032	1.00 38.68		N
ATOM	6684	CA	HIS B 222	215.195 219.321 205.487	1.00 38.68		C
ATOM	6685	C	HIS B 222	214.094 219.129 206.535	1.00 38.68		C
ATOM	6686	O	HIS B 222	212.893 219.172 206.260	1.00 38.68		O
ATOM	6687	CB	HIS B 222	214.737 220.173 204.305	1.00 38.68		C
ATOM	6688	CG	HIS B 222	213.694 219.515 203.454	1.00 38.68		C
ATOM	6689	ND1	HIS B 222	212.346 219.628 203.712	1.00 38.68		N
ATOM	6690	CD2	HIS B 222	213.803 218.723 202.361	1.00 38.68		C
ATOM	6691	CE1	HIS B 222	211.668 218.946 202.806	1.00 38.68		C
ATOM	6692	NE2	HIS B 222	212.528 218.384 201.977	1.00 38.68		N
ATOM	6693	N	SER B 223	214.519 218.895 207.780	1.00 36.82		N
ATOM	6694	CA	SER B 223	213.581 218.991 208.903	1.00 36.82		C
ATOM	6695	C	SER B 223	214.265 219.371 210.210	1.00 36.82		C
ATOM	6696	O	SER B 223	213.718 219.040 211.266	1.00 36.82		O
ATOM	6697	CB	SER B 223	212.817 217.675 209.066	1.00 36.82		C

ATOM	6698	OG	SER	B	223	211.919	217.739	210.159	1.00 36.82	O
ATOM	6699	N	THR	B	224	215.428	220.019	210.192	1.00 36.00	N
ATOM	6700	CA	THR	B	224	216.274	220.101	211.375	1.00 36.00	C
ATOM	6701	C	THR	B	224	215.575	220.831	212.516	1.00 36.00	C
ATOM	6702	O	THR	B	224	214.792	221.760	212.312	1.00 36.00	O
ATOM	6703	CB	THR	B	224	217.584	220.811	211.048	1.00 36.00	C
ATOM	6704	OG1	THR	B	224	218.461	220.736	212.178	1.00 36.00	O
ATOM	6705	CG2	THR	B	224	217.319	222.266	210.725	1.00 36.00	C
ATOM	6706	N	ARG	B	225	215.885	220.404	213.737	1.00 39.68	N
ATOM	6707	CA	ARG	B	225	215.294	220.988	214.931	1.00 39.68	C
ATOM	6708	C	ARG	B	225	216.381	221.197	215.969	1.00 39.68	C
ATOM	6709	O	ARG	B	225	217.303	220.387	216.084	1.00 39.68	O
ATOM	6710	CB	ARG	B	225	214.181	220.104	215.505	1.00 39.68	C
ATOM	6711	CG	ARG	B	225	213.512	220.685	216.743	1.00 39.68	C
ATOM	6712	CD	ARG	B	225	212.327	219.841	217.193	1.00 39.68	C
ATOM	6713	NE	ARG	B	225	212.717	218.515	217.656	1.00 39.68	N
ATOM	6714	CZ	ARG	B	225	213.070	218.238	218.905	1.00 39.68	C
ATOM	6715	NH1	ARG	B	225	213.413	217.004	219.241	1.00 39.68	N
ATOM	6716	NH2	ARG	B	225	213.067	219.194	219.821	1.00 39.68	N
ATOM	6717	N	TYR	B	226	216.269	222.288	216.712	1.00 41.11	N
ATOM	6718	CA	TYR	B	226	217.199	222.620	217.778	1.00 41.11	C
ATOM	6719	C	TYR	B	226	216.480	222.542	219.117	1.00 41.11	C
ATOM	6720	O	TYR	B	226	215.250	222.512	219.187	1.00 41.11	O
ATOM	6721	CB	TYR	B	226	217.789	224.014	217.552	1.00 41.11	C
ATOM	6722	CG	TYR	B	226	218.615	224.108	216.292	1.00 41.11	C
ATOM	6723	CD1	TYR	B	226	219.942	223.713	216.277	1.00 41.11	C
ATOM	6724	CD2	TYR	B	226	218.058	224.571	215.111	1.00 41.11	C
ATOM	6725	CE1	TYR	B	226	220.696	223.794	215.125	1.00 41.11	C
ATOM	6726	CE2	TYR	B	226	218.803	224.654	213.956	1.00 41.11	C
ATOM	6727	CZ	TYR	B	226	220.120	224.264	213.968	1.00 41.11	C
ATOM	6728	OH	TYR	B	226	220.863	224.345	212.817	1.00 41.11	O
ATOM	6729	N	VAL	B	227	217.259	222.512	220.194	1.00 38.94	N
ATOM	6730	CA	VAL	B	227	216.683	222.335	221.521	1.00 38.94	C
ATOM	6731	C	VAL	B	227	217.695	222.744	222.582	1.00 38.94	C
ATOM	6732	O	VAL	B	227	218.907	222.675	222.357	1.00 38.94	O
ATOM	6733	CB	VAL	B	227	216.221	220.882	221.725	1.00 38.94	C
ATOM	6734	CG1	VAL	B	227	217.411	219.949	221.721	1.00 38.94	C

ATOM	6735	CG2	VAL B 227	215.436	220.745	223.013	1.00 38.94	C
ATOM	6736	N	THR B 228	217.204	223.178	223.742	1.00 40.86	N
ATOM	6737	CA	THR B 228	218.071	223.572	224.847	1.00 40.86	C
ATOM	6738	C	THR B 228	218.326	222.416	225.808	1.00 40.86	C
ATOM	6739	O	THR B 228	219.476	222.025	226.028	1.00 40.86	O
ATOM	6740	CB	THR B 228	217.459	224.753	225.604	1.00 40.86	C
ATOM	6741	OG1	THR B 228	217.406	225.900	224.748	1.00 40.86	O
ATOM	6742	CG2	THR B 228	218.279	225.069	226.835	1.00 40.86	C
ATOM	6743	N	VAL B 229	217.264	221.862	226.386	1.00 43.09	N
ATOM	6744	CA	VAL B 229	217.380	220.797	227.375	1.00 43.09	C
ATOM	6745	C	VAL B 229	217.394	219.479	226.608	1.00 43.09	C
ATOM	6746	O	VAL B 229	216.366	219.026	226.105	1.00 43.09	O
ATOM	6747	CB	VAL B 229	216.245	220.847	228.395	1.00 43.09	C
ATOM	6748	CG1	VAL B 229	216.419	219.750	229.427	1.00 43.09	C
ATOM	6749	CG2	VAL B 229	216.188	222.213	229.045	1.00 43.09	C
ATOM	6750	N	LYS B 230	218.570	218.859	226.520	1.00 56.42	N
ATOM	6751	CA	LYS B 230	218.725	217.698	225.652	1.00 56.42	C
ATOM	6752	C	LYS B 230	217.998	216.480	226.208	1.00 56.42	C
ATOM	6753	O	LYS B 230	217.044	215.982	225.600	1.00 56.42	O
ATOM	6754	CB	LYS B 230	220.210	217.396	225.446	1.00 56.42	C
ATOM	6755	CG	LYS B 230	220.484	216.229	224.511	1.00 56.42	C
ATOM	6756	CD	LYS B 230	219.962	216.500	223.112	1.00 56.42	C
ATOM	6757	CE	LYS B 230	220.700	217.658	222.467	1.00 56.42	C
ATOM	6758	NZ	LYS B 230	222.121	217.321	222.193	1.00 56.42	N
ATOM	6759	N	ASP B 231	218.432	215.980	227.366	1.00 73.52	N
ATOM	6760	CA	ASP B 231	217.934	214.686	227.816	1.00 73.52	C
ATOM	6761	C	ASP B 231	216.777	214.756	228.804	1.00 73.52	C
ATOM	6762	O	ASP B 231	215.653	214.365	228.471	1.00 73.52	O
ATOM	6763	CB	ASP B 231	219.077	213.888	228.447	1.00 73.52	C
ATOM	6764	CG	ASP B 231	218.656	212.488	228.852	1.00 73.52	C
ATOM	6765	OD1	ASP B 231	218.498	211.631	227.958	1.00 73.52	O
ATOM	6766	OD2	ASP B 231	218.482	212.247	230.065	1.00 73.52	O
ATOM	6767	N	GLN B 232	217.027	215.272	230.008	1.00 79.81	N
ATOM	6768	CA	GLN B 232	216.072	215.086	231.094	1.00 79.81	C
ATOM	6769	C	GLN B 232	216.591	215.715	232.383	1.00 79.81	C
ATOM	6770	O	GLN B 232	217.731	216.189	232.431	1.00 79.81	O
ATOM	6771	CB	GLN B 232	215.810	213.585	231.282	1.00 79.81	C

ATOM	6772	CG	GLN	B	232	214.658	213.196	232.193	1.00 79.81	C
ATOM	6773	CD	GLN	B	232	214.492	211.691	232.290	1.00 79.81	C
ATOM	6774	OE1	GLN	B	232	215.274	210.931	231.716	1.00 79.81	O
ATOM	6775	NE2	GLN	B	232	213.474	211.252	233.017	1.00 79.81	N
ATOM	6776	N	TRP	B	233	215.766	215.734	233.429	1.00 80.92	N
ATOM	6777	CA	TRP	B	233	216.250	215.976	234.786	1.00 80.92	C
ATOM	6778	C	TRP	B	233	215.386	215.161	235.738	1.00 80.92	C
ATOM	6779	O	TRP	B	233	214.223	215.505	235.970	1.00 80.92	O
ATOM	6780	CB	TRP	B	233	216.219	217.457	235.146	1.00 80.92	C
ATOM	6781	CG	TRP	B	233	216.784	217.703	236.504	1.00 80.92	C
ATOM	6782	CD1	TRP	B	233	216.093	218.004	237.641	1.00 80.92	C
ATOM	6783	CD2	TRP	B	233	218.162	217.621	236.880	1.00 80.92	C
ATOM	6784	NE1	TRP	B	233	216.959	218.136	238.699	1.00 80.92	N
ATOM	6785	CE2	TRP	B	233	218.235	217.901	238.258	1.00 80.92	C
ATOM	6786	CE3	TRP	B	233	219.342	217.345	236.183	1.00 80.92	C
ATOM	6787	CZ2	TRP	B	233	219.443	217.921	238.952	1.00 80.92	C
ATOM	6788	CZ3	TRP	B	233	220.539	217.360	236.873	1.00 80.92	C
ATOM	6789	CH2	TRP	B	233	220.581	217.646	238.243	1.00 80.92	C
ATOM	6790	N	HIS	B	234	215.951	214.083	236.281	1.00 83.79	N
ATOM	6791	CA	HIS	B	234	215.215	213.150	237.129	1.00 83.79	C
ATOM	6792	C	HIS	B	234	216.058	212.718	238.323	1.00 83.79	C
ATOM	6793	O	HIS	B	234	216.095	211.537	238.686	1.00 83.79	O
ATOM	6794	CB	HIS	B	234	214.750	211.938	236.322	1.00 83.79	C
ATOM	6795	CG	HIS	B	234	215.871	211.128	235.748	1.00 83.79	C
ATOM	6796	ND1	HIS	B	234	216.574	211.521	234.629	1.00 83.79	N
ATOM	6797	CD2	HIS	B	234	216.406	209.945	236.132	1.00 83.79	C
ATOM	6798	CE1	HIS	B	234	217.497	210.618	234.353	1.00 83.79	C
ATOM	6799	NE2	HIS	B	234	217.417	209.651	235.249	1.00 83.79	N
ATOM	6800	N	SER	B	235	216.740	213.667	238.960	1.00 88.27	N
ATOM	6801	CA	SER	B	235	217.591	213.333	240.092	1.00 88.27	C
ATOM	6802	C	SER	B	235	216.763	212.782	241.251	1.00 88.27	C
ATOM	6803	O	SER	B	235	215.554	213.007	241.353	1.00 88.27	O
ATOM	6804	CB	SER	B	235	218.387	214.555	240.545	1.00 88.27	C
ATOM	6805	OG	SER	B	235	219.309	214.950	239.546	1.00 88.27	O
ATOM	6806	N	ARG	B	236	217.440	212.045	242.135	1.00 88.39	N
ATOM	6807	CA	ARG	B	236	216.746	211.331	243.202	1.00 88.39	C
ATOM	6808	C	ARG	B	236	216.129	212.302	244.202	1.00 88.39	C

ATOM	6809	O	ARG B 236	214.909	212.314	244.404	1.00 88.39 O
ATOM	6810	CB	ARG B 236	217.715	210.375	243.904	1.00 88.39 C
ATOM	6811	CG	ARG B 236	217.057	209.376	244.856	1.00 88.39 C
ATOM	6812	CD	ARG B 236	216.857	209.937	246.256	1.00 88.39 C
ATOM	6813	NE	ARG B 236	218.097	210.434	246.844	1.00 88.39 N
ATOM	6814	CZ	ARG B 236	219.000	209.666	247.444	1.00 88.39 C
ATOM	6815	NH1	ARG B 236	218.805	208.357	247.536	1.00 88.39 N
ATOM	6816	NH2	ARG B 236	220.099	210.206	247.952	1.00 88.39 N
ATOM	6817	N	GLY B 237	216.956	213.117	244.841	1.00 89.79 N
ATOM	6818	CA	GLY B 237	216.493	214.020	245.871	1.00 89.79 C
ATOM	6819	C	GLY B 237	216.670	213.447	247.263	1.00 89.79 C
ATOM	6820	O	GLY B 237	217.477	212.550	247.510	1.00 89.79 O
ATOM	6821	N	SER B 238	215.893	213.993	248.191	1.00 82.98 N
ATOM	6822	CA	SER B 238	215.920	213.546	249.574	1.00 82.98 C
ATOM	6823	C	SER B 238	214.897	212.440	249.798	1.00 82.98 C
ATOM	6824	O	SER B 238	213.880	212.357	249.104	1.00 82.98 O
ATOM	6825	CB	SER B 238	215.644	214.710	250.525	1.00 82.98 C
ATOM	6826	OG	SER B 238	214.320	215.187	250.369	1.00 82.98 O
ATOM	6827	N	THR B 239	215.178	211.588	250.779	1.00 76.83 N
ATOM	6828	CA	THR B 239	214.289	210.483	251.103	1.00 76.83 C
ATOM	6829	C	THR B 239	213.121	210.964	251.952	1.00 76.83 C
ATOM	6830	O	THR B 239	213.290	211.777	252.865	1.00 76.83 O
ATOM	6831	CB	THR B 239	215.048	209.383	251.843	1.00 76.83 C
ATOM	6832	OG1	THR B 239	215.592	209.912	253.058	1.00 76.83 O
ATOM	6833	CG2	THR B 239	216.174	208.842	250.982	1.00 76.83 C
ATOM	6834	N	TRP B 240	211.927	210.457	251.639	1.00 72.40 N
ATOM	6835	CA	TRP B 240	210.716	210.764	252.399	1.00 72.40 C
ATOM	6836	C	TRP B 240	210.349	212.243	252.269	1.00 72.40 C
ATOM	6837	O	TRP B 240	210.044	212.916	253.254	1.00 72.40 O
ATOM	6838	CB	TRP B 240	210.873	210.373	253.870	1.00 72.40 C
ATOM	6839	CG	TRP B 240	211.005	208.905	254.109	1.00 72.40 C
ATOM	6840	CD1	TRP B 240	210.860	207.905	253.195	1.00 72.40 C
ATOM	6841	CD2	TRP B 240	211.314	208.270	255.353	1.00 72.40 C
ATOM	6842	NE1	TRP B 240	211.059	206.685	253.793	1.00 72.40 N
ATOM	6843	CE2	TRP B 240	211.339	206.883	255.119	1.00 72.40 C
ATOM	6844	CE3	TRP B 240	211.571	208.741	256.643	1.00 72.40 C
ATOM	6845	CZ2	TRP B 240	211.611	205.963	256.125	1.00 72.40 C

ATOM	6846	CZ3	TRP B 240	211.840	207.827	257.639	1.00 72.40	C
ATOM	6847	CH2	TRP B 240	211.858	206.455	257.376	1.00 72.40	C
ATOM	6848	N	LEU B 241	210.380	212.747	251.038	1.00 73.91	N
ATOM	6849	CA	LEU B 241	210.082	214.153	250.787	1.00 73.91	C
ATOM	6850	C	LEU B 241	209.382	214.268	249.443	1.00 73.91	C
ATOM	6851	O	LEU B 241	209.898	213.790	248.429	1.00 73.91	O
ATOM	6852	CB	LEU B 241	211.358	214.997	250.815	1.00 73.91	C
ATOM	6853	CG	LEU B 241	211.194	216.518	250.801	1.00 73.91	C
ATOM	6854	CD1	LEU B 241	212.349	217.174	251.537	1.00 73.91	C
ATOM	6855	CD2	LEU B 241	211.106	217.046	249.379	1.00 73.91	C
ATOM	6856	N	TYR B 242	208.213	214.901	249.443	1.00 71.23	N
ATOM	6857	CA	TYR B 242	207.375	215.009	248.254	1.00 71.23	C
ATOM	6858	C	TYR B 242	207.725	216.288	247.505	1.00 71.23	C
ATOM	6859	O	TYR B 242	207.377	217.387	247.948	1.00 71.23	O
ATOM	6860	CB	TYR B 242	205.907	215.002	248.659	1.00 71.23	C
ATOM	6861	CG	TYR B 242	204.943	215.068	247.504	1.00 71.23	C
ATOM	6862	CD1	TYR B 242	204.624	213.932	246.778	1.00 71.23	C
ATOM	6863	CD2	TYR B 242	204.358	216.267	247.136	1.00 71.23	C
ATOM	6864	CE1	TYR B 242	203.740	213.989	245.726	1.00 71.23	C
ATOM	6865	CE2	TYR B 242	203.478	216.334	246.082	1.00 71.23	C
ATOM	6866	CZ	TYR B 242	203.171	215.192	245.382	1.00 71.23	C
ATOM	6867	OH	TYR B 242	202.290	215.254	244.331	1.00 71.23	O
ATOM	6868	N	ARG B 243	208.402	216.154	246.366	1.00 72.02	N
ATOM	6869	CA	ARG B 243	208.840	217.304	245.589	1.00 72.02	C
ATOM	6870	C	ARG B 243	208.408	217.159	244.138	1.00 72.02	C
ATOM	6871	O	ARG B 243	208.485	216.069	243.564	1.00 72.02	O
ATOM	6872	CB	ARG B 243	210.359	217.470	245.658	1.00 72.02	C
ATOM	6873	CG	ARG B 243	211.127	216.357	244.978	1.00 72.02	C
ATOM	6874	CD	ARG B 243	212.624	216.577	245.085	1.00 72.02	C
ATOM	6875	NE	ARG B 243	213.374	215.485	244.472	1.00 72.02	N
ATOM	6876	CZ	ARG B 243	213.724	215.451	243.191	1.00 72.02	C
ATOM	6877	NH1	ARG B 243	213.396	216.452	242.390	1.00 72.02	N
ATOM	6878	NH2	ARG B 243	214.405	214.422	242.710	1.00 72.02	N
ATOM	6879	N	GLU B 244	207.956	218.265	243.553	1.00 67.62	N
ATOM	6880	CA	GLU B 244	207.601	218.338	242.144	1.00 67.62	C
ATOM	6881	C	GLU B 244	208.539	219.310	241.442	1.00 67.62	C
ATOM	6882	O	GLU B 244	208.867	220.369	241.984	1.00 67.62	O

ATOM	6883	CB	GLU B 244	206.148	218.781	241.957	1.00 67.62	C
ATOM	6884	CG	GLU B 244	205.891	220.227	242.325	1.00 67.62	C
ATOM	6885	CD	GLU B 244	205.655	220.409	243.808	1.00 67.62	C
ATOM	6886	OE1	GLU B 244	205.987	219.483	244.577	1.00 67.62	O
ATOM	6887	OE2	GLU B 244	205.139	221.473	244.206	1.00 67.62	O
ATOM	6888	N	THR B 245	208.967	218.950	240.235	1.00 58.99	N
ATOM	6889	CA	THR B 245	209.989	219.700	239.523	1.00 58.99	C
ATOM	6890	C	THR B 245	209.490	220.123	238.151	1.00 58.99	C
ATOM	6891	O	THR B 245	208.545	219.547	237.607	1.00 58.99	O
ATOM	6892	CB	THR B 245	211.272	218.882	239.366	1.00 58.99	C
ATOM	6893	OG1	THR B 245	210.987	217.677	238.645	1.00 58.99	O
ATOM	6894	CG2	THR B 245	211.840	218.536	240.722	1.00 58.99	C
ATOM	6895	N	CYS B 246	210.141	221.142	237.603	1.00 53.17	N
ATOM	6896	CA	CYS B 246	209.869	221.638	236.264	1.00 53.17	C
ATOM	6897	C	CYS B 246	210.990	221.230	235.318	1.00 53.17	C
ATOM	6898	O	CYS B 246	212.112	220.936	235.734	1.00 53.17	O
ATOM	6899	CB	CYS B 246	209.716	223.160	236.272	1.00 53.17	C
ATOM	6900	SG	CYS B 246	208.305	223.762	237.222	1.00 53.17	S
ATOM	6901	N	ASN B 247	210.665	221.193	234.032	1.00 45.50	N
ATOM	6902	CA	ASN B 247	211.613	220.790	233.001	1.00 45.50	C
ATOM	6903	C	ASN B 247	211.510	221.724	231.801	1.00 45.50	C
ATOM	6904	O	ASN B 247	211.312	221.284	230.668	1.00 45.50	O
ATOM	6905	CB	ASN B 247	211.391	219.338	232.589	1.00 45.50	C
ATOM	6906	CG	ASN B 247	212.525	218.793	231.747	1.00 45.50	C
ATOM	6907	OD1	ASN B 247	213.495	219.495	231.466	1.00 45.50	O
ATOM	6908	ND2	ASN B 247	212.407	217.538	231.335	1.00 45.50	N
ATOM	6909	N	LEU B 248	211.582	223.035	232.060	1.00 45.03	N
ATOM	6910	CA	LEU B 248	211.470	224.049	231.014	1.00 45.03	C
ATOM	6911	C	LEU B 248	212.391	223.744	229.841	1.00 45.03	C
ATOM	6912	O	LEU B 248	213.515	223.264	230.010	1.00 45.03	O
ATOM	6913	CB	LEU B 248	211.801	225.433	231.571	1.00 45.03	C
ATOM	6914	CG	LEU B 248	210.656	226.223	232.199	1.00 45.03	C
ATOM	6915	CD1	LEU B 248	209.614	226.524	231.145	1.00 45.03	C
ATOM	6916	CD2	LEU B 248	210.044	225.470	233.363	1.00 45.03	C
ATOM	6917	N	ASN B 249	211.898	224.027	228.640	1.00 41.35	N
ATOM	6918	CA	ASN B 249	212.582	223.635	227.418	1.00 41.35	C
ATOM	6919	C	ASN B 249	212.031	224.417	226.236	1.00 41.35	C

ATOM	6920	O	ASN B 249	210.813	224.550	226.087	1.00 41.35 O
ATOM	6921	CB	ASN B 249	212.430	222.132	227.186	1.00 41.35 C
ATOM	6922	CG	ASN B 249	213.259	221.631	226.024	1.00 41.35 C
ATOM	6923	OD1	ASN B 249	213.949	222.400	225.359	1.00 41.35 O
ATOM	6924	ND2	ASN B 249	213.192	220.331	225.770	1.00 41.35 N
ATOM	6925	N	CYS B 250	212.919	224.935	225.394	1.00 42.09 N
ATOM	6926	CA	CYS B 250	212.542	225.710	224.222	1.00 42.09 C
ATOM	6927	C	CYS B 250	213.243	225.150	222.996	1.00 42.09 C
ATOM	6928	O	CYS B 250	214.382	224.683	223.081	1.00 42.09 O
ATOM	6929	CB	CYS B 250	212.892	227.184	224.406	1.00 42.09 C
ATOM	6930	SG	CYS B 250	214.642	227.465	224.647	1.00 42.09 S
ATOM	6931	N	MET B 251	212.561	225.203	221.855	1.00 48.84 N
ATOM	6932	CA	MET B 251	213.057	224.572	220.643	1.00 48.84 C
ATOM	6933	C	MET B 251	212.615	225.379	219.433	1.00 48.84 C
ATOM	6934	O	MET B 251	211.497	225.896	219.400	1.00 48.84 O
ATOM	6935	CB	MET B 251	212.560	223.128	220.545	1.00 48.84 C
ATOM	6936	CG	MET B 251	211.056	222.993	220.475	1.00 48.84 C
ATOM	6937	SD	MET B 251	210.536	221.271	220.550	1.00 48.84 S
ATOM	6938	CE	MET B 251	210.861	220.908	222.272	1.00 48.84 C
ATOM	6939	N	VAL B 252	213.498	225.476	218.440	1.00 56.06 N
ATOM	6940	CA	VAL B 252	213.274	226.300	217.252	1.00 56.06 C
ATOM	6941	C	VAL B 252	213.457	225.391	216.041	1.00 56.06 C
ATOM	6942	O	VAL B 252	214.571	225.216	215.540	1.00 56.06 O
ATOM	6943	CB	VAL B 252	214.222	227.500	217.184	1.00 56.06 C
ATOM	6944	CG1	VAL B 252	214.033	228.245	215.881	1.00 56.06 C
ATOM	6945	CG2	VAL B 252	214.001	228.418	218.367	1.00 56.06 C
ATOM	6946	N	THR B 253	212.363	224.817	215.553	1.00 43.40 N
ATOM	6947	CA	THR B 253	212.438	223.944	214.393	1.00 43.40 C
ATOM	6948	C	THR B 253	212.539	224.758	213.107	1.00 43.40 C
ATOM	6949	O	THR B 253	212.238	225.952	213.070	1.00 43.40 O
ATOM	6950	CB	THR B 253	211.219	223.028	214.331	1.00 43.40 C
ATOM	6951	OG1	THR B 253	211.370	222.106	213.246	1.00 43.40 O
ATOM	6952	CG2	THR B 253	209.962	223.840	214.119	1.00 43.40 C
ATOM	6953	N	ILE B 254	212.975	224.090	212.038	1.00 37.44 N
ATOM	6954	CA	ILE B 254	213.063	224.711	210.721	1.00 37.44 C
ATOM	6955	C	ILE B 254	212.577	223.737	209.658	1.00 37.44 C
ATOM	6956	O	ILE B 254	213.332	222.871	209.203	1.00 37.44 O

ATOM	6957	CB	ILE B 254	214.498	225.172	210.417	1.00 37.44	C
ATOM	6958	CG1	ILE B 254	214.917	226.282	211.377	1.00 37.44	C
ATOM	6959	CG2	ILE B 254	214.613	225.631	208.979	1.00 37.44	C
ATOM	6960	CD1	ILE B 254	216.380	226.617	211.303	1.00 37.44	C
ATOM	6961	N	THR B 255	211.326	223.879	209.244	1.00 33.72	N
ATOM	6962	CA	THR B 255	210.721	223.014	208.247	1.00 33.72	C
ATOM	6963	C	THR B 255	210.744	223.694	206.881	1.00 33.72	C
ATOM	6964	O	THR B 255	211.367	224.742	206.693	1.00 33.72	O
ATOM	6965	CB	THR B 255	209.301	222.650	208.670	1.00 33.72	C
ATOM	6966	OG1	THR B 255	208.497	223.833	208.700	1.00 33.72	O
ATOM	6967	CG2	THR B 255	209.318	222.042	210.051	1.00 33.72	C
ATOM	6968	N	THR B 256	210.055	223.093	205.910	1.00 34.88	N
ATOM	6969	CA	THR B 256	209.906	223.676	204.575	1.00 34.88	C
ATOM	6970	C	THR B 256	208.445	223.521	204.167	1.00 34.88	C
ATOM	6971	O	THR B 256	207.980	222.403	203.932	1.00 34.88	O
ATOM	6972	CB	THR B 256	210.824	223.005	203.563	1.00 34.88	C
ATOM	6973	OG1	THR B 256	210.448	221.631	203.424	1.00 34.88	O
ATOM	6974	CG2	THR B 256	212.266	223.078	204.024	1.00 34.88	C
ATOM	6975	N	ALA B 257	207.727	224.638	204.079	1.00 39.49	N
ATOM	6976	CA	ALA B 257	206.322	224.594	203.710	1.00 39.49	C
ATOM	6977	C	ALA B 257	206.172	224.391	202.206	1.00 39.49	C
ATOM	6978	O	ALA B 257	207.130	224.494	201.437	1.00 39.49	O
ATOM	6979	CB	ALA B 257	205.612	225.875	204.141	1.00 39.49	C
ATOM	6980	N	ARG B 258	204.940	224.100	201.785	1.00 48.80	N
ATOM	6981	CA	ARG B 258	204.665	223.872	200.368	1.00 48.80	C
ATOM	6982	C	ARG B 258	203.188	224.174	200.115	1.00 48.80	C
ATOM	6983	O	ARG B 258	202.326	223.354	200.438	1.00 48.80	O
ATOM	6984	CB	ARG B 258	205.018	222.450	199.969	1.00 48.80	C
ATOM	6985	CG	ARG B 258	204.835	222.157	198.496	1.00 48.80	C
ATOM	6986	CD	ARG B 258	205.343	220.771	198.162	1.00 48.80	C
ATOM	6987	NE	ARG B 258	205.161	220.445	196.754	1.00 48.80	N
ATOM	6988	CZ	ARG B 258	205.558	219.306	196.200	1.00 48.80	C
ATOM	6989	NH1	ARG B 258	205.353	219.086	194.911	1.00 48.80	N
ATOM	6990	NH2	ARG B 258	206.165	218.387	196.937	1.00 48.80	N
ATOM	6991	N	SER B 259	202.916	225.339	199.539	1.00 52.73	N
ATOM	6992	CA	SER B 259	201.568	225.728	199.159	1.00 52.73	C
ATOM	6993	C	SER B 259	201.413	225.635	197.648	1.00 52.73	C

ATOM	6994	O	SER B 259	202.388	225.745	196.901	1.00 52.73	O
ATOM	6995	CB	SER B 259	201.250	227.149	199.624	1.00 52.73	C
ATOM	6996	OG	SER B 259	202.040	228.094	198.926	1.00 52.73	O
ATOM	6997	N	LYS B 260	200.175	225.438	197.202	1.00 59.66	N
ATOM	6998	CA	LYS B 260	199.891	225.260	195.787	1.00 59.66	C
ATOM	6999	C	LYS B 260	198.739	226.167	195.379	1.00 59.66	C
ATOM	7000	O	LYS B 260	197.969	226.636	196.221	1.00 59.66	O
ATOM	7001	CB	LYS B 260	199.577	223.793	195.460	1.00 59.66	C
ATOM	7002	CG	LYS B 260	198.320	223.243	196.105	1.00 59.66	C
ATOM	7003	CD	LYS B 260	197.133	223.348	195.168	1.00 59.66	C
ATOM	7004	CE	LYS B 260	195.909	222.679	195.754	1.00 59.66	C
ATOM	7005	NZ	LYS B 260	194.737	222.790	194.845	1.00 59.66	N
ATOM	7006	N	TYR B 261	198.654	226.422	194.075	1.00 66.71	N
ATOM	7007	CA	TYR B 261	197.703	227.374	193.520	1.00 66.71	C
ATOM	7008	C	TYR B 261	196.277	226.989	193.915	1.00 66.71	C
ATOM	7009	O	TYR B 261	195.951	225.798	193.964	1.00 66.71	O
ATOM	7010	CB	TYR B 261	197.852	227.402	191.996	1.00 66.71	C
ATOM	7011	CG	TYR B 261	196.979	228.387	191.253	1.00 66.71	C
ATOM	7012	CD1	TYR B 261	197.282	229.741	191.237	1.00 66.71	C
ATOM	7013	CD2	TYR B 261	195.870	227.956	190.540	1.00 66.71	C
ATOM	7014	CE1	TYR B 261	196.494	230.640	190.547	1.00 66.71	C
ATOM	7015	CE2	TYR B 261	195.077	228.847	189.848	1.00 66.71	C
ATOM	7016	CZ	TYR B 261	195.393	230.188	189.855	1.00 66.71	C
ATOM	7017	OH	TYR B 261	194.605	231.081	189.167	1.00 66.71	O
ATOM	7018	N	PRO B 262	195.391	227.963	194.191	1.00 60.57	N
ATOM	7019	CA	PRO B 262	195.590	229.415	194.094	1.00 60.57	C
ATOM	7020	C	PRO B 262	196.225	230.087	195.316	1.00 60.57	C
ATOM	7021	O	PRO B 262	195.919	231.248	195.577	1.00 60.57	O
ATOM	7022	CB	PRO B 262	194.166	229.936	193.905	1.00 60.57	C
ATOM	7023	CG	PRO B 262	193.332	228.964	194.636	1.00 60.57	C
ATOM	7024	CD	PRO B 262	193.982	227.625	194.448	1.00 60.57	C
ATOM	7025	N	TYR B 263	197.082	229.374	196.045	1.00 62.81	N
ATOM	7026	CA	TYR B 263	197.987	229.985	197.019	1.00 62.81	C
ATOM	7027	C	TYR B 263	197.241	230.675	198.165	1.00 62.81	C
ATOM	7028	O	TYR B 263	197.354	231.886	198.359	1.00 62.81	O
ATOM	7029	CB	TYR B 263	198.909	230.997	196.327	1.00 62.81	C
ATOM	7030	CG	TYR B 263	199.865	230.432	195.305	1.00 62.81	C

ATOM	7031	CD1	TYR B 263	200.138	229.081	195.249	1.00 62.81	C
ATOM	7032	CD2	TYR B 263	200.491	231.262	194.389	1.00 62.81	C
ATOM	7033	CE1	TYR B 263	201.006	228.564	194.311	1.00 62.81	C
ATOM	7034	CE2	TYR B 263	201.362	230.758	193.449	1.00 62.81	C
ATOM	7035	CZ	TYR B 263	201.616	229.408	193.414	1.00 62.81	C
ATOM	7036	OH	TYR B 263	202.486	228.901	192.477	1.00 62.81	O
ATOM	7037	N	HIS B 264	196.465	229.906	198.929	1.00 55.36	N
ATOM	7038	CA	HIS B 264	195.905	230.494	200.145	1.00 55.36	C
ATOM	7039	C	HIS B 264	195.885	229.508	201.312	1.00 55.36	C
ATOM	7040	O	HIS B 264	194.925	229.471	202.088	1.00 55.36	O
ATOM	7041	CB	HIS B 264	194.512	231.079	199.894	1.00 55.36	C
ATOM	7042	CG	HIS B 264	193.483	230.071	199.493	1.00 55.36	C
ATOM	7043	ND1	HIS B 264	193.347	229.619	198.198	1.00 55.36	N
ATOM	7044	CD2	HIS B 264	192.522	229.444	200.212	1.00 55.36	C
ATOM	7045	CE1	HIS B 264	192.355	228.750	198.139	1.00 55.36	C
ATOM	7046	NE2	HIS B 264	191.838	228.625	199.348	1.00 55.36	N
ATOM	7047	N	PHE B 265	196.950	228.711	201.468	1.00 45.11	N
ATOM	7048	CA	PHE B 265	197.251	228.048	202.739	1.00 45.11	C
ATOM	7049	C	PHE B 265	198.567	227.279	202.681	1.00 45.11	C
ATOM	7050	O	PHE B 265	198.960	226.790	201.618	1.00 45.11	O
ATOM	7051	CB	PHE B 265	196.117	227.111	203.180	1.00 45.11	C
ATOM	7052	CG	PHE B 265	195.900	225.928	202.284	1.00 45.11	C
ATOM	7053	CD1	PHE B 265	195.060	226.016	201.191	1.00 45.11	C
ATOM	7054	CD2	PHE B 265	196.494	224.711	202.568	1.00 45.11	C
ATOM	7055	CE1	PHE B 265	194.844	224.921	200.377	1.00 45.11	C
ATOM	7056	CE2	PHE B 265	196.282	223.614	201.759	1.00 45.11	C
ATOM	7057	CZ	PHE B 265	195.455	223.719	200.663	1.00 45.11	C
ATOM	7058	N	PHE B 266	199.253	227.169	203.817	1.00 40.80	N
ATOM	7059	CA	PHE B 266	200.492	226.409	203.884	1.00 40.80	C
ATOM	7060	C	PHE B 266	200.200	224.942	204.185	1.00 40.80	C
ATOM	7061	O	PHE B 266	199.089	224.562	204.563	1.00 40.80	O
ATOM	7062	CB	PHE B 266	201.427	226.952	204.965	1.00 40.80	C
ATOM	7063	CG	PHE B 266	201.924	228.344	204.718	1.00 40.80	C
ATOM	7064	CD1	PHE B 266	201.734	228.970	203.503	1.00 40.80	C
ATOM	7065	CD2	PHE B 266	202.608	229.018	205.711	1.00 40.80	C
ATOM	7066	CE1	PHE B 266	202.191	230.250	203.295	1.00 40.80	C
ATOM	7067	CE2	PHE B 266	203.070	230.294	205.510	1.00 40.80	C

ATOM	7068	CZ	PHE B 266	202.865	230.912	204.301	1.00 40.80 C
ATOM	7069	N	ALA B 267	201.220	224.110	204.010	1.00 40.99 N
ATOM	7070	CA	ALA B 267	201.166	222.704	204.397	1.00 40.99 C
ATOM	7071	C	ALA B 267	202.498	222.283	205.008	1.00 40.99 C
ATOM	7072	O	ALA B 267	203.069	221.257	204.639	1.00 40.99 O
ATOM	7073	CB	ALA B 267	200.799	221.821	203.208	1.00 40.99 C
ATOM	7074	N	THR B 268	203.013	223.104	205.931	1.00 38.63 N
ATOM	7075	CA	THR B 268	204.367	222.963	206.465	1.00 38.63 C
ATOM	7076	C	THR B 268	204.653	221.540	206.932	1.00 38.63 C
ATOM	7077	O	THR B 268	203.767	220.832	207.417	1.00 38.63 O
ATOM	7078	CB	THR B 268	204.576	223.931	207.627	1.00 38.63 C
ATOM	7079	OG1	THR B 268	203.657	223.615	208.678	1.00 38.63 O
ATOM	7080	CG2	THR B 268	204.338	225.358	207.172	1.00 38.63 C
ATOM	7081	N	SER B 269	205.912	221.126	206.786	1.00 40.04 N
ATOM	7082	CA	SER B 269	206.272	219.718	206.904	1.00 40.04 C
ATOM	7083	C	SER B 269	206.444	219.262	208.347	1.00 40.04 C
ATOM	7084	O	SER B 269	207.429	218.595	208.678	1.00 40.04 O
ATOM	7085	CB	SER B 269	207.562	219.455	206.127	1.00 40.04 C
ATOM	7086	OG	SER B 269	208.012	218.127	206.309	1.00 40.04 O
ATOM	7087	N	THR B 270	205.485	219.609	209.205	1.00 39.24 N
ATOM	7088	CA	THR B 270	205.333	218.979	210.510	1.00 39.24 C
ATOM	7089	C	THR B 270	203.867	218.829	210.889	1.00 39.24 C
ATOM	7090	O	THR B 270	203.575	218.412	212.016	1.00 39.24 O
ATOM	7091	CB	THR B 270	206.069	219.756	211.610	1.00 39.24 C
ATOM	7092	OG1	THR B 270	205.639	221.122	211.609	1.00 39.24 O
ATOM	7093	CG2	THR B 270	207.570	219.679	211.423	1.00 39.24 C
ATOM	7094	N	GLY B 271	202.942	219.154	209.991	1.00 40.03 N
ATOM	7095	CA	GLY B 271	201.521	219.099	210.265	1.00 40.03 C
ATOM	7096	C	GLY B 271	200.857	220.450	210.402	1.00 40.03 C
ATOM	7097	O	GLY B 271	199.634	220.536	210.240	1.00 40.03 O
ATOM	7098	N	ASP B 272	201.616	221.502	210.693	1.00 40.43 N
ATOM	7099	CA	ASP B 272	201.036	222.824	210.868	1.00 40.43 C
ATOM	7100	C	ASP B 272	200.413	223.322	209.570	1.00 40.43 C
ATOM	7101	O	ASP B 272	200.870	223.002	208.470	1.00 40.43 O
ATOM	7102	CB	ASP B 272	202.100	223.807	211.346	1.00 40.43 C
ATOM	7103	CG	ASP B 272	202.570	223.511	212.753	1.00 40.43 C
ATOM	7104	OD1	ASP B 272	201.766	222.981	213.546	1.00 40.43 O

ATOM	7105	OD2	ASP	B	272	203.744	223.800	213.065	1.00 40.43	O
ATOM	7106	N	VAL	B	273	199.355	224.116	209.707	1.00 40.44	N
ATOM	7107	CA	VAL	B	273	198.637	224.672	208.564	1.00 40.44	C
ATOM	7108	C	VAL	B	273	198.118	226.048	208.947	1.00 40.44	C
ATOM	7109	O	VAL	B	273	197.588	226.236	210.045	1.00 40.44	O
ATOM	7110	CB	VAL	B	273	197.475	223.766	208.113	1.00 40.44	C
ATOM	7111	CG1	VAL	B	273	196.652	224.461	207.048	1.00 40.44	C
ATOM	7112	CG2	VAL	B	273	198.006	222.453	207.585	1.00 40.44	C
ATOM	7113	N	VAL	B	274	198.268	227.009	208.042	1.00 45.85	N
ATOM	7114	CA	VAL	B	274	197.787	228.364	208.265	1.00 45.85	C
ATOM	7115	C	VAL	B	274	197.077	228.838	207.007	1.00 45.85	C
ATOM	7116	O	VAL	B	274	197.448	228.474	205.888	1.00 45.85	O
ATOM	7117	CB	VAL	B	274	198.931	229.326	208.638	1.00 45.85	C
ATOM	7118	CG1	VAL	B	274	199.630	228.845	209.891	1.00 45.85	C
ATOM	7119	CG2	VAL	B	274	199.903	229.443	207.496	1.00 45.85	C
ATOM	7120	N	ASP	B	275	196.044	229.657	207.199	1.00 52.18	N
ATOM	7121	CA	ASP	B	275	195.232	230.155	206.091	1.00 52.18	C
ATOM	7122	C	ASP	B	275	195.696	231.563	205.729	1.00 52.18	C
ATOM	7123	O	ASP	B	275	195.043	232.562	206.025	1.00 52.18	O
ATOM	7124	CB	ASP	B	275	193.754	230.121	206.456	1.00 52.18	C
ATOM	7125	CG	ASP	B	275	193.216	228.711	206.560	1.00 52.18	C
ATOM	7126	OD1	ASP	B	275	193.756	227.821	205.872	1.00 52.18	O
ATOM	7127	OD2	ASP	B	275	192.253	228.492	207.324	1.00 52.18	O
ATOM	7128	N	ILE	B	276	196.848	231.628	205.068	1.00 48.00	N
ATOM	7129	CA	ILE	B	276	197.380	232.877	204.536	1.00 48.00	C
ATOM	7130	C	ILE	B	276	198.160	232.558	203.274	1.00 48.00	C
ATOM	7131	O	ILE	B	276	198.901	231.574	203.222	1.00 48.00	O
ATOM	7132	CB	ILE	B	276	198.284	233.609	205.550	1.00 48.00	C
ATOM	7133	CG1	ILE	B	276	197.487	234.069	206.767	1.00 48.00	C
ATOM	7134	CG2	ILE	B	276	198.958	234.792	204.890	1.00 48.00	C
ATOM	7135	CD1	ILE	B	276	198.350	234.583	207.890	1.00 48.00	C
ATOM	7136	N	SER	B	277	197.992	233.388	202.255	1.00 53.38	N
ATOM	7137	CA	SER	B	277	198.826	233.256	201.075	1.00 53.38	C
ATOM	7138	C	SER	B	277	200.275	233.557	201.448	1.00 53.38	C
ATOM	7139	O	SER	B	277	200.529	234.421	202.291	1.00 53.38	O
ATOM	7140	CB	SER	B	277	198.361	234.204	199.975	1.00 53.38	C
ATOM	7141	OG	SER	B	277	198.564	235.553	200.354	1.00 53.38	O

ATOM	7142	N	PRO B 278	201.241	232.849	200.855	1.00 47.06 N
ATOM	7143	CA	PRO B 278	202.646	233.069	201.238	1.00 47.06 C
ATOM	7144	C	PRO B 278	203.118	234.496	201.035	1.00 47.06 C
ATOM	7145	O	PRO B 278	203.765	235.060	201.924	1.00 47.06 O
ATOM	7146	CB	PRO B 278	203.405	232.089	200.335	1.00 47.06 C
ATOM	7147	CG	PRO B 278	202.411	231.036	200.005	1.00 47.06 C
ATOM	7148	CD	PRO B 278	201.097	231.742	199.898	1.00 47.06 C
ATOM	7149	N	PHE B 279	202.815	235.096	199.888	1.00 58.20 N
ATOM	7150	CA	PHE B 279	203.258	236.455	199.587	1.00 58.20 C
ATOM	7151	C	PHE B 279	202.128	237.453	199.842	1.00 58.20 C
ATOM	7152	O	PHE B 279	201.671	238.183	198.967	1.00 58.20 O
ATOM	7153	CB	PHE B 279	203.804	236.528	198.159	1.00 58.20 C
ATOM	7154	CG	PHE B 279	202.842	236.052	197.097	1.00 58.20 C
ATOM	7155	CD1	PHE B 279	202.733	234.704	196.799	1.00 58.20 C
ATOM	7156	CD2	PHE B 279	202.104	236.954	196.349	1.00 58.20 C
ATOM	7157	CE1	PHE B 279	201.868	234.265	195.822	1.00 58.20 C
ATOM	7158	CE2	PHE B 279	201.238	236.520	195.368	1.00 58.20 C
ATOM	7159	CZ	PHE B 279	201.121	235.174	195.103	1.00 58.20 C
ATOM	7160	N	TYR B 280	201.699	237.496	201.095	1.00 57.46 N
ATOM	7161	CA	TYR B 280	200.758	238.507	201.565	1.00 57.46 C
ATOM	7162	C	TYR B 280	201.547	239.571	202.313	1.00 57.46 C
ATOM	7163	O	TYR B 280	201.772	239.451	203.519	1.00 57.46 O
ATOM	7164	CB	TYR B 280	199.687	237.906	202.466	1.00 57.46 C
ATOM	7165	CG	TYR B 280	198.731	238.944	203.003	1.00 57.46 C
ATOM	7166	CD1	TYR B 280	197.711	239.449	202.214	1.00 57.46 C
ATOM	7167	CD2	TYR B 280	198.864	239.439	204.291	1.00 57.46 C
ATOM	7168	CE1	TYR B 280	196.839	240.406	202.700	1.00 57.46 C
ATOM	7169	CE2	TYR B 280	198.002	240.395	204.784	1.00 57.46 C
ATOM	7170	CZ	TYR B 280	196.992	240.875	203.987	1.00 57.46 C
ATOM	7171	OH	TYR B 280	196.133	241.828	204.481	1.00 57.46 O
ATOM	7172	N	ASN B 281	201.962	240.616	201.611	1.00 63.08 N
ATOM	7173	CA	ASN B 281	202.579	241.740	202.296	1.00 63.08 C
ATOM	7174	C	ASN B 281	201.467	242.596	202.902	1.00 63.08 C
ATOM	7175	O	ASN B 281	200.307	242.183	202.982	1.00 63.08 O
ATOM	7176	CB	ASN B 281	203.517	242.499	201.357	1.00 63.08 C
ATOM	7177	CG	ASN B 281	202.822	243.038	200.127	1.00 63.08 C
ATOM	7178	OD1	ASN B 281	201.610	242.909	199.970	1.00 63.08 O

ATOM	7179	ND2	ASN B 281	203.599	243.654	199.240	1.00 63.08	N
ATOM	7180	N	GLY B 282	201.808	243.798	203.363	1.00 62.07	N
ATOM	7181	CA	GLY B 282	200.846	244.593	204.104	1.00 62.07	C
ATOM	7182	C	GLY B 282	199.673	245.099	203.289	1.00 62.07	C
ATOM	7183	O	GLY B 282	198.656	245.486	203.873	1.00 62.07	O
ATOM	7184	N	THR B 283	199.782	245.104	201.962	1.00 65.95	N
ATOM	7185	CA	THR B 283	198.818	245.795	201.105	1.00 65.95	C
ATOM	7186	C	THR B 283	198.389	244.926	199.926	1.00 65.95	C
ATOM	7187	O	THR B 283	198.393	245.362	198.774	1.00 65.95	O
ATOM	7188	CB	THR B 283	199.391	247.116	200.598	1.00 65.95	C
ATOM	7189	OG1	THR B 283	200.553	246.861	199.800	1.00 65.95	O
ATOM	7190	CG2	THR B 283	199.771	248.016	201.764	1.00 65.95	C
ATOM	7191	N	ASN B 284	198.008	243.674	200.190	1.00 66.63	N
ATOM	7192	CA	ASN B 284	197.499	242.822	199.120	1.00 66.63	C
ATOM	7193	C	ASN B 284	196.281	242.020	199.552	1.00 66.63	C
ATOM	7194	O	ASN B 284	196.101	240.881	199.107	1.00 66.63	O
ATOM	7195	CB	ASN B 284	198.565	241.855	198.610	1.00 66.63	C
ATOM	7196	CG	ASN B 284	199.632	242.541	197.803	1.00 66.63	C
ATOM	7197	OD1	ASN B 284	199.353	243.461	197.038	1.00 66.63	O
ATOM	7198	ND2	ASN B 284	200.864	242.078	197.948	1.00 66.63	N
ATOM	7199	N	ARG B 285	195.434	242.581	200.415	1.00 71.20	N
ATOM	7200	CA	ARG B 285	194.271	241.825	200.867	1.00 71.20	C
ATOM	7201	C	ARG B 285	193.261	241.634	199.742	1.00 71.20	C
ATOM	7202	O	ARG B 285	192.607	240.589	199.661	1.00 71.20	O
ATOM	7203	CB	ARG B 285	193.617	242.509	202.064	1.00 71.20	C
ATOM	7204	CG	ARG B 285	192.460	241.714	202.648	1.00 71.20	C
ATOM	7205	CD	ARG B 285	191.922	242.354	203.914	1.00 71.20	C
ATOM	7206	NE	ARG B 285	190.733	241.659	204.394	1.00 71.20	N
ATOM	7207	CZ	ARG B 285	190.757	240.591	205.183	1.00 71.20	C
ATOM	7208	NH1	ARG B 285	191.915	240.090	205.586	1.00 71.20	N
ATOM	7209	NH2	ARG B 285	189.623	240.023	205.566	1.00 71.20	N
ATOM	7210	N	ASN B 286	193.116	242.630	198.863	1.00 78.83	N
ATOM	7211	CA	ASN B 286	192.208	242.473	197.731	1.00 78.83	C
ATOM	7212	C	ASN B 286	192.779	241.535	196.675	1.00 78.83	C
ATOM	7213	O	ASN B 286	192.028	240.779	196.049	1.00 78.83	O
ATOM	7214	CB	ASN B 286	191.894	243.832	197.103	1.00 78.83	C
ATOM	7215	CG	ASN B 286	190.898	244.652	197.916	1.00 78.83	C

ATOM	7216	OD1	ASN	B	286	189.945 244.117 198.480	1.00 78.83	O
ATOM	7217	ND2	ASN	B	286	191.113 245.965 197.954	1.00 78.83	N
ATOM	7218	N	ALA	B	287	194.092 241.569 196.463	1.00 68.04	N
ATOM	7219	CA	ALA	B	287	194.719 240.749 195.435	1.00 68.04	C
ATOM	7220	C	ALA	B	287	195.142 239.378 195.943	1.00 68.04	C
ATOM	7221	O	ALA	B	287	195.159 238.417 195.165	1.00 68.04	O
ATOM	7222	CB	ALA	B	287	195.936 241.472 194.853	1.00 68.04	C
ATOM	7223	N	SER	B	288	195.481 239.264 197.225	1.00 61.26	N
ATOM	7224	CA	SER	B	288	195.935 238.013 197.811	1.00 61.26	C
ATOM	7225	C	SER	B	288	195.142 237.713 199.076	1.00 61.26	C
ATOM	7226	O	SER	B	288	194.757 238.619 199.821	1.00 61.26	O
ATOM	7227	CB	SER	B	288	197.428 238.063 198.131	1.00 61.26	C
ATOM	7228	OG	SER	B	288	197.691 239.022 199.136	1.00 61.26	O
ATOM	7229	N	TYR	B	289	194.907 236.427 199.307	1.00 55.22	N
ATOM	7230	CA	TYR	B	289	194.030 235.966 200.370	1.00 55.22	C
ATOM	7231	C	TYR	B	289	194.661 236.201 201.741	1.00 55.22	C
ATOM	7232	O	TYR	B	289	195.884 236.224 201.897	1.00 55.22	O
ATOM	7233	CB	TYR	B	289	193.718 234.483 200.171	1.00 55.22	C
ATOM	7234	CG	TYR	B	289	192.739 233.899 201.156	1.00 55.22	C
ATOM	7235	CD1	TYR	B	289	191.378 234.121 201.025	1.00 55.22	C
ATOM	7236	CD2	TYR	B	289	193.176 233.124 202.216	1.00 55.22	C
ATOM	7237	CE1	TYR	B	289	190.480 233.584 201.923	1.00 55.22	C
ATOM	7238	CE2	TYR	B	289	192.289 232.585 203.118	1.00 55.22	C
ATOM	7239	CZ	TYR	B	289	190.942 232.817 202.969	1.00 55.22	C
ATOM	7240	OH	TYR	B	289	190.055 232.279 203.871	1.00 55.22	O
ATOM	7241	N	PHE	B	290	193.801 236.388 202.740	1.00 58.10	N
ATOM	7242	CA	PHE	B	290	194.237 236.506 204.130	1.00 58.10	C
ATOM	7243	C	PHE	B	290	193.029 236.302 205.028	1.00 58.10	C
ATOM	7244	O	PHE	B	290	192.045 237.037 204.906	1.00 58.10	O
ATOM	7245	CB	PHE	B	290	194.873 237.864 204.396	1.00 58.10	C
ATOM	7246	CG	PHE	B	290	195.353 238.033 205.803	1.00 58.10	C
ATOM	7247	CD1	PHE	B	290	196.555 237.484 206.207	1.00 58.10	C
ATOM	7248	CD2	PHE	B	290	194.588 238.712 206.731	1.00 58.10	C
ATOM	7249	CE1	PHE	B	290	196.994 237.631 207.504	1.00 58.10	C
ATOM	7250	CE2	PHE	B	290	195.020 238.859 208.026	1.00 58.10	C
ATOM	7251	CZ	PHE	B	290	196.225 238.318 208.414	1.00 58.10	C
ATOM	7252	N	GLY	B	291	193.093 235.317 205.920	1.00 57.24	N

ATOM	7253	CA	GLY B 291	191.953	235.037	206.772	1.00 57.24	C
ATOM	7254	C	GLY B 291	192.233	234.618	208.202	1.00 57.24	C
ATOM	7255	O	GLY B 291	191.438	233.869	208.777	1.00 57.24	O
ATOM	7256	N	GLU B 292	193.333	235.074	208.804	1.00 59.72	N
ATOM	7257	CA	GLU B 292	193.685	234.630	210.148	1.00 59.72	C
ATOM	7258	C	GLU B 292	193.285	235.624	211.230	1.00 59.72	C
ATOM	7259	O	GLU B 292	192.441	235.304	212.071	1.00 59.72	O
ATOM	7260	CB	GLU B 292	195.188	234.346	210.231	1.00 59.72	C
ATOM	7261	CG	GLU B 292	195.621	233.136	209.439	1.00 59.72	C
ATOM	7262	CD	GLU B 292	195.055	231.850	210.000	1.00 59.72	C
ATOM	7263	OE1	GLU B 292	194.877	231.761	211.234	1.00 59.72	O
ATOM	7264	OE2	GLU B 292	194.784	230.928	209.204	1.00 59.72	O
ATOM	7265	N	ASN B 293	193.847	236.833	211.222	1.00 68.54	N
ATOM	7266	CA	ASN B 293	193.568	237.785	212.290	1.00 68.54	C
ATOM	7267	C	ASN B 293	194.290	239.100	212.028	1.00 68.54	C
ATOM	7268	O	ASN B 293	194.991	239.238	211.023	1.00 68.54	O
ATOM	7269	CB	ASN B 293	193.993	237.205	213.641	1.00 68.54	C
ATOM	7270	CG	ASN B 293	193.103	237.666	214.778	1.00 68.54	C
ATOM	7271	OD1	ASN B 293	193.182	237.147	215.892	1.00 68.54	O
ATOM	7272	ND2	ASN B 293	192.213	238.607	214.492	1.00 68.54	N
ATOM	7273	N	ALA B 294	194.130	240.075	212.914	1.00 71.09	N
ATOM	7274	CA	ALA B 294	194.899	241.308	212.865	1.00 71.09	C
ATOM	7275	C	ALA B 294	195.735	241.551	214.110	1.00 71.09	C
ATOM	7276	O	ALA B 294	196.780	242.193	214.015	1.00 71.09	O
ATOM	7277	CB	ALA B 294	193.977	242.515	212.645	1.00 71.09	C
ATOM	7278	N	ASP B 295	195.306	241.054	215.269	1.00 70.23	N
ATOM	7279	CA	ASP B 295	196.078	241.149	216.499	1.00 70.23	C
ATOM	7280	C	ASP B 295	197.025	239.965	216.670	1.00 70.23	C
ATOM	7281	O	ASP B 295	197.625	239.810	217.736	1.00 70.23	O
ATOM	7282	CB	ASP B 295	195.129	241.251	217.697	1.00 70.23	C
ATOM	7283	CG	ASP B 295	195.805	241.803	218.938	1.00 70.23	C
ATOM	7284	OD1	ASP B 295	197.009	242.134	218.869	1.00 70.23	O
ATOM	7285	OD2	ASP B 295	195.129	241.912	219.982	1.00 70.23	O
ATOM	7286	N	LYS B 296	197.168	239.131	215.644	1.00 56.17	N
ATOM	7287	CA	LYS B 296	198.017	237.945	215.661	1.00 56.17	C
ATOM	7288	C	LYS B 296	198.856	237.885	214.394	1.00 56.17	C
ATOM	7289	O	LYS B 296	198.939	236.861	213.714	1.00 56.17	O

ATOM	7290	CB	LYS B 296	197.181	236.679	215.813	1.00 56.17	C
ATOM	7291	CG	LYS B 296	196.369	236.628	217.093	1.00 56.17	C
ATOM	7292	CD	LYS B 296	197.266	236.500	218.309	1.00 56.17	C
ATOM	7293	CE	LYS B 296	196.453	236.466	219.590	1.00 56.17	C
ATOM	7294	NZ	LYS B 296	195.651	235.218	219.706	1.00 56.17	N
ATOM	7295	N	PHE B 297	199.491	239.003	214.056	1.00 44.65	N
ATOM	7296	CA	PHE B 297	200.228	239.102	212.805	1.00 44.65	C
ATOM	7297	C	PHE B 297	201.136	240.319	212.879	1.00 44.65	C
ATOM	7298	O	PHE B 297	200.711	241.380	213.344	1.00 44.65	O
ATOM	7299	CB	PHE B 297	199.261	239.211	211.625	1.00 44.65	C
ATOM	7300	CG	PHE B 297	199.928	239.227	210.288	1.00 44.65	C
ATOM	7301	CD1	PHE B 297	200.390	238.057	209.716	1.00 44.65	C
ATOM	7302	CD2	PHE B 297	200.087	240.412	209.599	1.00 44.65	C
ATOM	7303	CE1	PHE B 297	201.000	238.072	208.481	1.00 44.65	C
ATOM	7304	CE2	PHE B 297	200.696	240.432	208.368	1.00 44.65	C
ATOM	7305	CZ	PHE B 297	201.155	239.262	207.807	1.00 44.65	C
ATOM	7306	N	PHE B 298	202.378	240.163	212.432	1.00 41.36	N
ATOM	7307	CA	PHE B 298	203.362	241.232	212.484	1.00 41.36	C
ATOM	7308	C	PHE B 298	204.281	241.132	211.278	1.00 41.36	C
ATOM	7309	O	PHE B 298	204.710	240.036	210.909	1.00 41.36	O
ATOM	7310	CB	PHE B 298	204.197	241.165	213.768	1.00 41.36	C
ATOM	7311	CG	PHE B 298	203.420	241.447	215.018	1.00 41.36	C
ATOM	7312	CD1	PHE B 298	203.160	242.748	215.409	1.00 41.36	C
ATOM	7313	CD2	PHE B 298	202.960	240.412	215.810	1.00 41.36	C
ATOM	7314	CE1	PHE B 298	202.452	243.009	216.563	1.00 41.36	C
ATOM	7315	CE2	PHE B 298	202.252	240.666	216.964	1.00 41.36	C
ATOM	7316	CZ	PHE B 298	201.997	241.966	217.341	1.00 41.36	C
ATOM	7317	N	ILE B 299	204.583	242.275	210.669	1.00 40.36	N
ATOM	7318	CA	ILE B 299	205.516	242.349	209.550	1.00 40.36	C
ATOM	7319	C	ILE B 299	206.616	243.330	209.921	1.00 40.36	C
ATOM	7320	O	ILE B 299	206.334	244.470	210.313	1.00 40.36	O
ATOM	7321	CB	ILE B 299	204.824	242.771	208.247	1.00 40.36	C
ATOM	7322	CG1	ILE B 299	203.797	241.723	207.822	1.00 40.36	C
ATOM	7323	CG2	ILE B 299	205.850	242.977	207.151	1.00 40.36	C
ATOM	7324	CD1	ILE B 299	202.930	242.170	206.676	1.00 40.36	C
ATOM	7325	N	PHE B 300	207.865	242.889	209.800	1.00 37.96	N
ATOM	7326	CA	PHE B 300	209.026	243.689	210.151	1.00 37.96	C

ATOM	7327	C	PHE B 300	209.900	243.922	208.932	1.00 37.96	C
ATOM	7328	O	PHE B 300	210.223	242.962	208.220	1.00 37.96	O
ATOM	7329	CB	PHE B 300	209.845	242.990	211.242	1.00 37.96	C
ATOM	7330	CG	PHE B 300	209.185	242.976	212.590	1.00 37.96	C
ATOM	7331	CD1	PHE B 300	209.289	244.064	213.435	1.00 37.96	C
ATOM	7332	CD2	PHE B 300	208.469	241.873	213.017	1.00 37.96	C
ATOM	7333	CE1	PHE B 300	208.692	244.053	214.677	1.00 37.96	C
ATOM	7334	CE2	PHE B 300	207.868	241.860	214.259	1.00 37.96	C
ATOM	7335	CZ	PHE B 300	207.981	242.950	215.089	1.00 37.96	C
ATOM	7336	N	PRO B 301	210.302	245.162	208.655	1.00 42.34	N
ATOM	7337	CA	PRO B 301	211.303	245.401	207.609	1.00 42.34	C
ATOM	7338	C	PRO B 301	212.715	245.350	208.172	1.00 42.34	C
ATOM	7339	O	PRO B 301	213.020	245.941	209.210	1.00 42.34	O
ATOM	7340	CB	PRO B 301	210.961	246.819	207.134	1.00 42.34	C
ATOM	7341	CG	PRO B 301	210.425	247.476	208.355	1.00 42.34	C
ATOM	7342	CD	PRO B 301	209.674	246.412	209.113	1.00 42.34	C
ATOM	7343	N	ASN B 302	213.592	244.643	207.460	1.00 44.14	N
ATOM	7344	CA	ASN B 302	214.989	244.481	207.864	1.00 44.14	C
ATOM	7345	C	ASN B 302	215.093	243.849	209.253	1.00 44.14	C
ATOM	7346	O	ASN B 302	215.568	244.460	210.211	1.00 44.14	O
ATOM	7347	CB	ASN B 302	215.732	245.818	207.828	1.00 44.14	C
ATOM	7348	CG	ASN B 302	215.958	246.318	206.426	1.00 44.14	C
ATOM	7349	OD1	ASN B 302	216.263	245.545	205.519	1.00 44.14	O
ATOM	7350	ND2	ASN B 302	215.824	247.622	206.240	1.00 44.14	N
ATOM	7351	N	TYR B 303	214.631	242.608	209.349	1.00 41.90	N
ATOM	7352	CA	TYR B 303	214.685	241.860	210.602	1.00 41.90	C
ATOM	7353	C	TYR B 303	215.915	240.961	210.549	1.00 41.90	C
ATOM	7354	O	TYR B 303	215.895	239.886	209.951	1.00 41.90	O
ATOM	7355	CB	TYR B 303	213.404	241.066	210.821	1.00 41.90	C
ATOM	7356	CG	TYR B 303	213.354	240.353	212.149	1.00 41.90	C
ATOM	7357	CD1	TYR B 303	213.188	241.063	213.329	1.00 41.90	C
ATOM	7358	CD2	TYR B 303	213.451	238.974	212.224	1.00 41.90	C
ATOM	7359	CE1	TYR B 303	213.138	240.421	214.546	1.00 41.90	C
ATOM	7360	CE2	TYR B 303	213.397	238.323	213.438	1.00 41.90	C
ATOM	7361	CZ	TYR B 303	213.240	239.052	214.595	1.00 41.90	C
ATOM	7362	OH	TYR B 303	213.186	238.407	215.809	1.00 41.90	O
ATOM	7363	N	THR B 304	217.001	241.425	211.168	1.00 41.43	N

ATOM	7364	CA	THR B 304	218.242	240.664	211.192	1.00 41.43	C
ATOM	7365	C	THR B 304	218.022	239.313	211.859	1.00 41.43	C
ATOM	7366	O	THR B 304	217.228	239.180	212.794	1.00 41.43	O
ATOM	7367	CB	THR B 304	219.330	241.444	211.930	1.00 41.43	C
ATOM	7368	OG1	THR B 304	218.955	241.612	213.302	1.00 41.43	O
ATOM	7369	CG2	THR B 304	219.512	242.812	211.304	1.00 41.43	C
ATOM	7370	N	ILE B 305	218.728	238.300	211.367	1.00 41.95	N
ATOM	7371	CA	ILE B 305	218.546	236.930	211.834	1.00 41.95	C
ATOM	7372	C	ILE B 305	219.898	236.236	211.852	1.00 41.95	C
ATOM	7373	O	ILE B 305	220.747	236.479	210.991	1.00 41.95	O
ATOM	7374	CB	ILE B 305	217.543	236.160	210.947	1.00 41.95	C
ATOM	7375	CG1	ILE B 305	216.138	236.745	211.085	1.00 41.95	C
ATOM	7376	CG2	ILE B 305	217.543	234.680	211.282	1.00 41.95	C
ATOM	7377	CD1	ILE B 305	215.151	236.186	210.089	1.00 41.95	C
ATOM	7378	N	VAL B 306	220.099	235.373	212.851	1.00 48.00	N
ATOM	7379	CA	VAL B 306	221.273	234.515	212.859	1.00 48.00	C
ATOM	7380	C	VAL B 306	221.232	233.601	211.644	1.00 48.00	C
ATOM	7381	O	VAL B 306	220.168	233.109	211.247	1.00 48.00	O
ATOM	7382	CB	VAL B 306	221.340	233.707	214.165	1.00 48.00	C
ATOM	7383	CG1	VAL B 306	222.484	232.714	214.116	1.00 48.00	C
ATOM	7384	CG2	VAL B 306	221.495	234.640	215.351	1.00 48.00	C
ATOM	7385	N	SER B 307	222.398	233.376	211.039	1.00 52.93	N
ATOM	7386	CA	SER B 307	222.474	232.557	209.837	1.00 52.93	C
ATOM	7387	C	SER B 307	222.400	231.066	210.132	1.00 52.93	C
ATOM	7388	O	SER B 307	222.060	230.288	209.234	1.00 52.93	O
ATOM	7389	CB	SER B 307	223.763	232.860	209.073	1.00 52.93	C
ATOM	7390	OG	SER B 307	224.898	232.471	209.826	1.00 52.93	O
ATOM	7391	N	ASP B 308	222.711	230.650	211.358	1.00 51.52	N
ATOM	7392	CA	ASP B 308	222.630	229.242	211.720	1.00 51.52	C
ATOM	7393	C	ASP B 308	222.656	229.080	213.233	1.00 51.52	C
ATOM	7394	O	ASP B 308	223.491	229.683	213.913	1.00 51.52	O
ATOM	7395	CB	ASP B 308	223.773	228.457	211.077	1.00 51.52	C
ATOM	7396	CG	ASP B 308	223.627	226.962	211.262	1.00 51.52	C
ATOM	7397	OD1	ASP B 308	222.758	226.365	210.592	1.00 51.52	O
ATOM	7398	OD2	ASP B 308	224.382	226.383	212.071	1.00 51.52	O
ATOM	7399	N	PHE B 309	221.747	228.268	213.765	1.00 45.35	N
ATOM	7400	CA	PHE B 309	221.625	228.104	215.205	1.00 45.35	C

ATOM	7401	C	PHE B 309	222.531	226.987	215.703	1.00 45.35 C
ATOM	7402	O	PHE B 309	222.822	226.029	214.982	1.00 45.35 O
ATOM	7403	CB	PHE B 309	220.176	227.806	215.583	1.00 45.35 C
ATOM	7404	CG	PHE B 309	219.237	228.936	215.297	1.00 45.35 C
ATOM	7405	CD1	PHE B 309	219.152	230.014	216.154	1.00 45.35 C
ATOM	7406	CD2	PHE B 309	218.440	228.919	214.168	1.00 45.35 C
ATOM	7407	CE1	PHE B 309	218.289	231.053	215.890	1.00 45.35 C
ATOM	7408	CE2	PHE B 309	217.575	229.955	213.900	1.00 45.35 C
ATOM	7409	CZ	PHE B 309	217.499	231.023	214.761	1.00 45.35 C
ATOM	7410	N	GLY B 310	222.973	227.117	216.948	1.00 50.42 N
ATOM	7411	CA	GLY B 310	223.894	226.165	217.530	1.00 50.42 C
ATOM	7412	C	GLY B 310	225.234	226.809	217.802	1.00 50.42 C
ATOM	7413	O	GLY B 310	225.852	226.574	218.843	1.00 50.42 O
ATOM	7414	N	ARG B 311	225.688	227.631	216.866	1.00 56.08 N
ATOM	7415	CA	ARG B 311	226.922	228.369	217.068	1.00 56.08 C
ATOM	7416	C	ARG B 311	226.731	229.410	218.168	1.00 56.08 C
ATOM	7417	O	ARG B 311	225.681	230.055	218.236	1.00 56.08 O
ATOM	7418	CB	ARG B 311	227.354	229.056	215.775	1.00 56.08 C
ATOM	7419	CG	ARG B 311	227.628	228.105	214.624	1.00 56.08 C
ATOM	7420	CD	ARG B 311	228.882	227.287	214.873	1.00 56.08 C
ATOM	7421	NE	ARG B 311	229.155	226.366	213.775	1.00 56.08 N
ATOM	7422	CZ	ARG B 311	229.882	226.675	212.707	1.00 56.08 C
ATOM	7423	NH1	ARG B 311	230.407	227.887	212.589	1.00 56.08 N
ATOM	7424	NH2	ARG B 311	230.081	225.774	211.755	1.00 56.08 N
ATOM	7425	N	PRO B 312	227.715	229.582	219.053	1.00 56.22 N
ATOM	7426	CA	PRO B 312	227.622	230.679	220.030	1.00 56.22 C
ATOM	7427	C	PRO B 312	227.530	232.042	219.371	1.00 56.22 C
ATOM	7428	O	PRO B 312	226.840	232.934	219.881	1.00 56.22 O
ATOM	7429	CB	PRO B 312	228.909	230.522	220.851	1.00 56.22 C
ATOM	7430	CG	PRO B 312	229.293	229.089	220.678	1.00 56.22 C
ATOM	7431	CD	PRO B 312	228.898	228.738	219.278	1.00 56.22 C
ATOM	7432	N	ASN B 313	228.211	232.224	218.243	1.00 60.69 N
ATOM	7433	CA	ASN B 313	228.108	233.439	217.450	1.00 60.69 C
ATOM	7434	C	ASN B 313	228.288	233.075	215.985	1.00 60.69 C
ATOM	7435	O	ASN B 313	228.989	232.117	215.650	1.00 60.69 O
ATOM	7436	CB	ASN B 313	229.143	234.488	217.870	1.00 60.69 C
ATOM	7437	CG	ASN B 313	228.813	235.129	219.200	1.00 60.69 C

ATOM	7438	OD1	ASN	B	313	227.660	235.459	219.472	1.00 60.69	O
ATOM	7439	ND2	ASN	B	313	229.825	235.312	220.037	1.00 60.69	N
ATOM	7440	N	SER	B	314	227.647	233.847	215.117	1.00 61.86	N
ATOM	7441	CA	SER	B	314	227.723	233.605	213.683	1.00 61.86	C
ATOM	7442	C	SER	B	314	227.592	234.947	212.972	1.00 61.86	C
ATOM	7443	O	SER	B	314	227.722	236.007	213.592	1.00 61.86	O
ATOM	7444	CB	SER	B	314	226.652	232.591	213.252	1.00 61.86	C
ATOM	7445	OG	SER	B	314	225.354	233.129	213.418	1.00 61.86	O
ATOM	7446	N	ALA	B	315	227.337	234.902	211.669	1.00 60.67	N
ATOM	7447	CA	ALA	B	315	227.179	236.096	210.851	1.00 60.67	C
ATOM	7448	C	ALA	B	315	225.704	236.275	210.519	1.00 60.67	C
ATOM	7449	O	ALA	B	315	225.093	235.397	209.901	1.00 60.67	O
ATOM	7450	CB	ALA	B	315	228.013	235.996	209.574	1.00 60.67	C
ATOM	7451	N	LEU	B	316	225.137	237.405	210.932	1.00 50.02	N
ATOM	7452	CA	LEU	B	316	223.732	237.669	210.671	1.00 50.02	C
ATOM	7453	C	LEU	B	316	223.485	237.808	209.172	1.00 50.02	C
ATOM	7454	O	LEU	B	316	224.411	237.928	208.367	1.00 50.02	O
ATOM	7455	CB	LEU	B	316	223.281	238.933	211.400	1.00 50.02	C
ATOM	7456	CG	LEU	B	316	223.010	238.811	212.901	1.00 50.02	C
ATOM	7457	CD1	LEU	B	316	224.305	238.656	213.675	1.00 50.02	C
ATOM	7458	CD2	LEU	B	316	222.234	240.016	213.403	1.00 50.02	C
ATOM	7459	N	GLU	B	317	222.204	237.792	208.803	1.00 49.81	N
ATOM	7460	CA	GLU	B	317	221.798	237.911	207.403	1.00 49.81	C
ATOM	7461	C	GLU	B	317	220.457	238.639	207.384	1.00 49.81	C
ATOM	7462	O	GLU	B	317	219.410	238.023	207.600	1.00 49.81	O
ATOM	7463	CB	GLU	B	317	221.703	236.544	206.738	1.00 49.81	C
ATOM	7464	CG	GLU	B	317	221.334	236.598	205.269	1.00 49.81	C
ATOM	7465	CD	GLU	B	317	222.393	237.285	204.435	1.00 49.81	C
ATOM	7466	OE1	GLU	B	317	223.567	237.290	204.859	1.00 49.81	O
ATOM	7467	OE2	GLU	B	317	222.055	237.819	203.357	1.00 49.81	O
ATOM	7468	N	THR	B	318	220.498	239.940	207.116	1.00 45.92	N
ATOM	7469	CA	THR	B	318	219.317	240.788	207.227	1.00 45.92	C
ATOM	7470	C	THR	B	318	218.383	240.512	206.055	1.00 45.92	C
ATOM	7471	O	THR	B	318	218.683	240.875	204.914	1.00 45.92	O
ATOM	7472	CB	THR	B	318	219.721	242.257	207.255	1.00 45.92	C
ATOM	7473	OG1	THR	B	318	220.263	242.625	205.982	1.00 45.92	O
ATOM	7474	CG2	THR	B	318	220.779	242.482	208.318	1.00 45.92	C

ATOM	7475	N	HIS B 319	217.246	239.885	206.334	1.00 44.42 N
ATOM	7476	CA	HIS B 319	216.248	239.635	205.305	1.00 44.42 C
ATOM	7477	C	HIS B 319	215.469	240.922	205.040	1.00 44.42 C
ATOM	7478	O	HIS B 319	215.806	241.997	205.543	1.00 44.42 O
ATOM	7479	CB	HIS B 319	215.335	238.486	205.716	1.00 44.42 C
ATOM	7480	CG	HIS B 319	216.031	237.166	205.803	1.00 44.42 C
ATOM	7481	ND1	HIS B 319	215.419	236.033	206.289	1.00 44.42 N
ATOM	7482	CD2	HIS B 319	217.294	236.802	205.478	1.00 44.42 C
ATOM	7483	CE1	HIS B 319	216.271	235.024	206.252	1.00 44.42 C
ATOM	7484	NE2	HIS B 319	217.416	235.465	205.765	1.00 44.42 N
ATOM	7485	N	ARG B 320	214.405	240.822	204.246	1.00 48.88 N
ATOM	7486	CA	ARG B 320	213.632	241.986	203.831	1.00 48.88 C
ATOM	7487	C	ARG B 320	212.310	242.111	204.576	1.00 48.88 C
ATOM	7488	O	ARG B 320	212.012	243.169	205.136	1.00 48.88 O
ATOM	7489	CB	ARG B 320	213.381	241.928	202.322	1.00 48.88 C
ATOM	7490	CG	ARG B 320	212.657	243.134	201.765	1.00 48.88 C
ATOM	7491	CD	ARG B 320	212.539	243.035	200.257	1.00 48.88 C
ATOM	7492	NE	ARG B 320	213.838	243.152	199.603	1.00 48.88 N
ATOM	7493	CZ	ARG B 320	214.044	242.920	198.311	1.00 48.88 C
ATOM	7494	NH1	ARG B 320	213.035	242.554	197.534	1.00 48.88 N
ATOM	7495	NH2	ARG B 320	215.258	243.053	197.795	1.00 48.88 N
ATOM	7496	N	LEU B 321	211.506	241.053	204.590	1.00 42.90 N
ATOM	7497	CA	LEU B 321	210.256	241.056	205.334	1.00 42.90 C
ATOM	7498	C	LEU B 321	210.019	239.669	205.905	1.00 42.90 C
ATOM	7499	O	LEU B 321	210.351	238.666	205.270	1.00 42.90 O
ATOM	7500	CB	LEU B 321	209.075	241.470	204.452	1.00 42.90 C
ATOM	7501	CG	LEU B 321	209.094	242.907	203.935	1.00 42.90 C
ATOM	7502	CD1	LEU B 321	207.915	243.146	203.011	1.00 42.90 C
ATOM	7503	CD2	LEU B 321	209.087	243.892	205.089	1.00 42.90 C
ATOM	7504	N	VAL B 322	209.440	239.617	207.105	1.00 37.34 N
ATOM	7505	CA	VAL B 322	209.106	238.358	207.757	1.00 37.34 C
ATOM	7506	C	VAL B 322	207.817	238.552	208.537	1.00 37.34 C
ATOM	7507	O	VAL B 322	207.500	239.652	208.990	1.00 37.34 O
ATOM	7508	CB	VAL B 322	210.234	237.866	208.692	1.00 37.34 C
ATOM	7509	CG1	VAL B 322	211.478	237.543	207.894	1.00 37.34 C
ATOM	7510	CG2	VAL B 322	210.541	238.920	209.730	1.00 37.34 C
ATOM	7511	N	ALA B 323	207.069	237.467	208.694	1.00 35.79 N

ATOM	7512	CA	ALA	B	323	205.793	237.494	209.390	1.00	35.79	C
ATOM	7513	C	ALA	B	323	205.904	236.777	210.730	1.00	35.79	C
ATOM	7514	O	ALA	B	323	206.886	236.093	211.025	1.00	35.79	O
ATOM	7515	CB	ALA	B	323	204.692	236.859	208.533	1.00	35.79	C
ATOM	7516	N	PHE	B	324	204.863	236.945	211.543	1.00	35.80	N
ATOM	7517	CA	PHE	B	324	204.805	236.353	212.879	1.00	35.80	C
ATOM	7518	C	PHE	B	324	203.337	236.063	213.174	1.00	35.80	C
ATOM	7519	O	PHE	B	324	202.608	236.950	213.626	1.00	35.80	O
ATOM	7520	CB	PHE	B	324	205.405	237.285	213.923	1.00	35.80	C
ATOM	7521	CG	PHE	B	324	206.900	237.378	213.877	1.00	35.80	C
ATOM	7522	CD1	PHE	B	324	207.676	236.449	214.533	1.00	35.80	C
ATOM	7523	CD2	PHE	B	324	207.528	238.394	213.186	1.00	35.80	C
ATOM	7524	CE1	PHE	B	324	209.048	236.526	214.499	1.00	35.80	C
ATOM	7525	CE2	PHE	B	324	208.905	238.474	213.152	1.00	35.80	C
ATOM	7526	CZ	PHE	B	324	209.664	237.537	213.808	1.00	35.80	C
ATOM	7527	N	LEU	B	325	202.917	234.824	212.931	1.00	36.68	N
ATOM	7528	CA	LEU	B	325	201.523	234.425	213.110	1.00	36.68	C
ATOM	7529	C	LEU	B	325	201.402	233.756	214.475	1.00	36.68	C
ATOM	7530	O	LEU	B	325	201.413	232.534	214.606	1.00	36.68	O
ATOM	7531	CB	LEU	B	325	201.082	233.508	211.973	1.00	36.68	C
ATOM	7532	CG	LEU	B	325	199.595	233.198	211.792	1.00	36.68	C
ATOM	7533	CD1	LEU	B	325	199.090	232.176	212.792	1.00	36.68	C
ATOM	7534	CD2	LEU	B	325	198.781	234.471	211.882	1.00	36.68	C
ATOM	7535	N	GLU	B	326	201.283	234.586	215.509	1.00	40.63	N
ATOM	7536	CA	GLU	B	326	201.250	234.084	216.877	1.00	40.63	C
ATOM	7537	C	GLU	B	326	199.994	233.268	217.138	1.00	40.63	C
ATOM	7538	O	GLU	B	326	198.900	233.823	217.277	1.00	40.63	O
ATOM	7539	CB	GLU	B	326	201.337	235.240	217.871	1.00	40.63	C
ATOM	7540	CG	GLU	B	326	202.665	235.959	217.859	1.00	40.63	C
ATOM	7541	CD	GLU	B	326	202.701	237.109	218.837	1.00	40.63	C
ATOM	7542	OE1	GLU	B	326	201.644	237.419	219.424	1.00	40.63	O
ATOM	7543	OE2	GLU	B	326	203.782	237.702	219.020	1.00	40.63	O
ATOM	7544	N	ARG	B	327	200.144	231.952	217.211	1.00	37.39	N
ATOM	7545	CA	ARG	B	327	199.026	231.059	217.457	1.00	37.39	C
ATOM	7546	C	ARG	B	327	198.870	230.859	218.963	1.00	37.39	C
ATOM	7547	O	ARG	B	327	199.474	231.568	219.772	1.00	37.39	O
ATOM	7548	CB	ARG	B	327	199.235	229.747	216.707	1.00	37.39	C

ATOM	7549	CG	ARG B 327	199.279	229.928	215.203	1.00 37.39	C
ATOM	7550	CD	ARG B 327	199.543	228.629	214.466	1.00 37.39	C
ATOM	7551	NE	ARG B 327	198.412	227.713	214.529	1.00 37.39	N
ATOM	7552	CZ	ARG B 327	198.444	226.465	214.074	1.00 37.39	C
ATOM	7553	NH1	ARG B 327	199.553	225.991	213.526	1.00 37.39	N
ATOM	7554	NH2	ARG B 327	197.370	225.693	214.164	1.00 37.39	N
ATOM	7555	N	ALA B 328	198.049	229.886	219.358	1.00 41.99	N
ATOM	7556	CA	ALA B 328	197.788	229.670	220.775	1.00 41.99	C
ATOM	7557	C	ALA B 328	198.922	228.930	221.469	1.00 41.99	C
ATOM	7558	O	ALA B 328	199.102	229.084	222.682	1.00 41.99	O
ATOM	7559	CB	ALA B 328	196.480	228.900	220.955	1.00 41.99	C
ATOM	7560	N	ASP B 329	199.692	228.125	220.731	1.00 42.48	N
ATOM	7561	CA	ASP B 329	200.751	227.337	221.348	1.00 42.48	C
ATOM	7562	C	ASP B 329	202.031	227.298	220.519	1.00 42.48	C
ATOM	7563	O	ASP B 329	202.830	226.369	220.679	1.00 42.48	O
ATOM	7564	CB	ASP B 329	200.268	225.907	221.613	1.00 42.48	C
ATOM	7565	CG	ASP B 329	199.807	225.204	220.352	1.00 42.48	C
ATOM	7566	OD1	ASP B 329	199.767	225.852	219.286	1.00 42.48	O
ATOM	7567	OD2	ASP B 329	199.489	223.999	220.425	1.00 42.48	O
ATOM	7568	N	SER B 330	202.252	228.269	219.644	1.00 36.39	N
ATOM	7569	CA	SER B 330	203.458	228.296	218.823	1.00 36.39	C
ATOM	7570	C	SER B 330	203.510	229.633	218.096	1.00 36.39	C
ATOM	7571	O	SER B 330	202.579	230.439	218.169	1.00 36.39	O
ATOM	7572	CB	SER B 330	203.487	227.123	217.843	1.00 36.39	C
ATOM	7573	OG	SER B 330	202.443	227.234	216.893	1.00 36.39	O
ATOM	7574	N	VAL B 331	204.614	229.860	217.389	1.00 29.34	N
ATOM	7575	CA	VAL B 331	204.800	231.083	216.620	1.00 29.34	C
ATOM	7576	C	VAL B 331	205.418	230.739	215.273	1.00 29.34	C
ATOM	7577	O	VAL B 331	206.630	230.522	215.172	1.00 29.34	O
ATOM	7578	CB	VAL B 331	205.674	232.090	217.385	1.00 29.34	C
ATOM	7579	CG1	VAL B 331	205.988	233.283	216.512	1.00 29.34	C
ATOM	7580	CG2	VAL B 331	204.976	232.532	218.650	1.00 29.34	C
ATOM	7581	N	ILE B 332	204.599	230.690	214.233	1.00 30.68	N
ATOM	7582	CA	ILE B 332	205.071	230.415	212.884	1.00 30.68	C
ATOM	7583	C	ILE B 332	205.540	231.721	212.268	1.00 30.68	C
ATOM	7584	O	ILE B 332	204.973	232.788	212.523	1.00 30.68	O
ATOM	7585	CB	ILE B 332	203.971	229.753	212.030	1.00 30.68	C

ATOM	7586	CG1	ILE B 332	203.562	228.418	212.643	1.00 30.68	C
ATOM	7587	CG2	ILE B 332	204.454	229.539	210.615	1.00 30.68	C
ATOM	7588	CD1	ILE B 332	202.331	227.815	212.020	1.00 30.68	C
ATOM	7589	N	SER B 333	206.591	231.646	211.454	1.00 32.49	N
ATOM	7590	CA	SER B 333	207.178	232.852	210.873	1.00 32.49	C
ATOM	7591	C	SER B 333	207.872	232.465	209.573	1.00 32.49	C
ATOM	7592	O	SER B 333	208.988	231.942	209.598	1.00 32.49	O
ATOM	7593	CB	SER B 333	208.148	233.500	211.846	1.00 32.49	C
ATOM	7594	OG	SER B 333	207.473	233.894	213.023	1.00 32.49	O
ATOM	7595	N	TRP B 334	207.216	232.732	208.451	1.00 37.87	N
ATOM	7596	CA	TRP B 334	207.800	232.461	207.147	1.00 37.87	C
ATOM	7597	C	TRP B 334	208.583	233.686	206.680	1.00 37.87	C
ATOM	7598	O	TRP B 334	208.821	234.631	207.436	1.00 37.87	O
ATOM	7599	CB	TRP B 334	206.712	232.047	206.160	1.00 37.87	C
ATOM	7600	CG	TRP B 334	205.675	233.092	205.924	1.00 37.87	C
ATOM	7601	CD1	TRP B 334	205.678	234.039	204.948	1.00 37.87	C
ATOM	7602	CD2	TRP B 334	204.487	233.309	206.690	1.00 37.87	C
ATOM	7603	NE1	TRP B 334	204.560	234.827	205.050	1.00 37.87	N
ATOM	7604	CE2	TRP B 334	203.814	234.400	206.115	1.00 37.87	C
ATOM	7605	CE3	TRP B 334	203.928	232.685	207.806	1.00 37.87	C
ATOM	7606	CZ2	TRP B 334	202.612	234.881	206.617	1.00 37.87	C
ATOM	7607	CZ3	TRP B 334	202.734	233.162	208.301	1.00 37.87	C
ATOM	7608	CH2	TRP B 334	202.089	234.249	207.708	1.00 37.87	C
ATOM	7609	N	ASP B 335	208.998	233.677	205.419	1.00 42.84	N
ATOM	7610	CA	ASP B 335	209.701	234.794	204.807	1.00 42.84	C
ATOM	7611	C	ASP B 335	208.849	235.305	203.657	1.00 42.84	C
ATOM	7612	O	ASP B 335	208.449	234.524	202.788	1.00 42.84	O
ATOM	7613	CB	ASP B 335	211.088	234.365	204.319	1.00 42.84	C
ATOM	7614	CG	ASP B 335	211.949	235.537	203.897	1.00 42.84	C
ATOM	7615	OD1	ASP B 335	211.456	236.681	203.922	1.00 42.84	O
ATOM	7616	OD2	ASP B 335	213.126	235.314	203.547	1.00 42.84	O
ATOM	7617	N	ILE B 336	208.554	236.608	203.670	1.00 45.59	N
ATOM	7618	CA	ILE B 336	207.613	237.178	202.710	1.00 45.59	C
ATOM	7619	C	ILE B 336	208.132	236.952	201.299	1.00 45.59	C
ATOM	7620	O	ILE B 336	209.202	237.445	200.924	1.00 45.59	O
ATOM	7621	CB	ILE B 336	207.379	238.661	202.995	1.00 45.59	C
ATOM	7622	CG1	ILE B 336	206.763	238.835	204.379	1.00 45.59	C

ATOM	7623	CG2	ILE	B	336	206.463	239.250	201.950	1.00 45.59	C
ATOM	7624	CD1	ILE	B	336	205.424	238.161	204.519	1.00 45.59	C
ATOM	7625	N	GLN	B	337	207.372	236.201	200.510	1.00 53.56	N
ATOM	7626	CA	GLN	B	337	207.847	235.705	199.226	1.00 53.56	C
ATOM	7627	C	GLN	B	337	207.732	236.787	198.152	1.00 53.56	C
ATOM	7628	O	GLN	B	337	207.536	237.971	198.434	1.00 53.56	O
ATOM	7629	CB	GLN	B	337	207.098	234.435	198.843	1.00 53.56	C
ATOM	7630	CG	GLN	B	337	207.391	233.266	199.757	1.00 53.56	C
ATOM	7631	CD	GLN	B	337	208.858	232.898	199.765	1.00 53.56	C
ATOM	7632	OE1	GLN	B	337	209.549	233.081	200.764	1.00 53.56	O
ATOM	7633	NE2	GLN	B	337	209.347	232.390	198.644	1.00 53.56	N
ATOM	7634	N	ASN	B	338	207.856	236.367	196.896	1.00 80.15	N
ATOM	7635	CA	ASN	B	338	208.153	237.259	195.778	1.00 80.15	C
ATOM	7636	C	ASN	B	338	207.597	236.606	194.522	1.00 80.15	C
ATOM	7637	O	ASN	B	338	207.968	235.474	194.200	1.00 80.15	O
ATOM	7638	CB	ASN	B	338	209.671	237.470	195.719	1.00 80.15	C
ATOM	7639	CG	ASN	B	338	210.119	238.639	194.839	1.00 80.15	C
ATOM	7640	OD1	ASN	B	338	211.127	239.271	195.159	1.00 80.15	O
ATOM	7641	ND2	ASN	B	338	209.428	238.896	193.721	1.00 80.15	N
ATOM	7642	N	GLU	B	339	206.713	237.313	193.822	1.00 88.29	N
ATOM	7643	CA	GLU	B	339	205.853	236.675	192.829	1.00 88.29	C
ATOM	7644	C	GLU	B	339	206.642	236.128	191.643	1.00 88.29	C
ATOM	7645	O	GLU	B	339	207.656	236.694	191.228	1.00 88.29	O
ATOM	7646	CB	GLU	B	339	204.793	237.662	192.341	1.00 88.29	C
ATOM	7647	CG	GLU	B	339	203.772	238.039	193.403	1.00 88.29	C
ATOM	7648	CD	GLU	B	339	202.699	238.977	192.879	1.00 88.29	C
ATOM	7649	OE1	GLU	B	339	202.813	239.423	191.718	1.00 88.29	O
ATOM	7650	OE2	GLU	B	339	201.741	239.268	193.625	1.00 88.29	O
ATOM	7651	N	LYS	B	340	206.156	235.015	191.097	1.00101.23	N
ATOM	7652	CA	LYS	B	340	206.799	234.340	189.980	1.00101.23	C
ATOM	7653	C	LYS	B	340	206.407	235.001	188.655	1.00101.23	C
ATOM	7654	O	LYS	B	340	205.657	235.979	188.612	1.00101.23	O
ATOM	7655	CB	LYS	B	340	206.429	232.860	189.986	1.00101.23	C
ATOM	7656	CG	LYS	B	340	204.943	232.603	189.810	1.00101.23	C
ATOM	7657	CD	LYS	B	340	204.637	231.118	189.775	1.00101.23	C
ATOM	7658	CE	LYS	B	340	204.784	230.491	191.147	1.00101.23	C
ATOM	7659	NZ	LYS	B	340	204.350	229.068	191.138	1.00101.23	N

ATOM	7660	N	ASN B 341	206.939	234.461	187.555	1.00128.34	N
ATOM	7661	CA	ASN B 341	206.637	235.019	186.236	1.00128.34	C
ATOM	7662	C	ASN B 341	205.324	234.488	185.668	1.00128.34	C
ATOM	7663	O	ASN B 341	204.343	235.226	185.534	1.00128.34	O
ATOM	7664	CB	ASN B 341	207.771	234.707	185.251	1.00128.34	C
ATOM	7665	CG	ASN B 341	209.027	235.518	185.498	1.00128.34	C
ATOM	7666	OD1	ASN B 341	208.971	236.653	185.971	1.00128.34	O
ATOM	7667	ND2	ASN B 341	210.173	234.938	185.120	1.00128.34	N
ATOM	7668	N	VAL B 342	205.293	233.196	185.342	1.00121.76	N
ATOM	7669	CA	VAL B 342	204.253	232.642	184.482	1.00121.76	C
ATOM	7670	C	VAL B 342	204.297	231.119	184.531	1.00121.76	C
ATOM	7671	O	VAL B 342	205.339	230.527	184.829	1.00121.76	O
ATOM	7672	CB	VAL B 342	204.415	233.158	183.040	1.00121.76	C
ATOM	7673	CG1	VAL B 342	205.694	232.613	182.424	1.00121.76	C
ATOM	7674	CG2	VAL B 342	203.203	232.802	182.196	1.00121.76	C
ATOM	7675	N	THR B 343	203.167	230.474	184.233	1.00124.81	N
ATOM	7676	CA	THR B 343	203.071	229.022	184.231	1.00124.81	C
ATOM	7677	C	THR B 343	202.358	228.545	182.973	1.00124.81	C
ATOM	7678	O	THR B 343	201.328	229.102	182.581	1.00124.81	O
ATOM	7679	CB	THR B 343	202.328	228.515	185.469	1.00124.81	C
ATOM	7680	OG1	THR B 343	203.019	228.945	186.649	1.00124.81	O
ATOM	7681	CG2	THR B 343	202.254	226.997	185.456	1.00124.81	C
ATOM	7682	N	CYS B 344	202.909	227.507	182.350	1.00124.29	N
ATOM	7683	CA	CYS B 344	202.366	226.940	181.125	1.00124.29	C
ATOM	7684	C	CYS B 344	201.407	225.793	181.444	1.00124.29	C
ATOM	7685	O	CYS B 344	200.979	225.603	182.585	1.00124.29	O
ATOM	7686	CB	CYS B 344	203.496	226.479	180.207	1.00124.29	C
ATOM	7687	SG	CYS B 344	204.481	227.806	179.486	1.00124.29	S
ATOM	7688	N	ALA B 345	201.053	225.019	180.419	1.00116.87	N
ATOM	7689	CA	ALA B 345	200.124	223.902	180.541	1.00116.87	C
ATOM	7690	C	ALA B 345	200.635	222.691	179.775	1.00116.87	C
ATOM	7691	O	ALA B 345	199.855	221.940	179.180	1.00116.87	O
ATOM	7692	CB	ALA B 345	198.735	224.288	180.035	1.00116.87	C
ATOM	7693	N	LEU B 346	201.946	222.468	179.787	1.00113.74	N
ATOM	7694	CA	LEU B 346	202.563	221.457	178.941	1.00113.74	C
ATOM	7695	C	LEU B 346	203.199	220.363	179.786	1.00113.74	C
ATOM	7696	O	LEU B 346	203.823	220.639	180.814	1.00113.74	O

ATOM	7697	CB	LEU B 346	203.624	222.074	178.023	1.00113.74	C
ATOM	7698	CG	LEU B 346	204.981	222.393	178.654	1.00113.74	C
ATOM	7699	CD1	LEU B 346	206.014	222.674	177.575	1.00113.74	C
ATOM	7700	CD2	LEU B 346	204.885	223.556	179.625	1.00113.74	C
ATOM	7701	N	THR B 347	203.027	219.127	179.349	1.00115.05	N
ATOM	7702	CA	THR B 347	203.711	217.970	179.916	1.00115.05	C
ATOM	7703	C	THR B 347	204.411	217.125	178.862	1.00115.05	C
ATOM	7704	O	THR B 347	205.513	216.631	179.115	1.00115.05	O
ATOM	7705	CB	THR B 347	202.715	217.108	180.698	1.00115.05	C
ATOM	7706	OG1	THR B 347	201.619	216.759	179.845	1.00115.05	O
ATOM	7707	CG2	THR B 347	202.197	217.860	181.910	1.00115.05	C
ATOM	7708	N	PHE B 348	203.802	216.957	177.686	1.00113.10	N
ATOM	7709	CA	PHE B 348	204.398	216.266	176.543	1.00113.10	C
ATOM	7710	C	PHE B 348	204.821	214.843	176.921	1.00113.10	C
ATOM	7711	O	PHE B 348	205.995	214.474	176.895	1.00113.10	O
ATOM	7712	CB	PHE B 348	205.577	217.070	175.986	1.00113.10	C
ATOM	7713	CG	PHE B 348	205.170	218.361	175.337	1.00113.10	C
ATOM	7714	CD1	PHE B 348	203.854	218.576	174.962	1.00113.10	C
ATOM	7715	CD2	PHE B 348	206.095	219.364	175.117	1.00113.10	C
ATOM	7716	CE1	PHE B 348	203.473	219.761	174.370	1.00113.10	C
ATOM	7717	CE2	PHE B 348	205.719	220.554	174.526	1.00113.10	C
ATOM	7718	CZ	PHE B 348	204.406	220.752	174.152	1.00113.10	C
ATOM	7719	N	TRP B 349	203.814	214.047	177.272	1.00116.30	N
ATOM	7720	CA	TRP B 349	204.031	212.693	177.764	1.00116.30	C
ATOM	7721	C	TRP B 349	203.553	211.640	176.770	1.00116.30	C
ATOM	7722	O	TRP B 349	203.268	210.506	177.153	1.00116.30	O
ATOM	7723	CB	TRP B 349	203.347	212.502	179.118	1.00116.30	C
ATOM	7724	CG	TRP B 349	201.862	212.701	179.074	1.00116.30	C
ATOM	7725	CD1	TRP B 349	201.199	213.887	179.151	1.00116.30	C
ATOM	7726	CD2	TRP B 349	200.854	211.685	178.980	1.00116.30	C
ATOM	7727	NE1	TRP B 349	199.844	213.680	179.091	1.00116.30	N
ATOM	7728	CE2	TRP B 349	199.606	212.336	178.989	1.00116.30	C
ATOM	7729	CE3	TRP B 349	200.886	210.292	178.886	1.00116.30	C
ATOM	7730	CZ2	TRP B 349	198.402	211.641	178.903	1.00116.30	C
ATOM	7731	CZ3	TRP B 349	199.691	209.604	178.797	1.00116.30	C
ATOM	7732	CH2	TRP B 349	198.466	210.279	178.808	1.00116.30	C
ATOM	7733	N	GLU B 350	203.485	211.981	175.486	1.00118.26	N

ATOM	7734	CA	GLU B 350	202.992	210.983	174.550	1.00118.26 C
ATOM	7735	C	GLU B 350	203.325	211.383	173.122	1.00118.26 C
ATOM	7736	O	GLU B 350	203.312	212.567	172.772	1.00118.26 O
ATOM	7737	CB	GLU B 350	201.481	210.781	174.703	1.00118.26 C
ATOM	7738	CG	GLU B 350	200.936	209.714	173.788	1.00118.26 C
ATOM	7739	CD	GLU B 350	201.582	208.373	174.049	1.00118.26 C
ATOM	7740	OE1	GLU B 350	202.047	208.153	175.187	1.00118.26 O
ATOM	7741	OE2	GLU B 350	201.635	207.543	173.118	1.00118.26 O
ATOM	7742	N	ALA B 351	203.623	210.372	172.305	1.00119.52 N
ATOM	7743	CA	ALA B 351	203.812	210.536	170.864	1.00119.52 C
ATOM	7744	C	ALA B 351	203.176	209.325	170.187	1.00119.52 C
ATOM	7745	O	ALA B 351	203.826	208.290	170.015	1.00119.52 O
ATOM	7746	CB	ALA B 351	205.286	210.667	170.503	1.00119.52 C
ATOM	7747	N	SER B 352	201.908	209.458	169.809	1.00114.30 N
ATOM	7748	CA	SER B 352	201.153	208.377	169.186	1.00114.30 C
ATOM	7749	C	SER B 352	201.164	208.577	167.676	1.00114.30 C
ATOM	7750	O	SER B 352	200.504	209.484	167.158	1.00114.30 O
ATOM	7751	CB	SER B 352	199.725	208.333	169.722	1.00114.30 C
ATOM	7752	OG	SER B 352	199.711	208.021	171.103	1.00114.30 O
ATOM	7753	N	GLU B 353	201.913	207.730	166.972	1.00118.37 N
ATOM	7754	CA	GLU B 353	201.940	207.737	165.518	1.00118.37 C
ATOM	7755	C	GLU B 353	200.930	206.769	164.911	1.00118.37 C
ATOM	7756	O	GLU B 353	201.025	206.452	163.721	1.00118.37 O
ATOM	7757	CB	GLU B 353	203.348	207.416	165.011	1.00118.37 C
ATOM	7758	CG	GLU B 353	203.806	205.994	165.283	1.00118.37 C
ATOM	7759	CD	GLU B 353	204.428	205.836	166.655	1.00118.37 C
ATOM	7760	OE1	GLU B 353	204.233	206.731	167.504	1.00118.37 O
ATOM	7761	OE2	GLU B 353	205.113	204.818	166.884	1.00118.37 O
ATOM	7762	N	ARG B 354	199.966	206.298	165.703	1.00112.09 N
ATOM	7763	CA	ARG B 354	198.945	205.377	165.206	1.00112.09 C
ATOM	7764	C	ARG B 354	197.706	205.546	166.080	1.00112.09 C
ATOM	7765	O	ARG B 354	197.655	205.020	167.196	1.00112.09 O
ATOM	7766	CB	ARG B 354	199.448	203.941	165.219	1.00112.09 C
ATOM	7767	CG	ARG B 354	198.418	202.925	164.753	1.00112.09 C
ATOM	7768	CD	ARG B 354	198.078	203.118	163.284	1.00112.09 C
ATOM	7769	NE	ARG B 354	199.215	202.821	162.420	1.00112.09 N
ATOM	7770	CZ	ARG B 354	199.280	203.145	161.133	1.00112.09 C

ATOM	7771	NH1	ARG	B	354	198.271	203.782	160.556	1.00112.09	N
ATOM	7772	NH2	ARG	B	354	200.355	202.833	160.423	1.00112.09	N
ATOM	7773	N	THR	B	355	196.720	206.279	165.569	1.00102.38	N
ATOM	7774	CA	THR	B	355	195.453	206.483	166.254	1.00102.38	C
ATOM	7775	C	THR	B	355	194.333	206.426	165.223	1.00102.38	C
ATOM	7776	O	THR	B	355	194.561	206.142	164.044	1.00102.38	O
ATOM	7777	CB	THR	B	355	195.430	207.812	167.015	1.00102.38	C
ATOM	7778	OG1	THR	B	355	195.600	208.894	166.093	1.00102.38	O
ATOM	7779	CG2	THR	B	355	196.541	207.855	168.056	1.00102.38	C
ATOM	7780	N	ILE	B	356	193.111	206.698	165.674	1.00 95.23	N
ATOM	7781	CA	ILE	B	356	191.927	206.657	164.823	1.00 95.23	C
ATOM	7782	C	ILE	B	356	191.025	207.817	165.212	1.00 95.23	C
ATOM	7783	O	ILE	B	356	190.652	207.951	166.383	1.00 95.23	O
ATOM	7784	CB	ILE	B	356	191.165	205.327	164.942	1.00 95.23	C
ATOM	7785	CG1	ILE	B	356	191.991	204.178	164.361	1.00 95.23	C
ATOM	7786	CG2	ILE	B	356	189.814	205.432	164.266	1.00 95.23	C
ATOM	7787	CD1	ILE	B	356	192.883	203.494	165.366	1.00 95.23	C
ATOM	7788	N	ARG	B	357	190.670	208.651	164.239	1.00 98.49	N
ATOM	7789	CA	ARG	B	357	189.914	209.877	164.485	1.00 98.49	C
ATOM	7790	C	ARG	B	357	188.482	209.656	164.006	1.00 98.49	C
ATOM	7791	O	ARG	B	357	188.130	209.981	162.872	1.00 98.49	O
ATOM	7792	CB	ARG	B	357	190.574	211.050	163.773	1.00 98.49	C
ATOM	7793	CG	ARG	B	357	190.013	212.410	164.116	1.00 98.49	C
ATOM	7794	CD	ARG	B	357	188.859	212.809	163.224	1.00 98.49	C
ATOM	7795	NE	ARG	B	357	188.528	214.216	163.399	1.00 98.49	N
ATOM	7796	CZ	ARG	B	357	188.895	215.183	162.564	1.00 98.49	C
ATOM	7797	NH1	ARG	B	357	188.564	216.442	162.816	1.00 98.49	N
ATOM	7798	NH2	ARG	B	357	189.550	214.882	161.450	1.00 98.49	N
ATOM	7799	N	SER	B	358	187.651	209.094	164.877	1.00102.28	N
ATOM	7800	CA	SER	B	358	186.259	208.864	164.529	1.00102.28	C
ATOM	7801	C	SER	B	358	185.437	210.137	164.722	1.00102.28	C
ATOM	7802	O	SER	B	358	185.929	211.165	165.192	1.00102.28	O
ATOM	7803	CB	SER	B	358	185.680	207.722	165.360	1.00102.28	C
ATOM	7804	OG	SER	B	358	185.624	208.071	166.729	1.00102.28	O
ATOM	7805	N	GLU	B	359	184.156	210.055	164.353	1.00106.74	N
ATOM	7806	CA	GLU	B	359	183.267	211.215	164.426	1.00106.74	C
ATOM	7807	C	GLU	B	359	181.832	210.689	164.461	1.00106.74	C

ATOM	7808	O	GLU B 359	181.333	210.203	163.442	1.00106.74 O
ATOM	7809	CB	GLU B 359	183.495	212.142	163.243	1.00106.74 C
ATOM	7810	CG	GLU B 359	182.787	213.482	163.332	1.00106.74 C
ATOM	7811	CD	GLU B 359	181.363	213.435	162.819	1.00106.74 C
ATOM	7812	OE1	GLU B 359	181.075	212.595	161.941	1.00106.74 O
ATOM	7813	OE2	GLU B 359	180.533	214.238	163.293	1.00106.74 O
ATOM	7814	N	ALA B 360	181.181	210.782	165.623	1.00112.26 N
ATOM	7815	CA	ALA B 360	179.817	210.262	165.704	1.00112.26 C
ATOM	7816	C	ALA B 360	178.785	211.284	165.231	1.00112.26 C
ATOM	7817	O	ALA B 360	178.242	211.166	164.129	1.00112.26 O
ATOM	7818	CB	ALA B 360	179.520	209.813	167.139	1.00112.26 C
ATOM	7819	N	GLU B 361	178.505	212.304	166.045	1.00112.92 N
ATOM	7820	CA	GLU B 361	177.668	213.408	165.586	1.00112.92 C
ATOM	7821	C	GLU B 361	178.275	214.772	165.883	1.00112.92 C
ATOM	7822	O	GLU B 361	178.389	215.625	164.996	1.00112.92 O
ATOM	7823	CB	GLU B 361	176.273	213.322	166.208	1.00112.92 C
ATOM	7824	CG	GLU B 361	175.330	214.421	165.734	1.00112.92 C
ATOM	7825	CD	GLU B 361	175.063	214.355	164.241	1.00112.92 C
ATOM	7826	OE1	GLU B 361	175.185	213.256	163.662	1.00112.92 O
ATOM	7827	OE2	GLU B 361	174.734	215.402	163.646	1.00112.92 O
ATOM	7828	N	ASP B 362	178.668	214.977	167.142	1.00111.78 N
ATOM	7829	CA	ASP B 362	178.959	216.310	167.652	1.00111.78 C
ATOM	7830	C	ASP B 362	180.198	216.312	168.539	1.00111.78 C
ATOM	7831	O	ASP B 362	180.438	217.298	169.248	1.00111.78 O
ATOM	7832	CB	ASP B 362	177.746	216.844	168.434	1.00111.78 C
ATOM	7833	CG	ASP B 362	177.779	218.349	168.628	1.00111.78 C
ATOM	7834	OD1	ASP B 362	178.708	219.000	168.110	1.00111.78 O
ATOM	7835	OD2	ASP B 362	176.879	218.880	169.311	1.00111.78 O
ATOM	7836	N	SER B 363	180.982	215.239	168.533	1.00107.62 N
ATOM	7837	CA	SER B 363	182.163	215.146	169.384	1.00107.62 C
ATOM	7838	C	SER B 363	183.065	214.064	168.817	1.00107.62 C
ATOM	7839	O	SER B 363	182.674	212.893	168.780	1.00107.62 O
ATOM	7840	CB	SER B 363	181.766	214.830	170.823	1.00107.62 C
ATOM	7841	OG	SER B 363	181.176	213.546	170.920	1.00107.62 O
ATOM	7842	N	TYR B 364	184.264	214.447	168.377	1.00102.19 N
ATOM	7843	CA	TYR B 364	185.193	213.492	167.787	1.00102.19 C
ATOM	7844	C	TYR B 364	185.676	212.499	168.834	1.00102.19 C

ATOM	7845	O	TYR B 364	185.363	212.637	170.020	1.00102.19	O
ATOM	7846	CB	TYR B 364	186.391	214.209	167.161	1.00102.19	C
ATOM	7847	CG	TYR B 364	186.045	215.127	166.012	1.00102.19	C
ATOM	7848	CD1	TYR B 364	185.755	214.620	164.755	1.00102.19	C
ATOM	7849	CD2	TYR B 364	186.034	216.504	166.180	1.00102.19	C
ATOM	7850	CE1	TYR B 364	185.450	215.459	163.699	1.00102.19	C
ATOM	7851	CE2	TYR B 364	185.728	217.351	165.134	1.00102.19	C
ATOM	7852	CZ	TYR B 364	185.436	216.823	163.895	1.00102.19	C
ATOM	7853	OH	TYR B 364	185.130	217.660	162.848	1.00102.19	O
ATOM	7854	N	HIS B 365	186.446	211.502	168.407	1.00101.81	N
ATOM	7855	CA	HIS B 365	187.021	210.520	169.313	1.00101.81	C
ATOM	7856	C	HIS B 365	188.427	210.181	168.850	1.00101.81	C
ATOM	7857	O	HIS B 365	188.727	210.201	167.654	1.00101.81	O
ATOM	7858	CB	HIS B 365	186.180	209.242	169.383	1.00101.81	C
ATOM	7859	CG	HIS B 365	184.811	209.448	169.947	1.00101.81	C
ATOM	7860	ND1	HIS B 365	184.576	209.601	171.296	1.00101.81	N
ATOM	7861	CD2	HIS B 365	183.602	209.528	169.343	1.00101.81	C
ATOM	7862	CE1	HIS B 365	183.281	209.762	171.499	1.00101.81	C
ATOM	7863	NE2	HIS B 365	182.667	209.723	170.330	1.00101.81	N
ATOM	7864	N	PHE B 366	189.287	209.856	169.813	1.00 96.03	N
ATOM	7865	CA	PHE B 366	190.687	209.532	169.549	1.00 96.03	C
ATOM	7866	C	PHE B 366	190.960	208.172	170.180	1.00 96.03	C
ATOM	7867	O	PHE B 366	191.419	208.088	171.321	1.00 96.03	O
ATOM	7868	CB	PHE B 366	191.602	210.612	170.099	1.00 96.03	C
ATOM	7869	CG	PHE B 366	191.421	211.944	169.439	1.00 96.03	C
ATOM	7870	CD1	PHE B 366	192.039	212.225	168.236	1.00 96.03	C
ATOM	7871	CD2	PHE B 366	190.618	212.912	170.015	1.00 96.03	C
ATOM	7872	CE1	PHE B 366	191.869	213.449	167.626	1.00 96.03	C
ATOM	7873	CE2	PHE B 366	190.445	214.138	169.408	1.00 96.03	C
ATOM	7874	CZ	PHE B 366	191.071	214.406	168.213	1.00 96.03	C
ATOM	7875	N	SER B 367	190.678	207.108	169.430	1.00 96.38	N
ATOM	7876	CA	SER B 367	190.845	205.742	169.923	1.00 96.38	C
ATOM	7877	C	SER B 367	192.298	205.326	169.724	1.00 96.38	C
ATOM	7878	O	SER B 367	192.656	204.612	168.786	1.00 96.38	O
ATOM	7879	CB	SER B 367	189.884	204.797	169.215	1.00 96.38	C
ATOM	7880	OG	SER B 367	190.196	204.699	167.837	1.00 96.38	O
ATOM	7881	N	SER B 368	193.150	205.796	170.632	1.00107.48	N

ATOM	7882	CA	SER B 368	194.561	205.443	170.584	1.00107.48 C
ATOM	7883	C	SER B 368	194.739	203.938	170.746	1.00107.48 C
ATOM	7884	O	SER B 368	193.980	203.270	171.454	1.00107.48 O
ATOM	7885	CB	SER B 368	195.334	206.189	171.672	1.00107.48 C
ATOM	7886	OG	SER B 368	194.909	205.790	172.964	1.00107.48 O
ATOM	7887	N	ALA B 369	195.759	203.403	170.078	1.00108.68 N
ATOM	7888	CA	ALA B 369	196.019	201.970	170.057	1.00108.68 C
ATOM	7889	C	ALA B 369	197.263	201.586	170.840	1.00108.68 C
ATOM	7890	O	ALA B 369	197.199	200.720	171.718	1.00108.68 O
ATOM	7891	CB	ALA B 369	196.148	201.482	168.607	1.00108.68 C
ATOM	7892	N	LYS B 370	198.402	202.212	170.541	1.00116.17 N
ATOM	7893	CA	LYS B 370	199.623	201.908	171.278	1.00116.17 C
ATOM	7894	C	LYS B 370	199.503	202.328	172.737	1.00116.17 C
ATOM	7895	O	LYS B 370	200.169	201.755	173.607	1.00116.17 O
ATOM	7896	CB	LYS B 370	200.813	202.587	170.602	1.00116.17 C
ATOM	7897	CG	LYS B 370	201.088	202.038	169.209	1.00116.17 C
ATOM	7898	CD	LYS B 370	202.264	202.720	168.532	1.00116.17 C
ATOM	7899	CE	LYS B 370	202.467	202.166	167.129	1.00116.17 C
ATOM	7900	NZ	LYS B 370	203.588	202.825	166.408	1.00116.17 N
ATOM	7901	N	MET B 371	198.669	203.324	173.019	1.00116.26 N
ATOM	7902	CA	MET B 371	198.279	203.672	174.375	1.00116.26 C
ATOM	7903	C	MET B 371	196.970	202.966	174.724	1.00116.26 C
ATOM	7904	O	MET B 371	196.506	202.073	174.011	1.00116.26 O
ATOM	7905	CB	MET B 371	198.152	205.186	174.521	1.00116.26 C
ATOM	7906	CG	MET B 371	199.461	205.927	174.414	1.00116.26 C
ATOM	7907	SD	MET B 371	200.611	205.438	175.711	1.00116.26 S
ATOM	7908	CE	MET B 371	199.794	206.117	177.154	1.00116.26 C
ATOM	7909	N	THR B 372	196.361	203.369	175.834	1.00109.56 N
ATOM	7910	CA	THR B 372	195.040	202.906	176.242	1.00109.56 C
ATOM	7911	C	THR B 372	194.146	204.100	176.542	1.00109.56 C
ATOM	7912	O	THR B 372	193.440	204.149	177.551	1.00109.56 O
ATOM	7913	CB	THR B 372	195.133	201.983	177.451	1.00109.56 C
ATOM	7914	OG1	THR B 372	195.712	202.694	178.552	1.00109.56 O
ATOM	7915	CG2	THR B 372	195.993	200.773	177.127	1.00109.56 C
ATOM	7916	N	ALA B 373	194.171	205.088	175.653	1.00102.47 N
ATOM	7917	CA	ALA B 373	193.483	206.353	175.860	1.00102.47 C
ATOM	7918	C	ALA B 373	192.288	206.479	174.926	1.00102.47 C

ATOM	7919	O	ALA B 373	192.336	206.041	173.773	1.00102.47	O
ATOM	7920	CB	ALA B 373	194.434	207.533	175.644	1.00102.47	C
ATOM	7921	N	THR B 374	191.219	207.084	175.437	1.00 97.23	N
ATOM	7922	CA	THR B 374	190.031	207.403	174.653	1.00 97.23	C
ATOM	7923	C	THR B 374	189.554	208.781	175.084	1.00 97.23	C
ATOM	7924	O	THR B 374	189.210	208.981	176.252	1.00 97.23	O
ATOM	7925	CB	THR B 374	188.929	206.357	174.850	1.00 97.23	C
ATOM	7926	OG1	THR B 374	188.553	206.309	176.231	1.00 97.23	O
ATOM	7927	CG2	THR B 374	189.415	204.983	174.415	1.00 97.23	C
ATOM	7928	N	PHE B 375	189.534	209.723	174.148	1.00 95.93	N
ATOM	7929	CA	PHE B 375	189.366	211.138	174.450	1.00 95.93	C
ATOM	7930	C	PHE B 375	188.054	211.644	173.852	1.00 95.93	C
ATOM	7931	O	PHE B 375	187.229	210.870	173.360	1.00 95.93	O
ATOM	7932	CB	PHE B 375	190.565	211.934	173.929	1.00 95.93	C
ATOM	7933	CG	PHE B 375	191.858	211.624	174.632	1.00 95.93	C
ATOM	7934	CD1	PHE B 375	191.865	210.988	175.862	1.00 95.93	C
ATOM	7935	CD2	PHE B 375	193.069	211.959	174.054	1.00 95.93	C
ATOM	7936	CE1	PHE B 375	193.053	210.699	176.502	1.00 95.93	C
ATOM	7937	CE2	PHE B 375	194.259	211.673	174.691	1.00 95.93	C
ATOM	7938	CZ	PHE B 375	194.251	211.042	175.916	1.00 95.93	C
ATOM	7939	N	LEU B 376	187.859	212.962	173.907	1.00100.30	N
ATOM	7940	CA	LEU B 376	186.638	213.563	173.386	1.00100.30	C
ATOM	7941	C	LEU B 376	186.773	215.076	173.254	1.00100.30	C
ATOM	7942	O	LEU B 376	187.195	215.751	174.198	1.00100.30	O
ATOM	7943	CB	LEU B 376	185.456	213.216	174.291	1.00100.30	C
ATOM	7944	CG	LEU B 376	184.073	213.648	173.809	1.00100.30	C
ATOM	7945	CD1	LEU B 376	183.717	212.900	172.543	1.00100.30	C
ATOM	7946	CD2	LEU B 376	183.029	213.416	174.887	1.00100.30	C
ATOM	7947	N	SER B 377	186.416	215.616	172.093	1.00103.33	N
ATOM	7948	CA	SER B 377	186.402	217.052	171.841	1.00103.33	C
ATOM	7949	C	SER B 377	185.008	217.465	171.373	1.00103.33	C
ATOM	7950	O	SER B 377	184.099	216.640	171.265	1.00103.33	O
ATOM	7951	CB	SER B 377	187.470	217.442	170.817	1.00103.33	C
ATOM	7952	OG	SER B 377	187.449	218.836	170.571	1.00103.33	O
ATOM	7953	N	LYS B 378	184.838	218.754	171.087	1.00104.03	N
ATOM	7954	CA	LYS B 378	183.511	219.331	170.879	1.00104.03	C
ATOM	7955	C	LYS B 378	183.436	220.100	169.562	1.00104.03	C

ATOM	7956	O	LYS B 378	182.943	221.227	169.500	1.00104.03 O
ATOM	7957	CB	LYS B 378	183.124	220.236	172.046	1.00104.03 C
ATOM	7958	CG	LYS B 378	182.340	219.542	173.156	1.00104.03 C
ATOM	7959	CD	LYS B 378	183.153	218.446	173.824	1.00104.03 C
ATOM	7960	CE	LYS B 378	182.321	217.664	174.824	1.00104.03 C
ATOM	7961	NZ	LYS B 378	181.822	218.535	175.922	1.00104.03 N
ATOM	7962	N	LYS B 379	183.937	219.497	168.485	1.00108.21 N
ATOM	7963	CA	LYS B 379	183.744	219.937	167.103	1.00108.21 C
ATOM	7964	C	LYS B 379	184.450	221.239	166.749	1.00108.21 C
ATOM	7965	O	LYS B 379	184.425	221.631	165.576	1.00108.21 O
ATOM	7966	CB	LYS B 379	182.261	220.128	166.753	1.00108.21 C
ATOM	7967	CG	LYS B 379	181.399	218.907	166.943	1.00108.21 C
ATOM	7968	CD	LYS B 379	181.684	217.843	165.911	1.00108.21 C
ATOM	7969	CE	LYS B 379	182.691	216.846	166.442	1.00108.21 C
ATOM	7970	NZ	LYS B 379	182.855	215.702	165.515	1.00108.21 N
ATOM	7971	N	GLN B 380	185.077	221.923	167.702	1.00100.83 N
ATOM	7972	CA	GLN B 380	185.594	223.267	167.475	1.00100.83 C
ATOM	7973	C	GLN B 380	187.068	223.298	167.837	1.00100.83 C
ATOM	7974	O	GLN B 380	187.437	222.993	168.975	1.00100.83 O
ATOM	7975	CB	GLN B 380	184.811	224.298	168.292	1.00100.83 C
ATOM	7976	CG	GLN B 380	183.360	224.440	167.855	1.00100.83 C
ATOM	7977	CD	GLN B 380	182.578	225.418	168.710	1.00100.83 C
ATOM	7978	OE1	GLN B 380	183.090	225.950	169.694	1.00100.83 O
ATOM	7979	NE2	GLN B 380	181.328	225.658	168.335	1.00100.83 N
ATOM	7980	N	GLU B 381	187.904	223.663	166.869	1.00103.85 N
ATOM	7981	CA	GLU B 381	189.334	223.745	167.109	1.00103.85 C
ATOM	7982	C	GLU B 381	189.638	224.833	168.133	1.00103.85 C
ATOM	7983	O	GLU B 381	188.802	225.683	168.446	1.00103.85 O
ATOM	7984	CB	GLU B 381	190.081	224.030	165.808	1.00103.85 C
ATOM	7985	CG	GLU B 381	190.015	222.902	164.797	1.00103.85 C
ATOM	7986	CD	GLU B 381	190.735	223.237	163.508	1.00103.85 C
ATOM	7987	OE1	GLU B 381	191.180	224.395	163.362	1.00103.85 O
ATOM	7988	OE2	GLU B 381	190.855	222.344	162.643	1.00103.85 O
ATOM	7989	N	VAL B 382	190.858	224.801	168.652	1.00 97.86 N
ATOM	7990	CA	VAL B 382	191.294	225.763	169.654	1.00 97.86 C
ATOM	7991	C	VAL B 382	191.905	226.965	168.949	1.00 97.86 C
ATOM	7992	O	VAL B 382	192.750	226.814	168.059	1.00 97.86 O

ATOM	7993	CB	VAL	B	382	192.291	225.125	170.635	1.00	97.86	C
ATOM	7994	CG1	VAL	B	382	192.817	226.166	171.602	1.00	97.86	C
ATOM	7995	CG2	VAL	B	382	191.634	223.976	171.382	1.00	97.86	C
ATOM	7996	N	ASN	B	383	191.453	228.156	169.333	1.00	102.57	N
ATOM	7997	CA	ASN	B	383	191.956	229.406	168.776	1.00	102.57	C
ATOM	7998	C	ASN	B	383	193.467	229.491	168.955	1.00	102.57	C
ATOM	7999	O	ASN	B	383	193.975	229.366	170.074	1.00	102.57	O
ATOM	8000	CB	ASN	B	383	191.274	230.572	169.483	1.00	102.57	C
ATOM	8001	CG	ASN	B	383	191.139	231.806	168.615	1.00	102.57	C
ATOM	8002	OD1	ASN	B	383	190.387	232.708	168.979	1.00	102.57	O
ATOM	8003	ND2	ASN	B	383	191.848	231.843	167.466	1.00	102.57	N
ATOM	8004	N	MET	B	384	194.190	229.705	167.858	1.00	102.17	N
ATOM	8005	CA	MET	B	384	195.648	229.729	167.899	1.00	102.17	C
ATOM	8006	C	MET	B	384	196.220	231.087	168.282	1.00	102.17	C
ATOM	8007	O	MET	B	384	197.429	231.292	168.126	1.00	102.17	O
ATOM	8008	CB	MET	B	384	196.222	229.297	166.550	1.00	102.17	C
ATOM	8009	CG	MET	B	384	195.951	227.851	166.210	1.00	102.17	C
ATOM	8010	SD	MET	B	384	196.661	226.724	167.423	1.00	102.17	S
ATOM	8011	CE	MET	B	384	198.411	226.953	167.118	1.00	102.17	C
ATOM	8012	N	SER	B	385	195.397	232.013	168.767	1.00	109.91	N
ATOM	8013	CA	SER	B	385	195.852	233.330	169.203	1.00	109.91	C
ATOM	8014	C	SER	B	385	195.875	233.436	170.725	1.00	109.91	C
ATOM	8015	O	SER	B	385	195.584	234.489	171.295	1.00	109.91	O
ATOM	8016	CB	SER	B	385	194.980	234.433	168.607	1.00	109.91	C
ATOM	8017	OG	SER	B	385	193.653	234.375	169.103	1.00	109.91	O
ATOM	8018	N	ASP	B	386	196.224	232.343	171.398	1.00	116.16	N
ATOM	8019	CA	ASP	B	386	196.296	232.299	172.852	1.00	116.16	C
ATOM	8020	C	ASP	B	386	197.756	232.344	173.283	1.00	116.16	C
ATOM	8021	O	ASP	B	386	198.584	231.585	172.768	1.00	116.16	O
ATOM	8022	CB	ASP	B	386	195.613	231.043	173.396	1.00	116.16	C
ATOM	8023	CG	ASP	B	386	195.511	231.043	174.907	1.00	116.16	C
ATOM	8024	OD1	ASP	B	386	194.684	231.809	175.444	1.00	116.16	O
ATOM	8025	OD2	ASP	B	386	196.249	230.276	175.557	1.00	116.16	O
ATOM	8026	N	SER	B	387	198.065	233.236	174.228	1.00	116.94	N
ATOM	8027	CA	SER	B	387	199.444	233.419	174.664	1.00	116.94	C
ATOM	8028	C	SER	B	387	199.992	232.199	175.392	1.00	116.94	C
ATOM	8029	O	SER	B	387	201.214	232.022	175.439	1.00	116.94	O

ATOM	8030	CB	SER B 387	199.552	234.652	175.563	1.00116.94	C
ATOM	8031	OG	SER B 387	200.880	234.838	176.021	1.00116.94	O
ATOM	8032	N	ALA B 388	199.124	231.356	175.954	1.00118.41	N
ATOM	8033	CA	ALA B 388	199.580	230.159	176.650	1.00118.41	C
ATOM	8034	C	ALA B 388	200.141	229.103	175.707	1.00118.41	C
ATOM	8035	O	ALA B 388	200.712	228.116	176.183	1.00118.41	O
ATOM	8036	CB	ALA B 388	198.438	229.561	177.472	1.00118.41	C
ATOM	8037	N	LEU B 389	199.992	229.281	174.396	1.00118.27	N
ATOM	8038	CA	LEU B 389	200.508	228.333	173.420	1.00118.27	C
ATOM	8039	C	LEU B 389	201.924	228.656	172.964	1.00118.27	C
ATOM	8040	O	LEU B 389	202.537	227.828	172.282	1.00118.27	O
ATOM	8041	CB	LEU B 389	199.585	228.281	172.199	1.00118.27	C
ATOM	8042	CG	LEU B 389	198.173	227.743	172.435	1.00118.27	C
ATOM	8043	CD1	LEU B 389	197.333	227.893	171.177	1.00118.27	C
ATOM	8044	CD2	LEU B 389	198.216	226.292	172.883	1.00118.27	C
ATOM	8045	N	ASP B 390	202.449	229.832	173.319	1.00118.81	N
ATOM	8046	CA	ASP B 390	203.788	230.221	172.883	1.00118.81	C
ATOM	8047	C	ASP B 390	204.833	229.224	173.364	1.00118.81	C
ATOM	8048	O	ASP B 390	205.706	228.802	172.599	1.00118.81	O
ATOM	8049	CB	ASP B 390	204.113	231.626	173.389	1.00118.81	C
ATOM	8050	CG	ASP B 390	203.270	232.694	172.724	1.00118.81	C
ATOM	8051	OD1	ASP B 390	202.867	232.495	171.559	1.00118.81	O
ATOM	8052	OD2	ASP B 390	203.009	233.732	173.367	1.00118.81	O
ATOM	8053	N	CYS B 391	204.757	228.835	174.633	1.00123.70	N
ATOM	8054	CA	CYS B 391	205.636	227.812	175.180	1.00123.70	C
ATOM	8055	C	CYS B 391	205.224	226.401	174.782	1.00123.70	C
ATOM	8056	O	CYS B 391	205.863	225.441	175.225	1.00123.70	O
ATOM	8057	CB	CYS B 391	205.679	227.927	176.705	1.00123.70	C
ATOM	8058	SG	CYS B 391	204.082	227.667	177.502	1.00123.70	S
ATOM	8059	N	VAL B 392	204.184	226.252	173.967	1.00117.77	N
ATOM	8060	CA	VAL B 392	203.644	224.951	173.596	1.00117.77	C
ATOM	8061	C	VAL B 392	203.634	224.760	172.083	1.00117.77	C
ATOM	8062	O	VAL B 392	204.065	223.723	171.578	1.00117.77	O
ATOM	8063	CB	VAL B 392	202.230	224.756	174.187	1.00117.77	C
ATOM	8064	CG1	VAL B 392	201.647	223.427	173.738	1.00117.77	C
ATOM	8065	CG2	VAL B 392	202.269	224.851	175.705	1.00117.77	C
ATOM	8066	N	ARG B 393	203.138	225.755	171.342	1.00114.39	N

ATOM	8067	CA	ARG B 393	202.956	225.585	169.903	1.00114.39	C
ATOM	8068	C	ARG B 393	204.284	225.455	169.170	1.00114.39	C
ATOM	8069	O	ARG B 393	204.362	224.744	168.162	1.00114.39	O
ATOM	8070	CB	ARG B 393	202.148	226.747	169.326	1.00114.39	C
ATOM	8071	CG	ARG B 393	202.865	228.084	169.351	1.00114.39	C
ATOM	8072	CD	ARG B 393	201.990	229.184	168.782	1.00114.39	C
ATOM	8073	NE	ARG B 393	201.736	228.991	167.358	1.00114.39	N
ATOM	8074	CZ	ARG B 393	202.567	229.378	166.396	1.00114.39	C
ATOM	8075	NH1	ARG B 393	202.259	229.164	165.124	1.00114.39	N
ATOM	8076	NH2	ARG B 393	203.708	229.977	166.706	1.00114.39	N
ATOM	8077	N	ASP B 394	205.330	226.137	169.643	1.00116.17	N
ATOM	8078	CA	ASP B 394	206.630	226.023	168.990	1.00116.17	C
ATOM	8079	C	ASP B 394	207.156	224.597	169.043	1.00116.17	C
ATOM	8080	O	ASP B 394	207.828	224.148	168.107	1.00116.17	O
ATOM	8081	CB	ASP B 394	207.627	226.989	169.627	1.00116.17	C
ATOM	8082	CG	ASP B 394	207.321	228.437	169.301	1.00116.17	C
ATOM	8083	OD1	ASP B 394	206.736	228.691	168.227	1.00116.17	O
ATOM	8084	OD2	ASP B 394	207.670	229.321	170.112	1.00116.17	O
ATOM	8085	N	GLU B 395	206.861	223.870	170.117	1.00117.91	N
ATOM	8086	CA	GLU B 395	207.150	222.446	170.182	1.00117.91	C
ATOM	8087	C	GLU B 395	206.055	221.604	169.541	1.00117.91	C
ATOM	8088	O	GLU B 395	206.277	220.417	169.277	1.00117.91	O
ATOM	8089	CB	GLU B 395	207.358	222.018	171.639	1.00117.91	C
ATOM	8090	CG	GLU B 395	207.727	220.558	171.815	1.00117.91	C
ATOM	8091	CD	GLU B 395	209.032	220.208	171.134	1.00117.91	C
ATOM	8092	OE1	GLU B 395	209.867	221.117	170.944	1.00117.91	O
ATOM	8093	OE2	GLU B 395	209.223	219.024	170.788	1.00117.91	O
ATOM	8094	N	ALA B 396	204.889	222.197	169.275	1.00116.72	N
ATOM	8095	CA	ALA B 396	203.811	221.466	168.617	1.00116.72	C
ATOM	8096	C	ALA B 396	204.224	221.005	167.225	1.00116.72	C
ATOM	8097	O	ALA B 396	203.820	219.927	166.774	1.00116.72	O
ATOM	8098	CB	ALA B 396	202.560	222.340	168.543	1.00116.72	C
ATOM	8099	N	ILE B 397	205.028	221.810	166.530	1.00116.55	N
ATOM	8100	CA	ILE B 397	205.467	221.455	165.186	1.00116.55	C
ATOM	8101	C	ILE B 397	206.670	220.519	165.205	1.00116.55	C
ATOM	8102	O	ILE B 397	206.921	219.818	164.215	1.00116.55	O
ATOM	8103	CB	ILE B 397	205.783	222.733	164.390	1.00116.55	C

ATOM	8104	CG1	ILE	B	397	204.538	223.614	164.289	1.00	116.55	C
ATOM	8105	CG2	ILE	B	397	206.293	222.401	162.997	1.00	116.55	C
ATOM	8106	CD1	ILE	B	397	204.814	224.996	163.745	1.00	116.55	C
ATOM	8107	N	ASN	B	398	207.410	220.469	166.313	1.00	117.87	N
ATOM	8108	CA	ASN	B	398	208.663	219.720	166.342	1.00	117.87	C
ATOM	8109	C	ASN	B	398	208.419	218.218	166.259	1.00	117.87	C
ATOM	8110	O	ASN	B	398	208.883	217.551	165.327	1.00	117.87	O
ATOM	8111	CB	ASN	B	398	209.447	220.067	167.609	1.00	117.87	C
ATOM	8112	CG	ASN	B	398	209.987	221.484	167.591	1.00	117.87	C
ATOM	8113	OD1	ASN	B	398	210.459	221.968	166.563	1.00	117.87	O
ATOM	8114	ND2	ASN	B	398	209.928	222.154	168.736	1.00	117.87	N
ATOM	8115	N	LYS	B	399	207.686	217.666	167.228	1.00	116.96	N
ATOM	8116	CA	LYS	B	399	207.607	216.214	167.358	1.00	116.96	C
ATOM	8117	C	LYS	B	399	206.825	215.569	166.220	1.00	116.96	C
ATOM	8118	O	LYS	B	399	207.175	214.467	165.782	1.00	116.96	O
ATOM	8119	CB	LYS	B	399	206.980	215.844	168.701	1.00	116.96	C
ATOM	8120	CG	LYS	B	399	207.838	216.189	169.908	1.00	116.96	C
ATOM	8121	CD	LYS	B	399	207.160	215.754	171.197	1.00	116.96	C
ATOM	8122	CE	LYS	B	399	207.996	216.105	172.415	1.00	116.96	C
ATOM	8123	NZ	LYS	B	399	207.324	215.686	173.676	1.00	116.96	N
ATOM	8124	N	LEU	B	400	205.773	216.228	165.732	1.00	117.03	N
ATOM	8125	CA	LEU	B	400	204.886	215.607	164.751	1.00	117.03	C
ATOM	8126	C	LEU	B	400	205.619	215.306	163.448	1.00	117.03	C
ATOM	8127	O	LEU	B	400	205.609	214.168	162.965	1.00	117.03	O
ATOM	8128	CB	LEU	B	400	203.670	216.501	164.505	1.00	117.03	C
ATOM	8129	CG	LEU	B	400	202.547	216.357	165.534	1.00	117.03	C
ATOM	8130	CD1	LEU	B	400	202.969	216.906	166.885	1.00	117.03	C
ATOM	8131	CD2	LEU	B	400	201.282	217.046	165.049	1.00	117.03	C
ATOM	8132	N	GLN	B	401	206.255	216.321	162.856	1.00	117.37	N
ATOM	8133	CA	GLN	B	401	207.095	216.072	161.687	1.00	117.37	C
ATOM	8134	C	GLN	B	401	208.215	215.093	162.012	1.00	117.37	C
ATOM	8135	O	GLN	B	401	208.640	214.323	161.144	1.00	117.37	O
ATOM	8136	CB	GLN	B	401	207.668	217.386	161.159	1.00	117.37	C
ATOM	8137	CG	GLN	B	401	206.623	218.330	160.592	1.00	117.37	C
ATOM	8138	CD	GLN	B	401	207.220	219.629	160.089	1.00	117.37	C
ATOM	8139	OE1	GLN	B	401	208.423	219.858	160.208	1.00	117.37	O
ATOM	8140	NE2	GLN	B	401	206.380	220.489	159.526	1.00	117.37	N

ATOM	8141	N	GLN B 402	208.701	215.110	163.254	1.00119.60	N
ATOM	8142	CA	GLN B 402	209.633	214.085	163.706	1.00119.60	C
ATOM	8143	C	GLN B 402	208.960	212.719	163.744	1.00119.60	C
ATOM	8144	O	GLN B 402	209.525	211.722	163.280	1.00119.60	O
ATOM	8145	CB	GLN B 402	210.180	214.458	165.083	1.00119.60	C
ATOM	8146	CG	GLN B 402	211.218	213.502	165.634	1.00119.60	C
ATOM	8147	CD	GLN B 402	211.744	213.948	166.983	1.00119.60	C
ATOM	8148	OE1	GLN B 402	211.306	214.961	167.527	1.00119.60	O
ATOM	8149	NE2	GLN B 402	212.687	213.191	167.532	1.00119.60	N
ATOM	8150	N	ILE B 403	207.746	212.655	164.297	1.00122.40	N
ATOM	8151	CA	ILE B 403	207.031	211.386	164.365	1.00122.40	C
ATOM	8152	C	ILE B 403	206.451	211.013	163.008	1.00122.40	C
ATOM	8153	O	ILE B 403	206.394	209.829	162.656	1.00122.40	O
ATOM	8154	CB	ILE B 403	205.939	211.443	165.448	1.00122.40	C
ATOM	8155	CG1	ILE B 403	206.563	211.703	166.819	1.00122.40	C
ATOM	8156	CG2	ILE B 403	205.148	210.150	165.469	1.00122.40	C
ATOM	8157	CD1	ILE B 403	207.522	210.621	167.262	1.00122.40	C
ATOM	8158	N	PHE B 404	206.004	212.001	162.228	1.00125.37	N
ATOM	8159	CA	PHE B 404	205.566	211.721	160.864	1.00125.37	C
ATOM	8160	C	PHE B 404	206.709	211.154	160.035	1.00125.37	C
ATOM	8161	O	PHE B 404	206.552	210.141	159.343	1.00125.37	O
ATOM	8162	CB	PHE B 404	205.017	212.987	160.208	1.00125.37	C
ATOM	8163	CG	PHE B 404	204.600	212.789	158.779	1.00125.37	C
ATOM	8164	CD1	PHE B 404	203.404	212.164	158.471	1.00125.37	C
ATOM	8165	CD2	PHE B 404	205.416	213.208	157.743	1.00125.37	C
ATOM	8166	CE1	PHE B 404	203.025	211.975	157.155	1.00125.37	C
ATOM	8167	CE2	PHE B 404	205.043	213.019	156.428	1.00125.37	C
ATOM	8168	CZ	PHE B 404	203.846	212.403	156.134	1.00125.37	C
ATOM	8169	N	ASN B 405	207.868	211.805	160.090	1.00127.09	N
ATOM	8170	CA	ASN B 405	209.040	211.341	159.366	1.00127.09	C
ATOM	8171	C	ASN B 405	209.752	210.207	160.093	1.00127.09	C
ATOM	8172	O	ASN B 405	210.736	209.671	159.572	1.00127.09	O
ATOM	8173	CB	ASN B 405	209.994	212.516	159.132	1.00127.09	C
ATOM	8174	CG	ASN B 405	211.013	212.232	158.054	1.00127.09	C
ATOM	8175	OD1	ASN B 405	210.994	211.162	157.447	1.00127.09	O
ATOM	8176	ND2	ASN B 405	211.907	213.197	157.808	1.00127.09	N
ATOM	8177	N	THR B 406	209.284	209.838	161.287	1.00126.33	N

ATOM	8178	CA	THR B 406	209.794	208.639	161.942	1.00126.33	C
ATOM	8179	C	THR B 406	209.563	207.408	161.075	1.00126.33	C
ATOM	8180	O	THR B 406	210.516	206.761	160.628	1.00126.33	O
ATOM	8181	CB	THR B 406	209.135	208.467	163.313	1.00126.33	C
ATOM	8182	OG1	THR B 406	209.457	209.586	164.148	1.00126.33	O
ATOM	8183	CG2	THR B 406	209.614	207.188	163.980	1.00126.33	C
ATOM	8184	N	SER B 407	208.296	207.087	160.800	1.00130.12	N
ATOM	8185	CA	SER B 407	207.947	205.893	160.042	1.00130.12	C
ATOM	8186	C	SER B 407	207.230	206.176	158.730	1.00130.12	C
ATOM	8187	O	SER B 407	206.735	205.232	158.105	1.00130.12	O
ATOM	8188	CB	SER B 407	207.072	204.957	160.888	1.00130.12	C
ATOM	8189	OG	SER B 407	206.673	203.824	160.136	1.00130.12	O
ATOM	8190	N	TYR B 408	207.147	207.432	158.299	1.00130.90	N
ATOM	8191	CA	TYR B 408	206.457	207.803	157.066	1.00130.90	C
ATOM	8192	C	TYR B 408	207.317	208.836	156.340	1.00130.90	C
ATOM	8193	O	TYR B 408	207.247	210.033	156.628	1.00130.90	O
ATOM	8194	CB	TYR B 408	205.063	208.338	157.361	1.00130.90	C
ATOM	8195	CG	TYR B 408	204.184	207.352	158.090	1.00130.90	C
ATOM	8196	CD1	TYR B 408	203.607	206.275	157.429	1.00130.90	C
ATOM	8197	CD2	TYR B 408	203.912	207.506	159.445	1.00130.90	C
ATOM	8198	CE1	TYR B 408	202.798	205.378	158.098	1.00130.90	C
ATOM	8199	CE2	TYR B 408	203.108	206.611	160.120	1.00130.90	C
ATOM	8200	CZ	TYR B 408	202.558	205.544	159.440	1.00130.90	C
ATOM	8201	OH	TYR B 408	201.755	204.648	160.106	1.00130.90	O
ATOM	8202	N	ASN B 409	208.138	208.362	155.404	1.00133.92	N
ATOM	8203	CA	ASN B 409	209.014	209.251	154.650	1.00133.92	C
ATOM	8204	C	ASN B 409	208.276	209.923	153.494	1.00133.92	C
ATOM	8205	O	ASN B 409	208.105	211.147	153.480	1.00133.92	O
ATOM	8206	CB	ASN B 409	210.235	208.461	154.168	1.00133.92	C
ATOM	8207	CG	ASN B 409	209.858	207.123	153.556	1.00133.92	C
ATOM	8208	OD1	ASN B 409	208.675	206.820	153.389	1.00133.92	O
ATOM	8209	ND2	ASN B 409	210.856	206.311	153.237	1.00133.92	N
ATOM	8210	N	GLN B 410	207.835	209.138	152.513	1.00132.33	N
ATOM	8211	CA	GLN B 410	206.939	209.666	151.491	1.00132.33	C
ATOM	8212	C	GLN B 410	205.854	208.666	151.110	1.00132.33	C
ATOM	8213	O	GLN B 410	205.107	208.934	150.159	1.00132.33	O
ATOM	8214	CB	GLN B 410	207.725	210.097	150.243	1.00132.33	C

ATOM	8215	CG	GLN B 410	208.391	208.964	149.488	1.00132.33	C
ATOM	8216	CD	GLN B 410	209.779	208.658	150.011	1.00132.33	C
ATOM	8217	OE1	GLN B 410	210.137	209.050	151.121	1.00132.33	O
ATOM	8218	NE2	GLN B 410	210.576	207.968	149.204	1.00132.33	N
ATOM	8219	N	THR B 411	205.746	207.528	151.798	1.00128.80	N
ATOM	8220	CA	THR B 411	204.667	206.587	151.523	1.00128.80	C
ATOM	8221	C	THR B 411	203.313	207.244	151.747	1.00128.80	C
ATOM	8222	O	THR B 411	202.530	207.418	150.807	1.00128.80	O
ATOM	8223	CB	THR B 411	204.818	205.341	152.398	1.00128.80	C
ATOM	8224	OG1	THR B 411	204.752	205.714	153.780	1.00128.80	O
ATOM	8225	CG2	THR B 411	206.149	204.656	152.123	1.00128.80	C
ATOM	8226	N	TYR B 412	203.025	207.635	152.988	1.00119.64	N
ATOM	8227	CA	TYR B 412	201.833	208.424	153.261	1.00119.64	C
ATOM	8228	C	TYR B 412	202.124	209.900	153.029	1.00119.64	C
ATOM	8229	O	TYR B 412	203.195	210.403	153.379	1.00119.64	O
ATOM	8230	CB	TYR B 412	201.337	208.239	154.697	1.00119.64	C
ATOM	8231	CG	TYR B 412	200.790	206.875	155.053	1.00119.64	C
ATOM	8232	CD1	TYR B 412	200.692	205.865	154.109	1.00119.64	C
ATOM	8233	CD2	TYR B 412	200.321	206.618	156.332	1.00119.64	C
ATOM	8234	CE1	TYR B 412	200.189	204.623	154.447	1.00119.64	C
ATOM	8235	CE2	TYR B 412	199.797	205.386	156.669	1.00119.64	C
ATOM	8236	CZ	TYR B 412	199.732	204.394	155.722	1.00119.64	C
ATOM	8237	OH	TYR B 412	199.218	203.160	156.053	1.00119.64	O
ATOM	8238	N	GLU B 413	201.157	210.593	152.439	1.00119.32	N
ATOM	8239	CA	GLU B 413	201.222	212.033	152.257	1.00119.32	C
ATOM	8240	C	GLU B 413	200.419	212.725	153.347	1.00119.32	C
ATOM	8241	O	GLU B 413	199.359	212.241	153.756	1.00119.32	O
ATOM	8242	CB	GLU B 413	200.691	212.441	150.883	1.00119.32	C
ATOM	8243	CG	GLU B 413	201.552	211.978	149.727	1.00119.32	C
ATOM	8244	CD	GLU B 413	201.007	212.421	148.388	1.00119.32	C
ATOM	8245	OE1	GLU B 413	199.895	212.987	148.355	1.00119.32	O
ATOM	8246	OE2	GLU B 413	201.692	212.204	147.367	1.00119.32	O
ATOM	8247	N	LYS B 414	200.934	213.858	153.816	1.00117.93	N
ATOM	8248	CA	LYS B 414	200.250	214.625	154.844	1.00117.93	C
ATOM	8249	C	LYS B 414	198.899	215.119	154.337	1.00117.93	C
ATOM	8250	O	LYS B 414	198.682	215.308	153.137	1.00117.93	O
ATOM	8251	CB	LYS B 414	201.107	215.813	155.281	1.00117.93	C

ATOM	8252	CG	LYS B 414	202.344	215.436	156.071	1.00117.93 C
ATOM	8253	CD	LYS B 414	203.246	216.641	156.276	1.00117.93 C
ATOM	8254	CE	LYS B 414	202.627	217.653	157.222	1.00117.93 C
ATOM	8255	NZ	LYS B 414	203.563	218.776	157.497	1.00117.93 N
ATOM	8256	N	TYR B 415	197.981	215.331	155.276	1.00115.56 N
ATOM	8257	CA	TYR B 415	196.652	215.843	154.969	1.00115.56 C
ATOM	8258	C	TYR B 415	196.347	217.007	155.895	1.00115.56 C
ATOM	8259	O	TYR B 415	196.314	216.838	157.118	1.00115.56 O
ATOM	8260	CB	TYR B 415	195.585	214.757	155.114	1.00115.56 C
ATOM	8261	CG	TYR B 415	194.189	215.243	154.797	1.00115.56 C
ATOM	8262	CD1	TYR B 415	193.794	215.471	153.485	1.00115.56 C
ATOM	8263	CD2	TYR B 415	193.264	215.466	155.807	1.00115.56 C
ATOM	8264	CE1	TYR B 415	192.520	215.912	153.191	1.00115.56 C
ATOM	8265	CE2	TYR B 415	191.986	215.905	155.521	1.00115.56 C
ATOM	8266	CZ	TYR B 415	191.620	216.127	154.211	1.00115.56 C
ATOM	8267	OH	TYR B 415	190.349	216.564	153.918	1.00115.56 O
ATOM	8268	N	GLY B 416	196.117	218.180	155.314	1.00113.19 N
ATOM	8269	CA	GLY B 416	195.775	219.345	156.102	1.00113.19 C
ATOM	8270	C	GLY B 416	196.890	219.796	157.022	1.00113.19 C
ATOM	8271	O	GLY B 416	198.026	219.326	156.916	1.00113.19 O
ATOM	8272	N	ASN B 417	196.578	220.714	157.924	1.00105.59 N
ATOM	8273	CA	ASN B 417	197.555	221.284	158.831	1.00105.59 C
ATOM	8274	C	ASN B 417	197.326	220.711	160.225	1.00105.59 C
ATOM	8275	O	ASN B 417	196.517	219.799	160.415	1.00105.59 O
ATOM	8276	CB	ASN B 417	197.440	222.804	158.785	1.00105.59 C
ATOM	8277	CG	ASN B 417	197.608	223.341	157.386	1.00105.59 C
ATOM	8278	OD1	ASN B 417	198.545	222.979	156.672	1.00105.59 O
ATOM	8279	ND2	ASN B 417	196.675	224.183	156.971	1.00105.59 N
ATOM	8280	N	VAL B 418	198.040	221.240	161.217	1.00101.40 N
ATOM	8281	CA	VAL B 418	197.784	220.840	162.593	1.00101.40 C
ATOM	8282	C	VAL B 418	196.418	221.358	163.015	1.00101.40 C
ATOM	8283	O	VAL B 418	195.986	222.441	162.597	1.00101.40 O
ATOM	8284	CB	VAL B 418	198.890	221.357	163.528	1.00101.40 C
ATOM	8285	CG1	VAL B 418	198.882	222.874	163.561	1.00101.40 C
ATOM	8286	CG2	VAL B 418	198.709	220.790	164.929	1.00101.40 C
ATOM	8287	N	SER B 419	195.725	220.581	163.841	1.00101.03 N
ATOM	8288	CA	SER B 419	194.409	220.952	164.340	1.00101.03 C

ATOM	8289	C	SER B 419	194.360	220.655	165.828	1.00101.03	C
ATOM	8290	O	SER B 419	194.619	219.524	166.248	1.00101.03	O
ATOM	8291	CB	SER B 419	193.301	220.197	163.599	1.00101.03	C
ATOM	8292	OG	SER B 419	192.018	220.575	164.063	1.00101.03	O
ATOM	8293	N	VAL B 420	194.021	221.667	166.617	1.00 99.15	N
ATOM	8294	CA	VAL B 420	194.050	221.589	168.071	1.00 99.15	C
ATOM	8295	C	VAL B 420	192.627	221.378	168.564	1.00 99.15	C
ATOM	8296	O	VAL B 420	191.720	222.144	168.216	1.00 99.15	O
ATOM	8297	CB	VAL B 420	194.679	222.848	168.682	1.00 99.15	C
ATOM	8298	CG1	VAL B 420	196.157	222.903	168.355	1.00 99.15	C
ATOM	8299	CG2	VAL B 420	194.002	224.075	168.118	1.00 99.15	C
ATOM	8300	N	PHE B 421	192.430	220.333	169.364	1.00 99.10	N
ATOM	8301	CA	PHE B 421	191.123	219.964	169.899	1.00 99.10	C
ATOM	8302	C	PHE B 421	191.224	219.915	171.417	1.00 99.10	C
ATOM	8303	O	PHE B 421	191.859	219.011	171.970	1.00 99.10	O
ATOM	8304	CB	PHE B 421	190.662	218.616	169.348	1.00 99.10	C
ATOM	8305	CG	PHE B 421	190.377	218.622	167.876	1.00 99.10	C
ATOM	8306	CD1	PHE B 421	189.160	219.065	167.393	1.00 99.10	C
ATOM	8307	CD2	PHE B 421	191.328	218.184	166.976	1.00 99.10	C
ATOM	8308	CE1	PHE B 421	188.898	219.068	166.039	1.00 99.10	C
ATOM	8309	CE2	PHE B 421	191.072	218.185	165.622	1.00 99.10	C
ATOM	8310	CZ	PHE B 421	189.856	218.630	165.153	1.00 99.10	C
ATOM	8311	N	GLU B 422	190.606	220.879	172.090	1.00101.00	N
ATOM	8312	CA	GLU B 422	190.576	220.857	173.545	1.00101.00	C
ATOM	8313	C	GLU B 422	189.645	219.752	174.026	1.00101.00	C
ATOM	8314	O	GLU B 422	188.485	219.678	173.611	1.00101.00	O
ATOM	8315	CB	GLU B 422	190.128	222.210	174.092	1.00101.00	C
ATOM	8316	CG	GLU B 422	190.140	222.285	175.609	1.00101.00	C
ATOM	8317	CD	GLU B 422	189.767	223.656	176.132	1.00101.00	C
ATOM	8318	OE1	GLU B 422	189.490	224.553	175.308	1.00101.00	O
ATOM	8319	OE2	GLU B 422	189.749	223.836	177.367	1.00101.00	O
ATOM	8320	N	THR B 423	190.155	218.890	174.900	1.00101.10	N
ATOM	8321	CA	THR B 423	189.391	217.753	175.395	1.00101.10	C
ATOM	8322	C	THR B 423	188.441	218.211	176.500	1.00101.10	C
ATOM	8323	O	THR B 423	188.233	219.406	176.722	1.00101.10	O
ATOM	8324	CB	THR B 423	190.330	216.655	175.882	1.00101.10	C
ATOM	8325	OG1	THR B 423	191.118	217.151	176.971	1.00101.10	O

ATOM	8326	CG2	THR	B	423	191.251	216.208	174.759	1.00	101.10	C
ATOM	8327	N	THR	B	424	187.846	217.250	177.204	1.00	107.30	N
ATOM	8328	CA	THR	B	424	186.946	217.548	178.312	1.00	107.30	C
ATOM	8329	C	THR	B	424	187.707	217.785	179.612	1.00	107.30	C
ATOM	8330	O	THR	B	424	187.423	218.746	180.335	1.00	107.30	O
ATOM	8331	CB	THR	B	424	185.938	216.410	178.497	1.00	107.30	C
ATOM	8332	OG1	THR	B	424	186.635	215.198	178.811	1.00	107.30	O
ATOM	8333	CG2	THR	B	424	185.127	216.207	177.229	1.00	107.30	C
ATOM	8334	N	GLY	B	425	188.671	216.923	179.922	1.00	103.94	N
ATOM	8335	CA	GLY	B	425	189.436	217.052	181.146	1.00	103.94	C
ATOM	8336	C	GLY	B	425	190.638	217.966	181.025	1.00	103.94	C
ATOM	8337	O	GLY	B	425	191.692	217.695	181.606	1.00	103.94	O
ATOM	8338	N	GLY	B	426	190.493	219.056	180.270	1.00	99.07	N
ATOM	8339	CA	GLY	B	426	191.544	220.039	180.124	1.00	99.07	C
ATOM	8340	C	GLY	B	426	192.682	219.654	179.206	1.00	99.07	C
ATOM	8341	O	GLY	B	426	193.480	220.525	178.839	1.00	99.07	O
ATOM	8342	N	LEU	B	427	192.793	218.384	178.822	1.00	97.98	N
ATOM	8343	CA	LEU	B	427	193.886	217.955	177.961	1.00	97.98	C
ATOM	8344	C	LEU	B	427	193.769	218.607	176.589	1.00	97.98	C
ATOM	8345	O	LEU	B	427	192.703	218.587	175.967	1.00	97.98	O
ATOM	8346	CB	LEU	B	427	193.888	216.432	177.824	1.00	97.98	C
ATOM	8347	CG	LEU	B	427	194.419	215.616	179.005	1.00	97.98	C
ATOM	8348	CD1	LEU	B	427	193.432	215.626	180.162	1.00	97.98	C
ATOM	8349	CD2	LEU	B	427	194.726	214.191	178.575	1.00	97.98	C
ATOM	8350	N	VAL	B	428	194.870	219.186	176.121	1.00	97.76	N
ATOM	8351	CA	VAL	B	428	194.920	219.879	174.840	1.00	97.76	C
ATOM	8352	C	VAL	B	428	195.693	219.008	173.860	1.00	97.76	C
ATOM	8353	O	VAL	B	428	196.841	218.631	174.126	1.00	97.76	O
ATOM	8354	CB	VAL	B	428	195.567	221.266	174.979	1.00	97.76	C
ATOM	8355	CG1	VAL	B	428	195.703	221.928	173.620	1.00	97.76	C
ATOM	8356	CG2	VAL	B	428	194.753	222.137	175.920	1.00	97.76	C
ATOM	8357	N	VAL	B	429	195.068	218.682	172.729	1.00	100.16	N
ATOM	8358	CA	VAL	B	429	195.685	217.836	171.718	1.00	100.16	C
ATOM	8359	C	VAL	B	429	195.706	218.576	170.387	1.00	100.16	C
ATOM	8360	O	VAL	B	429	194.992	219.558	170.174	1.00	100.16	O
ATOM	8361	CB	VAL	B	429	194.968	216.481	171.566	1.00	100.16	C
ATOM	8362	CG1	VAL	B	429	195.019	215.706	172.868	1.00	100.16	C

ATOM	8363	CG2	VAL	B	429	193.536 216.687 171.115	1.00100.16	C
ATOM	8364	N	PHE	B	430	196.543 218.077 169.483	1.00107.98	N
ATOM	8365	CA	PHE	B	430	196.717 218.664 168.164	1.00107.98	C
ATOM	8366	C	PHE	B	430	197.372 217.625 167.268	1.00107.98	C
ATOM	8367	O	PHE	B	430	198.135 216.778 167.741	1.00107.98	O
ATOM	8368	CB	PHE	B	430	197.554 219.944 168.232	1.00107.98	C
ATOM	8369	CG	PHE	B	430	198.931 219.737 168.789	1.00107.98	C
ATOM	8370	CD1	PHE	B	430	199.156 219.806 170.153	1.00107.98	C
ATOM	8371	CD2	PHE	B	430	200.003 219.482 167.952	1.00107.98	C
ATOM	8372	CE1	PHE	B	430	200.420 219.616 170.671	1.00107.98	C
ATOM	8373	CE2	PHE	B	430	201.267 219.291 168.465	1.00107.98	C
ATOM	8374	CZ	PHE	B	430	201.477 219.360 169.825	1.00107.98	C
ATOM	8375	N	TRP	B	431	197.076 217.695 165.975	1.00103.28	N
ATOM	8376	CA	TRP	B	431	197.478 216.621 165.073	1.00103.28	C
ATOM	8377	C	TRP	B	431	197.133 217.018 163.642	1.00103.28	C
ATOM	8378	O	TRP	B	431	196.595 218.100 163.384	1.00103.28	O
ATOM	8379	CB	TRP	B	431	196.800 215.316 165.479	1.00103.28	C
ATOM	8380	CG	TRP	B	431	195.325 215.392 165.392	1.00103.28	C
ATOM	8381	CD1	TRP	B	431	194.477 215.898 166.329	1.00103.28	C
ATOM	8382	CD2	TRP	B	431	194.506 214.928 164.321	1.00103.28	C
ATOM	8383	NE1	TRP	B	431	193.177 215.795 165.900	1.00103.28	N
ATOM	8384	CE2	TRP	B	431	193.170 215.198 164.669	1.00103.28	C
ATOM	8385	CE3	TRP	B	431	194.773 214.313 163.097	1.00103.28	C
ATOM	8386	CZ2	TRP	B	431	192.105 214.880 163.838	1.00103.28	C
ATOM	8387	CZ3	TRP	B	431	193.713 213.993 162.272	1.00103.28	C
ATOM	8388	CH2	TRP	B	431	192.394 214.277 162.648	1.00103.28	C
ATOM	8389	N	GLN	B	432	197.457 216.123 162.708	1.00110.53	N
ATOM	8390	CA	GLN	B	432	197.219 216.339 161.288	1.00110.53	C
ATOM	8391	C	GLN	B	432	196.908 215.005 160.623	1.00110.53	C
ATOM	8392	O	GLN	B	432	197.299 213.940 161.106	1.00110.53	O
ATOM	8393	CB	GLN	B	432	198.423 217.007 160.613	1.00110.53	C
ATOM	8394	CG	GLN	B	432	199.683 216.158 160.613	1.00110.53	C
ATOM	8395	CD	GLN	B	432	200.873 216.880 160.017	1.00110.53	C
ATOM	8396	OE1	GLN	B	432	200.761 218.019 159.563	1.00110.53	O
ATOM	8397	NE2	GLN	B	432	202.023 216.218 160.010	1.00110.53	N
ATOM	8398	N	GLY	B	433	196.195 215.076 159.496	1.00112.59	N
ATOM	8399	CA	GLY	B	433	195.781 213.875 158.804	1.00112.59	C

ATOM	8400	C	GLY B 433	196.886	213.262	157.963	1.00112.59 C
ATOM	8401	O	GLY B 433	197.818	213.931	157.520	1.00112.59 O
ATOM	8402	N	ILE B 434	196.770	211.954	157.739	1.00113.31 N
ATOM	8403	CA	ILE B 434	197.780	211.190	157.016	1.00113.31 C
ATOM	8404	C	ILE B 434	197.091	210.200	156.087	1.00113.31 C
ATOM	8405	O	ILE B 434	196.026	209.664	156.412	1.00113.31 O
ATOM	8406	CB	ILE B 434	198.733	210.459	157.983	1.00113.31 C
ATOM	8407	CG1	ILE B 434	199.915	209.864	157.219	1.00113.31 C
ATOM	8408	CG2	ILE B 434	197.985	209.380	158.748	1.00113.31 C
ATOM	8409	CD1	ILE B 434	201.050	209.412	158.109	1.00113.31 C
ATOM	8410	N	LYS B 435	197.702	209.961	154.929	1.00113.58 N
ATOM	8411	CA	LYS B 435	197.216	208.984	153.961	1.00113.58 C
ATOM	8412	C	LYS B 435	198.222	208.911	152.821	1.00113.58 C
ATOM	8413	O	LYS B 435	199.172	209.693	152.758	1.00113.58 O
ATOM	8414	CB	LYS B 435	195.825	209.337	153.430	1.00113.58 C
ATOM	8415	CG	LYS B 435	195.764	210.628	152.637	1.00113.58 C
ATOM	8416	CD	LYS B 435	194.400	210.804	152.003	1.00113.58 C
ATOM	8417	CE	LYS B 435	193.348	211.056	153.054	1.00113.58 C
ATOM	8418	NZ	LYS B 435	193.610	212.333	153.757	1.00113.58 N
ATOM	8419	N	GLN B 436	197.993	207.966	151.912	1.00112.08 N
ATOM	8420	CA	GLN B 436	198.888	207.779	150.772	1.00112.08 C
ATOM	8421	C	GLN B 436	198.125	207.703	149.456	1.00112.08 C
ATOM	8422	O	GLN B 436	198.646	207.196	148.462	1.00112.08 O
ATOM	8423	CB	GLN B 436	199.724	206.514	150.948	1.00112.08 C
ATOM	8424	CG	GLN B 436	198.956	205.230	150.726	1.00112.08 C
ATOM	8425	CD	GLN B 436	198.164	204.824	151.941	1.00112.08 C
ATOM	8426	OE1	GLN B 436	197.878	205.646	152.810	1.00112.08 O
ATOM	8427	NE2	GLN B 436	197.834	203.543	152.031	1.00112.08 N
ATOM	8428	N	GLN B 483	188.740	199.000	138.721	1.00100.59 N
ATOM	8429	CA	GLN B 483	189.548	199.947	139.480	1.00100.59 C
ATOM	8430	C	GLN B 483	190.628	199.250	140.299	1.00100.59 C
ATOM	8431	O	GLN B 483	191.792	199.651	140.265	1.00100.59 O
ATOM	8432	CB	GLN B 483	188.664	200.785	140.404	1.00100.59 C
ATOM	8433	CG	GLN B 483	189.432	201.802	141.231	1.00100.59 C
ATOM	8434	CD	GLN B 483	190.149	202.825	140.376	1.00100.59 C
ATOM	8435	OE1	GLN B 483	191.366	202.763	140.203	1.00100.59 O
ATOM	8436	NE2	GLN B 483	189.398	203.776	139.836	1.00100.59 N

ATOM	8437	N	LEU B 484	190.214	198.229	141.056	1.00100.72	N
ATOM	8438	CA	LEU B 484	191.083	197.431	141.919	1.00100.72	C
ATOM	8439	C	LEU B 484	191.480	198.182	143.187	1.00100.72	C
ATOM	8440	O	LEU B 484	192.127	197.613	144.073	1.00100.72	O
ATOM	8441	CB	LEU B 484	192.331	196.969	141.156	1.00100.72	C
ATOM	8442	CG	LEU B 484	193.337	196.082	141.894	1.00100.72	C
ATOM	8443	CD1	LEU B 484	192.684	194.785	142.335	1.00100.72	C
ATOM	8444	CD2	LEU B 484	194.551	195.805	141.022	1.00100.72	C
ATOM	8445	N	GLN B 485	191.087	199.450	143.301	1.00100.32	N
ATOM	8446	CA	GLN B 485	191.363	200.212	144.511	1.00100.32	C
ATOM	8447	C	GLN B 485	190.211	200.158	145.500	1.00100.32	C
ATOM	8448	O	GLN B 485	190.447	200.156	146.714	1.00100.32	O
ATOM	8449	CB	GLN B 485	191.677	201.670	144.160	1.00100.32	C
ATOM	8450	CG	GLN B 485	192.235	202.494	145.316	1.00100.32	C
ATOM	8451	CD	GLN B 485	191.154	203.146	146.157	1.00100.32	C
ATOM	8452	OE1	GLN B 485	190.074	203.464	145.660	1.00100.32	O
ATOM	8453	NE2	GLN B 485	191.437	203.341	147.439	1.00100.32	N
ATOM	8454	N	PHE B 486	188.971	200.118	145.007	1.00 99.71	N
ATOM	8455	CA	PHE B 486	187.818	200.082	145.899	1.00 99.71	C
ATOM	8456	C	PHE B 486	187.802	198.818	146.747	1.00 99.71	C
ATOM	8457	O	PHE B 486	187.245	198.817	147.850	1.00 99.71	O
ATOM	8458	CB	PHE B 486	186.529	200.197	145.089	1.00 99.71	C
ATOM	8459	CG	PHE B 486	185.289	200.214	145.928	1.00 99.71	C
ATOM	8460	CD1	PHE B 486	184.941	201.342	146.648	1.00 99.71	C
ATOM	8461	CD2	PHE B 486	184.469	199.102	145.997	1.00 99.71	C
ATOM	8462	CE1	PHE B 486	183.800	201.362	147.422	1.00 99.71	C
ATOM	8463	CE2	PHE B 486	183.325	199.116	146.768	1.00 99.71	C
ATOM	8464	CZ	PHE B 486	182.990	200.247	147.482	1.00 99.71	C
ATOM	8465	N	THR B 487	188.398	197.734	146.249	1.00 97.31	N
ATOM	8466	CA	THR B 487	188.518	196.524	147.054	1.00 97.31	C
ATOM	8467	C	THR B 487	189.412	196.756	148.264	1.00 97.31	C
ATOM	8468	O	THR B 487	189.137	196.247	149.356	1.00 97.31	O
ATOM	8469	CB	THR B 487	189.067	195.382	146.203	1.00 97.31	C
ATOM	8470	OG1	THR B 487	190.383	195.720	145.751	1.00 97.31	O
ATOM	8471	CG2	THR B 487	188.175	195.146	144.998	1.00 97.31	C
ATOM	8472	N	TYR B 488	190.490	197.522	148.086	1.00 95.05	N
ATOM	8473	CA	TYR B 488	191.449	197.718	149.168	1.00 95.05	C

ATOM	8474	C	TYR B 488	190.874	198.589	150.279	1.00 95.05	C
ATOM	8475	O	TYR B 488	191.153	198.356	151.460	1.00 95.05	O
ATOM	8476	CB	TYR B 488	192.734	198.333	148.619	1.00 95.05	C
ATOM	8477	CG	TYR B 488	193.809	198.535	149.658	1.00 95.05	C
ATOM	8478	CD1	TYR B 488	194.553	197.465	150.131	1.00 95.05	C
ATOM	8479	CD2	TYR B 488	194.084	199.797	150.164	1.00 95.05	C
ATOM	8480	CE1	TYR B 488	195.538	197.644	151.079	1.00 95.05	C
ATOM	8481	CE2	TYR B 488	195.068	199.987	151.113	1.00 95.05	C
ATOM	8482	CZ	TYR B 488	195.792	198.907	151.567	1.00 95.05	C
ATOM	8483	OH	TYR B 488	196.774	199.091	152.513	1.00 95.05	O
ATOM	8484	N	ASP B 489	190.082	199.602	149.921	1.00 98.31	N
ATOM	8485	CA	ASP B 489	189.548	200.514	150.929	1.00 98.31	C
ATOM	8486	C	ASP B 489	188.632	199.781	151.901	1.00 98.31	C
ATOM	8487	O	ASP B 489	188.870	199.781	153.115	1.00 98.31	O
ATOM	8488	CB	ASP B 489	188.803	201.668	150.258	1.00 98.31	C
ATOM	8489	CG	ASP B 489	188.471	202.792	151.225	1.00 98.31	C
ATOM	8490	OD1	ASP B 489	188.835	202.689	152.416	1.00 98.31	O
ATOM	8491	OD2	ASP B 489	187.839	203.780	150.796	1.00 98.31	O
ATOM	8492	N	THR B 490	187.571	199.158	151.384	1.00 97.48	N
ATOM	8493	CA	THR B 490	186.619	198.468	152.249	1.00 97.48	C
ATOM	8494	C	THR B 490	187.290	197.342	153.021	1.00 97.48	C
ATOM	8495	O	THR B 490	186.945	197.080	154.179	1.00 97.48	O
ATOM	8496	CB	THR B 490	185.453	197.927	151.426	1.00 97.48	C
ATOM	8497	OG1	THR B 490	185.940	196.963	150.484	1.00 97.48	O
ATOM	8498	CG2	THR B 490	184.773	199.056	150.676	1.00 97.48	C
ATOM	8499	N	LEU B 491	188.254	196.665	152.398	1.00 96.55	N
ATOM	8500	CA	LEU B 491	188.966	195.603	153.094	1.00 96.55	C
ATOM	8501	C	LEU B 491	190.023	196.149	154.045	1.00 96.55	C
ATOM	8502	O	LEU B 491	190.594	195.381	154.825	1.00 96.55	O
ATOM	8503	CB	LEU B 491	189.583	194.644	152.078	1.00 96.55	C
ATOM	8504	CG	LEU B 491	190.288	193.410	152.630	1.00 96.55	C
ATOM	8505	CD1	LEU B 491	189.347	192.633	153.523	1.00 96.55	C
ATOM	8506	CD2	LEU B 491	190.728	192.545	151.473	1.00 96.55	C
ATOM	8507	N	ARG B 492	190.294	197.453	153.999	1.00 95.64	N
ATOM	8508	CA	ARG B 492	191.074	198.111	155.038	1.00 95.64	C
ATOM	8509	C	ARG B 492	190.219	198.945	155.976	1.00 95.64	C
ATOM	8510	O	ARG B 492	190.545	199.056	157.161	1.00 95.64	O

ATOM	8511	CB	ARG B 492	192.148	199.013	154.427	1.00 95.64	C
ATOM	8512	CG	ARG B 492	193.058	199.645	155.464	1.00 95.64	C
ATOM	8513	CD	ARG B 492	194.070	200.562	154.817	1.00 95.64	C
ATOM	8514	NE	ARG B 492	193.431	201.735	154.230	1.00 95.64	N
ATOM	8515	CZ	ARG B 492	194.057	202.612	153.455	1.00 95.64	C
ATOM	8516	NH1	ARG B 492	193.402	203.653	152.962	1.00 95.64	N
ATOM	8517	NH2	ARG B 492	195.340	202.446	153.175	1.00 95.64	N
ATOM	8518	N	GLY B 493	189.135	199.539	155.473	1.00 95.00	N
ATOM	8519	CA	GLY B 493	188.198	200.223	156.343	1.00 95.00	C
ATOM	8520	C	GLY B 493	187.457	199.296	157.279	1.00 95.00	C
ATOM	8521	O	GLY B 493	186.920	199.752	158.293	1.00 95.00	O
ATOM	8522	N	TYR B 494	187.411	198.003	156.957	1.00 94.33	N
ATOM	8523	CA	TYR B 494	186.802	197.029	157.850	1.00 94.33	C
ATOM	8524	C	TYR B 494	187.727	196.655	159.000	1.00 94.33	C
ATOM	8525	O	TYR B 494	187.252	196.401	160.112	1.00 94.33	O
ATOM	8526	CB	TYR B 494	186.409	195.778	157.067	1.00 94.33	C
ATOM	8527	CG	TYR B 494	185.750	194.715	157.909	1.00 94.33	C
ATOM	8528	CD1	TYR B 494	184.432	194.847	158.320	1.00 94.33	C
ATOM	8529	CD2	TYR B 494	186.447	193.580	158.294	1.00 94.33	C
ATOM	8530	CE1	TYR B 494	183.826	193.876	159.091	1.00 94.33	C
ATOM	8531	CE2	TYR B 494	185.850	192.604	159.065	1.00 94.33	C
ATOM	8532	CZ	TYR B 494	184.539	192.757	159.461	1.00 94.33	C
ATOM	8533	OH	TYR B 494	183.940	191.786	160.229	1.00 94.33	O
ATOM	8534	N	ILE B 495	189.037	196.612	158.755	1.00 90.03	N
ATOM	8535	CA	ILE B 495	189.983	196.306	159.824	1.00 90.03	C
ATOM	8536	C	ILE B 495	189.956	197.400	160.883	1.00 90.03	C
ATOM	8537	O	ILE B 495	189.887	197.121	162.086	1.00 90.03	O
ATOM	8538	CB	ILE B 495	191.397	196.112	159.252	1.00 90.03	C
ATOM	8539	CG1	ILE B 495	191.428	194.913	158.307	1.00 90.03	C
ATOM	8540	CG2	ILE B 495	192.400	195.929	160.374	1.00 90.03	C
ATOM	8541	CD1	ILE B 495	192.704	194.803	157.510	1.00 90.03	C
ATOM	8542	N	ASN B 496	190.018	198.662	160.452	1.00 89.90	N
ATOM	8543	CA	ASN B 496	189.832	199.769	161.384	1.00 89.90	C
ATOM	8544	C	ASN B 496	188.456	199.716	162.030	1.00 89.90	C
ATOM	8545	O	ASN B 496	188.290	200.141	163.179	1.00 89.90	O
ATOM	8546	CB	ASN B 496	190.028	201.101	160.664	1.00 89.90	C
ATOM	8547	CG	ASN B 496	191.458	201.316	160.220	1.00 89.90	C

ATOM	8548	OD1	ASN	B	496	192.400	201.000	160.946	1.00 89.90	O
ATOM	8549	ND2	ASN	B	496	191.629	201.859	159.022	1.00 89.90	N
ATOM	8550	N	ARG	B	497	187.460	199.203	161.306	1.00 95.73	N
ATOM	8551	CA	ARG	B	497	186.133	199.024	161.880	1.00 95.73	C
ATOM	8552	C	ARG	B	497	186.156	198.074	163.070	1.00 95.73	C
ATOM	8553	O	ARG	B	497	185.332	198.204	163.981	1.00 95.73	O
ATOM	8554	CB	ARG	B	497	185.171	198.512	160.809	1.00 95.73	C
ATOM	8555	CG	ARG	B	497	183.749	198.330	161.294	1.00 95.73	C
ATOM	8556	CD	ARG	B	497	183.030	199.660	161.379	1.00 95.73	C
ATOM	8557	NE	ARG	B	497	183.392	200.386	162.591	1.00 95.73	N
ATOM	8558	CZ	ARG	B	497	182.917	200.101	163.799	1.00 95.73	C
ATOM	8559	NH1	ARG	B	497	183.298	200.814	164.849	1.00 95.73	N
ATOM	8560	NH2	ARG	B	497	182.066	199.097	163.957	1.00 95.73	N
ATOM	8561	N	ALA	B	498	187.084	197.115	163.079	1.00 89.85	N
ATOM	8562	CA	ALA	B	498	187.141	196.146	164.167	1.00 89.85	C
ATOM	8563	C	ALA	B	498	188.002	196.640	165.322	1.00 89.85	C
ATOM	8564	O	ALA	B	498	187.688	196.377	166.488	1.00 89.85	O
ATOM	8565	CB	ALA	B	498	187.664	194.806	163.651	1.00 89.85	C
ATOM	8566	N	LEU	B	499	189.084	197.358	165.025	1.00 85.32	N
ATOM	8567	CA	LEU	B	499	189.980	197.843	166.067	1.00 85.32	C
ATOM	8568	C	LEU	B	499	189.372	198.954	166.912	1.00 85.32	C
ATOM	8569	O	LEU	B	499	189.979	199.346	167.914	1.00 85.32	O
ATOM	8570	CB	LEU	B	499	191.291	198.331	165.450	1.00 85.32	C
ATOM	8571	CG	LEU	B	499	192.159	197.253	164.803	1.00 85.32	C
ATOM	8572	CD1	LEU	B	499	193.367	197.878	164.128	1.00 85.32	C
ATOM	8573	CD2	LEU	B	499	192.587	196.224	165.836	1.00 85.32	C
ATOM	8574	N	ALA	B	500	188.204	199.471	166.539	1.00 90.06	N
ATOM	8575	CA	ALA	B	500	187.538	200.480	167.351	1.00 90.06	C
ATOM	8576	C	ALA	B	500	186.651	199.858	168.419	1.00 90.06	C
ATOM	8577	O	ALA	B	500	186.601	200.357	169.547	1.00 90.06	O
ATOM	8578	CB	ALA	B	500	186.712	201.414	166.464	1.00 90.06	C
ATOM	8579	N	GLN	B	501	185.959	198.767	168.094	1.00 92.17	N
ATOM	8580	CA	GLN	B	501	185.116	198.092	169.072	1.00 92.17	C
ATOM	8581	C	GLN	B	501	185.911	197.230	170.042	1.00 92.17	C
ATOM	8582	O	GLN	B	501	185.312	196.600	170.919	1.00 92.17	O
ATOM	8583	CB	GLN	B	501	184.061	197.240	168.365	1.00 92.17	C
ATOM	8584	CG	GLN	B	501	184.621	196.085	167.561	1.00 92.17	C

ATOM	8585	CD	GLN	B	501	183.537	195.315	166.834	1.00 92.17	C
ATOM	8586	OE1	GLN	B	501	182.351	195.612	166.974	1.00 92.17	O
ATOM	8587	NE2	GLN	B	501	183.939	194.322	166.052	1.00 92.17	N
ATOM	8588	N	ILE	B	502	187.235	197.182	169.905	1.00 86.68	N
ATOM	8589	CA	ILE	B	502	188.066	196.542	170.917	1.00 86.68	C
ATOM	8590	C	ILE	B	502	188.359	197.512	172.053	1.00 86.68	C
ATOM	8591	O	ILE	B	502	188.109	197.214	173.226	1.00 86.68	O
ATOM	8592	CB	ILE	B	502	189.362	196.006	170.284	1.00 86.68	C
ATOM	8593	CG1	ILE	B	502	189.039	194.987	169.192	1.00 86.68	C
ATOM	8594	CG2	ILE	B	502	190.251	195.379	171.343	1.00 86.68	C
ATOM	8595	CD1	ILE	B	502	188.303	193.771	169.697	1.00 86.68	C
ATOM	8596	N	ALA	B	503	188.888	198.692	171.721	1.00 89.45	N
ATOM	8597	CA	ALA	B	503	189.175	199.687	172.748	1.00 89.45	C
ATOM	8598	C	ALA	B	503	187.901	200.224	173.388	1.00 89.45	C
ATOM	8599	O	ALA	B	503	187.939	200.720	174.518	1.00 89.45	O
ATOM	8600	CB	ALA	B	503	189.998	200.830	172.157	1.00 89.45	C
ATOM	8601	N	GLU	B	504	186.770	200.150	172.683	1.00 97.06	N
ATOM	8602	CA	GLU	B	504	185.503	200.532	173.300	1.00 97.06	C
ATOM	8603	C	GLU	B	504	185.163	199.602	174.455	1.00 97.06	C
ATOM	8604	O	GLU	B	504	184.621	200.039	175.477	1.00 97.06	O
ATOM	8605	CB	GLU	B	504	184.385	200.530	172.260	1.00 97.06	C
ATOM	8606	CG	GLU	B	504	184.520	201.622	171.219	1.00 97.06	C
ATOM	8607	CD	GLU	B	504	183.429	201.568	170.172	1.00 97.06	C
ATOM	8608	OE1	GLU	B	504	182.620	200.618	170.201	1.00 97.06	O
ATOM	8609	OE2	GLU	B	504	183.387	202.473	169.313	1.00 97.06	O
ATOM	8610	N	ALA	B	505	185.477	198.318	174.311	1.00 95.23	N
ATOM	8611	CA	ALA	B	505	185.381	197.363	175.405	1.00 95.23	C
ATOM	8612	C	ALA	B	505	186.628	197.356	176.273	1.00 95.23	C
ATOM	8613	O	ALA	B	505	186.865	196.382	176.996	1.00 95.23	O
ATOM	8614	CB	ALA	B	505	185.117	195.958	174.859	1.00 95.23	C
ATOM	8615	N	TRP	B	506	187.428	198.417	176.207	1.00101.06	N
ATOM	8616	CA	TRP	B	506	188.648	198.535	176.990	1.00101.06	C
ATOM	8617	C	TRP	B	506	188.505	199.470	178.178	1.00101.06	C
ATOM	8618	O	TRP	B	506	189.121	199.229	179.220	1.00101.06	O
ATOM	8619	CB	TRP	B	506	189.795	199.028	176.106	1.00101.06	C
ATOM	8620	CG	TRP	B	506	191.081	199.068	176.825	1.00101.06	C
ATOM	8621	CD1	TRP	B	506	191.728	200.170	177.296	1.00101.06	C

ATOM	8622	CD2	TRP B 506	191.881	197.943	177.186	1.00101.06	C
ATOM	8623	NE1	TRP B 506	192.895	199.799	177.920	1.00101.06	N
ATOM	8624	CE2	TRP B 506	193.010	198.435	177.866	1.00101.06	C
ATOM	8625	CE3	TRP B 506	191.754	196.565	176.995	1.00101.06	C
ATOM	8626	CZ2	TRP B 506	194.005	197.598	178.356	1.00101.06	C
ATOM	8627	CZ3	TRP B 506	192.741	195.737	177.481	1.00101.06	C
ATOM	8628	CH2	TRP B 506	193.851	196.255	178.152	1.00101.06	C
ATOM	8629	N	CYS B 507	187.708	200.532	178.042	1.00101.96	N
ATOM	8630	CA	CYS B 507	187.483	201.446	179.154	1.00101.96	C
ATOM	8631	C	CYS B 507	186.814	200.757	180.336	1.00101.96	C
ATOM	8632	O	CYS B 507	186.973	201.211	181.474	1.00101.96	O
ATOM	8633	CB	CYS B 507	186.636	202.630	178.687	1.00101.96	C
ATOM	8634	SG	CYS B 507	186.362	203.913	179.927	1.00101.96	S
ATOM	8635	N	VAL B 508	186.073	199.676	180.095	1.00 93.20	N
ATOM	8636	CA	VAL B 508	185.423	198.961	181.188	1.00 93.20	C
ATOM	8637	C	VAL B 508	186.444	198.194	182.016	1.00 93.20	C
ATOM	8638	O	VAL B 508	186.290	198.048	183.232	1.00 93.20	O
ATOM	8639	CB	VAL B 508	184.331	198.030	180.636	1.00 93.20	C
ATOM	8640	CG1	VAL B 508	183.736	197.200	181.758	1.00 93.20	C
ATOM	8641	CG2	VAL B 508	183.255	198.840	179.933	1.00 93.20	C
ATOM	8642	N	ASP B 509	187.493	197.685	181.376	1.00 95.37	N
ATOM	8643	CA	ASP B 509	188.555	196.985	182.084	1.00 95.37	C
ATOM	8644	C	ASP B 509	189.584	197.932	182.677	1.00 95.37	C
ATOM	8645	O	ASP B 509	190.513	197.473	183.350	1.00 95.37	O
ATOM	8646	CB	ASP B 509	189.232	195.994	181.143	1.00 95.37	C
ATOM	8647	CG	ASP B 509	188.323	194.849	180.767	1.00 95.37	C
ATOM	8648	OD1	ASP B 509	187.512	194.427	181.618	1.00 95.37	O
ATOM	8649	OD2	ASP B 509	188.392	194.397	179.609	1.00 95.37	O
ATOM	8650	N	GLN B 510	189.442	199.233	182.438	1.00 87.69	N
ATOM	8651	CA	GLN B 510	190.257	200.240	183.095	1.00 87.69	C
ATOM	8652	C	GLN B 510	189.601	200.777	184.357	1.00 87.69	C
ATOM	8653	O	GLN B 510	190.302	201.302	185.228	1.00 87.69	O
ATOM	8654	CB	GLN B 510	190.550	201.388	182.115	1.00 87.69	C
ATOM	8655	CG	GLN B 510	191.599	202.407	182.553	1.00 87.69	C
ATOM	8656	CD	GLN B 510	191.040	203.497	183.445	1.00 87.69	C
ATOM	8657	OE1	GLN B 510	191.555	203.748	184.533	1.00 87.69	O
ATOM	8658	NE2	GLN B 510	189.973	204.143	182.992	1.00 87.69	N

ATOM	8659	N	ARG B 511	188.284	200.636	184.489	1.00 79.28	N
ATOM	8660	CA	ARG B 511	187.599	201.044	185.706	1.00 79.28	C
ATOM	8661	C	ARG B 511	187.566	199.947	186.758	1.00 79.28	C
ATOM	8662	O	ARG B 511	187.319	200.242	187.932	1.00 79.28	O
ATOM	8663	CB	ARG B 511	186.171	201.488	185.384	1.00 79.28	C
ATOM	8664	CG	ARG B 511	185.301	200.384	184.830	1.00 79.28	C
ATOM	8665	CD	ARG B 511	183.924	200.904	184.472	1.00 79.28	C
ATOM	8666	NE	ARG B 511	183.167	201.309	185.650	1.00 79.28	N
ATOM	8667	CZ	ARG B 511	182.063	202.046	185.605	1.00 79.28	C
ATOM	8668	NH1	ARG B 511	181.590	202.459	184.438	1.00 79.28	N
ATOM	8669	NH2	ARG B 511	181.432	202.370	186.725	1.00 79.28	N
ATOM	8670	N	ARG B 512	187.802	198.693	186.370	1.00 66.54	N
ATOM	8671	CA	ARG B 512	187.968	197.638	187.363	1.00 66.54	C
ATOM	8672	C	ARG B 512	189.231	197.865	188.181	1.00 66.54	C
ATOM	8673	O	ARG B 512	189.196	197.849	189.417	1.00 66.54	O
ATOM	8674	CB	ARG B 512	188.015	196.272	186.681	1.00 66.54	C
ATOM	8675	CG	ARG B 512	186.762	195.896	185.915	1.00 66.54	C
ATOM	8676	CD	ARG B 512	185.592	195.637	186.843	1.00 66.54	C
ATOM	8677	NE	ARG B 512	184.434	195.130	186.113	1.00 66.54	N
ATOM	8678	CZ	ARG B 512	183.248	194.891	186.663	1.00 66.54	C
ATOM	8679	NH1	ARG B 512	183.056	195.119	187.954	1.00 66.54	N
ATOM	8680	NH2	ARG B 512	182.253	194.426	185.921	1.00 66.54	N
ATOM	8681	N	THR B 513	190.362	198.077	187.503	1.00 60.54	N
ATOM	8682	CA	THR B 513	191.622	198.298	188.203	1.00 60.54	C
ATOM	8683	C	THR B 513	191.572	199.540	189.083	1.00 60.54	C
ATOM	8684	O	THR B 513	192.227	199.582	190.129	1.00 60.54	O
ATOM	8685	CB	THR B 513	192.768	198.401	187.198	1.00 60.54	C
ATOM	8686	OG1	THR B 513	192.872	197.174	186.466	1.00 60.54	O
ATOM	8687	CG2	THR B 513	194.078	198.667	187.913	1.00 60.54	C
ATOM	8688	N	LEU B 514	190.801	200.554	188.691	1.00 63.67	N
ATOM	8689	CA	LEU B 514	190.608	201.731	189.530	1.00 63.67	C
ATOM	8690	C	LEU B 514	189.544	201.526	190.596	1.00 63.67	C
ATOM	8691	O	LEU B 514	189.103	202.498	191.218	1.00 63.67	O
ATOM	8692	CB	LEU B 514	190.263	202.951	188.673	1.00 63.67	C
ATOM	8693	CG	LEU B 514	191.449	203.760	188.144	1.00 63.67	C
ATOM	8694	CD1	LEU B 514	192.215	204.386	189.296	1.00 63.67	C
ATOM	8695	CD2	LEU B 514	192.369	202.896	187.302	1.00 63.67	C

ATOM	8696	N	GLU B 515	189.118	200.285	190.811	1.00 56.88	N
ATOM	8697	CA	GLU B 515	188.296	199.929	191.956	1.00 56.88	C
ATOM	8698	C	GLU B 515	188.874	198.780	192.759	1.00 56.88	C
ATOM	8699	O	GLU B 515	188.618	198.709	193.967	1.00 56.88	O
ATOM	8700	CB	GLU B 515	186.871	199.566	191.506	1.00 56.88	C
ATOM	8701	CG	GLU B 515	185.849	199.465	192.631	1.00 56.88	C
ATOM	8702	CD	GLU B 515	185.794	198.089	193.262	1.00 56.88	C
ATOM	8703	OE1	GLU B 515	186.089	197.102	192.558	1.00 56.88	O
ATOM	8704	OE2	GLU B 515	185.469	197.997	194.463	1.00 56.88	O
ATOM	8705	N	VAL B 516	189.644	197.885	192.141	1.00 51.73	N
ATOM	8706	CA	VAL B 516	190.379	196.887	192.902	1.00 51.73	C
ATOM	8707	C	VAL B 516	191.518	197.518	193.687	1.00 51.73	C
ATOM	8708	O	VAL B 516	191.876	197.014	194.757	1.00 51.73	O
ATOM	8709	CB	VAL B 516	190.916	195.788	191.974	1.00 51.73	C
ATOM	8710	CG1	VAL B 516	191.769	194.810	192.753	1.00 51.73	C
ATOM	8711	CG2	VAL B 516	189.767	195.070	191.291	1.00 51.73	C
ATOM	8712	N	PHE B 517	192.092	198.617	193.196	1.00 49.80	N
ATOM	8713	CA	PHE B 517	193.081	199.344	193.978	1.00 49.80	C
ATOM	8714	C	PHE B 517	192.446	200.160	195.089	1.00 49.80	C
ATOM	8715	O	PHE B 517	193.130	200.503	196.056	1.00 49.80	O
ATOM	8716	CB	PHE B 517	193.904	200.273	193.087	1.00 49.80	C
ATOM	8717	CG	PHE B 517	194.853	199.558	192.177	1.00 49.80	C
ATOM	8718	CD1	PHE B 517	195.160	198.226	192.381	1.00 49.80	C
ATOM	8719	CD2	PHE B 517	195.444	200.223	191.119	1.00 49.80	C
ATOM	8720	CE1	PHE B 517	196.035	197.569	191.542	1.00 49.80	C
ATOM	8721	CE2	PHE B 517	196.319	199.571	190.279	1.00 49.80	C
ATOM	8722	CZ	PHE B 517	196.615	198.243	190.490	1.00 49.80	C
ATOM	8723	N	LYS B 518	191.158	200.475	194.980	1.00 54.69	N
ATOM	8724	CA	LYS B 518	190.511	201.237	196.036	1.00 54.69	C
ATOM	8725	C	LYS B 518	190.367	200.431	197.318	1.00 54.69	C
ATOM	8726	O	LYS B 518	190.166	201.019	198.385	1.00 54.69	O
ATOM	8727	CB	LYS B 518	189.145	201.722	195.565	1.00 54.69	C
ATOM	8728	CG	LYS B 518	188.489	202.704	196.506	1.00 54.69	C
ATOM	8729	CD	LYS B 518	187.141	203.121	195.967	1.00 54.69	C
ATOM	8730	CE	LYS B 518	187.241	204.382	195.132	1.00 54.69	C
ATOM	8731	NZ	LYS B 518	187.805	204.115	193.778	1.00 54.69	N
ATOM	8732	N	GLU B 519	190.464	199.105	197.238	1.00 49.16	N

ATOM	8733	CA	GLU B 519	190.449	198.237	198.407	1.00 49.16	C
ATOM	8734	C	GLU B 519	191.837	197.751	198.795	1.00 49.16	C
ATOM	8735	O	GLU B 519	192.194	197.794	199.975	1.00 49.16	O
ATOM	8736	CB	GLU B 519	189.538	197.034	198.158	1.00 49.16	C
ATOM	8737	CG	GLU B 519	188.081	197.405	197.965	1.00 49.16	C
ATOM	8738	CD	GLU B 519	187.466	197.997	199.212	1.00 49.16	C
ATOM	8739	OE1	GLU B 519	187.905	197.626	200.320	1.00 49.16	O
ATOM	8740	OE2	GLU B 519	186.541	198.827	199.090	1.00 49.16	O
ATOM	8741	N	LEU B 520	192.634	197.290	197.826	1.00 44.48	N
ATOM	8742	CA	LEU B 520	194.011	196.903	198.113	1.00 44.48	C
ATOM	8743	C	LEU B 520	194.841	198.060	198.651	1.00 44.48	C
ATOM	8744	O	LEU B 520	195.832	197.822	199.349	1.00 44.48	O
ATOM	8745	CB	LEU B 520	194.673	196.324	196.864	1.00 44.48	C
ATOM	8746	CG	LEU B 520	194.404	194.843	196.612	1.00 44.48	C
ATOM	8747	CD1	LEU B 520	192.964	194.612	196.209	1.00 44.48	C
ATOM	8748	CD2	LEU B 520	195.348	194.316	195.549	1.00 44.48	C
ATOM	8749	N	SER B 521	194.468	199.302	198.352	1.00 43.33	N
ATOM	8750	CA	SER B 521	195.120	200.456	198.956	1.00 43.33	C
ATOM	8751	C	SER B 521	194.770	200.615	200.424	1.00 43.33	C
ATOM	8752	O	SER B 521	195.382	201.437	201.113	1.00 43.33	O
ATOM	8753	CB	SER B 521	194.750	201.734	198.203	1.00 43.33	C
ATOM	8754	OG	SER B 521	193.378	202.038	198.376	1.00 43.33	O
ATOM	8755	N	LYS B 522	193.803	199.845	200.914	1.00 40.38	N
ATOM	8756	CA	LYS B 522	193.425	199.861	202.313	1.00 40.38	C
ATOM	8757	C	LYS B 522	194.162	198.819	203.135	1.00 40.38	C
ATOM	8758	O	LYS B 522	194.223	198.953	204.361	1.00 40.38	O
ATOM	8759	CB	LYS B 522	191.914	199.648	202.448	1.00 40.38	C
ATOM	8760	CG	LYS B 522	191.379	199.837	203.841	1.00 40.38	C
ATOM	8761	CD	LYS B 522	189.876	199.694	203.832	1.00 40.38	C
ATOM	8762	CE	LYS B 522	189.209	201.043	203.635	1.00 40.38	C
ATOM	8763	NZ	LYS B 522	189.271	201.486	202.214	1.00 40.38	N
ATOM	8764	N	ILE B 523	194.722	197.793	202.501	1.00 40.35	N
ATOM	8765	CA	ILE B 523	195.609	196.876	203.204	1.00 40.35	C
ATOM	8766	C	ILE B 523	196.959	197.521	203.470	1.00 40.35	C
ATOM	8767	O	ILE B 523	197.315	197.766	204.623	1.00 40.35	O
ATOM	8768	CB	ILE B 523	195.767	195.567	202.408	1.00 40.35	C
ATOM	8769	CG1	ILE B 523	194.446	194.807	202.357	1.00 40.35	C

ATOM	8770	CG2	ILE B 523	196.852	194.706	203.017	1.00 40.35	C
ATOM	8771	CD1	ILE B 523	194.470	193.625	201.426	1.00 40.35	C
ATOM	8772	N	ASN B 524	197.704	197.843	202.419	1.00 39.34	N
ATOM	8773	CA	ASN B 524	198.999	198.491	202.567	1.00 39.34	C
ATOM	8774	C	ASN B 524	199.114	199.627	201.560	1.00 39.34	C
ATOM	8775	O	ASN B 524	199.399	199.387	200.380	1.00 39.34	O
ATOM	8776	CB	ASN B 524	200.135	197.488	202.375	1.00 39.34	C
ATOM	8777	CG	ASN B 524	201.479	198.052	202.779	1.00 39.34	C
ATOM	8778	OD1	ASN B 524	201.578	199.199	203.210	1.00 39.34	O
ATOM	8779	ND2	ASN B 524	202.525	197.248	202.639	1.00 39.34	N
ATOM	8780	N	PRO B 525	198.895	200.873	201.984	1.00 35.39	N
ATOM	8781	CA	PRO B 525	198.930	201.985	201.025	1.00 35.39	C
ATOM	8782	C	PRO B 525	200.305	202.234	200.439	1.00 35.39	C
ATOM	8783	O	PRO B 525	200.402	202.652	199.279	1.00 35.39	O
ATOM	8784	CB	PRO B 525	198.457	203.181	201.861	1.00 35.39	C
ATOM	8785	CG	PRO B 525	197.717	202.577	203.005	1.00 35.39	C
ATOM	8786	CD	PRO B 525	198.433	201.304	203.309	1.00 35.39	C
ATOM	8787	N	SER B 526	201.371	201.997	201.204	1.00 37.27	N
ATOM	8788	CA	SER B 526	202.712	202.293	200.712	1.00 37.27	C
ATOM	8789	C	SER B 526	203.082	201.403	199.534	1.00 37.27	C
ATOM	8790	O	SER B 526	203.650	201.879	198.546	1.00 37.27	O
ATOM	8791	CB	SER B 526	203.728	202.136	201.840	1.00 37.27	C
ATOM	8792	OG	SER B 526	203.485	203.073	202.874	1.00 37.27	O
ATOM	8793	N	ALA B 527	202.768	200.111	199.616	1.00 38.52	N
ATOM	8794	CA	ALA B 527	203.147	199.194	198.548	1.00 38.52	C
ATOM	8795	C	ALA B 527	202.334	199.450	197.286	1.00 38.52	C
ATOM	8796	O	ALA B 527	202.885	199.507	196.182	1.00 38.52	O
ATOM	8797	CB	ALA B 527	202.979	197.749	199.013	1.00 38.52	C
ATOM	8798	N	ILE B 528	201.017	199.599	197.430	1.00 41.18	N
ATOM	8799	CA	ILE B 528	200.160	199.807	196.266	1.00 41.18	C
ATOM	8800	C	ILE B 528	200.476	201.139	195.601	1.00 41.18	C
ATOM	8801	O	ILE B 528	200.772	201.202	194.402	1.00 41.18	O
ATOM	8802	CB	ILE B 528	198.678	199.718	196.667	1.00 41.18	C
ATOM	8803	CG1	ILE B 528	198.374	198.342	197.253	1.00 41.18	C
ATOM	8804	CG2	ILE B 528	197.793	199.999	195.472	1.00 41.18	C
ATOM	8805	CD1	ILE B 528	198.616	197.211	196.286	1.00 41.18	C
ATOM	8806	N	LEU B 529	200.412	202.226	196.370	1.00 41.60	N

ATOM	8807	CA	LEU B 529	200.621	203.558	195.819	1.00 41.60	C
ATOM	8808	C	LEU B 529	202.032	203.770	195.290	1.00 41.60	C
ATOM	8809	O	LEU B 529	202.235	204.674	194.475	1.00 41.60	O
ATOM	8810	CB	LEU B 529	200.302	204.610	196.879	1.00 41.60	C
ATOM	8811	CG	LEU B 529	200.382	206.064	196.429	1.00 41.60	C
ATOM	8812	CD1	LEU B 529	199.365	206.322	195.339	1.00 41.60	C
ATOM	8813	CD2	LEU B 529	200.152	206.989	197.607	1.00 41.60	C
ATOM	8814	N	SER B 530	203.005	202.974	195.725	1.00 42.20	N
ATOM	8815	CA	SER B 530	204.363	203.061	195.210	1.00 42.20	C
ATOM	8816	C	SER B 530	204.633	202.062	194.097	1.00 42.20	C
ATOM	8817	O	SER B 530	205.751	202.023	193.577	1.00 42.20	O
ATOM	8818	CB	SER B 530	205.376	202.855	196.339	1.00 42.20	C
ATOM	8819	OG	SER B 530	206.702	202.886	195.843	1.00 42.20	O
ATOM	8820	N	ALA B 531	203.645	201.254	193.725	1.00 45.96	N
ATOM	8821	CA	ALA B 531	203.803	200.314	192.627	1.00 45.96	C
ATOM	8822	C	ALA B 531	203.284	200.857	191.306	1.00 45.96	C
ATOM	8823	O	ALA B 531	203.711	200.384	190.247	1.00 45.96	O
ATOM	8824	CB	ALA B 531	203.091	198.998	192.948	1.00 45.96	C
ATOM	8825	N	ILE B 532	202.376	201.835	191.341	1.00 53.01	N
ATOM	8826	CA	ILE B 532	201.855	202.451	190.129	1.00 53.01	C
ATOM	8827	C	ILE B 532	202.599	203.722	189.760	1.00 53.01	C
ATOM	8828	O	ILE B 532	202.268	204.356	188.750	1.00 53.01	O
ATOM	8829	CB	ILE B 532	200.348	202.739	190.262	1.00 53.01	C
ATOM	8830	CG1	ILE B 532	200.097	203.754	191.374	1.00 53.01	C
ATOM	8831	CG2	ILE B 532	199.591	201.458	190.549	1.00 53.01	C
ATOM	8832	CD1	ILE B 532	198.675	204.249	191.428	1.00 53.01	C
ATOM	8833	N	TYR B 533	203.598	204.117	190.552	1.00 58.54	N
ATOM	8834	CA	TYR B 533	204.432	205.268	190.245	1.00 58.54	C
ATOM	8835	C	TYR B 533	205.890	204.911	190.008	1.00 58.54	C
ATOM	8836	O	TYR B 533	206.623	205.730	189.446	1.00 58.54	O
ATOM	8837	CB	TYR B 533	204.358	206.302	191.378	1.00 58.54	C
ATOM	8838	CG	TYR B 533	203.025	207.002	191.494	1.00 58.54	C
ATOM	8839	CD1	TYR B 533	202.109	206.970	190.455	1.00 58.54	C
ATOM	8840	CD2	TYR B 533	202.682	207.693	192.645	1.00 58.54	C
ATOM	8841	CE1	TYR B 533	200.890	207.608	190.558	1.00 58.54	C
ATOM	8842	CE2	TYR B 533	201.464	208.330	192.759	1.00 58.54	C
ATOM	8843	CZ	TYR B 533	200.574	208.288	191.712	1.00 58.54	C

ATOM	8844	OH	TYR B 533	199.361	208.925	191.820	1.00 58.54	O
ATOM	8845	N	ASN B 534	206.325	203.720	190.418	1.00 56.90	N
ATOM	8846	CA	ASN B 534	207.707	203.277	190.248	1.00 56.90	C
ATOM	8847	C	ASN B 534	208.674	204.198	190.995	1.00 56.90	C
ATOM	8848	O	ASN B 534	209.565	204.820	190.416	1.00 56.90	O
ATOM	8849	CB	ASN B 534	208.070	203.178	188.764	1.00 56.90	C
ATOM	8850	CG	ASN B 534	207.282	202.102	188.044	1.00 56.90	C
ATOM	8851	OD1	ASN B 534	206.478	202.390	187.158	1.00 56.90	O
ATOM	8852	ND2	ASN B 534	207.511	200.851	188.424	1.00 56.90	N
ATOM	8853	N	LYS B 535	208.476	204.271	192.313	1.00 54.24	N
ATOM	8854	CA	LYS B 535	209.347	205.050	193.177	1.00 54.24	C
ATOM	8855	C	LYS B 535	209.019	204.705	194.617	1.00 54.24	C
ATOM	8856	O	LYS B 535	207.844	204.466	194.925	1.00 54.24	O
ATOM	8857	CB	LYS B 535	209.171	206.553	192.940	1.00 54.24	C
ATOM	8858	CG	LYS B 535	210.144	207.420	193.721	1.00 54.24	C
ATOM	8859	CD	LYS B 535	209.883	208.899	193.486	1.00 54.24	C
ATOM	8860	CE	LYS B 535	210.790	209.459	192.406	1.00 54.24	C
ATOM	8861	NZ	LYS B 535	210.333	209.067	191.046	1.00 54.24	N
ATOM	8862	N	PRO B 536	210.002	204.664	195.513	1.00 49.26	N
ATOM	8863	CA	PRO B 536	209.695	204.390	196.923	1.00 49.26	C
ATOM	8864	C	PRO B 536	208.955	205.545	197.574	1.00 49.26	C
ATOM	8865	O	PRO B 536	209.509	206.638	197.726	1.00 49.26	O
ATOM	8866	CB	PRO B 536	211.079	204.178	197.546	1.00 49.26	C
ATOM	8867	CG	PRO B 536	212.002	204.948	196.670	1.00 49.26	C
ATOM	8868	CD	PRO B 536	211.445	204.833	195.281	1.00 49.26	C
ATOM	8869	N	ILE B 537	207.704	205.314	197.963	1.00 44.30	N
ATOM	8870	CA	ILE B 537	206.839	206.349	198.511	1.00 44.30	C
ATOM	8871	C	ILE B 537	206.250	205.859	199.824	1.00 44.30	C
ATOM	8872	O	ILE B 537	205.908	204.679	199.960	1.00 44.30	O
ATOM	8873	CB	ILE B 537	205.718	206.730	197.523	1.00 44.30	C
ATOM	8874	CG1	ILE B 537	206.306	207.376	196.271	1.00 44.30	C
ATOM	8875	CG2	ILE B 537	204.720	207.659	198.175	1.00 44.30	C
ATOM	8876	CD1	ILE B 537	205.300	207.567	195.164	1.00 44.30	C
ATOM	8877	N	ALA B 538	206.129	206.766	200.788	1.00 40.67	N
ATOM	8878	CA	ALA B 538	205.527	206.477	202.083	1.00 40.67	C
ATOM	8879	C	ALA B 538	204.222	207.251	202.195	1.00 40.67	C
ATOM	8880	O	ALA B 538	204.231	208.485	202.232	1.00 40.67	O

ATOM	8881	CB	ALA B 538	206.472	206.849	203.224	1.00 40.67 C
ATOM	8882	N	ALA B 539	203.109	206.529	202.249	1.00 39.15 N
ATOM	8883	CA	ALA B 539	201.786	207.125	202.322	1.00 39.15 C
ATOM	8884	C	ALA B 539	201.102	206.710	203.616	1.00 39.15 C
ATOM	8885	O	ALA B 539	201.588	205.858	204.362	1.00 39.15 O
ATOM	8886	CB	ALA B 539	200.932	206.721	201.116	1.00 39.15 C
ATOM	8887	N	ARG B 540	199.953	207.328	203.876	1.00 39.33 N
ATOM	8888	CA	ARG B 540	199.193	207.063	205.087	1.00 39.33 C
ATOM	8889	C	ARG B 540	197.826	207.708	204.952	1.00 39.33 C
ATOM	8890	O	ARG B 540	197.716	208.821	204.436	1.00 39.33 O
ATOM	8891	CB	ARG B 540	199.912	207.608	206.326	1.00 39.33 C
ATOM	8892	CG	ARG B 540	199.192	207.327	207.626	1.00 39.33 C
ATOM	8893	CD	ARG B 540	199.951	207.893	208.811	1.00 39.33 C
ATOM	8894	NE	ARG B 540	200.021	209.350	208.778	1.00 39.33 N
ATOM	8895	CZ	ARG B 540	199.055	210.153	209.210	1.00 39.33 C
ATOM	8896	NH1	ARG B 540	199.204	211.467	209.146	1.00 39.33 N
ATOM	8897	NH2	ARG B 540	197.937	209.643	209.703	1.00 39.33 N
ATOM	8898	N	PHE B 541	196.793	207.009	205.413	1.00 38.29 N
ATOM	8899	CA	PHE B 541	195.455	207.579	205.367	1.00 38.29 C
ATOM	8900	C	PHE B 541	195.372	208.803	206.264	1.00 38.29 C
ATOM	8901	O	PHE B 541	196.025	208.879	207.307	1.00 38.29 O
ATOM	8902	CB	PHE B 541	194.410	206.550	205.786	1.00 38.29 C
ATOM	8903	CG	PHE B 541	194.195	205.469	204.779	1.00 38.29 C
ATOM	8904	CD1	PHE B 541	193.429	205.704	203.652	1.00 38.29 C
ATOM	8905	CD2	PHE B 541	194.750	204.218	204.957	1.00 38.29 C
ATOM	8906	CE1	PHE B 541	193.228	204.715	202.719	1.00 38.29 C
ATOM	8907	CE2	PHE B 541	194.550	203.222	204.028	1.00 38.29 C
ATOM	8908	CZ	PHE B 541	193.788	203.471	202.906	1.00 38.29 C
ATOM	8909	N	MET B 542	194.561	209.764	205.846	1.00 38.78 N
ATOM	8910	CA	MET B 542	194.400	211.037	206.532	1.00 38.78 C
ATOM	8911	C	MET B 542	192.919	211.355	206.667	1.00 38.78 C
ATOM	8912	O	MET B 542	192.447	212.451	206.360	1.00 38.78 O
ATOM	8913	CB	MET B 542	195.181	212.119	205.790	1.00 38.78 C
ATOM	8914	CG	MET B 542	195.238	213.458	206.489	1.00 38.78 C
ATOM	8915	SD	MET B 542	196.371	214.603	205.679	1.00 38.78 S
ATOM	8916	CE	MET B 542	195.471	214.995	204.184	1.00 38.78 C
ATOM	8917	N	GLY B 543	192.167	210.368	207.144	1.00 38.23 N

ATOM	8918	CA	GLY B 543	190.719	210.417	207.184	1.00 38.23	C
ATOM	8919	C	GLY B 543	190.078	209.765	205.977	1.00 38.23	C
ATOM	8920	O	GLY B 543	189.530	208.665	206.089	1.00 38.23	O
ATOM	8921	N	ASP B 544	190.147	210.417	204.817	1.00 39.09	N
ATOM	8922	CA	ASP B 544	189.668	209.814	203.579	1.00 39.09	C
ATOM	8923	C	ASP B 544	190.572	210.121	202.394	1.00 39.09	C
ATOM	8924	O	ASP B 544	190.197	209.814	201.256	1.00 39.09	O
ATOM	8925	CB	ASP B 544	188.245	210.279	203.253	1.00 39.09	C
ATOM	8926	CG	ASP B 544	187.200	209.637	204.137	1.00 39.09	C
ATOM	8927	OD1	ASP B 544	187.390	208.473	204.541	1.00 39.09	O
ATOM	8928	OD2	ASP B 544	186.184	210.300	204.429	1.00 39.09	O
ATOM	8929	N	VAL B 545	191.744	210.709	202.617	1.00 37.10	N
ATOM	8930	CA	VAL B 545	192.598	211.189	201.539	1.00 37.10	C
ATOM	8931	C	VAL B 545	194.035	210.820	201.873	1.00 37.10	C
ATOM	8932	O	VAL B 545	194.543	211.200	202.933	1.00 37.10	O
ATOM	8933	CB	VAL B 545	192.472	212.707	201.337	1.00 37.10	C
ATOM	8934	CG1	VAL B 545	193.431	213.171	200.266	1.00 37.10	C
ATOM	8935	CG2	VAL B 545	191.046	213.075	200.979	1.00 37.10	C
ATOM	8936	N	LEU B 546	194.686	210.080	200.980	1.00 38.22	N
ATOM	8937	CA	LEU B 546	196.064	209.674	201.210	1.00 38.22	C
ATOM	8938	C	LEU B 546	196.981	210.888	201.286	1.00 38.22	C
ATOM	8939	O	LEU B 546	196.758	211.908	200.630	1.00 38.22	O
ATOM	8940	CB	LEU B 546	196.533	208.741	200.097	1.00 38.22	C
ATOM	8941	CG	LEU B 546	195.828	207.393	199.997	1.00 38.22	C
ATOM	8942	CD1	LEU B 546	196.305	206.646	198.769	1.00 38.22	C
ATOM	8943	CD2	LEU B 546	196.075	206.578	201.247	1.00 38.22	C
ATOM	8944	N	GLY B 547	198.028	210.768	202.097	1.00 38.02	N
ATOM	8945	CA	GLY B 547	199.025	211.813	202.205	1.00 38.02	C
ATOM	8946	C	GLY B 547	200.383	211.357	201.717	1.00 38.02	C
ATOM	8947	O	GLY B 547	201.027	210.518	202.351	1.00 38.02	O
ATOM	8948	N	LEU B 548	200.830	211.903	200.592	1.00 40.36	N
ATOM	8949	CA	LEU B 548	202.086	211.474	200.002	1.00 40.36	C
ATOM	8950	C	LEU B 548	203.273	212.069	200.751	1.00 40.36	C
ATOM	8951	O	LEU B 548	203.197	213.146	201.345	1.00 40.36	O
ATOM	8952	CB	LEU B 548	202.156	211.879	198.530	1.00 40.36	C
ATOM	8953	CG	LEU B 548	201.492	210.966	197.503	1.00 40.36	C
ATOM	8954	CD1	LEU B 548	202.181	209.622	197.475	1.00 40.36	C

ATOM	8955	CD2	LEU B 548	200.020	210.804	197.803	1.00 40.36	C
ATOM	8956	N	ALA B 549	204.384	211.341	200.716	1.00 41.55	N
ATOM	8957	CA	ALA B 549	205.663	211.821	201.216	1.00 41.55	C
ATOM	8958	C	ALA B 549	206.705	210.763	200.895	1.00 41.55	C
ATOM	8959	O	ALA B 549	206.397	209.570	200.832	1.00 41.55	O
ATOM	8960	CB	ALA B 549	205.627	212.101	202.719	1.00 41.55	C
ATOM	8961	N	SER B 550	207.940	211.210	200.700	1.00 45.30	N
ATOM	8962	CA	SER B 550	209.038	210.287	200.451	1.00 45.30	C
ATOM	8963	C	SER B 550	209.577	209.799	201.794	1.00 45.30	C
ATOM	8964	O	SER B 550	208.982	210.036	202.848	1.00 45.30	O
ATOM	8965	CB	SER B 550	210.103	210.942	199.579	1.00 45.30	C
ATOM	8966	OG	SER B 550	210.723	212.019	200.249	1.00 45.30	O
ATOM	8967	N	CYS B 551	210.716	209.116	201.776	1.00 42.30	N
ATOM	8968	CA	CYS B 551	211.181	208.356	202.928	1.00 42.30	C
ATOM	8969	C	CYS B 551	212.457	208.953	203.499	1.00 42.30	C
ATOM	8970	O	CYS B 551	213.294	209.475	202.756	1.00 42.30	O
ATOM	8971	CB	CYS B 551	211.405	206.898	202.541	1.00 42.30	C
ATOM	8972	SG	CYS B 551	209.888	206.071	202.044	1.00 42.30	S
ATOM	8973	N	VAL B 552	212.596	208.874	204.824	1.00 36.88	N
ATOM	8974	CA	VAL B 552	213.828	209.290	205.471	1.00 36.88	C
ATOM	8975	C	VAL B 552	214.953	208.351	205.037	1.00 36.88	C
ATOM	8976	O	VAL B 552	214.721	207.232	204.568	1.00 36.88	O
ATOM	8977	CB	VAL B 552	213.656	209.279	206.999	1.00 36.88	C
ATOM	8978	CG1	VAL B 552	214.859	209.895	207.703	1.00 36.88	C
ATOM	8979	CG2	VAL B 552	212.363	209.962	207.406	1.00 36.88	C
ATOM	8980	N	THR B 553	216.190	208.815	205.199	1.00 35.99	N
ATOM	8981	CA	THR B 553	217.374	208.014	204.913	1.00 35.99	C
ATOM	8982	C	THR B 553	218.258	207.990	206.151	1.00 35.99	C
ATOM	8983	O	THR B 553	218.722	209.040	206.607	1.00 35.99	O
ATOM	8984	CB	THR B 553	218.144	208.567	203.713	1.00 35.99	C
ATOM	8985	OG1	THR B 553	217.312	208.534	202.548	1.00 35.99	O
ATOM	8986	CG2	THR B 553	219.391	207.740	203.458	1.00 35.99	C
ATOM	8987	N	ILE B 554	218.494	206.794	206.688	1.00 38.14	N
ATOM	8988	CA	ILE B 554	219.296	206.621	207.895	1.00 38.14	C
ATOM	8989	C	ILE B 554	220.759	206.686	207.475	1.00 38.14	C
ATOM	8990	O	ILE B 554	221.061	206.704	206.278	1.00 38.14	O
ATOM	8991	CB	ILE B 554	218.957	205.303	208.616	1.00 38.14	C

ATOM	8992	CG1	ILE	B	554	217.453	205.191	208.824	1.00	38.14	C
ATOM	8993	CG2	ILE	B	554	219.573	205.256	210.002	1.00	38.14	C
ATOM	8994	CD1	ILE	B	554	216.754	204.445	207.732	1.00	38.14	C
ATOM	8995	N	ASN	B	555	221.671	206.735	208.455	1.00	46.13	N
ATOM	8996	CA	ASN	B	555	223.081	207.016	208.202	1.00	46.13	C
ATOM	8997	C	ASN	B	555	223.711	206.068	207.185	1.00	46.13	C
ATOM	8998	O	ASN	B	555	224.721	206.428	206.571	1.00	46.13	O
ATOM	8999	CB	ASN	B	555	223.879	206.942	209.504	1.00	46.13	C
ATOM	9000	CG	ASN	B	555	225.159	207.739	209.431	1.00	46.13	C
ATOM	9001	OD1	ASN	B	555	225.368	208.478	208.470	1.00	46.13	O
ATOM	9002	ND2	ASN	B	555	226.032	207.589	210.427	1.00	46.13	N
ATOM	9003	N	GLN	B	556	223.163	204.861	207.021	1.00	45.23	N
ATOM	9004	CA	GLN	B	556	223.559	203.913	205.981	1.00	45.23	C
ATOM	9005	C	GLN	B	556	224.900	203.243	206.260	1.00	45.23	C
ATOM	9006	O	GLN	B	556	225.324	202.367	205.501	1.00	45.23	O
ATOM	9007	CB	GLN	B	556	223.624	204.593	204.610	1.00	45.23	C
ATOM	9008	CG	GLN	B	556	222.312	205.147	204.100	1.00	45.23	C
ATOM	9009	CD	GLN	B	556	221.291	204.070	203.832	1.00	45.23	C
ATOM	9010	OE1	GLN	B	556	221.622	202.990	203.347	1.00	45.23	O
ATOM	9011	NE2	GLN	B	556	220.035	204.357	204.147	1.00	45.23	N
ATOM	9012	N	THR	B	557	225.579	203.639	207.336	1.00	48.34	N
ATOM	9013	CA	THR	B	557	226.903	203.097	207.609	1.00	48.34	C
ATOM	9014	C	THR	B	557	227.115	202.737	209.073	1.00	48.34	C
ATOM	9015	O	THR	B	557	228.252	202.443	209.462	1.00	48.34	O
ATOM	9016	CB	THR	B	557	227.986	204.084	207.173	1.00	48.34	C
ATOM	9017	OG1	THR	B	557	229.272	203.474	207.321	1.00	48.34	O
ATOM	9018	CG2	THR	B	557	227.928	205.336	208.025	1.00	48.34	C
ATOM	9019	N	SER	B	558	226.067	202.752	209.898	1.00	43.61	N
ATOM	9020	CA	SER	B	558	226.199	202.387	211.302	1.00	43.61	C
ATOM	9021	C	SER	B	558	225.032	201.525	211.760	1.00	43.61	C
ATOM	9022	O	SER	B	558	224.660	201.552	212.937	1.00	43.61	O
ATOM	9023	CB	SER	B	558	226.310	203.629	212.186	1.00	43.61	C
ATOM	9024	OG	SER	B	558	226.384	203.273	213.554	1.00	43.61	O
ATOM	9025	N	VAL	B	559	224.449	200.759	210.846	1.00	36.01	N
ATOM	9026	CA	VAL	B	559	223.331	199.871	211.140	1.00	36.01	C
ATOM	9027	C	VAL	B	559	223.865	198.462	211.334	1.00	36.01	C
ATOM	9028	O	VAL	B	559	224.727	198.003	210.575	1.00	36.01	O

ATOM	9029	CB	VAL B 559	222.284	199.918	210.014	1.00 36.01	C
ATOM	9030	CG1	VAL B 559	221.203	198.891	210.260	1.00 36.01	C
ATOM	9031	CG2	VAL B 559	221.688	201.307	209.913	1.00 36.01	C
ATOM	9032	N	LYS B 560	223.348	197.764	212.347	1.00 31.23	N
ATOM	9033	CA	LYS B 560	223.871	196.451	212.739	1.00 31.23	C
ATOM	9034	C	LYS B 560	222.694	195.542	213.084	1.00 31.23	C
ATOM	9035	O	LYS B 560	222.163	195.594	214.195	1.00 31.23	O
ATOM	9036	CB	LYS B 560	224.837	196.586	213.908	1.00 31.23	C
ATOM	9037	CG	LYS B 560	226.109	197.339	213.569	1.00 31.23	C
ATOM	9038	CD	LYS B 560	227.072	197.358	214.742	1.00 31.23	C
ATOM	9039	CE	LYS B 560	226.593	198.316	215.820	1.00 31.23	C
ATOM	9040	NZ	LYS B 560	227.581	198.468	216.924	1.00 31.23	N
ATOM	9041	N	VAL B 561	222.296	194.705	212.128	1.00 28.26	N
ATOM	9042	CA	VAL B 561	221.224	193.746	212.370	1.00 28.26	C
ATOM	9043	C	VAL B 561	221.710	192.704	213.368	1.00 28.26	C
ATOM	9044	O	VAL B 561	222.691	191.995	213.118	1.00 28.26	O
ATOM	9045	CB	VAL B 561	220.770	193.089	211.063	1.00 28.26	C
ATOM	9046	CG1	VAL B 561	219.760	192.001	211.355	1.00 28.26	C
ATOM	9047	CG2	VAL B 561	220.181	194.125	210.131	1.00 28.26	C
ATOM	9048	N	LEU B 562	221.020	192.601	214.499	1.00 29.09	N
ATOM	9049	CA	LEU B 562	221.416	191.649	215.526	1.00 29.09	C
ATOM	9050	C	LEU B 562	221.158	190.222	215.062	1.00 29.09	C
ATOM	9051	O	LEU B 562	220.139	189.930	214.433	1.00 29.09	O
ATOM	9052	CB	LEU B 562	220.662	191.921	216.825	1.00 29.09	C
ATOM	9053	CG	LEU B 562	220.977	193.253	217.505	1.00 29.09	C
ATOM	9054	CD1	LEU B 562	220.112	193.446	218.735	1.00 29.09	C
ATOM	9055	CD2	LEU B 562	222.447	193.333	217.863	1.00 29.09	C
ATOM	9056	N	ARG B 563	222.092	189.331	215.381	1.00 38.30	N
ATOM	9057	CA	ARG B 563	221.994	187.923	214.999	1.00 38.30	C
ATOM	9058	C	ARG B 563	221.309	187.094	216.081	1.00 38.30	C
ATOM	9059	O	ARG B 563	221.800	186.053	216.510	1.00 38.30	O
ATOM	9060	CB	ARG B 563	223.382	187.380	214.683	1.00 38.30	C
ATOM	9061	CG	ARG B 563	224.329	187.356	215.870	1.00 38.30	C
ATOM	9062	CD	ARG B 563	225.693	186.810	215.489	1.00 38.30	C
ATOM	9063	NE	ARG B 563	226.386	187.680	214.544	1.00 38.30	N
ATOM	9064	CZ	ARG B 563	226.615	187.371	213.273	1.00 38.30	C
ATOM	9065	NH1	ARG B 563	227.252	188.227	212.486	1.00 38.30	N

ATOM	9066	NH2	ARG	B	563	226.212	186.205	212.789	1.00 38.30	N
ATOM	9067	N	ASP	B	564	220.141	187.551	216.519	1.00 41.11	N
ATOM	9068	CA	ASP	B	564	219.405	186.859	217.567	1.00 41.11	C
ATOM	9069	C	ASP	B	564	217.979	187.383	217.579	1.00 41.11	C
ATOM	9070	O	ASP	B	564	217.730	188.540	217.233	1.00 41.11	O
ATOM	9071	CB	ASP	B	564	220.066	187.058	218.935	1.00 41.11	C
ATOM	9072	CG	ASP	B	564	219.494	186.148	219.996	1.00 41.11	C
ATOM	9073	OD1	ASP	B	564	218.571	185.369	219.681	1.00 41.11	O
ATOM	9074	OD2	ASP	B	564	219.967	186.212	221.150	1.00 41.11	O
ATOM	9075	N	MET	B	565	217.048	186.520	217.980	1.00 39.34	N
ATOM	9076	CA	MET	B	565	215.639	186.877	217.993	1.00 39.34	C
ATOM	9077	C	MET	B	565	214.917	186.463	219.266	1.00 39.34	C
ATOM	9078	O	MET	B	565	213.710	186.699	219.373	1.00 39.34	O
ATOM	9079	CB	MET	B	565	214.923	186.265	216.781	1.00 39.34	C
ATOM	9080	CG	MET	B	565	215.363	186.850	215.454	1.00 39.34	C
ATOM	9081	SD	MET	B	565	214.588	186.051	214.038	1.00 39.34	S
ATOM	9082	CE	MET	B	565	212.905	186.629	214.200	1.00 39.34	C
ATOM	9083	N	ASN	B	566	215.606	185.850	220.223	1.00 41.66	N
ATOM	9084	CA	ASN	B	566	214.987	185.503	221.493	1.00 41.66	C
ATOM	9085	C	ASN	B	566	214.939	186.727	222.396	1.00 41.66	C
ATOM	9086	O	ASN	B	566	215.945	187.422	222.565	1.00 41.66	O
ATOM	9087	CB	ASN	B	566	215.760	184.377	222.175	1.00 41.66	C
ATOM	9088	CG	ASN	B	566	215.603	183.050	221.467	1.00 41.66	C
ATOM	9089	OD1	ASN	B	566	214.510	182.688	221.039	1.00 41.66	O
ATOM	9090	ND2	ASN	B	566	216.700	182.315	221.339	1.00 41.66	N
ATOM	9091	N	VAL	B	567	213.766	186.996	222.971	1.00 47.06	N
ATOM	9092	CA	VAL	B	567	213.653	188.079	223.940	1.00 47.06	C
ATOM	9093	C	VAL	B	567	214.500	187.729	225.152	1.00 47.06	C
ATOM	9094	O	VAL	B	567	214.336	186.661	225.754	1.00 47.06	O
ATOM	9095	CB	VAL	B	567	212.191	188.317	224.321	1.00 47.06	C
ATOM	9096	CG1	VAL	B	567	212.101	189.369	225.407	1.00 47.06	C
ATOM	9097	CG2	VAL	B	567	211.394	188.741	223.105	1.00 47.06	C
ATOM	9098	N	LYS	B	568	215.412	188.631	225.518	1.00 51.59	N
ATOM	9099	CA	LYS	B	568	216.442	188.292	226.494	1.00 51.59	C
ATOM	9100	C	LYS	B	568	215.867	188.021	227.878	1.00 51.59	C
ATOM	9101	O	LYS	B	568	216.486	187.304	228.672	1.00 51.59	O
ATOM	9102	CB	LYS	B	568	217.478	189.410	226.567	1.00 51.59	C

ATOM	9103	CG	LYS B 568	218.627	189.119	227.513	1.00 51.59 C
ATOM	9104	CD	LYS B 568	219.643	190.245	227.503	1.00 51.59 C
ATOM	9105	CE	LYS B 568	220.833	189.918	228.386	1.00 51.59 C
ATOM	9106	NZ	LYS B 568	220.451	189.875	229.823	1.00 51.59 N
ATOM	9107	N	GLU B 569	214.699	188.575	228.192	1.00 54.77 N
ATOM	9108	CA	GLU B 569	214.147	188.450	229.536	1.00 54.77 C
ATOM	9109	C	GLU B 569	212.993	187.461	229.629	1.00 54.77 C
ATOM	9110	O	GLU B 569	212.930	186.688	230.589	1.00 54.77 O
ATOM	9111	CB	GLU B 569	213.692	189.821	230.050	1.00 54.77 C
ATOM	9112	CG	GLU B 569	212.565	190.454	229.255	1.00 54.77 C
ATOM	9113	CD	GLU B 569	212.198	191.830	229.768	1.00 54.77 C
ATOM	9114	OE1	GLU B 569	212.834	192.290	230.739	1.00 54.77 O
ATOM	9115	OE2	GLU B 569	211.278	192.453	229.199	1.00 54.77 O
ATOM	9116	N	SER B 570	212.079	187.457	228.660	1.00 52.63 N
ATOM	9117	CA	SER B 570	210.896	186.611	228.734	1.00 52.63 C
ATOM	9118	C	SER B 570	211.218	185.230	228.181	1.00 52.63 C
ATOM	9119	O	SER B 570	211.430	185.096	226.967	1.00 52.63 O
ATOM	9120	CB	SER B 570	209.744	187.236	227.965	1.00 52.63 C
ATOM	9121	OG	SER B 570	209.356	188.464	228.552	1.00 52.63 O
ATOM	9122	N	PRO B 571	211.261	184.186	229.011	1.00 50.02 N
ATOM	9123	CA	PRO B 571	211.514	182.831	228.501	1.00 50.02 C
ATOM	9124	C	PRO B 571	210.304	182.326	227.731	1.00 50.02 C
ATOM	9125	O	PRO B 571	209.181	182.341	228.238	1.00 50.02 O
ATOM	9126	CB	PRO B 571	211.752	182.014	229.776	1.00 50.02 C
ATOM	9127	CG	PRO B 571	210.975	182.738	230.818	1.00 50.02 C
ATOM	9128	CD	PRO B 571	211.069	184.200	230.471	1.00 50.02 C
ATOM	9129	N	GLY B 572	210.535	181.878	226.500	1.00 45.65 N
ATOM	9130	CA	GLY B 572	209.455	181.399	225.663	1.00 45.65 C
ATOM	9131	C	GLY B 572	208.732	182.541	224.984	1.00 45.65 C
ATOM	9132	O	GLY B 572	207.501	182.557	224.909	1.00 45.65 O
ATOM	9133	N	ARG B 573	209.496	183.508	224.485	1.00 45.56 N
ATOM	9134	CA	ARG B 573	208.908	184.690	223.865	1.00 45.56 C
ATOM	9135	C	ARG B 573	209.929	185.238	222.880	1.00 45.56 C
ATOM	9136	O	ARG B 573	210.976	185.746	223.289	1.00 45.56 O
ATOM	9137	CB	ARG B 573	208.529	185.717	224.922	1.00 45.56 C
ATOM	9138	CG	ARG B 573	207.804	186.924	224.389	1.00 45.56 C
ATOM	9139	CD	ARG B 573	206.533	186.497	223.693	1.00 45.56 C

ATOM	9140	NE	ARG B 573	205.665	185.719	224.569	1.00 45.56 N
ATOM	9141	CZ	ARG B 573	204.582	185.069	224.153	1.00 45.56 C
ATOM	9142	NH1	ARG B 573	204.229	185.126	222.879	1.00 45.56 N
ATOM	9143	NH2	ARG B 573	203.852	184.370	225.009	1.00 45.56 N
ATOM	9144	N	CYS B 574	209.629	185.125	221.593	1.00 40.45 N
ATOM	9145	CA	CYS B 574	210.596	185.376	220.541	1.00 40.45 C
ATOM	9146	C	CYS B 574	210.107	186.516	219.658	1.00 40.45 C
ATOM	9147	O	CYS B 574	208.903	186.712	219.479	1.00 40.45 O
ATOM	9148	CB	CYS B 574	210.812	184.103	219.713	1.00 40.45 C
ATOM	9149	SG	CYS B 574	211.366	182.662	220.688	1.00 40.45 S
ATOM	9150	N	TYR B 575	211.050	187.280	219.109	1.00 36.47 N
ATOM	9151	CA	TYR B 575	210.686	188.354	218.196	1.00 36.47 C
ATOM	9152	C	TYR B 575	210.100	187.775	216.913	1.00 36.47 C
ATOM	9153	O	TYR B 575	210.082	186.562	216.691	1.00 36.47 O
ATOM	9154	CB	TYR B 575	211.889	189.232	217.862	1.00 36.47 C
ATOM	9155	CG	TYR B 575	212.423	190.047	219.009	1.00 36.47 C
ATOM	9156	CD1	TYR B 575	211.742	191.160	219.468	1.00 36.47 C
ATOM	9157	CD2	TYR B 575	213.635	189.734	219.598	1.00 36.47 C
ATOM	9158	CE1	TYR B 575	212.233	191.913	220.507	1.00 36.47 C
ATOM	9159	CE2	TYR B 575	214.136	190.485	220.634	1.00 36.47 C
ATOM	9160	CZ	TYR B 575	213.431	191.573	221.084	1.00 36.47 C
ATOM	9161	OH	TYR B 575	213.925	192.327	222.119	1.00 36.47 O
ATOM	9162	N	SER B 576	209.628	188.665	216.043	1.00 36.69 N
ATOM	9163	CA	SER B 576	209.087	188.267	214.755	1.00 36.69 C
ATOM	9164	C	SER B 576	209.882	188.800	213.575	1.00 36.69 C
ATOM	9165	O	SER B 576	209.663	188.339	212.450	1.00 36.69 O
ATOM	9166	CB	SER B 576	207.628	188.725	214.618	1.00 36.69 C
ATOM	9167	OG	SER B 576	207.106	188.383	213.347	1.00 36.69 O
ATOM	9168	N	ARG B 577	210.789	189.747	213.793	1.00 35.70 N
ATOM	9169	CA	ARG B 577	211.659	190.266	212.750	1.00 35.70 C
ATOM	9170	C	ARG B 577	212.959	190.706	213.397	1.00 35.70 C
ATOM	9171	O	ARG B 577	212.969	191.059	214.582	1.00 35.70 O
ATOM	9172	CB	ARG B 577	211.013	191.435	211.996	1.00 35.70 C
ATOM	9173	CG	ARG B 577	209.817	191.030	211.166	1.00 35.70 C
ATOM	9174	CD	ARG B 577	209.256	192.197	210.392	1.00 35.70 C
ATOM	9175	NE	ARG B 577	208.064	191.814	209.647	1.00 35.70 N
ATOM	9176	CZ	ARG B 577	208.088	191.286	208.428	1.00 35.70 C

ATOM	9177	NH1	ARG	B	577	209.247	191.075	207.820	1.00 35.70	N
ATOM	9178	NH2	ARG	B	577	206.956	190.966	207.819	1.00 35.70	N
ATOM	9179	N	PRO	B	578	214.066	190.687	212.660	1.00 30.57	N
ATOM	9180	CA	PRO	B	578	215.371	190.985	213.266	1.00 30.57	C
ATOM	9181	C	PRO	B	578	215.426	192.411	213.788	1.00 30.57	C
ATOM	9182	O	PRO	B	578	215.202	193.370	213.048	1.00 30.57	O
ATOM	9183	CB	PRO	B	578	216.350	190.772	212.107	1.00 30.57	C
ATOM	9184	CG	PRO	B	578	215.623	189.890	211.150	1.00 30.57	C
ATOM	9185	CD	PRO	B	578	214.189	190.292	211.251	1.00 30.57	C
ATOM	9186	N	VAL	B	579	215.733	192.549	215.077	1.00 29.33	N
ATOM	9187	CA	VAL	B	579	215.822	193.874	215.675	1.00 29.33	C
ATOM	9188	C	VAL	B	579	217.075	194.575	215.169	1.00 29.33	C
ATOM	9189	O	VAL	B	579	218.165	193.990	215.125	1.00 29.33	O
ATOM	9190	CB	VAL	B	579	215.808	193.775	217.208	1.00 29.33	C
ATOM	9191	CG1	VAL	B	579	217.024	193.022	217.698	1.00 29.33	C
ATOM	9192	CG2	VAL	B	579	215.750	195.158	217.825	1.00 29.33	C
ATOM	9193	N	VAL	B	580	216.922	195.838	214.779	1.00 27.29	N
ATOM	9194	CA	VAL	B	580	217.983	196.610	214.148	1.00 27.29	C
ATOM	9195	C	VAL	B	580	218.300	197.813	215.021	1.00 27.29	C
ATOM	9196	O	VAL	B	580	217.422	198.362	215.693	1.00 27.29	O
ATOM	9197	CB	VAL	B	580	217.576	197.057	212.727	1.00 27.29	C
ATOM	9198	CG1	VAL	B	580	218.659	197.897	212.093	1.00 27.29	C
ATOM	9199	CG2	VAL	B	580	217.256	195.855	211.868	1.00 27.29	C
ATOM	9200	N	ILE	B	581	219.561	198.226	215.008	1.00 30.13	N
ATOM	9201	CA	ILE	B	581	220.013	199.407	215.741	1.00 30.13	C
ATOM	9202	C	ILE	B	581	220.597	200.373	214.715	1.00 30.13	C
ATOM	9203	O	ILE	B	581	221.778	200.319	214.364	1.00 30.13	O
ATOM	9204	CB	ILE	B	581	221.015	199.063	216.846	1.00 30.13	C
ATOM	9205	CG1	ILE	B	581	222.194	198.258	216.300	1.00 30.13	C
ATOM	9206	CG2	ILE	B	581	220.338	198.281	217.945	1.00 30.13	C
ATOM	9207	CD1	ILE	B	581	223.324	198.096	217.284	1.00 30.13	C
ATOM	9208	N	PHE	B	582	219.761	201.275	214.214	1.00 36.95	N
ATOM	9209	CA	PHE	B	582	220.198	202.279	213.259	1.00 36.95	C
ATOM	9210	C	PHE	B	582	220.573	203.558	214.003	1.00 36.95	C
ATOM	9211	O	PHE	B	582	220.682	203.580	215.231	1.00 36.95	O
ATOM	9212	CB	PHE	B	582	219.119	202.516	212.204	1.00 36.95	C
ATOM	9213	CG	PHE	B	582	217.835	203.048	212.757	1.00 36.95	C

ATOM	9214	CD1	PHE	B	582	216.847	202.188	213.189	1.00	36.95	C
ATOM	9215	CD2	PHE	B	582	217.607	204.407	212.833	1.00	36.95	C
ATOM	9216	CE1	PHE	B	582	215.663	202.671	213.695	1.00	36.95	C
ATOM	9217	CE2	PHE	B	582	216.425	204.895	213.339	1.00	36.95	C
ATOM	9218	CZ	PHE	B	582	215.451	204.025	213.770	1.00	36.95	C
ATOM	9219	N	ASN	B	583	220.779	204.642	213.261	1.00	42.97	N
ATOM	9220	CA	ASN	B	583	221.173	205.911	213.865	1.00	42.97	C
ATOM	9221	C	ASN	B	583	220.890	207.021	212.869	1.00	42.97	C
ATOM	9222	O	ASN	B	583	221.404	206.987	211.746	1.00	42.97	O
ATOM	9223	CB	ASN	B	583	222.648	205.889	214.250	1.00	42.97	C
ATOM	9224	CG	ASN	B	583	223.045	207.075	215.094	1.00	42.97	C
ATOM	9225	OD1	ASN	B	583	222.229	207.947	215.385	1.00	42.97	O
ATOM	9226	ND2	ASN	B	583	224.308	207.114	215.498	1.00	42.97	N
ATOM	9227	N	PHE	B	584	220.080	207.997	213.271	1.00	42.01	N
ATOM	9228	CA	PHE	B	584	219.749	209.100	212.383	1.00	42.01	C
ATOM	9229	C	PHE	B	584	220.993	209.915	212.047	1.00	42.01	C
ATOM	9230	O	PHE	B	584	222.035	209.810	212.697	1.00	42.01	O
ATOM	9231	CB	PHE	B	584	218.693	210.006	213.011	1.00	42.01	C
ATOM	9232	CG	PHE	B	584	217.332	209.388	213.084	1.00	42.01	C
ATOM	9233	CD1	PHE	B	584	216.524	209.339	211.965	1.00	42.01	C
ATOM	9234	CD2	PHE	B	584	216.852	208.870	214.271	1.00	42.01	C
ATOM	9235	CE1	PHE	B	584	215.268	208.776	212.024	1.00	42.01	C
ATOM	9236	CE2	PHE	B	584	215.595	208.306	214.334	1.00	42.01	C
ATOM	9237	CZ	PHE	B	584	214.803	208.260	213.208	1.00	42.01	C
ATOM	9238	N	ALA	B	585	220.870	210.735	211.006	1.00	43.91	N
ATOM	9239	CA	ALA	B	585	221.984	211.562	210.570	1.00	43.91	C
ATOM	9240	C	ALA	B	585	222.375	212.559	211.654	1.00	43.91	C
ATOM	9241	O	ALA	B	585	221.536	213.038	212.420	1.00	43.91	O
ATOM	9242	CB	ALA	B	585	221.625	212.300	209.282	1.00	43.91	C
ATOM	9243	N	ASN	B	586	223.679	212.838	211.733	1.00	51.56	N
ATOM	9244	CA	ASN	B	586	224.257	213.829	212.638	1.00	51.56	C
ATOM	9245	C	ASN	B	586	224.272	213.392	214.097	1.00	51.56	C
ATOM	9246	O	ASN	B	586	224.867	214.074	214.937	1.00	51.56	O
ATOM	9247	CB	ASN	B	586	223.497	215.154	212.568	1.00	51.56	C
ATOM	9248	CG	ASN	B	586	223.635	215.857	211.244	1.00	51.56	C
ATOM	9249	OD1	ASN	B	586	222.670	215.963	210.491	1.00	51.56	O
ATOM	9250	ND2	ASN	B	586	224.821	216.369	210.958	1.00	51.56	N

ATOM	9251	N	SER B 587	223.637	212.274	214.420	1.00 50.71	N
ATOM	9252	CA	SER B 587	223.356	211.947	215.808	1.00 50.71	C
ATOM	9253	C	SER B 587	224.392	210.982	216.371	1.00 50.71	C
ATOM	9254	O	SER B 587	225.235	210.432	215.659	1.00 50.71	O
ATOM	9255	CB	SER B 587	221.949	211.359	215.944	1.00 50.71	C
ATOM	9256	OG	SER B 587	221.853	210.109	215.289	1.00 50.71	O
ATOM	9257	N	SER B 588	224.316	210.787	217.688	1.00 53.78	N
ATOM	9258	CA	SER B 588	225.194	209.855	218.381	1.00 53.78	C
ATOM	9259	C	SER B 588	224.437	209.053	219.431	1.00 53.78	C
ATOM	9260	O	SER B 588	225.057	208.519	220.358	1.00 53.78	O
ATOM	9261	CB	SER B 588	226.363	210.594	219.035	1.00 53.78	C
ATOM	9262	OG	SER B 588	227.188	209.701	219.759	1.00 53.78	O
ATOM	9263	N	TYR B 589	223.117	208.958	219.311	1.00 53.51	N
ATOM	9264	CA	TYR B 589	222.263	208.292	220.290	1.00 53.51	C
ATOM	9265	C	TYR B 589	221.535	207.169	219.560	1.00 53.51	C
ATOM	9266	O	TYR B 589	220.641	207.424	218.748	1.00 53.51	O
ATOM	9267	CB	TYR B 589	221.293	209.284	220.926	1.00 53.51	C
ATOM	9268	CG	TYR B 589	221.962	210.326	221.801	1.00 53.51	C
ATOM	9269	CD1	TYR B 589	223.240	210.127	222.306	1.00 53.51	C
ATOM	9270	CD2	TYR B 589	221.324	211.520	222.102	1.00 53.51	C
ATOM	9271	CE1	TYR B 589	223.854	211.081	223.099	1.00 53.51	C
ATOM	9272	CE2	TYR B 589	221.928	212.480	222.889	1.00 53.51	C
ATOM	9273	CZ	TYR B 589	223.193	212.256	223.386	1.00 53.51	C
ATOM	9274	OH	TYR B 589	223.797	213.210	224.172	1.00 53.51	O
ATOM	9275	N	VAL B 590	221.927	205.927	219.846	1.00 48.00	N
ATOM	9276	CA	VAL B 590	221.425	204.786	219.093	1.00 48.00	C
ATOM	9277	C	VAL B 590	219.946	204.570	219.380	1.00 48.00	C
ATOM	9278	O	VAL B 590	219.407	205.037	220.391	1.00 48.00	O
ATOM	9279	CB	VAL B 590	222.240	203.527	219.434	1.00 48.00	C
ATOM	9280	CG1	VAL B 590	223.696	203.726	219.058	1.00 48.00	C
ATOM	9281	CG2	VAL B 590	222.105	203.207	220.909	1.00 48.00	C
ATOM	9282	N	GLN B 591	219.280	203.851	218.478	1.00 40.89	N
ATOM	9283	CA	GLN B 591	217.876	203.508	218.669	1.00 40.89	C
ATOM	9284	C	GLN B 591	217.628	202.038	218.365	1.00 40.89	C
ATOM	9285	O	GLN B 591	218.575	201.262	218.210	1.00 40.89	O
ATOM	9286	CB	GLN B 591	216.979	204.382	217.799	1.00 40.89	C
ATOM	9287	CG	GLN B 591	217.000	205.838	218.185	1.00 40.89	C

ATOM	9288	CD	GLN B 591	216.023	206.656	217.380	1.00 40.89	C
ATOM	9289	OE1	GLN B 591	215.338	206.137	216.501	1.00 40.89	O
ATOM	9290	NE2	GLN B 591	215.950	207.945	217.675	1.00 40.89	N
ATOM	9291	N	TYR B 592	216.360	201.643	218.289	1.00 35.73	N
ATOM	9292	CA	TYR B 592	216.002	200.253	218.045	1.00 35.73	C
ATOM	9293	C	TYR B 592	214.805	200.194	217.114	1.00 35.73	C
ATOM	9294	O	TYR B 592	213.797	200.864	217.349	1.00 35.73	O
ATOM	9295	CB	TYR B 592	215.680	199.529	219.353	1.00 35.73	C
ATOM	9296	CG	TYR B 592	216.869	199.387	220.263	1.00 35.73	C
ATOM	9297	CD1	TYR B 592	217.769	198.346	220.105	1.00 35.73	C
ATOM	9298	CD2	TYR B 592	217.103	200.310	221.266	1.00 35.73	C
ATOM	9299	CE1	TYR B 592	218.860	198.219	220.934	1.00 35.73	C
ATOM	9300	CE2	TYR B 592	218.190	200.194	222.097	1.00 35.73	C
ATOM	9301	CZ	TYR B 592	219.067	199.149	221.928	1.00 35.73	C
ATOM	9302	OH	TYR B 592	220.153	199.036	222.762	1.00 35.73	O
ATOM	9303	N	GLY B 593	214.921	199.385	216.068	1.00 31.58	N
ATOM	9304	CA	GLY B 593	213.829	199.191	215.136	1.00 31.58	C
ATOM	9305	C	GLY B 593	213.989	197.857	214.446	1.00 31.58	C
ATOM	9306	O	GLY B 593	215.094	197.318	214.339	1.00 31.58	O
ATOM	9307	N	GLN B 594	212.869	197.326	213.973	1.00 30.72	N
ATOM	9308	CA	GLN B 594	212.828	195.990	213.405	1.00 30.72	C
ATOM	9309	C	GLN B 594	212.841	196.058	211.886	1.00 30.72	C
ATOM	9310	O	GLN B 594	212.136	196.874	211.285	1.00 30.72	O
ATOM	9311	CB	GLN B 594	211.594	195.237	213.888	1.00 30.72	C
ATOM	9312	CG	GLN B 594	211.610	194.951	215.370	1.00 30.72	C
ATOM	9313	CD	GLN B 594	210.373	194.226	215.813	1.00 30.72	C
ATOM	9314	OE1	GLN B 594	209.477	193.981	215.014	1.00 30.72	O
ATOM	9315	NE2	GLN B 594	210.307	193.880	217.090	1.00 30.72	N
ATOM	9316	N	LEU B 595	213.654	195.199	211.277	1.00 33.25	N
ATOM	9317	CA	LEU B 595	213.770	195.154	209.828	1.00 33.25	C
ATOM	9318	C	LEU B 595	212.430	194.815	209.191	1.00 33.25	C
ATOM	9319	O	LEU B 595	211.577	194.169	209.804	1.00 33.25	O
ATOM	9320	CB	LEU B 595	214.819	194.123	209.420	1.00 33.25	C
ATOM	9321	CG	LEU B 595	215.139	194.008	207.932	1.00 33.25	C
ATOM	9322	CD1	LEU B 595	215.759	195.295	207.432	1.00 33.25	C
ATOM	9323	CD2	LEU B 595	216.059	192.833	207.674	1.00 33.25	C
ATOM	9324	N	GLY B 596	212.245	195.257	207.951	1.00 39.37	N

ATOM	9325	CA	GLY B 596	210.999	195.028	207.249	1.00 39.37	C
ATOM	9326	C	GLY B 596	211.189	194.463	205.859	1.00 39.37	C
ATOM	9327	O	GLY B 596	212.273	193.980	205.521	1.00 39.37	O
ATOM	9328	N	GLU B 597	210.142	194.517	205.042	1.00 49.63	N
ATOM	9329	CA	GLU B 597	210.212	193.952	203.703	1.00 49.63	C
ATOM	9330	C	GLU B 597	210.938	194.899	202.756	1.00 49.63	C
ATOM	9331	O	GLU B 597	210.819	196.122	202.860	1.00 49.63	O
ATOM	9332	CB	GLU B 597	208.808	193.661	203.172	1.00 49.63	C
ATOM	9333	CG	GLU B 597	208.051	192.586	203.940	1.00 49.63	C
ATOM	9334	CD	GLU B 597	207.315	193.136	205.150	1.00 49.63	C
ATOM	9335	OE1	GLU B 597	207.336	194.369	205.350	1.00 49.63	O
ATOM	9336	OE2	GLU B 597	206.715	192.336	205.901	1.00 49.63	O
ATOM	9337	N	ASP B 598	211.695	194.320	201.826	1.00 51.47	N
ATOM	9338	CA	ASP B 598	212.391	195.071	200.782	1.00 51.47	C
ATOM	9339	C	ASP B 598	213.398	196.053	201.377	1.00 51.47	C
ATOM	9340	O	ASP B 598	213.671	197.110	200.805	1.00 51.47	O
ATOM	9341	CB	ASP B 598	211.396	195.793	199.869	1.00 51.47	C
ATOM	9342	CG	ASP B 598	211.999	196.168	198.529	1.00 51.47	C
ATOM	9343	OD1	ASP B 598	213.198	195.894	198.320	1.00 51.47	O
ATOM	9344	OD2	ASP B 598	211.267	196.719	197.678	1.00 51.47	O
ATOM	9345	N	ASN B 599	213.956	195.694	202.533	1.00 43.53	N
ATOM	9346	CA	ASN B 599	215.048	196.420	203.180	1.00 43.53	C
ATOM	9347	C	ASN B 599	214.642	197.857	203.525	1.00 43.53	C
ATOM	9348	O	ASN B 599	215.176	198.833	202.997	1.00 43.53	O
ATOM	9349	CB	ASN B 599	216.301	196.409	202.300	1.00 43.53	C
ATOM	9350	CG	ASN B 599	217.569	196.542	203.106	1.00 43.53	C
ATOM	9351	OD1	ASN B 599	218.668	196.332	202.597	1.00 43.53	O
ATOM	9352	ND2	ASN B 599	217.421	196.852	204.386	1.00 43.53	N
ATOM	9353	N	GLU B 600	213.682	197.958	204.441	1.00 39.70	N
ATOM	9354	CA	GLU B 600	213.277	199.255	204.973	1.00 39.70	C
ATOM	9355	C	GLU B 600	212.978	199.107	206.455	1.00 39.70	C
ATOM	9356	O	GLU B 600	212.175	198.256	206.846	1.00 39.70	O
ATOM	9357	CB	GLU B 600	212.071	199.814	204.211	1.00 39.70	C
ATOM	9358	CG	GLU B 600	210.798	198.988	204.263	1.00 39.70	C
ATOM	9359	CD	GLU B 600	209.889	199.391	205.403	1.00 39.70	C
ATOM	9360	OE1	GLU B 600	210.084	200.494	205.951	1.00 39.70	O
ATOM	9361	OE2	GLU B 600	208.974	198.613	205.743	1.00 39.70	O

ATOM	9362	N	ILE B 601	213.646	199.917	207.278	1.00 33.11	N
ATOM	9363	CA	ILE B 601	213.450	199.853	208.720	1.00 33.11	C
ATOM	9364	C	ILE B 601	212.062	200.360	209.075	1.00 33.11	C
ATOM	9365	O	ILE B 601	211.543	201.298	208.455	1.00 33.11	O
ATOM	9366	CB	ILE B 601	214.534	200.665	209.449	1.00 33.11	C
ATOM	9367	CG1	ILE B 601	215.911	200.043	209.242	1.00 33.11	C
ATOM	9368	CG2	ILE B 601	214.224	200.772	210.927	1.00 33.11	C
ATOM	9369	CD1	ILE B 601	217.038	200.917	209.736	1.00 33.11	C
ATOM	9370	N	LEU B 602	211.450	199.738	210.077	1.00 32.02	N
ATOM	9371	CA	LEU B 602	210.197	200.200	210.651	1.00 32.02	C
ATOM	9372	C	LEU B 602	210.378	200.375	212.152	1.00 32.02	C
ATOM	9373	O	LEU B 602	211.014	199.548	212.810	1.00 32.02	O
ATOM	9374	CB	LEU B 602	209.053	199.230	210.342	1.00 32.02	C
ATOM	9375	CG	LEU B 602	209.195	197.769	210.766	1.00 32.02	C
ATOM	9376	CD1	LEU B 602	208.777	197.564	212.206	1.00 32.02	C
ATOM	9377	CD2	LEU B 602	208.379	196.880	209.845	1.00 32.02	C
ATOM	9378	N	LEU B 603	209.810	201.451	212.685	1.00 33.04	N
ATOM	9379	CA	LEU B 603	210.125	201.895	214.033	1.00 33.04	C
ATOM	9380	C	LEU B 603	209.548	200.952	215.084	1.00 33.04	C
ATOM	9381	O	LEU B 603	208.693	200.107	214.806	1.00 33.04	O
ATOM	9382	CB	LEU B 603	209.589	203.307	214.256	1.00 33.04	C
ATOM	9383	CG	LEU B 603	210.222	204.400	213.399	1.00 33.04	C
ATOM	9384	CD1	LEU B 603	209.464	205.701	213.556	1.00 33.04	C
ATOM	9385	CD2	LEU B 603	211.675	204.585	213.782	1.00 33.04	C
ATOM	9386	N	GLY B 604	210.034	201.111	216.309	1.00 34.80	N
ATOM	9387	CA	GLY B 604	209.522	200.382	217.448	1.00 34.80	C
ATOM	9388	C	GLY B 604	210.151	199.008	217.601	1.00 34.80	C
ATOM	9389	O	GLY B 604	210.682	198.420	216.662	1.00 34.80	O
ATOM	9390	N	ASN B 605	210.097	198.496	218.835	1.00 37.02	N
ATOM	9391	CA	ASN B 605	210.572	197.148	219.152	1.00 37.02	C
ATOM	9392	C	ASN B 605	209.493	196.448	219.973	1.00 37.02	C
ATOM	9393	O	ASN B 605	209.596	196.352	221.197	1.00 37.02	O
ATOM	9394	CB	ASN B 605	211.889	197.233	219.910	1.00 37.02	C
ATOM	9395	CG	ASN B 605	212.705	195.973	219.810	1.00 37.02	C
ATOM	9396	OD1	ASN B 605	213.888	195.965	220.146	1.00 37.02	O
ATOM	9397	ND2	ASN B 605	212.089	194.903	219.332	1.00 37.02	N
ATOM	9398	N	HIS B 606	208.450	195.946	219.299	1.00 39.73	N

ATOM	9399	CA	HIS B 606	207.426	195.218	220.042	1.00 39.73 C
ATOM	9400	C	HIS B 606	206.741	194.095	219.265	1.00 39.73 C
ATOM	9401	O	HIS B 606	205.639	193.693	219.655	1.00 39.73 O
ATOM	9402	CB	HIS B 606	206.375	196.192	220.559	1.00 39.73 C
ATOM	9403	CG	HIS B 606	205.644	196.916	219.477	1.00 39.73 C
ATOM	9404	ND1	HIS B 606	206.171	198.009	218.826	1.00 39.73 N
ATOM	9405	CD2	HIS B 606	204.421	196.710	218.936	1.00 39.73 C
ATOM	9406	CE1	HIS B 606	205.308	198.440	217.924	1.00 39.73 C
ATOM	9407	NE2	HIS B 606	204.235	197.672	217.975	1.00 39.73 N
ATOM	9408	N	ARG B 607	207.330	193.575	218.192	1.00 35.41 N
ATOM	9409	CA	ARG B 607	206.665	192.541	217.398	1.00 35.41 C
ATOM	9410	C	ARG B 607	207.025	191.143	217.911	1.00 35.41 C
ATOM	9411	O	ARG B 607	207.530	190.295	217.179	1.00 35.41 O
ATOM	9412	CB	ARG B 607	207.031	192.680	215.925	1.00 35.41 C
ATOM	9413	CG	ARG B 607	206.275	193.736	215.134	1.00 35.41 C
ATOM	9414	CD	ARG B 607	206.779	195.142	215.418	1.00 35.41 C
ATOM	9415	NE	ARG B 607	206.257	196.118	214.463	1.00 35.41 N
ATOM	9416	CZ	ARG B 607	206.487	197.428	214.520	1.00 35.41 C
ATOM	9417	NH1	ARG B 607	207.240	197.926	215.486	1.00 35.41 N
ATOM	9418	NH2	ARG B 607	205.968	198.235	213.603	1.00 35.41 N
ATOM	9419	N	THR B 608	206.756	190.906	219.193	1.00 38.07 N
ATOM	9420	CA	THR B 608	207.070	189.617	219.791	1.00 38.07 C
ATOM	9421	C	THR B 608	206.114	188.543	219.274	1.00 38.07 C
ATOM	9422	O	THR B 608	205.184	188.815	218.513	1.00 38.07 O
ATOM	9423	CB	THR B 608	207.021	189.707	221.315	1.00 38.07 C
ATOM	9424	OG1	THR B 608	205.712	190.106	221.732	1.00 38.07 O
ATOM	9425	CG2	THR B 608	208.038	190.713	221.820	1.00 38.07 C
ATOM	9426	N	GLU B 609	206.353	187.301	219.687	1.00 43.05 N
ATOM	9427	CA	GLU B 609	205.512	186.179	219.291	1.00 43.05 C
ATOM	9428	C	GLU B 609	205.936	184.951	220.080	1.00 43.05 C
ATOM	9429	O	GLU B 609	207.098	184.832	220.479	1.00 43.05 O
ATOM	9430	CB	GLU B 609	205.613	185.892	217.789	1.00 43.05 C
ATOM	9431	CG	GLU B 609	206.948	185.322	217.336	1.00 43.05 C
ATOM	9432	CD	GLU B 609	207.005	185.072	215.836	1.00 43.05 C
ATOM	9433	OE1	GLU B 609	206.012	185.369	215.140	1.00 43.05 O
ATOM	9434	OE2	GLU B 609	208.044	184.575	215.352	1.00 43.05 O
ATOM	9435	N	GLU B 610	204.990	184.039	220.289	1.00 46.18 N

ATOM	9436	CA	GLU B 610	205.316	182.778	220.935	1.00 46.18 C
ATOM	9437	C	GLU B 610	206.317	182.012	220.072	1.00 46.18 C
ATOM	9438	O	GLU B 610	206.514	182.312	218.892	1.00 46.18 O
ATOM	9439	CB	GLU B 610	204.045	181.963	221.180	1.00 46.18 C
ATOM	9440	CG	GLU B 610	204.242	180.677	221.953	1.00 46.18 C
ATOM	9441	CD	GLU B 610	204.719	180.920	223.369	1.00 46.18 C
ATOM	9442	OE1	GLU B 610	204.425	181.997	223.928	1.00 46.18 O
ATOM	9443	OE2	GLU B 610	205.397	180.031	223.922	1.00 46.18 O
ATOM	9444	N	CYS B 611	206.982	181.035	220.679	1.00 46.93 N
ATOM	9445	CA	CYS B 611	208.098	180.353	220.041	1.00 46.93 C
ATOM	9446	C	CYS B 611	207.673	178.940	219.660	1.00 46.93 C
ATOM	9447	O	CYS B 611	207.142	178.199	220.492	1.00 46.93 O
ATOM	9448	CB	CYS B 611	209.308	180.337	220.974	1.00 46.93 C
ATOM	9449	SG	CYS B 611	209.687	181.998	221.629	1.00 46.93 S
ATOM	9450	N	GLN B 612	207.908	178.577	218.403	1.00 48.03 N
ATOM	9451	CA	GLN B 612	207.367	177.367	217.793	1.00 48.03 C
ATOM	9452	C	GLN B 612	208.462	176.593	217.073	1.00 48.03 C
ATOM	9453	O	GLN B 612	208.372	176.318	215.874	1.00 48.03 O
ATOM	9454	CB	GLN B 612	206.213	177.705	216.855	1.00 48.03 C
ATOM	9455	CG	GLN B 612	204.967	178.170	217.573	1.00 48.03 C
ATOM	9456	CD	GLN B 612	204.425	177.125	218.525	1.00 48.03 C
ATOM	9457	OE1	GLN B 612	204.447	177.303	219.742	1.00 48.03 O
ATOM	9458	NE2	GLN B 612	203.958	176.012	217.973	1.00 48.03 N
ATOM	9459	N	LEU B 613	209.541	176.309	217.800	1.00 39.45 N
ATOM	9460	CA	LEU B 613	210.620	175.455	217.322	1.00 39.45 C
ATOM	9461	C	LEU B 613	210.055	174.198	216.662	1.00 39.45 C
ATOM	9462	O	LEU B 613	209.113	173.596	217.192	1.00 39.45 O
ATOM	9463	CB	LEU B 613	211.514	175.040	218.494	1.00 39.45 C
ATOM	9464	CG	LEU B 613	212.599	175.947	219.072	1.00 39.45 C
ATOM	9465	CD1	LEU B 613	213.656	176.248	218.031	1.00 39.45 C
ATOM	9466	CD2	LEU B 613	212.008	177.224	219.640	1.00 39.45 C
ATOM	9467	N	PRO B 614	210.595	173.769	215.511	1.00 37.44 N
ATOM	9468	CA	PRO B 614	211.635	174.416	214.704	1.00 37.44 C
ATOM	9469	C	PRO B 614	211.061	175.530	213.832	1.00 37.44 C
ATOM	9470	O	PRO B 614	209.847	175.594	213.664	1.00 37.44 O
ATOM	9471	CB	PRO B 614	212.166	173.274	213.831	1.00 37.44 C
ATOM	9472	CG	PRO B 614	211.718	172.020	214.509	1.00 37.44 C

ATOM	9473	CD	PRO B 614	210.397	172.371	215.104	1.00 37.44	C
ATOM	9474	N	SER B 615	211.916	176.390	213.283	1.00 35.52	N
ATOM	9475	CA	SER B 615	211.466	177.475	212.423	1.00 35.52	C
ATOM	9476	C	SER B 615	212.517	177.740	211.358	1.00 35.52	C
ATOM	9477	O	SER B 615	213.706	177.488	211.565	1.00 35.52	O
ATOM	9478	CB	SER B 615	211.189	178.748	213.226	1.00 35.52	C
ATOM	9479	OG	SER B 615	210.133	178.541	214.146	1.00 35.52	O
ATOM	9480	N	LEU B 616	212.069	178.234	210.207	1.00 32.53	N
ATOM	9481	CA	LEU B 616	212.951	178.463	209.066	1.00 32.53	C
ATOM	9482	C	LEU B 616	212.637	179.813	208.429	1.00 32.53	C
ATOM	9483	O	LEU B 616	212.427	179.929	207.223	1.00 32.53	O
ATOM	9484	CB	LEU B 616	212.840	177.314	208.064	1.00 32.53	C
ATOM	9485	CG	LEU B 616	213.920	177.153	206.989	1.00 32.53	C
ATOM	9486	CD1	LEU B 616	214.128	175.682	206.750	1.00 32.53	C
ATOM	9487	CD2	LEU B 616	213.562	177.808	205.671	1.00 32.53	C
ATOM	9488	N	LYS B 617	212.567	180.855	209.250	1.00 34.48	N
ATOM	9489	CA	LYS B 617	212.272	182.184	208.733	1.00 34.48	C
ATOM	9490	C	LYS B 617	213.370	182.654	207.787	1.00 34.48	C
ATOM	9491	O	LYS B 617	214.560	182.504	208.074	1.00 34.48	O
ATOM	9492	CB	LYS B 617	212.115	183.168	209.886	1.00 34.48	C
ATOM	9493	CG	LYS B 617	210.909	182.903	210.757	1.00 34.48	C
ATOM	9494	CD	LYS B 617	210.770	183.962	211.828	1.00 34.48	C
ATOM	9495	CE	LYS B 617	209.602	183.652	212.740	1.00 34.48	C
ATOM	9496	NZ	LYS B 617	208.308	183.752	212.014	1.00 34.48	N
ATOM	9497	N	ILE B 618	212.964	183.233	206.659	1.00 34.49	N
ATOM	9498	CA	ILE B 618	213.880	183.713	205.626	1.00 34.49	C
ATOM	9499	C	ILE B 618	213.415	185.103	205.211	1.00 34.49	C
ATOM	9500	O	ILE B 618	212.388	185.245	204.540	1.00 34.49	O
ATOM	9501	CB	ILE B 618	213.940	182.775	204.418	1.00 34.49	C
ATOM	9502	CG1	ILE B 618	214.618	181.460	204.795	1.00 34.49	C
ATOM	9503	CG2	ILE B 618	214.649	183.448	203.263	1.00 34.49	C
ATOM	9504	CD1	ILE B 618	214.497	180.392	203.738	1.00 34.49	C
ATOM	9505	N	PHE B 619	214.170	186.127	205.593	1.00 34.15	N
ATOM	9506	CA	PHE B 619	213.812	187.505	205.295	1.00 34.15	C
ATOM	9507	C	PHE B 619	214.543	188.002	204.054	1.00 34.15	C
ATOM	9508	O	PHE B 619	215.724	187.715	203.847	1.00 34.15	O
ATOM	9509	CB	PHE B 619	214.134	188.404	206.486	1.00 34.15	C

ATOM	9510	CG	PHE	B	619	213.320	188.098	207.703	1.00	34.15	C
ATOM	9511	CD1	PHE	B	619	212.033	188.578	207.825	1.00	34.15	C
ATOM	9512	CD2	PHE	B	619	213.838	187.319	208.718	1.00	34.15	C
ATOM	9513	CE1	PHE	B	619	211.279	188.295	208.940	1.00	34.15	C
ATOM	9514	CE2	PHE	B	619	213.089	187.032	209.835	1.00	34.15	C
ATOM	9515	CZ	PHE	B	619	211.808	187.521	209.946	1.00	34.15	C
ATOM	9516	N	ILE	B	620	213.830	188.778	203.240	1.00	39.78	N
ATOM	9517	CA	ILE	B	620	214.319	189.240	201.946	1.00	39.78	C
ATOM	9518	C	ILE	B	620	214.914	190.632	202.106	1.00	39.78	C
ATOM	9519	O	ILE	B	620	214.444	191.439	202.915	1.00	39.78	O
ATOM	9520	CB	ILE	B	620	213.189	189.245	200.898	1.00	39.78	C
ATOM	9521	CG1	ILE	B	620	213.761	189.342	199.487	1.00	39.78	C
ATOM	9522	CG2	ILE	B	620	212.233	190.390	201.161	1.00	39.78	C
ATOM	9523	CD1	ILE	B	620	214.521	188.111	199.065	1.00	39.78	C
ATOM	9524	N	ALA	B	621	215.962	190.915	201.325	1.00	42.95	N
ATOM	9525	CA	ALA	B	621	216.666	192.183	201.462	1.00	42.95	C
ATOM	9526	C	ALA	B	621	217.109	192.829	200.155	1.00	42.95	C
ATOM	9527	O	ALA	B	621	217.788	193.858	200.212	1.00	42.95	O
ATOM	9528	CB	ALA	B	621	217.894	192.012	202.369	1.00	42.95	C
ATOM	9529	N	GLY	B	622	216.763	192.277	198.991	1.00	49.91	N
ATOM	9530	CA	GLY	B	622	217.082	192.949	197.743	1.00	49.91	C
ATOM	9531	C	GLY	B	622	218.565	193.133	197.480	1.00	49.91	C
ATOM	9532	O	GLY	B	622	219.077	194.251	197.592	1.00	49.91	O
ATOM	9533	N	ASN	B	623	219.268	192.058	197.138	1.00	50.08	N
ATOM	9534	CA	ASN	B	623	218.629	190.812	196.745	1.00	50.08	C
ATOM	9535	C	ASN	B	623	218.988	189.639	197.646	1.00	50.08	C
ATOM	9536	O	ASN	B	623	218.286	188.635	197.671	1.00	50.08	O
ATOM	9537	CB	ASN	B	623	218.992	190.482	195.297	1.00	50.08	C
ATOM	9538	CG	ASN	B	623	220.489	190.378	195.080	1.00	50.08	C
ATOM	9539	OD1	ASN	B	623	221.277	190.485	196.019	1.00	50.08	O
ATOM	9540	ND2	ASN	B	623	220.888	190.161	193.834	1.00	50.08	N
ATOM	9541	N	SER	B	624	220.092	189.759	198.375	1.00	43.59	N
ATOM	9542	CA	SER	B	624	220.436	188.734	199.348	1.00	43.59	C
ATOM	9543	C	SER	B	624	219.367	188.675	200.430	1.00	43.59	C
ATOM	9544	O	SER	B	624	218.697	189.669	200.718	1.00	43.59	O
ATOM	9545	CB	SER	B	624	221.804	189.022	199.961	1.00	43.59	C
ATOM	9546	OG	SER	B	624	222.818	188.962	198.975	1.00	43.59	O

ATOM	9547	N	ALA B 625	219.198	187.499	201.025	1.00 38.84 N
ATOM	9548	CA	ALA B 625	218.186	187.283	202.047	1.00 38.84 C
ATOM	9549	C	ALA B 625	218.811	186.591	203.246	1.00 38.84 C
ATOM	9550	O	ALA B 625	219.571	185.631	203.087	1.00 38.84 O
ATOM	9551	CB	ALA B 625	217.025	186.448	201.510	1.00 38.84 C
ATOM	9552	N	TYR B 626	218.494	187.085	204.438	1.00 36.36 N
ATOM	9553	CA	TYR B 626	218.932	186.434	205.658	1.00 36.36 C
ATOM	9554	C	TYR B 626	218.195	185.109	205.825	1.00 36.36 C
ATOM	9555	O	TYR B 626	217.207	184.825	205.147	1.00 36.36 O
ATOM	9556	CB	TYR B 626	218.679	187.343	206.857	1.00 36.36 C
ATOM	9557	CG	TYR B 626	219.426	188.652	206.784	1.00 36.36 C
ATOM	9558	CD1	TYR B 626	220.734	188.759	207.227	1.00 36.36 C
ATOM	9559	CD2	TYR B 626	218.826	189.776	206.242	1.00 36.36 C
ATOM	9560	CE1	TYR B 626	221.414	189.955	207.151	1.00 36.36 C
ATOM	9561	CE2	TYR B 626	219.496	190.972	206.159	1.00 36.36 C
ATOM	9562	CZ	TYR B 626	220.789	191.058	206.614	1.00 36.36 C
ATOM	9563	OH	TYR B 626	221.460	192.253	206.532	1.00 36.36 O
ATOM	9564	N	GLU B 627	218.683	184.290	206.753	1.00 37.95 N
ATOM	9565	CA	GLU B 627	218.062	182.992	207.009	1.00 37.95 C
ATOM	9566	C	GLU B 627	218.305	182.632	208.470	1.00 37.95 C
ATOM	9567	O	GLU B 627	219.428	182.286	208.846	1.00 37.95 O
ATOM	9568	CB	GLU B 627	218.611	181.919	206.083	1.00 37.95 C
ATOM	9569	CG	GLU B 627	217.943	180.574	206.285	1.00 37.95 C
ATOM	9570	CD	GLU B 627	218.504	179.493	205.388	1.00 37.95 C
ATOM	9571	OE1	GLU B 627	219.458	179.776	204.637	1.00 37.95 O
ATOM	9572	OE2	GLU B 627	217.989	178.357	205.435	1.00 37.95 O
ATOM	9573	N	TYR B 628	217.257	182.713	209.278	1.00 32.92 N
ATOM	9574	CA	TYR B 628	217.324	182.283	210.664	1.00 32.92 C
ATOM	9575	C	TYR B 628	216.777	180.869	210.798	1.00 32.92 C
ATOM	9576	O	TYR B 628	215.797	180.499	210.149	1.00 32.92 O
ATOM	9577	CB	TYR B 628	216.536	183.235	211.559	1.00 32.92 C
ATOM	9578	CG	TYR B 628	217.129	184.619	211.643	1.00 32.92 C
ATOM	9579	CD1	TYR B 628	218.160	184.901	212.524	1.00 32.92 C
ATOM	9580	CD2	TYR B 628	216.666	185.640	210.831	1.00 32.92 C
ATOM	9581	CE1	TYR B 628	218.704	186.163	212.600	1.00 32.92 C
ATOM	9582	CE2	TYR B 628	217.205	186.903	210.899	1.00 32.92 C
ATOM	9583	CZ	TYR B 628	218.223	187.159	211.784	1.00 32.92 C

ATOM	9584	OH	TYR B 628	218.761	188.419	211.853	1.00 32.92	O
ATOM	9585	N	VAL B 629	217.420	180.080	211.655	1.00 32.47	N
ATOM	9586	CA	VAL B 629	217.025	178.696	211.893	1.00 32.47	C
ATOM	9587	C	VAL B 629	216.963	178.482	213.396	1.00 32.47	C
ATOM	9588	O	VAL B 629	217.983	178.595	214.084	1.00 32.47	O
ATOM	9589	CB	VAL B 629	217.994	177.690	211.251	1.00 32.47	C
ATOM	9590	CG1	VAL B 629	217.591	176.276	211.613	1.00 32.47	C
ATOM	9591	CG2	VAL B 629	218.018	177.873	209.750	1.00 32.47	C
ATOM	9592	N	ASP B 630	215.774	178.168	213.906	1.00 36.88	N
ATOM	9593	CA	ASP B 630	215.535	178.097	215.344	1.00 36.88	C
ATOM	9594	C	ASP B 630	215.849	179.423	216.024	1.00 36.88	C
ATOM	9595	O	ASP B 630	216.301	179.454	217.170	1.00 36.88	O
ATOM	9596	CB	ASP B 630	216.333	176.964	215.992	1.00 36.88	C
ATOM	9597	CG	ASP B 630	215.821	175.596	215.599	1.00 36.88	C
ATOM	9598	OD1	ASP B 630	214.619	175.482	215.285	1.00 36.88	O
ATOM	9599	OD2	ASP B 630	216.615	174.632	215.614	1.00 36.88	O
ATOM	9600	N	TYR B 631	215.613	180.528	215.315	1.00 38.06	N
ATOM	9601	CA	TYR B 631	215.773	181.868	215.873	1.00 38.06	C
ATOM	9602	C	TYR B 631	217.240	182.164	216.192	1.00 38.06	C
ATOM	9603	O	TYR B 631	217.582	182.627	217.280	1.00 38.06	O
ATOM	9604	CB	TYR B 631	214.886	182.033	217.107	1.00 38.06	C
ATOM	9605	CG	TYR B 631	213.413	182.017	216.774	1.00 38.06	C
ATOM	9606	CD1	TYR B 631	212.966	182.338	215.503	1.00 38.06	C
ATOM	9607	CD2	TYR B 631	212.476	181.631	217.714	1.00 38.06	C
ATOM	9608	CE1	TYR B 631	211.622	182.317	215.193	1.00 38.06	C
ATOM	9609	CE2	TYR B 631	211.129	181.604	217.415	1.00 38.06	C
ATOM	9610	CZ	TYR B 631	210.707	181.946	216.153	1.00 38.06	C
ATOM	9611	OH	TYR B 631	209.367	181.918	215.848	1.00 38.06	O
ATOM	9612	N	LEU B 632	218.107	181.890	215.220	1.00 37.43	N
ATOM	9613	CA	LEU B 632	219.525	182.215	215.293	1.00 37.43	C
ATOM	9614	C	LEU B 632	220.044	182.353	213.871	1.00 37.43	C
ATOM	9615	O	LEU B 632	219.755	181.503	213.025	1.00 37.43	O
ATOM	9616	CB	LEU B 632	220.316	181.142	216.047	1.00 37.43	C
ATOM	9617	CG	LEU B 632	220.067	181.009	217.548	1.00 37.43	C
ATOM	9618	CD1	LEU B 632	220.813	179.814	218.115	1.00 37.43	C
ATOM	9619	CD2	LEU B 632	220.483	182.284	218.255	1.00 37.43	C
ATOM	9620	N	PHE B 633	220.795	183.420	213.611	1.00 36.83	N

ATOM	9621	CA	PHE B 633	221.289	183.677	212.265	1.00 36.83 C
ATOM	9622	C	PHE B 633	222.211	182.558	211.800	1.00 36.83 C
ATOM	9623	O	PHE B 633	223.064	182.080	212.551	1.00 36.83 O
ATOM	9624	CB	PHE B 633	222.020	185.016	212.221	1.00 36.83 C
ATOM	9625	CG	PHE B 633	222.593	185.348	210.878	1.00 36.83 C
ATOM	9626	CD1	PHE B 633	221.774	185.727	209.835	1.00 36.83 C
ATOM	9627	CD2	PHE B 633	223.956	185.292	210.664	1.00 36.83 C
ATOM	9628	CE1	PHE B 633	222.302	186.034	208.602	1.00 36.83 C
ATOM	9629	CE2	PHE B 633	224.489	185.599	209.433	1.00 36.83 C
ATOM	9630	CZ	PHE B 633	223.660	185.970	208.401	1.00 36.83 C
ATOM	9631	N	LYS B 634	222.030	182.136	210.548	1.00 37.64 N
ATOM	9632	CA	LYS B 634	222.784	181.016	209.997	1.00 37.64 C
ATOM	9633	C	LYS B 634	223.705	181.430	208.857	1.00 37.64 C
ATOM	9634	O	LYS B 634	224.920	181.232	208.954	1.00 37.64 O
ATOM	9635	CB	LYS B 634	221.809	179.929	209.530	1.00 37.64 C
ATOM	9636	CG	LYS B 634	222.481	178.691	208.977	1.00 37.64 C
ATOM	9637	CD	LYS B 634	223.319	178.007	210.039	1.00 37.64 C
ATOM	9638	CE	LYS B 634	222.451	177.466	211.162	1.00 37.64 C
ATOM	9639	NZ	LYS B 634	221.601	176.331	210.711	1.00 37.64 N
ATOM	9640	N	ARG B 635	223.174	181.999	207.780	1.00 41.14 N
ATOM	9641	CA	ARG B 635	224.008	182.375	206.644	1.00 41.14 C
ATOM	9642	C	ARG B 635	223.209	183.303	205.733	1.00 41.14 C
ATOM	9643	O	ARG B 635	222.146	183.803	206.118	1.00 41.14 O
ATOM	9644	CB	ARG B 635	224.516	181.125	205.908	1.00 41.14 C
ATOM	9645	CG	ARG B 635	223.436	180.345	205.191	1.00 41.14 C
ATOM	9646	CD	ARG B 635	224.000	179.078	204.574	1.00 41.14 C
ATOM	9647	NE	ARG B 635	222.992	178.353	203.808	1.00 41.14 N
ATOM	9648	CZ	ARG B 635	222.151	177.469	204.333	1.00 41.14 C
ATOM	9649	NH1	ARG B 635	222.195	177.199	205.630	1.00 41.14 N
ATOM	9650	NH2	ARG B 635	221.264	176.856	203.562	1.00 41.14 N
ATOM	9651	N	MET B 636	223.724	183.532	204.528	1.00 40.64 N
ATOM	9652	CA	MET B 636	223.101	184.401	203.539	1.00 40.64 C
ATOM	9653	C	MET B 636	222.759	183.593	202.296	1.00 40.64 C
ATOM	9654	O	MET B 636	223.595	182.834	201.796	1.00 40.64 O
ATOM	9655	CB	MET B 636	224.031	185.557	203.167	1.00 40.64 C
ATOM	9656	CG	MET B 636	224.324	186.518	204.301	1.00 40.64 C
ATOM	9657	SD	MET B 636	222.856	187.386	204.866	1.00 40.64 S

ATOM	9658	CE	MET	B 636	222.535	188.431	203.450	1.00 40.64	C
ATOM	9659	N	ILE	B 637	221.534	183.753	201.805	1.00 45.08	N
ATOM	9660	CA	ILE	B 637	221.101	183.163	200.545	1.00 45.08	C
ATOM	9661	C	ILE	B 637	221.088	184.255	199.487	1.00 45.08	C
ATOM	9662	O	ILE	B 637	220.813	185.424	199.778	1.00 45.08	O
ATOM	9663	CB	ILE	B 637	219.716	182.497	200.685	1.00 45.08	C
ATOM	9664	CG1	ILE	B 637	219.781	181.343	201.682	1.00 45.08	C
ATOM	9665	CG2	ILE	B 637	219.210	182.000	199.343	1.00 45.08	C
ATOM	9666	CD1	ILE	B 637	218.427	180.807	202.065	1.00 45.08	C
ATOM	9667	N	ASP	B 638	221.383	183.877	198.244	1.00 52.48	N
ATOM	9668	CA	ASP	B 638	221.500	184.825	197.143	1.00 52.48	C
ATOM	9669	C	ASP	B 638	220.250	184.864	196.266	1.00 52.48	C
ATOM	9670	O	ASP	B 638	220.297	185.356	195.136	1.00 52.48	O
ATOM	9671	CB	ASP	B 638	222.734	184.506	196.303	1.00 52.48	C
ATOM	9672	CG	ASP	B 638	222.715	183.094	195.752	1.00 52.48	C
ATOM	9673	OD1	ASP	B 638	221.779	182.335	196.080	1.00 52.48	O
ATOM	9674	OD2	ASP	B 638	223.639	182.741	194.990	1.00 52.48	O
ATOM	9675	N	LEU	B 639	219.125	184.366	196.778	1.00 52.10	N
ATOM	9676	CA	LEU	B 639	217.853	184.380	196.053	1.00 52.10	C
ATOM	9677	C	LEU	B 639	217.956	183.656	194.713	1.00 52.10	C
ATOM	9678	O	LEU	B 639	217.466	184.124	193.685	1.00 52.10	O
ATOM	9679	CB	LEU	B 639	217.341	185.809	195.864	1.00 52.10	C
ATOM	9680	CG	LEU	B 639	216.397	186.299	196.959	1.00 52.10	C
ATOM	9681	CD1	LEU	B 639	215.101	185.528	196.888	1.00 52.10	C
ATOM	9682	CD2	LEU	B 639	217.027	186.094	198.310	1.00 52.10	C
ATOM	9683	N	SER	B 640	218.605	182.504	194.732	1.00 52.75	N
ATOM	9684	CA	SER	B 640	218.576	181.590	193.600	1.00 52.75	C
ATOM	9685	C	SER	B 640	217.809	180.318	193.906	1.00 52.75	C
ATOM	9686	O	SER	B 640	217.188	179.744	193.008	1.00 52.75	O
ATOM	9687	CB	SER	B 640	220.001	181.233	193.157	1.00 52.75	C
ATOM	9688	OG	SER	B 640	219.975	180.335	192.061	1.00 52.75	O
ATOM	9689	N	SER	B 641	217.837	179.865	195.159	1.00 53.51	N
ATOM	9690	CA	SER	B 641	217.087	178.674	195.538	1.00 53.51	C
ATOM	9691	C	SER	B 641	215.586	178.907	195.436	1.00 53.51	C
ATOM	9692	O	SER	B 641	214.852	178.049	194.932	1.00 53.51	O
ATOM	9693	CB	SER	B 641	217.471	178.251	196.955	1.00 53.51	C
ATOM	9694	OG	SER	B 641	216.703	177.144	197.386	1.00 53.51	O

ATOM	9695	N	ILE B 642	215.109	180.058	195.907	1.00 49.87	N
ATOM	9696	CA	ILE B 642	213.679	180.335	195.897	1.00 49.87	C
ATOM	9697	C	ILE B 642	213.204	180.498	194.461	1.00 49.87	C
ATOM	9698	O	ILE B 642	213.752	181.299	193.694	1.00 49.87	O
ATOM	9699	CB	ILE B 642	213.365	181.581	196.735	1.00 49.87	C
ATOM	9700	CG1	ILE B 642	213.725	181.342	198.202	1.00 49.87	C
ATOM	9701	CG2	ILE B 642	211.902	181.950	196.605	1.00 49.87	C
ATOM	9702	CD1	ILE B 642	215.141	181.718	198.555	1.00 49.87	C
ATOM	9703	N	SER B 643	212.178	179.739	194.091	1.00 54.86	N
ATOM	9704	CA	SER B 643	211.640	179.746	192.738	1.00 54.86	C
ATOM	9705	C	SER B 643	210.446	180.686	192.666	1.00 54.86	C
ATOM	9706	O	SER B 643	209.509	180.568	193.461	1.00 54.86	O
ATOM	9707	CB	SER B 643	211.228	178.338	192.310	1.00 54.86	C
ATOM	9708	OG	SER B 643	212.349	177.474	192.260	1.00 54.86	O
ATOM	9709	N	THR B 644	210.485	181.616	191.715	1.00 63.09	N
ATOM	9710	CA	THR B 644	209.395	182.568	191.557	1.00 63.09	C
ATOM	9711	C	THR B 644	208.110	181.839	191.177	1.00 63.09	C
ATOM	9712	O	THR B 644	208.134	180.783	190.539	1.00 63.09	O
ATOM	9713	CB	THR B 644	209.754	183.610	190.498	1.00 63.09	C
ATOM	9714	OG1	THR B 644	210.993	184.236	190.850	1.00 63.09	O
ATOM	9715	CG2	THR B 644	208.685	184.679	190.421	1.00 63.09	C
ATOM	9716	N	VAL B 645	206.975	182.414	191.580	1.00 67.46	N
ATOM	9717	CA	VAL B 645	205.697	181.731	191.410	1.00 67.46	C
ATOM	9718	C	VAL B 645	205.335	181.577	189.938	1.00 67.46	C
ATOM	9719	O	VAL B 645	204.771	180.551	189.539	1.00 67.46	O
ATOM	9720	CB	VAL B 645	204.589	182.466	192.185	1.00 67.46	C
ATOM	9721	CG1	VAL B 645	204.382	183.860	191.625	1.00 67.46	C
ATOM	9722	CG2	VAL B 645	203.299	181.672	192.128	1.00 67.46	C
ATOM	9723	N	ASP B 646	205.639	182.574	189.106	1.00 76.56	N
ATOM	9724	CA	ASP B 646	205.327	182.504	187.685	1.00 76.56	C
ATOM	9725	C	ASP B 646	206.415	181.804	186.878	1.00 76.56	C
ATOM	9726	O	ASP B 646	206.377	181.836	185.643	1.00 76.56	O
ATOM	9727	CB	ASP B 646	205.058	183.905	187.126	1.00 76.56	C
ATOM	9728	CG	ASP B 646	206.246	184.836	187.266	1.00 76.56	C
ATOM	9729	OD1	ASP B 646	207.267	184.429	187.853	1.00 76.56	O
ATOM	9730	OD2	ASP B 646	206.157	185.985	186.786	1.00 76.56	O
ATOM	9731	N	SER B 647	207.379	181.174	187.547	1.00 81.51	N

ATOM	9732	CA	SER B 647	208.390	180.362	186.887	1.00 81.51	C
ATOM	9733	C	SER B 647	208.139	178.874	187.065	1.00 81.51	C
ATOM	9734	O	SER B 647	208.895	178.059	186.524	1.00 81.51	O
ATOM	9735	CB	SER B 647	209.786	180.718	187.410	1.00 81.51	C
ATOM	9736	OG	SER B 647	210.125	182.055	187.086	1.00 81.51	O
ATOM	9737	N	MET B 648	207.102	178.501	187.810	1.00 85.77	N
ATOM	9738	CA	MET B 648	206.689	177.114	187.985	1.00 85.77	C
ATOM	9739	C	MET B 648	205.177	177.010	187.875	1.00 85.77	C
ATOM	9740	O	MET B 648	204.524	176.315	188.660	1.00 85.77	O
ATOM	9741	CB	MET B 648	207.176	176.554	189.321	1.00 85.77	C
ATOM	9742	CG	MET B 648	208.686	176.463	189.435	1.00 85.77	C
ATOM	9743	SD	MET B 648	209.401	175.329	188.229	1.00 85.77	S
ATOM	9744	CE	MET B 648	211.148	175.634	188.470	1.00 85.77	C
ATOM	9745	N	ILE B 649	204.602	177.713	186.894	1.00 84.87	N
ATOM	9746	CA	ILE B 649	203.150	177.791	186.757	1.00 84.87	C
ATOM	9747	C	ILE B 649	202.542	176.418	186.504	1.00 84.87	C
ATOM	9748	O	ILE B 649	201.370	176.181	186.819	1.00 84.87	O
ATOM	9749	CB	ILE B 649	202.780	178.786	185.638	1.00 84.87	C
ATOM	9750	CG1	ILE B 649	203.261	180.194	185.996	1.00 84.87	C
ATOM	9751	CG2	ILE B 649	201.281	178.786	185.389	1.00 84.87	C
ATOM	9752	CD1	ILE B 649	203.167	181.182	184.853	1.00 84.87	C
ATOM	9753	N	ALA B 650	203.316	175.495	185.941	1.00 87.51	N
ATOM	9754	CA	ALA B 650	202.834	174.154	185.642	1.00 87.51	C
ATOM	9755	C	ALA B 650	203.398	173.081	186.557	1.00 87.51	C
ATOM	9756	O	ALA B 650	202.653	172.205	186.999	1.00 87.51	O
ATOM	9757	CB	ALA B 650	203.155	173.791	184.188	1.00 87.51	C
ATOM	9758	N	LEU B 651	204.693	173.122	186.859	1.00 88.01	N
ATOM	9759	CA	LEU B 651	205.380	172.005	187.504	1.00 88.01	C
ATOM	9760	C	LEU B 651	205.819	172.396	188.915	1.00 88.01	C
ATOM	9761	O	LEU B 651	206.894	172.962	189.119	1.00 88.01	O
ATOM	9762	CB	LEU B 651	206.567	171.546	186.659	1.00 88.01	C
ATOM	9763	CG	LEU B 651	207.247	170.244	187.085	1.00 88.01	C
ATOM	9764	CD1	LEU B 651	207.842	169.544	185.877	1.00 88.01	C
ATOM	9765	CD2	LEU B 651	208.325	170.496	188.129	1.00 88.01	C
ATOM	9766	N	ASP B 652	204.963	172.094	189.883	1.00 77.36	N
ATOM	9767	CA	ASP B 652	205.307	171.943	191.293	1.00 77.36	C
ATOM	9768	C	ASP B 652	204.633	170.686	191.818	1.00 77.36	C

ATOM	9769	O	ASP B 652	203.981	170.682	192.864	1.00 77.36	O
ATOM	9770	CB	ASP B 652	204.920	173.171	192.111	1.00 77.36	C
ATOM	9771	CG	ASP B 652	203.437	173.470	192.054	1.00 77.36	C
ATOM	9772	OD1	ASP B 652	202.716	172.819	191.271	1.00 77.36	O
ATOM	9773	OD2	ASP B 652	202.988	174.346	192.816	1.00 77.36	O
ATOM	9774	N	ILE B 653	204.835	169.592	191.072	1.00 73.21	N
ATOM	9775	CA	ILE B 653	203.853	168.513	190.937	1.00 73.21	C
ATOM	9776	C	ILE B 653	203.384	167.980	192.284	1.00 73.21	C
ATOM	9777	O	ILE B 653	202.218	167.600	192.441	1.00 73.21	O
ATOM	9778	CB	ILE B 653	204.430	167.386	190.060	1.00 73.21	C
ATOM	9779	CG1	ILE B 653	204.826	167.937	188.689	1.00 73.21	C
ATOM	9780	CG2	ILE B 653	203.422	166.257	189.915	1.00 73.21	C
ATOM	9781	CD1	ILE B 653	203.678	168.563	187.927	1.00 73.21	C
ATOM	9782	N	ASP B 654	204.267	167.940	193.273	1.00 64.71	N
ATOM	9783	CA	ASP B 654	203.791	167.457	194.561	1.00 64.71	C
ATOM	9784	C	ASP B 654	204.591	168.009	195.733	1.00 64.71	C
ATOM	9785	O	ASP B 654	205.790	167.737	195.863	1.00 64.71	O
ATOM	9786	CB	ASP B 654	203.797	165.926	194.595	1.00 64.71	C
ATOM	9787	CG	ASP B 654	205.155	165.333	194.263	1.00 64.71	C
ATOM	9788	OD1	ASP B 654	206.058	166.084	193.840	1.00 64.71	O
ATOM	9789	OD2	ASP B 654	205.322	164.109	194.444	1.00 64.71	O
ATOM	9790	N	PRO B 655	203.963	168.789	196.602	1.00 54.05	N
ATOM	9791	CA	PRO B 655	204.557	169.050	197.917	1.00 54.05	C
ATOM	9792	C	PRO B 655	204.523	167.786	198.761	1.00 54.05	C
ATOM	9793	O	PRO B 655	203.956	166.778	198.329	1.00 54.05	O
ATOM	9794	CB	PRO B 655	203.670	170.159	198.490	1.00 54.05	C
ATOM	9795	CG	PRO B 655	202.359	169.984	197.792	1.00 54.05	C
ATOM	9796	CD	PRO B 655	202.687	169.499	196.413	1.00 54.05	C
ATOM	9797	N	LEU B 656	205.103	167.810	199.959	1.00 46.60	N
ATOM	9798	CA	LEU B 656	205.279	166.592	200.738	1.00 46.60	C
ATOM	9799	C	LEU B 656	204.202	166.358	201.790	1.00 46.60	C
ATOM	9800	O	LEU B 656	204.144	165.260	202.349	1.00 46.60	O
ATOM	9801	CB	LEU B 656	206.654	166.587	201.414	1.00 46.60	C
ATOM	9802	CG	LEU B 656	207.860	166.434	200.491	1.00 46.60	C
ATOM	9803	CD1	LEU B 656	209.144	166.576	201.284	1.00 46.60	C
ATOM	9804	CD2	LEU B 656	207.806	165.091	199.792	1.00 46.60	C
ATOM	9805	N	GLU B 657	203.332	167.330	202.060	1.00 44.60	N

ATOM	9806	CA	GLU	B	657	202.314	167.185	203.100	1.00 44.60	C
ATOM	9807	C	GLU	B	657	202.971	166.972	204.468	1.00 44.60	C
ATOM	9808	O	GLU	B	657	202.890	165.911	205.085	1.00 44.60	O
ATOM	9809	CB	GLU	B	657	201.344	166.052	202.739	1.00 44.60	C
ATOM	9810	CG	GLU	B	657	200.078	165.969	203.568	1.00 44.60	C
ATOM	9811	CD	GLU	B	657	200.197	164.987	204.704	1.00 44.60	C
ATOM	9812	OE1	GLU	B	657	200.947	164.003	204.549	1.00 44.60	O
ATOM	9813	OE2	GLU	B	657	199.556	165.189	205.753	1.00 44.60	O
ATOM	9814	N	ASN	B	658	203.673	168.010	204.907	1.00 43.69	N
ATOM	9815	CA	ASN	B	658	204.391	167.983	206.168	1.00 43.69	C
ATOM	9816	C	ASN	B	658	203.455	168.225	207.346	1.00 43.69	C
ATOM	9817	O	ASN	B	658	202.297	168.618	207.177	1.00 43.69	O
ATOM	9818	CB	ASN	B	658	205.504	169.027	206.145	1.00 43.69	C
ATOM	9819	CG	ASN	B	658	204.999	170.400	205.771	1.00 43.69	C
ATOM	9820	OD1	ASN	B	658	203.797	170.621	205.649	1.00 43.69	O
ATOM	9821	ND2	ASN	B	658	205.920	171.327	205.556	1.00 43.69	N
ATOM	9822	N	THR	B	659	203.969	167.979	208.545	1.00 40.33	N
ATOM	9823	CA	THR	B	659	203.219	168.137	209.783	1.00 40.33	C
ATOM	9824	C	THR	B	659	204.044	168.936	210.789	1.00 40.33	C
ATOM	9825	O	THR	B	659	205.132	169.430	210.484	1.00 40.33	O
ATOM	9826	CB	THR	B	659	202.830	166.776	210.361	1.00 40.33	C
ATOM	9827	OG1	THR	B	659	204.014	166.046	210.702	1.00 40.33	O
ATOM	9828	CG2	THR	B	659	202.031	165.984	209.351	1.00 40.33	C
ATOM	9829	N	ASP	B	660	203.512	169.053	212.006	1.00 40.24	N
ATOM	9830	CA	ASP	B	660	204.198	169.767	213.081	1.00 40.24	C
ATOM	9831	C	ASP	B	660	203.685	169.200	214.402	1.00 40.24	C
ATOM	9832	O	ASP	B	660	202.572	169.521	214.827	1.00 40.24	O
ATOM	9833	CB	ASP	B	660	203.964	171.266	212.983	1.00 40.24	C
ATOM	9834	CG	ASP	B	660	204.854	172.054	213.918	1.00 40.24	C
ATOM	9835	OD1	ASP	B	660	206.063	172.162	213.631	1.00 40.24	O
ATOM	9836	OD2	ASP	B	660	204.352	172.564	214.940	1.00 40.24	O
ATOM	9837	N	PHE	B	661	204.502	168.371	215.045	1.00 38.71	N
ATOM	9838	CA	PHE	B	661	204.087	167.637	216.233	1.00 38.71	C
ATOM	9839	C	PHE	B	661	204.097	168.471	217.505	1.00 38.71	C
ATOM	9840	O	PHE	B	661	203.841	167.920	218.580	1.00 38.71	O
ATOM	9841	CB	PHE	B	661	204.988	166.420	216.433	1.00 38.71	C
ATOM	9842	CG	PHE	B	661	204.858	165.393	215.358	1.00 38.71	C

ATOM	9843	CD1	PHE B 661	203.840	164.460	215.392	1.00 38.71	C
ATOM	9844	CD2	PHE B 661	205.748	165.367	214.304	1.00 38.71	C
ATOM	9845	CE1	PHE B 661	203.721	163.515	214.398	1.00 38.71	C
ATOM	9846	CE2	PHE B 661	205.633	164.427	213.308	1.00 38.71	C
ATOM	9847	CZ	PHE B 661	204.618	163.500	213.354	1.00 38.71	C
ATOM	9848	N	ARG B 662	204.390	169.763	217.433	1.00 41.07	N
ATOM	9849	CA	ARG B 662	204.480	170.573	218.641	1.00 41.07	C
ATOM	9850	C	ARG B 662	203.341	171.565	218.791	1.00 41.07	C
ATOM	9851	O	ARG B 662	202.778	171.681	219.879	1.00 41.07	O
ATOM	9852	CB	ARG B 662	205.816	171.315	218.677	1.00 41.07	C
ATOM	9853	CG	ARG B 662	207.007	170.386	218.779	1.00 41.07	C
ATOM	9854	CD	ARG B 662	208.305	171.151	218.688	1.00 41.07	C
ATOM	9855	NE	ARG B 662	208.536	172.012	219.840	1.00 41.07	N
ATOM	9856	CZ	ARG B 662	209.203	171.637	220.926	1.00 41.07	C
ATOM	9857	NH1	ARG B 662	209.711	170.417	221.004	1.00 41.07	N
ATOM	9858	NH2	ARG B 662	209.369	172.490	221.924	1.00 41.07	N
ATOM	9859	N	VAL B 663	202.971	172.284	217.726	1.00 41.05	N
ATOM	9860	CA	VAL B 663	201.770	173.116	217.769	1.00 41.05	C
ATOM	9861	C	VAL B 663	200.501	172.290	217.662	1.00 41.05	C
ATOM	9862	O	VAL B 663	199.399	172.832	217.815	1.00 41.05	O
ATOM	9863	CB	VAL B 663	201.770	174.167	216.641	1.00 41.05	C
ATOM	9864	CG1	VAL B 663	201.568	173.498	215.301	1.00 41.05	C
ATOM	9865	CG2	VAL B 663	200.705	175.220	216.876	1.00 41.05	C
ATOM	9866	N	LEU B 664	200.622	170.988	217.420	1.00 39.56	N
ATOM	9867	CA	LEU B 664	199.479	170.114	217.231	1.00 39.56	C
ATOM	9868	C	LEU B 664	199.196	169.247	218.450	1.00 39.56	C
ATOM	9869	O	LEU B 664	198.167	168.564	218.482	1.00 39.56	O
ATOM	9870	CB	LEU B 664	199.713	169.239	215.988	1.00 39.56	C
ATOM	9871	CG	LEU B 664	198.584	168.452	215.326	1.00 39.56	C
ATOM	9872	CD1	LEU B 664	198.858	168.279	213.849	1.00 39.56	C
ATOM	9873	CD2	LEU B 664	198.463	167.088	215.975	1.00 39.56	C
ATOM	9874	N	GLU B 665	200.067	169.267	219.457	1.00 45.76	N
ATOM	9875	CA	GLU B 665	199.803	168.623	220.735	1.00 45.76	C
ATOM	9876	C	GLU B 665	199.177	169.575	221.743	1.00 45.76	C
ATOM	9877	O	GLU B 665	198.790	169.142	222.833	1.00 45.76	O
ATOM	9878	CB	GLU B 665	201.090	168.034	221.314	1.00 45.76	C
ATOM	9879	CG	GLU B 665	201.634	166.853	220.534	1.00 45.76	C

ATOM	9880	CD	GLU B 665	202.902	166.280	221.140	1.00 45.76	C
ATOM	9881	OE1	GLU B 665	203.428	166.874	222.104	1.00 45.76	O
ATOM	9882	OE2	GLU B 665	203.373	165.232	220.649	1.00 45.76	O
ATOM	9883	N	LEU B 666	199.083	170.859	221.410	1.00 46.21	N
ATOM	9884	CA	LEU B 666	198.343	171.826	222.208	1.00 46.21	C
ATOM	9885	C	LEU B 666	196.853	171.790	221.916	1.00 46.21	C
ATOM	9886	O	LEU B 666	196.041	171.978	222.825	1.00 46.21	O
ATOM	9887	CB	LEU B 666	198.867	173.241	221.954	1.00 46.21	C
ATOM	9888	CG	LEU B 666	200.302	173.541	222.376	1.00 46.21	C
ATOM	9889	CD1	LEU B 666	200.694	174.943	221.946	1.00 46.21	C
ATOM	9890	CD2	LEU B 666	200.463	173.371	223.873	1.00 46.21	C
ATOM	9891	N	TYR B 667	196.483	171.570	220.654	1.00 42.41	N
ATOM	9892	CA	TYR B 667	195.075	171.486	220.289	1.00 42.41	C
ATOM	9893	C	TYR B 667	194.388	170.333	221.005	1.00 42.41	C
ATOM	9894	O	TYR B 667	193.335	170.515	221.625	1.00 42.41	O
ATOM	9895	CB	TYR B 667	194.945	171.347	218.775	1.00 42.41	C
ATOM	9896	CG	TYR B 667	195.250	172.623	218.035	1.00 42.41	C
ATOM	9897	CD1	TYR B 667	195.164	173.848	218.671	1.00 42.41	C
ATOM	9898	CD2	TYR B 667	195.653	172.602	216.710	1.00 42.41	C
ATOM	9899	CE1	TYR B 667	195.442	175.017	218.002	1.00 42.41	C
ATOM	9900	CE2	TYR B 667	195.941	173.769	216.033	1.00 42.41	C
ATOM	9901	CZ	TYR B 667	195.834	174.973	216.685	1.00 42.41	C
ATOM	9902	OH	TYR B 667	196.118	176.140	216.016	1.00 42.41	O
ATOM	9903	N	SER B 668	194.966	169.137	220.941	1.00 44.53	N
ATOM	9904	CA	SER B 668	194.368	168.008	221.650	1.00 44.53	C
ATOM	9905	C	SER B 668	194.907	167.889	223.070	1.00 44.53	C
ATOM	9906	O	SER B 668	195.263	166.811	223.538	1.00 44.53	O
ATOM	9907	CB	SER B 668	194.606	166.720	220.872	1.00 44.53	C
ATOM	9908	OG	SER B 668	194.081	165.606	221.572	1.00 44.53	O
ATOM	9909	N	GLN B 669	194.966	169.020	223.767	1.00 49.79	N
ATOM	9910	CA	GLN B 669	195.139	169.025	225.212	1.00 49.79	C
ATOM	9911	C	GLN B 669	194.317	170.106	225.898	1.00 49.79	C
ATOM	9912	O	GLN B 669	194.203	170.076	227.127	1.00 49.79	O
ATOM	9913	CB	GLN B 669	196.622	169.187	225.575	1.00 49.79	C
ATOM	9914	CG	GLN B 669	196.940	168.941	227.040	1.00 49.79	C
ATOM	9915	CD	GLN B 669	198.412	169.122	227.350	1.00 49.79	C
ATOM	9916	OE1	GLN B 669	199.199	169.487	226.478	1.00 49.79	O

ATOM	9917	NE2	GLN B 669	198.791	168.865	228.595	1.00 49.79	N
ATOM	9918	N	LYS B 670	193.747	171.056	225.151	1.00 56.42	N
ATOM	9919	CA	LYS B 670	192.885	172.115	225.684	1.00 56.42	C
ATOM	9920	C	LYS B 670	193.660	173.152	226.501	1.00 56.42	C
ATOM	9921	O	LYS B 670	193.214	173.574	227.568	1.00 56.42	O
ATOM	9922	CB	LYS B 670	191.733	171.536	226.509	1.00 56.42	C
ATOM	9923	CG	LYS B 670	190.538	171.084	225.687	1.00 56.42	C
ATOM	9924	CD	LYS B 670	190.808	169.778	224.964	1.00 56.42	C
ATOM	9925	CE	LYS B 670	189.561	169.287	224.245	1.00 56.42	C
ATOM	9926	NZ	LYS B 670	189.820	168.059	223.443	1.00 56.42	N
ATOM	9927	N	GLU B 671	194.825	173.572	225.997	1.00 59.54	N
ATOM	9928	CA	GLU B 671	195.512	174.759	226.501	1.00 59.54	C
ATOM	9929	C	GLU B 671	195.671	175.812	225.413	1.00 59.54	C
ATOM	9930	O	GLU B 671	196.608	176.615	225.459	1.00 59.54	O
ATOM	9931	CB	GLU B 671	196.883	174.416	227.085	1.00 59.54	C
ATOM	9932	CG	GLU B 671	196.845	173.587	228.348	1.00 59.54	C
ATOM	9933	CD	GLU B 671	196.691	172.128	228.031	1.00 59.54	C
ATOM	9934	OE1	GLU B 671	196.618	171.823	226.826	1.00 59.54	O
ATOM	9935	OE2	GLU B 671	196.656	171.297	228.962	1.00 59.54	O
ATOM	9936	N	LEU B 672	194.771	175.823	224.437	1.00 58.80	N
ATOM	9937	CA	LEU B 672	194.916	176.688	223.278	1.00 58.80	C
ATOM	9938	C	LEU B 672	194.609	178.137	223.643	1.00 58.80	C
ATOM	9939	O	LEU B 672	193.513	178.641	223.381	1.00 58.80	O
ATOM	9940	CB	LEU B 672	194.023	176.171	222.143	1.00 58.80	C
ATOM	9941	CG	LEU B 672	192.493	176.208	222.238	1.00 58.80	C
ATOM	9942	CD1	LEU B 672	191.874	176.000	220.867	1.00 58.80	C
ATOM	9943	CD2	LEU B 672	191.974	175.176	223.228	1.00 58.80	C
ATOM	9944	N	ARG B 673	195.575	178.815	224.254	1.00 63.07	N
ATOM	9945	CA	ARG B 673	195.373	180.217	224.603	1.00 63.07	C
ATOM	9946	C	ARG B 673	196.525	181.130	224.197	1.00 63.07	C
ATOM	9947	O	ARG B 673	196.283	182.295	223.873	1.00 63.07	O
ATOM	9948	CB	ARG B 673	195.116	180.326	226.114	1.00 63.07	C
ATOM	9949	CG	ARG B 673	194.743	181.713	226.594	1.00 63.07	C
ATOM	9950	CD	ARG B 673	194.441	181.693	228.082	1.00 63.07	C
ATOM	9951	NE	ARG B 673	195.626	181.375	228.872	1.00 63.07	N
ATOM	9952	CZ	ARG B 673	195.604	181.091	230.170	1.00 63.07	C
ATOM	9953	NH1	ARG B 673	196.732	180.815	230.809	1.00 63.07	N

ATOM	9954	NH2	ARG	B	673	194.453 181.077 230.828	1.00 63.07	N
ATOM	9955	N	SER	B	674	197.767 180.637 224.202	1.00 62.45	N
ATOM	9956	CA	SER	B	674	198.931 181.463 223.887	1.00 62.45	C
ATOM	9957	C	SER	B	674	199.624 181.019 222.608	1.00 62.45	C
ATOM	9958	O	SER	B	674	199.695 181.778 221.637	1.00 62.45	O
ATOM	9959	CB	SER	B	674	199.933 181.410 225.045	1.00 62.45	C
ATOM	9960	OG	SER	B	674	199.353 181.870 226.240	1.00 62.45	O
ATOM	9961	N	SER	B	675	200.128 179.788 222.584	1.00 61.82	N
ATOM	9962	CA	SER	B	675	200.573 179.134 221.365	1.00 61.82	C
ATOM	9963	C	SER	B	675	199.426 178.406 220.688	1.00 61.82	C
ATOM	9964	O	SER	B	675	199.665 177.519 219.862	1.00 61.82	O
ATOM	9965	CB	SER	B	675	201.721 178.167 221.666	1.00 61.82	C
ATOM	9966	OG	SER	B	675	202.177 177.533 220.484	1.00 61.82	O
ATOM	9967	N	ASN	B	676	198.193 178.732 221.085	1.00 59.58	N
ATOM	9968	CA	ASN	B	676	196.977 178.299 220.413	1.00 59.58	C
ATOM	9969	C	ASN	B	676	197.119 178.421 218.912	1.00 59.58	C
ATOM	9970	O	ASN	B	676	197.197 177.428 218.181	1.00 59.58	O
ATOM	9971	CB	ASN	B	676	195.825 179.185 220.895	1.00 59.58	C
ATOM	9972	CG	ASN	B	676	194.479 178.772 220.340	1.00 59.58	C
ATOM	9973	OD1	ASN	B	676	194.360 177.788 219.612	1.00 59.58	O
ATOM	9974	ND2	ASN	B	676	193.450 179.537 220.682	1.00 59.58	N
ATOM	9975	N	VAL	B	677	197.205 179.658 218.458	1.00 59.13	N
ATOM	9976	CA	VAL	B	677	197.412 179.997 217.074	1.00 59.13	C
ATOM	9977	C	VAL	B	677	198.365 181.182 217.043	1.00 59.13	C
ATOM	9978	O	VAL	B	677	198.654 181.803 218.068	1.00 59.13	O
ATOM	9979	CB	VAL	B	677	196.091 180.343 216.354	1.00 59.13	C
ATOM	9980	CG1	VAL	B	677	195.149 179.156 216.375	1.00 59.13	C
ATOM	9981	CG2	VAL	B	677	195.436 181.557 217.004	1.00 59.13	C
ATOM	9982	N	PHE	B	678	198.841 181.502 215.855	1.00 47.33	N
ATOM	9983	CA	PHE	B	678	199.587 182.722 215.654	1.00 47.33	C
ATOM	9984	C	PHE	B	678	198.869 183.728 214.791	1.00 47.33	C
ATOM	9985	O	PHE	B	678	199.220 184.911 214.838	1.00 47.33	O
ATOM	9986	CB	PHE	B	678	200.954 182.432 215.024	1.00 47.33	C
ATOM	9987	CG	PHE	B	678	201.975 182.032 216.012	1.00 47.33	C
ATOM	9988	CD1	PHE	B	678	201.707 182.172 217.353	1.00 47.33	C
ATOM	9989	CD2	PHE	B	678	203.210 181.566 215.619	1.00 47.33	C
ATOM	9990	CE1	PHE	B	678	202.626 181.827 218.282	1.00 47.33	C

ATOM	9991	CE2	PHE	B	678	204.145	181.218	216.556	1.00 47.33	C
ATOM	9992	CZ	PHE	B	678	203.849	181.349	217.894	1.00 47.33	C
ATOM	9993	N	ASP	B	679	197.873	183.308	214.021	1.00 43.05	N
ATOM	9994	CA	ASP	B	679	197.377	184.138	212.941	1.00 43.05	C
ATOM	9995	C	ASP	B	679	198.541	184.478	212.013	1.00 43.05	C
ATOM	9996	O	ASP	B	679	199.012	185.609	211.958	1.00 43.05	O
ATOM	9997	CB	ASP	B	679	196.697	185.397	213.484	1.00 43.05	C
ATOM	9998	CG	ASP	B	679	195.407	185.094	214.217	1.00 43.05	C
ATOM	9999	OD1	ASP	B	679	194.729	184.110	213.855	1.00 43.05	O
ATOM	10000	OD2	ASP	B	679	195.068	185.840	215.160	1.00 43.05	O
ATOM	10001	N	LEU	B	680	199.082	183.454	211.355	1.00 41.47	N
ATOM	10002	CA	LEU	B	680	200.205	183.692	210.457	1.00 41.47	C
ATOM	10003	C	LEU	B	680	199.716	184.197	209.108	1.00 41.47	C
ATOM	10004	O	LEU	B	680	200.253	185.169	208.564	1.00 41.47	O
ATOM	10005	CB	LEU	B	680	201.028	182.417	210.307	1.00 41.47	C
ATOM	10006	CG	LEU	B	680	201.716	181.965	211.597	1.00 41.47	C
ATOM	10007	CD1	LEU	B	680	202.329	180.592	211.428	1.00 41.47	C
ATOM	10008	CD2	LEU	B	680	202.777	182.966	212.016	1.00 41.47	C
ATOM	10009	N	GLU	B	681	198.694	183.552	208.560	1.00 43.05	N
ATOM	10010	CA	GLU	B	681	197.929	184.092	207.438	1.00 43.05	C
ATOM	10011	C	GLU	B	681	196.773	184.938	207.967	1.00 43.05	C
ATOM	10012	O	GLU	B	681	195.611	184.779	207.600	1.00 43.05	O
ATOM	10013	CB	GLU	B	681	197.435	182.954	206.551	1.00 43.05	C
ATOM	10014	CG	GLU	B	681	196.482	181.992	207.247	1.00 43.05	C
ATOM	10015	CD	GLU	B	681	196.110	180.812	206.375	1.00 43.05	C
ATOM	10016	OE1	GLU	B	681	196.625	180.726	205.241	1.00 43.05	O
ATOM	10017	OE2	GLU	B	681	195.305	179.968	206.820	1.00 43.05	O
ATOM	10018	N	GLU	B	682	197.133	185.883	208.835	1.00 44.68	N
ATOM	10019	CA	GLU	B	682	196.173	186.431	209.787	1.00 44.68	C
ATOM	10020	C	GLU	B	682	195.035	187.207	209.132	1.00 44.68	C
ATOM	10021	O	GLU	B	682	193.887	187.108	209.571	1.00 44.68	O
ATOM	10022	CB	GLU	B	682	196.911	187.251	210.850	1.00 44.68	C
ATOM	10023	CG	GLU	B	682	198.137	188.019	210.408	1.00 44.68	C
ATOM	10024	CD	GLU	B	682	198.970	188.435	211.610	1.00 44.68	C
ATOM	10025	OE1	GLU	B	682	198.441	188.411	212.738	1.00 44.68	O
ATOM	10026	OE2	GLU	B	682	200.189	188.659	211.458	1.00 44.68	O
ATOM	10027	N	ILE	B	683	195.302	187.939	208.053	1.00 39.47	N

ATOM	10028	CA	ILE B 683	194.236	188.728	207.434	1.00 39.47	C
ATOM	10029	C	ILE B 683	193.062	187.854	206.981	1.00 39.47	C
ATOM	10030	O	ILE B 683	191.944	188.347	206.809	1.00 39.47	O
ATOM	10031	CB	ILE B 683	194.793	189.592	206.289	1.00 39.47	C
ATOM	10032	CG1	ILE B 683	195.846	190.538	206.857	1.00 39.47	C
ATOM	10033	CG2	ILE B 683	193.692	190.416	205.642	1.00 39.47	C
ATOM	10034	CD1	ILE B 683	195.317	191.385	207.989	1.00 39.47	C
ATOM	10035	N	MET B 684	193.287	186.547	206.827	1.00 41.25	N
ATOM	10036	CA	MET B 684	192.196	185.578	206.802	1.00 41.25	C
ATOM	10037	C	MET B 684	191.974	184.909	208.153	1.00 41.25	C
ATOM	10038	O	MET B 684	190.829	184.691	208.558	1.00 41.25	O
ATOM	10039	CB	MET B 684	192.452	184.498	205.745	1.00 41.25	C
ATOM	10040	CG	MET B 684	191.335	183.479	205.616	1.00 41.25	C
ATOM	10041	SD	MET B 684	189.804	184.192	205.008	1.00 41.25	S
ATOM	10042	CE	MET B 684	188.616	182.987	205.593	1.00 41.25	C
ATOM	10043	N	ARG B 685	193.044	184.546	208.853	1.00 41.45	N
ATOM	10044	CA	ARG B 685	192.897	183.791	210.090	1.00 41.45	C
ATOM	10045	C	ARG B 685	192.635	184.677	211.303	1.00 41.45	C
ATOM	10046	O	ARG B 685	192.050	184.203	212.280	1.00 41.45	O
ATOM	10047	CB	ARG B 685	194.144	182.948	210.332	1.00 41.45	C
ATOM	10048	CG	ARG B 685	194.099	182.106	211.589	1.00 41.45	C
ATOM	10049	CD	ARG B 685	193.025	181.043	211.493	1.00 41.45	C
ATOM	10050	NE	ARG B 685	193.076	180.139	212.635	1.00 41.45	N
ATOM	10051	CZ	ARG B 685	193.778	179.010	212.656	1.00 41.45	C
ATOM	10052	NH1	ARG B 685	194.475	178.640	211.590	1.00 41.45	N
ATOM	10053	NH2	ARG B 685	193.776	178.245	213.735	1.00 41.45	N
ATOM	10054	N	GLU B 686	193.048	185.944	211.259	1.00 37.36	N
ATOM	10055	CA	GLU B 686	192.979	186.799	212.438	1.00 37.36	C
ATOM	10056	C	GLU B 686	191.575	187.311	212.719	1.00 37.36	C
ATOM	10057	O	GLU B 686	191.289	187.686	213.859	1.00 37.36	O
ATOM	10058	CB	GLU B 686	193.956	187.966	212.293	1.00 37.36	C
ATOM	10059	CG	GLU B 686	194.114	188.855	213.504	1.00 37.36	C
ATOM	10060	CD	GLU B 686	193.121	189.991	213.518	1.00 37.36	C
ATOM	10061	OE1	GLU B 686	192.658	190.392	212.431	1.00 37.36	O
ATOM	10062	OE2	GLU B 686	192.800	190.482	214.617	1.00 37.36	O
ATOM	10063	N	PHE B 687	190.684	187.337	211.729	1.00 38.65	N
ATOM	10064	CA	PHE B 687	189.343	187.849	211.963	1.00 38.65	C

ATOM	10065	C	PHE B 687	188.375	186.746	212.374	1.00 38.65 C
ATOM	10066	O	PHE B 687	187.325	187.038	212.951	1.00 38.65 O
ATOM	10067	CB	PHE B 687	188.817	188.605	210.740	1.00 38.65 C
ATOM	10068	CG	PHE B 687	188.504	187.744	209.532	1.00 38.65 C
ATOM	10069	CD1	PHE B 687	189.446	187.549	208.547	1.00 38.65 C
ATOM	10070	CD2	PHE B 687	187.254	187.159	209.373	1.00 38.65 C
ATOM	10071	CE1	PHE B 687	189.134	186.791	207.419	1.00 38.65 C
ATOM	10072	CE2	PHE B 687	186.960	186.401	208.284	1.00 38.65 C
ATOM	10073	CZ	PHE B 687	187.892	186.211	207.308	1.00 38.65 C
ATOM	10074	N	ASN B 688	188.710	185.489	212.095	1.00 36.65 N
ATOM	10075	CA	ASN B 688	187.961	184.384	212.690	1.00 36.65 C
ATOM	10076	C	ASN B 688	188.086	184.378	214.208	1.00 36.65 C
ATOM	10077	O	ASN B 688	187.156	183.978	214.906	1.00 36.65 O
ATOM	10078	CB	ASN B 688	188.457	183.044	212.116	1.00 36.65 C
ATOM	10079	CG	ASN B 688	187.975	182.794	210.706	1.00 36.65 C
ATOM	10080	OD1	ASN B 688	186.850	183.139	210.352	1.00 36.65 O
ATOM	10081	ND2	ASN B 688	188.807	182.135	209.902	1.00 36.65 N
ATOM	10082	N	SER B 689	189.232	184.832	214.731	1.00 36.68 N
ATOM	10083	CA	SER B 689	189.473	184.754	216.170	1.00 36.68 C
ATOM	10084	C	SER B 689	189.216	186.071	216.888	1.00 36.68 C
ATOM	10085	O	SER B 689	189.025	186.064	218.107	1.00 36.68 O
ATOM	10086	CB	SER B 689	190.918	184.311	216.433	1.00 36.68 C
ATOM	10087	OG	SER B 689	191.154	183.013	215.924	1.00 36.68 O
ATOM	10088	N	TYR B 690	189.220	187.200	216.165	1.00 36.34 N
ATOM	10089	CA	TYR B 690	189.117	188.503	216.821	1.00 36.34 C
ATOM	10090	C	TYR B 690	187.838	188.639	217.627	1.00 36.34 C
ATOM	10091	O	TYR B 690	187.836	189.278	218.684	1.00 36.34 O
ATOM	10092	CB	TYR B 690	189.182	189.631	215.794	1.00 36.34 C
ATOM	10093	CG	TYR B 690	189.112	191.002	216.427	1.00 36.34 C
ATOM	10094	CD1	TYR B 690	190.220	191.556	217.046	1.00 36.34 C
ATOM	10095	CD2	TYR B 690	187.933	191.731	216.422	1.00 36.34 C
ATOM	10096	CE1	TYR B 690	190.161	192.803	217.629	1.00 36.34 C
ATOM	10097	CE2	TYR B 690	187.867	192.980	217.004	1.00 36.34 C
ATOM	10098	CZ	TYR B 690	188.983	193.510	217.605	1.00 36.34 C
ATOM	10099	OH	TYR B 690	188.919	194.753	218.186	1.00 36.34 O
ATOM	10100	N	LYS B 691	186.749	188.055	217.150	1.00 37.14 N
ATOM	10101	CA	LYS B 691	185.502	188.062	217.892	1.00 37.14 C

ATOM	10102	C	LYS B 691	185.585	187.242	219.172	1.00 37.14 C
ATOM	10103	O	LYS B 691	184.833	187.511	220.114	1.00 37.14 O
ATOM	10104	CB	LYS B 691	184.395	187.524	216.996	1.00 37.14 C
ATOM	10105	CG	LYS B 691	183.002	187.733	217.494	1.00 37.14 C
ATOM	10106	CD	LYS B 691	182.063	187.053	216.531	1.00 37.14 C
ATOM	10107	CE	LYS B 691	181.634	187.985	215.426	1.00 37.14 C
ATOM	10108	NZ	LYS B 691	182.720	188.201	214.427	1.00 37.14 N
ATOM	10109	N	GLN B 692	186.484	186.260	219.223	1.00 40.29 N
ATOM	10110	CA	GLN B 692	186.732	185.463	220.417	1.00 40.29 C
ATOM	10111	C	GLN B 692	187.479	186.228	221.493	1.00 40.29 C
ATOM	10112	O	GLN B 692	187.182	186.061	222.680	1.00 40.29 O
ATOM	10113	CB	GLN B 692	187.534	184.212	220.050	1.00 40.29 C
ATOM	10114	CG	GLN B 692	187.971	183.375	221.235	1.00 40.29 C
ATOM	10115	CD	GLN B 692	186.812	182.845	222.042	1.00 40.29 C
ATOM	10116	OE1	GLN B 692	186.535	183.327	223.138	1.00 40.29 O
ATOM	10117	NE2	GLN B 692	186.124	181.842	221.506	1.00 40.29 N
ATOM	10118	N	ARG B 693	188.438	187.066	221.108	1.00 42.03 N
ATOM	10119	CA	ARG B 693	189.275	187.786	222.053	1.00 42.03 C
ATOM	10120	C	ARG B 693	188.679	189.128	222.458	1.00 42.03 C
ATOM	10121	O	ARG B 693	189.418	190.041	222.841	1.00 42.03 O
ATOM	10122	CB	ARG B 693	190.685	187.942	221.476	1.00 42.03 C
ATOM	10123	CG	ARG B 693	191.436	186.613	221.483	1.00 42.03 C
ATOM	10124	CD	ARG B 693	192.765	186.649	220.756	1.00 42.03 C
ATOM	10125	NE	ARG B 693	193.426	185.346	220.820	1.00 42.03 N
ATOM	10126	CZ	ARG B 693	194.486	184.994	220.098	1.00 42.03 C
ATOM	10127	NH1	ARG B 693	195.000	185.838	219.215	1.00 42.03 N
ATOM	10128	NH2	ARG B 693	195.013	183.788	220.238	1.00 42.03 N
ATOM	10129	N	VAL B 694	187.356	189.265	222.379	1.00 40.09 N
ATOM	10130	CA	VAL B 694	186.658	190.372	223.018	1.00 40.09 C
ATOM	10131	C	VAL B 694	185.982	189.914	224.305	1.00 40.09 C
ATOM	10132	O	VAL B 694	185.601	190.760	225.127	1.00 40.09 O
ATOM	10133	CB	VAL B 694	185.633	191.001	222.053	1.00 40.09 C
ATOM	10134	CG1	VAL B 694	184.955	192.214	222.674	1.00 40.09 C
ATOM	10135	CG2	VAL B 694	186.318	191.367	220.766	1.00 40.09 C
ATOM	10136	N	LYS B 695	185.834	188.605	224.510	1.00 44.67 N
ATOM	10137	CA	LYS B 695	185.410	188.108	225.809	1.00 44.67 C
ATOM	10138	C	LYS B 695	186.536	188.160	226.825	1.00 44.67 C

ATOM	10139	O	LYS B 695	186.285	188.456	227.997	1.00 44.67	O
ATOM	10140	CB	LYS B 695	184.904	186.673	225.702	1.00 44.67	C
ATOM	10141	CG	LYS B 695	183.572	186.517	225.020	1.00 44.67	C
ATOM	10142	CD	LYS B 695	183.121	185.080	225.145	1.00 44.67	C
ATOM	10143	CE	LYS B 695	183.934	184.191	224.230	1.00 44.67	C
ATOM	10144	NZ	LYS B 695	183.408	182.806	224.264	1.00 44.67	N
ATOM	10145	N	TYR B 696	187.766	187.860	226.398	1.00 46.97	N
ATOM	10146	CA	TYR B 696	188.915	187.943	227.294	1.00 46.97	C
ATOM	10147	C	TYR B 696	189.010	189.320	227.933	1.00 46.97	C
ATOM	10148	O	TYR B 696	189.340	189.450	229.116	1.00 46.97	O
ATOM	10149	CB	TYR B 696	190.203	187.637	226.535	1.00 46.97	C
ATOM	10150	CG	TYR B 696	190.376	186.215	226.062	1.00 46.97	C
ATOM	10151	CD1	TYR B 696	189.553	185.198	226.515	1.00 46.97	C
ATOM	10152	CD2	TYR B 696	191.384	185.892	225.167	1.00 46.97	C
ATOM	10153	CE1	TYR B 696	189.724	183.899	226.075	1.00 46.97	C
ATOM	10154	CE2	TYR B 696	191.563	184.607	224.725	1.00 46.97	C
ATOM	10155	CZ	TYR B 696	190.734	183.612	225.178	1.00 46.97	C
ATOM	10156	OH	TYR B 696	190.929	182.329	224.724	1.00 46.97	O
ATOM	10157	N	VAL B 697	188.731	190.365	227.156	1.00 49.70	N
ATOM	10158	CA	VAL B 697	188.806	191.720	227.682	1.00 49.70	C
ATOM	10159	C	VAL B 697	187.700	191.962	228.702	1.00 49.70	C
ATOM	10160	O	VAL B 697	187.970	192.243	229.875	1.00 49.70	O
ATOM	10161	CB	VAL B 697	188.746	192.740	226.534	1.00 49.70	C
ATOM	10162	CG1	VAL B 697	188.626	194.127	227.092	1.00 49.70	C
ATOM	10163	CG2	VAL B 697	189.985	192.624	225.671	1.00 49.70	C
ATOM	10164	N	GLU B 698	186.440	191.839	228.277	1.00 54.68	N
ATOM	10165	CA	GLU B 698	185.331	192.241	229.135	1.00 54.68	C
ATOM	10166	C	GLU B 698	185.201	191.370	230.373	1.00 54.68	C
ATOM	10167	O	GLU B 698	184.939	191.889	231.464	1.00 54.68	O
ATOM	10168	CB	GLU B 698	184.015	192.201	228.378	1.00 54.68	C
ATOM	10169	CG	GLU B 698	182.872	192.632	229.261	1.00 54.68	C
ATOM	10170	CD	GLU B 698	181.548	192.451	228.594	1.00 54.68	C
ATOM	10171	OE1	GLU B 698	181.540	191.939	227.458	1.00 54.68	O
ATOM	10172	OE2	GLU B 698	180.513	192.812	229.192	1.00 54.68	O
ATOM	10173	N	ASP B 699	185.340	190.050	230.227	1.00 54.47	N
ATOM	10174	CA	ASP B 699	185.218	189.150	231.371	1.00 54.47	C
ATOM	10175	C	ASP B 699	186.217	189.514	232.462	1.00 54.47	C

ATOM	10176	O	ASP B 699	185.967	189.289	233.650	1.00 54.47	O
ATOM	10177	CB	ASP B 699	185.409	187.699	230.929	1.00 54.47	C
ATOM	10178	CG	ASP B 699	185.187	186.715	232.059	1.00 54.47	C
ATOM	10179	OD1	ASP B 699	184.018	186.497	232.440	1.00 54.47	O
ATOM	10180	OD2	ASP B 699	186.180	186.163	232.573	1.00 54.47	O
ATOM	10181	N	LYS B 700	187.357	190.075	232.070	1.00 56.35	N
ATOM	10182	CA	LYS B 700	188.288	190.671	233.011	1.00 56.35	C
ATOM	10183	C	LYS B 700	188.211	192.187	233.010	1.00 56.35	C
ATOM	10184	O	LYS B 700	189.153	192.845	233.462	1.00 56.35	O
ATOM	10185	CB	LYS B 700	189.692	190.174	232.694	1.00 56.35	C
ATOM	10186	CG	LYS B 700	189.731	188.666	232.822	1.00 56.35	C
ATOM	10187	CD	LYS B 700	191.063	188.045	232.490	1.00 56.35	C
ATOM	10188	CE	LYS B 700	190.976	186.542	232.698	1.00 56.35	C
ATOM	10189	NZ	LYS B 700	190.072	185.894	231.710	1.00 56.35	N
ATOM	10190	N	VAL B 701	187.124	192.742	232.478	1.00 59.09	N
ATOM	10191	CA	VAL B 701	186.773	194.146	232.653	1.00 59.09	C
ATOM	10192	C	VAL B 701	185.965	194.311	233.929	1.00 59.09	C
ATOM	10193	O	VAL B 701	186.236	195.204	234.738	1.00 59.09	O
ATOM	10194	CB	VAL B 701	185.989	194.690	231.444	1.00 59.09	C
ATOM	10195	CG1	VAL B 701	185.262	195.970	231.817	1.00 59.09	C
ATOM	10196	CG2	VAL B 701	186.930	194.972	230.294	1.00 59.09	C
ATOM	10197	N	VAL B 702	184.960	193.453	234.114	1.00 64.20	N
ATOM	10198	CA	VAL B 702	184.055	193.610	235.243	1.00 64.20	C
ATOM	10199	C	VAL B 702	184.715	193.239	236.564	1.00 64.20	C
ATOM	10200	O	VAL B 702	184.235	193.647	237.627	1.00 64.20	O
ATOM	10201	CB	VAL B 702	182.783	192.774	235.012	1.00 64.20	C
ATOM	10202	CG1	VAL B 702	183.119	191.292	235.004	1.00 64.20	C
ATOM	10203	CG2	VAL B 702	181.737	193.089	236.069	1.00 64.20	C
ATOM	10204	N	ASP B 703	185.808	192.483	236.531	1.00 64.43	N
ATOM	10205	CA	ASP B 703	186.463	192.038	237.756	1.00 64.43	C
ATOM	10206	C	ASP B 703	187.305	193.128	238.415	1.00 64.43	C
ATOM	10207	O	ASP B 703	187.088	193.435	239.594	1.00 64.43	O
ATOM	10208	CB	ASP B 703	187.330	190.809	237.480	1.00 64.43	C
ATOM	10209	CG	ASP B 703	186.507	189.562	237.233	1.00 64.43	C
ATOM	10210	OD1	ASP B 703	185.381	189.479	237.764	1.00 64.43	O
ATOM	10211	OD2	ASP B 703	186.988	188.659	236.518	1.00 64.43	O
ATOM	10212	N	PRO B 704	188.269	193.734	237.712	1.00 68.16	N

ATOM	10213	CA	PRO B 704	189.168	194.674	238.405	1.00 68.16	C
ATOM	10214	C	PRO B 704	188.476	195.936	238.883	1.00 68.16	C
ATOM	10215	O	PRO B 704	188.740	196.388	240.004	1.00 68.16	O
ATOM	10216	CB	PRO B 704	190.238	194.977	237.348	1.00 68.16	C
ATOM	10217	CG	PRO B 704	189.561	194.739	236.056	1.00 68.16	C
ATOM	10218	CD	PRO B 704	188.622	193.593	236.290	1.00 68.16	C
ATOM	10219	N	LEU B 705	187.602	196.524	238.076	1.00 75.72	N
ATOM	10220	CA	LEU B 705	186.878	197.698	238.542	1.00 75.72	C
ATOM	10221	C	LEU B 705	185.664	197.231	239.336	1.00 75.72	C
ATOM	10222	O	LEU B 705	184.736	196.642	238.769	1.00 75.72	O
ATOM	10223	CB	LEU B 705	186.492	198.604	237.369	1.00 75.72	C
ATOM	10224	CG	LEU B 705	185.561	198.119	236.257	1.00 75.72	C
ATOM	10225	CD1	LEU B 705	184.108	198.444	236.566	1.00 75.72	C
ATOM	10226	CD2	LEU B 705	185.978	198.717	234.926	1.00 75.72	C
ATOM	10227	N	PRO B 706	185.655	197.438	240.650	1.00 84.96	N
ATOM	10228	CA	PRO B 706	184.600	196.866	241.495	1.00 84.96	C
ATOM	10229	C	PRO B 706	183.249	197.485	241.191	1.00 84.96	C
ATOM	10230	O	PRO B 706	183.043	198.689	241.408	1.00 84.96	O
ATOM	10231	CB	PRO B 706	185.059	197.219	242.919	1.00 84.96	C
ATOM	10232	CG	PRO B 706	186.530	197.454	242.798	1.00 84.96	C
ATOM	10233	CD	PRO B 706	186.713	198.078	241.448	1.00 84.96	C
ATOM	10234	N	PRO B 707	182.298	196.696	240.686	1.00 85.82	N
ATOM	10235	CA	PRO B 707	180.937	197.232	240.530	1.00 85.82	C
ATOM	10236	C	PRO B 707	180.260	197.485	241.862	1.00 85.82	C
ATOM	10237	O	PRO B 707	179.446	198.411	241.976	1.00 85.82	O
ATOM	10238	CB	PRO B 707	180.221	196.138	239.726	1.00 85.82	C
ATOM	10239	CG	PRO B 707	181.319	195.344	239.086	1.00 85.82	C
ATOM	10240	CD	PRO B 707	182.435	195.363	240.081	1.00 85.82	C
ATOM	10241	N	TYR B 708	180.571	196.680	242.874	1.00 87.11	N
ATOM	10242	CA	TYR B 708	179.959	196.774	244.187	1.00 87.11	C
ATOM	10243	C	TYR B 708	181.023	197.053	245.243	1.00 87.11	C
ATOM	10244	O	TYR B 708	182.222	197.099	244.963	1.00 87.11	O
ATOM	10245	CB	TYR B 708	179.214	195.481	244.518	1.00 87.11	C
ATOM	10246	CG	TYR B 708	178.093	195.161	243.567	1.00 87.11	C
ATOM	10247	CD1	TYR B 708	176.867	195.792	243.675	1.00 87.11	C
ATOM	10248	CD2	TYR B 708	178.260	194.220	242.562	1.00 87.11	C
ATOM	10249	CE1	TYR B 708	175.839	195.502	242.808	1.00 87.11	C

ATOM	10250	CE2	TYR B 708	177.237	193.920	241.690	1.00 87.11	C
ATOM	10251	CZ	TYR B 708	176.028	194.564	241.817	1.00 87.11	C
ATOM	10252	OH	TYR B 708	175.002	194.272	240.949	1.00 87.11	O
ATOM	10253	N	LEU B 709	180.572	197.243	246.476	1.00 88.60	N
ATOM	10254	CA	LEU B 709	181.462	197.211	247.624	1.00 88.60	C
ATOM	10255	C	LEU B 709	181.481	195.792	248.192	1.00 88.60	C
ATOM	10256	O	LEU B 709	181.074	194.833	247.532	1.00 88.60	O
ATOM	10257	CB	LEU B 709	181.065	198.271	248.650	1.00 88.60	C
ATOM	10258	CG	LEU B 709	179.655	198.316	249.232	1.00 88.60	C
ATOM	10259	CD1	LEU B 709	179.484	197.299	250.339	1.00 88.60	C
ATOM	10260	CD2	LEU B 709	179.394	199.716	249.760	1.00 88.60	C
ATOM	10261	N	LYS B 710	181.994	195.649	249.416	1.00 89.60	N
ATOM	10262	CA	LYS B 710	182.168	194.337	250.034	1.00 89.60	C
ATOM	10263	C	LYS B 710	180.859	193.552	250.088	1.00 89.60	C
ATOM	10264	O	LYS B 710	180.780	192.416	249.607	1.00 89.60	O
ATOM	10265	CB	LYS B 710	182.745	194.511	251.440	1.00 89.60	C
ATOM	10266	CG	LYS B 710	183.016	193.213	252.184	1.00 89.60	C
ATOM	10267	CD	LYS B 710	183.647	193.486	253.542	1.00 89.60	C
ATOM	10268	CE	LYS B 710	182.582	193.724	254.600	1.00 89.60	C
ATOM	10269	NZ	LYS B 710	182.104	195.132	254.598	1.00 89.60	N
ATOM	10270	N	GLY B 711	179.822	194.145	250.669	1.00 83.60	N
ATOM	10271	CA	GLY B 711	178.624	193.416	251.039	1.00 83.60	C
ATOM	10272	C	GLY B 711	177.826	192.713	249.957	1.00 83.60	C
ATOM	10273	O	GLY B 711	177.782	191.479	249.937	1.00 83.60	O
ATOM	10274	N	LEU B 712	177.195	193.485	249.064	1.00 78.65	N
ATOM	10275	CA	LEU B 712	176.085	193.039	248.216	1.00 78.65	C
ATOM	10276	C	LEU B 712	176.256	191.680	247.548	1.00 78.65	C
ATOM	10277	O	LEU B 712	175.301	190.900	247.486	1.00 78.65	O
ATOM	10278	CB	LEU B 712	175.797	194.076	247.129	1.00 78.65	C
ATOM	10279	CG	LEU B 712	174.897	195.253	247.501	1.00 78.65	C
ATOM	10280	CD1	LEU B 712	175.632	196.243	248.380	1.00 78.65	C
ATOM	10281	CD2	LEU B 712	174.369	195.933	246.251	1.00 78.65	C
ATOM	10282	N	ASP B 713	177.453	191.380	247.041	1.00 84.61	N
ATOM	10283	CA	ASP B 713	177.647	190.112	246.348	1.00 84.61	C
ATOM	10284	C	ASP B 713	177.431	188.914	247.263	1.00 84.61	C
ATOM	10285	O	ASP B 713	177.158	187.814	246.771	1.00 84.61	O
ATOM	10286	CB	ASP B 713	179.041	190.055	245.730	1.00 84.61	C

ATOM	10287	CG	ASP B 713	179.223	188.856	244.825	1.00 84.61	C
ATOM	10288	OD1	ASP B 713	178.661	188.865	243.709	1.00 84.61	O
ATOM	10289	OD2	ASP B 713	179.923	187.904	245.227	1.00 84.61	O
ATOM	10290	N	ASP B 714	177.542	189.100	248.577	1.00 82.99	N
ATOM	10291	CA	ASP B 714	177.222	188.057	249.539	1.00 82.99	C
ATOM	10292	C	ASP B 714	175.743	188.014	249.894	1.00 82.99	C
ATOM	10293	O	ASP B 714	175.304	187.054	250.535	1.00 82.99	O
ATOM	10294	CB	ASP B 714	178.043	188.245	250.818	1.00 82.99	C
ATOM	10295	CG	ASP B 714	179.524	188.003	250.600	1.00 82.99	C
ATOM	10296	OD1	ASP B 714	179.871	187.205	249.704	1.00 82.99	O
ATOM	10297	OD2	ASP B 714	180.340	188.611	251.324	1.00 82.99	O
ATOM	10298	N	LEU B 715	174.972	189.027	249.505	1.00 76.80	N
ATOM	10299	CA	LEU B 715	173.534	189.059	249.743	1.00 76.80	C
ATOM	10300	C	LEU B 715	172.732	188.555	248.555	1.00 76.80	C
ATOM	10301	O	LEU B 715	171.777	187.795	248.738	1.00 76.80	O
ATOM	10302	CB	LEU B 715	173.085	190.481	250.098	1.00 76.80	C
ATOM	10303	CG	LEU B 715	171.640	190.692	250.560	1.00 76.80	C
ATOM	10304	CD1	LEU B 715	171.570	191.860	251.522	1.00 76.80	C
ATOM	10305	CD2	LEU B 715	170.715	190.940	249.385	1.00 76.80	C
ATOM	10306	N	MET B 716	173.098	188.962	247.338	1.00 79.22	N
ATOM	10307	CA	MET B 716	172.383	188.501	246.155	1.00 79.22	C
ATOM	10308	C	MET B 716	172.538	187.002	245.947	1.00 79.22	C
ATOM	10309	O	MET B 716	171.704	186.392	245.271	1.00 79.22	O
ATOM	10310	CB	MET B 716	172.866	189.273	244.924	1.00 79.22	C
ATOM	10311	CG	MET B 716	172.136	188.950	243.629	1.00 79.22	C
ATOM	10312	SD	MET B 716	172.886	187.624	242.666	1.00 79.22	S
ATOM	10313	CE	MET B 716	171.670	187.429	241.364	1.00 79.22	C
ATOM	10314	N	SER B 717	173.580	186.395	246.513	1.00 79.70	N
ATOM	10315	CA	SER B 717	173.725	184.945	246.539	1.00 79.70	C
ATOM	10316	C	SER B 717	173.140	184.336	247.806	1.00 79.70	C
ATOM	10317	O	SER B 717	172.442	183.321	247.743	1.00 79.70	O
ATOM	10318	CB	SER B 717	175.200	184.553	246.403	1.00 79.70	C
ATOM	10319	OG	SER B 717	175.351	183.145	246.456	1.00 79.70	O
ATOM	10320	N	GLY B 718	173.411	184.942	248.965	1.00 78.07	N
ATOM	10321	CA	GLY B 718	172.780	184.503	250.196	1.00 78.07	C
ATOM	10322	C	GLY B 718	171.273	184.635	250.180	1.00 78.07	C
ATOM	10323	O	GLY B 718	170.588	183.940	250.937	1.00 78.07	O

ATOM	10324	N	LEU B 719	170.741	185.523	249.341	1.00 78.80 N
ATOM	10325	CA	LEU B 719	169.312	185.593	249.081	1.00 78.80 C
ATOM	10326	C	LEU B 719	168.929	184.937	247.763	1.00 78.80 C
ATOM	10327	O	LEU B 719	167.771	184.541	247.598	1.00 78.80 O
ATOM	10328	CB	LEU B 719	168.846	187.057	249.084	1.00 78.80 C
ATOM	10329	CG	LEU B 719	167.351	187.401	249.102	1.00 78.80 C
ATOM	10330	CD1	LEU B 719	166.706	187.281	247.730	1.00 78.80 C
ATOM	10331	CD2	LEU B 719	166.626	186.530	250.112	1.00 78.80 C
ATOM	10332	N	GLY B 720	169.878	184.784	246.842	1.00 84.58 N
ATOM	10333	CA	GLY B 720	169.598	184.247	245.525	1.00 84.58 C
ATOM	10334	C	GLY B 720	169.433	182.743	245.461	1.00 84.58 C
ATOM	10335	O	GLY B 720	169.596	182.144	244.393	1.00 84.58 O
ATOM	10336	N	ALA B 721	169.118	182.116	246.593	1.00 90.12 N
ATOM	10337	CA	ALA B 721	168.806	180.694	246.638	1.00 90.12 C
ATOM	10338	C	ALA B 721	167.333	180.457	246.945	1.00 90.12 C
ATOM	10339	O	ALA B 721	166.640	179.781	246.180	1.00 90.12 O
ATOM	10340	CB	ALA B 721	169.692	179.989	247.674	1.00 90.12 C
ATOM	10341	N	ALA B 722	166.836	181.009	248.050	1.00 88.49 N
ATOM	10342	CA	ALA B 722	165.429	180.898	248.415	1.00 88.49 C
ATOM	10343	C	ALA B 722	165.152	181.733	249.657	1.00 88.49 C
ATOM	10344	O	ALA B 722	166.058	181.970	250.462	1.00 88.49 O
ATOM	10345	CB	ALA B 722	165.042	179.438	248.655	1.00 88.49 C
ATOM	10346	N	GLY B 723	163.912	182.183	249.828	1.00 85.73 N
ATOM	10347	CA	GLY B 723	163.588	182.957	251.008	1.00 85.73 C
ATOM	10348	C	GLY B 723	162.261	183.686	250.994	1.00 85.73 C
ATOM	10349	O	GLY B 723	161.829	184.218	249.968	1.00 85.73 O
ATOM	10350	N	LYS B 724	161.613	183.709	252.154	1.00 80.36 N
ATOM	10351	CA	LYS B 724	160.431	184.522	252.402	1.00 80.36 C
ATOM	10352	C	LYS B 724	160.914	185.950	252.683	1.00 80.36 C
ATOM	10353	O	LYS B 724	162.063	186.299	252.402	1.00 80.36 O
ATOM	10354	CB	LYS B 724	159.614	183.884	253.531	1.00 80.36 C
ATOM	10355	CG	LYS B 724	158.259	184.511	253.868	1.00 80.36 C
ATOM	10356	CD	LYS B 724	157.246	184.343	252.753	1.00 80.36 C
ATOM	10357	CE	LYS B 724	155.897	184.907	253.171	1.00 80.36 C
ATOM	10358	NZ	LYS B 724	154.896	184.839	252.074	1.00 80.36 N
ATOM	10359	N	ALA B 725	160.045	186.806	253.231	1.00 74.31 N
ATOM	10360	CA	ALA B 725	160.446	188.151	253.636	1.00 74.31 C

ATOM	10361	C	ALA B 725	161.593	188.154	254.644	1.00 74.31	C
ATOM	10362	O	ALA B 725	162.228	189.197	254.834	1.00 74.31	O
ATOM	10363	CB	ALA B 725	159.247	188.901	254.217	1.00 74.31	C
ATOM	10364	N	VAL B 726	161.868	187.021	255.300	1.00 69.95	N
ATOM	10365	CA	VAL B 726	163.069	186.891	256.120	1.00 69.95	C
ATOM	10366	C	VAL B 726	164.320	187.169	255.299	1.00 69.95	C
ATOM	10367	O	VAL B 726	165.320	187.669	255.827	1.00 69.95	O
ATOM	10368	CB	VAL B 726	163.124	185.492	256.761	1.00 69.95	C
ATOM	10369	CG1	VAL B 726	161.917	185.274	257.656	1.00 69.95	C
ATOM	10370	CG2	VAL B 726	163.201	184.422	255.686	1.00 69.95	C
ATOM	10371	N	GLY B 727	164.292	186.855	254.005	1.00 67.26	N
ATOM	10372	CA	GLY B 727	165.398	187.171	253.123	1.00 67.26	C
ATOM	10373	C	GLY B 727	165.409	188.620	252.679	1.00 67.26	C
ATOM	10374	O	GLY B 727	166.243	189.020	251.862	1.00 67.26	O
ATOM	10375	N	VAL B 728	164.481	189.415	253.207	1.00 65.41	N
ATOM	10376	CA	VAL B 728	164.457	190.852	252.969	1.00 65.41	C
ATOM	10377	C	VAL B 728	164.629	191.558	254.304	1.00 65.41	C
ATOM	10378	O	VAL B 728	165.143	192.680	254.366	1.00 65.41	O
ATOM	10379	CB	VAL B 728	163.157	191.290	252.273	1.00 65.41	C
ATOM	10380	CG1	VAL B 728	163.097	192.803	252.170	1.00 65.41	C
ATOM	10381	CG2	VAL B 728	163.061	190.657	250.898	1.00 65.41	C
ATOM	10382	N	ALA B 729	164.204	190.901	255.384	1.00 63.34	N
ATOM	10383	CA	ALA B 729	164.454	191.441	256.715	1.00 63.34	C
ATOM	10384	C	ALA B 729	165.945	191.474	257.015	1.00 63.34	C
ATOM	10385	O	ALA B 729	166.443	192.423	257.632	1.00 63.34	O
ATOM	10386	CB	ALA B 729	163.710	190.619	257.767	1.00 63.34	C
ATOM	10387	N	ILE B 730	166.675	190.441	256.589	1.00 64.78	N
ATOM	10388	CA	ILE B 730	168.127	190.443	256.731	1.00 64.78	C
ATOM	10389	C	ILE B 730	168.743	191.579	255.930	1.00 64.78	C
ATOM	10390	O	ILE B 730	169.796	192.112	256.299	1.00 64.78	O
ATOM	10391	CB	ILE B 730	168.707	189.079	256.314	1.00 64.78	C
ATOM	10392	CG1	ILE B 730	168.210	187.982	257.256	1.00 64.78	C
ATOM	10393	CG2	ILE B 730	170.221	189.129	256.302	1.00 64.78	C
ATOM	10394	CD1	ILE B 730	168.524	186.584	256.780	1.00 64.78	C
ATOM	10395	N	GLY B 731	168.104	191.974	254.829	1.00 62.69	N
ATOM	10396	CA	GLY B 731	168.574	193.108	254.056	1.00 62.69	C
ATOM	10397	C	GLY B 731	168.393	194.450	254.732	1.00 62.69	C

ATOM	10398	O	GLY B 731	168.861	195.459	254.195	1.00 62.69	O
ATOM	10399	N	ALA B 732	167.724	194.490	255.884	1.00 63.98	N
ATOM	10400	CA	ALA B 732	167.556	195.729	256.635	1.00 63.98	C
ATOM	10401	C	ALA B 732	168.646	195.889	257.691	1.00 63.98	C
ATOM	10402	O	ALA B 732	169.382	196.881	257.688	1.00 63.98	O
ATOM	10403	CB	ALA B 732	166.167	195.770	257.282	1.00 63.98	C
ATOM	10404	N	VAL B 733	168.757	194.920	258.603	1.00 64.44	N
ATOM	10405	CA	VAL B 733	169.817	194.965	259.607	1.00 64.44	C
ATOM	10406	C	VAL B 733	171.182	194.905	258.938	1.00 64.44	C
ATOM	10407	O	VAL B 733	172.141	195.541	259.391	1.00 64.44	O
ATOM	10408	CB	VAL B 733	169.635	193.833	260.634	1.00 64.44	C
ATOM	10409	CG1	VAL B 733	168.347	194.031	261.410	1.00 64.44	C
ATOM	10410	CG2	VAL B 733	169.632	192.484	259.939	1.00 64.44	C
ATOM	10411	N	GLY B 734	171.295	194.138	257.853	1.00 65.38	N
ATOM	10412	CA	GLY B 734	172.521	194.151	257.078	1.00 65.38	C
ATOM	10413	C	GLY B 734	172.822	195.510	256.482	1.00 65.38	C
ATOM	10414	O	GLY B 734	173.988	195.885	256.338	1.00 65.38	O
ATOM	10415	N	GLY B 735	171.782	196.268	256.136	1.00 66.13	N
ATOM	10416	CA	GLY B 735	171.999	197.577	255.543	1.00 66.13	C
ATOM	10417	C	GLY B 735	172.631	198.562	256.507	1.00 66.13	C
ATOM	10418	O	GLY B 735	173.488	199.360	256.119	1.00 66.13	O
ATOM	10419	N	ALA B 736	172.217	198.524	257.773	1.00 65.29	N
ATOM	10420	CA	ALA B 736	172.756	199.460	258.754	1.00 65.29	C
ATOM	10421	C	ALA B 736	174.207	199.135	259.083	1.00 65.29	C
ATOM	10422	O	ALA B 736	175.073	200.016	259.055	1.00 65.29	O
ATOM	10423	CB	ALA B 736	171.900	199.447	260.019	1.00 65.29	C
ATOM	10424	N	VAL B 737	174.491	197.869	259.400	1.00 62.46	N
ATOM	10425	CA	VAL B 737	175.845	197.484	259.781	1.00 62.46	C
ATOM	10426	C	VAL B 737	176.814	197.665	258.622	1.00 62.46	C
ATOM	10427	O	VAL B 737	178.006	197.915	258.834	1.00 62.46	O
ATOM	10428	CB	VAL B 737	175.862	196.036	260.301	1.00 62.46	C
ATOM	10429	CG1	VAL B 737	175.496	195.075	259.189	1.00 62.46	C
ATOM	10430	CG2	VAL B 737	177.224	195.702	260.862	1.00 62.46	C
ATOM	10431	N	ALA B 738	176.330	197.552	257.386	1.00 63.63	N
ATOM	10432	CA	ALA B 738	177.196	197.742	256.230	1.00 63.63	C
ATOM	10433	C	ALA B 738	177.568	199.198	255.999	1.00 63.63	C
ATOM	10434	O	ALA B 738	178.356	199.476	255.089	1.00 63.63	O

ATOM	10435	CB	ALA B 738	176.532 197.176 254.975	1.00 63.63		C
ATOM	10436	N	SER B 739	177.022 200.128 256.781	1.00 68.07		N
ATOM	10437	CA	SER B 739	177.423 201.526 256.717	1.00 68.07		C
ATOM	10438	C	SER B 739	178.379 201.919 257.833	1.00 68.07		C
ATOM	10439	O	SER B 739	179.099 202.913 257.689	1.00 68.07		O
ATOM	10440	CB	SER B 739	176.192 202.437 256.766	1.00 68.07		C
ATOM	10441	OG	SER B 739	176.568 203.803 256.738	1.00 68.07		O
ATOM	10442	N	VAL B 740	178.399 201.171 258.932	1.00 70.40		N
ATOM	10443	CA	VAL B 740	179.344 201.417 260.017	1.00 70.40		C
ATOM	10444	C	VAL B 740	180.628 200.627 259.819	1.00 70.40		C
ATOM	10445	O	VAL B 740	181.728 201.151 260.011	1.00 70.40		O
ATOM	10446	CB	VAL B 740	178.687 201.092 261.374	1.00 70.40		C
ATOM	10447	CG1	VAL B 740	179.712 201.175 262.487	1.00 70.40		C
ATOM	10448	CG2	VAL B 740	177.537 202.046 261.642	1.00 70.40		C
ATOM	10449	N	VAL B 741	180.514 199.353 259.434	1.00 70.09		N
ATOM	10450	CA	VAL B 741	181.705 198.551 259.174	1.00 70.09		C
ATOM	10451	C	VAL B 741	182.466 199.091 257.973	1.00 70.09		C
ATOM	10452	O	VAL B 741	183.684 198.904 257.864	1.00 70.09		O
ATOM	10453	CB	VAL B 741	181.322 197.073 258.985	1.00 70.09		C
ATOM	10454	CG1	VAL B 741	182.532 196.260 258.568	1.00 70.09		C
ATOM	10455	CG2	VAL B 741	180.731 196.521 260.268	1.00 70.09		C
ATOM	10456	N	GLU B 742	181.774 199.768 257.057	1.00 78.32		N
ATOM	10457	CA	GLU B 742	182.468 200.474 255.987	1.00 78.32		C
ATOM	10458	C	GLU B 742	182.999 201.819 256.458	1.00 78.32		C
ATOM	10459	O	GLU B 742	184.006 202.303 255.930	1.00 78.32		O
ATOM	10460	CB	GLU B 742	181.541 200.664 254.788	1.00 78.32		C
ATOM	10461	CG	GLU B 742	181.187 199.373 254.076	1.00 78.32		C
ATOM	10462	CD	GLU B 742	182.389 198.729 253.416	1.00 78.32		C
ATOM	10463	OE1	GLU B 742	183.302 199.468 252.994	1.00 78.32		O
ATOM	10464	OE2	GLU B 742	182.419 197.485 253.315	1.00 78.32		O
ATOM	10465	N	GLY B 743	182.342 202.432 257.442	1.00 77.59		N
ATOM	10466	CA	GLY B 743	182.848 203.653 258.039	1.00 77.59		C
ATOM	10467	C	GLY B 743	184.079 203.463 258.897	1.00 77.59		C
ATOM	10468	O	GLY B 743	184.748 204.452 259.215	1.00 77.59		O
ATOM	10469	N	VAL B 744	184.393 202.227 259.276	1.00 71.68		N
ATOM	10470	CA	VAL B 744	185.602 201.924 260.026	1.00 71.68		C
ATOM	10471	C	VAL B 744	186.560 201.072 259.195	1.00 71.68		C

ATOM	10472	O	VAL	B	744	187.424 200.397 259.737	1.00 71.68	O
ATOM	10473	CB	VAL	B	744	185.269 201.246 261.370	1.00 71.68	C
ATOM	10474	CG1	VAL	B	744	184.837 199.803 261.152	1.00 71.68	C
ATOM	10475	CG2	VAL	B	744	186.441 201.344 262.338	1.00 71.68	C
ATOM	10476	N	ALA	B	745	186.401 201.094 257.873	1.00 72.10	N
ATOM	10477	CA	ALA	B	745	187.333 200.439 256.967	1.00 72.10	C
ATOM	10478	C	ALA	B	745	188.216 201.415 256.213	1.00 72.10	C
ATOM	10479	O	ALA	B	745	189.333 201.055 255.838	1.00 72.10	O
ATOM	10480	CB	ALA	B	745	186.579 199.569 255.954	1.00 72.10	C
ATOM	10481	N	THR	B	746	187.742 202.641 255.985	1.00 72.52	N
ATOM	10482	CA	THR	B	746	188.613 203.691 255.476	1.00 72.52	C
ATOM	10483	C	THR	B	746	189.623 204.129 256.525	1.00 72.52	C
ATOM	10484	O	THR	B	746	190.669 204.684 256.176	1.00 72.52	O
ATOM	10485	CB	THR	B	746	187.780 204.887 255.012	1.00 72.52	C
ATOM	10486	OG1	THR	B	746	186.855 204.461 254.004	1.00 72.52	O
ATOM	10487	CG2	THR	B	746	188.672 205.972 254.434	1.00 72.52	C
ATOM	10488	N	PHE	B	747	189.334 203.875 257.801	1.00 66.38	N
ATOM	10489	CA	PHE	B	747	190.273 204.143 258.879	1.00 66.38	C
ATOM	10490	C	PHE	B	747	191.470 203.202 258.852	1.00 66.38	C
ATOM	10491	O	PHE	B	747	192.479 203.490 259.502	1.00 66.38	O
ATOM	10492	CB	PHE	B	747	189.537 204.041 260.218	1.00 66.38	C
ATOM	10493	CG	PHE	B	747	190.369 204.415 261.407	1.00 66.38	C
ATOM	10494	CD1	PHE	B	747	190.644 205.741 261.687	1.00 66.38	C
ATOM	10495	CD2	PHE	B	747	190.865 203.441 262.254	1.00 66.38	C
ATOM	10496	CE1	PHE	B	747	191.405 206.087 262.784	1.00 66.38	C
ATOM	10497	CE2	PHE	B	747	191.626 203.781 263.352	1.00 66.38	C
ATOM	10498	CZ	PHE	B	747	191.896 205.106 263.617	1.00 66.38	C
ATOM	10499	N	LEU	B	748	191.390 202.099 258.105	1.00 66.86	N
ATOM	10500	CA	LEU	B	748	192.496 201.161 257.956	1.00 66.86	C
ATOM	10501	C	LEU	B	748	193.203 201.310 256.614	1.00 66.86	C
ATOM	10502	O	LEU	B	748	193.745 200.335 256.083	1.00 66.86	O
ATOM	10503	CB	LEU	B	748	192.007 199.725 258.138	1.00 66.86	C
ATOM	10504	CG	LEU	B	748	191.536 199.338 259.538	1.00 66.86	C
ATOM	10505	CD1	LEU	B	748	190.983 197.924 259.541	1.00 66.86	C
ATOM	10506	CD2	LEU	B	748	192.674 199.472 260.529	1.00 66.86	C
ATOM	10507	N	LYS	B	749	193.206 202.515 256.053	1.00 71.12	N
ATOM	10508	CA	LYS	B	749	193.979 202.811 254.856	1.00 71.12	C

ATOM	10509	C	LYS B 749	194.886	204.017	255.010	1.00 71.12 C
ATOM	10510	O	LYS B 749	195.912	204.082	254.323	1.00 71.12 O
ATOM	10511	CB	LYS B 749	193.050	203.034	253.654	1.00 71.12 C
ATOM	10512	CG	LYS B 749	192.225	201.816	253.296	1.00 71.12 C
ATOM	10513	CD	LYS B 749	193.115	200.706	252.771	1.00 71.12 C
ATOM	10514	CE	LYS B 749	192.308	199.468	252.424	1.00 71.12 C
ATOM	10515	NZ	LYS B 749	191.425	199.693	251.248	1.00 71.12 N
ATOM	10516	N	ASN B 750	194.552	204.960	255.872	1.00 70.40 N
ATOM	10517	CA	ASN B 750	195.465	206.018	256.257	1.00 70.40 C
ATOM	10518	C	ASN B 750	196.553	205.418	257.131	1.00 70.40 C
ATOM	10519	O	ASN B 750	196.249	204.955	258.239	1.00 70.40 O
ATOM	10520	CB	ASN B 750	194.715	207.107	257.011	1.00 70.40 C
ATOM	10521	CG	ASN B 750	193.730	207.841	256.135	1.00 70.40 C
ATOM	10522	OD1	ASN B 750	194.043	208.214	255.006	1.00 70.40 O
ATOM	10523	ND2	ASN B 750	192.520	208.029	256.640	1.00 70.40 N
ATOM	10524	N	PRO B 751	197.816	205.400	256.697	1.00 71.46 N
ATOM	10525	CA	PRO B 751	198.861	204.725	257.487	1.00 71.46 C
ATOM	10526	C	PRO B 751	199.094	205.322	258.869	1.00 71.46 C
ATOM	10527	O	PRO B 751	199.858	204.738	259.646	1.00 71.46 O
ATOM	10528	CB	PRO B 751	200.108	204.862	256.605	1.00 71.46 C
ATOM	10529	CG	PRO B 751	199.567	205.020	255.221	1.00 71.46 C
ATOM	10530	CD	PRO B 751	198.311	205.825	255.379	1.00 71.46 C
ATOM	10531	N	PHE B 752	198.471	206.453	259.202	1.00 69.53 N
ATOM	10532	CA	PHE B 752	198.483	206.925	260.581	1.00 69.53 C
ATOM	10533	C	PHE B 752	197.488	206.147	261.433	1.00 69.53 C
ATOM	10534	O	PHE B 752	197.826	205.694	262.532	1.00 69.53 O
ATOM	10535	CB	PHE B 752	198.163	208.418	260.630	1.00 69.53 C
ATOM	10536	CG	PHE B 752	199.225	209.288	260.027	1.00 69.53 C
ATOM	10537	CD1	PHE B 752	200.505	208.806	259.821	1.00 69.53 C
ATOM	10538	CD2	PHE B 752	198.937	210.588	259.652	1.00 69.53 C
ATOM	10539	CE1	PHE B 752	201.477	209.607	259.263	1.00 69.53 C
ATOM	10540	CE2	PHE B 752	199.904	211.391	259.092	1.00 69.53 C
ATOM	10541	CZ	PHE B 752	201.176	210.900	258.897	1.00 69.53 C
ATOM	10542	N	GLY B 753	196.262	205.981	260.936	1.00 68.76 N
ATOM	10543	CA	GLY B 753	195.253	205.263	261.697	1.00 68.76 C
ATOM	10544	C	GLY B 753	195.601	203.803	261.911	1.00 68.76 C
ATOM	10545	O	GLY B 753	195.417	203.268	263.008	1.00 68.76 O

ATOM	10546	N	ALA B 754	196.099	203.135	260.867	1.00 66.24	N
ATOM	10547	CA	ALA B 754	196.520	201.746	261.011	1.00 66.24	C
ATOM	10548	C	ALA B 754	197.632	201.606	262.040	1.00 66.24	C
ATOM	10549	O	ALA B 754	197.751	200.561	262.690	1.00 66.24	O
ATOM	10550	CB	ALA B 754	196.971	201.188	259.662	1.00 66.24	C
ATOM	10551	N	PHE B 755	198.455	202.642	262.200	1.00 64.78	N
ATOM	10552	CA	PHE B 755	199.454	202.659	263.257	1.00 64.78	C
ATOM	10553	C	PHE B 755	198.851	202.982	264.616	1.00 64.78	C
ATOM	10554	O	PHE B 755	199.425	202.599	265.641	1.00 64.78	O
ATOM	10555	CB	PHE B 755	200.546	203.675	262.920	1.00 64.78	C
ATOM	10556	CG	PHE B 755	201.667	203.718	263.914	1.00 64.78	C
ATOM	10557	CD1	PHE B 755	202.635	202.732	263.927	1.00 64.78	C
ATOM	10558	CD2	PHE B 755	201.756	204.750	264.829	1.00 64.78	C
ATOM	10559	CE1	PHE B 755	203.669	202.772	264.838	1.00 64.78	C
ATOM	10560	CE2	PHE B 755	202.789	204.795	265.741	1.00 64.78	C
ATOM	10561	CZ	PHE B 755	203.746	203.805	265.747	1.00 64.78	C
ATOM	10562	N	THR B 756	197.709	203.667	264.647	1.00 65.57	N
ATOM	10563	CA	THR B 756	197.034	203.989	265.896	1.00 65.57	C
ATOM	10564	C	THR B 756	196.211	202.831	266.442	1.00 65.57	C
ATOM	10565	O	THR B 756	195.722	202.919	267.573	1.00 65.57	O
ATOM	10566	CB	THR B 756	196.128	205.209	265.712	1.00 65.57	C
ATOM	10567	OG1	THR B 756	195.147	204.929	264.706	1.00 65.57	O
ATOM	10568	CG2	THR B 756	196.945	206.422	265.298	1.00 65.57	C
ATOM	10569	N	ILE B 757	196.042	201.762	265.672	1.00 65.08	N
ATOM	10570	CA	ILE B 757	195.422	200.540	266.160	1.00 65.08	C
ATOM	10571	C	ILE B 757	196.466	199.517	266.584	1.00 65.08	C
ATOM	10572	O	ILE B 757	196.279	198.810	267.574	1.00 65.08	O
ATOM	10573	CB	ILE B 757	194.472	199.951	265.096	1.00 65.08	C
ATOM	10574	CG1	ILE B 757	193.277	200.879	264.876	1.00 65.08	C
ATOM	10575	CG2	ILE B 757	194.021	198.560	265.499	1.00 65.08	C
ATOM	10576	CD1	ILE B 757	192.417	200.497	263.693	1.00 65.08	C
ATOM	10577	N	ILE B 758	197.573	199.432	265.844	1.00 64.40	N
ATOM	10578	CA	ILE B 758	198.636	198.504	266.211	1.00 64.40	C
ATOM	10579	C	ILE B 758	199.263	198.902	267.540	1.00 64.40	C
ATOM	10580	O	ILE B 758	199.767	198.046	268.277	1.00 64.40	O
ATOM	10581	CB	ILE B 758	199.682	198.426	265.087	1.00 64.40	C
ATOM	10582	CG1	ILE B 758	199.044	197.868	263.815	1.00 64.40	C

ATOM	10583	CG2	ILE	B	758	200.857	197.567	265.512	1.00 64.40	C
ATOM	10584	CD1	ILE	B	758	199.917	197.988	262.593	1.00 64.40	C
ATOM	10585	N	LEU	B	759	199.244	200.193	267.874	1.00 64.11	N
ATOM	10586	CA	LEU	B	759	199.707	200.618	269.191	1.00 64.11	C
ATOM	10587	C	LEU	B	759	198.745	200.163	270.279	1.00 64.11	C
ATOM	10588	O	LEU	B	759	199.167	199.637	271.315	1.00 64.11	O
ATOM	10589	CB	LEU	B	759	199.876	202.136	269.230	1.00 64.11	C
ATOM	10590	CG	LEU	B	759	200.984	202.749	268.376	1.00 64.11	C
ATOM	10591	CD1	LEU	B	759	200.910	204.263	268.444	1.00 64.11	C
ATOM	10592	CD2	LEU	B	759	202.343	202.256	268.837	1.00 64.11	C
ATOM	10593	N	VAL	B	760	197.443	200.366	270.063	1.00 64.84	N
ATOM	10594	CA	VAL	B	760	196.453	200.004	271.072	1.00 64.84	C
ATOM	10595	C	VAL	B	760	196.449	198.504	271.321	1.00 64.84	C
ATOM	10596	O	VAL	B	760	196.265	198.056	272.459	1.00 64.84	O
ATOM	10597	CB	VAL	B	760	195.058	200.502	270.652	1.00 64.84	C
ATOM	10598	CG1	VAL	B	760	194.010	200.020	271.636	1.00 64.84	C
ATOM	10599	CG2	VAL	B	760	195.047	202.017	270.553	1.00 64.84	C
ATOM	10600	N	ALA	B	761	196.652	197.703	270.274	1.00 68.80	N
ATOM	10601	CA	ALA	B	761	196.664	196.255	270.449	1.00 68.80	C
ATOM	10602	C	ALA	B	761	197.878	195.803	271.249	1.00 68.80	C
ATOM	10603	O	ALA	B	761	197.761	194.948	272.134	1.00 68.80	O
ATOM	10604	CB	ALA	B	761	196.627	195.560	269.089	1.00 68.80	C
ATOM	10605	N	ILE	B	762	199.052	196.362	270.948	1.00 67.99	N
ATOM	10606	CA	ILE	B	762	200.265	195.979	271.663	1.00 67.99	C
ATOM	10607	C	ILE	B	762	200.162	196.355	273.135	1.00 67.99	C
ATOM	10608	O	ILE	B	762	200.634	195.621	274.011	1.00 67.99	O
ATOM	10609	CB	ILE	B	762	201.497	196.620	271.002	1.00 67.99	C
ATOM	10610	CG1	ILE	B	762	201.680	196.079	269.583	1.00 67.99	C
ATOM	10611	CG2	ILE	B	762	202.738	196.370	271.837	1.00 67.99	C
ATOM	10612	CD1	ILE	B	762	202.706	196.835	268.771	1.00 67.99	C
ATOM	10613	N	ALA	B	763	199.548	197.501	273.432	1.00 70.88	N
ATOM	10614	CA	ALA	B	763	199.388	197.914	274.820	1.00 70.88	C
ATOM	10615	C	ALA	B	763	198.435	197.010	275.588	1.00 70.88	C
ATOM	10616	O	ALA	B	763	198.565	196.894	276.810	1.00 70.88	O
ATOM	10617	CB	ALA	B	763	198.899	199.361	274.886	1.00 70.88	C
ATOM	10618	N	VAL	B	764	197.485	196.371	274.902	1.00 73.84	N
ATOM	10619	CA	VAL	B	764	196.518	195.509	275.579	1.00 73.84	C

ATOM	10620	C	VAL B 764	197.226	194.340	276.254	1.00 73.84	C
ATOM	10621	O	VAL B 764	197.049	194.090	277.452	1.00 73.84	O
ATOM	10622	CB	VAL B 764	195.448	195.017	274.591	1.00 73.84	C
ATOM	10623	CG1	VAL B 764	194.573	193.967	275.248	1.00 73.84	C
ATOM	10624	CG2	VAL B 764	194.603	196.182	274.110	1.00 73.84	C
ATOM	10625	N	VAL B 765	198.029	193.600	275.487	1.00 75.59	N
ATOM	10626	CA	VAL B 765	198.715	192.434	276.035	1.00 75.59	C
ATOM	10627	C	VAL B 765	199.690	192.842	277.130	1.00 75.59	C
ATOM	10628	O	VAL B 765	199.924	192.083	278.079	1.00 75.59	O
ATOM	10629	CB	VAL B 765	199.423	191.656	274.909	1.00 75.59	C
ATOM	10630	CG1	VAL B 765	200.213	190.493	275.484	1.00 75.59	C
ATOM	10631	CG2	VAL B 765	198.409	191.166	273.887	1.00 75.59	C
ATOM	10632	N	ILE B 766	200.272	194.038	277.026	1.00 76.39	N
ATOM	10633	CA	ILE B 766	201.182	194.509	278.064	1.00 76.39	C
ATOM	10634	C	ILE B 766	200.424	194.783	279.357	1.00 76.39	C
ATOM	10635	O	ILE B 766	200.928	194.521	280.455	1.00 76.39	O
ATOM	10636	CB	ILE B 766	201.947	195.753	277.580	1.00 76.39	C
ATOM	10637	CG1	ILE B 766	202.835	195.397	276.387	1.00 76.39	C
ATOM	10638	CG2	ILE B 766	202.778	196.337	278.709	1.00 76.39	C
ATOM	10639	CD1	ILE B 766	203.430	196.600	275.691	1.00 76.39	C
ATOM	10640	N	ILE B 767	199.203	195.316	279.252	1.00 78.65	N
ATOM	10641	CA	ILE B 767	198.391	195.563	280.437	1.00 78.65	C
ATOM	10642	C	ILE B 767	198.031	194.265	281.145	1.00 78.65	C
ATOM	10643	O	ILE B 767	197.758	194.273	282.350	1.00 78.65	O
ATOM	10644	CB	ILE B 767	197.126	196.361	280.059	1.00 78.65	C
ATOM	10645	CG1	ILE B 767	197.513	197.712	279.459	1.00 78.65	C
ATOM	10646	CG2	ILE B 767	196.236	196.566	281.271	1.00 78.65	C
ATOM	10647	CD1	ILE B 767	198.295	198.595	280.404	1.00 78.65	C
ATOM	10648	N	ILE B 768	198.025	193.142	280.424	1.00 81.20	N
ATOM	10649	CA	ILE B 768	197.825	191.847	281.067	1.00 81.20	C
ATOM	10650	C	ILE B 768	198.940	191.575	282.066	1.00 81.20	C
ATOM	10651	O	ILE B 768	198.714	190.982	283.128	1.00 81.20	O
ATOM	10652	CB	ILE B 768	197.734	190.734	280.008	1.00 81.20	C
ATOM	10653	CG1	ILE B 768	196.564	190.993	279.058	1.00 81.20	C
ATOM	10654	CG2	ILE B 768	197.599	189.377	280.676	1.00 81.20	C
ATOM	10655	CD1	ILE B 768	195.218	191.006	279.742	1.00 81.20	C
ATOM	10656	N	TYR B 769	200.156	192.005	281.746	1.00 89.07	N

ATOM	10657	CA	TYR B 769	201.309	191.769	282.604	1.00 89.07 C
ATOM	10658	C	TYR B 769	202.058	193.066	282.889	1.00 89.07 C
ATOM	10659	O	TYR B 769	201.509	193.993	283.485	1.00 89.07 O
ATOM	10660	CB	TYR B 769	202.246	190.747	281.961	1.00 89.07 C
ATOM	10661	CG	TYR B 769	203.457	190.409	282.797	1.00 89.07 C
ATOM	10662	CD1	TYR B 769	203.345	189.595	283.916	1.00 89.07 C
ATOM	10663	CD2	TYR B 769	204.713	190.895	282.463	1.00 89.07 C
ATOM	10664	CE1	TYR B 769	204.450	189.280	284.682	1.00 89.07 C
ATOM	10665	CE2	TYR B 769	205.824	190.585	283.222	1.00 89.07 C
ATOM	10666	CZ	TYR B 769	205.687	189.778	284.331	1.00 89.07 C
ATOM	10667	OH	TYR B 769	206.792	189.466	285.090	1.00 89.07 O
TER							
HETATM	10668	C1	NAG B1001	214.517	238.029	234.379	1.00 65.43 C
HETATM	10669	C2	NAG B1001	215.187	239.214	233.637	1.00 65.43 C
HETATM	10670	C3	NAG B1001	214.260	239.824	232.574	1.00 65.43 C
HETATM	10671	C4	NAG B1001	213.474	238.788	231.782	1.00 65.43 C
HETATM	10672	C5	NAG B1001	212.880	237.756	232.722	1.00 65.43 C
HETATM	10673	C6	NAG B1001	212.161	236.636	232.014	1.00 65.43 C
HETATM	10674	C7	NAG B1001	216.501	240.098	235.535	1.00 65.43 C
HETATM	10675	C8	NAG B1001	216.742	241.297	236.404	1.00 65.43 C
HETATM	10676	N2	NAG B1001	215.578	240.250	234.580	1.00 65.43 N
HETATM	10677	O3	NAG B1001	215.073	240.576	231.685	1.00 65.43 O
HETATM	10678	O4	NAG B1001	212.389	239.431	231.120	1.00 65.43 O
HETATM	10679	O5	NAG B1001	213.943	237.156	233.458	1.00 65.43 O
HETATM	10680	O6	NAG B1001	211.922	235.556	232.906	1.00 65.43 O
HETATM	10681	O7	NAG B1001	217.101	239.041	235.703	1.00 65.43 O
HETATM	10682	H1	NAG B1001	213.835	238.367	234.989	1.00 65.43 H
HETATM	10683	H2	NAG B1001	215.984	238.876	233.182	1.00 65.43 H
HETATM	10684	H3	NAG B1001	213.631	240.434	233.005	1.00 65.43 H
HETATM	10685	H4	NAG B1001	214.053	238.349	231.131	1.00 65.43 H
HETATM	10686	H5	NAG B1001	212.262	238.196	233.335	1.00 65.43 H
HETATM	10687	H61	NAG B1001	212.707	236.321	231.275	1.00 65.43 H
HETATM	10688	H62	NAG B1001	211.310	236.963	231.676	1.00 65.43 H
HETATM	10689	H81	NAG B1001	216.010	241.386	237.043	1.00 65.43 H
HETATM	10690	H82	NAG B1001	216.772	242.099	235.850	1.00 65.43 H
HETATM	10691	H83	NAG B1001	217.586	241.195	236.883	1.00 65.43 H
HETATM	10692	HN2	NAG B1001	215.169	241.060	234.510	1.00 65.43 H

HETATM10693	HO3	NAG B1001	215.267	240.085	230.970	1.00 65.43 H
HETATM10694	HO6	NAG B1001	212.285	235.736	233.696	1.00 65.43 H
HETATM10695	C1	NAG B1002	212.679	240.277	229.970	1.00 68.65 C
HETATM10696	C2	NAG B1002	211.912	241.562	230.215	1.00 68.65 C
HETATM10697	C3	NAG B1002	211.870	242.383	228.939	1.00 68.65 C
HETATM10698	C4	NAG B1002	213.128	242.167	228.101	1.00 68.65 C
HETATM10699	C5	NAG B1002	214.346	241.719	228.924	1.00 68.65 C
HETATM10700	C6	NAG B1002	214.905	242.821	229.799	1.00 68.65 C
HETATM10701	C7	NAG B1002	210.244	241.322	232.002	1.00 68.65 C
HETATM10702	C8	NAG B1002	208.812	241.034	232.327	1.00 68.65 C
HETATM10703	N2	NAG B1002	210.568	241.299	230.704	1.00 68.65 N
HETATM10704	O3	NAG B1002	211.740	243.763	229.273	1.00 68.65 O
HETATM10705	O4	NAG B1002	212.870	241.194	227.097	1.00 68.65 O
HETATM10706	O5	NAG B1002	214.069	240.586	229.774	1.00 68.65 O
HETATM10707	O6	NAG B1002	216.324	242.772	229.846	1.00 68.65 O
HETATM10708	O7	NAG B1002	211.073	241.560	232.876	1.00 68.65 O
HETATM10709	H1	NAG B1002	212.328	239.823	229.179	1.00 68.65 H
HETATM10710	H2	NAG B1002	212.388	242.084	230.887	1.00 68.65 H
HETATM10711	H3	NAG B1002	211.106	242.089	228.409	1.00 68.65 H
HETATM10712	H4	NAG B1002	213.348	243.006	227.658	1.00 68.65 H
HETATM10713	H5	NAG B1002	215.049	241.461	228.299	1.00 68.65 H
HETATM10714	H61	NAG B1002	214.555	242.749	230.704	1.00 68.65 H
HETATM10715	H62	NAG B1002	214.639	243.685	229.435	1.00 68.65 H
HETATM10716	H81	NAG B1002	208.624	240.090	232.168	1.00 68.65 H
HETATM10717	H82	NAG B1002	208.236	241.583	231.763	1.00 68.65 H
HETATM10718	H83	NAG B1002	208.649	241.245	233.265	1.00 68.65 H
HETATM10719	HN2	NAG B1002	209.913	241.120	230.095	1.00 68.65 H
HETATM10720	HO4	NAG B1002	213.639	240.873	226.790	1.00 68.65 H
HETATM10721	HO6	NAG B1002	216.653	243.591	229.749	1.00 68.65 H
HETATM10722	C1	NAG B1003	210.621	244.444	228.637	1.00 69.84 C
HETATM10723	C2	NAG B1003	210.941	244.631	227.152	1.00 69.84 C
HETATM10724	C3	NAG B1003	209.794	245.357	226.455	1.00 69.84 C
HETATM10725	C4	NAG B1003	208.478	244.632	226.706	1.00 69.84 C
HETATM10726	C5	NAG B1003	208.255	244.437	228.204	1.00 69.84 C
HETATM10727	C6	NAG B1003	207.018	243.629	228.520	1.00 69.84 C
HETATM10728	C7	NAG B1003	213.027	245.158	225.959	1.00 69.84 C
HETATM10729	C8	NAG B1003	214.273	245.992	225.961	1.00 69.84 C

HETATM10730	N2	NAG B1003	212.189 245.357 226.982	1.00 69.84	N
HETATM10731	O3	NAG B1003	210.050 245.425 225.057	1.00 69.84	O
HETATM10732	O4	NAG B1003	207.399 245.383 226.161	1.00 69.84	O
HETATM10733	O5	NAG B1003	209.367 243.735 228.779	1.00 69.84	O
HETATM10734	O6	NAG B1003	207.307 242.568 229.420	1.00 69.84	O
HETATM10735	O7	NAG B1003	212.793 244.341 225.074	1.00 69.84	O
HETATM10736	H1	NAG B1003	210.523 245.327 229.044	1.00 69.84	H
HETATM10737	H2	NAG B1003	211.023 243.753 226.732	1.00 69.84	H
HETATM10738	H3	NAG B1003	209.726 246.262 226.812	1.00 69.84	H
HETATM10739	H4	NAG B1003	208.509 243.759 226.274	1.00 69.84	H
HETATM10740	H5	NAG B1003	208.178 245.312 228.629	1.00 69.84	H
HETATM10741	H61	NAG B1003	206.658 243.258 227.692	1.00 69.84	H
HETATM10742	H62	NAG B1003	206.351 244.216 228.922	1.00 69.84	H
HETATM10743	H81	NAG B1003	214.487 246.254 226.876	1.00 69.84	H
HETATM10744	H82	NAG B1003	214.136 246.789 225.416	1.00 69.84	H
HETATM10745	H83	NAG B1003	215.013 245.469 225.596	1.00 69.84	H
HETATM10746	HN2	NAG B1003	212.417 245.973 227.616	1.00 69.84	H
HETATM10747	HO3	NAG B1003	209.335 245.744 224.639	1.00 69.84	H
HETATM10748	HO4	NAG B1003	206.862 245.655 226.813	1.00 69.84	H
HETATM10749	HO6	NAG B1003	208.140 242.651 229.718	1.00 69.84	H
HETATM10750	C1	NAG B1004	203.123 244.250 198.016	1.00 72.92	C
HETATM10751	C2	NAG B1004	204.086 245.334 197.507	1.00 72.92	C
HETATM10752	C3	NAG B1004	203.577 245.930 196.195	1.00 72.92	C
HETATM10753	C4	NAG B1004	203.285 244.833 195.182	1.00 72.92	C
HETATM10754	C5	NAG B1004	202.328 243.816 195.790	1.00 72.92	C
HETATM10755	C6	NAG B1004	202.027 242.658 194.868	1.00 72.92	C
HETATM10756	C7	NAG B1004	205.104 246.284 199.533	1.00 72.92	C
HETATM10757	C8	NAG B1004	205.157 247.467 200.447	1.00 72.92	C
HETATM10758	N2	NAG B1004	204.265 246.383 198.498	1.00 72.92	N
HETATM10759	O3	NAG B1004	204.548 246.828 195.670	1.00 72.92	O
HETATM10760	O4	NAG B1004	202.694 245.392 194.015	1.00 72.92	O
HETATM10761	O5	NAG B1004	202.906 243.270 196.984	1.00 72.92	O
HETATM10762	O6	NAG B1004	201.174 243.054 193.803	1.00 72.92	O
HETATM10763	O7	NAG B1004	205.778 245.280 199.728	1.00 72.92	O
HETATM10764	H1	NAG B1004	202.272 244.659 198.260	1.00 72.92	H
HETATM10765	H2	NAG B1004	204.953 244.917 197.342	1.00 72.92	H
HETATM10766	H3	NAG B1004	202.755 246.425 196.373	1.00 72.92	H

HETATM10767	H4	NAG B1004	204.118	244.387	194.939	1.00 72.92 H
HETATM10768	H5	NAG B1004	201.495	244.269	196.018	1.00 72.92 H
HETATM10769	H61	NAG B1004	201.590	241.950	195.377	1.00 72.92 H
HETATM10770	H62	NAG B1004	202.861	242.319	194.495	1.00 72.92 H
HETATM10771	H81	NAG B1004	204.247	247.732	200.681	1.00 72.92 H
HETATM10772	H82	NAG B1004	205.606	248.206	199.995	1.00 72.92 H
HETATM10773	H83	NAG B1004	205.645	247.229	201.258	1.00 72.92 H
HETATM10774	HN2	NAG B1004	203.791	247.156	198.401	1.00 72.92 H
HETATM10775	HO3	NAG B1004	204.209	247.243	194.962	1.00 72.92 H
HETATM10776	HO4	NAG B1004	202.650	246.275	194.097	1.00 72.92 H
HETATM10777	HO6	NAG B1004	201.265	243.925	193.654	1.00 72.92 H
HETATM10778	C1	NAG B1005	190.294	246.947	198.629	1.00 87.17 C
HETATM10779	C2	NAG B1005	190.367	246.904	200.171	1.00 87.17 C
HETATM10780	C3	NAG B1005	189.644	248.110	200.790	1.00 87.17 C
HETATM10781	C4	NAG B1005	190.095	249.413	200.147	1.00 87.17 C
HETATM10782	C5	NAG B1005	189.910	249.319	198.644	1.00 87.17 C
HETATM10783	C6	NAG B1005	190.346	250.564	197.907	1.00 87.17 C
HETATM10784	C7	NAG B1005	189.833	245.290	201.950	1.00 87.17 C
HETATM10785	C8	NAG B1005	189.172	243.983	202.275	1.00 87.17 C
HETATM10786	N2	NAG B1005	189.793	245.664	200.666	1.00 87.17 N
HETATM10787	O3	NAG B1005	189.903	248.170	202.187	1.00 87.17 O
HETATM10788	O4	NAG B1005	189.335	250.502	200.655	1.00 87.17 O
HETATM10789	O5	NAG B1005	190.711	248.238	198.156	1.00 87.17 O
HETATM10790	O6	NAG B1005	189.704	250.667	196.643	1.00 87.17 O
HETATM10791	O7	NAG B1005	190.369	245.979	202.814	1.00 87.17 O
HETATM10792	H1	NAG B1005	189.372	246.781	198.352	1.00 87.17 H
HETATM10793	H2	NAG B1005	191.305	246.944	200.431	1.00 87.17 H
HETATM10794	H3	NAG B1005	188.684	248.010	200.648	1.00 87.17 H
HETATM10795	H4	NAG B1005	191.040	249.560	200.347	1.00 87.17 H
HETATM10796	H5	NAG B1005	188.972	249.140	198.447	1.00 87.17 H
HETATM10797	H61	NAG B1005	191.310	250.542	197.776	1.00 87.17 H
HETATM10798	H62	NAG B1005	190.116	251.349	198.435	1.00 87.17 H
HETATM10799	H81	NAG B1005	188.206	244.109	202.314	1.00 87.17 H
HETATM10800	H82	NAG B1005	189.494	243.664	203.138	1.00 87.17 H
HETATM10801	H83	NAG B1005	189.385	243.334	201.579	1.00 87.17 H
HETATM10802	HN2	NAG B1005	189.376	245.115	200.070	1.00 87.17 H
HETATM10803	HO3	NAG B1005	189.217	247.824	202.633	1.00 87.17 H

HETATM10804	HO4	NAG B1005	189.834	251.237	200.649	1.00 87.17 H
HETATM10805	HO6	NAG B1005	188.833	250.534	196.748	1.00 87.17 H
HETATM10806	C1	NAG B1006	215.515	249.434	203.778	1.00 52.84 C
HETATM10807	C2	NAG B1006	216.974	249.835	203.753	1.00 52.84 C
HETATM10808	C3	NAG B1006	217.505	249.731	202.335	1.00 52.84 C
HETATM10809	C4	NAG B1006	217.316	248.309	201.824	1.00 52.84 C
HETATM10810	C5	NAG B1006	215.860	247.859	201.975	1.00 52.84 C
HETATM10811	C6	NAG B1006	215.685	246.381	201.710	1.00 52.84 C
HETATM10812	C7	NAG B1006	217.132	251.440	205.597	1.00 52.84 C
HETATM10813	C8	NAG B1006	217.375	252.867	205.986	1.00 52.84 C
HETATM10814	N2	NAG B1006	217.176	251.171	204.288	1.00 52.84 N
HETATM10815	O3	NAG B1006	218.882	250.089	202.308	1.00 52.84 O
HETATM10816	O4	NAG B1006	217.688	248.234	200.453	1.00 52.84 O
HETATM10817	O5	NAG B1006	215.382	248.089	203.312	1.00 52.84 O
HETATM10818	O6	NAG B1006	214.342	246.058	201.380	1.00 52.84 O
HETATM10819	O7	NAG B1006	216.900	250.570	206.430	1.00 52.84 O
HETATM10820	H1	NAG B1006	215.008	250.030	203.195	1.00 52.84 H
HETATM10821	H2	NAG B1006	217.469	249.203	204.307	1.00 52.84 H
HETATM10822	H3	NAG B1006	217.007	250.345	201.764	1.00 52.84 H
HETATM10823	H4	NAG B1006	217.889	247.711	202.340	1.00 52.84 H
HETATM10824	H5	NAG B1006	215.305	248.360	201.349	1.00 52.84 H
HETATM10825	H61	NAG B1006	215.939	245.888	202.512	1.00 52.84 H
HETATM10826	H62	NAG B1006	216.269	246.114	200.976	1.00 52.84 H
HETATM10827	H81	NAG B1006	216.596	253.408	205.758	1.00 52.84 H
HETATM10828	H82	NAG B1006	218.158	253.205	205.511	1.00 52.84 H
HETATM10829	H83	NAG B1006	217.534	252.915	206.948	1.00 52.84 H
HETATM10830	HN2	NAG B1006	217.359	251.849	203.706	1.00 52.84 H
HETATM10831	HO3	NAG B1006	218.963	250.899	201.954	1.00 52.84 H
HETATM10832	HO4	NAG B1006	218.397	248.749	200.310	1.00 52.84 H
HETATM10833	HO6	NAG B1006	214.288	245.189	201.206	1.00 52.84 H
HETATM10834	C1	NAG B1007	191.945	232.876	166.433	1.00103.20 C
HETATM10835	C2	NAG B1007	190.938	234.044	166.554	1.00103.20 C
HETATM10836	C3	NAG B1007	191.231	235.175	165.556	1.00103.20 C
HETATM10837	C4	NAG B1007	192.718	235.486	165.438	1.00103.20 C
HETATM10838	C5	NAG B1007	193.537	234.212	165.315	1.00103.20 C
HETATM10839	C6	NAG B1007	195.029	234.465	165.319	1.00103.20 C
HETATM10840	C7	NAG B1007	188.486	234.298	166.513	1.00103.20 C

HETATM10841	C8	NAG B1007	187.177	233.606	166.262	1.00103.20 C
HETATM10842	N2	NAG B1007	189.584	233.547	166.366	1.00103.20 N
HETATM10843	O3	NAG B1007	190.566	236.313	166.094	1.00103.20 O
HETATM10844	O4	NAG B1007	192.963	236.293	164.290	1.00103.20 O
HETATM10845	O5	NAG B1007	193.257	233.374	166.438	1.00103.20 O
HETATM10846	O6	NAG B1007	195.744	233.365	165.866	1.00103.20 O
HETATM10847	O7	NAG B1007	188.545	235.483	166.831	1.00103.20 O
HETATM10848	H1	NAG B1007	191.785	232.388	165.604	1.00103.20 H
HETATM10849	H2	NAG B1007	191.021	234.443	167.440	1.00103.20 H
HETATM10850	H3	NAG B1007	190.862	234.941	164.685	1.00103.20 H
HETATM10851	H4	NAG B1007	193.006	235.966	166.235	1.00103.20 H
HETATM10852	H5	NAG B1007	193.288	233.748	164.493	1.00103.20 H
HETATM10853	H61	NAG B1007	195.215	235.263	165.852	1.00103.20 H
HETATM10854	H62	NAG B1007	195.331	234.622	164.406	1.00103.20 H
HETATM10855	H81	NAG B1007	187.087	233.421	165.309	1.00103.20 H
HETATM10856	H82	NAG B1007	186.443	234.182	166.552	1.00103.20 H
HETATM10857	H83	NAG B1007	187.152	232.766	166.756	1.00103.20 H
HETATM10858	HN2	NAG B1007	189.477	232.675	166.125	1.00103.20 H
HETATM10859	HO4	NAG B1007	192.268	236.248	163.741	1.00103.20 H
HETATM10860	HO6	NAG B1007	196.356	233.671	166.431	1.00103.20 H
HETATM10861	C1	NAG B1008	190.485	237.520	165.298	1.00104.00 C
HETATM10862	C2	NAG B1008	191.416	238.565	165.934	1.00104.00 C
HETATM10863	C3	NAG B1008	191.379	239.856	165.124	1.00104.00 C
HETATM10864	C4	NAG B1008	191.690	239.571	163.661	1.00104.00 C
HETATM10865	C5	NAG B1008	190.746	238.498	163.127	1.00104.00 C
HETATM10866	C6	NAG B1008	191.040	238.102	161.700	1.00104.00 C
HETATM10867	C7	NAG B1008	191.592	238.177	168.359	1.00104.00 C
HETATM10868	C8	NAG B1008	191.097	238.584	169.715	1.00104.00 C
HETATM10869	N2	NAG B1008	191.051	238.823	167.319	1.00104.00 N
HETATM10870	O3	NAG B1008	192.321	240.781	165.655	1.00104.00 O
HETATM10871	O4	NAG B1008	191.540	240.760	162.894	1.00104.00 O
HETATM10872	O5	NAG B1008	190.865	237.310	163.923	1.00104.00 O
HETATM10873	O6	NAG B1008	190.041	238.584	160.812	1.00104.00 O
HETATM10874	O7	NAG B1008	192.441	237.306	168.214	1.00104.00 O
HETATM10875	H1	NAG B1008	189.572	237.857	165.327	1.00104.00 H
HETATM10876	H2	NAG B1008	192.329	238.226	165.904	1.00104.00 H
HETATM10877	H3	NAG B1008	190.486	240.245	165.187	1.00104.00 H

HETATM10878	H4	NAG B1008	192.610	239.256	163.588	1.00104.00 H
HETATM10879	H5	NAG B1008	189.829	238.828	163.183	1.00104.00 H
HETATM10880	H61	NAG B1008	191.073	237.129	161.644	1.00104.00 H
HETATM10881	H62	NAG B1008	191.904	238.471	161.440	1.00104.00 H
HETATM10882	H81	NAG B1008	190.122	238.570	169.728	1.00104.00 H
HETATM10883	H82	NAG B1008	191.415	239.483	169.921	1.00104.00 H
HETATM10884	H83	NAG B1008	191.438	237.959	170.382	1.00104.00 H
HETATM10885	HN2	NAG B1008	190.425	239.464	167.487	1.00104.00 H
HETATM10886	HO3	NAG B1008	191.887	241.429	166.080	1.00104.00 H
HETATM10887	HO4	NAG B1008	191.641	241.467	163.423	1.00104.00 H
HETATM10888	HO6	NAG B1008	189.287	238.132	160.938	1.00104.00 H
HETATM10889	C1	NAG B1009	196.684	224.746	155.647	1.00105.39 C
HETATM10890	C2	NAG B1009	195.636	225.837	155.465	1.00105.39 C
HETATM10891	C3	NAG B1009	195.579	226.262	154.005	1.00105.39 C
HETATM10892	C4	NAG B1009	196.967	226.656	153.515	1.00105.39 C
HETATM10893	C5	NAG B1009	197.971	225.545	153.809	1.00105.39 C
HETATM10894	C6	NAG B1009	199.394	225.919	153.463	1.00105.39 C
HETATM10895	C7	NAG B1009	193.888	225.553	157.167	1.00105.39 C
HETATM10896	C8	NAG B1009	192.524	225.005	157.464	1.00105.39 C
HETATM10897	N2	NAG B1009	194.332	225.381	155.917	1.00105.39 N
HETATM10898	O3	NAG B1009	194.675	227.350	153.858	1.00105.39 O
HETATM10899	O4	NAG B1009	196.943	226.903	152.113	1.00105.39 O
HETATM10900	O5	NAG B1009	197.954	225.223	155.208	1.00105.39 O
HETATM10901	O6	NAG B1009	200.333	225.241	154.287	1.00105.39 O
HETATM10902	O7	NAG B1009	194.560	226.122	158.023	1.00105.39 O
HETATM10903	H1	NAG B1009	196.418	223.965	155.125	1.00105.39 H
HETATM10904	H2	NAG B1009	195.906	226.616	155.990	1.00105.39 H
HETATM10905	H3	NAG B1009	195.263	225.509	153.473	1.00105.39 H
HETATM10906	H4	NAG B1009	197.244	227.467	153.980	1.00105.39 H
HETATM10907	H5	NAG B1009	197.723	224.751	153.299	1.00105.39 H
HETATM10908	H61	NAG B1009	199.504	226.881	153.571	1.00105.39 H
HETATM10909	H62	NAG B1009	199.560	225.686	152.532	1.00105.39 H
HETATM10910	H81	NAG B1009	192.581	224.038	157.580	1.00105.39 H
HETATM10911	H82	NAG B1009	191.919	225.206	156.726	1.00105.39 H
HETATM10912	H83	NAG B1009	192.184	225.409	158.285	1.00105.39 H
HETATM10913	HN2	NAG B1009	193.796	224.944	155.322	1.00105.39 H
HETATM10914	HO3	NAG B1009	194.586	227.547	152.996	1.00105.39 H

HETATM10915	HO4	NAG B1009	197.704	227.290	151.868	1.00105.39 H
HETATM10916	HO6	NAG B1009	199.908	224.817	154.940	1.00105.39 H
HETATM10917	C1	NAG B1010	227.267	208.337	210.383	1.00 56.03 C
HETATM10918	C2	NAG B1010	228.285	208.001	211.470	1.00 56.03 C
HETATM10919	C3	NAG B1010	229.468	208.965	211.390	1.00 56.03 C
HETATM10920	C4	NAG B1010	230.039	208.998	209.979	1.00 56.03 C
HETATM10921	C5	NAG B1010	228.936	209.241	208.952	1.00 56.03 C
HETATM10922	C6	NAG B1010	229.421	209.131	207.525	1.00 56.03 C
HETATM10923	C7	NAG B1010	228.288	207.618	213.897	1.00 56.03 C
HETATM10924	C8	NAG B1010	227.503	207.727	215.171	1.00 56.03 C
HETATM10925	N2	NAG B1010	227.672	208.040	212.787	1.00 56.03 N
HETATM10926	O3	NAG B1010	230.491	208.574	212.296	1.00 56.03 O
HETATM10927	O4	NAG B1010	231.000	210.041	209.878	1.00 56.03 O
HETATM10928	O5	NAG B1010	227.893	208.270	209.111	1.00 56.03 O
HETATM10929	O6	NAG B1010	228.486	209.697	206.616	1.00 56.03 O
HETATM10930	O7	NAG B1010	229.434	207.179	213.876	1.00 56.03 O
HETATM10931	H1	NAG B1010	226.926	209.239	210.523	1.00 56.03 H
HETATM10932	H2	NAG B1010	228.624	207.101	211.305	1.00 56.03 H
HETATM10933	H3	NAG B1010	229.163	209.862	211.625	1.00 56.03 H
HETATM10934	H4	NAG B1010	230.474	208.144	209.795	1.00 56.03 H
HETATM10935	H5	NAG B1010	228.566	210.131	209.097	1.00 56.03 H
HETATM10936	H61	NAG B1010	229.555	208.189	207.305	1.00 56.03 H
HETATM10937	H62	NAG B1010	230.272	209.598	207.442	1.00 56.03 H
HETATM10938	H81	NAG B1010	226.916	208.505	215.129	1.00 56.03 H
HETATM10939	H82	NAG B1010	228.118	207.824	215.921	1.00 56.03 H
HETATM10940	H83	NAG B1010	226.969	206.921	215.293	1.00 56.03 H
HETATM10941	HN2	NAG B1010	226.819	208.352	212.857	1.00 56.03 H
HETATM10942	HO3	NAG B1010	230.471	209.102	213.010	1.00 56.03 H
HETATM10943	HO4	NAG B1010	231.551	209.873	209.202	1.00 56.03 H
HETATM10944	HO6	NAG B1010	228.493	209.234	205.858	1.00 56.03 H
HETATM10945	C1	NAG B1011	224.947	217.094	209.717	1.00 57.20 C
HETATM10946	C2	NAG B1011	226.311	217.696	209.434	1.00 57.20 C
HETATM10947	C3	NAG B1011	226.178	218.748	208.346	1.00 57.20 C
HETATM10948	C4	NAG B1011	225.517	218.141	207.116	1.00 57.20 C
HETATM10949	C5	NAG B1011	224.218	217.425	207.492	1.00 57.20 C
HETATM10950	C6	NAG B1011	223.605	216.663	206.342	1.00 57.20 C
HETATM10951	C7	NAG B1011	227.707	217.586	211.451	1.00 57.20 C

HETATM10952	C8	NAG B1011	228.209	218.327	212.655	1.00 57.20 C
HETATM10953	N2	NAG B1011	226.891	218.267	210.638	1.00 57.20 N
HETATM10954	O3	NAG B1011	227.460	219.273	208.023	1.00 57.20 O
HETATM10955	O4	NAG B1011	225.226	219.160	206.166	1.00 57.20 O
HETATM10956	O5	NAG B1011	224.452	216.473	208.542	1.00 57.20 O
HETATM10957	O6	NAG B1011	222.273	216.266	206.634	1.00 57.20 O
HETATM10958	O7	NAG B1011	228.024	216.421	211.227	1.00 57.20 O
HETATM10959	H1	NAG B1011	224.333	217.799	209.994	1.00 57.20 H
HETATM10960	H2	NAG B1011	226.896	216.994	209.091	1.00 57.20 H
HETATM10961	H3	NAG B1011	225.612	219.470	208.675	1.00 57.20 H
HETATM10962	H4	NAG B1011	226.128	217.496	206.716	1.00 57.20 H
HETATM10963	H5	NAG B1011	223.573	218.086	207.807	1.00 57.20 H
HETATM10964	H61	NAG B1011	224.143	215.869	206.164	1.00 57.20 H
HETATM10965	H62	NAG B1011	223.601	217.234	205.550	1.00 57.20 H
HETATM10966	H81	NAG B1011	227.454	218.608	213.205	1.00 57.20 H
HETATM10967	H82	NAG B1011	228.717	219.113	212.378	1.00 57.20 H
HETATM10968	H83	NAG B1011	228.786	217.741	213.179	1.00 57.20 H
HETATM10969	HN2	NAG B1011	226.683	219.129	210.853	1.00 57.20 H
HETATM10970	HO3	NAG B1011	227.551	220.063	208.418	1.00 57.20 H
HETATM10971	HO4	NAG B1011	225.756	219.857	206.311	1.00 57.20 H
HETATM10972	HO6	NAG B1011	222.059	216.530	207.454	1.00 57.20 H
HETATM10973	C1	NAG B1012	211.540	235.431	185.159	1.00144.27 C
HETATM10974	C2	NAG B1012	211.740	236.944	185.194	1.00144.27 C
HETATM10975	C3	NAG B1012	213.202	237.282	184.918	1.00144.27 C
HETATM10976	C4	NAG B1012	214.117	236.504	185.855	1.00144.27 C
HETATM10977	C5	NAG B1012	213.784	235.012	185.826	1.00144.27 C
HETATM10978	C6	NAG B1012	214.574	234.207	186.833	1.00144.27 C
HETATM10979	C7	NAG B1012	210.590	238.906	184.258	1.00144.27 C
HETATM10980	C8	NAG B1012	209.669	239.403	183.185	1.00144.27 C
HETATM10981	N2	NAG B1012	210.872	237.600	184.228	1.00144.27 N
HETATM10982	O3	NAG B1012	213.416	238.678	185.090	1.00144.27 O
HETATM10983	O4	NAG B1012	215.474	236.683	185.462	1.00144.27 O
HETATM10984	O5	NAG B1012	212.395	234.811	186.127	1.00144.27 O
HETATM10985	O6	NAG B1012	214.295	234.615	188.165	1.00144.27 O
HETATM10986	O7	NAG B1012	211.064	239.654	185.110	1.00144.27 O
HETATM10987	H1	NAG B1012	211.757	235.094	184.268	1.00144.27 H
HETATM10988	H2	NAG B1012	211.514	237.268	186.086	1.00144.27 H

HETATM10989	H3	NAG B1012	213.415	237.037	183.998	1.00144.27 H
HETATM10990	H4	NAG B1012	214.000	236.838	186.765	1.00144.27 H
HETATM10991	H5	NAG B1012	213.968	234.664	184.932	1.00144.27 H
HETATM10992	H61	NAG B1012	215.527	234.331	186.660	1.00144.27 H
HETATM10993	H62	NAG B1012	214.356	233.261	186.733	1.00144.27 H
HETATM10994	H81	NAG B1012	208.828	238.913	183.236	1.00144.27 H
HETATM10995	H82	NAG B1012	210.074	239.263	182.309	1.00144.27 H
HETATM10996	H83	NAG B1012	209.497	240.355	183.314	1.00144.27 H
HETATM10997	HN2	NAG B1012	210.485	237.091	183.578	1.00144.27 H
HETATM10998	HO3	NAG B1012	214.115	238.932	184.605	1.00144.27 H
HETATM10999	HO4	NAG B1012	215.505	236.908	184.604	1.00144.27 H
HETATM11000	HO6	NAG B1012	214.907	234.272	188.710	1.00144.27 H
HETATM11001	C1	NAG B1013	212.994	213.162	156.850	1.00130.73 C
HETATM11002	C2	NAG B1013	214.338	213.204	157.599	1.00130.73 C
HETATM11003	C3	NAG B1013	215.506	213.041	156.624	1.00130.73 C
HETATM11004	C4	NAG B1013	215.318	211.806	155.754	1.00130.73 C
HETATM11005	C5	NAG B1013	213.970	211.869	155.052	1.00130.73 C
HETATM11006	C6	NAG B1013	213.654	210.622	154.258	1.00130.73 C
HETATM11007	C7	NAG B1013	213.960	214.631	159.569	1.00130.73 C
HETATM11008	C8	NAG B1013	214.203	215.976	160.184	1.00130.73 C
HETATM11009	N2	NAG B1013	214.476	214.443	158.349	1.00130.73 N
HETATM11010	O3	NAG B1013	216.715	212.924	157.364	1.00130.73 O
HETATM11011	O4	NAG B1013	216.352	211.732	154.780	1.00130.73 O
HETATM11012	O5	NAG B1013	212.932	211.992	156.031	1.00130.73 O
HETATM11013	O6	NAG B1013	214.719	210.264	153.389	1.00130.73 O
HETATM11014	O7	NAG B1013	213.317	213.759	160.146	1.00130.73 O
HETATM11015	H1	NAG B1013	212.918	213.955	156.287	1.00130.73 H
HETATM11016	H2	NAG B1013	214.362	212.455	158.225	1.00130.73 H
HETATM11017	H3	NAG B1013	215.560	213.828	156.050	1.00130.73 H
HETATM11018	H4	NAG B1013	215.347	211.010	156.319	1.00130.73 H
HETATM11019	H5	NAG B1013	213.953	212.642	154.456	1.00130.73 H
HETATM11020	H61	NAG B1013	212.849	210.780	153.729	1.00130.73 H
HETATM11021	H62	NAG B1013	213.489	209.887	154.880	1.00130.73 H
HETATM11022	H81	NAG B1013	213.795	216.667	159.630	1.00130.73 H
HETATM11023	H82	NAG B1013	215.164	216.135	160.246	1.00130.73 H
HETATM11024	H83	NAG B1013	213.808	216.000	161.076	1.00130.73 H
HETATM11025	HN2	NAG B1013	214.944	215.127	157.970	1.00130.73 H

HETATM11026	HO3	NAG	B1013	216.709	212.156	157.811	1.00130.73 H
HETATM11027	HO4	NAG	B1013	216.238	212.377	154.180	1.00130.73 H
HETATM11028	HO6	NAG	B1013	214.520	209.496	152.991	1.00130.73 H
HETATM11029	C1	NAG	B1014	174.157	203.506	155.498	1.00156.34 C
HETATM11030	C2	NAG	B1014	173.629	204.923	155.316	1.00156.34 C
HETATM11031	C3	NAG	B1014	173.794	205.349	153.865	1.00156.34 C
HETATM11032	C4	NAG	B1014	175.245	205.180	153.433	1.00156.34 C
HETATM11033	C5	NAG	B1014	175.744	203.766	153.752	1.00156.34 C
HETATM11034	C6	NAG	B1014	177.216	203.581	153.475	1.00156.34 C
HETATM11035	C7	NAG	B1014	171.842	205.544	156.897	1.00156.34 C
HETATM11036	C8	NAG	B1014	170.365	205.562	157.147	1.00156.34 C
HETATM11037	N2	NAG	B1014	172.234	205.030	155.726	1.00156.34 N
HETATM11038	O3	NAG	B1014	173.394	206.707	153.713	1.00156.34 O
HETATM11039	O4	NAG	B1014	175.369	205.412	152.034	1.00156.34 O
HETATM11040	O5	NAG	B1014	175.543	203.459	155.142	1.00156.34 O
HETATM11041	O6	NAG	B1014	177.910	203.108	154.622	1.00156.34 O
HETATM11042	O7	NAG	B1014	172.651	205.978	157.716	1.00156.34 O
HETATM11043	H1	NAG	B1014	173.642	202.895	154.933	1.00156.34 H
HETATM11044	H2	NAG	B1014	174.168	205.528	155.855	1.00156.34 H
HETATM11045	H3	NAG	B1014	173.227	204.789	153.307	1.00156.34 H
HETATM11046	H4	NAG	B1014	175.800	205.826	153.913	1.00156.34 H
HETATM11047	H5	NAG	B1014	175.238	203.130	153.209	1.00156.34 H
HETATM11048	H61	NAG	B1014	177.594	204.439	153.199	1.00156.34 H
HETATM11049	H62	NAG	B1014	177.325	202.940	152.744	1.00156.34 H
HETATM11050	H81	NAG	B1014	170.009	204.663	157.026	1.00156.34 H
HETATM11051	H82	NAG	B1014	169.924	206.180	156.528	1.00156.34 H
HETATM11052	H83	NAG	B1014	170.196	205.843	158.066	1.00156.34 H
HETATM11053	HN2	NAG	B1014	171.595	204.712	155.159	1.00156.34 H
HETATM11054	HO3	NAG	B1014	172.575	206.823	154.035	1.00156.34 H
HETATM11055	HO4	NAG	B1014	175.499	206.279	151.890	1.00156.34 H
HETATM11056	HO6	NAG	B1014	178.764	202.992	154.407	1.00156.34 H
HETATM11057	C1	NAG	B1015	209.864	239.940	192.814	1.00 86.23 C
HETATM11058	C2	NAG	B1015	209.620	241.412	193.235	1.00 86.23 C
HETATM11059	C3	NAG	B1015	210.398	242.383	192.329	1.00 86.23 C
HETATM11060	C4	NAG	B1015	211.855	241.970	192.181	1.00 86.23 C
HETATM11061	C5	NAG	B1015	211.934	240.535	191.696	1.00 86.23 C
HETATM11062	C6	NAG	B1015	213.351	240.022	191.573	1.00 86.23 C

HETATM11063	C7	NAG B1015	207.665	242.903	193.465	1.00 86.23 C
HETATM11064	C8	NAG B1015	206.177	243.007	193.332	1.00 86.23 C
HETATM11065	N2	NAG B1015	208.195	241.706	193.186	1.00 86.23 N
HETATM11066	O3	NAG B1015	210.351	243.699	192.868	1.00 86.23 O
HETATM11067	O4	NAG B1015	212.511	242.819	191.246	1.00 86.23 O
HETATM11068	O5	NAG B1015	211.273	239.701	192.653	1.00 86.23 O
HETATM11069	O6	NAG B1015	213.408	238.614	191.758	1.00 86.23 O
HETATM11070	O7	NAG B1015	208.353	243.860	193.805	1.00 86.23 O
HETATM11071	H1	NAG B1015	209.405	239.765	191.970	1.00 86.23 H
HETATM11072	H2	NAG B1015	209.938	241.528	194.149	1.00 86.23 H
HETATM11073	H3	NAG B1015	209.984	242.391	191.445	1.00 86.23 H
HETATM11074	H4	NAG B1015	212.298	242.049	193.048	1.00 86.23 H
HETATM11075	H5	NAG B1015	211.484	240.457	190.834	1.00 86.23 H
HETATM11076	H61	NAG B1015	213.910	240.447	192.249	1.00 86.23 H
HETATM11077	H62	NAG B1015	213.698	240.237	190.691	1.00 86.23 H
HETATM11078	H81	NAG B1015	205.888	242.494	192.554	1.00 86.23 H
HETATM11079	H82	NAG B1015	205.931	243.941	193.204	1.00 86.23 H
HETATM11080	H83	NAG B1015	205.747	242.657	194.134	1.00 86.23 H
HETATM11081	HN2	NAG B1015	207.632	241.037	192.928	1.00 86.23 H
HETATM11082	HO3	NAG B1015	209.782	244.193	192.398	1.00 86.23 H
HETATM11083	HO4	NAG B1015	212.692	242.367	190.503	1.00 86.23 H
HETATM11084	HO6	NAG B1015	213.997	238.414	192.391	1.00 86.23 H
HETATM11085	C1	PFE B1101	174.097	182.218	255.910	1.00 71.39 C
HETATM11086	C13	PFE B1101	178.894	181.473	257.567	1.00 71.39 C
HETATM11087	C18	PFE B1101	174.312	185.894	255.899	1.00 71.39 C
HETATM11088	C2	PFE B1101	174.401	183.509	256.662	1.00 71.39 C
HETATM11089	C21	PFE B1101	174.501	187.988	254.441	1.00 71.39 C
HETATM11090	C22	PFE B1101	175.157	188.410	253.292	1.00 71.39 C
HETATM11091	C23	PFE B1101	175.110	189.738	252.909	1.00 71.39 C
HETATM11092	C24	PFE B1101	174.409	190.664	253.670	1.00 71.39 C
HETATM11093	C25	PFE B1101	173.754	190.242	254.817	1.00 71.39 C
HETATM11094	C26	PFE B1101	173.798	188.915	255.198	1.00 71.39 C
HETATM11095	C28	PFE B1101	174.769	192.713	252.288	1.00 71.39 C
HETATM11096	C3	PFE B1101	175.628	183.379	257.544	1.00 71.39 C
HETATM11097	C30	PFE B1101	174.577	194.178	252.390	1.00 71.39 C
HETATM11098	C31	PFE B1101	175.021	195.065	251.463	1.00 71.39 C
HETATM11099	C33	PFE B1101	173.880	196.010	253.325	1.00 71.39 C

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HETATM11100  C4   PFE B1101     176.648 182.501 257.201  1.00 71.39           C
HETATM11101  C5   PFE B1101     177.799 182.404 257.974  1.00 71.39           C
HETATM11102  C6   PFE B1101     177.943 183.190 259.111  1.00 71.39           C
HETATM11103  C7   PFE B1101     176.926 184.067 259.465  1.00 71.39           C
HETATM11104  C8   PFE B1101     175.777 184.152 258.688  1.00 71.39           C
HETATM11105  C9   PFE B1101     177.080 184.943 260.666  1.00 71.39           C
HETATM11106  F10 PFE B1101     178.084 184.566 261.449  1.00 71.39           F
HETATM11107  F11 PFE B1101     177.320 186.210 260.347  1.00 71.39           F
HETATM11108  F12 PFE B1101     175.996 184.954 261.435  1.00 71.39           F
HETATM11109  F14 PFE B1101     179.288 180.681 258.558  1.00 71.39           F
HETATM11110  F15 PFE B1101     178.539 180.671 256.570  1.00 71.39           F
HETATM11111  F16 PFE B1101     179.981 182.114 257.151  1.00 71.39           F
HETATM11112  N17 PFE B1101     174.559 184.594 255.689  1.00 71.39           N
HETATM11113  N20 PFE B1101     174.576 186.613 254.781  1.00 71.39           N
HETATM11114  N27 PFE B1101     174.321 192.044 253.372  1.00 71.39           N
HETATM11115  N34 PFE B1101     173.915 194.725 253.475  1.00 71.39           N
HETATM11116  O29 PFE B1101     175.294 192.200 251.304  1.00 71.39           O
HETATM11117  S19 PFE B1101     173.749 186.489 257.369  1.00 71.39           S
HETATM11118  S32 PFE B1101     174.615 196.650 251.922  1.00 71.39           S
HETATM11119  HC2 PFE B1101     173.534 183.699 257.292  1.00 71.39           H
HETATM11120  HC4 PFE B1101     176.549 181.877 256.314  1.00 71.39           H
HETATM11121  HC6 PFE B1101     178.846 183.129 259.715  1.00 71.39           H
HETATM11122  HC8 PFE B1101     174.977 184.833 258.975  1.00 71.39           H
HETATM11123 HC1A PFE B1101     174.090 181.365 256.587  1.00 71.39           H
HETATM11124 HC1B PFE B1101     173.109 182.262 255.454  1.00 71.39           H
HETATM11125 HC1C PFE B1101     174.798 182.003 255.106  1.00 71.39           H
HETATM11126 HC22 PFE B1101     175.713 187.703 252.679  1.00 71.39           H
HETATM11127 HC23 PFE B1101     175.636 190.012 251.996  1.00 71.39           H
HETATM11128 HC25 PFE B1101     173.201 190.945 255.437  1.00 71.39           H
HETATM11129 HC26 PFE B1101     173.282 188.606 256.106  1.00 71.39           H
HETATM11130 HC31 PFE B1101     175.570 194.840 250.551  1.00 71.39           H
HETATM11131 HC33 PFE B1101     173.408 196.656 254.064  1.00 71.39           H
HETATM11132 HN17 PFE B1101     174.892 184.270 254.787  1.00 71.39           H
HETATM11133 HN20 PFE B1101     174.916 186.107 253.969  1.00 71.39           H
HETATM11134 HN27 PFE B1101     173.847 192.580 254.092  1.00 71.39           H
TER
ATOM   11135  N    THR C   87     170.944 216.163 195.194  1.00 73.74           N
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ATOM	11136	CA	THR	C	87	171.991	215.232	195.596	1.00 73.74	C
ATOM	11137	C	THR	C	87	171.473	213.799	195.604	1.00 73.74	C
ATOM	11138	O	THR	C	87	170.366	213.530	196.069	1.00 73.74	O
ATOM	11139	CB	THR	C	87	172.546	215.574	196.991	1.00 73.74	C
ATOM	11140	OG1	THR	C	87	173.090	216.899	196.981	1.00 73.74	O
ATOM	11141	CG2	THR	C	87	173.634	214.589	197.387	1.00 73.74	C
ATOM	11142	N	LYS	C	88	172.283	212.879	195.080	1.00 68.68	N
ATOM	11143	CA	LYS	C	88	171.950	211.462	195.056	1.00 68.68	C
ATOM	11144	C	LYS	C	88	172.646	210.686	196.167	1.00 68.68	C
ATOM	11145	O	LYS	C	88	172.788	209.463	196.066	1.00 68.68	O
ATOM	11146	CB	LYS	C	88	172.298	210.861	193.694	1.00 68.68	C
ATOM	11147	CG	LYS	C	88	173.785	210.849	193.383	1.00 68.68	C
ATOM	11148	CD	LYS	C	88	174.053	210.281	191.999	1.00 68.68	C
ATOM	11149	CE	LYS	C	88	175.539	210.248	191.690	1.00 68.68	C
ATOM	11150	NZ	LYS	C	88	175.808	209.698	190.334	1.00 68.68	N
ATOM	11151	N	TYR	C	89	173.083	211.370	197.222	1.00 57.94	N
ATOM	11152	CA	TYR	C	89	173.772	210.745	198.350	1.00 57.94	C
ATOM	11153	C	TYR	C	89	173.076	211.160	199.638	1.00 57.94	C
ATOM	11154	O	TYR	C	89	173.575	212.016	200.380	1.00 57.94	O
ATOM	11155	CB	TYR	C	89	175.250	211.128	198.376	1.00 57.94	C
ATOM	11156	CG	TYR	C	89	176.040	210.588	197.210	1.00 57.94	C
ATOM	11157	CD1	TYR	C	89	176.471	209.269	197.192	1.00 57.94	C
ATOM	11158	CD2	TYR	C	89	176.359	211.395	196.129	1.00 57.94	C
ATOM	11159	CE1	TYR	C	89	177.194	208.770	196.130	1.00 57.94	C
ATOM	11160	CE2	TYR	C	89	177.082	210.904	195.061	1.00 57.94	C
ATOM	11161	CZ	TYR	C	89	177.497	209.591	195.068	1.00 57.94	C
ATOM	11162	OH	TYR	C	89	178.218	209.095	194.007	1.00 57.94	O
ATOM	11163	N	PRO	C	90	171.918	210.580	199.932	1.00 48.05	N
ATOM	11164	CA	PRO	C	90	171.228	210.899	201.183	1.00 48.05	C
ATOM	11165	C	PRO	C	90	171.795	210.104	202.348	1.00 48.05	C
ATOM	11166	O	PRO	C	90	172.378	209.031	202.182	1.00 48.05	O
ATOM	11167	CB	PRO	C	90	169.781	210.490	200.897	1.00 48.05	C
ATOM	11168	CG	PRO	C	90	169.915	209.383	199.915	1.00 48.05	C
ATOM	11169	CD	PRO	C	90	171.105	209.720	199.057	1.00 48.05	C
ATOM	11170	N	TYR	C	91	171.618	210.663	203.542	1.00 41.42	N
ATOM	11171	CA	TYR	C	91	172.079	210.009	204.760	1.00 41.42	C
ATOM	11172	C	TYR	C	91	171.411	208.649	204.890	1.00 41.42	C

ATOM	11173	O	TYR	C	91	170.184	208.544	204.812	1.00 41.42	O
ATOM	11174	CB	TYR	C	91	171.759	210.871	205.981	1.00 41.42	C
ATOM	11175	CG	TYR	C	91	172.437	212.224	206.010	1.00 41.42	C
ATOM	11176	CD1	TYR	C	91	173.498	212.515	205.169	1.00 41.42	C
ATOM	11177	CD2	TYR	C	91	172.008	213.214	206.880	1.00 41.42	C
ATOM	11178	CE1	TYR	C	91	174.105	213.750	205.189	1.00 41.42	C
ATOM	11179	CE2	TYR	C	91	172.615	214.451	206.908	1.00 41.42	C
ATOM	11180	CZ	TYR	C	91	173.665	214.711	206.060	1.00 41.42	C
ATOM	11181	OH	TYR	C	91	174.283	215.937	206.074	1.00 41.42	O
ATOM	11182	N	ARG	C	92	172.207	207.603	205.087	1.00 37.69	N
ATOM	11183	CA	ARG	C	92	171.670	206.253	205.120	1.00 37.69	C
ATOM	11184	C	ARG	C	92	172.474	205.400	206.091	1.00 37.69	C
ATOM	11185	O	ARG	C	92	173.512	205.817	206.610	1.00 37.69	O
ATOM	11186	CB	ARG	C	92	171.643	205.650	203.717	1.00 37.69	C
ATOM	11187	CG	ARG	C	92	173.000	205.473	203.094	1.00 37.69	C
ATOM	11188	CD	ARG	C	92	172.847	205.113	201.636	1.00 37.69	C
ATOM	11189	NE	ARG	C	92	174.122	204.767	201.022	1.00 37.69	N
ATOM	11190	CZ	ARG	C	92	174.966	205.653	200.509	1.00 37.69	C
ATOM	11191	NH1	ARG	C	92	174.675	206.945	200.544	1.00 37.69	N
ATOM	11192	NH2	ARG	C	92	176.104	205.247	199.966	1.00 37.69	N
ATOM	11193	N	VAL	C	93	171.972	204.193	206.340	1.00 30.50	N
ATOM	11194	CA	VAL	C	93	172.429	203.358	207.446	1.00 30.50	C
ATOM	11195	C	VAL	C	93	172.925	202.014	206.920	1.00 30.50	C
ATOM	11196	O	VAL	C	93	172.613	200.960	207.483	1.00 30.50	O
ATOM	11197	CB	VAL	C	93	171.322	203.184	208.503	1.00 30.50	C
ATOM	11198	CG1	VAL	C	93	171.872	202.526	209.763	1.00 30.50	C
ATOM	11199	CG2	VAL	C	93	170.705	204.520	208.833	1.00 30.50	C
ATOM	11200	N	CYS	C	94	173.675	202.028	205.817	1.00 40.64	N
ATOM	11201	CA	CYS	C	94	174.021	200.791	205.122	1.00 40.64	C
ATOM	11202	C	CYS	C	94	174.938	199.921	205.972	1.00 40.64	C
ATOM	11203	O	CYS	C	94	176.135	199.809	205.692	1.00 40.64	O
ATOM	11204	CB	CYS	C	94	174.734	201.097	203.803	1.00 40.64	C
ATOM	11205	SG	CYS	C	94	173.811	202.059	202.601	1.00 40.64	S
ATOM	11206	N	SER	C	95	174.388	199.308	207.008	1.00 41.40	N
ATOM	11207	CA	SER	C	95	175.159	198.470	207.918	1.00 41.40	C
ATOM	11208	C	SER	C	95	174.535	197.105	208.162	1.00 41.40	C
ATOM	11209	O	SER	C	95	175.265	196.127	208.331	1.00 41.40	O

ATOM	11210	CB	SER	C	95	175.345	199.191	209.260	1.00 41.40	C
ATOM	11211	OG	SER	C	95	176.039	198.373	210.184	1.00 41.40	O
ATOM	11212	N	MET	C	96	173.211	197.015	208.195	1.00 43.19	N
ATOM	11213	CA	MET	C	96	172.521	195.816	208.644	1.00 43.19	C
ATOM	11214	C	MET	C	96	171.902	195.080	207.465	1.00 43.19	C
ATOM	11215	O	MET	C	96	171.398	195.700	206.525	1.00 43.19	O
ATOM	11216	CB	MET	C	96	171.443	196.178	209.665	1.00 43.19	C
ATOM	11217	CG	MET	C	96	170.329	197.034	209.098	1.00 43.19	C
ATOM	11218	SD	MET	C	96	169.205	197.651	210.365	1.00 43.19	S
ATOM	11219	CE	MET	C	96	170.192	198.948	211.106	1.00 43.19	C
ATOM	11220	N	ALA	C	97	171.939	193.752	207.525	1.00 41.46	N
ATOM	11221	CA	ALA	C	97	171.385	192.924	206.465	1.00 41.46	C
ATOM	11222	C	ALA	C	97	171.080	191.545	207.024	1.00 41.46	C
ATOM	11223	O	ALA	C	97	171.581	191.154	208.080	1.00 41.46	O
ATOM	11224	CB	ALA	C	97	172.337	192.822	205.271	1.00 41.46	C
ATOM	11225	N	GLN	C	98	170.261	190.811	206.282	1.00 44.10	N
ATOM	11226	CA	GLN	C	98	169.706	189.525	206.688	1.00 44.10	C
ATOM	11227	C	GLN	C	98	169.328	188.780	205.412	1.00 44.10	C
ATOM	11228	O	GLN	C	98	169.848	189.083	204.333	1.00 44.10	O
ATOM	11229	CB	GLN	C	98	168.527	189.714	207.659	1.00 44.10	C
ATOM	11230	CG	GLN	C	98	168.933	190.179	209.043	1.00 44.10	C
ATOM	11231	CD	GLN	C	98	167.750	190.414	209.950	1.00 44.10	C
ATOM	11232	OE1	GLN	C	98	166.602	190.359	209.514	1.00 44.10	O
ATOM	11233	NE2	GLN	C	98	168.022	190.663	211.225	1.00 44.10	N
ATOM	11234	N	GLY	C	99	168.444	187.798	205.530	1.00 45.40	N
ATOM	11235	CA	GLY	C	99	168.064	187.028	204.365	1.00 45.40	C
ATOM	11236	C	GLY	C	99	167.172	187.814	203.425	1.00 45.40	C
ATOM	11237	O	GLY	C	99	167.418	188.997	203.176	1.00 45.40	O
ATOM	11238	N	THR	C	100	166.142	187.164	202.891	1.00 42.61	N
ATOM	11239	CA	THR	C	100	165.263	187.602	201.813	1.00 42.61	C
ATOM	11240	C	THR	C	100	165.927	187.435	200.449	1.00 42.61	C
ATOM	11241	O	THR	C	100	165.247	187.577	199.433	1.00 42.61	O
ATOM	11242	CB	THR	C	100	164.801	189.068	201.943	1.00 42.61	C
ATOM	11243	OG1	THR	C	100	165.917	189.937	201.720	1.00 42.61	O
ATOM	11244	CG2	THR	C	100	164.253	189.342	203.327	1.00 42.61	C
ATOM	11245	N	ASP	C	101	167.224	187.129	200.387	1.00 42.64	N
ATOM	11246	CA	ASP	C	101	167.917	186.822	199.141	1.00 42.64	C

ATOM	11247	C	ASP C 101	169.368	186.447	199.420	1.00 42.64	C
ATOM	11248	O	ASP C 101	169.954	186.914	200.400	1.00 42.64	O
ATOM	11249	CB	ASP C 101	167.832	188.001	198.173	1.00 42.64	C
ATOM	11250	CG	ASP C 101	168.301	189.292	198.794	1.00 42.64	C
ATOM	11251	OD1	ASP C 101	168.647	189.281	199.993	1.00 42.64	O
ATOM	11252	OD2	ASP C 101	168.307	190.320	198.089	1.00 42.64	O
ATOM	11253	N	LEU C 102	169.959	185.619	198.564	1.00 41.07	N
ATOM	11254	CA	LEU C 102	171.299	185.108	198.808	1.00 41.07	C
ATOM	11255	C	LEU C 102	172.057	185.045	197.491	1.00 41.07	C
ATOM	11256	O	LEU C 102	171.460	184.854	196.429	1.00 41.07	O
ATOM	11257	CB	LEU C 102	171.262	183.716	199.451	1.00 41.07	C
ATOM	11258	CG	LEU C 102	170.915	183.549	200.932	1.00 41.07	C
ATOM	11259	CD1	LEU C 102	169.435	183.744	201.172	1.00 41.07	C
ATOM	11260	CD2	LEU C 102	171.343	182.176	201.412	1.00 41.07	C
ATOM	11261	N	ILE C 103	173.379	185.204	197.566	1.00 42.84	N
ATOM	11262	CA	ILE C 103	174.232	185.078	196.387	1.00 42.84	C
ATOM	11263	C	ILE C 103	175.588	184.493	196.765	1.00 42.84	C
ATOM	11264	O	ILE C 103	176.298	185.032	197.620	1.00 42.84	O
ATOM	11265	CB	ILE C 103	174.409	186.427	195.662	1.00 42.84	C
ATOM	11266	CG1	ILE C 103	175.024	187.473	196.587	1.00 42.84	C
ATOM	11267	CG2	ILE C 103	173.094	186.923	195.083	1.00 42.84	C
ATOM	11268	CD1	ILE C 103	175.462	188.725	195.863	1.00 42.84	C
ATOM	11269	N	ARG C 104	175.949	183.384	196.129	1.00 56.46	N
ATOM	11270	CA	ARG C 104	177.266	182.779	196.260	1.00 56.46	C
ATOM	11271	C	ARG C 104	178.181	183.319	195.162	1.00 56.46	C
ATOM	11272	O	ARG C 104	177.879	184.323	194.513	1.00 56.46	O
ATOM	11273	CB	ARG C 104	177.159	181.261	196.208	1.00 56.46	C
ATOM	11274	CG	ARG C 104	176.630	180.762	194.888	1.00 56.46	C
ATOM	11275	CD	ARG C 104	176.563	179.256	194.839	1.00 56.46	C
ATOM	11276	NE	ARG C 104	176.019	178.804	193.566	1.00 56.46	N
ATOM	11277	CZ	ARG C 104	175.921	177.531	193.207	1.00 56.46	C
ATOM	11278	NH1	ARG C 104	176.349	176.580	194.022	1.00 56.46	N
ATOM	11279	NH2	ARG C 104	175.409	177.211	192.029	1.00 56.46	N
ATOM	11280	N	PHE C 105	179.325	182.661	194.944	1.00 63.44	N
ATOM	11281	CA	PHE C 105	180.284	183.105	193.941	1.00 63.44	C
ATOM	11282	C	PHE C 105	180.658	182.060	192.895	1.00 63.44	C
ATOM	11283	O	PHE C 105	181.171	182.445	191.839	1.00 63.44	O

ATOM	11284	CB	PHE	C	105	181.567	183.613	194.613	1.00 63.44	C
ATOM	11285	CG	PHE	C	105	181.396	184.924	195.324	1.00 63.44	C
ATOM	11286	CD1	PHE	C	105	181.449	186.117	194.624	1.00 63.44	C
ATOM	11287	CD2	PHE	C	105	181.175	184.964	196.689	1.00 63.44	C
ATOM	11288	CE1	PHE	C	105	181.294	187.324	195.273	1.00 63.44	C
ATOM	11289	CE2	PHE	C	105	181.018	186.169	197.344	1.00 63.44	C
ATOM	11290	CZ	PHE	C	105	181.078	187.351	196.634	1.00 63.44	C
ATOM	11291	N	GLU	C	106	180.421	180.768	193.144	1.00 76.78	N
ATOM	11292	CA	GLU	C	106	180.522	179.731	192.111	1.00 76.78	C
ATOM	11293	C	GLU	C	106	181.933	179.666	191.514	1.00 76.78	C
ATOM	11294	O	GLU	C	106	182.174	180.071	190.375	1.00 76.78	O
ATOM	11295	CB	GLU	C	106	179.473	179.956	191.017	1.00 76.78	C
ATOM	11296	CG	GLU	C	106	179.473	178.896	189.933	1.00 76.78	C
ATOM	11297	CD	GLU	C	106	179.119	177.526	190.469	1.00 76.78	C
ATOM	11298	OE1	GLU	C	106	178.439	177.455	191.513	1.00 76.78	O
ATOM	11299	OE2	GLU	C	106	179.521	176.521	189.847	1.00 76.78	O
ATOM	11300	N	ARG	C	107	182.860	179.174	192.347	1.00 83.94	N
ATOM	11301	CA	ARG	C	107	184.295	179.160	192.063	1.00 83.94	C
ATOM	11302	C	ARG	C	107	184.658	178.770	190.629	1.00 83.94	C
ATOM	11303	O	ARG	C	107	185.256	179.562	189.893	1.00 83.94	O
ATOM	11304	CB	ARG	C	107	185.003	178.202	193.030	1.00 83.94	C
ATOM	11305	CG	ARG	C	107	185.176	178.697	194.458	1.00 83.94	C
ATOM	11306	CD	ARG	C	107	184.046	178.231	195.358	1.00 83.94	C
ATOM	11307	NE	ARG	C	107	184.349	178.459	196.769	1.00 83.94	N
ATOM	11308	CZ	ARG	C	107	183.919	179.502	197.473	1.00 83.94	C
ATOM	11309	NH1	ARG	C	107	184.253	179.629	198.749	1.00 83.94	N
ATOM	11310	NH2	ARG	C	107	183.151	180.419	196.898	1.00 83.94	N
ATOM	11311	N	ASN	C	108	184.298	177.558	190.209	1.00100.64	N
ATOM	11312	CA	ASN	C	108	184.801	177.020	188.948	1.00100.64	C
ATOM	11313	C	ASN	C	108	184.014	177.566	187.757	1.00100.64	C
ATOM	11314	O	ASN	C	108	182.811	177.322	187.622	1.00100.64	O
ATOM	11315	CB	ASN	C	108	184.781	175.492	188.967	1.00100.64	C
ATOM	11316	CG	ASN	C	108	183.423	174.920	189.322	1.00100.64	C
ATOM	11317	OD1	ASN	C	108	182.473	175.653	189.593	1.00100.64	O
ATOM	11318	ND2	ASN	C	108	183.321	173.596	189.299	1.00100.64	N
ATOM	11319	N	ILE	C	109	184.707	178.306	186.893	1.00106.95	N
ATOM	11320	CA	ILE	C	109	184.141	178.891	185.682	1.00106.95	C

ATOM	11321	C	ILE C 109	184.953	178.384	184.495	1.00106.95 C
ATOM	11322	O	ILE C 109	185.263	179.147	183.573	1.00106.95 O
ATOM	11323	CB	ILE C 109	184.130	180.430	185.747	1.00106.95 C
ATOM	11324	CG1	ILE C 109	183.482	180.895	187.047	1.00106.95 C
ATOM	11325	CG2	ILE C 109	183.327	181.023	184.593	1.00106.95 C
ATOM	11326	CD1	ILE C 109	182.047	180.450	187.200	1.00106.95 C
ATOM	11327	N	VAL C 110	185.354	177.109	184.552	1.00122.51 N
ATOM	11328	CA	VAL C 110	186.285	176.480	183.613	1.00122.51 C
ATOM	11329	C	VAL C 110	185.947	176.794	182.160	1.00122.51 C
ATOM	11330	O	VAL C 110	184.818	176.580	181.704	1.00122.51 O
ATOM	11331	CB	VAL C 110	186.331	174.956	183.832	1.00122.51 C
ATOM	11332	CG1	VAL C 110	186.852	174.637	185.223	1.00122.51 C
ATOM	11333	CG2	VAL C 110	184.953	174.340	183.622	1.00122.51 C
ATOM	11334	N	CYS C 111	186.933	177.310	181.431	1.00130.53 N
ATOM	11335	CA	CYS C 111	186.751	177.784	180.070	1.00130.53 C
ATOM	11336	C	CYS C 111	187.081	176.677	179.073	1.00130.53 C
ATOM	11337	O	CYS C 111	187.626	175.627	179.422	1.00130.53 O
ATOM	11338	CB	CYS C 111	187.627	179.011	179.819	1.00130.53 C
ATOM	11339	SG	CYS C 111	187.283	180.400	180.924	1.00130.53 S
ATOM	11340	N	THR C 112	186.747	176.925	177.810	1.00138.64 N
ATOM	11341	CA	THR C 112	186.973	175.962	176.742	1.00138.64 C
ATOM	11342	C	THR C 112	187.673	176.646	175.579	1.00138.64 C
ATOM	11343	O	THR C 112	187.269	177.734	175.156	1.00138.64 O
ATOM	11344	CB	THR C 112	185.656	175.326	176.274	1.00138.64 C
ATOM	11345	OG1	THR C 112	185.930	174.319	175.291	1.00138.64 O
ATOM	11346	CG2	THR C 112	184.721	176.375	175.685	1.00138.64 C
ATOM	11347	N	SER C 113	188.729	176.015	175.079	1.00136.38 N
ATOM	11348	CA	SER C 113	189.416	176.489	173.890	1.00136.38 C
ATOM	11349	C	SER C 113	188.751	175.875	172.660	1.00136.38 C
ATOM	11350	O	SER C 113	187.677	175.273	172.743	1.00136.38 O
ATOM	11351	CB	SER C 113	190.905	176.164	173.974	1.00136.38 C
ATOM	11352	OG	SER C 113	191.517	176.861	175.045	1.00136.38 O
ATOM	11353	N	MET C 114	189.382	176.017	171.502	1.00130.21 N
ATOM	11354	CA	MET C 114	188.824	175.551	170.242	1.00130.21 C
ATOM	11355	C	MET C 114	189.895	174.781	169.470	1.00130.21 C
ATOM	11356	O	MET C 114	191.076	174.790	169.824	1.00130.21 O
ATOM	11357	CB	MET C 114	188.287	176.737	169.433	1.00130.21 C

ATOM	11358	CG	MET C 114	187.474	176.376	168.200	1.00130.21	C
ATOM	11359	SD	MET C 114	186.969	177.826	167.262	1.00130.21	S
ATOM	11360	CE	MET C 114	188.534	178.294	166.527	1.00130.21	C
ATOM	11361	N	LYS C 115	189.471	174.110	168.403	1.00132.01	N
ATOM	11362	CA	LYS C 115	190.386	173.403	167.520	1.00132.01	C
ATOM	11363	C	LYS C 115	190.493	174.167	166.202	1.00132.01	C
ATOM	11364	O	LYS C 115	189.780	173.866	165.240	1.00132.01	O
ATOM	11365	CB	LYS C 115	189.927	171.945	167.342	1.00132.01	C
ATOM	11366	CG	LYS C 115	188.517	171.712	166.771	1.00132.01	C
ATOM	11367	CD	LYS C 115	188.535	171.307	165.296	1.00132.01	C
ATOM	11368	CE	LYS C 115	187.148	170.994	164.759	1.00132.01	C
ATOM	11369	NZ	LYS C 115	187.188	170.648	163.308	1.00132.01	N
ATOM	11370	N	PRO C 116	191.342	175.196	166.123	1.00132.12	N
ATOM	11371	CA	PRO C 116	191.480	175.899	164.844	1.00132.12	C
ATOM	11372	C	PRO C 116	192.241	175.030	163.864	1.00132.12	C
ATOM	11373	O	PRO C 116	193.476	174.980	163.881	1.00132.12	O
ATOM	11374	CB	PRO C 116	192.265	177.161	165.219	1.00132.12	C
ATOM	11375	CG	PRO C 116	193.055	176.752	166.416	1.00132.12	C
ATOM	11376	CD	PRO C 116	192.194	175.778	167.174	1.00132.12	C
ATOM	11377	N	ILE C 117	191.499	174.340	163.003	1.00137.27	N
ATOM	11378	CA	ILE C 117	192.094	173.406	162.059	1.00137.27	C
ATOM	11379	C	ILE C 117	191.164	173.210	160.863	1.00137.27	C
ATOM	11380	O	ILE C 117	190.028	172.746	161.024	1.00137.27	O
ATOM	11381	CB	ILE C 117	192.411	172.079	162.780	1.00137.27	C
ATOM	11382	CG1	ILE C 117	193.199	171.123	161.887	1.00137.27	C
ATOM	11383	CG2	ILE C 117	191.152	171.426	163.340	1.00137.27	C
ATOM	11384	CD1	ILE C 117	193.759	169.932	162.631	1.00137.27	C
ATOM	11385	N	ASN C 118	191.636	173.562	159.659	1.00144.52	N
ATOM	11386	CA	ASN C 118	190.996	173.163	158.398	1.00144.52	C
ATOM	11387	C	ASN C 118	189.514	173.552	158.348	1.00144.52	C
ATOM	11388	O	ASN C 118	188.684	172.847	157.773	1.00144.52	O
ATOM	11389	CB	ASN C 118	191.180	171.658	158.192	1.00144.52	C
ATOM	11390	CG	ASN C 118	192.639	171.276	157.999	1.00144.52	C
ATOM	11391	OD1	ASN C 118	193.360	171.105	158.979	1.00144.52	O
ATOM	11392	ND2	ASN C 118	193.076	171.079	156.755	1.00144.52	N
ATOM	11393	N	GLU C 119	189.181	174.685	158.969	1.00126.95	N
ATOM	11394	CA	GLU C 119	187.787	175.055	159.184	1.00126.95	C

ATOM	11395	C	GLU C 119	187.550	176.502	158.777	1.00126.95	C
ATOM	11396	O	GLU C 119	188.471	177.321	158.733	1.00126.95	O
ATOM	11397	CB	GLU C 119	187.369	174.867	160.650	1.00126.95	C
ATOM	11398	CG	GLU C 119	188.020	175.857	161.612	1.00126.95	C
ATOM	11399	CD	GLU C 119	187.633	175.618	163.062	1.00126.95	C
ATOM	11400	OE1	GLU C 119	186.883	174.657	163.332	1.00126.95	O
ATOM	11401	OE2	GLU C 119	188.079	176.395	163.933	1.00126.95	O
ATOM	11402	N	ASP C 120	186.284	176.803	158.491	1.00111.95	N
ATOM	11403	CA	ASP C 120	185.800	178.151	158.218	1.00111.95	C
ATOM	11404	C	ASP C 120	184.715	178.498	159.234	1.00111.95	C
ATOM	11405	O	ASP C 120	184.483	177.764	160.199	1.00111.95	O
ATOM	11406	CB	ASP C 120	185.294	178.281	156.774	1.00111.95	C
ATOM	11407	CG	ASP C 120	184.188	177.296	156.446	1.00111.95	C
ATOM	11408	OD1	ASP C 120	183.857	176.447	157.301	1.00111.95	O
ATOM	11409	OD2	ASP C 120	183.646	177.372	155.324	1.00111.95	O
ATOM	11410	N	LEU C 121	184.041	179.627	159.020	1.00 98.95	N
ATOM	11411	CA	LEU C 121	183.147	180.157	160.042	1.00 98.95	C
ATOM	11412	C	LEU C 121	182.187	181.164	159.421	1.00 98.95	C
ATOM	11413	O	LEU C 121	182.458	181.742	158.365	1.00 98.95	O
ATOM	11414	CB	LEU C 121	183.947	180.786	161.189	1.00 98.95	C
ATOM	11415	CG	LEU C 121	184.712	182.087	160.928	1.00 98.95	C
ATOM	11416	CD1	LEU C 121	185.173	182.697	162.237	1.00 98.95	C
ATOM	11417	CD2	LEU C 121	185.902	181.861	160.009	1.00 98.95	C
ATOM	11418	N	ASP C 122	181.056	181.362	160.099	1.00 99.78	N
ATOM	11419	CA	ASP C 122	179.965	182.221	159.660	1.00 99.78	C
ATOM	11420	C	ASP C 122	179.854	183.445	160.570	1.00 99.78	C
ATOM	11421	O	ASP C 122	180.702	183.683	161.437	1.00 99.78	O
ATOM	11422	CB	ASP C 122	178.653	181.433	159.625	1.00 99.78	C
ATOM	11423	CG	ASP C 122	178.627	180.390	158.528	1.00 99.78	C
ATOM	11424	OD1	ASP C 122	179.305	180.590	157.499	1.00 99.78	O
ATOM	11425	OD2	ASP C 122	177.924	179.371	158.692	1.00 99.78	O
ATOM	11426	N	GLU C 123	178.798	184.231	160.366	1.00105.04	N
ATOM	11427	CA	GLU C 123	178.554	185.414	161.182	1.00105.04	C
ATOM	11428	C	GLU C 123	177.087	185.800	161.073	1.00105.04	C
ATOM	11429	O	GLU C 123	176.538	185.842	159.968	1.00105.04	O
ATOM	11430	CB	GLU C 123	179.451	186.577	160.745	1.00105.04	C
ATOM	11431	CG	GLU C 123	179.183	187.076	159.339	1.00105.04	C

ATOM	11432	CD	GLU	C	123	180.131	188.184	158.930	1.00105.04	C
ATOM	11433	OE1	GLU	C	123	181.002	188.551	159.747	1.00105.04	O
ATOM	11434	OE2	GLU	C	123	180.010	188.686	157.793	1.00105.04	O
ATOM	11435	N	GLY	C	124	176.461	186.072	162.211	1.00107.26	N
ATOM	11436	CA	GLY	C	124	175.057	186.445	162.235	1.00107.26	C
ATOM	11437	C	GLY	C	124	174.729	187.247	163.473	1.00107.26	C
ATOM	11438	O	GLY	C	124	175.316	187.041	164.540	1.00107.26	O
ATOM	11439	N	ILE	C	125	173.776	188.166	163.330	1.00114.76	N
ATOM	11440	CA	ILE	C	125	173.382	189.052	164.421	1.00114.76	C
ATOM	11441	C	ILE	C	125	172.380	188.339	165.319	1.00114.76	C
ATOM	11442	O	ILE	C	125	171.446	187.687	164.837	1.00114.76	O
ATOM	11443	CB	ILE	C	125	172.811	190.368	163.859	1.00114.76	C
ATOM	11444	CG1	ILE	C	125	171.615	190.107	162.940	1.00114.76	C
ATOM	11445	CG2	ILE	C	125	173.879	191.127	163.093	1.00114.76	C
ATOM	11446	CD1	ILE	C	125	170.274	190.125	163.636	1.00114.76	C
ATOM	11447	N	MET	C	126	172.561	188.470	166.634	1.00117.37	N
ATOM	11448	CA	MET	C	126	171.745	187.734	167.591	1.00117.37	C
ATOM	11449	C	MET	C	126	171.567	188.545	168.865	1.00117.37	C
ATOM	11450	O	MET	C	126	172.482	189.251	169.296	1.00117.37	O
ATOM	11451	CB	MET	C	126	172.367	186.369	167.915	1.00117.37	C
ATOM	11452	CG	MET	C	126	173.747	186.415	168.567	1.00117.37	C
ATOM	11453	SD	MET	C	126	173.747	186.539	170.366	1.00117.37	S
ATOM	11454	CE	MET	C	126	175.334	187.321	170.645	1.00117.37	C
ATOM	11455	N	VAL	C	127	170.382	188.428	169.464	1.00114.58	N
ATOM	11456	CA	VAL	C	127	170.066	189.033	170.751	1.00114.58	C
ATOM	11457	C	VAL	C	127	169.769	187.917	171.741	1.00114.58	C
ATOM	11458	O	VAL	C	127	169.165	186.900	171.380	1.00114.58	O
ATOM	11459	CB	VAL	C	127	168.875	190.005	170.649	1.00114.58	C
ATOM	11460	CG1	VAL	C	127	169.211	191.153	169.717	1.00114.58	C
ATOM	11461	CG2	VAL	C	127	167.635	189.271	170.169	1.00114.58	C
ATOM	11462	N	VAL	C	128	170.190	188.108	172.991	1.00114.55	N
ATOM	11463	CA	VAL	C	128	170.065	187.072	174.010	1.00114.55	C
ATOM	11464	C	VAL	C	128	169.106	187.527	175.100	1.00114.55	C
ATOM	11465	O	VAL	C	128	168.632	188.669	175.090	1.00114.55	O
ATOM	11466	CB	VAL	C	128	171.438	186.721	174.608	1.00114.55	C
ATOM	11467	CG1	VAL	C	128	172.373	186.223	173.522	1.00114.55	C
ATOM	11468	CG2	VAL	C	128	172.028	187.927	175.316	1.00114.55	C

ATOM	11469	N	TYR C 129	168.819	186.641	176.049	1.00113.12	N
ATOM	11470	CA	TYR C 129	167.963	186.970	177.182	1.00113.12	C
ATOM	11471	C	TYR C 129	168.017	185.813	178.172	1.00113.12	C
ATOM	11472	O	TYR C 129	168.581	184.753	177.887	1.00113.12	O
ATOM	11473	CB	TYR C 129	166.533	187.277	176.732	1.00113.12	C
ATOM	11474	CG	TYR C 129	165.813	186.140	176.056	1.00113.12	C
ATOM	11475	CD1	TYR C 129	165.944	185.924	174.693	1.00113.12	C
ATOM	11476	CD2	TYR C 129	164.971	185.305	176.773	1.00113.12	C
ATOM	11477	CE1	TYR C 129	165.276	184.892	174.068	1.00113.12	C
ATOM	11478	CE2	TYR C 129	164.297	184.272	176.160	1.00113.12	C
ATOM	11479	CZ	TYR C 129	164.453	184.069	174.806	1.00113.12	C
ATOM	11480	OH	TYR C 129	163.782	183.039	174.188	1.00113.12	O
ATOM	11481	N	LYS C 130	167.426	186.033	179.346	1.00111.48	N
ATOM	11482	CA	LYS C 130	167.640	185.171	180.499	1.00111.48	C
ATOM	11483	C	LYS C 130	166.311	184.828	181.166	1.00111.48	C
ATOM	11484	O	LYS C 130	165.312	185.534	181.013	1.00111.48	O
ATOM	11485	CB	LYS C 130	168.598	185.849	181.493	1.00111.48	C
ATOM	11486	CG	LYS C 130	169.009	185.019	182.693	1.00111.48	C
ATOM	11487	CD	LYS C 130	170.084	185.739	183.496	1.00111.48	C
ATOM	11488	CE	LYS C 130	169.481	186.724	184.485	1.00111.48	C
ATOM	11489	NZ	LYS C 130	169.200	188.046	183.856	1.00111.48	N
ATOM	11490	N	ARG C 131	166.318	183.722	181.911	1.00112.31	N
ATOM	11491	CA	ARG C 131	165.144	183.224	182.618	1.00112.31	C
ATOM	11492	C	ARG C 131	164.912	184.003	183.911	1.00112.31	C
ATOM	11493	O	ARG C 131	165.846	184.547	184.507	1.00112.31	O
ATOM	11494	CB	ARG C 131	165.323	181.734	182.926	1.00112.31	C
ATOM	11495	CG	ARG C 131	164.199	181.074	183.717	1.00112.31	C
ATOM	11496	CD	ARG C 131	162.923	180.935	182.910	1.00112.31	C
ATOM	11497	NE	ARG C 131	161.872	180.248	183.657	1.00112.31	N
ATOM	11498	CZ	ARG C 131	160.618	180.115	183.237	1.00112.31	C
ATOM	11499	NH1	ARG C 131	159.732	179.473	183.988	1.00112.31	N
ATOM	11500	NH2	ARG C 131	160.248	180.617	182.069	1.00112.31	N
ATOM	11501	N	ASN C 132	163.649	184.053	184.346	1.00105.23	N
ATOM	11502	CA	ASN C 132	163.267	184.754	185.566	1.00105.23	C
ATOM	11503	C	ASN C 132	162.393	183.869	186.446	1.00105.23	C
ATOM	11504	O	ASN C 132	161.593	183.067	185.957	1.00105.23	O
ATOM	11505	CB	ASN C 132	162.534	186.064	185.256	1.00105.23	C

ATOM	11506	CG	ASN	C	132	163.458	187.130	184.710	1.00105.23	C
ATOM	11507	OD1	ASN	C	132	164.578	187.302	185.192	1.00105.23	O
ATOM	11508	ND2	ASN	C	132	162.995	187.854	183.698	1.00105.23	N
ATOM	11509	N	ILE	C	133	162.561	184.034	187.759	1.00 90.67	N
ATOM	11510	CA	ILE	C	133	161.934	183.198	188.779	1.00 90.67	C
ATOM	11511	C	ILE	C	133	161.143	184.081	189.742	1.00 90.67	C
ATOM	11512	O	ILE	C	133	161.196	183.882	190.961	1.00 90.67	O
ATOM	11513	CB	ILE	C	133	162.981	182.342	189.516	1.00 90.67	C
ATOM	11514	CG1	ILE	C	133	163.867	181.619	188.503	1.00 90.67	C
ATOM	11515	CG2	ILE	C	133	162.307	181.279	190.371	1.00 90.67	C
ATOM	11516	CD1	ILE	C	133	163.109	180.675	187.593	1.00 90.67	C
ATOM	11517	N	VAL	C	134	160.446	185.084	189.196	1.00 80.14	N
ATOM	11518	CA	VAL	C	134	159.869	186.236	189.897	1.00 80.14	C
ATOM	11519	C	VAL	C	134	159.250	185.899	191.252	1.00 80.14	C
ATOM	11520	O	VAL	C	134	158.539	184.899	191.398	1.00 80.14	O
ATOM	11521	CB	VAL	C	134	158.822	186.915	188.994	1.00 80.14	C
ATOM	11522	CG1	VAL	C	134	158.138	188.055	189.726	1.00 80.14	C
ATOM	11523	CG2	VAL	C	134	159.469	187.406	187.709	1.00 80.14	C
ATOM	11524	N	ALA	C	135	159.530	186.741	192.250	1.00 62.54	N
ATOM	11525	CA	ALA	C	135	159.274	186.464	193.657	1.00 62.54	C
ATOM	11526	C	ALA	C	135	157.909	187.000	194.096	1.00 62.54	C
ATOM	11527	O	ALA	C	135	157.056	187.348	193.277	1.00 62.54	O
ATOM	11528	CB	ALA	C	135	160.401	187.044	194.507	1.00 62.54	C
ATOM	11529	N	HIS	C	136	157.693	187.063	195.412	1.00 51.22	N
ATOM	11530	CA	HIS	C	136	156.397	187.394	195.988	1.00 51.22	C
ATOM	11531	C	HIS	C	136	156.613	188.109	197.319	1.00 51.22	C
ATOM	11532	O	HIS	C	136	157.544	187.776	198.056	1.00 51.22	O
ATOM	11533	CB	HIS	C	136	155.572	186.114	196.177	1.00 51.22	C
ATOM	11534	CG	HIS	C	136	154.113	186.349	196.400	1.00 51.22	C
ATOM	11535	ND1	HIS	C	136	153.263	185.357	196.836	1.00 51.22	N
ATOM	11536	CD2	HIS	C	136	153.347	187.451	196.224	1.00 51.22	C
ATOM	11537	CE1	HIS	C	136	152.038	185.840	196.930	1.00 51.22	C
ATOM	11538	NE2	HIS	C	136	152.062	187.110	196.566	1.00 51.22	N
ATOM	11539	N	THR	C	137	155.761	189.093	197.624	1.00 43.03	N
ATOM	11540	CA	THR	C	137	155.882	189.888	198.849	1.00 43.03	C
ATOM	11541	C	THR	C	137	154.493	190.192	199.395	1.00 43.03	C
ATOM	11542	O	THR	C	137	153.652	190.726	198.667	1.00 43.03	O

ATOM	11543	CB	THR	C	137	156.638	191.195	198.590	1.00 43.03	C
ATOM	11544	OG1	THR	C	137	155.926	191.976	197.623	1.00 43.03	O
ATOM	11545	CG2	THR	C	137	158.041	190.921	198.078	1.00 43.03	C
ATOM	11546	N	PHE	C	138	154.247	189.867	200.679	1.00 38.86	N
ATOM	11547	CA	PHE	C	138	152.876	189.905	201.181	1.00 38.86	C
ATOM	11548	C	PHE	C	138	152.667	190.378	202.623	1.00 38.86	C
ATOM	11549	O	PHE	C	138	151.543	190.258	203.125	1.00 38.86	O
ATOM	11550	CB	PHE	C	138	152.237	188.523	200.994	1.00 38.86	C
ATOM	11551	CG	PHE	C	138	153.005	187.403	201.629	1.00 38.86	C
ATOM	11552	CD1	PHE	C	138	154.023	186.770	200.939	1.00 38.86	C
ATOM	11553	CD2	PHE	C	138	152.691	186.957	202.894	1.00 38.86	C
ATOM	11554	CE1	PHE	C	138	154.726	185.741	201.507	1.00 38.86	C
ATOM	11555	CE2	PHE	C	138	153.391	185.920	203.462	1.00 38.86	C
ATOM	11556	CZ	PHE	C	138	154.410	185.316	202.766	1.00 38.86	C
ATOM	11557	N	LYS	C	139	153.671	190.936	203.303	1.00 36.20	N
ATOM	11558	CA	LYS	C	139	153.455	191.670	204.559	1.00 36.20	C
ATOM	11559	C	LYS	C	139	152.867	190.791	205.673	1.00 36.20	C
ATOM	11560	O	LYS	C	139	151.697	190.903	206.041	1.00 36.20	O
ATOM	11561	CB	LYS	C	139	152.554	192.888	204.324	1.00 36.20	C
ATOM	11562	CG	LYS	C	139	153.182	193.989	203.496	1.00 36.20	C
ATOM	11563	CD	LYS	C	139	152.247	195.180	203.362	1.00 36.20	C
ATOM	11564	CE	LYS	C	139	152.915	196.321	202.615	1.00 36.20	C
ATOM	11565	NZ	LYS	C	139	153.184	195.961	201.197	1.00 36.20	N
ATOM	11566	N	VAL	C	140	153.707	189.895	206.194	1.00 33.41	N
ATOM	11567	CA	VAL	C	140	153.356	189.090	207.366	1.00 33.41	C
ATOM	11568	C	VAL	C	140	153.259	189.966	208.611	1.00 33.41	C
ATOM	11569	O	VAL	C	140	153.659	191.134	208.593	1.00 33.41	O
ATOM	11570	CB	VAL	C	140	154.374	187.962	207.599	1.00 33.41	C
ATOM	11571	CG1	VAL	C	140	154.444	187.056	206.396	1.00 33.41	C
ATOM	11572	CG2	VAL	C	140	155.732	188.541	207.923	1.00 33.41	C
ATOM	11573	N	ARG	C	141	152.727	189.405	209.699	1.00 36.33	N
ATOM	11574	CA	ARG	C	141	152.548	190.121	210.963	1.00 36.33	C
ATOM	11575	C	ARG	C	141	153.000	189.221	212.104	1.00 36.33	C
ATOM	11576	O	ARG	C	141	152.405	188.164	212.328	1.00 36.33	O
ATOM	11577	CB	ARG	C	141	151.092	190.532	211.166	1.00 36.33	C
ATOM	11578	CG	ARG	C	141	150.588	191.562	210.191	1.00 36.33	C
ATOM	11579	CD	ARG	C	141	149.214	192.048	210.605	1.00 36.33	C

ATOM	11580	NE	ARG	C	141	148.240	190.963	210.606	1.00 36.33	N
ATOM	11581	CZ	ARG	C	141	147.542	190.589	209.540	1.00 36.33	C
ATOM	11582	NH1	ARG	C	141	147.714	191.212	208.384	1.00 36.33	N
ATOM	11583	NH2	ARG	C	141	146.675	189.592	209.629	1.00 36.33	N
ATOM	11584	N	VAL	C	142	154.035	189.634	212.829	1.00 56.06	N
ATOM	11585	CA	VAL	C	142	154.595	188.848	213.924	1.00 56.06	C
ATOM	11586	C	VAL	C	142	154.137	189.431	215.252	1.00 56.06	C
ATOM	11587	O	VAL	C	142	154.207	190.647	215.462	1.00 56.06	O
ATOM	11588	CB	VAL	C	142	156.128	188.805	213.851	1.00 56.06	C
ATOM	11589	CG1	VAL	C	142	156.682	188.090	215.061	1.00 56.06	C
ATOM	11590	CG2	VAL	C	142	156.573	188.122	212.577	1.00 56.06	C
ATOM	11591	N	TYR	C	143	153.675	188.567	216.150	1.00 40.41	N
ATOM	11592	CA	TYR	C	143	153.314	188.950	217.506	1.00 40.41	C
ATOM	11593	C	TYR	C	143	154.390	188.485	218.479	1.00 40.41	C
ATOM	11594	O	TYR	C	143	155.223	187.638	218.158	1.00 40.41	O
ATOM	11595	CB	TYR	C	143	151.962	188.352	217.892	1.00 40.41	C
ATOM	11596	CG	TYR	C	143	150.815	188.865	217.065	1.00 40.41	C
ATOM	11597	CD1	TYR	C	143	150.206	190.069	217.362	1.00 40.41	C
ATOM	11598	CD2	TYR	C	143	150.347	188.146	215.980	1.00 40.41	C
ATOM	11599	CE1	TYR	C	143	149.157	190.539	216.605	1.00 40.41	C
ATOM	11600	CE2	TYR	C	143	149.302	188.607	215.217	1.00 40.41	C
ATOM	11601	CZ	TYR	C	143	148.709	189.803	215.532	1.00 40.41	C
ATOM	11602	OH	TYR	C	143	147.664	190.263	214.768	1.00 40.41	O
ATOM	11603	N	GLN	C	144	154.353	189.039	219.691	1.00 56.06	N
ATOM	11604	CA	GLN	C	144	155.340	188.683	220.703	1.00 56.06	C
ATOM	11605	C	GLN	C	144	155.009	189.377	222.019	1.00 56.06	C
ATOM	11606	O	GLN	C	144	154.098	190.209	222.069	1.00 56.06	O
ATOM	11607	CB	GLN	C	144	156.743	189.050	220.210	1.00 56.06	C
ATOM	11608	CG	GLN	C	144	157.888	188.439	220.985	1.00 56.06	C
ATOM	11609	CD	GLN	C	144	159.222	188.687	220.317	1.00 56.06	C
ATOM	11610	OE1	GLN	C	144	159.305	189.413	219.326	1.00 56.06	O
ATOM	11611	NE2	GLN	C	144	160.270	188.057	220.833	1.00 56.06	N
ATOM	11612	N	LYS	C	145	155.721	189.037	223.092	1.00 32.95	N
ATOM	11613	CA	LYS	C	145	155.496	189.668	224.392	1.00 32.95	C
ATOM	11614	C	LYS	C	145	156.768	189.511	225.211	1.00 32.95	C
ATOM	11615	O	LYS	C	145	157.202	188.384	225.464	1.00 32.95	O
ATOM	11616	CB	LYS	C	145	154.304	189.051	225.110	1.00 32.95	C

ATOM	11617	CG	LYS C 145	153.958	189.742	226.418	1.00 32.95	C
ATOM	11618	CD	LYS C 145	152.802	189.063	227.129	1.00 32.95	C
ATOM	11619	CE	LYS C 145	151.482	189.328	226.435	1.00 32.95	C
ATOM	11620	NZ	LYS C 145	151.082	190.754	226.545	1.00 32.95	N
ATOM	11621	N	VAL C 146	157.352	190.631	225.626	1.00 38.16	N
ATOM	11622	CA	VAL C 146	158.629	190.648	226.328	1.00 38.16	C
ATOM	11623	C	VAL C 146	158.381	190.931	227.800	1.00 38.16	C
ATOM	11624	O	VAL C 146	157.565	191.794	228.145	1.00 38.16	O
ATOM	11625	CB	VAL C 146	159.573	191.702	225.731	1.00 38.16	C
ATOM	11626	CG1	VAL C 146	160.892	191.715	226.478	1.00 38.16	C
ATOM	11627	CG2	VAL C 146	159.771	191.453	224.258	1.00 38.16	C
ATOM	11628	N	LEU C 147	159.095	190.220	228.667	1.00 43.77	N
ATOM	11629	CA	LEU C 147	159.065	190.493	230.097	1.00 43.77	C
ATOM	11630	C	LEU C 147	160.471	190.338	230.649	1.00 43.77	C
ATOM	11631	O	LEU C 147	161.135	189.333	230.383	1.00 43.77	O
ATOM	11632	CB	LEU C 147	158.094	189.564	230.833	1.00 43.77	C
ATOM	11633	CG	LEU C 147	158.496	188.106	231.041	1.00 43.77	C
ATOM	11634	CD1	LEU C 147	157.651	187.489	232.133	1.00 43.77	C
ATOM	11635	CD2	LEU C 147	158.326	187.334	229.759	1.00 43.77	C
ATOM	11636	N	THR C 148	160.918	191.329	231.416	1.00 48.49	N
ATOM	11637	CA	THR C 148	162.278	191.363	231.934	1.00 48.49	C
ATOM	11638	C	THR C 148	162.246	191.568	233.438	1.00 48.49	C
ATOM	11639	O	THR C 148	161.492	192.408	233.938	1.00 48.49	O
ATOM	11640	CB	THR C 148	163.094	192.479	231.283	1.00 48.49	C
ATOM	11641	OG1	THR C 148	162.531	193.748	231.634	1.00 48.49	O
ATOM	11642	CG2	THR C 148	163.062	192.331	229.781	1.00 48.49	C
ATOM	11643	N	PHE C 149	163.063	190.804	234.150	1.00 53.71	N
ATOM	11644	CA	PHE C 149	163.210	190.965	235.585	1.00 53.71	C
ATOM	11645	C	PHE C 149	164.386	191.886	235.897	1.00 53.71	C
ATOM	11646	O	PHE C 149	165.260	192.131	235.066	1.00 53.71	O
ATOM	11647	CB	PHE C 149	163.405	189.607	236.255	1.00 53.71	C
ATOM	11648	CG	PHE C 149	162.199	188.722	236.191	1.00 53.71	C
ATOM	11649	CD1	PHE C 149	161.165	188.877	237.096	1.00 53.71	C
ATOM	11650	CD2	PHE C 149	162.097	187.735	235.229	1.00 53.71	C
ATOM	11651	CE1	PHE C 149	160.054	188.063	237.044	1.00 53.71	C
ATOM	11652	CE2	PHE C 149	160.986	186.918	235.172	1.00 53.71	C
ATOM	11653	CZ	PHE C 149	159.963	187.083	236.080	1.00 53.71	C

ATOM	11654	N	ARG C 150	164.394	192.403	237.122	1.00 64.52 N
ATOM	11655	CA	ARG C 150	165.507	193.196	237.618	1.00 64.52 C
ATOM	11656	C	ARG C 150	165.618	192.983	239.116	1.00 64.52 C
ATOM	11657	O	ARG C 150	164.643	192.640	239.787	1.00 64.52 O
ATOM	11658	CB	ARG C 150	165.341	194.687	237.312	1.00 64.52 C
ATOM	11659	CG	ARG C 150	165.479	195.058	235.852	1.00 64.52 C
ATOM	11660	CD	ARG C 150	165.297	196.553	235.673	1.00 64.52 C
ATOM	11661	NE	ARG C 150	165.384	196.960	234.275	1.00 64.52 N
ATOM	11662	CZ	ARG C 150	165.174	198.200	233.849	1.00 64.52 C
ATOM	11663	NH1	ARG C 150	164.862	199.155	234.715	1.00 64.52 N
ATOM	11664	NH2	ARG C 150	165.270	198.486	232.558	1.00 64.52 N
ATOM	11665	N	ARG C 151	166.822	193.197	239.637	1.00 68.67 N
ATOM	11666	CA	ARG C 151	167.086	193.042	241.061	1.00 68.67 C
ATOM	11667	C	ARG C 151	168.047	194.140	241.477	1.00 68.67 C
ATOM	11668	O	ARG C 151	169.192	194.170	241.017	1.00 68.67 O
ATOM	11669	CB	ARG C 151	167.663	191.657	241.364	1.00 68.67 C
ATOM	11670	CG	ARG C 151	166.673	190.532	241.111	1.00 68.67 C
ATOM	11671	CD	ARG C 151	167.203	189.193	241.580	1.00 68.67 C
ATOM	11672	NE	ARG C 151	168.385	188.783	240.832	1.00 68.67 N
ATOM	11673	CZ	ARG C 151	168.344	188.100	239.694	1.00 68.67 C
ATOM	11674	NH1	ARG C 151	167.177	187.753	239.171	1.00 68.67 N
ATOM	11675	NH2	ARG C 151	169.469	187.766	239.077	1.00 68.67 N
ATOM	11676	N	SER C 152	167.584	195.046	242.334	1.00 71.26 N
ATOM	11677	CA	SER C 152	168.346	196.242	242.668	1.00 71.26 C
ATOM	11678	C	SER C 152	168.230	196.520	244.156	1.00 71.26 C
ATOM	11679	O	SER C 152	167.120	196.582	244.693	1.00 71.26 O
ATOM	11680	CB	SER C 152	167.851	197.445	241.861	1.00 71.26 C
ATOM	11681	OG	SER C 152	166.526	197.790	242.224	1.00 71.26 O
ATOM	11682	N	TYR C 153	169.370	196.689	244.814	1.00 69.38 N
ATOM	11683	CA	TYR C 153	169.418	197.162	246.188	1.00 69.38 C
ATOM	11684	C	TYR C 153	169.791	198.637	246.180	1.00 69.38 C
ATOM	11685	O	TYR C 153	170.658	199.062	245.412	1.00 69.38 O
ATOM	11686	CB	TYR C 153	170.424	196.360	247.012	1.00 69.38 C
ATOM	11687	CG	TYR C 153	170.443	196.725	248.475	1.00 69.38 C
ATOM	11688	CD1	TYR C 153	169.421	196.322	249.319	1.00 69.38 C
ATOM	11689	CD2	TYR C 153	171.484	197.462	249.014	1.00 69.38 C
ATOM	11690	CE1	TYR C 153	169.431	196.649	250.657	1.00 69.38 C

ATOM	11691	CE2	TYR	C	153	171.503	197.792	250.352	1.00 69.38	C
ATOM	11692	CZ	TYR	C	153	170.473	197.383	251.168	1.00 69.38	C
ATOM	11693	OH	TYR	C	153	170.481	197.709	252.503	1.00 69.38	O
ATOM	11694	N	ALA	C	154	169.135	199.415	247.037	1.00 75.33	N
ATOM	11695	CA	ALA	C	154	169.196	200.872	246.969	1.00 75.33	C
ATOM	11696	C	ALA	C	154	169.783	201.420	248.261	1.00 75.33	C
ATOM	11697	O	ALA	C	154	169.152	201.332	249.319	1.00 75.33	O
ATOM	11698	CB	ALA	C	154	167.808	201.461	246.716	1.00 75.33	C
ATOM	11699	N	TYR	C	155	170.986	201.990	248.177	1.00 76.52	N
ATOM	11700	CA	TYR	C	155	171.556	202.716	249.304	1.00 76.52	C
ATOM	11701	C	TYR	C	155	170.785	204.001	249.567	1.00 76.52	C
ATOM	11702	O	TYR	C	155	169.823	204.314	248.860	1.00 76.52	O
ATOM	11703	CB	TYR	C	155	173.028	203.054	249.070	1.00 76.52	C
ATOM	11704	CG	TYR	C	155	173.971	201.895	249.247	1.00 76.52	C
ATOM	11705	CD1	TYR	C	155	173.536	200.701	249.795	1.00 76.52	C
ATOM	11706	CD2	TYR	C	155	175.309	202.011	248.907	1.00 76.52	C
ATOM	11707	CE1	TYR	C	155	174.402	199.641	249.970	1.00 76.52	C
ATOM	11708	CE2	TYR	C	155	176.182	200.960	249.078	1.00 76.52	C
ATOM	11709	CZ	TYR	C	155	175.725	199.779	249.613	1.00 76.52	C
ATOM	11710	OH	TYR	C	155	176.595	198.730	249.785	1.00 76.52	O
ATOM	11711	N	ILE	C	156	171.209	204.753	250.585	1.00 79.61	N
ATOM	11712	CA	ILE	C	156	170.619	206.059	250.848	1.00 79.61	C
ATOM	11713	C	ILE	C	156	170.983	207.072	249.772	1.00 79.61	C
ATOM	11714	O	ILE	C	156	170.311	208.102	249.645	1.00 79.61	O
ATOM	11715	CB	ILE	C	156	171.047	206.563	252.239	1.00 79.61	C
ATOM	11716	CG1	ILE	C	156	170.257	207.814	252.628	1.00 79.61	C
ATOM	11717	CG2	ILE	C	156	172.541	206.824	252.273	1.00 79.61	C
ATOM	11718	CD1	ILE	C	156	168.783	207.566	252.823	1.00 79.61	C
ATOM	11719	N	HIS	C	157	172.033	206.816	248.992	1.00 81.41	N
ATOM	11720	CA	HIS	C	157	172.426	207.702	247.904	1.00 81.41	C
ATOM	11721	C	HIS	C	157	172.269	207.047	246.538	1.00 81.41	C
ATOM	11722	O	HIS	C	157	171.572	207.583	245.674	1.00 81.41	O
ATOM	11723	CB	HIS	C	157	173.872	208.177	248.098	1.00 81.41	C
ATOM	11724	CG	HIS	C	157	174.061	209.072	249.282	1.00 81.41	C
ATOM	11725	ND1	HIS	C	157	174.399	208.595	250.529	1.00 81.41	N
ATOM	11726	CD2	HIS	C	157	173.953	210.415	249.409	1.00 81.41	C
ATOM	11727	CE1	HIS	C	157	174.495	209.606	251.374	1.00 81.41	C

ATOM	11728	NE2	HIS C 157	174.228	210.722	250.720	1.00 81.41	N
ATOM	11729	N	THR C 158	172.896	205.896	246.319	1.00 81.68	N
ATOM	11730	CA	THR C 158	172.918	205.251	245.015	1.00 81.68	C
ATOM	11731	C	THR C 158	172.201	203.909	245.064	1.00 81.68	C
ATOM	11732	O	THR C 158	172.057	203.298	246.127	1.00 81.68	O
ATOM	11733	CB	THR C 158	174.355	205.049	244.528	1.00 81.68	C
ATOM	11734	OG1	THR C 158	175.060	204.214	245.454	1.00 81.68	O
ATOM	11735	CG2	THR C 158	175.068	206.385	244.413	1.00 81.68	C
ATOM	11736	N	THR C 159	171.752	203.456	243.897	1.00 79.19	N
ATOM	11737	CA	THR C 159	171.055	202.186	243.749	1.00 79.19	C
ATOM	11738	C	THR C 159	171.809	201.320	242.749	1.00 79.19	C
ATOM	11739	O	THR C 159	172.140	201.779	241.651	1.00 79.19	O
ATOM	11740	CB	THR C 159	169.615	202.403	243.284	1.00 79.19	C
ATOM	11741	OG1	THR C 159	169.618	202.985	241.976	1.00 79.19	O
ATOM	11742	CG2	THR C 159	168.892	203.342	244.236	1.00 79.19	C
ATOM	11743	N	TYR C 160	172.082	200.078	243.131	1.00 75.68	N
ATOM	11744	CA	TYR C 160	172.861	199.165	242.309	1.00 75.68	C
ATOM	11745	C	TYR C 160	171.953	198.283	241.457	1.00 75.68	C
ATOM	11746	O	TYR C 160	170.753	198.156	241.708	1.00 75.68	O
ATOM	11747	CB	TYR C 160	173.766	198.304	243.190	1.00 75.68	C
ATOM	11748	CG	TYR C 160	174.872	199.085	243.858	1.00 75.68	C
ATOM	11749	CD1	TYR C 160	176.034	199.399	243.171	1.00 75.68	C
ATOM	11750	CD2	TYR C 160	174.753	199.515	245.173	1.00 75.68	C
ATOM	11751	CE1	TYR C 160	177.048	200.114	243.772	1.00 75.68	C
ATOM	11752	CE2	TYR C 160	175.767	200.233	245.782	1.00 75.68	C
ATOM	11753	CZ	TYR C 160	176.910	200.528	245.074	1.00 75.68	C
ATOM	11754	OH	TYR C 160	177.927	201.242	245.667	1.00 75.68	O
ATOM	11755	N	LEU C 161	172.545	197.673	240.432	1.00 71.78	N
ATOM	11756	CA	LEU C 161	171.841	196.762	239.531	1.00 71.78	C
ATOM	11757	C	LEU C 161	172.437	195.373	239.732	1.00 71.78	C
ATOM	11758	O	LEU C 161	173.537	195.082	239.253	1.00 71.78	O
ATOM	11759	CB	LEU C 161	171.956	197.225	238.081	1.00 71.78	C
ATOM	11760	CG	LEU C 161	171.191	196.425	237.022	1.00 71.78	C
ATOM	11761	CD1	LEU C 161	169.690	196.501	237.256	1.00 71.78	C
ATOM	11762	CD2	LEU C 161	171.541	196.908	235.622	1.00 71.78	C
ATOM	11763	N	LEU C 162	171.705	194.516	240.443	1.00 70.62	N
ATOM	11764	CA	LEU C 162	172.241	193.217	240.832	1.00 70.62	C

ATOM	11765	C	LEU C 162	172.080	192.171	239.734	1.00 70.62 C
ATOM	11766	O	LEU C 162	172.934	191.289	239.590	1.00 70.62 O
ATOM	11767	CB	LEU C 162	171.574	192.750	242.123	1.00 70.62 C
ATOM	11768	CG	LEU C 162	171.970	193.590	243.334	1.00 70.62 C
ATOM	11769	CD1	LEU C 162	171.130	193.241	244.540	1.00 70.62 C
ATOM	11770	CD2	LEU C 162	173.430	193.355	243.630	1.00 70.62 C
ATOM	11771	N	GLY C 163	171.004	192.238	238.960	1.00 67.31 N
ATOM	11772	CA	GLY C 163	170.816	191.251	237.914	1.00 67.31 C
ATOM	11773	C	GLY C 163	169.716	191.664	236.965	1.00 67.31 C
ATOM	11774	O	GLY C 163	169.011	192.653	237.181	1.00 67.31 O
ATOM	11775	N	SER C 164	169.584	190.886	235.895	1.00 60.15 N
ATOM	11776	CA	SER C 164	168.525	191.083	234.916	1.00 60.15 C
ATOM	11777	C	SER C 164	168.565	189.929	233.929	1.00 60.15 C
ATOM	11778	O	SER C 164	169.633	189.385	233.638	1.00 60.15 O
ATOM	11779	CB	SER C 164	168.674	192.419	234.179	1.00 60.15 C
ATOM	11780	OG	SER C 164	169.826	192.422	233.356	1.00 60.15 O
ATOM	11781	N	ASN C 165	167.390	189.555	233.428	1.00 56.03 N
ATOM	11782	CA	ASN C 165	167.307	188.477	232.447	1.00 56.03 C
ATOM	11783	C	ASN C 165	166.015	188.637	231.644	1.00 56.03 C
ATOM	11784	O	ASN C 165	164.935	188.287	232.127	1.00 56.03 O
ATOM	11785	CB	ASN C 165	167.394	187.118	233.125	1.00 56.03 C
ATOM	11786	CG	ASN C 165	166.436	186.982	234.289	1.00 56.03 C
ATOM	11787	OD1	ASN C 165	165.698	187.912	234.613	1.00 56.03 O
ATOM	11788	ND2	ASN C 165	166.431	185.811	234.916	1.00 56.03 N
ATOM	11789	N	THR C 166	166.142	189.157	230.426	1.00 48.54 N
ATOM	11790	CA	THR C 166	164.999	189.200	229.531	1.00 48.54 C
ATOM	11791	C	THR C 166	164.538	187.779	229.217	1.00 48.54 C
ATOM	11792	O	THR C 166	165.288	186.809	229.357	1.00 48.54 O
ATOM	11793	CB	THR C 166	165.354	189.941	228.242	1.00 48.54 C
ATOM	11794	OG1	THR C 166	166.372	189.218	227.539	1.00 48.54 O
ATOM	11795	CG2	THR C 166	165.872	191.341	228.554	1.00 48.54 C
ATOM	11796	N	GLU C 167	163.282	187.655	228.797	1.00 47.89 N
ATOM	11797	CA	GLU C 167	162.738	186.342	228.455	1.00 47.89 C
ATOM	11798	C	GLU C 167	161.606	186.546	227.459	1.00 47.89 C
ATOM	11799	O	GLU C 167	160.534	187.028	227.831	1.00 47.89 O
ATOM	11800	CB	GLU C 167	162.258	185.609	229.701	1.00 47.89 C
ATOM	11801	CG	GLU C 167	161.761	184.195	229.440	1.00 47.89 C

ATOM	11802	CD	GLU	C	167	161.379	183.466	230.714	1.00 47.89	C
ATOM	11803	OE1	GLU	C	167	161.492	184.073	231.799	1.00 47.89	O
ATOM	11804	OE2	GLU	C	167	160.968	182.288	230.632	1.00 47.89	O
ATOM	11805	N	TYR	C	168	161.852	186.184	226.205	1.00 43.31	N
ATOM	11806	CA	TYR	C	168	160.860	186.361	225.156	1.00 43.31	C
ATOM	11807	C	TYR	C	168	159.929	185.158	225.105	1.00 43.31	C
ATOM	11808	O	TYR	C	168	160.373	184.009	225.155	1.00 43.31	O
ATOM	11809	CB	TYR	C	168	161.563	186.550	223.817	1.00 43.31	C
ATOM	11810	CG	TYR	C	168	162.425	187.787	223.785	1.00 43.31	C
ATOM	11811	CD1	TYR	C	168	161.893	189.019	223.459	1.00 43.31	C
ATOM	11812	CD2	TYR	C	168	163.768	187.723	224.119	1.00 43.31	C
ATOM	11813	CE1	TYR	C	168	162.680	190.155	223.441	1.00 43.31	C
ATOM	11814	CE2	TYR	C	168	164.563	188.848	224.104	1.00 43.31	C
ATOM	11815	CZ	TYR	C	168	164.014	190.063	223.767	1.00 43.31	C
ATOM	11816	OH	TYR	C	168	164.802	191.187	223.756	1.00 43.31	O
ATOM	11817	N	VAL	C	169	158.630	185.424	224.999	1.00 38.44	N
ATOM	11818	CA	VAL	C	169	157.641	184.354	225.025	1.00 38.44	C
ATOM	11819	C	VAL	C	169	156.384	184.810	224.298	1.00 38.44	C
ATOM	11820	O	VAL	C	169	155.935	185.948	224.467	1.00 38.44	O
ATOM	11821	CB	VAL	C	169	157.328	183.933	226.472	1.00 38.44	C
ATOM	11822	CG1	VAL	C	169	156.622	185.056	227.211	1.00 38.44	C
ATOM	11823	CG2	VAL	C	169	156.500	182.665	226.490	1.00 38.44	C
ATOM	11824	N	ALA	C	170	155.816	183.932	223.477	1.00 35.57	N
ATOM	11825	CA	ALA	C	170	154.633	184.290	222.717	1.00 35.57	C
ATOM	11826	C	ALA	C	170	153.407	184.335	223.625	1.00 35.57	C
ATOM	11827	O	ALA	C	170	153.368	183.669	224.663	1.00 35.57	O
ATOM	11828	CB	ALA	C	170	154.401	183.299	221.583	1.00 35.57	C
ATOM	11829	N	PRO	C	171	152.393	185.109	223.258	1.00 33.78	N
ATOM	11830	CA	PRO	C	171	151.224	185.261	224.120	1.00 33.78	C
ATOM	11831	C	PRO	C	171	150.266	184.099	223.947	1.00 33.78	C
ATOM	11832	O	PRO	C	171	150.469	183.239	223.078	1.00 33.78	O
ATOM	11833	CB	PRO	C	171	150.596	186.570	223.623	1.00 33.78	C
ATOM	11834	CG	PRO	C	171	150.966	186.612	222.189	1.00 33.78	C
ATOM	11835	CD	PRO	C	171	152.333	185.994	222.085	1.00 33.78	C
ATOM	11836	N	PRO	C	172	149.209	184.038	224.753	1.00 36.13	N
ATOM	11837	CA	PRO	C	172	148.190	183.000	224.556	1.00 36.13	C
ATOM	11838	C	PRO	C	172	147.404	183.224	223.277	1.00 36.13	C

ATOM	11839	O	PRO C 172	147.675	184.172	222.535	1.00 36.13	O
ATOM	11840	CB	PRO C 172	147.295	183.146	225.793	1.00 36.13	C
ATOM	11841	CG	PRO C 172	148.144	183.844	226.800	1.00 36.13	C
ATOM	11842	CD	PRO C 172	149.000	184.780	226.006	1.00 36.13	C
ATOM	11843	N	MET C 173	146.422	182.368	223.010	1.00 43.41	N
ATOM	11844	CA	MET C 173	145.642	182.495	221.788	1.00 43.41	C
ATOM	11845	C	MET C 173	144.478	183.464	221.923	1.00 43.41	C
ATOM	11846	O	MET C 173	144.147	184.151	220.952	1.00 43.41	O
ATOM	11847	CB	MET C 173	145.119	181.127	221.348	1.00 43.41	C
ATOM	11848	CG	MET C 173	144.422	181.146	220.001	1.00 43.41	C
ATOM	11849	SD	MET C 173	145.534	181.586	218.655	1.00 43.41	S
ATOM	11850	CE	MET C 173	144.366	182.191	217.442	1.00 43.41	C
ATOM	11851	N	TRP C 174	143.845	183.538	223.097	1.00 56.04	N
ATOM	11852	CA	TRP C 174	142.746	184.483	223.267	1.00 56.04	C
ATOM	11853	C	TRP C 174	143.217	185.922	223.114	1.00 56.04	C
ATOM	11854	O	TRP C 174	142.452	186.781	222.663	1.00 56.04	O
ATOM	11855	CB	TRP C 174	142.077	184.295	224.629	1.00 56.04	C
ATOM	11856	CG	TRP C 174	142.981	184.530	225.804	1.00 56.04	C
ATOM	11857	CD1	TRP C 174	143.271	185.727	226.394	1.00 56.04	C
ATOM	11858	CD2	TRP C 174	143.688	183.536	226.550	1.00 56.04	C
ATOM	11859	NE1	TRP C 174	144.126	185.541	227.449	1.00 56.04	N
ATOM	11860	CE2	TRP C 174	144.397	184.204	227.568	1.00 56.04	C
ATOM	11861	CE3	TRP C 174	143.798	182.147	226.452	1.00 56.04	C
ATOM	11862	CZ2	TRP C 174	145.203	183.531	228.480	1.00 56.04	C
ATOM	11863	CZ3	TRP C 174	144.598	181.480	227.360	1.00 56.04	C
ATOM	11864	CH2	TRP C 174	145.290	182.172	228.360	1.00 56.04	C
ATOM	11865	N	GLU C 175	144.465	186.204	223.481	1.00 44.46	N
ATOM	11866	CA	GLU C 175	144.972	187.568	223.449	1.00 44.46	C
ATOM	11867	C	GLU C 175	145.273	188.051	222.038	1.00 44.46	C
ATOM	11868	O	GLU C 175	145.373	189.264	221.826	1.00 44.46	O
ATOM	11869	CB	GLU C 175	146.220	187.676	224.327	1.00 44.46	C
ATOM	11870	CG	GLU C 175	146.748	189.084	224.499	1.00 44.46	C
ATOM	11871	CD	GLU C 175	147.892	189.155	225.490	1.00 44.46	C
ATOM	11872	OE1	GLU C 175	148.284	188.098	226.027	1.00 44.46	O
ATOM	11873	OE2	GLU C 175	148.397	190.269	225.740	1.00 44.46	O
ATOM	11874	N	ILE C 176	145.407	187.146	221.074	1.00 32.52	N
ATOM	11875	CA	ILE C 176	145.506	187.523	219.674	1.00 32.52	C

ATOM	11876	C	ILE C 176	144.115	187.607	219.037	1.00 32.52	C
ATOM	11877	O	ILE C 176	143.988	187.799	217.830	1.00 32.52	O
ATOM	11878	CB	ILE C 176	146.435	186.572	218.903	1.00 32.52	C
ATOM	11879	CG1	ILE C 176	147.782	186.481	219.611	1.00 32.52	C
ATOM	11880	CG2	ILE C 176	146.737	187.100	217.520	1.00 32.52	C
ATOM	11881	CD1	ILE C 176	148.677	185.391	219.075	1.00 32.52	C
ATOM	11882	N	HIS C 177	143.067	187.473	219.845	1.00 41.12	N
ATOM	11883	CA	HIS C 177	141.724	187.886	219.469	1.00 41.12	C
ATOM	11884	C	HIS C 177	141.317	189.172	220.166	1.00 41.12	C
ATOM	11885	O	HIS C 177	140.209	189.668	219.940	1.00 41.12	O
ATOM	11886	CB	HIS C 177	140.706	186.788	219.787	1.00 41.12	C
ATOM	11887	CG	HIS C 177	140.886	185.547	218.977	1.00 41.12	C
ATOM	11888	ND1	HIS C 177	140.564	185.480	217.640	1.00 41.12	N
ATOM	11889	CD2	HIS C 177	141.345	184.321	219.316	1.00 41.12	C
ATOM	11890	CE1	HIS C 177	140.824	184.267	217.188	1.00 41.12	C
ATOM	11891	NE2	HIS C 177	141.298	183.543	218.186	1.00 41.12	N
ATOM	11892	N	HIS C 178	142.184	189.717	221.013	1.00 44.40	N
ATOM	11893	CA	HIS C 178	141.956	191.001	221.645	1.00 44.40	C
ATOM	11894	C	HIS C 178	142.949	192.046	221.165	1.00 44.40	C
ATOM	11895	O	HIS C 178	142.741	193.239	221.407	1.00 44.40	O
ATOM	11896	CB	HIS C 178	142.032	190.861	223.169	1.00 44.40	C
ATOM	11897	CG	HIS C 178	141.580	192.077	223.910	1.00 44.40	C
ATOM	11898	ND1	HIS C 178	142.423	193.127	224.199	1.00 44.40	N
ATOM	11899	CD2	HIS C 178	140.371	192.413	224.417	1.00 44.40	C
ATOM	11900	CE1	HIS C 178	141.753	194.058	224.855	1.00 44.40	C
ATOM	11901	NE2	HIS C 178	140.506	193.649	225.000	1.00 44.40	N
ATOM	11902	N	ILE C 179	144.012	191.633	220.478	1.00 36.97	N
ATOM	11903	CA	ILE C 179	144.894	192.571	219.798	1.00 36.97	C
ATOM	11904	C	ILE C 179	144.419	192.856	218.378	1.00 36.97	C
ATOM	11905	O	ILE C 179	144.733	193.926	217.837	1.00 36.97	O
ATOM	11906	CB	ILE C 179	146.348	192.052	219.782	1.00 36.97	C
ATOM	11907	CG1	ILE C 179	146.891	191.934	221.202	1.00 36.97	C
ATOM	11908	CG2	ILE C 179	147.243	192.960	218.966	1.00 36.97	C
ATOM	11909	CD1	ILE C 179	148.221	191.224	221.278	1.00 36.97	C
ATOM	11910	N	ASN C 180	143.658	191.948	217.769	1.00 34.05	N
ATOM	11911	CA	ASN C 180	143.116	192.154	216.434	1.00 34.05	C
ATOM	11912	C	ASN C 180	141.645	192.548	216.464	1.00 34.05	C

ATOM	11913	O	ASN C 180	140.945	192.391	215.461	1.00 34.05	O
ATOM	11914	CB	ASN C 180	143.310	190.903	215.580	1.00 34.05	C
ATOM	11915	CG	ASN C 180	144.755	190.684	215.196	1.00 34.05	C
ATOM	11916	OD1	ASN C 180	145.473	191.632	214.886	1.00 34.05	O
ATOM	11917	ND2	ASN C 180	145.187	189.430	215.202	1.00 34.05	N
ATOM	11918	N	SER C 181	141.162	193.057	217.595	1.00 39.16	N
ATOM	11919	CA	SER C 181	139.800	193.577	217.667	1.00 39.16	C
ATOM	11920	C	SER C 181	139.691	194.945	218.318	1.00 39.16	C
ATOM	11921	O	SER C 181	138.728	195.663	218.028	1.00 39.16	O
ATOM	11922	CB	SER C 181	138.892	192.599	218.422	1.00 39.16	C
ATOM	11923	OG	SER C 181	138.763	191.376	217.719	1.00 39.16	O
ATOM	11924	N	HIS C 182	140.621	195.341	219.183	1.00 41.54	N
ATOM	11925	CA	HIS C 182	140.605	196.680	219.754	1.00 41.54	C
ATOM	11926	C	HIS C 182	141.980	197.311	219.879	1.00 41.54	C
ATOM	11927	O	HIS C 182	142.063	198.460	220.322	1.00 41.54	O
ATOM	11928	CB	HIS C 182	139.938	196.662	221.132	1.00 41.54	C
ATOM	11929	CG	HIS C 182	138.487	196.306	221.089	1.00 41.54	C
ATOM	11930	ND1	HIS C 182	138.041	195.003	221.134	1.00 41.54	N
ATOM	11931	CD2	HIS C 182	137.381	197.080	220.995	1.00 41.54	C
ATOM	11932	CE1	HIS C 182	136.722	194.990	221.075	1.00 41.54	C
ATOM	11933	NE2	HIS C 182	136.296	196.238	220.991	1.00 41.54	N
ATOM	11934	N	SER C 183	143.055	196.615	219.512	1.00 44.37	N
ATOM	11935	CA	SER C 183	144.417	197.130	219.642	1.00 44.37	C
ATOM	11936	C	SER C 183	144.778	197.417	221.097	1.00 44.37	C
ATOM	11937	O	SER C 183	145.618	198.272	221.380	1.00 44.37	O
ATOM	11938	CB	SER C 183	144.626	198.380	218.782	1.00 44.37	C
ATOM	11939	OG	SER C 183	143.860	199.471	219.259	1.00 44.37	O
ATOM	11940	N	GLN C 184	144.154	196.704	222.031	1.00 48.06	N
ATOM	11941	CA	GLN C 184	144.458	196.821	223.453	1.00 48.06	C
ATOM	11942	C	GLN C 184	145.139	195.538	223.909	1.00 48.06	C
ATOM	11943	O	GLN C 184	144.680	194.436	223.593	1.00 48.06	O
ATOM	11944	CB	GLN C 184	143.201	197.094	224.274	1.00 48.06	C
ATOM	11945	CG	GLN C 184	142.610	198.471	224.063	1.00 48.06	C
ATOM	11946	CD	GLN C 184	141.408	198.720	224.946	1.00 48.06	C
ATOM	11947	OE1	GLN C 184	140.975	197.837	225.684	1.00 48.06	O
ATOM	11948	NE2	GLN C 184	140.864	199.929	224.878	1.00 48.06	N
ATOM	11949	N	CYS C 185	146.228	195.687	224.650	1.00 51.50	N

ATOM	11950	CA	CYS C 185	147.017	194.562	225.124	1.00 51.50	C
ATOM	11951	C	CYS C 185	146.975	194.490	226.645	1.00 51.50	C
ATOM	11952	O	CYS C 185	147.042	195.510	227.336	1.00 51.50	O
ATOM	11953	CB	CYS C 185	148.454	194.704	224.630	1.00 51.50	C
ATOM	11954	SG	CYS C 185	149.597	193.395	225.062	1.00 51.50	S
ATOM	11955	N	TYR C 186	146.870	193.269	227.164	1.00 54.21	N
ATOM	11956	CA	TYR C 186	146.723	193.058	228.596	1.00 54.21	C
ATOM	11957	C	TYR C 186	148.036	193.337	229.323	1.00 54.21	C
ATOM	11958	O	TYR C 186	149.071	193.618	228.714	1.00 54.21	O
ATOM	11959	CB	TYR C 186	146.235	191.640	228.874	1.00 54.21	C
ATOM	11960	CG	TYR C 186	144.798	191.417	228.484	1.00 54.21	C
ATOM	11961	CD1	TYR C 186	143.945	192.488	228.278	1.00 54.21	C
ATOM	11962	CD2	TYR C 186	144.297	190.138	228.313	1.00 54.21	C
ATOM	11963	CE1	TYR C 186	142.631	192.294	227.921	1.00 54.21	C
ATOM	11964	CE2	TYR C 186	142.984	189.933	227.953	1.00 54.21	C
ATOM	11965	CZ	TYR C 186	142.155	191.015	227.758	1.00 54.21	C
ATOM	11966	OH	TYR C 186	140.843	190.819	227.398	1.00 54.21	O
ATOM	11967	N	SER C 187	147.995	193.246	230.650	1.00 52.46	N
ATOM	11968	CA	SER C 187	149.152	193.538	231.488	1.00 52.46	C
ATOM	11969	C	SER C 187	149.311	192.480	232.568	1.00 52.46	C
ATOM	11970	O	SER C 187	149.607	192.790	233.726	1.00 52.46	O
ATOM	11971	CB	SER C 187	149.039	194.925	232.114	1.00 52.46	C
ATOM	11972	OG	SER C 187	147.957	194.976	233.026	1.00 52.46	O
ATOM	11973	N	SER C 188	149.114	191.216	232.206	1.00 53.84	N
ATOM	11974	CA	SER C 188	149.297	190.112	233.145	1.00 53.84	C
ATOM	11975	C	SER C 188	149.465	188.839	232.338	1.00 53.84	C
ATOM	11976	O	SER C 188	148.535	188.427	231.640	1.00 53.84	O
ATOM	11977	CB	SER C 188	148.111	189.996	234.099	1.00 53.84	C
ATOM	11978	OG	SER C 188	146.940	189.602	233.407	1.00 53.84	O
ATOM	11979	N	TYR C 189	150.633	188.215	232.434	1.00 51.47	N
ATOM	11980	CA	TYR C 189	150.966	187.047	231.624	1.00 51.47	C
ATOM	11981	C	TYR C 189	151.044	185.818	232.525	1.00 51.47	C
ATOM	11982	O	TYR C 189	152.117	185.448	233.002	1.00 51.47	O
ATOM	11983	CB	TYR C 189	152.270	187.271	230.876	1.00 51.47	C
ATOM	11984	CG	TYR C 189	152.659	186.120	229.988	1.00 51.47	C
ATOM	11985	CD1	TYR C 189	151.935	185.836	228.843	1.00 51.47	C
ATOM	11986	CD2	TYR C 189	153.764	185.336	230.274	1.00 51.47	C

ATOM	11987	CE1	TYR C 189	152.283	184.791	228.020	1.00	51.47	C
ATOM	11988	CE2	TYR C 189	154.125	184.293	229.450	1.00	51.47	C
ATOM	11989	CZ	TYR C 189	153.380	184.023	228.328	1.00	51.47	C
ATOM	11990	OH	TYR C 189	153.730	182.981	227.504	1.00	51.47	O
ATOM	11991	N	SER C 190	149.898	185.178	232.740	1.00	59.27	N
ATOM	11992	CA	SER C 190	149.871	183.942	233.504	1.00	59.27	C
ATOM	11993	C	SER C 190	150.629	182.849	232.758	1.00	59.27	C
ATOM	11994	O	SER C 190	150.827	182.913	231.543	1.00	59.27	O
ATOM	11995	CB	SER C 190	148.431	183.505	233.767	1.00	59.27	C
ATOM	11996	OG	SER C 190	147.776	183.160	232.559	1.00	59.27	O
ATOM	11997	N	ARG C 191	151.059	181.833	233.503	1.00	72.29	N
ATOM	11998	CA	ARG C 191	151.873	180.768	232.936	1.00	72.29	C
ATOM	11999	C	ARG C 191	151.651	179.482	233.719	1.00	72.29	C
ATOM	12000	O	ARG C 191	150.877	179.434	234.679	1.00	72.29	O
ATOM	12001	CB	ARG C 191	153.359	181.135	232.943	1.00	72.29	C
ATOM	12002	CG	ARG C 191	153.739	182.245	231.993	1.00	72.29	C
ATOM	12003	CD	ARG C 191	155.218	182.568	232.096	1.00	72.29	C
ATOM	12004	NE	ARG C 191	156.056	181.458	231.656	1.00	72.29	N
ATOM	12005	CZ	ARG C 191	157.376	181.419	231.799	1.00	72.29	C
ATOM	12006	NH1	ARG C 191	158.010	182.432	232.373	1.00	72.29	N
ATOM	12007	NH2	ARG C 191	158.063	180.371	231.368	1.00	72.29	N
ATOM	12008	N	VAL C 192	152.347	178.432	233.287	1.00	88.44	N
ATOM	12009	CA	VAL C 192	152.403	177.152	233.981	1.00	88.44	C
ATOM	12010	C	VAL C 192	153.792	176.574	233.759	1.00	88.44	C
ATOM	12011	O	VAL C 192	154.160	176.258	232.622	1.00	88.44	O
ATOM	12012	CB	VAL C 192	151.327	176.174	233.474	1.00	88.44	C
ATOM	12013	CG1	VAL C 192	151.501	174.810	234.124	1.00	88.44	C
ATOM	12014	CG2	VAL C 192	149.932	176.718	233.724	1.00	88.44	C
ATOM	12015	N	ILE C 193	154.579	176.430	234.823	1.00	94.95	N
ATOM	12016	CA	ILE C 193	155.877	175.792	234.647	1.00	94.95	C
ATOM	12017	C	ILE C 193	155.842	174.391	235.245	1.00	94.95	C
ATOM	12018	O	ILE C 193	156.291	174.155	236.372	1.00	94.95	O
ATOM	12019	CB	ILE C 193	157.002	176.656	235.254	1.00	94.95	C
ATOM	12020	CG1	ILE C 193	158.368	176.007	235.022	1.00	94.95	C
ATOM	12021	CG2	ILE C 193	156.732	176.990	236.725	1.00	94.95	C
ATOM	12022	CD1	ILE C 193	159.531	176.931	235.296	1.00	94.95	C
ATOM	12023	N	ALA C 194	155.307	173.452	234.467	1.00	103.26	N

ATOM	12024	CA	ALA	C	194	155.403 172.008 234.653	1.00	103.26 C
ATOM	12025	C	ALA	C	194	154.669 171.463 235.876	1.00	103.26 C
ATOM	12026	O	ALA	C	194	154.400 170.260 235.941	1.00	103.26 O
ATOM	12027	CB	ALA	C	194	156.876 171.598 234.728	1.00	103.26 C
ATOM	12028	N	GLY	C	195	154.327 172.312 236.843	1.00	100.56 N
ATOM	12029	CA	GLY	C	195	153.495 171.861 237.940	1.00	100.56 C
ATOM	12030	C	GLY	C	195	152.675 172.927 238.633	1.00	100.56 C
ATOM	12031	O	GLY	C	195	151.981 172.632 239.610	1.00	100.56 O
ATOM	12032	N	THR	C	196	152.733 174.166 238.152	1.00	93.71 N
ATOM	12033	CA	THR	C	196	152.219 175.293 238.919	1.00	93.71 C
ATOM	12034	C	THR	C	196	151.695 176.363 237.971	1.00	93.71 C
ATOM	12035	O	THR	C	196	151.672 176.191 236.749	1.00	93.71 O
ATOM	12036	CB	THR	C	196	153.294 175.888 239.842	1.00	93.71 C
ATOM	12037	OG1	THR	C	196	154.435 176.278 239.066	1.00	93.71 O
ATOM	12038	CG2	THR	C	196	153.719 174.900 240.924	1.00	93.71 C
ATOM	12039	N	VAL	C	197	151.271 177.480 238.558	1.00	81.18 N
ATOM	12040	CA	VAL	C	197	150.828 178.656 237.819	1.00	81.18 C
ATOM	12041	C	VAL	C	197	151.292 179.890 238.581	1.00	81.18 C
ATOM	12042	O	VAL	C	197	150.842 180.138 239.705	1.00	81.18 O
ATOM	12043	CB	VAL	C	197	149.302 178.683 237.616	1.00	81.18 C
ATOM	12044	CG1	VAL	C	197	148.882 177.577 236.676	1.00	81.18 C
ATOM	12045	CG2	VAL	C	197	148.578 178.516 238.943	1.00	81.18 C
ATOM	12046	N	PHE	C	198	152.203 180.650 237.986	1.00	75.80 N
ATOM	12047	CA	PHE	C	198	152.629 181.926 238.535	1.00	75.80 C
ATOM	12048	C	PHE	C	198	152.157 183.042 237.615	1.00	75.80 C
ATOM	12049	O	PHE	C	198	152.295 182.952 236.392	1.00	75.80 O
ATOM	12050	CB	PHE	C	198	154.150 181.978 238.715	1.00	75.80 C
ATOM	12051	CG	PHE	C	198	154.922 181.894 237.431	1.00	75.80 C
ATOM	12052	CD1	PHE	C	198	155.249 180.666 236.886	1.00	75.80 C
ATOM	12053	CD2	PHE	C	198	155.343 183.044 236.781	1.00	75.80 C
ATOM	12054	CE1	PHE	C	198	155.964 180.585 235.708	1.00	75.80 C
ATOM	12055	CE2	PHE	C	198	156.058 182.968 235.603	1.00	75.80 C
ATOM	12056	CZ	PHE	C	198	156.371 181.738 235.069	1.00	75.80 C
ATOM	12057	N	VAL	C	199	151.596 184.089 238.210	1.00	59.48 N
ATOM	12058	CA	VAL	C	199	150.984 185.166 237.444	1.00	59.48 C
ATOM	12059	C	VAL	C	199	151.878 186.393 237.495	1.00	59.48 C
ATOM	12060	O	VAL	C	199	151.902 187.111 238.499	1.00	59.48 O

ATOM	12061	CB	VAL	C	199	149.580	185.498	237.977	1.00 59.48	C
ATOM	12062	CG1	VAL	C	199	148.984	186.648	237.194	1.00 59.48	C
ATOM	12063	CG2	VAL	C	199	148.684	184.276	237.915	1.00 59.48	C
ATOM	12064	N	ALA	C	200	152.627	186.640	236.426	1.00 54.82	N
ATOM	12065	CA	ALA	C	200	153.412	187.860	236.364	1.00 54.82	C
ATOM	12066	C	ALA	C	200	152.491	189.073	236.313	1.00 54.82	C
ATOM	12067	O	ALA	C	200	151.291	188.968	236.050	1.00 54.82	O
ATOM	12068	CB	ALA	C	200	154.340	187.844	235.151	1.00 54.82	C
ATOM	12069	N	TYR	C	201	153.067	190.239	236.582	1.00 59.31	N
ATOM	12070	CA	TYR	C	201	152.331	191.493	236.543	1.00 59.31	C
ATOM	12071	C	TYR	C	201	153.260	192.582	236.029	1.00 59.31	C
ATOM	12072	O	TYR	C	201	154.484	192.452	236.082	1.00 59.31	O
ATOM	12073	CB	TYR	C	201	151.754	191.850	237.920	1.00 59.31	C
ATOM	12074	CG	TYR	C	201	150.606	190.959	238.341	1.00 59.31	C
ATOM	12075	CD1	TYR	C	201	149.312	191.216	237.915	1.00 59.31	C
ATOM	12076	CD2	TYR	C	201	150.818	189.851	239.148	1.00 59.31	C
ATOM	12077	CE1	TYR	C	201	148.260	190.404	238.290	1.00 59.31	C
ATOM	12078	CE2	TYR	C	201	149.771	189.031	239.525	1.00 59.31	C
ATOM	12079	CZ	TYR	C	201	148.495	189.314	239.096	1.00 59.31	C
ATOM	12080	OH	TYR	C	201	147.450	188.500	239.470	1.00 59.31	O
ATOM	12081	N	HIS	C	202	152.658	193.657	235.516	1.00 56.89	N
ATOM	12082	CA	HIS	C	202	153.426	194.685	234.821	1.00 56.89	C
ATOM	12083	C	HIS	C	202	154.452	195.335	235.738	1.00 56.89	C
ATOM	12084	O	HIS	C	202	155.663	195.212	235.527	1.00 56.89	O
ATOM	12085	CB	HIS	C	202	152.487	195.743	234.245	1.00 56.89	C
ATOM	12086	CG	HIS	C	202	153.192	196.818	233.479	1.00 56.89	C
ATOM	12087	ND1	HIS	C	202	153.709	197.943	234.084	1.00 56.89	N
ATOM	12088	CD2	HIS	C	202	153.470	196.937	232.160	1.00 56.89	C
ATOM	12089	CE1	HIS	C	202	154.273	198.711	233.170	1.00 56.89	C
ATOM	12090	NE2	HIS	C	202	154.142	198.124	231.994	1.00 56.89	N
ATOM	12091	N	ARG	C	203	153.984	196.031	236.767	1.00 70.20	N
ATOM	12092	CA	ARG	C	203	154.845	196.818	237.639	1.00 70.20	C
ATOM	12093	C	ARG	C	203	154.766	196.306	239.074	1.00 70.20	C
ATOM	12094	O	ARG	C	203	154.934	197.063	240.031	1.00 70.20	O
ATOM	12095	CB	ARG	C	203	154.462	198.294	237.546	1.00 70.20	C
ATOM	12096	CG	ARG	C	203	155.393	199.270	238.234	1.00 70.20	C
ATOM	12097	CD	ARG	C	203	154.920	200.693	238.008	1.00 70.20	C

ATOM	12098	NE	ARG	C	203	155.091	201.111	236.620	1.00 70.20	N
ATOM	12099	CZ	ARG	C	203	154.604	202.240	236.119	1.00 70.20	C
ATOM	12100	NH1	ARG	C	203	153.912	203.063	236.893	1.00 70.20	N
ATOM	12101	NH2	ARG	C	203	154.806	202.545	234.845	1.00 70.20	N
ATOM	12102	N	ASP	C	204	154.500	195.011	239.231	1.00 75.78	N
ATOM	12103	CA	ASP	C	204	154.255	194.394	240.532	1.00 75.78	C
ATOM	12104	C	ASP	C	204	153.043	194.996	241.234	1.00 75.78	C
ATOM	12105	O	ASP	C	204	152.914	194.894	242.458	1.00 75.78	O
ATOM	12106	CB	ASP	C	204	155.492	194.483	241.432	1.00 75.78	C
ATOM	12107	CG	ASP	C	204	156.624	193.597	240.950	1.00 75.78	C
ATOM	12108	OD1	ASP	C	204	156.338	192.560	240.316	1.00 75.78	O
ATOM	12109	OD2	ASP	C	204	157.799	193.934	241.208	1.00 75.78	O
ATOM	12110	N	SER	C	205	152.149	195.621	240.472	1.00 77.27	N
ATOM	12111	CA	SER	C	205	150.890	196.149	240.981	1.00 77.27	C
ATOM	12112	C	SER	C	205	149.797	195.167	240.588	1.00 77.27	C
ATOM	12113	O	SER	C	205	149.480	195.022	239.403	1.00 77.27	O
ATOM	12114	CB	SER	C	205	150.612	197.538	240.417	1.00 77.27	C
ATOM	12115	OG	SER	C	205	150.400	197.472	239.018	1.00 77.27	O
ATOM	12116	N	TYR	C	206	149.216	194.500	241.581	1.00 77.76	N
ATOM	12117	CA	TYR	C	206	148.312	193.390	241.318	1.00 77.76	C
ATOM	12118	C	TYR	C	206	146.968	193.872	240.795	1.00 77.76	C
ATOM	12119	O	TYR	C	206	145.946	193.731	241.473	1.00 77.76	O
ATOM	12120	CB	TYR	C	206	148.114	192.562	242.588	1.00 77.76	C
ATOM	12121	CG	TYR	C	206	149.364	191.852	243.045	1.00 77.76	C
ATOM	12122	CD1	TYR	C	206	149.730	190.631	242.500	1.00 77.76	C
ATOM	12123	CD2	TYR	C	206	150.188	192.413	244.008	1.00 77.76	C
ATOM	12124	CE1	TYR	C	206	150.875	189.982	242.910	1.00 77.76	C
ATOM	12125	CE2	TYR	C	206	151.335	191.772	244.424	1.00 77.76	C
ATOM	12126	CZ	TYR	C	206	151.674	190.557	243.872	1.00 77.76	C
ATOM	12127	OH	TYR	C	206	152.817	189.915	244.284	1.00 77.76	O
ATOM	12128	N	GLU	C	207	146.952	194.438	239.592	1.00 72.66	N
ATOM	12129	CA	GLU	C	207	145.710	194.838	238.951	1.00 72.66	C
ATOM	12130	C	GLU	C	207	145.686	194.318	237.523	1.00 72.66	C
ATOM	12131	O	GLU	C	207	146.723	194.246	236.857	1.00 72.66	O
ATOM	12132	CB	GLU	C	207	145.524	196.354	238.967	1.00 72.66	C
ATOM	12133	CG	GLU	C	207	144.165	196.786	238.449	1.00 72.66	C
ATOM	12134	CD	GLU	C	207	143.938	198.273	238.575	1.00 72.66	C

ATOM	12135	OE1	GLU	C	207	144.866	198.980	239.019	1.00 72.66	O
ATOM	12136	OE2	GLU	C	207	142.827	198.733	238.242	1.00 72.66	O
ATOM	12137	N	ASN	C	208	144.493	193.951	237.067	1.00 67.14	N
ATOM	12138	CA	ASN	C	208	144.291	193.243	235.805	1.00 67.14	C
ATOM	12139	C	ASN	C	208	143.937	194.195	234.665	1.00 67.14	C
ATOM	12140	O	ASN	C	208	142.921	194.036	233.992	1.00 67.14	O
ATOM	12141	CB	ASN	C	208	143.213	192.190	236.013	1.00 67.14	C
ATOM	12142	CG	ASN	C	208	143.214	191.133	234.942	1.00 67.14	C
ATOM	12143	OD1	ASN	C	208	143.881	191.271	233.916	1.00 67.14	O
ATOM	12144	ND2	ASN	C	208	142.484	190.041	235.202	1.00 67.14	N
ATOM	12145	N	LYS	C	209	144.789	195.190	234.430	1.00 63.22	N
ATOM	12146	CA	LYS	C	209	144.482	196.284	233.519	1.00 63.22	C
ATOM	12147	C	LYS	C	209	144.611	195.856	232.058	1.00 63.22	C
ATOM	12148	O	LYS	C	209	144.990	194.727	231.737	1.00 63.22	O
ATOM	12149	CB	LYS	C	209	145.390	197.476	233.804	1.00 63.22	C
ATOM	12150	CG	LYS	C	209	145.172	198.097	235.164	1.00 63.22	C
ATOM	12151	CD	LYS	C	209	143.766	198.660	235.271	1.00 63.22	C
ATOM	12152	CE	LYS	C	209	143.590	199.877	234.379	1.00 63.22	C
ATOM	12153	NZ	LYS	C	209	142.238	200.480	234.536	1.00 63.22	N
ATOM	12154	N	THR	C	210	144.295	196.791	231.160	1.00 55.64	N
ATOM	12155	CA	THR	C	210	144.399	196.594	229.716	1.00 55.64	C
ATOM	12156	C	THR	C	210	145.187	197.759	229.133	1.00 55.64	C
ATOM	12157	O	THR	C	210	144.685	198.886	229.079	1.00 55.64	O
ATOM	12158	CB	THR	C	210	143.021	196.502	229.064	1.00 55.64	C
ATOM	12159	OG1	THR	C	210	142.320	197.736	229.257	1.00 55.64	O
ATOM	12160	CG2	THR	C	210	142.215	195.366	229.674	1.00 55.64	C
ATOM	12161	N	MET	C	211	146.411	197.490	228.689	1.00 52.47	N
ATOM	12162	CA	MET	C	211	147.288	198.532	228.184	1.00 52.47	C
ATOM	12163	C	MET	C	211	146.868	198.972	226.782	1.00 52.47	C
ATOM	12164	O	MET	C	211	145.902	198.470	226.203	1.00 52.47	O
ATOM	12165	CB	MET	C	211	148.735	198.047	228.173	1.00 52.47	C
ATOM	12166	CG	MET	C	211	149.322	197.792	229.549	1.00 52.47	C
ATOM	12167	SD	MET	C	211	149.419	199.285	230.552	1.00 52.47	S
ATOM	12168	CE	MET	C	211	148.009	199.060	231.630	1.00 52.47	C
ATOM	12169	N	GLN	C	212	147.618	199.928	226.239	1.00 46.50	N
ATOM	12170	CA	GLN	C	212	147.379	200.485	224.916	1.00 46.50	C
ATOM	12171	C	GLN	C	212	148.652	200.396	224.084	1.00 46.50	C

ATOM	12172	O	GLN C 212	149.762 200.398 224.622	1.00 46.50		O
ATOM	12173	CB	GLN C 212	146.919 201.944 225.012	1.00 46.50		C
ATOM	12174	CG	GLN C 212	146.601 202.601 223.684	1.00 46.50		C
ATOM	12175	CD	GLN C 212	145.373 202.020 223.032	1.00 46.50		C
ATOM	12176	OE1	GLN C 212	144.374 201.748 223.696	1.00 46.50		O
ATOM	12177	NE2	GLN C 212	145.435 201.829 221.722	1.00 46.50		N
ATOM	12178	N	LEU C 213	148.488 200.317 222.767	1.00 42.72		N
ATOM	12179	CA	LEU C 213	149.630 200.268 221.867	1.00 42.72		C
ATOM	12180	C	LEU C 213	149.989 201.668 221.377	1.00 42.72		C
ATOM	12181	O	LEU C 213	149.198 202.609 221.461	1.00 42.72		O
ATOM	12182	CB	LEU C 213	149.348 199.346 220.683	1.00 42.72		C
ATOM	12183	CG	LEU C 213	149.514 197.846 220.919	1.00 42.72		C
ATOM	12184	CD1	LEU C 213	148.396 197.312 221.786	1.00 42.72		C
ATOM	12185	CD2	LEU C 213	149.562 197.107 219.599	1.00 42.72		C
ATOM	12186	N	MET C 214	151.203 201.797 220.856	1.00 42.07		N
ATOM	12187	CA	MET C 214	151.725 203.083 220.419	1.00 42.07		C
ATOM	12188	C	MET C 214	152.710 202.842 219.291	1.00 42.07		C
ATOM	12189	O	MET C 214	153.099 201.698 219.025	1.00 42.07		O
ATOM	12190	CB	MET C 214	152.408 203.830 221.570	1.00 42.07		C
ATOM	12191	CG	MET C 214	151.478 204.260 222.688	1.00 42.07		C
ATOM	12192	SD	MET C 214	152.363 205.086 224.024	1.00 42.07		S
ATOM	12193	CE	MET C 214	151.035 205.349 225.196	1.00 42.07		C
ATOM	12194	N	PRO C 215	153.134 203.897 218.604	1.00 38.39		N
ATOM	12195	CA	PRO C 215	154.182 203.747 217.593	1.00 38.39		C
ATOM	12196	C	PRO C 215	155.558 203.677 218.230	1.00 38.39		C
ATOM	12197	O	PRO C 215	155.761 204.066 219.382	1.00 38.39		O
ATOM	12198	CB	PRO C 215	154.034 205.012 216.743	1.00 38.39		C
ATOM	12199	CG	PRO C 215	153.450 206.009 217.674	1.00 38.39		C
ATOM	12200	CD	PRO C 215	152.540 205.243 218.590	1.00 38.39		C
ATOM	12201	N	ASP C 216	156.513 203.176 217.458	1.00 41.72		N
ATOM	12202	CA	ASP C 216	157.847 202.917 217.968	1.00 41.72		C
ATOM	12203	C	ASP C 216	158.879 203.741 217.212	1.00 41.72		C
ATOM	12204	O	ASP C 216	158.672 204.163 216.071	1.00 41.72		O
ATOM	12205	CB	ASP C 216	158.178 201.424 217.877	1.00 41.72		C
ATOM	12206	CG	ASP C 216	159.434 201.060 218.636	1.00 41.72		C
ATOM	12207	OD1	ASP C 216	159.386 201.036 219.883	1.00 41.72		O
ATOM	12208	OD2	ASP C 216	160.469 200.805 217.989	1.00 41.72		O

ATOM	12209	N	ASP C 217	160.011	203.957	217.876	1.00 46.88 N
ATOM	12210	CA	ASP C 217	161.086	204.797	217.370	1.00 46.88 C
ATOM	12211	C	ASP C 217	161.758	204.235	216.130	1.00 46.88 C
ATOM	12212	O	ASP C 217	162.503	204.966	215.470	1.00 46.88 O
ATOM	12213	CB	ASP C 217	162.140	204.982	218.459	1.00 46.88 C
ATOM	12214	CG	ASP C 217	161.593	205.678	219.681	1.00 46.88 C
ATOM	12215	OD1	ASP C 217	160.685	206.522	219.533	1.00 46.88 O
ATOM	12216	OD2	ASP C 217	162.056	205.355	220.794	1.00 46.88 O
ATOM	12217	N	TYR C 218	161.535	202.967	215.799	1.00 41.61 N
ATOM	12218	CA	TYR C 218	162.277	202.300	214.735	1.00 41.61 C
ATOM	12219	C	TYR C 218	161.296	201.997	213.612	1.00 41.61 C
ATOM	12220	O	TYR C 218	160.784	200.887	213.479	1.00 41.61 O
ATOM	12221	CB	TYR C 218	162.946	201.036	215.273	1.00 41.61 C
ATOM	12222	CG	TYR C 218	163.969	201.308	216.350	1.00 41.61 C
ATOM	12223	CD1	TYR C 218	164.551	202.558	216.479	1.00 41.61 C
ATOM	12224	CD2	TYR C 218	164.323	200.330	217.263	1.00 41.61 C
ATOM	12225	CE1	TYR C 218	165.467	202.823	217.468	1.00 41.61 C
ATOM	12226	CE2	TYR C 218	165.253	200.579	218.252	1.00 41.61 C
ATOM	12227	CZ	TYR C 218	165.813	201.834	218.356	1.00 41.61 C
ATOM	12228	OH	TYR C 218	166.728	202.101	219.345	1.00 41.61 O
ATOM	12229	N	SER C 219	161.046	203.004	212.786	1.00 36.08 N
ATOM	12230	CA	SER C 219	160.146	202.863	211.655	1.00 36.08 C
ATOM	12231	C	SER C 219	160.974	202.564	210.411	1.00 36.08 C
ATOM	12232	O	SER C 219	162.187	202.350	210.484	1.00 36.08 O
ATOM	12233	CB	SER C 219	159.290	204.115	211.506	1.00 36.08 C
ATOM	12234	OG	SER C 219	158.472	204.298	212.647	1.00 36.08 O
ATOM	12235	N	ASN C 220	160.331	202.554	209.250	1.00 33.01 N
ATOM	12236	CA	ASN C 220	161.019	202.178	208.021	1.00 33.01 C
ATOM	12237	C	ASN C 220	160.041	202.377	206.871	1.00 33.01 C
ATOM	12238	O	ASN C 220	158.872	202.715	207.080	1.00 33.01 O
ATOM	12239	CB	ASN C 220	161.499	200.731	208.081	1.00 33.01 C
ATOM	12240	CG	ASN C 220	162.774	200.515	207.311	1.00 33.01 C
ATOM	12241	OD1	ASN C 220	163.388	199.453	207.391	1.00 33.01 O
ATOM	12242	ND2	ASN C 220	163.213	201.543	206.602	1.00 33.01 N
ATOM	12243	N	THR C 221	160.536	202.174	205.646	1.00 34.74 N
ATOM	12244	CA	THR C 221	159.638	202.157	204.495	1.00 34.74 C
ATOM	12245	C	THR C 221	158.634	201.020	204.615	1.00 34.74 C

ATOM	12246	O	THR	C	221	157.447 201.197 204.325	1.00 34.74	O
ATOM	12247	CB	THR	C	221	160.434 202.065 203.190	1.00 34.74	C
ATOM	12248	OG1	THR	C	221	159.538 202.114 202.073	1.00 34.74	O
ATOM	12249	CG2	THR	C	221	161.269 200.792 203.124	1.00 34.74	C
ATOM	12250	N	HIS	C	222	159.093 199.834 205.032	1.00 35.77	N
ATOM	12251	CA	HIS	C	222	158.162 198.808 205.487	1.00 35.77	C
ATOM	12252	C	HIS	C	222	158.878 197.950 206.535	1.00 35.77	C
ATOM	12253	O	HIS	C	222	159.441 196.888 206.260	1.00 35.77	O
ATOM	12254	CB	HIS	C	222	157.652 197.984 204.305	1.00 35.77	C
ATOM	12255	CG	HIS	C	222	158.744 197.410 203.454	1.00 35.77	C
ATOM	12256	ND1	HIS	C	222	159.321 196.186 203.712	1.00 35.77	N
ATOM	12257	CD2	HIS	C	222	159.376 197.901 202.361	1.00 35.77	C
ATOM	12258	CE1	HIS	C	222	160.250 195.940 202.806	1.00 35.77	C
ATOM	12259	NE2	HIS	C	222	160.306 196.966 201.977	1.00 35.77	N
ATOM	12260	N	SER	C	223	158.869 198.435 207.780	1.00 33.96	N
ATOM	12261	CA	SER	C	223	159.254 197.574 208.903	1.00 33.96	C
ATOM	12262	C	SER	C	223	158.583 197.977 210.210	1.00 33.96	C
ATOM	12263	O	SER	C	223	159.144 197.668 211.266	1.00 33.96	O
ATOM	12264	CB	SER	C	223	160.776 197.571 209.066	1.00 33.96	C
ATOM	12265	OG	SER	C	223	161.170 196.762 210.159	1.00 33.96	O
ATOM	12266	N	THR	C	224	157.440 198.661 210.192	1.00 32.87	N
ATOM	12267	CA	THR	C	224	156.947 199.352 211.375	1.00 32.87	C
ATOM	12268	C	THR	C	224	156.663 198.381 212.516	1.00 32.87	C
ATOM	12269	O	THR	C	224	156.251 197.239 212.312	1.00 32.87	O
ATOM	12270	CB	THR	C	224	155.677 200.131 211.048	1.00 32.87	C
ATOM	12271	OG1	THR	C	224	155.303 200.928 212.178	1.00 32.87	O
ATOM	12272	CG2	THR	C	224	154.549 199.175 210.725	1.00 32.87	C
ATOM	12273	N	ARG	C	225	156.878 198.864 213.737	1.00 34.63	N
ATOM	12274	CA	ARG	C	225	156.669 198.060 214.931	1.00 34.63	C
ATOM	12275	C	ARG	C	225	155.944 198.897 215.969	1.00 34.63	C
ATOM	12276	O	ARG	C	225	156.184 200.100 216.084	1.00 34.63	O
ATOM	12277	CB	ARG	C	225	157.990 197.538 215.505	1.00 34.63	C
ATOM	12278	CG	ARG	C	225	157.821 196.668 216.743	1.00 34.63	C
ATOM	12279	CD	ARG	C	225	159.145 196.064 217.193	1.00 34.63	C
ATOM	12280	NE	ARG	C	225	160.099 197.064 217.656	1.00 34.63	N
ATOM	12281	CZ	ARG	C	225	160.162 197.509 218.905	1.00 34.63	C
ATOM	12282	NH1	ARG	C	225	161.059 198.423 219.241	1.00 34.63	N

ATOM	12283	NH2	ARG	C	225	159.335	197.028	219.821	1.00 34.63	N
ATOM	12284	N	TYR	C	226	155.055	198.254	216.712	1.00 36.10	N
ATOM	12285	CA	TYR	C	226	154.302	198.893	217.778	1.00 36.10	C
ATOM	12286	C	TYR	C	226	154.730	198.310	219.117	1.00 36.10	C
ATOM	12287	O	TYR	C	226	155.370	197.260	219.187	1.00 36.10	O
ATOM	12288	CB	TYR	C	226	152.800	198.708	217.552	1.00 36.10	C
ATOM	12289	CG	TYR	C	226	152.306	199.375	216.292	1.00 36.10	C
ATOM	12290	CD1	TYR	C	226	151.984	200.722	216.277	1.00 36.10	C
ATOM	12291	CD2	TYR	C	226	152.183	198.662	215.111	1.00 36.10	C
ATOM	12292	CE1	TYR	C	226	151.537	201.335	215.125	1.00 36.10	C
ATOM	12293	CE2	TYR	C	226	151.739	199.265	213.956	1.00 36.10	C
ATOM	12294	CZ	TYR	C	226	151.419	200.601	213.968	1.00 36.10	C
ATOM	12295	OH	TYR	C	226	150.977	201.204	212.817	1.00 36.10	O
ATOM	12296	N	VAL	C	227	154.366	199.000	220.194	1.00 36.92	N
ATOM	12297	CA	VAL	C	227	154.807	198.589	221.521	1.00 36.92	C
ATOM	12298	C	VAL	C	227	153.947	199.261	222.582	1.00 36.92	C
ATOM	12299	O	VAL	C	227	153.401	200.345	222.357	1.00 36.92	O
ATOM	12300	CB	VAL	C	227	156.297	198.916	221.725	1.00 36.92	C
ATOM	12301	CG1	VAL	C	227	156.510	200.413	221.721	1.00 36.92	C
ATOM	12302	CG2	VAL	C	227	156.808	198.305	223.013	1.00 36.92	C
ATOM	12303	N	THR	C	228	153.816	198.619	223.742	1.00 40.08	N
ATOM	12304	CA	THR	C	228	153.042	199.172	224.847	1.00 40.08	C
ATOM	12305	C	THR	C	228	153.916	199.971	225.808	1.00 40.08	C
ATOM	12306	O	THR	C	228	153.680	201.163	226.028	1.00 40.08	O
ATOM	12307	CB	THR	C	228	152.325	198.052	225.604	1.00 40.08	C
ATOM	12308	OG1	THR	C	228	151.359	197.432	224.749	1.00 40.08	O
ATOM	12309	CG2	THR	C	228	151.641	198.604	226.835	1.00 40.08	C
ATOM	12310	N	VAL	C	229	154.927	199.328	226.386	1.00 43.65	N
ATOM	12311	CA	VAL	C	229	155.791	199.962	227.375	1.00 43.65	C
ATOM	12312	C	VAL	C	229	156.925	200.633	226.608	1.00 43.65	C
ATOM	12313	O	VAL	C	229	157.831	199.969	226.105	1.00 43.65	O
ATOM	12314	CB	VAL	C	229	156.315	198.953	228.395	1.00 43.65	C
ATOM	12315	CG1	VAL	C	229	157.178	199.653	229.427	1.00 43.65	C
ATOM	12316	CG2	VAL	C	229	155.161	198.221	229.045	1.00 43.65	C
ATOM	12317	N	LYS	C	230	156.874	201.961	226.520	1.00 59.26	N
ATOM	12318	CA	LYS	C	230	157.802	202.676	225.652	1.00 59.26	C
ATOM	12319	C	LYS	C	230	159.220	202.655	226.208	1.00 59.26	C

ATOM	12320	O	LYS C 230	160.128	202.078	225.600	1.00 59.26	O
ATOM	12321	CB	LYS C 230	157.321	204.113	225.446	1.00 59.26	C
ATOM	12322	CG	LYS C 230	158.195	204.934	224.511	1.00 59.26	C
ATOM	12323	CD	LYS C 230	158.221	204.346	223.112	1.00 59.26	C
ATOM	12324	CE	LYS C 230	156.849	204.406	222.467	1.00 59.26	C
ATOM	12325	NZ	LYS C 230	156.431	205.806	222.193	1.00 59.26	N
ATOM	12326	N	ASP C 231	159.436	203.281	227.366	1.00 77.86	N
ATOM	12327	CA	ASP C 231	160.806	203.497	227.816	1.00 77.86	C
ATOM	12328	C	ASP C 231	161.324	202.460	228.804	1.00 77.86	C
ATOM	12329	O	ASP C 231	162.225	201.683	228.471	1.00 77.86	O
ATOM	12330	CB	ASP C 231	160.926	204.886	228.447	1.00 77.86	C
ATOM	12331	CG	ASP C 231	162.348	205.221	228.852	1.00 77.86	C
ATOM	12332	OD1	ASP C 231	163.170	205.513	227.958	1.00 77.86	O
ATOM	12333	OD2	ASP C 231	162.645	205.191	230.065	1.00 77.86	O
ATOM	12334	N	GLN C 232	160.752	202.418	230.008	1.00 82.50	N
ATOM	12335	CA	GLN C 232	161.391	201.684	231.094	1.00 82.50	C
ATOM	12336	C	GLN C 232	160.586	201.819	232.383	1.00 82.50	C
ATOM	12337	O	GLN C 232	159.606	202.570	232.431	1.00 82.50	O
ATOM	12338	CB	GLN C 232	162.821	202.208	231.282	1.00 82.50	C
ATOM	12339	CG	GLN C 232	163.735	201.405	232.193	1.00 82.50	C
ATOM	12340	CD	GLN C 232	165.121	202.014	232.290	1.00 82.50	C
ATOM	12341	OE1	GLN C 232	165.388	203.071	231.716	1.00 82.50	O
ATOM	12342	NE2	GLN C 232	166.010	201.352	233.017	1.00 82.50	N
ATOM	12343	N	TRP C 233	160.982	201.095	233.429	1.00 83.97	N
ATOM	12344	CA	TRP C 233	160.531	201.394	234.786	1.00 83.97	C
ATOM	12345	C	TRP C 233	161.669	201.053	235.738	1.00 83.97	C
ATOM	12346	O	TRP C 233	161.952	199.874	235.970	1.00 83.97	O
ATOM	12347	CB	TRP C 233	159.264	200.626	235.146	1.00 83.97	C
ATOM	12348	CG	TRP C 233	158.768	200.992	236.504	1.00 83.97	C
ATOM	12349	CD1	TRP C 233	158.853	200.243	237.641	1.00 83.97	C
ATOM	12350	CD2	TRP C 233	158.150	202.227	236.880	1.00 83.97	C
ATOM	12351	NE1	TRP C 233	158.305	200.928	238.699	1.00 83.97	N
ATOM	12352	CE2	TRP C 233	157.871	202.150	238.258	1.00 83.97	C
ATOM	12353	CE3	TRP C 233	157.799	203.387	236.183	1.00 83.97	C
ATOM	12354	CZ2	TRP C 233	157.250	203.187	238.952	1.00 83.97	C
ATOM	12355	CZ3	TRP C 233	157.188	204.415	236.873	1.00 83.97	C
ATOM	12356	CH2	TRP C 233	156.920	204.309	238.243	1.00 83.97	C

ATOM	12357	N	HIS C 234	162.320	202.081	236.281	1.00 87.87 N
ATOM	12358	CA	HIS C 234	163.496	201.910	237.129	1.00 87.87 C
ATOM	12359	C	HIS C 234	163.448	202.857	238.323	1.00 87.87 C
ATOM	12360	O	HIS C 234	164.453	203.478	238.686	1.00 87.87 O
ATOM	12361	CB	HIS C 234	164.778	202.114	236.322	1.00 87.87 C
ATOM	12362	CG	HIS C 234	164.918	203.489	235.748	1.00 87.87 C
ATOM	12363	ND1	HIS C 234	164.227	203.902	234.629	1.00 87.87 N
ATOM	12364	CD2	HIS C 234	165.676	204.544	236.132	1.00 87.87 C
ATOM	12365	CE1	HIS C 234	164.547	205.153	234.353	1.00 87.87 C
ATOM	12366	NE2	HIS C 234	165.425	205.566	235.249	1.00 87.87 N
ATOM	12367	N	SER C 235	162.285	202.973	238.960	1.00 88.80 N
ATOM	12368	CA	SER C 235	162.149	203.877	240.092	1.00 88.80 C
ATOM	12369	C	SER C 235	163.041	203.435	241.251	1.00 88.80 C
ATOM	12370	O	SER C 235	163.450	202.276	241.353	1.00 88.80 O
ATOM	12371	CB	SER C 235	160.693	203.955	240.545	1.00 88.80 C
ATOM	12372	OG	SER C 235	159.889	204.556	239.546	1.00 88.80 O
ATOM	12373	N	ARG C 236	163.340	204.389	242.135	1.00 89.87 N
ATOM	12374	CA	ARG C 236	164.305	204.146	243.203	1.00 89.87 C
ATOM	12375	C	ARG C 236	163.774	203.126	244.202	1.00 89.87 C
ATOM	12376	O	ARG C 236	164.373	202.063	244.404	1.00 89.87 O
ATOM	12377	CB	ARG C 236	164.649	205.463	243.904	1.00 89.87 C
ATOM	12378	CG	ARG C 236	165.843	205.393	244.856	1.00 89.87 C
ATOM	12379	CD	ARG C 236	165.457	204.939	246.256	1.00 89.87 C
ATOM	12380	NE	ARG C 236	164.407	205.764	246.844	1.00 89.87 N
ATOM	12381	CZ	ARG C 236	164.621	206.930	247.444	1.00 89.87 C
ATOM	12382	NH1	ARG C 236	165.851	207.415	247.536	1.00 89.87 N
ATOM	12383	NH2	ARG C 236	163.603	207.612	247.952	1.00 89.87 N
ATOM	12384	N	GLY C 237	162.654	203.434	244.841	1.00 90.14 N
ATOM	12385	CA	GLY C 237	162.103	202.582	245.871	1.00 90.14 C
ATOM	12386	C	GLY C 237	162.511	203.021	247.263	1.00 90.14 C
ATOM	12387	O	GLY C 237	162.885	204.169	247.510	1.00 90.14 O
ATOM	12388	N	SER C 238	162.426	202.076	248.191	1.00 82.54 N
ATOM	12389	CA	SER C 238	162.800	202.323	249.574	1.00 82.54 C
ATOM	12390	C	SER C 238	164.269	201.989	249.798	1.00 82.54 C
ATOM	12391	O	SER C 238	164.850	201.151	249.104	1.00 82.54 O
ATOM	12392	CB	SER C 238	161.931	201.502	250.525	1.00 82.54 C
ATOM	12393	OG	SER C 238	162.180	200.117	250.369	1.00 82.54 O

ATOM	12394	N	THR C 239	164.867	202.659	250.779	1.00 77.47	N
ATOM	12395	CA	THR C 239	166.269	202.442	251.103	1.00 77.47	C
ATOM	12396	C	THR C 239	166.436	201.190	251.952	1.00 77.47	C
ATOM	12397	O	THR C 239	165.647	200.930	252.865	1.00 77.47	O
ATOM	12398	CB	THR C 239	166.842	203.649	251.843	1.00 77.47	C
ATOM	12399	OG1	THR C 239	166.112	203.856	253.058	1.00 77.47	O
ATOM	12400	CG2	THR C 239	166.747	204.895	250.982	1.00 77.47	C
ATOM	12401	N	TRP C 240	167.472	200.410	251.639	1.00 72.24	N
ATOM	12402	CA	TRP C 240	167.811	199.206	252.399	1.00 72.24	C
ATOM	12403	C	TRP C 240	166.714	198.149	252.269	1.00 72.24	C
ATOM	12404	O	TRP C 240	166.283	197.549	253.254	1.00 72.24	O
ATOM	12405	CB	TRP C 240	168.072	199.538	253.870	1.00 72.24	C
ATOM	12406	CG	TRP C 240	169.277	200.387	254.109	1.00 72.24	C
ATOM	12407	CD1	TRP C 240	170.216	200.761	253.195	1.00 72.24	C
ATOM	12408	CD2	TRP C 240	169.672	200.972	255.353	1.00 72.24	C
ATOM	12409	NE1	TRP C 240	171.173	201.543	253.793	1.00 72.24	N
ATOM	12410	CE2	TRP C 240	170.861	201.687	255.119	1.00 72.24	C
ATOM	12411	CE3	TRP C 240	169.136	200.959	256.643	1.00 72.24	C
ATOM	12412	CZ2	TRP C 240	171.522	202.382	256.125	1.00 72.24	C
ATOM	12413	CZ3	TRP C 240	169.793	201.649	257.639	1.00 72.24	C
ATOM	12414	CH2	TRP C 240	170.973	202.350	257.376	1.00 72.24	C
ATOM	12415	N	LEU C 241	166.262	197.924	251.038	1.00 73.99	N
ATOM	12416	CA	LEU C 241	165.193	196.964	250.787	1.00 73.99	C
ATOM	12417	C	LEU C 241	165.444	196.300	249.443	1.00 73.99	C
ATOM	12418	O	LEU C 241	165.600	196.986	248.429	1.00 73.99	O
ATOM	12419	CB	LEU C 241	163.824	197.646	250.815	1.00 73.99	C
ATOM	12420	CG	LEU C 241	162.589	196.744	250.802	1.00 73.99	C
ATOM	12421	CD1	LEU C 241	161.444	197.416	251.537	1.00 73.99	C
ATOM	12422	CD2	LEU C 241	162.176	196.403	249.379	1.00 73.99	C
ATOM	12423	N	TYR C 242	165.480	194.971	249.443	1.00 71.90	N
ATOM	12424	CA	TYR C 242	165.806	194.191	248.254	1.00 71.90	C
ATOM	12425	C	TYR C 242	164.523	193.855	247.505	1.00 71.90	C
ATOM	12426	O	TYR C 242	163.745	193.004	247.948	1.00 71.90	O
ATOM	12427	CB	TYR C 242	166.546	192.923	248.659	1.00 71.90	C
ATOM	12428	CG	TYR C 242	166.971	192.056	247.504	1.00 71.90	C
ATOM	12429	CD1	TYR C 242	168.114	192.347	246.778	1.00 71.90	C
ATOM	12430	CD2	TYR C 242	166.224	190.949	247.136	1.00 71.90	C

ATOM	12431	CE1	TYR C 242	168.507	191.553	245.726	1.00 71.90	C
ATOM	12432	CE2	TYR C 242	166.607	190.153	246.082	1.00 71.90	C
ATOM	12433	CZ	TYR C 242	167.749	190.459	245.382	1.00 71.90	C
ATOM	12434	OH	TYR C 242	168.136	189.665	244.331	1.00 71.90	O
ATOM	12435	N	ARG C 243	164.301	194.507	246.366	1.00 72.00	N
ATOM	12436	CA	ARG C 243	163.085	194.312	245.589	1.00 72.00	C
ATOM	12437	C	ARG C 243	163.428	194.011	244.138	1.00 72.00	C
ATOM	12438	O	ARG C 243	164.333	194.622	243.564	1.00 72.00	O
ATOM	12439	CB	ARG C 243	162.182	195.545	245.658	1.00 72.00	C
ATOM	12440	CG	ARG C 243	162.763	196.767	244.978	1.00 72.00	C
ATOM	12441	CD	ARG C 243	161.824	197.953	245.085	1.00 72.00	C
ATOM	12442	NE	ARG C 243	162.394	199.149	244.472	1.00 72.00	N
ATOM	12443	CZ	ARG C 243	162.248	199.468	243.191	1.00 72.00	C
ATOM	12444	NH1	ARG C 243	161.546	198.684	242.390	1.00 72.00	N
ATOM	12445	NH2	ARG C 243	162.799	200.572	242.710	1.00 72.00	N
ATOM	12446	N	GLU C 244	162.695	193.066	243.553	1.00 68.18	N
ATOM	12447	CA	GLU C 244	162.810	192.722	242.144	1.00 68.18	C
ATOM	12448	C	GLU C 244	161.499	193.049	241.442	1.00 68.18	C
ATOM	12449	O	GLU C 244	160.417	192.803	241.984	1.00 68.18	O
ATOM	12450	CB	GLU C 244	163.152	191.242	241.957	1.00 68.18	C
ATOM	12451	CG	GLU C 244	162.029	190.297	242.325	1.00 68.18	C
ATOM	12452	CD	GLU C 244	161.990	190.002	243.808	1.00 68.18	C
ATOM	12453	OE1	GLU C 244	162.625	190.752	244.577	1.00 68.18	O
ATOM	12454	OE2	GLU C 244	161.326	189.022	244.206	1.00 68.18	O
ATOM	12455	N	THR C 245	161.597	193.599	240.235	1.00 58.24	N
ATOM	12456	CA	THR C 245	160.436	194.109	239.523	1.00 58.24	C
ATOM	12457	C	THR C 245	160.319	193.466	238.151	1.00 58.24	C
ATOM	12458	O	THR C 245	161.290	192.936	237.607	1.00 58.24	O
ATOM	12459	CB	THR C 245	160.503	195.629	239.366	1.00 58.24	C
ATOM	12460	OG1	THR C 245	161.689	195.985	238.645	1.00 58.24	O
ATOM	12461	CG2	THR C 245	160.519	196.294	240.722	1.00 58.24	C
ATOM	12462	N	CYS C 246	159.111	193.520	237.603	1.00 54.23	N
ATOM	12463	CA	CYS C 246	158.818	193.036	236.264	1.00 54.23	C
ATOM	12464	C	CYS C 246	158.611	194.211	235.318	1.00 54.23	C
ATOM	12465	O	CYS C 246	158.305	195.330	235.734	1.00 54.23	O
ATOM	12466	CB	CYS C 246	157.576	192.143	236.272	1.00 54.23	C
ATOM	12467	SG	CYS C 246	157.761	190.620	237.222	1.00 54.23	S

ATOM	12468	N	ASN C 247	158.806	193.948	234.032	1.00 46.37	N
ATOM	12469	CA	ASN C 247	158.680	194.971	233.001	1.00 46.37	C
ATOM	12470	C	ASN C 247	157.923	194.415	231.801	1.00 46.37	C
ATOM	12471	O	ASN C 247	158.403	194.463	230.668	1.00 46.37	O
ATOM	12472	CB	ASN C 247	160.049	195.504	232.589	1.00 46.37	C
ATOM	12473	CG	ASN C 247	159.953	196.759	231.747	1.00 46.37	C
ATOM	12474	OD1	ASN C 247	158.861	197.248	231.466	1.00 46.37	O
ATOM	12475	ND2	ASN C 247	161.099	197.285	231.335	1.00 46.37	N
ATOM	12476	N	LEU C 248	156.752	193.821	232.060	1.00 45.73	N
ATOM	12477	CA	LEU C 248	155.930	193.218	231.014	1.00 45.73	C
ATOM	12478	C	LEU C 248	155.733	194.168	229.841	1.00 45.73	C
ATOM	12479	O	LEU C 248	155.587	195.380	230.010	1.00 45.73	O
ATOM	12480	CB	LEU C 248	154.565	192.811	231.571	1.00 45.73	C
ATOM	12481	CG	LEU C 248	154.453	191.426	232.199	1.00 45.73	C
ATOM	12482	CD1	LEU C 248	154.714	190.372	231.145	1.00 45.73	C
ATOM	12483	CD2	LEU C 248	155.412	191.272	233.363	1.00 45.73	C
ATOM	12484	N	ASN C 249	155.734	193.599	228.640	1.00 39.79	N
ATOM	12485	CA	ASN C 249	155.732	194.388	227.418	1.00 39.79	C
ATOM	12486	C	ASN C 249	155.330	193.519	226.236	1.00 39.79	C
ATOM	12487	O	ASN C 249	155.824	192.398	226.087	1.00 39.79	O
ATOM	12488	CB	ASN C 249	157.110	195.007	227.186	1.00 39.79	C
ATOM	12489	CG	ASN C 249	157.129	195.976	226.024	1.00 39.79	C
ATOM	12490	OD1	ASN C 249	156.118	196.189	225.359	1.00 39.79	O
ATOM	12491	ND2	ASN C 249	158.289	196.568	225.770	1.00 39.79	N
ATOM	12492	N	CYS C 250	154.438	194.029	225.394	1.00 37.15	N
ATOM	12493	CA	CYS C 250	153.955	193.315	224.222	1.00 37.15	C
ATOM	12494	C	CYS C 250	154.089	194.202	222.996	1.00 37.15	C
ATOM	12495	O	CYS C 250	153.924	195.422	223.081	1.00 37.15	O
ATOM	12496	CB	CYS C 250	152.504	192.882	224.406	1.00 37.15	C
ATOM	12497	SG	CYS C 250	151.385	194.256	224.647	1.00 37.15	S
ATOM	12498	N	MET C 251	154.384	193.585	221.855	1.00 33.64	N
ATOM	12499	CA	MET C 251	154.683	194.330	220.643	1.00 33.64	C
ATOM	12500	C	MET C 251	154.205	193.544	219.433	1.00 33.64	C
ATOM	12501	O	MET C 251	154.316	192.317	219.400	1.00 33.64	O
ATOM	12502	CB	MET C 251	156.182	194.622	220.546	1.00 33.64	C
ATOM	12503	CG	MET C 251	157.051	193.387	220.475	1.00 33.64	C
ATOM	12504	SD	MET C 251	158.802	193.798	220.550	1.00 33.64	S

ATOM	12505	CE	MET	C	251	158.954	194.260	222.272	1.00 33.64	C
ATOM	12506	N	VAL	C	252	153.680	194.260	218.440	1.00 27.07	N
ATOM	12507	CA	VAL	C	252	153.078	193.654	217.252	1.00 27.07	C
ATOM	12508	C	VAL	C	252	153.773	194.267	216.041	1.00 27.07	C
ATOM	12509	O	VAL	C	252	153.368	195.320	215.540	1.00 27.07	O
ATOM	12510	CB	VAL	C	252	151.565	193.875	217.184	1.00 27.07	C
ATOM	12511	CG1	VAL	C	252	151.015	193.339	215.881	1.00 27.07	C
ATOM	12512	CG2	VAL	C	252	150.881	193.225	218.367	1.00 27.07	C
ATOM	12513	N	THR	C	253	154.818	193.607	215.553	1.00 26.69	N
ATOM	12514	CA	THR	C	253	155.537	194.108	214.393	1.00 26.69	C
ATOM	12515	C	THR	C	253	154.781	193.789	213.107	1.00 26.69	C
ATOM	12516	O	THR	C	253	153.897	192.931	213.070	1.00 26.69	O
ATOM	12517	CB	THR	C	253	156.940	193.510	214.331	1.00 26.69	C
ATOM	12518	OG1	THR	C	253	157.663	194.102	213.246	1.00 26.69	O
ATOM	12519	CG2	THR	C	253	156.865	192.016	214.119	1.00 26.69	C
ATOM	12520	N	ILE	C	254	155.142	194.500	212.038	1.00 26.38	N
ATOM	12521	CA	ILE	C	254	154.559	194.265	210.721	1.00 26.38	C
ATOM	12522	C	ILE	C	254	155.646	194.333	209.658	1.00 26.38	C
ATOM	12523	O	ILE	C	254	156.018	195.419	209.203	1.00 26.38	O
ATOM	12524	CB	ILE	C	254	153.443	195.278	210.417	1.00 26.38	C
ATOM	12525	CG1	ILE	C	254	152.272	195.086	211.377	1.00 26.38	C
ATOM	12526	CG2	ILE	C	254	152.988	195.148	208.979	1.00 26.38	C
ATOM	12527	CD1	ILE	C	254	151.251	196.186	211.303	1.00 26.38	C
ATOM	12528	N	THR	C	255	156.149	193.178	209.244	1.00 30.43	N
ATOM	12529	CA	THR	C	255	157.200	193.086	208.247	1.00 30.43	C
ATOM	12530	C	THR	C	255	156.600	192.766	206.881	1.00 30.43	C
ATOM	12531	O	THR	C	255	155.381	192.782	206.693	1.00 30.43	O
ATOM	12532	CB	THR	C	255	158.225	192.039	208.670	1.00 30.43	C
ATOM	12533	OG1	THR	C	255	157.603	190.751	208.700	1.00 30.43	O
ATOM	12534	CG2	THR	C	255	158.744	192.357	210.051	1.00 30.43	C
ATOM	12535	N	THR	C	256	157.465	192.470	205.910	1.00 33.84	N
ATOM	12536	CA	THR	C	256	157.035	192.050	204.575	1.00 33.84	C
ATOM	12537	C	THR	C	256	157.900	190.862	204.167	1.00 33.84	C
ATOM	12538	O	THR	C	256	159.100	191.018	203.932	1.00 33.84	O
ATOM	12539	CB	THR	C	256	157.156	193.180	203.563	1.00 33.84	C
ATOM	12540	OG1	THR	C	256	158.534	193.541	203.424	1.00 33.84	O
ATOM	12541	CG2	THR	C	256	156.372	194.392	204.024	1.00 33.84	C

ATOM	12542	N	ALA C 257	157.291	189.682	204.079	1.00 36.86 N
ATOM	12543	CA	ALA C 257	158.031	188.487	203.710	1.00 36.86 C
ATOM	12544	C	ALA C 257	158.282	188.458	202.206	1.00 36.86 C
ATOM	12545	O	ALA C 257	157.714	189.236	201.437	1.00 36.86 O
ATOM	12546	CB	ALA C 257	157.277	187.232	204.141	1.00 36.86 C
ATOM	12547	N	ARG C 258	159.150	187.537	201.785	1.00 44.92 N
ATOM	12548	CA	ARG C 258	159.486	187.412	200.368	1.00 44.92 C
ATOM	12549	C	ARG C 258	159.962	185.983	200.115	1.00 44.92 C
ATOM	12550	O	ARG C 258	161.103	185.646	200.438	1.00 44.92 O
ATOM	12551	CB	ARG C 258	160.540	188.429	199.969	1.00 44.92 C
ATOM	12552	CG	ARG C 258	160.885	188.417	198.496	1.00 44.92 C
ATOM	12553	CD	ARG C 258	161.831	189.550	198.162	1.00 44.92 C
ATOM	12554	NE	ARG C 258	162.206	189.556	196.754	1.00 44.92 N
ATOM	12555	CZ	ARG C 258	162.993	190.469	196.200	1.00 44.92 C
ATOM	12556	NH1	ARG C 258	163.286	190.401	194.911	1.00 44.92 N
ATOM	12557	NH2	ARG C 258	163.485	191.454	196.937	1.00 44.92 N
ATOM	12558	N	SER C 259	159.089	185.164	199.539	1.00 49.64 N
ATOM	12559	CA	SER C 259	159.426	183.802	199.159	1.00 49.64 C
ATOM	12560	C	SER C 259	159.585	183.715	197.648	1.00 49.64 C
ATOM	12561	O	SER C 259	159.002	184.504	196.901	1.00 49.64 O
ATOM	12562	CB	SER C 259	158.355	182.817	199.624	1.00 49.64 C
ATOM	12563	OG	SER C 259	157.141	183.028	198.926	1.00 49.64 O
ATOM	12564	N	LYS C 260	160.374	182.741	197.202	1.00 56.70 N
ATOM	12565	CA	LYS C 260	160.670	182.584	195.787	1.00 56.70 C
ATOM	12566	C	LYS C 260	160.461	181.133	195.379	1.00 56.70 C
ATOM	12567	O	LYS C 260	160.439	180.232	196.221	1.00 56.70 O
ATOM	12568	CB	LYS C 260	162.097	183.046	195.460	1.00 56.70 C
ATOM	12569	CG	LYS C 260	163.203	182.232	196.105	1.00 56.70 C
ATOM	12570	CD	LYS C 260	163.705	181.152	195.168	1.00 56.70 C
ATOM	12571	CE	LYS C 260	164.896	180.426	195.754	1.00 56.70 C
ATOM	12572	NZ	LYS C 260	165.386	179.356	194.845	1.00 56.70 N
ATOM	12573	N	TYR C 261	160.283	180.932	194.075	1.00 63.04 N
ATOM	12574	CA	TYR C 261	159.933	179.632	193.520	1.00 63.04 C
ATOM	12575	C	TYR C 261	160.980	178.589	193.915	1.00 63.04 C
ATOM	12576	O	TYR C 261	162.175	178.903	193.964	1.00 63.04 O
ATOM	12577	CB	TYR C 261	159.835	179.748	191.996	1.00 63.04 C
ATOM	12578	CG	TYR C 261	159.418	178.499	191.253	1.00 63.04 C

ATOM	12579	CD1	TYR C 261	158.094	178.084	191.237	1.00 63.04	C
ATOM	12580	CD2	TYR C 261	160.346	177.754	190.540	1.00 63.04	C
ATOM	12581	CE1	TYR C 261	157.709	176.952	190.547	1.00 63.04	C
ATOM	12582	CE2	TYR C 261	159.970	176.622	189.848	1.00 63.04	C
ATOM	12583	CZ	TYR C 261	158.651	176.225	189.855	1.00 63.04	C
ATOM	12584	OH	TYR C 261	158.271	175.096	189.167	1.00 63.04	O
ATOM	12585	N	PRO C 262	160.579	177.335	194.191	1.00 57.23	N
ATOM	12586	CA	PRO C 262	159.222	176.782	194.094	1.00 57.23	C
ATOM	12587	C	PRO C 262	158.323	176.996	195.316	1.00 57.23	C
ATOM	12588	O	PRO C 262	157.470	176.150	195.577	1.00 57.23	O
ATOM	12589	CB	PRO C 262	159.483	175.289	193.905	1.00 57.23	C
ATOM	12590	CG	PRO C 262	160.742	175.051	194.636	1.00 57.23	C
ATOM	12591	CD	PRO C 262	161.576	176.285	194.448	1.00 57.23	C
ATOM	12592	N	TYR C 263	158.511	178.095	196.045	1.00 58.36	N
ATOM	12593	CA	TYR C 263	157.530	178.573	197.019	1.00 58.36	C
ATOM	12594	C	TYR C 263	157.305	177.582	198.165	1.00 58.36	C
ATOM	12595	O	TYR C 263	156.200	177.074	198.359	1.00 58.36	O
ATOM	12596	CB	TYR C 263	156.192	178.865	196.327	1.00 58.36	C
ATOM	12597	CG	TYR C 263	156.204	179.975	195.305	1.00 58.36	C
ATOM	12598	CD1	TYR C 263	157.238	180.888	195.249	1.00 58.36	C
ATOM	12599	CD2	TYR C 263	155.173	180.103	194.389	1.00 58.36	C
ATOM	12600	CE1	TYR C 263	157.251	181.898	194.311	1.00 58.36	C
ATOM	12601	CE2	TYR C 263	155.173	181.109	193.449	1.00 58.36	C
ATOM	12602	CZ	TYR C 263	156.215	182.004	193.414	1.00 58.36	C
ATOM	12603	OH	TYR C 263	156.219	183.011	192.477	1.00 58.36	O
ATOM	12604	N	HIS C 264	158.360	177.294	198.929	1.00 51.89	N
ATOM	12605	CA	HIS C 264	158.130	176.515	200.145	1.00 51.89	C
ATOM	12606	C	HIS C 264	158.994	176.991	201.312	1.00 51.89	C
ATOM	12607	O	HIS C 264	159.506	176.178	202.088	1.00 51.89	O
ATOM	12608	CB	HIS C 264	158.320	175.017	199.894	1.00 51.89	C
ATOM	12609	CG	HIS C 264	159.708	174.629	199.493	1.00 51.89	C
ATOM	12610	ND1	HIS C 264	160.167	174.738	198.198	1.00 51.89	N
ATOM	12611	CD2	HIS C 264	160.731	174.111	200.212	1.00 51.89	C
ATOM	12612	CE1	HIS C 264	161.416	174.313	198.139	1.00 51.89	C
ATOM	12613	NE2	HIS C 264	161.783	173.928	199.348	1.00 51.89	N
ATOM	12614	N	PHE C 265	159.152	178.311	201.468	1.00 43.70	N
ATOM	12615	CA	PHE C 265	159.576	178.904	202.739	1.00 43.70	C

ATOM	12616	C	PHE C 265	159.583	180.428	202.681	1.00 43.70	C
ATOM	12617	O	PHE C 265	159.810	181.013	201.618	1.00 43.70	O
ATOM	12618	CB	PHE C 265	160.954	178.390	203.180	1.00 43.70	C
ATOM	12619	CG	PHE C 265	162.087	178.794	202.284	1.00 43.70	C
ATOM	12620	CD1	PHE C 265	162.431	178.023	201.191	1.00 43.70	C
ATOM	12621	CD2	PHE C 265	162.845	179.917	202.568	1.00 43.70	C
ATOM	12622	CE1	PHE C 265	163.487	178.383	200.377	1.00 43.70	C
ATOM	12623	CE2	PHE C 265	163.900	180.281	201.759	1.00 43.70	C
ATOM	12624	CZ	PHE C 265	164.222	179.513	200.663	1.00 43.70	C
ATOM	12625	N	PHE C 266	159.336	181.078	203.817	1.00 37.68	N
ATOM	12626	CA	PHE C 266	159.375	182.530	203.884	1.00 37.68	C
ATOM	12627	C	PHE C 266	160.791	183.010	204.185	1.00 37.68	C
ATOM	12628	O	PHE C 266	161.675	182.239	204.563	1.00 37.68	O
ATOM	12629	CB	PHE C 266	158.437	183.068	204.965	1.00 37.68	C
ATOM	12630	CG	PHE C 266	156.983	182.803	204.718	1.00 37.68	C
ATOM	12631	CD1	PHE C 266	156.536	182.325	203.503	1.00 37.68	C
ATOM	12632	CD2	PHE C 266	156.057	183.058	205.711	1.00 37.68	C
ATOM	12633	CE1	PHE C 266	155.199	182.082	203.295	1.00 37.68	C
ATOM	12634	CE2	PHE C 266	154.721	182.820	205.510	1.00 37.68	C
ATOM	12635	CZ	PHE C 266	154.288	182.334	204.301	1.00 37.68	C
ATOM	12636	N	ALA C 267	161.002	184.310	204.010	1.00 37.44	N
ATOM	12637	CA	ALA C 267	162.246	184.966	204.397	1.00 37.44	C
ATOM	12638	C	ALA C 267	161.945	186.330	205.008	1.00 37.44	C
ATOM	12639	O	ALA C 267	162.548	187.338	204.639	1.00 37.44	O
ATOM	12640	CB	ALA C 267	163.195	185.090	203.208	1.00 37.44	C
ATOM	12641	N	THR C 268	160.977	186.366	205.931	1.00 37.53	N
ATOM	12642	CA	THR C 268	160.422	187.610	206.465	1.00 37.53	C
ATOM	12643	C	THR C 268	161.511	188.568	206.932	1.00 37.53	C
ATOM	12644	O	THR C 268	162.567	188.155	207.417	1.00 37.53	O
ATOM	12645	CB	THR C 268	159.478	187.306	207.627	1.00 37.53	C
ATOM	12646	OG1	THR C 268	160.212	186.668	208.678	1.00 37.53	O
ATOM	12647	CG2	THR C 268	158.362	186.386	207.172	1.00 37.53	C
ATOM	12648	N	SER C 269	161.240	189.865	206.786	1.00 39.42	N
ATOM	12649	CA	SER C 269	162.279	190.881	206.904	1.00 39.42	C
ATOM	12650	C	SER C 269	162.588	191.259	208.347	1.00 39.42	C
ATOM	12651	O	SER C 269	162.673	192.445	208.678	1.00 39.42	O
ATOM	12652	CB	SER C 269	161.862	192.130	206.127	1.00 39.42	C

ATOM	12653	OG	SER C 269	162.787	193.184	206.309	1.00 39.42	O
ATOM	12654	N	THR C 270	162.767	190.254	209.205	1.00 38.52	N
ATOM	12655	CA	THR C 270	163.389	190.438	210.510	1.00 38.52	C
ATOM	12656	C	THR C 270	164.251	189.243	210.889	1.00 38.52	C
ATOM	12657	O	THR C 270	164.759	189.199	212.016	1.00 38.52	O
ATOM	12658	CB	THR C 270	162.348	190.686	211.610	1.00 38.52	C
ATOM	12659	OG1	THR C 270	161.380	189.631	211.609	1.00 38.52	O
ATOM	12660	CG2	THR C 270	161.664	192.025	211.423	1.00 38.52	C
ATOM	12661	N	GLY C 271	164.433	188.279	209.991	1.00 38.76	N
ATOM	12662	CA	GLY C 271	165.191	187.077	210.265	1.00 38.76	C
ATOM	12663	C	GLY C 271	164.353	185.826	210.402	1.00 38.76	C
ATOM	12664	O	GLY C 271	164.889	184.723	210.240	1.00 38.76	O
ATOM	12665	N	ASP C 272	163.062	185.957	210.693	1.00 38.61	N
ATOM	12666	CA	ASP C 272	162.207	184.794	210.868	1.00 38.61	C
ATOM	12667	C	ASP C 272	162.087	184.005	209.570	1.00 38.61	C
ATOM	12668	O	ASP C 272	162.136	184.561	208.470	1.00 38.61	O
ATOM	12669	CB	ASP C 272	160.823	185.224	211.346	1.00 38.61	C
ATOM	12670	CG	ASP C 272	160.845	185.779	212.753	1.00 38.61	C
ATOM	12671	OD1	ASP C 272	161.706	185.347	213.546	1.00 38.61	O
ATOM	12672	OD2	ASP C 272	160.008	186.651	213.065	1.00 38.61	O
ATOM	12673	N	VAL C 273	161.928	182.692	209.707	1.00 37.65	N
ATOM	12674	CA	VAL C 273	161.806	181.792	208.564	1.00 37.65	C
ATOM	12675	C	VAL C 273	160.874	180.655	208.947	1.00 37.65	C
ATOM	12676	O	VAL C 273	160.976	180.101	210.045	1.00 37.65	O
ATOM	12677	CB	VAL C 273	163.172	181.239	208.113	1.00 37.65	C
ATOM	12678	CG1	VAL C 273	162.982	180.179	207.048	1.00 37.65	C
ATOM	12679	CG2	VAL C 273	164.043	182.355	207.585	1.00 37.65	C
ATOM	12680	N	VAL C 274	159.967	180.304	208.042	1.00 42.16	N
ATOM	12681	CA	VAL C 274	159.034	179.210	208.265	1.00 42.16	C
ATOM	12682	C	VAL C 274	158.978	178.358	207.008	1.00 42.16	C
ATOM	12683	O	VAL C 274	159.108	178.861	205.888	1.00 42.16	O
ATOM	12684	CB	VAL C 274	157.629	179.719	208.638	1.00 42.16	C
ATOM	12685	CG1	VAL C 274	157.696	180.566	209.891	1.00 42.16	C
ATOM	12686	CG2	VAL C 274	157.042	180.503	207.496	1.00 42.16	C
ATOM	12687	N	ASP C 275	158.785	177.054	207.199	1.00 48.77	N
ATOM	12688	CA	ASP C 275	158.760	176.102	206.091	1.00 48.77	C
ATOM	12689	C	ASP C 275	157.310	175.800	205.729	1.00 48.77	C

ATOM	12690	O	ASP C 275	156.770	174.735	206.025	1.00 48.77	O
ATOM	12691	CB	ASP C 275	159.529	174.838	206.456	1.00 48.77	C
ATOM	12692	CG	ASP C 275	161.018	175.078	206.560	1.00 48.77	C
ATOM	12693	OD1	ASP C 275	161.519	175.991	205.872	1.00 48.77	O
ATOM	12694	OD2	ASP C 275	161.690	174.354	207.324	1.00 48.77	O
ATOM	12695	N	ILE C 276	156.677	176.764	205.068	1.00 46.58	N
ATOM	12696	CA	ILE C 276	155.329	176.601	204.536	1.00 46.58	C
ATOM	12697	C	ILE C 276	155.215	177.436	203.274	1.00 46.58	C
ATOM	12698	O	ILE C 276	155.697	178.570	203.222	1.00 46.58	O
ATOM	12699	CB	ILE C 276	154.243	177.018	205.550	1.00 46.58	C
ATOM	12700	CG1	ILE C 276	154.243	176.097	206.767	1.00 46.58	C
ATOM	12701	CG2	ILE C 276	152.881	177.010	204.890	1.00 46.58	C
ATOM	12702	CD1	ILE C 276	153.367	176.588	207.890	1.00 46.58	C
ATOM	12703	N	SER C 277	154.580	176.875	202.255	1.00 50.48	N
ATOM	12704	CA	SER C 277	154.277	177.664	201.075	1.00 50.48	C
ATOM	12705	C	SER C 277	153.293	178.769	201.448	1.00 50.48	C
ATOM	12706	O	SER C 277	152.418	178.556	202.291	1.00 50.48	O
ATOM	12707	CB	SER C 277	153.689	176.787	199.975	1.00 50.48	C
ATOM	12708	OG	SER C 277	152.420	176.289	200.354	1.00 50.48	O
ATOM	12709	N	PRO C 278	153.423	179.959	200.855	1.00 45.16	N
ATOM	12710	CA	PRO C 278	152.530	181.065	201.238	1.00 45.16	C
ATOM	12711	C	PRO C 278	151.059	180.761	201.035	1.00 45.16	C
ATOM	12712	O	PRO C 278	150.246	181.039	201.924	1.00 45.16	O
ATOM	12713	CB	PRO C 278	152.999	182.213	200.335	1.00 45.16	C
ATOM	12714	CG	PRO C 278	154.408	181.878	200.005	1.00 45.16	C
ATOM	12715	CD	PRO C 278	154.454	180.387	199.898	1.00 45.16	C
ATOM	12716	N	PHE C 279	150.690	180.199	199.888	1.00 56.10	N
ATOM	12717	CA	PHE C 279	149.291	179.903	199.587	1.00 56.10	C
ATOM	12718	C	PHE C 279	148.992	178.425	199.842	1.00 56.10	C
ATOM	12719	O	PHE C 279	148.588	177.665	198.967	1.00 56.10	O
ATOM	12720	CB	PHE C 279	148.956	180.339	198.159	1.00 56.10	C
ATOM	12721	CG	PHE C 279	149.849	179.744	197.097	1.00 56.10	C
ATOM	12722	CD1	PHE C 279	151.070	180.323	196.799	1.00 56.10	C
ATOM	12723	CD2	PHE C 279	149.437	178.654	196.349	1.00 56.10	C
ATOM	12724	CE1	PHE C 279	151.883	179.794	195.822	1.00 56.10	C
ATOM	12725	CE2	PHE C 279	150.245	178.120	195.368	1.00 56.10	C
ATOM	12726	CZ	PHE C 279	151.469	178.692	195.103	1.00 56.10	C

ATOM	12727	N	TYR C 280	149.169	178.032	201.095	1.00 54.71	N
ATOM	12728	CA	TYR C 280	148.765	176.711	201.565	1.00 54.71	C
ATOM	12729	C	TYR C 280	147.449	176.863	202.313	1.00 54.71	C
ATOM	12730	O	TYR C 280	147.440	177.117	203.519	1.00 54.71	O
ATOM	12731	CB	TYR C 280	149.821	176.085	202.466	1.00 54.71	C
ATOM	12732	CG	TYR C 280	149.400	174.737	203.003	1.00 54.71	C
ATOM	12733	CD1	TYR C 280	149.472	173.602	202.214	1.00 54.71	C
ATOM	12734	CD2	TYR C 280	148.904	174.606	204.291	1.00 54.71	C
ATOM	12735	CE1	TYR C 280	149.079	172.368	202.700	1.00 54.71	C
ATOM	12736	CE2	TYR C 280	148.507	173.381	204.784	1.00 54.71	C
ATOM	12737	CZ	TYR C 280	148.597	172.266	203.987	1.00 54.71	C
ATOM	12738	OH	TYR C 280	148.201	171.045	204.481	1.00 54.71	O
ATOM	12739	N	ASN C 281	146.336	176.699	201.611	1.00 59.81	N
ATOM	12740	CA	ASN C 281	145.054	176.672	202.296	1.00 59.81	C
ATOM	12741	C	ASN C 281	144.869	175.281	202.902	1.00 59.81	C
ATOM	12742	O	ASN C 281	145.807	174.483	202.982	1.00 59.81	O
ATOM	12743	CB	ASN C 281	143.928	177.105	201.357	1.00 59.81	C
ATOM	12744	CG	ASN C 281	143.808	176.233	200.127	1.00 59.81	C
ATOM	12745	OD1	ASN C 281	144.526	175.248	199.970	1.00 59.81	O
ATOM	12746	ND2	ASN C 281	142.886	176.599	199.240	1.00 59.81	N
ATOM	12747	N	GLY C 282	143.657	174.975	203.363	1.00 60.53	N
ATOM	12748	CA	GLY C 282	143.450	173.745	204.104	1.00 60.53	C
ATOM	12749	C	GLY C 282	143.598	172.476	203.289	1.00 60.53	C
ATOM	12750	O	GLY C 282	143.771	171.401	203.873	1.00 60.53	O
ATOM	12751	N	THR C 283	143.539	172.567	201.962	1.00 63.41	N
ATOM	12752	CA	THR C 283	143.423	171.387	201.105	1.00 63.41	C
ATOM	12753	C	THR C 283	144.390	171.451	199.926	1.00 63.41	C
ATOM	12754	O	THR C 283	144.010	171.236	198.774	1.00 63.41	O
ATOM	12755	CB	THR C 283	141.992	171.223	200.598	1.00 63.41	C
ATOM	12756	OG1	THR C 283	141.632	172.357	199.800	1.00 63.41	O
ATOM	12757	CG2	THR C 283	141.023	171.102	201.764	1.00 63.41	C
ATOM	12758	N	ASN C 284	145.665	171.747	200.190	1.00 63.41	N
ATOM	12759	CA	ASN C 284	146.657	171.732	199.120	1.00 63.41	C
ATOM	12760	C	ASN C 284	147.961	171.078	199.552	1.00 63.41	C
ATOM	12761	O	ASN C 284	149.037	171.491	199.107	1.00 63.41	O
ATOM	12762	CB	ASN C 284	146.962	173.138	198.610	1.00 63.41	C
ATOM	12763	CG	ASN C 284	145.834	173.719	197.803	1.00 63.41	C

ATOM	12764	OD1	ASN C 284	145.177	173.017	197.038	1.00	63.41	O
ATOM	12765	ND2	ASN C 284	145.618	175.018	197.948	1.00	63.41	N
ATOM	12766	N	ARG C 285	147.898	170.064	200.415	1.00	67.53	N
ATOM	12767	CA	ARG C 285	149.135	169.435	200.867	1.00	67.53	C
ATOM	12768	C	ARG C 285	149.804	168.655	199.742	1.00	67.53	C
ATOM	12769	O	ARG C 285	151.037	168.611	199.661	1.00	67.53	O
ATOM	12770	CB	ARG C 285	148.869	168.526	202.064	1.00	67.53	C
ATOM	12771	CG	ARG C 285	150.136	167.922	202.648	1.00	67.53	C
ATOM	12772	CD	ARG C 285	149.851	167.136	203.914	1.00	67.53	C
ATOM	12773	NE	ARG C 285	151.047	166.453	204.394	1.00	67.53	N
ATOM	12774	CZ	ARG C 285	151.960	167.009	205.183	1.00	67.53	C
ATOM	12775	NH1	ARG C 285	151.815	168.262	205.586	1.00	67.53	N
ATOM	12776	NH2	ARG C 285	153.019	166.311	205.566	1.00	67.53	N
ATOM	12777	N	ASN C 286	149.015	168.032	198.863	1.00	76.75	N
ATOM	12778	CA	ASN C 286	149.604	167.324	197.731	1.00	76.75	C
ATOM	12779	C	ASN C 286	150.131	168.287	196.675	1.00	76.75	C
ATOM	12780	O	ASN C 286	151.162	168.015	196.049	1.00	76.75	O
ATOM	12781	CB	ASN C 286	148.585	166.372	197.104	1.00	76.75	C
ATOM	12782	CG	ASN C 286	148.373	165.100	197.916	1.00	76.75	C
ATOM	12783	OD1	ASN C 286	149.312	164.542	198.480	1.00	76.75	O
ATOM	12784	ND2	ASN C 286	147.128	164.630	197.954	1.00	76.75	N
ATOM	12785	N	ALA C 287	149.446	169.408	196.463	1.00	65.96	N
ATOM	12786	CA	ALA C 287	149.842	170.361	195.435	1.00	65.96	C
ATOM	12787	C	ALA C 287	150.818	171.412	195.943	1.00	65.96	C
ATOM	12788	O	ALA C 287	151.641	171.907	195.165	1.00	65.96	O
ATOM	12789	CB	ALA C 287	148.607	171.053	194.853	1.00	65.96	C
ATOM	12790	N	SER C 288	150.747	171.763	197.225	1.00	57.78	N
ATOM	12791	CA	SER C 288	151.603	172.781	197.811	1.00	57.78	C
ATOM	12792	C	SER C 288	152.260	172.245	199.076	1.00	57.78	C
ATOM	12793	O	SER C 288	151.668	171.459	199.821	1.00	57.78	O
ATOM	12794	CB	SER C 288	150.814	174.050	198.131	1.00	57.78	C
ATOM	12795	OG	SER C 288	149.852	173.798	199.136	1.00	57.78	O
ATOM	12796	N	TYR C 289	153.491	172.684	199.307	1.00	51.39	N
ATOM	12797	CA	TYR C 289	154.329	172.155	200.370	1.00	51.39	C
ATOM	12798	C	TYR C 289	153.810	172.584	201.741	1.00	51.39	C
ATOM	12799	O	TYR C 289	153.178	173.632	201.897	1.00	51.39	O
ATOM	12800	CB	TYR C 289	155.769	172.627	200.171	1.00	51.39	C

ATOM	12801	CG	TYR	C	289	156.765 172.071 201.156	1.00 51.39	C
ATOM	12802	CD1	TYR	C	289	157.253 170.781 201.025	1.00 51.39	C
ATOM	12803	CD2	TYR	C	289	157.217 172.837 202.216	1.00 51.39	C
ATOM	12804	CE1	TYR	C	289	158.166 170.272 201.923	1.00 51.39	C
ATOM	12805	CE2	TYR	C	289	158.127 172.338 203.118	1.00 51.39	C
ATOM	12806	CZ	TYR	C	289	158.600 171.056 202.969	1.00 51.39	C
ATOM	12807	OH	TYR	C	289	159.510 170.556 203.871	1.00 51.39	O
ATOM	12808	N	PHE	C	290	154.078 171.746 202.740	1.00 54.22	N
ATOM	12809	CA	PHE	C	290	153.757 172.065 204.130	1.00 54.22	C
ATOM	12810	C	PHE	C	290	154.538 171.120 205.028	1.00 54.22	C
ATOM	12811	O	PHE	C	290	154.394 169.900 204.906	1.00 54.22	O
ATOM	12812	CB	PHE	C	290	152.264 171.936 204.396	1.00 54.22	C
ATOM	12813	CG	PHE	C	290	151.878 172.268 205.803	1.00 54.22	C
ATOM	12814	CD1	PHE	C	290	151.752 173.583 206.207	1.00 54.22	C
ATOM	12815	CD2	PHE	C	290	151.671 171.266 206.731	1.00 54.22	C
ATOM	12816	CE1	PHE	C	290	151.405 173.890 207.504	1.00 54.22	C
ATOM	12817	CE2	PHE	C	290	151.328 171.566 208.026	1.00 54.22	C
ATOM	12818	CZ	PHE	C	290	151.194 172.880 208.414	1.00 54.22	C
ATOM	12819	N	GLY	C	291	155.360 171.668 205.920	1.00 53.65	N
ATOM	12820	CA	GLY	C	291	156.172 170.821 206.772	1.00 53.65	C
ATOM	12821	C	GLY	C	291	156.395 171.273 208.202	1.00 53.65	C
ATOM	12822	O	GLY	C	291	157.441 170.959 208.777	1.00 53.65	O
ATOM	12823	N	GLU	C	292	155.450 171.998 208.804	1.00 54.37	N
ATOM	12824	CA	GLU	C	292	155.659 172.525 210.148	1.00 54.37	C
ATOM	12825	C	GLU	C	292	154.997 171.681 211.230	1.00 54.37	C
ATOM	12826	O	GLU	C	292	155.697 171.110 212.071	1.00 54.37	O
ATOM	12827	CB	GLU	C	292	155.153 173.968 210.231	1.00 54.37	C
ATOM	12828	CG	GLU	C	292	155.984 174.948 209.439	1.00 54.37	C
ATOM	12829	CD	GLU	C	292	157.381 175.101 210.000	1.00 54.37	C
ATOM	12830	OE1	GLU	C	292	157.547 174.992 211.234	1.00 54.37	O
ATOM	12831	OE2	GLU	C	292	158.315 175.327 209.204	1.00 54.37	O
ATOM	12832	N	ASN	C	293	153.670 171.564 211.222	1.00 62.27	N
ATOM	12833	CA	ASN	C	293	152.985 170.846 212.290	1.00 62.27	C
ATOM	12834	C	ASN	C	293	151.485 170.813 212.028	1.00 62.27	C
ATOM	12835	O	ASN	C	293	151.015 171.352 211.023	1.00 62.27	O
ATOM	12836	CB	ASN	C	293	153.275 171.504 213.641	1.00 62.27	C
ATOM	12837	CG	ASN	C	293	153.320 170.502 214.778	1.00 62.27	C

ATOM	12838	OD1	ASN	C	293	153.730	170.831	215.892	1.00 62.27	O
ATOM	12839	ND2	ASN	C	293	152.950	169.261	214.492	1.00 62.27	N
ATOM	12840	N	ALA	C	294	150.720	170.187	212.914	1.00 61.54	N
ATOM	12841	CA	ALA	C	294	149.268	170.237	212.865	1.00 61.54	C
ATOM	12842	C	ALA	C	294	148.640	170.840	214.110	1.00 61.54	C
ATOM	12843	O	ALA	C	294	147.561	171.424	214.015	1.00 61.54	O
ATOM	12844	CB	ALA	C	294	148.684	168.835	212.645	1.00 61.54	C
ATOM	12845	N	ASP	C	295	149.285	170.716	215.269	1.00 61.83	N
ATOM	12846	CA	ASP	C	295	148.817	171.338	216.499	1.00 61.83	C
ATOM	12847	C	ASP	C	295	149.368	172.750	216.670	1.00 61.83	C
ATOM	12848	O	ASP	C	295	149.202	173.347	217.736	1.00 61.83	O
ATOM	12849	CB	ASP	C	295	149.203	170.465	217.697	1.00 61.83	C
ATOM	12850	CG	ASP	C	295	148.386	170.774	218.938	1.00 61.83	C
ATOM	12851	OD1	ASP	C	295	147.498	171.651	218.869	1.00 61.83	O
ATOM	12852	OD2	ASP	C	295	148.630	170.134	219.982	1.00 61.83	O
ATOM	12853	N	LYS	C	296	150.018	173.291	215.644	1.00 53.04	N
ATOM	12854	CA	LYS	C	296	150.622	174.619	215.661	1.00 53.04	C
ATOM	12855	C	LYS	C	296	150.254	175.375	214.394	1.00 53.04	C
ATOM	12856	O	LYS	C	296	151.100	175.959	213.714	1.00 53.04	O
ATOM	12857	CB	LYS	C	296	152.136	174.528	215.813	1.00 53.04	C
ATOM	12858	CG	LYS	C	296	152.586	173.850	217.093	1.00 53.04	C
ATOM	12859	CD	LYS	C	296	152.248	174.691	218.309	1.00 53.04	C
ATOM	12860	CE	LYS	C	296	152.684	174.003	219.590	1.00 53.04	C
ATOM	12861	NZ	LYS	C	296	154.167	173.933	219.706	1.00 53.04	N
ATOM	12862	N	PHE	C	297	148.969	175.366	214.056	1.00 43.20	N
ATOM	12863	CA	PHE	C	297	148.514	175.955	212.805	1.00 43.20	C
ATOM	12864	C	PHE	C	297	147.006	176.133	212.879	1.00 43.20	C
ATOM	12865	O	PHE	C	297	146.299	175.235	213.344	1.00 43.20	O
ATOM	12866	CB	PHE	C	297	148.903	175.063	211.625	1.00 43.20	C
ATOM	12867	CG	PHE	C	297	148.556	175.633	210.288	1.00 43.20	C
ATOM	12868	CD1	PHE	C	297	149.338	176.618	209.716	1.00 43.20	C
ATOM	12869	CD2	PHE	C	297	147.450	175.178	209.599	1.00 43.20	C
ATOM	12870	CE1	PHE	C	297	149.020	177.139	208.481	1.00 43.20	C
ATOM	12871	CE2	PHE	C	297	147.129	175.695	208.368	1.00 43.20	C
ATOM	12872	CZ	PHE	C	297	147.913	176.678	207.807	1.00 43.20	C
ATOM	12873	N	PHE	C	298	146.520	177.286	212.432	1.00 41.32	N
ATOM	12874	CA	PHE	C	298	145.102	177.604	212.484	1.00 41.32	C

ATOM	12875	C	PHE C 298	144.730	178.450	211.278	1.00 41.32	C
ATOM	12876	O	PHE C 298	145.464	179.370	210.909	1.00 41.32	O
ATOM	12877	CB	PHE C 298	144.744	178.361	213.768	1.00 41.32	C
ATOM	12878	CG	PHE C 298	144.887	177.546	215.018	1.00 41.32	C
ATOM	12879	CD1	PHE C 298	143.891	176.671	215.409	1.00 41.32	C
ATOM	12880	CD2	PHE C 298	146.014	177.666	215.810	1.00 41.32	C
ATOM	12881	CE1	PHE C 298	144.019	175.928	216.563	1.00 41.32	C
ATOM	12882	CE2	PHE C 298	146.147	176.926	216.964	1.00 41.32	C
ATOM	12883	CZ	PHE C 298	145.149	176.055	217.341	1.00 41.32	C
ATOM	12884	N	ILE C 299	143.589	178.141	210.669	1.00 39.85	N
ATOM	12885	CA	ILE C 299	143.058	178.911	209.550	1.00 39.85	C
ATOM	12886	C	ILE C 299	141.658	179.373	209.921	1.00 39.85	C
ATOM	12887	O	ILE C 299	140.813	178.559	210.313	1.00 39.85	O
ATOM	12888	CB	ILE C 299	143.039	178.101	208.247	1.00 39.85	C
ATOM	12889	CG1	ILE C 299	144.460	177.736	207.822	1.00 39.85	C
ATOM	12890	CG2	ILE C 299	142.347	178.886	207.151	1.00 39.85	C
ATOM	12891	CD1	ILE C 299	144.506	176.761	206.676	1.00 39.85	C
ATOM	12892	N	PHE C 300	141.416	180.676	209.800	1.00 39.59	N
ATOM	12893	CA	PHE C 300	140.142	181.281	210.151	1.00 39.59	C
ATOM	12894	C	PHE C 300	139.504	181.921	208.932	1.00 39.59	C
ATOM	12895	O	PHE C 300	140.173	182.681	208.220	1.00 39.59	O
ATOM	12896	CB	PHE C 300	140.338	182.339	211.242	1.00 39.59	C
ATOM	12897	CG	PHE C 300	140.681	181.775	212.590	1.00 39.59	C
ATOM	12898	CD1	PHE C 300	139.687	181.321	213.435	1.00 39.59	C
ATOM	12899	CD2	PHE C 300	141.994	181.706	213.017	1.00 39.59	C
ATOM	12900	CE1	PHE C 300	139.995	180.810	214.677	1.00 39.59	C
ATOM	12901	CE2	PHE C 300	142.306	181.193	214.259	1.00 39.59	C
ATOM	12902	CZ	PHE C 300	141.305	180.745	215.089	1.00 39.59	C
ATOM	12903	N	PRO C 301	138.229	181.649	208.655	1.00 42.27	N
ATOM	12904	CA	PRO C 301	137.521	182.397	207.609	1.00 42.27	C
ATOM	12905	C	PRO C 301	136.860	183.645	208.172	1.00 42.27	C
ATOM	12906	O	PRO C 301	136.195	183.613	209.210	1.00 42.27	O
ATOM	12907	CB	PRO C 301	136.464	181.392	207.134	1.00 42.27	C
ATOM	12908	CG	PRO C 301	136.164	180.599	208.355	1.00 42.27	C
ATOM	12909	CD	PRO C 301	137.460	180.481	209.113	1.00 42.27	C
ATOM	12910	N	ASN C 302	137.033	184.758	207.460	1.00 45.96	N
ATOM	12911	CA	ASN C 302	136.475	186.049	207.864	1.00 45.96	C

ATOM	12912	C	ASN C 302	136.970	186.454	209.253	1.00 45.96	C
ATOM	12913	O	ASN C 302	136.204	186.561	210.211	1.00 45.96	O
ATOM	12914	CB	ASN C 302	134.946	186.024	207.828	1.00 45.96	C
ATOM	12915	CG	ASN C 302	134.400	185.970	206.426	1.00 45.96	C
ATOM	12916	OD1	ASN C 302	134.916	186.620	205.519	1.00 45.96	O
ATOM	12917	ND2	ASN C 302	133.338	185.202	206.240	1.00 45.96	N
ATOM	12918	N	TYR C 303	138.277	186.675	209.349	1.00 42.17	N
ATOM	12919	CA	TYR C 303	138.897	187.096	210.602	1.00 42.17	C
ATOM	12920	C	TYR C 303	139.061	188.611	210.549	1.00 42.17	C
ATOM	12921	O	TYR C 303	140.002	189.132	209.951	1.00 42.17	O
ATOM	12922	CB	TYR C 303	140.225	186.384	210.821	1.00 42.17	C
ATOM	12923	CG	TYR C 303	140.868	186.697	212.149	1.00 42.17	C
ATOM	12924	CD1	TYR C 303	140.336	186.199	213.329	1.00 42.17	C
ATOM	12925	CD2	TYR C 303	142.013	187.471	212.224	1.00 42.17	C
ATOM	12926	CE1	TYR C 303	140.917	186.475	214.546	1.00 42.17	C
ATOM	12927	CE2	TYR C 303	142.605	187.749	213.438	1.00 42.17	C
ATOM	12928	CZ	TYR C 303	142.052	187.249	214.595	1.00 42.17	C
ATOM	12929	OH	TYR C 303	142.637	187.525	215.809	1.00 42.17	O
ATOM	12930	N	THR C 304	138.116	189.319	211.168	1.00 43.75	N
ATOM	12931	CA	THR C 304	138.155	190.774	211.192	1.00 43.75	C
ATOM	12932	C	THR C 304	139.435	191.259	211.859	1.00 43.75	C
ATOM	12933	O	THR C 304	139.947	190.638	212.794	1.00 43.75	O
ATOM	12934	CB	THR C 304	136.935	191.327	211.930	1.00 43.75	C
ATOM	12935	OG1	THR C 304	136.977	190.918	213.302	1.00 43.75	O
ATOM	12936	CG2	THR C 304	135.659	190.800	211.304	1.00 43.75	C
ATOM	12937	N	ILE C 305	139.959	192.378	211.367	1.00 46.40	N
ATOM	12938	CA	ILE C 305	141.236	192.905	211.834	1.00 46.40	C
ATOM	12939	C	ILE C 305	141.161	194.423	211.852	1.00 46.40	C
ATOM	12940	O	ILE C 305	140.526	195.037	210.991	1.00 46.40	O
ATOM	12941	CB	ILE C 305	142.405	192.421	210.947	1.00 46.40	C
ATOM	12942	CG1	ILE C 305	142.600	190.912	211.085	1.00 46.40	C
ATOM	12943	CG2	ILE C 305	143.686	193.161	211.282	1.00 46.40	C
ATOM	12944	CD1	ILE C 305	143.578	190.337	210.089	1.00 46.40	C
ATOM	12945	N	VAL C 306	141.808	195.028	212.851	1.00 50.49	N
ATOM	12946	CA	VAL C 306	141.964	196.474	212.859	1.00 50.49	C
ATOM	12947	C	VAL C 306	142.776	196.895	211.644	1.00 50.49	C
ATOM	12948	O	VAL C 306	143.734	196.220	211.247	1.00 50.49	O

ATOM	12949	CB	VAL	C 306	142.630	196.936	214.165	1.00 50.49 C
ATOM	12950	CG1	VAL	C 306	142.918	198.423	214.116	1.00 50.49 C
ATOM	12951	CG2	VAL	C 306	141.745	196.604	215.351	1.00 50.49 C
ATOM	12952	N	SER	C 307	142.388	198.018	211.039	1.00 53.82 N
ATOM	12953	CA	SER	C 307	143.059	198.494	209.837	1.00 53.82 C
ATOM	12954	C	SER	C 307	144.387	199.175	210.132	1.00 53.82 C
ATOM	12955	O	SER	C 307	145.231	199.269	209.234	1.00 53.82 O
ATOM	12956	CB	SER	C 307	142.153	199.458	209.073	1.00 53.82 C
ATOM	12957	OG	SER	C 307	141.921	200.635	209.826	1.00 53.82 O
ATOM	12958	N	ASP	C 308	144.592	199.651	211.358	1.00 50.16 N
ATOM	12959	CA	ASP	C 308	145.852	200.286	211.720	1.00 50.16 C
ATOM	12960	C	ASP	C 308	145.979	200.389	213.233	1.00 50.16 C
ATOM	12961	O	ASP	C 308	145.039	200.811	213.913	1.00 50.16 O
ATOM	12962	CB	ASP	C 308	145.960	201.668	211.077	1.00 50.16 C
ATOM	12963	CG	ASP	C 308	147.328	202.289	211.262	1.00 50.16 C
ATOM	12964	OD1	ASP	C 308	148.279	201.835	210.592	1.00 50.16 O
ATOM	12965	OD2	ASP	C 308	147.452	203.232	212.071	1.00 50.16 O
ATOM	12966	N	PHE	C 309	147.137	200.008	213.765	1.00 40.93 N
ATOM	12967	CA	PHE	C 309	147.341	199.984	215.205	1.00 40.93 C
ATOM	12968	C	PHE	C 309	147.854	201.328	215.703	1.00 40.93 C
ATOM	12969	O	PHE	C 309	148.539	202.058	214.982	1.00 40.93 O
ATOM	12970	CB	PHE	C 309	148.322	198.878	215.583	1.00 40.93 C
ATOM	12971	CG	PHE	C 309	147.814	197.501	215.297	1.00 40.93 C
ATOM	12972	CD1	PHE	C 309	146.923	196.888	216.154	1.00 40.93 C
ATOM	12973	CD2	PHE	C 309	148.227	196.818	214.168	1.00 40.93 C
ATOM	12974	CE1	PHE	C 309	146.454	195.621	215.890	1.00 40.93 C
ATOM	12975	CE2	PHE	C 309	147.762	195.551	213.900	1.00 40.93 C
ATOM	12976	CZ	PHE	C 309	146.875	194.952	214.761	1.00 40.93 C
ATOM	12977	N	GLY	C 310	147.521	201.646	216.948	1.00 46.21 N
ATOM	12978	CA	GLY	C 310	147.885	202.919	217.530	1.00 46.21 C
ATOM	12979	C	GLY	C 310	146.657	203.757	217.802	1.00 46.21 C
ATOM	12980	O	GLY	C 310	146.551	204.410	218.843	1.00 46.21 O
ATOM	12981	N	ARG	C 311	145.718	203.740	216.866	1.00 52.05 N
ATOM	12982	CA	ARG	C 311	144.462	204.439	217.068	1.00 52.05 C
ATOM	12983	C	ARG	C 311	143.656	203.754	218.168	1.00 52.05 C
ATOM	12984	O	ARG	C 311	143.622	202.522	218.236	1.00 52.05 O
ATOM	12985	CB	ARG	C 311	143.651	204.470	215.775	1.00 52.05 C

ATOM	12986	CG	ARG C 311	144.338	205.183	214.624	1.00 52.05	C
ATOM	12987	CD	ARG C 311	144.419	206.677	214.873	1.00 52.05	C
ATOM	12988	NE	ARG C 311	145.080	207.375	213.775	1.00 52.05	N
ATOM	12989	CZ	ARG C 311	144.449	207.849	212.707	1.00 52.05	C
ATOM	12990	NH1	ARG C 311	143.137	207.699	212.589	1.00 52.05	N
ATOM	12991	NH2	ARG C 311	145.130	208.472	211.755	1.00 52.05	N
ATOM	12992	N	PRO C 312	143.015	204.519	219.053	1.00 54.89	N
ATOM	12993	CA	PRO C 312	142.112	203.890	220.030	1.00 54.89	C
ATOM	12994	C	PRO C 312	140.977	203.129	219.371	1.00 54.89	C
ATOM	12995	O	PRO C 312	140.549	202.086	219.881	1.00 54.89	O
ATOM	12996	CB	PRO C 312	141.604	205.084	220.851	1.00 54.89	C
ATOM	12997	CG	PRO C 312	142.653	206.133	220.678	1.00 54.89	C
ATOM	12998	CD	PRO C 312	143.154	205.966	219.278	1.00 54.89	C
ATOM	12999	N	ASN C 313	140.478	203.628	218.243	1.00 59.27	N
ATOM	13000	CA	ASN C 313	139.479	202.931	217.450	1.00 59.27	C
ATOM	13001	C	ASN C 313	139.703	203.269	215.985	1.00 59.27	C
ATOM	13002	O	ASN C 313	140.183	204.355	215.650	1.00 59.27	O
ATOM	13003	CB	ASN C 313	138.053	203.303	217.870	1.00 59.27	C
ATOM	13004	CG	ASN C 313	137.662	202.697	219.200	1.00 59.27	C
ATOM	13005	OD1	ASN C 313	137.953	201.534	219.472	1.00 59.27	O
ATOM	13006	ND2	ASN C 313	136.997	203.482	220.037	1.00 59.27	N
ATOM	13007	N	SER C 314	139.356	202.328	215.117	1.00 63.61	N
ATOM	13008	CA	SER C 314	139.527	202.515	213.683	1.00 63.61	C
ATOM	13009	C	SER C 314	138.430	201.731	212.972	1.00 63.61	C
ATOM	13010	O	SER C 314	137.447	201.313	213.592	1.00 63.61	O
ATOM	13011	CB	SER C 314	140.941	202.094	213.252	1.00 63.61	C
ATOM	13012	OG	SER C 314	141.124	200.701	213.418	1.00 63.61	O
ATOM	13013	N	ALA C 315	138.597	201.532	211.669	1.00 62.39	N
ATOM	13014	CA	ALA C 315	137.642	200.798	210.851	1.00 62.39	C
ATOM	13015	C	ALA C 315	138.225	199.431	210.519	1.00 62.39	C
ATOM	13016	O	ALA C 315	139.290	199.341	209.901	1.00 62.39	O
ATOM	13017	CB	ALA C 315	137.311	201.570	209.574	1.00 62.39	C
ATOM	13018	N	LEU C 316	137.529	198.375	210.932	1.00 57.02	N
ATOM	13019	CA	LEU C 316	138.003	197.027	210.671	1.00 57.02	C
ATOM	13020	C	LEU C 316	138.006	196.743	209.172	1.00 57.02	C
ATOM	13021	O	LEU C 316	137.439	197.485	208.367	1.00 57.02	O
ATOM	13022	CB	LEU C 316	137.134	196.004	211.400	1.00 57.02	C

ATOM	13023	CG	LEU	C	316	137.375	195.830	212.901	1.00	57.02	C
ATOM	13024	CD1	LEU	C	316	136.862	197.029	213.675	1.00	57.02	C
ATOM	13025	CD2	LEU	C	316	136.720	194.556	213.403	1.00	57.02	C
ATOM	13026	N	GLU	C	317	138.660	195.642	208.803	1.00	54.98	N
ATOM	13027	CA	GLU	C	317	138.761	195.231	207.403	1.00	54.98	C
ATOM	13028	C	GLU	C	317	138.800	193.705	207.384	1.00	54.98	C
ATOM	13029	O	GLU	C	317	139.858	193.107	207.600	1.00	54.98	O
ATOM	13030	CB	GLU	C	317	139.991	195.832	206.738	1.00	54.98	C
ATOM	13031	CG	GLU	C	317	140.130	195.485	205.269	1.00	54.98	C
ATOM	13032	CD	GLU	C	317	139.005	196.059	204.435	1.00	54.98	C
ATOM	13033	OE1	GLU	C	317	138.414	197.073	204.859	1.00	54.98	O
ATOM	13034	OE2	GLU	C	317	138.712	195.500	203.357	1.00	54.98	O
ATOM	13035	N	THR	C	318	137.653	193.090	207.116	1.00	50.60	N
ATOM	13036	CA	THR	C	318	137.509	191.643	207.227	1.00	50.60	C
ATOM	13037	C	THR	C	318	138.215	190.973	206.055	1.00	50.60	C
ATOM	13038	O	THR	C	318	137.751	191.051	204.914	1.00	50.60	O
ATOM	13039	CB	THR	C	318	136.035	191.259	207.255	1.00	50.60	C
ATOM	13040	OG1	THR	C	318	135.445	191.545	205.982	1.00	50.60	O
ATOM	13041	CG2	THR	C	318	135.311	192.063	208.318	1.00	50.60	C
ATOM	13042	N	HIS	C	319	139.327	190.302	206.334	1.00	46.96	N
ATOM	13043	CA	HIS	C	319	140.042	189.562	205.305	1.00	46.96	C
ATOM	13044	C	HIS	C	319	139.318	188.245	205.040	1.00	46.96	C
ATOM	13045	O	HIS	C	319	138.218	187.998	205.543	1.00	46.96	O
ATOM	13046	CB	HIS	C	319	141.494	189.346	205.716	1.00	46.96	C
ATOM	13047	CG	HIS	C	319	142.289	190.609	205.803	1.00	46.96	C
ATOM	13048	ND1	HIS	C	319	143.577	190.645	206.289	1.00	46.96	N
ATOM	13049	CD2	HIS	C	319	141.973	191.884	205.478	1.00	46.96	C
ATOM	13050	CE1	HIS	C	319	144.024	191.887	206.252	1.00	46.96	C
ATOM	13051	NE2	HIS	C	319	143.070	192.659	205.765	1.00	46.96	N
ATOM	13052	N	ARG	C	320	139.936	187.373	204.246	1.00	50.15	N
ATOM	13053	CA	ARG	C	320	139.314	186.121	203.831	1.00	50.15	C
ATOM	13054	C	ARG	C	320	139.867	184.914	204.576	1.00	50.15	C
ATOM	13055	O	ARG	C	320	139.100	184.126	205.136	1.00	50.15	O
ATOM	13056	CB	ARG	C	320	139.490	185.933	202.322	1.00	50.15	C
ATOM	13057	CG	ARG	C	320	138.808	184.703	201.765	1.00	50.15	C
ATOM	13058	CD	ARG	C	320	138.952	184.651	200.257	1.00	50.15	C
ATOM	13059	NE	ARG	C	320	138.201	185.717	199.603	1.00	50.15	N

ATOM	13060	CZ	ARG	C	320	138.299	186.011	198.311	1.00 50.15	C
ATOM	13061	NH1	ARG	C	320	139.121	185.321	197.534	1.00 50.15	N
ATOM	13062	NH2	ARG	C	320	137.578	186.997	197.795	1.00 50.15	N
ATOM	13063	N	LEU	C	321	141.186	184.746	204.590	1.00 43.80	N
ATOM	13064	CA	LEU	C	321	141.808	183.662	205.334	1.00 43.80	C
ATOM	13065	C	LEU	C	321	143.128	184.151	205.905	1.00 43.80	C
ATOM	13066	O	LEU	C	321	143.830	184.940	205.270	1.00 43.80	O
ATOM	13067	CB	LEU	C	321	142.040	182.432	204.452	1.00 43.80	C
ATOM	13068	CG	LEU	C	321	140.786	181.731	203.935	1.00 43.80	C
ATOM	13069	CD1	LEU	C	321	141.169	180.590	203.011	1.00 43.80	C
ATOM	13070	CD2	LEU	C	321	139.936	181.232	205.089	1.00 43.80	C
ATOM	13071	N	VAL	C	322	143.462	183.675	207.105	1.00 38.49	N
ATOM	13072	CA	VAL	C	322	144.720	184.016	207.757	1.00 38.49	C
ATOM	13073	C	VAL	C	322	145.196	182.802	208.537	1.00 38.49	C
ATOM	13074	O	VAL	C	322	144.401	181.977	208.990	1.00 38.49	O
ATOM	13075	CB	VAL	C	322	144.581	185.239	208.692	1.00 38.49	C
ATOM	13076	CG1	VAL	C	322	144.240	186.477	207.894	1.00 38.49	C
ATOM	13077	CG2	VAL	C	322	143.515	184.978	209.731	1.00 38.49	C
ATOM	13078	N	ALA	C	323	146.510	182.697	208.694	1.00 36.94	N
ATOM	13079	CA	ALA	C	323	147.124	181.579	209.390	1.00 36.94	C
ATOM	13080	C	ALA	C	323	147.689	182.033	210.730	1.00 36.94	C
ATOM	13081	O	ALA	C	323	147.791	183.226	211.025	1.00 36.94	O
ATOM	13082	CB	ALA	C	323	148.225	180.943	208.533	1.00 36.94	C
ATOM	13083	N	PHE	C	324	148.065	181.047	211.543	1.00 36.04	N
ATOM	13084	CA	PHE	C	324	148.606	181.293	212.879	1.00 36.04	C
ATOM	13085	C	PHE	C	324	149.591	180.167	213.174	1.00 36.04	C
ATOM	13086	O	PHE	C	324	149.188	179.092	213.626	1.00 36.04	O
ATOM	13087	CB	PHE	C	324	147.499	181.347	213.923	1.00 36.04	C
ATOM	13088	CG	PHE	C	324	146.671	182.595	213.877	1.00 36.04	C
ATOM	13089	CD1	PHE	C	324	147.088	183.731	214.533	1.00 36.04	C
ATOM	13090	CD2	PHE	C	324	145.477	182.631	213.186	1.00 36.04	C
ATOM	13091	CE1	PHE	C	324	146.335	184.882	214.499	1.00 36.04	C
ATOM	13092	CE2	PHE	C	324	144.719	183.783	213.152	1.00 36.04	C
ATOM	13093	CZ	PHE	C	324	145.151	184.909	213.808	1.00 36.04	C
ATOM	13094	N	LEU	C	325	150.875	180.422	212.931	1.00 34.86	N
ATOM	13095	CA	LEU	C	325	151.917	179.415	213.110	1.00 34.86	C
ATOM	13096	C	LEU	C	325	152.557	179.645	214.475	1.00 34.86	C

ATOM	13097	O	LEU C 325	153.609	180.265	214.606	1.00 34.86	O
ATOM	13098	CB	LEU C 325	152.932	179.492	211.973	1.00 34.86	C
ATOM	13099	CG	LEU C 325	153.944	178.359	211.792	1.00 34.86	C
ATOM	13100	CD1	LEU C 325	155.081	178.433	212.792	1.00 34.86	C
ATOM	13101	CD2	LEU C 325	153.248	177.017	211.882	1.00 34.86	C
ATOM	13102	N	GLU C 326	151.898	179.127	215.509	1.00 39.13	N
ATOM	13103	CA	GLU C 326	152.348	179.349	216.877	1.00 39.13	C
ATOM	13104	C	GLU C 326	153.684	178.669	217.138	1.00 39.13	C
ATOM	13105	O	GLU C 326	153.750	177.444	217.277	1.00 39.13	O
ATOM	13106	CB	GLU C 326	151.304	178.847	217.871	1.00 39.13	C
ATOM	13107	CG	GLU C 326	150.017	179.638	217.859	1.00 39.13	C
ATOM	13108	CD	GLU C 326	149.004	179.093	218.837	1.00 39.13	C
ATOM	13109	OE1	GLU C 326	149.263	178.023	219.424	1.00 39.13	O
ATOM	13110	OE2	GLU C 326	147.950	179.733	219.020	1.00 39.13	O
ATOM	13111	N	ARG C 327	154.748	179.457	217.211	1.00 37.29	N
ATOM	13112	CA	ARG C 327	156.081	178.936	217.457	1.00 37.29	C
ATOM	13113	C	ARG C 327	156.332	178.900	218.963	1.00 37.29	C
ATOM	13114	O	ARG C 327	155.416	179.069	219.772	1.00 37.29	O
ATOM	13115	CB	ARG C 327	157.113	179.773	216.707	1.00 37.29	C
ATOM	13116	CG	ARG C 327	156.933	179.720	215.203	1.00 37.29	C
ATOM	13117	CD	ARG C 327	157.926	180.598	214.466	1.00 37.29	C
ATOM	13118	NE	ARG C 327	159.286	180.077	214.529	1.00 37.29	N
ATOM	13119	CZ	ARG C 327	160.350	180.729	214.074	1.00 37.29	C
ATOM	13120	NH1	ARG C 327	160.205	181.926	213.526	1.00 37.29	N
ATOM	13121	NH2	ARG C 327	161.556	180.185	214.164	1.00 37.29	N
ATOM	13122	N	ALA C 328	157.585	178.676	219.358	1.00 42.62	N
ATOM	13123	CA	ALA C 328	157.903	178.558	220.775	1.00 42.62	C
ATOM	13124	C	ALA C 328	157.977	179.910	221.469	1.00 42.62	C
ATOM	13125	O	ALA C 328	157.753	179.989	222.682	1.00 42.62	O
ATOM	13126	CB	ALA C 328	159.223	177.810	220.955	1.00 42.62	C
ATOM	13127	N	ASP C 329	158.288	180.979	220.731	1.00 41.41	N
ATOM	13128	CA	ASP C 329	158.442	182.290	221.348	1.00 41.41	C
ATOM	13129	C	ASP C 329	157.835	183.418	220.519	1.00 41.41	C
ATOM	13130	O	ASP C 329	158.240	184.575	220.679	1.00 41.41	O
ATOM	13131	CB	ASP C 329	159.921	182.587	221.613	1.00 41.41	C
ATOM	13132	CG	ASP C 329	160.760	182.540	220.352	1.00 41.41	C
ATOM	13133	OD1	ASP C 329	160.219	182.181	219.286	1.00 41.41	O

ATOM	13134	OD2	ASP	C	329	161.963	182.867	220.425	1.00 41.41	O
ATOM	13135	N	SER	C	330	156.883	183.125	219.644	1.00 37.31	N
ATOM	13136	CA	SER	C	330	156.258	184.156	218.823	1.00 37.31	C
ATOM	13137	C	SER	C	330	155.074	183.532	218.096	1.00 37.31	C
ATOM	13138	O	SER	C	330	154.840	182.323	218.169	1.00 37.31	O
ATOM	13139	CB	SER	C	330	157.258	184.766	217.843	1.00 37.31	C
ATOM	13140	OG	SER	C	330	157.685	183.808	216.893	1.00 37.31	O
ATOM	13141	N	VAL	C	331	154.325	184.375	217.389	1.00 32.63	N
ATOM	13142	CA	VAL	C	331	153.173	183.924	216.620	1.00 32.63	C
ATOM	13143	C	VAL	C	331	153.162	184.631	215.273	1.00 32.63	C
ATOM	13144	O	VAL	C	331	152.744	185.789	215.172	1.00 32.63	O
ATOM	13145	CB	VAL	C	331	151.863	184.177	217.385	1.00 32.63	C
ATOM	13146	CG1	VAL	C	331	150.674	183.853	216.512	1.00 32.63	C
ATOM	13147	CG2	VAL	C	331	151.830	183.351	218.650	1.00 32.63	C
ATOM	13148	N	ILE	C	332	153.614	183.946	214.233	1.00 33.60	N
ATOM	13149	CA	ILE	C	332	153.616	184.493	212.884	1.00 33.60	C
ATOM	13150	C	ILE	C	332	152.250	184.246	212.268	1.00 33.60	C
ATOM	13151	O	ILE	C	332	151.609	183.221	212.523	1.00 33.60	O
ATOM	13152	CB	ILE	C	332	154.739	183.871	212.030	1.00 33.60	C
ATOM	13153	CG1	ILE	C	332	156.100	184.184	212.643	1.00 33.60	C
ATOM	13154	CG2	ILE	C	332	154.683	184.396	210.615	1.00 33.60	C
ATOM	13155	CD1	ILE	C	332	157.237	183.420	212.020	1.00 33.60	C
ATOM	13156	N	SER	C	333	151.790	185.194	211.454	1.00 35.18	N
ATOM	13157	CA	SER	C	333	150.452	185.099	210.873	1.00 35.18	C
ATOM	13158	C	SER	C	333	150.440	185.893	209.573	1.00 35.18	C
ATOM	13159	O	SER	C	333	150.335	187.122	209.598	1.00 35.18	O
ATOM	13160	CB	SER	C	333	149.405	185.615	211.846	1.00 35.18	C
ATOM	13161	OG	SER	C	333	149.401	184.834	213.023	1.00 35.18	O
ATOM	13162	N	TRP	C	334	150.537	185.192	208.451	1.00 37.89	N
ATOM	13163	CA	TRP	C	334	150.480	185.833	207.147	1.00 37.89	C
ATOM	13164	C	TRP	C	334	149.027	185.899	206.680	1.00 37.89	C
ATOM	13165	O	TRP	C	334	148.089	185.633	207.436	1.00 37.89	O
ATOM	13166	CB	TRP	C	334	151.382	185.098	206.160	1.00 37.89	C
ATOM	13167	CG	TRP	C	334	150.996	183.677	205.924	1.00 37.89	C
ATOM	13168	CD1	TRP	C	334	150.174	183.206	204.948	1.00 37.89	C
ATOM	13169	CD2	TRP	C	334	151.402	182.540	206.690	1.00 37.89	C
ATOM	13170	NE1	TRP	C	334	150.051	181.844	205.050	1.00 37.89	N

ATOM	13171	CE2	TRP	C	334	150.794	181.412	206.115	1.00 37.89	C
ATOM	13172	CE3	TRP	C	334	152.222	182.368	207.806	1.00 37.89	C
ATOM	13173	CZ2	TRP	C	334	150.978	180.130	206.617	1.00 37.89	C
ATOM	13174	CZ3	TRP	C	334	152.405	181.096	208.301	1.00 37.89	C
ATOM	13175	CH2	TRP	C	334	151.787	179.993	207.708	1.00 37.89	C
ATOM	13176	N	ASP	C	335	148.827	186.262	205.420	1.00 41.62	N
ATOM	13177	CA	ASP	C	335	147.509	186.313	204.807	1.00 41.62	C
ATOM	13178	C	ASP	C	335	147.492	185.320	203.657	1.00 41.62	C
ATOM	13179	O	ASP	C	335	148.368	185.364	202.788	1.00 41.62	O
ATOM	13180	CB	ASP	C	335	147.187	187.728	204.319	1.00 41.62	C
ATOM	13181	CG	ASP	C	335	145.741	187.888	203.897	1.00 41.62	C
ATOM	13182	OD1	ASP	C	335	144.997	186.889	203.922	1.00 41.62	O
ATOM	13183	OD2	ASP	C	335	145.346	189.019	203.547	1.00 41.62	O
ATOM	13184	N	ILE	C	336	146.511	184.413	203.670	1.00 43.65	N
ATOM	13185	CA	ILE	C	336	146.488	183.313	202.710	1.00 43.65	C
ATOM	13186	C	ILE	C	336	146.425	183.875	201.299	1.00 43.65	C
ATOM	13187	O	ILE	C	336	145.462	184.555	200.924	1.00 43.65	O
ATOM	13188	CB	ILE	C	336	145.320	182.369	202.995	1.00 43.65	C
ATOM	13189	CG1	ILE	C	336	145.477	181.748	204.379	1.00 43.65	C
ATOM	13190	CG2	ILE	C	336	145.268	181.281	201.950	1.00 43.65	C
ATOM	13191	CD1	ILE	C	336	146.731	180.925	204.519	1.00 43.65	C
ATOM	13192	N	GLN	C	337	147.454	183.593	200.510	1.00 51.01	N
ATOM	13193	CA	GLN	C	337	147.646	184.251	199.226	1.00 51.01	C
ATOM	13194	C	GLN	C	337	146.767	183.612	198.152	1.00 51.01	C
ATOM	13195	O	GLN	C	337	145.839	182.850	198.434	1.00 51.01	O
ATOM	13196	CB	GLN	C	337	149.121	184.239	198.843	1.00 51.01	C
ATOM	13197	CG	GLN	C	337	149.987	185.077	199.757	1.00 51.01	C
ATOM	13198	CD	GLN	C	337	149.572	186.531	199.765	1.00 51.01	C
ATOM	13199	OE1	GLN	C	337	149.068	187.038	200.764	1.00 51.01	O
ATOM	13200	NE2	GLN	C	337	149.767	187.208	198.644	1.00 51.01	N
ATOM	13201	N	ASN	C	338	147.069	183.929	196.896	1.00 77.99	N
ATOM	13202	CA	ASN	C	338	146.148	183.740	195.778	1.00 77.99	C
ATOM	13203	C	ASN	C	338	146.991	183.585	194.522	1.00 77.99	C
ATOM	13204	O	ASN	C	338	147.786	184.473	194.200	1.00 77.99	O
ATOM	13205	CB	ASN	C	338	145.206	184.949	195.719	1.00 77.99	C
ATOM	13206	CG	ASN	C	338	143.969	184.752	194.839	1.00 77.99	C
ATOM	13207	OD1	ASN	C	338	142.919	185.309	195.159	1.00 77.99	O

ATOM	13208	ND2	ASN	C	338	144.092	184.025	193.721	1.00 77.99	N
ATOM	13209	N	GLU	C	339	146.821	182.466	193.822	1.00 85.47	N
ATOM	13210	CA	GLU	C	339	147.803	182.040	192.829	1.00 85.47	C
ATOM	13211	C	GLU	C	339	147.883	182.997	191.643	1.00 85.47	C
ATOM	13212	O	GLU	C	339	146.885	183.591	191.228	1.00 85.47	O
ATOM	13213	CB	GLU	C	339	147.479	180.629	192.341	1.00 85.47	C
ATOM	13214	CG	GLU	C	339	147.663	179.555	193.403	1.00 85.47	C
ATOM	13215	CD	GLU	C	339	147.387	178.158	192.879	1.00 85.47	C
ATOM	13216	OE1	GLU	C	339	146.944	178.033	191.718	1.00 85.47	O
ATOM	13217	OE2	GLU	C	339	147.614	177.183	193.625	1.00 85.47	O
ATOM	13218	N	LYS	C	340	149.089	183.132	191.097	1.00102.20	N
ATOM	13219	CA	LYS	C	340	149.352	184.026	189.980	1.00102.20	C
ATOM	13220	C	LYS	C	340	148.976	183.357	188.655	1.00102.20	C
ATOM	13221	O	LYS	C	340	148.504	182.218	188.612	1.00102.20	O
ATOM	13222	CB	LYS	C	340	150.819	184.446	189.986	1.00102.20	C
ATOM	13223	CG	LYS	C	340	151.785	183.288	189.810	1.00102.20	C
ATOM	13224	CD	LYS	C	340	153.223	183.766	189.775	1.00102.20	C
ATOM	13225	CE	LYS	C	340	153.694	184.206	191.147	1.00102.20	C
ATOM	13226	NZ	LYS	C	340	155.143	184.542	191.138	1.00102.20	N
ATOM	13227	N	ASN	C	341	149.178	184.087	187.555	1.00128.75	N
ATOM	13228	CA	ASN	C	341	148.846	183.547	186.236	1.00128.75	C
ATOM	13229	C	ASN	C	341	149.962	182.675	185.668	1.00128.75	C
ATOM	13230	O	ASN	C	341	149.813	181.457	185.534	1.00128.75	O
ATOM	13231	CB	ASN	C	341	148.548	184.685	185.251	1.00128.75	C
ATOM	13232	CG	ASN	C	341	147.218	185.367	185.498	1.00128.75	C
ATOM	13233	OD1	ASN	C	341	146.264	184.752	185.971	1.00128.75	O
ATOM	13234	ND2	ASN	C	341	147.147	186.650	185.120	1.00128.75	N
ATOM	13235	N	VAL	C	342	151.097	183.295	185.342	1.00125.54	N
ATOM	13236	CA	VAL	C	342	152.096	182.670	184.482	1.00125.54	C
ATOM	13237	C	VAL	C	342	153.393	183.470	184.531	1.00125.54	C
ATOM	13238	O	VAL	C	342	153.385	184.669	184.829	1.00125.54	O
ATOM	13239	CB	VAL	C	342	151.569	182.553	183.040	1.00125.54	C
ATOM	13240	CG1	VAL	C	342	151.401	183.934	182.424	1.00125.54	C
ATOM	13241	CG2	VAL	C	342	152.483	181.681	182.196	1.00125.54	C
ATOM	13242	N	THR	C	343	154.516	182.814	184.233	1.00128.54	N
ATOM	13243	CA	THR	C	343	155.822	183.457	184.231	1.00128.54	C
ATOM	13244	C	THR	C	343	156.592	183.078	182.973	1.00128.54	C

ATOM	13245	O	THR C 343	156.624	181.908	182.581	1.00128.54	O
ATOM	13246	CB	THR C 343	156.632	183.067	185.469	1.00128.54	C
ATOM	13247	OG1	THR C 343	155.915	183.451	186.649	1.00128.54	O
ATOM	13248	CG2	THR C 343	157.984	183.762	185.456	1.00128.54	C
ATOM	13249	N	CYS C 344	157.215	184.075	182.350	1.00124.83	N
ATOM	13250	CA	CYS C 344	157.978	183.888	181.125	1.00124.83	C
ATOM	13251	C	CYS C 344	159.451	183.631	181.444	1.00124.83	C
ATOM	13252	O	CYS C 344	159.829	183.354	182.585	1.00124.83	O
ATOM	13253	CB	CYS C 344	157.812	185.097	180.207	1.00124.83	C
ATOM	13254	SG	CYS C 344	156.170	185.286	179.486	1.00124.83	S
ATOM	13255	N	ALA C 345	160.298	183.711	180.419	1.00115.19	N
ATOM	13256	CA	ALA C 345	161.730	183.465	180.541	1.00115.19	C
ATOM	13257	C	ALA C 345	162.523	184.513	179.775	1.00115.19	C
ATOM	13258	O	ALA C 345	163.563	184.213	179.180	1.00115.19	O
ATOM	13259	CB	ALA C 345	162.090	182.069	180.035	1.00115.19	C
ATOM	13260	N	LEU C 346	162.060	185.760	179.787	1.00112.06	N
ATOM	13261	CA	LEU C 346	162.628	186.800	178.941	1.00112.06	C
ATOM	13262	C	LEU C 346	163.257	187.897	179.786	1.00112.06	C
ATOM	13263	O	LEU C 346	162.706	188.300	180.814	1.00112.06	O
ATOM	13264	CB	LEU C 346	161.563	187.410	178.023	1.00112.06	C
ATOM	13265	CG	LEU C 346	160.608	188.426	178.654	1.00112.06	C
ATOM	13266	CD1	LEU C 346	159.849	189.180	177.575	1.00112.06	C
ATOM	13267	CD2	LEU C 346	159.649	187.761	179.625	1.00112.06	C
ATOM	13268	N	THR C 347	164.413	188.366	179.349	1.00113.60	N
ATOM	13269	CA	THR C 347	165.074	189.537	179.916	1.00113.60	C
ATOM	13270	C	THR C 347	165.455	190.566	178.862	1.00113.60	C
ATOM	13271	O	THR C 347	165.332	191.767	179.115	1.00113.60	O
ATOM	13272	CB	THR C 347	166.318	189.105	180.698	1.00113.60	C
ATOM	13273	OG1	THR C 347	167.168	188.331	179.845	1.00113.60	O
ATOM	13274	CG2	THR C 347	165.926	188.281	181.910	1.00113.60	C
ATOM	13275	N	PHE C 348	165.905	190.123	177.686	1.00113.78	N
ATOM	13276	CA	PHE C 348	166.206	190.985	176.543	1.00113.78	C
ATOM	13277	C	PHE C 348	167.227	192.062	176.921	1.00113.78	C
ATOM	13278	O	PHE C 348	166.959	193.263	176.895	1.00113.78	O
ATOM	13279	CB	PHE C 348	164.920	191.603	175.986	1.00113.78	C
ATOM	13280	CG	PHE C 348	164.006	190.605	175.337	1.00113.78	C
ATOM	13281	CD1	PHE C 348	164.477	189.359	174.962	1.00113.78	C

ATOM	13282	CD2	PHE	C	348	162.674	190.905	175.117	1.00113.78	C
ATOM	13283	CE1	PHE	C	348	163.641	188.436	174.370	1.00113.78	C
ATOM	13284	CE2	PHE	C	348	161.832	189.984	174.526	1.00113.78	C
ATOM	13285	CZ	PHE	C	348	162.317	188.748	174.152	1.00113.78	C
ATOM	13286	N	TRP	C	349	168.420	191.588	177.272	1.00116.30	N
ATOM	13287	CA	TRP	C	349	169.484	192.453	177.764	1.00116.30	C
ATOM	13288	C	TRP	C	349	170.634	192.565	176.770	1.00116.30	C
ATOM	13289	O	TRP	C	349	171.759	192.886	177.153	1.00116.30	O
ATOM	13290	CB	TRP	C	349	169.991	191.956	179.118	1.00116.30	C
ATOM	13291	CG	TRP	C	349	170.561	190.570	179.074	1.00116.30	C
ATOM	13292	CD1	TRP	C	349	169.866	189.403	179.151	1.00116.30	C
ATOM	13293	CD2	TRP	C	349	171.945	190.206	178.980	1.00116.30	C
ATOM	13294	NE1	TRP	C	349	170.722	188.334	179.091	1.00116.30	N
ATOM	13295	CE2	TRP	C	349	172.006	188.799	178.989	1.00116.30	C
ATOM	13296	CE3	TRP	C	349	173.136	190.930	178.886	1.00116.30	C
ATOM	13297	CZ2	TRP	C	349	173.209	188.104	178.903	1.00116.30	C
ATOM	13298	CZ3	TRP	C	349	174.328	190.239	178.797	1.00116.30	C
ATOM	13299	CH2	TRP	C	349	174.356	188.841	178.808	1.00116.30	C
ATOM	13300	N	GLU	C	350	170.373	192.336	175.486	1.00119.33	N
ATOM	13301	CA	GLU	C	350	171.484	192.409	174.550	1.00119.33	C
ATOM	13302	C	GLU	C	350	170.971	192.496	173.122	1.00119.33	C
ATOM	13303	O	GLU	C	350	169.952	191.893	172.772	1.00119.33	O
ATOM	13304	CB	GLU	C	350	172.414	191.201	174.703	1.00119.33	C
ATOM	13305	CG	GLU	C	350	173.611	191.262	173.788	1.00119.33	C
ATOM	13306	CD	GLU	C	350	174.449	192.492	174.049	1.00119.33	C
ATOM	13307	OE1	GLU	C	350	174.408	193.005	175.187	1.00119.33	O
ATOM	13308	OE2	GLU	C	350	175.141	192.953	173.118	1.00119.33	O
ATOM	13309	N	ALA	C	351	171.698	193.260	172.305	1.00123.35	N
ATOM	13310	CA	ALA	C	351	171.461	193.342	170.864	1.00123.35	C
ATOM	13311	C	ALA	C	351	172.828	193.397	170.187	1.00123.35	C
ATOM	13312	O	ALA	C	351	173.399	194.477	170.015	1.00123.35	O
ATOM	13313	CB	ALA	C	351	170.610	194.553	170.503	1.00123.35	C
ATOM	13314	N	SER	C	352	173.346	192.232	169.809	1.00117.36	N
ATOM	13315	CA	SER	C	352	174.660	192.119	169.186	1.00117.36	C
ATOM	13316	C	SER	C	352	174.481	192.028	167.676	1.00117.36	C
ATOM	13317	O	SER	C	352	174.026	191.003	167.158	1.00117.36	O
ATOM	13318	CB	SER	C	352	175.412	190.904	169.722	1.00117.36	C

ATOM	13319	OG	SER	C	352	175.690	191.047	171.103	1.00117.36	O
ATOM	13320	N	GLU	C	353	174.841	193.100	166.972	1.00120.29	N
ATOM	13321	CA	GLU	C	353	174.821	193.120	165.518	1.00120.29	C
ATOM	13322	C	GLU	C	353	176.164	192.730	164.911	1.00120.29	C
ATOM	13323	O	GLU	C	353	176.392	192.971	163.721	1.00120.29	O
ATOM	13324	CB	GLU	C	353	174.395	194.500	165.011	1.00120.29	C
ATOM	13325	CG	GLU	C	353	175.397	195.608	165.283	1.00120.29	C
ATOM	13326	CD	GLU	C	353	175.223	196.225	166.655	1.00120.29	C
ATOM	13327	OE1	GLU	C	353	174.546	195.609	167.504	1.00120.29	O
ATOM	13328	OE2	GLU	C	353	175.762	197.328	166.884	1.00120.29	O
ATOM	13329	N	ARG	C	354	177.054	192.130	165.703	1.00114.44	N
ATOM	13330	CA	ARG	C	354	178.362	191.707	165.206	1.00114.44	C
ATOM	13331	C	ARG	C	354	178.836	190.549	166.080	1.00114.44	C
ATOM	13332	O	ARG	C	354	179.316	190.768	167.196	1.00114.44	O
ATOM	13333	CB	ARG	C	354	179.355	192.860	165.219	1.00114.44	C
ATOM	13334	CG	ARG	C	354	180.749	192.476	164.753	1.00114.44	C
ATOM	13335	CD	ARG	C	354	180.752	192.085	163.284	1.00114.44	C
ATOM	13336	NE	ARG	C	354	180.441	193.219	162.420	1.00114.44	N
ATOM	13337	CZ	ARG	C	354	180.128	193.112	161.133	1.00114.44	C
ATOM	13338	NH1	ARG	C	354	180.081	191.920	160.556	1.00114.44	N
ATOM	13339	NH2	ARG	C	354	179.861	194.200	160.423	1.00114.44	N
ATOM	13340	N	THR	C	355	178.694	189.328	165.569	1.00103.83	N
ATOM	13341	CA	THR	C	355	179.151	188.129	166.254	1.00103.83	C
ATOM	13342	C	THR	C	355	179.760	187.188	165.223	1.00103.83	C
ATOM	13343	O	THR	C	355	179.892	187.527	164.044	1.00103.83	O
ATOM	13344	CB	THR	C	355	178.011	187.445	167.015	1.00103.83	C
ATOM	13345	OG1	THR	C	355	176.989	187.051	166.093	1.00103.83	O
ATOM	13346	CG2	THR	C	355	177.418	188.385	168.056	1.00103.83	C
ATOM	13347	N	ILE	C	356	180.135	185.994	165.674	1.00 95.38	N
ATOM	13348	CA	ILE	C	356	180.763	184.989	164.823	1.00 95.38	C
ATOM	13349	C	ILE	C	356	180.209	183.627	165.212	1.00 95.38	C
ATOM	13350	O	ILE	C	356	180.279	183.238	166.383	1.00 95.38	O
ATOM	13351	CB	ILE	C	356	182.296	184.994	164.942	1.00 95.38	C
ATOM	13352	CG1	ILE	C	356	182.877	186.284	164.361	1.00 95.38	C
ATOM	13353	CG2	ILE	C	356	182.880	183.771	164.266	1.00 95.38	C
ATOM	13354	CD1	ILE	C	356	183.024	187.398	165.366	1.00 95.38	C
ATOM	13355	N	ARG	C	357	179.665	182.903	164.239	1.00 98.87	N

ATOM	13356	CA	ARG C 357	178.981	181.635	164.485	1.00	98.87	C
ATOM	13357	C	ARG C 357	179.888	180.506	164.006	1.00	98.87	C
ATOM	13358	O	ARG C 357	179.782	180.038	162.872	1.00	98.87	O
ATOM	13359	CB	ARG C 357	177.635	181.620	163.773	1.00	98.87	C
ATOM	13360	CG	ARG C 357	176.738	180.455	164.116	1.00	98.87	C
ATOM	13361	CD	ARG C 357	176.969	179.256	163.224	1.00	98.87	C
ATOM	13362	NE	ARG C 357	175.916	178.266	163.399	1.00	98.87	N
ATOM	13363	CZ	ARG C 357	174.895	178.100	162.564	1.00	98.87	C
ATOM	13364	NH1	ARG C 357	173.970	177.184	162.816	1.00	98.87	N
ATOM	13365	NH2	ARG C 357	174.829	178.818	161.450	1.00	98.87	N
ATOM	13366	N	SER C 358	180.790	180.067	164.877	1.00	103.51	N
ATOM	13367	CA	SER C 358	181.686	178.976	164.529	1.00	103.51	C
ATOM	13368	C	SER C 358	180.994	177.628	164.722	1.00	103.51	C
ATOM	13369	O	SER C 358	179.857	177.540	165.192	1.00	103.51	O
ATOM	13370	CB	SER C 358	182.964	179.046	165.360	1.00	103.51	C
ATOM	13371	OG	SER C 358	182.689	178.823	166.729	1.00	103.51	O
ATOM	13372	N	GLU C 359	181.705	176.560	164.353	1.00	110.11	N
ATOM	13373	CA	GLU C 359	181.146	175.210	164.426	1.00	110.11	C
ATOM	13374	C	GLU C 359	182.318	174.230	164.461	1.00	110.11	C
ATOM	13375	O	GLU C 359	182.989	174.041	163.442	1.00	110.11	O
ATOM	13376	CB	GLU C 359	180.228	174.944	163.243	1.00	110.11	C
ATOM	13377	CG	GLU C 359	179.422	173.661	163.332	1.00	110.11	C
ATOM	13378	CD	GLU C 359	180.175	172.451	162.819	1.00	110.11	C
ATOM	13379	OE1	GLU C 359	181.047	172.622	161.941	1.00	110.11	O
ATOM	13380	OE2	GLU C 359	179.895	171.331	163.293	1.00	110.11	O
ATOM	13381	N	ALA C 360	182.564	173.620	165.623	1.00	115.33	N
ATOM	13382	CA	ALA C 360	183.696	172.698	165.704	1.00	115.33	C
ATOM	13383	C	ALA C 360	183.327	171.293	165.231	1.00	115.33	C
ATOM	13384	O	ALA C 360	183.700	170.883	164.129	1.00	115.33	O
ATOM	13385	CB	ALA C 360	184.233	172.666	167.139	1.00	115.33	C
ATOM	13386	N	GLU C 361	182.583	170.541	166.045	1.00	116.84	N
ATOM	13387	CA	GLU C 361	182.046	169.264	165.586	1.00	116.84	C
ATOM	13388	C	GLU C 361	180.561	169.108	165.883	1.00	116.84	C
ATOM	13389	O	GLU C 361	179.766	168.780	164.996	1.00	116.84	O
ATOM	13390	CB	GLU C 361	182.818	168.099	166.208	1.00	116.84	C
ATOM	13391	CG	GLU C 361	182.338	166.733	165.734	1.00	116.84	C
ATOM	13392	CD	GLU C 361	182.528	166.535	164.241	1.00	116.84	C

ATOM	13393	OE1	GLU	C	361	183.419	167.191	163.662	1.00	116.84	O
ATOM	13394	OE2	GLU	C	361	181.786	165.726	163.646	1.00	116.84	O
ATOM	13395	N	ASP	C	362	180.187	169.346	167.142	1.00	116.11	N
ATOM	13396	CA	ASP	C	362	178.887	168.932	167.652	1.00	116.11	C
ATOM	13397	C	ASP	C	362	178.266	170.004	168.539	1.00	116.11	C
ATOM	13398	O	ASP	C	362	177.292	169.719	169.248	1.00	116.11	O
ATOM	13399	CB	ASP	C	362	179.031	167.614	168.434	1.00	116.11	C
ATOM	13400	CG	ASP	C	362	177.711	166.891	168.628	1.00	116.11	C
ATOM	13401	OD1	ASP	C	362	176.683	167.369	168.110	1.00	116.11	O
ATOM	13402	OD2	ASP	C	362	177.701	165.845	169.311	1.00	116.11	O
ATOM	13403	N	SER	C	363	178.803	171.219	168.533	1.00	109.52	N
ATOM	13404	CA	SER	C	363	178.293	172.289	169.384	1.00	109.52	C
ATOM	13405	C	SER	C	363	178.779	173.611	168.817	1.00	109.52	C
ATOM	13406	O	SER	C	363	179.989	173.857	168.780	1.00	109.52	O
ATOM	13407	CB	SER	C	363	178.765	172.102	170.823	1.00	109.52	C
ATOM	13408	OG	SER	C	363	180.172	172.233	170.920	1.00	109.52	O
ATOM	13409	N	TYR	C	364	177.848	174.457	168.377	1.00	104.01	N
ATOM	13410	CA	TYR	C	364	178.210	175.739	167.787	1.00	104.01	C
ATOM	13411	C	TYR	C	364	178.829	176.654	168.834	1.00	104.01	C
ATOM	13412	O	TYR	C	364	178.866	176.314	170.020	1.00	104.01	O
ATOM	13413	CB	TYR	C	364	176.990	176.418	167.161	1.00	104.01	C
ATOM	13414	CG	TYR	C	364	176.369	175.660	166.012	1.00	104.01	C
ATOM	13415	CD1	TYR	C	364	176.952	175.662	164.755	1.00	104.01	C
ATOM	13416	CD2	TYR	C	364	175.181	174.962	166.180	1.00	104.01	C
ATOM	13417	CE1	TYR	C	364	176.379	174.978	163.699	1.00	104.01	C
ATOM	13418	CE2	TYR	C	364	174.601	174.274	165.134	1.00	104.01	C
ATOM	13419	CZ	TYR	C	364	175.204	174.285	163.895	1.00	104.01	C
ATOM	13420	OH	TYR	C	364	174.632	173.601	162.848	1.00	104.01	O
ATOM	13421	N	HIS	C	365	179.308	177.819	168.407	1.00	101.87	N
ATOM	13422	CA	HIS	C	365	179.870	178.808	169.313	1.00	101.87	C
ATOM	13423	C	HIS	C	365	179.461	180.196	168.850	1.00	101.87	C
ATOM	13424	O	HIS	C	365	179.293	180.445	167.654	1.00	101.87	O
ATOM	13425	CB	HIS	C	365	181.397	178.719	169.383	1.00	101.87	C
ATOM	13426	CG	HIS	C	365	181.904	177.430	169.947	1.00	101.87	C
ATOM	13427	ND1	HIS	C	365	181.888	177.150	171.296	1.00	101.87	N
ATOM	13428	CD2	HIS	C	365	182.439	176.343	169.343	1.00	101.87	C
ATOM	13429	CE1	HIS	C	365	182.397	175.948	171.499	1.00	101.87	C

ATOM	13430	NE2	HIS	C	365	182.737	175.437	170.330	1.00101.87	N
ATOM	13431	N	PHE	C	366	179.312	181.103	169.813	1.00 96.42	N
ATOM	13432	CA	PHE	C	366	178.893	182.477	169.549	1.00 96.42	C
ATOM	13433	C	PHE	C	366	179.934	183.393	170.180	1.00 96.42	C
ATOM	13434	O	PHE	C	366	179.777	183.833	171.321	1.00 96.42	O
ATOM	13435	CB	PHE	C	366	177.500	182.730	170.099	1.00 96.42	C
ATOM	13436	CG	PHE	C	366	176.437	181.907	169.439	1.00 96.42	C
ATOM	13437	CD1	PHE	C	366	175.885	182.302	168.236	1.00 96.42	C
ATOM	13438	CD2	PHE	C	366	176.000	180.727	170.015	1.00 96.42	C
ATOM	13439	CE1	PHE	C	366	174.910	181.543	167.626	1.00 96.42	C
ATOM	13440	CE2	PHE	C	366	175.025	179.965	169.408	1.00 96.42	C
ATOM	13441	CZ	PHE	C	366	174.479	180.373	168.213	1.00 96.42	C
ATOM	13442	N	SER	C	367	180.996	183.682	169.430	1.00 96.16	N
ATOM	13443	CA	SER	C	367	182.096	184.509	169.923	1.00 96.16	C
ATOM	13444	C	SER	C	367	181.730	185.976	169.724	1.00 96.16	C
ATOM	13445	O	SER	C	367	182.169	186.643	168.786	1.00 96.16	O
ATOM	13446	CB	SER	C	367	183.395	184.150	169.215	1.00 96.16	C
ATOM	13447	OG	SER	C	367	183.324	184.469	167.837	1.00 96.16	O
ATOM	13448	N	SER	C	368	180.897	186.478	170.632	1.00107.74	N
ATOM	13449	CA	SER	C	368	180.498	187.877	170.584	1.00107.74	C
ATOM	13450	C	SER	C	368	181.712	188.784	170.746	1.00107.74	C
ATOM	13451	O	SER	C	368	182.669	188.460	171.454	1.00107.74	O
ATOM	13452	CB	SER	C	368	179.465	188.173	171.672	1.00107.74	C
ATOM	13453	OG	SER	C	368	180.022	188.005	172.964	1.00107.74	O
ATOM	13454	N	ALA	C	369	181.664	189.934	170.078	1.00110.19	N
ATOM	13455	CA	ALA	C	369	182.776	190.876	170.057	1.00110.19	C
ATOM	13456	C	ALA	C	369	182.486	192.145	170.840	1.00110.19	C
ATOM	13457	O	ALA	C	369	183.268	192.523	171.718	1.00110.19	O
ATOM	13458	CB	ALA	C	369	183.134	191.232	168.607	1.00110.19	C
ATOM	13459	N	LYS	C	370	181.375	192.819	170.541	1.00117.58	N
ATOM	13460	CA	LYS	C	370	181.028	194.028	171.278	1.00117.58	C
ATOM	13461	C	LYS	C	370	180.724	193.714	172.737	1.00117.58	C
ATOM	13462	O	LYS	C	370	180.887	194.577	173.607	1.00117.58	O
ATOM	13463	CB	LYS	C	370	179.845	194.719	170.602	1.00117.58	C
ATOM	13464	CG	LYS	C	370	180.183	195.232	169.209	1.00117.58	C
ATOM	13465	CD	LYS	C	370	179.004	195.909	168.532	1.00117.58	C
ATOM	13466	CE	LYS	C	370	179.382	196.362	167.129	1.00117.58	C

ATOM	13467	NZ	LYS C 370	178.251	197.003	166.408	1.00117.58	N
ATOM	13468	N	MET C 371	180.279	192.494	173.019	1.00115.98	N
ATOM	13469	CA	MET C 371	180.172	191.983	174.375	1.00115.98	C
ATOM	13470	C	MET C 371	181.437	191.202	174.724	1.00115.98	C
ATOM	13471	O	MET C 371	182.443	191.246	174.011	1.00115.98	O
ATOM	13472	CB	MET C 371	178.925	191.116	174.521	1.00115.98	C
ATOM	13473	CG	MET C 371	177.628	191.879	174.414	1.00115.98	C
ATOM	13474	SD	MET C 371	177.477	193.118	175.711	1.00115.98	S
ATOM	13475	CE	MET C 371	177.297	192.072	177.154	1.00115.98	C
ATOM	13476	N	THR C 372	181.394	190.473	175.834	1.00110.90	N
ATOM	13477	CA	THR C 372	182.455	189.560	176.242	1.00110.90	C
ATOM	13478	C	THR C 372	181.868	188.189	176.542	1.00110.90	C
ATOM	13479	O	THR C 372	182.179	187.553	177.551	1.00110.90	O
ATOM	13480	CB	THR C 372	183.208	190.102	177.451	1.00110.90	C
ATOM	13481	OG1	THR C 372	182.303	190.248	178.552	1.00110.90	O
ATOM	13482	CG2	THR C 372	183.826	191.452	177.127	1.00110.90	C
ATOM	13483	N	ALA C 373	181.000	187.717	175.653	1.00102.73	N
ATOM	13484	CA	ALA C 373	180.248	186.489	175.860	1.00102.73	C
ATOM	13485	C	ALA C 373	180.736	185.391	174.926	1.00102.73	C
ATOM	13486	O	ALA C 373	181.092	185.651	173.773	1.00102.73	O
ATOM	13487	CB	ALA C 373	178.751	186.722	175.644	1.00102.73	C
ATOM	13488	N	THR C 374	180.747	184.161	175.437	1.00 97.53	N
ATOM	13489	CA	THR C 374	181.065	182.974	174.653	1.00 97.53	C
ATOM	13490	C	THR C 374	180.110	181.872	175.084	1.00 97.53	C
ATOM	13491	O	THR C 374	180.109	181.473	176.252	1.00 97.53	O
ATOM	13492	CB	THR C 374	182.522	182.543	174.850	1.00 97.53	C
ATOM	13493	OG1	THR C 374	182.751	182.241	176.231	1.00 97.53	O
ATOM	13494	CG2	THR C 374	183.469	183.650	174.415	1.00 97.53	C
ATOM	13495	N	PHE C 375	179.304	181.384	174.148	1.00 96.08	N
ATOM	13496	CA	PHE C 375	178.162	180.531	174.450	1.00 96.08	C
ATOM	13497	C	PHE C 375	178.380	179.141	173.852	1.00 96.08	C
ATOM	13498	O	PHE C 375	179.463	178.814	173.360	1.00 96.08	O
ATOM	13499	CB	PHE C 375	176.874	181.171	173.929	1.00 96.08	C
ATOM	13500	CG	PHE C 375	176.496	182.445	174.632	1.00 96.08	C
ATOM	13501	CD1	PHE C 375	177.043	182.769	175.862	1.00 96.08	C
ATOM	13502	CD2	PHE C 375	175.600	183.326	174.054	1.00 96.08	C
ATOM	13503	CE1	PHE C 375	176.700	183.943	176.502	1.00 96.08	C

ATOM	13504	CE2	PHE C 375	175.252	184.501	174.691	1.00	96.08	C
ATOM	13505	CZ	PHE C 375	175.803	184.809	175.916	1.00	96.08	C
ATOM	13506	N	LEU C 376	177.336	178.313	173.907	1.00	100.43	N
ATOM	13507	CA	LEU C 376	177.427	176.955	173.386	1.00	100.43	C
ATOM	13508	C	LEU C 376	176.049	176.315	173.254	1.00	100.43	C
ATOM	13509	O	LEU C 376	175.253	176.344	174.198	1.00	100.43	O
ATOM	13510	CB	LEU C 376	178.318	176.105	174.291	1.00	100.43	C
ATOM	13511	CG	LEU C 376	178.635	174.692	173.809	1.00	100.43	C
ATOM	13512	CD1	LEU C 376	179.462	174.757	172.543	1.00	100.43	C
ATOM	13513	CD2	LEU C 376	179.358	173.903	174.887	1.00	100.43	C
ATOM	13514	N	SER C 377	175.759	175.737	172.093	1.00	104.87	N
ATOM	13515	CA	SER C 377	174.523	175.006	171.841	1.00	104.87	C
ATOM	13516	C	SER C 377	174.863	173.593	171.373	1.00	104.87	C
ATOM	13517	O	SER C 377	176.032	173.218	171.265	1.00	104.87	O
ATOM	13518	CB	SER C 377	173.651	175.737	170.817	1.00	104.87	C
ATOM	13519	OG	SER C 377	172.454	175.021	170.571	1.00	104.87	O
ATOM	13520	N	LYS C 378	173.831	172.801	171.087	1.00	106.27	N
ATOM	13521	CA	LYS C 378	173.995	171.363	170.879	1.00	106.27	C
ATOM	13522	C	LYS C 378	173.367	170.914	169.562	1.00	106.27	C
ATOM	13523	O	LYS C 378	172.636	169.923	169.500	1.00	106.27	O
ATOM	13524	CB	LYS C 378	173.405	170.576	172.046	1.00	106.27	C
ATOM	13525	CG	LYS C 378	174.398	170.243	173.156	1.00	106.27	C
ATOM	13526	CD	LYS C 378	174.940	171.496	173.824	1.00	106.27	C
ATOM	13527	CE	LYS C 378	176.033	171.166	174.824	1.00	106.27	C
ATOM	13528	NZ	LYS C 378	175.529	170.298	175.922	1.00	106.27	N
ATOM	13529	N	LYS C 379	173.638	171.649	168.485	1.00	111.87	N
ATOM	13530	CA	LYS C 379	173.354	171.262	167.103	1.00	111.87	C
ATOM	13531	C	LYS C 379	171.873	171.223	166.749	1.00	111.87	C
ATOM	13532	O	LYS C 379	171.545	171.005	165.576	1.00	111.87	O
ATOM	13533	CB	LYS C 379	173.930	169.883	166.753	1.00	111.87	C
ATOM	13534	CG	LYS C 379	175.418	169.746	166.943	1.00	111.87	C
ATOM	13535	CD	LYS C 379	176.197	170.525	165.911	1.00	111.87	C
ATOM	13536	CE	LYS C 379	176.557	171.895	166.442	1.00	111.87	C
ATOM	13537	NZ	LYS C 379	177.466	172.610	165.515	1.00	111.87	N
ATOM	13538	N	GLN C 380	170.967	171.423	167.702	1.00	105.33	N
ATOM	13539	CA	GLN C 380	169.545	171.199	167.475	1.00	105.33	C
ATOM	13540	C	GLN C 380	168.780	172.460	167.837	1.00	105.33	C

ATOM	13541	O	GLN C 380	168.860	172.932	168.975	1.00105.33	O
ATOM	13542	CB	GLN C 380	169.043	170.005	168.292	1.00105.33	C
ATOM	13543	CG	GLN C 380	169.645	168.678	167.855	1.00105.33	C
ATOM	13544	CD	GLN C 380	169.190	167.512	168.710	1.00105.33	C
ATOM	13545	OE1	GLN C 380	168.473	167.689	169.694	1.00105.33	O
ATOM	13546	NE2	GLN C 380	169.607	166.309	168.335	1.00105.33	N
ATOM	13547	N	GLU C 381	168.047	173.002	166.869	1.00110.17	N
ATOM	13548	CA	GLU C 381	167.261	174.199	167.109	1.00110.17	C
ATOM	13549	C	GLU C 381	166.167	173.919	168.133	1.00110.17	C
ATOM	13550	O	GLU C 381	165.848	172.769	168.446	1.00110.17	O
ATOM	13551	CB	GLU C 381	166.641	174.704	165.808	1.00110.17	C
ATOM	13552	CG	GLU C 381	167.650	175.210	164.797	1.00110.17	C
ATOM	13553	CD	GLU C 381	167.000	175.666	163.508	1.00110.17	C
ATOM	13554	OE1	GLU C 381	165.775	175.472	163.362	1.00110.17	O
ATOM	13555	OE2	GLU C 381	167.713	176.217	162.643	1.00110.17	O
ATOM	13556	N	VAL C 382	165.584	174.991	168.652	1.00102.94	N
ATOM	13557	CA	VAL C 382	164.533	174.888	169.654	1.00102.94	C
ATOM	13558	C	VAL C 382	163.187	174.816	168.949	1.00102.94	C
ATOM	13559	O	VAL C 382	162.895	175.623	168.059	1.00102.94	O
ATOM	13560	CB	VAL C 382	164.587	176.070	170.635	1.00102.94	C
ATOM	13561	CG1	VAL C 382	163.422	176.004	171.602	1.00102.94	C
ATOM	13562	CG2	VAL C 382	165.911	176.075	171.382	1.00102.94	C
ATOM	13563	N	ASN C 383	162.382	173.828	169.333	1.00106.60	N
ATOM	13564	CA	ASN C 383	161.047	173.639	168.776	1.00106.60	C
ATOM	13565	C	ASN C 383	160.218	174.906	168.955	1.00106.60	C
ATOM	13566	O	ASN C 383	160.072	175.407	170.074	1.00106.60	O
ATOM	13567	CB	ASN C 383	160.378	172.466	169.483	1.00106.60	C
ATOM	13568	CG	ASN C 383	159.377	171.732	168.615	1.00106.60	C
ATOM	13569	OD1	ASN C 383	158.972	170.629	168.979	1.00106.60	O
ATOM	13570	ND2	ASN C 383	158.991	172.327	167.466	1.00106.60	N
ATOM	13571	N	MET C 384	159.671	175.424	167.858	1.00107.65	N
ATOM	13572	CA	MET C 384	158.922	176.675	167.899	1.00107.65	C
ATOM	13573	C	MET C 384	157.459	176.492	168.282	1.00107.65	C
ATOM	13574	O	MET C 384	156.677	177.436	168.126	1.00107.65	O
ATOM	13575	CB	MET C 384	159.008	177.388	166.550	1.00107.65	C
ATOM	13576	CG	MET C 384	160.396	177.876	166.210	1.00107.65	C
ATOM	13577	SD	MET C 384	161.017	179.055	167.423	1.00107.65	S

ATOM	13578	CE	MET	C	384	159.944	180.456	167.118	1.00	107.65	C
ATOM	13579	N	SER	C	385	157.069	175.316	168.768	1.00	114.65	N
ATOM	13580	CA	SER	C	385	155.701	175.051	169.203	1.00	114.65	C
ATOM	13581	C	SER	C	385	155.598	175.019	170.725	1.00	114.65	C
ATOM	13582	O	SER	C	385	154.831	174.240	171.295	1.00	114.65	O
ATOM	13583	CB	SER	C	385	155.182	173.745	168.607	1.00	114.65	C
ATOM	13584	OG	SER	C	385	155.895	172.625	169.103	1.00	114.65	O
ATOM	13585	N	ASP	C	386	156.369	175.867	171.398	1.00	122.41	N
ATOM	13586	CA	ASP	C	386	156.371	175.951	172.852	1.00	122.41	C
ATOM	13587	C	ASP	C	386	155.603	177.193	173.283	1.00	122.41	C
ATOM	13588	O	ASP	C	386	155.846	178.290	172.768	1.00	122.41	O
ATOM	13589	CB	ASP	C	386	157.801	175.988	173.396	1.00	122.41	C
ATOM	13590	CG	ASP	C	386	157.852	175.899	174.907	1.00	122.41	C
ATOM	13591	OD1	ASP	C	386	157.602	174.801	175.444	1.00	122.41	O
ATOM	13592	OD2	ASP	C	386	158.147	176.923	175.557	1.00	122.41	O
ATOM	13593	N	SER	C	387	154.676	177.015	174.228	1.00	125.35	N
ATOM	13594	CA	SER	C	387	153.828	178.117	174.664	1.00	125.35	C
ATOM	13595	C	SER	C	387	154.610	179.202	175.392	1.00	125.35	C
ATOM	13596	O	SER	C	387	154.153	180.349	175.439	1.00	125.35	O
ATOM	13597	CB	SER	C	387	152.706	177.594	175.564	1.00	125.35	C
ATOM	13598	OG	SER	C	387	151.881	178.652	176.021	1.00	125.35	O
ATOM	13599	N	ALA	C	388	155.774	178.872	175.954	1.00	126.21	N
ATOM	13600	CA	ALA	C	388	156.583	179.865	176.650	1.00	126.21	C
ATOM	13601	C	ALA	C	388	157.217	180.879	175.707	1.00	126.21	C
ATOM	13602	O	ALA	C	388	157.786	181.867	176.183	1.00	126.21	O
ATOM	13603	CB	ALA	C	388	157.672	179.175	177.472	1.00	126.21	C
ATOM	13604	N	LEU	C	389	157.137	180.661	174.396	1.00	125.50	N
ATOM	13605	CA	LEU	C	389	157.700	181.582	173.420	1.00	125.50	C
ATOM	13606	C	LEU	C	389	156.713	182.647	172.964	1.00	125.50	C
ATOM	13607	O	LEU	C	389	157.124	183.592	172.282	1.00	125.50	O
ATOM	13608	CB	LEU	C	389	158.207	180.808	172.199	1.00	125.50	C
ATOM	13609	CG	LEU	C	389	159.379	179.855	172.435	1.00	125.50	C
ATOM	13610	CD1	LEU	C	389	159.669	179.053	171.177	1.00	125.50	C
ATOM	13611	CD2	LEU	C	389	160.613	180.618	172.883	1.00	125.50	C
ATOM	13612	N	ASP	C	390	155.431	182.513	173.319	1.00	124.17	N
ATOM	13613	CA	ASP	C	390	154.425	183.478	172.883	1.00	124.17	C
ATOM	13614	C	ASP	C	390	154.766	184.882	173.364	1.00	124.17	C

ATOM	13615	O	ASP C 390	154.695	185.850	172.599	1.00124.17	O
ATOM	13616	CB	ASP C 390	153.046	183.058	173.389	1.00124.17	C
ATOM	13617	CG	ASP C 390	152.543	181.794	172.724	1.00124.17	C
ATOM	13618	OD1	ASP C 390	152.916	181.544	171.559	1.00124.17	O
ATOM	13619	OD2	ASP C 390	151.774	181.049	173.367	1.00124.17	O
ATOM	13620	N	CYS C 391	155.141	185.011	174.633	1.00127.21	N
ATOM	13621	CA	CYS C 391	155.588	186.283	175.180	1.00127.21	C
ATOM	13622	C	CYS C 391	157.016	186.632	174.782	1.00127.21	C
ATOM	13623	O	CYS C 391	157.528	187.666	175.225	1.00127.21	O
ATOM	13624	CB	CYS C 391	155.466	186.263	176.705	1.00127.21	C
ATOM	13625	SG	CYS C 391	156.490	185.010	177.502	1.00127.21	S
ATOM	13626	N	VAL C 392	157.665	185.806	173.967	1.00122.60	N
ATOM	13627	CA	VAL C 392	159.061	185.989	173.596	1.00122.60	C
ATOM	13628	C	VAL C 392	159.232	186.076	172.083	1.00122.60	C
ATOM	13629	O	VAL C 392	159.915	186.968	171.578	1.00122.60	O
ATOM	13630	CB	VAL C 392	159.937	184.862	174.187	1.00122.60	C
ATOM	13631	CG1	VAL C 392	161.380	185.022	173.738	1.00122.60	C
ATOM	13632	CG2	VAL C 392	159.836	184.848	175.705	1.00122.60	C
ATOM	13633	N	ARG C 393	158.618	185.149	171.342	1.00120.69	N
ATOM	13634	CA	ARG C 393	158.857	185.076	169.903	1.00120.69	C
ATOM	13635	C	ARG C 393	158.305	186.291	169.170	1.00120.69	C
ATOM	13636	O	ARG C 393	158.882	186.714	168.162	1.00120.69	O
ATOM	13637	CB	ARG C 393	158.254	183.795	169.326	1.00120.69	C
ATOM	13638	CG	ARG C 393	156.738	183.748	169.351	1.00120.69	C
ATOM	13639	CD	ARG C 393	156.222	182.440	168.782	1.00120.69	C
ATOM	13640	NE	ARG C 393	156.516	182.317	167.358	1.00120.69	N
ATOM	13641	CZ	ARG C 393	155.766	182.843	166.396	1.00120.69	C
ATOM	13642	NH1	ARG C 393	156.105	182.683	165.124	1.00120.69	N
ATOM	13643	NH2	ARG C 393	154.677	183.531	166.706	1.00120.69	N
ATOM	13644	N	ASP C 394	157.191	186.856	169.643	1.00121.30	N
ATOM	13645	CA	ASP C 394	156.640	188.038	168.990	1.00121.30	C
ATOM	13646	C	ASP C 394	157.612	189.208	169.043	1.00121.30	C
ATOM	13647	O	ASP C 394	157.665	190.014	168.107	1.00121.30	O
ATOM	13648	CB	ASP C 394	155.305	188.419	169.627	1.00121.30	C
ATOM	13649	CG	ASP C 394	154.204	187.430	169.301	1.00121.30	C
ATOM	13650	OD1	ASP C 394	154.276	186.796	168.227	1.00121.30	O
ATOM	13651	OD2	ASP C 394	153.264	187.290	170.112	1.00121.30	O

ATOM	13652	N	GLU C 395	158.389	189.315	170.117	1.00120.41	N
ATOM	13653	CA	GLU C 395	159.478	190.277	170.182	1.00120.41	C
ATOM	13654	C	GLU C 395	160.754	189.751	169.541	1.00120.41	C
ATOM	13655	O	GLU C 395	161.671	190.536	169.277	1.00120.41	O
ATOM	13656	CB	GLU C 395	159.744	190.672	171.639	1.00120.41	C
ATOM	13657	CG	GLU C 395	160.824	191.721	171.815	1.00120.41	C
ATOM	13658	CD	GLU C 395	160.475	193.027	171.134	1.00120.41	C
ATOM	13659	OE1	GLU C 395	159.270	193.295	170.944	1.00120.41	O
ATOM	13660	OE2	GLU C 395	161.405	193.784	170.788	1.00120.41	O
ATOM	13661	N	ALA C 396	160.824	188.444	169.275	1.00119.41	N
ATOM	13662	CA	ALA C 396	161.996	187.876	168.617	1.00119.41	C
ATOM	13663	C	ALA C 396	162.189	188.464	167.225	1.00119.41	C
ATOM	13664	O	ALA C 396	163.324	188.653	166.774	1.00119.41	O
ATOM	13665	CB	ALA C 396	161.865	186.355	168.543	1.00119.41	C
ATOM	13666	N	ILE C 397	161.089	188.758	166.530	1.00117.03	N
ATOM	13667	CA	ILE C 397	161.177	189.316	165.186	1.00117.03	C
ATOM	13668	C	ILE C 397	161.387	190.826	165.205	1.00117.03	C
ATOM	13669	O	ILE C 397	161.868	191.393	164.215	1.00117.03	O
ATOM	13670	CB	ILE C 397	159.912	188.951	164.390	1.00117.03	C
ATOM	13671	CG1	ILE C 397	159.772	187.431	164.289	1.00117.03	C
ATOM	13672	CG2	ILE C 397	159.945	189.558	162.997	1.00117.03	C
ATOM	13673	CD1	ILE C 397	158.437	186.979	163.745	1.00117.03	C
ATOM	13674	N	ASN C 398	161.060	191.492	166.313	1.00118.68	N
ATOM	13675	CA	ASN C 398	161.082	192.951	166.342	1.00118.68	C
ATOM	13676	C	ASN C 398	162.505	193.491	166.259	1.00118.68	C
ATOM	13677	O	ASN C 398	162.850	194.226	165.327	1.00118.68	O
ATOM	13678	CB	ASN C 398	160.389	193.457	167.609	1.00118.68	C
ATOM	13679	CG	ASN C 398	158.892	193.216	167.591	1.00118.68	C
ATOM	13680	OD1	ASN C 398	158.237	193.383	166.563	1.00118.68	O
ATOM	13681	ND2	ASN C 398	158.342	192.829	168.736	1.00118.68	N
ATOM	13682	N	LYS C 399	163.349	193.132	167.228	1.00116.62	N
ATOM	13683	CA	LYS C 399	164.646	193.790	167.358	1.00116.62	C
ATOM	13684	C	LYS C 399	165.596	193.435	166.220	1.00116.62	C
ATOM	13685	O	LYS C 399	166.375	194.289	165.782	1.00116.62	O
ATOM	13686	CB	LYS C 399	165.280	193.431	168.701	1.00116.62	C
ATOM	13687	CG	LYS C 399	164.553	194.002	169.908	1.00116.62	C
ATOM	13688	CD	LYS C 399	165.268	193.632	171.197	1.00116.62	C

ATOM	13689	CE	LYS C 399	164.546	194.181	172.415	1.00116.62	C
ATOM	13690	NZ	LYS C 399	165.245	193.808	173.676	1.00116.62	N
ATOM	13691	N	LEU C 400	165.551	192.194	165.732	1.00117.41	N
ATOM	13692	CA	LEU C 400	166.532	191.736	164.751	1.00117.41	C
ATOM	13693	C	LEU C 400	166.427	192.522	163.448	1.00117.41	C
ATOM	13694	O	LEU C 400	167.417	193.082	162.965	1.00117.41	O
ATOM	13695	CB	LEU C 400	166.366	190.237	164.505	1.00117.41	C
ATOM	13696	CG	LEU C 400	167.052	189.336	165.534	1.00117.41	C
ATOM	13697	CD1	LEU C 400	166.366	189.427	166.885	1.00117.41	C
ATOM	13698	CD2	LEU C 400	167.088	187.896	165.049	1.00117.41	C
ATOM	13699	N	GLN C 401	165.230	192.566	162.856	1.00116.63	N
ATOM	13700	CA	GLN C 401	165.025	193.417	161.687	1.00116.63	C
ATOM	13701	C	GLN C 401	165.313	194.876	162.012	1.00116.63	C
ATOM	13702	O	GLN C 401	165.767	195.630	161.144	1.00116.63	O
ATOM	13703	CB	GLN C 401	163.601	193.257	161.159	1.00116.63	C
ATOM	13704	CG	GLN C 401	163.305	191.879	160.592	1.00116.63	C
ATOM	13705	CD	GLN C 401	161.882	191.747	160.089	1.00116.63	C
ATOM	13706	OE1	GLN C 401	161.082	192.674	160.208	1.00116.63	O
ATOM	13707	NE2	GLN C 401	161.558	190.589	159.526	1.00116.63	N
ATOM	13708	N	GLN C 402	165.055	195.289	163.254	1.00118.89	N
ATOM	13709	CA	GLN C 402	165.477	196.609	163.706	1.00118.89	C
ATOM	13710	C	GLN C 402	166.997	196.709	163.744	1.00118.89	C
ATOM	13711	O	GLN C 402	167.578	197.697	163.280	1.00118.89	O
ATOM	13712	CB	GLN C 402	164.880	196.896	165.083	1.00118.89	C
ATOM	13713	CG	GLN C 402	165.190	198.273	165.634	1.00118.89	C
ATOM	13714	CD	GLN C 402	164.540	198.506	166.983	1.00118.89	C
ATOM	13715	OE1	GLN C 402	163.882	197.619	167.527	1.00118.89	O
ATOM	13716	NE2	GLN C 402	164.724	199.701	167.532	1.00118.89	N
ATOM	13717	N	ILE C 403	167.659	195.689	164.297	1.00122.36	N
ATOM	13718	CA	ILE C 403	169.116	195.704	164.365	1.00122.36	C
ATOM	13719	C	ILE C 403	169.728	195.388	163.008	1.00122.36	C
ATOM	13720	O	ILE C 403	170.783	195.931	162.656	1.00122.36	O
ATOM	13721	CB	ILE C 403	169.612	194.730	165.448	1.00122.36	C
ATOM	13722	CG1	ILE C 403	169.075	195.141	166.819	1.00122.36	C
ATOM	13723	CG2	ILE C 403	171.127	194.692	165.469	1.00122.36	C
ATOM	13724	CD1	ILE C 403	169.532	196.513	167.262	1.00122.36	C
ATOM	13725	N	PHE C 404	169.096	194.508	162.228	1.00124.33	N

ATOM	13726	CA	PHE	C	404	169.558	194.269	160.864	1.00	124.33	C
ATOM	13727	C	PHE	C	404	169.477	195.541	160.035	1.00	124.33	C
ATOM	13728	O	PHE	C	404	170.432	195.912	159.343	1.00	124.33	O
ATOM	13729	CB	PHE	C	404	168.736	193.160	160.208	1.00	124.33	C
ATOM	13730	CG	PHE	C	404	169.116	192.898	158.779	1.00	124.33	C
ATOM	13731	CD1	PHE	C	404	170.255	192.175	158.471	1.00	124.33	C
ATOM	13732	CD2	PHE	C	404	168.345	193.395	157.743	1.00	124.33	C
ATOM	13733	CE1	PHE	C	404	170.609	191.941	157.155	1.00	124.33	C
ATOM	13734	CE2	PHE	C	404	168.695	193.166	156.428	1.00	124.33	C
ATOM	13735	CZ	PHE	C	404	169.827	192.438	156.134	1.00	124.33	C
ATOM	13736	N	ASN	C	405	168.334	196.221	160.090	1.00	125.82	N
ATOM	13737	CA	ASN	C	405	168.149	197.467	159.366	1.00	125.82	C
ATOM	13738	C	ASN	C	405	168.776	198.651	160.093	1.00	125.82	C
ATOM	13739	O	ASN	C	405	168.748	199.771	159.572	1.00	125.82	O
ATOM	13740	CB	ASN	C	405	166.655	197.706	159.132	1.00	125.82	C
ATOM	13741	CG	ASN	C	405	166.392	198.730	158.054	1.00	125.82	C
ATOM	13742	OD1	ASN	C	405	167.328	199.249	157.447	1.00	125.82	O
ATOM	13743	ND2	ASN	C	405	165.109	199.022	157.808	1.00	125.82	N
ATOM	13744	N	THR	C	406	169.329	198.430	161.287	1.00	125.99	N
ATOM	13745	CA	THR	C	406	170.112	199.471	161.942	1.00	125.99	C
ATOM	13746	C	THR	C	406	171.294	199.886	161.075	1.00	125.99	C
ATOM	13747	O	THR	C	406	171.378	201.035	160.628	1.00	125.99	O
ATOM	13748	CB	THR	C	406	170.591	198.987	163.313	1.00	125.99	C
ATOM	13749	OG1	THR	C	406	169.461	198.706	164.148	1.00	125.99	O
ATOM	13750	CG2	THR	C	406	171.460	200.041	163.980	1.00	125.99	C
ATOM	13751	N	SER	C	407	172.206	198.950	160.800	1.00	129.57	N
ATOM	13752	CA	SER	C	407	173.414	199.244	160.042	1.00	129.57	C
ATOM	13753	C	SER	C	407	173.528	198.482	158.730	1.00	129.57	C
ATOM	13754	O	SER	C	407	174.593	198.525	158.105	1.00	129.57	O
ATOM	13755	CB	SER	C	407	174.663	198.955	160.888	1.00	129.57	C
ATOM	13756	OG	SER	C	407	175.843	199.176	160.136	1.00	129.57	O
ATOM	13757	N	TYR	C	408	172.481	197.782	158.299	1.00	129.06	N
ATOM	13758	CA	TYR	C	408	172.505	196.999	157.066	1.00	129.06	C
ATOM	13759	C	TYR	C	408	171.181	197.227	156.340	1.00	129.06	C
ATOM	13760	O	TYR	C	408	170.179	196.568	156.628	1.00	129.06	O
ATOM	13761	CB	TYR	C	408	172.739	195.524	157.361	1.00	129.06	C
ATOM	13762	CG	TYR	C	408	174.032	195.256	158.090	1.00	129.06	C

ATOM	13763	CD1	TYR C 408	175.253	195.295	157.429	1.00129.06	C
ATOM	13764	CD2	TYR C 408	174.035	194.944	159.445	1.00129.06	C
ATOM	13765	CE1	TYR C 408	176.435	195.043	158.098	1.00129.06	C
ATOM	13766	CE2	TYR C 408	175.212	194.695	160.120	1.00129.06	C
ATOM	13767	CZ	TYR C 408	176.411	194.752	159.440	1.00129.06	C
ATOM	13768	OH	TYR C 408	177.589	194.505	160.106	1.00129.06	O
ATOM	13769	N	ASN C 409	171.181	198.175	155.404	1.00131.34	N
ATOM	13770	CA	ASN C 409	169.972	198.489	154.650	1.00131.34	C
ATOM	13771	C	ASN C 409	169.760	197.515	153.494	1.00131.34	C
ATOM	13772	O	ASN C 409	168.785	196.755	153.480	1.00131.34	O
ATOM	13773	CB	ASN C 409	170.046	199.942	154.168	1.00131.34	C
ATOM	13774	CG	ASN C 409	171.394	200.284	153.556	1.00131.34	C
ATOM	13775	OD1	ASN C 409	172.248	199.412	153.389	1.00131.34	O
ATOM	13776	ND2	ASN C 409	171.598	201.554	153.237	1.00131.34	N
ATOM	13777	N	GLN C 410	170.660	197.525	152.513	1.00129.63	N
ATOM	13778	CA	GLN C 410	170.651	196.485	151.491	1.00129.63	C
ATOM	13779	C	GLN C 410	172.059	196.045	151.110	1.00129.63	C
ATOM	13780	O	GLN C 410	172.201	195.264	150.159	1.00129.63	O
ATOM	13781	CB	GLN C 410	169.885	196.950	150.243	1.00129.63	C
ATOM	13782	CG	GLN C 410	170.533	198.093	149.488	1.00129.63	C
ATOM	13783	CD	GLN C 410	170.104	199.449	150.011	1.00129.63	C
ATOM	13784	OE1	GLN C 410	169.586	199.563	151.121	1.00129.63	O
ATOM	13785	NE2	GLN C 410	170.303	200.484	149.204	1.00129.63	N
ATOM	13786	N	THR C 411	173.099	196.521	151.798	1.00126.86	N
ATOM	13787	CA	THR C 411	174.454	196.057	151.523	1.00126.86	C
ATOM	13788	C	THR C 411	174.562	194.555	151.747	1.00126.86	C
ATOM	13789	O	THR C 411	174.802	193.790	150.807	1.00126.86	O
ATOM	13790	CB	THR C 411	175.457	196.811	152.398	1.00126.86	C
ATOM	13791	OG1	THR C 411	175.166	196.567	153.780	1.00126.86	O
ATOM	13792	CG2	THR C 411	175.384	198.306	152.123	1.00126.86	C
ATOM	13793	N	TYR C 412	174.367	194.111	152.988	1.00120.76	N
ATOM	13794	CA	TYR C 412	174.279	192.684	153.261	1.00120.76	C
ATOM	13795	C	TYR C 412	172.856	192.198	153.029	1.00120.76	C
ATOM	13796	O	TYR C 412	171.885	192.874	153.379	1.00120.76	O
ATOM	13797	CB	TYR C 412	174.687	192.347	154.697	1.00120.76	C
ATOM	13798	CG	TYR C 412	176.143	192.555	155.053	1.00120.76	C
ATOM	13799	CD1	TYR C 412	177.066	192.975	154.109	1.00120.76	C

ATOM	13800	CD2	TYR C 412	176.599	192.278	156.332	1.00120.76	C
ATOM	13801	CE1	TYR C 412	178.393	193.161	154.447	1.00120.76	C
ATOM	13802	CE2	TYR C 412	177.929	192.440	156.669	1.00120.76	C
ATOM	13803	CZ	TYR C 412	178.820	192.880	155.722	1.00120.76	C
ATOM	13804	OH	TYR C 412	180.146	193.052	156.053	1.00120.76	O
ATOM	13805	N	GLU C 413	172.739	191.014	152.439	1.00120.84	N
ATOM	13806	CA	GLU C 413	171.459	190.351	152.257	1.00120.84	C
ATOM	13807	C	GLU C 413	171.261	189.309	153.347	1.00120.84	C
ATOM	13808	O	GLU C 413	172.211	188.633	153.756	1.00120.84	O
ATOM	13809	CB	GLU C 413	171.372	189.687	150.883	1.00120.84	C
ATOM	13810	CG	GLU C 413	171.342	190.663	149.727	1.00120.84	C
ATOM	13811	CD	GLU C 413	171.231	189.970	148.388	1.00120.84	C
ATOM	13812	OE1	GLU C 413	171.297	188.724	148.355	1.00120.84	O
ATOM	13813	OE2	GLU C 413	171.076	190.671	147.367	1.00120.84	O
ATOM	13814	N	LYS C 414	170.023	189.188	153.816	1.00119.04	N
ATOM	13815	CA	LYS C 414	169.700	188.213	154.844	1.00119.04	C
ATOM	13816	C	LYS C 414	169.949	186.795	154.337	1.00119.04	C
ATOM	13817	O	LYS C 414	169.893	186.513	153.137	1.00119.04	O
ATOM	13818	CB	LYS C 414	168.244	188.361	155.281	1.00119.04	C
ATOM	13819	CG	LYS C 414	167.951	189.621	156.071	1.00119.04	C
ATOM	13820	CD	LYS C 414	166.457	189.800	156.276	1.00119.04	C
ATOM	13821	CE	LYS C 414	165.891	188.757	157.222	1.00119.04	C
ATOM	13822	NZ	LYS C 414	164.450	189.006	157.497	1.00119.04	N
ATOM	13823	N	TYR C 415	170.224	185.894	155.276	1.00117.68	N
ATOM	13824	CA	TYR C 415	170.445	184.487	154.969	1.00117.68	C
ATOM	13825	C	TYR C 415	169.590	183.641	155.895	1.00117.68	C
ATOM	13826	O	TYR C 415	169.752	183.698	157.118	1.00117.68	O
ATOM	13827	CB	TYR C 415	171.919	184.107	155.114	1.00117.68	C
ATOM	13828	CG	TYR C 415	172.196	182.655	154.797	1.00117.68	C
ATOM	13829	CD1	TYR C 415	172.196	182.199	153.485	1.00117.68	C
ATOM	13830	CD2	TYR C 415	172.465	181.742	155.807	1.00117.68	C
ATOM	13831	CE1	TYR C 415	172.451	180.875	153.191	1.00117.68	C
ATOM	13832	CE2	TYR C 415	172.724	180.416	155.521	1.00117.68	C
ATOM	13833	CZ	TYR C 415	172.715	179.988	154.211	1.00117.68	C
ATOM	13834	OH	TYR C 415	172.972	178.669	153.918	1.00117.68	O
ATOM	13835	N	GLY C 416	168.689	182.856	155.314	1.00115.60	N
ATOM	13836	CA	GLY C 416	167.850	181.977	156.102	1.00115.60	C

ATOM	13837	C	GLY C 416	166.903	182.717	157.022	1.00115.60	C
ATOM	13838	O	GLY C 416	166.742	183.936	156.916	1.00115.60	O
ATOM	13839	N	ASN C 417	166.264	181.988	157.924	1.00108.57	N
ATOM	13840	CA	ASN C 417	165.281	182.549	158.831	1.00108.57	C
ATOM	13841	C	ASN C 417	165.892	182.637	160.225	1.00108.57	C
ATOM	13842	O	ASN C 417	167.087	182.393	160.415	1.00108.57	O
ATOM	13843	CB	ASN C 417	164.022	181.690	158.785	1.00108.57	C
ATOM	13844	CG	ASN C 417	163.474	181.567	157.386	1.00108.57	C
ATOM	13845	OD1	ASN C 417	163.319	182.559	156.672	1.00108.57	O
ATOM	13846	ND2	ASN C 417	163.210	180.338	156.971	1.00108.57	N
ATOM	13847	N	VAL C 418	165.077	182.992	161.217	1.00104.51	N
ATOM	13848	CA	VAL C 418	165.551	182.970	162.593	1.00104.51	C
ATOM	13849	C	VAL C 418	165.785	181.528	163.015	1.00104.51	C
ATOM	13850	O	VAL C 418	165.064	180.612	162.597	1.00104.51	O
ATOM	13851	CB	VAL C 418	164.551	183.669	163.528	1.00104.51	C
ATOM	13852	CG1	VAL C 418	163.241	182.903	163.561	1.00104.51	C
ATOM	13853	CG2	VAL C 418	165.132	183.796	164.929	1.00104.51	C
ATOM	13854	N	SER C 419	166.805	181.315	163.841	1.00104.43	N
ATOM	13855	CA	SER C 419	167.141	179.991	164.340	1.00104.43	C
ATOM	13856	C	SER C 419	167.423	180.097	165.828	1.00104.43	C
ATOM	13857	O	SER C 419	168.274	180.887	166.248	1.00104.43	O
ATOM	13858	CB	SER C 419	168.350	179.409	163.599	1.00104.43	C
ATOM	13859	OG	SER C 419	168.664	178.108	164.063	1.00104.43	O
ATOM	13860	N	VAL C 420	166.716	179.297	166.617	1.00103.77	N
ATOM	13861	CA	VAL C 420	166.770	179.362	168.071	1.00103.77	C
ATOM	13862	C	VAL C 420	167.664	178.234	168.564	1.00103.77	C
ATOM	13863	O	VAL C 420	167.454	177.065	168.216	1.00103.77	O
ATOM	13864	CB	VAL C 420	165.365	179.276	168.682	1.00103.77	C
ATOM	13865	CG1	VAL C 420	164.578	180.529	168.355	1.00103.77	C
ATOM	13866	CG2	VAL C 420	164.641	178.077	168.118	1.00103.77	C
ATOM	13867	N	PHE C 421	168.668	178.587	169.364	1.00101.79	N
ATOM	13868	CA	PHE C 421	169.640	177.639	169.899	1.00101.79	C
ATOM	13869	C	PHE C 421	169.633	177.751	171.417	1.00101.79	C
ATOM	13870	O	PHE C 421	170.098	178.753	171.970	1.00101.79	O
ATOM	13871	CB	PHE C 421	171.039	177.914	169.348	1.00101.79	C
ATOM	13872	CG	PHE C 421	171.175	177.664	167.876	1.00101.79	C
ATOM	13873	CD1	PHE C 421	171.401	176.388	167.393	1.00101.79	C

ATOM	13874	CD2	PHE	C	421	171.079	178.707	166.976	1.00101.79	C
ATOM	13875	CE1	PHE	C	421	171.529	176.159	166.039	1.00101.79	C
ATOM	13876	CE2	PHE	C	421	171.206	178.484	165.622	1.00101.79	C
ATOM	13877	CZ	PHE	C	421	171.430	177.209	165.153	1.00101.79	C
ATOM	13878	N	GLU	C	422	169.107	176.733	172.090	1.00102.03	N
ATOM	13879	CA	GLU	C	422	169.141	176.719	173.545	1.00102.03	C
ATOM	13880	C	GLU	C	422	170.564	176.465	174.026	1.00102.03	C
ATOM	13881	O	GLU	C	422	171.208	175.497	173.611	1.00102.03	O
ATOM	13882	CB	GLU	C	422	168.193	175.655	174.092	1.00102.03	C
ATOM	13883	CG	GLU	C	422	168.122	175.627	175.609	1.00102.03	C
ATOM	13884	CD	GLU	C	422	167.121	174.618	176.132	1.00102.03	C
ATOM	13885	OE1	GLU	C	422	166.483	173.930	175.308	1.00102.03	O
ATOM	13886	OE2	GLU	C	422	166.974	174.513	177.367	1.00102.03	O
ATOM	13887	N	THR	C	423	171.054	177.337	174.900	1.00101.09	N
ATOM	13888	CA	THR	C	423	172.421	177.244	175.395	1.00101.09	C
ATOM	13889	C	THR	C	423	172.500	176.193	176.500	1.00101.09	C
ATOM	13890	O	THR	C	423	171.569	175.415	176.722	1.00101.09	O
ATOM	13891	CB	THR	C	423	172.903	178.606	175.882	1.00101.09	C
ATOM	13892	OG1	THR	C	423	172.080	179.041	176.971	1.00101.09	O
ATOM	13893	CG2	THR	C	423	172.829	179.628	174.759	1.00101.09	C
ATOM	13894	N	THR	C	424	173.630	176.158	177.204	1.00106.37	N
ATOM	13895	CA	THR	C	424	173.821	175.230	178.312	1.00106.37	C
ATOM	13896	C	THR	C	424	173.236	175.770	179.612	1.00106.37	C
ATOM	13897	O	THR	C	424	172.546	175.044	180.335	1.00106.37	O
ATOM	13898	CB	THR	C	424	175.311	174.926	178.497	1.00106.37	C
ATOM	13899	OG1	THR	C	424	176.012	176.135	178.811	1.00106.37	O
ATOM	13900	CG2	THR	C	424	175.893	174.325	177.229	1.00106.37	C
ATOM	13901	N	GLY	C	425	173.500	177.036	179.922	1.00102.97	N
ATOM	13902	CA	GLY	C	425	173.006	177.634	181.146	1.00102.97	C
ATOM	13903	C	GLY	C	425	171.613	178.217	181.025	1.00102.97	C
ATOM	13904	O	GLY	C	425	171.321	179.266	181.606	1.00102.97	O
ATOM	13905	N	GLY	C	426	170.742	177.548	180.270	1.00 97.64	N
ATOM	13906	CA	GLY	C	426	169.365	177.966	180.124	1.00 97.64	C
ATOM	13907	C	GLY	C	426	169.129	179.144	179.206	1.00 97.64	C
ATOM	13908	O	GLY	C	426	167.976	179.399	178.839	1.00 97.64	O
ATOM	13909	N	LEU	C	427	170.174	179.875	178.822	1.00 97.34	N
ATOM	13910	CA	LEU	C	427	169.999	181.037	177.961	1.00 97.34	C

ATOM	13911	C	LEU C 427	169.493	180.609	176.589	1.00 97.34	C
ATOM	13912	O	LEU C 427	170.043	179.696	175.967	1.00 97.34	O
ATOM	13913	CB	LEU C 427	171.317	181.799	177.824	1.00 97.34	C
ATOM	13914	CG	LEU C 427	171.758	182.667	179.005	1.00 97.34	C
ATOM	13915	CD1	LEU C 427	172.243	181.807	180.162	1.00 97.34	C
ATOM	13916	CD2	LEU C 427	172.838	183.646	178.575	1.00 97.34	C
ATOM	13917	N	VAL C 428	168.441	181.273	176.121	1.00 98.38	N
ATOM	13918	CA	VAL C 428	167.816	180.970	174.840	1.00 98.38	C
ATOM	13919	C	VAL C 428	168.184	182.075	173.860	1.00 98.38	C
ATOM	13920	O	VAL C 428	167.936	183.257	174.126	1.00 98.38	O
ATOM	13921	CB	VAL C 428	166.291	180.837	174.979	1.00 98.38	C
ATOM	13922	CG1	VAL C 428	165.650	180.623	173.620	1.00 98.38	C
ATOM	13923	CG2	VAL C 428	165.944	179.697	175.920	1.00 98.38	C
ATOM	13924	N	VAL C 429	168.779	181.696	172.729	1.00102.03	N
ATOM	13925	CA	VAL C 429	169.202	182.654	171.718	1.00102.03	C
ATOM	13926	C	VAL C 429	168.551	182.302	170.387	1.00102.03	C
ATOM	13927	O	VAL C 429	168.058	181.192	170.174	1.00102.03	O
ATOM	13928	CB	VAL C 429	170.735	182.710	171.566	1.00102.03	C
ATOM	13929	CG1	VAL C 429	171.380	183.142	172.868	1.00102.03	C
ATOM	13930	CG2	VAL C 429	171.272	181.367	171.115	1.00102.03	C
ATOM	13931	N	PHE C 430	168.565	183.276	169.483	1.00110.57	N
ATOM	13932	CA	PHE C 430	167.970	183.134	168.164	1.00110.57	C
ATOM	13933	C	PHE C 430	168.542	184.221	167.268	1.00110.57	C
ATOM	13934	O	PHE C 430	168.893	185.304	167.741	1.00110.57	O
ATOM	13935	CB	PHE C 430	166.442	183.218	168.232	1.00110.57	C
ATOM	13936	CG	PHE C 430	165.933	184.515	168.789	1.00110.57	C
ATOM	13937	CD1	PHE C 430	165.761	184.674	170.153	1.00110.57	C
ATOM	13938	CD2	PHE C 430	165.618	185.570	167.952	1.00110.57	C
ATOM	13939	CE1	PHE C 430	165.293	185.864	170.671	1.00110.57	C
ATOM	13940	CE2	PHE C 430	165.152	186.761	168.465	1.00110.57	C
ATOM	13941	CZ	PHE C 430	164.987	186.908	169.825	1.00110.57	C
ATOM	13942	N	TRP C 431	168.629	183.929	165.975	1.00105.09	N
ATOM	13943	CA	TRP C 431	169.358	184.814	165.073	1.00105.09	C
ATOM	13944	C	TRP C 431	169.187	184.317	163.642	1.00105.09	C
ATOM	13945	O	TRP C 431	168.519	183.310	163.384	1.00105.09	O
ATOM	13946	CB	TRP C 431	170.827	184.879	165.479	1.00105.09	C
ATOM	13947	CG	TRP C 431	171.499	183.563	165.392	1.00105.09	C

ATOM	13948	CD1	TRP	C	431	171.485	182.576	166.329	1.00105.09	C
ATOM	13949	CD2	TRP	C	431	172.310	183.087	164.321	1.00105.09	C
ATOM	13950	NE1	TRP	C	431	172.224	181.502	165.900	1.00105.09	N
ATOM	13951	CE2	TRP	C	431	172.745	181.794	164.669	1.00105.09	C
ATOM	13952	CE3	TRP	C	431	172.710	183.625	163.097	1.00105.09	C
ATOM	13953	CZ2	TRP	C	431	173.552	181.031	163.838	1.00105.09	C
ATOM	13954	CZ3	TRP	C	431	173.516	182.867	162.272	1.00105.09	C
ATOM	13955	CH2	TRP	C	431	173.930	181.583	162.648	1.00105.09	C
ATOM	13956	N	GLN	C	432	169.800	185.045	162.708	1.00112.48	N
ATOM	13957	CA	GLN	C	432	169.732	184.730	161.288	1.00112.48	C
ATOM	13958	C	GLN	C	432	171.043	185.128	160.623	1.00112.48	C
ATOM	13959	O	GLN	C	432	171.770	185.999	161.106	1.00112.48	O
ATOM	13960	CB	GLN	C	432	168.551	185.440	160.613	1.00112.48	C
ATOM	13961	CG	GLN	C	432	168.657	186.955	160.613	1.00112.48	C
ATOM	13962	CD	GLN	C	432	167.436	187.625	160.017	1.00112.48	C
ATOM	13963	OE1	GLN	C	432	166.506	186.958	159.563	1.00112.48	O
ATOM	13964	NE2	GLN	C	432	167.435	188.952	160.010	1.00112.48	N
ATOM	13965	N	GLY	C	433	171.338	184.475	159.496	1.00113.48	N
ATOM	13966	CA	GLY	C	433	172.585	184.717	158.804	1.00113.48	C
ATOM	13967	C	GLY	C	433	172.563	185.981	157.963	1.00113.48	C
ATOM	13968	O	GLY	C	433	171.518	186.454	157.520	1.00113.48	O
ATOM	13969	N	ILE	C	434	173.754	186.534	157.739	1.00114.95	N
ATOM	13970	CA	ILE	C	434	173.910	187.791	157.016	1.00114.95	C
ATOM	13971	C	ILE	C	434	175.113	187.689	156.087	1.00114.95	C
ATOM	13972	O	ILE	C	434	176.109	187.035	156.412	1.00114.95	O
ATOM	13973	CB	ILE	C	434	174.067	188.982	157.983	1.00114.95	C
ATOM	13974	CG1	ILE	C	434	173.991	190.303	157.219	1.00114.95	C
ATOM	13975	CG2	ILE	C	434	175.375	188.874	158.748	1.00114.95	C
ATOM	13976	CD1	ILE	C	434	173.815	191.512	158.109	1.00114.95	C
ATOM	13977	N	LYS	C	435	175.014	188.338	154.929	1.00116.80	N
ATOM	13978	CA	LYS	C	435	176.103	188.405	153.961	1.00116.80	C
ATOM	13979	C	LYS	C	435	175.664	189.313	152.821	1.00116.80	C
ATOM	13980	O	LYS	C	435	174.511	189.745	152.758	1.00116.80	O
ATOM	13981	CB	LYS	C	435	176.493	187.024	153.430	1.00116.80	C
ATOM	13982	CG	LYS	C	435	175.405	186.326	152.637	1.00116.80	C
ATOM	13983	CD	LYS	C	435	175.935	185.057	152.003	1.00116.80	C
ATOM	13984	CE	LYS	C	435	176.243	184.020	153.054	1.00116.80	C

ATOM	13985	NZ	LYS	C	435	175.006	183.609	153.757	1.00	116.80	N
ATOM	13986	N	GLN	C	436	176.596	189.588	151.912	1.00	114.59	N
ATOM	13987	CA	GLN	C	436	176.310	190.456	150.772	1.00	114.59	C
ATOM	13988	C	GLN	C	436	176.758	189.833	149.456	1.00	114.59	C
ATOM	13989	O	GLN	C	436	176.937	190.538	148.462	1.00	114.59	O
ATOM	13990	CB	GLN	C	436	176.988	191.813	150.948	1.00	114.59	C
ATOM	13991	CG	GLN	C	436	178.484	191.790	150.726	1.00	114.59	C
ATOM	13992	CD	GLN	C	436	179.232	191.306	151.941	1.00	114.59	C
ATOM	13993	OE1	GLN	C	436	178.663	190.648	152.810	1.00	114.59	O
ATOM	13994	NE2	GLN	C	436	180.506	191.661	152.031	1.00	114.59	N
ATOM	13995	N	GLN	C	483	188.987	186.057	138.721	1.00	103.14	N
ATOM	13996	CA	GLN	C	483	187.763	186.284	139.480	1.00	103.14	C
ATOM	13997	C	GLN	C	483	187.827	187.567	140.299	1.00	103.14	C
ATOM	13998	O	GLN	C	483	186.898	188.375	140.265	1.00	103.14	O
ATOM	13999	CB	GLN	C	483	187.480	185.099	140.404	1.00	103.14	C
ATOM	14000	CG	GLN	C	483	186.215	185.255	141.231	1.00	103.14	C
ATOM	14001	CD	GLN	C	483	184.970	185.365	140.376	1.00	103.14	C
ATOM	14002	OE1	GLN	C	483	184.415	186.450	140.203	1.00	103.14	O
ATOM	14003	NE2	GLN	C	483	184.523	184.239	139.836	1.00	103.14	N
ATOM	14004	N	LEU	C	484	188.918	187.719	141.056	1.00	103.43	N
ATOM	14005	CA	LEU	C	484	189.175	188.871	141.919	1.00	103.43	C
ATOM	14006	C	LEU	C	484	188.326	188.839	143.187	1.00	103.43	C
ATOM	14007	O	LEU	C	484	188.495	189.683	144.073	1.00	103.43	O
ATOM	14008	CB	LEU	C	484	188.950	190.183	141.156	1.00	103.43	C
ATOM	14009	CG	LEU	C	484	189.216	191.497	141.894	1.00	103.43	C
ATOM	14010	CD1	LEU	C	484	190.666	191.580	142.335	1.00	103.43	C
ATOM	14011	CD2	LEU	C	484	188.849	192.687	141.022	1.00	103.43	C
ATOM	14012	N	GLN	C	485	187.424	187.865	143.301	1.00	102.65	N
ATOM	14013	CA	GLN	C	485	186.626	187.723	144.511	1.00	102.65	C
ATOM	14014	C	GLN	C	485	187.249	186.752	145.500	1.00	102.65	C
ATOM	14015	O	GLN	C	485	187.133	186.958	146.714	1.00	102.65	O
ATOM	14016	CB	GLN	C	485	185.207	187.265	144.160	1.00	102.65	C
ATOM	14017	CG	GLN	C	485	184.214	187.337	145.316	1.00	102.65	C
ATOM	14018	CD	GLN	C	485	184.190	186.075	146.157	1.00	102.65	C
ATOM	14019	OE1	GLN	C	485	184.454	184.981	145.660	1.00	102.65	O
ATOM	14020	NE2	GLN	C	485	183.879	186.222	147.439	1.00	102.65	N
ATOM	14021	N	PHE	C	486	187.903	185.698	145.007	1.00	101.49	N

ATOM	14022	CA	PHE	C	486	188.512 184.717 145.899	1.00101.49	C
ATOM	14023	C	PHE	C	486	189.614 185.336 146.747	1.00101.49	C
ATOM	14024	O	PHE	C	486	189.893 184.854 147.850	1.00101.49	O
ATOM	14025	CB	PHE	C	486	189.056 183.543 145.089	1.00101.49	C
ATOM	14026	CG	PHE	C	486	189.662 182.462 145.928	1.00101.49	C
ATOM	14027	CD1	PHE	C	486	188.858 181.596 146.648	1.00101.49	C
ATOM	14028	CD2	PHE	C	486	191.034 182.307 145.997	1.00101.49	C
ATOM	14029	CE1	PHE	C	486	189.412 180.598 147.422	1.00101.49	C
ATOM	14030	CE2	PHE	C	486	191.595 181.310 146.768	1.00101.49	C
ATOM	14031	CZ	PHE	C	486	190.782 180.454 147.482	1.00101.49	C
ATOM	14032	N	THR	C	487	190.255 186.394 146.249	1.00 98.58	N
ATOM	14033	CA	THR	C	487	191.243 187.103 147.054	1.00 98.58	C
ATOM	14034	C	THR	C	487	190.594 187.761 148.264	1.00 98.58	C
ATOM	14035	O	THR	C	487	191.173 187.777 149.356	1.00 98.58	O
ATOM	14036	CB	THR	C	487	191.957 188.149 146.203	1.00 98.58	C
ATOM	14037	OG1	THR	C	487	191.006 189.120 145.751	1.00 98.58	O
ATOM	14038	CG2	THR	C	487	192.607 187.495 144.998	1.00 98.58	C
ATOM	14039	N	TYR	C	488	189.392 188.312 148.086	1.00 96.63	N
ATOM	14040	CA	TYR	C	488	188.743 189.044 149.168	1.00 96.63	C
ATOM	14041	C	TYR	C	488	188.276 188.111 150.279	1.00 96.63	C
ATOM	14042	O	TYR	C	488	188.339 188.469 151.460	1.00 96.63	O
ATOM	14043	CB	TYR	C	488	187.568 189.849 148.619	1.00 96.63	C
ATOM	14044	CG	TYR	C	488	186.855 190.680 149.658	1.00 96.63	C
ATOM	14045	CD1	TYR	C	488	187.411 191.859 150.131	1.00 96.63	C
ATOM	14046	CD2	TYR	C	488	185.626 190.286 150.164	1.00 96.63	C
ATOM	14047	CE1	TYR	C	488	186.762 192.623 151.079	1.00 96.63	C
ATOM	14048	CE2	TYR	C	488	184.969 191.044 151.113	1.00 96.63	C
ATOM	14049	CZ	TYR	C	488	185.542 192.211 151.567	1.00 96.63	C
ATOM	14050	OH	TYR	C	488	184.892 192.969 152.513	1.00 96.63	O
ATOM	14051	N	ASP	C	489	187.795 186.918 149.921	1.00 98.54	N
ATOM	14052	CA	ASP	C	489	187.273 186.000 150.929	1.00 98.54	C
ATOM	14053	C	ASP	C	489	188.365 185.573 151.901	1.00 98.54	C
ATOM	14054	O	ASP	C	489	188.246 185.779 153.115	1.00 98.54	O
ATOM	14055	CB	ASP	C	489	186.646 184.778 150.257	1.00 98.54	C
ATOM	14056	CG	ASP	C	489	185.838 183.928 151.225	1.00 98.54	C
ATOM	14057	OD1	ASP	C	489	185.745 184.295 152.416	1.00 98.54	O
ATOM	14058	OD2	ASP	C	489	185.299 182.887 150.796	1.00 98.54	O

ATOM	14059	N	THR	C	490	189.435	184.965	151.384	1.00	97.51	N
ATOM	14060	CA	THR	C	490	190.508	184.486	152.249	1.00	97.51	C
ATOM	14061	C	THR	C	490	191.149	185.630	153.021	1.00	97.51	C
ATOM	14062	O	THR	C	490	191.548	185.462	154.179	1.00	97.51	O
ATOM	14063	CB	THR	C	490	191.560	183.747	151.426	1.00	97.51	C
ATOM	14064	OG1	THR	C	490	192.151	184.651	150.484	1.00	97.51	O
ATOM	14065	CG2	THR	C	490	190.923	182.594	150.676	1.00	97.51	C
ATOM	14066	N	LEU	C	491	191.253	186.804	152.398	1.00	97.01	N
ATOM	14067	CA	LEU	C	491	191.816	187.952	153.094	1.00	97.01	C
ATOM	14068	C	LEU	C	491	190.815	188.593	154.045	1.00	97.01	C
ATOM	14069	O	LEU	C	491	191.195	189.472	154.825	1.00	97.01	O
ATOM	14070	CB	LEU	C	491	192.338	188.966	152.078	1.00	97.01	C
ATOM	14071	CG	LEU	C	491	193.055	190.193	152.630	1.00	97.01	C
ATOM	14072	CD1	LEU	C	491	194.198	189.766	153.523	1.00	97.01	C
ATOM	14073	CD2	LEU	C	491	193.584	191.006	151.473	1.00	97.01	C
ATOM	14074	N	ARG	C	492	189.550	188.176	153.999	1.00	96.01	N
ATOM	14075	CA	ARG	C	492	188.590	188.523	155.038	1.00	96.01	C
ATOM	14076	C	ARG	C	492	188.295	187.365	155.976	1.00	96.01	C
ATOM	14077	O	ARG	C	492	188.036	187.593	157.161	1.00	96.01	O
ATOM	14078	CB	ARG	C	492	187.272	189.003	154.427	1.00	96.01	C
ATOM	14079	CG	ARG	C	492	186.270	189.474	155.464	1.00	96.01	C
ATOM	14080	CD	ARG	C	492	184.969	189.892	154.817	1.00	96.01	C
ATOM	14081	NE	ARG	C	492	184.273	188.752	154.230	1.00	96.01	N
ATOM	14082	CZ	ARG	C	492	183.201	188.855	153.455	1.00	96.01	C
ATOM	14083	NH1	ARG	C	492	182.627	187.767	152.962	1.00	96.01	N
ATOM	14084	NH2	ARG	C	492	182.703	190.050	153.175	1.00	96.01	N
ATOM	14085	N	GLY	C	493	188.323	186.130	155.473	1.00	95.97	N
ATOM	14086	CA	GLY	C	493	188.199	184.976	156.343	1.00	95.97	C
ATOM	14087	C	GLY	C	493	189.373	184.798	157.279	1.00	95.97	C
ATOM	14088	O	GLY	C	493	189.246	184.105	158.293	1.00	95.97	O
ATOM	14089	N	TYR	C	494	190.515	185.405	156.957	1.00	94.54	N
ATOM	14090	CA	TYR	C	494	191.664	185.365	157.850	1.00	94.54	C
ATOM	14091	C	TYR	C	494	191.525	186.352	159.000	1.00	94.54	C
ATOM	14092	O	TYR	C	494	191.983	186.068	160.112	1.00	94.54	O
ATOM	14093	CB	TYR	C	494	192.943	185.649	157.067	1.00	94.54	C
ATOM	14094	CG	TYR	C	494	194.193	185.611	157.909	1.00	94.54	C
ATOM	14095	CD1	TYR	C	494	194.738	184.403	158.320	1.00	94.54	C

ATOM	14096	CD2	TYR	C	494	194.828	186.782	158.294	1.00 94.54	C
ATOM	14097	CE1	TYR	C	494	195.882	184.363	159.091	1.00 94.54	C
ATOM	14098	CE2	TYR	C	494	195.972	186.752	159.065	1.00 94.54	C
ATOM	14099	CZ	TYR	C	494	196.494	185.541	159.461	1.00 94.54	C
ATOM	14100	OH	TYR	C	494	197.635	185.507	160.229	1.00 94.54	O
ATOM	14101	N	ILE	C	495	190.906	187.509	158.755	1.00 89.66	N
ATOM	14102	CA	ILE	C	495	190.699	188.481	159.824	1.00 89.66	C
ATOM	14103	C	ILE	C	495	189.765	187.910	160.883	1.00 89.66	C
ATOM	14104	O	ILE	C	495	190.041	187.990	162.086	1.00 89.66	O
ATOM	14105	CB	ILE	C	495	190.160	189.802	159.252	1.00 89.66	C
ATOM	14106	CG1	ILE	C	495	191.183	190.428	158.307	1.00 89.66	C
ATOM	14107	CG2	ILE	C	495	189.817	190.763	160.374	1.00 89.66	C
ATOM	14108	CD1	ILE	C	495	190.640	191.588	157.510	1.00 89.66	C
ATOM	14109	N	ASN	C	496	188.641	187.333	160.452	1.00 90.60	N
ATOM	14110	CA	ASN	C	496	187.776	186.618	161.384	1.00 90.60	C
ATOM	14111	C	ASN	C	496	188.509	185.453	162.030	1.00 90.60	C
ATOM	14112	O	ASN	C	496	188.224	185.097	163.179	1.00 90.60	O
ATOM	14113	CB	ASN	C	496	186.523	186.122	160.664	1.00 90.60	C
ATOM	14114	CG	ASN	C	496	185.622	187.253	160.220	1.00 90.60	C
ATOM	14115	OD1	ASN	C	496	185.425	188.227	160.946	1.00 90.60	O
ATOM	14116	ND2	ASN	C	496	185.067	187.129	159.022	1.00 90.60	N
ATOM	14117	N	ARG	C	497	189.452	184.847	161.306	1.00 95.25	N
ATOM	14118	CA	ARG	C	497	190.270	183.787	161.880	1.00 95.25	C
ATOM	14119	C	ARG	C	497	191.081	184.282	163.070	1.00 95.25	C
ATOM	14120	O	ARG	C	497	191.381	183.504	163.981	1.00 95.25	O
ATOM	14121	CB	ARG	C	497	191.195	183.210	160.809	1.00 95.25	C
ATOM	14122	CG	ARG	C	497	192.063	182.070	161.294	1.00 95.25	C
ATOM	14123	CD	ARG	C	497	191.271	180.782	161.379	1.00 95.25	C
ATOM	14124	NE	ARG	C	497	190.461	180.732	162.591	1.00 95.25	N
ATOM	14125	CZ	ARG	C	497	190.946	180.464	163.799	1.00 95.25	C
ATOM	14126	NH1	ARG	C	497	190.138	180.438	164.849	1.00 95.25	N
ATOM	14127	NH2	ARG	C	497	192.241	180.229	163.957	1.00 95.25	N
ATOM	14128	N	ALA	C	498	191.447	185.565	163.079	1.00 89.27	N
ATOM	14129	CA	ALA	C	498	192.259	186.099	164.167	1.00 89.27	C
ATOM	14130	C	ALA	C	498	191.400	186.597	165.322	1.00 89.27	C
ATOM	14131	O	ALA	C	498	191.785	186.457	166.488	1.00 89.27	O
ATOM	14132	CB	ALA	C	498	193.157	187.222	163.651	1.00 89.27	C

ATOM	14133	N	LEU C 499	190.238	187.176	165.025	1.00 84.00	N
ATOM	14134	CA	LEU C 499	189.369	187.710	166.067	1.00 84.00	C
ATOM	14135	C	LEU C 499	188.711	186.628	166.912	1.00 84.00	C
ATOM	14136	O	LEU C 499	188.069	186.957	167.914	1.00 84.00	O
ATOM	14137	CB	LEU C 499	188.291	188.601	165.450	1.00 84.00	C
ATOM	14138	CG	LEU C 499	188.791	189.892	164.803	1.00 84.00	C
ATOM	14139	CD1	LEU C 499	187.646	190.625	164.128	1.00 84.00	C
ATOM	14140	CD2	LEU C 499	189.468	190.777	165.836	1.00 84.00	C
ATOM	14141	N	ALA C 500	188.847	185.357	166.539	1.00 90.12	N
ATOM	14142	CA	ALA C 500	188.307	184.276	167.351	1.00 90.12	C
ATOM	14143	C	ALA C 500	189.289	183.819	168.419	1.00 90.12	C
ATOM	14144	O	ALA C 500	188.882	183.526	169.547	1.00 90.12	O
ATOM	14145	CB	ALA C 500	187.911	183.094	166.464	1.00 90.12	C
ATOM	14146	N	GLN C 501	190.580	183.765	168.094	1.00 92.54	N
ATOM	14147	CA	GLN C 501	191.586	183.373	169.072	1.00 92.54	C
ATOM	14148	C	GLN C 501	191.934	184.492	170.042	1.00 92.54	C
ATOM	14149	O	GLN C 501	192.780	184.289	170.919	1.00 92.54	O
ATOM	14150	CB	GLN C 501	192.851	182.885	168.365	1.00 92.54	C
ATOM	14151	CG	GLN C 501	193.572	183.947	167.561	1.00 92.54	C
ATOM	14152	CD	GLN C 501	194.780	183.394	166.834	1.00 92.54	C
ATOM	14153	OE1	GLN C 501	195.116	182.218	166.974	1.00 92.54	O
ATOM	14154	NE2	GLN C 501	195.439	184.238	166.052	1.00 92.54	N
ATOM	14155	N	ILE C 502	191.315	185.663	169.905	1.00 88.94	N
ATOM	14156	CA	ILE C 502	191.453	186.703	170.917	1.00 88.94	C
ATOM	14157	C	ILE C 502	190.467	186.471	172.053	1.00 88.94	C
ATOM	14158	O	ILE C 502	190.850	186.404	173.226	1.00 88.94	O
ATOM	14159	CB	ILE C 502	191.269	188.093	170.284	1.00 88.94	C
ATOM	14160	CG1	ILE C 502	192.313	188.323	169.192	1.00 88.94	C
ATOM	14161	CG2	ILE C 502	191.367	189.176	171.343	1.00 88.94	C
ATOM	14162	CD1	ILE C 502	193.734	188.293	169.697	1.00 88.94	C
ATOM	14163	N	ALA C 503	189.180	186.339	171.721	1.00 92.53	N
ATOM	14164	CA	ALA C 503	188.175	186.091	172.748	1.00 92.53	C
ATOM	14165	C	ALA C 503	188.347	184.719	173.388	1.00 92.53	C
ATOM	14166	O	ALA C 503	187.898	184.504	174.518	1.00 92.53	O
ATOM	14167	CB	ALA C 503	186.773	186.232	172.157	1.00 92.53	C
ATOM	14168	N	GLU C 504	188.976	183.776	172.683	1.00 99.66	N
ATOM	14169	CA	GLU C 504	189.279	182.488	173.300	1.00 99.66	C

ATOM	14170	C	GLU C 504	190.255	182.658	174.455	1.00 99.66	C
ATOM	14171	O	GLU C 504	190.148	181.970	175.477	1.00 99.66	O
ATOM	14172	CB	GLU C 504	189.840	181.521	172.260	1.00 99.66	C
ATOM	14173	CG	GLU C 504	188.827	181.092	171.219	1.00 99.66	C
ATOM	14174	CD	GLU C 504	189.419	180.173	170.172	1.00 99.66	C
ATOM	14175	OE1	GLU C 504	190.647	179.948	170.201	1.00 99.66	O
ATOM	14176	OE2	GLU C 504	188.656	179.685	169.313	1.00 99.66	O
ATOM	14177	N	ALA C 505	191.210	183.572	174.311	1.00 97.59	N
ATOM	14178	CA	ALA C 505	192.085	183.966	175.405	1.00 97.59	C
ATOM	14179	C	ALA C 505	191.467	185.050	176.273	1.00 97.59	C
ATOM	14180	O	ALA C 505	192.192	185.742	176.996	1.00 97.59	O
ATOM	14181	CB	ALA C 505	193.433	184.440	174.859	1.00 97.59	C
ATOM	14182	N	TRP C 506	190.148	185.213	176.207	1.00103.21	N
ATOM	14183	CA	TRP C 506	189.436	186.210	176.990	1.00103.21	C
ATOM	14184	C	TRP C 506	188.698	185.618	178.178	1.00103.21	C
ATOM	14185	O	TRP C 506	188.599	186.273	179.220	1.00103.21	O
ATOM	14186	CB	TRP C 506	188.436	186.956	176.106	1.00103.21	C
ATOM	14187	CG	TRP C 506	187.758	188.051	176.825	1.00103.21	C
ATOM	14188	CD1	TRP C 506	186.480	188.060	177.296	1.00103.21	C
ATOM	14189	CD2	TRP C 506	188.332	189.306	177.186	1.00103.21	C
ATOM	14190	NE1	TRP C 506	186.218	189.255	177.920	1.00103.21	N
ATOM	14191	CE2	TRP C 506	187.342	190.037	177.866	1.00103.21	C
ATOM	14192	CE3	TRP C 506	189.589	189.885	176.995	1.00103.21	C
ATOM	14193	CZ2	TRP C 506	187.569	191.318	178.356	1.00103.21	C
ATOM	14194	CZ3	TRP C 506	189.813	191.153	177.481	1.00103.21	C
ATOM	14195	CH2	TRP C 506	188.810	191.856	178.152	1.00103.21	C
ATOM	14196	N	CYS C 507	188.177	184.398	178.042	1.00104.72	N
ATOM	14197	CA	CYS C 507	187.498	183.745	179.154	1.00104.72	C
ATOM	14198	C	CYS C 507	188.429	183.511	180.336	1.00104.72	C
ATOM	14199	O	CYS C 507	187.956	183.421	181.474	1.00104.72	O
ATOM	14200	CB	CYS C 507	186.895	182.420	178.687	1.00104.72	C
ATOM	14201	SG	CYS C 507	185.922	181.541	179.927	1.00104.72	S
ATOM	14202	N	VAL C 508	189.736	183.409	180.095	1.00 95.16	N
ATOM	14203	CA	VAL C 508	190.680	183.204	181.188	1.00 95.16	C
ATOM	14204	C	VAL C 508	190.833	184.472	182.015	1.00 95.16	C
ATOM	14205	O	VAL C 508	191.037	184.411	183.232	1.00 95.16	O
ATOM	14206	CB	VAL C 508	192.032	182.724	180.636	1.00 95.16	C

ATOM	14207	CG1	VAL	C	508	193.048 182.623 181.758	1.00 95.16	C
ATOM	14208	CG2	VAL	C	508	191.869 181.387 179.933	1.00 95.16	C
ATOM	14209	N	ASP	C	509	190.750 185.634 181.376	1.00 96.03	N
ATOM	14210	CA	ASP	C	509	190.825 186.904 182.084	1.00 96.03	C
ATOM	14211	C	ASP	C	509	189.490 187.322 182.677	1.00 96.03	C
ATOM	14212	O	ASP	C	509	189.423 188.356 183.350	1.00 96.03	O
ATOM	14213	CB	ASP	C	509	191.345 187.987 181.143	1.00 96.03	C
ATOM	14214	CG	ASP	C	509	192.791 187.772 180.767	1.00 96.03	C
ATOM	14215	OD1	ASP	C	509	193.562 187.280 181.618	1.00 96.03	O
ATOM	14216	OD2	ASP	C	509	193.147 188.057 179.609	1.00 96.03	O
ATOM	14217	N	GLN	C	510	188.435 186.548 182.438	1.00 87.40	N
ATOM	14218	CA	GLN	C	510	187.155 186.751 183.095	1.00 87.40	C
ATOM	14219	C	GLN	C	510	187.018 185.914 184.357	1.00 87.40	C
ATOM	14220	O	GLN	C	510	186.213 186.259 185.228	1.00 87.40	O
ATOM	14221	CB	GLN	C	510	186.014 186.430 182.115	1.00 87.40	C
ATOM	14222	CG	GLN	C	510	184.607 186.830 182.553	1.00 87.40	C
ATOM	14223	CD	GLN	C	510	183.943 185.800 183.445	1.00 87.40	C
ATOM	14224	OE1	GLN	C	510	183.468 186.121 184.533	1.00 87.40	O
ATOM	14225	NE2	GLN	C	510	183.917 184.553 182.992	1.00 87.40	N
ATOM	14226	N	ARG	C	511	187.799 184.844 184.489	1.00 78.01	N
ATOM	14227	CA	ARG	C	511	187.788 184.047 185.706	1.00 78.01	C
ATOM	14228	C	ARG	C	511	188.754 184.567 186.758	1.00 78.01	C
ATOM	14229	O	ARG	C	511	188.622 184.205 187.932	1.00 78.01	O
ATOM	14230	CB	ARG	C	511	188.117 182.589 185.384	1.00 78.01	C
ATOM	14231	CG	ARG	C	511	189.508 182.387 184.830	1.00 78.01	C
ATOM	14232	CD	ARG	C	511	189.746 180.935 184.472	1.00 78.01	C
ATOM	14233	NE	ARG	C	511	189.774 180.076 185.650	1.00 78.01	N
ATOM	14234	CZ	ARG	C	511	189.688 178.752 185.605	1.00 78.01	C
ATOM	14235	NH1	ARG	C	511	189.567 178.135 184.438	1.00 78.01	N
ATOM	14236	NH2	ARG	C	511	189.723 178.043 186.725	1.00 78.01	N
ATOM	14237	N	ARG	C	512	189.722 185.398 186.370	1.00 66.19	N
ATOM	14238	CA	ARG	C	512	190.553 186.070 187.363	1.00 66.19	C
ATOM	14239	C	ARG	C	512	189.725 187.050 188.181	1.00 66.19	C
ATOM	14240	O	ARG	C	512	189.757 187.028 189.417	1.00 66.19	O
ATOM	14241	CB	ARG	C	512	191.713 186.793 186.681	1.00 66.19	C
ATOM	14242	CG	ARG	C	512	192.665 185.896 185.915	1.00 66.19	C
ATOM	14243	CD	ARG	C	512	193.474 185.012 186.843	1.00 66.19	C

ATOM	14244	NE	ARG	C	512	194.492	184.263	186.113	1.00 66.19	N
ATOM	14245	CZ	ARG	C	512	195.292	183.355	186.663	1.00 66.19	C
ATOM	14246	NH1	ARG	C	512	195.191	183.076	187.954	1.00 66.19	N
ATOM	14247	NH2	ARG	C	512	196.192	182.726	185.921	1.00 66.19	N
ATOM	14248	N	THR	C	513	188.976	187.923	187.503	1.00 59.99	N
ATOM	14249	CA	THR	C	513	188.155	188.904	188.203	1.00 59.99	C
ATOM	14250	C	THR	C	513	187.104	188.240	189.083	1.00 59.99	C
ATOM	14251	O	THR	C	513	186.740	188.787	190.129	1.00 59.99	O
ATOM	14252	CB	THR	C	513	187.492	189.845	187.198	1.00 59.99	C
ATOM	14253	OG1	THR	C	513	188.503	190.549	186.466	1.00 59.99	O
ATOM	14254	CG2	THR	C	513	186.607	190.846	187.913	1.00 59.99	C
ATOM	14255	N	LEU	C	514	186.612	187.065	188.691	1.00 63.05	N
ATOM	14256	CA	LEU	C	514	185.689	186.309	189.530	1.00 63.05	C
ATOM	14257	C	LEU	C	514	186.398	185.491	190.596	1.00 63.05	C
ATOM	14258	O	LEU	C	514	185.777	184.622	191.218	1.00 63.05	O
ATOM	14259	CB	LEU	C	514	184.804	185.401	188.673	1.00 63.05	C
ATOM	14260	CG	LEU	C	514	183.511	186.023	188.144	1.00 63.05	C
ATOM	14261	CD1	LEU	C	514	182.586	186.374	189.296	1.00 63.05	C
ATOM	14262	CD2	LEU	C	514	183.798	187.252	187.302	1.00 63.05	C
ATOM	14263	N	GLU	C	515	187.685	185.742	190.811	1.00 57.01	N
ATOM	14264	CA	GLU	C	515	188.405	185.208	191.956	1.00 57.01	C
ATOM	14265	C	GLU	C	515	189.111	186.283	192.759	1.00 57.01	C
ATOM	14266	O	GLU	C	515	189.301	186.097	193.967	1.00 57.01	O
ATOM	14267	CB	GLU	C	515	189.431	184.155	191.506	1.00 57.01	C
ATOM	14268	CG	GLU	C	515	190.030	183.321	192.631	1.00 57.01	C
ATOM	14269	CD	GLU	C	515	191.249	183.962	193.262	1.00 57.01	C
ATOM	14270	OE1	GLU	C	515	191.956	184.710	192.558	1.00 57.01	O
ATOM	14271	OE2	GLU	C	515	191.492	183.726	194.463	1.00 57.01	O
ATOM	14272	N	VAL	C	516	189.501	187.398	192.141	1.00 52.84	N
ATOM	14273	CA	VAL	C	516	189.997	188.533	192.902	1.00 52.84	C
ATOM	14274	C	VAL	C	516	188.881	189.204	193.687	1.00 52.84	C
ATOM	14275	O	VAL	C	516	189.139	189.766	194.757	1.00 52.84	O
ATOM	14276	CB	VAL	C	516	190.681	189.548	191.974	1.00 52.84	C
ATOM	14277	CG1	VAL	C	516	191.101	190.775	192.753	1.00 52.84	C
ATOM	14278	CG2	VAL	C	516	191.877	188.912	191.291	1.00 52.84	C
ATOM	14279	N	PHE	C	517	187.643	189.152	193.196	1.00 50.97	N
ATOM	14280	CA	PHE	C	517	186.519	189.644	193.978	1.00 50.97	C

ATOM	14281	C	PHE C 517	186.130	188.687	195.089	1.00 50.97	C
ATOM	14282	O	PHE C 517	185.491	189.107	196.056	1.00 50.97	O
ATOM	14283	CB	PHE C 517	185.303	189.893	193.087	1.00 50.97	C
ATOM	14284	CG	PHE C 517	185.447	191.072	192.177	1.00 50.97	C
ATOM	14285	CD1	PHE C 517	186.447	192.004	192.381	1.00 50.97	C
ATOM	14286	CD2	PHE C 517	184.576	191.252	191.119	1.00 50.97	C
ATOM	14287	CE1	PHE C 517	186.579	193.090	191.542	1.00 50.97	C
ATOM	14288	CE2	PHE C 517	184.703	192.335	190.279	1.00 50.97	C
ATOM	14289	CZ	PHE C 517	185.706	193.256	190.490	1.00 50.97	C
ATOM	14290	N	LYS C 518	186.501	187.414	194.980	1.00 54.44	N
ATOM	14291	CA	LYS C 518	186.165	186.472	196.036	1.00 54.44	C
ATOM	14292	C	LYS C 518	186.935	186.751	197.318	1.00 54.44	C
ATOM	14293	O	LYS C 518	186.526	186.283	198.385	1.00 54.44	O
ATOM	14294	CB	LYS C 518	186.427	185.047	195.565	1.00 54.44	C
ATOM	14295	CG	LYS C 518	185.905	183.988	196.506	1.00 54.44	C
ATOM	14296	CD	LYS C 518	186.218	182.612	195.967	1.00 54.44	C
ATOM	14297	CE	LYS C 518	185.076	182.068	195.132	1.00 54.44	C
ATOM	14298	NZ	LYS C 518	185.026	182.690	193.778	1.00 54.44	N
ATOM	14299	N	GLU C 519	188.034	187.497	197.238	1.00 48.55	N
ATOM	14300	CA	GLU C 519	188.794	187.919	198.407	1.00 48.55	C
ATOM	14301	C	GLU C 519	188.520	189.364	198.795	1.00 48.55	C
ATOM	14302	O	GLU C 519	188.305	189.651	199.975	1.00 48.55	O
ATOM	14303	CB	GLU C 519	190.291	187.731	198.158	1.00 48.55	C
ATOM	14304	CG	GLU C 519	190.698	186.284	197.965	1.00 48.55	C
ATOM	14305	CD	GLU C 519	190.493	185.455	199.212	1.00 48.55	C
ATOM	14306	OE1	GLU C 519	190.595	186.021	200.320	1.00 48.55	O
ATOM	14307	OE2	GLU C 519	190.237	184.239	199.090	1.00 48.55	O
ATOM	14308	N	LEU C 520	188.521	190.284	197.826	1.00 43.62	N
ATOM	14309	CA	LEU C 520	188.168	191.670	198.113	1.00 43.62	C
ATOM	14310	C	LEU C 520	186.751	191.811	198.651	1.00 43.62	C
ATOM	14311	O	LEU C 520	186.462	192.788	199.349	1.00 43.62	O
ATOM	14312	CB	LEU C 520	188.338	192.533	196.864	1.00 43.62	C
ATOM	14313	CG	LEU C 520	189.756	193.041	196.612	1.00 43.62	C
ATOM	14314	CD1	LEU C 520	190.676	191.909	196.209	1.00 43.62	C
ATOM	14315	CD2	LEU C 520	189.740	194.122	195.549	1.00 43.62	C
ATOM	14316	N	SER C 521	185.862	190.867	198.352	1.00 42.61	N
ATOM	14317	CA	SER C 521	184.536	190.855	198.956	1.00 42.61	C

ATOM	14318	C	SER C 521	184.574	190.472	200.424	1.00 42.61	C
ATOM	14319	O	SER C 521	183.555	190.591	201.113	1.00 42.61	O
ATOM	14320	CB	SER C 521	183.615	189.895	198.203	1.00 42.61	C
ATOM	14321	OG	SER C 521	184.037	188.555	198.376	1.00 42.61	O
ATOM	14322	N	LYS C 522	185.724	190.019	200.913	1.00 38.82	N
ATOM	14323	CA	LYS C 522	185.899	189.684	202.313	1.00 38.82	C
ATOM	14324	C	LYS C 522	186.433	190.844	203.135	1.00 38.82	C
ATOM	14325	O	LYS C 522	186.286	190.829	204.361	1.00 38.82	O
ATOM	14326	CB	LYS C 522	186.839	188.481	202.448	1.00 38.82	C
ATOM	14327	CG	LYS C 522	186.943	187.924	203.841	1.00 38.82	C
ATOM	14328	CD	LYS C 522	187.819	186.694	203.832	1.00 38.82	C
ATOM	14329	CE	LYS C 522	186.983	185.442	203.635	1.00 38.82	C
ATOM	14330	NZ	LYS C 522	186.569	185.274	202.214	1.00 38.82	N
ATOM	14331	N	ILE C 523	187.041	191.841	202.501	1.00 39.23	N
ATOM	14332	CA	ILE C 523	187.392	193.068	203.204	1.00 39.23	C
ATOM	14333	C	ILE C 523	186.159	193.914	203.470	1.00 39.23	C
ATOM	14334	O	ILE C 523	185.769	194.101	204.623	1.00 39.23	O
ATOM	14335	CB	ILE C 523	188.447	193.859	202.408	1.00 39.23	C
ATOM	14336	CG1	ILE C 523	189.766	193.095	202.357	1.00 39.23	C
ATOM	14337	CG2	ILE C 523	188.650	195.229	203.017	1.00 39.23	C
ATOM	14338	CD1	ILE C 523	190.777	193.707	201.426	1.00 39.23	C
ATOM	14339	N	ASN C 524	185.507	194.399	202.419	1.00 38.17	N
ATOM	14340	CA	ASN C 524	184.299	195.196	202.567	1.00 38.17	C
ATOM	14341	C	ASN C 524	183.257	194.727	201.560	1.00 38.17	C
ATOM	14342	O	ASN C 524	183.323	195.095	200.380	1.00 38.17	O
ATOM	14343	CB	ASN C 524	184.599	196.681	202.375	1.00 38.17	C
ATOM	14344	CG	ASN C 524	183.439	197.563	202.779	1.00 38.17	C
ATOM	14345	OD1	ASN C 524	182.396	197.075	203.210	1.00 38.17	O
ATOM	14346	ND2	ASN C 524	183.612	198.871	202.639	1.00 38.17	N
ATOM	14347	N	PRO C 525	182.287	193.915	201.984	1.00 34.69	N
ATOM	14348	CA	PRO C 525	181.307	193.389	201.025	1.00 34.69	C
ATOM	14349	C	PRO C 525	180.404	194.455	200.439	1.00 34.69	C
ATOM	14350	O	PRO C 525	179.994	194.331	199.279	1.00 34.69	O
ATOM	14351	CB	PRO C 525	180.508	192.382	201.861	1.00 34.69	C
ATOM	14352	CG	PRO C 525	181.401	192.043	203.005	1.00 34.69	C
ATOM	14353	CD	PRO C 525	182.145	193.300	203.309	1.00 34.69	C
ATOM	14354	N	SER C 526	180.076	195.497	201.204	1.00 36.64	N

ATOM	14355	CA	SER C 526	179.150	196.510	200.712	1.00 36.64	C
ATOM	14356	C	SER C 526	179.735	197.276	199.534	1.00 36.64	C
ATOM	14357	O	SER C 526	179.039	197.531	198.546	1.00 36.64	O
ATOM	14358	CB	SER C 526	178.777	197.469	201.840	1.00 36.64	C
ATOM	14359	OG	SER C 526	178.088	196.790	202.874	1.00 36.64	O
ATOM	14360	N	ALA C 527	181.011	197.650	199.616	1.00 37.61	N
ATOM	14361	CA	ALA C 527	181.616	198.437	198.548	1.00 37.61	C
ATOM	14362	C	ALA C 527	181.801	197.605	197.286	1.00 37.61	C
ATOM	14363	O	ALA C 527	181.476	198.053	196.182	1.00 37.61	O
ATOM	14364	CB	ALA C 527	182.952	199.014	199.013	1.00 37.61	C
ATOM	14365	N	ILE C 528	182.331	196.390	197.430	1.00 41.06	N
ATOM	14366	CA	ILE C 528	182.579	195.544	196.266	1.00 41.06	C
ATOM	14367	C	ILE C 528	181.267	195.151	195.601	1.00 41.06	C
ATOM	14368	O	ILE C 528	181.064	195.376	194.402	1.00 41.06	O
ATOM	14369	CB	ILE C 528	183.396	194.305	196.667	1.00 41.06	C
ATOM	14370	CG1	ILE C 528	184.740	194.729	197.253	1.00 41.06	C
ATOM	14371	CG2	ILE C 528	183.595	193.397	195.472	1.00 41.06	C
ATOM	14372	CD1	ILE C 528	185.599	195.505	196.286	1.00 41.06	C
ATOM	14373	N	LEU C 529	180.358	194.552	196.370	1.00 41.45	N
ATOM	14374	CA	LEU C 529	179.100	194.068	195.819	1.00 41.45	C
ATOM	14375	C	LEU C 529	178.211	195.183	195.290	1.00 41.45	C
ATOM	14376	O	LEU C 529	177.326	194.907	194.475	1.00 41.45	O
ATOM	14377	CB	LEU C 529	178.348	193.266	196.879	1.00 41.45	C
ATOM	14378	CG	LEU C 529	177.049	192.608	196.429	1.00 41.45	C
ATOM	14379	CD1	LEU C 529	177.334	191.598	195.339	1.00 41.45	C
ATOM	14380	CD2	LEU C 529	176.363	191.945	197.607	1.00 41.45	C
ATOM	14381	N	SER C 530	178.414	196.424	195.725	1.00 41.95	N
ATOM	14382	CA	SER C 530	177.659	197.557	195.210	1.00 41.95	C
ATOM	14383	C	SER C 530	178.389	198.290	194.097	1.00 41.95	C
ATOM	14384	O	SER C 530	177.864	199.278	193.577	1.00 41.95	O
ATOM	14385	CB	SER C 530	177.331	198.537	196.339	1.00 41.95	C
ATOM	14386	OG	SER C 530	176.641	199.670	195.843	1.00 41.95	O
ATOM	14387	N	ALA C 531	179.583	197.838	193.725	1.00 45.64	N
ATOM	14388	CA	ALA C 531	180.318	198.445	192.627	1.00 45.64	C
ATOM	14389	C	ALA C 531	180.107	197.724	191.306	1.00 45.64	C
ATOM	14390	O	ALA C 531	180.303	198.330	190.247	1.00 45.64	O
ATOM	14391	CB	ALA C 531	181.814	198.487	192.948	1.00 45.64	C

ATOM	14392	N	ILE	C	532	179.714	196.449	191.341	1.00	52.47	N
ATOM	14393	CA	ILE	C	532	179.441	195.689	190.129	1.00	52.47	C
ATOM	14394	C	ILE	C	532	177.968	195.699	189.760	1.00	52.47	C
ATOM	14395	O	ILE	C	532	177.585	195.095	188.750	1.00	52.47	O
ATOM	14396	CB	ILE	C	532	179.946	194.240	190.262	1.00	52.47	C
ATOM	14397	CG1	ILE	C	532	179.192	193.516	191.374	1.00	52.47	C
ATOM	14398	CG2	ILE	C	532	181.433	194.226	190.549	1.00	52.47	C
ATOM	14399	CD1	ILE	C	532	179.475	192.036	191.428	1.00	52.47	C
ATOM	14400	N	TYR	C	533	177.127	196.366	190.552	1.00	57.68	N
ATOM	14401	CA	TYR	C	533	175.713	196.513	190.245	1.00	57.68	C
ATOM	14402	C	TYR	C	533	175.293	197.954	190.008	1.00	57.68	C
ATOM	14403	O	TYR	C	533	174.218	198.179	189.446	1.00	57.68	O
ATOM	14404	CB	TYR	C	533	174.855	195.931	191.378	1.00	57.68	C
ATOM	14405	CG	TYR	C	533	174.915	194.427	191.494	1.00	57.68	C
ATOM	14406	CD1	TYR	C	533	175.401	193.650	190.455	1.00	57.68	C
ATOM	14407	CD2	TYR	C	533	174.488	193.785	192.645	1.00	57.68	C
ATOM	14408	CE1	TYR	C	533	175.457	192.275	190.558	1.00	57.68	C
ATOM	14409	CE2	TYR	C	533	174.546	192.411	192.759	1.00	57.68	C
ATOM	14410	CZ	TYR	C	533	175.027	191.662	191.712	1.00	57.68	C
ATOM	14411	OH	TYR	C	533	175.082	190.293	191.820	1.00	57.68	O
ATOM	14412	N	ASN	C	534	176.107	198.926	190.418	1.00	55.93	N
ATOM	14413	CA	ASN	C	534	175.800	200.344	190.248	1.00	55.93	C
ATOM	14414	C	ASN	C	534	174.519	200.721	190.995	1.00	55.93	C
ATOM	14415	O	ASN	C	534	173.534	201.182	190.416	1.00	55.93	O
ATOM	14416	CB	ASN	C	534	175.704	200.708	188.764	1.00	55.93	C
ATOM	14417	CG	ASN	C	534	177.030	200.564	188.044	1.00	55.93	C
ATOM	14418	OD1	ASN	C	534	177.183	199.724	187.158	1.00	55.93	O
ATOM	14419	ND2	ASN	C	534	177.999	201.388	188.424	1.00	55.93	N
ATOM	14420	N	LYS	C	535	174.554	200.513	192.313	1.00	53.88	N
ATOM	14421	CA	LYS	C	535	173.444	200.878	193.177	1.00	53.88	C
ATOM	14422	C	LYS	C	535	173.908	200.767	194.617	1.00	53.88	C
ATOM	14423	O	LYS	C	535	174.702	199.869	194.925	1.00	53.88	O
ATOM	14424	CB	LYS	C	535	172.230	199.975	192.940	1.00	53.88	C
ATOM	14425	CG	LYS	C	535	170.993	200.383	193.721	1.00	53.88	C
ATOM	14426	CD	LYS	C	535	169.844	199.418	193.486	1.00	53.88	C
ATOM	14427	CE	LYS	C	535	168.905	199.924	192.406	1.00	53.88	C
ATOM	14428	NZ	LYS	C	535	169.473	199.724	191.046	1.00	53.88	N

ATOM	14429	N	PRO C 536	173.451	201.638	195.513	1.00 49.06	N
ATOM	14430	CA	PRO C 536	173.842	201.510	196.923	1.00 49.06	C
ATOM	14431	C	PRO C 536	173.211	200.291	197.574	1.00 49.06	C
ATOM	14432	O	PRO C 536	171.988	200.224	197.726	1.00 49.06	O
ATOM	14433	CB	PRO C 536	173.334	202.814	197.546	1.00 49.06	C
ATOM	14434	CG	PRO C 536	172.205	203.228	196.670	1.00 49.06	C
ATOM	14435	CD	PRO C 536	172.583	202.804	195.281	1.00 49.06	C
ATOM	14436	N	ILE C 537	174.038	199.324	197.963	1.00 43.16	N
ATOM	14437	CA	ILE C 537	173.573	198.057	198.511	1.00 43.16	C
ATOM	14438	C	ILE C 537	174.293	197.792	199.824	1.00 43.16	C
ATOM	14439	O	ILE C 537	175.485	198.086	199.960	1.00 43.16	O
ATOM	14440	CB	ILE C 537	173.804	196.895	197.523	1.00 43.16	C
ATOM	14441	CG1	ILE C 537	172.950	197.082	196.271	1.00 43.16	C
ATOM	14442	CG2	ILE C 537	173.498	195.567	198.175	1.00 43.16	C
ATOM	14443	CD1	ILE C 537	173.288	196.115	195.164	1.00 43.16	C
ATOM	14444	N	ALA C 538	173.568	197.234	200.788	1.00 39.62	N
ATOM	14445	CA	ALA C 538	174.118	196.856	202.083	1.00 39.62	C
ATOM	14446	C	ALA C 538	174.101	195.339	202.195	1.00 39.62	C
ATOM	14447	O	ALA C 538	173.027	194.730	202.232	1.00 39.62	O
ATOM	14448	CB	ALA C 538	173.324	197.489	203.224	1.00 39.62	C
ATOM	14449	N	ALA C 539	175.283	194.737	202.249	1.00 38.06	N
ATOM	14450	CA	ALA C 539	175.428	193.293	202.322	1.00 38.06	C
ATOM	14451	C	ALA C 539	176.129	192.907	203.616	1.00 38.06	C
ATOM	14452	O	ALA C 539	176.624	193.755	204.362	1.00 38.06	O
ATOM	14453	CB	ALA C 539	176.205	192.756	201.116	1.00 38.06	C
ATOM	14454	N	ARG C 540	176.169	191.604	203.876	1.00 37.03	N
ATOM	14455	CA	ARG C 540	176.779	191.078	205.087	1.00 37.03	C
ATOM	14456	C	ARG C 540	176.903	189.572	204.952	1.00 37.03	C
ATOM	14457	O	ARG C 540	175.994	188.920	204.436	1.00 37.03	O
ATOM	14458	CB	ARG C 540	175.947	191.429	206.326	1.00 37.03	C
ATOM	14459	CG	ARG C 540	176.550	190.946	207.626	1.00 37.03	C
ATOM	14460	CD	ARG C 540	175.680	191.319	208.811	1.00 37.03	C
ATOM	14461	NE	ARG C 540	174.383	190.652	208.778	1.00 37.03	N
ATOM	14462	CZ	ARG C 540	174.171	189.414	209.210	1.00 37.03	C
ATOM	14463	NH1	ARG C 540	172.958	188.886	209.146	1.00 37.03	N
ATOM	14464	NH2	ARG C 540	175.172	188.700	209.703	1.00 37.03	N
ATOM	14465	N	PHE C 541	178.025	189.026	205.413	1.00 37.08	N

ATOM	14466	CA	PHE	C	541	178.201	187.583	205.367	1.00 37.08	C
ATOM	14467	C	PHE	C	541	177.182	186.900	206.264	1.00 37.08	C
ATOM	14468	O	PHE	C	541	176.789	187.427	207.307	1.00 37.08	O
ATOM	14469	CB	PHE	C	541	179.614	187.192	205.786	1.00 37.08	C
ATOM	14470	CG	PHE	C	541	180.657	187.547	204.779	1.00 37.08	C
ATOM	14471	CD1	PHE	C	541	180.837	186.766	203.652	1.00 37.08	C
ATOM	14472	CD2	PHE	C	541	181.464	188.653	204.957	1.00 37.08	C
ATOM	14473	CE1	PHE	C	541	181.795	187.086	202.719	1.00 37.08	C
ATOM	14474	CE2	PHE	C	541	182.426	188.978	204.028	1.00 37.08	C
ATOM	14475	CZ	PHE	C	541	182.592	188.193	202.906	1.00 37.08	C
ATOM	14476	N	MET	C	542	176.755	185.716	205.846	1.00 36.35	N
ATOM	14477	CA	MET	C	542	175.733	184.941	206.532	1.00 36.35	C
ATOM	14478	C	MET	C	542	176.198	183.498	206.667	1.00 36.35	C
ATOM	14479	O	MET	C	542	175.485	182.542	206.360	1.00 36.35	O
ATOM	14480	CB	MET	C	542	174.406	185.075	205.790	1.00 36.35	C
ATOM	14481	CG	MET	C	542	173.218	184.456	206.489	1.00 36.35	C
ATOM	14482	SD	MET	C	542	171.660	184.865	205.679	1.00 36.35	S
ATOM	14483	CE	MET	C	542	171.770	183.889	204.184	1.00 36.35	C
ATOM	14484	N	GLY	C	543	177.429	183.340	207.144	1.00 36.73	N
ATOM	14485	CA	GLY	C	543	178.111	182.063	207.184	1.00 36.73	C
ATOM	14486	C	GLY	C	543	178.996	181.833	205.977	1.00 36.73	C
ATOM	14487	O	GLY	C	543	180.222	181.909	206.089	1.00 36.73	O
ATOM	14488	N	ASP	C	544	178.397	181.567	204.817	1.00 37.86	N
ATOM	14489	CA	ASP	C	544	179.158	181.454	203.579	1.00 37.86	C
ATOM	14490	C	ASP	C	544	178.440	182.083	202.394	1.00 37.86	C
ATOM	14491	O	ASP	C	544	178.894	181.912	201.256	1.00 37.86	O
ATOM	14492	CB	ASP	C	544	179.467	179.989	203.253	1.00 37.86	C
ATOM	14493	CG	ASP	C	544	180.545	179.405	204.137	1.00 37.86	C
ATOM	14494	OD1	ASP	C	544	181.459	180.151	204.541	1.00 37.86	O
ATOM	14495	OD2	ASP	C	544	180.479	178.194	204.429	1.00 37.86	O
ATOM	14496	N	VAL	C	545	177.345	182.804	202.617	1.00 35.98	N
ATOM	14497	CA	VAL	C	545	176.503	183.304	201.539	1.00 35.98	C
ATOM	14498	C	VAL	C	545	176.104	184.733	201.873	1.00 35.98	C
ATOM	14499	O	VAL	C	545	175.521	184.983	202.933	1.00 35.98	O
ATOM	14500	CB	VAL	C	545	175.251	182.436	201.337	1.00 35.98	C
ATOM	14501	CG1	VAL	C	545	174.369	183.034	200.266	1.00 35.98	C
ATOM	14502	CG2	VAL	C	545	175.645	181.017	200.979	1.00 35.98	C

ATOM	14503	N	LEU C 546	176.419	185.666	200.980	1.00 37.57 N
ATOM	14504	CA	LEU C 546	176.082	187.063	201.210	1.00 37.57 C
ATOM	14505	C	LEU C 546	174.572	187.251	201.286	1.00 37.57 C
ATOM	14506	O	LEU C 546	173.800	186.547	200.630	1.00 37.57 O
ATOM	14507	CB	LEU C 546	176.655	187.936	200.097	1.00 37.57 C
ATOM	14508	CG	LEU C 546	178.175	187.999	199.997	1.00 37.57 C
ATOM	14509	CD1	LEU C 546	178.583	188.785	198.769	1.00 37.57 C
ATOM	14510	CD2	LEU C 546	178.757	188.620	201.247	1.00 37.57 C
ATOM	14511	N	GLY C 547	174.152	188.217	202.097	1.00 37.23 N
ATOM	14512	CA	GLY C 547	172.749	188.558	202.205	1.00 37.23 C
ATOM	14513	C	GLY C 547	172.465	189.962	201.717	1.00 37.23 C
ATOM	14514	O	GLY C 547	172.869	190.939	202.351	1.00 37.23 O
ATOM	14515	N	LEU C 548	171.768	190.076	200.592	1.00 39.69 N
ATOM	14516	CA	LEU C 548	171.512	191.378	200.002	1.00 39.69 C
ATOM	14517	C	LEU C 548	170.403	192.109	200.751	1.00 39.69 C
ATOM	14518	O	LEU C 548	169.508	191.504	201.345	1.00 39.69 O
ATOM	14519	CB	LEU C 548	171.126	191.236	198.530	1.00 39.69 C
ATOM	14520	CG	LEU C 548	172.248	191.118	197.503	1.00 39.69 C
ATOM	14521	CD1	LEU C 548	173.068	192.387	197.475	1.00 39.69 C
ATOM	14522	CD2	LEU C 548	173.125	189.923	197.803	1.00 39.69 C
ATOM	14523	N	ALA C 549	170.478	193.435	200.716	1.00 40.89 N
ATOM	14524	CA	ALA C 549	169.423	194.302	201.216	1.00 40.89 C
ATOM	14525	C	ALA C 549	169.818	195.733	200.895	1.00 40.89 C
ATOM	14526	O	ALA C 549	171.005	196.064	200.832	1.00 40.89 O
ATOM	14527	CB	ALA C 549	169.198	194.132	202.719	1.00 40.89 C
ATOM	14528	N	SER C 550	168.813	196.580	200.700	1.00 46.28 N
ATOM	14529	CA	SER C 550	169.064	197.992	200.451	1.00 46.28 C
ATOM	14530	C	SER C 550	169.217	198.703	201.794	1.00 46.28 C
ATOM	14531	O	SER C 550	169.309	198.069	202.848	1.00 46.28 O
ATOM	14532	CB	SER C 550	167.964	198.587	199.579	1.00 46.28 C
ATOM	14533	OG	SER C 550	166.721	198.585	200.249	1.00 46.28 O
ATOM	14534	N	CYS C 551	169.239	200.031	201.776	1.00 42.08 N
ATOM	14535	CA	CYS C 551	169.665	200.813	202.928	1.00 42.08 C
ATOM	14536	C	CYS C 551	168.509	201.620	203.499	1.00 42.08 C
ATOM	14537	O	CYS C 551	167.639	202.084	202.756	1.00 42.08 O
ATOM	14538	CB	CYS C 551	170.815	201.736	202.541	1.00 42.08 C
ATOM	14539	SG	CYS C 551	172.290	200.836	202.044	1.00 42.08 S

ATOM	14540	N	VAL	C	552	168.508 201.780 204.824	1.00 35.61	N
ATOM	14541	CA	VAL	C	552	167.532 202.639 205.471	1.00 35.61	C
ATOM	14542	C	VAL	C	552	167.782 204.083 205.037	1.00 35.61	C
ATOM	14543	O	VAL	C	552	168.868 204.442 204.568	1.00 35.61	O
ATOM	14544	CB	VAL	C	552	167.628 202.495 206.999	1.00 35.61	C
ATOM	14545	CG1	VAL	C	552	166.493 203.229 207.703	1.00 35.61	C
ATOM	14546	CG2	VAL	C	552	167.683 201.034 207.406	1.00 35.61	C
ATOM	14547	N	THR	C	553	166.762 204.921 205.199	1.00 33.50	N
ATOM	14548	CA	THR	C	553	166.864 206.348 204.913	1.00 33.50	C
ATOM	14549	C	THR	C	553	166.443 207.126 206.151	1.00 33.50	C
ATOM	14550	O	THR	C	553	165.302 207.002 206.607	1.00 33.50	O
ATOM	14551	CB	THR	C	553	166.000 206.738 203.713	1.00 33.50	C
ATOM	14552	OG1	THR	C	553	166.445 206.034 202.548	1.00 33.50	O
ATOM	14553	CG2	THR	C	553	166.093 208.231 203.458	1.00 33.50	C
ATOM	14554	N	ILE	C	554	167.361 207.928 206.688	1.00 37.21	N
ATOM	14555	CA	ILE	C	554	167.109 208.709 207.895	1.00 37.21	C
ATOM	14556	C	ILE	C	554	166.322 209.943 207.475	1.00 37.21	C
ATOM	14557	O	ILE	C	554	166.156 210.196 206.278	1.00 37.21	O
ATOM	14558	CB	ILE	C	554	168.420 209.074 208.616	1.00 37.21	C
ATOM	14559	CG1	ILE	C	554	169.270 207.828 208.824	1.00 37.21	C
ATOM	14560	CG2	ILE	C	554	168.153 209.631 210.002	1.00 37.21	C
ATOM	14561	CD1	ILE	C	554	170.265 207.595 207.732	1.00 37.21	C
ATOM	14562	N	ASN	C	555	165.824 210.709 208.455	1.00 43.89	N
ATOM	14563	CA	ASN	C	555	164.875 211.789 208.202	1.00 43.89	C
ATOM	14564	C	ASN	C	555	165.381 212.809 207.185	1.00 43.89	C
ATOM	14565	O	ASN	C	555	164.564 213.504 206.571	1.00 43.89	O
ATOM	14566	CB	ASN	C	555	164.540 212.517 209.504	1.00 43.89	C
ATOM	14567	CG	ASN	C	555	163.210 213.228 209.431	1.00 43.89	C
ATOM	14568	OD1	ASN	C	555	162.465 213.039 208.470	1.00 43.89	O
ATOM	14569	ND2	ASN	C	555	162.904 214.058 210.427	1.00 43.89	N
ATOM	14570	N	GLN	C	556	166.700 212.938 207.021	1.00 42.77	N
ATOM	14571	CA	GLN	C	556	167.323 213.755 205.981	1.00 42.77	C
ATOM	14572	C	GLN	C	556	167.233 215.251 206.260	1.00 42.77	C
ATOM	14573	O	GLN	C	556	167.780 216.056 205.501	1.00 42.77	O
ATOM	14574	CB	GLN	C	556	166.702 213.471 204.610	1.00 42.77	C
ATOM	14575	CG	GLN	C	556	166.878 212.058 204.100	1.00 42.77	C
ATOM	14576	CD	GLN	C	556	168.322 211.712 203.832	1.00 42.77	C

ATOM	14577	OE1	GLN	C	556	169.091	212.539	203.347	1.00 42.77	O
ATOM	14578	NE2	GLN	C	556	168.700	210.481	204.147	1.00 42.77	N
ATOM	14579	N	THR	C	557	166.551	215.642	207.336	1.00 46.91	N
ATOM	14580	CA	THR	C	557	166.358	217.059	207.609	1.00 46.91	C
ATOM	14581	C	THR	C	557	166.564	217.422	209.073	1.00 46.91	C
ATOM	14582	O	THR	C	557	166.250	218.554	209.462	1.00 46.91	O
ATOM	14583	CB	THR	C	557	164.962	217.503	207.173	1.00 46.91	C
ATOM	14584	OG1	THR	C	557	164.847	218.923	207.321	1.00 46.91	O
ATOM	14585	CG2	THR	C	557	163.907	216.827	208.025	1.00 46.91	C
ATOM	14586	N	SER	C	558	167.075	216.508	209.898	1.00 44.40	N
ATOM	14587	CA	SER	C	558	167.324	216.804	211.302	1.00 44.40	C
ATOM	14588	C	SER	C	558	168.655	216.225	211.760	1.00 44.40	C
ATOM	14589	O	SER	C	558	168.818	215.889	212.937	1.00 44.40	O
ATOM	14590	CB	SER	C	558	166.193	216.279	212.186	1.00 44.40	C
ATOM	14591	OG	SER	C	558	166.465	216.521	213.554	1.00 44.40	O
ATOM	14592	N	VAL	C	559	169.610	216.102	210.846	1.00 36.99	N
ATOM	14593	CA	VAL	C	559	170.937	215.578	211.140	1.00 36.99	C
ATOM	14594	C	VAL	C	559	171.891	216.745	211.334	1.00 36.99	C
ATOM	14595	O	VAL	C	559	171.857	217.722	210.575	1.00 36.99	O
ATOM	14596	CB	VAL	C	559	171.421	214.648	210.014	1.00 36.99	C
ATOM	14597	CG1	VAL	C	559	172.850	214.226	210.260	1.00 36.99	C
ATOM	14598	CG2	VAL	C	559	170.515	213.437	209.913	1.00 36.99	C
ATOM	14599	N	LYS	C	560	172.754	216.647	212.347	1.00 32.30	N
ATOM	14600	CA	LYS	C	560	173.629	217.756	212.739	1.00 32.30	C
ATOM	14601	C	LYS	C	560	175.005	217.191	213.084	1.00 32.30	C
ATOM	14602	O	LYS	C	560	175.226	216.705	214.195	1.00 32.30	O
ATOM	14603	CB	LYS	C	560	173.030	218.525	213.908	1.00 32.30	C
ATOM	14604	CG	LYS	C	560	171.742	219.251	213.569	1.00 32.30	C
ATOM	14605	CD	LYS	C	560	171.244	220.075	214.742	1.00 32.30	C
ATOM	14606	CE	LYS	C	560	170.653	219.181	215.820	1.00 32.30	C
ATOM	14607	NZ	LYS	C	560	170.028	219.961	216.924	1.00 32.30	N
ATOM	14608	N	VAL	C	561	175.929	217.265	212.128	1.00 29.89	N
ATOM	14609	CA	VAL	C	561	177.295	216.816	212.370	1.00 29.89	C
ATOM	14610	C	VAL	C	561	177.955	217.758	213.368	1.00 29.89	C
ATOM	14611	O	VAL	C	561	178.078	218.962	213.118	1.00 29.89	O
ATOM	14612	CB	VAL	C	561	178.092	216.752	211.063	1.00 29.89	C
ATOM	14613	CG1	VAL	C	561	179.538	216.420	211.355	1.00 29.89	C

ATOM	14614	CG2	VAL	C	561	177.488	215.724	210.131	1.00 29.89	C
ATOM	14615	N	LEU	C	562	178.389	217.212	214.499	1.00 29.79	N
ATOM	14616	CA	LEU	C	562	179.016	218.031	215.526	1.00 29.79	C
ATOM	14617	C	LEU	C	562	180.380	218.521	215.062	1.00 29.79	C
ATOM	14618	O	LEU	C	562	181.143	217.785	214.433	1.00 29.79	O
ATOM	14619	CB	LEU	C	562	179.157	217.242	216.825	1.00 29.79	C
ATOM	14620	CG	LEU	C	562	177.846	216.848	217.505	1.00 29.79	C
ATOM	14621	CD1	LEU	C	562	178.111	216.003	218.735	1.00 29.79	C
ATOM	14622	CD2	LEU	C	562	177.042	218.082	217.863	1.00 29.79	C
ATOM	14623	N	ARG	C	563	180.685	219.775	215.381	1.00 39.57	N
ATOM	14624	CA	ARG	C	563	181.953	220.395	214.999	1.00 39.57	C
ATOM	14625	C	ARG	C	563	183.013	220.215	216.081	1.00 39.57	C
ATOM	14626	O	ARG	C	563	183.670	221.162	216.510	1.00 39.57	O
ATOM	14627	CB	ARG	C	563	181.730	221.869	214.683	1.00 39.57	C
ATOM	14628	CG	ARG	C	563	181.276	222.700	215.870	1.00 39.57	C
ATOM	14629	CD	ARG	C	563	181.068	224.155	215.489	1.00 39.57	C
ATOM	14630	NE	ARG	C	563	179.968	224.320	214.544	1.00 39.57	N
ATOM	14631	CZ	ARG	C	563	180.121	224.672	213.273	1.00 39.57	C
ATOM	14632	NH1	ARG	C	563	179.061	224.796	212.486	1.00 39.57	N
ATOM	14633	NH2	ARG	C	563	181.333	224.906	212.789	1.00 39.57	N
ATOM	14634	N	ASP	C	564	183.203	218.975	216.519	1.00 39.46	N
ATOM	14635	CA	ASP	C	564	184.170	218.685	217.567	1.00 39.46	C
ATOM	14636	C	ASP	C	564	184.428	217.187	217.579	1.00 39.46	C
ATOM	14637	O	ASP	C	564	183.551	216.394	217.233	1.00 39.46	O
ATOM	14638	CB	ASP	C	564	183.666	219.157	218.935	1.00 39.46	C
ATOM	14639	CG	ASP	C	564	184.741	219.116	219.996	1.00 39.46	C
ATOM	14640	OD1	ASP	C	564	185.877	218.707	219.681	1.00 39.46	O
ATOM	14641	OD2	ASP	C	564	184.449	219.495	221.150	1.00 39.46	O
ATOM	14642	N	MET	C	565	185.641	216.812	217.980	1.00 38.49	N
ATOM	14643	CA	MET	C	565	186.037	215.414	217.993	1.00 38.49	C
ATOM	14644	C	MET	C	565	186.756	214.996	219.266	1.00 38.49	C
ATOM	14645	O	MET	C	565	187.155	213.832	219.373	1.00 38.49	O
ATOM	14646	CB	MET	C	565	186.925	215.100	216.781	1.00 38.49	C
ATOM	14647	CG	MET	C	565	186.198	215.188	215.454	1.00 38.49	C
ATOM	14648	SD	MET	C	565	187.278	214.917	214.038	1.00 38.49	S
ATOM	14649	CE	MET	C	565	187.618	213.170	214.200	1.00 38.49	C
ATOM	14650	N	ASN	C	566	186.943	215.899	220.223	1.00 38.14	N

ATOM	14651	CA	ASN	C	566	187.553 215.536 221.493	1.00 38.14	C
ATOM	14652	C	ASN	C	566	186.517 214.882 222.396	1.00 38.14	C
ATOM	14653	O	ASN	C	566	185.412 215.406 222.565	1.00 38.14	O
ATOM	14654	CB	ASN	C	566	188.142 216.769 222.175	1.00 38.14	C
ATOM	14655	CG	ASN	C	566	189.369 217.296 221.467	1.00 38.14	C
ATOM	14656	OD1	ASN	C	566	190.229 216.530 221.039	1.00 38.14	O
ATOM	14657	ND2	ASN	C	566	189.458 218.614 221.339	1.00 38.14	N
ATOM	14658	N	VAL	C	567	186.870 213.732 222.971	1.00 43.83	N
ATOM	14659	CA	VAL	C	567	185.989 213.092 223.940	1.00 43.83	C
ATOM	14660	C	VAL	C	567	185.869 214.001 225.152	1.00 43.83	C
ATOM	14661	O	VAL	C	567	186.875 214.393 225.754	1.00 43.83	O
ATOM	14662	CB	VAL	C	567	186.513 211.708 224.321	1.00 43.83	C
ATOM	14663	CG1	VAL	C	567	185.647 211.104 225.407	1.00 43.83	C
ATOM	14664	CG2	VAL	C	567	186.545 210.806 223.105	1.00 43.83	C
ATOM	14665	N	LYS	C	568	184.631 214.340 225.518	1.00 48.87	N
ATOM	14666	CA	LYS	C	568	184.410 215.402 226.494	1.00 48.87	C
ATOM	14667	C	LYS	C	568	184.932 215.040 227.878	1.00 48.87	C
ATOM	14668	O	LYS	C	568	185.243 215.934 228.672	1.00 48.87	O
ATOM	14669	CB	LYS	C	568	182.923 215.740 226.567	1.00 48.87	C
ATOM	14670	CG	LYS	C	568	182.601 216.880 227.513	1.00 48.87	C
ATOM	14671	CD	LYS	C	568	181.118 217.197 227.503	1.00 48.87	C
ATOM	14672	CE	LYS	C	568	180.806 218.391 228.386	1.00 48.87	C
ATOM	14673	NZ	LYS	C	568	181.034 218.082 229.823	1.00 48.87	N
ATOM	14674	N	GLU	C	569	185.036 213.751 228.192	1.00 51.50	N
ATOM	14675	CA	GLU	C	569	185.420 213.335 229.536	1.00 51.50	C
ATOM	14676	C	GLU	C	569	186.854 212.831 229.629	1.00 51.50	C
ATOM	14677	O	GLU	C	569	187.555 213.162 230.589	1.00 51.50	O
ATOM	14678	CB	GLU	C	569	184.461 212.256 230.050	1.00 51.50	C
ATOM	14679	CG	GLU	C	569	184.476 210.963 229.255	1.00 51.50	C
ATOM	14680	CD	GLU	C	569	183.468 209.958 229.768	1.00 51.50	C
ATOM	14681	OE1	GLU	C	569	182.751 210.278 230.739	1.00 51.50	O
ATOM	14682	OE2	GLU	C	569	183.388 208.849 229.199	1.00 51.50	O
ATOM	14683	N	SER	C	570	187.315 212.041 228.660	1.00 49.81	N
ATOM	14684	CA	SER	C	570	188.638 211.440 228.734	1.00 49.81	C
ATOM	14685	C	SER	C	570	189.674 212.408 228.181	1.00 49.81	C
ATOM	14686	O	SER	C	570	189.683 212.659 226.967	1.00 49.81	O
ATOM	14687	CB	SER	C	570	188.673 210.129 227.965	1.00 49.81	C

ATOM	14688	OG	SER C 570	187.804 209.179 228.552	1.00 49.81		O
ATOM	14689	N	PRO C 571	190.557 212.968 229.011	1.00 48.77		N
ATOM	14690	CA	PRO C 571	191.603 213.865 228.501	1.00 48.77		C
ATOM	14691	C	PRO C 571	192.646 213.069 227.731	1.00 48.77		C
ATOM	14692	O	PRO C 571	193.194 212.089 228.238	1.00 48.77		O
ATOM	14693	CB	PRO C 571	192.192 214.479 229.776	1.00 48.77		C
ATOM	14694	CG	PRO C 571	191.953 213.444 230.818	1.00 48.77		C
ATOM	14695	CD	PRO C 571	190.640 212.795 230.471	1.00 48.77		C
ATOM	14696	N	GLY C 572	192.918 213.493 226.500	1.00 46.21		N
ATOM	14697	CA	GLY C 572	193.873 212.797 225.663	1.00 46.21		C
ATOM	14698	C	GLY C 572	193.245 211.600 224.984	1.00 46.21		C
ATOM	14699	O	GLY C 572	193.847 210.526 224.909	1.00 46.21		O
ATOM	14700	N	ARG C 573	192.025 211.778 224.485	1.00 44.16		N
ATOM	14701	CA	ARG C 573	191.296 210.678 223.865	1.00 44.16		C
ATOM	14702	C	ARG C 573	190.311 211.288 222.880	1.00 44.16		C
ATOM	14703	O	ARG C 573	189.348 211.941 223.289	1.00 44.16		O
ATOM	14704	CB	ARG C 573	190.596 209.837 224.922	1.00 44.16		C
ATOM	14705	CG	ARG C 573	189.913 208.605 224.389	1.00 44.16		C
ATOM	14706	CD	ARG C 573	190.919 207.718 223.693	1.00 44.16		C
ATOM	14707	NE	ARG C 573	192.027 207.355 224.569	1.00 44.16		N
ATOM	14708	CZ	ARG C 573	193.131 206.742 224.153	1.00 44.16		C
ATOM	14709	NH1	ARG C 573	193.258 206.408 222.879	1.00 44.16		N
ATOM	14710	NH2	ARG C 573	194.101 206.460 225.009	1.00 44.16		N
ATOM	14711	N	CYS C 574	190.559 211.085 221.593	1.00 39.44		N
ATOM	14712	CA	CYS C 574	189.859 211.797 220.541	1.00 39.44		C
ATOM	14713	C	CYS C 574	189.116 210.803 219.658	1.00 39.44		C
ATOM	14714	O	CYS C 574	189.548 209.663 219.479	1.00 39.44		O
ATOM	14715	CB	CYS C 574	190.852 212.621 219.713	1.00 39.44		C
ATOM	14716	SG	CYS C 574	191.823 213.821 220.688	1.00 39.44		S
ATOM	14717	N	TYR C 575	187.982 211.238 219.109	1.00 36.31		N
ATOM	14718	CA	TYR C 575	187.234 210.386 218.196	1.00 36.31		C
ATOM	14719	C	TYR C 575	188.029 210.168 216.913	1.00 36.31		C
ATOM	14720	O	TYR C 575	189.088 210.759 216.691	1.00 36.31		O
ATOM	14721	CB	TYR C 575	185.873 210.989 217.862	1.00 36.31		C
ATOM	14722	CG	TYR C 575	184.899 211.044 219.009	1.00 36.31		C
ATOM	14723	CD1	TYR C 575	184.276 209.898 219.468	1.00 36.31		C
ATOM	14724	CD2	TYR C 575	184.564 212.250 219.598	1.00 36.31		C

ATOM	14725	CE1	TYR C 575	183.379	209.946	220.507	1.00 36.31	C
ATOM	14726	CE2	TYR C 575	183.664	212.308	220.634	1.00 36.31	C
ATOM	14727	CZ	TYR C 575	183.074	211.154	221.084	1.00 36.31	C
ATOM	14728	OH	TYR C 575	182.173	211.205	222.119	1.00 36.31	O
ATOM	14729	N	SER C 576	187.494	209.314	216.043	1.00 37.30	N
ATOM	14730	CA	SER C 576	188.109	209.045	214.755	1.00 37.30	C
ATOM	14731	C	SER C 576	187.250	209.466	213.575	1.00 37.30	C
ATOM	14732	O	SER C 576	187.758	209.508	212.450	1.00 37.30	O
ATOM	14733	CB	SER C 576	188.442	207.552	214.618	1.00 37.30	C
ATOM	14734	OG	SER C 576	188.999	207.271	213.347	1.00 37.30	O
ATOM	14735	N	ARG C 577	185.976	209.778	213.793	1.00 35.45	N
ATOM	14736	CA	ARG C 577	185.092	210.273	212.750	1.00 35.45	C
ATOM	14737	C	ARG C 577	184.061	211.178	213.397	1.00 35.45	C
ATOM	14738	O	ARG C 577	183.750	211.010	214.582	1.00 35.45	O
ATOM	14739	CB	ARG C 577	184.402	209.129	211.996	1.00 35.45	C
ATOM	14740	CG	ARG C 577	185.352	208.296	211.166	1.00 35.45	C
ATOM	14741	CD	ARG C 577	184.621	207.226	210.392	1.00 35.45	C
ATOM	14742	NE	ARG C 577	185.549	206.385	209.647	1.00 35.45	N
ATOM	14743	CZ	ARG C 577	185.993	206.670	208.428	1.00 35.45	C
ATOM	14744	NH1	ARG C 577	185.597	207.779	207.820	1.00 35.45	N
ATOM	14745	NH2	ARG C 577	186.837	205.850	207.819	1.00 35.45	N
ATOM	14746	N	PRO C 578	183.524	212.147	212.660	1.00 29.91	N
ATOM	14747	CA	PRO C 578	182.613	213.128	213.266	1.00 29.91	C
ATOM	14748	C	PRO C 578	181.351	212.463	213.788	1.00 29.91	C
ATOM	14749	O	PRO C 578	180.633	211.789	213.048	1.00 29.91	O
ATOM	14750	CB	PRO C 578	182.308	214.082	212.107	1.00 29.91	C
ATOM	14751	CG	PRO C 578	183.436	213.894	211.150	1.00 29.91	C
ATOM	14752	CD	PRO C 578	183.804	212.451	211.251	1.00 29.91	C
ATOM	14753	N	VAL C 579	181.078	212.659	215.077	1.00 34.14	N
ATOM	14754	CA	VAL C 579	179.886	212.074	215.675	1.00 34.14	C
ATOM	14755	C	VAL C 579	178.652	212.808	215.169	1.00 34.14	C
ATOM	14756	O	VAL C 579	178.614	214.045	215.125	1.00 34.14	O
ATOM	14757	CB	VAL C 579	179.979	212.112	217.208	1.00 34.14	C
ATOM	14758	CG1	VAL C 579	180.023	213.540	217.697	1.00 34.14	C
ATOM	14759	CG2	VAL C 579	178.809	211.369	217.825	1.00 34.14	C
ATOM	14760	N	VAL C 580	177.635	212.044	214.779	1.00 21.09	N
ATOM	14761	CA	VAL C 580	176.436	212.578	214.148	1.00 21.09	C

ATOM	14762	C	VAL	C	580	175.235	212.251	215.021	1.00	21.09	C
ATOM	14763	O	VAL	C	580	175.199	211.216	215.693	1.00	21.09	O
ATOM	14764	CB	VAL	C	580	176.252	212.001	212.727	1.00	21.09	C
ATOM	14765	CG1	VAL	C	580	174.983	212.519	212.093	1.00	21.09	C
ATOM	14766	CG2	VAL	C	580	177.453	212.325	211.868	1.00	21.09	C
ATOM	14767	N	ILE	C	581	174.247	213.136	215.008	1.00	32.29	N
ATOM	14768	CA	ILE	C	581	172.999	212.937	215.741	1.00	32.29	C
ATOM	14769	C	ILE	C	581	171.870	212.960	214.715	1.00	32.29	C
ATOM	14770	O	ILE	C	581	171.326	214.010	214.364	1.00	32.29	O
ATOM	14771	CB	ILE	C	581	172.795	213.977	216.846	1.00	32.29	C
ATOM	14772	CG1	ILE	C	581	172.902	215.400	216.300	1.00	32.29	C
ATOM	14773	CG2	ILE	C	581	173.811	213.781	217.945	1.00	32.29	C
ATOM	14774	CD1	ILE	C	581	172.479	216.460	217.284	1.00	32.29	C
ATOM	14775	N	PHE	C	582	171.507	211.784	214.214	1.00	36.13	N
ATOM	14776	CA	PHE	C	582	170.419	211.661	213.259	1.00	36.13	C
ATOM	14777	C	PHE	C	582	169.123	211.346	214.003	1.00	36.13	C
ATOM	14778	O	PHE	C	582	169.050	211.430	215.231	1.00	36.13	O
ATOM	14779	CB	PHE	C	582	170.753	210.609	212.204	1.00	36.13	C
ATOM	14780	CG	PHE	C	582	170.934	209.230	212.757	1.00	36.13	C
ATOM	14781	CD1	PHE	C	582	172.173	208.804	213.189	1.00	36.13	C
ATOM	14782	CD2	PHE	C	582	169.871	208.354	212.833	1.00	36.13	C
ATOM	14783	CE1	PHE	C	582	172.347	207.538	213.695	1.00	36.13	C
ATOM	14784	CE2	PHE	C	582	170.040	207.085	213.339	1.00	36.13	C
ATOM	14785	CZ	PHE	C	582	171.280	206.677	213.770	1.00	36.13	C
ATOM	14786	N	ASN	C	583	168.082	210.983	213.261	1.00	41.61	N
ATOM	14787	CA	ASN	C	583	166.786	210.689	213.865	1.00	41.61	C
ATOM	14788	C	ASN	C	583	165.966	209.889	212.869	1.00	41.61	C
ATOM	14789	O	ASN	C	583	165.738	210.351	211.746	1.00	41.61	O
ATOM	14790	CB	ASN	C	583	166.068	211.978	214.250	1.00	41.61	C
ATOM	14791	CG	ASN	C	583	164.842	211.729	215.094	1.00	41.61	C
ATOM	14792	OD1	ASN	C	583	164.495	210.586	215.385	1.00	41.61	O
ATOM	14793	ND2	ASN	C	583	164.177	212.803	215.498	1.00	41.61	N
ATOM	14794	N	PHE	C	584	165.526	208.700	213.271	1.00	39.86	N
ATOM	14795	CA	PHE	C	584	164.736	207.862	212.383	1.00	39.86	C
ATOM	14796	C	PHE	C	584	163.408	208.532	212.047	1.00	39.86	C
ATOM	14797	O	PHE	C	584	162.978	209.487	212.697	1.00	39.86	O
ATOM	14798	CB	PHE	C	584	164.480	206.494	213.011	1.00	39.86	C

ATOM	14799	CG	PHE	C	584	165.695	205.624	213.084	1.00 39.86	C
ATOM	14800	CD1	PHE	C	584	166.142	204.949	211.965	1.00 39.86	C
ATOM	14801	CD2	PHE	C	584	166.384	205.468	214.271	1.00 39.86	C
ATOM	14802	CE1	PHE	C	584	167.257	204.143	212.024	1.00 39.86	C
ATOM	14803	CE2	PHE	C	584	167.501	204.661	214.334	1.00 39.86	C
ATOM	14804	CZ	PHE	C	584	167.936	203.998	213.208	1.00 39.86	C
ATOM	14805	N	ALA	C	585	162.760	208.015	211.006	1.00 40.78	N
ATOM	14806	CA	ALA	C	585	161.486	208.567	210.570	1.00 40.78	C
ATOM	14807	C	ALA	C	585	160.427	208.407	211.654	1.00 40.78	C
ATOM	14808	O	ALA	C	585	160.432	207.440	212.420	1.00 40.78	O
ATOM	14809	CB	ALA	C	585	161.027	207.886	209.282	1.00 40.78	C
ATOM	14810	N	ASN	C	586	159.534	209.397	211.733	1.00 47.64	N
ATOM	14811	CA	ASN	C	586	158.386	209.401	212.638	1.00 47.64	C
ATOM	14812	C	ASN	C	586	158.757	209.632	214.097	1.00 47.64	C
ATOM	14813	O	ASN	C	586	157.869	209.808	214.937	1.00 47.64	O
ATOM	14814	CB	ASN	C	586	157.619	208.081	212.568	1.00 47.64	C
ATOM	14815	CG	ASN	C	586	156.942	207.848	211.244	1.00 47.64	C
ATOM	14816	OD1	ASN	C	586	157.332	206.959	210.491	1.00 47.64	O
ATOM	14817	ND2	ASN	C	586	155.905	208.620	210.958	1.00 47.64	N
ATOM	14818	N	SER	C	587	160.043	209.642	214.420	1.00 47.46	N
ATOM	14819	CA	SER	C	587	160.467	209.562	215.808	1.00 47.46	C
ATOM	14820	C	SER	C	587	160.785	210.942	216.371	1.00 47.46	C
ATOM	14821	O	SER	C	587	160.839	211.946	215.659	1.00 47.46	O
ATOM	14822	CB	SER	C	587	161.679	208.637	215.944	1.00 47.46	C
ATOM	14823	OG	SER	C	587	162.811	209.179	215.289	1.00 47.46	O
ATOM	14824	N	SER	C	588	160.991	210.973	217.688	1.00 50.70	N
ATOM	14825	CA	SER	C	588	161.360	212.200	218.381	1.00 50.70	C
ATOM	14826	C	SER	C	588	162.433	211.945	219.431	1.00 50.70	C
ATOM	14827	O	SER	C	588	162.585	212.749	220.358	1.00 50.70	O
ATOM	14828	CB	SER	C	588	160.135	212.842	219.035	1.00 50.70	C
ATOM	14829	OG	SER	C	588	160.496	214.004	219.759	1.00 50.70	O
ATOM	14830	N	TYR	C	589	163.175	210.849	219.311	1.00 50.66	N
ATOM	14831	CA	TYR	C	589	164.179	210.443	220.290	1.00 50.66	C
ATOM	14832	C	TYR	C	589	165.515	210.374	219.560	1.00 50.66	C
ATOM	14833	O	TYR	C	589	165.741	209.472	218.748	1.00 50.66	O
ATOM	14834	CB	TYR	C	589	163.805	209.107	220.926	1.00 50.66	C
ATOM	14835	CG	TYR	C	589	162.568	209.165	221.801	1.00 50.66	C

ATOM	14836	CD1	TYR	C	589	162.101	210.372	222.306	1.00 50.66	C
ATOM	14837	CD2	TYR	C	589	161.853	208.016	222.102	1.00 50.66	C
ATOM	14838	CE1	TYR	C	589	160.968	210.426	223.099	1.00 50.66	C
ATOM	14839	CE2	TYR	C	589	160.719	208.059	222.889	1.00 50.66	C
ATOM	14840	CZ	TYR	C	589	160.281	209.266	223.386	1.00 50.66	C
ATOM	14841	OH	TYR	C	589	159.153	209.312	224.172	1.00 50.66	O
ATOM	14842	N	VAL	C	590	166.395	211.334	219.846	1.00 43.65	N
ATOM	14843	CA	VAL	C	590	167.634	211.471	219.093	1.00 43.65	C
ATOM	14844	C	VAL	C	590	168.561	210.297	219.380	1.00 43.65	C
ATOM	14845	O	VAL	C	590	168.426	209.597	220.391	1.00 43.65	O
ATOM	14846	CB	VAL	C	590	168.317	212.805	219.434	1.00 43.65	C
ATOM	14847	CG1	VAL	C	590	167.417	213.967	219.058	1.00 43.65	C
ATOM	14848	CG2	VAL	C	590	168.662	212.849	220.909	1.00 43.65	C
ATOM	14849	N	GLN	C	591	169.517	210.080	218.478	1.00 39.72	N
ATOM	14850	CA	GLN	C	591	170.516	209.036	218.669	1.00 39.72	C
ATOM	14851	C	GLN	C	591	171.913	209.556	218.365	1.00 39.72	C
ATOM	14852	O	GLN	C	591	172.111	210.764	218.210	1.00 39.72	O
ATOM	14853	CB	GLN	C	591	170.208	207.822	217.799	1.00 39.72	C
ATOM	14854	CG	GLN	C	591	168.936	207.113	218.185	1.00 39.72	C
ATOM	14855	CD	GLN	C	591	168.716	205.857	217.380	1.00 39.72	C
ATOM	14856	OE1	GLN	C	591	169.507	205.524	216.501	1.00 39.72	O
ATOM	14857	NE2	GLN	C	591	167.636	205.149	217.675	1.00 39.72	N
ATOM	14858	N	TYR	C	592	172.889	208.655	218.289	1.00 35.85	N
ATOM	14859	CA	TYR	C	592	174.271	209.040	218.045	1.00 35.85	C
ATOM	14860	C	TYR	C	592	174.921	208.033	217.114	1.00 35.85	C
ATOM	14861	O	TYR	C	592	174.845	206.825	217.349	1.00 35.85	O
ATOM	14862	CB	TYR	C	592	175.059	209.123	219.353	1.00 35.85	C
ATOM	14863	CG	TYR	C	592	174.588	210.224	220.263	1.00 35.85	C
ATOM	14864	CD1	TYR	C	592	175.040	211.524	220.105	1.00 35.85	C
ATOM	14865	CD2	TYR	C	592	173.672	209.966	221.266	1.00 35.85	C
ATOM	14866	CE1	TYR	C	592	174.603	212.532	220.934	1.00 35.85	C
ATOM	14867	CE2	TYR	C	592	173.228	210.965	222.097	1.00 35.85	C
ATOM	14868	CZ	TYR	C	592	173.695	212.246	221.928	1.00 35.85	C
ATOM	14869	OH	TYR	C	592	173.250	213.244	222.762	1.00 35.85	O
ATOM	14870	N	GLY	C	593	175.563	208.538	216.068	1.00 34.22	N
ATOM	14871	CA	GLY	C	593	176.277	207.689	215.136	1.00 34.22	C
ATOM	14872	C	GLY	C	593	177.353	208.495	214.446	1.00 34.22	C

ATOM	14873	O	GLY C 593	177.267 209.721 214.339	1.00 34.22		O
ATOM	14874	N	GLN C 594	178.372 207.791 213.973	1.00 31.62		N
ATOM	14875	CA	GLN C 594	179.550 208.423 213.405	1.00 31.62		C
ATOM	14876	C	GLN C 594	179.484 208.400 211.886	1.00 31.62		C
ATOM	14877	O	GLN C 594	179.131 207.382 211.285	1.00 31.62		O
ATOM	14878	CB	GLN C 594	180.820 207.731 213.888	1.00 31.62		C
ATOM	14879	CG	GLN C 594	181.059 207.888 215.370	1.00 31.62		C
ATOM	14880	CD	GLN C 594	182.306 207.179 215.813	1.00 31.62		C
ATOM	14881	OE1	GLN C 594	182.966 206.525 215.014	1.00 31.62		O
ATOM	14882	NE2	GLN C 594	182.638 207.295 217.090	1.00 31.62		N
ATOM	14883	N	LEU C 595	179.822 209.533 211.277	1.00 32.41		N
ATOM	14884	CA	LEU C 595	179.803 209.657 209.828	1.00 32.41		C
ATOM	14885	C	LEU C 595	180.767 208.665 209.191	1.00 32.41		C
ATOM	14886	O	LEU C 595	181.753 208.251 209.804	1.00 32.41		O
ATOM	14887	CB	LEU C 595	180.171 211.081 209.420	1.00 32.41		C
ATOM	14888	CG	LEU C 595	180.111 211.415 207.932	1.00 32.41		C
ATOM	14889	CD1	LEU C 595	178.686 211.309 207.432	1.00 32.41		C
ATOM	14890	CD2	LEU C 595	180.669 212.799 207.674	1.00 32.41		C
ATOM	14891	N	GLY C 596	180.477 208.285 207.951	1.00 39.67		N
ATOM	14892	CA	GLY C 596	181.298 207.320 207.249	1.00 39.67		C
ATOM	14893	C	GLY C 596	181.692 207.768 205.859	1.00 39.67		C
ATOM	14894	O	GLY C 596	181.568 208.948 205.521	1.00 39.67		O
ATOM	14895	N	GLU C 597	182.169 206.833 205.042	1.00 50.03		N
ATOM	14896	CA	GLU C 597	182.623 207.176 203.703	1.00 50.03		C
ATOM	14897	C	GLU C 597	181.440 207.331 202.756	1.00 50.03		C
ATOM	14898	O	GLU C 597	180.440 206.617 202.860	1.00 50.03		O
ATOM	14899	CB	GLU C 597	183.577 206.106 203.172	1.00 50.03		C
ATOM	14900	CG	GLU C 597	184.887 205.988 203.940	1.00 50.03		C
ATOM	14901	CD	GLU C 597	184.779 205.076 205.150	1.00 50.03		C
ATOM	14902	OE1	GLU C 597	183.700 204.477 205.350	1.00 50.03		O
ATOM	14903	OE2	GLU C 597	185.771 204.956 205.901	1.00 50.03		O
ATOM	14904	N	ASP C 598	181.563 208.277 201.826	1.00 50.62		N
ATOM	14905	CA	ASP C 598	180.565 208.504 200.782	1.00 50.62		C
ATOM	14906	C	ASP C 598	179.211 208.885 201.377	1.00 50.62		C
ATOM	14907	O	ASP C 598	178.159 208.593 200.805	1.00 50.62		O
ATOM	14908	CB	ASP C 598	180.437 207.281 199.869	1.00 50.62		C
ATOM	14909	CG	ASP C 598	179.811 207.616 198.529	1.00 50.62		C

ATOM	14910	OD1	ASP	C	598	179.448	208.791	198.320	1.00 50.62	O
ATOM	14911	OD2	ASP	C	598	179.699	206.707	197.678	1.00 50.62	O
ATOM	14912	N	ASN	C	599	179.243	209.548	202.533	1.00 43.75	N
ATOM	14913	CA	ASN	C	599	178.068	210.130	203.180	1.00 43.75	C
ATOM	14914	C	ASN	C	599	177.026	209.061	203.525	1.00 43.75	C
ATOM	14915	O	ASN	C	599	175.914	209.035	202.997	1.00 43.75	O
ATOM	14916	CB	ASN	C	599	177.451	211.221	202.300	1.00 43.75	C
ATOM	14917	CG	ASN	C	599	176.701	212.253	203.106	1.00 43.75	C
ATOM	14918	OD1	ASN	C	599	176.334	213.310	202.597	1.00 43.75	O
ATOM	14919	ND2	ASN	C	599	176.508	211.970	204.386	1.00 43.75	N
ATOM	14920	N	GLU	C	600	177.419	208.179	204.441	1.00 40.01	N
ATOM	14921	CA	GLU	C	600	176.498	207.180	204.973	1.00 40.01	C
ATOM	14922	C	GLU	C	600	176.776	206.995	206.455	1.00 40.01	C
ATOM	14923	O	GLU	C	600	177.914	206.725	206.846	1.00 40.01	O
ATOM	14924	CB	GLU	C	600	176.617	205.855	204.211	1.00 40.01	C
ATOM	14925	CG	GLU	C	600	177.969	205.165	204.263	1.00 40.01	C
ATOM	14926	CD	GLU	C	600	178.074	204.177	205.403	1.00 40.01	C
ATOM	14927	OE1	GLU	C	600	177.022	203.794	205.951	1.00 40.01	O
ATOM	14928	OE2	GLU	C	600	179.206	203.773	205.743	1.00 40.01	O
ATOM	14929	N	ILE	C	601	175.741	207.168	207.278	1.00 32.77	N
ATOM	14930	CA	ILE	C	601	175.894	207.031	208.720	1.00 32.77	C
ATOM	14931	C	ILE	C	601	176.149	205.574	209.075	1.00 32.77	C
ATOM	14932	O	ILE	C	601	175.596	204.657	208.455	1.00 32.77	O
ATOM	14933	CB	ILE	C	601	174.649	207.562	209.449	1.00 32.77	C
ATOM	14934	CG1	ILE	C	601	174.499	209.067	209.242	1.00 32.77	C
ATOM	14935	CG2	ILE	C	601	174.711	207.241	210.927	1.00 32.77	C
ATOM	14936	CD1	ILE	C	601	173.178	209.605	209.736	1.00 32.77	C
ATOM	14937	N	LEU	C	602	176.994	205.356	210.077	1.00 31.93	N
ATOM	14938	CA	LEU	C	602	177.219	204.040	210.651	1.00 31.93	C
ATOM	14939	C	LEU	C	602	176.978	204.109	212.152	1.00 31.93	C
ATOM	14940	O	LEU	C	602	177.376	205.074	212.810	1.00 31.93	O
ATOM	14941	CB	LEU	C	602	178.632	203.534	210.342	1.00 31.93	C
ATOM	14942	CG	LEU	C	602	179.826	204.387	210.766	1.00 31.93	C
ATOM	14943	CD1	LEU	C	602	180.213	204.128	212.206	1.00 31.93	C
ATOM	14944	CD2	LEU	C	602	181.003	204.125	209.845	1.00 31.93	C
ATOM	14945	N	LEU	C	603	176.330	203.078	212.685	1.00 33.27	N
ATOM	14946	CA	LEU	C	603	175.788	203.129	214.033	1.00 33.27	C

ATOM	14947	C	LEU C 603	176.893	203.102	215.084	1.00 33.27 C
ATOM	14948	O	LEU C 603	178.052	202.784	214.806	1.00 33.27 O
ATOM	14949	CB	LEU C 603	174.833	201.960	214.256	1.00 33.27 C
ATOM	14950	CG	LEU C 603	173.569	201.961	213.399	1.00 33.27 C
ATOM	14951	CD1	LEU C 603	172.822	200.654	213.556	1.00 33.27 C
ATOM	14952	CD2	LEU C 603	172.683	203.127	213.782	1.00 33.27 C
ATOM	14953	N	GLY C 604	176.512	203.443	216.309	1.00 35.17 N
ATOM	14954	CA	GLY C 604	177.400	203.364	217.448	1.00 35.17 C
ATOM	14955	C	GLY C 604	178.275	204.595	217.601	1.00 35.17 C
ATOM	14956	O	GLY C 604	178.518	205.350	216.662	1.00 35.17 O
ATOM	14957	N	ASN C 605	178.745	204.805	218.835	1.00 37.60 N
ATOM	14958	CA	ASN C 605	179.675	205.891	219.152	1.00 37.60 C
ATOM	14959	C	ASN C 605	180.821	205.305	219.973	1.00 37.60 C
ATOM	14960	O	ASN C 605	180.852	205.443	221.197	1.00 37.60 O
ATOM	14961	CB	ASN C 605	178.943	206.988	219.910	1.00 37.60 C
ATOM	14962	CG	ASN C 605	179.626	208.325	219.810	1.00 37.60 C
ATOM	14963	OD1	ASN C 605	179.042	209.353	220.146	1.00 37.60 O
ATOM	14964	ND2	ASN C 605	180.861	208.327	219.332	1.00 37.60 N
ATOM	14965	N	HIS C 606	181.778	204.654	219.299	1.00 40.09 N
ATOM	14966	CA	HIS C 606	182.920	204.130	220.042	1.00 40.09 C
ATOM	14967	C	HIS C 606	184.235	204.099	219.265	1.00 40.09 C
ATOM	14968	O	HIS C 606	185.133	203.346	219.655	1.00 40.09 O
ATOM	14969	CB	HIS C 606	182.601	202.734	220.559	1.00 40.09 C
ATOM	14970	CG	HIS C 606	182.340	201.738	219.477	1.00 40.09 C
ATOM	14971	ND1	HIS C 606	181.130	201.649	218.826	1.00 40.09 N
ATOM	14972	CD2	HIS C 606	183.131	200.782	218.936	1.00 40.09 C
ATOM	14973	CE1	HIS C 606	181.189	200.686	217.924	1.00 40.09 C
ATOM	14974	NE2	HIS C 606	182.390	200.140	217.975	1.00 40.09 N
ATOM	14975	N	ARG C 607	184.391	204.869	218.192	1.00 35.44 N
ATOM	14976	CA	ARG C 607	185.619	204.811	217.398	1.00 35.44 C
ATOM	14977	C	ARG C 607	186.649	205.821	217.911	1.00 35.44 C
ATOM	14978	O	ARG C 607	187.131	206.682	217.179	1.00 35.44 O
ATOM	14979	CB	ARG C 607	185.315	205.057	215.925	1.00 35.44 C
ATOM	14980	CG	ARG C 607	184.778	203.875	215.134	1.00 35.44 C
ATOM	14981	CD	ARG C 607	183.309	203.608	215.418	1.00 35.44 C
ATOM	14982	NE	ARG C 607	182.725	202.669	214.463	1.00 35.44 N
ATOM	14983	CZ	ARG C 607	181.476	202.213	214.520	1.00 35.44 C

ATOM	14984	NH1	ARG	C	607	180.667 202.615 215.486	1.00 35.44	N
ATOM	14985	NH2	ARG	C	607	181.036 201.359 213.603	1.00 35.44	N
ATOM	14986	N	THR	C	608	186.989 205.707 219.193	1.00 38.65	N
ATOM	14987	CA	THR	C	608	187.948 206.622 219.791	1.00 38.65	C
ATOM	14988	C	THR	C	608	189.356 206.332 219.274	1.00 38.65	C
ATOM	14989	O	THR	C	608	189.586 205.391 218.513	1.00 38.65	O
ATOM	14990	CB	THR	C	608	187.895 206.535 221.315	1.00 38.65	C
ATOM	14991	OG1	THR	C	608	188.204 205.202 221.732	1.00 38.65	O
ATOM	14992	CG2	THR	C	608	186.515 206.913 221.820	1.00 38.65	C
ATOM	14993	N	GLU	C	609	190.313 207.160 219.687	1.00 42.35	N
ATOM	14994	CA	GLU	C	609	191.705 206.993 219.291	1.00 42.35	C
ATOM	14995	C	GLU	C	609	192.556 207.974 220.080	1.00 42.35	C
ATOM	14996	O	GLU	C	609	192.079 209.039 220.479	1.00 42.35	O
ATOM	14997	CB	GLU	C	609	191.903 207.224 217.789	1.00 42.35	C
ATOM	14998	CG	GLU	C	609	191.729 208.665 217.336	1.00 42.35	C
ATOM	14999	CD	GLU	C	609	191.917 208.839 215.836	1.00 42.35	C
ATOM	15000	OE1	GLU	C	609	192.156 207.831 215.140	1.00 42.35	O
ATOM	15001	OE2	GLU	C	609	191.828 209.987 215.352	1.00 42.35	O
ATOM	15002	N	GLU	C	610	193.819 207.610 220.289	1.00 45.34	N
ATOM	15003	CA	GLU	C	610	194.748 208.523 220.935	1.00 45.34	C
ATOM	15004	C	GLU	C	610	194.911 209.773 220.072	1.00 45.34	C
ATOM	15005	O	GLU	C	610	194.553 209.794 218.892	1.00 45.34	O
ATOM	15006	CB	GLU	C	610	196.089 207.830 221.180	1.00 45.34	C
ATOM	15007	CG	GLU	C	610	197.105 208.643 221.953	1.00 45.34	C
ATOM	15008	CD	GLU	C	610	196.656 208.936 223.369	1.00 45.34	C
ATOM	15009	OE1	GLU	C	610	195.870 208.142 223.928	1.00 45.34	O
ATOM	15010	OE2	GLU	C	610	197.087 209.967 223.922	1.00 45.34	O
ATOM	15011	N	CYS	C	611	195.425 210.837 220.679	1.00 45.47	N
ATOM	15012	CA	CYS	C	611	195.457 212.145 220.041	1.00 45.47	C
ATOM	15013	C	CYS	C	611	196.893 212.484 219.660	1.00 45.47	C
ATOM	15014	O	CYS	C	611	197.801 212.394 220.492	1.00 45.47	O
ATOM	15015	CB	CYS	C	611	194.866 213.201 220.974	1.00 45.47	C
ATOM	15016	SG	CYS	C	611	193.238 212.699 221.629	1.00 45.47	S
ATOM	15017	N	GLN	C	612	197.091 212.869 218.403	1.00 48.71	N
ATOM	15018	CA	GLN	C	612	198.409 213.006 217.793	1.00 48.71	C
ATOM	15019	C	GLN	C	612	198.532 214.340 217.073	1.00 48.71	C
ATOM	15020	O	GLN	C	612	198.815 214.400 215.874	1.00 48.71	O

ATOM	15021	CB	GLN C 612	198.693	211.837	216.855	1.00 48.71	C
ATOM	15022	CG	GLN C 612	198.913	210.525	217.573	1.00 48.71	C
ATOM	15023	CD	GLN C 612	200.090	210.578	218.525	1.00 48.71	C
ATOM	15024	OE1	GLN C 612	199.925	210.508	219.742	1.00 48.71	O
ATOM	15025	NE2	GLN C 612	201.287	210.730	217.973	1.00 48.71	N
ATOM	15026	N	LEU C 613	198.237	215.417	217.800	1.00 41.41	N
ATOM	15027	CA	LEU C 613	198.438	216.778	217.322	1.00 41.41	C
ATOM	15028	C	LEU C 613	199.809	216.918	216.662	1.00 41.41	C
ATOM	15029	O	LEU C 613	200.802	216.403	217.192	1.00 41.41	O
ATOM	15030	CB	LEU C 613	198.350	217.760	218.494	1.00 41.41	C
ATOM	15031	CG	LEU C 613	197.022	218.246	219.072	1.00 41.41	C
ATOM	15032	CD1	LEU C 613	196.233	219.011	218.031	1.00 41.41	C
ATOM	15033	CD2	LEU C 613	196.212	217.096	219.640	1.00 41.41	C
ATOM	15034	N	PRO C 614	199.911	217.600	215.511	1.00 39.16	N
ATOM	15035	CA	PRO C 614	198.830	218.176	214.704	1.00 39.16	C
ATOM	15036	C	PRO C 614	198.152	217.123	213.832	1.00 39.16	C
ATOM	15037	O	PRO C 614	198.704	216.039	213.664	1.00 39.16	O
ATOM	15038	CB	PRO C 614	199.554	219.207	213.831	1.00 39.16	C
ATOM	15039	CG	PRO C 614	200.864	219.447	214.509	1.00 39.16	C
ATOM	15040	CD	PRO C 614	201.221	218.127	215.104	1.00 39.16	C
ATOM	15041	N	SER C 615	196.981	217.433	213.283	1.00 38.73	N
ATOM	15042	CA	SER C 615	196.266	216.501	212.423	1.00 38.73	C
ATOM	15043	C	SER C 615	195.510	217.279	211.358	1.00 38.73	C
ATOM	15044	O	SER C 615	195.135	218.434	211.565	1.00 38.73	O
ATOM	15045	CB	SER C 615	195.301	215.625	213.226	1.00 38.73	C
ATOM	15046	OG	SER C 615	196.009	214.813	214.146	1.00 38.73	O
ATOM	15047	N	LEU C 616	195.307	216.644	210.207	1.00 35.01	N
ATOM	15048	CA	LEU C 616	194.667	217.293	209.066	1.00 35.01	C
ATOM	15049	C	LEU C 616	193.655	216.347	208.429	1.00 35.01	C
ATOM	15050	O	LEU C 616	193.660	216.106	207.223	1.00 35.01	O
ATOM	15051	CB	LEU C 616	195.718	217.771	208.064	1.00 35.01	C
ATOM	15052	CG	LEU C 616	195.318	218.787	206.989	1.00 35.01	C
ATOM	15053	CD1	LEU C 616	196.488	219.703	206.750	1.00 35.01	C
ATOM	15054	CD2	LEU C 616	194.929	218.150	205.671	1.00 35.01	C
ATOM	15055	N	LYS C 617	192.788	215.764	209.250	1.00 36.12	N
ATOM	15056	CA	LYS C 617	191.785	214.844	208.733	1.00 36.12	C
ATOM	15057	C	LYS C 617	190.828	215.560	207.787	1.00 36.12	C

ATOM	15058	O	LYS C 617	190.363	216.666	208.074	1.00 36.12	O
ATOM	15059	CB	LYS C 617	191.011	214.216	209.886	1.00 36.12	C
ATOM	15060	CG	LYS C 617	191.844	213.305	210.757	1.00 36.12	C
ATOM	15061	CD	LYS C 617	190.996	212.655	211.828	1.00 36.12	C
ATOM	15062	CE	LYS C 617	191.848	211.798	212.740	1.00 36.12	C
ATOM	15063	NZ	LYS C 617	192.409	210.628	212.014	1.00 36.12	N
ATOM	15064	N	ILE C 618	190.530	214.919	206.659	1.00 35.69	N
ATOM	15065	CA	ILE C 618	189.657	215.472	205.626	1.00 35.69	C
ATOM	15066	C	ILE C 618	188.685	214.375	205.211	1.00 35.69	C
ATOM	15067	O	ILE C 618	189.075	213.415	204.540	1.00 35.69	O
ATOM	15068	CB	ILE C 618	190.438	215.994	204.418	1.00 35.69	C
ATOM	15069	CG1	ILE C 618	191.239	217.238	204.795	1.00 35.69	C
ATOM	15070	CG2	ILE C 618	189.501	216.271	203.263	1.00 35.69	C
ATOM	15071	CD1	ILE C 618	192.224	217.667	203.738	1.00 35.69	C
ATOM	15072	N	PHE C 619	187.421	214.517	205.593	1.00 35.33	N
ATOM	15073	CA	PHE C 619	186.406	213.518	205.295	1.00 35.33	C
ATOM	15074	C	PHE C 619	185.611	213.902	204.054	1.00 35.33	C
ATOM	15075	O	PHE C 619	185.269	215.068	203.847	1.00 35.33	O
ATOM	15076	CB	PHE C 619	185.467	213.347	206.486	1.00 35.33	C
ATOM	15077	CG	PHE C 619	186.139	212.795	207.703	1.00 35.33	C
ATOM	15078	CD1	PHE C 619	186.366	211.440	207.825	1.00 35.33	C
ATOM	15079	CD2	PHE C 619	186.555	213.633	208.718	1.00 35.33	C
ATOM	15080	CE1	PHE C 619	186.989	210.929	208.940	1.00 35.33	C
ATOM	15081	CE2	PHE C 619	187.177	213.127	209.835	1.00 35.33	C
ATOM	15082	CZ	PHE C 619	187.395	211.774	209.946	1.00 35.33	C
ATOM	15083	N	ILE C 620	185.295	212.897	203.240	1.00 40.28	N
ATOM	15084	CA	ILE C 620	184.650	213.090	201.946	1.00 40.28	C
ATOM	15085	C	ILE C 620	183.148	212.909	202.106	1.00 40.28	C
ATOM	15086	O	ILE C 620	182.684	212.098	202.915	1.00 40.28	O
ATOM	15087	CB	ILE C 620	185.211	212.108	200.898	1.00 40.28	C
ATOM	15088	CG1	ILE C 620	184.841	212.555	199.487	1.00 40.28	C
ATOM	15089	CG2	ILE C 620	184.697	210.707	201.161	1.00 40.28	C
ATOM	15090	CD1	ILE C 620	185.527	213.829	199.065	1.00 40.28	C
ATOM	15091	N	ALA C 621	182.378	213.675	201.325	1.00 42.92	N
ATOM	15092	CA	ALA C 621	180.928	213.650	201.462	1.00 42.92	C
ATOM	15093	C	ALA C 621	180.147	213.711	200.155	1.00 42.92	C
ATOM	15094	O	ALA C 621	178.916	213.785	200.212	1.00 42.92	O

ATOM	15095	CB	ALA C 621	180.462	214.799	202.369	1.00 42.92	C
ATOM	15096	N	GLY C 622	180.798	213.688	198.991	1.00 48.43	N
ATOM	15097	CA	GLY C 622	180.057	213.628	197.743	1.00 48.43	C
ATOM	15098	C	GLY C 622	179.156	214.819	197.480	1.00 48.43	C
ATOM	15099	O	GLY C 622	177.931	214.705	197.592	1.00 48.43	O
ATOM	15100	N	ASN C 623	179.735	215.966	197.138	1.00 50.61	N
ATOM	15101	CA	ASN C 623	181.134	216.036	196.745	1.00 50.61	C
ATOM	15102	C	ASN C 623	181.970	216.934	197.646	1.00 50.61	C
ATOM	15103	O	ASN C 623	183.191	216.827	197.671	1.00 50.61	O
ATOM	15104	CB	ASN C 623	181.239	216.515	195.297	1.00 50.61	C
ATOM	15105	CG	ASN C 623	180.580	217.863	195.080	1.00 50.61	C
ATOM	15106	OD1	ASN C 623	180.093	218.492	196.019	1.00 50.61	O
ATOM	15107	ND2	ASN C 623	180.568	218.318	193.834	1.00 50.61	N
ATOM	15108	N	SER C 624	181.315	217.830	198.375	1.00 45.00	N
ATOM	15109	CA	SER C 624	182.030	218.639	199.348	1.00 45.00	C
ATOM	15110	C	SER C 624	182.616	217.744	200.430	1.00 45.00	C
ATOM	15111	O	SER C 624	182.090	216.666	200.718	1.00 45.00	O
ATOM	15112	CB	SER C 624	181.097	219.680	199.961	1.00 45.00	C
ATOM	15113	OG	SER C 624	180.641	220.589	198.975	1.00 45.00	O
ATOM	15114	N	ALA C 625	183.718	218.185	201.025	1.00 39.16	N
ATOM	15115	CA	ALA C 625	184.412	217.417	202.047	1.00 39.16	C
ATOM	15116	C	ALA C 625	184.698	218.304	203.246	1.00 39.16	C
ATOM	15117	O	ALA C 625	185.150	219.442	203.087	1.00 39.16	O
ATOM	15118	CB	ALA C 625	185.715	216.829	201.510	1.00 39.16	C
ATOM	15119	N	TYR C 626	184.429	217.783	204.438	1.00 37.95	N
ATOM	15120	CA	TYR C 626	184.774	218.487	205.658	1.00 37.95	C
ATOM	15121	C	TYR C 626	186.290	218.512	205.825	1.00 37.95	C
ATOM	15122	O	TYR C 626	187.030	217.798	205.147	1.00 37.95	O
ATOM	15123	CB	TYR C 626	184.113	217.814	206.857	1.00 37.95	C
ATOM	15124	CG	TYR C 626	182.606	217.806	206.784	1.00 37.95	C
ATOM	15125	CD1	TYR C 626	181.860	218.885	207.227	1.00 37.95	C
ATOM	15126	CD2	TYR C 626	181.932	216.724	206.242	1.00 37.95	C
ATOM	15127	CE1	TYR C 626	180.483	218.877	207.151	1.00 37.95	C
ATOM	15128	CE2	TYR C 626	180.562	216.707	206.159	1.00 37.95	C
ATOM	15129	CZ	TYR C 626	179.841	217.784	206.614	1.00 37.95	C
ATOM	15130	OH	TYR C 626	178.470	217.767	206.532	1.00 37.95	O
ATOM	15131	N	GLU C 627	186.755	219.344	206.753	1.00 39.77	N

ATOM	15132	CA	GLU C 627	188.190	219.455	207.009	1.00 39.77	C
ATOM	15133	C	GLU C 627	188.380	219.845	208.470	1.00 39.77	C
ATOM	15134	O	GLU C 627	188.118	220.991	208.846	1.00 39.77	O
ATOM	15135	CB	GLU C 627	188.844	220.467	206.083	1.00 39.77	C
ATOM	15136	CG	GLU C 627	190.343	220.561	206.285	1.00 39.77	C
ATOM	15137	CD	GLU C 627	190.999	221.587	205.388	1.00 39.77	C
ATOM	15138	OE1	GLU C 627	190.277	222.271	204.637	1.00 39.77	O
ATOM	15139	OE2	GLU C 627	192.240	221.710	205.435	1.00 39.77	O
ATOM	15140	N	TYR C 628	188.834	218.897	209.278	1.00 34.73	N
ATOM	15141	CA	TYR C 628	189.173	219.170	210.664	1.00 34.73	C
ATOM	15142	C	TYR C 628	190.671	219.404	210.798	1.00 34.73	C
ATOM	15143	O	TYR C 628	191.482	218.739	210.149	1.00 34.73	O
ATOM	15144	CB	TYR C 628	188.742	218.011	211.559	1.00 34.73	C
ATOM	15145	CG	TYR C 628	187.248	217.833	211.643	1.00 34.73	C
ATOM	15146	CD1	TYR C 628	186.488	218.585	212.524	1.00 34.73	C
ATOM	15147	CD2	TYR C 628	186.595	216.922	210.831	1.00 34.73	C
ATOM	15148	CE1	TYR C 628	185.122	218.425	212.600	1.00 34.73	C
ATOM	15149	CE2	TYR C 628	185.231	216.757	210.899	1.00 34.73	C
ATOM	15150	CZ	TYR C 628	184.501	217.511	211.784	1.00 34.73	C
ATOM	15151	OH	TYR C 628	183.140	217.347	211.853	1.00 34.73	O
ATOM	15152	N	VAL C 629	191.033	220.355	211.655	1.00 35.43	N
ATOM	15153	CA	VAL C 629	192.429	220.705	211.893	1.00 35.43	C
ATOM	15154	C	VAL C 629	192.645	220.758	213.396	1.00 35.43	C
ATOM	15155	O	VAL C 629	192.037	221.585	214.084	1.00 35.43	O
ATOM	15156	CB	VAL C 629	192.815	222.047	211.251	1.00 35.43	C
ATOM	15157	CG1	VAL C 629	194.242	222.405	211.613	1.00 35.43	C
ATOM	15158	CG2	VAL C 629	192.645	221.976	209.750	1.00 35.43	C
ATOM	15159	N	ASP C 630	193.512	219.885	213.906	1.00 40.08	N
ATOM	15160	CA	ASP C 630	193.693	219.714	215.344	1.00 40.08	C
ATOM	15161	C	ASP C 630	192.387	219.323	216.024	1.00 40.08	C
ATOM	15162	O	ASP C 630	192.134	219.699	217.170	1.00 40.08	O
ATOM	15163	CB	ASP C 630	194.275	220.972	215.992	1.00 40.08	C
ATOM	15164	CG	ASP C 630	195.716	221.212	215.599	1.00 40.08	C
ATOM	15165	OD1	ASP C 630	196.415	220.228	215.285	1.00 40.08	O
ATOM	15166	OD2	ASP C 630	196.153	222.381	215.614	1.00 40.08	O
ATOM	15167	N	TYR C 631	191.548	218.566	215.315	1.00 39.78	N
ATOM	15168	CA	TYR C 631	190.308	218.035	215.873	1.00 39.78	C

ATOM	15169	C	TYR C 631	189.317	219.157	216.192	1.00 39.78	C
ATOM	15170	O	TYR C 631	188.746	219.221	217.280	1.00 39.78	O
ATOM	15171	CB	TYR C 631	190.609	217.184	217.107	1.00 39.78	C
ATOM	15172	CG	TYR C 631	191.359	215.916	216.774	1.00 39.78	C
ATOM	15173	CD1	TYR C 631	191.304	215.368	215.503	1.00 39.78	C
ATOM	15174	CD2	TYR C 631	192.161	215.297	217.714	1.00 39.78	C
ATOM	15175	CE1	TYR C 631	191.994	214.215	215.193	1.00 39.78	C
ATOM	15176	CE2	TYR C 631	192.858	214.144	217.415	1.00 39.78	C
ATOM	15177	CZ	TYR C 631	192.773	213.608	216.153	1.00 39.78	C
ATOM	15178	OH	TYR C 631	193.468	212.462	215.848	1.00 39.78	O
ATOM	15179	N	LEU C 632	189.122	220.045	215.220	1.00 39.21	N
ATOM	15180	CA	LEU C 632	188.131	221.110	215.293	1.00 39.21	C
ATOM	15181	C	LEU C 632	187.752	221.491	213.871	1.00 39.21	C
ATOM	15182	O	LEU C 632	188.633	221.666	213.025	1.00 39.21	O
ATOM	15183	CB	LEU C 632	188.665	222.332	216.047	1.00 39.21	C
ATOM	15184	CG	LEU C 632	188.904	222.182	217.548	1.00 39.21	C
ATOM	15185	CD1	LEU C 632	189.567	223.426	218.115	1.00 39.21	C
ATOM	15186	CD2	LEU C 632	187.593	221.905	218.255	1.00 39.21	C
ATOM	15187	N	PHE C 633	186.452	221.608	213.611	1.00 37.67	N
ATOM	15188	CA	PHE C 633	185.983	221.907	212.265	1.00 37.67	C
ATOM	15189	C	PHE C 633	186.491	223.265	211.800	1.00 37.67	C
ATOM	15190	O	PHE C 633	186.479	224.243	212.551	1.00 37.67	O
ATOM	15191	CB	PHE C 633	184.458	221.871	212.221	1.00 37.67	C
ATOM	15192	CG	PHE C 633	183.884	222.201	210.878	1.00 37.67	C
ATOM	15193	CD1	PHE C 633	183.965	221.302	209.835	1.00 37.67	C
ATOM	15194	CD2	PHE C 633	183.251	223.409	210.664	1.00 37.67	C
ATOM	15195	CE1	PHE C 633	183.436	221.605	208.602	1.00 37.67	C
ATOM	15196	CE2	PHE C 633	182.719	223.717	209.433	1.00 37.67	C
ATOM	15197	CZ	PHE C 633	182.811	222.814	208.401	1.00 37.67	C
ATOM	15198	N	LYS C 634	186.947	223.319	210.548	1.00 39.22	N
ATOM	15199	CA	LYS C 634	187.540	224.532	209.997	1.00 39.22	C
ATOM	15200	C	LYS C 634	186.721	225.123	208.857	1.00 39.22	C
ATOM	15201	O	LYS C 634	186.285	226.274	208.954	1.00 39.22	O
ATOM	15202	CB	LYS C 634	188.969	224.232	209.530	1.00 39.22	C
ATOM	15203	CG	LYS C 634	189.705	225.432	208.977	1.00 39.22	C
ATOM	15204	CD	LYS C 634	189.878	226.500	210.039	1.00 39.22	C
ATOM	15205	CE	LYS C 634	190.781	226.018	211.162	1.00 39.22	C

ATOM	15206	NZ	LYS C 634	192.189	225.850	210.711	1.00 39.22	N
ATOM	15207	N	ARG C 635	186.494	224.378	207.780	1.00 43.29	N
ATOM	15208	CA	ARG C 635	185.751	224.913	206.644	1.00 43.29	C
ATOM	15209	C	ARG C 635	185.347	223.757	205.733	1.00 43.29	C
ATOM	15210	O	ARG C 635	185.445	222.586	206.118	1.00 43.29	O
ATOM	15211	CB	ARG C 635	186.579	225.978	205.908	1.00 43.29	C
ATOM	15212	CG	ARG C 635	187.796	225.432	205.191	1.00 43.29	C
ATOM	15213	CD	ARG C 635	188.611	226.554	204.574	1.00 43.29	C
ATOM	15214	NE	ARG C 635	189.742	226.044	203.808	1.00 43.29	N
ATOM	15215	CZ	ARG C 635	190.928	225.757	204.333	1.00 43.29	C
ATOM	15216	NH1	ARG C 635	191.140	225.931	205.630	1.00 43.29	N
ATOM	15217	NH2	ARG C 635	191.902	225.295	203.562	1.00 43.29	N
ATOM	15218	N	MET C 636	184.891	224.088	204.528	1.00 39.91	N
ATOM	15219	CA	MET C 636	184.450	223.114	203.539	1.00 39.91	C
ATOM	15220	C	MET C 636	185.321	223.222	202.296	1.00 39.91	C
ATOM	15221	O	MET C 636	185.560	224.326	201.796	1.00 39.91	O
ATOM	15222	CB	MET C 636	182.984	223.342	203.167	1.00 39.91	C
ATOM	15223	CG	MET C 636	182.005	223.115	204.301	1.00 39.91	C
ATOM	15224	SD	MET C 636	181.987	221.409	204.866	1.00 39.91	S
ATOM	15225	CE	MET C 636	181.243	220.609	203.450	1.00 39.91	C
ATOM	15226	N	ILE C 637	185.795	222.081	201.805	1.00 44.53	N
ATOM	15227	CA	ILE C 637	186.523	222.001	200.545	1.00 44.53	C
ATOM	15228	C	ILE C 637	185.583	221.444	199.487	1.00 44.53	C
ATOM	15229	O	ILE C 637	184.708	220.621	199.778	1.00 44.53	O
ATOM	15230	CB	ILE C 637	187.791	221.134	200.685	1.00 44.53	C
ATOM	15231	CG1	ILE C 637	188.758	221.768	201.682	1.00 44.53	C
ATOM	15232	CG2	ILE C 637	188.475	220.945	199.343	1.00 44.53	C
ATOM	15233	CD1	ILE C 637	189.900	220.863	202.065	1.00 44.53	C
ATOM	15234	N	ASP C 638	185.763	221.889	198.244	1.00 50.79	N
ATOM	15235	CA	ASP C 638	184.883	221.515	197.143	1.00 50.79	C
ATOM	15236	C	ASP C 638	185.474	220.413	196.266	1.00 50.79	C
ATOM	15237	O	ASP C 638	185.026	220.208	195.136	1.00 50.79	O
ATOM	15238	CB	ASP C 638	184.543	222.744	196.303	1.00 50.79	C
ATOM	15239	CG	ASP C 638	185.775	223.434	195.752	1.00 50.79	C
ATOM	15240	OD1	ASP C 638	186.900	223.003	196.080	1.00 50.79	O
ATOM	15241	OD2	ASP C 638	185.619	224.411	194.990	1.00 50.79	O
ATOM	15242	N	LEU C 639	186.469	219.689	196.778	1.00 51.58	N

ATOM	15243	CA	LEU	C	639	187.092	218.579	196.053	1.00 51.58	C
ATOM	15244	C	LEU	C	639	187.668	219.031	194.713	1.00 51.58	C
ATOM	15245	O	LEU	C	639	187.508	218.372	193.685	1.00 51.58	O
ATOM	15246	CB	LEU	C	639	186.111	217.422	195.864	1.00 51.58	C
ATOM	15247	CG	LEU	C	639	186.158	216.359	196.959	1.00 51.58	C
ATOM	15248	CD1	LEU	C	639	187.474	215.623	196.888	1.00 51.58	C
ATOM	15249	CD2	LEU	C	639	186.021	217.007	198.310	1.00 51.58	C
ATOM	15250	N	SER	C	640	188.341	220.169	194.732	1.00 53.99	N
ATOM	15251	CA	SER	C	640	189.147	220.601	193.600	1.00 53.99	C
ATOM	15252	C	SER	C	640	190.632	220.572	193.906	1.00 53.99	C
ATOM	15253	O	SER	C	640	191.439	220.322	193.008	1.00 53.99	O
ATOM	15254	CB	SER	C	640	188.744	222.013	193.157	1.00 53.99	C
ATOM	15255	OG	SER	C	640	189.534	222.440	192.061	1.00 53.99	O
ATOM	15256	N	SER	C	641	191.010	220.823	195.159	1.00 53.47	N
ATOM	15257	CA	SER	C	641	192.416	220.769	195.538	1.00 53.47	C
ATOM	15258	C	SER	C	641	192.965	219.353	195.436	1.00 53.47	C
ATOM	15259	O	SER	C	641	194.075	219.146	194.932	1.00 53.47	O
ATOM	15260	CB	SER	C	641	192.591	221.314	196.955	1.00 53.47	C
ATOM	15261	OG	SER	C	641	193.934	221.202	197.386	1.00 53.47	O
ATOM	15262	N	ILE	C	642	192.207	218.364	195.907	1.00 51.10	N
ATOM	15263	CA	ILE	C	642	192.683	216.988	195.897	1.00 51.10	C
ATOM	15264	C	ILE	C	642	192.779	216.494	194.461	1.00 51.10	C
ATOM	15265	O	ILE	C	642	191.811	216.569	193.694	1.00 51.10	O
ATOM	15266	CB	ILE	C	642	191.760	216.093	196.735	1.00 51.10	C
ATOM	15267	CG1	ILE	C	642	191.788	216.524	198.202	1.00 51.10	C
ATOM	15268	CG2	ILE	C	642	192.172	214.641	196.605	1.00 51.10	C
ATOM	15269	CD1	ILE	C	642	190.754	217.563	198.555	1.00 51.10	C
ATOM	15270	N	SER	C	643	193.949	215.986	194.091	1.00 56.60	N
ATOM	15271	CA	SER	C	643	194.212	215.516	192.738	1.00 56.60	C
ATOM	15272	C	SER	C	643	193.994	214.012	192.666	1.00 56.60	C
ATOM	15273	O	SER	C	643	194.565	213.260	193.461	1.00 56.60	O
ATOM	15274	CB	SER	C	643	195.637	215.863	192.310	1.00 56.60	C
ATOM	15275	OG	SER	C	643	195.825	217.266	192.260	1.00 56.60	O
ATOM	15276	N	THR	C	644	193.170	213.581	191.715	1.00 66.57	N
ATOM	15277	CA	THR	C	644	192.891	212.161	191.557	1.00 66.57	C
ATOM	15278	C	THR	C	644	194.164	211.413	191.177	1.00 66.57	C
ATOM	15279	O	THR	C	644	195.066	211.962	190.539	1.00 66.57	O

ATOM	15280	CB	THR	C	644	191.809	211.951	190.498	1.00 66.57	C
ATOM	15281	OG1	THR	C	644	190.647	212.710	190.850	1.00 66.57	O
ATOM	15282	CG2	THR	C	644	191.417	210.490	190.421	1.00 66.57	C
ATOM	15283	N	VAL	C	645	194.234	210.142	191.580	1.00 71.06	N
ATOM	15284	CA	VAL	C	645	195.465	209.377	191.410	1.00 71.06	C
ATOM	15285	C	VAL	C	645	195.779	209.140	189.938	1.00 71.06	C
ATOM	15286	O	VAL	C	645	196.949	209.165	189.539	1.00 71.06	O
ATOM	15287	CB	VAL	C	645	195.382	208.050	192.185	1.00 71.06	C
ATOM	15288	CG1	VAL	C	645	194.278	207.173	191.625	1.00 71.06	C
ATOM	15289	CG2	VAL	C	645	196.714	207.330	192.128	1.00 71.06	C
ATOM	15290	N	ASP	C	646	194.763	208.906	189.106	1.00 80.81	N
ATOM	15291	CA	ASP	C	646	194.980	208.670	187.685	1.00 80.81	C
ATOM	15292	C	ASP	C	646	195.042	209.962	186.878	1.00 80.81	C
ATOM	15293	O	ASP	C	646	195.034	209.913	185.643	1.00 80.81	O
ATOM	15294	CB	ASP	C	646	193.901	207.737	187.126	1.00 80.81	C
ATOM	15295	CG	ASP	C	646	192.500	208.300	187.266	1.00 80.81	C
ATOM	15296	OD1	ASP	C	646	192.343	209.388	187.853	1.00 80.81	O
ATOM	15297	OD2	ASP	C	646	191.550	207.648	186.786	1.00 80.81	O
ATOM	15298	N	SER	C	647	195.105	211.112	187.547	1.00 88.12	N
ATOM	15299	CA	SER	C	647	195.303	212.393	186.887	1.00 88.12	C
ATOM	15300	C	SER	C	647	196.718	212.921	187.065	1.00 88.12	C
ATOM	15301	O	SER	C	647	197.045	213.982	186.524	1.00 88.12	O
ATOM	15302	CB	SER	C	647	194.297	213.424	187.410	1.00 88.12	C
ATOM	15303	OG	SER	C	647	192.970	213.050	187.086	1.00 88.12	O
ATOM	15304	N	MET	C	648	197.559	212.208	187.810	1.00 93.64	N
ATOM	15305	CA	MET	C	648	198.967	212.545	187.985	1.00 93.64	C
ATOM	15306	C	MET	C	648	199.813	211.287	187.875	1.00 93.64	C
ATOM	15307	O	MET	C	648	200.742	211.069	188.660	1.00 93.64	O
ATOM	15308	CB	MET	C	648	199.208	213.246	189.321	1.00 93.64	C
ATOM	15309	CG	MET	C	648	198.532	214.600	189.435	1.00 93.64	C
ATOM	15310	SD	MET	C	648	199.156	215.785	188.229	1.00 93.64	S
ATOM	15311	CE	MET	C	648	198.019	217.146	188.470	1.00 93.64	C
ATOM	15312	N	ILE	C	649	199.492	210.438	186.894	1.00 92.82	N
ATOM	15313	CA	ILE	C	649	200.150	209.141	186.757	1.00 92.82	C
ATOM	15314	C	ILE	C	649	201.643	209.301	186.504	1.00 92.82	C
ATOM	15315	O	ILE	C	649	202.434	208.404	186.819	1.00 92.82	O
ATOM	15316	CB	ILE	C	649	199.473	208.324	185.638	1.00 92.82	C

ATOM	15317	CG1	ILE	C	649	198.014	208.036	185.996	1.00 92.82	C
ATOM	15318	CG2	ILE	C	649	200.222	207.025	185.389	1.00 92.82	C
ATOM	15319	CD1	ILE	C	649	197.205	207.461	184.853	1.00 92.82	C
ATOM	15320	N	ALA	C	650	202.055	210.432	185.941	1.00 96.15	N
ATOM	15321	CA	ALA	C	650	203.458	210.686	185.642	1.00 96.15	C
ATOM	15322	C	ALA	C	650	204.104	211.711	186.557	1.00 96.15	C
ATOM	15323	O	ALA	C	650	205.236	211.503	186.999	1.00 96.15	O
ATOM	15324	CB	ALA	C	650	203.612	211.146	184.188	1.00 96.15	C
ATOM	15325	N	LEU	C	651	203.422	212.812	186.859	1.00 94.81	N
ATOM	15326	CA	LEU	C	651	204.046	213.966	187.504	1.00 94.81	C
ATOM	15327	C	LEU	C	651	203.487	214.150	188.915	1.00 94.81	C
ATOM	15328	O	LEU	C	651	202.460	214.798	189.119	1.00 94.81	O
ATOM	15329	CB	LEU	C	651	203.849	215.223	186.659	1.00 94.81	C
ATOM	15330	CG	LEU	C	651	204.637	216.463	187.085	1.00 94.81	C
ATOM	15331	CD1	LEU	C	651	204.946	217.328	185.877	1.00 94.81	C
ATOM	15332	CD2	LEU	C	651	203.881	217.270	188.129	1.00 94.81	C
ATOM	15333	N	ASP	C	652	204.177	213.560	189.883	1.00 83.07	N
ATOM	15334	CA	ASP	C	652	204.136	213.933	191.293	1.00 83.07	C
ATOM	15335	C	ASP	C	652	205.562	213.978	191.818	1.00 83.07	C
ATOM	15336	O	ASP	C	652	205.891	213.416	192.864	1.00 83.07	O
ATOM	15337	CB	ASP	C	652	203.266	212.984	192.111	1.00 83.07	C
ATOM	15338	CG	ASP	C	652	203.748	211.550	192.054	1.00 83.07	C
ATOM	15339	OD1	ASP	C	652	204.673	211.251	191.271	1.00 83.07	O
ATOM	15340	OD2	ASP	C	652	203.215	210.723	192.816	1.00 83.07	O
ATOM	15341	N	ILE	C	653	206.408	214.700	191.072	1.00 79.98	N
ATOM	15342	CA	ILE	C	653	207.834	214.389	190.937	1.00 79.98	C
ATOM	15343	C	ILE	C	653	208.529	214.249	192.284	1.00 79.98	C
ATOM	15344	O	ILE	C	653	209.442	213.429	192.441	1.00 79.98	O
ATOM	15345	CB	ILE	C	653	208.521	215.452	190.060	1.00 79.98	C
ATOM	15346	CG1	ILE	C	653	207.846	215.520	188.689	1.00 79.98	C
ATOM	15347	CG2	ILE	C	653	210.003	215.143	189.915	1.00 79.98	C
ATOM	15348	CD1	ILE	C	653	207.877	214.212	187.927	1.00 79.98	C
ATOM	15349	N	ASP	C	654	208.123	215.033	193.273	1.00 68.56	N
ATOM	15350	CA	ASP	C	654	208.779	214.863	194.561	1.00 68.56	C
ATOM	15351	C	ASP	C	654	207.901	215.280	195.733	1.00 68.56	C
ATOM	15352	O	ASP	C	654	207.537	216.455	195.863	1.00 68.56	O
ATOM	15353	CB	ASP	C	654	210.102	215.634	194.595	1.00 68.56	C

ATOM	15354	CG	ASP	C	654	209.937	217.106	194.263	1.00	68.56	C
ATOM	15355	OD1	ASP	C	654	208.834	217.513	193.840	1.00	68.56	O
ATOM	15356	OD2	ASP	C	654	210.913	217.863	194.444	1.00	68.56	O
ATOM	15357	N	PRO	C	655	207.539	214.346	196.602	1.00	56.97	N
ATOM	15358	CA	PRO	C	655	207.017	214.731	197.917	1.00	56.97	C
ATOM	15359	C	PRO	C	655	208.128	215.333	198.761	1.00	56.97	C
ATOM	15360	O	PRO	C	655	209.284	215.345	198.329	1.00	56.97	O
ATOM	15361	CB	PRO	C	655	206.499	213.408	198.490	1.00	56.97	C
ATOM	15362	CG	PRO	C	655	207.306	212.360	197.792	1.00	56.97	C
ATOM	15363	CD	PRO	C	655	207.563	212.886	196.413	1.00	56.97	C
ATOM	15364	N	LEU	C	656	207.818	215.823	199.959	1.00	48.35	N
ATOM	15365	CA	LEU	C	656	208.784	216.584	200.738	1.00	48.35	C
ATOM	15366	C	LEU	C	656	209.525	215.768	201.790	1.00	48.35	C
ATOM	15367	O	LEU	C	656	210.505	216.267	202.349	1.00	48.35	O
ATOM	15368	CB	LEU	C	656	208.101	217.778	201.414	1.00	48.35	C
ATOM	15369	CG	LEU	C	656	207.631	218.898	200.491	1.00	48.35	C
ATOM	15370	CD1	LEU	C	656	206.866	219.939	201.284	1.00	48.35	C
ATOM	15371	CD2	LEU	C	656	208.821	219.524	199.792	1.00	48.35	C
ATOM	15372	N	GLU	C	657	209.118	214.529	202.060	1.00	45.22	N
ATOM	15373	CA	GLU	C	657	209.753	213.720	203.100	1.00	45.22	C
ATOM	15374	C	GLU	C	657	209.609	214.396	204.468	1.00	45.22	C
ATOM	15375	O	GLU	C	657	210.568	214.856	205.085	1.00	45.22	O
ATOM	15376	CB	GLU	C	657	211.219	213.447	202.739	1.00	45.22	C
ATOM	15377	CG	GLU	C	657	211.924	212.391	203.568	1.00	45.22	C
ATOM	15378	CD	GLU	C	657	212.715	212.985	204.704	1.00	45.22	C
ATOM	15379	OE1	GLU	C	657	213.192	214.127	204.549	1.00	45.22	O
ATOM	15380	OE2	GLU	C	657	212.860	212.329	205.753	1.00	45.22	O
ATOM	15381	N	ASN	C	658	208.359	214.485	204.907	1.00	42.86	N
ATOM	15382	CA	ASN	C	658	208.024	215.120	206.168	1.00	42.86	C
ATOM	15383	C	ASN	C	658	208.282	214.188	207.346	1.00	42.86	C
ATOM	15384	O	ASN	C	658	208.521	212.989	207.177	1.00	42.86	O
ATOM	15385	CB	ASN	C	658	206.563	215.562	206.145	1.00	42.86	C
ATOM	15386	CG	ASN	C	658	205.626	214.438	205.771	1.00	42.86	C
ATOM	15387	OD1	ASN	C	658	206.036	213.287	205.649	1.00	42.86	O
ATOM	15388	ND2	ASN	C	658	204.363	214.772	205.556	1.00	42.86	N
ATOM	15389	N	THR	C	659	208.238	214.756	208.545	1.00	41.16	N
ATOM	15390	CA	THR	C	659	208.476	214.028	209.783	1.00	41.16	C

ATOM	15391	C	THR C 659	207.372	214.342	210.789	1.00 41.16 C
ATOM	15392	O	THR C 659	206.400	215.038	210.484	1.00 41.16 O
ATOM	15393	CB	THR C 659	209.849	214.371	210.361	1.00 41.16 C
ATOM	15394	OG1	THR C 659	209.889	215.762	210.702	1.00 41.16 O
ATOM	15395	CG2	THR C 659	210.935	214.076	209.350	1.00 41.16 C
ATOM	15396	N	ASP C 660	207.536	213.823	212.006	1.00 40.22 N
ATOM	15397	CA	ASP C 660	206.575	214.061	213.081	1.00 40.22 C
ATOM	15398	C	ASP C 660	207.322	213.900	214.402	1.00 40.22 C
ATOM	15399	O	ASP C 660	207.600	212.776	214.827	1.00 40.22 O
ATOM	15400	CB	ASP C 660	205.394	213.108	212.983	1.00 40.22 C
ATOM	15401	CG	ASP C 660	204.267	213.485	213.918	1.00 40.22 C
ATOM	15402	OD1	ASP C 660	203.568	214.478	213.631	1.00 40.22 O
ATOM	15403	OD2	ASP C 660	204.076	212.796	214.940	1.00 40.22 O
ATOM	15404	N	PHE C 661	207.632	215.022	215.045	1.00 39.13 N
ATOM	15405	CA	PHE C 661	208.475	215.029	216.233	1.00 39.13 C
ATOM	15406	C	PHE C 661	207.748	214.621	217.505	1.00 39.13 C
ATOM	15407	O	PHE C 661	208.353	214.675	218.580	1.00 39.13 O
ATOM	15408	CB	PHE C 661	209.079	216.418	216.433	1.00 39.13 C
ATOM	15409	CG	PHE C 661	210.033	216.819	215.358	1.00 39.13 C
ATOM	15410	CD1	PHE C 661	211.350	216.404	215.392	1.00 39.13 C
ATOM	15411	CD2	PHE C 661	209.610	217.603	214.304	1.00 39.13 C
ATOM	15412	CE1	PHE C 661	212.228	216.773	214.398	1.00 39.13 C
ATOM	15413	CE2	PHE C 661	210.482	217.973	213.308	1.00 39.13 C
ATOM	15414	CZ	PHE C 661	211.793	217.558	213.354	1.00 39.13 C
ATOM	15415	N	ARG C 662	206.483	214.229	217.433	1.00 40.54 N
ATOM	15416	CA	ARG C 662	205.736	213.901	218.641	1.00 40.54 C
ATOM	15417	C	ARG C 662	205.446	212.419	218.791	1.00 40.54 C
ATOM	15418	O	ARG C 662	205.628	211.874	219.879	1.00 40.54 O
ATOM	15419	CB	ARG C 662	204.425	214.687	218.677	1.00 40.54 C
ATOM	15420	CG	ARG C 662	204.634	216.184	218.779	1.00 40.54 C
ATOM	15421	CD	ARG C 662	203.323	216.926	218.688	1.00 40.54 C
ATOM	15422	NE	ARG C 662	202.461	216.695	219.840	1.00 40.54 N
ATOM	15423	CZ	ARG C 662	202.453	217.460	220.926	1.00 40.54 C
ATOM	15424	NH1	ARG C 662	203.256	218.511	221.004	1.00 40.54 N
ATOM	15425	NH2	ARG C 662	201.631	217.177	221.923	1.00 40.54 N
ATOM	15426	N	VAL C 663	205.009	211.740	217.726	1.00 41.21 N
ATOM	15427	CA	VAL C 663	204.889	210.283	217.769	1.00 41.21 C

ATOM	15428	C	VAL	C	663	206.238 209.598 217.662	1.00 41.21	C
ATOM	15429	O	VAL	C	663	206.320 208.373 217.815	1.00 41.21	O
ATOM	15430	CB	VAL	C	663	203.978 209.758 216.641	1.00 41.21	C
ATOM	15431	CG1	VAL	C	663	204.659 209.918 215.301	1.00 41.21	C
ATOM	15432	CG2	VAL	C	663	203.599 208.309 216.876	1.00 41.21	C
ATOM	15433	N	LEU	C	664	207.305 210.353 217.420	1.00 39.14	N
ATOM	15434	CA	LEU	C	664	208.634 209.801 217.231	1.00 39.14	C
ATOM	15435	C	LEU	C	664	209.526 209.989 218.450	1.00 39.14	C
ATOM	15436	O	LEU	C	664	210.632 209.439 218.482	1.00 39.14	O
ATOM	15437	CB	LEU	C	664	209.275 210.440 215.988	1.00 39.14	C
ATOM	15438	CG	LEU	C	664	210.521 209.856 215.326	1.00 39.14	C
ATOM	15439	CD1	LEU	C	664	210.534 210.180 213.849	1.00 39.14	C
ATOM	15440	CD2	LEU	C	664	211.762 210.433 215.975	1.00 39.14	C
ATOM	15441	N	GLU	C	665	209.074 210.734 219.457	1.00 45.00	N
ATOM	15442	CA	GLU	C	665	209.763 210.826 220.735	1.00 45.00	C
ATOM	15443	C	GLU	C	665	209.252 209.808 221.743	1.00 45.00	C
ATOM	15444	O	GLU	C	665	209.821 209.690 222.833	1.00 45.00	O
ATOM	15445	CB	GLU	C	665	209.629 212.236 221.314	1.00 45.00	C
ATOM	15446	CG	GLU	C	665	210.380 213.297 220.534	1.00 45.00	C
ATOM	15447	CD	GLU	C	665	210.243 214.682 221.140	1.00 45.00	C
ATOM	15448	OE1	GLU	C	665	209.466 214.840 222.104	1.00 45.00	O
ATOM	15449	OE2	GLU	C	665	210.915 215.614 220.649	1.00 45.00	O
ATOM	15450	N	LEU	C	666	208.186 209.085 221.410	1.00 46.24	N
ATOM	15451	CA	LEU	C	666	207.719 207.960 222.208	1.00 46.24	C
ATOM	15452	C	LEU	C	666	208.495 206.688 221.916	1.00 46.24	C
ATOM	15453	O	LEU	C	666	208.739 205.890 222.825	1.00 46.24	O
ATOM	15454	CB	LEU	C	666	206.232 207.706 221.954	1.00 46.24	C
ATOM	15455	CG	LEU	C	666	205.255 208.800 222.376	1.00 46.24	C
ATOM	15456	CD1	LEU	C	666	203.844 208.437 221.946	1.00 46.24	C
ATOM	15457	CD2	LEU	C	666	205.321 209.025 223.873	1.00 46.24	C
ATOM	15458	N	TYR	C	667	208.871 206.478 220.654	1.00 41.41	N
ATOM	15459	CA	TYR	C	667	209.648 205.301 220.289	1.00 41.41	C
ATOM	15460	C	TYR	C	667	210.990 205.282 221.005	1.00 41.41	C
ATOM	15461	O	TYR	C	667	211.358 204.278 221.625	1.00 41.41	O
ATOM	15462	CB	TYR	C	667	209.833 205.258 218.775	1.00 41.41	C
ATOM	15463	CG	TYR	C	667	208.575 204.883 218.035	1.00 41.41	C
ATOM	15464	CD1	TYR	C	667	207.557 204.197 218.671	1.00 41.41	C

ATOM	15465	CD2	TYR	C	667	208.392 205.243 216.710	1.00 41.41	C
ATOM	15466	CE1	TYR	C	667	206.407 203.853 218.002	1.00 41.41	C
ATOM	15467	CE2	TYR	C	667	207.238 204.909 216.033	1.00 41.41	C
ATOM	15468	CZ	TYR	C	667	206.248 204.214 216.685	1.00 41.41	C
ATOM	15469	OH	TYR	C	667	205.096 203.877 216.016	1.00 41.41	O
ATOM	15470	N	SER	C	668	211.736 206.380 220.941	1.00 44.91	N
ATOM	15471	CA	SER	C	668	213.014 206.427 221.650	1.00 44.91	C
ATOM	15472	C	SER	C	668	212.847 206.953 223.070	1.00 44.91	C
ATOM	15473	O	SER	C	668	213.603 207.801 223.538	1.00 44.91	O
ATOM	15474	CB	SER	C	668	214.010 207.277 220.872	1.00 44.91	C
ATOM	15475	OG	SER	C	668	215.237 207.380 221.572	1.00 44.91	O
ATOM	15476	N	GLN	C	669	211.838 206.439 223.767	1.00 50.88	N
ATOM	15477	CA	GLN	C	669	211.747 206.587 225.212	1.00 50.88	C
ATOM	15478	C	GLN	C	669	211.222 205.334 225.898	1.00 50.88	C
ATOM	15479	O	GLN	C	669	211.305 205.250 227.127	1.00 50.88	O
ATOM	15480	CB	GLN	C	669	210.866 207.789 225.575	1.00 50.88	C
ATOM	15481	CG	GLN	C	669	210.919 208.188 227.040	1.00 50.88	C
ATOM	15482	CD	GLN	C	669	210.027 209.372 227.350	1.00 50.88	C
ATOM	15483	OE1	GLN	C	669	209.316 209.872 226.478	1.00 50.88	O
ATOM	15484	NE2	GLN	C	669	210.060 209.829 228.595	1.00 50.88	N
ATOM	15485	N	LYS	C	670	210.684 204.365 225.151	1.00 55.32	N
ATOM	15486	CA	LYS	C	670	210.198 203.089 225.684	1.00 55.32	C
ATOM	15487	C	LYS	C	670	208.912 203.242 226.501	1.00 55.32	C
ATOM	15488	O	LYS	C	670	208.770 202.645 227.568	1.00 55.32	O
ATOM	15489	CB	LYS	C	670	211.275 202.381 226.509	1.00 55.32	C
ATOM	15490	CG	LYS	C	670	212.264 201.572 225.687	1.00 55.32	C
ATOM	15491	CD	LYS	C	670	213.260 202.459 224.964	1.00 55.32	C
ATOM	15492	CE	LYS	C	670	214.310 201.624 224.245	1.00 55.32	C
ATOM	15493	NZ	LYS	C	670	215.243 202.463 223.443	1.00 55.32	N
ATOM	15494	N	GLU	C	671	207.966 204.040 225.997	1.00 60.75	N
ATOM	15495	CA	GLU	C	671	206.594 204.042 226.501	1.00 60.75	C
ATOM	15496	C	GLU	C	671	205.603 203.654 225.413	1.00 60.75	C
ATOM	15497	O	GLU	C	671	204.439 204.063 225.459	1.00 60.75	O
ATOM	15498	CB	GLU	C	671	206.206 205.402 227.085	1.00 60.75	C
ATOM	15499	CG	GLU	C	671	206.943 205.783 228.348	1.00 60.75	C
ATOM	15500	CD	GLU	C	671	208.284 206.379 228.031	1.00 60.75	C
ATOM	15501	OE1	GLU	C	671	208.584 206.468 226.826	1.00 60.75	O

ATOM	15502	OE2	GLU	C	671	209.021 206.764 228.962	1.00 60.75	O
ATOM	15503	N	LEU	C	672	206.044 202.869 224.437	1.00 61.19	N
ATOM	15504	CA	LEU	C	672	205.222 202.561 223.278	1.00 61.19	C
ATOM	15505	C	LEU	C	672	204.121 201.572 223.643	1.00 61.19	C
ATOM	15506	O	LEU	C	672	204.232 200.370 223.381	1.00 61.19	O
ATOM	15507	CB	LEU	C	672	206.116 202.046 222.143	1.00 61.19	C
ATOM	15508	CG	LEU	C	672	206.849 200.704 222.238	1.00 61.19	C
ATOM	15509	CD1	LEU	C	672	207.339 200.271 220.867	1.00 61.19	C
ATOM	15510	CD2	LEU	C	672	208.003 200.770 223.228	1.00 61.19	C
ATOM	15511	N	ARG	C	673	203.051 202.069 224.254	1.00 64.66	N
ATOM	15512	CA	ARG	C	673	201.937 201.193 224.603	1.00 64.66	C
ATOM	15513	C	ARG	C	673	200.571 201.734 224.197	1.00 64.66	C
ATOM	15514	O	ARG	C	673	199.683 200.942 223.873	1.00 64.66	O
ATOM	15515	CB	ARG	C	673	201.972 200.916 226.114	1.00 64.66	C
ATOM	15516	CG	ARG	C	673	200.956 199.900 226.594	1.00 64.66	C
ATOM	15517	CD	ARG	C	673	201.125 199.648 228.082	1.00 64.66	C
ATOM	15518	NE	ARG	C	673	200.808 200.833 228.872	1.00 64.66	N
ATOM	15519	CZ	ARG	C	673	201.065 200.956 230.170	1.00 64.66	C
ATOM	15520	NH1	ARG	C	673	200.741 202.071 230.809	1.00 64.66	N
ATOM	15521	NH2	ARG	C	673	201.653 199.967 230.828	1.00 64.66	N
ATOM	15522	N	SER	C	674	200.376 203.056 224.202	1.00 65.51	N
ATOM	15523	CA	SER	C	674	199.080 203.651 223.887	1.00 65.51	C
ATOM	15524	C	SER	C	674	199.117 204.474 222.608	1.00 65.51	C
ATOM	15525	O	SER	C	674	198.424 204.156 221.637	1.00 65.51	O
ATOM	15526	CB	SER	C	674	198.624 204.545 225.045	1.00 65.51	C
ATOM	15527	OG	SER	C	674	198.516 203.813 226.240	1.00 65.51	O
ATOM	15528	N	SER	C	675	199.931 205.526 222.584	1.00 62.78	N
ATOM	15529	CA	SER	C	675	200.275 206.237 221.365	1.00 62.78	C
ATOM	15530	C	SER	C	675	201.479 205.609 220.688	1.00 62.78	C
ATOM	15531	O	SER	C	675	202.128 206.259 219.862	1.00 62.78	O
ATOM	15532	CB	SER	C	675	200.539 207.715 221.666	1.00 62.78	C
ATOM	15533	OG	SER	C	675	200.860 208.428 220.484	1.00 62.78	O
ATOM	15534	N	ASN	C	676	201.814 204.378 221.085	1.00 61.04	N
ATOM	15535	CA	ASN	C	676	202.797 203.541 220.413	1.00 61.04	C
ATOM	15536	C	ASN	C	676	202.620 203.604 218.912	1.00 61.04	C
ATOM	15537	O	ASN	C	676	203.441 204.167 218.181	1.00 61.04	O
ATOM	15538	CB	ASN	C	676	202.605 202.100 220.895	1.00 61.04	C

ATOM	15539	CG	ASN	C	676	203.635	201.142	220.340	1.00 61.04	C
ATOM	15540	OD1	ASN	C	676	204.548	201.530	219.612	1.00 61.04	O
ATOM	15541	ND2	ASN	C	676	203.488	199.868	220.682	1.00 61.04	N
ATOM	15542	N	VAL	C	677	201.506	203.059	218.458	1.00 59.96	N
ATOM	15543	CA	VAL	C	677	201.108	203.068	217.074	1.00 59.96	C
ATOM	15544	C	VAL	C	677	199.606	203.302	217.043	1.00 59.96	C
ATOM	15545	O	VAL	C	677	198.924	203.241	218.068	1.00 59.96	O
ATOM	15546	CB	VAL	C	677	201.469	201.752	216.354	1.00 59.96	C
ATOM	15547	CG1	VAL	C	677	202.969	201.529	216.375	1.00 59.96	C
ATOM	15548	CG2	VAL	C	677	200.746	200.577	217.004	1.00 59.96	C
ATOM	15549	N	PHE	C	678	199.090	203.554	215.855	1.00 48.00	N
ATOM	15550	CA	PHE	C	678	197.661	203.590	215.654	1.00 48.00	C
ATOM	15551	C	PHE	C	678	197.149	202.465	214.791	1.00 48.00	C
ATOM	15552	O	PHE	C	678	195.948	202.177	214.838	1.00 48.00	O
ATOM	15553	CB	PHE	C	678	197.229	204.919	215.024	1.00 48.00	C
ATOM	15554	CG	PHE	C	678	197.064	206.003	216.012	1.00 48.00	C
ATOM	15555	CD1	PHE	C	678	197.078	205.701	217.353	1.00 48.00	C
ATOM	15556	CD2	PHE	C	678	196.851	207.306	215.619	1.00 48.00	C
ATOM	15557	CE1	PHE	C	678	196.916	206.669	218.282	1.00 48.00	C
ATOM	15558	CE2	PHE	C	678	196.684	208.289	216.556	1.00 48.00	C
ATOM	15559	CZ	PHE	C	678	196.719	207.967	217.894	1.00 48.00	C
ATOM	15560	N	ASP	C	679	198.011	201.813	214.021	1.00 45.24	N
ATOM	15561	CA	ASP	C	679	197.540	200.969	212.941	1.00 45.24	C
ATOM	15562	C	ASP	C	679	196.663	201.806	212.013	1.00 45.24	C
ATOM	15563	O	ASP	C	679	195.448	201.649	211.958	1.00 45.24	O
ATOM	15564	CB	ASP	C	679	196.790	199.750	213.484	1.00 45.24	C
ATOM	15565	CG	ASP	C	679	197.697	198.784	214.217	1.00 45.24	C
ATOM	15566	OD1	ASP	C	679	198.888	198.689	213.855	1.00 45.24	O
ATOM	15567	OD2	ASP	C	679	197.221	198.117	215.160	1.00 45.24	O
ATOM	15568	N	LEU	C	680	197.279	202.786	211.355	1.00 43.50	N
ATOM	15569	CA	LEU	C	680	196.512	203.640	210.457	1.00 43.50	C
ATOM	15570	C	LEU	C	680	196.319	202.964	209.108	1.00 43.50	C
ATOM	15571	O	LEU	C	680	195.209	202.943	208.564	1.00 43.50	O
ATOM	15572	CB	LEU	C	680	197.204	204.990	210.307	1.00 43.50	C
ATOM	15573	CG	LEU	C	680	197.252	205.812	211.597	1.00 43.50	C
ATOM	15574	CD1	LEU	C	680	198.135	207.030	211.428	1.00 43.50	C
ATOM	15575	CD2	LEU	C	680	195.855	206.230	212.016	1.00 43.50	C

ATOM	15576	N	GLU C 681	197.389	202.401	208.560	1.00 44.73 N
ATOM	15577	CA	GLU C 681	197.303	201.469	207.438	1.00 44.73 C
ATOM	15578	C	GLU C 681	197.149	200.045	207.967	1.00 44.73 C
ATOM	15579	O	GLU C 681	197.868	199.118	207.600	1.00 44.73 O
ATOM	15580	CB	GLU C 681	198.536	201.611	206.551	1.00 44.73 C
ATOM	15581	CG	GLU C 681	199.845	201.266	207.247	1.00 44.73 C
ATOM	15582	CD	GLU C 681	201.054	201.534	206.374	1.00 44.73 C
ATOM	15583	OE1	GLU C 681	200.871	202.023	205.241	1.00 44.73 O
ATOM	15584	OE2	GLU C 681	202.187	201.259	206.820	1.00 44.73 O
ATOM	15585	N	GLU C 682	196.151	199.884	208.835	1.00 46.71 N
ATOM	15586	CA	GLU C 682	196.156	198.779	209.787	1.00 46.71 C
ATOM	15587	C	GLU C 682	196.052	197.405	209.132	1.00 46.71 C
ATOM	15588	O	GLU C 682	196.713	196.460	209.571	1.00 46.71 O
ATOM	15589	CB	GLU C 682	195.077	199.008	210.850	1.00 46.71 C
ATOM	15590	CG	GLU C 682	193.799	199.686	210.408	1.00 46.71 C
ATOM	15591	CD	GLU C 682	193.022	200.199	211.610	1.00 46.71 C
ATOM	15592	OE1	GLU C 682	193.307	199.753	212.738	1.00 46.71 O
ATOM	15593	OE2	GLU C 682	192.219	201.143	211.458	1.00 46.71 O
ATOM	15594	N	ILE C 683	195.286	197.271	208.053	1.00 39.93 N
ATOM	15595	CA	ILE C 683	195.135	195.953	207.434	1.00 39.93 C
ATOM	15596	C	ILE C 683	196.479	195.374	206.981	1.00 39.93 C
ATOM	15597	O	ILE C 683	196.611	194.158	206.809	1.00 39.93 O
ATOM	15598	CB	ILE C 683	194.108	196.003	206.289	1.00 39.93 C
ATOM	15599	CG1	ILE C 683	192.763	196.442	206.857	1.00 39.93 C
ATOM	15600	CG2	ILE C 683	193.946	194.638	205.642	1.00 39.93 C
ATOM	15601	CD1	ILE C 683	192.294	195.560	207.989	1.00 39.93 C
ATOM	15602	N	MET C 684	197.498	196.222	206.827	1.00 42.50 N
ATOM	15603	CA	MET C 684	198.884	195.761	206.802	1.00 42.50 C
ATOM	15604	C	MET C 684	199.574	195.903	208.153	1.00 42.50 C
ATOM	15605	O	MET C 684	200.335	195.021	208.558	1.00 42.50 O
ATOM	15606	CB	MET C 684	199.691	196.522	205.745	1.00 42.50 C
ATOM	15607	CG	MET C 684	201.132	196.065	205.616	1.00 42.50 C
ATOM	15608	SD	MET C 684	201.279	194.383	205.008	1.00 42.50 S
ATOM	15609	CE	MET C 684	202.917	193.956	205.593	1.00 42.50 C
ATOM	15610	N	ARG C 685	199.353	197.011	208.853	1.00 44.38 N
ATOM	15611	CA	ARG C 685	200.080	197.261	210.090	1.00 44.38 C
ATOM	15612	C	ARG C 685	199.444	196.592	211.303	1.00 44.38 C

ATOM	15613	O	ARG C 685	200.147 196.322 212.280	1.00 44.38		O
ATOM	15614	CB	ARG C 685	200.187 198.763 210.332	1.00 44.38		C
ATOM	15615	CG	ARG C 685	200.938 199.145 211.589	1.00 44.38		C
ATOM	15616	CD	ARG C 685	202.396 198.747 211.493	1.00 44.38		C
ATOM	15617	NE	ARG C 685	203.154 199.242 212.635	1.00 44.38		N
ATOM	15618	CZ	ARG C 685	203.780 200.415 212.656	1.00 44.38		C
ATOM	15619	NH1	ARG C 685	203.753 201.204 211.590	1.00 44.38		N
ATOM	15620	NH2	ARG C 685	204.444 200.795 213.735	1.00 44.38		N
ATOM	15621	N	GLU C 686	198.141 196.316 211.259	1.00 38.91		N
ATOM	15622	CA	GLU C 686	197.434 195.829 212.438	1.00 38.91		C
ATOM	15623	C	GLU C 686	197.693 194.357 212.719	1.00 38.91		C
ATOM	15624	O	GLU C 686	197.511 193.922 213.859	1.00 38.91		O
ATOM	15625	CB	GLU C 686	195.935 196.091 212.293	1.00 38.91		C
ATOM	15626	CG	GLU C 686	195.086 195.784 213.504	1.00 38.91		C
ATOM	15627	CD	GLU C 686	194.599 194.355 213.518	1.00 38.91		C
ATOM	15628	OE1	GLU C 686	194.483 193.754 212.431	1.00 38.91		O
ATOM	15629	OE2	GLU C 686	194.334 193.833 214.617	1.00 38.91		O
ATOM	15630	N	PHE C 687	198.116 193.572 211.729	1.00 39.14		N
ATOM	15631	CA	PHE C 687	198.343 192.155 211.963	1.00 39.14		C
ATOM	15632	C	PHE C 687	199.782 191.868 212.374	1.00 39.14		C
ATOM	15633	O	PHE C 687	200.054 190.812 212.951	1.00 39.14		O
ATOM	15634	CB	PHE C 687	197.951 191.321 210.740	1.00 39.14		C
ATOM	15635	CG	PHE C 687	198.853 191.480 209.532	1.00 39.14		C
ATOM	15636	CD1	PHE C 687	198.551 192.395 208.547	1.00 39.14		C
ATOM	15637	CD2	PHE C 687	199.986 190.691 209.373	1.00 39.14		C
ATOM	15638	CE1	PHE C 687	199.364 192.503 207.419	1.00 39.14		C
ATOM	15639	CE2	PHE C 687	200.788 190.815 208.284	1.00 39.14		C
ATOM	15640	CZ	PHE C 687	200.487 191.717 207.308	1.00 39.14		C
ATOM	15641	N	ASN C 688	200.703 192.787 212.095	1.00 37.61		N
ATOM	15642	CA	ASN C 688	202.035 192.690 212.690	1.00 37.61		C
ATOM	15643	C	ASN C 688	201.978 192.802 214.208	1.00 37.61		C
ATOM	15644	O	ASN C 688	202.789 192.196 214.906	1.00 37.61		O
ATOM	15645	CB	ASN C 688	202.948 193.790 212.116	1.00 37.61		C
ATOM	15646	CG	ASN C 688	203.405 193.498 210.706	1.00 37.61		C
ATOM	15647	OD1	ASN C 688	203.668 192.351 210.352	1.00 37.61		O
ATOM	15648	ND2	ASN C 688	203.560 194.548 209.901	1.00 37.61		N
ATOM	15649	N	SER C 689	201.011 193.567 214.731	1.00 38.42		N

ATOM	15650	CA	SER	C	689	200.958 193.814 216.170	1.00 38.42	C
ATOM	15651	C	SER	C	689	199.946 192.934 216.888	1.00 38.42	C
ATOM	15652	O	SER	C	689	200.048 192.772 218.107	1.00 38.42	O
ATOM	15653	CB	SER	C	689	200.619 195.288 216.433	1.00 38.42	C
ATOM	15654	OG	SER	C	689	201.626 196.142 215.924	1.00 38.42	O
ATOM	15655	N	TYR	C	690	198.966 192.373 216.165	1.00 36.32	N
ATOM	15656	CA	TYR	C	690	197.889 191.632 216.821	1.00 36.32	C
ATOM	15657	C	TYR	C	690	198.411 190.457 217.627	1.00 36.32	C
ATOM	15658	O	TYR	C	690	197.859 190.135 218.684	1.00 36.32	O
ATOM	15659	CB	TYR	C	690	196.880 191.124 215.794	1.00 36.32	C
ATOM	15660	CG	TYR	C	690	195.729 190.378 216.427	1.00 36.32	C
ATOM	15661	CD1	TYR	C	690	194.694 191.060 217.046	1.00 36.32	C
ATOM	15662	CD2	TYR	C	690	195.686 188.993 216.422	1.00 36.32	C
ATOM	15663	CE1	TYR	C	690	193.643 190.386 217.629	1.00 36.32	C
ATOM	15664	CE2	TYR	C	690	194.638 188.311 217.004	1.00 36.32	C
ATOM	15665	CZ	TYR	C	690	193.621 189.013 217.605	1.00 36.32	C
ATOM	15666	OH	TYR	C	690	192.576 188.336 218.186	1.00 36.32	O
ATOM	15667	N	LYS	C	691	199.461 189.805 217.150	1.00 36.87	N
ATOM	15668	CA	LYS	C	691	200.079 188.722 217.892	1.00 36.87	C
ATOM	15669	C	LYS	C	691	200.747 189.204 219.172	1.00 36.87	C
ATOM	15670	O	LYS	C	691	200.890 188.418 220.114	1.00 36.87	O
ATOM	15671	CB	LYS	C	691	201.099 188.032 216.996	1.00 36.87	C
ATOM	15672	CG	LYS	C	691	201.614 186.721 217.494	1.00 36.87	C
ATOM	15673	CD	LYS	C	691	202.673 186.248 216.531	1.00 36.87	C
ATOM	15674	CE	LYS	C	691	202.079 185.411 215.426	1.00 36.87	C
ATOM	15675	NZ	LYS	C	691	201.350 186.244 214.427	1.00 36.87	N
ATOM	15676	N	GLN	C	692	201.149 190.473 219.223	1.00 40.92	N
ATOM	15677	CA	GLN	C	692	201.715 191.087 220.417	1.00 40.92	C
ATOM	15678	C	GLN	C	692	200.679 191.351 221.493	1.00 40.92	C
ATOM	15679	O	GLN	C	692	200.972 191.177 222.680	1.00 40.92	O
ATOM	15680	CB	GLN	C	692	202.397 192.406 220.050	1.00 40.92	C
ATOM	15681	CG	GLN	C	692	202.904 193.204 221.235	1.00 40.92	C
ATOM	15682	CD	GLN	C	692	203.942 192.465 222.042	1.00 40.92	C
ATOM	15683	OE1	GLN	C	692	203.663 191.984 223.138	1.00 40.92	O
ATOM	15684	NE2	GLN	C	692	205.154 192.371 221.506	1.00 40.92	N
ATOM	15685	N	ARG	C	693	199.474 191.763 221.108	1.00 42.73	N
ATOM	15686	CA	ARG	C	693	198.431 192.128 222.053	1.00 42.73	C

ATOM	15687	C	ARG C 693	197.567	190.940	222.458	1.00 42.73	C
ATOM	15688	O	ARG C 693	196.407	191.124	222.841	1.00 42.73	O
ATOM	15689	CB	ARG C 693	197.592	193.270	221.476	1.00 42.73	C
ATOM	15690	CG	ARG C 693	198.367	194.585	221.483	1.00 42.73	C
ATOM	15691	CD	ARG C 693	197.671	195.719	220.756	1.00 42.73	C
ATOM	15692	NE	ARG C 693	198.469	196.942	220.820	1.00 42.73	N
ATOM	15693	CZ	ARG C 693	198.244	198.036	220.098	1.00 42.73	C
ATOM	15694	NH1	ARG C 693	197.256	198.059	219.215	1.00 42.73	N
ATOM	15695	NH2	ARG C 693	199.025	199.095	220.238	1.00 42.73	N
ATOM	15696	N	VAL C 694	198.111	189.726	222.379	1.00 40.75	N
ATOM	15697	CA	VAL C 694	197.501	188.568	223.018	1.00 40.75	C
ATOM	15698	C	VAL C 694	198.235	188.212	224.305	1.00 40.75	C
ATOM	15699	O	VAL C 694	197.693	187.458	225.127	1.00 40.75	O
ATOM	15700	CB	VAL C 694	197.468	187.366	222.053	1.00 40.75	C
ATOM	15701	CG1	VAL C 694	196.757	186.172	222.674	1.00 40.75	C
ATOM	15702	CG2	VAL C 694	196.809	187.776	220.766	1.00 40.75	C
ATOM	15703	N	LYS C 695	199.442	188.738	224.510	1.00 46.61	N
ATOM	15704	CA	LYS C 695	200.086	188.619	225.809	1.00 46.61	C
ATOM	15705	C	LYS C 695	199.478	189.569	226.825	1.00 46.61	C
ATOM	15706	O	LYS C 695	199.347	189.203	227.997	1.00 46.61	O
ATOM	15707	CB	LYS C 695	201.581	188.899	225.702	1.00 46.61	C
ATOM	15708	CG	LYS C 695	202.382	187.823	225.020	1.00 46.61	C
ATOM	15709	CD	LYS C 695	203.852	188.151	225.145	1.00 46.61	C
ATOM	15710	CE	LYS C 695	204.215	189.300	224.230	1.00 46.61	C
ATOM	15711	NZ	LYS C 695	205.678	189.537	224.264	1.00 46.61	N
ATOM	15712	N	TYR C 696	199.122	190.784	226.398	1.00 49.98	N
ATOM	15713	CA	TYR C 696	198.476	191.737	227.294	1.00 49.98	C
ATOM	15714	C	TYR C 696	197.235	191.131	227.933	1.00 49.98	C
ATOM	15715	O	TYR C 696	196.958	191.352	229.116	1.00 49.98	O
ATOM	15716	CB	TYR C 696	198.097	193.006	226.535	1.00 49.98	C
ATOM	15717	CG	TYR C 696	199.242	193.866	226.062	1.00 49.98	C
ATOM	15718	CD1	TYR C 696	200.534	193.662	226.515	1.00 49.98	C
ATOM	15719	CD2	TYR C 696	199.017	194.901	225.167	1.00 49.98	C
ATOM	15720	CE1	TYR C 696	201.574	194.460	226.075	1.00 49.98	C
ATOM	15721	CE2	TYR C 696	200.041	195.699	224.725	1.00 49.98	C
ATOM	15722	CZ	TYR C 696	201.316	195.478	225.178	1.00 49.98	C
ATOM	15723	OH	TYR C 696	202.330	196.288	224.724	1.00 49.98	O

ATOM	15724	N	VAL C 697	196.470	190.367	227.156	1.00 50.61 N
ATOM	15725	CA	VAL C 697	195.259	189.754	227.682	1.00 50.61 C
ATOM	15726	C	VAL C 697	195.602	188.676	228.702	1.00 50.61 C
ATOM	15727	O	VAL C 697	195.224	188.769	229.875	1.00 50.61 O
ATOM	15728	CB	VAL C 697	194.406	189.193	226.534	1.00 50.61 C
ATOM	15729	CG1	VAL C 697	193.265	188.395	227.092	1.00 50.61 C
ATOM	15730	CG2	VAL C 697	193.887	190.323	225.671	1.00 50.61 C
ATOM	15731	N	GLU C 698	196.339	187.646	228.277	1.00 54.76 N
ATOM	15732	CA	GLU C 698	196.545	186.484	229.135	1.00 54.76 C
ATOM	15733	C	GLU C 698	197.365	186.807	230.373	1.00 54.76 C
ATOM	15734	O	GLU C 698	197.046	186.321	231.464	1.00 54.76 O
ATOM	15735	CB	GLU C 698	197.238	185.365	228.378	1.00 54.76 C
ATOM	15736	CG	GLU C 698	197.436	184.160	229.261	1.00 54.76 C
ATOM	15737	CD	GLU C 698	198.255	183.103	228.594	1.00 54.76 C
ATOM	15738	OE1	GLU C 698	198.703	183.352	227.458	1.00 54.76 O
ATOM	15739	OE2	GLU C 698	198.460	182.026	229.192	1.00 54.76 O
ATOM	15740	N	ASP C 699	198.438	187.587	230.227	1.00 53.99 N
ATOM	15741	CA	ASP C 699	199.279	187.932	231.371	1.00 53.99 C
ATOM	15742	C	ASP C 699	198.464	188.615	232.462	1.00 53.99 C
ATOM	15743	O	ASP C 699	198.784	188.512	233.650	1.00 53.99 O
ATOM	15744	CB	ASP C 699	200.440	188.823	230.929	1.00 53.99 C
ATOM	15745	CG	ASP C 699	201.403	189.122	232.059	1.00 53.99 C
ATOM	15746	OD1	ASP C 699	202.176	188.220	232.440	1.00 53.99 O
ATOM	15747	OD2	ASP C 699	201.385	190.259	232.573	1.00 53.99 O
ATOM	15748	N	LYS C 700	197.409	189.322	232.070	1.00 56.38 N
ATOM	15749	CA	LYS C 700	196.426	189.830	233.011	1.00 56.38 C
ATOM	15750	C	LYS C 700	195.152	189.005	233.010	1.00 56.38 C
ATOM	15751	O	LYS C 700	194.111	189.492	233.462	1.00 56.38 O
ATOM	15752	CB	LYS C 700	196.155	191.294	232.694	1.00 56.38 C
ATOM	15753	CG	LYS C 700	197.441	192.083	232.822	1.00 56.38 C
ATOM	15754	CD	LYS C 700	197.313	193.546	232.490	1.00 56.38 C
ATOM	15755	CE	LYS C 700	198.658	194.223	232.698	1.00 56.38 C
ATOM	15756	NZ	LYS C 700	199.672	193.764	231.710	1.00 56.38 N
ATOM	15757	N	VAL C 701	195.215	187.787	232.478	1.00 58.25 N
ATOM	15758	CA	VAL C 701	194.175	186.780	232.653	1.00 58.25 C
ATOM	15759	C	VAL C 701	194.436	185.998	233.929	1.00 58.25 C
ATOM	15760	O	VAL C 701	193.527	185.786	234.738	1.00 58.25 O

ATOM	15761	CB	VAL C 701	194.095	185.830	231.444	1.00 58.25	C
ATOM	15762	CG1	VAL C 701	193.351	184.560	231.817	1.00 58.25	C
ATOM	15763	CG2	VAL C 701	193.381	186.503	230.294	1.00 58.25	C
ATOM	15764	N	VAL C 702	195.681	185.557	234.114	1.00 63.55	N
ATOM	15765	CA	VAL C 702	195.998	184.694	235.243	1.00 63.55	C
ATOM	15766	C	VAL C 702	195.989	185.452	236.564	1.00 63.55	C
ATOM	15767	O	VAL C 702	195.876	184.833	237.627	1.00 63.55	O
ATOM	15768	CB	VAL C 702	197.358	184.011	235.012	1.00 63.55	C
ATOM	15769	CG1	VAL C 702	198.473	185.043	235.004	1.00 63.55	C
ATOM	15770	CG2	VAL C 702	197.608	182.948	236.069	1.00 63.55	C
ATOM	15771	N	ASP C 703	196.098	186.776	236.531	1.00 62.09	N
ATOM	15772	CA	ASP C 703	196.155	187.566	237.756	1.00 62.09	C
ATOM	15773	C	ASP C 703	194.790	187.750	238.415	1.00 62.09	C
ATOM	15774	O	ASP C 703	194.633	187.409	239.594	1.00 62.09	O
ATOM	15775	CB	ASP C 703	196.786	188.931	237.480	1.00 62.09	C
ATOM	15776	CG	ASP C 703	198.278	188.842	237.233	1.00 62.09	C
ATOM	15777	OD1	ASP C 703	198.912	187.909	237.764	1.00 62.09	O
ATOM	15778	OD2	ASP C 703	198.819	189.710	236.518	1.00 62.09	O
ATOM	15779	N	PRO C 704	193.783	188.282	237.712	1.00 63.84	N
ATOM	15780	CA	PRO C 704	192.520	188.590	238.405	1.00 63.84	C
ATOM	15781	C	PRO C 704	191.773	187.361	238.883	1.00 63.84	C
ATOM	15782	O	PRO C 704	191.250	187.363	240.004	1.00 63.84	O
ATOM	15783	CB	PRO C 704	191.723	189.366	237.348	1.00 63.84	C
ATOM	15784	CG	PRO C 704	192.267	188.899	236.056	1.00 63.84	C
ATOM	15785	CD	PRO C 704	193.729	188.658	236.290	1.00 63.84	C
ATOM	15786	N	LEU C 705	191.700	186.310	238.076	1.00 71.26	N
ATOM	15787	CA	LEU C 705	191.046	185.095	238.542	1.00 71.26	C
ATOM	15788	C	LEU C 705	192.058	184.278	239.336	1.00 71.26	C
ATOM	15789	O	LEU C 705	193.031	183.768	238.769	1.00 71.26	O
ATOM	15790	CB	LEU C 705	190.455	184.308	237.369	1.00 71.26	C
ATOM	15791	CG	LEU C 705	191.340	183.745	236.257	1.00 71.26	C
ATOM	15792	CD1	LEU C 705	191.785	182.324	236.566	1.00 71.26	C
ATOM	15793	CD2	LEU C 705	190.614	183.806	234.926	1.00 71.26	C
ATOM	15794	N	PRO C 706	191.883	184.167	240.650	1.00 79.97	N
ATOM	15795	CA	PRO C 706	192.905	183.539	241.495	1.00 79.97	C
ATOM	15796	C	PRO C 706	193.044	182.059	241.191	1.00 79.97	C
ATOM	15797	O	PRO C 706	192.105	181.279	241.408	1.00 79.97	O

ATOM	15798	CB	PRO C 706	192.370	183.760	242.919	1.00 79.97 C
ATOM	15799	CG	PRO C 706	191.432	184.916	242.798	1.00 79.97 C
ATOM	15800	CD	PRO C 706	190.800	184.762	241.448	1.00 79.97 C
ATOM	15801	N	PRO C 707	194.204	181.630	240.686	1.00 82.28 N
ATOM	15802	CA	PRO C 707	194.420	180.184	240.530	1.00 82.28 C
ATOM	15803	C	PRO C 707	194.539	179.471	241.862	1.00 82.28 C
ATOM	15804	O	PRO C 707	194.145	178.303	241.976	1.00 82.28 O
ATOM	15805	CB	PRO C 707	195.726	180.110	239.726	1.00 82.28 C
ATOM	15806	CG	PRO C 707	195.864	181.459	239.086	1.00 82.28 C
ATOM	15807	CD	PRO C 707	195.290	182.416	240.081	1.00 82.28 C
ATOM	15808	N	TYR C 708	195.081	180.143	242.874	1.00 83.11 N
ATOM	15809	CA	TYR C 708	195.306	179.566	244.187	1.00 83.11 C
ATOM	15810	C	TYR C 708	194.532	180.348	245.243	1.00 83.11 C
ATOM	15811	O	TYR C 708	193.892	181.363	244.963	1.00 83.11 O
ATOM	15812	CB	TYR C 708	196.798	179.567	244.518	1.00 83.11 C
ATOM	15813	CG	TYR C 708	197.636	178.756	243.567	1.00 83.11 C
ATOM	15814	CD1	TYR C 708	197.702	177.378	243.675	1.00 83.11 C
ATOM	15815	CD2	TYR C 708	198.367	179.371	242.562	1.00 83.11 C
ATOM	15816	CE1	TYR C 708	198.467	176.634	242.808	1.00 83.11 C
ATOM	15817	CE2	TYR C 708	199.138	178.635	241.690	1.00 83.11 C
ATOM	15818	CZ	TYR C 708	199.185	177.266	241.817	1.00 83.11 C
ATOM	15819	OH	TYR C 708	199.951	176.524	240.949	1.00 83.11 O
ATOM	15820	N	LEU C 709	194.593	179.862	246.476	1.00 86.60 N
ATOM	15821	CA	LEU C 709	194.175	180.649	247.624	1.00 86.60 C
ATOM	15822	C	LEU C 709	195.395	181.374	248.192	1.00 86.60 C
ATOM	15823	O	LEU C 709	196.429	181.501	247.532	1.00 86.60 O
ATOM	15824	CB	LEU C 709	193.456	179.775	248.650	1.00 86.60 C
ATOM	15825	CG	LEU C 709	194.122	178.532	249.232	1.00 86.60 C
ATOM	15826	CD1	LEU C 709	195.089	178.892	250.339	1.00 86.60 C
ATOM	15827	CD2	LEU C 709	193.041	177.605	249.760	1.00 86.60 C
ATOM	15828	N	LYS C 710	195.263	181.890	249.416	1.00 88.28 N
ATOM	15829	CA	LYS C 710	196.312	182.697	250.034	1.00 88.28 C
ATOM	15830	C	LYS C 710	197.646	181.957	250.088	1.00 88.28 C
ATOM	15831	O	LYS C 710	198.670	182.456	249.607	1.00 88.28 O
ATOM	15832	CB	LYS C 710	195.872	183.110	251.440	1.00 88.28 C
ATOM	15833	CG	LYS C 710	196.861	183.993	252.184	1.00 88.28 C
ATOM	15834	CD	LYS C 710	196.310	184.403	253.542	1.00 88.28 C

ATOM	15835	CE	LYS C 710	196.636	183.362	254.600	1.00 88.28	C
ATOM	15836	NZ	LYS C 710	195.655	182.245	254.598	1.00 88.28	N
ATOM	15837	N	GLY C 711	197.651	180.761	250.669	1.00 81.10	N
ATOM	15838	CA	GLY C 711	198.881	180.088	251.039	1.00 81.10	C
ATOM	15839	C	GLY C 711	199.889	179.749	249.957	1.00 81.10	C
ATOM	15840	O	GLY C 711	200.980	180.327	249.937	1.00 81.10	O
ATOM	15841	N	LEU C 712	199.536	178.816	249.064	1.00 78.12	N
ATOM	15842	CA	LEU C 712	200.477	178.078	248.216	1.00 78.12	C
ATOM	15843	C	LEU C 712	201.569	178.906	247.548	1.00 78.12	C
ATOM	15844	O	LEU C 712	202.722	178.468	247.486	1.00 78.12	O
ATOM	15845	CB	LEU C 712	199.724	177.310	247.129	1.00 78.12	C
ATOM	15846	CG	LEU C 712	199.154	175.942	247.501	1.00 78.12	C
ATOM	15847	CD1	LEU C 712	197.929	176.084	248.380	1.00 78.12	C
ATOM	15848	CD2	LEU C 712	198.829	175.145	246.251	1.00 78.12	C
ATOM	15849	N	ASP C 713	201.230	180.092	247.041	1.00 83.66	N
ATOM	15850	CA	ASP C 713	202.231	180.894	246.348	1.00 83.66	C
ATOM	15851	C	ASP C 713	203.377	181.306	247.263	1.00 83.66	C
ATOM	15852	O	ASP C 713	204.466	181.620	246.771	1.00 83.66	O
ATOM	15853	CB	ASP C 713	201.584	182.130	245.730	1.00 83.66	C
ATOM	15854	CG	ASP C 713	202.531	182.887	244.825	1.00 83.66	C
ATOM	15855	OD1	ASP C 713	202.804	182.396	243.709	1.00 83.66	O
ATOM	15856	OD2	ASP C 713	203.005	183.969	245.227	1.00 83.66	O
ATOM	15857	N	ASP C 714	203.160	181.310	248.577	1.00 79.72	N
ATOM	15858	CA	ASP C 714	204.224	181.554	249.539	1.00 79.72	C
ATOM	15859	C	ASP C 714	205.000	180.294	249.894	1.00 79.72	C
ATOM	15860	O	ASP C 714	206.051	180.394	250.535	1.00 79.72	O
ATOM	15861	CB	ASP C 714	203.650	182.171	250.818	1.00 79.72	C
ATOM	15862	CG	ASP C 714	203.119	183.574	250.600	1.00 79.72	C
ATOM	15863	OD1	ASP C 714	203.636	184.274	249.704	1.00 79.72	O
ATOM	15864	OD2	ASP C 714	202.184	183.977	251.324	1.00 79.72	O
ATOM	15865	N	LEU C 715	204.508	179.120	249.505	1.00 76.48	N
ATOM	15866	CA	LEU C 715	205.199	177.859	249.743	1.00 76.48	C
ATOM	15867	C	LEU C 715	206.037	177.416	248.555	1.00 76.48	C
ATOM	15868	O	LEU C 715	207.173	176.969	248.738	1.00 76.48	O
ATOM	15869	CB	LEU C 715	204.192	176.759	250.098	1.00 76.48	C
ATOM	15870	CG	LEU C 715	204.732	175.402	250.560	1.00 76.48	C
ATOM	15871	CD1	LEU C 715	203.756	174.758	251.521	1.00 76.48	C

ATOM	15872	CD2	LEU C 715	204.980	174.477	249.385	1.00 76.48	C
ATOM	15873	N	MET C 716	205.501	177.530	247.338	1.00 78.38	N
ATOM	15874	CA	MET C 716	206.258	177.141	246.155	1.00 78.38	C
ATOM	15875	C	MET C 716	207.479	178.025	245.947	1.00 78.38	C
ATOM	15876	O	MET C 716	208.424	177.607	245.271	1.00 78.38	O
ATOM	15877	CB	MET C 716	205.348	177.174	244.924	1.00 78.38	C
ATOM	15878	CG	MET C 716	205.993	176.703	243.629	1.00 78.38	C
ATOM	15879	SD	MET C 716	206.767	178.015	242.666	1.00 78.38	S
ATOM	15880	CE	MET C 716	207.543	177.060	241.364	1.00 78.38	C
ATOM	15881	N	SER C 717	207.484	179.231	246.513	1.00 78.15	N
ATOM	15882	CA	SER C 717	208.667	180.081	246.539	1.00 78.15	C
ATOM	15883	C	SER C 717	209.487	179.879	247.806	1.00 78.15	C
ATOM	15884	O	SER C 717	210.715	179.783	247.742	1.00 78.15	O
ATOM	15885	CB	SER C 717	208.269	181.555	246.403	1.00 78.15	C
ATOM	15886	OG	SER C 717	209.413	182.389	246.456	1.00 78.15	O
ATOM	15887	N	GLY C 718	208.827	179.811	248.965	1.00 76.86	N
ATOM	15888	CA	GLY C 718	209.523	179.484	250.196	1.00 76.86	C
ATOM	15889	C	GLY C 718	210.161	178.113	250.180	1.00 76.86	C
ATOM	15890	O	GLY C 718	211.106	177.867	250.937	1.00 76.86	O
ATOM	15891	N	LEU C 719	209.658	177.208	249.341	1.00 75.94	N
ATOM	15892	CA	LEU C 719	210.312	175.935	249.081	1.00 75.94	C
ATOM	15893	C	LEU C 719	211.072	175.932	247.763	1.00 75.94	C
ATOM	15894	O	LEU C 719	211.994	175.127	247.598	1.00 75.94	O
ATOM	15895	CB	LEU C 719	209.277	174.799	249.084	1.00 75.94	C
ATOM	15896	CG	LEU C 719	209.727	173.334	249.102	1.00 75.94	C
ATOM	15897	CD1	LEU C 719	210.153	172.834	247.730	1.00 75.94	C
ATOM	15898	CD2	LEU C 719	210.844	173.141	250.112	1.00 75.94	C
ATOM	15899	N	GLY C 720	210.730	176.830	246.842	1.00 81.60	N
ATOM	15900	CA	GLY C 720	211.335	176.856	245.525	1.00 81.60	C
ATOM	15901	C	GLY C 720	212.720	177.466	245.461	1.00 81.60	C
ATOM	15902	O	GLY C 720	213.157	177.906	244.393	1.00 81.60	O
ATOM	15903	N	ALA C 721	213.421	177.506	246.593	1.00 85.69	N
ATOM	15904	CA	ALA C 721	214.808	177.947	246.638	1.00 85.69	C
ATOM	15905	C	ALA C 721	215.749	176.790	246.945	1.00 85.69	C
ATOM	15906	O	ALA C 721	216.681	176.528	246.180	1.00 85.69	O
ATOM	15907	CB	ALA C 721	214.975	179.066	247.674	1.00 85.69	C
ATOM	15908	N	ALA C 722	215.520	176.083	248.050	1.00 83.58	N

ATOM	15909	CA	ALA C 722	216.319	174.921	248.415	1.00 83.58	C
ATOM	15910	C	ALA C 722	215.735	174.263	249.657	1.00 83.58	C
ATOM	15911	O	ALA C 722	215.077	174.929	250.462	1.00 83.58	O
ATOM	15912	CB	ALA C 722	217.778	175.315	248.655	1.00 83.58	C
ATOM	15913	N	GLY C 723	215.965	172.964	249.828	1.00 82.10	N
ATOM	15914	CA	GLY C 723	215.457	172.297	251.008	1.00 82.10	C
ATOM	15915	C	GLY C 723	215.489	170.783	250.994	1.00 82.10	C
ATOM	15916	O	GLY C 723	215.244	170.142	249.968	1.00 82.10	O
ATOM	15917	N	LYS C 724	215.794	170.210	252.154	1.00 77.83	N
ATOM	15918	CA	LYS C 724	215.680	168.780	252.402	1.00 77.83	C
ATOM	15919	C	LYS C 724	214.203	168.484	252.683	1.00 77.83	C
ATOM	15920	O	LYS C 724	213.325	169.305	252.402	1.00 77.83	O
ATOM	15921	CB	LYS C 724	216.642	168.391	253.531	1.00 77.83	C
ATOM	15922	CG	LYS C 724	216.776	166.904	253.868	1.00 77.83	C
ATOM	15923	CD	LYS C 724	217.428	166.111	252.753	1.00 77.83	C
ATOM	15924	CE	LYS C 724	217.614	164.661	253.171	1.00 77.83	C
ATOM	15925	NZ	LYS C 724	218.174	163.828	252.074	1.00 77.83	N
ATOM	15926	N	ALA C 725	213.896	167.303	253.231	1.00 72.14	N
ATOM	15927	CA	ALA C 725	212.530	166.978	253.636	1.00 72.14	C
ATOM	15928	C	ALA C 725	211.954	167.971	254.644	1.00 72.14	C
ATOM	15929	O	ALA C 725	210.733	167.999	254.834	1.00 72.14	O
ATOM	15930	CB	ALA C 725	212.480	165.565	254.217	1.00 72.14	C
ATOM	15931	N	VAL C 726	212.798	168.775	255.300	1.00 67.64	N
ATOM	15932	CA	VAL C 726	212.310	169.880	256.120	1.00 67.64	C
ATOM	15933	C	VAL C 726	211.443	170.824	255.299	1.00 67.64	C
ATOM	15934	O	VAL C 726	210.511	171.441	255.827	1.00 67.64	O
ATOM	15935	CB	VAL C 726	213.493	170.627	256.761	1.00 67.64	C
ATOM	15936	CG1	VAL C 726	214.286	169.691	257.656	1.00 67.64	C
ATOM	15937	CG2	VAL C 726	214.382	171.228	255.686	1.00 67.64	C
ATOM	15938	N	GLY C 727	211.729	170.957	254.005	1.00 65.12	N
ATOM	15939	CA	GLY C 727	210.902	171.757	253.123	1.00 65.12	C
ATOM	15940	C	GLY C 727	209.643	171.042	252.679	1.00 65.12	C
ATOM	15941	O	GLY C 727	208.879	171.564	251.862	1.00 65.12	O
ATOM	15942	N	VAL C 728	209.418	169.841	253.207	1.00 64.15	N
ATOM	15943	CA	VAL C 728	208.185	169.101	252.969	1.00 64.15	C
ATOM	15944	C	VAL C 728	207.488	168.898	254.304	1.00 64.15	C
ATOM	15945	O	VAL C 728	206.259	168.781	254.366	1.00 64.15	O

ATOM	15946	CB	VAL	C	728	208.456	167.757	252.273	1.00 64.15	C
ATOM	15947	CG1	VAL	C	728	207.176	166.948	252.170	1.00 64.15	C
ATOM	15948	CG2	VAL	C	728	209.052	167.990	250.898	1.00 64.15	C
ATOM	15949	N	ALA	C	729	208.269	168.858	255.384	1.00 62.59	N
ATOM	15950	CA	ALA	C	729	207.677	168.804	256.715	1.00 62.59	C
ATOM	15951	C	ALA	C	729	206.902	170.079	257.015	1.00 62.59	C
ATOM	15952	O	ALA	C	729	205.831	170.036	257.632	1.00 62.59	O
ATOM	15953	CB	ALA	C	729	208.761	168.571	257.766	1.00 62.59	C
ATOM	15954	N	ILE	C	730	207.432	171.228	256.589	1.00 65.27	N
ATOM	15955	CA	ILE	C	730	206.704	172.484	256.731	1.00 65.27	C
ATOM	15956	C	ILE	C	730	205.412	172.449	255.930	1.00 65.27	C
ATOM	15957	O	ILE	C	730	204.425	173.095	256.299	1.00 65.27	O
ATOM	15958	CB	ILE	C	730	207.596	173.668	256.314	1.00 65.27	C
ATOM	15959	CG1	ILE	C	730	208.794	173.787	257.256	1.00 65.27	C
ATOM	15960	CG2	ILE	C	730	206.796	174.955	256.302	1.00 65.27	C
ATOM	15961	CD1	ILE	C	730	209.848	174.757	256.780	1.00 65.27	C
ATOM	15962	N	GLY	C	731	205.390	171.699	254.829	1.00 62.48	N
ATOM	15963	CA	GLY	C	731	204.173	171.539	254.056	1.00 62.48	C
ATOM	15964	C	GLY	C	731	203.101	170.711	254.732	1.00 62.48	C
ATOM	15965	O	GLY	C	731	201.993	170.612	254.195	1.00 62.48	O
ATOM	15966	N	ALA	C	732	203.402	170.112	255.884	1.00 63.78	N
ATOM	15967	CA	ALA	C	732	202.412	169.347	256.635	1.00 63.78	C
ATOM	15968	C	ALA	C	732	201.729	170.211	257.691	1.00 63.78	C
ATOM	15969	O	ALA	C	732	200.502	170.352	257.688	1.00 63.78	O
ATOM	15970	CB	ALA	C	732	203.071	168.123	257.282	1.00 63.78	C
ATOM	15971	N	VAL	C	733	202.513	170.792	258.603	1.00 64.86	N
ATOM	15972	CA	VAL	C	733	201.943	171.687	259.607	1.00 64.86	C
ATOM	15973	C	VAL	C	733	201.313	172.899	258.938	1.00 64.86	C
ATOM	15974	O	VAL	C	733	200.282	173.412	259.391	1.00 64.86	O
ATOM	15975	CB	VAL	C	733	203.015	172.095	260.634	1.00 64.86	C
ATOM	15976	CG1	VAL	C	733	203.487	170.881	261.410	1.00 64.86	C
ATOM	15977	CG2	VAL	C	733	204.184	172.767	259.939	1.00 64.86	C
ATOM	15978	N	GLY	C	734	201.920	173.380	257.853	1.00 66.73	N
ATOM	15979	CA	GLY	C	734	201.296	174.436	257.078	1.00 66.73	C
ATOM	15980	C	GLY	C	734	199.969	174.017	256.482	1.00 66.73	C
ATOM	15981	O	GLY	C	734	199.061	174.839	256.338	1.00 66.73	O
ATOM	15982	N	GLY	C	735	199.832	172.737	256.136	1.00 67.47	N

ATOM	15983	CA	GLY C 735	198.590	172.270	255.543	1.00	67.47	C
ATOM	15984	C	GLY C 735	197.421	172.325	256.506	1.00	67.47	C
ATOM	15985	O	GLY C 735	196.302	172.668	256.119	1.00	67.47	O
ATOM	15986	N	ALA C 736	197.661	171.985	257.773	1.00	68.40	N
ATOM	15987	CA	ALA C 736	196.581	171.985	258.754	1.00	68.40	C
ATOM	15988	C	ALA C 736	196.137	173.404	259.083	1.00	68.40	C
ATOM	15989	O	ALA C 736	194.941	173.713	259.055	1.00	68.40	O
ATOM	15990	CB	ALA C 736	197.021	171.249	260.019	1.00	68.40	C
ATOM	15991	N	VAL C 737	197.091	174.282	259.400	1.00	66.99	N
ATOM	15992	CA	VAL C 737	196.748	175.648	259.781	1.00	66.99	C
ATOM	15993	C	VAL C 737	196.106	176.396	258.622	1.00	66.99	C
ATOM	15994	O	VAL C 737	195.294	177.304	258.834	1.00	66.99	O
ATOM	15995	CB	VAL C 737	197.994	176.386	260.301	1.00	66.99	C
ATOM	15996	CG1	VAL C 737	199.009	176.550	259.189	1.00	66.99	C
ATOM	15997	CG2	VAL C 737	197.602	177.733	260.862	1.00	66.99	C
ATOM	15998	N	ALA C 738	196.446	176.033	257.386	1.00	66.95	N
ATOM	15999	CA	ALA C 738	195.849	176.689	256.230	1.00	66.95	C
ATOM	16000	C	ALA C 738	194.402	176.283	255.999	1.00	66.95	C
ATOM	16001	O	ALA C 738	193.767	176.826	255.089	1.00	66.95	O
ATOM	16002	CB	ALA C 738	196.670	176.397	254.975	1.00	66.95	C
ATOM	16003	N	SER C 739	193.869	175.345	256.781	1.00	72.75	N
ATOM	16004	CA	SER C 739	192.458	174.994	256.717	1.00	72.75	C
ATOM	16005	C	SER C 739	191.640	175.625	257.833	1.00	72.75	C
ATOM	16006	O	SER C 739	190.419	175.752	257.689	1.00	72.75	O
ATOM	16007	CB	SER C 739	192.285	173.472	256.766	1.00	72.75	C
ATOM	16008	OG	SER C 739	190.914	173.115	256.738	1.00	72.75	O
ATOM	16009	N	VAL C 740	192.278	176.016	258.932	1.00	74.83	N
ATOM	16010	CA	VAL C 740	191.593	176.711	260.017	1.00	74.83	C
ATOM	16011	C	VAL C 740	191.635	178.219	259.819	1.00	74.83	C
ATOM	16012	O	VAL C 740	190.631	178.909	260.011	1.00	74.83	O
ATOM	16013	CB	VAL C 740	192.202	176.305	261.374	1.00	74.83	C
ATOM	16014	CG1	VAL C 740	191.618	177.151	262.487	1.00	74.83	C
ATOM	16015	CG2	VAL C 740	191.951	174.832	261.642	1.00	74.83	C
ATOM	16016	N	VAL C 741	192.795	178.756	259.434	1.00	72.05	N
ATOM	16017	CA	VAL C 741	192.893	180.189	259.174	1.00	72.05	C
ATOM	16018	C	VAL C 741	192.046	180.578	257.973	1.00	72.05	C
ATOM	16019	O	VAL C 741	191.599	181.726	257.864	1.00	72.05	O

ATOM	16020	CB	VAL	C	741	194.366	180.597	258.985	1.00 72.05	C
ATOM	16021	CG1	VAL	C	741	194.465	182.051	258.568	1.00 72.05	C
ATOM	16022	CG2	VAL	C	741	195.138	180.361	260.268	1.00 72.05	C
ATOM	16023	N	GLU	C	742	191.805	179.641	257.057	1.00 80.93	N
ATOM	16024	CA	GLU	C	742	190.847	179.888	255.987	1.00 80.93	C
ATOM	16025	C	GLU	C	742	189.417	179.676	256.458	1.00 80.93	C
ATOM	16026	O	GLU	C	742	188.494	180.306	255.930	1.00 80.93	O
ATOM	16027	CB	GLU	C	742	191.146	178.991	254.788	1.00 80.93	C
ATOM	16028	CG	GLU	C	742	192.441	179.329	254.076	1.00 80.93	C
ATOM	16029	CD	GLU	C	742	192.398	180.692	253.416	1.00 80.93	C
ATOM	16030	OE1	GLU	C	742	191.301	181.114	252.994	1.00 80.93	O
ATOM	16031	OE2	GLU	C	742	193.460	181.340	253.315	1.00 80.93	O
ATOM	16032	N	GLY	C	743	189.214	178.801	257.442	1.00 80.96	N
ATOM	16033	CA	GLY	C	743	187.904	178.628	258.039	1.00 80.96	C
ATOM	16034	C	GLY	C	743	187.453	179.789	258.897	1.00 80.96	C
ATOM	16035	O	GLY	C	743	186.262	179.874	259.215	1.00 80.96	O
ATOM	16036	N	VAL	C	744	188.367	180.679	259.276	1.00 75.16	N
ATOM	16037	CA	VAL	C	744	188.024	181.878	260.026	1.00 75.16	C
ATOM	16038	C	VAL	C	744	188.283	183.133	259.195	1.00 75.16	C
ATOM	16039	O	VAL	C	744	188.436	184.219	259.737	1.00 75.16	O
ATOM	16040	CB	VAL	C	744	188.778	181.928	261.370	1.00 75.16	C
ATOM	16041	CG1	VAL	C	744	190.243	182.275	261.152	1.00 75.16	C
ATOM	16042	CG2	VAL	C	744	188.107	182.894	262.338	1.00 75.16	C
ATOM	16043	N	ALA	C	745	188.343	182.985	257.873	1.00 75.62	N
ATOM	16044	CA	ALA	C	745	188.445	184.119	256.967	1.00 75.62	C
ATOM	16045	C	ALA	C	745	187.158	184.396	256.213	1.00 75.62	C
ATOM	16046	O	ALA	C	745	186.911	185.543	255.838	1.00 75.62	O
ATOM	16047	CB	ALA	C	745	189.575	183.901	255.954	1.00 75.62	C
ATOM	16048	N	THR	C	746	186.333	183.372	255.985	1.00 73.96	N
ATOM	16049	CA	THR	C	746	184.988	183.602	255.476	1.00 73.96	C
ATOM	16050	C	THR	C	746	184.104	184.257	256.525	1.00 73.96	C
ATOM	16051	O	THR	C	746	183.100	184.886	256.176	1.00 73.96	O
ATOM	16052	CB	THR	C	746	184.369	182.282	255.012	1.00 73.96	C
ATOM	16053	OG1	THR	C	746	185.200	181.694	254.004	1.00 73.96	O
ATOM	16054	CG2	THR	C	746	182.984	182.512	254.434	1.00 73.96	C
ATOM	16055	N	PHE	C	747	184.469	184.134	257.801	1.00 67.55	N
ATOM	16056	CA	PHE	C	747	183.767	184.813	258.879	1.00 67.55	C

ATOM	16057	C	PHE C 747	183.984	186.320	258.852	1.00 67.55	C
ATOM	16058	O	PHE C 747	183.229	187.051	259.502	1.00 67.55	O
ATOM	16059	CB	PHE C 747	184.223	184.227	260.218	1.00 67.55	C
ATOM	16060	CG	PHE C 747	183.483	184.761	261.407	1.00 67.55	C
ATOM	16061	CD1	PHE C 747	182.198	184.336	261.687	1.00 67.55	C
ATOM	16062	CD2	PHE C 747	184.079	185.677	262.254	1.00 67.55	C
ATOM	16063	CE1	PHE C 747	181.518	184.821	262.784	1.00 67.55	C
ATOM	16064	CE2	PHE C 747	183.404	186.166	263.352	1.00 67.55	C
ATOM	16065	CZ	PHE C 747	182.121	185.738	263.617	1.00 67.55	C
ATOM	16066	N	LEU C 748	184.979	186.803	258.105	1.00 68.53	N
ATOM	16067	CA	LEU C 748	185.238	188.229	257.956	1.00 68.53	C
ATOM	16068	C	LEU C 748	184.756	188.768	256.614	1.00 68.53	C
ATOM	16069	O	LEU C 748	185.329	189.724	256.083	1.00 68.53	O
ATOM	16070	CB	LEU C 748	186.726	188.524	258.138	1.00 68.53	C
ATOM	16071	CG	LEU C 748	187.297	188.309	259.538	1.00 68.53	C
ATOM	16072	CD1	LEU C 748	188.798	188.538	259.541	1.00 68.53	C
ATOM	16073	CD2	LEU C 748	186.612	189.228	260.529	1.00 68.53	C
ATOM	16074	N	LYS C 749	183.711	188.168	256.053	1.00 72.54	N
ATOM	16075	CA	LYS C 749	183.067	188.689	254.856	1.00 72.54	C
ATOM	16076	C	LYS C 749	181.570	188.871	255.010	1.00 72.54	C
ATOM	16077	O	LYS C 749	181.000	189.728	254.323	1.00 72.54	O
ATOM	16078	CB	LYS C 749	183.339	187.773	253.654	1.00 72.54	C
ATOM	16079	CG	LYS C 749	184.806	187.668	253.296	1.00 72.54	C
ATOM	16080	CD	LYS C 749	185.323	188.993	252.771	1.00 72.54	C
ATOM	16081	CE	LYS C 749	186.798	188.913	252.424	1.00 72.54	C
ATOM	16082	NZ	LYS C 749	187.045	188.036	251.248	1.00 72.54	N
ATOM	16083	N	ASN C 750	180.920	188.110	255.872	1.00 72.25	N
ATOM	16084	CA	ASN C 750	179.547	188.372	256.257	1.00 72.25	C
ATOM	16085	C	ASN C 750	179.523	189.615	257.131	1.00 72.25	C
ATOM	16086	O	ASN C 750	180.075	189.583	258.239	1.00 72.25	O
ATOM	16087	CB	ASN C 750	178.979	187.178	257.011	1.00 72.25	C
ATOM	16088	CG	ASN C 750	178.836	185.958	256.135	1.00 72.25	C
ATOM	16089	OD1	ASN C 750	178.356	186.042	255.006	1.00 72.25	O
ATOM	16090	ND2	ASN C 750	179.278	184.816	256.640	1.00 72.25	N
ATOM	16091	N	PRO C 751	178.907	190.717	256.697	1.00 73.56	N
ATOM	16092	CA	PRO C 751	178.969	191.959	257.487	1.00 73.56	C
ATOM	16093	C	PRO C 751	178.335	191.863	258.869	1.00 73.56	C

ATOM	16094	O	PRO C 751	178.459	192.817	259.646	1.00 73.56	O
ATOM	16095	CB	PRO C 751	178.226	192.971	256.605	1.00 73.56	C
ATOM	16096	CG	PRO C 751	178.360	192.423	255.221	1.00 73.56	C
ATOM	16097	CD	PRO C 751	178.291	190.933	255.379	1.00 73.56	C
ATOM	16098	N	PHE C 752	177.667	190.758	259.202	1.00 70.74	N
ATOM	16099	CA	PHE C 752	177.253	190.533	260.581	1.00 70.74	C
ATOM	16100	C	PHE C 752	178.424	190.060	261.433	1.00 70.74	C
ATOM	16101	O	PHE C 752	178.647	190.579	262.532	1.00 70.74	O
ATOM	16102	CB	PHE C 752	176.119	189.509	260.630	1.00 70.74	C
ATOM	16103	CG	PHE C 752	174.835	189.993	260.027	1.00 70.74	C
ATOM	16104	CD1	PHE C 752	174.613	191.342	259.821	1.00 70.74	C
ATOM	16105	CD2	PHE C 752	173.854	189.094	259.652	1.00 70.74	C
ATOM	16106	CE1	PHE C 752	173.433	191.784	259.263	1.00 70.74	C
ATOM	16107	CE2	PHE C 752	172.674	189.530	259.092	1.00 70.74	C
ATOM	16108	CZ	PHE C 752	172.463	190.877	258.897	1.00 70.74	C
ATOM	16109	N	GLY C 753	179.181	189.081	260.936	1.00 69.96	N
ATOM	16110	CA	GLY C 753	180.307	188.566	261.697	1.00 69.96	C
ATOM	16111	C	GLY C 753	181.397	189.598	261.911	1.00 69.96	C
ATOM	16112	O	GLY C 753	181.953	189.705	263.008	1.00 69.96	O
ATOM	16113	N	ALA C 754	181.727	190.363	260.867	1.00 68.50	N
ATOM	16114	CA	ALA C 754	182.719	191.422	261.011	1.00 68.50	C
ATOM	16115	C	ALA C 754	182.285	192.455	262.040	1.00 68.50	C
ATOM	16116	O	ALA C 754	183.130	193.080	262.690	1.00 68.50	O
ATOM	16117	CB	ALA C 754	182.977	192.091	259.662	1.00 68.50	C
ATOM	16118	N	PHE C 755	180.976	192.650	262.200	1.00 66.70	N
ATOM	16119	CA	PHE C 755	180.461	193.506	263.257	1.00 66.70	C
ATOM	16120	C	PHE C 755	180.483	192.823	264.616	1.00 66.70	C
ATOM	16121	O	PHE C 755	180.528	193.511	265.641	1.00 66.70	O
ATOM	16122	CB	PHE C 755	179.036	193.944	262.920	1.00 66.70	C
ATOM	16123	CG	PHE C 755	178.438	194.893	263.914	1.00 66.70	C
ATOM	16124	CD1	PHE C 755	178.808	196.225	263.927	1.00 66.70	C
ATOM	16125	CD2	PHE C 755	177.500	194.455	264.829	1.00 66.70	C
ATOM	16126	CE1	PHE C 755	178.256	197.100	264.838	1.00 66.70	C
ATOM	16127	CE2	PHE C 755	176.944	195.326	265.741	1.00 66.70	C
ATOM	16128	CZ	PHE C 755	177.324	196.650	265.747	1.00 66.70	C
ATOM	16129	N	THR C 756	180.461	191.491	264.647	1.00 67.81	N
ATOM	16130	CA	THR C 756	180.520	190.746	265.896	1.00 67.81	C

ATOM	16131	C	THR C 756	181.934	190.612	266.442	1.00 67.81	C
ATOM	16132	O	THR C 756	182.102	190.144	267.573	1.00 67.81	O
ATOM	16133	CB	THR C 756	179.916	189.351	265.712	1.00 67.81	C
ATOM	16134	OG1	THR C 756	180.649	188.641	264.706	1.00 67.81	O
ATOM	16135	CG2	THR C 756	178.458	189.452	265.298	1.00 67.81	C
ATOM	16136	N	ILE C 757	182.945	191.000	265.672	1.00 68.18	N
ATOM	16137	CA	ILE C 757	184.313	191.074	266.160	1.00 68.18	C
ATOM	16138	C	ILE C 757	184.677	192.489	266.584	1.00 68.18	C
ATOM	16139	O	ILE C 757	185.383	192.681	267.574	1.00 68.18	O
ATOM	16140	CB	ILE C 757	185.298	190.546	265.096	1.00 68.18	C
ATOM	16141	CG1	ILE C 757	185.092	189.047	264.876	1.00 68.18	C
ATOM	16142	CG2	ILE C 757	186.729	190.850	265.499	1.00 68.18	C
ATOM	16143	CD1	ILE C 757	185.852	188.493	263.693	1.00 68.18	C
ATOM	16144	N	ILE C 758	184.197	193.491	265.844	1.00 69.72	N
ATOM	16145	CA	ILE C 758	184.469	194.875	266.211	1.00 69.72	C
ATOM	16146	C	ILE C 758	183.811	195.219	267.540	1.00 69.72	C
ATOM	16147	O	ILE C 758	184.300	196.083	268.277	1.00 69.72	O
ATOM	16148	CB	ILE C 758	184.013	195.820	265.087	1.00 69.72	C
ATOM	16149	CG1	ILE C 758	184.816	195.547	263.815	1.00 69.72	C
ATOM	16150	CG2	ILE C 758	184.170	197.268	265.512	1.00 69.72	C
ATOM	16151	CD1	ILE C 758	184.276	196.243	262.593	1.00 69.72	C
ATOM	16152	N	LEU C 759	182.702	194.557	267.874	1.00 69.69	N
ATOM	16153	CA	LEU C 759	182.103	194.746	269.191	1.00 69.69	C
ATOM	16154	C	LEU C 759	182.978	194.140	270.279	1.00 69.69	C
ATOM	16155	O	LEU C 759	183.223	194.769	271.315	1.00 69.69	O
ATOM	16156	CB	LEU C 759	180.703	194.133	269.230	1.00 69.69	C
ATOM	16157	CG	LEU C 759	179.619	194.786	268.376	1.00 69.69	C
ATOM	16158	CD1	LEU C 759	178.344	193.965	268.444	1.00 69.69	C
ATOM	16159	CD2	LEU C 759	179.366	196.209	268.837	1.00 69.69	C
ATOM	16160	N	VAL C 760	183.453	192.911	270.063	1.00 70.30	N
ATOM	16161	CA	VAL C 760	184.262	192.235	271.072	1.00 70.30	C
ATOM	16162	C	VAL C 760	185.562	192.982	271.321	1.00 70.30	C
ATOM	16163	O	VAL C 760	186.042	193.046	272.459	1.00 70.30	O
ATOM	16164	CB	VAL C 760	184.527	190.778	270.652	1.00 70.30	C
ATOM	16165	CG1	VAL C 760	185.469	190.111	271.636	1.00 70.30	C
ATOM	16166	CG2	VAL C 760	183.221	190.010	270.553	1.00 70.30	C
ATOM	16167	N	ALA C 761	186.154	193.558	270.274	1.00 72.87	N

ATOM	16168	CA	ALA	C	761	187.403	194.292	270.449	1.00 72.87	C
ATOM	16169	C	ALA	C	761	187.187	195.569	271.249	1.00 72.87	C
ATOM	16170	O	ALA	C	761	187.986	195.896	272.134	1.00 72.87	O
ATOM	16171	CB	ALA	C	761	188.023	194.607	269.089	1.00 72.87	C
ATOM	16172	N	ILE	C	762	186.116	196.307	270.948	1.00 73.74	N
ATOM	16173	CA	ILE	C	762	185.841	197.548	271.663	1.00 73.74	C
ATOM	16174	C	ILE	C	762	185.568	197.271	273.135	1.00 73.74	C
ATOM	16175	O	ILE	C	762	185.967	198.047	274.011	1.00 73.74	O
ATOM	16176	CB	ILE	C	762	184.670	198.295	271.002	1.00 73.74	C
ATOM	16177	CG1	ILE	C	762	185.047	198.724	269.583	1.00 73.74	C
ATOM	16178	CG2	ILE	C	762	184.266	199.495	271.837	1.00 73.74	C
ATOM	16179	CD1	ILE	C	762	183.879	199.235	268.771	1.00 73.74	C
ATOM	16180	N	ALA	C	763	184.882	196.167	273.432	1.00 76.73	N
ATOM	16181	CA	ALA	C	763	184.604	195.822	274.820	1.00 76.73	C
ATOM	16182	C	ALA	C	763	185.863	195.448	275.588	1.00 76.73	C
ATOM	16183	O	ALA	C	763	185.899	195.619	276.810	1.00 76.73	O
ATOM	16184	CB	ALA	C	763	183.595	194.675	274.886	1.00 76.73	C
ATOM	16185	N	VAL	C	764	186.891	194.945	274.902	1.00 78.16	N
ATOM	16186	CA	VAL	C	764	188.122	194.539	275.579	1.00 78.16	C
ATOM	16187	C	VAL	C	764	188.780	195.736	276.254	1.00 78.16	C
ATOM	16188	O	VAL	C	764	189.085	195.708	277.452	1.00 78.16	O
ATOM	16189	CB	VAL	C	764	189.083	193.858	274.591	1.00 78.16	C
ATOM	16190	CG1	VAL	C	764	190.430	193.625	275.248	1.00 78.16	C
ATOM	16191	CG2	VAL	C	764	188.497	192.543	274.110	1.00 78.16	C
ATOM	16192	N	VAL	C	765	189.019	196.801	275.487	1.00 81.19	N
ATOM	16193	CA	VAL	C	765	189.686	197.979	276.035	1.00 81.19	C
ATOM	16194	C	VAL	C	765	188.845	198.619	277.130	1.00 81.19	C
ATOM	16195	O	VAL	C	765	189.386	199.201	278.079	1.00 81.19	O
ATOM	16196	CB	VAL	C	765	190.006	198.981	274.909	1.00 81.19	C
ATOM	16197	CG1	VAL	C	765	190.618	200.246	275.484	1.00 81.19	C
ATOM	16198	CG2	VAL	C	765	190.938	198.348	273.887	1.00 81.19	C
ATOM	16199	N	ILE	C	766	187.519	198.525	277.026	1.00 82.09	N
ATOM	16200	CA	ILE	C	766	186.656	199.077	278.064	1.00 82.09	C
ATOM	16201	C	ILE	C	766	186.797	198.284	279.357	1.00 82.09	C
ATOM	16202	O	ILE	C	766	186.772	198.852	280.455	1.00 82.09	O
ATOM	16203	CB	ILE	C	766	185.196	199.119	277.580	1.00 82.09	C
ATOM	16204	CG1	ILE	C	766	185.060	200.065	276.387	1.00 82.09	C

ATOM	16205	CG2	ILE	C	766	184.275	199.545	278.709	1.00 82.09	C
ATOM	16206	CD1	ILE	C	766	183.721	199.979	275.691	1.00 82.09	C
ATOM	16207	N	ILE	C	767	186.946	196.961	279.252	1.00 83.79	N
ATOM	16208	CA	ILE	C	767	187.139	196.134	280.437	1.00 83.79	C
ATOM	16209	C	ILE	C	767	188.442	196.470	281.145	1.00 83.79	C
ATOM	16210	O	ILE	C	767	188.572	196.230	282.350	1.00 83.79	O
ATOM	16211	CB	ILE	C	767	187.079	194.639	280.059	1.00 83.79	C
ATOM	16212	CG1	ILE	C	767	185.716	194.299	279.459	1.00 83.79	C
ATOM	16213	CG2	ILE	C	767	187.347	193.766	281.271	1.00 83.79	C
ATOM	16214	CD1	ILE	C	767	184.561	194.534	280.404	1.00 83.79	C
ATOM	16215	N	ILE	C	768	189.418	197.027	280.424	1.00 86.70	N
ATOM	16216	CA	ILE	C	768	190.639	197.502	281.067	1.00 86.70	C
ATOM	16217	C	ILE	C	768	190.318	198.604	282.066	1.00 86.70	C
ATOM	16218	O	ILE	C	768	190.944	198.704	283.128	1.00 86.70	O
ATOM	16219	CB	ILE	C	768	191.649	197.979	280.008	1.00 86.70	C
ATOM	16220	CG1	ILE	C	768	192.010	196.837	279.058	1.00 86.70	C
ATOM	16221	CG2	ILE	C	768	192.891	198.541	280.676	1.00 86.70	C
ATOM	16222	CD1	ILE	C	768	192.671	195.664	279.742	1.00 86.70	C
ATOM	16223	N	TYR	C	769	189.337	199.442	281.746	1.00 93.45	N
ATOM	16224	CA	TYR	C	769	188.965	200.557	282.604	1.00 93.45	C
ATOM	16225	C	TYR	C	769	187.467	200.557	282.889	1.00 93.45	C
ATOM	16226	O	TYR	C	769	186.939	199.619	283.485	1.00 93.45	O
ATOM	16227	CB	TYR	C	769	189.381	201.880	281.961	1.00 93.45	C
ATOM	16228	CG	TYR	C	769	189.069	203.098	282.797	1.00 93.45	C
ATOM	16229	CD1	TYR	C	769	189.830	203.408	283.916	1.00 93.45	C
ATOM	16230	CD2	TYR	C	769	188.020	203.942	282.463	1.00 93.45	C
ATOM	16231	CE1	TYR	C	769	189.550	204.522	284.682	1.00 93.45	C
ATOM	16232	CE2	TYR	C	769	187.733	205.059	283.222	1.00 93.45	C
ATOM	16233	CZ	TYR	C	769	188.501	205.345	284.331	1.00 93.45	C
ATOM	16234	OH	TYR	C	769	188.218	206.457	285.090	1.00 93.45	O
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HETATM	16235	C1	NAG	C	1001	142.299	188.866	234.379	1.00 66.11	C
HETATM	16236	C2	NAG	C	1001	140.938	188.854	233.637	1.00 66.11	C
HETATM	16237	C3	NAG	C	1001	140.873	187.746	232.575	1.00 66.11	C
HETATM	16238	C4	NAG	C	1001	142.163	187.583	231.782	1.00 66.11	C
HETATM	16239	C5	NAG	C	1001	143.354	187.585	232.722	1.00 66.11	C
HETATM	16240	C6	NAG	C	1001	144.684	187.522	232.014	1.00 66.11	C

HETATM16241	C7	NAG C1001	139.515	189.550	235.535	1.00 66.11 C
HETATM16242	C8	NAG C1001	138.356	189.159	236.404	1.00 66.11 C
HETATM16243	N2	NAG C1001	139.845	188.675	234.580	1.00 66.11 N
HETATM16244	O3	NAG C1001	139.815	188.074	231.685	1.00 66.11 O
HETATM16245	O4	NAG C1001	142.149	186.323	231.120	1.00 66.11 O
HETATM16246	O5	NAG C1001	143.342	188.806	233.458	1.00 66.11 O
HETATM16247	O6	NAG C1001	145.738	187.856	232.906	1.00 66.11 O
HETATM16248	O7	NAG C1001	140.130	190.598	235.703	1.00 66.11 O
HETATM16249	H1	NAG C1001	142.348	188.107	234.989	1.00 66.11 H
HETATM16250	H2	NAG C1001	140.833	189.713	233.182	1.00 66.11 H
HETATM16251	H3	NAG C1001	140.659	186.896	233.004	1.00 66.11 H
HETATM16252	H4	NAG C1001	142.255	188.304	231.132	1.00 66.11 H
HETATM16253	H5	NAG C1001	143.283	186.830	233.335	1.00 66.11 H
HETATM16254	H61	NAG C1001	144.682	188.153	231.275	1.00 66.11 H
HETATM16255	H62	NAG C1001	144.825	186.622	231.676	1.00 66.11 H
HETATM16256	H81	NAG C1001	138.656	188.510	237.068	1.00 66.11 H
HETATM16257	H82	NAG C1001	137.663	188.748	235.856	1.00 66.11 H
HETATM16258	H83	NAG C1001	137.998	189.948	236.853	1.00 66.11 H
HETATM16259	HN2	NAG C1001	139.348	187.915	234.510	1.00 66.11 H
HETATM16260	HO3	NAG C1001	140.144	188.489	230.971	1.00 66.11 H
HETATM16261	HO6	NAG C1001	145.401	188.052	233.704	1.00 66.11 H
HETATM16262	C1	NAG C1002	141.271	186.150	229.970	1.00 72.06 C
HETATM16263	C2	NAG C1002	140.542	184.844	230.215	1.00 72.06 C
HETATM16264	C3	NAG C1002	139.852	184.396	228.939	1.00 72.06 C
HETATM16265	C4	NAG C1002	139.410	185.594	228.101	1.00 72.06 C
HETATM16266	C5	NAG C1002	139.189	186.873	228.924	1.00 72.06 C
HETATM16267	C6	NAG C1002	137.955	186.806	229.799	1.00 72.06 C
HETATM16268	C7	NAG C1002	141.583	183.519	232.002	1.00 72.06 C
HETATM16269	C8	NAG C1002	142.549	182.423	232.327	1.00 72.06 C
HETATM16270	N2	NAG C1002	141.441	183.811	230.704	1.00 72.06 N
HETATM16271	O3	NAG C1002	138.722	183.594	229.273	1.00 72.06 O
HETATM16272	O4	NAG C1002	140.382	185.858	227.097	1.00 72.06 O
HETATM16273	O5	NAG C1002	140.309	187.200	229.774	1.00 72.06 O
HETATM16274	O6	NAG C1002	137.287	188.060	229.846	1.00 72.06 O
HETATM16275	O7	NAG C1002	140.963	184.118	232.876	1.00 72.06 O
HETATM16276	H1	NAG C1002	141.840	186.073	229.180	1.00 72.06 H
HETATM16277	H2	NAG C1002	139.852	184.996	230.887	1.00 72.06 H

HETATM16278	H3	NAG C1002	140.489	183.882	228.409	1.00 72.06 H
HETATM16279	H4	NAG C1002	138.573	185.365	227.658	1.00 72.06 H
HETATM16280	H5	NAG C1002	139.059	187.612	228.301	1.00 72.06 H
HETATM16281	H61	NAG C1002	138.192	186.539	230.704	1.00 72.06 H
HETATM16282	H62	NAG C1002	137.340	186.144	229.435	1.00 72.06 H
HETATM16283	H81	NAG C1002	143.461	182.734	232.173	1.00 72.06 H
HETATM16284	H82	NAG C1002	142.365	181.651	231.759	1.00 72.06 H
HETATM16285	H83	NAG C1002	142.444	182.173	233.264	1.00 72.06 H
HETATM16286	HN2	NAG C1002	141.924	183.333	230.095	1.00 72.06 H
HETATM16287	HO4	NAG C1002	140.348	186.714	226.863	1.00 72.06 H
HETATM16288	HO6	NAG C1002	136.410	187.932	229.792	1.00 72.06 H
HETATM16289	C1	NAG C1003	138.691	182.284	228.637	1.00 70.95 C
HETATM16290	C2	NAG C1003	138.369	182.468	227.152	1.00 70.95 C
HETATM16291	C3	NAG C1003	138.314	181.112	226.455	1.00 70.95 C
HETATM16292	C4	NAG C1003	139.600	180.335	226.706	1.00 70.95 C
HETATM16293	C5	NAG C1003	139.880	180.239	228.204	1.00 70.95 C
HETATM16294	C6	NAG C1003	141.199	179.572	228.520	1.00 70.95 C
HETATM16295	C7	NAG C1003	136.870	184.011	225.959	1.00 70.95 C
HETATM16296	C8	NAG C1003	135.525	184.674	225.961	1.00 70.95 C
HETATM16297	N2	NAG C1003	137.116	183.186	226.982	1.00 70.95 N
HETATM16298	O3	NAG C1003	138.127	181.300	225.057	1.00 70.95 O
HETATM16299	O4	NAG C1003	139.489	179.025	226.161	1.00 70.95 O
HETATM16300	O5	NAG C1003	139.932	181.553	228.779	1.00 70.95 O
HETATM16301	O6	NAG C1003	141.973	180.353	229.420	1.00 70.95 O
HETATM16302	O7	NAG C1003	137.695	184.217	225.074	1.00 70.95 O
HETATM16303	H1	NAG C1003	137.975	181.759	229.045	1.00 70.95 H
HETATM16304	H2	NAG C1003	139.089	182.978	226.732	1.00 70.95 H
HETATM16305	H3	NAG C1003	137.564	180.601	226.812	1.00 70.95 H
HETATM16306	H4	NAG C1003	140.341	180.797	226.274	1.00 70.95 H
HETATM16307	H5	NAG C1003	139.161	179.735	228.629	1.00 70.95 H
HETATM16308	H61	NAG C1003	141.699	179.445	227.692	1.00 70.95 H
HETATM16309	H62	NAG C1003	141.024	178.700	228.922	1.00 70.95 H
HETATM16310	H81	NAG C1003	135.209	184.763	226.880	1.00 70.95 H
HETATM16311	H82	NAG C1003	134.892	184.135	225.450	1.00 70.95 H
HETATM16312	H83	NAG C1003	135.600	185.560	225.560	1.00 70.95 H
HETATM16313	HN2	NAG C1003	136.469	183.076	227.615	1.00 70.95 H
HETATM16314	HO3	NAG C1003	138.251	180.528	224.634	1.00 70.95 H

HETATM16315	HO4	NAG	C1003	139.557	178.421	226.808	1.00 70.95	H
HETATM16316	HO6	NAG	C1003	141.491	181.043	229.703	1.00 70.95	H
HETATM16317	C1	NAG	C1004	142.608	175.888	198.016	1.00 71.19	C
HETATM16318	C2	NAG	C1004	141.188	176.180	197.507	1.00 71.19	C
HETATM16319	C3	NAG	C1004	140.926	175.442	196.195	1.00 71.19	C
HETATM16320	C4	NAG	C1004	142.023	175.737	195.182	1.00 71.19	C
HETATM16321	C5	NAG	C1004	143.381	175.417	195.790	1.00 71.19	C
HETATM16322	C6	NAG	C1004	144.535	175.735	194.868	1.00 71.19	C
HETATM16323	C7	NAG	C1004	139.856	176.587	199.533	1.00 71.19	C
HETATM16324	C8	NAG	C1004	138.806	176.041	200.447	1.00 71.19	C
HETATM16325	N2	NAG	C1004	140.190	175.811	198.498	1.00 71.19	N
HETATM16326	O3	NAG	C1004	139.663	175.833	195.670	1.00 71.19	O
HETATM16327	O4	NAG	C1004	141.833	174.945	194.015	1.00 71.19	O
HETATM16328	O5	NAG	C1004	143.566	176.191	196.984	1.00 71.19	O
HETATM16329	O6	NAG	C1004	144.619	174.798	193.803	1.00 71.19	O
HETATM16330	O7	NAG	C1004	140.389	177.673	199.728	1.00 71.19	O
HETATM16331	H1	NAG	C1004	142.679	174.946	198.260	1.00 71.19	H
HETATM16332	H2	NAG	C1004	141.116	177.139	197.341	1.00 71.19	H
HETATM16333	H3	NAG	C1004	140.909	174.482	196.372	1.00 71.19	H
HETATM16334	H4	NAG	C1004	141.993	176.681	194.939	1.00 71.19	H
HETATM16335	H5	NAG	C1004	143.406	174.468	196.017	1.00 71.19	H
HETATM16336	H61	NAG	C1004	145.367	175.711	195.377	1.00 71.19	H
HETATM16337	H62	NAG	C1004	144.411	176.627	194.495	1.00 71.19	H
HETATM16338	H81	NAG	C1004	139.046	175.131	200.704	1.00 71.19	H
HETATM16339	H82	NAG	C1004	137.947	176.034	199.984	1.00 71.19	H
HETATM16340	H83	NAG	C1004	138.747	176.600	201.245	1.00 71.19	H
HETATM16341	HN2	NAG	C1004	139.758	175.014	198.401	1.00 71.19	H
HETATM16342	HO3	NAG	C1004	139.492	175.359	194.939	1.00 71.19	H
HETATM16343	HO4	NAG	C1004	141.118	174.430	194.118	1.00 71.19	H
HETATM16344	HO6	NAG	C1004	143.821	174.435	193.659	1.00 71.19	H
HETATM16345	C1	NAG	C1005	146.687	163.429	198.629	1.00 83.29	C
HETATM16346	C2	NAG	C1005	146.688	163.514	200.171	1.00 83.29	C
HETATM16347	C3	NAG	C1005	146.005	162.285	200.790	1.00 83.29	C
HETATM16348	C4	NAG	C1005	144.651	162.024	200.147	1.00 83.29	C
HETATM16349	C5	NAG	C1005	144.824	161.911	198.644	1.00 83.29	C
HETATM16350	C6	NAG	C1005	143.529	161.666	197.907	1.00 83.29	C
HETATM16351	C7	NAG	C1005	148.353	163.859	201.950	1.00 83.29	C

HETATM16352	C8	NAG C1005	149.814	163.940	202.275	1.00 83.29 C
HETATM16353	N2	NAG C1005	148.049	163.637	200.666	1.00 83.29 N
HETATM16354	O3	NAG C1005	145.823	162.480	202.187	1.00 83.29 O
HETATM16355	O4	NAG C1005	144.088	160.821	200.655	1.00 83.29 O
HETATM16356	O5	NAG C1005	145.361	163.145	198.156	1.00 83.29 O
HETATM16357	O6	NAG C1005	143.760	161.058	196.643	1.00 83.29 O
HETATM16358	O7	NAG C1005	147.488	163.978	202.814	1.00 83.29 O
HETATM16359	H1	NAG C1005	147.292	162.714	198.352	1.00 83.29 H
HETATM16360	H2	NAG C1005	146.184	164.306	200.431	1.00 83.29 H
HETATM16361	H3	NAG C1005	146.572	161.504	200.648	1.00 83.29 H
HETATM16362	H4	NAG C1005	144.051	162.769	200.347	1.00 83.29 H
HETATM16363	H5	NAG C1005	145.448	161.187	198.447	1.00 83.29 H
HETATM16364	H61	NAG C1005	143.066	162.512	197.776	1.00 83.29 H
HETATM16365	H62	NAG C1005	142.964	161.074	198.435	1.00 83.29 H
HETATM16366	H81	NAG C1005	150.186	163.040	202.326	1.00 83.29 H
HETATM16367	H82	NAG C1005	149.931	164.389	203.132	1.00 83.29 H
HETATM16368	H83	NAG C1005	150.273	164.438	201.573	1.00 83.29 H
HETATM16369	HN2	NAG C1005	148.733	163.551	200.070	1.00 83.29 H
HETATM16370	HO3	NAG C1005	146.462	162.053	202.632	1.00 83.29 H
HETATM16371	HO4	NAG C1005	143.202	160.886	200.650	1.00 83.29 H
HETATM16372	HO6	NAG C1005	144.323	160.380	196.746	1.00 83.29 H
HETATM16373	C1	NAG C1006	131.922	184.028	203.778	1.00 57.60 C
HETATM16374	C2	NAG C1006	130.846	185.091	203.753	1.00 57.60 C
HETATM16375	C3	NAG C1006	130.671	185.603	202.335	1.00 57.60 C
HETATM16376	C4	NAG C1006	131.996	186.150	201.824	1.00 57.60 C
HETATM16377	C5	NAG C1006	133.114	185.115	201.975	1.00 57.60 C
HETATM16378	C6	NAG C1006	134.481	185.701	201.710	1.00 57.60 C
HETATM16379	C7	NAG C1006	129.377	184.425	205.597	1.00 57.60 C
HETATM16380	C8	NAG C1006	128.020	183.922	205.986	1.00 57.60 C
HETATM16381	N2	NAG C1006	129.587	184.598	204.288	1.00 57.60 N
HETATM16382	O3	NAG C1006	129.672	186.616	202.308	1.00 57.60 O
HETATM16383	O4	NAG C1006	131.876	186.510	200.453	1.00 57.60 O
HETATM16384	O5	NAG C1006	133.154	184.586	203.312	1.00 57.60 O
HETATM16385	O6	NAG C1006	135.433	184.700	201.380	1.00 57.60 O
HETATM16386	O7	NAG C1006	130.246	184.660	206.430	1.00 57.60 O
HETATM16387	H1	NAG C1006	131.660	183.290	203.195	1.00 57.60 H
HETATM16388	H2	NAG C1006	131.147	185.836	204.307	1.00 57.60 H

HETATM16389	H3	NAG C1006	130.388	184.865	201.764	1.00 57.60 H
HETATM16390	H4	NAG C1006	132.228	186.946	202.339	1.00 57.60 H
HETATM16391	H5	NAG C1006	132.958	184.383	201.349	1.00 57.60 H
HETATM16392	H61	NAG C1006	134.782	186.168	202.512	1.00 57.60 H
HETATM16393	H62	NAG C1006	134.421	186.341	200.976	1.00 57.60 H
HETATM16394	H81	NAG C1006	127.961	182.965	205.810	1.00 57.60 H
HETATM16395	H82	NAG C1006	127.338	184.393	205.470	1.00 57.60 H
HETATM16396	H83	NAG C1006	127.877	184.087	206.937	1.00 57.60 H
HETATM16397	HN2	NAG C1006	128.909	184.417	203.706	1.00 57.60 H
HETATM16398	HO3	NAG C1006	128.926	186.279	201.964	1.00 57.60 H
HETATM16399	HO4	NAG C1006	131.080	186.877	200.312	1.00 57.60 H
HETATM16400	HO6	NAG C1006	136.214	185.088	201.212	1.00 57.60 H
HETATM16401	C1	NAG C1007	158.048	171.895	166.433	1.00109.09 C
HETATM16402	C2	NAG C1007	157.540	170.439	166.554	1.00109.09 C
HETATM16403	C3	NAG C1007	156.414	170.127	165.556	1.00109.09 C
HETATM16404	C4	NAG C1007	155.401	171.259	165.438	1.00109.09 C
HETATM16405	C5	NAG C1007	156.094	172.605	165.315	1.00109.09 C
HETATM16406	C6	NAG C1007	155.130	173.771	165.319	1.00109.09 C
HETATM16407	C7	NAG C1007	158.546	168.188	166.513	1.00109.09 C
HETATM16408	C8	NAG C1007	159.799	167.400	166.262	1.00109.09 C
HETATM16409	N2	NAG C1007	158.647	169.514	166.366	1.00109.09 N
HETATM16410	O3	NAG C1007	155.760	168.982	166.094	1.00109.09 O
HETATM16411	O4	NAG C1007	154.580	171.068	164.290	1.00109.09 O
HETATM16412	O5	NAG C1007	156.960	172.782	166.438	1.00109.09 O
HETATM16413	O6	NAG C1007	155.725	174.940	165.866	1.00109.09 O
HETATM16414	O7	NAG C1007	157.490	167.647	166.831	1.00109.09 O
HETATM16415	H1	NAG C1007	158.550	171.999	165.603	1.00109.09 H
HETATM16416	H2	NAG C1007	157.152	170.311	167.440	1.00109.09 H
HETATM16417	H3	NAG C1007	156.800	169.925	164.685	1.00109.09 H
HETATM16418	H4	NAG C1007	154.841	171.269	166.235	1.00109.09 H
HETATM16419	H5	NAG C1007	156.620	172.622	164.493	1.00109.09 H
HETATM16420	H61	NAG C1007	154.345	173.534	165.851	1.00109.09 H
HETATM16421	H62	NAG C1007	154.842	173.954	164.406	1.00109.09 H
HETATM16422	H81	NAG C1007	160.005	167.415	165.309	1.00109.09 H
HETATM16423	H82	NAG C1007	159.667	166.477	166.552	1.00109.09 H
HETATM16424	H83	NAG C1007	160.539	167.799	166.757	1.00109.09 H
HETATM16425	HN2	NAG C1007	159.456	169.857	166.125	1.00109.09 H

HETATM16426	HO4	NAG	C1007	154.967	170.490	163.740	1.00109.09	H
HETATM16427	HO6	NAG	C1007	155.152	175.319	166.429	1.00109.09	H
HETATM16428	C1	NAG	C1008	154.756	168.309	165.298	1.00109.31	C
HETATM16429	C2	NAG	C1008	153.385	168.592	165.934	1.00109.31	C
HETATM16430	C3	NAG	C1008	152.286	167.914	165.124	1.00109.31	C
HETATM16431	C4	NAG	C1008	152.377	168.326	163.661	1.00109.31	C
HETATM16432	C5	NAG	C1008	153.778	168.045	163.128	1.00109.31	C
HETATM16433	C6	NAG	C1008	153.974	168.498	161.700	1.00109.31	C
HETATM16434	C7	NAG	C1008	153.633	168.938	168.359	1.00109.31	C
HETATM16435	C8	NAG	C1008	153.529	168.307	169.715	1.00109.31	C
HETATM16436	N2	NAG	C1008	153.344	168.147	167.319	1.00109.31	N
HETATM16437	O3	NAG	C1008	151.014	168.268	165.655	1.00109.31	O
HETATM16438	O4	NAG	C1008	151.422	167.601	162.894	1.00109.31	O
HETATM16439	O5	NAG	C1008	154.747	168.742	163.923	1.00109.31	O
HETATM16440	O6	NAG	C1008	154.056	167.392	160.812	1.00109.31	O
HETATM16441	O7	NAG	C1008	153.963	170.110	168.214	1.00109.31	O
HETATM16442	H1	NAG	C1008	154.920	167.350	165.327	1.00109.31	H
HETATM16443	H2	NAG	C1008	153.223	169.552	165.903	1.00109.31	H
HETATM16444	H3	NAG	C1008	152.396	166.947	165.187	1.00109.31	H
HETATM16445	H4	NAG	C1008	152.191	169.281	163.588	1.00109.31	H
HETATM16446	H5	NAG	C1008	153.951	167.087	163.183	1.00109.31	H
HETATM16447	H61	NAG	C1008	154.800	169.013	161.644	1.00109.31	H
HETATM16448	H62	NAG	C1008	153.223	169.063	161.441	1.00109.31	H
HETATM16449	H81	NAG	C1008	154.006	167.456	169.721	1.00109.31	H
HETATM16450	H82	NAG	C1008	152.589	168.157	169.932	1.00109.31	H
HETATM16451	H83	NAG	C1008	153.922	168.903	170.379	1.00109.31	H
HETATM16452	HN2	NAG	C1008	153.102	167.285	167.487	1.00109.31	H
HETATM16453	HO3	NAG	C1008	150.683	167.578	166.106	1.00109.31	H
HETATM16454	HO4	NAG	C1008	150.776	167.309	163.428	1.00109.31	H
HETATM16455	HO6	NAG	C1008	154.848	166.999	160.898	1.00109.31	H
HETATM16456	C1	NAG	C1009	162.719	180.064	155.647	1.00108.24	C
HETATM16457	C2	NAG	C1009	162.297	178.611	155.465	1.00108.24	C
HETATM16458	C3	NAG	C1009	161.958	178.349	154.005	1.00108.24	C
HETATM16459	C4	NAG	C1009	160.923	179.354	153.515	1.00108.24	C
HETATM16460	C5	NAG	C1009	161.383	180.779	153.809	1.00108.24	C
HETATM16461	C6	NAG	C1009	160.348	181.824	153.463	1.00108.24	C
HETATM16462	C7	NAG	C1009	163.418	177.239	157.167	1.00108.24	C

HETATM16463	C8	NAG C1009	164.574	176.332	157.464	1.00108.24 C
HETATM16464	N2	NAG C1009	163.345	177.709	155.917	1.00108.24 N
HETATM16465	O3	NAG C1009	161.468	177.022	153.858	1.00108.24 O
HETATM16466	O4	NAG C1009	160.721	179.210	152.113	1.00108.24 O
HETATM16467	O5	NAG C1009	161.671	180.925	155.208	1.00108.24 O
HETATM16468	O6	NAG C1009	160.465	182.977	154.287	1.00108.24 O
HETATM16469	O7	NAG C1009	162.589	177.536	158.023	1.00108.24 O
HETATM16470	H1	NAG C1009	163.528	180.224	155.125	1.00108.24 H
HETATM16471	H2	NAG C1009	161.489	178.455	155.990	1.00108.24 H
HETATM16472	H3	NAG C1009	162.768	178.451	153.472	1.00108.24 H
HETATM16473	H4	NAG C1009	160.082	179.188	153.980	1.00108.24 H
HETATM16474	H5	NAG C1009	162.195	180.961	153.300	1.00108.24 H
HETATM16475	H61	NAG C1009	159.459	181.439	153.571	1.00108.24 H
HETATM16476	H62	NAG C1009	160.467	182.084	152.532	1.00108.24 H
HETATM16477	H81	NAG C1009	165.392	176.859	157.528	1.00108.24 H
HETATM16478	H82	NAG C1009	164.671	175.674	156.750	1.00108.24 H
HETATM16479	H83	NAG C1009	164.418	175.874	158.312	1.00108.24 H
HETATM16480	HN2	NAG C1009	163.991	177.464	155.322	1.00108.24 H
HETATM16481	HO3	NAG C1009	161.432	176.813	152.995	1.00108.24 H
HETATM16482	HO4	NAG C1009	160.028	179.705	151.861	1.00108.24 H
HETATM16483	HO6	NAG C1009	161.100	182.848	154.894	1.00108.24 H
HETATM16484	C1	NAG C1010	161.638	214.754	210.383	1.00 52.70 C
HETATM16485	C2	NAG C1010	161.420	215.804	211.470	1.00 52.70 C
HETATM16486	C3	NAG C1010	159.993	216.345	211.390	1.00 52.70 C
HETATM16487	C4	NAG C1010	159.680	216.824	209.979	1.00 52.70 C
HETATM16488	C5	NAG C1010	160.021	215.748	208.952	1.00 52.70 C
HETATM16489	C6	NAG C1010	159.874	216.222	207.525	1.00 52.70 C
HETATM16490	C7	NAG C1010	161.750	215.998	213.897	1.00 52.70 C
HETATM16491	C8	NAG C1010	162.048	215.263	215.171	1.00 52.70 C
HETATM16492	N2	NAG C1010	161.693	215.253	212.787	1.00 52.70 N
HETATM16493	O3	NAG C1010	159.821	217.428	212.296	1.00 52.70 O
HETATM16494	O4	NAG C1010	158.295	217.135	209.878	1.00 52.70 O
HETATM16495	O5	NAG C1010	161.383	215.330	209.111	1.00 52.70 O
HETATM16496	O6	NAG C1010	159.851	215.130	206.616	1.00 52.70 O
HETATM16497	O7	NAG C1010	161.557	217.210	213.876	1.00 52.70 O
HETATM16498	H1	NAG C1010	161.028	214.007	210.523	1.00 52.70 H
HETATM16499	H2	NAG C1010	162.030	216.547	211.305	1.00 52.70 H

HETATM16500	H3	NAG C1010	159.369 215.634 211.624	1.00 52.70	H
HETATM16501	H4	NAG C1010	160.201 217.628 209.795	1.00 52.70	H
HETATM16502	H5	NAG C1010	159.434 214.982 209.097	1.00 52.70	H
HETATM16503	H61	NAG C1010	160.622 216.809 207.305	1.00 52.70	H
HETATM16504	H62	NAG C1010	159.044 216.727 207.443	1.00 52.70	H
HETATM16505	H81	NAG C1010	161.665 214.367 215.130	1.00 52.70	H
HETATM16506	H82	NAG C1010	161.659 215.749 215.921	1.00 52.70	H
HETATM16507	H83	NAG C1010	163.013 215.202 215.291	1.00 52.70	H
HETATM16508	HN2	NAG C1010	161.849 214.358 212.857	1.00 52.70	H
HETATM16509	HO3	NAG C1010	159.381 217.145 213.014	1.00 52.70	H
HETATM16510	HO4	NAG C1010	158.171 217.725 209.226	1.00 52.70	H
HETATM16511	HO6	NAG C1010	160.291 215.351 205.877	1.00 52.70	H
HETATM16512	C1	NAG C1011	155.214 208.367 209.717	1.00 52.66	C
HETATM16513	C2	NAG C1011	154.011 209.247 209.434	1.00 52.66	C
HETATM16514	C3	NAG C1011	153.166 208.605 208.346	1.00 52.66	C
HETATM16515	C4	NAG C1011	154.023 208.336 207.116	1.00 52.66	C
HETATM16516	C5	NAG C1011	155.292 207.569 207.492	1.00 52.66	C
HETATM16517	C6	NAG C1011	156.258 207.420 206.342	1.00 52.66	C
HETATM16518	C7	NAG C1011	153.408 210.511 211.451	1.00 52.66	C
HETATM16519	C8	NAG C1011	152.515 210.574 212.655	1.00 52.66	C
HETATM16520	N2	NAG C1011	153.226 209.463 210.638	1.00 52.66	N
HETATM16521	O3	NAG C1011	152.071 209.453 208.023	1.00 52.66	O
HETATM16522	O4	NAG C1011	153.286 207.575 206.166	1.00 52.66	O
HETATM16523	O5	NAG C1011	156.000 208.248 208.542	1.00 52.66	O
HETATM16524	O6	NAG C1011	157.268 206.464 206.634	1.00 52.66	O
HETATM16525	O7	NAG C1011	154.258 211.368 211.227	1.00 52.66	O
HETATM16526	H1	NAG C1011	154.910 207.482 209.993	1.00 52.66	H
HETATM16527	H2	NAG C1011	154.327 210.104 209.091	1.00 52.66	H
HETATM16528	H3	NAG C1011	152.824 207.754 208.675	1.00 52.66	H
HETATM16529	H4	NAG C1011	154.275 209.188 206.717	1.00 52.66	H
HETATM16530	H5	NAG C1011	155.043 206.680 207.807	1.00 52.66	H
HETATM16531	H61	NAG C1011	156.676 208.283 206.164	1.00 52.66	H
HETATM16532	H62	NAG C1011	155.766 207.131 205.550	1.00 52.66	H
HETATM16533	H81	NAG C1011	152.653 209.783 213.208	1.00 52.66	H
HETATM16534	H82	NAG C1011	151.581 210.617 212.379	1.00 52.66	H
HETATM16535	H83	NAG C1011	152.731 211.370 213.177	1.00 52.66	H
HETATM16536	HN2	NAG C1011	152.584 208.853 210.853	1.00 52.66	H

HETATM16537	HO3	NAG	C1011	151.353	209.172	208.465	1.00 52.66 H
HETATM16538	HO4	NAG	C1011	152.417	207.670	206.323	1.00 52.66 H
HETATM16539	HO6	NAG	C1011	157.181	206.190	207.474	1.00 52.66 H
HETATM16540	C1	NAG	C1012	146.038	187.587	185.159	1.00144.23 C
HETATM16541	C2	NAG	C1012	144.627	187.004	185.194	1.00144.23 C
HETATM16542	C3	NAG	C1012	143.603	188.101	184.918	1.00144.23 C
HETATM16543	C4	NAG	C1012	143.820	189.283	185.855	1.00144.23 C
HETATM16544	C5	NAG	C1012	145.278	189.740	185.826	1.00144.23 C
HETATM16545	C6	NAG	C1012	145.580	190.827	186.833	1.00144.23 C
HETATM16546	C7	NAG	C1012	143.503	185.027	184.258	1.00144.23 C
HETATM16547	C8	NAG	C1012	143.533	183.980	183.185	1.00144.23 C
HETATM16548	N2	NAG	C1012	144.493	185.924	184.228	1.00144.23 N
HETATM16549	O3	NAG	C1012	142.287	187.588	185.090	1.00144.23 O
HETATM16550	O4	NAG	C1012	142.987	190.368	185.462	1.00144.23 O
HETATM16551	O5	NAG	C1012	146.147	188.637	186.127	1.00144.23 O
HETATM16552	O6	NAG	C1012	145.366	190.381	188.165	1.00144.23 O
HETATM16553	O7	NAG	C1012	142.618	185.063	185.110	1.00144.23 O
HETATM16554	H1	NAG	C1012	146.221	187.943	184.268	1.00144.23 H
HETATM16555	H2	NAG	C1012	144.459	186.646	186.086	1.00144.23 H
HETATM16556	H3	NAG	C1012	143.708	188.407	183.998	1.00144.23 H
HETATM16557	H4	NAG	C1012	143.589	189.014	186.765	1.00144.23 H
HETATM16558	H5	NAG	C1012	145.487	190.073	184.932	1.00144.23 H
HETATM16559	H61	NAG	C1012	144.996	191.590	186.660	1.00144.23 H
HETATM16560	H62	NAG	C1012	146.509	191.111	186.733	1.00144.23 H
HETATM16561	H81	NAG	C1012	144.370	183.485	183.248	1.00144.23 H
HETATM16562	H82	NAG	C1012	143.472	184.403	182.309	1.00144.23 H
HETATM16563	H83	NAG	C1012	142.783	183.367	183.302	1.00144.23 H
HETATM16564	HN2	NAG	C1012	145.127	185.843	183.578	1.00144.23 H
HETATM16565	HO3	NAG	C1012	141.721	188.057	184.593	1.00144.23 H
HETATM16566	HO4	NAG	C1012	142.794	190.295	184.599	1.00144.23 H
HETATM16567	HO6	NAG	C1012	145.313	191.085	188.704	1.00144.23 H
HETATM16568	C1	NAG	C1013	164.596	199.980	156.850	1.00128.68 C
HETATM16569	C2	NAG	C1013	163.888	201.124	157.599	1.00128.68 C
HETATM16570	C3	NAG	C1013	163.445	202.217	156.624	1.00128.68 C
HETATM16571	C4	NAG	C1013	164.608	202.672	155.754	1.00128.68 C
HETATM16572	C5	NAG	C1013	165.227	201.472	155.052	1.00128.68 C
HETATM16573	C6	NAG	C1013	166.465	201.822	154.258	1.00128.68 C

HETATM16574	C7	NAG C1013	162.841	200.082	159.569	1.00128.68 C
HETATM16575	C8	NAG C1013	161.554	199.621	160.184	1.00128.68 C
HETATM16576	N2	NAG C1013	162.745	200.624	158.349	1.00128.68 N
HETATM16577	O3	NAG C1013	162.942	203.322	157.364	1.00128.68 O
HETATM16578	O4	NAG C1013	164.155	203.604	154.780	1.00128.68 O
HETATM16579	O5	NAG C1013	165.640	200.512	156.031	1.00128.68 O
HETATM16580	O6	NAG C1013	166.243	202.924	153.389	1.00128.68 O
HETATM16581	O7	NAG C1013	163.917	199.962	160.146	1.00128.68 O
HETATM16582	H1	NAG C1013	163.947	199.519	156.287	1.00128.68 H
HETATM16583	H2	NAG C1013	164.524	201.519	158.225	1.00128.68 H
HETATM16584	H3	NAG C1013	162.736	201.870	156.050	1.00128.68 H
HETATM16585	H4	NAG C1013	165.283	203.094	156.318	1.00128.68 H
HETATM16586	H5	NAG C1013	164.567	201.071	154.455	1.00128.68 H
HETATM16587	H61	NAG C1013	166.731	201.046	153.729	1.00128.68 H
HETATM16588	H62	NAG C1013	167.184	202.046	154.880	1.00128.68 H
HETATM16589	H81	NAG C1013	161.167	198.912	159.637	1.00128.68 H
HETATM16590	H82	NAG C1013	160.931	200.371	160.234	1.00128.68 H
HETATM16591	H83	NAG C1013	161.730	199.278	161.081	1.00128.68 H
HETATM16592	HN2	NAG C1013	161.919	200.687	157.970	1.00128.68 H
HETATM16593	HO3	NAG C1013	163.619	203.744	157.755	1.00128.68 H
HETATM16594	HO4	NAG C1013	163.683	203.178	154.160	1.00128.68 H
HETATM16595	HO6	NAG C1013	167.005	203.127	152.981	1.00128.68 H
HETATM16596	C1	NAG C1014	192.376	171.175	155.498	1.00153.06 C
HETATM16597	C2	NAG C1014	191.413	170.009	155.316	1.00153.06 C
HETATM16598	C3	NAG C1014	190.962	169.939	153.865	1.00153.06 C
HETATM16599	C4	NAG C1014	190.383	171.280	153.433	1.00153.06 C
HETATM16600	C5	NAG C1014	191.358	172.419	153.752	1.00153.06 C
HETATM16601	C6	NAG C1014	190.782	173.786	153.475	1.00153.06 C
HETATM16602	C7	NAG C1014	191.769	168.151	156.897	1.00153.06 C
HETATM16603	C8	NAG C1014	192.492	166.863	157.147	1.00153.06 C
HETATM16604	N2	NAG C1014	192.018	168.747	155.726	1.00153.06 N
HETATM16605	O3	NAG C1014	189.986	168.914	153.713	1.00153.06 O
HETATM16606	O4	NAG C1014	190.120	171.272	152.034	1.00153.06 O
HETATM16607	O5	NAG C1014	191.724	172.398	155.142	1.00153.06 O
HETATM16608	O6	NAG C1014	190.845	174.624	154.622	1.00153.06 O
HETATM16609	O7	NAG C1014	190.989	168.635	157.716	1.00153.06 O
HETATM16610	H1	NAG C1014	193.163	171.034	154.933	1.00153.06 H

HETATM16611	H2	NAG C1014	190.620	170.173	155.855	1.00153.06	H
HETATM16612	H3	NAG C1014	191.731	169.728	153.307	1.00153.06	H
HETATM16613	H4	NAG C1014	189.546	171.438	153.913	1.00153.06	H
HETATM16614	H5	NAG C1014	192.161	172.299	153.209	1.00153.06	H
HETATM16615	H61	NAG C1014	189.850	173.685	153.198	1.00153.06	H
HETATM16616	H62	NAG C1014	191.283	174.201	152.744	1.00153.06	H
HETATM16617	H81	NAG C1014	193.450	167.006	157.032	1.00153.06	H
HETATM16618	H82	NAG C1014	192.183	166.174	156.524	1.00153.06	H
HETATM16619	H83	NAG C1014	192.328	166.573	158.064	1.00153.06	H
HETATM16620	HN2	NAG C1014	192.613	168.353	155.159	1.00153.06	H
HETATM16621	HO3	NAG C1014	190.295	168.147	154.035	1.00153.06	H
HETATM16622	HO4	NAG C1014	189.294	170.975	151.892	1.00153.06	H
HETATM16623	HO6	NAG C1014	190.553	175.432	154.397	1.00153.06	H
HETATM16624	C1	NAG C1015	142.971	183.881	192.814	1.00 83.81	C
HETATM16625	C2	NAG C1015	141.818	182.933	193.235	1.00 83.81	C
HETATM16626	C3	NAG C1015	140.588	183.122	192.329	1.00 83.81	C
HETATM16627	C4	NAG C1015	140.216	184.591	192.181	1.00 83.81	C
HETATM16628	C5	NAG C1015	141.421	185.376	191.696	1.00 83.81	C
HETATM16629	C6	NAG C1015	141.156	186.860	191.573	1.00 83.81	C
HETATM16630	C7	NAG C1015	141.504	180.495	193.465	1.00 83.81	C
HETATM16631	C8	NAG C1015	142.158	179.155	193.332	1.00 83.81	C
HETATM16632	N2	NAG C1015	142.275	181.553	193.186	1.00 83.81	N
HETATM16633	O3	NAG C1015	139.472	182.423	192.868	1.00 83.81	O
HETATM16634	O4	NAG C1015	139.154	184.734	191.246	1.00 83.81	O
HETATM16635	O5	NAG C1015	142.472	185.221	192.653	1.00 83.81	O
HETATM16636	O6	NAG C1015	142.347	187.613	191.758	1.00 83.81	O
HETATM16637	O7	NAG C1015	140.331	180.613	193.805	1.00 83.81	O
HETATM16638	H1	NAG C1015	143.351	183.572	191.969	1.00 83.81	H
HETATM16639	H2	NAG C1015	141.557	183.151	194.149	1.00 83.81	H
HETATM16640	H3	NAG C1015	140.788	182.760	191.445	1.00 83.81	H
HETATM16641	H4	NAG C1015	139.927	184.935	193.048	1.00 83.81	H
HETATM16642	H5	NAG C1015	141.713	185.025	190.834	1.00 83.81	H
HETATM16643	H61	NAG C1015	140.508	187.131	192.249	1.00 83.81	H
HETATM16644	H62	NAG C1015	140.796	187.053	190.691	1.00 83.81	H
HETATM16645	H81	NAG C1015	142.743	179.160	192.552	1.00 83.81	H
HETATM16646	H82	NAG C1015	141.472	178.474	193.208	1.00 83.81	H
HETATM16647	H83	NAG C1015	142.679	178.958	194.132	1.00 83.81	H

HETATM16648	HN2	NAG C1015	143.136	181.400	192.928	1.00 83.81 H
HETATM16649	HO3	NAG C1015	139.327	181.684	192.397	1.00 83.81 H
HETATM16650	HO4	NAG C1015	139.449	185.135	190.510	1.00 83.81 H
HETATM16651	HO6	NAG C1015	142.230	188.213	192.401	1.00 83.81 H
HETATM16652	C1	PFE C1101	210.842	181.767	255.910	1.00 72.49 C
HETATM16653	C13	PFE C1101	209.089	186.294	257.567	1.00 72.49 C
HETATM16654	C18	PFE C1101	207.552	180.115	255.899	1.00 72.49 C
HETATM16655	C2	PFE C1101	209.573	181.384	256.662	1.00 72.49 C
HETATM16656	C21	PFE C1101	205.644	179.232	254.441	1.00 72.49 C
HETATM16657	C22	PFE C1101	204.950	179.589	253.292	1.00 72.49 C
HETATM16658	C23	PFE C1101	203.824	178.884	252.909	1.00 72.49 C
HETATM16659	C24	PFE C1101	203.372	177.814	253.670	1.00 72.49 C
HETATM16660	C25	PFE C1101	204.066	177.458	254.817	1.00 72.49 C
HETATM16661	C26	PFE C1101	205.192	178.159	255.198	1.00 72.49 C
HETATM16662	C28	PFE C1101	201.417	177.102	252.288	1.00 72.49 C
HETATM16663	C3	PFE C1101	209.071	182.513	257.544	1.00 72.49 C
HETATM16664	C30	PFE C1101	200.245	176.202	252.390	1.00 72.49 C
HETATM16665	C31	PFE C1101	199.255	176.144	251.463	1.00 72.49 C
HETATM16666	C33	PFE C1101	199.007	174.683	253.325	1.00 72.49 C
HETATM16667	C4	PFE C1101	209.322	183.835	257.201	1.00 72.49 C
HETATM16668	C5	PFE C1101	208.831	184.880	257.974	1.00 72.49 C
HETATM16669	C6	PFE C1101	208.078	184.611	259.111	1.00 72.49 C
HETATM16670	C7	PFE C1101	207.826	183.292	259.465	1.00 72.49 C
HETATM16671	C8	PFE C1101	208.327	182.255	258.688	1.00 72.49 C
HETATM16672	C9	PFE C1101	206.992	182.988	260.666	1.00 72.49 C
HETATM16673	F10	PFE C1101	206.816	184.046	261.449	1.00 72.49 F
HETATM16674	F11	PFE C1101	205.774	182.562	260.347	1.00 72.49 F
HETATM16675	F12	PFE C1101	207.523	182.043	261.435	1.00 72.49 F
HETATM16676	F14	PFE C1101	209.578	187.031	258.558	1.00 72.49 F
HETATM16677	F15	PFE C1101	209.962	186.388	256.570	1.00 72.49 F
HETATM16678	F16	PFE C1101	207.990	186.915	257.151	1.00 72.49 F
HETATM16679	N17	PFE C1101	208.554	180.979	255.689	1.00 72.49 N
HETATM16680	N20	PFE C1101	206.797	179.985	254.781	1.00 72.49 N
HETATM16681	N27	PFE C1101	202.221	177.047	253.372	1.00 72.49 N
HETATM16682	N34	PFE C1101	200.103	175.356	253.475	1.00 72.49 N
HETATM16683	O29	PFE C1101	201.599	177.813	251.304	1.00 72.49 O
HETATM16684	S19	PFE C1101	207.318	179.330	257.369	1.00 72.49 S

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HETATM16685  S32 PFE C1101      198.085 174.999 251.922  1.00 72.49           S
HETATM16686  HC2 PFE C1101      209.842 180.539 257.292  1.00 72.49           H
HETATM16687  HC4 PFE C1101      209.912 184.061 256.314  1.00 72.49           H
HETATM16688  HC6 PFE C1101      207.679 185.423 259.716  1.00 72.49           H
HETATM16689  HC8 PFE C1101      208.137 181.222 258.975  1.00 72.49           H
HETATM16690 HC1A PFE C1101      211.585 182.186 256.587  1.00 72.49           H
HETATM16691 HC1B PFE C1101      211.298 180.890 255.453  1.00 72.49           H
HETATM16692 HC1C PFE C1101      210.679 182.482 255.107  1.00 72.49           H
HETATM16693 HC22 PFE C1101      205.285 180.424 252.680  1.00 72.49           H
HETATM16694 HC23 PFE C1101      203.322 179.203 251.996  1.00 72.49           H
HETATM16695 HC25 PFE C1101      203.732 176.628 255.438  1.00 72.49           H
HETATM16696 HC26 PFE C1101      205.717 177.867 256.106  1.00 72.49           H
HETATM16697 HC31 PFE C1101      199.175 176.732 250.551  1.00 72.49           H
HETATM16698 HC33 PFE C1101      198.683 173.951 254.063  1.00 72.49           H
HETATM16699 HN17 PFE C1101      208.669 181.429 254.787  1.00 72.49           H
HETATM16700 HN20 PFE C1101      207.065 180.531 253.969  1.00 72.49           H
HETATM16701 HN27 PFE C1101      201.993 176.369 254.091  1.00 72.49           H
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表 1B

CRYST1 312.480 312.480 312.480 90.00 90.00 90.00 P 1

ATOM	1	N	THR	A	86	144.592	126.343	163.957	1.00 68.89	N
ATOM	2	CA	THR	A	86	145.954	126.837	164.110	1.00 68.89	C
ATOM	3	C	THR	A	86	146.945	125.945	163.375	1.00 68.89	C
ATOM	4	O	THR	A	86	147.584	125.084	163.980	1.00 68.89	O
ATOM	5	CB	THR	A	86	146.365	126.923	165.589	1.00 68.89	C
ATOM	6	OG1	THR	A	86	146.346	125.613	166.168	1.00 68.89	O
ATOM	7	CG2	THR	A	86	145.410	127.821	166.354	1.00 68.89	C
ATOM	8	N	THR	A	87	147.069	126.154	162.066	1.00 71.95	N
ATOM	9	CA	THR	A	87	148.010	125.404	161.246	1.00 71.95	C
ATOM	10	C	THR	A	87	149.213	126.220	160.807	1.00 71.95	C
ATOM	11	O	THR	A	87	150.299	125.661	160.656	1.00 71.95	O
ATOM	12	CB	THR	A	87	147.313	124.847	160.000	1.00 71.95	C
ATOM	13	OG1	THR	A	87	146.238	123.987	160.397	1.00 71.95	O
ATOM	14	CG2	THR	A	87	148.297	124.058	159.154	1.00 71.95	C
ATOM	15	N	LYS	A	88	149.044	127.524	160.597	1.00 66.47	N
ATOM	16	CA	LYS	A	88	150.156	128.415	160.312	1.00 66.47	C
ATOM	17	C	LYS	A	88	150.352	129.466	161.392	1.00 66.47	C
ATOM	18	O	LYS	A	88	151.310	130.243	161.314	1.00 66.47	O
ATOM	19	CB	LYS	A	88	149.963	129.100	158.955	1.00 66.47	C
ATOM	20	CG	LYS	A	88	148.560	129.616	158.711	1.00 66.47	C
ATOM	21	CD	LYS	A	88	148.444	130.246	157.334	1.00 66.47	C
ATOM	22	CE	LYS	A	88	149.471	131.350	157.149	1.00 66.47	C
ATOM	23	NZ	LYS	A	88	149.309	132.046	155.845	1.00 66.47	N
ATOM	24	N	TYR	A	89	149.475	129.514	162.395	1.00 60.35	N
ATOM	25	CA	TYR	A	89	149.607	130.407	163.543	1.00 60.35	C
ATOM	26	C	TYR	A	89	149.682	129.558	164.806	1.00 60.35	C
ATOM	27	O	TYR	A	89	148.719	129.490	165.582	1.00 60.35	O
ATOM	28	CB	TYR	A	89	148.446	131.393	163.626	1.00 60.35	C
ATOM	29	CG	TYR	A	89	148.308	132.291	162.422	1.00 60.35	C
ATOM	30	CD1	TYR	A	89	149.293	133.213	162.104	1.00 60.35	C
ATOM	31	CD2	TYR	A	89	147.188	132.223	161.610	1.00 60.35	C
ATOM	32	CE1	TYR	A	89	149.168	134.038	161.007	1.00 60.35	C
ATOM	33	CE2	TYR	A	89	147.054	133.043	160.511	1.00 60.35	C
ATOM	34	CZ	TYR	A	89	148.046	133.949	160.214	1.00 60.35	C

ATOM	35	OH	TYR	A	89	147.914	134.768	159.119	1.00 60.35	O
ATOM	36	N	PRO	A	90	150.811	128.894	165.041	1.00 51.95	N
ATOM	37	CA	PRO	A	90	150.945	128.050	166.230	1.00 51.95	C
ATOM	38	C	PRO	A	90	151.468	128.830	167.424	1.00 51.95	C
ATOM	39	O	PRO	A	90	152.338	129.694	167.306	1.00 51.95	O
ATOM	40	CB	PRO	A	90	151.960	126.996	165.772	1.00 51.95	C
ATOM	41	CG	PRO	A	90	152.836	127.740	164.825	1.00 51.95	C
ATOM	42	CD	PRO	A	90	151.994	128.809	164.170	1.00 51.95	C
ATOM	43	N	TYR	A	91	150.914	128.517	168.593	1.00 47.85	N
ATOM	44	CA	TYR	A	91	151.333	129.170	169.825	1.00 47.85	C
ATOM	45	C	TYR	A	91	152.849	129.176	169.935	1.00 47.85	C
ATOM	46	O	TYR	A	91	153.490	128.123	169.921	1.00 47.85	O
ATOM	47	CB	TYR	A	91	150.721	128.459	171.031	1.00 47.85	C
ATOM	48	CG	TYR	A	91	149.212	128.437	171.030	1.00 47.85	C
ATOM	49	CD1	TYR	A	91	148.484	129.493	171.552	1.00 47.85	C
ATOM	50	CD2	TYR	A	91	148.516	127.358	170.512	1.00 47.85	C
ATOM	51	CE1	TYR	A	91	147.107	129.477	171.554	1.00 47.85	C
ATOM	52	CE2	TYR	A	91	147.138	127.334	170.511	1.00 47.85	C
ATOM	53	CZ	TYR	A	91	146.439	128.397	171.033	1.00 47.85	C
ATOM	54	OH	TYR	A	91	145.065	128.379	171.035	1.00 47.85	O
ATOM	55	N	ARG	A	92	153.421	130.370	170.047	1.00 47.17	N
ATOM	56	CA	ARG	A	92	154.865	130.529	170.079	1.00 47.17	C
ATOM	57	C	ARG	A	92	155.219	131.613	171.082	1.00 47.17	C
ATOM	58	O	ARG	A	92	154.397	132.467	171.414	1.00 47.17	O
ATOM	59	CB	ARG	A	92	155.408	130.878	168.693	1.00 47.17	C
ATOM	60	CG	ARG	A	92	154.794	132.128	168.104	1.00 47.17	C
ATOM	61	CD	ARG	A	92	154.761	132.066	166.592	1.00 47.17	C
ATOM	62	NE	ARG	A	92	154.490	133.373	166.006	1.00 47.17	N
ATOM	63	CZ	ARG	A	92	153.274	133.830	165.737	1.00 47.17	C
ATOM	64	NH1	ARG	A	92	152.213	133.085	166.000	1.00 47.17	N
ATOM	65	NH2	ARG	A	92	153.119	135.033	165.205	1.00 47.17	N
ATOM	66	N	VAL	A	93	156.461	131.575	171.557	1.00 44.30	N
ATOM	67	CA	VAL	A	93	156.954	132.509	172.570	1.00 44.30	C
ATOM	68	C	VAL	A	93	158.297	133.035	172.077	1.00 44.30	C
ATOM	69	O	VAL	A	93	159.344	132.429	172.322	1.00 44.30	O
ATOM	70	CB	VAL	A	93	157.101	131.857	173.945	1.00 44.30	C
ATOM	71	CG1	VAL	A	93	157.936	132.736	174.849	1.00 44.30	C

ATOM	72	CG2	VAL	A	93	155.746	131.599	174.552	1.00 44.30	C
ATOM	73	N	CYS	A	94	158.284	134.182	171.403	1.00 50.21	N
ATOM	74	CA	CYS	A	94	159.519	134.771	170.892	1.00 50.21	C
ATOM	75	C	CYS	A	94	159.619	136.242	171.275	1.00 50.21	C
ATOM	76	O	CYS	A	94	159.094	137.119	170.584	1.00 50.21	O
ATOM	77	CB	CYS	A	94	159.641	134.575	169.389	1.00 50.21	C
ATOM	78	SG	CYS	A	94	158.347	135.241	168.349	1.00 50.21	S
ATOM	79	N	SER	A	95	160.308	136.488	172.386	1.00 49.61	N
ATOM	80	CA	SER	A	95	160.818	137.804	172.747	1.00 49.61	C
ATOM	81	C	SER	A	95	162.274	137.778	173.175	1.00 49.61	C
ATOM	82	O	SER	A	95	162.874	138.848	173.313	1.00 49.61	O
ATOM	83	CB	SER	A	95	159.980	138.418	173.873	1.00 49.61	C
ATOM	84	OG	SER	A	95	160.018	137.606	175.032	1.00 49.61	O
ATOM	85	N	MET	A	96	162.867	136.605	173.380	1.00 50.74	N
ATOM	86	CA	MET	A	96	164.252	136.474	173.804	1.00 50.74	C
ATOM	87	C	MET	A	96	165.150	136.312	172.586	1.00 50.74	C
ATOM	88	O	MET	A	96	164.892	135.463	171.730	1.00 50.74	O
ATOM	89	CB	MET	A	96	164.404	135.270	174.732	1.00 50.74	C
ATOM	90	CG	MET	A	96	163.610	134.059	174.275	1.00 50.74	C
ATOM	91	SD	MET	A	96	163.505	132.749	175.505	1.00 50.74	S
ATOM	92	CE	MET	A	96	162.967	133.683	176.928	1.00 50.74	C
ATOM	93	N	ALA	A	97	166.207	137.124	172.511	1.00 45.76	N
ATOM	94	CA	ALA	A	97	167.110	137.068	171.363	1.00 45.76	C
ATOM	95	C	ALA	A	97	168.489	137.550	171.808	1.00 45.76	C
ATOM	96	O	ALA	A	97	168.718	138.756	171.913	1.00 45.76	O
ATOM	97	CB	ALA	A	97	166.578	137.897	170.209	1.00 45.76	C
ATOM	98	N	GLN	A	98	169.391	136.603	172.050	1.00 46.20	N
ATOM	99	CA	GLN	A	98	170.795	136.908	172.287	1.00 46.20	C
ATOM	100	C	GLN	A	98	171.471	137.155	170.947	1.00 46.20	C
ATOM	101	O	GLN	A	98	170.791	137.357	169.938	1.00 46.20	O
ATOM	102	CB	GLN	A	98	171.486	135.778	173.047	1.00 46.20	C
ATOM	103	CG	GLN	A	98	170.589	135.054	174.022	1.00 46.20	C
ATOM	104	CD	GLN	A	98	170.227	135.906	175.214	1.00 46.20	C
ATOM	105	OE1	GLN	A	98	171.063	136.629	175.750	1.00 46.20	O
ATOM	106	NE2	GLN	A	98	168.975	135.825	175.639	1.00 46.20	N
ATOM	107	N	GLY	A	99	172.798	137.140	170.916	1.00 43.92	N
ATOM	108	CA	GLY	A	99	173.497	137.452	169.686	1.00 43.92	C

ATOM	109	C	GLY	A	99	173.456	136.307	168.695	1.00 43.92	C
ATOM	110	O	GLY	A	99	172.398	135.711	168.478	1.00 43.92	O
ATOM	111	N	THR	A	100	174.592	135.990	168.084	1.00 43.38	N
ATOM	112	CA	THR	A	100	174.767	135.023	167.008	1.00 43.38	C
ATOM	113	C	THR	A	100	174.416	135.612	165.644	1.00 43.38	C
ATOM	114	O	THR	A	100	174.591	134.927	164.637	1.00 43.38	O
ATOM	115	CB	THR	A	100	173.951	133.731	167.209	1.00 43.38	C
ATOM	116	OG1	THR	A	100	172.556	134.027	167.108	1.00 43.38	O
ATOM	117	CG2	THR	A	100	174.229	133.134	168.569	1.00 43.38	C
ATOM	118	N	ASP	A	101	173.915	136.845	165.570	1.00 43.41	N
ATOM	119	CA	ASP	A	101	173.867	137.588	164.317	1.00 43.41	C
ATOM	120	C	ASP	A	101	173.347	138.999	164.558	1.00 43.41	C
ATOM	121	O	ASP	A	101	172.503	139.210	165.432	1.00 43.41	O
ATOM	122	CB	ASP	A	101	173.014	136.854	163.286	1.00 43.41	C
ATOM	123	CG	ASP	A	101	171.676	136.459	163.829	1.00 43.41	C
ATOM	124	OD1	ASP	A	101	171.361	136.869	164.962	1.00 43.41	O
ATOM	125	OD2	ASP	A	101	170.942	135.729	163.133	1.00 43.41	O
ATOM	126	N	LEU	A	102	173.829	139.965	163.783	1.00 42.15	N
ATOM	127	CA	LEU	A	102	173.527	141.370	164.000	1.00 42.15	C
ATOM	128	C	LEU	A	102	173.236	142.036	162.662	1.00 42.15	C
ATOM	129	O	LEU	A	102	173.597	141.517	161.606	1.00 42.15	O
ATOM	130	CB	LEU	A	102	174.693	142.070	164.706	1.00 42.15	C
ATOM	131	CG	LEU	A	102	175.380	141.239	165.793	1.00 42.15	C
ATOM	132	CD1	LEU	A	102	176.698	141.858	166.203	1.00 42.15	C
ATOM	133	CD2	LEU	A	102	174.482	141.083	166.997	1.00 42.15	C
ATOM	134	N	ILE	A	103	172.572	143.193	162.705	1.00 44.75	N
ATOM	135	CA	ILE	A	103	172.253	143.936	161.489	1.00 44.75	C
ATOM	136	C	ILE	A	103	172.159	145.422	161.806	1.00 44.75	C
ATOM	137	O	ILE	A	103	171.679	145.819	162.869	1.00 44.75	O
ATOM	138	CB	ILE	A	103	170.946	143.436	160.835	1.00 44.75	C
ATOM	139	CG1	ILE	A	103	169.746	143.795	161.702	1.00 44.75	C
ATOM	140	CG2	ILE	A	103	170.991	141.944	160.598	1.00 44.75	C
ATOM	141	CD1	ILE	A	103	168.429	143.375	161.102	1.00 44.75	C
ATOM	142	N	ARG	A	104	172.626	146.244	160.865	1.00 52.23	N
ATOM	143	CA	ARG	A	104	172.613	147.701	160.908	1.00 52.23	C
ATOM	144	C	ARG	A	104	171.518	148.253	159.995	1.00 52.23	C
ATOM	145	O	ARG	A	104	170.669	147.512	159.493	1.00 52.23	O

ATOM	146	CB	ARG A 104	173.980	148.248	160.511	1.00 52.23	C
ATOM	147	CG	ARG A 104	175.062	148.035	161.529	1.00 52.23	C
ATOM	148	CD	ARG A 104	176.286	148.814	161.118	1.00 52.23	C
ATOM	149	NE	ARG A 104	176.654	148.525	159.738	1.00 52.23	N
ATOM	150	CZ	ARG A 104	177.258	149.388	158.933	1.00 52.23	C
ATOM	151	NH1	ARG A 104	177.558	150.603	159.367	1.00 52.23	N
ATOM	152	NH2	ARG A 104	177.558	149.040	157.692	1.00 52.23	N
ATOM	153	N	PHE A 105	171.538	149.577	159.780	1.00 59.53	N
ATOM	154	CA	PHE A 105	170.580	150.231	158.892	1.00 59.53	C
ATOM	155	C	PHE A 105	171.223	151.177	157.879	1.00 59.53	C
ATOM	156	O	PHE A 105	170.540	152.070	157.372	1.00 59.53	O
ATOM	157	CB	PHE A 105	169.521	150.998	159.687	1.00 59.53	C
ATOM	158	CG	PHE A 105	168.442	150.132	160.262	1.00 59.53	C
ATOM	159	CD1	PHE A 105	167.375	149.727	159.476	1.00 59.53	C
ATOM	160	CD2	PHE A 105	168.480	149.738	161.585	1.00 59.53	C
ATOM	161	CE1	PHE A 105	166.377	148.939	159.997	1.00 59.53	C
ATOM	162	CE2	PHE A 105	167.483	148.949	162.113	1.00 59.53	C
ATOM	163	CZ	PHE A 105	166.429	148.548	161.317	1.00 59.53	C
ATOM	164	N	GLU A 106	172.509	151.016	157.567	1.00 71.98	N
ATOM	165	CA	GLU A 106	173.090	151.578	156.343	1.00 71.98	C
ATOM	166	C	GLU A 106	172.840	153.088	156.235	1.00 71.98	C
ATOM	167	O	GLU A 106	172.029	153.562	155.439	1.00 71.98	O
ATOM	168	CB	GLU A 106	172.569	150.848	155.102	1.00 71.98	C
ATOM	169	CG	GLU A 106	173.118	151.403	153.797	1.00 71.98	C
ATOM	170	CD	GLU A 106	174.616	151.663	153.840	1.00 71.98	C
ATOM	171	OE1	GLU A 106	175.284	151.211	154.792	1.00 71.98	O
ATOM	172	OE2	GLU A 106	175.129	152.327	152.916	1.00 71.98	O
ATOM	173	N	ARG A 107	173.556	153.827	157.079	1.00 79.28	N
ATOM	174	CA	ARG A 107	173.368	155.262	157.274	1.00 79.28	C
ATOM	175	C	ARG A 107	172.960	156.055	156.033	1.00 79.28	C
ATOM	176	O	ARG A 107	171.950	156.764	156.068	1.00 79.28	O
ATOM	177	CB	ARG A 107	174.656	155.867	157.835	1.00 79.28	C
ATOM	178	CG	ARG A 107	174.581	157.359	158.090	1.00 79.28	C
ATOM	179	CD	ARG A 107	175.942	157.921	158.467	1.00 79.28	C
ATOM	180	NE	ARG A 107	176.446	157.359	159.716	1.00 79.28	N
ATOM	181	CZ	ARG A 107	177.245	156.299	159.790	1.00 79.28	C
ATOM	182	NH1	ARG A 107	177.656	155.856	160.971	1.00 79.28	N

ATOM	183	NH2	ARG	A	107	177.633	155.681	158.684	1.00 79.28	N
ATOM	184	N	ASN	A	108	173.716	155.966	154.938	1.00 84.00	N
ATOM	185	CA	ASN	A	108	173.516	156.877	153.816	1.00 84.00	C
ATOM	186	C	ASN	A	108	173.460	156.113	152.499	1.00 84.00	C
ATOM	187	O	ASN	A	108	173.856	154.949	152.408	1.00 84.00	O
ATOM	188	CB	ASN	A	108	174.620	157.941	153.756	1.00 84.00	C
ATOM	189	CG	ASN	A	108	175.906	157.413	153.151	1.00 84.00	C
ATOM	190	OD1	ASN	A	108	176.010	157.242	151.937	1.00 84.00	O
ATOM	191	ND2	ASN	A	108	176.896	157.155	153.997	1.00 84.00	N
ATOM	192	N	ILE	A	109	172.974	156.800	151.467	1.00 86.09	N
ATOM	193	CA	ILE	A	109	172.846	156.234	150.127	1.00 86.09	C
ATOM	194	C	ILE	A	109	172.836	157.378	149.122	1.00 86.09	C
ATOM	195	O	ILE	A	109	172.325	158.465	149.404	1.00 86.09	O
ATOM	196	CB	ILE	A	109	171.571	155.368	149.999	1.00 86.09	C
ATOM	197	CG1	ILE	A	109	171.715	154.065	150.783	1.00 86.09	C
ATOM	198	CG2	ILE	A	109	171.266	155.082	148.538	1.00 86.09	C
ATOM	199	CD1	ILE	A	109	170.428	153.286	150.886	1.00 86.09	C
ATOM	200	N	VAL	A	110	173.405	157.126	147.943	1.00 93.76	N
ATOM	201	CA	VAL	A	110	173.355	158.047	146.811	1.00 93.76	C
ATOM	202	C	VAL	A	110	172.947	157.254	145.577	1.00 93.76	C
ATOM	203	O	VAL	A	110	173.571	156.236	145.258	1.00 93.76	O
ATOM	204	CB	VAL	A	110	174.705	158.754	146.589	1.00 93.76	C
ATOM	205	CG1	VAL	A	110	175.056	159.614	147.791	1.00 93.76	C
ATOM	206	CG2	VAL	A	110	175.800	157.734	146.321	1.00 93.76	C
ATOM	207	N	CYS	A	111	171.904	157.717	144.881	1.00 98.50	N
ATOM	208	CA	CYS	A	111	171.318	156.893	143.823	1.00 98.50	C
ATOM	209	C	CYS	A	111	172.111	156.989	142.522	1.00 98.50	C
ATOM	210	O	CYS	A	111	172.787	156.036	142.122	1.00 98.50	O
ATOM	211	CB	CYS	A	111	169.861	157.309	143.586	1.00 98.50	C
ATOM	212	SG	CYS	A	111	168.630	156.563	144.683	1.00 98.50	S
ATOM	213	N	THR	A	112	172.046	158.141	141.853	1.00105.15	N
ATOM	214	CA	THR	A	112	172.784	158.345	140.611	1.00105.15	C
ATOM	215	C	THR	A	112	172.446	159.698	139.997	1.00105.15	C
ATOM	216	O	THR	A	112	171.589	160.421	140.514	1.00105.15	O
ATOM	217	CB	THR	A	112	172.495	157.223	139.614	1.00105.15	C
ATOM	218	OG1	THR	A	112	173.423	157.301	138.527	1.00105.15	O
ATOM	219	CG2	THR	A	112	171.084	157.348	139.077	1.00105.15	C

ATOM	220	N	SER A 113	173.115	160.051	138.897	1.00107.97 N
ATOM	221	CA	SER A 113	172.719	161.189	138.058	1.00107.97 C
ATOM	222	C	SER A 113	172.801	160.725	136.604	1.00107.97 C
ATOM	223	O	SER A 113	173.823	160.912	135.939	1.00107.97 O
ATOM	224	CB	SER A 113	173.599	162.405	138.316	1.00107.97 C
ATOM	225	OG	SER A 113	173.577	163.293	137.212	1.00107.97 O
ATOM	226	N	MET A 114	171.721	160.118	136.117	1.00105.04 N
ATOM	227	CA	MET A 114	171.720	159.497	134.791	1.00105.04 C
ATOM	228	C	MET A 114	171.152	160.412	133.708	1.00105.04 C
ATOM	229	O	MET A 114	170.287	160.001	132.937	1.00105.04 O
ATOM	230	CB	MET A 114	170.944	158.186	134.841	1.00105.04 C
ATOM	231	CG	MET A 114	171.608	157.094	135.657	1.00105.04 C
ATOM	232	SD	MET A 114	170.670	155.557	135.655	1.00105.04 S
ATOM	233	CE	MET A 114	169.335	155.974	136.772	1.00105.04 C
ATOM	234	N	LYS A 115	171.615	161.658	133.627	1.00111.43 N
ATOM	235	CA	LYS A 115	171.336	162.420	132.414	1.00111.43 C
ATOM	236	C	LYS A 115	172.498	163.330	132.026	1.00111.43 C
ATOM	237	O	LYS A 115	172.268	164.471	131.608	1.00111.43 O
ATOM	238	CB	LYS A 115	170.054	163.239	132.602	1.00111.43 C
ATOM	239	CG	LYS A 115	170.095	164.232	133.761	1.00111.43 C
ATOM	240	CD	LYS A 115	170.547	165.615	133.324	1.00111.43 C
ATOM	241	CE	LYS A 115	170.505	166.602	134.478	1.00111.43 C
ATOM	242	NZ	LYS A 115	170.978	167.954	134.069	1.00111.43 N
ATOM	243	N	PRO A 116	173.751	162.868	132.103	1.00118.44 N
ATOM	244	CA	PRO A 116	174.866	163.773	131.796	1.00118.44 C
ATOM	245	C	PRO A 116	175.195	163.907	130.316	1.00118.44 C
ATOM	246	O	PRO A 116	175.411	165.022	129.827	1.00118.44 O
ATOM	247	CB	PRO A 116	176.045	163.139	132.553	1.00118.44 C
ATOM	248	CG	PRO A 116	175.450	162.006	133.375	1.00118.44 C
ATOM	249	CD	PRO A 116	174.244	161.582	132.614	1.00118.44 C
ATOM	250	N	ILE A 117	175.226	162.792	129.593	1.00120.01 N
ATOM	251	CA	ILE A 117	175.925	162.734	128.312	1.00120.01 C
ATOM	252	C	ILE A 117	175.553	161.445	127.597	1.00120.01 C
ATOM	253	O	ILE A 117	175.011	160.518	128.210	1.00120.01 O
ATOM	254	CB	ILE A 117	177.456	162.849	128.544	1.00120.01 C
ATOM	255	CG1	ILE A 117	178.228	162.691	127.232	1.00120.01 C
ATOM	256	CG2	ILE A 117	177.903	161.842	129.581	1.00120.01 C

ATOM	257	CD1	ILE A 117	179.720	162.879	127.377	1.00120.01	C
ATOM	258	N	ASN A 118	175.847	161.387	126.295	1.00118.26	N
ATOM	259	CA	ASN A 118	175.778	160.160	125.499	1.00118.26	C
ATOM	260	C	ASN A 118	174.340	159.648	125.373	1.00118.26	C
ATOM	261	O	ASN A 118	173.976	158.574	125.857	1.00118.26	O
ATOM	262	CB	ASN A 118	176.691	159.080	126.092	1.00118.26	C
ATOM	263	CG	ASN A 118	178.110	159.158	125.563	1.00118.26	C
ATOM	264	OD1	ASN A 118	178.467	158.467	124.610	1.00118.26	O
ATOM	265	ND2	ASN A 118	178.929	159.994	126.187	1.00118.26	N
ATOM	266	N	GLU A 119	173.523	160.460	124.700	1.00108.93	N
ATOM	267	CA	GLU A 119	172.157	160.067	124.352	1.00108.93	C
ATOM	268	C	GLU A 119	172.202	159.053	123.207	1.00108.93	C
ATOM	269	O	GLU A 119	171.747	159.292	122.087	1.00108.93	O
ATOM	270	CB	GLU A 119	171.325	161.288	123.988	1.00108.93	C
ATOM	271	CG	GLU A 119	169.858	161.185	124.381	1.00108.93	C
ATOM	272	CD	GLU A 119	169.075	160.227	123.504	1.00108.93	C
ATOM	273	OE1	GLU A 119	169.402	160.108	122.306	1.00108.93	O
ATOM	274	OE2	GLU A 119	168.126	159.596	124.012	1.00108.93	O
ATOM	275	N	ASP A 120	172.790	157.892	123.512	1.00107.36	N
ATOM	276	CA	ASP A 120	172.821	156.757	122.597	1.00107.36	C
ATOM	277	C	ASP A 120	172.623	155.449	123.352	1.00107.36	C
ATOM	278	O	ASP A 120	173.177	154.413	122.968	1.00107.36	O
ATOM	279	CB	ASP A 120	174.129	156.718	121.807	1.00107.36	C
ATOM	280	CG	ASP A 120	175.348	156.833	122.695	1.00107.36	C
ATOM	281	OD1	ASP A 120	175.563	157.919	123.272	1.00107.36	O
ATOM	282	OD2	ASP A 120	176.091	155.838	122.816	1.00107.36	O
ATOM	283	N	LEU A 121	171.835	155.483	124.421	1.00 94.83	N
ATOM	284	CA	LEU A 121	171.737	154.358	125.338	1.00 94.83	C
ATOM	285	C	LEU A 121	171.259	153.093	124.631	1.00 94.83	C
ATOM	286	O	LEU A 121	170.550	153.142	123.624	1.00 94.83	O
ATOM	287	CB	LEU A 121	170.803	154.717	126.493	1.00 94.83	C
ATOM	288	CG	LEU A 121	169.323	154.887	126.166	1.00 94.83	C
ATOM	289	CD1	LEU A 121	168.508	154.928	127.439	1.00 94.83	C
ATOM	290	CD2	LEU A 121	169.105	156.150	125.365	1.00 94.83	C
ATOM	291	N	ASP A 122	171.662	151.951	125.183	1.00 95.17	N
ATOM	292	CA	ASP A 122	171.395	150.617	124.655	1.00 95.17	C
ATOM	293	C	ASP A 122	170.606	149.812	125.687	1.00 95.17	C

ATOM	294	O	ASP A 122	170.323	150.283	126.791	1.00 95.17	O
ATOM	295	CB	ASP A 122	172.709	149.918	124.289	1.00 95.17	C
ATOM	296	CG	ASP A 122	172.498	148.638	123.507	1.00 95.17	C
ATOM	297	OD1	ASP A 122	171.499	147.938	123.767	1.00 95.17	O
ATOM	298	OD2	ASP A 122	173.336	148.326	122.635	1.00 95.17	O
ATOM	299	N	GLU A 123	170.255	148.580	125.322	1.00 95.33	N
ATOM	300	CA	GLU A 123	169.456	147.698	126.164	1.00 95.33	C
ATOM	301	C	GLU A 123	170.102	146.317	126.222	1.00 95.33	C
ATOM	302	O	GLU A 123	171.158	146.075	125.631	1.00 95.33	O
ATOM	303	CB	GLU A 123	168.016	147.610	125.647	1.00 95.33	C
ATOM	304	CG	GLU A 123	167.916	147.286	124.170	1.00 95.33	C
ATOM	305	CD	GLU A 123	166.488	147.293	123.669	1.00 95.33	C
ATOM	306	OE1	GLU A 123	165.570	147.500	124.489	1.00 95.33	O
ATOM	307	OE2	GLU A 123	166.281	147.093	122.454	1.00 95.33	O
ATOM	308	N	GLY A 124	169.461	145.406	126.947	1.00 89.93	N
ATOM	309	CA	GLY A 124	169.970	144.055	127.064	1.00 89.93	C
ATOM	310	C	GLY A 124	169.304	143.316	128.208	1.00 89.93	C
ATOM	311	O	GLY A 124	168.356	143.808	128.825	1.00 89.93	O
ATOM	312	N	ILE A 125	169.825	142.117	128.474	1.00 87.86	N
ATOM	313	CA	ILE A 125	169.356	141.245	129.545	1.00 87.86	C
ATOM	314	C	ILE A 125	170.526	140.947	130.468	1.00 87.86	C
ATOM	315	O	ILE A 125	171.644	140.703	130.003	1.00 87.86	O
ATOM	316	CB	ILE A 125	168.764	139.934	128.994	1.00 87.86	C
ATOM	317	CG1	ILE A 125	169.733	139.306	127.994	1.00 87.86	C
ATOM	318	CG2	ILE A 125	167.422	140.186	128.347	1.00 87.86	C
ATOM	319	CD1	ILE A 125	169.195	138.070	127.318	1.00 87.86	C
ATOM	320	N	MET A 126	170.269	140.952	131.774	1.00 85.46	N
ATOM	321	CA	MET A 126	171.331	140.808	132.758	1.00 85.46	C
ATOM	322	C	MET A 126	170.856	139.960	133.927	1.00 85.46	C
ATOM	323	O	MET A 126	169.661	139.897	134.223	1.00 85.46	O
ATOM	324	CB	MET A 126	171.799	142.173	133.271	1.00 85.46	C
ATOM	325	CG	MET A 126	170.773	142.880	134.133	1.00 85.46	C
ATOM	326	SD	MET A 126	171.436	144.327	134.971	1.00 85.46	S
ATOM	327	CE	MET A 126	170.063	144.756	136.033	1.00 85.46	C
ATOM	328	N	VAL A 127	171.811	139.305	134.585	1.00 84.75	N
ATOM	329	CA	VAL A 127	171.583	138.591	135.838	1.00 84.75	C
ATOM	330	C	VAL A 127	172.684	139.000	136.805	1.00 84.75	C

ATOM	331	O	VAL A 127	173.870	138.789	136.527	1.00 84.75	O
ATOM	332	CB	VAL A 127	171.565	137.066	135.650	1.00 84.75	C
ATOM	333	CG1	VAL A 127	170.494	136.674	134.655	1.00 84.75	C
ATOM	334	CG2	VAL A 127	172.920	136.568	135.195	1.00 84.75	C
ATOM	335	N	VAL A 128	172.296	139.588	137.931	1.00 89.98	N
ATOM	336	CA	VAL A 128	173.236	140.141	138.896	1.00 89.98	C
ATOM	337	C	VAL A 128	173.197	139.313	140.169	1.00 89.98	C
ATOM	338	O	VAL A 128	172.166	138.732	140.522	1.00 89.98	O
ATOM	339	CB	VAL A 128	172.913	141.616	139.207	1.00 89.98	C
ATOM	340	CG1	VAL A 128	171.547	141.720	139.846	1.00 89.98	C
ATOM	341	CG2	VAL A 128	173.960	142.201	140.127	1.00 89.98	C
ATOM	342	N	TYR A 129	174.329	139.265	140.867	1.00 91.70	N
ATOM	343	CA	TYR A 129	174.344	138.722	142.216	1.00 91.70	C
ATOM	344	C	TYR A 129	175.540	139.269	142.981	1.00 91.70	C
ATOM	345	O	TYR A 129	176.446	139.882	142.414	1.00 91.70	O
ATOM	346	CB	TYR A 129	174.335	137.192	142.226	1.00 91.70	C
ATOM	347	CG	TYR A 129	175.222	136.500	141.225	1.00 91.70	C
ATOM	348	CD1	TYR A 129	176.594	136.469	141.388	1.00 91.70	C
ATOM	349	CD2	TYR A 129	174.677	135.838	140.139	1.00 91.70	C
ATOM	350	CE1	TYR A 129	177.396	135.817	140.486	1.00 91.70	C
ATOM	351	CE2	TYR A 129	175.470	135.185	139.235	1.00 91.70	C
ATOM	352	CZ	TYR A 129	176.829	135.177	139.411	1.00 91.70	C
ATOM	353	OH	TYR A 129	177.626	134.524	138.503	1.00 91.70	O
ATOM	354	N	LYS A 130	175.521	139.034	144.291	1.00 95.82	N
ATOM	355	CA	LYS A 130	176.389	139.681	145.259	1.00 95.82	C
ATOM	356	C	LYS A 130	177.349	138.674	145.888	1.00 95.82	C
ATOM	357	O	LYS A 130	177.431	137.512	145.475	1.00 95.82	O
ATOM	358	CB	LYS A 130	175.535	140.381	146.316	1.00 95.82	C
ATOM	359	CG	LYS A 130	174.682	139.427	147.126	1.00 95.82	C
ATOM	360	CD	LYS A 130	173.768	140.169	148.080	1.00 95.82	C
ATOM	361	CE	LYS A 130	172.958	139.197	148.921	1.00 95.82	C
ATOM	362	NZ	LYS A 130	171.998	138.410	148.103	1.00 95.82	N
ATOM	363	N	ARG A 131	178.084	139.132	146.898	1.00 99.74	N
ATOM	364	CA	ARG A 131	179.106	138.340	147.568	1.00 99.74	C
ATOM	365	C	ARG A 131	178.602	137.892	148.932	1.00 99.74	C
ATOM	366	O	ARG A 131	178.084	138.704	149.704	1.00 99.74	O
ATOM	367	CB	ARG A 131	180.399	139.143	147.719	1.00 99.74	C

ATOM	368	CG	ARG	A	131	181.495	138.412	148.467	1.00 99.74	C
ATOM	369	CD	ARG	A	131	182.865	138.967	148.126	1.00 99.74	C
ATOM	370	NE	ARG	A	131	183.926	138.279	148.855	1.00 99.74	N
ATOM	371	CZ	ARG	A	131	184.388	137.073	148.541	1.00 99.74	C
ATOM	372	NH1	ARG	A	131	185.355	136.523	149.262	1.00 99.74	N
ATOM	373	NH2	ARG	A	131	183.878	136.414	147.510	1.00 99.74	N
ATOM	374	N	ASN	A	132	178.753	136.600	149.222	1.00 97.19	N
ATOM	375	CA	ASN	A	132	178.327	136.032	150.493	1.00 97.19	C
ATOM	376	C	ASN	A	132	179.261	134.898	150.888	1.00 97.19	C
ATOM	377	O	ASN	A	132	179.732	134.137	150.039	1.00 97.19	O
ATOM	378	CB	ASN	A	132	176.887	135.516	150.428	1.00 97.19	C
ATOM	379	CG	ASN	A	132	175.880	136.560	150.844	1.00 97.19	C
ATOM	380	OD1	ASN	A	132	176.162	137.404	151.693	1.00 97.19	O
ATOM	381	ND2	ASN	A	132	174.696	136.511	150.248	1.00 97.19	N
ATOM	382	N	ILE	A	133	179.519	134.792	152.190	1.00 87.69	N
ATOM	383	CA	ILE	A	133	180.331	133.720	152.752	1.00 87.69	C
ATOM	384	C	ILE	A	133	179.512	132.991	153.808	1.00 87.69	C
ATOM	385	O	ILE	A	133	178.663	133.581	154.483	1.00 87.69	O
ATOM	386	CB	ILE	A	133	181.653	134.245	153.349	1.00 87.69	C
ATOM	387	CG1	ILE	A	133	182.551	134.806	152.247	1.00 87.69	C
ATOM	388	CG2	ILE	A	133	182.371	133.145	154.102	1.00 87.69	C
ATOM	389	CD1	ILE	A	133	182.381	136.287	152.024	1.00 87.69	C
ATOM	390	N	VAL	A	134	179.776	131.693	153.948	1.00 75.15	N
ATOM	391	CA	VAL	A	134	179.000	130.825	154.827	1.00 75.15	C
ATOM	392	C	VAL	A	134	179.431	130.996	156.279	1.00 75.15	C
ATOM	393	O	VAL	A	134	180.502	131.543	156.564	1.00 75.15	O
ATOM	394	CB	VAL	A	134	179.128	129.355	154.391	1.00 75.15	C
ATOM	395	CG1	VAL	A	134	178.549	129.167	153.003	1.00 75.15	C
ATOM	396	CG2	VAL	A	134	180.581	128.926	154.420	1.00 75.15	C
ATOM	397	N	ALA	A	135	178.594	130.530	157.202	1.00 58.42	N
ATOM	398	CA	ALA	A	135	178.862	130.560	158.628	1.00 58.42	C
ATOM	399	C	ALA	A	135	179.267	129.165	159.103	1.00 58.42	C
ATOM	400	O	ALA	A	135	179.531	128.264	158.304	1.00 58.42	O
ATOM	401	CB	ALA	A	135	177.639	131.090	159.375	1.00 58.42	C
ATOM	402	N	HIS	A	136	179.325	128.979	160.420	1.00 49.38	N
ATOM	403	CA	HIS	A	136	179.757	127.714	160.994	1.00 49.38	C
ATOM	404	C	HIS	A	136	179.044	127.512	162.326	1.00 49.38	C

ATOM	405	O	HIS A 136	178.869	128.468	163.083	1.00 49.38	O
ATOM	406	CB	HIS A 136	181.276	127.706	161.180	1.00 49.38	C
ATOM	407	CG	HIS A 136	181.895	126.351	161.067	1.00 49.38	C
ATOM	408	ND1	HIS A 136	183.124	126.048	161.609	1.00 49.38	N
ATOM	409	CD2	HIS A 136	181.463	125.222	160.459	1.00 49.38	C
ATOM	410	CE1	HIS A 136	183.417	124.787	161.352	1.00 49.38	C
ATOM	411	NE2	HIS A 136	182.426	124.263	160.654	1.00 49.38	N
ATOM	412	N	THR A 137	178.629	126.274	162.609	1.00 42.77	N
ATOM	413	CA	THR A 137	177.916	125.956	163.845	1.00 42.77	C
ATOM	414	C	THR A 137	178.415	124.627	164.397	1.00 42.77	C
ATOM	415	O	THR A 137	178.425	123.629	163.672	1.00 42.77	O
ATOM	416	CB	THR A 137	176.406	125.890	163.604	1.00 42.77	C
ATOM	417	OG1	THR A 137	176.085	124.662	162.947	1.00 42.77	O
ATOM	418	CG2	THR A 137	175.958	127.043	162.727	1.00 42.77	C
ATOM	419	N	PHE A 138	178.826	124.601	165.682	1.00 42.36	N
ATOM	420	CA	PHE A 138	179.553	123.429	166.161	1.00 42.36	C
ATOM	421	C	PHE A 138	179.239	122.958	167.587	1.00 42.36	C
ATOM	422	O	PHE A 138	180.042	122.211	168.157	1.00 42.36	O
ATOM	423	CB	PHE A 138	181.056	123.671	166.042	1.00 42.36	C
ATOM	424	CG	PHE A 138	181.507	124.973	166.618	1.00 42.36	C
ATOM	425	CD1	PHE A 138	181.316	126.149	165.928	1.00 42.36	C
ATOM	426	CD2	PHE A 138	182.131	125.018	167.845	1.00 42.36	C
ATOM	427	CE1	PHE A 138	181.730	127.340	166.451	1.00 42.36	C
ATOM	428	CE2	PHE A 138	182.548	126.208	168.371	1.00 42.36	C
ATOM	429	CZ	PHE A 138	182.347	127.372	167.674	1.00 42.36	C
ATOM	430	N	LYS A 139	178.115	123.343	168.192	1.00 37.90	N
ATOM	431	CA	LYS A 139	177.568	122.599	169.334	1.00 37.90	C
ATOM	432	C	LYS A 139	178.554	122.514	170.510	1.00 37.90	C
ATOM	433	O	LYS A 139	179.115	121.460	170.808	1.00 37.90	O
ATOM	434	CB	LYS A 139	177.144	121.198	168.882	1.00 37.90	C
ATOM	435	CG	LYS A 139	176.473	120.365	169.955	1.00 37.90	C
ATOM	436	CD	LYS A 139	175.106	120.919	170.311	1.00 37.90	C
ATOM	437	CE	LYS A 139	174.112	120.734	169.178	1.00 37.90	C
ATOM	438	NZ	LYS A 139	173.690	119.316	169.039	1.00 37.90	N
ATOM	439	N	VAL A 140	178.770	123.659	171.166	1.00 36.42	N
ATOM	440	CA	VAL A 140	179.659	123.741	172.329	1.00 36.42	C
ATOM	441	C	VAL A 140	178.946	123.342	173.621	1.00 36.42	C

ATOM	442	O	VAL A 140	177.715	123.265	173.665	1.00 36.42	O
ATOM	443	CB	VAL A 140	180.249	125.154	172.476	1.00 36.42	C
ATOM	444	CG1	VAL A 140	181.011	125.542	171.233	1.00 36.42	C
ATOM	445	CG2	VAL A 140	179.160	126.154	172.768	1.00 36.42	C
ATOM	446	N	ARG A 141	179.721	123.096	174.684	1.00 37.17	N
ATOM	447	CA	ARG A 141	179.214	122.740	176.006	1.00 37.17	C
ATOM	448	C	ARG A 141	179.702	123.735	177.051	1.00 37.17	C
ATOM	449	O	ARG A 141	180.746	124.368	176.882	1.00 37.17	O
ATOM	450	CB	ARG A 141	179.660	121.341	176.432	1.00 37.17	C
ATOM	451	CG	ARG A 141	179.177	120.225	175.546	1.00 37.17	C
ATOM	452	CD	ARG A 141	179.803	118.911	175.963	1.00 37.17	C
ATOM	453	NE	ARG A 141	181.224	118.866	175.644	1.00 37.17	N
ATOM	454	CZ	ARG A 141	181.717	118.420	174.495	1.00 37.17	C
ATOM	455	NH1	ARG A 141	180.900	117.976	173.551	1.00 37.17	N
ATOM	456	NH2	ARG A 141	183.025	118.416	174.289	1.00 37.17	N
ATOM	457	N	VAL A 142	178.948	123.859	178.144	1.00 35.61	N
ATOM	458	CA	VAL A 142	179.264	124.784	179.228	1.00 35.61	C
ATOM	459	C	VAL A 142	179.084	124.078	180.564	1.00 35.61	C
ATOM	460	O	VAL A 142	178.083	123.387	180.778	1.00 35.61	O
ATOM	461	CB	VAL A 142	178.381	126.046	179.179	1.00 35.61	C
ATOM	462	CG1	VAL A 142	178.757	126.986	180.296	1.00 35.61	C
ATOM	463	CG2	VAL A 142	178.511	126.736	177.843	1.00 35.61	C
ATOM	464	N	TYR A 143	180.045	124.256	181.465	1.00 41.95	N
ATOM	465	CA	TYR A 143	179.958	123.744	182.824	1.00 41.95	C
ATOM	466	C	TYR A 143	179.797	124.901	183.800	1.00 41.95	C
ATOM	467	O	TYR A 143	180.110	126.050	183.487	1.00 41.95	O
ATOM	468	CB	TYR A 143	181.197	122.922	183.192	1.00 41.95	C
ATOM	469	CG	TYR A 143	181.457	121.752	182.278	1.00 41.95	C
ATOM	470	CD1	TYR A 143	182.118	121.920	181.077	1.00 41.95	C
ATOM	471	CD2	TYR A 143	181.043	120.478	182.619	1.00 41.95	C
ATOM	472	CE1	TYR A 143	182.358	120.856	180.241	1.00 41.95	C
ATOM	473	CE2	TYR A 143	181.279	119.409	181.788	1.00 41.95	C
ATOM	474	CZ	TYR A 143	181.938	119.603	180.600	1.00 41.95	C
ATOM	475	OH	TYR A 143	182.178	118.537	179.766	1.00 41.95	O
ATOM	476	N	GLN A 144	179.304	124.589	184.995	1.00 48.15	N
ATOM	477	CA	GLN A 144	179.012	125.621	185.984	1.00 48.15	C
ATOM	478	C	GLN A 144	178.565	124.938	187.269	1.00 48.15	C

ATOM	479	O	GLN A 144	178.319	123.729	187.298	1.00 48.15	O
ATOM	480	CB	GLN A 144	177.942	126.584	185.484	1.00 48.15	C
ATOM	481	CG	GLN A 144	177.802	127.840	186.301	1.00 48.15	C
ATOM	482	CD	GLN A 144	177.113	128.942	185.533	1.00 48.15	C
ATOM	483	OE1	GLN A 144	176.315	128.682	184.636	1.00 48.15	O
ATOM	484	NE2	GLN A 144	177.421	130.183	185.876	1.00 48.15	N
ATOM	485	N	LYS A 145	178.455	125.730	188.334	1.00 55.95	N
ATOM	486	CA	LYS A 145	178.093	125.198	189.646	1.00 55.95	C
ATOM	487	C	LYS A 145	177.561	126.337	190.499	1.00 55.95	C
ATOM	488	O	LYS A 145	178.288	127.300	190.758	1.00 55.95	O
ATOM	489	CB	LYS A 145	179.296	124.540	190.310	1.00 55.95	C
ATOM	490	CG	LYS A 145	179.005	123.935	191.659	1.00 55.95	C
ATOM	491	CD	LYS A 145	180.287	123.678	192.418	1.00 55.95	C
ATOM	492	CE	LYS A 145	180.911	122.361	192.016	1.00 55.95	C
ATOM	493	NZ	LYS A 145	180.123	121.208	192.507	1.00 55.95	N
ATOM	494	N	VAL A 146	176.308	126.231	190.934	1.00 61.82	N
ATOM	495	CA	VAL A 146	175.633	127.283	191.686	1.00 61.82	C
ATOM	496	C	VAL A 146	175.529	126.868	193.146	1.00 61.82	C
ATOM	497	O	VAL A 146	175.314	125.691	193.454	1.00 61.82	O
ATOM	498	CB	VAL A 146	174.235	127.580	191.112	1.00 61.82	C
ATOM	499	CG1	VAL A 146	173.529	128.614	191.960	1.00 61.82	C
ATOM	500	CG2	VAL A 146	174.342	128.054	189.681	1.00 61.82	C
ATOM	501	N	LEU A 147	175.676	127.842	194.043	1.00 71.75	N
ATOM	502	CA	LEU A 147	175.510	127.610	195.471	1.00 71.75	C
ATOM	503	C	LEU A 147	174.886	128.851	196.090	1.00 71.75	C
ATOM	504	O	LEU A 147	175.418	129.954	195.937	1.00 71.75	O
ATOM	505	CB	LEU A 147	176.845	127.279	196.146	1.00 71.75	C
ATOM	506	CG	LEU A 147	177.835	128.417	196.372	1.00 71.75	C
ATOM	507	CD1	LEU A 147	178.904	127.987	197.352	1.00 71.75	C
ATOM	508	CD2	LEU A 147	178.459	128.840	195.066	1.00 71.75	C
ATOM	509	N	THR A 148	173.769	128.666	196.791	1.00 80.47	N
ATOM	510	CA	THR A 148	172.933	129.760	197.265	1.00 80.47	C
ATOM	511	C	THR A 148	172.875	129.782	198.786	1.00 80.47	C
ATOM	512	O	THR A 148	172.852	128.730	199.433	1.00 80.47	O
ATOM	513	CB	THR A 148	171.519	129.641	196.703	1.00 80.47	C
ATOM	514	OG1	THR A 148	170.687	130.651	197.283	1.00 80.47	O
ATOM	515	CG2	THR A 148	170.945	128.277	197.012	1.00 80.47	C

ATOM	516	N	PHE A 149	172.845	130.988	199.348	1.00 84.21	N
ATOM	517	CA	PHE A 149	172.790	131.211	200.785	1.00 84.21	C
ATOM	518	C	PHE A 149	171.414	131.726	201.188	1.00 84.21	C
ATOM	519	O	PHE A 149	170.661	132.258	200.369	1.00 84.21	O
ATOM	520	CB	PHE A 149	173.863	132.210	201.226	1.00 84.21	C
ATOM	521	CG	PHE A 149	175.263	131.764	200.932	1.00 84.21	C
ATOM	522	CD1	PHE A 149	175.761	130.598	201.481	1.00 84.21	C
ATOM	523	CD2	PHE A 149	176.082	132.512	200.109	1.00 84.21	C
ATOM	524	CE1	PHE A 149	177.049	130.188	201.214	1.00 84.21	C
ATOM	525	CE2	PHE A 149	177.370	132.106	199.839	1.00 84.21	C
ATOM	526	CZ	PHE A 149	177.854	130.942	200.392	1.00 84.21	C
ATOM	527	N	ARG A 150	171.094	131.566	202.469	1.00 95.49	N
ATOM	528	CA	ARG A 150	169.785	131.965	202.965	1.00 95.49	C
ATOM	529	C	ARG A 150	169.780	131.870	204.483	1.00 95.49	C
ATOM	530	O	ARG A 150	170.412	130.981	205.060	1.00 95.49	O
ATOM	531	CB	ARG A 150	168.681	131.088	202.366	1.00 95.49	C
ATOM	532	CG	ARG A 150	167.347	131.185	203.072	1.00 95.49	C
ATOM	533	CD	ARG A 150	166.316	130.302	202.396	1.00 95.49	C
ATOM	534	NE	ARG A 150	165.998	130.776	201.054	1.00 95.49	N
ATOM	535	CZ	ARG A 150	166.495	130.247	199.941	1.00 95.49	C
ATOM	536	NH1	ARG A 150	167.333	129.223	200.011	1.00 95.49	N
ATOM	537	NH2	ARG A 150	166.153	130.740	198.759	1.00 95.49	N
ATOM	538	N	ARG A 151	169.058	132.792	205.120	1.00 94.21	N
ATOM	539	CA	ARG A 151	168.963	132.830	206.573	1.00 94.21	C
ATOM	540	C	ARG A 151	167.580	133.323	206.976	1.00 94.21	C
ATOM	541	O	ARG A 151	166.989	134.169	206.301	1.00 94.21	O
ATOM	542	CB	ARG A 151	170.046	133.723	207.183	1.00 94.21	C
ATOM	543	CG	ARG A 151	170.080	135.129	206.626	1.00 94.21	C
ATOM	544	CD	ARG A 151	171.482	135.703	206.699	1.00 94.21	C
ATOM	545	NE	ARG A 151	171.483	137.160	206.635	1.00 94.21	N
ATOM	546	CZ	ARG A 151	171.359	137.859	205.512	1.00 94.21	C
ATOM	547	NH1	ARG A 151	171.220	137.235	204.352	1.00 94.21	N
ATOM	548	NH2	ARG A 151	171.371	139.183	205.550	1.00 94.21	N
ATOM	549	N	SER A 152	167.072	132.788	208.087	1.00 94.56	N
ATOM	550	CA	SER A 152	165.711	133.077	208.516	1.00 94.56	C
ATOM	551	C	SER A 152	165.602	132.956	210.030	1.00 94.56	C
ATOM	552	O	SER A 152	166.524	132.501	210.710	1.00 94.56	O

ATOM	553	CB	SER A 152	164.710	132.141	207.837	1.00	94.56	C
ATOM	554	OG	SER A 152	164.875	130.813	208.297	1.00	94.56	O
ATOM	555	N	TYR A 153	164.443	133.370	210.548	1.00	95.70	N
ATOM	556	CA	TYR A 153	164.104	133.294	211.963	1.00	95.70	C
ATOM	557	C	TYR A 153	162.722	132.671	212.109	1.00	95.70	C
ATOM	558	O	TYR A 153	161.794	133.027	211.377	1.00	95.70	O
ATOM	559	CB	TYR A 153	164.128	134.680	212.618	1.00	95.70	C
ATOM	560	CG	TYR A 153	164.170	134.650	214.128	1.00	95.70	C
ATOM	561	CD1	TYR A 153	163.079	134.219	214.864	1.00	95.70	C
ATOM	562	CD2	TYR A 153	165.300	135.058	214.818	1.00	95.70	C
ATOM	563	CE1	TYR A 153	163.113	134.190	216.239	1.00	95.70	C
ATOM	564	CE2	TYR A 153	165.342	135.032	216.193	1.00	95.70	C
ATOM	565	CZ	TYR A 153	164.245	134.597	216.898	1.00	95.70	C
ATOM	566	OH	TYR A 153	164.280	134.568	218.270	1.00	95.70	O
ATOM	567	N	ALA A 154	162.586	131.749	213.058	1.00	100.46	N
ATOM	568	CA	ALA A 154	161.389	130.926	213.194	1.00	100.46	C
ATOM	569	C	ALA A 154	160.634	131.295	214.466	1.00	100.46	C
ATOM	570	O	ALA A 154	161.176	131.175	215.569	1.00	100.46	O
ATOM	571	CB	ALA A 154	161.756	129.442	213.205	1.00	100.46	C
ATOM	572	N	TYR A 155	159.387	131.737	214.308	1.00	100.44	N
ATOM	573	CA	TYR A 155	158.499	131.984	215.438	1.00	100.44	C
ATOM	574	C	TYR A 155	157.707	130.721	215.763	1.00	100.44	C
ATOM	575	O	TYR A 155	157.989	129.628	215.267	1.00	100.44	O
ATOM	576	CB	TYR A 155	157.558	133.151	215.152	1.00	100.44	C
ATOM	577	CG	TYR A 155	158.192	134.513	215.260	1.00	100.44	C
ATOM	578	CD1	TYR A 155	159.398	134.686	215.918	1.00	100.44	C
ATOM	579	CD2	TYR A 155	157.582	135.627	214.707	1.00	100.44	C
ATOM	580	CE1	TYR A 155	159.980	135.930	216.019	1.00	100.44	C
ATOM	581	CE2	TYR A 155	158.156	136.874	214.802	1.00	100.44	C
ATOM	582	CZ	TYR A 155	159.353	137.023	215.457	1.00	100.44	C
ATOM	583	OH	TYR A 155	159.915	138.276	215.542	1.00	100.44	O
ATOM	584	N	ILE A 156	156.696	130.872	216.619	1.00	105.50	N
ATOM	585	CA	ILE A 156	155.766	129.786	216.895	1.00	105.50	C
ATOM	586	C	ILE A 156	154.624	129.732	215.889	1.00	105.50	C
ATOM	587	O	ILE A 156	153.948	128.698	215.789	1.00	105.50	O
ATOM	588	CB	ILE A 156	155.181	129.911	218.311	1.00	105.50	C
ATOM	589	CG1	ILE A 156	156.278	130.276	219.311	1.00	105.50	C

ATOM	590	CG2	ILE A 156	154.493	128.620	218.713	1.00105.50	C
ATOM	591	CD1	ILE A 156	155.756	130.945	220.562	1.00105.50	C
ATOM	592	N	HIS A 157	154.382	130.813	215.151	1.00109.14	N
ATOM	593	CA	HIS A 157	153.286	130.882	214.194	1.00109.14	C
ATOM	594	C	HIS A 157	153.763	130.970	212.753	1.00109.14	C
ATOM	595	O	HIS A 157	153.385	130.137	211.924	1.00109.14	O
ATOM	596	CB	HIS A 157	152.391	132.086	214.517	1.00109.14	C
ATOM	597	CG	HIS A 157	150.940	131.852	214.237	1.00109.14	C
ATOM	598	ND1	HIS A 157	150.196	130.905	214.907	1.00109.14	N
ATOM	599	CD2	HIS A 157	150.095	132.445	213.361	1.00109.14	C
ATOM	600	CE1	HIS A 157	148.955	130.924	214.455	1.00109.14	C
ATOM	601	NE2	HIS A 157	148.867	131.849	213.516	1.00109.14	N
ATOM	602	N	THR A 158	154.586	131.960	212.432	1.00105.54	N
ATOM	603	CA	THR A 158	155.071	132.184	211.081	1.00105.54	C
ATOM	604	C	THR A 158	156.575	131.930	211.013	1.00105.54	C
ATOM	605	O	THR A 158	157.201	131.485	211.981	1.00105.54	O
ATOM	606	CB	THR A 158	154.718	133.599	210.622	1.00105.54	C
ATOM	607	OG1	THR A 158	155.315	134.553	211.508	1.00105.54	O
ATOM	608	CG2	THR A 158	153.212	133.797	210.612	1.00105.54	C
ATOM	609	N	THR A 159	157.157	132.211	209.850	1.00103.39	N
ATOM	610	CA	THR A 159	158.593	132.066	209.644	1.00103.39	C
ATOM	611	C	THR A 159	159.045	133.148	208.679	1.00103.39	C
ATOM	612	O	THR A 159	158.560	133.206	207.545	1.00103.39	O
ATOM	613	CB	THR A 159	158.938	130.680	209.099	1.00103.39	C
ATOM	614	OG1	THR A 159	158.301	129.679	209.901	1.00103.39	O
ATOM	615	CG2	THR A 159	160.440	130.460	209.121	1.00103.39	C
ATOM	616	N	TYR A 160	159.963	133.997	209.122	1.00 98.20	N
ATOM	617	CA	TYR A 160	160.433	135.119	208.328	1.00 98.20	C
ATOM	618	C	TYR A 160	161.778	134.799	207.690	1.00 98.20	C
ATOM	619	O	TYR A 160	162.505	133.905	208.128	1.00 98.20	O
ATOM	620	CB	TYR A 160	160.545	136.381	209.186	1.00 98.20	C
ATOM	621	CG	TYR A 160	159.220	136.863	209.727	1.00 98.20	C
ATOM	622	CD1	TYR A 160	158.558	136.160	210.723	1.00 98.20	C
ATOM	623	CD2	TYR A 160	158.631	138.021	209.243	1.00 98.20	C
ATOM	624	CE1	TYR A 160	157.350	136.595	211.219	1.00 98.20	C
ATOM	625	CE2	TYR A 160	157.420	138.463	209.734	1.00 98.20	C
ATOM	626	CZ	TYR A 160	156.785	137.745	210.721	1.00 98.20	C

ATOM	627	OH	TYR A 160	155.579	138.180	211.215	1.00 98.20	O
ATOM	628	N	LEU A 161	162.100	135.548	206.638	1.00 93.16	N
ATOM	629	CA	LEU A 161	163.351	135.391	205.908	1.00 93.16	C
ATOM	630	C	LEU A 161	164.020	136.752	205.808	1.00 93.16	C
ATOM	631	O	LEU A 161	163.466	137.673	205.202	1.00 93.16	O
ATOM	632	CB	LEU A 161	163.108	134.800	204.517	1.00 93.16	C
ATOM	633	CG	LEU A 161	164.345	134.421	203.704	1.00 93.16	C
ATOM	634	CD1	LEU A 161	164.021	133.290	202.748	1.00 93.16	C
ATOM	635	CD2	LEU A 161	164.864	135.626	202.945	1.00 93.16	C
ATOM	636	N	LEU A 162	165.206	136.875	206.395	1.00 92.08	N
ATOM	637	CA	LEU A 162	165.885	138.157	206.506	1.00 92.08	C
ATOM	638	C	LEU A 162	166.793	138.465	205.324	1.00 92.08	C
ATOM	639	O	LEU A 162	167.460	139.504	205.333	1.00 92.08	O
ATOM	640	CB	LEU A 162	166.700	138.206	207.801	1.00 92.08	C
ATOM	641	CG	LEU A 162	165.980	137.744	209.066	1.00 92.08	C
ATOM	642	CD1	LEU A 162	166.964	137.570	210.207	1.00 92.08	C
ATOM	643	CD2	LEU A 162	164.893	138.730	209.444	1.00 92.08	C
ATOM	644	N	GLY A 163	166.842	137.606	204.322	1.00 92.94	N
ATOM	645	CA	GLY A 163	167.661	137.863	203.153	1.00 92.94	C
ATOM	646	C	GLY A 163	168.137	136.572	202.525	1.00 92.94	C
ATOM	647	O	GLY A 163	167.932	135.479	203.046	1.00 92.94	O
ATOM	648	N	SER A 164	168.786	136.722	201.373	1.00 89.54	N
ATOM	649	CA	SER A 164	169.351	135.601	200.635	1.00 89.54	C
ATOM	650	C	SER A 164	170.093	136.156	199.429	1.00 89.54	C
ATOM	651	O	SER A 164	169.856	137.290	199.004	1.00 89.54	O
ATOM	652	CB	SER A 164	168.277	134.609	200.191	1.00 89.54	C
ATOM	653	OG	SER A 164	167.722	134.989	198.945	1.00 89.54	O
ATOM	654	N	ASN A 165	170.993	135.344	198.883	1.00 84.09	N
ATOM	655	CA	ASN A 165	171.761	135.729	197.708	1.00 84.09	C
ATOM	656	C	ASN A 165	172.271	134.468	197.029	1.00 84.09	C
ATOM	657	O	ASN A 165	172.166	133.364	197.568	1.00 84.09	O
ATOM	658	CB	ASN A 165	172.916	136.663	198.077	1.00 84.09	C
ATOM	659	CG	ASN A 165	173.941	136.000	198.971	1.00 84.09	C
ATOM	660	OD1	ASN A 165	173.814	134.827	199.320	1.00 84.09	O
ATOM	661	ND2	ASN A 165	174.969	136.749	199.343	1.00 84.09	N
ATOM	662	N	THR A 166	172.833	134.647	195.837	1.00 77.37	N
ATOM	663	CA	THR A 166	173.363	133.546	195.048	1.00 77.37	C

ATOM	664	C	THR A 166	174.785	133.873	194.613	1.00 77.37	C
ATOM	665	O	THR A 166	175.264	134.998	194.770	1.00 77.37	O
ATOM	666	CB	THR A 166	172.484	133.260	193.825	1.00 77.37	C
ATOM	667	OG1	THR A 166	171.105	133.349	194.200	1.00 77.37	O
ATOM	668	CG2	THR A 166	172.755	131.868	193.298	1.00 77.37	C
ATOM	669	N	GLU A 167	175.465	132.871	194.064	1.00 73.98	N
ATOM	670	CA	GLU A 167	176.839	133.048	193.613	1.00 73.98	C
ATOM	671	C	GLU A 167	177.225	131.873	192.729	1.00 73.98	C
ATOM	672	O	GLU A 167	176.987	130.720	193.095	1.00 73.98	O
ATOM	673	CB	GLU A 167	177.793	133.163	194.801	1.00 73.98	C
ATOM	674	CG	GLU A 167	179.238	133.355	194.401	1.00 73.98	C
ATOM	675	CD	GLU A 167	179.978	134.284	195.336	1.00 73.98	C
ATOM	676	OE1	GLU A 167	181.166	134.022	195.618	1.00 73.98	O
ATOM	677	OE2	GLU A 167	179.374	135.279	195.787	1.00 73.98	O
ATOM	678	N	TYR A 168	177.821	132.171	191.577	1.00 62.72	N
ATOM	679	CA	TYR A 168	178.203	131.169	190.591	1.00 62.72	C
ATOM	680	C	TYR A 168	179.714	130.993	190.591	1.00 62.72	C
ATOM	681	O	TYR A 168	180.460	131.970	190.686	1.00 62.72	O
ATOM	682	CB	TYR A 168	177.734	131.571	189.193	1.00 62.72	C
ATOM	683	CG	TYR A 168	176.261	131.875	189.106	1.00 62.72	C
ATOM	684	CD1	TYR A 168	175.765	133.109	189.487	1.00 62.72	C
ATOM	685	CD2	TYR A 168	175.365	130.928	188.640	1.00 62.72	C
ATOM	686	CE1	TYR A 168	174.419	133.390	189.409	1.00 62.72	C
ATOM	687	CE2	TYR A 168	174.019	131.198	188.559	1.00 62.72	C
ATOM	688	CZ	TYR A 168	173.552	132.430	188.944	1.00 62.72	C
ATOM	689	OH	TYR A 168	172.208	132.702	188.864	1.00 62.72	O
ATOM	690	N	VAL A 169	180.163	129.747	190.475	1.00 60.29	N
ATOM	691	CA	VAL A 169	181.589	129.447	190.488	1.00 60.29	C
ATOM	692	C	VAL A 169	181.837	128.225	189.617	1.00 60.29	C
ATOM	693	O	VAL A 169	180.993	127.329	189.533	1.00 60.29	O
ATOM	694	CB	VAL A 169	182.101	129.224	191.925	1.00 60.29	C
ATOM	695	CG1	VAL A 169	181.641	127.880	192.446	1.00 60.29	C
ATOM	696	CG2	VAL A 169	183.608	129.335	191.965	1.00 60.29	C
ATOM	697	N	ALA A 170	183.016	128.189	188.965	1.00 52.81	N
ATOM	698	CA	ALA A 170	183.379	127.137	188.019	1.00 52.81	C
ATOM	699	C	ALA A 170	184.092	126.000	188.738	1.00 52.81	C
ATOM	700	O	ALA A 170	185.037	126.251	189.492	1.00 52.81	O

ATOM	701	CB	ALA A 170	184.275	127.685	186.920	1.00 52.81	C
ATOM	702	N	PRO A 171	183.685	124.753	188.527	1.00 51.22	N
ATOM	703	CA	PRO A 171	184.254	123.642	189.293	1.00 51.22	C
ATOM	704	C	PRO A 171	185.736	123.484	189.013	1.00 51.22	C
ATOM	705	O	PRO A 171	186.291	124.168	188.142	1.00 51.22	O
ATOM	706	CB	PRO A 171	183.462	122.425	188.796	1.00 51.22	C
ATOM	707	CG	PRO A 171	182.889	122.837	187.499	1.00 51.22	C
ATOM	708	CD	PRO A 171	182.651	124.304	187.583	1.00 51.22	C
ATOM	709	N	PRO A 172	186.413	122.597	189.737	1.00 63.84	N
ATOM	710	CA	PRO A 172	187.829	122.341	189.478	1.00 63.84	C
ATOM	711	C	PRO A 172	188.023	121.281	188.409	1.00 63.84	C
ATOM	712	O	PRO A 172	187.185	120.403	188.199	1.00 63.84	O
ATOM	713	CB	PRO A 172	188.332	121.846	190.839	1.00 63.84	C
ATOM	714	CG	PRO A 172	187.163	121.114	191.391	1.00 63.84	C
ATOM	715	CD	PRO A 172	185.919	121.814	190.882	1.00 63.84	C
ATOM	716	N	MET A 173	189.169	121.374	187.734	1.00 69.89	N
ATOM	717	CA	MET A 173	189.425	120.536	186.568	1.00 69.89	C
ATOM	718	C	MET A 173	189.155	119.063	186.856	1.00 69.89	C
ATOM	719	O	MET A 173	188.388	118.411	186.140	1.00 69.89	O
ATOM	720	CB	MET A 173	190.862	120.740	186.089	1.00 69.89	C
ATOM	721	CG	MET A 173	191.093	120.366	184.636	1.00 69.89	C
ATOM	722	SD	MET A 173	189.941	121.165	183.502	1.00 69.89	S
ATOM	723	CE	MET A 173	190.068	122.868	184.030	1.00 69.89	C
ATOM	724	N	TRP A 174	189.765	118.522	187.913	1.00 82.32	N
ATOM	725	CA	TRP A 174	189.714	117.080	188.133	1.00 82.32	C
ATOM	726	C	TRP A 174	188.292	116.539	188.203	1.00 82.32	C
ATOM	727	O	TRP A 174	188.103	115.320	188.134	1.00 82.32	O
ATOM	728	CB	TRP A 174	190.469	116.701	189.410	1.00 82.32	C
ATOM	729	CG	TRP A 174	189.764	117.061	190.681	1.00 82.32	C
ATOM	730	CD1	TRP A 174	188.776	116.352	191.302	1.00 82.32	C
ATOM	731	CD2	TRP A 174	190.009	118.207	191.500	1.00 82.32	C
ATOM	732	NE1	TRP A 174	188.383	116.993	192.450	1.00 82.32	N
ATOM	733	CE2	TRP A 174	189.126	118.135	192.595	1.00 82.32	C
ATOM	734	CE3	TRP A 174	190.885	119.291	191.412	1.00 82.32	C
ATOM	735	CZ2	TRP A 174	189.095	119.104	193.591	1.00 82.32	C
ATOM	736	CZ3	TRP A 174	190.853	120.251	192.401	1.00 82.32	C
ATOM	737	CH2	TRP A 174	189.965	120.153	193.477	1.00 82.32	C

ATOM	738	N	GLU A 175	187.288	117.404	188.343	1.00 70.74	N
ATOM	739	CA	GLU A 175	185.906	116.947	188.394	1.00 70.74	C
ATOM	740	C	GLU A 175	185.220	116.977	187.037	1.00 70.74	C
ATOM	741	O	GLU A 175	184.259	116.225	186.823	1.00 70.74	O
ATOM	742	CB	GLU A 175	185.102	117.786	189.388	1.00 70.74	C
ATOM	743	CG	GLU A 175	183.764	117.172	189.741	1.00 70.74	C
ATOM	744	CD	GLU A 175	183.027	117.951	190.801	1.00 70.74	C
ATOM	745	OE1	GLU A 175	183.392	119.120	191.041	1.00 70.74	O
ATOM	746	OE2	GLU A 175	182.080	117.395	191.394	1.00 70.74	O
ATOM	747	N	ILE A 176	185.672	117.839	186.123	1.00 61.03	N
ATOM	748	CA	ILE A 176	185.198	117.779	184.749	1.00 61.03	C
ATOM	749	C	ILE A 176	185.660	116.518	184.044	1.00 61.03	C
ATOM	750	O	ILE A 176	185.201	116.233	182.934	1.00 61.03	O
ATOM	751	CB	ILE A 176	185.654	119.023	183.966	1.00 61.03	C
ATOM	752	CG1	ILE A 176	185.199	120.287	184.683	1.00 61.03	C
ATOM	753	CG2	ILE A 176	185.081	119.007	182.575	1.00 61.03	C
ATOM	754	CD1	ILE A 176	185.367	121.532	183.861	1.00 61.03	C
ATOM	755	N	HIS A 177	186.556	115.750	184.665	1.00 67.72	N
ATOM	756	CA	HIS A 177	186.947	114.452	184.140	1.00 67.72	C
ATOM	757	C	HIS A 177	186.054	113.328	184.638	1.00 67.72	C
ATOM	758	O	HIS A 177	186.028	112.257	184.022	1.00 67.72	O
ATOM	759	CB	HIS A 177	188.401	114.144	184.505	1.00 67.72	C
ATOM	760	CG	HIS A 177	189.398	114.978	183.765	1.00 67.72	C
ATOM	761	ND1	HIS A 177	189.044	115.812	182.727	1.00 67.72	N
ATOM	762	CD2	HIS A 177	190.736	115.110	183.914	1.00 67.72	C
ATOM	763	CE1	HIS A 177	190.121	116.421	182.268	1.00 67.72	C
ATOM	764	NE2	HIS A 177	191.162	116.014	182.971	1.00 67.72	N
ATOM	765	N	HIS A 178	185.326	113.542	185.733	1.00 65.73	N
ATOM	766	CA	HIS A 178	184.304	112.602	186.173	1.00 65.73	C
ATOM	767	C	HIS A 178	182.929	112.929	185.624	1.00 65.73	C
ATOM	768	O	HIS A 178	182.145	112.011	185.364	1.00 65.73	O
ATOM	769	CB	HIS A 178	184.235	112.557	187.700	1.00 65.73	C
ATOM	770	CG	HIS A 178	185.100	111.499	188.307	1.00 65.73	C
ATOM	771	ND1	HIS A 178	184.742	110.169	188.325	1.00 65.73	N
ATOM	772	CD2	HIS A 178	186.310	111.572	188.910	1.00 65.73	C
ATOM	773	CE1	HIS A 178	185.693	109.468	188.917	1.00 65.73	C
ATOM	774	NE2	HIS A 178	186.655	110.296	189.282	1.00 65.73	N

ATOM	775	N	ILE A 179	182.617	114.211	185.438	1.00 59.23	N
ATOM	776	CA	ILE A 179	181.368	114.566	184.772	1.00 59.23	C
ATOM	777	C	ILE A 179	181.329	113.969	183.372	1.00 59.23	C
ATOM	778	O	ILE A 179	180.290	113.473	182.920	1.00 59.23	O
ATOM	779	CB	ILE A 179	181.187	116.093	184.737	1.00 59.23	C
ATOM	780	CG1	ILE A 179	181.063	116.648	186.150	1.00 59.23	C
ATOM	781	CG2	ILE A 179	179.964	116.461	183.922	1.00 59.23	C
ATOM	782	CD1	ILE A 179	180.532	118.058	186.194	1.00 59.23	C
ATOM	783	N	ASN A 180	182.456	114.004	182.665	1.00 57.86	N
ATOM	784	CA	ASN A 180	182.547	113.538	181.289	1.00 57.86	C
ATOM	785	C	ASN A 180	182.813	112.044	181.178	1.00 57.86	C
ATOM	786	O	ASN A 180	183.082	111.560	180.077	1.00 57.86	O
ATOM	787	CB	ASN A 180	183.645	114.303	180.548	1.00 57.86	C
ATOM	788	CG	ASN A 180	183.201	115.675	180.105	1.00 57.86	C
ATOM	789	OD1	ASN A 180	182.019	115.909	179.869	1.00 57.86	O
ATOM	790	ND2	ASN A 180	184.148	116.592	179.989	1.00 57.86	N
ATOM	791	N	SER A 181	182.760	111.305	182.283	1.00 59.18	N
ATOM	792	CA	SER A 181	182.969	109.865	182.220	1.00 59.18	C
ATOM	793	C	SER A 181	181.963	109.056	183.021	1.00 59.18	C
ATOM	794	O	SER A 181	181.894	107.841	182.823	1.00 59.18	O
ATOM	795	CB	SER A 181	184.382	109.510	182.696	1.00 59.18	C
ATOM	796	OG	SER A 181	185.334	110.390	182.128	1.00 59.18	O
ATOM	797	N	HIS A 182	181.192	109.669	183.918	1.00 64.81	N
ATOM	798	CA	HIS A 182	180.139	108.954	184.624	1.00 64.81	C
ATOM	799	C	HIS A 182	178.836	109.729	184.741	1.00 64.81	C
ATOM	800	O	HIS A 182	177.825	109.125	185.108	1.00 64.81	O
ATOM	801	CB	HIS A 182	180.604	108.562	186.033	1.00 64.81	C
ATOM	802	CG	HIS A 182	181.874	107.772	186.055	1.00 64.81	C
ATOM	803	ND1	HIS A 182	183.017	108.219	186.680	1.00 64.81	N
ATOM	804	CD2	HIS A 182	182.178	106.560	185.536	1.00 64.81	C
ATOM	805	CE1	HIS A 182	183.973	107.318	186.542	1.00 64.81	C
ATOM	806	NE2	HIS A 182	183.490	106.302	185.851	1.00 64.81	N
ATOM	807	N	SER A 183	178.813	111.029	184.445	1.00 65.46	N
ATOM	808	CA	SER A 183	177.624	111.853	184.648	1.00 65.46	C
ATOM	809	C	SER A 183	177.279	111.952	186.134	1.00 65.46	C
ATOM	810	O	SER A 183	176.152	111.685	186.548	1.00 65.46	O
ATOM	811	CB	SER A 183	176.438	111.315	183.847	1.00 65.46	C

ATOM	812	OG	SER A 183	176.729	111.286	182.464	1.00 65.46	O
ATOM	813	N	GLN A 184	178.268	112.340	186.942	1.00 70.92	N
ATOM	814	CA	GLN A 184	178.098	112.358	188.394	1.00 70.92	C
ATOM	815	C	GLN A 184	178.941	113.491	188.970	1.00 70.92	C
ATOM	816	O	GLN A 184	180.149	113.328	189.159	1.00 70.92	O
ATOM	817	CB	GLN A 184	178.497	111.022	189.001	1.00 70.92	C
ATOM	818	CG	GLN A 184	177.719	109.841	188.478	1.00 70.92	C
ATOM	819	CD	GLN A 184	178.062	108.567	189.212	1.00 70.92	C
ATOM	820	OE1	GLN A 184	179.082	108.489	189.894	1.00 70.92	O
ATOM	821	NE2	GLN A 184	177.208	107.560	189.082	1.00 70.92	N
ATOM	822	N	CYS A 185	178.304	114.622	189.261	1.00 74.83	N
ATOM	823	CA	CYS A 185	178.988	115.665	190.007	1.00 74.83	C
ATOM	824	C	CYS A 185	179.306	115.165	191.414	1.00 74.83	C
ATOM	825	O	CYS A 185	178.873	114.092	191.835	1.00 74.83	O
ATOM	826	CB	CYS A 185	178.139	116.933	190.075	1.00 74.83	C
ATOM	827	SG	CYS A 185	177.617	117.590	188.477	1.00 74.83	S
ATOM	828	N	TYR A 186	180.082	115.956	192.143	1.00 85.13	N
ATOM	829	CA	TYR A 186	180.339	115.667	193.544	1.00 85.13	C
ATOM	830	C	TYR A 186	179.399	116.473	194.435	1.00 85.13	C
ATOM	831	O	TYR A 186	178.637	117.325	193.975	1.00 85.13	O
ATOM	832	CB	TYR A 186	181.796	115.953	193.900	1.00 85.13	C
ATOM	833	CG	TYR A 186	182.761	114.930	193.358	1.00 85.13	C
ATOM	834	CD1	TYR A 186	182.318	113.685	192.941	1.00 85.13	C
ATOM	835	CD2	TYR A 186	184.115	115.210	193.259	1.00 85.13	C
ATOM	836	CE1	TYR A 186	183.196	112.747	192.446	1.00 85.13	C
ATOM	837	CE2	TYR A 186	185.000	114.280	192.762	1.00 85.13	C
ATOM	838	CZ	TYR A 186	184.536	113.050	192.357	1.00 85.13	C
ATOM	839	OH	TYR A 186	185.418	112.119	191.860	1.00 85.13	O
ATOM	840	N	SER A 187	179.463	116.193	195.732	1.00 95.73	N
ATOM	841	CA	SER A 187	178.570	116.793	196.713	1.00 95.73	C
ATOM	842	C	SER A 187	179.349	117.554	197.777	1.00 95.73	C
ATOM	843	O	SER A 187	179.055	117.461	198.969	1.00 95.73	O
ATOM	844	CB	SER A 187	177.686	115.729	197.358	1.00 95.73	C
ATOM	845	OG	SER A 187	178.469	114.675	197.887	1.00 95.73	O
ATOM	846	N	SER A 188	180.358	118.316	197.362	1.00 98.36	N
ATOM	847	CA	SER A 188	181.131	119.107	198.308	1.00 98.36	C
ATOM	848	C	SER A 188	182.001	120.095	197.547	1.00 98.36	C

ATOM	849	O	SER A 188	182.501	119.785	196.464	1.00 98.36 O
ATOM	850	CB	SER A 188	182.000	118.219	199.201	1.00 98.36 C
ATOM	851	OG	SER A 188	182.942	117.496	198.431	1.00 98.36 O
ATOM	852	N	TYR A 189	182.180	121.276	198.130	1.00 99.21 N
ATOM	853	CA	TYR A 189	182.961	122.347	197.535	1.00 99.21 C
ATOM	854	C	TYR A 189	184.142	122.692	198.432	1.00 99.21 C
ATOM	855	O	TYR A 189	184.182	122.332	199.611	1.00 99.21 O
ATOM	856	CB	TYR A 189	182.099	123.592	197.301	1.00 99.21 C
ATOM	857	CG	TYR A 189	182.706	124.569	196.332	1.00 99.21 C
ATOM	858	CD1	TYR A 189	183.487	124.127	195.278	1.00 99.21 C
ATOM	859	CD2	TYR A 189	182.496	125.929	196.465	1.00 99.21 C
ATOM	860	CE1	TYR A 189	184.045	125.010	194.389	1.00 99.21 C
ATOM	861	CE2	TYR A 189	183.050	126.822	195.577	1.00 99.21 C
ATOM	862	CZ	TYR A 189	183.824	126.356	194.542	1.00 99.21 C
ATOM	863	OH	TYR A 189	184.383	127.236	193.651	1.00 99.21 O
ATOM	864	N	SER A 190	185.112	123.400	197.857	1.00110.74 N
ATOM	865	CA	SER A 190	186.311	123.777	198.601	1.00110.74 C
ATOM	866	C	SER A 190	186.899	125.022	197.952	1.00110.74 C
ATOM	867	O	SER A 190	187.455	124.940	196.853	1.00110.74 O
ATOM	868	CB	SER A 190	187.318	122.635	198.614	1.00110.74 C
ATOM	869	OG	SER A 190	186.796	121.505	199.290	1.00110.74 O
ATOM	870	N	ARG A 191	186.777	126.160	198.626	1.00119.08 N
ATOM	871	CA	ARG A 191	187.303	127.423	198.139	1.00119.08 C
ATOM	872	C	ARG A 191	188.589	127.775	198.882	1.00119.08 C
ATOM	873	O	ARG A 191	189.053	127.047	199.761	1.00119.08 O
ATOM	874	CB	ARG A 191	186.262	128.532	198.298	1.00119.08 C
ATOM	875	CG	ARG A 191	185.881	128.806	199.743	1.00119.08 C
ATOM	876	CD	ARG A 191	185.115	130.110	199.887	1.00119.08 C
ATOM	877	NE	ARG A 191	183.802	130.064	199.253	1.00119.08 N
ATOM	878	CZ	ARG A 191	183.471	130.756	198.168	1.00119.08 C
ATOM	879	NH1	ARG A 191	184.362	131.548	197.589	1.00119.08 N
ATOM	880	NH2	ARG A 191	182.251	130.657	197.662	1.00119.08 N
ATOM	881	N	VAL A 192	189.174	128.913	198.513	1.00133.53 N
ATOM	882	CA	VAL A 192	190.334	129.461	199.209	1.00133.53 C
ATOM	883	C	VAL A 192	190.414	130.951	198.905	1.00133.53 C
ATOM	884	O	VAL A 192	190.339	131.358	197.741	1.00133.53 O
ATOM	885	CB	VAL A 192	191.628	128.736	198.797	1.00133.53 C

ATOM	886	CG1	VAL	A	192	191.937	128.995	197.332	1.00	133.53	C
ATOM	887	CG2	VAL	A	192	192.788	129.180	199.669	1.00	133.53	C
ATOM	888	N	ILE	A	193	190.574	131.778	199.938	1.00	140.69	N
ATOM	889	CA	ILE	A	193	190.616	133.232	199.777	1.00	140.69	C
ATOM	890	C	ILE	A	193	191.906	133.735	200.422	1.00	140.69	C
ATOM	891	O	ILE	A	193	191.929	134.134	201.590	1.00	140.69	O
ATOM	892	CB	ILE	A	193	189.386	133.925	200.373	1.00	140.69	C
ATOM	893	CG1	ILE	A	193	189.430	135.427	200.089	1.00	140.69	C
ATOM	894	CG2	ILE	A	193	189.261	133.631	201.866	1.00	140.69	C
ATOM	895	CD1	ILE	A	193	189.442	135.764	198.616	1.00	140.69	C
ATOM	896	N	ALA	A	194	192.993	133.714	199.654	1.00	143.94	N
ATOM	897	CA	ALA	A	194	194.206	134.485	199.904	1.00	143.94	C
ATOM	898	C	ALA	A	194	194.933	134.114	201.192	1.00	143.94	C
ATOM	899	O	ALA	A	194	196.074	134.540	201.397	1.00	143.94	O
ATOM	900	CB	ALA	A	194	193.875	135.979	199.920	1.00	143.94	C
ATOM	901	N	GLY	A	195	194.306	133.330	202.067	1.00	142.34	N
ATOM	902	CA	GLY	A	195	195.028	132.844	203.226	1.00	142.34	C
ATOM	903	C	GLY	A	195	194.613	131.485	203.748	1.00	142.34	C
ATOM	904	O	GLY	A	195	195.232	130.966	204.682	1.00	142.34	O
ATOM	905	N	THR	A	196	193.578	130.891	203.157	1.00	139.01	N
ATOM	906	CA	THR	A	196	193.058	129.631	203.673	1.00	139.01	C
ATOM	907	C	THR	A	196	191.863	129.147	202.862	1.00	139.01	C
ATOM	908	O	THR	A	196	191.367	129.861	201.985	1.00	139.01	O
ATOM	909	CB	THR	A	196	192.664	129.773	205.146	1.00	139.01	C
ATOM	910	OG1	THR	A	196	192.334	128.486	205.681	1.00	139.01	O
ATOM	911	CG2	THR	A	196	191.466	130.699	205.289	1.00	139.01	C
ATOM	912	N	VAL	A	197	191.387	127.943	203.165	1.00	131.92	N
ATOM	913	CA	VAL	A	197	190.234	127.349	202.500	1.00	131.92	C
ATOM	914	C	VAL	A	197	189.030	127.474	203.422	1.00	131.92	C
ATOM	915	O	VAL	A	197	189.134	127.224	204.629	1.00	131.92	O
ATOM	916	CB	VAL	A	197	190.494	125.877	202.134	1.00	131.92	C
ATOM	917	CG1	VAL	A	197	189.181	125.141	201.918	1.00	131.92	C
ATOM	918	CG2	VAL	A	197	191.378	125.785	200.898	1.00	131.92	C
ATOM	919	N	PHE	A	198	187.893	127.866	202.857	1.00	127.80	N
ATOM	920	CA	PHE	A	198	186.618	127.902	203.567	1.00	127.80	C
ATOM	921	C	PHE	A	198	185.736	126.835	202.924	1.00	127.80	C
ATOM	922	O	PHE	A	198	184.959	127.114	202.010	1.00	127.80	O

ATOM	923	CB	PHE A 198	185.980	129.288	203.506	1.00127.80	C
ATOM	924	CG	PHE A 198	185.145	129.625	204.711	1.00127.80	C
ATOM	925	CD1	PHE A 198	185.710	129.660	205.975	1.00127.80	C
ATOM	926	CD2	PHE A 198	183.795	129.902	204.579	1.00127.80	C
ATOM	927	CE1	PHE A 198	184.945	129.966	207.083	1.00127.80	C
ATOM	928	CE2	PHE A 198	183.025	130.210	205.684	1.00127.80	C
ATOM	929	CZ	PHE A 198	183.602	130.242	206.938	1.00127.80	C
ATOM	930	N	VAL A 199	185.864	125.605	203.415	1.00120.26	N
ATOM	931	CA	VAL A 199	185.209	124.455	202.800	1.00120.26	C
ATOM	932	C	VAL A 199	183.706	124.565	203.034	1.00120.26	C
ATOM	933	O	VAL A 199	183.229	124.418	204.162	1.00120.26	O
ATOM	934	CB	VAL A 199	185.764	123.135	203.347	1.00120.26	C
ATOM	935	CG1	VAL A 199	185.704	123.122	204.866	1.00120.26	C
ATOM	936	CG2	VAL A 199	184.994	121.958	202.769	1.00120.26	C
ATOM	937	N	ALA A 200	182.958	124.826	201.968	1.00114.44	N
ATOM	938	CA	ALA A 200	181.507	124.833	202.024	1.00114.44	C
ATOM	939	C	ALA A 200	180.994	123.411	201.802	1.00114.44	C
ATOM	940	O	ALA A 200	181.763	122.447	201.777	1.00114.44	O
ATOM	941	CB	ALA A 200	180.942	125.820	201.004	1.00114.44	C
ATOM	942	N	TYR A 201	179.686	123.265	201.636	1.00110.29	N
ATOM	943	CA	TYR A 201	179.080	121.949	201.501	1.00110.29	C
ATOM	944	C	TYR A 201	177.730	122.103	200.806	1.00110.29	C
ATOM	945	O	TYR A 201	177.427	123.159	200.241	1.00110.29	O
ATOM	946	CB	TYR A 201	178.939	121.278	202.878	1.00110.29	C
ATOM	947	CG	TYR A 201	180.131	120.458	203.317	1.00110.29	C
ATOM	948	CD1	TYR A 201	180.282	119.144	202.900	1.00110.29	C
ATOM	949	CD2	TYR A 201	181.091	120.990	204.165	1.00110.29	C
ATOM	950	CE1	TYR A 201	181.365	118.388	203.303	1.00110.29	C
ATOM	951	CE2	TYR A 201	182.177	120.242	204.572	1.00110.29	C
ATOM	952	CZ	TYR A 201	182.309	118.941	204.139	1.00110.29	C
ATOM	953	OH	TYR A 201	183.389	118.191	204.542	1.00110.29	O
ATOM	954	N	HIS A 202	176.927	121.044	200.856	1.00107.29	N
ATOM	955	CA	HIS A 202	175.496	121.107	200.594	1.00107.29	C
ATOM	956	C	HIS A 202	174.860	121.709	201.838	1.00107.29	C
ATOM	957	O	HIS A 202	175.547	122.382	202.613	1.00107.29	O
ATOM	958	CB	HIS A 202	174.920	119.724	200.281	1.00107.29	C
ATOM	959	CG	HIS A 202	173.709	119.757	199.400	1.00107.29	C

ATOM	960	ND1	HIS A 202	172.530	120.365	199.776	1.00107.29	N
ATOM	961	CD2	HIS A 202	173.492	119.254	198.161	1.00107.29	C
ATOM	962	CE1	HIS A 202	171.641	120.238	198.808	1.00107.29	C
ATOM	963	NE2	HIS A 202	172.199	119.568	197.817	1.00107.29	N
ATOM	964	N	ARG A 203	173.563	121.509	202.049	1.00112.17	N
ATOM	965	CA	ARG A 203	172.951	122.133	203.214	1.00112.17	C
ATOM	966	C	ARG A 203	173.511	121.492	204.481	1.00112.17	C
ATOM	967	O	ARG A 203	172.795	120.810	205.222	1.00112.17	O
ATOM	968	CB	ARG A 203	171.429	121.995	203.168	1.00112.17	C
ATOM	969	CG	ARG A 203	170.703	122.861	204.181	1.00112.17	C
ATOM	970	CD	ARG A 203	169.265	122.398	204.345	1.00112.17	C
ATOM	971	NE	ARG A 203	168.382	123.472	204.787	1.00112.17	N
ATOM	972	CZ	ARG A 203	167.697	124.252	203.959	1.00112.17	C
ATOM	973	NH1	ARG A 203	167.806	124.082	202.649	1.00112.17	N
ATOM	974	NH2	ARG A 203	166.912	125.208	204.436	1.00112.17	N
ATOM	975	N	ASP A 204	174.808	121.717	204.716	1.00118.90	N
ATOM	976	CA	ASP A 204	175.543	121.317	205.912	1.00118.90	C
ATOM	977	C	ASP A 204	175.241	119.889	206.359	1.00118.90	C
ATOM	978	O	ASP A 204	175.138	119.613	207.559	1.00118.90	O
ATOM	979	CB	ASP A 204	175.262	122.332	207.021	1.00118.90	C
ATOM	980	CG	ASP A 204	175.719	123.725	206.646	1.00118.90	C
ATOM	981	OD1	ASP A 204	175.878	123.972	205.435	1.00118.90	O
ATOM	982	OD2	ASP A 204	175.973	124.555	207.541	1.00118.90	O
ATOM	983	N	SER A 205	175.155	118.972	205.392	1.00120.40	N
ATOM	984	CA	SER A 205	174.961	117.547	205.633	1.00120.40	C
ATOM	985	C	SER A 205	176.271	116.783	205.755	1.00120.40	C
ATOM	986	O	SER A 205	176.247	115.570	205.991	1.00120.40	O
ATOM	987	CB	SER A 205	174.128	116.926	204.506	1.00120.40	C
ATOM	988	OG	SER A 205	172.786	117.373	204.527	1.00120.40	O
ATOM	989	N	TYR A 206	177.406	117.448	205.551	1.00121.88	N
ATOM	990	CA	TYR A 206	178.717	116.857	205.816	1.00121.88	C
ATOM	991	C	TYR A 206	178.950	115.593	204.991	1.00121.88	C
ATOM	992	O	TYR A 206	179.784	114.754	205.338	1.00121.88	O
ATOM	993	CB	TYR A 206	178.892	116.565	207.308	1.00121.88	C
ATOM	994	CG	TYR A 206	178.693	117.769	208.208	1.00121.88	C
ATOM	995	CD1	TYR A 206	178.596	119.052	207.682	1.00121.88	C
ATOM	996	CD2	TYR A 206	178.611	117.622	209.586	1.00121.88	C

ATOM	997	CE1	TYR A 206	178.416	120.150	208.498	1.00121.88	C
ATOM	998	CE2	TYR A 206	178.433	118.716	210.411	1.00121.88	C
ATOM	999	CZ	TYR A 206	178.337	119.976	209.862	1.00121.88	C
ATOM	1000	OH	TYR A 206	178.160	121.065	210.683	1.00121.88	O
ATOM	1001	N	GLU A 207	178.225	115.449	203.884	1.00114.22	N
ATOM	1002	CA	GLU A 207	178.286	114.253	203.058	1.00114.22	C
ATOM	1003	C	GLU A 207	179.002	114.544	201.745	1.00114.22	C
ATOM	1004	O	GLU A 207	178.900	115.642	201.190	1.00114.22	O
ATOM	1005	CB	GLU A 207	176.883	113.709	202.776	1.00114.22	C
ATOM	1006	CG	GLU A 207	176.294	112.940	203.940	1.00114.22	C
ATOM	1007	CD	GLU A 207	177.255	111.907	204.486	1.00114.22	C
ATOM	1008	OE1	GLU A 207	178.050	111.360	203.694	1.00114.22	O
ATOM	1009	OE2	GLU A 207	177.222	111.650	205.707	1.00114.22	O
ATOM	1010	N	ASN A 208	179.727	113.544	201.250	1.00103.12	N
ATOM	1011	CA	ASN A 208	180.504	113.670	200.020	1.00103.12	C
ATOM	1012	C	ASN A 208	180.263	112.467	199.115	1.00103.12	C
ATOM	1013	O	ASN A 208	181.194	111.830	198.622	1.00103.12	O
ATOM	1014	CB	ASN A 208	181.990	113.830	200.324	1.00103.12	C
ATOM	1015	CG	ASN A 208	182.778	114.310	199.123	1.00103.12	C
ATOM	1016	OD1	ASN A 208	183.010	113.559	198.177	1.00103.12	O
ATOM	1017	ND2	ASN A 208	183.210	115.561	199.163	1.00103.12	N
ATOM	1018	N	LYS A 209	178.997	112.137	198.894	1.00 96.60	N
ATOM	1019	CA	LYS A 209	178.637	111.056	197.992	1.00 96.60	C
ATOM	1020	C	LYS A 209	178.450	111.620	196.584	1.00 96.60	C
ATOM	1021	O	LYS A 209	178.786	112.773	196.304	1.00 96.60	O
ATOM	1022	CB	LYS A 209	177.391	110.335	198.501	1.00 96.60	C
ATOM	1023	CG	LYS A 209	177.286	110.270	200.016	1.00 96.60	C
ATOM	1024	CD	LYS A 209	178.571	109.746	200.642	1.00 96.60	C
ATOM	1025	CE	LYS A 209	178.898	108.340	200.163	1.00 96.60	C
ATOM	1026	NZ	LYS A 209	179.905	107.675	201.036	1.00 96.60	N
ATOM	1027	N	THR A 210	177.910	110.810	195.682	1.00 84.89	N
ATOM	1028	CA	THR A 210	177.737	111.196	194.291	1.00 84.89	C
ATOM	1029	C	THR A 210	176.284	111.560	194.006	1.00 84.89	C
ATOM	1030	O	THR A 210	175.397	111.405	194.848	1.00 84.89	O
ATOM	1031	CB	THR A 210	178.192	110.067	193.364	1.00 84.89	C
ATOM	1032	OG1	THR A 210	177.375	108.911	193.583	1.00 84.89	O
ATOM	1033	CG2	THR A 210	179.641	109.712	193.639	1.00 84.89	C

ATOM	1034	N	MET A 211	176.049	112.053	192.791	1.00 80.27 N
ATOM	1035	CA	MET A 211	174.713	112.452	192.370	1.00 80.27 C
ATOM	1036	C	MET A 211	174.435	111.994	190.944	1.00 80.27 C
ATOM	1037	O	MET A 211	175.200	111.208	190.379	1.00 80.27 O
ATOM	1038	CB	MET A 211	174.553	113.967	192.477	1.00 80.27 C
ATOM	1039	CG	MET A 211	174.848	114.527	193.854	1.00 80.27 C
ATOM	1040	SD	MET A 211	173.389	114.622	194.904	1.00 80.27 S
ATOM	1041	CE	MET A 211	173.874	115.931	196.025	1.00 80.27 C
ATOM	1042	N	GLN A 212	173.341	112.473	190.358	1.00 71.09 N
ATOM	1043	CA	GLN A 212	173.009	112.196	188.969	1.00 71.09 C
ATOM	1044	C	GLN A 212	172.528	113.484	188.319	1.00 71.09 C
ATOM	1045	O	GLN A 212	172.493	114.544	188.946	1.00 71.09 O
ATOM	1046	CB	GLN A 212	171.943	111.104	188.847	1.00 71.09 C
ATOM	1047	CG	GLN A 212	172.396	109.740	189.316	1.00 71.09 C
ATOM	1048	CD	GLN A 212	173.533	109.193	188.487	1.00 71.09 C
ATOM	1049	OE1	GLN A 212	174.665	109.084	188.956	1.00 71.09 O
ATOM	1050	NE2	GLN A 212	173.239	108.847	187.241	1.00 71.09 N
ATOM	1051	N	LEU A 213	172.157	113.390	187.046	1.00 58.95 N
ATOM	1052	CA	LEU A 213	171.672	114.537	186.297	1.00 58.95 C
ATOM	1053	C	LEU A 213	170.352	114.196	185.617	1.00 58.95 C
ATOM	1054	O	LEU A 213	170.076	113.033	185.315	1.00 58.95 O
ATOM	1055	CB	LEU A 213	172.708	114.995	185.269	1.00 58.95 C
ATOM	1056	CG	LEU A 213	173.986	115.583	185.870	1.00 58.95 C
ATOM	1057	CD1	LEU A 213	174.972	114.486	186.198	1.00 58.95 C
ATOM	1058	CD2	LEU A 213	174.611	116.588	184.934	1.00 58.95 C
ATOM	1059	N	MET A 214	169.528	115.225	185.390	1.00 58.72 N
ATOM	1060	CA	MET A 214	168.184	115.068	184.843	1.00 58.72 C
ATOM	1061	C	MET A 214	167.732	116.363	184.183	1.00 58.72 C
ATOM	1062	O	MET A 214	168.065	117.447	184.679	1.00 58.72 O
ATOM	1063	CB	MET A 214	167.184	114.672	185.933	1.00 58.72 C
ATOM	1064	CG	MET A 214	167.712	113.653	186.930	1.00 58.72 C
ATOM	1065	SD	MET A 214	166.777	113.591	188.469	1.00 58.72 S
ATOM	1066	CE	MET A 214	166.901	115.289	189.016	1.00 58.72 C
ATOM	1067	N	PRO A 215	166.972	116.291	183.092	1.00 51.70 N
ATOM	1068	CA	PRO A 215	166.597	117.513	182.364	1.00 51.70 C
ATOM	1069	C	PRO A 215	165.838	118.489	183.251	1.00 51.70 C
ATOM	1070	O	PRO A 215	165.068	118.085	184.123	1.00 51.70 O

ATOM	1071	CB	PRO A 215	165.720	116.988	181.224	1.00 51.70	C
ATOM	1072	CG	PRO A 215	166.092	115.542	181.092	1.00 51.70	C
ATOM	1073	CD	PRO A 215	166.419	115.081	182.471	1.00 51.70	C
ATOM	1074	N	ASP A 216	166.068	119.788	183.033	1.00 56.42	N
ATOM	1075	CA	ASP A 216	165.608	120.793	184.002	1.00 56.42	C
ATOM	1076	C	ASP A 216	164.177	121.286	183.784	1.00 56.42	C
ATOM	1077	O	ASP A 216	163.250	120.819	184.452	1.00 56.42	O
ATOM	1078	CB	ASP A 216	166.584	121.969	183.981	1.00 56.42	C
ATOM	1079	CG	ASP A 216	166.482	122.833	185.213	1.00 56.42	C
ATOM	1080	OD1	ASP A 216	167.090	122.473	186.240	1.00 56.42	O
ATOM	1081	OD2	ASP A 216	165.803	123.876	185.151	1.00 56.42	O
ATOM	1082	N	CYS A 217	163.974	122.222	182.849	1.00 62.32	N
ATOM	1083	CA	CYS A 217	162.613	122.679	182.565	1.00 62.32	C
ATOM	1084	C	CYS A 217	162.348	123.135	181.132	1.00 62.32	C
ATOM	1085	O	CYS A 217	161.191	123.154	180.702	1.00 62.32	O
ATOM	1086	CB	CYS A 217	162.228	123.833	183.505	1.00 62.32	C
ATOM	1087	SG	CYS A 217	161.334	123.394	185.033	1.00 62.32	S
ATOM	1088	N	TYR A 218	163.383	123.502	180.380	1.00 57.21	N
ATOM	1089	CA	TYR A 218	163.188	124.402	179.238	1.00 57.21	C
ATOM	1090	C	TYR A 218	163.930	123.926	177.995	1.00 57.21	C
ATOM	1091	O	TYR A 218	164.673	124.678	177.366	1.00 57.21	O
ATOM	1092	CB	TYR A 218	163.625	125.824	179.584	1.00 57.21	C
ATOM	1093	CG	TYR A 218	163.185	126.315	180.940	1.00 57.21	C
ATOM	1094	CD1	TYR A 218	161.905	126.798	181.142	1.00 57.21	C
ATOM	1095	CD2	TYR A 218	164.059	126.313	182.014	1.00 57.21	C
ATOM	1096	CE1	TYR A 218	161.504	127.254	182.379	1.00 57.21	C
ATOM	1097	CE2	TYR A 218	163.666	126.769	183.255	1.00 57.21	C
ATOM	1098	CZ	TYR A 218	162.388	127.236	183.431	1.00 57.21	C
ATOM	1099	OH	TYR A 218	161.993	127.689	184.666	1.00 57.21	O
ATOM	1100	N	SER A 219	163.737	122.670	177.614	1.00 52.64	N
ATOM	1101	CA	SER A 219	164.347	122.188	176.384	1.00 52.64	C
ATOM	1102	C	SER A 219	163.905	123.036	175.197	1.00 52.64	C
ATOM	1103	O	SER A 219	162.780	123.536	175.146	1.00 52.64	O
ATOM	1104	CB	SER A 219	163.986	120.721	176.151	1.00 52.64	C
ATOM	1105	OG	SER A 219	164.217	119.950	177.316	1.00 52.64	O
ATOM	1106	N	ASN A 220	164.815	123.208	174.245	1.00 48.68	N
ATOM	1107	CA	ASN A 220	164.572	123.854	172.961	1.00 48.68	C

ATOM	1108	C	ASN A 220	165.092	122.953	171.847	1.00 48.68	C
ATOM	1109	O	ASN A 220	165.421	121.784	172.061	1.00 48.68	O
ATOM	1110	CB	ASN A 220	165.236	125.231	172.877	1.00 48.68	C
ATOM	1111	CG	ASN A 220	164.565	126.260	173.743	1.00 48.68	C
ATOM	1112	OD1	ASN A 220	165.151	126.764	174.699	1.00 48.68	O
ATOM	1113	ND2	ASN A 220	163.330	126.596	173.405	1.00 48.68	N
ATOM	1114	N	THR A 221	165.157	123.514	170.641	1.00 48.07	N
ATOM	1115	CA	THR A 221	165.790	122.813	169.531	1.00 48.07	C
ATOM	1116	C	THR A 221	167.309	122.892	169.630	1.00 48.07	C
ATOM	1117	O	THR A 221	168.020	121.984	169.184	1.00 48.07	O
ATOM	1118	CB	THR A 221	165.311	123.396	168.204	1.00 48.07	C
ATOM	1119	OG1	THR A 221	163.886	123.291	168.120	1.00 48.07	O
ATOM	1120	CG2	THR A 221	165.931	122.642	167.046	1.00 48.07	C
ATOM	1121	N	HIS A 222	167.826	123.974	170.208	1.00 47.92	N
ATOM	1122	CA	HIS A 222	169.262	124.237	170.239	1.00 47.92	C
ATOM	1123	C	HIS A 222	169.738	124.530	171.661	1.00 47.92	C
ATOM	1124	O	HIS A 222	170.680	125.292	171.876	1.00 47.92	O
ATOM	1125	CB	HIS A 222	169.624	125.411	169.330	1.00 47.92	C
ATOM	1126	CG	HIS A 222	169.145	125.268	167.919	1.00 47.92	C
ATOM	1127	ND1	HIS A 222	167.924	125.743	167.497	1.00 47.92	N
ATOM	1128	CD2	HIS A 222	169.737	124.732	166.826	1.00 47.92	C
ATOM	1129	CE1	HIS A 222	167.776	125.492	166.209	1.00 47.92	C
ATOM	1130	NE2	HIS A 222	168.863	124.879	165.778	1.00 47.92	N
ATOM	1131	N	SER A 223	169.086	123.940	172.663	1.00 46.80	N
ATOM	1132	CA	SER A 223	169.479	124.195	174.050	1.00 46.80	C
ATOM	1133	C	SER A 223	168.875	123.115	174.942	1.00 46.80	C
ATOM	1134	O	SER A 223	167.661	122.903	174.927	1.00 46.80	O
ATOM	1135	CB	SER A 223	169.046	125.583	174.496	1.00 46.80	C
ATOM	1136	OG	SER A 223	169.428	126.566	173.552	1.00 46.80	O
ATOM	1137	N	THR A 224	169.725	122.442	175.709	1.00 44.17	N
ATOM	1138	CA	THR A 224	169.300	121.494	176.726	1.00 44.17	C
ATOM	1139	C	THR A 224	170.144	121.692	177.976	1.00 44.17	C
ATOM	1140	O	THR A 224	171.315	122.069	177.894	1.00 44.17	O
ATOM	1141	CB	THR A 224	169.428	120.055	176.229	1.00 44.17	C
ATOM	1142	OG1	THR A 224	168.721	119.914	174.992	1.00 44.17	O
ATOM	1143	CG2	THR A 224	168.851	119.091	177.241	1.00 44.17	C
ATOM	1144	N	ARG A 225	169.550	121.439	179.138	1.00 46.82	N

ATOM	1145	CA	ARG A 225	170.246	121.633	180.400	1.00 46.82	C
ATOM	1146	C	ARG A 225	170.035	120.425	181.297	1.00 46.82	C
ATOM	1147	O	ARG A 225	169.031	119.721	181.186	1.00 46.82	O
ATOM	1148	CB	ARG A 225	169.776	122.900	181.118	1.00 46.82	C
ATOM	1149	CG	ARG A 225	170.483	123.143	182.434	1.00 46.82	C
ATOM	1150	CD	ARG A 225	170.419	124.598	182.841	1.00 46.82	C
ATOM	1151	NE	ARG A 225	169.161	124.920	183.501	1.00 46.82	N
ATOM	1152	CZ	ARG A 225	168.938	126.046	184.167	1.00 46.82	C
ATOM	1153	NH1	ARG A 225	167.763	126.258	184.739	1.00 46.82	N
ATOM	1154	NH2	ARG A 225	169.892	126.960	184.262	1.00 46.82	N
ATOM	1155	N	TYR A 226	170.995	120.191	182.189	1.00 47.52	N
ATOM	1156	CA	TYR A 226	170.943	119.064	183.108	1.00 47.52	C
ATOM	1157	C	TYR A 226	171.382	119.525	184.488	1.00 47.52	C
ATOM	1158	O	TYR A 226	172.439	120.144	184.626	1.00 47.52	O
ATOM	1159	CB	TYR A 226	171.834	117.918	182.627	1.00 47.52	C
ATOM	1160	CG	TYR A 226	171.453	117.377	181.272	1.00 47.52	C
ATOM	1161	CD1	TYR A 226	171.849	118.014	180.111	1.00 47.52	C
ATOM	1162	CD2	TYR A 226	170.705	116.221	181.155	1.00 47.52	C
ATOM	1163	CE1	TYR A 226	171.506	117.521	178.876	1.00 47.52	C
ATOM	1164	CE2	TYR A 226	170.359	115.721	179.925	1.00 47.52	C
ATOM	1165	CZ	TYR A 226	170.761	116.375	178.789	1.00 47.52	C
ATOM	1166	OH	TYR A 226	170.415	115.878	177.558	1.00 47.52	O
ATOM	1167	N	VAL A 227	170.578	119.216	185.504	1.00 51.82	N
ATOM	1168	CA	VAL A 227	170.826	119.659	186.869	1.00 51.82	C
ATOM	1169	C	VAL A 227	170.687	118.471	187.806	1.00 51.82	C
ATOM	1170	O	VAL A 227	169.982	117.504	187.509	1.00 51.82	O
ATOM	1171	CB	VAL A 227	169.862	120.783	187.285	1.00 51.82	C
ATOM	1172	CG1	VAL A 227	169.871	121.883	186.252	1.00 51.82	C
ATOM	1173	CG2	VAL A 227	168.472	120.228	187.454	1.00 51.82	C
ATOM	1174	N	THR A 228	171.358	118.550	188.952	1.00 59.73	N
ATOM	1175	CA	THR A 228	171.387	117.433	189.886	1.00 59.73	C
ATOM	1176	C	THR A 228	170.337	117.528	190.985	1.00 59.73	C
ATOM	1177	O	THR A 228	170.073	116.524	191.654	1.00 59.73	O
ATOM	1178	CB	THR A 228	172.771	117.312	190.526	1.00 59.73	C
ATOM	1179	OG1	THR A 228	172.908	116.021	191.128	1.00 59.73	O
ATOM	1180	CG2	THR A 228	172.953	118.372	191.587	1.00 59.73	C
ATOM	1181	N	VAL A 229	169.735	118.697	191.191	1.00 68.98	N

ATOM	1182	CA	VAL A 229	168.706	118.892	192.214	1.00 68.98	C
ATOM	1183	C	VAL A 229	167.622	119.766	191.589	1.00 68.98	C
ATOM	1184	O	VAL A 229	167.764	120.988	191.496	1.00 68.98	O
ATOM	1185	CB	VAL A 229	169.256	119.526	193.493	1.00 68.98	C
ATOM	1186	CG1	VAL A 229	168.126	119.830	194.450	1.00 68.98	C
ATOM	1187	CG2	VAL A 229	170.263	118.605	194.143	1.00 68.98	C
ATOM	1188	N	LYS A 230	166.521	119.144	191.169	1.00 82.59	N
ATOM	1189	CA	LYS A 230	165.449	119.899	190.530	1.00 82.59	C
ATOM	1190	C	LYS A 230	164.574	120.597	191.563	1.00 82.59	C
ATOM	1191	O	LYS A 230	164.428	121.823	191.534	1.00 82.59	O
ATOM	1192	CB	LYS A 230	164.609	118.978	189.646	1.00 82.59	C
ATOM	1193	CG	LYS A 230	163.749	119.713	188.628	1.00 82.59	C
ATOM	1194	CD	LYS A 230	162.882	118.747	187.843	1.00 82.59	C
ATOM	1195	CE	LYS A 230	163.627	117.454	187.566	1.00 82.59	C
ATOM	1196	NZ	LYS A 230	162.772	116.461	186.864	1.00 82.59	N
ATOM	1197	N	ASP A 231	163.986	119.835	192.480	1.00 97.30	N
ATOM	1198	CA	ASP A 231	163.192	120.430	193.543	1.00 97.30	C
ATOM	1199	C	ASP A 231	164.100	121.197	194.501	1.00 97.30	C
ATOM	1200	O	ASP A 231	165.326	121.211	194.367	1.00 97.30	O
ATOM	1201	CB	ASP A 231	162.401	119.355	194.285	1.00 97.30	C
ATOM	1202	CG	ASP A 231	163.296	118.364	195.001	1.00 97.30	C
ATOM	1203	OD1	ASP A 231	163.814	118.704	196.085	1.00 97.30	O
ATOM	1204	OD2	ASP A 231	163.481	117.243	194.482	1.00 97.30	O
ATOM	1205	N	GLN A 232	163.490	121.846	195.483	1.00106.92	N
ATOM	1206	CA	GLN A 232	164.215	122.606	196.488	1.00106.92	C
ATOM	1207	C	GLN A 232	163.935	122.023	197.870	1.00106.92	C
ATOM	1208	O	GLN A 232	163.025	121.212	198.058	1.00106.92	O
ATOM	1209	CB	GLN A 232	163.841	124.088	196.426	1.00106.92	C
ATOM	1210	CG	GLN A 232	164.515	124.843	195.296	1.00106.92	C
ATOM	1211	CD	GLN A 232	163.931	124.502	193.941	1.00106.92	C
ATOM	1212	OE1	GLN A 232	163.022	123.680	193.834	1.00106.92	O
ATOM	1213	NE2	GLN A 232	164.449	125.136	192.896	1.00106.92	N
ATOM	1214	N	TRP A 233	164.727	122.458	198.846	1.00116.94	N
ATOM	1215	CA	TRP A 233	164.655	121.927	200.199	1.00116.94	C
ATOM	1216	C	TRP A 233	164.601	123.085	201.182	1.00116.94	C
ATOM	1217	O	TRP A 233	165.460	123.970	201.148	1.00116.94	O
ATOM	1218	CB	TRP A 233	165.859	121.025	200.496	1.00116.94	C

ATOM	1219	CG	TRP	A	233	165.975	120.606	201.927	1.00	116.94	C
ATOM	1220	CD1	TRP	A	233	166.531	121.320	202.948	1.00	116.94	C
ATOM	1221	CD2	TRP	A	233	165.538	119.367	202.497	1.00	116.94	C
ATOM	1222	NE1	TRP	A	233	166.460	120.606	204.119	1.00	116.94	N
ATOM	1223	CE2	TRP	A	233	165.855	119.403	203.869	1.00	116.94	C
ATOM	1224	CE3	TRP	A	233	164.906	118.233	201.981	1.00	116.94	C
ATOM	1225	CZ2	TRP	A	233	165.562	118.349	204.731	1.00	116.94	C
ATOM	1226	CZ3	TRP	A	233	164.616	117.188	202.838	1.00	116.94	C
ATOM	1227	CH2	TRP	A	233	164.944	117.253	204.197	1.00	116.94	C
ATOM	1228	N	HIS	A	234	163.593	123.076	202.054	1.00	116.44	N
ATOM	1229	CA	HIS	A	234	163.433	124.133	203.051	1.00	116.44	C
ATOM	1230	C	HIS	A	234	162.712	123.526	204.251	1.00	116.44	C
ATOM	1231	O	HIS	A	234	161.492	123.337	204.214	1.00	116.44	O
ATOM	1232	CB	HIS	A	234	162.673	125.321	202.479	1.00	116.44	C
ATOM	1233	CG	HIS	A	234	163.544	126.306	201.762	1.00	116.44	C
ATOM	1234	ND1	HIS	A	234	164.278	125.974	200.644	1.00	116.44	N
ATOM	1235	CD2	HIS	A	234	163.804	127.612	202.009	1.00	116.44	C
ATOM	1236	CE1	HIS	A	234	164.951	127.034	200.230	1.00	116.44	C
ATOM	1237	NE2	HIS	A	234	164.680	128.041	201.041	1.00	116.44	N
ATOM	1238	N	SER	A	235	163.467	123.234	205.305	1.00	117.57	N
ATOM	1239	CA	SER	A	235	162.929	122.565	206.481	1.00	117.57	C
ATOM	1240	C	SER	A	235	162.198	123.574	207.363	1.00	117.57	C
ATOM	1241	O	SER	A	235	161.941	124.715	206.969	1.00	117.57	O
ATOM	1242	CB	SER	A	235	164.044	121.851	207.238	1.00	117.57	C
ATOM	1243	OG	SER	A	235	163.586	121.400	208.500	1.00	117.57	O
ATOM	1244	N	ARG	A	236	161.847	123.154	208.579	1.00	118.60	N
ATOM	1245	CA	ARG	A	236	161.099	123.998	209.507	1.00	118.60	C
ATOM	1246	C	ARG	A	236	162.024	124.826	210.395	1.00	118.60	C
ATOM	1247	O	ARG	A	236	161.962	126.059	210.390	1.00	118.60	O
ATOM	1248	CB	ARG	A	236	160.170	123.132	210.367	1.00	118.60	C
ATOM	1249	CG	ARG	A	236	159.558	123.858	211.558	1.00	118.60	C
ATOM	1250	CD	ARG	A	236	158.407	124.758	211.137	1.00	118.60	C
ATOM	1251	NE	ARG	A	236	158.832	125.793	210.200	1.00	118.60	N
ATOM	1252	CZ	ARG	A	236	158.004	126.496	209.436	1.00	118.60	C
ATOM	1253	NH1	ARG	A	236	156.698	126.278	209.495	1.00	118.60	N
ATOM	1254	NH2	ARG	A	236	158.481	127.417	208.612	1.00	118.60	N
ATOM	1255	N	GLY	A	237	162.882	124.162	211.158	1.00	115.98	N

ATOM	1256	CA	GLY A 237	163.735	124.831	212.119	1.00115.98	C
ATOM	1257	C	GLY A 237	163.225	124.666	213.536	1.00115.98	C
ATOM	1258	O	GLY A 237	162.324	123.874	213.829	1.00115.98	O
ATOM	1259	N	SER A 238	163.826	125.439	214.434	1.00109.24	N
ATOM	1260	CA	SER A 238	163.455	125.441	215.842	1.00109.24	C
ATOM	1261	C	SER A 238	163.028	126.845	216.244	1.00109.24	C
ATOM	1262	O	SER A 238	163.727	127.820	215.946	1.00109.24	O
ATOM	1263	CB	SER A 238	164.614	124.961	216.717	1.00109.24	C
ATOM	1264	OG	SER A 238	164.664	123.546	216.758	1.00109.24	O
ATOM	1265	N	THR A 239	161.882	126.943	216.913	1.00104.29	N
ATOM	1266	CA	THR A 239	161.344	128.242	217.294	1.00104.29	C
ATOM	1267	C	THR A 239	162.369	129.043	218.085	1.00104.29	C
ATOM	1268	O	THR A 239	163.027	128.523	218.989	1.00104.29	O
ATOM	1269	CB	THR A 239	160.072	128.063	218.120	1.00104.29	C
ATOM	1270	OG1	THR A 239	160.302	127.087	219.143	1.00104.29	O
ATOM	1271	CG2	THR A 239	158.932	127.594	217.237	1.00104.29	C
ATOM	1272	N	TRP A 240	162.502	130.323	217.738	1.00102.21	N
ATOM	1273	CA	TRP A 240	163.391	131.240	218.449	1.00102.21	C
ATOM	1274	C	TRP A 240	164.858	130.860	218.258	1.00102.21	C
ATOM	1275	O	TRP A 240	165.647	130.901	219.201	1.00102.21	O
ATOM	1276	CB	TRP A 240	163.046	131.302	219.939	1.00102.21	C
ATOM	1277	CG	TRP A 240	161.674	131.819	220.233	1.00102.21	C
ATOM	1278	CD1	TRP A 240	160.845	132.478	219.377	1.00102.21	C
ATOM	1279	CD2	TRP A 240	160.971	131.721	221.476	1.00102.21	C
ATOM	1280	NE1	TRP A 240	159.667	132.797	220.009	1.00102.21	N
ATOM	1281	CE2	TRP A 240	159.721	132.342	221.299	1.00102.21	C
ATOM	1282	CE3	TRP A 240	161.278	131.167	222.722	1.00102.21	C
ATOM	1283	CZ2	TRP A 240	158.779	132.424	222.318	1.00102.21	C
ATOM	1284	CZ3	TRP A 240	160.343	131.250	223.732	1.00102.21	C
ATOM	1285	CH2	TRP A 240	159.108	131.873	223.525	1.00102.21	C
ATOM	1286	N	LEU A 241	165.230	130.488	217.035	1.00 99.98	N
ATOM	1287	CA	LEU A 241	166.607	130.115	216.738	1.00 99.98	C
ATOM	1288	C	LEU A 241	167.014	130.699	215.395	1.00 99.98	C
ATOM	1289	O	LEU A 241	166.309	130.526	214.397	1.00 99.98	O
ATOM	1290	CB	LEU A 241	166.781	128.594	216.737	1.00 99.98	C
ATOM	1291	CG	LEU A 241	166.900	127.979	218.132	1.00 99.98	C
ATOM	1292	CD1	LEU A 241	167.032	126.471	218.052	1.00 99.98	C

ATOM	1293	CD2	LEU A 241	168.074	128.580	218.881	1.00 99.98	C
ATOM	1294	N	TYR A 242	168.153	131.385	215.381	1.00 98.34	N
ATOM	1295	CA	TYR A 242	168.642	132.088	214.202	1.00 98.34	C
ATOM	1296	C	TYR A 242	169.615	131.190	213.449	1.00 98.34	C
ATOM	1297	O	TYR A 242	170.631	130.765	214.007	1.00 98.34	O
ATOM	1298	CB	TYR A 242	169.313	133.393	214.623	1.00 98.34	C
ATOM	1299	CG	TYR A 242	169.933	134.187	213.501	1.00 98.34	C
ATOM	1300	CD1	TYR A 242	169.153	134.964	212.660	1.00 98.34	C
ATOM	1301	CD2	TYR A 242	171.303	134.178	213.299	1.00 98.34	C
ATOM	1302	CE1	TYR A 242	169.717	135.699	211.642	1.00 98.34	C
ATOM	1303	CE2	TYR A 242	171.876	134.909	212.284	1.00 98.34	C
ATOM	1304	CZ	TYR A 242	171.080	135.667	211.458	1.00 98.34	C
ATOM	1305	OH	TYR A 242	171.652	136.397	210.444	1.00 98.34	O
ATOM	1306	N	ARG A 243	169.308	130.905	212.184	1.00100.53	N
ATOM	1307	CA	ARG A 243	170.111	129.975	211.403	1.00100.53	C
ATOM	1308	C	ARG A 243	170.210	130.452	209.963	1.00100.53	C
ATOM	1309	O	ARG A 243	169.333	131.163	209.466	1.00100.53	O
ATOM	1310	CB	ARG A 243	169.520	128.564	211.435	1.00100.53	C
ATOM	1311	CG	ARG A 243	168.246	128.430	210.629	1.00100.53	C
ATOM	1312	CD	ARG A 243	167.918	126.977	210.363	1.00100.53	C
ATOM	1313	NE	ARG A 243	166.770	126.836	209.474	1.00100.53	N
ATOM	1314	CZ	ARG A 243	166.281	125.671	209.067	1.00100.53	C
ATOM	1315	NH1	ARG A 243	166.841	124.538	209.470	1.00100.53	N
ATOM	1316	NH2	ARG A 243	165.231	125.638	208.259	1.00100.53	N
ATOM	1317	N	GLU A 244	171.289	130.045	209.298	1.00 97.60	N
ATOM	1318	CA	GLU A 244	171.497	130.315	207.884	1.00 97.60	C
ATOM	1319	C	GLU A 244	172.119	129.087	207.237	1.00 97.60	C
ATOM	1320	O	GLU A 244	172.979	128.433	207.832	1.00 97.60	O
ATOM	1321	CB	GLU A 244	172.389	131.542	207.671	1.00 97.60	C
ATOM	1322	CG	GLU A 244	173.834	131.337	208.066	1.00 97.60	C
ATOM	1323	CD	GLU A 244	174.021	131.307	209.564	1.00 97.60	C
ATOM	1324	OE1	GLU A 244	173.081	130.887	210.269	1.00 97.60	O
ATOM	1325	OE2	GLU A 244	175.102	131.713	210.039	1.00 97.60	O
ATOM	1326	N	THR A 245	171.684	128.782	206.020	1.00 96.12	N
ATOM	1327	CA	THR A 245	172.013	127.528	205.357	1.00 96.12	C
ATOM	1328	C	THR A 245	172.863	127.787	204.112	1.00 96.12	C
ATOM	1329	O	THR A 245	173.259	128.919	203.825	1.00 96.12	O

ATOM	1330	CB	THR	A	245	170.733	126.769	205.007	1.00	96.12	C
ATOM	1331	OG1	THR	A	245	169.859	127.629	204.267	1.00	96.12	O
ATOM	1332	CG2	THR	A	245	170.030	126.319	206.272	1.00	96.12	C
ATOM	1333	N	CYS	A	246	173.142	126.714	203.373	1.00	95.23	N
ATOM	1334	CA	CYS	A	246	173.952	126.783	202.159	1.00	95.23	C
ATOM	1335	C	CYS	A	246	173.620	125.577	201.298	1.00	95.23	C
ATOM	1336	O	CYS	A	246	173.866	124.441	201.711	1.00	95.23	O
ATOM	1337	CB	CYS	A	246	175.441	126.810	202.497	1.00	95.23	C
ATOM	1338	SG	CYS	A	246	176.535	126.909	201.064	1.00	95.23	S
ATOM	1339	N	ASN	A	247	173.069	125.816	200.111	1.00	90.19	N
ATOM	1340	CA	ASN	A	247	172.650	124.752	199.210	1.00	90.19	C
ATOM	1341	C	ASN	A	247	173.516	124.752	197.960	1.00	90.19	C
ATOM	1342	O	ASN	A	247	173.937	125.811	197.486	1.00	90.19	O
ATOM	1343	CB	ASN	A	247	171.179	124.909	198.826	1.00	90.19	C
ATOM	1344	CG	ASN	A	247	170.245	124.550	199.957	1.00	90.19	C
ATOM	1345	OD1	ASN	A	247	170.513	123.630	200.728	1.00	90.19	O
ATOM	1346	ND2	ASN	A	247	169.140	125.277	200.067	1.00	90.19	N
ATOM	1347	N	LEU	A	248	173.773	123.562	197.426	1.00	79.57	N
ATOM	1348	CA	LEU	A	248	174.654	123.376	196.283	1.00	79.57	C
ATOM	1349	C	LEU	A	248	173.873	122.854	195.084	1.00	79.57	C
ATOM	1350	O	LEU	A	248	172.763	122.333	195.212	1.00	79.57	O
ATOM	1351	CB	LEU	A	248	175.791	122.411	196.625	1.00	79.57	C
ATOM	1352	CG	LEU	A	248	177.056	122.559	195.787	1.00	79.57	C
ATOM	1353	CD1	LEU	A	248	177.636	123.944	195.966	1.00	79.57	C
ATOM	1354	CD2	LEU	A	248	178.068	121.502	196.172	1.00	79.57	C
ATOM	1355	N	ASN	A	249	174.476	122.996	193.906	1.00	64.92	N
ATOM	1356	CA	ASN	A	249	173.829	122.591	192.667	1.00	64.92	C
ATOM	1357	C	ASN	A	249	174.879	122.515	191.569	1.00	64.92	C
ATOM	1358	O	ASN	A	249	175.788	123.346	191.521	1.00	64.92	O
ATOM	1359	CB	ASN	A	249	172.720	123.575	192.280	1.00	64.92	C
ATOM	1360	CG	ASN	A	249	171.722	122.975	191.323	1.00	64.92	C
ATOM	1361	OD1	ASN	A	249	171.635	121.758	191.186	1.00	64.92	O
ATOM	1362	ND2	ASN	A	249	170.957	123.826	190.655	1.00	64.92	N
ATOM	1363	N	CYS	A	250	174.746	121.520	190.693	1.00	57.10	N
ATOM	1364	CA	CYS	A	250	175.702	121.272	189.619	1.00	57.10	C
ATOM	1365	C	CYS	A	250	174.931	121.102	188.321	1.00	57.10	C
ATOM	1366	O	CYS	A	250	174.081	120.213	188.221	1.00	57.10	O

ATOM	1367	CB	CYS A 250	176.544	120.028	189.915	1.00 57.10	C
ATOM	1368	SG	CYS A 250	177.768	119.607	188.664	1.00 57.10	S
ATOM	1369	N	MET A 251	175.222	121.945	187.333	1.00 46.38	N
ATOM	1370	CA	MET A 251	174.472	121.937	186.086	1.00 46.38	C
ATOM	1371	C	MET A 251	175.421	122.004	184.898	1.00 46.38	C
ATOM	1372	O	MET A 251	176.507	122.579	184.984	1.00 46.38	O
ATOM	1373	CB	MET A 251	173.471	123.094	186.033	1.00 46.38	C
ATOM	1374	CG	MET A 251	174.106	124.456	185.945	1.00 46.38	C
ATOM	1375	SD	MET A 251	172.874	125.767	185.923	1.00 46.38	S
ATOM	1376	CE	MET A 251	172.049	125.466	187.479	1.00 46.38	C
ATOM	1377	N	VAL A 252	174.991	121.404	183.785	1.00 39.69	N
ATOM	1378	CA	VAL A 252	175.786	121.292	182.565	1.00 39.69	C
ATOM	1379	C	VAL A 252	174.910	121.514	181.340	1.00 39.69	C
ATOM	1380	O	VAL A 252	174.176	120.611	180.928	1.00 39.69	O
ATOM	1381	CB	VAL A 252	176.468	119.918	182.482	1.00 39.69	C
ATOM	1382	CG1	VAL A 252	176.950	119.666	181.078	1.00 39.69	C
ATOM	1383	CG2	VAL A 252	177.612	119.833	183.461	1.00 39.69	C
ATOM	1384	N	THR A 253	174.987	122.693	180.734	1.00 35.31	N
ATOM	1385	CA	THR A 253	174.170	122.990	179.567	1.00 35.31	C
ATOM	1386	C	THR A 253	174.847	122.497	178.290	1.00 35.31	C
ATOM	1387	O	THR A 253	175.988	122.036	178.299	1.00 35.31	O
ATOM	1388	CB	THR A 253	173.884	124.487	179.480	1.00 35.31	C
ATOM	1389	OG1	THR A 253	173.182	124.775	178.267	1.00 35.31	O
ATOM	1390	CG2	THR A 253	175.167	125.269	179.507	1.00 35.31	C
ATOM	1391	N	ILE A 254	174.114	122.581	177.179	1.00 37.00	N
ATOM	1392	CA	ILE A 254	174.611	122.163	175.869	1.00 37.00	C
ATOM	1393	C	ILE A 254	173.986	123.033	174.787	1.00 37.00	C
ATOM	1394	O	ILE A 254	172.764	123.028	174.609	1.00 37.00	O
ATOM	1395	CB	ILE A 254	174.314	120.678	175.607	1.00 37.00	C
ATOM	1396	CG1	ILE A 254	175.118	119.794	176.553	1.00 37.00	C
ATOM	1397	CG2	ILE A 254	174.629	120.325	174.174	1.00 37.00	C
ATOM	1398	CD1	ILE A 254	174.896	118.327	176.331	1.00 37.00	C
ATOM	1399	N	THR A 255	174.809	123.768	174.040	1.00 37.85	N
ATOM	1400	CA	THR A 255	174.289	124.723	173.067	1.00 37.85	C
ATOM	1401	C	THR A 255	174.986	124.614	171.716	1.00 37.85	C
ATOM	1402	O	THR A 255	175.752	123.676	171.482	1.00 37.85	O
ATOM	1403	CB	THR A 255	174.421	126.144	173.605	1.00 37.85	C

ATOM	1404	OG1	THR A 255	175.801	126.435	173.843	1.00 37.85	O
ATOM	1405	CG2	THR A 255	173.662	126.281	174.902	1.00 37.85	C
ATOM	1406	N	THR A 256	174.723	125.565	170.819	1.00 39.35	N
ATOM	1407	CA	THR A 256	175.303	125.567	169.479	1.00 39.35	C
ATOM	1408	C	THR A 256	175.772	126.972	169.141	1.00 39.35	C
ATOM	1409	O	THR A 256	174.972	127.910	169.165	1.00 39.35	O
ATOM	1410	CB	THR A 256	174.292	125.093	168.437	1.00 39.35	C
ATOM	1411	OG1	THR A 256	173.390	126.162	168.138	1.00 39.35	O
ATOM	1412	CG2	THR A 256	173.503	123.917	168.965	1.00 39.35	C
ATOM	1413	N	ALA A 257	177.051	127.114	168.807	1.00 38.91	N
ATOM	1414	CA	ALA A 257	177.655	128.402	168.512	1.00 38.91	C
ATOM	1415	C	ALA A 257	177.654	128.659	167.009	1.00 38.91	C
ATOM	1416	O	ALA A 257	177.279	127.803	166.209	1.00 38.91	O
ATOM	1417	CB	ALA A 257	179.071	128.465	169.077	1.00 38.91	C
ATOM	1418	N	ARG A 258	178.086	129.857	166.619	1.00 44.69	N
ATOM	1419	CA	ARG A 258	178.117	130.218	165.203	1.00 44.69	C
ATOM	1420	C	ARG A 258	179.065	131.392	165.004	1.00 44.69	C
ATOM	1421	O	ARG A 258	178.803	132.487	165.510	1.00 44.69	O
ATOM	1422	CB	ARG A 258	176.722	130.562	164.707	1.00 44.69	C
ATOM	1423	CG	ARG A 258	176.712	131.612	163.619	1.00 44.69	C
ATOM	1424	CD	ARG A 258	175.336	131.764	163.011	1.00 44.69	C
ATOM	1425	NE	ARG A 258	174.830	130.500	162.493	1.00 44.69	N
ATOM	1426	CZ	ARG A 258	173.652	130.359	161.901	1.00 44.69	C
ATOM	1427	NH1	ARG A 258	173.267	129.172	161.459	1.00 44.69	N
ATOM	1428	NH2	ARG A 258	172.857	131.407	161.753	1.00 44.69	N
ATOM	1429	N	SER A 259	180.146	131.172	164.260	1.00 47.82	N
ATOM	1430	CA	SER A 259	181.091	132.215	163.891	1.00 47.82	C
ATOM	1431	C	SER A 259	181.005	132.482	162.396	1.00 47.82	C
ATOM	1432	O	SER A 259	180.378	131.733	161.645	1.00 47.82	O
ATOM	1433	CB	SER A 259	182.520	131.823	164.275	1.00 47.82	C
ATOM	1434	OG	SER A 259	182.793	130.488	163.901	1.00 47.82	O
ATOM	1435	N	LYS A 260	181.654	133.560	161.958	1.00 58.72	N
ATOM	1436	CA	LYS A 260	181.624	133.938	160.553	1.00 58.72	C
ATOM	1437	C	LYS A 260	182.943	134.582	160.148	1.00 58.72	C
ATOM	1438	O	LYS A 260	183.740	135.004	160.988	1.00 58.72	O
ATOM	1439	CB	LYS A 260	180.451	134.874	160.252	1.00 58.72	C
ATOM	1440	CG	LYS A 260	180.452	136.152	161.047	1.00 58.72	C

ATOM	1441	CD	LYS A 260	179.265	137.004	160.654	1.00 58.72	C
ATOM	1442	CE	LYS A 260	177.965	136.347	161.086	1.00 58.72	C
ATOM	1443	NZ	LYS A 260	176.791	137.232	160.862	1.00 58.72	N
ATOM	1444	N	TYR A 261	183.155	134.646	158.838	1.00 62.19	N
ATOM	1445	CA	TYR A 261	184.434	135.061	158.281	1.00 62.19	C
ATOM	1446	C	TYR A 261	184.877	136.387	158.896	1.00 62.19	C
ATOM	1447	O	TYR A 261	184.053	137.294	159.067	1.00 62.19	O
ATOM	1448	CB	TYR A 261	184.313	135.195	156.761	1.00 62.19	C
ATOM	1449	CG	TYR A 261	185.626	135.201	156.014	1.00 62.19	C
ATOM	1450	CD1	TYR A 261	186.257	134.014	155.674	1.00 62.19	C
ATOM	1451	CD2	TYR A 261	186.221	136.390	155.628	1.00 62.19	C
ATOM	1452	CE1	TYR A 261	187.449	134.013	154.987	1.00 62.19	C
ATOM	1453	CE2	TYR A 261	187.413	136.398	154.939	1.00 62.19	C
ATOM	1454	CZ	TYR A 261	188.023	135.206	154.622	1.00 62.19	C
ATOM	1455	OH	TYR A 261	189.213	135.208	153.935	1.00 62.19	O
ATOM	1456	N	PRO A 262	186.170	136.549	159.229	1.00 59.61	N
ATOM	1457	CA	PRO A 262	187.258	135.581	159.056	1.00 59.61	C
ATOM	1458	C	PRO A 262	187.461	134.604	160.218	1.00 59.61	C
ATOM	1459	O	PRO A 262	188.560	134.073	160.363	1.00 59.61	O
ATOM	1460	CB	PRO A 262	188.482	136.479	158.916	1.00 59.61	C
ATOM	1461	CG	PRO A 262	188.166	137.630	159.778	1.00 59.61	C
ATOM	1462	CD	PRO A 262	186.685	137.865	159.642	1.00 59.61	C
ATOM	1463	N	TYR A 263	186.426	134.367	161.024	1.00 58.28	N
ATOM	1464	CA	TYR A 263	186.458	133.360	162.085	1.00 58.28	C
ATOM	1465	C	TYR A 263	187.560	133.646	163.110	1.00 58.28	C
ATOM	1466	O	TYR A 263	188.529	132.899	163.240	1.00 58.28	O
ATOM	1467	CB	TYR A 263	186.653	131.950	161.514	1.00 58.28	C
ATOM	1468	CG	TYR A 263	185.904	131.642	160.246	1.00 58.28	C
ATOM	1469	CD1	TYR A 263	184.558	131.927	160.124	1.00 58.28	C
ATOM	1470	CD2	TYR A 263	186.541	131.037	159.178	1.00 58.28	C
ATOM	1471	CE1	TYR A 263	183.871	131.637	158.968	1.00 58.28	C
ATOM	1472	CE2	TYR A 263	185.862	130.741	158.020	1.00 58.28	C
ATOM	1473	CZ	TYR A 263	184.527	131.044	157.920	1.00 58.28	C
ATOM	1474	OH	TYR A 263	183.846	130.750	156.765	1.00 58.28	O
ATOM	1475	N	HIS A 264	187.401	134.752	163.842	1.00 60.83	N
ATOM	1476	CA	HIS A 264	188.211	134.883	165.048	1.00 60.83	C
ATOM	1477	C	HIS A 264	187.386	135.337	166.248	1.00 60.83	C

ATOM	1478	O	HIS A 264	187.898	136.037	167.126	1.00 60.83	O
ATOM	1479	CB	HIS A 264	189.413	135.816	164.847	1.00 60.83	C
ATOM	1480	CG	HIS A 264	189.061	137.223	164.477	1.00 60.83	C
ATOM	1481	ND1	HIS A 264	189.458	137.797	163.289	1.00 60.83	N
ATOM	1482	CD2	HIS A 264	188.369	138.177	165.143	1.00 60.83	C
ATOM	1483	CE1	HIS A 264	189.021	139.042	163.236	1.00 60.83	C
ATOM	1484	NE2	HIS A 264	188.355	139.297	164.348	1.00 60.83	N
ATOM	1485	N	PHE A 265	186.109	134.961	166.296	1.00 47.73	N
ATOM	1486	CA	PHE A 265	185.336	135.018	167.531	1.00 47.73	C
ATOM	1487	C	PHE A 265	183.969	134.388	167.308	1.00 47.73	C
ATOM	1488	O	PHE A 265	183.369	134.580	166.247	1.00 47.73	O
ATOM	1489	CB	PHE A 265	185.199	136.458	168.020	1.00 47.73	C
ATOM	1490	CG	PHE A 265	183.960	137.146	167.541	1.00 47.73	C
ATOM	1491	CD1	PHE A 265	183.922	137.744	166.299	1.00 47.73	C
ATOM	1492	CD2	PHE A 265	182.834	137.204	168.338	1.00 47.73	C
ATOM	1493	CE1	PHE A 265	182.783	138.382	165.859	1.00 47.73	C
ATOM	1494	CE2	PHE A 265	181.693	137.840	167.903	1.00 47.73	C
ATOM	1495	CZ	PHE A 265	181.667	138.430	166.662	1.00 47.73	C
ATOM	1496	N	PHE A 266	183.455	133.647	168.287	1.00 38.77	N
ATOM	1497	CA	PHE A 266	182.148	133.021	168.158	1.00 38.77	C
ATOM	1498	C	PHE A 266	181.309	133.282	169.398	1.00 38.77	C
ATOM	1499	O	PHE A 266	181.829	133.530	170.485	1.00 38.77	O
ATOM	1500	CB	PHE A 266	182.261	131.516	167.907	1.00 38.77	C
ATOM	1501	CG	PHE A 266	182.950	130.757	168.997	1.00 38.77	C
ATOM	1502	CD1	PHE A 266	182.238	130.262	170.069	1.00 38.77	C
ATOM	1503	CD2	PHE A 266	184.302	130.500	168.930	1.00 38.77	C
ATOM	1504	CE1	PHE A 266	182.867	129.545	171.063	1.00 38.77	C
ATOM	1505	CE2	PHE A 266	184.935	129.782	169.923	1.00 38.77	C
ATOM	1506	CZ	PHE A 266	184.216	129.303	170.987	1.00 38.77	C
ATOM	1507	N	ALA A 267	179.992	133.214	169.217	1.00 37.76	N
ATOM	1508	CA	ALA A 267	179.029	133.492	170.274	1.00 37.76	C
ATOM	1509	C	ALA A 267	177.991	132.383	170.318	1.00 37.76	C
ATOM	1510	O	ALA A 267	177.399	132.046	169.290	1.00 37.76	O
ATOM	1511	CB	ALA A 267	178.345	134.842	170.056	1.00 37.76	C
ATOM	1512	N	THR A 268	177.758	131.834	171.506	1.00 39.01	N
ATOM	1513	CA	THR A 268	176.854	130.703	171.668	1.00 39.01	C
ATOM	1514	C	THR A 268	175.406	131.188	171.656	1.00 39.01	C

ATOM	1515	O	THR A 268	175.112	132.339	171.326	1.00 39.01	O
ATOM	1516	CB	THR A 268	177.184	129.941	172.945	1.00 39.01	C
ATOM	1517	OG1	THR A 268	177.097	130.826	174.064	1.00 39.01	O
ATOM	1518	CG2	THR A 268	178.586	129.376	172.875	1.00 39.01	C
ATOM	1519	N	SER A 269	174.478	130.299	172.009	1.00 40.29	N
ATOM	1520	CA	SER A 269	173.055	130.616	172.022	1.00 40.29	C
ATOM	1521	C	SER A 269	172.600	131.199	173.353	1.00 40.29	C
ATOM	1522	O	SER A 269	171.772	132.115	173.374	1.00 40.29	O
ATOM	1523	CB	SER A 269	172.230	129.368	171.704	1.00 40.29	C
ATOM	1524	OG	SER A 269	172.270	129.066	170.323	1.00 40.29	O
ATOM	1525	N	THR A 270	173.115	130.681	174.469	1.00 41.24	N
ATOM	1526	CA	THR A 270	172.740	131.207	175.775	1.00 41.24	C
ATOM	1527	C	THR A 270	173.225	132.635	175.988	1.00 41.24	C
ATOM	1528	O	THR A 270	172.706	133.325	176.870	1.00 41.24	O
ATOM	1529	CB	THR A 270	173.273	130.298	176.881	1.00 41.24	C
ATOM	1530	OG1	THR A 270	174.705	130.301	176.867	1.00 41.24	O
ATOM	1531	CG2	THR A 270	172.778	128.888	176.679	1.00 41.24	C
ATOM	1532	N	GLY A 271	174.209	133.094	175.219	1.00 39.88	N
ATOM	1533	CA	GLY A 271	174.594	134.491	175.265	1.00 39.88	C
ATOM	1534	C	GLY A 271	176.082	134.748	175.371	1.00 39.88	C
ATOM	1535	O	GLY A 271	176.536	135.882	175.198	1.00 39.88	O
ATOM	1536	N	ASP A 272	176.852	133.700	175.641	1.00 42.71	N
ATOM	1537	CA	ASP A 272	178.270	133.831	175.941	1.00 42.71	C
ATOM	1538	C	ASP A 272	179.052	134.323	174.722	1.00 42.71	C
ATOM	1539	O	ASP A 272	178.527	134.441	173.617	1.00 42.71	O
ATOM	1540	CB	ASP A 272	178.814	132.489	176.420	1.00 42.71	C
ATOM	1541	CG	ASP A 272	178.432	132.193	177.845	1.00 42.71	C
ATOM	1542	OD1	ASP A 272	178.455	133.136	178.668	1.00 42.71	O
ATOM	1543	OD2	ASP A 272	178.168	131.014	178.164	1.00 42.71	O
ATOM	1544	N	VAL A 273	180.333	134.611	174.939	1.00 39.85	N
ATOM	1545	CA	VAL A 273	181.209	135.115	173.883	1.00 39.85	C
ATOM	1546	C	VAL A 273	182.649	134.816	174.276	1.00 39.85	C
ATOM	1547	O	VAL A 273	183.021	134.918	175.448	1.00 39.85	O
ATOM	1548	CB	VAL A 273	181.004	136.629	173.645	1.00 39.85	C
ATOM	1549	CG1	VAL A 273	182.113	137.176	172.782	1.00 39.85	C
ATOM	1550	CG2	VAL A 273	179.667	136.899	172.994	1.00 39.85	C
ATOM	1551	N	VAL A 274	183.460	134.452	173.286	1.00 42.22	N

ATOM	1552	CA	VAL A 274	184.883	134.204	173.478	1.00 42.22	C
ATOM	1553	C	VAL A 274	185.624	134.704	172.245	1.00 42.22	C
ATOM	1554	O	VAL A 274	185.033	134.949	171.193	1.00 42.22	O
ATOM	1555	CB	VAL A 274	185.191	132.717	173.723	1.00 42.22	C
ATOM	1556	CG1	VAL A 274	184.514	132.249	174.984	1.00 42.22	C
ATOM	1557	CG2	VAL A 274	184.720	131.908	172.560	1.00 42.22	C
ATOM	1558	N	ASP A 275	186.939	134.856	172.382	1.00 51.68	N
ATOM	1559	CA	ASP A 275	187.787	135.369	171.306	1.00 51.68	C
ATOM	1560	C	ASP A 275	188.837	134.321	170.961	1.00 51.68	C
ATOM	1561	O	ASP A 275	189.971	134.372	171.437	1.00 51.68	O
ATOM	1562	CB	ASP A 275	188.423	136.684	171.706	1.00 51.68	C
ATOM	1563	CG	ASP A 275	187.449	137.835	171.661	1.00 51.68	C
ATOM	1564	OD1	ASP A 275	186.268	137.597	171.341	1.00 51.68	O
ATOM	1565	OD2	ASP A 275	187.861	138.979	171.945	1.00 51.68	O
ATOM	1566	N	ILE A 276	188.456	133.380	170.101	1.00 48.86	N
ATOM	1567	CA	ILE A 276	189.372	132.370	169.589	1.00 48.86	C
ATOM	1568	C	ILE A 276	188.792	131.882	168.275	1.00 48.86	C
ATOM	1569	O	ILE A 276	187.601	132.037	168.012	1.00 48.86	O
ATOM	1570	CB	ILE A 276	189.569	131.203	170.589	1.00 48.86	C
ATOM	1571	CG1	ILE A 276	190.204	131.692	171.886	1.00 48.86	C
ATOM	1572	CG2	ILE A 276	190.432	130.124	169.986	1.00 48.86	C
ATOM	1573	CD1	ILE A 276	190.710	130.577	172.761	1.00 48.86	C
ATOM	1574	N	SER A 277	189.630	131.303	167.444	1.00 56.45	N
ATOM	1575	CA	SER A 277	189.082	130.771	166.207	1.00 56.45	C
ATOM	1576	C	SER A 277	188.797	129.293	166.372	1.00 56.45	C
ATOM	1577	O	SER A 277	189.686	128.542	166.795	1.00 56.45	O
ATOM	1578	CB	SER A 277	190.051	130.986	165.050	1.00 56.45	C
ATOM	1579	OG	SER A 277	189.950	132.305	164.545	1.00 56.45	O
ATOM	1580	N	PRO A 278	187.588	128.839	166.055	1.00 52.41	N
ATOM	1581	CA	PRO A 278	187.262	127.422	166.258	1.00 52.41	C
ATOM	1582	C	PRO A 278	188.309	126.474	165.714	1.00 52.41	C
ATOM	1583	O	PRO A 278	188.430	125.349	166.212	1.00 52.41	O
ATOM	1584	CB	PRO A 278	185.927	127.268	165.522	1.00 52.41	C
ATOM	1585	CG	PRO A 278	185.341	128.621	165.519	1.00 52.41	C
ATOM	1586	CD	PRO A 278	186.477	129.585	165.447	1.00 52.41	C
ATOM	1587	N	PHE A 279	189.076	126.891	164.708	1.00 59.30	N
ATOM	1588	CA	PHE A 279	190.068	126.032	164.078	1.00 59.30	C

ATOM	1589	C	PHE A 279	191.426	126.079	164.763	1.00 59.30	C
ATOM	1590	O	PHE A 279	192.291	125.260	164.439	1.00 59.30	O
ATOM	1591	CB	PHE A 279	190.237	126.413	162.605	1.00 59.30	C
ATOM	1592	CG	PHE A 279	188.943	126.640	161.884	1.00 59.30	C
ATOM	1593	CD1	PHE A 279	188.190	125.574	161.435	1.00 59.30	C
ATOM	1594	CD2	PHE A 279	188.482	127.920	161.651	1.00 59.30	C
ATOM	1595	CE1	PHE A 279	187.003	125.782	160.772	1.00 59.30	C
ATOM	1596	CE2	PHE A 279	187.295	128.131	160.989	1.00 59.30	C
ATOM	1597	CZ	PHE A 279	186.556	127.061	160.549	1.00 59.30	C
ATOM	1598	N	TYR A 280	191.636	127.003	165.693	1.00 64.58	N
ATOM	1599	CA	TYR A 280	192.950	127.178	166.300	1.00 64.58	C
ATOM	1600	C	TYR A 280	193.291	125.977	167.166	1.00 64.58	C
ATOM	1601	O	TYR A 280	192.689	125.776	168.224	1.00 64.58	O
ATOM	1602	CB	TYR A 280	192.988	128.455	167.131	1.00 64.58	C
ATOM	1603	CG	TYR A 280	194.145	128.488	168.099	1.00 64.58	C
ATOM	1604	CD1	TYR A 280	195.397	128.906	167.693	1.00 64.58	C
ATOM	1605	CD2	TYR A 280	193.989	128.093	169.414	1.00 64.58	C
ATOM	1606	CE1	TYR A 280	196.458	128.933	168.567	1.00 64.58	C
ATOM	1607	CE2	TYR A 280	195.047	128.115	170.294	1.00 64.58	C
ATOM	1608	CZ	TYR A 280	196.278	128.537	169.865	1.00 64.58	C
ATOM	1609	OH	TYR A 280	197.337	128.564	170.739	1.00 64.58	O
ATOM	1610	N	ASN A 281	194.246	125.172	166.727	1.00 70.38	N
ATOM	1611	CA	ASN A 281	194.907	124.233	167.613	1.00 70.38	C
ATOM	1612	C	ASN A 281	196.219	124.849	168.091	1.00 70.38	C
ATOM	1613	O	ASN A 281	196.460	126.049	167.937	1.00 70.38	O
ATOM	1614	CB	ASN A 281	195.096	122.873	166.939	1.00 70.38	C
ATOM	1615	CG	ASN A 281	195.565	122.984	165.515	1.00 70.38	C
ATOM	1616	OD1	ASN A 281	195.973	124.049	165.061	1.00 70.38	O
ATOM	1617	ND2	ASN A 281	195.497	121.875	164.791	1.00 70.38	N
ATOM	1618	N	GLY A 282	197.061	124.032	168.711	1.00 73.55	N
ATOM	1619	CA	GLY A 282	198.281	124.507	169.332	1.00 73.55	C
ATOM	1620	C	GLY A 282	199.131	125.488	168.547	1.00 73.55	C
ATOM	1621	O	GLY A 282	199.547	126.512	169.095	1.00 73.55	O
ATOM	1622	N	THR A 283	199.398	125.202	167.273	1.00 77.44	N
ATOM	1623	CA	THR A 283	200.457	125.875	166.520	1.00 77.44	C
ATOM	1624	C	THR A 283	199.935	126.459	165.209	1.00 77.44	C
ATOM	1625	O	THR A 283	200.506	126.246	164.139	1.00 77.44	O

ATOM	1626	CB	THR	A	283	201.607 124.913 166.245	1.00 77.44	C
ATOM	1627	OG1	THR	A	283	201.302 124.126 165.088	1.00 77.44	O
ATOM	1628	CG2	THR	A	283	201.811 123.986 167.431	1.00 77.44	C
ATOM	1629	N	ASN	A	284	198.836 127.211 165.271	1.00 76.77	N
ATOM	1630	CA	ASN	A	284	198.292 127.879 164.093	1.00 76.77	C
ATOM	1631	C	ASN	A	284	198.046 129.358 164.351	1.00 76.77	C
ATOM	1632	O	ASN	A	284	197.115 129.942 163.793	1.00 76.77	O
ATOM	1633	CB	ASN	A	284	197.001 127.211 163.628	1.00 76.77	C
ATOM	1634	CG	ASN	A	284	197.227 125.818 163.111	1.00 76.77	C
ATOM	1635	OD1	ASN	A	284	198.355 125.331 163.085	1.00 76.77	O
ATOM	1636	ND2	ASN	A	284	196.153 125.161 162.694	1.00 76.77	N
ATOM	1637	N	ARG	A	285	198.868 129.980 165.198	1.00 78.71	N
ATOM	1638	CA	ARG	A	285	198.666 131.391 165.503	1.00 78.71	C
ATOM	1639	C	ARG	A	285	198.772 132.260 164.256	1.00 78.71	C
ATOM	1640	O	ARG	A	285	198.162 133.333 164.196	1.00 78.71	O
ATOM	1641	CB	ARG	A	285	199.675 131.851 166.553	1.00 78.71	C
ATOM	1642	CG	ARG	A	285	199.465 131.242 167.922	1.00 78.71	C
ATOM	1643	CD	ARG	A	285	199.800 132.239 169.015	1.00 78.71	C
ATOM	1644	NE	ARG	A	285	199.159 133.529 168.783	1.00 78.71	N
ATOM	1645	CZ	ARG	A	285	199.077 134.496 169.691	1.00 78.71	C
ATOM	1646	NH1	ARG	A	285	199.595 134.320 170.897	1.00 78.71	N
ATOM	1647	NH2	ARG	A	285	198.475 135.638 169.393	1.00 78.71	N
ATOM	1648	N	ASN	A	286	199.535 131.818 163.255	1.00 88.39	N
ATOM	1649	CA	ASN	A	286	199.733 132.625 162.055	1.00 88.39	C
ATOM	1650	C	ASN	A	286	198.413 132.879 161.340	1.00 88.39	C
ATOM	1651	O	ASN	A	286	197.972 134.026 161.205	1.00 88.39	O
ATOM	1652	CB	ASN	A	286	200.729 131.936 161.123	1.00 88.39	C
ATOM	1653	CG	ASN	A	286	202.063 131.683 161.787	1.00 88.39	C
ATOM	1654	OD1	ASN	A	286	202.542 132.502 162.571	1.00 88.39	O
ATOM	1655	ND2	ASN	A	286	202.671 130.545 161.480	1.00 88.39	N
ATOM	1656	N	ALA	A	287	197.767 131.812 160.871	1.00 83.03	N
ATOM	1657	CA	ALA	A	287	196.494 131.958 160.176	1.00 83.03	C
ATOM	1658	C	ALA	A	287	195.340 132.131 161.157	1.00 83.03	C
ATOM	1659	O	ALA	A	287	194.464 132.978 160.953	1.00 83.03	O
ATOM	1660	CB	ALA	A	287	196.252 130.752 159.268	1.00 83.03	C
ATOM	1661	N	SER	A	288	195.328 131.344 162.229	1.00 74.07	N
ATOM	1662	CA	SER	A	288	194.226 131.339 163.178	1.00 74.07	C

ATOM	1663	C	SER A 288	194.476	132.323	164.316	1.00 74.07	C
ATOM	1664	O	SER A 288	195.611	132.534	164.747	1.00 74.07	O
ATOM	1665	CB	SER A 288	194.018	129.936	163.738	1.00 74.07	C
ATOM	1666	OG	SER A 288	194.088	128.974	162.703	1.00 74.07	O
ATOM	1667	N	TYR A 289	193.391	132.918	164.801	1.00 66.18	N
ATOM	1668	CA	TYR A 289	193.435	133.946	165.828	1.00 66.18	C
ATOM	1669	C	TYR A 289	193.543	133.327	167.218	1.00 66.18	C
ATOM	1670	O	TYR A 289	193.245	132.149	167.430	1.00 66.18	O
ATOM	1671	CB	TYR A 289	192.183	134.815	165.735	1.00 66.18	C
ATOM	1672	CG	TYR A 289	192.219	136.104	166.519	1.00 66.18	C
ATOM	1673	CD1	TYR A 289	191.899	136.130	167.866	1.00 66.18	C
ATOM	1674	CD2	TYR A 289	192.529	137.301	165.900	1.00 66.18	C
ATOM	1675	CE1	TYR A 289	191.916	137.305	168.580	1.00 66.18	C
ATOM	1676	CE2	TYR A 289	192.548	138.482	166.605	1.00 66.18	C
ATOM	1677	CZ	TYR A 289	192.239	138.479	167.945	1.00 66.18	C
ATOM	1678	OH	TYR A 289	192.255	139.656	168.654	1.00 66.18	O
ATOM	1679	N	PHE A 290	193.991	134.140	168.172	1.00 65.86	N
ATOM	1680	CA	PHE A 290	193.983	133.752	169.582	1.00 65.86	C
ATOM	1681	C	PHE A 290	194.165	135.006	170.419	1.00 65.86	C
ATOM	1682	O	PHE A 290	195.184	135.689	170.283	1.00 65.86	O
ATOM	1683	CB	PHE A 290	195.084	132.751	169.878	1.00 65.86	C
ATOM	1684	CG	PHE A 290	195.112	132.298	171.299	1.00 65.86	C
ATOM	1685	CD1	PHE A 290	194.366	131.210	171.703	1.00 65.86	C
ATOM	1686	CD2	PHE A 290	195.867	132.970	172.237	1.00 65.86	C
ATOM	1687	CE1	PHE A 290	194.385	130.791	173.011	1.00 65.86	C
ATOM	1688	CE2	PHE A 290	195.888	132.556	173.545	1.00 65.86	C
ATOM	1689	CZ	PHE A 290	195.146	131.465	173.933	1.00 65.86	C
ATOM	1690	N	GLY A 291	193.201	135.305	171.285	1.00 63.55	N
ATOM	1691	CA	GLY A 291	193.253	136.556	172.016	1.00 63.55	C
ATOM	1692	C	GLY A 291	192.756	136.574	173.448	1.00 63.55	C
ATOM	1693	O	GLY A 291	192.226	137.600	173.883	1.00 63.55	O
ATOM	1694	N	GLU A 292	192.902	135.484	174.204	1.00 65.85	N
ATOM	1695	CA	GLU A 292	192.330	135.432	175.545	1.00 65.85	C
ATOM	1696	C	GLU A 292	193.376	135.394	176.652	1.00 65.85	C
ATOM	1697	O	GLU A 292	193.396	136.287	177.503	1.00 65.85	O
ATOM	1698	CB	GLU A 292	191.390	134.227	175.668	1.00 65.85	C
ATOM	1699	CG	GLU A 292	189.960	134.519	175.247	1.00 65.85	C

ATOM	1700	CD	GLU	A	292	189.246	135.444	176.211	1.00	65.85	C
ATOM	1701	OE1	GLU	A	292	189.741	135.622	177.341	1.00	65.85	O
ATOM	1702	OE2	GLU	A	292	188.191	135.996	175.837	1.00	65.85	O
ATOM	1703	N	ASN	A	293	194.251	134.400	176.676	1.00	71.25	N
ATOM	1704	CA	ASN	A	293	195.213	134.287	177.771	1.00	71.25	C
ATOM	1705	C	ASN	A	293	196.175	133.148	177.455	1.00	71.25	C
ATOM	1706	O	ASN	A	293	196.129	132.557	176.370	1.00	71.25	O
ATOM	1707	CB	ASN	A	293	194.507	134.088	179.112	1.00	71.25	C
ATOM	1708	CG	ASN	A	293	195.390	134.443	180.287	1.00	71.25	C
ATOM	1709	OD1	ASN	A	293	196.397	133.783	180.541	1.00	71.25	O
ATOM	1710	ND2	ASN	A	293	195.022	135.495	181.009	1.00	71.25	N
ATOM	1711	N	ALA	A	294	197.048	132.834	178.409	1.00	74.38	N
ATOM	1712	CA	ALA	A	294	198.109	131.856	178.211	1.00	74.38	C
ATOM	1713	C	ALA	A	294	197.827	130.520	178.879	1.00	74.38	C
ATOM	1714	O	ALA	A	294	197.881	129.480	178.217	1.00	74.38	O
ATOM	1715	CB	ALA	A	294	199.440	132.420	178.727	1.00	74.38	C
ATOM	1716	N	ASP	A	295	197.539	130.512	180.178	1.00	70.52	N
ATOM	1717	CA	ASP	A	295	197.310	129.278	180.922	1.00	70.52	C
ATOM	1718	C	ASP	A	295	195.855	129.152	181.363	1.00	70.52	C
ATOM	1719	O	ASP	A	295	195.556	128.686	182.462	1.00	70.52	O
ATOM	1720	CB	ASP	A	295	198.244	129.180	182.124	1.00	70.52	C
ATOM	1721	CG	ASP	A	295	198.392	127.755	182.631	1.00	70.52	C
ATOM	1722	OD1	ASP	A	295	197.419	126.981	182.523	1.00	70.52	O
ATOM	1723	OD2	ASP	A	295	199.481	127.404	183.132	1.00	70.52	O
ATOM	1724	N	LYS	A	296	194.936	129.580	180.504	1.00	63.10	N
ATOM	1725	CA	LYS	A	296	193.519	129.310	180.693	1.00	63.10	C
ATOM	1726	C	LYS	A	296	193.041	128.501	179.498	1.00	63.10	C
ATOM	1727	O	LYS	A	296	191.983	128.779	178.928	1.00	63.10	O
ATOM	1728	CB	LYS	A	296	192.723	130.607	180.832	1.00	63.10	C
ATOM	1729	CG	LYS	A	296	193.178	131.501	181.970	1.00	63.10	C
ATOM	1730	CD	LYS	A	296	193.205	130.748	183.286	1.00	63.10	C
ATOM	1731	CE	LYS	A	296	193.358	131.698	184.459	1.00	63.10	C
ATOM	1732	NZ	LYS	A	296	192.271	132.710	184.480	1.00	63.10	N
ATOM	1733	N	PHE	A	297	193.831	127.505	179.110	1.00	57.76	N
ATOM	1734	CA	PHE	A	297	193.644	126.818	177.843	1.00	57.76	C
ATOM	1735	C	PHE	A	297	194.269	125.435	177.957	1.00	57.76	C
ATOM	1736	O	PHE	A	297	195.342	125.286	178.543	1.00	57.76	O

ATOM	1737	CB	PHE A 297	194.284	127.621	176.707	1.00 57.76	C
ATOM	1738	CG	PHE A 297	194.030	127.061	175.346	1.00 57.76	C
ATOM	1739	CD1	PHE A 297	192.825	127.281	174.710	1.00 57.76	C
ATOM	1740	CD2	PHE A 297	194.994	126.309	174.704	1.00 57.76	C
ATOM	1741	CE1	PHE A 297	192.585	126.764	173.458	1.00 57.76	C
ATOM	1742	CE2	PHE A 297	194.759	125.790	173.451	1.00 57.76	C
ATOM	1743	CZ	PHE A 297	193.553	126.021	172.827	1.00 57.76	C
ATOM	1744	N	PHE A 298	193.596	124.429	177.405	1.00 57.00	N
ATOM	1745	CA	PHE A 298	194.043	123.049	177.561	1.00 57.00	C
ATOM	1746	C	PHE A 298	193.567	122.220	176.381	1.00 57.00	C
ATOM	1747	O	PHE A 298	192.362	122.139	176.124	1.00 57.00	O
ATOM	1748	CB	PHE A 298	193.527	122.453	178.869	1.00 57.00	C
ATOM	1749	CG	PHE A 298	194.247	122.947	180.082	1.00 57.00	C
ATOM	1750	CD1	PHE A 298	195.425	122.353	180.494	1.00 57.00	C
ATOM	1751	CD2	PHE A 298	193.744	124.005	180.814	1.00 57.00	C
ATOM	1752	CE1	PHE A 298	196.088	122.806	181.611	1.00 57.00	C
ATOM	1753	CE2	PHE A 298	194.401	124.463	181.932	1.00 57.00	C
ATOM	1754	CZ	PHE A 298	195.575	123.864	182.332	1.00 57.00	C
ATOM	1755	N	ILE A 299	194.508	121.601	175.674	1.00 56.82	N
ATOM	1756	CA	ILE A 299	194.215	120.740	174.535	1.00 56.82	C
ATOM	1757	C	ILE A 299	194.517	119.304	174.937	1.00 56.82	C
ATOM	1758	O	ILE A 299	195.648	118.984	175.322	1.00 56.82	O
ATOM	1759	CB	ILE A 299	195.022	121.147	173.294	1.00 56.82	C
ATOM	1760	CG1	ILE A 299	194.782	122.616	172.951	1.00 56.82	C
ATOM	1761	CG2	ILE A 299	194.648	120.273	172.118	1.00 56.82	C
ATOM	1762	CD1	ILE A 299	193.416	122.888	172.370	1.00 56.82	C
ATOM	1763	N	PHE A 300	193.508	118.441	174.848	1.00 58.87	N
ATOM	1764	CA	PHE A 300	193.636	117.044	175.211	1.00 58.87	C
ATOM	1765	C	PHE A 300	193.421	116.165	173.987	1.00 58.87	C
ATOM	1766	O	PHE A 300	192.385	116.285	173.319	1.00 58.87	O
ATOM	1767	CB	PHE A 300	192.622	116.672	176.301	1.00 58.87	C
ATOM	1768	CG	PHE A 300	192.931	117.266	177.644	1.00 58.87	C
ATOM	1769	CD1	PHE A 300	193.755	116.604	178.533	1.00 58.87	C
ATOM	1770	CD2	PHE A 300	192.394	118.484	178.017	1.00 58.87	C
ATOM	1771	CE1	PHE A 300	194.040	117.146	179.766	1.00 58.87	C
ATOM	1772	CE2	PHE A 300	192.676	119.029	179.249	1.00 58.87	C
ATOM	1773	CZ	PHE A 300	193.500	118.360	180.124	1.00 58.87	C

ATOM	1774	N	PRO A 301	194.364	115.284	173.654	1.00 64.73 N
ATOM	1775	CA	PRO A 301	194.182	114.387	172.509	1.00 64.73 C
ATOM	1776	C	PRO A 301	193.576	113.051	172.910	1.00 64.73 C
ATOM	1777	O	PRO A 301	193.872	112.495	173.969	1.00 64.73 O
ATOM	1778	CB	PRO A 301	195.618	114.205	172.006	1.00 64.73 C
ATOM	1779	CG	PRO A 301	196.429	114.243	173.262	1.00 64.73 C
ATOM	1780	CD	PRO A 301	195.714	115.166	174.229	1.00 64.73 C
ATOM	1781	N	ASN A 302	192.718	112.526	172.039	1.00 68.53 N
ATOM	1782	CA	ASN A 302	192.055	111.243	172.265	1.00 68.53 C
ATOM	1783	C	ASN A 302	191.289	111.252	173.591	1.00 68.53 C
ATOM	1784	O	ASN A 302	191.572	110.499	174.521	1.00 68.53 O
ATOM	1785	CB	ASN A 302	193.068	110.098	172.226	1.00 68.53 C
ATOM	1786	CG	ASN A 302	193.101	109.398	170.888	1.00 68.53 C
ATOM	1787	OD1	ASN A 302	192.227	109.604	170.047	1.00 68.53 O
ATOM	1788	ND2	ASN A 302	194.110	108.558	170.682	1.00 68.53 N
ATOM	1789	N	TYR A 303	190.294	112.131	173.642	1.00 64.36 N
ATOM	1790	CA	TYR A 303	189.527	112.376	174.853	1.00 64.36 C
ATOM	1791	C	TYR A 303	188.169	111.694	174.766	1.00 64.36 C
ATOM	1792	O	TYR A 303	187.506	111.739	173.726	1.00 64.36 O
ATOM	1793	CB	TYR A 303	189.351	113.877	175.074	1.00 64.36 C
ATOM	1794	CG	TYR A 303	188.896	114.250	176.460	1.00 64.36 C
ATOM	1795	CD1	TYR A 303	189.645	113.898	177.570	1.00 64.36 C
ATOM	1796	CD2	TYR A 303	187.735	114.977	176.658	1.00 64.36 C
ATOM	1797	CE1	TYR A 303	189.241	114.242	178.837	1.00 64.36 C
ATOM	1798	CE2	TYR A 303	187.324	115.328	177.923	1.00 64.36 C
ATOM	1799	CZ	TYR A 303	188.081	114.958	179.008	1.00 64.36 C
ATOM	1800	OH	TYR A 303	187.678	115.304	180.274	1.00 64.36 O
ATOM	1801	N	THR A 304	187.764	111.059	175.861	1.00 61.34 N
ATOM	1802	CA	THR A 304	186.506	110.331	175.921	1.00 61.34 C
ATOM	1803	C	THR A 304	185.379	111.237	176.403	1.00 61.34 C
ATOM	1804	O	THR A 304	185.599	112.233	177.093	1.00 61.34 O
ATOM	1805	CB	THR A 304	186.626	109.124	176.851	1.00 61.34 C
ATOM	1806	OG1	THR A 304	187.820	108.398	176.542	1.00 61.34 O
ATOM	1807	CG2	THR A 304	185.432	108.209	176.686	1.00 61.34 C
ATOM	1808	N	ILE A 305	184.154	110.866	176.035	1.00 61.07 N
ATOM	1809	CA	ILE A 305	182.958	111.586	176.455	1.00 61.07 C
ATOM	1810	C	ILE A 305	181.793	110.614	176.389	1.00 61.07 C

ATOM	1811	O	ILE A 305	181.813	109.655	175.615	1.00 61.07	O
ATOM	1812	CB	ILE A 305	182.706	112.840	175.579	1.00 61.07	C
ATOM	1813	CG1	ILE A 305	183.783	113.896	175.813	1.00 61.07	C
ATOM	1814	CG2	ILE A 305	181.333	113.417	175.847	1.00 61.07	C
ATOM	1815	CD1	ILE A 305	183.714	115.049	174.850	1.00 61.07	C
ATOM	1816	N	VAL A 306	180.779	110.859	177.207	1.00 64.82	N
ATOM	1817	CA	VAL A 306	179.586	110.029	177.204	1.00 64.82	C
ATOM	1818	C	VAL A 306	178.608	110.570	176.170	1.00 64.82	C
ATOM	1819	O	VAL A 306	178.685	111.724	175.744	1.00 64.82	O
ATOM	1820	CB	VAL A 306	178.935	109.960	178.595	1.00 64.82	C
ATOM	1821	CG1	VAL A 306	179.822	109.192	179.548	1.00 64.82	C
ATOM	1822	CG2	VAL A 306	178.672	111.354	179.115	1.00 64.82	C
ATOM	1823	N	SER A 307	177.668	109.717	175.765	1.00 69.98	N
ATOM	1824	CA	SER A 307	176.735	110.086	174.707	1.00 69.98	C
ATOM	1825	C	SER A 307	175.550	110.873	175.248	1.00 69.98	C
ATOM	1826	O	SER A 307	175.066	111.801	174.590	1.00 69.98	O
ATOM	1827	CB	SER A 307	176.249	108.832	173.983	1.00 69.98	C
ATOM	1828	OG	SER A 307	177.325	108.157	173.359	1.00 69.98	O
ATOM	1829	N	ASP A 308	175.072	110.522	176.439	1.00 70.06	N
ATOM	1830	CA	ASP A 308	173.860	111.098	177.007	1.00 70.06	C
ATOM	1831	C	ASP A 308	174.115	111.465	178.460	1.00 70.06	C
ATOM	1832	O	ASP A 308	174.401	110.587	179.279	1.00 70.06	O
ATOM	1833	CB	ASP A 308	172.694	110.113	176.904	1.00 70.06	C
ATOM	1834	CG	ASP A 308	171.365	110.803	176.709	1.00 70.06	C
ATOM	1835	OD1	ASP A 308	171.341	112.049	176.660	1.00 70.06	O
ATOM	1836	OD2	ASP A 308	170.342	110.096	176.604	1.00 70.06	O
ATOM	1837	N	PHE A 309	174.007	112.756	178.782	1.00 59.40	N
ATOM	1838	CA	PHE A 309	174.088	113.174	180.176	1.00 59.40	C
ATOM	1839	C	PHE A 309	172.731	112.986	180.837	1.00 59.40	C
ATOM	1840	O	PHE A 309	172.236	113.883	181.523	1.00 59.40	O
ATOM	1841	CB	PHE A 309	174.512	114.639	180.291	1.00 59.40	C
ATOM	1842	CG	PHE A 309	175.863	114.936	179.716	1.00 59.40	C
ATOM	1843	CD1	PHE A 309	176.990	114.299	180.190	1.00 59.40	C
ATOM	1844	CD2	PHE A 309	176.006	115.874	178.711	1.00 59.40	C
ATOM	1845	CE1	PHE A 309	178.228	114.583	179.665	1.00 59.40	C
ATOM	1846	CE2	PHE A 309	177.242	116.160	178.185	1.00 59.40	C
ATOM	1847	CZ	PHE A 309	178.353	115.514	178.662	1.00 59.40	C

ATOM	1848	N	GLY A 310	172.129	111.821	180.641	1.00 68.78	N
ATOM	1849	CA	GLY A 310	170.832	111.512	181.205	1.00 68.78	C
ATOM	1850	C	GLY A 310	170.898	110.288	182.087	1.00 68.78	C
ATOM	1851	O	GLY A 310	171.488	110.314	183.170	1.00 68.78	O
ATOM	1852	N	ARG A 311	170.289	109.206	181.619	1.00 81.62	N
ATOM	1853	CA	ARG A 311	170.332	107.912	182.280	1.00 81.62	C
ATOM	1854	C	ARG A 311	171.759	107.583	182.698	1.00 81.62	C
ATOM	1855	O	ARG A 311	172.716	108.043	182.064	1.00 81.62	O
ATOM	1856	CB	ARG A 311	169.778	106.831	181.354	1.00 81.62	C
ATOM	1857	CG	ARG A 311	170.239	106.976	179.917	1.00 81.62	C
ATOM	1858	CD	ARG A 311	169.335	106.217	178.965	1.00 81.62	C
ATOM	1859	NE	ARG A 311	169.880	106.184	177.613	1.00 81.62	N
ATOM	1860	CZ	ARG A 311	170.707	105.246	177.167	1.00 81.62	C
ATOM	1861	NH1	ARG A 311	171.087	104.259	177.967	1.00 81.62	N
ATOM	1862	NH2	ARG A 311	171.156	105.293	175.921	1.00 81.62	N
ATOM	1863	N	PRO A 312	171.940	106.804	183.759	1.00 83.32	N
ATOM	1864	CA	PRO A 312	173.287	106.600	184.309	1.00 83.32	C
ATOM	1865	C	PRO A 312	174.282	106.029	183.313	1.00 83.32	C
ATOM	1866	O	PRO A 312	175.330	106.632	183.067	1.00 83.32	O
ATOM	1867	CB	PRO A 312	173.046	105.623	185.468	1.00 83.32	C
ATOM	1868	CG	PRO A 312	171.595	105.748	185.787	1.00 83.32	C
ATOM	1869	CD	PRO A 312	170.920	106.037	184.489	1.00 83.32	C
ATOM	1870	N	ASN A 313	173.972	104.874	182.732	1.00 86.86	N
ATOM	1871	CA	ASN A 313	174.922	104.137	181.905	1.00 86.86	C
ATOM	1872	C	ASN A 313	174.604	104.376	180.433	1.00 86.86	C
ATOM	1873	O	ASN A 313	173.593	103.884	179.920	1.00 86.86	O
ATOM	1874	CB	ASN A 313	174.884	102.648	182.241	1.00 86.86	C
ATOM	1875	CG	ASN A 313	176.267	102.055	182.400	1.00 86.86	C
ATOM	1876	OD1	ASN A 313	177.169	102.334	181.612	1.00 86.86	O
ATOM	1877	ND2	ASN A 313	176.443	101.234	183.427	1.00 86.86	N
ATOM	1878	N	SER A 314	175.469	105.127	179.757	1.00 80.87	N
ATOM	1879	CA	SER A 314	175.348	105.424	178.339	1.00 80.87	C
ATOM	1880	C	SER A 314	176.480	104.748	177.570	1.00 80.87	C
ATOM	1881	O	SER A 314	177.272	103.981	178.128	1.00 80.87	O
ATOM	1882	CB	SER A 314	175.337	106.937	178.117	1.00 80.87	C
ATOM	1883	OG	SER A 314	174.274	107.550	178.820	1.00 80.87	O
ATOM	1884	N	ALA A 315	176.554	105.034	176.273	1.00 73.95	N

ATOM	1885	CA	ALA A 315	177.589	104.499	175.400	1.00 73.95	C
ATOM	1886	C	ALA A 315	178.602	105.592	175.091	1.00 73.95	C
ATOM	1887	O	ALA A 315	178.229	106.678	174.635	1.00 73.95	O
ATOM	1888	CB	ALA A 315	176.986	103.953	174.106	1.00 73.95	C
ATOM	1889	N	LEU A 316	179.876	105.300	175.333	1.00 71.05	N
ATOM	1890	CA	LEU A 316	180.930	106.289	175.184	1.00 71.05	C
ATOM	1891	C	LEU A 316	181.308	106.470	173.715	1.00 71.05	C
ATOM	1892	O	LEU A 316	180.841	105.756	172.826	1.00 71.05	O
ATOM	1893	CB	LEU A 316	182.156	105.889	176.001	1.00 71.05	C
ATOM	1894	CG	LEU A 316	182.231	106.442	177.425	1.00 71.05	C
ATOM	1895	CD1	LEU A 316	181.014	106.024	178.224	1.00 71.05	C
ATOM	1896	CD2	LEU A 316	183.501	105.977	178.108	1.00 71.05	C
ATOM	1897	N	GLU A 317	182.175	107.449	173.470	1.00 71.76	N
ATOM	1898	CA	GLU A 317	182.666	107.747	172.134	1.00 71.76	C
ATOM	1899	C	GLU A 317	183.894	108.633	172.265	1.00 71.76	C
ATOM	1900	O	GLU A 317	184.022	109.394	173.226	1.00 71.76	O
ATOM	1901	CB	GLU A 317	181.597	108.432	171.280	1.00 71.76	C
ATOM	1902	CG	GLU A 317	181.559	109.935	171.443	1.00 71.76	C
ATOM	1903	CD	GLU A 317	180.365	110.560	170.759	1.00 71.76	C
ATOM	1904	OE1	GLU A 317	179.373	109.840	170.527	1.00 71.76	O
ATOM	1905	OE2	GLU A 317	180.416	111.769	170.455	1.00 71.76	O
ATOM	1906	N	THR A 318	184.791	108.531	171.292	1.00 67.17	N
ATOM	1907	CA	THR A 318	186.074	109.213	171.349	1.00 67.17	C
ATOM	1908	C	THR A 318	186.075	110.453	170.464	1.00 67.17	C
ATOM	1909	O	THR A 318	185.226	110.624	169.587	1.00 67.17	O
ATOM	1910	CB	THR A 318	187.203	108.269	170.927	1.00 67.17	C
ATOM	1911	OG1	THR A 318	187.009	106.989	171.540	1.00 67.17	O
ATOM	1912	CG2	THR A 318	188.548	108.824	171.357	1.00 67.17	C
ATOM	1913	N	HIS A 319	187.047	111.327	170.713	1.00 64.28	N
ATOM	1914	CA	HIS A 319	187.226	112.547	169.941	1.00 64.28	C
ATOM	1915	C	HIS A 319	188.700	112.698	169.596	1.00 64.28	C
ATOM	1916	O	HIS A 319	189.562	112.009	170.146	1.00 64.28	O
ATOM	1917	CB	HIS A 319	186.731	113.778	170.706	1.00 64.28	C
ATOM	1918	CG	HIS A 319	185.247	113.953	170.678	1.00 64.28	C
ATOM	1919	ND1	HIS A 319	184.638	115.039	170.088	1.00 64.28	N
ATOM	1920	CD2	HIS A 319	184.249	113.185	171.174	1.00 64.28	C
ATOM	1921	CE1	HIS A 319	183.328	114.931	170.219	1.00 64.28	C

ATOM	1922	NE2	HIS A 319	183.066	113.814	170.874	1.00 64.28	N
ATOM	1923	N	ARG A 320	188.989	113.617	168.676	1.00 64.82	N
ATOM	1924	CA	ARG A 320	190.363	113.846	168.247	1.00 64.82	C
ATOM	1925	C	ARG A 320	191.034	114.953	169.053	1.00 64.82	C
ATOM	1926	O	ARG A 320	192.121	114.751	169.603	1.00 64.82	O
ATOM	1927	CB	ARG A 320	190.397	114.175	166.753	1.00 64.82	C
ATOM	1928	CG	ARG A 320	191.734	113.891	166.086	1.00 64.82	C
ATOM	1929	CD	ARG A 320	191.687	114.184	164.594	1.00 64.82	C
ATOM	1930	NE	ARG A 320	191.570	115.612	164.315	1.00 64.82	N
ATOM	1931	CZ	ARG A 320	192.605	116.433	164.175	1.00 64.82	C
ATOM	1932	NH1	ARG A 320	193.841	115.968	164.287	1.00 64.82	N
ATOM	1933	NH2	ARG A 320	192.404	117.719	163.921	1.00 64.82	N
ATOM	1934	N	LEU A 321	190.408	116.122	169.130	1.00 59.61	N
ATOM	1935	CA	LEU A 321	190.902	117.216	169.950	1.00 59.61	C
ATOM	1936	C	LEU A 321	189.747	117.843	170.717	1.00 59.61	C
ATOM	1937	O	LEU A 321	188.622	117.923	170.217	1.00 59.61	O
ATOM	1938	CB	LEU A 321	191.601	118.286	169.110	1.00 59.61	C
ATOM	1939	CG	LEU A 321	193.011	117.962	168.628	1.00 59.61	C
ATOM	1940	CD1	LEU A 321	193.667	119.208	168.069	1.00 59.61	C
ATOM	1941	CD2	LEU A 321	193.837	117.380	169.753	1.00 59.61	C
ATOM	1942	N	VAL A 322	190.037	118.294	171.936	1.00 50.89	N
ATOM	1943	CA	VAL A 322	189.055	118.958	172.783	1.00 50.89	C
ATOM	1944	C	VAL A 322	189.748	120.086	173.532	1.00 50.89	C
ATOM	1945	O	VAL A 322	190.840	119.902	174.077	1.00 50.89	O
ATOM	1946	CB	VAL A 322	188.396	117.976	173.768	1.00 50.89	C
ATOM	1947	CG1	VAL A 322	187.183	118.611	174.400	1.00 50.89	C
ATOM	1948	CG2	VAL A 322	188.014	116.698	173.062	1.00 50.89	C
ATOM	1949	N	ALA A 323	189.110	121.252	173.562	1.00 48.37	N
ATOM	1950	CA	ALA A 323	189.670	122.439	174.189	1.00 48.37	C
ATOM	1951	C	ALA A 323	188.926	122.763	175.479	1.00 48.37	C
ATOM	1952	O	ALA A 323	187.754	122.417	175.642	1.00 48.37	O
ATOM	1953	CB	ALA A 323	189.608	123.641	173.244	1.00 48.37	C
ATOM	1954	N	PHE A 324	189.619	123.436	176.395	1.00 45.08	N
ATOM	1955	CA	PHE A 324	189.053	123.805	177.687	1.00 45.08	C
ATOM	1956	C	PHE A 324	189.566	125.183	178.068	1.00 45.08	C
ATOM	1957	O	PHE A 324	190.759	125.347	178.331	1.00 45.08	O
ATOM	1958	CB	PHE A 324	189.425	122.786	178.768	1.00 45.08	C

ATOM	1959	CG	PHE	A	324	188.667	121.493	178.681	1.00 45.08	C
ATOM	1960	CD1	PHE	A	324	187.316	121.479	178.407	1.00 45.08	C
ATOM	1961	CD2	PHE	A	324	189.310	120.288	178.892	1.00 45.08	C
ATOM	1962	CE1	PHE	A	324	186.626	120.290	178.335	1.00 45.08	C
ATOM	1963	CE2	PHE	A	324	188.622	119.101	178.820	1.00 45.08	C
ATOM	1964	CZ	PHE	A	324	187.280	119.102	178.541	1.00 45.08	C
ATOM	1965	N	LEU	A	325	188.672	126.165	178.105	1.00 45.08	N
ATOM	1966	CA	LEU	A	325	189.008	127.537	178.480	1.00 45.08	C
ATOM	1967	C	LEU	A	325	188.264	127.875	179.765	1.00 45.08	C
ATOM	1968	O	LEU	A	325	187.051	128.095	179.744	1.00 45.08	O
ATOM	1969	CB	LEU	A	325	188.650	128.511	177.364	1.00 45.08	C
ATOM	1970	CG	LEU	A	325	189.024	129.970	177.614	1.00 45.08	C
ATOM	1971	CD1	LEU	A	325	189.284	130.693	176.315	1.00 45.08	C
ATOM	1972	CD2	LEU	A	325	187.916	130.657	178.365	1.00 45.08	C
ATOM	1973	N	GLU	A	326	188.986	127.936	180.881	1.00 52.92	N
ATOM	1974	CA	GLU	A	326	188.372	128.125	182.192	1.00 52.92	C
ATOM	1975	C	GLU	A	326	188.360	129.607	182.542	1.00 52.92	C
ATOM	1976	O	GLU	A	326	189.408	130.198	182.811	1.00 52.92	O
ATOM	1977	CB	GLU	A	326	189.108	127.316	183.256	1.00 52.92	C
ATOM	1978	CG	GLU	A	326	190.588	127.594	183.343	1.00 52.92	C
ATOM	1979	CD	GLU	A	326	191.213	126.982	184.578	1.00 52.92	C
ATOM	1980	OE1	GLU	A	326	190.586	127.049	185.655	1.00 52.92	O
ATOM	1981	OE2	GLU	A	326	192.328	126.430	184.472	1.00 52.92	O
ATOM	1982	N	ARG	A	327	187.174	130.197	182.551	1.00 45.14	N
ATOM	1983	CA	ARG	A	327	186.991	131.598	182.898	1.00 45.14	C
ATOM	1984	C	ARG	A	327	186.735	131.712	184.402	1.00 45.14	C
ATOM	1985	O	ARG	A	327	186.955	130.761	185.156	1.00 45.14	O
ATOM	1986	CB	ARG	A	327	185.868	132.196	182.050	1.00 45.14	C
ATOM	1987	CG	ARG	A	327	185.884	131.729	180.613	1.00 45.14	C
ATOM	1988	CD	ARG	A	327	184.491	131.700	180.031	1.00 45.14	C
ATOM	1989	NE	ARG	A	327	184.062	133.025	179.603	1.00 45.14	N
ATOM	1990	CZ	ARG	A	327	182.833	133.310	179.191	1.00 45.14	C
ATOM	1991	NH1	ARG	A	327	181.910	132.360	179.152	1.00 45.14	N
ATOM	1992	NH2	ARG	A	327	182.526	134.544	178.820	1.00 45.14	N
ATOM	1993	N	ALA	A	328	186.283	132.880	184.858	1.00 50.67	N
ATOM	1994	CA	ALA	A	328	186.136	133.116	186.290	1.00 50.67	C
ATOM	1995	C	ALA	A	328	185.041	132.246	186.895	1.00 50.67	C

ATOM	1996	O	ALA A 328	185.233	131.643	187.956	1.00 50.67	O
ATOM	1997	CB	ALA A 328	185.845	134.593	186.547	1.00 50.67	C
ATOM	1998	N	ASP A 329	183.882	132.169	186.239	1.00 51.23	N
ATOM	1999	CA	ASP A 329	182.712	131.517	186.817	1.00 51.23	C
ATOM	2000	C	ASP A 329	182.123	130.461	185.889	1.00 51.23	C
ATOM	2001	O	ASP A 329	180.910	130.244	185.885	1.00 51.23	O
ATOM	2002	CB	ASP A 329	181.646	132.550	187.171	1.00 51.23	C
ATOM	2003	CG	ASP A 329	181.098	133.256	185.950	1.00 51.23	C
ATOM	2004	OD1	ASP A 329	180.270	132.656	185.236	1.00 51.23	O
ATOM	2005	OD2	ASP A 329	181.497	134.410	185.699	1.00 51.23	O
ATOM	2006	N	SER A 330	182.957	129.801	185.091	1.00 45.18	N
ATOM	2007	CA	SER A 330	182.470	128.739	184.222	1.00 45.18	C
ATOM	2008	C	SER A 330	183.620	128.073	183.481	1.00 45.18	C
ATOM	2009	O	SER A 330	184.779	128.456	183.652	1.00 45.18	O
ATOM	2010	CB	SER A 330	181.440	129.285	183.234	1.00 45.18	C
ATOM	2011	OG	SER A 330	182.003	130.287	182.411	1.00 45.18	O
ATOM	2012	N	VAL A 331	183.311	127.066	182.670	1.00 39.54	N
ATOM	2013	CA	VAL A 331	184.309	126.418	181.831	1.00 39.54	C
ATOM	2014	C	VAL A 331	183.662	126.020	180.513	1.00 39.54	C
ATOM	2015	O	VAL A 331	182.799	125.138	180.478	1.00 39.54	O
ATOM	2016	CB	VAL A 331	184.921	125.198	182.540	1.00 39.54	C
ATOM	2017	CG1	VAL A 331	185.665	124.339	181.554	1.00 39.54	C
ATOM	2018	CG2	VAL A 331	185.846	125.644	183.642	1.00 39.54	C
ATOM	2019	N	ILE A 332	184.066	126.663	179.422	1.00 36.52	N
ATOM	2020	CA	ILE A 332	183.556	126.324	178.103	1.00 36.52	C
ATOM	2021	C	ILE A 332	184.417	125.216	177.514	1.00 36.52	C
ATOM	2022	O	ILE A 332	185.553	124.991	177.932	1.00 36.52	O
ATOM	2023	CB	ILE A 332	183.513	127.551	177.174	1.00 36.52	C
ATOM	2024	CG1	ILE A 332	182.591	128.617	177.742	1.00 36.52	C
ATOM	2025	CG2	ILE A 332	182.999	127.172	175.813	1.00 36.52	C
ATOM	2026	CD1	ILE A 332	182.240	129.685	176.743	1.00 36.52	C
ATOM	2027	N	SER A 333	183.874	124.511	176.527	1.00 37.04	N
ATOM	2028	CA	SER A 333	184.588	123.382	175.939	1.00 37.04	C
ATOM	2029	C	SER A 333	183.991	123.056	174.582	1.00 37.04	C
ATOM	2030	O	SER A 333	182.777	122.875	174.469	1.00 37.04	O
ATOM	2031	CB	SER A 333	184.521	122.172	176.854	1.00 37.04	C
ATOM	2032	OG	SER A 333	184.839	120.992	176.146	1.00 37.04	O

ATOM	2033	N	TRP A 334	184.838	122.985	173.563	1.00 44.72	N
ATOM	2034	CA	TRP A 334	184.472	122.524	172.234	1.00 44.72	C
ATOM	2035	C	TRP A 334	185.536	121.553	171.740	1.00 44.72	C
ATOM	2036	O	TRP A 334	186.583	121.373	172.366	1.00 44.72	O
ATOM	2037	CB	TRP A 334	184.320	123.699	171.263	1.00 44.72	C
ATOM	2038	CG	TRP A 334	185.580	124.478	171.065	1.00 44.72	C
ATOM	2039	CD1	TRP A 334	186.526	124.265	170.114	1.00 44.72	C
ATOM	2040	CD2	TRP A 334	186.032	125.597	171.835	1.00 44.72	C
ATOM	2041	NE1	TRP A 334	187.542	125.179	170.242	1.00 44.72	N
ATOM	2042	CE2	TRP A 334	187.260	126.007	171.293	1.00 44.72	C
ATOM	2043	CE3	TRP A 334	185.517	126.290	172.929	1.00 44.72	C
ATOM	2044	CZ2	TRP A 334	187.979	127.075	171.806	1.00 44.72	C
ATOM	2045	CZ3	TRP A 334	186.233	127.350	173.436	1.00 44.72	C
ATOM	2046	CH2	TRP A 334	187.449	127.733	172.877	1.00 44.72	C
ATOM	2047	N	ASP A 335	185.267	120.917	170.606	1.00 53.54	N
ATOM	2048	CA	ASP A 335	186.226	120.023	169.973	1.00 53.54	C
ATOM	2049	C	ASP A 335	186.752	120.677	168.705	1.00 53.54	C
ATOM	2050	O	ASP A 335	185.970	121.166	167.884	1.00 53.54	O
ATOM	2051	CB	ASP A 335	185.601	118.665	169.660	1.00 53.54	C
ATOM	2052	CG	ASP A 335	184.237	118.786	169.042	1.00 53.54	C
ATOM	2053	OD1	ASP A 335	183.787	119.929	168.827	1.00 53.54	O
ATOM	2054	OD2	ASP A 335	183.611	117.740	168.774	1.00 53.54	O
ATOM	2055	N	ILE A 336	188.075	120.685	168.555	1.00 58.48	N
ATOM	2056	CA	ILE A 336	188.745	121.404	167.477	1.00 58.48	C
ATOM	2057	C	ILE A 336	188.144	121.017	166.135	1.00 58.48	C
ATOM	2058	O	ILE A 336	188.099	119.835	165.778	1.00 58.48	O
ATOM	2059	CB	ILE A 336	190.257	121.135	167.495	1.00 58.48	C
ATOM	2060	CG1	ILE A 336	190.865	121.608	168.812	1.00 58.48	C
ATOM	2061	CG2	ILE A 336	190.918	121.838	166.339	1.00 58.48	C
ATOM	2062	CD1	ILE A 336	190.802	123.100	169.005	1.00 58.48	C
ATOM	2063	N	GLN A 337	187.688	122.011	165.380	1.00 62.06	N
ATOM	2064	CA	GLN A 337	187.055	121.776	164.090	1.00 62.06	C
ATOM	2065	C	GLN A 337	188.128	121.533	163.032	1.00 62.06	C
ATOM	2066	O	GLN A 337	189.309	121.356	163.338	1.00 62.06	O
ATOM	2067	CB	GLN A 337	186.148	122.947	163.732	1.00 62.06	C
ATOM	2068	CG	GLN A 337	185.157	123.298	164.818	1.00 62.06	C
ATOM	2069	CD	GLN A 337	184.036	122.289	164.916	1.00 62.06	C

ATOM	2070	OE1	GLN A 337	183.412	122.136	165.963	1.00 62.06	O
ATOM	2071	NE2	GLN A 337	183.771	121.594	163.818	1.00 62.06	N
ATOM	2072	N	ASN A 338	187.725	121.519	161.765	1.00 81.47	N
ATOM	2073	CA	ASN A 338	188.640	121.262	160.664	1.00 81.47	C
ATOM	2074	C	ASN A 338	188.481	122.333	159.593	1.00 81.47	C
ATOM	2075	O	ASN A 338	187.527	123.115	159.600	1.00 81.47	O
ATOM	2076	CB	ASN A 338	188.412	119.873	160.064	1.00 81.47	C
ATOM	2077	CG	ASN A 338	188.929	118.770	160.957	1.00 81.47	C
ATOM	2078	OD1	ASN A 338	188.314	117.711	161.074	1.00 81.47	O
ATOM	2079	ND2	ASN A 338	190.066	119.012	161.597	1.00 81.47	N
ATOM	2080	N	GLU A 339	189.433	122.350	158.663	1.00 88.17	N
ATOM	2081	CA	GLU A 339	189.522	123.434	157.694	1.00 88.17	C
ATOM	2082	C	GLU A 339	188.386	123.375	156.680	1.00 88.17	C
ATOM	2083	O	GLU A 339	187.993	122.300	156.219	1.00 88.17	O
ATOM	2084	CB	GLU A 339	190.868	123.381	156.975	1.00 88.17	C
ATOM	2085	CG	GLU A 339	192.011	124.003	157.755	1.00 88.17	C
ATOM	2086	CD	GLU A 339	191.946	125.517	157.773	1.00 88.17	C
ATOM	2087	OE1	GLU A 339	193.009	126.158	157.913	1.00 88.17	O
ATOM	2088	OE2	GLU A 339	190.833	126.066	157.647	1.00 88.17	O
ATOM	2089	N	LYS A 340	187.862	124.547	156.330	1.00 89.84	N
ATOM	2090	CA	LYS A 340	186.873	124.656	155.270	1.00 89.84	C
ATOM	2091	C	LYS A 340	187.515	124.319	153.923	1.00 89.84	C
ATOM	2092	O	LYS A 340	188.716	124.055	153.824	1.00 89.84	O
ATOM	2093	CB	LYS A 340	186.267	126.056	155.256	1.00 89.84	C
ATOM	2094	CG	LYS A 340	185.596	126.453	156.554	1.00 89.84	C
ATOM	2095	CD	LYS A 340	184.304	125.691	156.770	1.00 89.84	C
ATOM	2096	CE	LYS A 340	183.152	126.347	156.040	1.00 89.84	C
ATOM	2097	NZ	LYS A 340	181.860	125.688	156.362	1.00 89.84	N
ATOM	2098	N	ASN A 341	186.700	124.318	152.867	1.00112.01	N
ATOM	2099	CA	ASN A 341	187.153	123.916	151.539	1.00112.01	C
ATOM	2100	C	ASN A 341	187.078	125.036	150.508	1.00112.01	C
ATOM	2101	O	ASN A 341	188.088	125.363	149.877	1.00112.01	O
ATOM	2102	CB	ASN A 341	186.341	122.703	151.071	1.00112.01	C
ATOM	2103	CG	ASN A 341	186.355	121.578	152.081	1.00112.01	C
ATOM	2104	OD1	ASN A 341	185.522	121.529	152.986	1.00112.01	O
ATOM	2105	ND2	ASN A 341	187.317	120.672	151.943	1.00112.01	N
ATOM	2106	N	VAL A 342	185.903	125.631	150.305	1.00113.92	N

ATOM	2107	CA	VAL A 342	185.722	126.643	149.269	1.00113.92	C
ATOM	2108	C	VAL A 342	184.567	127.547	149.668	1.00113.92	C
ATOM	2109	O	VAL A 342	183.559	127.089	150.212	1.00113.92	O
ATOM	2110	CB	VAL A 342	185.461	125.998	147.887	1.00113.92	C
ATOM	2111	CG1	VAL A 342	184.286	125.035	147.965	1.00113.92	C
ATOM	2112	CG2	VAL A 342	185.207	127.066	146.836	1.00113.92	C
ATOM	2113	N	THR A 343	184.709	128.841	149.381	1.00113.63	N
ATOM	2114	CA	THR A 343	183.718	129.824	149.810	1.00113.63	C
ATOM	2115	C	THR A 343	183.452	130.868	148.725	1.00113.63	C
ATOM	2116	O	THR A 343	183.349	132.066	149.011	1.00113.63	O
ATOM	2117	CB	THR A 343	184.165	130.512	151.101	1.00113.63	C
ATOM	2118	OG1	THR A 343	184.802	129.558	151.964	1.00113.63	O
ATOM	2119	CG2	THR A 343	182.980	131.121	151.819	1.00113.63	C
ATOM	2120	N	CYS A 344	183.340	130.449	147.466	1.00112.61	N
ATOM	2121	CA	CYS A 344	183.058	131.429	146.424	1.00112.61	C
ATOM	2122	C	CYS A 344	181.697	132.071	146.674	1.00112.61	C
ATOM	2123	O	CYS A 344	180.772	131.423	147.165	1.00112.61	O
ATOM	2124	CB	CYS A 344	183.114	130.789	145.031	1.00112.61	C
ATOM	2125	SG	CYS A 344	182.044	129.369	144.755	1.00112.61	S
ATOM	2126	N	ALA A 345	181.583	133.354	146.334	1.00104.58	N
ATOM	2127	CA	ALA A 345	180.441	134.180	146.733	1.00104.58	C
ATOM	2128	C	ALA A 345	179.461	134.350	145.573	1.00104.58	C
ATOM	2129	O	ALA A 345	179.538	135.299	144.792	1.00104.58	O
ATOM	2130	CB	ALA A 345	180.919	135.531	147.251	1.00104.58	C
ATOM	2131	N	LEU A 346	178.510	133.422	145.478	1.00101.94	N
ATOM	2132	CA	LEU A 346	177.479	133.466	144.448	1.00101.94	C
ATOM	2133	C	LEU A 346	176.112	133.300	145.094	1.00101.94	C
ATOM	2134	O	LEU A 346	175.900	132.358	145.861	1.00101.94	O
ATOM	2135	CB	LEU A 346	177.710	132.372	143.401	1.00101.94	C
ATOM	2136	CG	LEU A 346	177.409	130.933	143.826	1.00101.94	C
ATOM	2137	CD1	LEU A 346	175.947	130.591	143.582	1.00101.94	C
ATOM	2138	CD2	LEU A 346	178.324	129.943	143.123	1.00101.94	C
ATOM	2139	N	THR A 347	175.187	134.211	144.787	1.00 96.38	N
ATOM	2140	CA	THR A 347	173.863	134.166	145.404	1.00 96.38	C
ATOM	2141	C	THR A 347	172.694	134.350	144.446	1.00 96.38	C
ATOM	2142	O	THR A 347	171.584	133.930	144.788	1.00 96.38	O
ATOM	2143	CB	THR A 347	173.760	135.222	146.510	1.00 96.38	C

ATOM	2144	OG1	THR	A	347	174.334	136.453	146.054	1.00 96.38	O
ATOM	2145	CG2	THR	A	347	174.500	134.757	147.745	1.00 96.38	C
ATOM	2146	N	PHE	A	348	172.881	134.942	143.269	1.00 92.04	N
ATOM	2147	CA	PHE	A	348	171.777	135.298	142.377	1.00 92.04	C
ATOM	2148	C	PHE	A	348	170.803	136.249	143.076	1.00 92.04	C
ATOM	2149	O	PHE	A	348	169.637	135.934	143.315	1.00 92.04	O
ATOM	2150	CB	PHE	A	348	171.056	134.049	141.861	1.00 92.04	C
ATOM	2151	CG	PHE	A	348	169.901	134.350	140.947	1.00 92.04	C
ATOM	2152	CD1	PHE	A	348	169.832	135.552	140.267	1.00 92.04	C
ATOM	2153	CD2	PHE	A	348	168.882	133.433	140.775	1.00 92.04	C
ATOM	2154	CE1	PHE	A	348	168.773	135.832	139.434	1.00 92.04	C
ATOM	2155	CE2	PHE	A	348	167.819	133.707	139.940	1.00 92.04	C
ATOM	2156	CZ	PHE	A	348	167.766	134.908	139.268	1.00 92.04	C
ATOM	2157	N	TRP	A	349	171.314	137.436	143.403	1.00 91.20	N
ATOM	2158	CA	TRP	A	349	170.501	138.415	144.115	1.00 91.20	C
ATOM	2159	C	TRP	A	349	169.275	138.833	143.313	1.00 91.20	C
ATOM	2160	O	TRP	A	349	168.202	139.036	143.890	1.00 91.20	O
ATOM	2161	CB	TRP	A	349	171.346	139.637	144.469	1.00 91.20	C
ATOM	2162	CG	TRP	A	349	170.576	140.729	145.147	1.00 91.20	C
ATOM	2163	CD1	TRP	A	349	170.100	140.726	146.424	1.00 91.20	C
ATOM	2164	CD2	TRP	A	349	170.199	141.989	144.582	1.00 91.20	C
ATOM	2165	NE1	TRP	A	349	169.448	141.905	146.690	1.00 91.20	N
ATOM	2166	CE2	TRP	A	349	169.495	142.697	145.574	1.00 91.20	C
ATOM	2167	CE3	TRP	A	349	170.388	142.587	143.333	1.00 91.20	C
ATOM	2168	CZ2	TRP	A	349	168.978	143.972	145.356	1.00 91.20	C
ATOM	2169	CZ3	TRP	A	349	169.875	143.852	143.119	1.00 91.20	C
ATOM	2170	CH2	TRP	A	349	169.179	144.530	144.124	1.00 91.20	C
ATOM	2171	N	GLU	A	350	169.402	138.966	141.995	1.00 93.27	N
ATOM	2172	CA	GLU	A	350	168.308	139.487	141.180	1.00 93.27	C
ATOM	2173	C	GLU	A	350	168.626	139.223	139.714	1.00 93.27	C
ATOM	2174	O	GLU	A	350	169.763	138.910	139.351	1.00 93.27	O
ATOM	2175	CB	GLU	A	350	168.096	140.983	141.418	1.00 93.27	C
ATOM	2176	CG	GLU	A	350	166.826	141.545	140.811	1.00 93.27	C
ATOM	2177	CD	GLU	A	350	165.622	141.346	141.700	1.00 93.27	C
ATOM	2178	OE1	GLU	A	350	165.714	140.550	142.657	1.00 93.27	O
ATOM	2179	OE2	GLU	A	350	164.583	141.989	141.445	1.00 93.27	O
ATOM	2180	N	ALA	A	351	167.605	139.359	138.872	1.00 91.27	N

ATOM	2181	CA	ALA A 351	167.794	139.199	137.433	1.00 91.27	C
ATOM	2182	C	ALA A 351	166.639	139.865	136.709	1.00 91.27	C
ATOM	2183	O	ALA A 351	165.493	139.425	136.840	1.00 91.27	O
ATOM	2184	CB	ALA A 351	167.889	137.726	137.056	1.00 91.27	C
ATOM	2185	N	SER A 352	166.935	140.905	135.941	1.00 91.46	N
ATOM	2186	CA	SER A 352	165.924	141.583	135.150	1.00 91.46	C
ATOM	2187	C	SER A 352	165.807	140.934	133.774	1.00 91.46	C
ATOM	2188	O	SER A 352	166.615	140.089	133.385	1.00 91.46	O
ATOM	2189	CB	SER A 352	166.255	143.067	135.020	1.00 91.46	C
ATOM	2190	OG	SER A 352	165.542	143.649	133.946	1.00 91.46	O
ATOM	2191	N	GLU A 353	164.777	141.341	133.031	1.00 93.87	N
ATOM	2192	CA	GLU A 353	164.521	140.803	131.703	1.00 93.87	C
ATOM	2193	C	GLU A 353	164.509	141.853	130.603	1.00 93.87	C
ATOM	2194	O	GLU A 353	164.410	141.485	129.428	1.00 93.87	O
ATOM	2195	CB	GLU A 353	163.184	140.047	131.680	1.00 93.87	C
ATOM	2196	CG	GLU A 353	163.285	138.575	132.027	1.00 93.87	C
ATOM	2197	CD	GLU A 353	161.930	137.910	132.116	1.00 93.87	C
ATOM	2198	OE1	GLU A 353	161.868	136.668	132.014	1.00 93.87	O
ATOM	2199	OE2	GLU A 353	160.925	138.630	132.294	1.00 93.87	O
ATOM	2200	N	ARG A 354	164.588	143.138	130.942	1.00 93.93	N
ATOM	2201	CA	ARG A 354	164.777	144.183	129.938	1.00 93.93	C
ATOM	2202	C	ARG A 354	165.432	145.369	130.629	1.00 93.93	C
ATOM	2203	O	ARG A 354	164.763	146.102	131.362	1.00 93.93	O
ATOM	2204	CB	ARG A 354	163.456	144.583	129.295	1.00 93.93	C
ATOM	2205	CG	ARG A 354	163.632	145.508	128.097	1.00 93.93	C
ATOM	2206	CD	ARG A 354	162.428	146.411	127.889	1.00 93.93	C
ATOM	2207	NE	ARG A 354	161.296	145.695	127.309	1.00 93.93	N
ATOM	2208	CZ	ARG A 354	161.258	145.243	126.060	1.00 93.93	C
ATOM	2209	NH1	ARG A 354	162.294	145.430	125.253	1.00 93.93	N
ATOM	2210	NH2	ARG A 354	160.185	144.603	125.617	1.00 93.93	N
ATOM	2211	N	THR A 355	166.726	145.557	130.392	1.00 91.70	N
ATOM	2212	CA	THR A 355	167.496	146.625	131.008	1.00 91.70	C
ATOM	2213	C	THR A 355	167.954	147.619	129.949	1.00 91.70	C
ATOM	2214	O	THR A 355	167.818	147.391	128.745	1.00 91.70	O
ATOM	2215	CB	THR A 355	168.709	146.069	131.760	1.00 91.70	C
ATOM	2216	OG1	THR A 355	169.269	147.097	132.584	1.00 91.70	O
ATOM	2217	CG2	THR A 355	169.760	145.592	130.778	1.00 91.70	C

ATOM	2218	N	ILE A 356	168.507	148.735	130.416	1.00 91.75	N
ATOM	2219	CA	ILE A 356	169.000	149.800	129.553	1.00 91.75	C
ATOM	2220	C	ILE A 356	170.356	150.250	130.075	1.00 91.75	C
ATOM	2221	O	ILE A 356	170.502	150.538	131.267	1.00 91.75	O
ATOM	2222	CB	ILE A 356	168.021	150.985	129.496	1.00 91.75	C
ATOM	2223	CG1	ILE A 356	166.638	150.508	129.058	1.00 91.75	C
ATOM	2224	CG2	ILE A 356	168.534	152.040	128.549	1.00 91.75	C
ATOM	2225	CD1	ILE A 356	165.614	151.609	128.979	1.00 91.75	C
ATOM	2226	N	ARG A 357	171.344	150.310	129.187	1.00 92.35	N
ATOM	2227	CA	ARG A 357	172.718	150.637	129.549	1.00 92.35	C
ATOM	2228	C	ARG A 357	173.110	151.933	128.857	1.00 92.35	C
ATOM	2229	O	ARG A 357	173.090	152.010	127.625	1.00 92.35	O
ATOM	2230	CB	ARG A 357	173.665	149.504	129.157	1.00 92.35	C
ATOM	2231	CG	ARG A 357	175.116	149.751	129.498	1.00 92.35	C
ATOM	2232	CD	ARG A 357	175.853	150.347	128.320	1.00 92.35	C
ATOM	2233	NE	ARG A 357	176.039	149.388	127.237	1.00 92.35	N
ATOM	2234	CZ	ARG A 357	176.988	148.461	127.219	1.00 92.35	C
ATOM	2235	NH1	ARG A 357	177.091	147.633	126.190	1.00 92.35	N
ATOM	2236	NH2	ARG A 357	177.833	148.357	128.232	1.00 92.35	N
ATOM	2237	N	SER A 358	173.465	152.946	129.646	1.00100.09	N
ATOM	2238	CA	SER A 358	173.799	154.273	129.129	1.00100.09	C
ATOM	2239	C	SER A 358	175.161	154.691	129.675	1.00100.09	C
ATOM	2240	O	SER A 358	175.280	155.046	130.851	1.00100.09	O
ATOM	2241	CB	SER A 358	172.727	155.288	129.504	1.00100.09	C
ATOM	2242	OG	SER A 358	172.957	155.812	130.799	1.00100.09	O
ATOM	2243	N	GLU A 359	176.180	154.656	128.822	1.00111.58	N
ATOM	2244	CA	GLU A 359	177.529	155.049	129.211	1.00111.58	C
ATOM	2245	C	GLU A 359	177.655	156.564	129.142	1.00111.58	C
ATOM	2246	O	GLU A 359	177.446	157.156	128.079	1.00111.58	O
ATOM	2247	CB	GLU A 359	178.553	154.390	128.292	1.00111.58	C
ATOM	2248	CG	GLU A 359	178.322	154.687	126.820	1.00111.58	C
ATOM	2249	CD	GLU A 359	179.583	154.554	125.992	1.00111.58	C
ATOM	2250	OE1	GLU A 359	180.661	154.941	126.488	1.00111.58	O
ATOM	2251	OE2	GLU A 359	179.495	154.063	124.847	1.00111.58	O
ATOM	2252	N	ALA A 360	177.994	157.201	130.265	1.00116.44	N
ATOM	2253	CA	ALA A 360	178.053	158.656	130.243	1.00116.44	C
ATOM	2254	C	ALA A 360	179.457	159.201	129.997	1.00116.44	C

ATOM	2255	O	ALA A 360	179.718	159.773	128.934	1.00116.44	O
ATOM	2256	CB	ALA A 360	177.499	159.219	131.554	1.00116.44	C
ATOM	2257	N	GLU A 361	180.376	159.021	130.947	1.00117.36	N
ATOM	2258	CA	GLU A 361	181.729	159.537	130.751	1.00117.36	C
ATOM	2259	C	GLU A 361	182.790	158.453	130.899	1.00117.36	C
ATOM	2260	O	GLU A 361	183.662	158.302	130.038	1.00117.36	O
ATOM	2261	CB	GLU A 361	182.018	160.686	131.723	1.00117.36	C
ATOM	2262	CG	GLU A 361	181.992	160.314	133.200	1.00117.36	C
ATOM	2263	CD	GLU A 361	180.609	159.944	133.691	1.00117.36	C
ATOM	2264	OE1	GLU A 361	179.624	160.335	133.032	1.00117.36	O
ATOM	2265	OE2	GLU A 361	180.505	159.264	134.733	1.00117.36	O
ATOM	2266	N	ASP A 362	182.723	157.700	131.998	1.00114.07	N
ATOM	2267	CA	ASP A 362	183.701	156.660	132.283	1.00114.07	C
ATOM	2268	C	ASP A 362	183.062	155.443	132.935	1.00114.07	C
ATOM	2269	O	ASP A 362	183.786	154.540	133.371	1.00114.07	O
ATOM	2270	CB	ASP A 362	184.822	157.203	133.178	1.00114.07	C
ATOM	2271	CG	ASP A 362	184.317	157.679	134.530	1.00114.07	C
ATOM	2272	OD1	ASP A 362	183.425	157.024	135.111	1.00114.07	O
ATOM	2273	OD2	ASP A 362	184.820	158.712	135.020	1.00114.07	O
ATOM	2274	N	SER A 363	181.739	155.402	133.029	1.00109.91	N
ATOM	2275	CA	SER A 363	181.034	154.324	133.706	1.00109.91	C
ATOM	2276	C	SER A 363	179.793	154.005	132.882	1.00109.91	C
ATOM	2277	O	SER A 363	179.664	154.415	131.724	1.00109.91	O
ATOM	2278	CB	SER A 363	180.713	154.723	135.154	1.00109.91	C
ATOM	2279	OG	SER A 363	181.878	155.158	135.830	1.00109.91	O
ATOM	2280	N	TYR A 364	178.867	153.261	133.475	1.00101.53	N
ATOM	2281	CA	TYR A 364	177.613	152.917	132.829	1.00101.53	C
ATOM	2282	C	TYR A 364	176.468	153.234	133.780	1.00101.53	C
ATOM	2283	O	TYR A 364	176.669	153.749	134.883	1.00101.53	O
ATOM	2284	CB	TYR A 364	177.598	151.444	132.411	1.00101.53	C
ATOM	2285	CG	TYR A 364	178.677	151.089	131.417	1.00101.53	C
ATOM	2286	CD1	TYR A 364	179.956	150.774	131.838	1.00101.53	C
ATOM	2287	CD2	TYR A 364	178.414	151.068	130.059	1.00101.53	C
ATOM	2288	CE1	TYR A 364	180.942	150.447	130.933	1.00101.53	C
ATOM	2289	CE2	TYR A 364	179.394	150.746	129.148	1.00101.53	C
ATOM	2290	CZ	TYR A 364	180.655	150.434	129.590	1.00101.53	C
ATOM	2291	OH	TYR A 364	181.635	150.111	128.682	1.00101.53	O

ATOM	2292	N	HIS A 365	175.250	152.928	133.342	1.00 99.68 N
ATOM	2293	CA	HIS A 365	174.063	153.157	134.165	1.00 99.68 C
ATOM	2294	C	HIS A 365	173.060	152.055	133.822	1.00 99.68 C
ATOM	2295	O	HIS A 365	172.282	152.178	132.875	1.00 99.68 O
ATOM	2296	CB	HIS A 365	173.480	154.542	133.929	1.00 99.68 C
ATOM	2297	CG	HIS A 365	174.255	155.643	134.582	1.00 99.68 C
ATOM	2298	ND1	HIS A 365	174.924	155.477	135.774	1.00 99.68 N
ATOM	2299	CD2	HIS A 365	174.466	156.927	134.208	1.00 99.68 C
ATOM	2300	CE1	HIS A 365	175.514	156.611	136.108	1.00 99.68 C
ATOM	2301	NE2	HIS A 365	175.251	157.507	135.174	1.00 99.68 N
ATOM	2302	N	PHE A 366	173.093	150.982	134.602	1.00 94.58 N
ATOM	2303	CA	PHE A 366	172.177	149.867	134.419	1.00 94.58 C
ATOM	2304	C	PHE A 366	170.900	150.152	135.197	1.00 94.58 C
ATOM	2305	O	PHE A 366	170.924	150.233	136.429	1.00 94.58 O
ATOM	2306	CB	PHE A 366	172.818	148.562	134.883	1.00 94.58 C
ATOM	2307	CG	PHE A 366	174.034	148.174	134.096	1.00 94.58 C
ATOM	2308	CD1	PHE A 366	173.913	147.459	132.919	1.00 94.58 C
ATOM	2309	CD2	PHE A 366	175.298	148.520	134.536	1.00 94.58 C
ATOM	2310	CE1	PHE A 366	175.028	147.099	132.197	1.00 94.58 C
ATOM	2311	CE2	PHE A 366	176.416	148.161	133.817	1.00 94.58 C
ATOM	2312	CZ	PHE A 366	176.281	147.451	132.646	1.00 94.58 C
ATOM	2313	N	SER A 367	169.789	150.307	134.479	1.00 94.04 N
ATOM	2314	CA	SER A 367	168.503	150.671	135.073	1.00 94.04 C
ATOM	2315	C	SER A 367	167.452	149.678	134.591	1.00 94.04 C
ATOM	2316	O	SER A 367	166.868	149.858	133.519	1.00 94.04 O
ATOM	2317	CB	SER A 367	168.127	152.102	134.717	1.00 94.04 C
ATOM	2318	OG	SER A 367	167.649	152.178	133.388	1.00 94.04 O
ATOM	2319	N	SER A 368	167.213	148.636	135.384	1.00 97.62 N
ATOM	2320	CA	SER A 368	166.175	147.668	135.058	1.00 97.62 C
ATOM	2321	C	SER A 368	164.855	148.381	134.804	1.00 97.62 C
ATOM	2322	O	SER A 368	164.484	149.311	135.524	1.00 97.62 O
ATOM	2323	CB	SER A 368	166.022	146.652	136.190	1.00 97.62 C
ATOM	2324	OG	SER A 368	166.063	147.292	137.452	1.00 97.62 O
ATOM	2325	N	ALA A 369	164.129	147.924	133.791	1.00 97.90 N
ATOM	2326	CA	ALA A 369	162.843	148.514	133.458	1.00 97.90 C
ATOM	2327	C	ALA A 369	161.769	147.976	134.380	1.00 97.90 C
ATOM	2328	O	ALA A 369	160.640	147.772	133.967	1.00 97.90 O

ATOM	2329	CB	ALA A 369	162.486	148.238	132.013	1.00 97.90	C
ATOM	2330	N	LYS A 370	162.143	147.725	135.627	1.00100.37	N
ATOM	2331	CA	LYS A 370	161.220	147.231	136.648	1.00100.37	C
ATOM	2332	C	LYS A 370	161.238	148.138	137.869	1.00100.37	C
ATOM	2333	O	LYS A 370	160.553	147.874	138.841	1.00100.37	O
ATOM	2334	CB	LYS A 370	161.597	145.819	137.090	1.00100.37	C
ATOM	2335	CG	LYS A 370	161.388	144.750	136.038	1.00100.37	C
ATOM	2336	CD	LYS A 370	161.257	143.385	136.681	1.00100.37	C
ATOM	2337	CE	LYS A 370	160.039	142.654	136.149	1.00100.37	C
ATOM	2338	NZ	LYS A 370	158.828	142.925	136.966	1.00100.37	N
ATOM	2339	N	MET A 371	162.019	149.213	137.791	1.00101.97	N
ATOM	2340	CA	MET A 371	162.188	150.201	138.854	1.00101.97	C
ATOM	2341	C	MET A 371	162.696	149.621	140.185	1.00101.97	C
ATOM	2342	O	MET A 371	162.362	150.127	141.249	1.00101.97	O
ATOM	2343	CB	MET A 371	160.921	151.057	139.050	1.00101.97	C
ATOM	2344	CG	MET A 371	160.091	151.327	137.800	1.00101.97	C
ATOM	2345	SD	MET A 371	160.926	152.252	136.498	1.00101.97	S
ATOM	2346	CE	MET A 371	159.798	152.046	135.126	1.00101.97	C
ATOM	2347	N	THR A 372	163.533	148.588	140.125	1.00 97.73	N
ATOM	2348	CA	THR A 372	164.055	147.972	141.344	1.00 97.73	C
ATOM	2349	C	THR A 372	165.568	147.876	141.487	1.00 97.73	C
ATOM	2350	O	THR A 372	166.041	147.483	142.547	1.00 97.73	O
ATOM	2351	CB	THR A 372	163.552	146.538	141.506	1.00 97.73	C
ATOM	2352	OG1	THR A 372	164.204	145.702	140.549	1.00 97.73	O
ATOM	2353	CG2	THR A 372	162.072	146.468	141.302	1.00 97.73	C
ATOM	2354	N	ALA A 373	166.326	148.210	140.447	1.00 99.02	N
ATOM	2355	CA	ALA A 373	167.781	148.118	140.520	1.00 99.02	C
ATOM	2356	C	ALA A 373	168.506	148.988	139.507	1.00 99.02	C
ATOM	2357	O	ALA A 373	168.485	148.689	138.326	1.00 99.02	O
ATOM	2358	CB	ALA A 373	168.223	146.672	140.338	1.00 99.02	C
ATOM	2359	N	THR A 374	169.130	150.075	139.964	1.00 97.26	N
ATOM	2360	CA	THR A 374	169.910	150.967	139.102	1.00 97.26	C
ATOM	2361	C	THR A 374	171.235	151.293	139.784	1.00 97.26	C
ATOM	2362	O	THR A 374	171.223	151.911	140.835	1.00 97.26	O
ATOM	2363	CB	THR A 374	169.203	152.316	138.813	1.00 97.26	C
ATOM	2364	OG1	THR A 374	169.501	153.268	139.842	1.00 97.26	O
ATOM	2365	CG2	THR A 374	167.698	152.171	138.696	1.00 97.26	C

ATOM	2366	N	PHE A 375	172.370	150.913	139.199	1.00 97.47	N
ATOM	2367	CA	PHE A 375	173.668	151.209	139.817	1.00 97.47	C
ATOM	2368	C	PHE A 375	174.649	151.944	138.907	1.00 97.47	C
ATOM	2369	O	PHE A 375	174.247	152.566	137.938	1.00 97.47	O
ATOM	2370	CB	PHE A 375	174.314	149.930	140.318	1.00 97.47	C
ATOM	2371	CG	PHE A 375	173.700	148.691	139.761	1.00 97.47	C
ATOM	2372	CD1	PHE A 375	172.528	148.194	140.283	1.00 97.47	C
ATOM	2373	CD2	PHE A 375	174.301	148.022	138.726	1.00 97.47	C
ATOM	2374	CE1	PHE A 375	171.957	147.053	139.777	1.00 97.47	C
ATOM	2375	CE2	PHE A 375	173.741	146.878	138.214	1.00 97.47	C
ATOM	2376	CZ	PHE A 375	172.565	146.393	138.739	1.00 97.47	C
ATOM	2377	N	LEU A 376	175.936	151.894	139.242	1.00 98.78	N
ATOM	2378	CA	LEU A 376	176.968	152.536	138.429	1.00 98.78	C
ATOM	2379	C	LEU A 376	178.208	151.648	138.444	1.00 98.78	C
ATOM	2380	O	LEU A 376	178.916	151.577	139.451	1.00 98.78	O
ATOM	2381	CB	LEU A 376	177.278	153.935	138.949	1.00 98.78	C
ATOM	2382	CG	LEU A 376	178.108	154.856	138.056	1.00 98.78	C
ATOM	2383	CD1	LEU A 376	177.934	156.301	138.485	1.00 98.78	C
ATOM	2384	CD2	LEU A 376	179.571	154.463	138.100	1.00 98.78	C
ATOM	2385	N	SER A 377	178.466	150.981	137.326	1.00102.69	N
ATOM	2386	CA	SER A 377	179.618	150.105	137.191	1.00102.69	C
ATOM	2387	C	SER A 377	180.818	150.899	136.678	1.00102.69	C
ATOM	2388	O	SER A 377	180.808	152.132	136.637	1.00102.69	O
ATOM	2389	CB	SER A 377	179.288	148.934	136.273	1.00102.69	C
ATOM	2390	OG	SER A 377	180.472	148.364	135.746	1.00102.69	O
ATOM	2391	N	LYS A 378	181.872	150.191	136.284	1.00105.58	N
ATOM	2392	CA	LYS A 378	183.085	150.806	135.762	1.00105.58	C
ATOM	2393	C	LYS A 378	183.444	150.144	134.442	1.00105.58	C
ATOM	2394	O	LYS A 378	183.429	148.914	134.338	1.00105.58	O
ATOM	2395	CB	LYS A 378	184.242	150.679	136.757	1.00105.58	C
ATOM	2396	CG	LYS A 378	184.226	151.722	137.862	1.00105.58	C
ATOM	2397	CD	LYS A 378	185.444	151.593	138.760	1.00105.58	C
ATOM	2398	CE	LYS A 378	186.676	151.189	137.969	1.00105.58	C
ATOM	2399	NZ	LYS A 378	186.919	152.098	136.816	1.00105.58	N
ATOM	2400	N	LYS A 379	183.781	150.959	133.443	1.00110.70	N
ATOM	2401	CA	LYS A 379	183.996	150.478	132.078	1.00110.70	C
ATOM	2402	C	LYS A 379	185.328	149.738	132.003	1.00110.70	C

ATOM	2403	O	LYS A 379	186.352	150.266	131.564	1.00110.70	O
ATOM	2404	CB	LYS A 379	183.952	151.635	131.089	1.00110.70	C
ATOM	2405	CG	LYS A 379	184.880	152.785	131.434	1.00110.70	C
ATOM	2406	CD	LYS A 379	184.899	153.824	130.326	1.00110.70	C
ATOM	2407	CE	LYS A 379	183.490	154.236	129.936	1.00110.70	C
ATOM	2408	NZ	LYS A 379	183.486	155.168	128.777	1.00110.70	N
ATOM	2409	N	GLN A 380	185.306	148.480	132.435	1.00109.74	N
ATOM	2410	CA	GLN A 380	186.497	147.639	132.370	1.00109.74	C
ATOM	2411	C	GLN A 380	186.055	146.184	132.438	1.00109.74	C
ATOM	2412	O	GLN A 380	185.563	145.739	133.480	1.00109.74	O
ATOM	2413	CB	GLN A 380	187.459	147.976	133.501	1.00109.74	C
ATOM	2414	CG	GLN A 380	188.436	149.088	133.176	1.00109.74	C
ATOM	2415	CD	GLN A 380	189.472	148.668	132.156	1.00109.74	C
ATOM	2416	OE1	GLN A 380	189.321	147.647	131.486	1.00109.74	O
ATOM	2417	NE2	GLN A 380	190.535	149.454	132.033	1.00109.74	N
ATOM	2418	N	GLU A 381	186.224	145.453	131.339	1.00107.99	N
ATOM	2419	CA	GLU A 381	185.965	144.022	131.363	1.00107.99	C
ATOM	2420	C	GLU A 381	186.790	143.370	132.463	1.00107.99	C
ATOM	2421	O	GLU A 381	187.874	143.841	132.814	1.00107.99	O
ATOM	2422	CB	GLU A 381	186.294	143.395	130.008	1.00107.99	C
ATOM	2423	CG	GLU A 381	185.352	143.805	128.891	1.00107.99	C
ATOM	2424	CD	GLU A 381	184.163	142.875	128.756	1.00107.99	C
ATOM	2425	OE1	GLU A 381	184.301	141.679	129.086	1.00107.99	O
ATOM	2426	OE2	GLU A 381	183.090	143.340	128.317	1.00107.99	O
ATOM	2427	N	VAL A 382	186.269	142.278	133.015	1.00111.53	N
ATOM	2428	CA	VAL A 382	186.912	141.639	134.157	1.00111.53	C
ATOM	2429	C	VAL A 382	187.320	140.219	133.787	1.00111.53	C
ATOM	2430	O	VAL A 382	187.300	139.315	134.628	1.00111.53	O
ATOM	2431	CB	VAL A 382	185.997	141.662	135.397	1.00111.53	C
ATOM	2432	CG1	VAL A 382	184.706	140.920	135.126	1.00111.53	C
ATOM	2433	CG2	VAL A 382	186.715	141.100	136.615	1.00111.53	C
ATOM	2434	N	ASN A 383	187.687	140.010	132.522	1.00122.87	N
ATOM	2435	CA	ASN A 383	188.293	138.754	132.087	1.00122.87	C
ATOM	2436	C	ASN A 383	187.362	137.570	132.367	1.00122.87	C
ATOM	2437	O	ASN A 383	187.622	136.715	133.214	1.00122.87	O
ATOM	2438	CB	ASN A 383	189.657	138.559	132.756	1.00122.87	C
ATOM	2439	CG	ASN A 383	190.693	139.541	132.257	1.00122.87	C

ATOM	2440	OD1	ASN A 383	190.786	139.804	131.059	1.00122.87	O
ATOM	2441	ND2	ASN A 383	191.474	140.097	133.175	1.00122.87	N
ATOM	2442	N	MET A 384	186.255	137.557	131.626	1.00116.33	N
ATOM	2443	CA	MET A 384	185.201	136.561	131.797	1.00116.33	C
ATOM	2444	C	MET A 384	185.750	135.149	131.968	1.00116.33	C
ATOM	2445	O	MET A 384	185.094	134.298	132.576	1.00116.33	O
ATOM	2446	CB	MET A 384	184.245	136.600	130.603	1.00116.33	C
ATOM	2447	CG	MET A 384	183.462	135.314	130.378	1.00116.33	C
ATOM	2448	SD	MET A 384	182.080	135.116	131.514	1.00116.33	S
ATOM	2449	CE	MET A 384	181.193	133.777	130.726	1.00116.33	C
ATOM	2450	N	SER A 385	186.946	134.884	131.441	1.00128.41	N
ATOM	2451	CA	SER A 385	187.591	133.585	131.587	1.00128.41	C
ATOM	2452	C	SER A 385	188.683	133.596	132.654	1.00128.41	C
ATOM	2453	O	SER A 385	189.692	132.895	132.518	1.00128.41	O
ATOM	2454	CB	SER A 385	188.159	133.125	130.245	1.00128.41	C
ATOM	2455	OG	SER A 385	187.219	133.317	129.203	1.00128.41	O
ATOM	2456	N	ASP A 386	188.497	134.374	133.715	1.00124.81	N
ATOM	2457	CA	ASP A 386	189.480	134.489	134.781	1.00124.81	C
ATOM	2458	C	ASP A 386	189.194	133.480	135.891	1.00124.81	C
ATOM	2459	O	ASP A 386	188.108	132.904	135.984	1.00124.81	O
ATOM	2460	CB	ASP A 386	189.493	135.914	135.336	1.00124.81	C
ATOM	2461	CG	ASP A 386	190.637	136.157	136.298	1.00124.81	C
ATOM	2462	OD1	ASP A 386	190.675	135.495	137.356	1.00124.81	O
ATOM	2463	OD2	ASP A 386	191.499	137.007	135.994	1.00124.81	O
ATOM	2464	N	SER A 387	190.198	133.267	136.741	1.00126.07	N
ATOM	2465	CA	SER A 387	190.119	132.311	137.844	1.00126.07	C
ATOM	2466	C	SER A 387	189.805	133.079	139.125	1.00126.07	C
ATOM	2467	O	SER A 387	190.634	133.202	140.027	1.00126.07	O
ATOM	2468	CB	SER A 387	191.419	131.519	137.969	1.00126.07	C
ATOM	2469	OG	SER A 387	192.544	132.379	137.970	1.00126.07	O
ATOM	2470	N	ALA A 388	188.583	133.598	139.196	1.00121.05	N
ATOM	2471	CA	ALA A 388	188.059	134.184	140.421	1.00121.05	C
ATOM	2472	C	ALA A 388	186.619	133.797	140.703	1.00121.05	C
ATOM	2473	O	ALA A 388	186.150	134.026	141.821	1.00121.05	O
ATOM	2474	CB	ALA A 388	188.163	135.713	140.377	1.00121.05	C
ATOM	2475	N	LEU A 389	185.900	133.228	139.730	1.00116.48	N
ATOM	2476	CA	LEU A 389	184.510	132.822	139.895	1.00116.48	C

ATOM	2477	C	LEU A 389	184.242	131.458	139.265	1.00116.48 C
ATOM	2478	O	LEU A 389	183.082	131.135	138.972	1.00116.48 O
ATOM	2479	CB	LEU A 389	183.573	133.876	139.291	1.00116.48 C
ATOM	2480	CG	LEU A 389	183.921	134.312	137.866	1.00116.48 C
ATOM	2481	CD1	LEU A 389	183.393	133.326	136.836	1.00116.48 C
ATOM	2482	CD2	LEU A 389	183.395	135.711	137.592	1.00116.48 C
ATOM	2483	N	ASP A 390	185.288	130.655	139.051	1.00116.13 N
ATOM	2484	CA	ASP A 390	185.180	129.404	138.310	1.00116.13 C
ATOM	2485	C	ASP A 390	184.081	128.496	138.837	1.00116.13 C
ATOM	2486	O	ASP A 390	183.620	127.616	138.102	1.00116.13 O
ATOM	2487	CB	ASP A 390	186.527	128.680	138.341	1.00116.13 C
ATOM	2488	CG	ASP A 390	187.585	129.394	137.526	1.00116.13 C
ATOM	2489	OD1	ASP A 390	187.222	130.039	136.519	1.00116.13 O
ATOM	2490	OD2	ASP A 390	188.776	129.314	137.891	1.00116.13 O
ATOM	2491	N	CYS A 391	183.646	128.686	140.080	1.00113.78 N
ATOM	2492	CA	CYS A 391	182.561	127.867	140.600	1.00113.78 C
ATOM	2493	C	CYS A 391	181.248	128.232	139.919	1.00113.78 C
ATOM	2494	O	CYS A 391	180.639	127.400	139.240	1.00113.78 O
ATOM	2495	CB	CYS A 391	182.477	128.006	142.126	1.00113.78 C
ATOM	2496	SG	CYS A 391	181.684	129.479	142.766	1.00113.78 S
ATOM	2497	N	VAL A 392	180.808	129.479	140.064	1.00109.58 N
ATOM	2498	CA	VAL A 392	179.650	129.978	139.296	1.00109.58 C
ATOM	2499	C	VAL A 392	180.214	130.646	138.046	1.00109.58 C
ATOM	2500	O	VAL A 392	180.411	131.860	137.970	1.00109.58 O
ATOM	2501	CB	VAL A 392	178.756	130.907	140.126	1.00109.58 C
ATOM	2502	CG1	VAL A 392	179.486	132.189	140.485	1.00109.58 C
ATOM	2503	CG2	VAL A 392	177.480	131.223	139.370	1.00109.58 C
ATOM	2504	N	ARG A 393	180.491	129.822	137.033	1.00107.49 N
ATOM	2505	CA	ARG A 393	180.866	130.343	135.725	1.00107.49 C
ATOM	2506	C	ARG A 393	180.235	129.545	134.591	1.00107.49 C
ATOM	2507	O	ARG A 393	180.528	129.820	133.421	1.00107.49 O
ATOM	2508	CB	ARG A 393	182.389	130.369	135.557	1.00107.49 C
ATOM	2509	CG	ARG A 393	182.864	131.190	134.369	1.00107.49 C
ATOM	2510	CD	ARG A 393	184.337	130.958	134.083	1.00107.49 C
ATOM	2511	NE	ARG A 393	184.591	129.605	133.601	1.00107.49 N
ATOM	2512	CZ	ARG A 393	184.223	129.160	132.404	1.00107.49 C
ATOM	2513	NH1	ARG A 393	184.492	127.913	132.041	1.00107.49 N

ATOM	2514	NH2	ARG A 393	183.581	129.962	131.567	1.00107.49	N
ATOM	2515	N	ASP A 394	179.390	128.564	134.897	1.00101.94	N
ATOM	2516	CA	ASP A 394	178.677	127.824	133.867	1.00101.94	C
ATOM	2517	C	ASP A 394	177.202	127.680	134.215	1.00101.94	C
ATOM	2518	O	ASP A 394	176.490	126.927	133.540	1.00101.94	O
ATOM	2519	CB	ASP A 394	179.305	126.442	133.659	1.00101.94	C
ATOM	2520	CG	ASP A 394	178.805	125.756	132.404	1.00101.94	C
ATOM	2521	OD1	ASP A 394	179.299	126.094	131.311	1.00101.94	O
ATOM	2522	OD2	ASP A 394	177.915	124.886	132.509	1.00101.94	O
ATOM	2523	N	GLU A 395	176.727	128.373	135.247	1.00 99.53	N
ATOM	2524	CA	GLU A 395	175.329	128.342	135.654	1.00 99.53	C
ATOM	2525	C	GLU A 395	174.562	129.563	135.167	1.00 99.53	C
ATOM	2526	O	GLU A 395	173.490	129.426	134.573	1.00 99.53	O
ATOM	2527	CB	GLU A 395	175.231	128.240	137.181	1.00 99.53	C
ATOM	2528	CG	GLU A 395	173.907	128.710	137.759	1.00 99.53	C
ATOM	2529	CD	GLU A 395	172.723	127.986	137.162	1.00 99.53	C
ATOM	2530	OE1	GLU A 395	172.933	126.950	136.496	1.00 99.53	O
ATOM	2531	OE2	GLU A 395	171.582	128.453	137.358	1.00 99.53	O
ATOM	2532	N	ALA A 396	175.092	130.761	135.414	1.00 96.08	N
ATOM	2533	CA	ALA A 396	174.423	131.969	134.946	1.00 96.08	C
ATOM	2534	C	ALA A 396	174.208	131.932	133.440	1.00 96.08	C
ATOM	2535	O	ALA A 396	173.194	132.428	132.940	1.00 96.08	O
ATOM	2536	CB	ALA A 396	175.230	133.203	135.344	1.00 96.08	C
ATOM	2537	N	ILE A 397	175.150	131.346	132.700	1.00 95.14	N
ATOM	2538	CA	ILE A 397	175.026	131.300	131.246	1.00 95.14	C
ATOM	2539	C	ILE A 397	173.774	130.536	130.835	1.00 95.14	C
ATOM	2540	O	ILE A 397	173.043	130.955	129.931	1.00 95.14	O
ATOM	2541	CB	ILE A 397	176.292	130.690	130.619	1.00 95.14	C
ATOM	2542	CG1	ILE A 397	177.391	131.745	130.511	1.00 95.14	C
ATOM	2543	CG2	ILE A 397	175.977	130.092	129.259	1.00 95.14	C
ATOM	2544	CD1	ILE A 397	178.683	131.216	129.942	1.00 95.14	C
ATOM	2545	N	ASN A 398	173.505	129.406	131.488	1.00 94.06	N
ATOM	2546	CA	ASN A 398	172.339	128.616	131.112	1.00 94.06	C
ATOM	2547	C	ASN A 398	171.045	129.321	131.495	1.00 94.06	C
ATOM	2548	O	ASN A 398	170.089	129.339	130.713	1.00 94.06	O
ATOM	2549	CB	ASN A 398	172.411	127.233	131.751	1.00 94.06	C
ATOM	2550	CG	ASN A 398	173.196	126.251	130.912	1.00 94.06	C

ATOM	2551	OD1	ASN	A	398	174.002	126.645	130.069	1.00 94.06	O
ATOM	2552	ND2	ASN	A	398	172.964	124.965	131.133	1.00 94.06	N
ATOM	2553	N	LYS	A	399	170.994	129.906	132.692	1.00 94.89	N
ATOM	2554	CA	LYS	A	399	169.811	130.664	133.088	1.00 94.89	C
ATOM	2555	C	LYS	A	399	169.560	131.820	132.130	1.00 94.89	C
ATOM	2556	O	LYS	A	399	168.409	132.143	131.815	1.00 94.89	O
ATOM	2557	CB	LYS	A	399	169.977	131.176	134.516	1.00 94.89	C
ATOM	2558	CG	LYS	A	399	168.746	131.851	135.086	1.00 94.89	C
ATOM	2559	CD	LYS	A	399	169.056	132.492	136.428	1.00 94.89	C
ATOM	2560	CE	LYS	A	399	169.810	131.534	137.333	1.00 94.89	C
ATOM	2561	NZ	LYS	A	399	170.545	132.249	138.411	1.00 94.89	N
ATOM	2562	N	LEU	A	400	170.631	132.435	131.631	1.00 94.89	N
ATOM	2563	CA	LEU	A	400	170.498	133.571	130.727	1.00 94.89	C
ATOM	2564	C	LEU	A	400	170.007	133.125	129.355	1.00 94.89	C
ATOM	2565	O	LEU	A	400	169.108	133.745	128.772	1.00 94.89	O
ATOM	2566	CB	LEU	A	400	171.841	134.291	130.628	1.00 94.89	C
ATOM	2567	CG	LEU	A	400	171.991	135.479	129.693	1.00 94.89	C
ATOM	2568	CD1	LEU	A	400	173.056	136.407	130.238	1.00 94.89	C
ATOM	2569	CD2	LEU	A	400	172.362	134.988	128.311	1.00 94.89	C
ATOM	2570	N	GLN	A	401	170.594	132.055	128.817	1.00 95.22	N
ATOM	2571	CA	GLN	A	401	170.079	131.480	127.580	1.00 95.22	C
ATOM	2572	C	GLN	A	401	168.611	131.106	127.723	1.00 95.22	C
ATOM	2573	O	GLN	A	401	167.827	131.268	126.782	1.00 95.22	O
ATOM	2574	CB	GLN	A	401	170.903	130.258	127.181	1.00 95.22	C
ATOM	2575	CG	GLN	A	401	172.287	130.592	126.671	1.00 95.22	C
ATOM	2576	CD	GLN	A	401	172.256	131.241	125.308	1.00 95.22	C
ATOM	2577	OE1	GLN	A	401	171.815	130.637	124.332	1.00 95.22	O
ATOM	2578	NE2	GLN	A	401	172.720	132.481	125.234	1.00 95.22	N
ATOM	2579	N	GLN	A	402	168.219	130.604	128.894	1.00 93.67	N
ATOM	2580	CA	GLN	A	402	166.820	130.260	129.116	1.00 93.67	C
ATOM	2581	C	GLN	A	402	165.941	131.504	129.097	1.00 93.67	C
ATOM	2582	O	GLN	A	402	164.876	131.508	128.470	1.00 93.67	O
ATOM	2583	CB	GLN	A	402	166.673	129.510	130.439	1.00 93.67	C
ATOM	2584	CG	GLN	A	402	165.323	128.850	130.642	1.00 93.67	C
ATOM	2585	CD	GLN	A	402	164.283	129.813	131.170	1.00 93.67	C
ATOM	2586	OE1	GLN	A	402	164.609	130.779	131.858	1.00 93.67	O
ATOM	2587	NE2	GLN	A	402	163.022	129.558	130.848	1.00 93.67	N

ATOM	2588	N	ILE A 403	166.367	132.567	129.782	1.00 91.63	N
ATOM	2589	CA	ILE A 403	165.600	133.809	129.770	1.00 91.63	C
ATOM	2590	C	ILE A 403	165.461	134.346	128.355	1.00 91.63	C
ATOM	2591	O	ILE A 403	164.431	134.933	128.003	1.00 91.63	O
ATOM	2592	CB	ILE A 403	166.247	134.857	130.694	1.00 91.63	C
ATOM	2593	CG1	ILE A 403	166.044	134.484	132.162	1.00 91.63	C
ATOM	2594	CG2	ILE A 403	165.668	136.230	130.414	1.00 91.63	C
ATOM	2595	CD1	ILE A 403	166.625	135.493	133.128	1.00 91.63	C
ATOM	2596	N	PHE A 404	166.488	134.165	127.524	1.00 94.30	N
ATOM	2597	CA	PHE A 404	166.462	134.758	126.191	1.00 94.30	C
ATOM	2598	C	PHE A 404	165.654	133.923	125.205	1.00 94.30	C
ATOM	2599	O	PHE A 404	164.959	134.477	124.348	1.00 94.30	O
ATOM	2600	CB	PHE A 404	167.886	134.954	125.673	1.00 94.30	C
ATOM	2601	CG	PHE A 404	167.971	135.149	124.188	1.00 94.30	C
ATOM	2602	CD1	PHE A 404	167.708	136.381	123.622	1.00 94.30	C
ATOM	2603	CD2	PHE A 404	168.326	134.102	123.359	1.00 94.30	C
ATOM	2604	CE1	PHE A 404	167.789	136.561	122.258	1.00 94.30	C
ATOM	2605	CE2	PHE A 404	168.408	134.277	121.996	1.00 94.30	C
ATOM	2606	CZ	PHE A 404	168.140	135.508	121.445	1.00 94.30	C
ATOM	2607	N	ASN A 405	165.731	132.596	125.300	1.00 99.81	N
ATOM	2608	CA	ASN A 405	165.039	131.712	124.371	1.00 99.81	C
ATOM	2609	C	ASN A 405	163.588	131.465	124.754	1.00 99.81	C
ATOM	2610	O	ASN A 405	162.991	130.495	124.273	1.00 99.81	O
ATOM	2611	CB	ASN A 405	165.780	130.376	124.265	1.00 99.81	C
ATOM	2612	CG	ASN A 405	166.876	130.397	123.216	1.00 99.81	C
ATOM	2613	OD1	ASN A 405	167.579	131.392	123.058	1.00 99.81	O
ATOM	2614	ND2	ASN A 405	167.032	129.291	122.499	1.00 99.81	N
ATOM	2615	N	THR A 406	163.006	132.312	125.599	1.00 97.17	N
ATOM	2616	CA	THR A 406	161.635	132.127	126.053	1.00 97.17	C
ATOM	2617	C	THR A 406	160.712	133.296	125.746	1.00 97.17	C
ATOM	2618	O	THR A 406	159.493	133.091	125.703	1.00 97.17	O
ATOM	2619	CB	THR A 406	161.604	131.862	127.566	1.00 97.17	C
ATOM	2620	OG1	THR A 406	162.400	130.710	127.865	1.00 97.17	O
ATOM	2621	CG2	THR A 406	160.179	131.623	128.040	1.00 97.17	C
ATOM	2622	N	SER A 407	161.232	134.494	125.525	1.00 95.68	N
ATOM	2623	CA	SER A 407	160.404	135.657	125.225	1.00 95.68	C
ATOM	2624	C	SER A 407	160.790	136.339	123.922	1.00 95.68	C

ATOM	2625	O	SER A 407	159.911	136.813	123.200	1.00 95.68 O
ATOM	2626	CB	SER A 407	160.481	136.669	126.379	1.00 95.68 C
ATOM	2627	OG	SER A 407	160.156	136.057	127.615	1.00 95.68 O
ATOM	2628	N	TYR A 408	162.079	136.404	123.606	1.00 94.77 N
ATOM	2629	CA	TYR A 408	162.541	137.020	122.365	1.00 94.77 C
ATOM	2630	C	TYR A 408	162.764	135.930	121.318	1.00 94.77 C
ATOM	2631	O	TYR A 408	163.881	135.633	120.896	1.00 94.77 O
ATOM	2632	CB	TYR A 408	163.803	137.836	122.621	1.00 94.77 C
ATOM	2633	CG	TYR A 408	163.706	138.745	123.828	1.00 94.77 C
ATOM	2634	CD1	TYR A 408	162.481	139.230	124.263	1.00 94.77 C
ATOM	2635	CD2	TYR A 408	164.838	139.106	124.540	1.00 94.77 C
ATOM	2636	CE1	TYR A 408	162.391	140.055	125.365	1.00 94.77 C
ATOM	2637	CE2	TYR A 408	164.756	139.931	125.642	1.00 94.77 C
ATOM	2638	CZ	TYR A 408	163.531	140.402	126.050	1.00 94.77 C
ATOM	2639	OH	TYR A 408	163.446	141.222	127.149	1.00 94.77 O
ATOM	2640	N	ASN A 409	161.650	135.333	120.900	1.00101.56 N
ATOM	2641	CA	ASN A 409	161.680	134.171	120.022	1.00101.56 C
ATOM	2642	C	ASN A 409	162.322	134.477	118.675	1.00101.56 C
ATOM	2643	O	ASN A 409	163.385	133.937	118.351	1.00101.56 O
ATOM	2644	CB	ASN A 409	160.260	133.639	119.814	1.00101.56 C
ATOM	2645	CG	ASN A 409	159.274	134.736	119.449	1.00101.56 C
ATOM	2646	OD1	ASN A 409	159.265	135.227	118.321	1.00101.56 O
ATOM	2647	ND2	ASN A 409	158.440	135.126	120.406	1.00101.56 N
ATOM	2648	N	GLN A 410	161.686	135.348	117.888	1.00106.84 N
ATOM	2649	CA	GLN A 410	162.151	135.645	116.541	1.00106.84 C
ATOM	2650	C	GLN A 410	162.120	137.127	116.197	1.00106.84 C
ATOM	2651	O	GLN A 410	162.449	137.482	115.060	1.00106.84 O
ATOM	2652	CB	GLN A 410	161.320	134.869	115.505	1.00106.84 C
ATOM	2653	CG	GLN A 410	161.556	133.368	115.517	1.00106.84 C
ATOM	2654	CD	GLN A 410	160.416	132.602	116.157	1.00106.84 C
ATOM	2655	OE1	GLN A 410	159.541	133.186	116.796	1.00106.84 O
ATOM	2656	NE2	GLN A 410	160.419	131.285	115.986	1.00106.84 N
ATOM	2657	N	THR A 411	161.737	137.999	117.129	1.00100.26 N
ATOM	2658	CA	THR A 411	161.729	139.428	116.847	1.00100.26 C
ATOM	2659	C	THR A 411	163.097	140.050	117.091	1.00100.26 C
ATOM	2660	O	THR A 411	163.528	140.924	116.331	1.00100.26 O
ATOM	2661	CB	THR A 411	160.673	140.126	117.702	1.00100.26 C

ATOM	2662	OG1	THR A 411	161.170	140.287	119.035	1.00100.26		O
ATOM	2663	CG2	THR A 411	159.401	139.299	117.744	1.00100.26		C
ATOM	2664	N	TYR A 412	163.792	139.614	118.136	1.00 96.12		N
ATOM	2665	CA	TYR A 412	165.078	140.176	118.516	1.00 96.12		C
ATOM	2666	C	TYR A 412	166.222	139.259	118.094	1.00 96.12		C
ATOM	2667	O	TYR A 412	166.021	138.140	117.618	1.00 96.12		O
ATOM	2668	CB	TYR A 412	165.124	140.426	120.025	1.00 96.12		C
ATOM	2669	CG	TYR A 412	164.306	141.613	120.478	1.00 96.12		C
ATOM	2670	CD1	TYR A 412	164.801	142.904	120.367	1.00 96.12		C
ATOM	2671	CD2	TYR A 412	163.043	141.442	121.021	1.00 96.12		C
ATOM	2672	CE1	TYR A 412	164.060	143.990	120.782	1.00 96.12		C
ATOM	2673	CE2	TYR A 412	162.295	142.522	121.438	1.00 96.12		C
ATOM	2674	CZ	TYR A 412	162.808	143.793	121.316	1.00 96.12		C
ATOM	2675	OH	TYR A 412	162.066	144.873	121.731	1.00 96.12		O
ATOM	2676	N	GLU A 413	167.442	139.758	118.280	1.00 97.58		N
ATOM	2677	CA	GLU A 413	168.649	139.027	117.914	1.00 97.58		C
ATOM	2678	C	GLU A 413	169.629	138.996	119.078	1.00 97.58		C
ATOM	2679	O	GLU A 413	169.280	139.370	120.202	1.00 97.58		O
ATOM	2680	CB	GLU A 413	169.306	139.660	116.688	1.00 97.58		C
ATOM	2681	CG	GLU A 413	168.593	139.374	115.384	1.00 97.58		C
ATOM	2682	CD	GLU A 413	168.896	137.992	114.850	1.00 97.58		C
ATOM	2683	OE1	GLU A 413	170.054	137.545	114.982	1.00 97.58		O
ATOM	2684	OE2	GLU A 413	167.978	137.351	114.299	1.00 97.58		O
ATOM	2685	N	LYS A 414	170.855	138.546	118.826	1.00 92.57		N
ATOM	2686	CA	LYS A 414	171.918	138.549	119.824	1.00 92.57		C
ATOM	2687	C	LYS A 414	173.079	139.360	119.270	1.00 92.57		C
ATOM	2688	O	LYS A 414	173.727	138.944	118.304	1.00 92.57		O
ATOM	2689	CB	LYS A 414	172.350	137.127	120.175	1.00 92.57		C
ATOM	2690	CG	LYS A 414	171.391	136.405	121.105	1.00 92.57		C
ATOM	2691	CD	LYS A 414	171.874	134.998	121.409	1.00 92.57		C
ATOM	2692	CE	LYS A 414	173.330	135.000	121.840	1.00 92.57		C
ATOM	2693	NZ	LYS A 414	173.917	133.634	121.814	1.00 92.57		N
ATOM	2694	N	TYR A 415	173.341	140.512	119.880	1.00 95.72		N
ATOM	2695	CA	TYR A 415	174.358	141.447	119.401	1.00 95.72		C
ATOM	2696	C	TYR A 415	175.592	141.307	120.284	1.00 95.72		C
ATOM	2697	O	TYR A 415	175.724	141.970	121.313	1.00 95.72		O
ATOM	2698	CB	TYR A 415	173.817	142.872	119.406	1.00 95.72		C

ATOM	2699	CG	TYR A 415	174.879	143.944	119.363	1.00 95.72	C
ATOM	2700	CD1	TYR A 415	175.908	143.893	118.436	1.00 95.72	C
ATOM	2701	CD2	TYR A 415	174.846	145.014	120.246	1.00 95.72	C
ATOM	2702	CE1	TYR A 415	176.878	144.874	118.392	1.00 95.72	C
ATOM	2703	CE2	TYR A 415	175.810	145.999	120.210	1.00 95.72	C
ATOM	2704	CZ	TYR A 415	176.825	145.925	119.281	1.00 95.72	C
ATOM	2705	OH	TYR A 415	177.790	146.904	119.240	1.00 95.72	O
ATOM	2706	N	GLY A 416	176.504	140.430	119.874	1.00 98.82	N
ATOM	2707	CA	GLY A 416	177.754	140.253	120.587	1.00 98.82	C
ATOM	2708	C	GLY A 416	177.847	138.942	121.337	1.00 98.82	C
ATOM	2709	O	GLY A 416	177.455	137.889	120.826	1.00 98.82	O
ATOM	2710	N	ASN A 417	178.372	138.996	122.556	1.00104.28	N
ATOM	2711	CA	ASN A 417	178.480	137.819	123.401	1.00104.28	C
ATOM	2712	C	ASN A 417	178.526	138.274	124.851	1.00104.28	C
ATOM	2713	O	ASN A 417	178.658	139.465	125.147	1.00104.28	O
ATOM	2714	CB	ASN A 417	179.710	136.982	123.044	1.00104.28	C
ATOM	2715	CG	ASN A 417	181.001	137.732	123.263	1.00104.28	C
ATOM	2716	OD1	ASN A 417	181.099	138.920	122.961	1.00104.28	O
ATOM	2717	ND2	ASN A 417	182.005	137.042	123.791	1.00104.28	N
ATOM	2718	N	VAL A 418	178.418	137.306	125.762	1.00 93.80	N
ATOM	2719	CA	VAL A 418	178.315	137.632	127.176	1.00 93.80	C
ATOM	2720	C	VAL A 418	179.577	138.347	127.639	1.00 93.80	C
ATOM	2721	O	VAL A 418	180.686	138.088	127.153	1.00 93.80	O
ATOM	2722	CB	VAL A 418	178.056	136.367	128.011	1.00 93.80	C
ATOM	2723	CG1	VAL A 418	177.631	136.748	129.412	1.00 93.80	C
ATOM	2724	CG2	VAL A 418	176.999	135.505	127.348	1.00 93.80	C
ATOM	2725	N	SER A 419	179.405	139.265	128.586	1.00 94.79	N
ATOM	2726	CA	SER A 419	180.514	140.016	129.151	1.00 94.79	C
ATOM	2727	C	SER A 419	180.220	140.273	130.619	1.00 94.79	C
ATOM	2728	O	SER A 419	179.065	140.449	131.011	1.00 94.79	O
ATOM	2729	CB	SER A 419	180.737	141.337	128.410	1.00 94.79	C
ATOM	2730	OG	SER A 419	179.506	141.985	128.152	1.00 94.79	O
ATOM	2731	N	VAL A 420	181.277	140.302	131.425	1.00 94.36	N
ATOM	2732	CA	VAL A 420	181.167	140.329	132.878	1.00 94.36	C
ATOM	2733	C	VAL A 420	181.717	141.654	133.386	1.00 94.36	C
ATOM	2734	O	VAL A 420	182.901	141.956	133.197	1.00 94.36	O
ATOM	2735	CB	VAL A 420	181.905	139.145	133.514	1.00 94.36	C

ATOM	2736	CG1	VAL	A	420	181.226	137.847	133.143	1.00	94.36	C
ATOM	2737	CG2	VAL	A	420	183.338	139.116	133.039	1.00	94.36	C
ATOM	2738	N	PHE	A	421	180.862	142.440	134.032	1.00	94.67	N
ATOM	2739	CA	PHE	A	421	181.247	143.707	134.634	1.00	94.67	C
ATOM	2740	C	PHE	A	421	181.318	143.562	136.148	1.00	94.67	C
ATOM	2741	O	PHE	A	421	180.681	142.684	136.733	1.00	94.67	O
ATOM	2742	CB	PHE	A	421	180.263	144.823	134.266	1.00	94.67	C
ATOM	2743	CG	PHE	A	421	180.347	145.255	132.833	1.00	94.67	C
ATOM	2744	CD1	PHE	A	421	181.457	145.931	132.368	1.00	94.67	C
ATOM	2745	CD2	PHE	A	421	179.318	144.988	131.952	1.00	94.67	C
ATOM	2746	CE1	PHE	A	421	181.540	146.327	131.055	1.00	94.67	C
ATOM	2747	CE2	PHE	A	421	179.399	145.383	130.640	1.00	94.67	C
ATOM	2748	CZ	PHE	A	421	180.511	146.053	130.191	1.00	94.67	C
ATOM	2749	N	GLU	A	422	182.097	144.436	136.779	1.00	101.48	N
ATOM	2750	CA	GLU	A	422	182.315	144.406	138.222	1.00	101.48	C
ATOM	2751	C	GLU	A	422	182.021	145.789	138.787	1.00	101.48	C
ATOM	2752	O	GLU	A	422	182.747	146.747	138.503	1.00	101.48	O
ATOM	2753	CB	GLU	A	422	183.741	143.971	138.545	1.00	101.48	C
ATOM	2754	CG	GLU	A	422	183.976	143.658	140.008	1.00	101.48	C
ATOM	2755	CD	GLU	A	422	184.903	142.476	140.202	1.00	101.48	C
ATOM	2756	OE1	GLU	A	422	184.883	141.874	141.296	1.00	101.48	O
ATOM	2757	OE2	GLU	A	422	185.651	142.146	139.257	1.00	101.48	O
ATOM	2758	N	THR	A	423	180.967	145.891	139.589	1.00	100.82	N
ATOM	2759	CA	THR	A	423	180.539	147.175	140.129	1.00	100.82	C
ATOM	2760	C	THR	A	423	181.476	147.599	141.257	1.00	100.82	C
ATOM	2761	O	THR	A	423	182.509	146.977	141.520	1.00	100.82	O
ATOM	2762	CB	THR	A	423	179.096	147.099	140.611	1.00	100.82	C
ATOM	2763	OG1	THR	A	423	178.702	148.374	141.131	1.00	100.82	O
ATOM	2764	CG2	THR	A	423	178.968	146.069	141.708	1.00	100.82	C
ATOM	2765	N	THR	A	424	181.113	148.685	141.941	1.00	105.16	N
ATOM	2766	CA	THR	A	424	181.925	149.193	143.040	1.00	105.16	C
ATOM	2767	C	THR	A	424	181.639	148.446	144.338	1.00	105.16	C
ATOM	2768	O	THR	A	424	182.565	148.088	145.074	1.00	105.16	O
ATOM	2769	CB	THR	A	424	181.680	150.692	143.223	1.00	105.16	C
ATOM	2770	OG1	THR	A	424	180.272	150.937	143.327	1.00	105.16	O
ATOM	2771	CG2	THR	A	424	182.236	151.472	142.043	1.00	105.16	C
ATOM	2772	N	GLY	A	425	180.360	148.207	144.636	1.00	102.01	N

ATOM	2773	CA	GLY A 425	180.012	147.531	145.875	1.00102.01	C
ATOM	2774	C	GLY A 425	180.699	146.189	146.031	1.00102.01	C
ATOM	2775	O	GLY A 425	181.167	145.842	147.117	1.00102.01	O
ATOM	2776	N	GLY A 426	180.771	145.416	144.951	1.00 99.43	N
ATOM	2777	CA	GLY A 426	181.416	144.120	144.996	1.00 99.43	C
ATOM	2778	C	GLY A 426	180.657	143.044	144.249	1.00 99.43	C
ATOM	2779	O	GLY A 426	181.189	141.957	144.003	1.00 99.43	O
ATOM	2780	N	LEU A 427	179.411	143.334	143.882	1.00 94.06	N
ATOM	2781	CA	LEU A 427	178.599	142.368	143.157	1.00 94.06	C
ATOM	2782	C	LEU A 427	179.056	142.263	141.706	1.00 94.06	C
ATOM	2783	O	LEU A 427	179.453	143.254	141.088	1.00 94.06	O
ATOM	2784	CB	LEU A 427	177.124	142.757	143.236	1.00 94.06	C
ATOM	2785	CG	LEU A 427	176.732	144.149	142.741	1.00 94.06	C
ATOM	2786	CD1	LEU A 427	176.514	144.151	141.240	1.00 94.06	C
ATOM	2787	CD2	LEU A 427	175.494	144.648	143.468	1.00 94.06	C
ATOM	2788	N	VAL A 428	178.995	141.048	141.164	1.00 89.89	N
ATOM	2789	CA	VAL A 428	179.536	140.756	139.841	1.00 89.89	C
ATOM	2790	C	VAL A 428	178.404	140.485	138.861	1.00 89.89	C
ATOM	2791	O	VAL A 428	177.876	139.370	138.797	1.00 89.89	O
ATOM	2792	CB	VAL A 428	180.509	139.565	139.899	1.00 89.89	C
ATOM	2793	CG1	VAL A 428	180.666	138.937	138.527	1.00 89.89	C
ATOM	2794	CG2	VAL A 428	181.852	140.013	140.434	1.00 89.89	C
ATOM	2795	N	VAL A 429	178.025	141.501	138.089	1.00 87.79	N
ATOM	2796	CA	VAL A 429	176.953	141.394	137.106	1.00 87.79	C
ATOM	2797	C	VAL A 429	177.553	141.134	135.734	1.00 87.79	C
ATOM	2798	O	VAL A 429	178.592	141.704	135.379	1.00 87.79	O
ATOM	2799	CB	VAL A 429	176.089	142.668	137.086	1.00 87.79	C
ATOM	2800	CG1	VAL A 429	176.953	143.885	136.835	1.00 87.79	C
ATOM	2801	CG2	VAL A 429	175.023	142.558	136.019	1.00 87.79	C
ATOM	2802	N	PHE A 430	176.898	140.274	134.957	1.00 89.74	N
ATOM	2803	CA	PHE A 430	177.259	140.081	133.560	1.00 89.74	C
ATOM	2804	C	PHE A 430	176.004	139.763	132.764	1.00 89.74	C
ATOM	2805	O	PHE A 430	175.122	139.046	133.241	1.00 89.74	O
ATOM	2806	CB	PHE A 430	178.323	138.992	133.384	1.00 89.74	C
ATOM	2807	CG	PHE A 430	178.067	137.739	134.167	1.00 89.74	C
ATOM	2808	CD1	PHE A 430	178.486	137.631	135.480	1.00 89.74	C
ATOM	2809	CD2	PHE A 430	177.455	136.652	133.575	1.00 89.74	C

ATOM	2810	CE1	PHE A 430	178.272	136.476	136.193	1.00 89.74	C
ATOM	2811	CE2	PHE A 430	177.240	135.496	134.283	1.00 89.74	C
ATOM	2812	CZ	PHE A 430	177.649	135.407	135.595	1.00 89.74	C
ATOM	2813	N	TRP A 431	175.942	140.293	131.545	1.00 89.95	N
ATOM	2814	CA	TRP A 431	174.686	140.464	130.829	1.00 89.95	C
ATOM	2815	C	TRP A 431	174.894	140.107	129.361	1.00 89.95	C
ATOM	2816	O	TRP A 431	175.939	139.580	128.969	1.00 89.95	O
ATOM	2817	CB	TRP A 431	174.192	141.905	130.998	1.00 89.95	C
ATOM	2818	CG	TRP A 431	175.064	142.872	130.280	1.00 89.95	C
ATOM	2819	CD1	TRP A 431	176.404	143.038	130.449	1.00 89.95	C
ATOM	2820	CD2	TRP A 431	174.664	143.820	129.286	1.00 89.95	C
ATOM	2821	NE1	TRP A 431	176.868	144.020	129.614	1.00 89.95	N
ATOM	2822	CE2	TRP A 431	175.818	144.518	128.890	1.00 89.95	C
ATOM	2823	CE3	TRP A 431	173.443	144.143	128.690	1.00 89.95	C
ATOM	2824	CZ2	TRP A 431	175.789	145.519	127.928	1.00 89.95	C
ATOM	2825	CZ3	TRP A 431	173.417	145.135	127.736	1.00 89.95	C
ATOM	2826	CH2	TRP A 431	174.582	145.812	127.364	1.00 89.95	C
ATOM	2827	N	GLN A 432	173.881	140.404	128.545	1.00 87.48	N
ATOM	2828	CA	GLN A 432	173.889	140.111	127.119	1.00 87.48	C
ATOM	2829	C	GLN A 432	173.308	141.290	126.354	1.00 87.48	C
ATOM	2830	O	GLN A 432	172.406	141.977	126.837	1.00 87.48	O
ATOM	2831	CB	GLN A 432	173.088	138.845	126.804	1.00 87.48	C
ATOM	2832	CG	GLN A 432	172.985	138.534	125.330	1.00 87.48	C
ATOM	2833	CD	GLN A 432	174.333	138.536	124.645	1.00 87.48	C
ATOM	2834	OE1	GLN A 432	175.010	139.561	124.584	1.00 87.48	O
ATOM	2835	NE2	GLN A 432	174.732	137.384	124.124	1.00 87.48	N
ATOM	2836	N	GLY A 433	173.828	141.514	125.147	1.00 90.52	N
ATOM	2837	CA	GLY A 433	173.393	142.619	124.308	1.00 90.52	C
ATOM	2838	C	GLY A 433	172.412	142.152	123.247	1.00 90.52	C
ATOM	2839	O	GLY A 433	172.610	141.111	122.619	1.00 90.52	O
ATOM	2840	N	ILE A 434	171.358	142.942	123.049	1.00 91.61	N
ATOM	2841	CA	ILE A 434	170.256	142.559	122.176	1.00 91.61	C
ATOM	2842	C	ILE A 434	169.744	143.781	121.425	1.00 91.61	C
ATOM	2843	O	ILE A 434	169.851	144.915	121.899	1.00 91.61	O
ATOM	2844	CB	ILE A 434	169.114	141.901	122.975	1.00 91.61	C
ATOM	2845	CG1	ILE A 434	168.134	141.214	122.033	1.00 91.61	C
ATOM	2846	CG2	ILE A 434	168.393	142.931	123.818	1.00 91.61	C

ATOM	2847	CD1	ILE A 434	167.114	140.379	122.745	1.00 91.61	C
ATOM	2848	N	LYS A 435	169.183	143.540	120.240	1.00 93.35	N
ATOM	2849	CA	LYS A 435	168.565	144.595	119.448	1.00 93.35	C
ATOM	2850	C	LYS A 435	167.600	143.967	118.453	1.00 93.35	C
ATOM	2851	O	LYS A 435	167.786	142.827	118.021	1.00 93.35	O
ATOM	2852	CB	LYS A 435	169.610	145.450	118.723	1.00 93.35	C
ATOM	2853	CG	LYS A 435	170.594	144.666	117.882	1.00 93.35	C
ATOM	2854	CD	LYS A 435	170.064	144.422	116.485	1.00 93.35	C
ATOM	2855	CE	LYS A 435	171.140	143.821	115.599	1.00 93.35	C
ATOM	2856	NZ	LYS A 435	170.609	143.427	114.268	1.00 93.35	N
ATOM	2857	N	GLN A 436	166.572	144.732	118.091	1.00 97.39	N
ATOM	2858	CA	GLN A 436	165.485	144.230	117.264	1.00 97.39	C
ATOM	2859	C	GLN A 436	165.967	143.974	115.836	1.00 97.39	C
ATOM	2860	O	GLN A 436	167.138	144.157	115.498	1.00 97.39	O
ATOM	2861	CB	GLN A 436	164.318	145.215	117.274	1.00 97.39	C
ATOM	2862	CG	GLN A 436	163.000	144.633	116.794	1.00 97.39	C
ATOM	2863	CD	GLN A 436	161.817	145.510	117.141	1.00 97.39	C
ATOM	2864	OE1	GLN A 436	161.978	146.682	117.475	1.00 97.39	O
ATOM	2865	NE2	GLN A 436	160.619	144.946	117.065	1.00 97.39	N
ATOM	2866	N	LYS A 437	165.038	143.537	114.990	1.00103.13	N
ATOM	2867	CA	LYS A 437	165.320	143.267	113.588	1.00103.13	C
ATOM	2868	C	LYS A 437	165.326	144.583	112.810	1.00103.13	C
ATOM	2869	O	LYS A 437	165.324	145.674	113.385	1.00103.13	O
ATOM	2870	CB	LYS A 437	164.307	142.274	113.029	1.00103.13	C
ATOM	2871	CG	LYS A 437	164.438	140.868	113.589	1.00103.13	C
ATOM	2872	CD	LYS A 437	165.322	139.999	112.708	1.00103.13	C
ATOM	2873	CE	LYS A 437	165.438	138.587	113.260	1.00103.13	C
ATOM	2874	NZ	LYS A 437	164.113	137.923	113.391	1.00103.13	N
ATOM	2875	N	SER A 438	165.330	144.492	111.482	1.00106.36	N
ATOM	2876	CA	SER A 438	165.446	145.658	110.615	1.00106.36	C
ATOM	2877	C	SER A 438	164.098	146.258	110.230	1.00106.36	C
ATOM	2878	O	SER A 438	164.057	147.166	109.395	1.00106.36	O
ATOM	2879	CB	SER A 438	166.229	145.296	109.351	1.00106.36	C
ATOM	2880	OG	SER A 438	166.590	146.457	108.625	1.00106.36	O
ATOM	2881	N	LEU A 439	163.002	145.775	110.812	1.00106.82	N
ATOM	2882	CA	LEU A 439	161.641	146.247	110.569	1.00106.82	C
ATOM	2883	C	LEU A 439	161.126	145.879	109.186	1.00106.82	C

ATOM	2884	O	LEU A 439	159.952	146.132	108.891	1.00106.82	O
ATOM	2885	CB	LEU A 439	161.506	147.765	110.758	1.00106.82	C
ATOM	2886	CG	LEU A 439	160.104	148.349	110.579	1.00106.82	C
ATOM	2887	CD1	LEU A 439	159.148	147.754	111.590	1.00106.82	C
ATOM	2888	CD2	LEU A 439	160.140	149.858	110.708	1.00106.82	C
ATOM	2889	N	VAL A 440	161.954	145.290	108.327	1.00110.50	N
ATOM	2890	CA	VAL A 440	161.477	144.756	107.059	1.00110.50	C
ATOM	2891	C	VAL A 440	161.174	143.267	107.155	1.00110.50	C
ATOM	2892	O	VAL A 440	160.383	142.755	106.348	1.00110.50	O
ATOM	2893	CB	VAL A 440	162.488	145.018	105.925	1.00110.50	C
ATOM	2894	CG1	VAL A 440	161.965	144.461	104.617	1.00110.50	C
ATOM	2895	CG2	VAL A 440	162.763	146.504	105.799	1.00110.50	C
ATOM	2896	N	GLU A 441	161.774	142.560	108.111	1.00113.80	N
ATOM	2897	CA	GLU A 441	161.470	141.156	108.340	1.00113.80	C
ATOM	2898	C	GLU A 441	160.332	140.955	109.328	1.00113.80	C
ATOM	2899	O	GLU A 441	159.686	139.903	109.301	1.00113.80	O
ATOM	2900	CB	GLU A 441	162.714	140.422	108.844	1.00113.80	C
ATOM	2901	CG	GLU A 441	163.595	139.878	107.736	1.00113.80	C
ATOM	2902	CD	GLU A 441	164.359	140.969	107.015	1.00113.80	C
ATOM	2903	OE1	GLU A 441	165.158	141.671	107.670	1.00113.80	O
ATOM	2904	OE2	GLU A 441	164.161	141.126	105.792	1.00113.80	O
ATOM	2905	N	LEU A 442	160.079	141.929	110.205	1.00112.51	N
ATOM	2906	CA	LEU A 442	158.957	141.813	111.128	1.00112.51	C
ATOM	2907	C	LEU A 442	157.648	141.608	110.380	1.00112.51	C
ATOM	2908	O	LEU A 442	156.789	140.832	110.813	1.00112.51	O
ATOM	2909	CB	LEU A 442	158.878	143.055	112.016	1.00112.51	C
ATOM	2910	CG	LEU A 442	159.584	142.960	113.367	1.00112.51	C
ATOM	2911	CD1	LEU A 442	159.695	144.328	114.007	1.00112.51	C
ATOM	2912	CD2	LEU A 442	158.840	142.006	114.279	1.00112.51	C
ATOM	2913	N	GLU A 443	157.477	142.295	109.249	1.00116.97	N
ATOM	2914	CA	GLU A 443	156.244	142.157	108.481	1.00116.97	C
ATOM	2915	C	GLU A 443	156.191	140.821	107.752	1.00116.97	C
ATOM	2916	O	GLU A 443	155.124	140.206	107.649	1.00116.97	O
ATOM	2917	CB	GLU A 443	156.110	143.314	107.492	1.00116.97	C
ATOM	2918	CG	GLU A 443	154.685	143.578	107.034	1.00116.97	C
ATOM	2919	CD	GLU A 443	154.298	142.753	105.822	1.00116.97	C
ATOM	2920	OE1	GLU A 443	153.095	142.708	105.489	1.00116.97	O

ATOM	2921	OE2	GLU A 443	155.196	142.149	105.201	1.00116.97	O
ATOM	2922	N	ARG A 444	157.332	140.354	107.240	1.00118.60	N
ATOM	2923	CA	ARG A 444	157.357	139.091	106.514	1.00118.60	C
ATOM	2924	C	ARG A 444	157.308	137.887	107.443	1.00118.60	C
ATOM	2925	O	ARG A 444	157.096	136.765	106.972	1.00118.60	O
ATOM	2926	CB	ARG A 444	158.602	139.016	105.630	1.00118.60	C
ATOM	2927	CG	ARG A 444	158.561	137.901	104.601	1.00118.60	C
ATOM	2928	CD	ARG A 444	159.921	137.700	103.962	1.00118.60	C
ATOM	2929	NE	ARG A 444	160.911	137.236	104.929	1.00118.60	N
ATOM	2930	CZ	ARG A 444	162.213	137.150	104.680	1.00118.60	C
ATOM	2931	NH1	ARG A 444	163.043	136.716	105.619	1.00118.60	N
ATOM	2932	NH2	ARG A 444	162.686	137.498	103.492	1.00118.60	N
ATOM	2933	N	LEU A 445	157.503	138.091	108.744	1.00119.46	N
ATOM	2934	CA	LEU A 445	157.381	137.006	109.708	1.00119.46	C
ATOM	2935	C	LEU A 445	155.959	136.847	110.220	1.00119.46	C
ATOM	2936	O	LEU A 445	155.577	135.748	110.638	1.00119.46	O
ATOM	2937	CB	LEU A 445	158.330	137.235	110.886	1.00119.46	C
ATOM	2938	CG	LEU A 445	158.434	136.095	111.899	1.00119.46	C
ATOM	2939	CD1	LEU A 445	158.471	134.755	111.189	1.00119.46	C
ATOM	2940	CD2	LEU A 445	159.665	136.271	112.770	1.00119.46	C
ATOM	2941	N	ALA A 446	155.171	137.917	110.203	1.00120.36	N
ATOM	2942	CA	ALA A 446	153.749	137.879	110.534	1.00120.36	C
ATOM	2943	C	ALA A 446	152.993	138.189	109.245	1.00120.36	C
ATOM	2944	O	ALA A 446	152.811	139.350	108.877	1.00120.36	O
ATOM	2945	CB	ALA A 446	153.408	138.865	111.645	1.00120.36	C
ATOM	2946	N	ASN A 447	152.556	137.135	108.559	1.00123.06	N
ATOM	2947	CA	ASN A 447	151.931	137.268	107.249	1.00123.06	C
ATOM	2948	C	ASN A 447	150.746	138.225	107.295	1.00123.06	C
ATOM	2949	O	ASN A 447	150.153	138.442	108.357	1.00123.06	O
ATOM	2950	CB	ASN A 447	151.493	135.896	106.733	1.00123.06	C
ATOM	2951	CG	ASN A 447	151.083	135.925	105.277	1.00123.06	C
ATOM	2952	OD1	ASN A 447	151.091	136.976	104.639	1.00123.06	O
ATOM	2953	ND2	ASN A 447	150.724	134.765	104.740	1.00123.06	N
ATOM	2954	N	ARG A 448	150.400	138.804	106.149	1.00119.91	N
ATOM	2955	CA	ARG A 448	149.272	139.723	106.051	1.00119.91	C
ATOM	2956	C	ARG A 448	148.479	139.475	104.772	1.00119.91	C
ATOM	2957	O	ARG A 448	147.729	138.504	104.671	1.00119.91	O

ATOM	2958	CB	ARG A 448	149.752	141.176	106.098	1.00119.91		C
ATOM	2959	CG	ARG A 448	150.325	141.600	107.439	1.00119.91		C
ATOM	2960	CD	ARG A 448	150.830	143.036	107.401	1.00119.91		C
ATOM	2961	NE	ARG A 448	149.746	144.002	107.250	1.00119.91		N
ATOM	2962	CZ	ARG A 448	149.820	145.274	107.628	1.00119.91		C
ATOM	2963	NH1	ARG A 448	148.785	146.082	107.451	1.00119.91		N
ATOM	2964	NH2	ARG A 448	150.929	145.739	108.187	1.00119.91		N
ATOM	2965	N	ASN A 478	163.961	152.384	96.604	1.00127.42		N
ATOM	2966	CA	ASN A 478	163.455	151.729	97.804	1.00127.42		C
ATOM	2967	C	ASN A 478	163.802	152.546	99.044	1.00127.42		C
ATOM	2968	O	ASN A 478	163.939	152.004	100.140	1.00127.42		O
ATOM	2969	CB	ASN A 478	164.028	150.315	97.924	1.00127.42		C
ATOM	2970	CG	ASN A 478	163.614	149.418	96.774	1.00127.42		C
ATOM	2971	OD1	ASN A 478	164.009	149.637	95.628	1.00127.42		O
ATOM	2972	ND2	ASN A 478	162.817	148.399	97.074	1.00127.42		N
ATOM	2973	N	LEU A 479	163.942	153.861	98.860	1.00125.68		N
ATOM	2974	CA	LEU A 479	164.396	154.718	99.950	1.00125.68		C
ATOM	2975	C	LEU A 479	163.328	154.898	101.023	1.00125.68		C
ATOM	2976	O	LEU A 479	163.665	155.111	102.192	1.00125.68		O
ATOM	2977	CB	LEU A 479	164.832	156.078	99.401	1.00125.68		C
ATOM	2978	CG	LEU A 479	165.619	156.992	100.345	1.00125.68		C
ATOM	2979	CD1	LEU A 479	166.508	157.939	99.554	1.00125.68		C
ATOM	2980	CD2	LEU A 479	164.686	157.770	101.261	1.00125.68		C
ATOM	2981	N	VAL A 480	162.048	154.821	100.651	1.00123.21		N
ATOM	2982	CA	VAL A 480	160.974	155.095	101.603	1.00123.21		C
ATOM	2983	C	VAL A 480	161.091	154.193	102.827	1.00123.21		C
ATOM	2984	O	VAL A 480	160.845	154.623	103.964	1.00123.21		O
ATOM	2985	CB	VAL A 480	159.604	154.946	100.915	1.00123.21		C
ATOM	2986	CG1	VAL A 480	159.320	153.486	100.594	1.00123.21		C
ATOM	2987	CG2	VAL A 480	158.505	155.528	101.788	1.00123.21		C
ATOM	2988	N	TYR A 481	161.452	152.926	102.616	1.00121.29		N
ATOM	2989	CA	TYR A 481	161.597	152.002	103.734	1.00121.29		C
ATOM	2990	C	TYR A 481	162.575	152.549	104.765	1.00121.29		C
ATOM	2991	O	TYR A 481	162.262	152.627	105.958	1.00121.29		O
ATOM	2992	CB	TYR A 481	162.055	150.635	103.227	1.00121.29		C
ATOM	2993	CG	TYR A 481	161.059	149.948	102.320	1.00121.29		C
ATOM	2994	CD1	TYR A 481	160.988	150.263	100.969	1.00121.29		C

ATOM	2995	CD2	TYR A 481	160.194	148.981	102.812	1.00121.29	C
ATOM	2996	CE1	TYR A 481	160.082	149.636	100.137	1.00121.29	C
ATOM	2997	CE2	TYR A 481	159.285	148.349	101.987	1.00121.29	C
ATOM	2998	CZ	TYR A 481	159.233	148.680	100.651	1.00121.29	C
ATOM	2999	OH	TYR A 481	158.329	148.053	99.824	1.00121.29	O
ATOM	3000	N	ALA A 482	163.767	152.944	104.315	1.00118.61	N
ATOM	3001	CA	ALA A 482	164.763	153.475	105.239	1.00118.61	C
ATOM	3002	C	ALA A 482	164.316	154.806	105.828	1.00118.61	C
ATOM	3003	O	ALA A 482	164.568	155.088	107.006	1.00118.61	O
ATOM	3004	CB	ALA A 482	166.108	153.626	104.528	1.00118.61	C
ATOM	3005	N	GLN A 483	163.662	155.643	105.023	1.00114.41	N
ATOM	3006	CA	GLN A 483	163.199	156.927	105.530	1.00114.41	C
ATOM	3007	C	GLN A 483	162.262	156.739	106.714	1.00114.41	C
ATOM	3008	O	GLN A 483	162.323	157.496	107.689	1.00114.41	O
ATOM	3009	CB	GLN A 483	162.513	157.720	104.420	1.00114.41	C
ATOM	3010	CG	GLN A 483	161.992	159.075	104.868	1.00114.41	C
ATOM	3011	CD	GLN A 483	163.105	160.022	105.276	1.00114.41	C
ATOM	3012	OE1	GLN A 483	163.084	160.588	106.368	1.00114.41	O
ATOM	3013	NE2	GLN A 483	164.082	160.200	104.396	1.00114.41	N
ATOM	3014	N	LEU A 484	161.391	155.730	106.653	1.00109.34	N
ATOM	3015	CA	LEU A 484	160.488	155.500	107.778	1.00109.34	C
ATOM	3016	C	LEU A 484	161.172	154.749	108.915	1.00109.34	C
ATOM	3017	O	LEU A 484	160.845	154.975	110.089	1.00109.34	O
ATOM	3018	CB	LEU A 484	159.234	154.755	107.315	1.00109.34	C
ATOM	3019	CG	LEU A 484	159.365	153.352	106.732	1.00109.34	C
ATOM	3020	CD1	LEU A 484	159.407	152.325	107.844	1.00109.34	C
ATOM	3021	CD2	LEU A 484	158.208	153.073	105.792	1.00109.34	C
ATOM	3022	N	GLN A 485	162.106	153.851	108.591	1.00105.88	N
ATOM	3023	CA	GLN A 485	162.942	153.240	109.619	1.00105.88	C
ATOM	3024	C	GLN A 485	163.611	154.304	110.478	1.00105.88	C
ATOM	3025	O	GLN A 485	163.770	154.135	111.695	1.00105.88	O
ATOM	3026	CB	GLN A 485	163.992	152.344	108.958	1.00105.88	C
ATOM	3027	CG	GLN A 485	165.005	151.733	109.907	1.00105.88	C
ATOM	3028	CD	GLN A 485	164.455	150.544	110.659	1.00105.88	C
ATOM	3029	OE1	GLN A 485	164.183	150.623	111.855	1.00105.88	O
ATOM	3030	NE2	GLN A 485	164.290	149.429	109.961	1.00105.88	N
ATOM	3031	N	PHE A 486	164.012	155.411	109.852	1.00104.94	N

ATOM	3032	CA	PHE A 486	164.670	156.487	110.585	1.00104.94	C
ATOM	3033	C	PHE A 486	163.762	157.044	111.675	1.00104.94	C
ATOM	3034	O	PHE A 486	164.178	157.196	112.830	1.00104.94	O
ATOM	3035	CB	PHE A 486	165.095	157.587	109.613	1.00104.94	C
ATOM	3036	CG	PHE A 486	165.869	158.699	110.254	1.00104.94	C
ATOM	3037	CD1	PHE A 486	166.947	158.427	111.074	1.00104.94	C
ATOM	3038	CD2	PHE A 486	165.522	160.018	110.029	1.00104.94	C
ATOM	3039	CE1	PHE A 486	167.661	159.450	111.662	1.00104.94	C
ATOM	3040	CE2	PHE A 486	166.232	161.044	110.613	1.00104.94	C
ATOM	3041	CZ	PHE A 486	167.302	160.760	111.430	1.00104.94	C
ATOM	3042	N	THR A 487	162.511	157.353	111.327	1.00 98.40	N
ATOM	3043	CA	THR A 487	161.581	157.878	112.321	1.00 98.40	C
ATOM	3044	C	THR A 487	161.266	156.833	113.383	1.00 98.40	C
ATOM	3045	O	THR A 487	161.134	157.161	114.570	1.00 98.40	O
ATOM	3046	CB	THR A 487	160.299	158.352	111.643	1.00 98.40	C
ATOM	3047	OG1	THR A 487	159.647	157.237	111.027	1.00 98.40	O
ATOM	3048	CG2	THR A 487	160.617	159.387	110.579	1.00 98.40	C
ATOM	3049	N	TYR A 488	161.127	155.573	112.973	1.00 95.81	N
ATOM	3050	CA	TYR A 488	160.949	154.498	113.943	1.00 95.81	C
ATOM	3051	C	TYR A 488	162.037	154.551	115.010	1.00 95.81	C
ATOM	3052	O	TYR A 488	161.756	154.580	116.217	1.00 95.81	O
ATOM	3053	CB	TYR A 488	160.959	153.150	113.220	1.00 95.81	C
ATOM	3054	CG	TYR A 488	160.787	151.949	114.116	1.00 95.81	C
ATOM	3055	CD1	TYR A 488	161.866	151.404	114.792	1.00 95.81	C
ATOM	3056	CD2	TYR A 488	159.549	151.351	114.274	1.00 95.81	C
ATOM	3057	CE1	TYR A 488	161.713	150.306	115.609	1.00 95.81	C
ATOM	3058	CE2	TYR A 488	159.389	150.252	115.086	1.00 95.81	C
ATOM	3059	CZ	TYR A 488	160.472	149.734	115.753	1.00 95.81	C
ATOM	3060	OH	TYR A 488	160.314	148.637	116.565	1.00 95.81	O
ATOM	3061	N	ASP A 489	163.296	154.573	114.569	1.00 92.33	N
ATOM	3062	CA	ASP A 489	164.414	154.596	115.505	1.00 92.33	C
ATOM	3063	C	ASP A 489	164.400	155.862	116.354	1.00 92.33	C
ATOM	3064	O	ASP A 489	164.666	155.815	117.565	1.00 92.33	O
ATOM	3065	CB	ASP A 489	165.727	154.477	114.735	1.00 92.33	C
ATOM	3066	CG	ASP A 489	166.871	154.024	115.606	1.00 92.33	C
ATOM	3067	OD1	ASP A 489	166.658	153.859	116.824	1.00 92.33	O
ATOM	3068	OD2	ASP A 489	167.984	153.832	115.072	1.00 92.33	O

ATOM	3069	N	THR A 490	164.098	157.006	115.735	1.00 89.11	N
ATOM	3070	CA	THR A 490	164.133	158.271	116.460	1.00 89.11	C
ATOM	3071	C	THR A 490	163.055	158.338	117.533	1.00 89.11	C
ATOM	3072	O	THR A 490	163.215	159.059	118.523	1.00 89.11	O
ATOM	3073	CB	THR A 490	163.983	159.437	115.488	1.00 89.11	C
ATOM	3074	OG1	THR A 490	165.191	159.588	114.734	1.00 89.11	O
ATOM	3075	CG2	THR A 490	163.706	160.719	116.243	1.00 89.11	C
ATOM	3076	N	LEU A 491	161.955	157.604	117.360	1.00 88.29	N
ATOM	3077	CA	LEU A 491	160.945	157.549	118.414	1.00 88.29	C
ATOM	3078	C	LEU A 491	161.319	156.544	119.495	1.00 88.29	C
ATOM	3079	O	LEU A 491	161.085	156.788	120.691	1.00 88.29	O
ATOM	3080	CB	LEU A 491	159.580	157.200	117.828	1.00 88.29	C
ATOM	3081	CG	LEU A 491	158.774	158.376	117.292	1.00 88.29	C
ATOM	3082	CD1	LEU A 491	158.452	159.336	118.417	1.00 88.29	C
ATOM	3083	CD2	LEU A 491	159.551	159.068	116.204	1.00 88.29	C
ATOM	3084	N	ARG A 492	161.862	155.392	119.092	1.00 87.90	N
ATOM	3085	CA	ARG A 492	162.317	154.429	120.086	1.00 87.90	C
ATOM	3086	C	ARG A 492	163.314	155.073	121.040	1.00 87.90	C
ATOM	3087	O	ARG A 492	163.259	154.852	122.257	1.00 87.90	O
ATOM	3088	CB	ARG A 492	162.929	153.210	119.398	1.00 87.90	C
ATOM	3089	CG	ARG A 492	162.811	151.927	120.200	1.00 87.90	C
ATOM	3090	CD	ARG A 492	163.186	150.711	119.369	1.00 87.90	C
ATOM	3091	NE	ARG A 492	164.537	150.811	118.826	1.00 87.90	N
ATOM	3092	CZ	ARG A 492	165.023	150.014	117.879	1.00 87.90	C
ATOM	3093	NH1	ARG A 492	166.265	150.177	117.445	1.00 87.90	N
ATOM	3094	NH2	ARG A 492	164.268	149.054	117.365	1.00 87.90	N
ATOM	3095	N	GLY A 493	164.226	155.886	120.504	1.00 87.69	N
ATOM	3096	CA	GLY A 493	165.191	156.559	121.361	1.00 87.69	C
ATOM	3097	C	GLY A 493	164.535	157.461	122.389	1.00 87.69	C
ATOM	3098	O	GLY A 493	164.930	157.480	123.558	1.00 87.69	O
ATOM	3099	N	TYR A 494	163.524	158.221	121.969	1.00 85.53	N
ATOM	3100	CA	TYR A 494	162.831	159.126	122.880	1.00 85.53	C
ATOM	3101	C	TYR A 494	162.146	158.355	124.004	1.00 85.53	C
ATOM	3102	O	TYR A 494	162.254	158.714	125.190	1.00 85.53	O
ATOM	3103	CB	TYR A 494	161.821	159.952	122.084	1.00 85.53	C
ATOM	3104	CG	TYR A 494	161.088	161.014	122.859	1.00 85.53	C
ATOM	3105	CD1	TYR A 494	160.048	160.686	123.711	1.00 85.53	C

ATOM	3106	CD2	TYR A 494	161.415	162.351	122.713	1.00 85.53	C
ATOM	3107	CE1	TYR A 494	159.369	161.656	124.411	1.00 85.53	C
ATOM	3108	CE2	TYR A 494	160.740	163.328	123.408	1.00 85.53	C
ATOM	3109	CZ	TYR A 494	159.718	162.975	124.256	1.00 85.53	C
ATOM	3110	OH	TYR A 494	159.039	163.945	124.954	1.00 85.53	O
ATOM	3111	N	ILE A 495	161.424	157.292	123.646	1.00 84.70	N
ATOM	3112	CA	ILE A 495	160.745	156.505	124.672	1.00 84.70	C
ATOM	3113	C	ILE A 495	161.758	155.915	125.645	1.00 84.70	C
ATOM	3114	O	ILE A 495	161.535	155.896	126.864	1.00 84.70	O
ATOM	3115	CB	ILE A 495	159.872	155.413	124.033	1.00 84.70	C
ATOM	3116	CG1	ILE A 495	158.848	156.036	123.089	1.00 84.70	C
ATOM	3117	CG2	ILE A 495	159.165	154.617	125.106	1.00 84.70	C
ATOM	3118	CD1	ILE A 495	157.868	155.040	122.529	1.00 84.70	C
ATOM	3119	N	ASN A 496	162.884	155.422	125.124	1.00 85.94	N
ATOM	3120	CA	ASN A 496	163.916	154.876	125.999	1.00 85.94	C
ATOM	3121	C	ASN A 496	164.448	155.938	126.949	1.00 85.94	C
ATOM	3122	O	ASN A 496	164.677	155.666	128.133	1.00 85.94	O
ATOM	3123	CB	ASN A 496	165.049	154.286	125.166	1.00 85.94	C
ATOM	3124	CG	ASN A 496	164.798	152.850	124.786	1.00 85.94	C
ATOM	3125	OD1	ASN A 496	163.738	152.297	125.074	1.00 85.94	O
ATOM	3126	ND2	ASN A 496	165.773	152.232	124.134	1.00 85.94	N
ATOM	3127	N	ARG A 497	164.669	157.151	126.445	1.00 89.05	N
ATOM	3128	CA	ARG A 497	165.134	158.233	127.304	1.00 89.05	C
ATOM	3129	C	ARG A 497	164.176	158.454	128.468	1.00 89.05	C
ATOM	3130	O	ARG A 497	164.595	158.543	129.629	1.00 89.05	O
ATOM	3131	CB	ARG A 497	165.295	159.514	126.489	1.00 89.05	C
ATOM	3132	CG	ARG A 497	165.920	160.659	127.259	1.00 89.05	C
ATOM	3133	CD	ARG A 497	167.369	160.363	127.604	1.00 89.05	C
ATOM	3134	NE	ARG A 497	167.601	160.382	129.045	1.00 89.05	N
ATOM	3135	CZ	ARG A 497	168.791	160.220	129.613	1.00 89.05	C
ATOM	3136	NH1	ARG A 497	168.907	160.251	130.933	1.00 89.05	N
ATOM	3137	NH2	ARG A 497	169.866	160.027	128.861	1.00 89.05	N
ATOM	3138	N	ALA A 498	162.879	158.546	128.174	1.00 87.15	N
ATOM	3139	CA	ALA A 498	161.915	158.781	129.250	1.00 87.15	C
ATOM	3140	C	ALA A 498	161.914	157.634	130.258	1.00 87.15	C
ATOM	3141	O	ALA A 498	161.904	157.859	131.483	1.00 87.15	O
ATOM	3142	CB	ALA A 498	160.518	158.986	128.670	1.00 87.15	C

ATOM	3143	N	LEU A 499	161.910	156.394	129.763	1.00 85.86	N
ATOM	3144	CA	LEU A 499	161.889	155.250	130.666	1.00 85.86	C
ATOM	3145	C	LEU A 499	163.128	155.211	131.545	1.00 85.86	C
ATOM	3146	O	LEU A 499	163.054	154.788	132.703	1.00 85.86	O
ATOM	3147	CB	LEU A 499	161.759	153.950	129.875	1.00 85.86	C
ATOM	3148	CG	LEU A 499	160.362	153.633	129.348	1.00 85.86	C
ATOM	3149	CD1	LEU A 499	160.280	152.190	128.887	1.00 85.86	C
ATOM	3150	CD2	LEU A 499	159.320	153.921	130.411	1.00 85.86	C
ATOM	3151	N	ALA A 500	164.274	155.640	131.019	1.00 85.86	N
ATOM	3152	CA	ALA A 500	165.484	155.662	131.830	1.00 85.86	C
ATOM	3153	C	ALA A 500	165.485	156.819	132.815	1.00 85.86	C
ATOM	3154	O	ALA A 500	166.141	156.737	133.857	1.00 85.86	O
ATOM	3155	CB	ALA A 500	166.722	155.736	130.938	1.00 85.86	C
ATOM	3156	N	GLN A 501	164.770	157.901	132.508	1.00 88.74	N
ATOM	3157	CA	GLN A 501	164.720	159.025	133.435	1.00 88.74	C
ATOM	3158	C	GLN A 501	163.739	158.810	134.580	1.00 88.74	C
ATOM	3159	O	GLN A 501	163.848	159.494	135.602	1.00 88.74	O
ATOM	3160	CB	GLN A 501	164.354	160.311	132.697	1.00 88.74	C
ATOM	3161	CG	GLN A 501	164.657	161.574	133.481	1.00 88.74	C
ATOM	3162	CD	GLN A 501	164.593	162.819	132.622	1.00 88.74	C
ATOM	3163	OE1	GLN A 501	163.834	162.883	131.656	1.00 88.74	O
ATOM	3164	NE2	GLN A 501	165.394	163.818	132.969	1.00 88.74	N
ATOM	3165	N	ILE A 502	162.778	157.895	134.433	1.00 87.40	N
ATOM	3166	CA	ILE A 502	161.855	157.650	135.549	1.00 87.40	C
ATOM	3167	C	ILE A 502	162.538	156.901	136.702	1.00 87.40	C
ATOM	3168	O	ILE A 502	162.183	157.086	137.881	1.00 87.40	O
ATOM	3169	CB	ILE A 502	160.610	156.893	135.057	1.00 87.40	C
ATOM	3170	CG1	ILE A 502	159.797	157.766	134.103	1.00 87.40	C
ATOM	3171	CG2	ILE A 502	159.758	156.462	136.230	1.00 87.40	C
ATOM	3172	CD1	ILE A 502	159.505	159.141	134.642	1.00 87.40	C
ATOM	3173	N	ALA A 503	163.517	156.048	136.391	1.00 88.25	N
ATOM	3174	CA	ALA A 503	164.140	155.225	137.424	1.00 88.25	C
ATOM	3175	C	ALA A 503	164.886	156.065	138.453	1.00 88.25	C
ATOM	3176	O	ALA A 503	164.947	155.690	139.628	1.00 88.25	O
ATOM	3177	CB	ALA A 503	165.084	154.210	136.785	1.00 88.25	C
ATOM	3178	N	GLU A 504	165.474	157.188	138.037	1.00 95.24	N
ATOM	3179	CA	GLU A 504	166.134	158.073	138.991	1.00 95.24	C

ATOM	3180	C	GLU A 504	165.169	158.513	140.083	1.00 95.24	C
ATOM	3181	O	GLU A 504	165.470	158.410	141.281	1.00 95.24	O
ATOM	3182	CB	GLU A 504	166.698	159.294	138.270	1.00 95.24	C
ATOM	3183	CG	GLU A 504	168.054	159.099	137.634	1.00 95.24	C
ATOM	3184	CD	GLU A 504	168.585	160.385	137.032	1.00 95.24	C
ATOM	3185	OE1	GLU A 504	167.892	161.419	137.132	1.00 95.24	O
ATOM	3186	OE2	GLU A 504	169.691	160.368	136.459	1.00 95.24	O
ATOM	3187	N	ALA A 505	164.016	159.049	139.682	1.00 88.53	N
ATOM	3188	CA	ALA A 505	163.022	159.477	140.656	1.00 88.53	C
ATOM	3189	C	ALA A 505	162.582	158.316	141.529	1.00 88.53	C
ATOM	3190	O	ALA A 505	162.419	158.470	142.745	1.00 88.53	O
ATOM	3191	CB	ALA A 505	161.820	160.099	139.949	1.00 88.53	C
ATOM	3192	N	TRP A 506	162.408	157.136	140.947	1.00 91.43	N
ATOM	3193	CA	TRP A 506	161.978	155.980	141.739	1.00 91.43	C
ATOM	3194	C	TRP A 506	162.995	155.519	142.747	1.00 91.43	C
ATOM	3195	O	TRP A 506	162.651	154.942	143.748	1.00 91.43	O
ATOM	3196	CB	TRP A 506	161.536	154.810	140.887	1.00 91.43	C
ATOM	3197	CG	TRP A 506	160.267	154.265	141.387	1.00 91.43	C
ATOM	3198	CD1	TRP A 506	159.998	153.877	142.654	1.00 91.43	C
ATOM	3199	CD2	TRP A 506	159.070	154.076	140.647	1.00 91.43	C
ATOM	3200	NE1	TRP A 506	158.707	153.444	142.753	1.00 91.43	N
ATOM	3201	CE2	TRP A 506	158.115	153.559	141.527	1.00 91.43	C
ATOM	3202	CE3	TRP A 506	158.714	154.288	139.320	1.00 91.43	C
ATOM	3203	CZ2	TRP A 506	156.836	153.247	141.126	1.00 91.43	C
ATOM	3204	CZ3	TRP A 506	157.446	153.985	138.926	1.00 91.43	C
ATOM	3205	CH2	TRP A 506	156.521	153.466	139.819	1.00 91.43	C
ATOM	3206	N	CYS A 507	164.258	155.706	142.447	1.00 89.72	N
ATOM	3207	CA	CYS A 507	165.310	155.400	143.414	1.00 89.72	C
ATOM	3208	C	CYS A 507	165.342	156.435	144.532	1.00 89.72	C
ATOM	3209	O	CYS A 507	165.399	156.088	145.720	1.00 89.72	O
ATOM	3210	CB	CYS A 507	166.662	155.327	142.704	1.00 89.72	C
ATOM	3211	SG	CYS A 507	168.059	154.852	143.747	1.00 89.72	S
ATOM	3212	N	VAL A 508	165.321	157.719	144.168	1.00 85.32	N
ATOM	3213	CA	VAL A 508	165.309	158.763	145.190	1.00 85.32	C
ATOM	3214	C	VAL A 508	164.096	158.610	146.091	1.00 85.32	C
ATOM	3215	O	VAL A 508	164.126	159.008	147.261	1.00 85.32	O
ATOM	3216	CB	VAL A 508	165.352	160.159	144.544	1.00 85.32	C

ATOM	3217	CG1	VAL	A	508	164.843 161.203 145.521	1.00 85.32	C
ATOM	3218	CG2	VAL	A	508	166.762 160.486 144.097	1.00 85.32	C
ATOM	3219	N	ASP	A	509	163.010 158.039 145.570	1.00 88.12	N
ATOM	3220	CA	ASP	A	509	161.847 157.762 146.404	1.00 88.12	C
ATOM	3221	C	ASP	A	509	162.130 156.627 147.378	1.00 88.12	C
ATOM	3222	O	ASP	A	509	161.992 156.787 148.595	1.00 88.12	O
ATOM	3223	CB	ASP	A	509	160.640 157.427 145.532	1.00 88.12	C
ATOM	3224	CG	ASP	A	509	159.479 156.888 146.336	1.00 88.12	C
ATOM	3225	OD1	ASP	A	509	158.656 157.698 146.810	1.00 88.12	O
ATOM	3226	OD2	ASP	A	509	159.394 155.653 146.500	1.00 88.12	O
ATOM	3227	N	GLN	A	510	162.530 155.465 146.860	1.00 87.06	N
ATOM	3228	CA	GLN	A	510	162.840 154.346 147.744	1.00 87.06	C
ATOM	3229	C	GLN	A	510	163.923 154.676 148.760	1.00 87.06	C
ATOM	3230	O	GLN	A	510	164.129 153.895 149.693	1.00 87.06	O
ATOM	3231	CB	GLN	A	510	163.275 153.123 146.940	1.00 87.06	C
ATOM	3232	CG	GLN	A	510	162.134 152.307 146.374	1.00 87.06	C
ATOM	3233	CD	GLN	A	510	162.615 151.027 145.728	1.00 87.06	C
ATOM	3234	OE1	GLN	A	510	163.814 150.749 145.697	1.00 87.06	O
ATOM	3235	NE2	GLN	A	510	161.684 150.236 145.212	1.00 87.06	N
ATOM	3236	N	ARG	A	511	164.628 155.795 148.597	1.00 81.00	N
ATOM	3237	CA	ARG	A	511	165.676 156.135 149.556	1.00 81.00	C
ATOM	3238	C	ARG	A	511	165.108 156.585 150.901	1.00 81.00	C
ATOM	3239	O	ARG	A	511	165.766 156.429 151.935	1.00 81.00	O
ATOM	3240	CB	ARG	A	511	166.581 157.215 148.974	1.00 81.00	C
ATOM	3241	CG	ARG	A	511	167.596 157.770 149.947	1.00 81.00	C
ATOM	3242	CD	ARG	A	511	168.668 158.532 149.198	1.00 81.00	C
ATOM	3243	NE	ARG	A	511	169.297 159.563 150.016	1.00 81.00	N
ATOM	3244	CZ	ARG	A	511	170.153 160.463 149.545	1.00 81.00	C
ATOM	3245	NH1	ARG	A	511	170.481 160.458 148.260	1.00 81.00	N
ATOM	3246	NH2	ARG	A	511	170.683 161.367 150.357	1.00 81.00	N
ATOM	3247	N	ARG	A	512	163.899 157.158 150.918	1.00 72.66	N
ATOM	3248	CA	ARG	A	512	163.329 157.656 152.170	1.00 72.66	C
ATOM	3249	C	ARG	A	512	162.701 156.554 153.014	1.00 72.66	C
ATOM	3250	O	ARG	A	512	162.595 156.704 154.243	1.00 72.66	O
ATOM	3251	CB	ARG	A	512	162.278 158.726 151.886	1.00 72.66	C
ATOM	3252	CG	ARG	A	512	162.796 159.932 151.136	1.00 72.66	C
ATOM	3253	CD	ARG	A	512	161.676 160.920 150.870	1.00 72.66	C

ATOM	3254	NE	ARG A 512	162.021	161.871	149.818	1.00	72.66	N
ATOM	3255	CZ	ARG A 512	162.822	162.917	149.989	1.00	72.66	C
ATOM	3256	NH1	ARG A 512	163.364	163.153	151.175	1.00	72.66	N
ATOM	3257	NH2	ARG A 512	163.081	163.728	148.973	1.00	72.66	N
ATOM	3258	N	THR A 513	162.264	155.466	152.382	1.00	65.37	N
ATOM	3259	CA	THR A 513	161.664	154.373	153.131	1.00	65.37	C
ATOM	3260	C	THR A 513	162.619	153.825	154.178	1.00	65.37	C
ATOM	3261	O	THR A 513	162.175	153.292	155.197	1.00	65.37	O
ATOM	3262	CB	THR A 513	161.223	153.264	152.180	1.00	65.37	C
ATOM	3263	OG1	THR A 513	160.065	153.694	151.455	1.00	65.37	O
ATOM	3264	CG2	THR A 513	160.889	152.004	152.950	1.00	65.37	C
ATOM	3265	N	LEU A 514	163.928	153.977	153.975	1.00	64.70	N
ATOM	3266	CA	LEU A 514	164.870	153.460	154.962	1.00	64.70	C
ATOM	3267	C	LEU A 514	164.851	154.292	156.238	1.00	64.70	C
ATOM	3268	O	LEU A 514	164.814	153.737	157.342	1.00	64.70	O
ATOM	3269	CB	LEU A 514	166.276	153.401	154.373	1.00	64.70	C
ATOM	3270	CG	LEU A 514	166.489	152.268	153.369	1.00	64.70	C
ATOM	3271	CD1	LEU A 514	167.968	152.083	153.076	1.00	64.70	C
ATOM	3272	CD2	LEU A 514	165.869	150.976	153.873	1.00	64.70	C
ATOM	3273	N	GLU A 515	164.873	155.620	156.118	1.00	56.89	N
ATOM	3274	CA	GLU A 515	164.741	156.453	157.310	1.00	56.89	C
ATOM	3275	C	GLU A 515	163.401	156.217	157.992	1.00	56.89	C
ATOM	3276	O	GLU A 515	163.321	156.147	159.229	1.00	56.89	O
ATOM	3277	CB	GLU A 515	164.906	157.926	156.944	1.00	56.89	C
ATOM	3278	CG	GLU A 515	164.458	158.893	158.032	1.00	56.89	C
ATOM	3279	CD	GLU A 515	165.390	158.912	159.232	1.00	56.89	C
ATOM	3280	OE1	GLU A 515	164.891	158.885	160.376	1.00	56.89	O
ATOM	3281	OE2	GLU A 515	166.621	158.959	159.033	1.00	56.89	O
ATOM	3282	N	VAL A 516	162.334	156.090	157.201	1.00	54.06	N
ATOM	3283	CA	VAL A 516	161.022	155.834	157.788	1.00	54.06	C
ATOM	3284	C	VAL A 516	161.041	154.537	158.589	1.00	54.06	C
ATOM	3285	O	VAL A 516	160.583	154.489	159.737	1.00	54.06	O
ATOM	3286	CB	VAL A 516	159.935	155.812	156.701	1.00	54.06	C
ATOM	3287	CG1	VAL A 516	158.688	155.146	157.227	1.00	54.06	C
ATOM	3288	CG2	VAL A 516	159.620	157.220	156.250	1.00	54.06	C
ATOM	3289	N	PHE A 517	161.574	153.464	157.998	1.00	52.95	N
ATOM	3290	CA	PHE A 517	161.597	152.181	158.688	1.00	52.95	C

ATOM	3291	C	PHE A 517	162.521	152.191	159.892	1.00 52.95	C
ATOM	3292	O	PHE A 517	162.261	151.481	160.859	1.00 52.95	O
ATOM	3293	CB	PHE A 517	161.995	151.053	157.741	1.00 52.95	C
ATOM	3294	CG	PHE A 517	160.877	150.579	156.865	1.00 52.95	C
ATOM	3295	CD1	PHE A 517	159.575	150.964	157.117	1.00 52.95	C
ATOM	3296	CD2	PHE A 517	161.123	149.721	155.812	1.00 52.95	C
ATOM	3297	CE1	PHE A 517	158.543	150.522	156.320	1.00 52.95	C
ATOM	3298	CE2	PHE A 517	160.093	149.276	155.014	1.00 52.95	C
ATOM	3299	CZ	PHE A 517	158.801	149.677	155.269	1.00 52.95	C
ATOM	3300	N	LYS A 518	163.591	152.981	159.873	1.00 52.81	N
ATOM	3301	CA	LYS A 518	164.413	153.097	161.072	1.00 52.81	C
ATOM	3302	C	LYS A 518	163.611	153.714	162.213	1.00 52.81	C
ATOM	3303	O	LYS A 518	163.454	153.117	163.294	1.00 52.81	O
ATOM	3304	CB	LYS A 518	165.659	153.927	160.773	1.00 52.81	C
ATOM	3305	CG	LYS A 518	166.597	154.060	161.950	1.00 52.81	C
ATOM	3306	CD	LYS A 518	167.779	154.936	161.605	1.00 52.81	C
ATOM	3307	CE	LYS A 518	168.299	154.621	160.220	1.00 52.81	C
ATOM	3308	NZ	LYS A 518	169.518	155.410	159.897	1.00 52.81	N
ATOM	3309	N	GLU A 519	163.080	154.916	161.981	1.00 52.29	N
ATOM	3310	CA	GLU A 519	162.290	155.569	163.018	1.00 52.29	C
ATOM	3311	C	GLU A 519	161.171	154.664	163.516	1.00 52.29	C
ATOM	3312	O	GLU A 519	160.873	154.638	164.713	1.00 52.29	O
ATOM	3313	CB	GLU A 519	161.729	156.890	162.501	1.00 52.29	C
ATOM	3314	CG	GLU A 519	162.794	157.923	162.214	1.00 52.29	C
ATOM	3315	CD	GLU A 519	163.750	158.100	163.371	1.00 52.29	C
ATOM	3316	OE1	GLU A 519	163.402	157.691	164.497	1.00 52.29	O
ATOM	3317	OE2	GLU A 519	164.852	158.644	163.155	1.00 52.29	O
ATOM	3318	N	LEU A 520	160.541	153.908	162.613	1.00 47.03	N
ATOM	3319	CA	LEU A 520	159.485	152.997	163.043	1.00 47.03	C
ATOM	3320	C	LEU A 520	160.038	151.817	163.831	1.00 47.03	C
ATOM	3321	O	LEU A 520	159.389	151.345	164.769	1.00 47.03	O
ATOM	3322	CB	LEU A 520	158.693	152.493	161.839	1.00 47.03	C
ATOM	3323	CG	LEU A 520	157.738	153.476	161.170	1.00 47.03	C
ATOM	3324	CD1	LEU A 520	156.833	152.740	160.209	1.00 47.03	C
ATOM	3325	CD2	LEU A 520	156.926	154.210	162.209	1.00 47.03	C
ATOM	3326	N	SER A 521	161.221	151.320	163.468	1.00 47.73	N
ATOM	3327	CA	SER A 521	161.840	150.242	164.220	1.00 47.73	C

ATOM	3328	C	SER A 521	162.179	150.674	165.627	1.00 47.73	C
ATOM	3329	O	SER A 521	162.408	149.821	166.488	1.00 47.73	O
ATOM	3330	CB	SER A 521	163.104	149.753	163.522	1.00 47.73	C
ATOM	3331	OG	SER A 521	164.198	150.595	163.832	1.00 47.73	O
ATOM	3332	N	LYS A 522	162.231	151.967	165.877	1.00 49.54	N
ATOM	3333	CA	LYS A 522	162.300	152.260	167.311	1.00 49.54	C
ATOM	3334	C	LYS A 522	160.960	152.028	168.044	1.00 49.54	C
ATOM	3335	O	LYS A 522	160.850	152.468	169.186	1.00 49.54	O
ATOM	3336	CB	LYS A 522	162.773	153.692	167.553	1.00 49.54	C
ATOM	3337	CG	LYS A 522	164.260	153.887	167.346	1.00 49.54	C
ATOM	3338	CD	LYS A 522	164.629	155.355	167.366	1.00 49.54	C
ATOM	3339	CE	LYS A 522	166.011	155.578	166.782	1.00 49.54	C
ATOM	3340	NZ	LYS A 522	166.282	157.021	166.542	1.00 49.54	N
ATOM	3341	N	ILE A 523	159.944	151.384	167.464	1.00 48.18	N
ATOM	3342	CA	ILE A 523	158.684	151.121	168.146	1.00 48.18	C
ATOM	3343	C	ILE A 523	158.451	149.631	168.359	1.00 48.18	C
ATOM	3344	O	ILE A 523	157.985	149.219	169.425	1.00 48.18	O
ATOM	3345	CB	ILE A 523	157.495	151.739	167.383	1.00 48.18	C
ATOM	3346	CG1	ILE A 523	157.496	153.258	167.513	1.00 48.18	C
ATOM	3347	CG2	ILE A 523	156.192	151.173	167.897	1.00 48.18	C
ATOM	3348	CD1	ILE A 523	156.361	153.918	166.777	1.00 48.18	C
ATOM	3349	N	ASN A 524	158.747	148.808	167.357	1.00 48.28	N
ATOM	3350	CA	ASN A 524	158.530	147.370	167.440	1.00 48.28	C
ATOM	3351	C	ASN A 524	159.400	146.656	166.413	1.00 48.28	C
ATOM	3352	O	ASN A 524	158.956	146.424	165.283	1.00 48.28	O
ATOM	3353	CB	ASN A 524	157.055	147.038	167.218	1.00 48.28	C
ATOM	3354	CG	ASN A 524	156.669	145.696	167.793	1.00 48.28	C
ATOM	3355	OD1	ASN A 524	157.385	145.133	168.618	1.00 48.28	O
ATOM	3356	ND2	ASN A 524	155.529	145.174	167.362	1.00 48.28	N
ATOM	3357	N	PRO A 525	160.637	146.294	166.758	1.00 43.70	N
ATOM	3358	CA	PRO A 525	161.537	145.726	165.740	1.00 43.70	C
ATOM	3359	C	PRO A 525	161.040	144.423	165.138	1.00 43.70	C
ATOM	3360	O	PRO A 525	161.233	144.185	163.938	1.00 43.70	O
ATOM	3361	CB	PRO A 525	162.849	145.528	166.511	1.00 43.70	C
ATOM	3362	CG	PRO A 525	162.730	146.393	167.721	1.00 43.70	C
ATOM	3363	CD	PRO A 525	161.287	146.403	168.072	1.00 43.70	C
ATOM	3364	N	SER A 526	160.417	143.561	165.942	1.00 44.51	N

ATOM	3365	CA	SER A 526	159.953	142.277	165.430	1.00 44.51	C
ATOM	3366	C	SER A 526	159.026	142.464	164.238	1.00 44.51	C
ATOM	3367	O	SER A 526	159.160	141.778	163.220	1.00 44.51	O
ATOM	3368	CB	SER A 526	159.250	141.492	166.535	1.00 44.51	C
ATOM	3369	OG	SER A 526	160.014	141.490	167.726	1.00 44.51	O
ATOM	3370	N	ALA A 527	158.082	143.398	164.342	1.00 46.43	N
ATOM	3371	CA	ALA A 527	157.114	143.591	163.269	1.00 46.43	C
ATOM	3372	C	ALA A 527	157.789	144.091	161.998	1.00 46.43	C
ATOM	3373	O	ALA A 527	157.532	143.576	160.905	1.00 46.43	O
ATOM	3374	CB	ALA A 527	156.023	144.560	163.717	1.00 46.43	C
ATOM	3375	N	ILE A 528	158.660	145.093	162.120	1.00 45.98	N
ATOM	3376	CA	ILE A 528	159.321	145.648	160.942	1.00 45.98	C
ATOM	3377	C	ILE A 528	160.163	144.588	160.246	1.00 45.98	C
ATOM	3378	O	ILE A 528	160.155	144.474	159.011	1.00 45.98	O
ATOM	3379	CB	ILE A 528	160.166	146.871	161.334	1.00 45.98	C
ATOM	3380	CG1	ILE A 528	159.265	148.001	161.818	1.00 45.98	C
ATOM	3381	CG2	ILE A 528	161.003	147.327	160.164	1.00 45.98	C
ATOM	3382	CD1	ILE A 528	158.179	148.361	160.845	1.00 45.98	C
ATOM	3383	N	LEU A 529	160.911	143.799	161.017	1.00 46.68	N
ATOM	3384	CA	LEU A 529	161.754	142.789	160.389	1.00 46.68	C
ATOM	3385	C	LEU A 529	160.917	141.680	159.763	1.00 46.68	C
ATOM	3386	O	LEU A 529	161.208	141.233	158.649	1.00 46.68	O
ATOM	3387	CB	LEU A 529	162.746	142.226	161.401	1.00 46.68	C
ATOM	3388	CG	LEU A 529	163.898	143.177	161.715	1.00 46.68	C
ATOM	3389	CD1	LEU A 529	165.013	142.455	162.441	1.00 46.68	C
ATOM	3390	CD2	LEU A 529	164.412	143.807	160.442	1.00 46.68	C
ATOM	3391	N	SER A 530	159.869	141.224	160.452	1.00 48.59	N
ATOM	3392	CA	SER A 530	158.984	140.240	159.843	1.00 48.59	C
ATOM	3393	C	SER A 530	158.337	140.786	158.581	1.00 48.59	C
ATOM	3394	O	SER A 530	157.978	140.016	157.685	1.00 48.59	O
ATOM	3395	CB	SER A 530	157.911	139.807	160.839	1.00 48.59	C
ATOM	3396	OG	SER A 530	158.486	139.443	162.078	1.00 48.59	O
ATOM	3397	N	ALA A 531	158.175	142.105	158.493	1.00 49.89	N
ATOM	3398	CA	ALA A 531	157.562	142.694	157.310	1.00 49.89	C
ATOM	3399	C	ALA A 531	158.536	142.757	156.142	1.00 49.89	C
ATOM	3400	O	ALA A 531	158.148	142.502	154.998	1.00 49.89	O
ATOM	3401	CB	ALA A 531	157.031	144.090	157.630	1.00 49.89	C

ATOM	3402	N	ILE A 532	159.797	143.098	156.399	1.00 49.61	N
ATOM	3403	CA	ILE A 532	160.738	143.242	155.291	1.00 49.61	C
ATOM	3404	C	ILE A 532	161.483	141.936	155.046	1.00 49.61	C
ATOM	3405	O	ILE A 532	162.403	141.885	154.225	1.00 49.61	O
ATOM	3406	CB	ILE A 532	161.732	144.394	155.522	1.00 49.61	C
ATOM	3407	CG1	ILE A 532	162.675	144.082	156.676	1.00 49.61	C
ATOM	3408	CG2	ILE A 532	160.991	145.683	155.801	1.00 49.61	C
ATOM	3409	CD1	ILE A 532	163.812	145.064	156.789	1.00 49.61	C
ATOM	3410	N	TYR A 533	161.097	140.871	155.751	1.00 56.43	N
ATOM	3411	CA	TYR A 533	161.659	139.549	155.499	1.00 56.43	C
ATOM	3412	C	TYR A 533	160.623	138.470	155.227	1.00 56.43	C
ATOM	3413	O	TYR A 533	161.013	137.351	154.881	1.00 56.43	O
ATOM	3414	CB	TYR A 533	162.532	139.093	156.678	1.00 56.43	C
ATOM	3415	CG	TYR A 533	163.936	139.643	156.659	1.00 56.43	C
ATOM	3416	CD1	TYR A 533	164.438	140.273	155.534	1.00 56.43	C
ATOM	3417	CD2	TYR A 533	164.760	139.530	157.766	1.00 56.43	C
ATOM	3418	CE1	TYR A 533	165.721	140.778	155.513	1.00 56.43	C
ATOM	3419	CE2	TYR A 533	166.044	140.031	157.754	1.00 56.43	C
ATOM	3420	CZ	TYR A 533	166.519	140.654	156.626	1.00 56.43	C
ATOM	3421	OH	TYR A 533	167.798	141.155	156.608	1.00 56.43	O
ATOM	3422	N	ASN A 534	159.333	138.756	155.378	1.00 59.26	N
ATOM	3423	CA	ASN A 534	158.266	137.792	155.115	1.00 59.26	C
ATOM	3424	C	ASN A 534	158.524	136.475	155.852	1.00 59.26	C
ATOM	3425	O	ASN A 534	158.713	135.415	155.258	1.00 59.26	O
ATOM	3426	CB	ASN A 534	158.109	137.560	153.610	1.00 59.26	C
ATOM	3427	CG	ASN A 534	157.274	138.630	152.943	1.00 59.26	C
ATOM	3428	OD1	ASN A 534	157.696	139.242	151.963	1.00 59.26	O
ATOM	3429	ND2	ASN A 534	156.080	138.863	153.471	1.00 59.26	N
ATOM	3430	N	LYS A 535	158.528	136.575	157.173	1.00 59.00	N
ATOM	3431	CA	LYS A 535	158.817	135.435	158.029	1.00 59.00	C
ATOM	3432	C	LYS A 535	158.571	135.848	159.476	1.00 59.00	C
ATOM	3433	O	LYS A 535	158.533	137.042	159.779	1.00 59.00	O
ATOM	3434	CB	LYS A 535	160.266	134.958	157.846	1.00 59.00	C
ATOM	3435	CG	LYS A 535	160.492	133.485	158.102	1.00 59.00	C
ATOM	3436	CD	LYS A 535	161.968	133.151	157.994	1.00 59.00	C
ATOM	3437	CE	LYS A 535	162.594	133.842	156.795	1.00 59.00	C
ATOM	3438	NZ	LYS A 535	164.019	133.459	156.616	1.00 59.00	N

ATOM	3439	N	PRO A 536	158.391	134.882	160.376	1.00 56.09	N
ATOM	3440	CA	PRO A 536	158.306	135.212	161.803	1.00 56.09	C
ATOM	3441	C	PRO A 536	159.681	135.331	162.437	1.00 56.09	C
ATOM	3442	O	PRO A 536	160.494	134.408	162.342	1.00 56.09	O
ATOM	3443	CB	PRO A 536	157.521	134.033	162.382	1.00 56.09	C
ATOM	3444	CG	PRO A 536	157.912	132.896	161.515	1.00 56.09	C
ATOM	3445	CD	PRO A 536	158.098	133.460	160.127	1.00 56.09	C
ATOM	3446	N	ILE A 537	159.950	136.460	163.092	1.00 49.90	N
ATOM	3447	CA	ILE A 537	161.267	136.758	163.635	1.00 49.90	C
ATOM	3448	C	ILE A 537	161.105	137.425	164.993	1.00 49.90	C
ATOM	3449	O	ILE A 537	160.064	138.003	165.306	1.00 49.90	O
ATOM	3450	CB	ILE A 537	162.082	137.651	162.675	1.00 49.90	C
ATOM	3451	CG1	ILE A 537	162.531	136.844	161.463	1.00 49.90	C
ATOM	3452	CG2	ILE A 537	163.283	138.242	163.364	1.00 49.90	C
ATOM	3453	CD1	ILE A 537	163.428	137.609	160.534	1.00 49.90	C
ATOM	3454	N	ALA A 538	162.156	137.331	165.806	1.00 46.53	N
ATOM	3455	CA	ALA A 538	162.179	137.926	167.139	1.00 46.53	C
ATOM	3456	C	ALA A 538	163.487	138.684	167.294	1.00 46.53	C
ATOM	3457	O	ALA A 538	164.551	138.067	167.384	1.00 46.53	O
ATOM	3458	CB	ALA A 538	162.038	136.863	168.224	1.00 46.53	C
ATOM	3459	N	ALA A 539	163.411	140.009	167.333	1.00 41.43	N
ATOM	3460	CA	ALA A 539	164.582	140.868	167.414	1.00 41.43	C
ATOM	3461	C	ALA A 539	164.602	141.619	168.739	1.00 41.43	C
ATOM	3462	O	ALA A 539	163.656	141.571	169.525	1.00 41.43	O
ATOM	3463	CB	ALA A 539	164.611	141.851	166.241	1.00 41.43	C
ATOM	3464	N	ARG A 540	165.705	142.323	168.979	1.00 42.05	N
ATOM	3465	CA	ARG A 540	165.884	143.087	170.206	1.00 42.05	C
ATOM	3466	C	ARG A 540	167.133	143.941	170.070	1.00 42.05	C
ATOM	3467	O	ARG A 540	168.094	143.546	169.408	1.00 42.05	O
ATOM	3468	CB	ARG A 540	165.998	142.167	171.425	1.00 42.05	C
ATOM	3469	CG	ARG A 540	166.405	142.876	172.698	1.00 42.05	C
ATOM	3470	CD	ARG A 540	166.339	141.948	173.894	1.00 42.05	C
ATOM	3471	NE	ARG A 540	167.543	141.136	174.029	1.00 42.05	N
ATOM	3472	CZ	ARG A 540	168.696	141.585	174.510	1.00 42.05	C
ATOM	3473	NH1	ARG A 540	169.740	140.777	174.600	1.00 42.05	N
ATOM	3474	NH2	ARG A 540	168.807	142.846	174.896	1.00 42.05	N
ATOM	3475	N	PHE A 541	167.111	145.110	170.705	1.00 41.43	N

ATOM	3476	CA	PHE A 541	168.232	146.036	170.629	1.00 41.43	C
ATOM	3477	C	PHE A 541	169.350	145.626	171.576	1.00 41.43	C
ATOM	3478	O	PHE A 541	169.103	145.187	172.701	1.00 41.43	O
ATOM	3479	CB	PHE A 541	167.780	147.456	170.957	1.00 41.43	C
ATOM	3480	CG	PHE A 541	167.239	148.208	169.782	1.00 41.43	C
ATOM	3481	CD1	PHE A 541	168.092	148.842	168.904	1.00 41.43	C
ATOM	3482	CD2	PHE A 541	165.880	148.291	169.562	1.00 41.43	C
ATOM	3483	CE1	PHE A 541	167.602	149.536	167.827	1.00 41.43	C
ATOM	3484	CE2	PHE A 541	165.385	148.985	168.487	1.00 41.43	C
ATOM	3485	CZ	PHE A 541	166.248	149.608	167.618	1.00 41.43	C
ATOM	3486	N	MET A 542	170.586	145.784	171.112	1.00 39.59	N
ATOM	3487	CA	MET A 542	171.768	145.469	171.903	1.00 39.59	C
ATOM	3488	C	MET A 542	172.642	146.705	172.052	1.00 39.59	C
ATOM	3489	O	MET A 542	173.853	146.651	171.824	1.00 39.59	O
ATOM	3490	CB	MET A 542	172.549	144.320	171.271	1.00 39.59	C
ATOM	3491	CG	MET A 542	171.939	142.963	171.541	1.00 39.59	C
ATOM	3492	SD	MET A 542	172.684	141.652	170.567	1.00 39.59	S
ATOM	3493	CE	MET A 542	172.126	140.218	171.474	1.00 39.59	C
ATOM	3494	N	GLY A 543	172.033	147.821	172.433	1.00 42.83	N
ATOM	3495	CA	GLY A 543	172.708	149.100	172.458	1.00 42.83	C
ATOM	3496	C	GLY A 543	172.488	149.895	171.190	1.00 42.83	C
ATOM	3497	O	GLY A 543	171.784	150.906	171.208	1.00 42.83	O
ATOM	3498	N	ASP A 544	173.070	149.450	170.078	1.00 43.84	N
ATOM	3499	CA	ASP A 544	172.875	150.137	168.808	1.00 43.84	C
ATOM	3500	C	ASP A 544	172.724	149.179	167.634	1.00 43.84	C
ATOM	3501	O	ASP A 544	172.751	149.631	166.484	1.00 43.84	O
ATOM	3502	CB	ASP A 544	174.037	151.093	168.531	1.00 43.84	C
ATOM	3503	CG	ASP A 544	173.781	152.486	169.050	1.00 43.84	C
ATOM	3504	OD1	ASP A 544	172.670	152.735	169.555	1.00 43.84	O
ATOM	3505	OD2	ASP A 544	174.690	153.334	168.953	1.00 43.84	O
ATOM	3506	N	VAL A 545	172.566	147.882	167.878	1.00 38.87	N
ATOM	3507	CA	VAL A 545	172.635	146.875	166.828	1.00 38.87	C
ATOM	3508	C	VAL A 545	171.629	145.779	167.149	1.00 38.87	C
ATOM	3509	O	VAL A 545	171.771	145.083	168.158	1.00 38.87	O
ATOM	3510	CB	VAL A 545	174.044	146.287	166.694	1.00 38.87	C
ATOM	3511	CG1	VAL A 545	173.982	144.939	166.034	1.00 38.87	C
ATOM	3512	CG2	VAL A 545	174.924	147.223	165.901	1.00 38.87	C

ATOM	3513	N	LEU A 546	170.623	145.617	166.295	1.00 39.13	N
ATOM	3514	CA	LEU A 546	169.619	144.585	166.505	1.00 39.13	C
ATOM	3515	C	LEU A 546	170.265	143.204	166.574	1.00 39.13	C
ATOM	3516	O	LEU A 546	171.400	142.996	166.144	1.00 39.13	O
ATOM	3517	CB	LEU A 546	168.579	144.618	165.390	1.00 39.13	C
ATOM	3518	CG	LEU A 546	167.676	145.847	165.357	1.00 39.13	C
ATOM	3519	CD1	LEU A 546	167.327	146.212	163.936	1.00 39.13	C
ATOM	3520	CD2	LEU A 546	166.421	145.591	166.152	1.00 39.13	C
ATOM	3521	N	GLY A 547	169.523	142.254	167.135	1.00 39.34	N
ATOM	3522	CA	GLY A 547	169.966	140.875	167.207	1.00 39.34	C
ATOM	3523	C	GLY A 547	168.881	139.906	166.787	1.00 39.34	C
ATOM	3524	O	GLY A 547	167.812	139.873	167.397	1.00 39.34	O
ATOM	3525	N	LEU A 548	169.139	139.111	165.754	1.00 42.21	N
ATOM	3526	CA	LEU A 548	168.113	138.258	165.174	1.00 42.21	C
ATOM	3527	C	LEU A 548	168.019	136.925	165.912	1.00 42.21	C
ATOM	3528	O	LEU A 548	168.961	136.477	166.568	1.00 42.21	O
ATOM	3529	CB	LEU A 548	168.401	138.009	163.694	1.00 42.21	C
ATOM	3530	CG	LEU A 548	167.822	138.995	162.682	1.00 42.21	C
ATOM	3531	CD1	LEU A 548	166.324	138.851	162.604	1.00 42.21	C
ATOM	3532	CD2	LEU A 548	168.188	140.402	163.064	1.00 42.21	C
ATOM	3533	N	ALA A 549	166.865	136.290	165.789	1.00 47.11	N
ATOM	3534	CA	ALA A 549	166.606	134.980	166.380	1.00 47.11	C
ATOM	3535	C	ALA A 549	165.303	134.466	165.784	1.00 47.11	C
ATOM	3536	O	ALA A 549	164.744	135.076	164.865	1.00 47.11	O
ATOM	3537	CB	ALA A 549	166.556	135.054	167.904	1.00 47.11	C
ATOM	3538	N	SER A 550	164.812	133.347	166.304	1.00 51.12	N
ATOM	3539	CA	SER A 550	163.586	132.733	165.821	1.00 51.12	C
ATOM	3540	C	SER A 550	162.611	132.525	166.975	1.00 51.12	C
ATOM	3541	O	SER A 550	162.988	132.509	168.149	1.00 51.12	O
ATOM	3542	CB	SER A 550	163.885	131.403	165.122	1.00 51.12	C
ATOM	3543	OG	SER A 550	162.812	131.014	164.289	1.00 51.12	O
ATOM	3544	N	CYS A 551	161.336	132.370	166.630	1.00 50.83	N
ATOM	3545	CA	CYS A 551	160.292	132.161	167.621	1.00 50.83	C
ATOM	3546	C	CYS A 551	160.292	130.709	168.086	1.00 50.83	C
ATOM	3547	O	CYS A 551	160.475	129.789	167.285	1.00 50.83	O
ATOM	3548	CB	CYS A 551	158.921	132.528	167.047	1.00 50.83	C
ATOM	3549	SG	CYS A 551	158.693	134.281	166.593	1.00 50.83	S

ATOM	3550	N	VAL A 552	160.092	130.508	169.387	1.00 46.75	N
ATOM	3551	CA	VAL A 552	160.026	129.159	169.936	1.00 46.75	C
ATOM	3552	C	VAL A 552	158.599	128.628	169.828	1.00 46.75	C
ATOM	3553	O	VAL A 552	157.637	129.384	169.698	1.00 46.75	O
ATOM	3554	CB	VAL A 552	160.525	129.134	171.390	1.00 46.75	C
ATOM	3555	CG1	VAL A 552	160.622	127.718	171.881	1.00 46.75	C
ATOM	3556	CG2	VAL A 552	161.872	129.813	171.494	1.00 46.75	C
ATOM	3557	N	THR A 553	158.459	127.304	169.879	1.00 44.89	N
ATOM	3558	CA	THR A 553	157.164	126.650	169.718	1.00 44.89	C
ATOM	3559	C	THR A 553	156.850	125.833	170.963	1.00 44.89	C
ATOM	3560	O	THR A 553	157.572	124.885	171.286	1.00 44.89	O
ATOM	3561	CB	THR A 553	157.141	125.759	168.477	1.00 44.89	C
ATOM	3562	OG1	THR A 553	157.394	126.552	167.313	1.00 44.89	O
ATOM	3563	CG2	THR A 553	155.789	125.103	168.334	1.00 44.89	C
ATOM	3564	N	ILE A 554	155.774	126.206	171.653	1.00 47.57	N
ATOM	3565	CA	ILE A 554	155.333	125.575	172.893	1.00 47.57	C
ATOM	3566	C	ILE A 554	154.506	124.326	172.616	1.00 47.57	C
ATOM	3567	O	ILE A 554	154.171	124.027	171.466	1.00 47.57	O
ATOM	3568	CB	ILE A 554	154.550	126.567	173.766	1.00 47.57	C
ATOM	3569	CG1	ILE A 554	153.238	126.950	173.091	1.00 47.57	C
ATOM	3570	CG2	ILE A 554	155.384	127.797	174.031	1.00 47.57	C
ATOM	3571	CD1	ILE A 554	152.321	127.753	173.976	1.00 47.57	C
ATOM	3572	N	ASN A 555	154.190	123.588	173.684	1.00 52.11	N
ATOM	3573	CA	ASN A 555	153.541	122.280	173.605	1.00 52.11	C
ATOM	3574	C	ASN A 555	152.514	122.139	172.487	1.00 52.11	C
ATOM	3575	O	ASN A 555	152.514	121.142	171.758	1.00 52.11	O
ATOM	3576	CB	ASN A 555	152.878	121.978	174.946	1.00 52.11	C
ATOM	3577	CG	ASN A 555	152.731	120.505	175.191	1.00 52.11	C
ATOM	3578	OD1	ASN A 555	152.930	119.697	174.289	1.00 52.11	O
ATOM	3579	ND2	ASN A 555	152.373	120.141	176.414	1.00 52.11	N
ATOM	3580	N	GLN A 556	151.621	123.113	172.339	1.00 50.36	N
ATOM	3581	CA	GLN A 556	150.544	123.156	171.356	1.00 50.36	C
ATOM	3582	C	GLN A 556	149.334	122.310	171.744	1.00 50.36	C
ATOM	3583	O	GLN A 556	148.322	122.375	171.051	1.00 50.36	O
ATOM	3584	CB	GLN A 556	150.995	122.709	169.953	1.00 50.36	C
ATOM	3585	CG	GLN A 556	151.895	123.682	169.250	1.00 50.36	C
ATOM	3586	CD	GLN A 556	151.187	124.963	168.922	1.00 50.36	C

ATOM	3587	OE1	GLN	A	556	149.963	125.041	168.987	1.00 50.36	O
ATOM	3588	NE2	GLN	A	556	151.952	125.984	168.573	1.00 50.36	N
ATOM	3589	N	THR	A	557	149.384	121.532	172.826	1.00 54.58	N
ATOM	3590	CA	THR	A	557	148.218	120.740	173.204	1.00 54.58	C
ATOM	3591	C	THR	A	557	147.962	120.774	174.705	1.00 54.58	C
ATOM	3592	O	THR	A	557	147.283	119.884	175.229	1.00 54.58	O
ATOM	3593	CB	THR	A	557	148.360	119.286	172.753	1.00 54.58	C
ATOM	3594	OG1	THR	A	557	147.172	118.564	173.096	1.00 54.58	O
ATOM	3595	CG2	THR	A	557	149.539	118.636	173.436	1.00 54.58	C
ATOM	3596	N	SER	A	558	148.493	121.771	175.408	1.00 51.67	N
ATOM	3597	CA	SER	A	558	148.185	121.957	176.817	1.00 51.67	C
ATOM	3598	C	SER	A	558	147.827	123.402	177.126	1.00 51.67	C
ATOM	3599	O	SER	A	558	147.599	123.731	178.295	1.00 51.67	O
ATOM	3600	CB	SER	A	558	149.356	121.526	177.694	1.00 51.67	C
ATOM	3601	OG	SER	A	558	150.247	122.607	177.894	1.00 51.67	O
ATOM	3602	N	VAL	A	559	147.776	124.268	176.125	1.00 44.69	N
ATOM	3603	CA	VAL	A	559	147.406	125.661	176.329	1.00 44.69	C
ATOM	3604	C	VAL	A	559	145.958	125.731	176.786	1.00 44.69	C
ATOM	3605	O	VAL	A	559	145.125	124.907	176.395	1.00 44.69	O
ATOM	3606	CB	VAL	A	559	147.628	126.466	175.039	1.00 44.69	C
ATOM	3607	CG1	VAL	A	559	147.253	127.910	175.253	1.00 44.69	C
ATOM	3608	CG2	VAL	A	559	149.067	126.356	174.602	1.00 44.69	C
ATOM	3609	N	LYS	A	560	145.654	126.716	177.626	1.00 41.89	N
ATOM	3610	CA	LYS	A	560	144.300	126.927	178.123	1.00 41.89	C
ATOM	3611	C	LYS	A	560	144.123	128.407	178.409	1.00 41.89	C
ATOM	3612	O	LYS	A	560	144.822	128.960	179.261	1.00 41.89	O
ATOM	3613	CB	LYS	A	560	144.034	126.102	179.383	1.00 41.89	C
ATOM	3614	CG	LYS	A	560	144.290	124.618	179.214	1.00 41.89	C
ATOM	3615	CD	LYS	A	560	143.721	123.824	180.376	1.00 41.89	C
ATOM	3616	CE	LYS	A	560	144.432	124.160	181.672	1.00 41.89	C
ATOM	3617	NZ	LYS	A	560	145.791	123.560	181.722	1.00 41.89	N
ATOM	3618	N	VAL	A	561	143.197	129.042	177.700	1.00 37.96	N
ATOM	3619	CA	VAL	A	561	142.929	130.466	177.849	1.00 37.96	C
ATOM	3620	C	VAL	A	561	141.779	130.631	178.829	1.00 37.96	C
ATOM	3621	O	VAL	A	561	140.658	130.183	178.563	1.00 37.96	O
ATOM	3622	CB	VAL	A	561	142.600	131.119	176.499	1.00 37.96	C
ATOM	3623	CG1	VAL	A	561	142.211	132.565	176.697	1.00 37.96	C

ATOM	3624	CG2	VAL A 561	143.783	131.016	175.565	1.00 37.96	C
ATOM	3625	N	LEU A 562	142.051	131.273	179.961	1.00 38.79	N
ATOM	3626	CA	LEU A 562	141.012	131.508	180.947	1.00 38.79	C
ATOM	3627	C	LEU A 562	139.915	132.388	180.352	1.00 38.79	C
ATOM	3628	O	LEU A 562	140.072	132.995	179.293	1.00 38.79	O
ATOM	3629	CB	LEU A 562	141.602	132.150	182.200	1.00 38.79	C
ATOM	3630	CG	LEU A 562	142.696	131.350	182.905	1.00 38.79	C
ATOM	3631	CD1	LEU A 562	142.863	131.830	184.329	1.00 38.79	C
ATOM	3632	CD2	LEU A 562	142.372	129.875	182.880	1.00 38.79	C
ATOM	3633	N	ARG A 563	138.788	132.453	181.053	1.00 45.07	N
ATOM	3634	CA	ARG A 563	137.608	133.164	180.574	1.00 45.07	C
ATOM	3635	C	ARG A 563	137.058	134.079	181.656	1.00 45.07	C
ATOM	3636	O	ARG A 563	135.856	134.125	181.920	1.00 45.07	O
ATOM	3637	CB	ARG A 563	136.545	132.184	180.099	1.00 45.07	C
ATOM	3638	CG	ARG A 563	135.976	131.316	181.195	1.00 45.07	C
ATOM	3639	CD	ARG A 563	134.661	130.699	180.765	1.00 45.07	C
ATOM	3640	NE	ARG A 563	134.851	129.659	179.761	1.00 45.07	N
ATOM	3641	CZ	ARG A 563	133.881	129.185	178.986	1.00 45.07	C
ATOM	3642	NH1	ARG A 563	134.141	128.237	178.099	1.00 45.07	N
ATOM	3643	NH2	ARG A 563	132.651	129.663	179.096	1.00 45.07	N
ATOM	3644	N	ASP A 564	137.948	134.823	182.305	1.00 50.47	N
ATOM	3645	CA	ASP A 564	137.546	135.826	183.286	1.00 50.47	C
ATOM	3646	C	ASP A 564	138.727	136.752	183.512	1.00 50.47	C
ATOM	3647	O	ASP A 564	139.807	136.289	183.890	1.00 50.47	O
ATOM	3648	CB	ASP A 564	137.106	135.175	184.591	1.00 50.47	C
ATOM	3649	CG	ASP A 564	136.439	136.152	185.529	1.00 50.47	C
ATOM	3650	OD1	ASP A 564	136.445	137.362	185.231	1.00 50.47	O
ATOM	3651	OD2	ASP A 564	135.902	135.713	186.566	1.00 50.47	O
ATOM	3652	N	MET A 565	138.532	138.046	183.283	1.00 48.38	N
ATOM	3653	CA	MET A 565	139.602	139.032	183.366	1.00 48.38	C
ATOM	3654	C	MET A 565	139.442	139.936	184.584	1.00 48.38	C
ATOM	3655	O	MET A 565	139.728	141.132	184.532	1.00 48.38	O
ATOM	3656	CB	MET A 565	139.666	139.861	182.089	1.00 48.38	C
ATOM	3657	CG	MET A 565	139.843	139.035	180.833	1.00 48.38	C
ATOM	3658	SD	MET A 565	140.684	139.929	179.518	1.00 48.38	S
ATOM	3659	CE	MET A 565	139.646	141.373	179.373	1.00 48.38	C
ATOM	3660	N	ASN A 566	138.984	139.371	185.694	1.00 52.74	N

ATOM	3661	CA	ASN A 566	138.847	140.086	186.955	1.00 52.74	C
ATOM	3662	C	ASN A 566	139.921	139.606	187.918	1.00 52.74	C
ATOM	3663	O	ASN A 566	140.047	138.402	188.161	1.00 52.74	O
ATOM	3664	CB	ASN A 566	137.464	139.863	187.568	1.00 52.74	C
ATOM	3665	CG	ASN A 566	136.441	140.857	187.077	1.00 52.74	C
ATOM	3666	OD1	ASN A 566	136.656	142.064	187.131	1.00 52.74	O
ATOM	3667	ND2	ASN A 566	135.314	140.354	186.595	1.00 52.74	N
ATOM	3668	N	VAL A 567	140.692	140.543	188.465	1.00 58.06	N
ATOM	3669	CA	VAL A 567	141.701	140.184	189.454	1.00 58.06	C
ATOM	3670	C	VAL A 567	140.990	139.742	190.725	1.00 58.06	C
ATOM	3671	O	VAL A 567	140.255	140.520	191.343	1.00 58.06	O
ATOM	3672	CB	VAL A 567	142.649	141.357	189.724	1.00 58.06	C
ATOM	3673	CG1	VAL A 567	143.865	140.885	190.491	1.00 58.06	C
ATOM	3674	CG2	VAL A 567	143.061	142.009	188.426	1.00 58.06	C
ATOM	3675	N	LYS A 568	141.199	138.487	191.119	1.00 64.75	N
ATOM	3676	CA	LYS A 568	140.481	137.938	192.261	1.00 64.75	C
ATOM	3677	C	LYS A 568	140.981	138.479	193.591	1.00 64.75	C
ATOM	3678	O	LYS A 568	140.245	138.426	194.582	1.00 64.75	O
ATOM	3679	CB	LYS A 568	140.581	136.413	192.266	1.00 64.75	C
ATOM	3680	CG	LYS A 568	139.671	135.729	191.264	1.00 64.75	C
ATOM	3681	CD	LYS A 568	139.571	134.241	191.544	1.00 64.75	C
ATOM	3682	CE	LYS A 568	138.699	133.547	190.515	1.00 64.75	C
ATOM	3683	NZ	LYS A 568	139.308	133.598	189.158	1.00 64.75	N
ATOM	3684	N	GLU A 569	142.204	139.001	193.637	1.00 70.01	N
ATOM	3685	CA	GLU A 569	142.773	139.459	194.899	1.00 70.01	C
ATOM	3686	C	GLU A 569	142.285	140.858	195.256	1.00 70.01	C
ATOM	3687	O	GLU A 569	141.628	141.056	196.284	1.00 70.01	O
ATOM	3688	CB	GLU A 569	144.300	139.425	194.817	1.00 70.01	C
ATOM	3689	CG	GLU A 569	144.867	138.054	194.493	1.00 70.01	C
ATOM	3690	CD	GLU A 569	146.072	138.123	193.576	1.00 70.01	C
ATOM	3691	OE1	GLU A 569	146.565	139.241	193.319	1.00 70.01	O
ATOM	3692	OE2	GLU A 569	146.529	137.059	193.112	1.00 70.01	O
ATOM	3693	N	SER A 570	142.585	141.841	194.407	1.00 66.73	N
ATOM	3694	CA	SER A 570	142.305	143.238	194.704	1.00 66.73	C
ATOM	3695	C	SER A 570	141.097	143.708	193.909	1.00 66.73	C
ATOM	3696	O	SER A 570	141.240	144.068	192.733	1.00 66.73	O
ATOM	3697	CB	SER A 570	143.526	144.103	194.385	1.00 66.73	C

ATOM	3698	OG	SER A 570	143.934	143.922	193.041	1.00 66.73	O
ATOM	3699	N	PRO A 571	139.901	143.734	194.491	1.00 66.74	N
ATOM	3700	CA	PRO A 571	138.736	144.222	193.745	1.00 66.74	C
ATOM	3701	C	PRO A 571	138.950	145.648	193.267	1.00 66.74	C
ATOM	3702	O	PRO A 571	139.503	146.487	193.981	1.00 66.74	O
ATOM	3703	CB	PRO A 571	137.596	144.133	194.767	1.00 66.74	C
ATOM	3704	CG	PRO A 571	138.268	144.074	196.094	1.00 66.74	C
ATOM	3705	CD	PRO A 571	139.555	143.351	195.867	1.00 66.74	C
ATOM	3706	N	GLY A 572	138.505	145.918	192.043	1.00 63.76	N
ATOM	3707	CA	GLY A 572	138.668	147.208	191.410	1.00 63.76	C
ATOM	3708	C	GLY A 572	139.597	147.201	190.218	1.00 63.76	C
ATOM	3709	O	GLY A 572	139.478	148.078	189.354	1.00 63.76	O
ATOM	3710	N	ARG A 573	140.513	146.242	190.143	1.00 60.93	N
ATOM	3711	CA	ARG A 573	141.426	146.105	189.021	1.00 60.93	C
ATOM	3712	C	ARG A 573	140.991	144.944	188.138	1.00 60.93	C
ATOM	3713	O	ARG A 573	140.346	143.999	188.597	1.00 60.93	O
ATOM	3714	CB	ARG A 573	142.862	145.885	189.499	1.00 60.93	C
ATOM	3715	CG	ARG A 573	143.307	146.853	190.572	1.00 60.93	C
ATOM	3716	CD	ARG A 573	143.578	148.225	189.989	1.00 60.93	C
ATOM	3717	NE	ARG A 573	144.723	148.221	189.085	1.00 60.93	N
ATOM	3718	CZ	ARG A 573	145.220	149.308	188.507	1.00 60.93	C
ATOM	3719	NH1	ARG A 573	144.671	150.492	188.735	1.00 60.93	N
ATOM	3720	NH2	ARG A 573	146.264	149.213	187.700	1.00 60.93	N
ATOM	3721	N	CYS A 574	141.354	145.024	186.861	1.00 55.37	N
ATOM	3722	CA	CYS A 574	140.949	144.038	185.873	1.00 55.37	C
ATOM	3723	C	CYS A 574	142.048	143.898	184.833	1.00 55.37	C
ATOM	3724	O	CYS A 574	142.649	144.892	184.424	1.00 55.37	O
ATOM	3725	CB	CYS A 574	139.623	144.437	185.220	1.00 55.37	C
ATOM	3726	SG	CYS A 574	138.219	144.463	186.376	1.00 55.37	S
ATOM	3727	N	TYR A 575	142.313	142.662	184.415	1.00 47.65	N
ATOM	3728	CA	TYR A 575	143.405	142.403	183.490	1.00 47.65	C
ATOM	3729	C	TYR A 575	143.203	143.178	182.192	1.00 47.65	C
ATOM	3730	O	TYR A 575	142.133	143.717	181.913	1.00 47.65	O
ATOM	3731	CB	TYR A 575	143.516	140.910	183.190	1.00 47.65	C
ATOM	3732	CG	TYR A 575	144.135	140.094	184.298	1.00 47.65	C
ATOM	3733	CD1	TYR A 575	145.428	140.334	184.724	1.00 47.65	C
ATOM	3734	CD2	TYR A 575	143.426	139.078	184.912	1.00 47.65	C

ATOM	3735	CE1	TYR A 575	145.993	139.590	185.735	1.00 47.65	C
ATOM	3736	CE2	TYR A 575	143.981	138.330	185.921	1.00 47.65	C
ATOM	3737	CZ	TYR A 575	145.264	138.589	186.329	1.00 47.65	C
ATOM	3738	OH	TYR A 575	145.819	137.840	187.338	1.00 47.65	O
ATOM	3739	N	SER A 576	144.264	143.228	181.388	1.00 43.65	N
ATOM	3740	CA	SER A 576	144.237	143.920	180.110	1.00 43.65	C
ATOM	3741	C	SER A 576	144.291	142.983	178.915	1.00 43.65	C
ATOM	3742	O	SER A 576	143.925	143.396	177.812	1.00 43.65	O
ATOM	3743	CB	SER A 576	145.407	144.907	180.017	1.00 43.65	C
ATOM	3744	OG	SER A 576	145.185	145.870	179.006	1.00 43.65	O
ATOM	3745	N	ARG A 577	144.738	141.748	179.107	1.00 38.69	N
ATOM	3746	CA	ARG A 577	144.804	140.720	178.084	1.00 38.69	C
ATOM	3747	C	ARG A 577	144.463	139.391	178.735	1.00 38.69	C
ATOM	3748	O	ARG A 577	144.769	139.185	179.914	1.00 38.69	O
ATOM	3749	CB	ARG A 577	146.199	140.640	177.447	1.00 38.69	C
ATOM	3750	CG	ARG A 577	146.632	141.881	176.697	1.00 38.69	C
ATOM	3751	CD	ARG A 577	145.962	141.936	175.346	1.00 38.69	C
ATOM	3752	NE	ARG A 577	146.773	142.608	174.341	1.00 38.69	N
ATOM	3753	CZ	ARG A 577	146.535	142.547	173.036	1.00 38.69	C
ATOM	3754	NH1	ARG A 577	145.511	141.841	172.581	1.00 38.69	N
ATOM	3755	NH2	ARG A 577	147.319	143.189	172.186	1.00 38.69	N
ATOM	3756	N	PRO A 578	143.834	138.478	178.008	1.00 35.43	N
ATOM	3757	CA	PRO A 578	143.530	137.166	178.592	1.00 35.43	C
ATOM	3758	C	PRO A 578	144.767	136.536	179.206	1.00 35.43	C
ATOM	3759	O	PRO A 578	145.887	136.903	178.845	1.00 35.43	O
ATOM	3760	CB	PRO A 578	143.018	136.358	177.396	1.00 35.43	C
ATOM	3761	CG	PRO A 578	142.541	137.372	176.432	1.00 35.43	C
ATOM	3762	CD	PRO A 578	143.420	138.567	176.601	1.00 35.43	C
ATOM	3763	N	VAL A 579	144.594	135.594	180.126	1.00 36.68	N
ATOM	3764	CA	VAL A 579	145.709	134.990	180.845	1.00 36.68	C
ATOM	3765	C	VAL A 579	145.781	133.518	180.463	1.00 36.68	C
ATOM	3766	O	VAL A 579	144.797	132.785	180.609	1.00 36.68	O
ATOM	3767	CB	VAL A 579	145.565	135.162	182.363	1.00 36.68	C
ATOM	3768	CG1	VAL A 579	144.239	134.613	182.821	1.00 36.68	C
ATOM	3769	CG2	VAL A 579	146.696	134.473	183.077	1.00 36.68	C
ATOM	3770	N	VAL A 580	146.945	133.090	179.977	1.00 39.18	N
ATOM	3771	CA	VAL A 580	147.153	131.740	179.468	1.00 39.18	C

ATOM	3772	C	VAL	A	580	148.062	130.981	180.422	1.00	39.18	C
ATOM	3773	O	VAL	A	580	148.873	131.575	181.139	1.00	39.18	O
ATOM	3774	CB	VAL	A	580	147.762	131.767	178.052	1.00	39.18	C
ATOM	3775	CG1	VAL	A	580	147.814	130.377	177.477	1.00	39.18	C
ATOM	3776	CG2	VAL	A	580	146.966	132.678	177.156	1.00	39.18	C
ATOM	3777	N	ILE	A	581	147.931	129.656	180.425	1.00	42.91	N
ATOM	3778	CA	ILE	A	581	148.797	128.778	181.212	1.00	42.91	C
ATOM	3779	C	ILE	A	581	149.342	127.715	180.260	1.00	42.91	C
ATOM	3780	O	ILE	A	581	148.745	126.651	180.077	1.00	42.91	O
ATOM	3781	CB	ILE	A	581	148.075	128.150	182.408	1.00	42.91	C
ATOM	3782	CG1	ILE	A	581	146.996	127.174	181.956	1.00	42.91	C
ATOM	3783	CG2	ILE	A	581	147.443	129.225	183.259	1.00	42.91	C
ATOM	3784	CD1	ILE	A	581	146.437	126.347	183.080	1.00	42.91	C
ATOM	3785	N	PHE	A	582	150.490	127.995	179.654	1.00	46.91	N
ATOM	3786	CA	PHE	A	582	151.084	127.106	178.669	1.00	46.91	C
ATOM	3787	C	PHE	A	582	152.087	126.169	179.337	1.00	46.91	C
ATOM	3788	O	PHE	A	582	152.128	126.031	180.561	1.00	46.91	O
ATOM	3789	CB	PHE	A	582	151.717	127.913	177.541	1.00	46.91	C
ATOM	3790	CG	PHE	A	582	152.817	128.818	177.986	1.00	46.91	C
ATOM	3791	CD1	PHE	A	582	154.118	128.368	178.039	1.00	46.91	C
ATOM	3792	CD2	PHE	A	582	152.553	130.122	178.338	1.00	46.91	C
ATOM	3793	CE1	PHE	A	582	155.132	129.202	178.442	1.00	46.91	C
ATOM	3794	CE2	PHE	A	582	153.564	130.959	178.740	1.00	46.91	C
ATOM	3795	CZ	PHE	A	582	154.855	130.499	178.793	1.00	46.91	C
ATOM	3796	N	ASN	A	583	152.893	125.492	178.524	1.00	50.90	N
ATOM	3797	CA	ASN	A	583	153.837	124.496	179.008	1.00	50.90	C
ATOM	3798	C	ASN	A	583	154.893	124.243	177.939	1.00	50.90	C
ATOM	3799	O	ASN	A	583	154.549	123.867	176.816	1.00	50.90	O
ATOM	3800	CB	ASN	A	583	153.092	123.208	179.354	1.00	50.90	C
ATOM	3801	CG	ASN	A	583	153.733	122.452	180.480	1.00	50.90	C
ATOM	3802	OD1	ASN	A	583	154.867	122.730	180.857	1.00	50.90	O
ATOM	3803	ND2	ASN	A	583	153.015	121.481	181.026	1.00	50.90	N
ATOM	3804	N	PHE	A	584	156.173	124.438	178.256	1.00	52.11	N
ATOM	3805	CA	PHE	A	584	157.200	124.345	177.219	1.00	52.11	C
ATOM	3806	C	PHE	A	584	157.284	122.966	176.585	1.00	52.11	C
ATOM	3807	O	PHE	A	584	156.556	122.046	176.967	1.00	52.11	O
ATOM	3808	CB	PHE	A	584	158.577	124.729	177.761	1.00	52.11	C

ATOM	3809	CG	PHE	A	584	158.792	126.206	177.868	1.00	52.11	C
ATOM	3810	CD1	PHE	A	584	159.156	126.939	176.753	1.00	52.11	C
ATOM	3811	CD2	PHE	A	584	158.625	126.858	179.064	1.00	52.11	C
ATOM	3812	CE1	PHE	A	584	159.352	128.294	176.838	1.00	52.11	C
ATOM	3813	CE2	PHE	A	584	158.827	128.219	179.150	1.00	52.11	C
ATOM	3814	CZ	PHE	A	584	159.186	128.937	178.031	1.00	52.11	C
ATOM	3815	N	ALA	A	585	158.178	122.829	175.610	1.00	55.03	N
ATOM	3816	CA	ALA	A	585	158.301	121.617	174.807	1.00	55.03	C
ATOM	3817	C	ALA	A	585	158.882	120.509	175.666	1.00	55.03	C
ATOM	3818	O	ALA	A	585	160.071	120.508	175.983	1.00	55.03	O
ATOM	3819	CB	ALA	A	585	159.176	121.876	173.587	1.00	55.03	C
ATOM	3820	N	ASN	A	586	158.044	119.551	176.046	1.00	64.53	N
ATOM	3821	CA	ASN	A	586	158.477	118.411	176.845	1.00	64.53	C
ATOM	3822	C	ASN	A	586	159.082	118.868	178.174	1.00	64.53	C
ATOM	3823	O	ASN	A	586	160.268	118.684	178.452	1.00	64.53	O
ATOM	3824	CB	ASN	A	586	159.464	117.543	176.066	1.00	64.53	C
ATOM	3825	CG	ASN	A	586	159.912	116.337	176.854	1.00	64.53	C
ATOM	3826	OD1	ASN	A	586	161.053	116.264	177.303	1.00	64.53	O
ATOM	3827	ND2	ASN	A	586	159.010	115.381	177.034	1.00	64.53	N
ATOM	3828	N	SER	A	587	158.235	119.479	178.996	1.00	65.21	N
ATOM	3829	CA	SER	A	587	158.592	119.857	180.352	1.00	65.21	C
ATOM	3830	C	SER	A	587	157.438	119.510	181.282	1.00	65.21	C
ATOM	3831	O	SER	A	587	156.346	119.136	180.847	1.00	65.21	O
ATOM	3832	CB	SER	A	587	158.932	121.348	180.446	1.00	65.21	C
ATOM	3833	OG	SER	A	587	160.170	121.625	179.820	1.00	65.21	O
ATOM	3834	N	SER	A	588	157.690	119.648	182.577	1.00	68.97	N
ATOM	3835	CA	SER	A	588	156.680	119.475	183.614	1.00	68.97	C
ATOM	3836	C	SER	A	588	156.690	120.709	184.502	1.00	68.97	C
ATOM	3837	O	SER	A	588	156.731	120.630	185.729	1.00	68.97	O
ATOM	3838	CB	SER	A	588	156.930	118.205	184.422	1.00	68.97	C
ATOM	3839	OG	SER	A	588	156.318	118.288	185.697	1.00	68.97	O
ATOM	3840	N	CYS	A	589	156.660	121.878	183.869	1.00	67.53	N
ATOM	3841	CA	CYS	A	589	157.100	123.105	184.519	1.00	67.53	C
ATOM	3842	C	CYS	A	589	156.075	124.172	184.160	1.00	67.53	C
ATOM	3843	O	CYS	A	589	156.244	124.881	183.164	1.00	67.53	O
ATOM	3844	CB	CYS	A	589	158.502	123.454	184.012	1.00	67.53	C
ATOM	3845	SG	CYS	A	589	159.613	124.492	184.992	1.00	67.53	S

ATOM	3846	N	VAL A 590	155.022	124.293	184.972	1.00 58.07	N
ATOM	3847	CA	VAL A 590	153.873	125.105	184.585	1.00 58.07	C
ATOM	3848	C	VAL A 590	154.216	126.585	184.671	1.00 58.07	C
ATOM	3849	O	VAL A 590	155.025	127.015	185.503	1.00 58.07	O
ATOM	3850	CB	VAL A 590	152.652	124.775	185.458	1.00 58.07	C
ATOM	3851	CG1	VAL A 590	151.480	125.636	185.051	1.00 58.07	C
ATOM	3852	CG2	VAL A 590	152.302	123.314	185.333	1.00 58.07	C
ATOM	3853	N	GLN A 591	153.578	127.378	183.814	1.00 53.36	N
ATOM	3854	CA	GLN A 591	153.870	128.799	183.724	1.00 53.36	C
ATOM	3855	C	GLN A 591	152.611	129.562	183.341	1.00 53.36	C
ATOM	3856	O	GLN A 591	151.579	128.977	183.010	1.00 53.36	O
ATOM	3857	CB	GLN A 591	154.991	129.066	182.720	1.00 53.36	C
ATOM	3858	CG	GLN A 591	156.317	128.469	183.127	1.00 53.36	C
ATOM	3859	CD	GLN A 591	157.418	128.839	182.173	1.00 53.36	C
ATOM	3860	OE1	GLN A 591	157.179	129.513	181.177	1.00 53.36	O
ATOM	3861	NE2	GLN A 591	158.634	128.409	182.471	1.00 53.36	N
ATOM	3862	N	TYR A 592	152.711	130.889	183.387	1.00 47.90	N
ATOM	3863	CA	TYR A 592	151.597	131.784	183.114	1.00 47.90	C
ATOM	3864	C	TYR A 592	152.036	132.870	182.145	1.00 47.90	C
ATOM	3865	O	TYR A 592	153.170	133.348	182.211	1.00 47.90	O
ATOM	3866	CB	TYR A 592	151.073	132.425	184.402	1.00 47.90	C
ATOM	3867	CG	TYR A 592	150.468	131.442	185.373	1.00 47.90	C
ATOM	3868	CD1	TYR A 592	151.269	130.689	186.216	1.00 47.90	C
ATOM	3869	CD2	TYR A 592	149.096	131.265	185.447	1.00 47.90	C
ATOM	3870	CE1	TYR A 592	150.721	129.787	187.104	1.00 47.90	C
ATOM	3871	CE2	TYR A 592	148.540	130.366	186.331	1.00 47.90	C
ATOM	3872	CZ	TYR A 592	149.357	129.629	187.157	1.00 47.90	C
ATOM	3873	OH	TYR A 592	148.808	128.731	188.041	1.00 47.90	O
ATOM	3874	N	GLY A 593	151.135	133.257	181.247	1.00 40.27	N
ATOM	3875	CA	GLY A 593	151.425	134.305	180.289	1.00 40.27	C
ATOM	3876	C	GLY A 593	150.188	135.097	179.933	1.00 40.27	C
ATOM	3877	O	GLY A 593	149.169	134.982	180.617	1.00 40.27	O
ATOM	3878	N	GLN A 594	150.249	135.898	178.873	1.00 39.10	N
ATOM	3879	CA	GLN A 594	149.103	136.690	178.448	1.00 39.10	C
ATOM	3880	C	GLN A 594	149.022	136.693	176.931	1.00 39.10	C
ATOM	3881	O	GLN A 594	150.021	136.944	176.255	1.00 39.10	O
ATOM	3882	CB	GLN A 594	149.196	138.123	178.976	1.00 39.10	C

ATOM	3883	CG	GLN	A	594	148.784	138.261	180.423	1.00 39.10	C
ATOM	3884	CD	GLN	A	594	148.698	139.697	180.861	1.00 39.10	C
ATOM	3885	OE1	GLN	A	594	149.588	140.492	180.584	1.00 39.10	O
ATOM	3886	NE2	GLN	A	594	147.620	140.042	181.546	1.00 39.10	N
ATOM	3887	N	LEU	A	595	147.830	136.433	176.405	1.00 39.06	N
ATOM	3888	CA	LEU	A	595	147.651	136.252	174.970	1.00 39.06	C
ATOM	3889	C	LEU	A	595	147.995	137.521	174.206	1.00 39.06	C
ATOM	3890	O	LEU	A	595	147.391	138.573	174.426	1.00 39.06	O
ATOM	3891	CB	LEU	A	595	146.212	135.839	174.676	1.00 39.06	C
ATOM	3892	CG	LEU	A	595	145.960	135.222	173.306	1.00 39.06	C
ATOM	3893	CD1	LEU	A	595	146.362	133.764	173.311	1.00 39.06	C
ATOM	3894	CD2	LEU	A	595	144.506	135.377	172.929	1.00 39.06	C
ATOM	3895	N	GLY	A	596	148.953	137.413	173.291	1.00 44.76	N
ATOM	3896	CA	GLY	A	596	149.317	138.526	172.439	1.00 44.76	C
ATOM	3897	C	GLY	A	596	148.402	138.652	171.242	1.00 44.76	C
ATOM	3898	O	GLY	A	596	147.188	138.474	171.366	1.00 44.76	O
ATOM	3899	N	GLU	A	597	148.966	138.955	170.078	1.00 53.40	N
ATOM	3900	CA	GLU	A	597	148.208	139.082	168.841	1.00 53.40	C
ATOM	3901	C	GLU	A	597	148.662	138.023	167.849	1.00 53.40	C
ATOM	3902	O	GLU	A	597	149.861	137.875	167.599	1.00 53.40	O
ATOM	3903	CB	GLU	A	597	148.377	140.474	168.234	1.00 53.40	C
ATOM	3904	CG	GLU	A	597	147.751	140.618	166.862	1.00 53.40	C
ATOM	3905	CD	GLU	A	597	147.685	142.057	166.398	1.00 53.40	C
ATOM	3906	OE1	GLU	A	597	148.050	142.956	167.184	1.00 53.40	O
ATOM	3907	OE2	GLU	A	597	147.263	142.290	165.247	1.00 53.40	O
ATOM	3908	N	ASP	A	598	147.701	137.302	167.273	1.00 53.30	N
ATOM	3909	CA	ASP	A	598	147.984	136.233	166.316	1.00 53.30	C
ATOM	3910	C	ASP	A	598	148.661	135.042	166.994	1.00 53.30	C
ATOM	3911	O	ASP	A	598	149.639	134.490	166.494	1.00 53.30	O
ATOM	3912	CB	ASP	A	598	148.829	136.749	165.150	1.00 53.30	C
ATOM	3913	CG	ASP	A	598	147.986	137.204	163.979	1.00 53.30	C
ATOM	3914	OD1	ASP	A	598	146.931	136.586	163.731	1.00 53.30	O
ATOM	3915	OD2	ASP	A	598	148.379	138.179	163.305	1.00 53.30	O
ATOM	3916	N	ASN	A	599	148.126	134.649	168.147	1.00 48.24	N
ATOM	3917	CA	ASN	A	599	148.497	133.414	168.825	1.00 48.24	C
ATOM	3918	C	ASN	A	599	149.895	133.440	169.425	1.00 48.24	C
ATOM	3919	O	ASN	A	599	150.405	132.395	169.831	1.00 48.24	O

ATOM	3920	CB	ASN A 599	148.376	132.212	167.886	1.00 48.24	C
ATOM	3921	CG	ASN A 599	147.075	131.474	168.055	1.00 48.24	C
ATOM	3922	OD1	ASN A 599	146.523	131.413	169.150	1.00 48.24	O
ATOM	3923	ND2	ASN A 599	146.581	130.894	166.972	1.00 48.24	N
ATOM	3924	N	GLU A 600	150.545	134.596	169.496	1.00 48.19	N
ATOM	3925	CA	GLU A 600	151.846	134.678	170.143	1.00 48.19	C
ATOM	3926	C	GLU A 600	151.649	134.974	171.620	1.00 48.19	C
ATOM	3927	O	GLU A 600	150.855	135.845	171.984	1.00 48.19	O
ATOM	3928	CB	GLU A 600	152.726	135.749	169.505	1.00 48.19	C
ATOM	3929	CG	GLU A 600	152.482	137.142	170.024	1.00 48.19	C
ATOM	3930	CD	GLU A 600	153.665	138.051	169.787	1.00 48.19	C
ATOM	3931	OE1	GLU A 600	154.708	137.550	169.322	1.00 48.19	O
ATOM	3932	OE2	GLU A 600	153.554	139.263	170.067	1.00 48.19	O
ATOM	3933	N	ILE A 601	152.371	134.251	172.464	1.00 43.13	N
ATOM	3934	CA	ILE A 601	152.207	134.328	173.908	1.00 43.13	C
ATOM	3935	C	ILE A 601	153.224	135.308	174.469	1.00 43.13	C
ATOM	3936	O	ILE A 601	154.420	135.216	174.170	1.00 43.13	O
ATOM	3937	CB	ILE A 601	152.361	132.944	174.554	1.00 43.13	C
ATOM	3938	CG1	ILE A 601	151.075	132.143	174.377	1.00 43.13	C
ATOM	3939	CG2	ILE A 601	152.705	133.082	176.012	1.00 43.13	C
ATOM	3940	CD1	ILE A 601	151.183	130.721	174.832	1.00 43.13	C
ATOM	3941	N	LEU A 602	152.748	136.254	175.271	1.00 42.28	N
ATOM	3942	CA	LEU A 602	153.616	137.186	175.971	1.00 42.28	C
ATOM	3943	C	LEU A 602	153.955	136.627	177.343	1.00 42.28	C
ATOM	3944	O	LEU A 602	153.082	136.121	178.051	1.00 42.28	O
ATOM	3945	CB	LEU A 602	152.943	138.550	176.119	1.00 42.28	C
ATOM	3946	CG	LEU A 602	152.437	139.240	174.855	1.00 42.28	C
ATOM	3947	CD1	LEU A 602	151.486	140.357	175.212	1.00 42.28	C
ATOM	3948	CD2	LEU A 602	153.595	139.777	174.051	1.00 42.28	C
ATOM	3949	N	LEU A 603	155.227	136.713	177.713	1.00 47.57	N
ATOM	3950	CA	LEU A 603	155.638	136.254	179.028	1.00 47.57	C
ATOM	3951	C	LEU A 603	155.117	137.198	180.108	1.00 47.57	C
ATOM	3952	O	LEU A 603	154.779	138.357	179.853	1.00 47.57	O
ATOM	3953	CB	LEU A 603	157.160	136.148	179.107	1.00 47.57	C
ATOM	3954	CG	LEU A 603	157.798	134.930	178.441	1.00 47.57	C
ATOM	3955	CD1	LEU A 603	159.295	135.119	178.316	1.00 47.57	C
ATOM	3956	CD2	LEU A 603	157.488	133.669	179.222	1.00 47.57	C

ATOM	3957	N	GLY A 604	155.051	136.685	181.331	1.00 48.70 N
ATOM	3958	CA	GLY A 604	154.614	137.470	182.464	1.00 48.70 C
ATOM	3959	C	GLY A 604	153.108	137.467	182.644	1.00 48.70 C
ATOM	3960	O	GLY A 604	152.342	136.975	181.815	1.00 48.70 O
ATOM	3961	N	ASN A 605	152.682	138.034	183.773	1.00 50.73 N
ATOM	3962	CA	ASN A 605	151.282	138.024	184.175	1.00 50.73 C
ATOM	3963	C	ASN A 605	150.878	139.342	184.829	1.00 50.73 C
ATOM	3964	O	ASN A 605	150.039	139.355	185.735	1.00 50.73 O
ATOM	3965	CB	ASN A 605	151.016	136.859	185.124	1.00 50.73 C
ATOM	3966	CG	ASN A 605	149.555	136.651	185.393	1.00 50.73 C
ATOM	3967	OD1	ASN A 605	148.707	137.169	184.675	1.00 50.73 O
ATOM	3968	ND2	ASN A 605	149.247	135.889	186.433	1.00 50.73 N
ATOM	3969	N	HIS A 606	151.457	140.460	184.387	1.00 51.59 N
ATOM	3970	CA	HIS A 606	151.512	141.670	185.198	1.00 51.59 C
ATOM	3971	C	HIS A 606	150.993	142.903	184.467	1.00 51.59 C
ATOM	3972	O	HIS A 606	151.472	144.011	184.712	1.00 51.59 O
ATOM	3973	CB	HIS A 606	152.944	141.924	185.654	1.00 51.59 C
ATOM	3974	CG	HIS A 606	153.880	142.214	184.524	1.00 51.59 C
ATOM	3975	ND1	HIS A 606	154.568	141.225	183.858	1.00 51.59 N
ATOM	3976	CD2	HIS A 606	154.224	143.379	183.928	1.00 51.59 C
ATOM	3977	CE1	HIS A 606	155.305	141.769	182.907	1.00 51.59 C
ATOM	3978	NE2	HIS A 606	155.114	143.075	182.928	1.00 51.59 N
ATOM	3979	N	ARG A 607	150.023	142.748	183.575	1.00 45.22 N
ATOM	3980	CA	ARG A 607	149.471	143.879	182.831	1.00 45.22 C
ATOM	3981	C	ARG A 607	148.012	144.047	183.240	1.00 45.22 C
ATOM	3982	O	ARG A 607	147.137	143.334	182.743	1.00 45.22 O
ATOM	3983	CB	ARG A 607	149.615	143.669	181.329	1.00 45.22 C
ATOM	3984	CG	ARG A 607	151.029	143.340	180.892	1.00 45.22 C
ATOM	3985	CD	ARG A 607	151.062	142.720	179.510	1.00 45.22 C
ATOM	3986	NE	ARG A 607	152.426	142.523	179.036	1.00 45.22 N
ATOM	3987	CZ	ARG A 607	153.143	141.429	179.261	1.00 45.22 C
ATOM	3988	NH1	ARG A 607	152.625	140.428	179.953	1.00 45.22 N
ATOM	3989	NH2	ARG A 607	154.377	141.335	178.795	1.00 45.22 N
ATOM	3990	N	THR A 608	147.752	144.987	184.139	1.00 51.85 N
ATOM	3991	CA	THR A 608	146.426	145.213	184.696	1.00 51.85 C
ATOM	3992	C	THR A 608	145.916	146.593	184.298	1.00 51.85 C
ATOM	3993	O	THR A 608	146.586	147.353	183.600	1.00 51.85 O

ATOM	3994	CB	THR A 608	146.440	145.059	186.218	1.00 51.85	C
ATOM	3995	OG1	THR A 608	147.339	146.017	186.787	1.00 51.85	O
ATOM	3996	CG2	THR A 608	146.881	143.664	186.611	1.00 51.85	C
ATOM	3997	N	GLU A 609	144.707	146.906	184.753	1.00 56.83	N
ATOM	3998	CA	GLU A 609	144.075	148.185	184.463	1.00 56.83	C
ATOM	3999	C	GLU A 609	142.877	148.351	185.389	1.00 56.83	C
ATOM	4000	O	GLU A 609	142.362	147.381	185.948	1.00 56.83	O
ATOM	4001	CB	GLU A 609	143.663	148.278	182.994	1.00 56.83	C
ATOM	4002	CG	GLU A 609	142.263	147.776	182.715	1.00 56.83	C
ATOM	4003	CD	GLU A 609	141.873	147.923	181.261	1.00 56.83	C
ATOM	4004	OE1	GLU A 609	142.766	148.188	180.432	1.00 56.83	O
ATOM	4005	OE2	GLU A 609	140.674	147.775	180.947	1.00 56.83	O
ATOM	4006	N	GLU A 610	142.431	149.597	185.535	1.00 59.69	N
ATOM	4007	CA	GLU A 610	141.401	149.952	186.514	1.00 59.69	C
ATOM	4008	C	GLU A 610	140.023	149.917	185.855	1.00 59.69	C
ATOM	4009	O	GLU A 610	139.395	150.939	185.586	1.00 59.69	O
ATOM	4010	CB	GLU A 610	141.705	151.320	187.115	1.00 59.69	C
ATOM	4011	CG	GLU A 610	140.594	151.902	187.960	1.00 59.69	C
ATOM	4012	CD	GLU A 610	140.636	153.415	188.000	1.00 59.69	C
ATOM	4013	OE1	GLU A 610	140.723	154.037	186.922	1.00 59.69	O
ATOM	4014	OE2	GLU A 610	140.584	153.985	189.110	1.00 59.69	O
ATOM	4015	N	CYS A 611	139.551	148.695	185.625	1.00 59.25	N
ATOM	4016	CA	CYS A 611	138.440	148.462	184.711	1.00 59.25	C
ATOM	4017	C	CYS A 611	137.270	149.402	184.965	1.00 59.25	C
ATOM	4018	O	CYS A 611	136.918	149.697	186.108	1.00 59.25	O
ATOM	4019	CB	CYS A 611	137.979	147.008	184.803	1.00 59.25	C
ATOM	4020	SG	CYS A 611	137.611	146.403	186.450	1.00 59.25	S
ATOM	4021	N	GLN A 612	136.666	149.858	183.867	1.00 51.88	N
ATOM	4022	CA	GLN A 612	135.553	150.800	183.881	1.00 51.88	C
ATOM	4023	C	GLN A 612	134.476	150.285	182.940	1.00 51.88	C
ATOM	4024	O	GLN A 612	134.747	150.054	181.759	1.00 51.88	O
ATOM	4025	CB	GLN A 612	136.013	152.193	183.451	1.00 51.88	C
ATOM	4026	CG	GLN A 612	136.561	152.233	182.034	1.00 51.88	C
ATOM	4027	CD	GLN A 612	137.400	153.461	181.767	1.00 51.88	C
ATOM	4028	OE1	GLN A 612	137.855	154.127	182.695	1.00 51.88	O
ATOM	4029	NE2	GLN A 612	137.617	153.766	180.494	1.00 51.88	N
ATOM	4030	N	LEU A 613	133.263	150.111	183.458	1.00 45.62	N

ATOM	4031	CA	LEU A 613	132.122	149.576	182.732	1.00 45.62	C
ATOM	4032	C	LEU A 613	131.298	150.698	182.108	1.00 45.62	C
ATOM	4033	O	LEU A 613	131.309	151.830	182.600	1.00 45.62	O
ATOM	4034	CB	LEU A 613	131.239	148.763	183.670	1.00 45.62	C
ATOM	4035	CG	LEU A 613	131.734	147.363	184.021	1.00 45.62	C
ATOM	4036	CD1	LEU A 613	132.945	147.445	184.909	1.00 45.62	C
ATOM	4037	CD2	LEU A 613	130.640	146.585	184.710	1.00 45.62	C
ATOM	4038	N	PRO A 614	130.569	150.424	181.013	1.00 45.02	N
ATOM	4039	CA	PRO A 614	130.530	149.168	180.256	1.00 45.02	C
ATOM	4040	C	PRO A 614	131.675	149.071	179.255	1.00 45.02	C
ATOM	4041	O	PRO A 614	132.144	150.106	178.788	1.00 45.02	O
ATOM	4042	CB	PRO A 614	129.180	149.235	179.529	1.00 45.02	C
ATOM	4043	CG	PRO A 614	128.469	150.438	180.095	1.00 45.02	C
ATOM	4044	CD	PRO A 614	129.543	151.358	180.533	1.00 45.02	C
ATOM	4045	N	SER A 615	132.113	147.859	178.920	1.00 45.88	N
ATOM	4046	CA	SER A 615	133.277	147.671	178.066	1.00 45.88	C
ATOM	4047	C	SER A 615	132.955	146.694	176.943	1.00 45.88	C
ATOM	4048	O	SER A 615	131.861	146.131	176.866	1.00 45.88	O
ATOM	4049	CB	SER A 615	134.479	147.168	178.869	1.00 45.88	C
ATOM	4050	OG	SER A 615	134.259	145.845	179.315	1.00 45.88	O
ATOM	4051	N	LEU A 616	133.937	146.503	176.066	1.00 41.00	N
ATOM	4052	CA	LEU A 616	133.882	145.564	174.955	1.00 41.00	C
ATOM	4053	C	LEU A 616	135.292	145.396	174.415	1.00 41.00	C
ATOM	4054	O	LEU A 616	136.001	146.383	174.221	1.00 41.00	O
ATOM	4055	CB	LEU A 616	132.946	146.058	173.849	1.00 41.00	C
ATOM	4056	CG	LEU A 616	132.847	145.155	172.622	1.00 41.00	C
ATOM	4057	CD1	LEU A 616	131.972	143.954	172.913	1.00 41.00	C
ATOM	4058	CD2	LEU A 616	132.313	145.928	171.437	1.00 41.00	C
ATOM	4059	N	LYS A 617	135.694	144.151	174.175	1.00 37.67	N
ATOM	4060	CA	LYS A 617	137.055	143.870	173.748	1.00 37.67	C
ATOM	4061	C	LYS A 617	137.046	142.703	172.776	1.00 37.67	C
ATOM	4062	O	LYS A 617	136.267	141.763	172.938	1.00 37.67	O
ATOM	4063	CB	LYS A 617	137.956	143.552	174.942	1.00 37.67	C
ATOM	4064	CG	LYS A 617	138.121	144.702	175.917	1.00 37.67	C
ATOM	4065	CD	LYS A 617	139.166	144.379	176.967	1.00 37.67	C
ATOM	4066	CE	LYS A 617	139.540	145.608	177.766	1.00 37.67	C
ATOM	4067	NZ	LYS A 617	140.141	146.657	176.907	1.00 37.67	N

ATOM	4068	N	ILE A 618	137.920	142.765	171.774	1.00 34.20	N
ATOM	4069	CA	ILE A 618	137.986	141.758	170.721	1.00 34.20	C
ATOM	4070	C	ILE A 618	139.450	141.511	170.391	1.00 34.20	C
ATOM	4071	O	ILE A 618	140.115	142.379	169.816	1.00 34.20	O
ATOM	4072	CB	ILE A 618	137.212	142.184	169.471	1.00 34.20	C
ATOM	4073	CG1	ILE A 618	135.721	142.267	169.783	1.00 34.20	C
ATOM	4074	CG2	ILE A 618	137.457	141.210	168.348	1.00 34.20	C
ATOM	4075	CD1	ILE A 618	134.907	142.890	168.690	1.00 34.20	C
ATOM	4076	N	PHE A 619	139.951	140.330	170.742	1.00 37.64	N
ATOM	4077	CA	PHE A 619	141.332	139.945	170.484	1.00 37.64	C
ATOM	4078	C	PHE A 619	141.378	138.995	169.297	1.00 37.64	C
ATOM	4079	O	PHE A 619	140.635	138.010	169.257	1.00 37.64	O
ATOM	4080	CB	PHE A 619	141.951	139.288	171.715	1.00 37.64	C
ATOM	4081	CG	PHE A 619	141.755	140.071	172.973	1.00 37.64	C
ATOM	4082	CD1	PHE A 619	142.476	141.223	173.202	1.00 37.64	C
ATOM	4083	CD2	PHE A 619	140.844	139.661	173.922	1.00 37.64	C
ATOM	4084	CE1	PHE A 619	142.294	141.947	174.349	1.00 37.64	C
ATOM	4085	CE2	PHE A 619	140.660	140.383	175.072	1.00 37.64	C
ATOM	4086	CZ	PHE A 619	141.385	141.528	175.285	1.00 37.64	C
ATOM	4087	N	ILE A 620	142.249	139.284	168.345	1.00 45.33	N
ATOM	4088	CA	ILE A 620	142.280	138.563	167.078	1.00 45.33	C
ATOM	4089	C	ILE A 620	143.251	137.397	167.165	1.00 45.33	C
ATOM	4090	O	ILE A 620	144.359	137.521	167.697	1.00 45.33	O
ATOM	4091	CB	ILE A 620	142.648	139.509	165.923	1.00 45.33	C
ATOM	4092	CG1	ILE A 620	141.454	140.394	165.571	1.00 45.33	C
ATOM	4093	CG2	ILE A 620	143.089	138.716	164.717	1.00 45.33	C
ATOM	4094	CD1	ILE A 620	141.715	141.335	164.430	1.00 45.33	C
ATOM	4095	N	ALA A 621	142.823	136.256	166.637	1.00 49.64	N
ATOM	4096	CA	ALA A 621	143.598	135.022	166.563	1.00 49.64	C
ATOM	4097	C	ALA A 621	143.477	134.431	165.169	1.00 49.64	C
ATOM	4098	O	ALA A 621	143.169	133.252	164.987	1.00 49.64	O
ATOM	4099	CB	ALA A 621	143.143	134.022	167.618	1.00 49.64	C
ATOM	4100	N	GLY A 622	143.736	135.264	164.163	1.00 57.91	N
ATOM	4101	CA	GLY A 622	143.317	135.031	162.794	1.00 57.91	C
ATOM	4102	C	GLY A 622	143.324	133.596	162.318	1.00 57.91	C
ATOM	4103	O	GLY A 622	144.282	132.853	162.547	1.00 57.91	O
ATOM	4104	N	ASN A 623	142.238	133.200	161.661	1.00 59.66	N

ATOM	4105	CA	ASN A 623	141.133	134.124	161.438	1.00 59.66	C
ATOM	4106	C	ASN A 623	139.898	133.743	162.252	1.00 59.66	C
ATOM	4107	O	ASN A 623	138.987	133.080	161.763	1.00 59.66	O
ATOM	4108	CB	ASN A 623	140.784	134.186	159.952	1.00 59.66	C
ATOM	4109	CG	ASN A 623	140.378	132.842	159.394	1.00 59.66	C
ATOM	4110	OD1	ASN A 623	140.832	131.800	159.863	1.00 59.66	O
ATOM	4111	ND2	ASN A 623	139.511	132.856	158.389	1.00 59.66	N
ATOM	4112	N	SER A 624	139.885	134.189	163.504	1.00 51.74	N
ATOM	4113	CA	SER A 624	138.760	134.034	164.413	1.00 51.74	C
ATOM	4114	C	SER A 624	139.091	134.805	165.680	1.00 51.74	C
ATOM	4115	O	SER A 624	140.220	134.734	166.166	1.00 51.74	O
ATOM	4116	CB	SER A 624	138.492	132.558	164.724	1.00 51.74	C
ATOM	4117	OG	SER A 624	137.399	132.419	165.610	1.00 51.74	O
ATOM	4118	N	ALA A 625	138.116	135.537	166.207	1.00 46.41	N
ATOM	4119	CA	ALA A 625	138.359	136.464	167.300	1.00 46.41	C
ATOM	4120	C	ALA A 625	137.536	136.100	168.528	1.00 46.41	C
ATOM	4121	O	ALA A 625	136.439	135.547	168.419	1.00 46.41	O
ATOM	4122	CB	ALA A 625	138.040	137.899	166.879	1.00 46.41	C
ATOM	4123	N	TYR A 626	138.083	136.414	169.700	1.00 39.35	N
ATOM	4124	CA	TYR A 626	137.356	136.314	170.955	1.00 39.35	C
ATOM	4125	C	TYR A 626	136.592	137.606	171.206	1.00 39.35	C
ATOM	4126	O	TYR A 626	137.013	138.685	170.788	1.00 39.35	O
ATOM	4127	CB	TYR A 626	138.302	136.057	172.128	1.00 39.35	C
ATOM	4128	CG	TYR A 626	139.230	134.877	171.966	1.00 39.35	C
ATOM	4129	CD1	TYR A 626	140.435	135.005	171.297	1.00 39.35	C
ATOM	4130	CD2	TYR A 626	138.913	133.642	172.505	1.00 39.35	C
ATOM	4131	CE1	TYR A 626	141.289	133.935	171.156	1.00 39.35	C
ATOM	4132	CE2	TYR A 626	139.761	132.567	172.369	1.00 39.35	C
ATOM	4133	CZ	TYR A 626	140.947	132.719	171.693	1.00 39.35	C
ATOM	4134	OH	TYR A 626	141.796	131.650	171.553	1.00 39.35	O
ATOM	4135	N	GLU A 627	135.466	137.493	171.904	1.00 43.34	N
ATOM	4136	CA	GLU A 627	134.649	138.654	172.241	1.00 43.34	C
ATOM	4137	C	GLU A 627	134.356	138.640	173.733	1.00 43.34	C
ATOM	4138	O	GLU A 627	133.582	137.805	174.207	1.00 43.34	O
ATOM	4139	CB	GLU A 627	133.352	138.675	171.440	1.00 43.34	C
ATOM	4140	CG	GLU A 627	132.451	139.835	171.806	1.00 43.34	C
ATOM	4141	CD	GLU A 627	131.170	139.863	171.005	1.00 43.34	C

ATOM	4142	OE1	GLU A 627	130.989	138.984	170.141	1.00 43.34	O
ATOM	4143	OE2	GLU A 627	130.342	140.765	171.240	1.00 43.34	O
ATOM	4144	N	TYR A 628	134.963	139.569	174.465	1.00 39.64	N
ATOM	4145	CA	TYR A 628	134.768	139.711	175.902	1.00 39.64	C
ATOM	4146	C	TYR A 628	133.872	140.912	176.160	1.00 39.64	C
ATOM	4147	O	TYR A 628	134.200	142.030	175.753	1.00 39.64	O
ATOM	4148	CB	TYR A 628	136.105	139.884	176.620	1.00 39.64	C
ATOM	4149	CG	TYR A 628	136.904	138.614	176.771	1.00 39.64	C
ATOM	4150	CD1	TYR A 628	136.755	137.811	177.884	1.00 39.64	C
ATOM	4151	CD2	TYR A 628	137.816	138.227	175.807	1.00 39.64	C
ATOM	4152	CE1	TYR A 628	137.482	136.656	178.030	1.00 39.64	C
ATOM	4153	CE2	TYR A 628	138.547	137.071	175.946	1.00 39.64	C
ATOM	4154	CZ	TYR A 628	138.375	136.291	177.060	1.00 39.64	C
ATOM	4155	OH	TYR A 628	139.102	135.137	177.208	1.00 39.64	O
ATOM	4156	N	VAL A 629	132.752	140.686	176.839	1.00 42.23	N
ATOM	4157	CA	VAL A 629	131.800	141.738	177.176	1.00 42.23	C
ATOM	4158	C	VAL A 629	131.743	141.854	178.691	1.00 42.23	C
ATOM	4159	O	VAL A 629	131.326	140.911	179.374	1.00 42.23	O
ATOM	4160	CB	VAL A 629	130.405	141.455	176.602	1.00 42.23	C
ATOM	4161	CG1	VAL A 629	129.440	142.543	177.017	1.00 42.23	C
ATOM	4162	CG2	VAL A 629	130.468	141.356	175.099	1.00 42.23	C
ATOM	4163	N	ASP A 630	132.154	143.008	179.213	1.00 46.94	N
ATOM	4164	CA	ASP A 630	132.157	143.271	180.648	1.00 46.94	C
ATOM	4165	C	ASP A 630	133.164	142.399	181.388	1.00 46.94	C
ATOM	4166	O	ASP A 630	132.933	142.008	182.532	1.00 46.94	O
ATOM	4167	CB	ASP A 630	130.764	143.088	181.250	1.00 46.94	C
ATOM	4168	CG	ASP A 630	129.988	144.382	181.317	1.00 46.94	C
ATOM	4169	OD1	ASP A 630	130.486	145.397	180.793	1.00 46.94	O
ATOM	4170	OD2	ASP A 630	128.883	144.387	181.895	1.00 46.94	O
ATOM	4171	N	TYR A 631	134.290	142.091	180.750	1.00 48.83	N
ATOM	4172	CA	TYR A 631	135.328	141.264	181.353	1.00 48.83	C
ATOM	4173	C	TYR A 631	134.801	139.859	181.649	1.00 48.83	C
ATOM	4174	O	TYR A 631	134.847	139.369	182.776	1.00 48.83	O
ATOM	4175	CB	TYR A 631	135.876	141.933	182.614	1.00 48.83	C
ATOM	4176	CG	TYR A 631	136.381	143.333	182.367	1.00 48.83	C
ATOM	4177	CD1	TYR A 631	137.596	143.549	181.739	1.00 48.83	C
ATOM	4178	CD2	TYR A 631	135.638	144.438	182.745	1.00 48.83	C

ATOM	4179	CE1	TYR A 631	138.062	144.823	181.505	1.00	48.83	C
ATOM	4180	CE2	TYR A 631	136.096	145.716	182.512	1.00	48.83	C
ATOM	4181	CZ	TYR A 631	137.308	145.902	181.890	1.00	48.83	C
ATOM	4182	OH	TYR A 631	137.775	147.172	181.654	1.00	48.83	O
ATOM	4183	N	LEU A 632	134.295	139.217	180.598	1.00	43.17	N
ATOM	4184	CA	LEU A 632	133.782	137.855	180.657	1.00	43.17	C
ATOM	4185	C	LEU A 632	133.629	137.329	179.240	1.00	43.17	C
ATOM	4186	O	LEU A 632	133.148	138.045	178.362	1.00	43.17	O
ATOM	4187	CB	LEU A 632	132.435	137.787	181.387	1.00	43.17	C
ATOM	4188	CG	LEU A 632	132.427	138.021	182.893	1.00	43.17	C
ATOM	4189	CD1	LEU A 632	131.009	138.078	183.412	1.00	43.17	C
ATOM	4190	CD2	LEU A 632	133.189	136.916	183.580	1.00	43.17	C
ATOM	4191	N	PHE A 633	134.037	136.082	179.026	1.00	43.52	N
ATOM	4192	CA	PHE A 633	133.910	135.475	177.710	1.00	43.52	C
ATOM	4193	C	PHE A 633	132.453	135.471	177.271	1.00	43.52	C
ATOM	4194	O	PHE A 633	131.551	135.180	178.059	1.00	43.52	O
ATOM	4195	CB	PHE A 633	134.458	134.049	177.733	1.00	43.52	C
ATOM	4196	CG	PHE A 633	134.664	133.455	176.372	1.00	43.52	C
ATOM	4197	CD1	PHE A 633	135.616	133.969	175.516	1.00	43.52	C
ATOM	4198	CD2	PHE A 633	133.915	132.373	175.954	1.00	43.52	C
ATOM	4199	CE1	PHE A 633	135.809	133.424	174.270	1.00	43.52	C
ATOM	4200	CE2	PHE A 633	134.106	131.825	174.708	1.00	43.52	C
ATOM	4201	CZ	PHE A 633	135.054	132.351	173.866	1.00	43.52	C
ATOM	4202	N	LYS A 634	132.223	135.807	176.002	1.00	47.30	N
ATOM	4203	CA	LYS A 634	130.876	135.827	175.441	1.00	47.30	C
ATOM	4204	C	LYS A 634	130.694	134.780	174.351	1.00	47.30	C
ATOM	4205	O	LYS A 634	129.804	133.932	174.464	1.00	47.30	O
ATOM	4206	CB	LYS A 634	130.556	137.224	174.904	1.00	47.30	C
ATOM	4207	CG	LYS A 634	129.116	137.408	174.491	1.00	47.30	C
ATOM	4208	CD	LYS A 634	128.179	137.172	175.655	1.00	47.30	C
ATOM	4209	CE	LYS A 634	126.985	138.102	175.581	1.00	47.30	C
ATOM	4210	NZ	LYS A 634	126.444	138.178	174.200	1.00	47.30	N
ATOM	4211	N	ARG A 635	131.507	134.808	173.298	1.00	49.57	N
ATOM	4212	CA	ARG A 635	131.410	133.820	172.231	1.00	49.57	C
ATOM	4213	C	ARG A 635	132.496	134.114	171.203	1.00	49.57	C
ATOM	4214	O	ARG A 635	133.188	135.133	171.275	1.00	49.57	O
ATOM	4215	CB	ARG A 635	130.030	133.823	171.581	1.00	49.57	C

ATOM	4216	CG	ARG A 635	129.817	134.932	170.572	1.00 49.57	C
ATOM	4217	CD	ARG A 635	128.387	134.927	170.065	1.00 49.57	C
ATOM	4218	NE	ARG A 635	128.242	135.696	168.836	1.00 49.57	N
ATOM	4219	CZ	ARG A 635	128.259	137.022	168.782	1.00 49.57	C
ATOM	4220	NH1	ARG A 635	128.414	137.728	169.892	1.00 49.57	N
ATOM	4221	NH2	ARG A 635	128.121	137.642	167.620	1.00 49.57	N
ATOM	4222	N	MET A 636	132.630	133.206	170.239	1.00 49.26	N
ATOM	4223	CA	MET A 636	133.655	133.302	169.207	1.00 49.26	C
ATOM	4224	C	MET A 636	133.081	133.996	167.979	1.00 49.26	C
ATOM	4225	O	MET A 636	132.114	133.514	167.381	1.00 49.26	O
ATOM	4226	CB	MET A 636	134.179	131.916	168.841	1.00 49.26	C
ATOM	4227	CG	MET A 636	135.336	131.442	169.695	1.00 49.26	C
ATOM	4228	SD	MET A 636	136.904	132.156	169.184	1.00 49.26	S
ATOM	4229	CE	MET A 636	138.048	130.997	169.917	1.00 49.26	C
ATOM	4230	N	ILE A 637	133.676	135.117	167.606	1.00 53.84	N
ATOM	4231	CA	ILE A 637	133.245	135.879	166.445	1.00 53.84	C
ATOM	4232	C	ILE A 637	134.010	135.395	165.221	1.00 53.84	C
ATOM	4233	O	ILE A 637	135.026	134.706	165.323	1.00 53.84	O
ATOM	4234	CB	ILE A 637	133.446	137.389	166.664	1.00 53.84	C
ATOM	4235	CG1	ILE A 637	132.395	138.185	165.901	1.00 53.84	C
ATOM	4236	CG2	ILE A 637	134.829	137.807	166.215	1.00 53.84	C
ATOM	4237	CD1	ILE A 637	132.410	139.656	166.222	1.00 53.84	C
ATOM	4238	N	ASP A 638	133.509	135.753	164.043	1.00 62.97	N
ATOM	4239	CA	ASP A 638	134.167	135.456	162.779	1.00 62.97	C
ATOM	4240	C	ASP A 638	134.538	136.757	162.082	1.00 62.97	C
ATOM	4241	O	ASP A 638	133.770	137.722	162.102	1.00 62.97	O
ATOM	4242	CB	ASP A 638	133.268	134.614	161.873	1.00 62.97	C
ATOM	4243	CG	ASP A 638	131.870	135.184	161.751	1.00 62.97	C
ATOM	4244	OD1	ASP A 638	131.736	136.369	161.387	1.00 62.97	O
ATOM	4245	OD2	ASP A 638	130.901	134.445	162.023	1.00 62.97	O
ATOM	4246	N	LEU A 639	135.714	136.781	161.456	1.00 62.54	N
ATOM	4247	CA	LEU A 639	136.262	138.018	160.904	1.00 62.54	C
ATOM	4248	C	LEU A 639	135.565	138.394	159.595	1.00 62.54	C
ATOM	4249	O	LEU A 639	136.175	138.516	158.534	1.00 62.54	O
ATOM	4250	CB	LEU A 639	137.765	137.887	160.705	1.00 62.54	C
ATOM	4251	CG	LEU A 639	138.614	138.008	161.965	1.00 62.54	C
ATOM	4252	CD1	LEU A 639	140.087	137.940	161.614	1.00 62.54	C

ATOM	4253	CD2	LEU A 639	138.292	139.296	162.695	1.00 62.54	C
ATOM	4254	N	SER A 640	134.250	138.581	159.693	1.00 67.22	N
ATOM	4255	CA	SER A 640	133.474	139.100	158.577	1.00 67.22	C
ATOM	4256	C	SER A 640	132.423	140.111	159.003	1.00 67.22	C
ATOM	4257	O	SER A 640	131.673	140.588	158.147	1.00 67.22	O
ATOM	4258	CB	SER A 640	132.801	137.955	157.804	1.00 67.22	C
ATOM	4259	OG	SER A 640	133.768	137.126	157.183	1.00 67.22	O
ATOM	4260	N	SER A 641	132.338	140.449	160.284	1.00 64.94	N
ATOM	4261	CA	SER A 641	131.506	141.547	160.747	1.00 64.94	C
ATOM	4262	C	SER A 641	132.331	142.775	161.097	1.00 64.94	C
ATOM	4263	O	SER A 641	131.829	143.682	161.768	1.00 64.94	O
ATOM	4264	CB	SER A 641	130.672	141.109	161.952	1.00 64.94	C
ATOM	4265	OG	SER A 641	129.755	142.122	162.330	1.00 64.94	O
ATOM	4266	N	ILE A 642	133.586	142.820	160.656	1.00 54.96	N
ATOM	4267	CA	ILE A 642	134.499	143.922	160.928	1.00 54.96	C
ATOM	4268	C	ILE A 642	135.077	144.356	159.590	1.00 54.96	C
ATOM	4269	O	ILE A 642	135.873	143.626	158.988	1.00 54.96	O
ATOM	4270	CB	ILE A 642	135.612	143.521	161.902	1.00 54.96	C
ATOM	4271	CG1	ILE A 642	135.011	142.941	163.179	1.00 54.96	C
ATOM	4272	CG2	ILE A 642	136.483	144.710	162.225	1.00 54.96	C
ATOM	4273	CD1	ILE A 642	136.023	142.282	164.070	1.00 54.96	C
ATOM	4274	N	SER A 643	134.683	145.537	159.125	1.00 54.47	N
ATOM	4275	CA	SER A 643	135.044	145.982	157.787	1.00 54.47	C
ATOM	4276	C	SER A 643	136.469	146.515	157.766	1.00 54.47	C
ATOM	4277	O	SER A 643	136.832	147.372	158.575	1.00 54.47	O
ATOM	4278	CB	SER A 643	134.073	147.058	157.309	1.00 54.47	C
ATOM	4279	OG	SER A 643	134.303	148.279	157.983	1.00 54.47	O
ATOM	4280	N	THR A 644	137.270	146.013	156.832	1.00 58.22	N
ATOM	4281	CA	THR A 644	138.662	146.414	156.719	1.00 58.22	C
ATOM	4282	C	THR A 644	138.763	147.880	156.307	1.00 58.22	C
ATOM	4283	O	THR A 644	137.766	148.555	156.046	1.00 58.22	O
ATOM	4284	CB	THR A 644	139.387	145.524	155.718	1.00 58.22	C
ATOM	4285	OG1	THR A 644	138.556	145.332	154.570	1.00 58.22	O
ATOM	4286	CG2	THR A 644	139.687	144.178	156.337	1.00 58.22	C
ATOM	4287	N	VAL A 645	139.994	148.378	156.247	1.00 63.43	N
ATOM	4288	CA	VAL A 645	140.256	149.762	155.875	1.00 63.43	C
ATOM	4289	C	VAL A 645	140.747	149.879	154.438	1.00 63.43	C

ATOM	4290	O	VAL A 645	140.344	150.794	153.721	1.00 63.43	O
ATOM	4291	CB	VAL A 645	141.259	150.408	156.852	1.00 63.43	C
ATOM	4292	CG1	VAL A 645	141.690	151.762	156.335	1.00 63.43	C
ATOM	4293	CG2	VAL A 645	140.633	150.560	158.218	1.00 63.43	C
ATOM	4294	N	ASP A 646	141.619	148.969	153.998	1.00 75.17	N
ATOM	4295	CA	ASP A 646	142.152	149.069	152.643	1.00 75.17	C
ATOM	4296	C	ASP A 646	141.033	149.078	151.611	1.00 75.17	C
ATOM	4297	O	ASP A 646	140.923	150.010	150.807	1.00 75.17	O
ATOM	4298	CB	ASP A 646	143.120	147.923	152.359	1.00 75.17	C
ATOM	4299	CG	ASP A 646	143.698	147.996	150.961	1.00 75.17	C
ATOM	4300	OD1	ASP A 646	143.610	149.075	150.339	1.00 75.17	O
ATOM	4301	OD2	ASP A 646	144.232	146.976	150.480	1.00 75.17	O
ATOM	4302	N	SER A 647	140.194	148.044	151.612	1.00 79.06	N
ATOM	4303	CA	SER A 647	139.082	148.003	150.674	1.00 79.06	C
ATOM	4304	C	SER A 647	137.909	148.814	151.204	1.00 79.06	C
ATOM	4305	O	SER A 647	136.771	148.335	151.222	1.00 79.06	O
ATOM	4306	CB	SER A 647	138.651	146.559	150.412	1.00 79.06	C
ATOM	4307	OG	SER A 647	137.309	146.505	149.959	1.00 79.06	O
ATOM	4308	N	MET A 648	138.183	150.046	151.638	1.00 79.37	N
ATOM	4309	CA	MET A 648	137.124	150.999	151.963	1.00 79.37	C
ATOM	4310	C	MET A 648	137.728	152.403	151.918	1.00 79.37	C
ATOM	4311	O	MET A 648	138.366	152.836	152.881	1.00 79.37	O
ATOM	4312	CB	MET A 648	136.495	150.709	153.315	1.00 79.37	C
ATOM	4313	CG	MET A 648	135.440	149.621	153.297	1.00 79.37	C
ATOM	4314	SD	MET A 648	134.600	149.482	154.883	1.00 79.37	S
ATOM	4315	CE	MET A 648	133.760	151.061	154.952	1.00 79.37	C
ATOM	4316	N	ILE A 649	137.523	153.092	150.801	1.00 86.72	N
ATOM	4317	CA	ILE A 649	137.750	154.527	150.727	1.00 86.72	C
ATOM	4318	C	ILE A 649	136.446	155.292	150.582	1.00 86.72	C
ATOM	4319	O	ILE A 649	136.447	156.522	150.747	1.00 86.72	O
ATOM	4320	CB	ILE A 649	138.711	154.892	149.578	1.00 86.72	C
ATOM	4321	CG1	ILE A 649	139.915	153.951	149.557	1.00 86.72	C
ATOM	4322	CG2	ILE A 649	139.171	156.332	149.709	1.00 86.72	C
ATOM	4323	CD1	ILE A 649	140.867	154.214	148.413	1.00 86.72	C
ATOM	4324	N	ALA A 650	135.343	154.613	150.293	1.00 90.45	N
ATOM	4325	CA	ALA A 650	134.068	155.266	150.044	1.00 90.45	C
ATOM	4326	C	ALA A 650	133.500	155.791	151.359	1.00 90.45	C

ATOM	4327	O	ALA A 650	134.142	155.756	152.412	1.00 90.45	O
ATOM	4328	CB	ALA A 650	133.110	154.304	149.348	1.00 90.45	C
ATOM	4329	N	LEU A 651	132.272	156.293	151.298	1.00 89.48	N
ATOM	4330	CA	LEU A 651	131.661	156.924	152.456	1.00 89.48	C
ATOM	4331	C	LEU A 651	131.504	155.936	153.606	1.00 89.48	C
ATOM	4332	O	LEU A 651	131.430	154.719	153.417	1.00 89.48	O
ATOM	4333	CB	LEU A 651	130.304	157.520	152.079	1.00 89.48	C
ATOM	4334	CG	LEU A 651	129.157	156.552	151.779	1.00 89.48	C
ATOM	4335	CD1	LEU A 651	127.843	157.308	151.680	1.00 89.48	C
ATOM	4336	CD2	LEU A 651	129.420	155.770	150.503	1.00 89.48	C
ATOM	4337	N	ASP A 652	131.454	156.494	154.813	1.00 81.96	N
ATOM	4338	CA	ASP A 652	131.275	155.775	156.070	1.00 81.96	C
ATOM	4339	C	ASP A 652	130.085	156.406	156.785	1.00 81.96	C
ATOM	4340	O	ASP A 652	130.181	156.891	157.912	1.00 81.96	O
ATOM	4341	CB	ASP A 652	132.533	155.800	156.935	1.00 81.96	C
ATOM	4342	CG	ASP A 652	133.151	157.174	157.019	1.00 81.96	C
ATOM	4343	OD1	ASP A 652	132.444	158.162	156.736	1.00 81.96	O
ATOM	4344	OD2	ASP A 652	134.346	157.266	157.367	1.00 81.96	O
ATOM	4345	N	ILE A 653	128.935	156.374	156.110	1.00 84.10	N
ATOM	4346	CA	ILE A 653	127.996	157.487	156.018	1.00 84.10	C
ATOM	4347	C	ILE A 653	128.020	158.360	157.263	1.00 84.10	C
ATOM	4348	O	ILE A 653	128.082	159.589	157.157	1.00 84.10	O
ATOM	4349	CB	ILE A 653	126.570	156.962	155.763	1.00 84.10	C
ATOM	4350	CG1	ILE A 653	126.263	155.778	156.684	1.00 84.10	C
ATOM	4351	CG2	ILE A 653	126.402	156.554	154.311	1.00 84.10	C
ATOM	4352	CD1	ILE A 653	124.784	155.512	156.868	1.00 84.10	C
ATOM	4353	N	ASP A 654	127.977	157.759	158.437	1.00 75.25	N
ATOM	4354	CA	ASP A 654	128.196	158.616	159.590	1.00 75.25	C
ATOM	4355	C	ASP A 654	128.409	157.813	160.863	1.00 75.25	C
ATOM	4356	O	ASP A 654	127.641	156.889	161.155	1.00 75.25	O
ATOM	4357	CB	ASP A 654	127.023	159.582	159.765	1.00 75.25	C
ATOM	4358	CG	ASP A 654	125.681	158.905	159.589	1.00 75.25	C
ATOM	4359	OD1	ASP A 654	125.593	157.966	158.771	1.00 75.25	O
ATOM	4360	OD2	ASP A 654	124.713	159.314	160.263	1.00 75.25	O
ATOM	4361	N	PRO A 655	129.436	158.133	161.639	1.00 63.65	N
ATOM	4362	CA	PRO A 655	129.493	157.654	163.020	1.00 63.65	C
ATOM	4363	C	PRO A 655	128.356	158.263	163.826	1.00 63.65	C

ATOM	4364	O	PRO A 655	127.675	159.191	163.390	1.00 63.65 O
ATOM	4365	CB	PRO A 655	130.863	158.132	163.503	1.00 63.65 C
ATOM	4366	CG	PRO A 655	131.660	158.308	162.240	1.00 63.65 C
ATOM	4367	CD	PRO A 655	130.679	158.808	161.236	1.00 63.65 C
ATOM	4368	N	LEU A 656	128.152	157.730	165.027	1.00 51.88 N
ATOM	4369	CA	LEU A 656	126.943	158.021	165.783	1.00 51.88 C
ATOM	4370	C	LEU A 656	127.149	158.988	166.945	1.00 51.88 C
ATOM	4371	O	LEU A 656	126.207	159.219	167.708	1.00 51.88 O
ATOM	4372	CB	LEU A 656	126.318	156.726	166.295	1.00 51.88 C
ATOM	4373	CG	LEU A 656	125.121	156.251	165.482	1.00 51.88 C
ATOM	4374	CD1	LEU A 656	124.436	155.112	166.195	1.00 51.88 C
ATOM	4375	CD2	LEU A 656	124.165	157.398	165.261	1.00 51.88 C
ATOM	4376	N	GLU A 657	128.336	159.569	167.105	1.00 50.59 N
ATOM	4377	CA	GLU A 657	128.543	160.583	168.138	1.00 50.59 C
ATOM	4378	C	GLU A 657	128.235	160.014	169.528	1.00 50.59 C
ATOM	4379	O	GLU A 657	127.298	160.422	170.213	1.00 50.59 O
ATOM	4380	CB	GLU A 657	127.686	161.817	167.840	1.00 50.59 C
ATOM	4381	CG	GLU A 657	127.760	162.917	168.873	1.00 50.59 C
ATOM	4382	CD	GLU A 657	127.285	164.248	168.327	1.00 50.59 C
ATOM	4383	OE1	GLU A 657	127.637	164.579	167.177	1.00 50.59 O
ATOM	4384	OE2	GLU A 657	126.556	164.965	169.041	1.00 50.59 O
ATOM	4385	N	ASN A 658	129.049	159.035	169.914	1.00 47.73 N
ATOM	4386	CA	ASN A 658	128.857	158.333	171.174	1.00 47.73 C
ATOM	4387	C	ASN A 658	129.160	159.241	172.363	1.00 47.73 C
ATOM	4388	O	ASN A 658	129.810	160.280	172.238	1.00 47.73 O
ATOM	4389	CB	ASN A 658	129.748	157.096	171.235	1.00 47.73 C
ATOM	4390	CG	ASN A 658	129.559	156.189	170.048	1.00 47.73 C
ATOM	4391	OD1	ASN A 658	128.443	155.995	169.576	1.00 47.73 O
ATOM	4392	ND2	ASN A 658	130.650	155.626	169.555	1.00 47.73 N
ATOM	4393	N	THR A 659	128.678	158.828	173.534	1.00 49.56 N
ATOM	4394	CA	THR A 659	128.877	159.553	174.781	1.00 49.56 C
ATOM	4395	C	THR A 659	129.401	158.598	175.845	1.00 49.56 C
ATOM	4396	O	THR A 659	129.637	157.415	175.590	1.00 49.56 O
ATOM	4397	CB	THR A 659	127.582	160.222	175.255	1.00 49.56 C
ATOM	4398	OG1	THR A 659	127.835	160.954	176.458	1.00 49.56 O
ATOM	4399	CG2	THR A 659	126.524	159.179	175.526	1.00 49.56 C
ATOM	4400	N	ASP A 660	129.581	159.126	177.055	1.00 54.68 N

ATOM	4401	CA	ASP A 660	130.154	158.367	178.161	1.00 54.68	C
ATOM	4402	C	ASP A 660	129.852	159.059	179.485	1.00 54.68	C
ATOM	4403	O	ASP A 660	130.198	160.229	179.665	1.00 54.68	O
ATOM	4404	CB	ASP A 660	131.661	158.212	177.973	1.00 54.68	C
ATOM	4405	CG	ASP A 660	132.246	157.154	178.867	1.00 54.68	C
ATOM	4406	OD1	ASP A 660	131.709	156.958	179.974	1.00 54.68	O
ATOM	4407	OD2	ASP A 660	133.233	156.510	178.460	1.00 54.68	O
ATOM	4408	N	PHE A 661	129.219	158.354	180.424	1.00 54.71	N
ATOM	4409	CA	PHE A 661	128.695	159.003	181.616	1.00 54.71	C
ATOM	4410	C	PHE A 661	129.505	158.759	182.879	1.00 54.71	C
ATOM	4411	O	PHE A 661	129.317	159.488	183.855	1.00 54.71	O
ATOM	4412	CB	PHE A 661	127.246	158.565	181.866	1.00 54.71	C
ATOM	4413	CG	PHE A 661	126.252	159.229	180.961	1.00 54.71	C
ATOM	4414	CD1	PHE A 661	125.947	160.566	181.112	1.00 54.71	C
ATOM	4415	CD2	PHE A 661	125.628	158.517	179.957	1.00 54.71	C
ATOM	4416	CE1	PHE A 661	125.037	161.177	180.280	1.00 54.71	C
ATOM	4417	CE2	PHE A 661	124.718	159.126	179.125	1.00 54.71	C
ATOM	4418	CZ	PHE A 661	124.423	160.457	179.287	1.00 54.71	C
ATOM	4419	N	ARG A 662	130.393	157.766	182.896	1.00 59.66	N
ATOM	4420	CA	ARG A 662	131.199	157.526	184.089	1.00 59.66	C
ATOM	4421	C	ARG A 662	132.391	158.473	184.148	1.00 59.66	C
ATOM	4422	O	ARG A 662	132.568	159.211	185.125	1.00 59.66	O
ATOM	4423	CB	ARG A 662	131.667	156.071	184.129	1.00 59.66	C
ATOM	4424	CG	ARG A 662	130.543	155.052	184.156	1.00 59.66	C
ATOM	4425	CD	ARG A 662	130.000	154.865	185.558	1.00 59.66	C
ATOM	4426	NE	ARG A 662	129.766	153.458	185.870	1.00 59.66	N
ATOM	4427	CZ	ARG A 662	128.692	152.778	185.486	1.00 59.66	C
ATOM	4428	NH1	ARG A 662	127.750	153.376	184.772	1.00 59.66	N
ATOM	4429	NH2	ARG A 662	128.558	151.501	185.815	1.00 59.66	N
ATOM	4430	N	VAL A 663	133.224	158.466	183.106	1.00 59.08	N
ATOM	4431	CA	VAL A 663	134.399	159.330	183.103	1.00 59.08	C
ATOM	4432	C	VAL A 663	133.989	160.793	183.108	1.00 59.08	C
ATOM	4433	O	VAL A 663	134.689	161.640	183.674	1.00 59.08	O
ATOM	4434	CB	VAL A 663	135.305	159.007	181.901	1.00 59.08	C
ATOM	4435	CG1	VAL A 663	135.728	157.553	181.937	1.00 59.08	C
ATOM	4436	CG2	VAL A 663	134.603	159.339	180.606	1.00 59.08	C
ATOM	4437	N	LEU A 664	132.861	161.124	182.480	1.00 57.60	N

ATOM	4438	CA	LEU A 664	132.391	162.503	182.519	1.00 57.60	C
ATOM	4439	C	LEU A 664	132.091	162.937	183.947	1.00 57.60	C
ATOM	4440	O	LEU A 664	132.435	164.052	184.351	1.00 57.60	O
ATOM	4441	CB	LEU A 664	131.158	162.665	181.636	1.00 57.60	C
ATOM	4442	CG	LEU A 664	131.434	162.883	180.152	1.00 57.60	C
ATOM	4443	CD1	LEU A 664	130.171	163.318	179.440	1.00 57.60	C
ATOM	4444	CD2	LEU A 664	132.526	163.911	179.977	1.00 57.60	C
ATOM	4445	N	GLU A 665	131.454	162.066	184.731	1.00 63.50	N
ATOM	4446	CA	GLU A 665	131.207	162.390	186.131	1.00 63.50	C
ATOM	4447	C	GLU A 665	132.510	162.472	186.910	1.00 63.50	C
ATOM	4448	O	GLU A 665	132.672	163.343	187.772	1.00 63.50	O
ATOM	4449	CB	GLU A 665	130.278	161.353	186.756	1.00 63.50	C
ATOM	4450	CG	GLU A 665	128.893	161.324	186.149	1.00 63.50	C
ATOM	4451	CD	GLU A 665	128.017	160.254	186.760	1.00 63.50	C
ATOM	4452	OE1	GLU A 665	128.562	159.236	187.234	1.00 63.50	O
ATOM	4453	OE2	GLU A 665	126.782	160.431	186.769	1.00 63.50	O
ATOM	4454	N	LEU A 666	133.452	161.573	186.623	1.00 66.79	N
ATOM	4455	CA	LEU A 666	134.747	161.628	187.293	1.00 66.79	C
ATOM	4456	C	LEU A 666	135.457	162.949	187.035	1.00 66.79	C
ATOM	4457	O	LEU A 666	136.091	163.498	187.940	1.00 66.79	O
ATOM	4458	CB	LEU A 666	135.617	160.460	186.836	1.00 66.79	C
ATOM	4459	CG	LEU A 666	136.953	160.254	187.545	1.00 66.79	C
ATOM	4460	CD1	LEU A 666	137.348	158.793	187.486	1.00 66.79	C
ATOM	4461	CD2	LEU A 666	138.027	161.116	186.917	1.00 66.79	C
ATOM	4462	N	TYR A 667	135.362	163.471	185.815	1.00 64.73	N
ATOM	4463	CA	TYR A 667	135.995	164.735	185.465	1.00 64.73	C
ATOM	4464	C	TYR A 667	135.173	165.949	185.869	1.00 64.73	C
ATOM	4465	O	TYR A 667	135.703	167.064	185.866	1.00 64.73	O
ATOM	4466	CB	TYR A 667	136.253	164.803	183.958	1.00 64.73	C
ATOM	4467	CG	TYR A 667	137.396	163.948	183.472	1.00 64.73	C
ATOM	4468	CD1	TYR A 667	138.645	164.023	184.062	1.00 64.73	C
ATOM	4469	CD2	TYR A 667	137.228	163.075	182.411	1.00 64.73	C
ATOM	4470	CE1	TYR A 667	139.690	163.247	183.612	1.00 64.73	C
ATOM	4471	CE2	TYR A 667	138.266	162.295	181.957	1.00 64.73	C
ATOM	4472	CZ	TYR A 667	139.495	162.386	182.560	1.00 64.73	C
ATOM	4473	OH	TYR A 667	140.533	161.611	182.108	1.00 64.73	O
ATOM	4474	N	SER A 668	133.892	165.765	186.195	1.00 71.63	N

ATOM	4475	CA	SER A 668	133.052	166.897	186.575	1.00 71.63 C
ATOM	4476	C	SER A 668	133.612	167.604	187.801	1.00 71.63 C
ATOM	4477	O	SER A 668	133.983	168.781	187.744	1.00 71.63 O
ATOM	4478	CB	SER A 668	131.623	166.423	186.835	1.00 71.63 C
ATOM	4479	OG	SER A 668	131.462	166.030	188.186	1.00 71.63 O
ATOM	4480	N	GLN A 669	133.674	166.895	188.929	1.00 78.96 N
ATOM	4481	CA	GLN A 669	134.252	167.435	190.158	1.00 78.96 C
ATOM	4482	C	GLN A 669	135.771	167.403	190.021	1.00 78.96 C
ATOM	4483	O	GLN A 669	136.467	166.552	190.578	1.00 78.96 O
ATOM	4484	CB	GLN A 669	133.772	166.648	191.371	1.00 78.96 C
ATOM	4485	CG	GLN A 669	133.763	165.137	191.187	1.00 78.96 C
ATOM	4486	CD	GLN A 669	134.999	164.467	191.751	1.00 78.96 C
ATOM	4487	OE1	GLN A 669	135.727	165.053	192.549	1.00 78.96 O
ATOM	4488	NE2	GLN A 669	135.237	163.227	191.345	1.00 78.96 N
ATOM	4489	N	LYS A 670	136.294	168.359	189.257	1.00 81.07 N
ATOM	4490	CA	LYS A 670	137.711	168.374	188.899	1.00 81.07 C
ATOM	4491	C	LYS A 670	138.370	169.633	189.448	1.00 81.07 C
ATOM	4492	O	LYS A 670	138.510	170.644	188.758	1.00 81.07 O
ATOM	4493	CB	LYS A 670	137.895	168.261	187.388	1.00 81.07 C
ATOM	4494	CG	LYS A 670	139.324	167.956	186.971	1.00 81.07 C
ATOM	4495	CD	LYS A 670	139.965	166.904	187.868	1.00 81.07 C
ATOM	4496	CE	LYS A 670	139.019	165.744	188.154	1.00 81.07 C
ATOM	4497	NZ	LYS A 670	139.508	164.876	189.261	1.00 81.07 N
ATOM	4498	N	GLU A 671	138.775	169.556	190.710	1.00 92.28 N
ATOM	4499	CA	GLU A 671	139.825	170.402	191.254	1.00 92.28 C
ATOM	4500	C	GLU A 671	140.824	169.617	192.086	1.00 92.28 C
ATOM	4501	O	GLU A 671	141.967	170.069	192.234	1.00 92.28 O
ATOM	4502	CB	GLU A 671	139.231	171.543	192.094	1.00 92.28 C
ATOM	4503	CG	GLU A 671	138.857	172.768	191.265	1.00 92.28 C
ATOM	4504	CD	GLU A 671	138.060	173.794	192.046	1.00 92.28 C
ATOM	4505	OE1	GLU A 671	138.672	174.557	192.822	1.00 92.28 O
ATOM	4506	OE2	GLU A 671	136.824	173.847	191.874	1.00 92.28 O
ATOM	4507	N	LEU A 672	140.437	168.464	192.625	1.00 90.54 N
ATOM	4508	CA	LEU A 672	141.372	167.442	193.085	1.00 90.54 C
ATOM	4509	C	LEU A 672	141.711	166.591	191.867	1.00 90.54 C
ATOM	4510	O	LEU A 672	140.909	165.765	191.427	1.00 90.54 O
ATOM	4511	CB	LEU A 672	140.764	166.614	194.213	1.00 90.54 C

ATOM	4512	CG	LEU	A	672	139.636	165.638	193.859	1.00	90.54	C
ATOM	4513	CD1	LEU	A	672	139.411	164.636	194.979	1.00	90.54	C
ATOM	4514	CD2	LEU	A	672	138.352	166.388	193.545	1.00	90.54	C
ATOM	4515	N	ARG	A	673	142.901	166.797	191.309	1.00	82.28	N
ATOM	4516	CA	ARG	A	673	143.214	166.220	190.009	1.00	82.28	C
ATOM	4517	C	ARG	A	673	143.437	164.716	190.094	1.00	82.28	C
ATOM	4518	O	ARG	A	673	144.560	164.233	189.921	1.00	82.28	O
ATOM	4519	CB	ARG	A	673	144.435	166.907	189.400	1.00	82.28	C
ATOM	4520	CG	ARG	A	673	145.695	166.794	190.228	1.00	82.28	C
ATOM	4521	CD	ARG	A	673	146.700	167.833	189.788	1.00	82.28	C
ATOM	4522	NE	ARG	A	673	146.105	169.163	189.748	1.00	82.28	N
ATOM	4523	CZ	ARG	A	673	146.710	170.232	189.247	1.00	82.28	C
ATOM	4524	NH1	ARG	A	673	147.928	170.125	188.738	1.00	82.28	N
ATOM	4525	NH2	ARG	A	673	146.096	171.406	189.251	1.00	82.28	N
ATOM	4526	N	SER	A	674	142.362	163.970	190.356	1.00	81.50	N
ATOM	4527	CA	SER	A	674	142.347	162.521	190.207	1.00	81.50	C
ATOM	4528	C	SER	A	674	141.992	162.105	188.790	1.00	81.50	C
ATOM	4529	O	SER	A	674	141.492	160.993	188.573	1.00	81.50	O
ATOM	4530	CB	SER	A	674	141.373	161.893	191.204	1.00	81.50	C
ATOM	4531	OG	SER	A	674	140.034	162.239	190.896	1.00	81.50	O
ATOM	4532	N	SER	A	675	142.235	162.985	187.820	1.00	71.50	N
ATOM	4533	CA	SER	A	675	141.689	162.807	186.481	1.00	71.50	C
ATOM	4534	C	SER	A	675	142.216	161.541	185.819	1.00	71.50	C
ATOM	4535	O	SER	A	675	141.431	160.697	185.371	1.00	71.50	O
ATOM	4536	CB	SER	A	675	142.007	164.034	185.628	1.00	71.50	C
ATOM	4537	OG	SER	A	675	141.456	165.209	186.194	1.00	71.50	O
ATOM	4538	N	ASN	A	676	143.538	161.394	185.740	1.00	69.14	N
ATOM	4539	CA	ASN	A	676	144.148	160.331	184.949	1.00	69.14	C
ATOM	4540	C	ASN	A	676	143.383	159.025	185.105	1.00	69.14	C
ATOM	4541	O	ASN	A	676	143.166	158.546	186.221	1.00	69.14	O
ATOM	4542	CB	ASN	A	676	145.607	160.132	185.364	1.00	69.14	C
ATOM	4543	CG	ASN	A	676	146.388	159.300	184.362	1.00	69.14	C
ATOM	4544	OD1	ASN	A	676	146.636	159.735	183.238	1.00	69.14	O
ATOM	4545	ND2	ASN	A	676	146.771	158.091	184.763	1.00	69.14	N
ATOM	4546	N	VAL	A	677	142.805	158.585	184.003	1.00	66.21	N
ATOM	4547	CA	VAL	A	677	142.010	157.398	184.022	1.00	66.21	C
ATOM	4548	C	VAL	A	677	142.721	156.239	183.380	1.00	66.21	C

ATOM	4549	O	VAL A 677	143.085	155.314	184.078	1.00 66.21	O
ATOM	4550	CB	VAL A 677	140.665	157.619	183.330	1.00 66.21	C
ATOM	4551	CG1	VAL A 677	139.617	158.020	184.346	1.00 66.21	C
ATOM	4552	CG2	VAL A 677	140.795	158.681	182.263	1.00 66.21	C
ATOM	4553	N	PHE A 678	142.996	156.298	182.084	1.00 59.19	N
ATOM	4554	CA	PHE A 678	143.587	155.123	181.494	1.00 59.19	C
ATOM	4555	C	PHE A 678	144.655	155.126	180.407	1.00 59.19	C
ATOM	4556	O	PHE A 678	145.379	154.137	180.337	1.00 59.19	O
ATOM	4557	CB	PHE A 678	142.453	154.265	180.997	1.00 59.19	C
ATOM	4558	CG	PHE A 678	142.105	153.159	181.910	1.00 59.19	C
ATOM	4559	CD1	PHE A 678	143.077	152.479	182.564	1.00 59.19	C
ATOM	4560	CD2	PHE A 678	140.807	152.822	182.121	1.00 59.19	C
ATOM	4561	CE1	PHE A 678	142.764	151.455	183.416	1.00 59.19	C
ATOM	4562	CE2	PHE A 678	140.477	151.803	182.966	1.00 59.19	C
ATOM	4563	CZ	PHE A 678	141.460	151.113	183.622	1.00 59.19	C
ATOM	4564	N	ASP A 679	144.781	156.194	179.614	1.00 58.15	N
ATOM	4565	CA	ASP A 679	145.689	156.253	178.451	1.00 58.15	C
ATOM	4566	C	ASP A 679	145.403	155.022	177.651	1.00 58.15	C
ATOM	4567	O	ASP A 679	146.281	154.199	177.448	1.00 58.15	O
ATOM	4568	CB	ASP A 679	147.166	156.286	178.786	1.00 58.15	C
ATOM	4569	CG	ASP A 679	147.440	157.103	179.935	1.00 58.15	C
ATOM	4570	OD1	ASP A 679	146.659	158.029	180.157	1.00 58.15	O
ATOM	4571	OD2	ASP A 679	148.420	156.821	180.625	1.00 58.15	O
ATOM	4572	N	LEU A 680	144.171	154.928	177.154	1.00 57.21	N
ATOM	4573	CA	LEU A 680	143.680	153.741	176.450	1.00 57.21	C
ATOM	4574	C	LEU A 680	144.601	153.030	175.503	1.00 57.21	C
ATOM	4575	O	LEU A 680	144.648	151.810	175.552	1.00 57.21	O
ATOM	4576	CB	LEU A 680	142.253	153.873	175.961	1.00 57.21	C
ATOM	4577	CG	LEU A 680	141.532	153.277	177.159	1.00 57.21	C
ATOM	4578	CD1	LEU A 680	140.249	153.973	177.537	1.00 57.21	C
ATOM	4579	CD2	LEU A 680	141.381	151.779	177.095	1.00 57.21	C
ATOM	4580	N	GLU A 681	145.335	153.765	174.677	1.00 59.13	N
ATOM	4581	CA	GLU A 681	146.337	153.137	173.842	1.00 59.13	C
ATOM	4582	C	GLU A 681	147.432	154.097	173.435	1.00 59.13	C
ATOM	4583	O	GLU A 681	148.596	153.866	173.742	1.00 59.13	O
ATOM	4584	CB	GLU A 681	145.763	152.414	172.612	1.00 59.13	C
ATOM	4585	CG	GLU A 681	146.437	151.065	172.331	1.00 59.13	C

ATOM	4586	CD	GLU A 681	146.130	149.979	173.365	1.00 59.13	C
ATOM	4587	OE1	GLU A 681	144.956	149.585	173.510	1.00 59.13	O
ATOM	4588	OE2	GLU A 681	147.067	149.498	174.035	1.00 59.13	O
ATOM	4589	N	GLU A 682	147.040	155.172	172.773	1.00 56.52	N
ATOM	4590	CA	GLU A 682	147.966	156.136	172.223	1.00 56.52	C
ATOM	4591	C	GLU A 682	149.127	156.552	173.074	1.00 56.52	C
ATOM	4592	O	GLU A 682	148.950	156.866	174.218	1.00 56.52	O
ATOM	4593	CB	GLU A 682	147.213	157.373	171.778	1.00 56.52	C
ATOM	4594	CG	GLU A 682	146.165	157.852	172.747	1.00 56.52	C
ATOM	4595	CD	GLU A 682	145.283	158.916	172.133	1.00 56.52	C
ATOM	4596	OE1	GLU A 682	144.123	158.606	171.793	1.00 56.52	O
ATOM	4597	OE2	GLU A 682	145.750	160.058	171.978	1.00 56.52	O
ATOM	4598	N	ILE A 683	150.328	156.489	172.519	1.00 55.18	N
ATOM	4599	CA	ILE A 683	151.474	156.962	173.279	1.00 55.18	C
ATOM	4600	C	ILE A 683	151.458	158.483	173.273	1.00 55.18	C
ATOM	4601	O	ILE A 683	152.149	159.129	174.056	1.00 55.18	O
ATOM	4602	CB	ILE A 683	152.805	156.451	172.696	1.00 55.18	C
ATOM	4603	CG1	ILE A 683	152.555	155.382	171.635	1.00 55.18	C
ATOM	4604	CG2	ILE A 683	153.685	155.885	173.798	1.00 55.18	C
ATOM	4605	CD1	ILE A 683	153.711	154.423	171.460	1.00 55.18	C
ATOM	4606	N	MET A 684	150.662	159.049	172.373	1.00 57.49	N
ATOM	4607	CA	MET A 684	150.518	160.499	172.269	1.00 57.49	C
ATOM	4608	C	MET A 684	150.059	161.118	173.581	1.00 57.49	C
ATOM	4609	O	MET A 684	150.697	162.036	174.104	1.00 57.49	O
ATOM	4610	CB	MET A 684	149.543	160.851	171.147	1.00 57.49	C
ATOM	4611	CG	MET A 684	149.333	162.341	170.962	1.00 57.49	C
ATOM	4612	SD	MET A 684	150.847	163.197	170.501	1.00 57.49	S
ATOM	4613	CE	MET A 684	150.188	164.760	169.931	1.00 57.49	C
ATOM	4614	N	ARG A 685	148.948	160.629	174.130	1.00 57.53	N
ATOM	4615	CA	ARG A 685	148.418	161.124	175.391	1.00 57.53	C
ATOM	4616	C	ARG A 685	149.053	160.444	176.590	1.00 57.53	C
ATOM	4617	O	ARG A 685	148.456	160.424	177.670	1.00 57.53	O
ATOM	4618	CB	ARG A 685	146.900	160.951	175.437	1.00 57.53	C
ATOM	4619	CG	ARG A 685	146.181	162.007	176.266	1.00 57.53	C
ATOM	4620	CD	ARG A 685	146.346	163.410	175.679	1.00 57.53	C
ATOM	4621	NE	ARG A 685	146.007	163.472	174.259	1.00 57.53	N
ATOM	4622	CZ	ARG A 685	146.402	164.440	173.436	1.00 57.53	C

ATOM	4623	NH1	ARG	A	685	147.152	165.435	173.887	1.00 57.53	N
ATOM	4624	NH2	ARG	A	685	146.047	164.414	172.160	1.00 57.53	N
ATOM	4625	N	GLU	A	686	150.245	159.879	176.419	1.00 56.76	N
ATOM	4626	CA	GLU	A	686	150.974	159.240	177.500	1.00 56.76	C
ATOM	4627	C	GLU	A	686	152.324	159.888	177.759	1.00 56.76	C
ATOM	4628	O	GLU	A	686	152.992	159.522	178.730	1.00 56.76	O
ATOM	4629	CB	GLU	A	686	151.156	157.746	177.205	1.00 56.76	C
ATOM	4630	CG	GLU	A	686	152.003	157.013	178.208	1.00 56.76	C
ATOM	4631	CD	GLU	A	686	153.438	156.918	177.766	1.00 56.76	C
ATOM	4632	OE1	GLU	A	686	153.667	156.760	176.552	1.00 56.76	O
ATOM	4633	OE2	GLU	A	686	154.337	157.023	178.622	1.00 56.76	O
ATOM	4634	N	PHE	A	687	152.749	160.838	176.927	1.00 56.69	N
ATOM	4635	CA	PHE	A	687	153.873	161.697	177.273	1.00 56.69	C
ATOM	4636	C	PHE	A	687	153.428	163.138	177.468	1.00 56.69	C
ATOM	4637	O	PHE	A	687	154.273	164.036	177.540	1.00 56.69	O
ATOM	4638	CB	PHE	A	687	154.989	161.611	176.228	1.00 56.69	C
ATOM	4639	CG	PHE	A	687	154.649	162.223	174.904	1.00 56.69	C
ATOM	4640	CD1	PHE	A	687	153.993	161.489	173.936	1.00 56.69	C
ATOM	4641	CD2	PHE	A	687	155.035	163.517	174.609	1.00 56.69	C
ATOM	4642	CE1	PHE	A	687	153.696	162.046	172.707	1.00 56.69	C
ATOM	4643	CE2	PHE	A	687	154.743	164.078	173.384	1.00 56.69	C
ATOM	4644	CZ	PHE	A	687	154.074	163.343	172.432	1.00 56.69	C
ATOM	4645	N	ASN	A	688	152.121	163.376	177.539	1.00 54.26	N
ATOM	4646	CA	ASN	A	688	151.582	164.599	178.110	1.00 54.26	C
ATOM	4647	C	ASN	A	688	151.437	164.509	179.620	1.00 54.26	C
ATOM	4648	O	ASN	A	688	151.273	165.540	180.279	1.00 54.26	O
ATOM	4649	CB	ASN	A	688	150.218	164.917	177.496	1.00 54.26	C
ATOM	4650	CG	ASN	A	688	150.308	165.906	176.359	1.00 54.26	C
ATOM	4651	OD1	ASN	A	688	151.076	166.864	176.417	1.00 54.26	O
ATOM	4652	ND2	ASN	A	688	149.521	165.683	175.316	1.00 54.26	N
ATOM	4653	N	SER	A	689	151.494	163.298	180.176	1.00 54.91	N
ATOM	4654	CA	SER	A	689	151.328	163.068	181.602	1.00 54.91	C
ATOM	4655	C	SER	A	689	152.616	162.673	182.310	1.00 54.91	C
ATOM	4656	O	SER	A	689	152.635	162.638	183.543	1.00 54.91	O
ATOM	4657	CB	SER	A	689	150.285	161.972	181.841	1.00 54.91	C
ATOM	4658	OG	SER	A	689	148.994	162.397	181.449	1.00 54.91	O
ATOM	4659	N	TYR	A	690	153.683	162.372	181.572	1.00 55.06	N

ATOM	4660	CA	TYR A 690	154.879	161.817	182.198	1.00 55.06	C
ATOM	4661	C	TYR A 690	155.507	162.798	183.182	1.00 55.06	C
ATOM	4662	O	TYR A 690	155.928	162.406	184.280	1.00 55.06	O
ATOM	4663	CB	TYR A 690	155.884	161.412	181.124	1.00 55.06	C
ATOM	4664	CG	TYR A 690	157.007	160.551	181.639	1.00 55.06	C
ATOM	4665	CD1	TYR A 690	156.772	159.262	182.078	1.00 55.06	C
ATOM	4666	CD2	TYR A 690	158.304	161.029	181.683	1.00 55.06	C
ATOM	4667	CE1	TYR A 690	157.796	158.476	182.549	1.00 55.06	C
ATOM	4668	CE2	TYR A 690	159.333	160.250	182.151	1.00 55.06	C
ATOM	4669	CZ	TYR A 690	159.074	158.976	182.582	1.00 55.06	C
ATOM	4670	OH	TYR A 690	160.102	158.197	183.050	1.00 55.06	O
ATOM	4671	N	LYS A 691	155.584	164.075	182.809	1.00 55.14	N
ATOM	4672	CA	LYS A 691	156.193	165.076	183.676	1.00 55.14	C
ATOM	4673	C	LYS A 691	155.390	165.333	184.938	1.00 55.14	C
ATOM	4674	O	LYS A 691	155.815	166.147	185.761	1.00 55.14	O
ATOM	4675	CB	LYS A 691	156.379	166.385	182.917	1.00 55.14	C
ATOM	4676	CG	LYS A 691	157.390	166.309	181.803	1.00 55.14	C
ATOM	4677	CD	LYS A 691	157.227	167.476	180.854	1.00 55.14	C
ATOM	4678	CE	LYS A 691	155.800	167.585	180.355	1.00 55.14	C
ATOM	4679	NZ	LYS A 691	155.350	166.325	179.711	1.00 55.14	N
ATOM	4680	N	GLN A 692	154.248	164.673	185.107	1.00 59.71	N
ATOM	4681	CA	GLN A 692	153.489	164.753	186.346	1.00 59.71	C
ATOM	4682	C	GLN A 692	153.834	163.609	187.292	1.00 59.71	C
ATOM	4683	O	GLN A 692	153.959	163.821	188.502	1.00 59.71	O
ATOM	4684	CB	GLN A 692	151.994	164.754	186.039	1.00 59.71	C
ATOM	4685	CG	GLN A 692	151.125	165.033	187.237	1.00 59.71	C
ATOM	4686	CD	GLN A 692	149.798	164.313	187.163	1.00 59.71	C
ATOM	4687	OE1	GLN A 692	149.534	163.575	186.214	1.00 59.71	O
ATOM	4688	NE2	GLN A 692	148.953	164.521	188.167	1.00 59.71	N
ATOM	4689	N	ARG A 693	153.997	162.396	186.763	1.00 59.66	N
ATOM	4690	CA	ARG A 693	154.506	161.302	187.581	1.00 59.66	C
ATOM	4691	C	ARG A 693	155.942	161.564	188.006	1.00 59.66	C
ATOM	4692	O	ARG A 693	156.352	161.187	189.111	1.00 59.66	O
ATOM	4693	CB	ARG A 693	154.417	159.984	186.818	1.00 59.66	C
ATOM	4694	CG	ARG A 693	153.096	159.754	186.135	1.00 59.66	C
ATOM	4695	CD	ARG A 693	152.026	159.404	187.137	1.00 59.66	C
ATOM	4696	NE	ARG A 693	150.695	159.619	186.585	1.00 59.66	N

ATOM	4697	CZ	ARG A 693	149.580	159.595	187.303	1.00 59.66	C
ATOM	4698	NH1	ARG A 693	149.633	159.364	188.607	1.00 59.66	N
ATOM	4699	NH2	ARG A 693	148.412	159.803	186.716	1.00 59.66	N
ATOM	4700	N	VAL A 694	156.727	162.203	187.139	1.00 59.74	N
ATOM	4701	CA	VAL A 694	158.124	162.485	187.448	1.00 59.74	C
ATOM	4702	C	VAL A 694	158.221	163.282	188.742	1.00 59.74	C
ATOM	4703	O	VAL A 694	159.261	163.274	189.408	1.00 59.74	O
ATOM	4704	CB	VAL A 694	158.815	163.229	186.291	1.00 59.74	C
ATOM	4705	CG1	VAL A 694	160.239	163.576	186.663	1.00 59.74	C
ATOM	4706	CG2	VAL A 694	158.805	162.380	185.040	1.00 59.74	C
ATOM	4707	N	LYS A 695	157.142	163.971	189.114	1.00 63.20	N
ATOM	4708	CA	LYS A 695	157.104	164.736	190.354	1.00 63.20	C
ATOM	4709	C	LYS A 695	156.288	164.075	191.450	1.00 63.20	C
ATOM	4710	O	LYS A 695	156.622	164.229	192.626	1.00 63.20	O
ATOM	4711	CB	LYS A 695	156.542	166.139	190.106	1.00 63.20	C
ATOM	4712	CG	LYS A 695	156.712	167.076	191.286	1.00 63.20	C
ATOM	4713	CD	LYS A 695	155.499	167.054	192.201	1.00 63.20	C
ATOM	4714	CE	LYS A 695	154.303	167.732	191.556	1.00 63.20	C
ATOM	4715	NZ	LYS A 695	153.142	167.807	192.484	1.00 63.20	N
ATOM	4716	N	TYR A 696	155.208	163.378	191.098	1.00 67.56	N
ATOM	4717	CA	TYR A 696	154.541	162.516	192.067	1.00 67.56	C
ATOM	4718	C	TYR A 696	155.558	161.657	192.801	1.00 67.56	C
ATOM	4719	O	TYR A 696	155.565	161.591	194.034	1.00 67.56	O
ATOM	4720	CB	TYR A 696	153.513	161.628	191.367	1.00 67.56	C
ATOM	4721	CG	TYR A 696	152.136	162.224	191.255	1.00 67.56	C
ATOM	4722	CD1	TYR A 696	151.934	163.583	191.410	1.00 67.56	C
ATOM	4723	CD2	TYR A 696	151.036	161.423	190.992	1.00 67.56	C
ATOM	4724	CE1	TYR A 696	150.675	164.130	191.305	1.00 67.56	C
ATOM	4725	CE2	TYR A 696	149.775	161.958	190.886	1.00 67.56	C
ATOM	4726	CZ	TYR A 696	149.599	163.314	191.044	1.00 67.56	C
ATOM	4727	OH	TYR A 696	148.343	163.866	190.942	1.00 67.56	O
ATOM	4728	N	VAL A 697	156.436	160.990	192.048	1.00 69.28	N
ATOM	4729	CA	VAL A 697	157.419	160.093	192.642	1.00 69.28	C
ATOM	4730	C	VAL A 697	158.462	160.818	193.475	1.00 69.28	C
ATOM	4731	O	VAL A 697	159.167	160.174	194.257	1.00 69.28	O
ATOM	4732	CB	VAL A 697	158.122	159.266	191.548	1.00 69.28	C
ATOM	4733	CG1	VAL A 697	159.125	158.316	192.165	1.00 69.28	C

ATOM	4734	CG2	VAL A 697	157.102	158.503	190.734	1.00 69.28	C
ATOM	4735	N	GLU A 698	158.582	162.136	193.336	1.00 73.64	N
ATOM	4736	CA	GLU A 698	159.556	162.890	194.114	1.00 73.64	C
ATOM	4737	C	GLU A 698	158.971	163.512	195.369	1.00 73.64	C
ATOM	4738	O	GLU A 698	159.669	163.602	196.382	1.00 73.64	O
ATOM	4739	CB	GLU A 698	160.186	163.998	193.268	1.00 73.64	C
ATOM	4740	CG	GLU A 698	160.891	165.052	194.098	1.00 73.64	C
ATOM	4741	CD	GLU A 698	161.722	165.999	193.260	1.00 73.64	C
ATOM	4742	OE1	GLU A 698	161.824	165.778	192.036	1.00 73.64	O
ATOM	4743	OE2	GLU A 698	162.276	166.963	193.827	1.00 73.64	O
ATOM	4744	N	ASP A 699	157.714	163.950	195.332	1.00 75.05	N
ATOM	4745	CA	ASP A 699	157.077	164.429	196.552	1.00 75.05	C
ATOM	4746	C	ASP A 699	156.832	163.311	197.554	1.00 75.05	C
ATOM	4747	O	ASP A 699	156.530	163.600	198.715	1.00 75.05	O
ATOM	4748	CB	ASP A 699	155.758	165.126	196.228	1.00 75.05	C
ATOM	4749	CG	ASP A 699	155.218	165.919	197.399	1.00 75.05	C
ATOM	4750	OD1	ASP A 699	154.504	165.333	198.240	1.00 75.05	O
ATOM	4751	OD2	ASP A 699	155.511	167.128	197.483	1.00 75.05	O
ATOM	4752	N	LYS A 700	156.948	162.052	197.133	1.00 76.59	N
ATOM	4753	CA	LYS A 700	156.806	160.908	198.021	1.00 76.59	C
ATOM	4754	C	LYS A 700	158.142	160.337	198.464	1.00 76.59	C
ATOM	4755	O	LYS A 700	158.175	159.546	199.410	1.00 76.59	O
ATOM	4756	CB	LYS A 700	155.998	159.797	197.341	1.00 76.59	C
ATOM	4757	CG	LYS A 700	154.502	160.052	197.251	1.00 76.59	C
ATOM	4758	CD	LYS A 700	154.196	161.394	196.600	1.00 76.59	C
ATOM	4759	CE	LYS A 700	152.870	161.371	195.858	1.00 76.59	C
ATOM	4760	NZ	LYS A 700	152.479	162.720	195.361	1.00 76.59	N
ATOM	4761	N	VAL A 701	159.230	160.702	197.796	1.00 78.43	N
ATOM	4762	CA	VAL A 701	160.560	160.236	198.153	1.00 78.43	C
ATOM	4763	C	VAL A 701	161.272	161.238	199.061	1.00 78.43	C
ATOM	4764	O	VAL A 701	162.479	161.138	199.269	1.00 78.43	O
ATOM	4765	CB	VAL A 701	161.397	159.924	196.903	1.00 78.43	C
ATOM	4766	CG1	VAL A 701	161.685	161.196	196.129	1.00 78.43	C
ATOM	4767	CG2	VAL A 701	162.689	159.240	197.287	1.00 78.43	C
ATOM	4768	N	VAL A 702	160.542	162.207	199.601	1.00 80.83	N
ATOM	4769	CA	VAL A 702	161.105	163.144	200.560	1.00 80.83	C
ATOM	4770	C	VAL A 702	160.640	162.870	201.982	1.00 80.83	C

ATOM	4771	O	VAL A 702	161.368	163.211	202.927	1.00 80.83	O
ATOM	4772	CB	VAL A 702	160.787	164.601	200.169	1.00 80.83	C
ATOM	4773	CG1	VAL A 702	161.375	165.558	201.188	1.00 80.83	C
ATOM	4774	CG2	VAL A 702	161.318	164.902	198.781	1.00 80.83	C
ATOM	4775	N	ASP A 703	159.464	162.282	202.171	1.00 85.56	N
ATOM	4776	CA	ASP A 703	159.000	161.926	203.504	1.00 85.56	C
ATOM	4777	C	ASP A 703	159.714	160.671	203.996	1.00 85.56	C
ATOM	4778	O	ASP A 703	160.390	160.710	205.031	1.00 85.56	O
ATOM	4779	CB	ASP A 703	157.485	161.725	203.503	1.00 85.56	C
ATOM	4780	CG	ASP A 703	156.753	162.841	202.787	1.00 85.56	C
ATOM	4781	OD1	ASP A 703	157.349	163.923	202.612	1.00 85.56	O
ATOM	4782	OD2	ASP A 703	155.585	162.639	202.399	1.00 85.56	O
ATOM	4783	N	PRO A 704	159.597	159.543	203.287	1.00 87.45	N
ATOM	4784	CA	PRO A 704	160.251	158.312	203.751	1.00 87.45	C
ATOM	4785	C	PRO A 704	161.765	158.417	203.757	1.00 87.45	C
ATOM	4786	O	PRO A 704	162.407	158.126	204.770	1.00 87.45	O
ATOM	4787	CB	PRO A 704	159.773	157.259	202.742	1.00 87.45	C
ATOM	4788	CG	PRO A 704	158.511	157.807	202.197	1.00 87.45	C
ATOM	4789	CD	PRO A 704	158.724	159.289	202.132	1.00 87.45	C
ATOM	4790	N	LEU A 705	162.343	158.830	202.631	1.00 92.73	N
ATOM	4791	CA	LEU A 705	163.792	158.923	202.509	1.00 92.73	C
ATOM	4792	C	LEU A 705	164.341	159.784	203.637	1.00 92.73	C
ATOM	4793	O	LEU A 705	163.576	160.495	204.301	1.00 92.73	O
ATOM	4794	CB	LEU A 705	164.191	159.476	201.142	1.00 92.73	C
ATOM	4795	CG	LEU A 705	164.336	158.402	200.064	1.00 92.73	C
ATOM	4796	CD1	LEU A 705	165.495	157.486	200.402	1.00 92.73	C
ATOM	4797	CD2	LEU A 705	163.054	157.600	199.930	1.00 92.73	C
ATOM	4798	N	PRO A 706	165.649	159.759	203.874	1.00101.21	N
ATOM	4799	CA	PRO A 706	166.182	160.192	205.170	1.00101.21	C
ATOM	4800	C	PRO A 706	165.687	161.574	205.553	1.00101.21	C
ATOM	4801	O	PRO A 706	166.061	162.579	204.931	1.00101.21	O
ATOM	4802	CB	PRO A 706	167.704	160.188	204.947	1.00101.21	C
ATOM	4803	CG	PRO A 706	167.881	160.213	203.463	1.00101.21	C
ATOM	4804	CD	PRO A 706	166.721	159.448	202.915	1.00101.21	C
ATOM	4805	N	PRO A 707	164.842	161.661	206.576	1.00101.72	N
ATOM	4806	CA	PRO A 707	164.608	162.949	207.234	1.00101.72	C
ATOM	4807	C	PRO A 707	165.796	163.293	208.112	1.00101.72	C

ATOM	4808	O	PRO A 707	166.815	162.597	208.070	1.00101.72	O
ATOM	4809	CB	PRO A 707	163.332	162.709	208.053	1.00101.72	C
ATOM	4810	CG	PRO A 707	162.753	161.424	207.519	1.00101.72	C
ATOM	4811	CD	PRO A 707	163.933	160.623	207.079	1.00101.72	C
ATOM	4812	N	TYR A 708	165.694	164.354	208.903	1.00105.59	N
ATOM	4813	CA	TYR A 708	166.825	164.798	209.701	1.00105.59	C
ATOM	4814	C	TYR A 708	166.375	165.170	211.102	1.00105.59	C
ATOM	4815	O	TYR A 708	165.388	165.889	211.275	1.00105.59	O
ATOM	4816	CB	TYR A 708	167.509	166.003	209.057	1.00105.59	C
ATOM	4817	CG	TYR A 708	166.581	167.178	208.869	1.00105.59	C
ATOM	4818	CD1	TYR A 708	165.755	167.263	207.760	1.00105.59	C
ATOM	4819	CD2	TYR A 708	166.521	168.195	209.808	1.00105.59	C
ATOM	4820	CE1	TYR A 708	164.905	168.332	207.587	1.00105.59	C
ATOM	4821	CE2	TYR A 708	165.674	169.266	209.644	1.00105.59	C
ATOM	4822	CZ	TYR A 708	164.868	169.330	208.532	1.00105.59	C
ATOM	4823	OH	TYR A 708	164.019	170.397	208.359	1.00105.59	O
ATOM	4824	N	LEU A 709	167.113	164.680	212.096	1.00105.14	N
ATOM	4825	CA	LEU A 709	167.059	165.267	213.427	1.00105.14	C
ATOM	4826	C	LEU A 709	165.624	165.375	213.928	1.00105.14	C
ATOM	4827	O	LEU A 709	165.109	166.482	214.112	1.00105.14	O
ATOM	4828	CB	LEU A 709	167.737	166.635	213.392	1.00105.14	C
ATOM	4829	CG	LEU A 709	169.061	166.581	212.623	1.00105.14	C
ATOM	4830	CD1	LEU A 709	169.769	167.922	212.603	1.00105.14	C
ATOM	4831	CD2	LEU A 709	169.953	165.520	213.222	1.00105.14	C
ATOM	4832	N	LYS A 710	164.979	164.224	214.139	1.00107.58	N
ATOM	4833	CA	LYS A 710	163.547	164.135	214.410	1.00107.58	C
ATOM	4834	C	LYS A 710	162.997	165.350	215.154	1.00107.58	C
ATOM	4835	O	LYS A 710	162.037	165.987	214.707	1.00107.58	O
ATOM	4836	CB	LYS A 710	163.273	162.854	215.211	1.00107.58	C
ATOM	4837	CG	LYS A 710	163.917	161.598	214.626	1.00107.58	C
ATOM	4838	CD	LYS A 710	163.287	161.204	213.301	1.00107.58	C
ATOM	4839	CE	LYS A 710	164.322	160.669	212.326	1.00107.58	C
ATOM	4840	NZ	LYS A 710	163.798	160.679	210.933	1.00107.58	N
ATOM	4841	N	GLY A 711	163.601	165.687	216.292	1.00103.26	N
ATOM	4842	CA	GLY A 711	163.141	166.808	217.085	1.00103.26	C
ATOM	4843	C	GLY A 711	163.840	168.115	216.774	1.00103.26	C
ATOM	4844	O	GLY A 711	164.298	168.805	217.688	1.00103.26	O

ATOM	4845	N	LEU A 712	163.934	168.465	215.491	1.00 99.05	N
ATOM	4846	CA	LEU A 712	164.539	169.727	215.072	1.00 99.05	C
ATOM	4847	C	LEU A 712	163.675	170.547	214.130	1.00 99.05	C
ATOM	4848	O	LEU A 712	163.885	171.761	214.035	1.00 99.05	O
ATOM	4849	CB	LEU A 712	165.892	169.477	214.391	1.00 99.05	C
ATOM	4850	CG	LEU A 712	166.498	170.677	213.668	1.00 99.05	C
ATOM	4851	CD1	LEU A 712	166.660	171.831	214.632	1.00 99.05	C
ATOM	4852	CD2	LEU A 712	167.826	170.315	213.043	1.00 99.05	C
ATOM	4853	N	ASP A 713	162.719	169.935	213.430	1.00101.08	N
ATOM	4854	CA	ASP A 713	161.885	170.682	212.496	1.00101.08	C
ATOM	4855	C	ASP A 713	161.140	171.819	213.184	1.00101.08	C
ATOM	4856	O	ASP A 713	160.773	172.805	212.531	1.00101.08	O
ATOM	4857	CB	ASP A 713	160.907	169.732	211.806	1.00101.08	C
ATOM	4858	CG	ASP A 713	160.082	170.414	210.746	1.00101.08	C
ATOM	4859	OD1	ASP A 713	159.201	171.218	211.108	1.00101.08	O
ATOM	4860	OD2	ASP A 713	160.307	170.146	209.547	1.00101.08	O
ATOM	4861	N	ASP A 714	160.909	171.713	214.494	1.00102.95	N
ATOM	4862	CA	ASP A 714	160.180	172.771	215.186	1.00102.95	C
ATOM	4863	C	ASP A 714	160.995	174.055	215.250	1.00102.95	C
ATOM	4864	O	ASP A 714	160.462	175.146	215.023	1.00102.95	O
ATOM	4865	CB	ASP A 714	159.784	172.318	216.588	1.00102.95	C
ATOM	4866	CG	ASP A 714	158.573	173.067	217.120	1.00102.95	C
ATOM	4867	OD1	ASP A 714	157.451	172.781	216.655	1.00102.95	O
ATOM	4868	OD2	ASP A 714	158.737	173.940	217.996	1.00102.95	O
ATOM	4869	N	LEU A 715	162.289	173.951	215.562	1.00 99.17	N
ATOM	4870	CA	LEU A 715	163.120	175.149	215.605	1.00 99.17	C
ATOM	4871	C	LEU A 715	163.052	175.906	214.288	1.00 99.17	C
ATOM	4872	O	LEU A 715	162.937	177.136	214.275	1.00 99.17	O
ATOM	4873	CB	LEU A 715	164.566	174.788	215.936	1.00 99.17	C
ATOM	4874	CG	LEU A 715	165.473	175.989	216.196	1.00 99.17	C
ATOM	4875	CD1	LEU A 715	164.898	176.867	217.291	1.00 99.17	C
ATOM	4876	CD2	LEU A 715	166.873	175.538	216.554	1.00 99.17	C
ATOM	4877	N	MET A 716	163.114	175.187	213.167	1.00102.19	N
ATOM	4878	CA	MET A 716	162.958	175.836	211.874	1.00102.19	C
ATOM	4879	C	MET A 716	161.542	176.341	211.654	1.00102.19	C
ATOM	4880	O	MET A 716	161.350	177.290	210.888	1.00102.19	O
ATOM	4881	CB	MET A 716	163.348	174.881	210.748	1.00102.19	C

ATOM	4882	CG	MET A 716	163.193	175.474	209.360	1.00102.19 C
ATOM	4883	SD	MET A 716	161.562	175.183	208.652	1.00102.19 S
ATOM	4884	CE	MET A 716	161.660	173.429	208.308	1.00102.19 C
ATOM	4885	N	SER A 717	160.548	175.734	212.298	1.00100.46 N
ATOM	4886	CA	SER A 717	159.174	176.204	212.193	1.00100.46 C
ATOM	4887	C	SER A 717	158.714	176.978	213.419	1.00100.46 C
ATOM	4888	O	SER A 717	157.642	177.588	213.381	1.00100.46 O
ATOM	4889	CB	SER A 717	158.228	175.027	211.946	1.00100.46 C
ATOM	4890	OG	SER A 717	156.903	175.366	212.311	1.00100.46 O
ATOM	4891	N	GLY A 718	159.488	176.970	214.499	1.00102.91 N
ATOM	4892	CA	GLY A 718	159.142	177.732	215.681	1.00102.91 C
ATOM	4893	C	GLY A 718	159.913	179.031	215.733	1.00102.91 C
ATOM	4894	O	GLY A 718	159.677	179.879	216.598	1.00102.91 O
ATOM	4895	N	LEU A 719	160.849	179.185	214.798	1.00105.23 N
ATOM	4896	CA	LEU A 719	161.600	180.420	214.625	1.00105.23 C
ATOM	4897	C	LEU A 719	161.457	181.024	213.240	1.00105.23 C
ATOM	4898	O	LEU A 719	161.617	182.243	213.105	1.00105.23 O
ATOM	4899	CB	LEU A 719	163.092	180.193	214.910	1.00105.23 C
ATOM	4900	CG	LEU A 719	164.023	181.389	214.714	1.00105.23 C
ATOM	4901	CD1	LEU A 719	163.410	182.640	215.306	1.00105.23 C
ATOM	4902	CD2	LEU A 719	165.377	181.117	215.339	1.00105.23 C
ATOM	4903	N	GLY A 720	161.162	180.229	212.215	1.00107.68 N
ATOM	4904	CA	GLY A 720	160.888	180.740	210.892	1.00107.68 C
ATOM	4905	C	GLY A 720	159.564	181.447	210.750	1.00107.68 C
ATOM	4906	O	GLY A 720	159.133	181.721	209.627	1.00107.68 O
ATOM	4907	N	ALA A 721	158.892	181.740	211.862	1.00111.43 N
ATOM	4908	CA	ALA A 721	157.648	182.503	211.836	1.00111.43 C
ATOM	4909	C	ALA A 721	157.563	183.592	212.892	1.00111.43 C
ATOM	4910	O	ALA A 721	156.627	184.396	212.836	1.00111.43 O
ATOM	4911	CB	ALA A 721	156.443	181.570	211.992	1.00111.43 C
ATOM	4912	N	ALA A 722	158.482	183.654	213.852	1.00112.69 N
ATOM	4913	CA	ALA A 722	158.485	184.693	214.875	1.00112.69 C
ATOM	4914	C	ALA A 722	159.724	184.492	215.738	1.00112.69 C
ATOM	4915	O	ALA A 722	160.372	183.443	215.692	1.00112.69 O
ATOM	4916	CB	ALA A 722	157.217	184.664	215.728	1.00112.69 C
ATOM	4917	N	GLY A 723	160.043	185.513	216.529	1.00115.66 N
ATOM	4918	CA	GLY A 723	161.209	185.474	217.391	1.00115.66 C

ATOM	4919	C	GLY A 723	162.404	186.164	216.766	1.00115.66 C
ATOM	4920	O	GLY A 723	163.044	185.614	215.865	1.00115.66 O
ATOM	4921	N	LYS A 724	162.722	187.369	217.239	1.00114.28 N
ATOM	4922	CA	LYS A 724	163.754	188.168	216.588	1.00114.28 C
ATOM	4923	C	LYS A 724	165.151	187.766	217.048	1.00114.28 C
ATOM	4924	O	LYS A 724	165.973	187.306	216.248	1.00114.28 O
ATOM	4925	CB	LYS A 724	163.503	189.655	216.854	1.00114.28 C
ATOM	4926	CG	LYS A 724	162.243	190.195	216.196	1.00114.28 C
ATOM	4927	CD	LYS A 724	162.385	190.237	214.684	1.00114.28 C
ATOM	4928	CE	LYS A 724	161.048	190.505	214.011	1.00114.28 C
ATOM	4929	NZ	LYS A 724	160.141	189.328	214.093	1.00114.28 N
ATOM	4930	N	ALA A 725	165.436	187.926	218.341	1.00112.61 N
ATOM	4931	CA	ALA A 725	166.763	187.671	218.876	1.00112.61 C
ATOM	4932	C	ALA A 725	166.797	186.616	219.969	1.00112.61 C
ATOM	4933	O	ALA A 725	167.882	186.108	220.277	1.00112.61 O
ATOM	4934	CB	ALA A 725	167.380	188.968	219.421	1.00112.61 C
ATOM	4935	N	VAL A 726	165.657	186.275	220.567	1.00110.97 N
ATOM	4936	CA	VAL A 726	165.648	185.264	221.618	1.00110.97 C
ATOM	4937	C	VAL A 726	165.701	183.866	221.020	1.00110.97 C
ATOM	4938	O	VAL A 726	166.371	182.977	221.557	1.00110.97 O
ATOM	4939	CB	VAL A 726	164.418	185.450	222.523	1.00110.97 C
ATOM	4940	CG1	VAL A 726	164.414	186.842	223.130	1.00110.97 C
ATOM	4941	CG2	VAL A 726	163.142	185.201	221.739	1.00110.97 C
ATOM	4942	N	GLY A 727	165.001	183.650	219.907	1.00109.35 N
ATOM	4943	CA	GLY A 727	164.958	182.359	219.250	1.00109.35 C
ATOM	4944	C	GLY A 727	166.295	181.652	219.200	1.00109.35 C
ATOM	4945	O	GLY A 727	166.374	180.439	219.416	1.00109.35 O
ATOM	4946	N	VAL A 728	167.359	182.405	218.921	1.00105.49 N
ATOM	4947	CA	VAL A 728	168.689	181.808	218.862	1.00105.49 C
ATOM	4948	C	VAL A 728	169.061	181.197	220.207	1.00105.49 C
ATOM	4949	O	VAL A 728	169.664	180.121	220.268	1.00105.49 O
ATOM	4950	CB	VAL A 728	169.725	182.850	218.407	1.00105.49 C
ATOM	4951	CG1	VAL A 728	171.119	182.249	218.424	1.00105.49 C
ATOM	4952	CG2	VAL A 728	169.375	183.369	217.024	1.00105.49 C
ATOM	4953	N	ALA A 729	168.698	181.862	221.306	1.00103.77 N
ATOM	4954	CA	ALA A 729	169.059	181.349	222.626	1.00103.77 C
ATOM	4955	C	ALA A 729	168.267	180.093	222.973	1.00103.77 C

ATOM	4956	O	ALA A 729	168.823	179.129	223.517	1.00103.77	O
ATOM	4957	CB	ALA A 729	168.845	182.429	223.684	1.00103.77	C
ATOM	4958	N	ILE A 730	166.963	180.095	222.691	1.00102.68	N
ATOM	4959	CA	ILE A 730	166.167	178.889	222.893	1.00102.68	C
ATOM	4960	C	ILE A 730	166.743	177.737	222.084	1.00102.68	C
ATOM	4961	O	ILE A 730	166.845	176.607	222.573	1.00102.68	O
ATOM	4962	CB	ILE A 730	164.692	179.150	222.539	1.00102.68	C
ATOM	4963	CG1	ILE A 730	164.081	180.154	223.515	1.00102.68	C
ATOM	4964	CG2	ILE A 730	163.909	177.856	222.544	1.00102.68	C
ATOM	4965	CD1	ILE A 730	162.711	180.637	223.109	1.00102.68	C
ATOM	4966	N	GLY A 731	167.123	178.001	220.835	1.00101.03	N
ATOM	4967	CA	GLY A 731	167.746	176.963	220.033	1.00101.03	C
ATOM	4968	C	GLY A 731	169.056	176.480	220.623	1.00101.03	C
ATOM	4969	O	GLY A 731	169.351	175.285	220.608	1.00101.03	O
ATOM	4970	N	ALA A 732	169.856	177.402	221.161	1.00101.79	N
ATOM	4971	CA	ALA A 732	171.145	177.021	221.726	1.00101.79	C
ATOM	4972	C	ALA A 732	170.984	176.164	222.973	1.00101.79	C
ATOM	4973	O	ALA A 732	171.809	175.279	223.225	1.00101.79	O
ATOM	4974	CB	ALA A 732	171.968	178.267	222.045	1.00101.79	C
ATOM	4975	N	VAL A 733	169.943	176.413	223.766	1.00 99.72	N
ATOM	4976	CA	VAL A 733	169.702	175.569	224.934	1.00 99.72	C
ATOM	4977	C	VAL A 733	169.123	174.224	224.515	1.00 99.72	C
ATOM	4978	O	VAL A 733	169.517	173.172	225.037	1.00 99.72	O
ATOM	4979	CB	VAL A 733	168.789	176.291	225.939	1.00 99.72	C
ATOM	4980	CG1	VAL A 733	168.425	175.360	227.075	1.00 99.72	C
ATOM	4981	CG2	VAL A 733	169.477	177.530	226.474	1.00 99.72	C
ATOM	4982	N	GLY A 734	168.178	174.232	223.574	1.00 99.14	N
ATOM	4983	CA	GLY A 734	167.678	172.982	223.037	1.00 99.14	C
ATOM	4984	C	GLY A 734	168.773	172.119	222.450	1.00 99.14	C
ATOM	4985	O	GLY A 734	168.696	170.893	222.506	1.00 99.14	O
ATOM	4986	N	GLY A 735	169.802	172.741	221.880	1.00100.79	N
ATOM	4987	CA	GLY A 735	170.906	171.969	221.337	1.00100.79	C
ATOM	4988	C	GLY A 735	171.459	170.965	222.326	1.00100.79	C
ATOM	4989	O	GLY A 735	171.804	169.840	221.958	1.00100.79	O
ATOM	4990	N	ALA A 736	171.545	171.355	223.596	1.00101.41	N
ATOM	4991	CA	ALA A 736	172.033	170.466	224.641	1.00101.41	C
ATOM	4992	C	ALA A 736	170.914	169.646	225.267	1.00101.41	C

ATOM	4993	O	ALA A 736	171.116	168.471	225.589	1.00101.41 O
ATOM	4994	CB	ALA A 736	172.756	171.271	225.723	1.00101.41 C
ATOM	4995	N	VAL A 737	169.730	170.238	225.441	1.00100.83 N
ATOM	4996	CA	VAL A 737	168.638	169.505	226.074	1.00100.83 C
ATOM	4997	C	VAL A 737	168.117	168.372	225.198	1.00100.83 C
ATOM	4998	O	VAL A 737	167.496	167.436	225.713	1.00100.83 O
ATOM	4999	CB	VAL A 737	167.495	170.462	226.458	1.00100.83 C
ATOM	5000	CG1	VAL A 737	166.236	169.682	226.779	1.00100.83 C
ATOM	5001	CG2	VAL A 737	167.902	171.308	227.646	1.00100.83 C
ATOM	5002	N	ALA A 738	168.356	168.416	223.889	1.00100.01 N
ATOM	5003	CA	ALA A 738	167.911	167.372	222.979	1.00100.01 C
ATOM	5004	C	ALA A 738	169.004	166.362	222.669	1.00100.01 C
ATOM	5005	O	ALA A 738	168.843	165.553	221.751	1.00100.01 O
ATOM	5006	CB	ALA A 738	167.386	167.987	221.683	1.00100.01 C
ATOM	5007	N	SER A 739	170.112	166.398	223.402	1.00101.86 N
ATOM	5008	CA	SER A 739	171.128	165.361	223.310	1.00101.86 C
ATOM	5009	C	SER A 739	170.959	164.291	224.376	1.00101.86 C
ATOM	5010	O	SER A 739	171.591	163.234	224.279	1.00101.86 O
ATOM	5011	CB	SER A 739	172.526	165.975	223.420	1.00101.86 C
ATOM	5012	OG	SER A 739	173.525	165.013	223.134	1.00101.86 O
ATOM	5013	N	VAL A 740	170.130	164.543	225.383	1.00101.64 N
ATOM	5014	CA	VAL A 740	169.826	163.547	226.404	1.00101.64 C
ATOM	5015	C	VAL A 740	168.571	162.763	226.049	1.00101.64 C
ATOM	5016	O	VAL A 740	168.507	161.549	226.264	1.00101.64 O
ATOM	5017	CB	VAL A 740	169.691	164.234	227.776	1.00101.64 C
ATOM	5018	CG1	VAL A 740	169.195	163.249	228.813	1.00101.64 C
ATOM	5019	CG2	VAL A 740	171.017	164.832	228.197	1.00101.64 C
ATOM	5020	N	VAL A 741	167.555	163.446	225.518	1.00100.21 N
ATOM	5021	CA	VAL A 741	166.328	162.760	225.134	1.00100.21 C
ATOM	5022	C	VAL A 741	166.601	161.737	224.044	1.00100.21 C
ATOM	5023	O	VAL A 741	165.984	160.669	224.020	1.00100.21 O
ATOM	5024	CB	VAL A 741	165.258	163.776	224.696	1.00100.21 C
ATOM	5025	CG1	VAL A 741	164.153	163.076	223.933	1.00100.21 C
ATOM	5026	CG2	VAL A 741	164.693	164.495	225.904	1.00100.21 C
ATOM	5027	N	GLU A 742	167.532	162.029	223.135	1.00102.36 N
ATOM	5028	CA	GLU A 742	167.859	161.055	222.099	1.00102.36 C
ATOM	5029	C	GLU A 742	168.481	159.801	222.699	1.00102.36 C

ATOM	5030	O	GLU A 742	168.126	158.680	222.316	1.00102.36	O
ATOM	5031	CB	GLU A 742	168.791	161.676	221.063	1.00102.36	C
ATOM	5032	CG	GLU A 742	168.129	162.747	220.228	1.00102.36	C
ATOM	5033	CD	GLU A 742	167.002	162.192	219.385	1.00102.36	C
ATOM	5034	OE1	GLU A 742	167.087	161.012	218.988	1.00102.36	O
ATOM	5035	OE2	GLU A 742	166.030	162.930	219.122	1.00102.36	O
ATOM	5036	N	GLY A 743	169.415	159.969	223.634	1.00103.83	N
ATOM	5037	CA	GLY A 743	169.985	158.811	224.300	1.00103.83	C
ATOM	5038	C	GLY A 743	168.945	158.015	225.062	1.00103.83	C
ATOM	5039	O	GLY A 743	168.968	156.782	225.061	1.00103.83	O
ATOM	5040	N	VAL A 744	168.014	158.708	225.720	1.00100.88	N
ATOM	5041	CA	VAL A 744	166.990	158.007	226.488	1.00100.88	C
ATOM	5042	C	VAL A 744	165.977	157.339	225.567	1.00100.88	C
ATOM	5043	O	VAL A 744	165.303	156.384	225.966	1.00100.88	O
ATOM	5044	CB	VAL A 744	166.304	158.972	227.470	1.00100.88	C
ATOM	5045	CG1	VAL A 744	165.075	158.325	228.073	1.00100.88	C
ATOM	5046	CG2	VAL A 744	167.274	159.384	228.561	1.00100.88	C
ATOM	5047	N	ALA A 745	165.847	157.821	224.330	1.00100.69	N
ATOM	5048	CA	ALA A 745	164.916	157.203	223.394	1.00100.69	C
ATOM	5049	C	ALA A 745	165.532	155.989	222.712	1.00100.69	C
ATOM	5050	O	ALA A 745	164.871	154.956	222.565	1.00100.69	O
ATOM	5051	CB	ALA A 745	164.459	158.223	222.354	1.00100.69	C
ATOM	5052	N	THR A 746	166.793	156.092	222.286	1.00103.62	N
ATOM	5053	CA	THR A 746	167.472	154.934	221.717	1.00103.62	C
ATOM	5054	C	THR A 746	167.533	153.774	222.699	1.00103.62	C
ATOM	5055	O	THR A 746	167.673	152.622	222.276	1.00103.62	O
ATOM	5056	CB	THR A 746	168.883	155.311	221.271	1.00103.62	C
ATOM	5057	OG1	THR A 746	168.811	156.319	220.256	1.00103.62	O
ATOM	5058	CG2	THR A 746	169.607	154.099	220.720	1.00103.62	C
ATOM	5059	N	PHE A 747	167.431	154.051	223.998	1.00100.32	N
ATOM	5060	CA	PHE A 747	167.405	153.003	225.007	1.00100.32	C
ATOM	5061	C	PHE A 747	166.087	152.242	225.022	1.00100.32	C
ATOM	5062	O	PHE A 747	166.038	151.128	225.550	1.00100.32	O
ATOM	5063	CB	PHE A 747	167.675	153.610	226.385	1.00100.32	C
ATOM	5064	CG	PHE A 747	167.768	152.603	227.493	1.00100.32	C
ATOM	5065	CD1	PHE A 747	166.639	152.208	228.185	1.00100.32	C
ATOM	5066	CD2	PHE A 747	168.989	152.069	227.859	1.00100.32	C

ATOM	5067	CE1	PHE A 747	166.724	151.289	229.208	1.00100.32	C
ATOM	5068	CE2	PHE A 747	169.079	151.150	228.882	1.00100.32	C
ATOM	5069	CZ	PHE A 747	167.945	150.761	229.557	1.00100.32	C
ATOM	5070	N	LEU A 748	165.024	152.814	224.455	1.00100.74	N
ATOM	5071	CA	LEU A 748	163.719	152.168	224.393	1.00100.74	C
ATOM	5072	C	LEU A 748	163.482	151.471	223.057	1.00100.74	C
ATOM	5073	O	LEU A 748	162.333	151.316	222.632	1.00100.74	O
ATOM	5074	CB	LEU A 748	162.609	153.183	224.665	1.00100.74	C
ATOM	5075	CG	LEU A 748	162.633	153.874	226.029	1.00100.74	C
ATOM	5076	CD1	LEU A 748	161.465	154.831	226.165	1.00100.74	C
ATOM	5077	CD2	LEU A 748	162.614	152.851	227.145	1.00100.74	C
ATOM	5078	N	LYS A 749	164.552	151.052	222.383	1.00101.31	N
ATOM	5079	CA	LYS A 749	164.447	150.291	221.148	1.00101.31	C
ATOM	5080	C	LYS A 749	165.023	148.889	221.269	1.00101.31	C
ATOM	5081	O	LYS A 749	164.917	148.107	220.318	1.00101.31	O
ATOM	5082	CB	LYS A 749	165.143	151.033	220.001	1.00101.31	C
ATOM	5083	CG	LYS A 749	164.809	152.510	219.926	1.00101.31	C
ATOM	5084	CD	LYS A 749	163.373	152.725	219.493	1.00101.31	C
ATOM	5085	CE	LYS A 749	163.137	154.162	219.067	1.00101.31	C
ATOM	5086	NZ	LYS A 749	164.017	154.557	217.935	1.00101.31	N
ATOM	5087	N	ASN A 750	165.631	148.551	222.402	1.00 99.22	N
ATOM	5088	CA	ASN A 750	166.140	147.218	222.659	1.00 99.22	C
ATOM	5089	C	ASN A 750	165.178	146.474	223.564	1.00 99.22	C
ATOM	5090	O	ASN A 750	164.866	146.965	224.657	1.00 99.22	O
ATOM	5091	CB	ASN A 750	167.517	147.284	223.317	1.00 99.22	C
ATOM	5092	CG	ASN A 750	168.508	148.077	222.505	1.00 99.22	C
ATOM	5093	OD1	ASN A 750	168.214	149.183	222.054	1.00 99.22	O
ATOM	5094	ND2	ASN A 750	169.692	147.517	222.308	1.00 99.22	N
ATOM	5095	N	PRO A 751	164.677	145.309	223.151	1.00100.73	N
ATOM	5096	CA	PRO A 751	163.799	144.541	224.048	1.00100.73	C
ATOM	5097	C	PRO A 751	164.332	144.456	225.467	1.00100.73	C
ATOM	5098	O	PRO A 751	163.616	144.792	226.419	1.00100.73	O
ATOM	5099	CB	PRO A 751	163.735	143.173	223.362	1.00100.73	C
ATOM	5100	CG	PRO A 751	163.922	143.481	221.925	1.00100.73	C
ATOM	5101	CD	PRO A 751	164.879	144.635	221.859	1.00100.73	C
ATOM	5102	N	PHE A 752	165.583	144.025	225.637	1.00101.71	N
ATOM	5103	CA	PHE A 752	166.184	143.997	226.963	1.00101.71	C

ATOM	5104	C	PHE A 752	166.324	145.385	227.568	1.00101.71 C
ATOM	5105	O	PHE A 752	166.573	145.494	228.773	1.00101.71 O
ATOM	5106	CB	PHE A 752	167.553	143.322	226.907	1.00101.71 C
ATOM	5107	CG	PHE A 752	167.630	142.187	225.931	1.00101.71 C
ATOM	5108	CD1	PHE A 752	166.848	141.059	226.099	1.00101.71 C
ATOM	5109	CD2	PHE A 752	168.483	142.247	224.845	1.00101.71 C
ATOM	5110	CE1	PHE A 752	166.917	140.014	225.202	1.00101.71 C
ATOM	5111	CE2	PHE A 752	168.555	141.206	223.948	1.00101.71 C
ATOM	5112	CZ	PHE A 752	167.771	140.088	224.127	1.00101.71 C
ATOM	5113	N	GLY A 753	166.179	146.439	226.771	1.00101.58 N
ATOM	5114	CA	GLY A 753	166.230	147.787	227.295	1.00101.58 C
ATOM	5115	C	GLY A 753	164.873	148.269	227.758	1.00101.58 C
ATOM	5116	O	GLY A 753	164.716	148.706	228.901	1.00101.58 O
ATOM	5117	N	ALA A 754	163.878	148.189	226.874	1.00102.92 N
ATOM	5118	CA	ALA A 754	162.524	148.591	227.225	1.00102.92 C
ATOM	5119	C	ALA A 754	161.862	147.637	228.205	1.00102.92 C
ATOM	5120	O	ALA A 754	160.779	147.950	228.708	1.00102.92 O
ATOM	5121	CB	ALA A 754	161.665	148.706	225.966	1.00102.92 C
ATOM	5122	N	PHE A 755	162.477	146.490	228.487	1.00103.84 N
ATOM	5123	CA	PHE A 755	161.899	145.529	229.414	1.00103.84 C
ATOM	5124	C	PHE A 755	162.252	145.815	230.865	1.00103.84 C
ATOM	5125	O	PHE A 755	161.560	145.324	231.763	1.00103.84 O
ATOM	5126	CB	PHE A 755	162.351	144.113	229.047	1.00103.84 C
ATOM	5127	CG	PHE A 755	161.858	143.054	229.986	1.00103.84 C
ATOM	5128	CD1	PHE A 755	160.555	142.599	229.913	1.00103.84 C
ATOM	5129	CD2	PHE A 755	162.701	142.507	230.937	1.00103.84 C
ATOM	5130	CE1	PHE A 755	160.100	141.622	230.773	1.00103.84 C
ATOM	5131	CE2	PHE A 755	162.251	141.529	231.799	1.00103.84 C
ATOM	5132	CZ	PHE A 755	160.949	141.087	231.718	1.00103.84 C
ATOM	5133	N	THR A 756	163.304	146.596	231.117	1.00104.91 N
ATOM	5134	CA	THR A 756	163.669	146.924	232.490	1.00104.91 C
ATOM	5135	C	THR A 756	162.787	148.022	233.069	1.00104.91 C
ATOM	5136	O	THR A 756	162.583	148.070	234.287	1.00104.91 O
ATOM	5137	CB	THR A 756	165.136	147.346	232.562	1.00104.91 C
ATOM	5138	OG1	THR A 756	165.504	147.570	233.927	1.00104.91 O
ATOM	5139	CG2	THR A 756	165.357	148.622	231.775	1.00104.91 C
ATOM	5140	N	ILE A 757	162.264	148.912	232.224	1.00104.67 N

ATOM	5141	CA	ILE A 757	161.353	149.941	232.711	1.00104.67	C
ATOM	5142	C	ILE A 757	160.066	149.311	233.224	1.00104.67	C
ATOM	5143	O	ILE A 757	159.487	149.764	234.219	1.00104.67	O
ATOM	5144	CB	ILE A 757	161.075	150.975	231.606	1.00104.67	C
ATOM	5145	CG1	ILE A 757	162.377	151.638	231.159	1.00104.67	C
ATOM	5146	CG2	ILE A 757	160.085	152.016	232.091	1.00104.67	C
ATOM	5147	CD1	ILE A 757	163.297	151.999	232.299	1.00104.67	C
ATOM	5148	N	ILE A 758	159.594	148.260	232.550	1.00104.92	N
ATOM	5149	CA	ILE A 758	158.375	147.589	232.977	1.00104.92	C
ATOM	5150	C	ILE A 758	158.575	146.854	234.293	1.00104.92	C
ATOM	5151	O	ILE A 758	157.595	146.529	234.971	1.00104.92	O
ATOM	5152	CB	ILE A 758	157.886	146.628	231.879	1.00104.92	C
ATOM	5153	CG1	ILE A 758	157.626	147.397	230.584	1.00104.92	C
ATOM	5154	CG2	ILE A 758	156.631	145.905	232.324	1.00104.92	C
ATOM	5155	CD1	ILE A 758	156.850	146.612	229.558	1.00104.92	C
ATOM	5156	N	LEU A 759	159.822	146.583	234.675	1.00107.20	N
ATOM	5157	CA	LEU A 759	160.114	146.010	235.983	1.00107.20	C
ATOM	5158	C	LEU A 759	160.302	147.087	237.041	1.00107.20	C
ATOM	5159	O	LEU A 759	159.882	146.912	238.189	1.00107.20	O
ATOM	5160	CB	LEU A 759	161.363	145.131	235.909	1.00107.20	C
ATOM	5161	CG	LEU A 759	161.251	143.869	235.057	1.00107.20	C
ATOM	5162	CD1	LEU A 759	162.529	143.061	235.141	1.00107.20	C
ATOM	5163	CD2	LEU A 759	160.064	143.041	235.502	1.00107.20	C
ATOM	5164	N	VAL A 760	160.925	148.206	236.671	1.00109.62	N
ATOM	5165	CA	VAL A 760	161.092	149.311	237.611	1.00109.62	C
ATOM	5166	C	VAL A 760	159.734	149.856	238.032	1.00109.62	C
ATOM	5167	O	VAL A 760	159.457	150.038	239.226	1.00109.62	O
ATOM	5168	CB	VAL A 760	161.973	150.412	236.995	1.00109.62	C
ATOM	5169	CG1	VAL A 760	161.719	151.737	237.688	1.00109.62	C
ATOM	5170	CG2	VAL A 760	163.437	150.030	237.093	1.00109.62	C
ATOM	5171	N	ALA A 761	158.871	150.143	237.056	1.00111.45	N
ATOM	5172	CA	ALA A 761	157.544	150.668	237.352	1.00111.45	C
ATOM	5173	C	ALA A 761	156.617	149.628	237.957	1.00111.45	C
ATOM	5174	O	ALA A 761	155.488	149.971	238.321	1.00111.45	O
ATOM	5175	CB	ALA A 761	156.913	151.246	236.084	1.00111.45	C
ATOM	5176	N	ILE A 762	157.055	148.376	238.071	1.00112.60	N
ATOM	5177	CA	ILE A 762	156.252	147.335	238.698	1.00112.60	C

ATOM	5178	C	ILE A 762	156.719	147.167	240.135	1.00112.60 C
ATOM	5179	O	ILE A 762	155.923	146.873	241.033	1.00112.60 O
ATOM	5180	CB	ILE A 762	156.347	146.009	237.924	1.00112.60 C
ATOM	5181	CG1	ILE A 762	155.353	146.003	236.762	1.00112.60 C
ATOM	5182	CG2	ILE A 762	156.104	144.832	238.852	1.00112.60 C
ATOM	5183	CD1	ILE A 762	155.397	144.744	235.929	1.00112.60 C
ATOM	5184	N	ALA A 763	158.019	147.353	240.359	1.00116.58 N
ATOM	5185	CA	ALA A 763	158.560	147.288	241.710	1.00116.58 C
ATOM	5186	C	ALA A 763	158.246	148.544	242.510	1.00116.58 C
ATOM	5187	O	ALA A 763	158.092	148.469	243.735	1.00116.58 O
ATOM	5188	CB	ALA A 763	160.071	147.061	241.664	1.00116.58 C
ATOM	5189	N	VAL A 764	158.155	149.699	241.849	1.00119.21 N
ATOM	5190	CA	VAL A 764	157.870	150.934	242.574	1.00119.21 C
ATOM	5191	C	VAL A 764	156.499	150.854	243.238	1.00119.21 C
ATOM	5192	O	VAL A 764	156.319	151.277	244.385	1.00119.21 O
ATOM	5193	CB	VAL A 764	157.979	152.150	241.635	1.00119.21 C
ATOM	5194	CG1	VAL A 764	156.751	152.259	240.747	1.00119.21 C
ATOM	5195	CG2	VAL A 764	158.179	153.422	242.438	1.00119.21 C
ATOM	5196	N	VAL A 765	155.516	150.292	242.533	1.00120.59 N
ATOM	5197	CA	VAL A 765	154.165	150.200	243.082	1.00120.59 C
ATOM	5198	C	VAL A 765	154.143	149.247	244.270	1.00120.59 C
ATOM	5199	O	VAL A 765	153.483	149.501	245.285	1.00120.59 O
ATOM	5200	CB	VAL A 765	153.168	149.767	241.995	1.00120.59 C
ATOM	5201	CG1	VAL A 765	151.786	149.587	242.593	1.00120.59 C
ATOM	5202	CG2	VAL A 765	153.136	150.788	240.873	1.00120.59 C
ATOM	5203	N	ILE A 766	154.849	148.126	244.152	1.00122.89 N
ATOM	5204	CA	ILE A 766	154.964	147.171	245.248	1.00122.89 C
ATOM	5205	C	ILE A 766	155.534	147.883	246.465	1.00122.89 C
ATOM	5206	O	ILE A 766	154.972	147.807	247.564	1.00122.89 O
ATOM	5207	CB	ILE A 766	155.834	145.964	244.855	1.00122.89 C
ATOM	5208	CG1	ILE A 766	155.117	145.117	243.804	1.00122.89 C
ATOM	5209	CG2	ILE A 766	156.173	145.132	246.079	1.00122.89 C
ATOM	5210	CD1	ILE A 766	153.743	144.658	244.234	1.00122.89 C
ATOM	5211	N	ILE A 767	156.655	148.582	246.278	1.00124.95 N
ATOM	5212	CA	ILE A 767	157.273	149.304	247.388	1.00124.95 C
ATOM	5213	C	ILE A 767	156.277	150.277	248.006	1.00124.95 C
ATOM	5214	O	ILE A 767	156.184	150.408	249.232	1.00124.95 O

ATOM	5215	CB	ILE A 767	158.547	150.026	246.918	1.00124.95	C
ATOM	5216	CG1	ILE A 767	159.572	149.013	246.408	1.00124.95	C
ATOM	5217	CG2	ILE A 767	159.133	150.852	248.046	1.00124.95	C
ATOM	5218	CD1	ILE A 767	159.735	147.810	247.305	1.00124.95	C
ATOM	5219	N	ILE A 768	155.517	150.977	247.162	1.00128.30	N
ATOM	5220	CA	ILE A 768	154.534	151.936	247.664	1.00128.30	C
ATOM	5221	C	ILE A 768	153.525	151.238	248.567	1.00128.30	C
ATOM	5222	O	ILE A 768	153.338	151.614	249.729	1.00128.30	O
ATOM	5223	CB	ILE A 768	153.835	152.653	246.497	1.00128.30	C
ATOM	5224	CG1	ILE A 768	154.848	153.446	245.673	1.00128.30	C
ATOM	5225	CG2	ILE A 768	152.739	153.565	247.018	1.00128.30	C
ATOM	5226	CD1	ILE A 768	155.453	154.603	246.418	1.00128.30	C
ATOM	5227	N	TYR A 769	152.859	150.216	248.039	1.00134.80	N
ATOM	5228	CA	TYR A 769	151.794	149.520	248.759	1.00134.80	C
ATOM	5229	C	TYR A 769	152.196	149.162	250.183	1.00134.80	C
ATOM	5230	O	TYR A 769	151.353	148.806	251.005	1.00134.80	O
ATOM	5231	CB	TYR A 769	151.388	148.253	248.007	1.00134.80	C
ATOM	5232	CG	TYR A 769	150.276	147.471	248.668	1.00134.80	C
ATOM	5233	CD1	TYR A 769	148.953	147.876	248.555	1.00134.80	C
ATOM	5234	CD2	TYR A 769	150.548	146.326	249.403	1.00134.80	C
ATOM	5235	CE1	TYR A 769	147.932	147.162	249.155	1.00134.80	C
ATOM	5236	CE2	TYR A 769	149.535	145.605	250.007	1.00134.80	C
ATOM	5237	CZ	TYR A 769	148.229	146.027	249.879	1.00134.80	C
ATOM	5238	OH	TYR A 769	147.217	145.313	250.479	1.00134.80	O
ATOM	5239	N	LEU A 770	155.078	148.508	250.283	1.00141.15	N
ATOM	5240	CA	LEU A 770	154.698	148.001	251.596	1.00141.15	C
ATOM	5241	C	LEU A 770	154.608	149.133	252.611	1.00141.15	C
ATOM	5242	O	LEU A 770	154.243	148.918	253.766	1.00141.15	O
ATOM	5243	CB	LEU A 770	155.696	146.945	252.068	1.00141.15	C
ATOM	5244	CG	LEU A 770	156.040	145.871	251.036	1.00141.15	C
ATOM	5245	CD1	LEU A 770	157.303	145.126	251.433	1.00141.15	C
ATOM	5246	CD2	LEU A 770	154.876	144.910	250.857	1.00141.15	C
ATOM	5247	N	ILE A 771	154.941	150.346	252.165	1.00142.28	N
ATOM	5248	CA	ILE A 771	155.003	151.488	253.075	1.00142.28	C
ATOM	5249	C	ILE A 771	153.631	151.777	253.671	1.00142.28	C
ATOM	5250	O	ILE A 771	153.489	151.984	254.881	1.00142.28	O
ATOM	5251	CB	ILE A 771	155.570	152.720	252.348	1.00142.28	C

ATOM	5252	CG1	ILE	A	771	156.977	152.424	251.826	1.00	142.28	C
ATOM	5253	CG2	ILE	A	771	155.578	153.924	253.272	1.00	142.28	C
ATOM	5254	CD1	ILE	A	771	157.714	153.647	251.337	1.00	142.28	C
ATOM	5255	N	TYR	A	772	152.599	151.800	252.825	1.00	146.80	N
ATOM	5256	CA	TYR	A	772	151.266	152.169	253.292	1.00	146.80	C
ATOM	5257	C	TYR	A	772	150.801	151.256	254.419	1.00	146.80	C
ATOM	5258	O	TYR	A	772	150.243	151.719	255.420	1.00	146.80	O
ATOM	5259	CB	TYR	A	772	150.277	152.136	252.127	1.00	146.80	C
ATOM	5260	CG	TYR	A	772	148.899	152.643	252.479	1.00	146.80	C
ATOM	5261	CD1	TYR	A	772	148.616	154.002	252.472	1.00	146.80	C
ATOM	5262	CD2	TYR	A	772	147.879	151.764	252.814	1.00	146.80	C
ATOM	5263	CE1	TYR	A	772	147.356	154.471	252.791	1.00	146.80	C
ATOM	5264	CE2	TYR	A	772	146.616	152.223	253.134	1.00	146.80	C
ATOM	5265	CZ	TYR	A	772	146.361	153.577	253.121	1.00	146.80	C
ATOM	5266	OH	TYR	A	772	145.104	154.037	253.440	1.00	146.80	O
ATOM	5267	N	THR	A	773	151.021	149.949	254.272	1.00	149.19	N
ATOM	5268	CA	THR	A	773	150.625	149.013	255.319	1.00	149.19	C
ATOM	5269	C	THR	A	773	151.374	149.293	256.615	1.00	149.19	C
ATOM	5270	O	THR	A	773	150.769	149.387	257.689	1.00	149.19	O
ATOM	5271	CB	THR	A	773	150.868	147.574	254.861	1.00	149.19	C
ATOM	5272	OG1	THR	A	773	152.264	147.267	254.967	1.00	149.19	O
ATOM	5273	CG2	THR	A	773	150.420	147.391	253.421	1.00	149.19	C
ATOM	5274	N	ARG	A	774	152.701	149.424	256.533	1.00	151.10	N
ATOM	5275	CA	ARG	A	774	153.498	149.682	257.729	1.00	151.10	C
ATOM	5276	C	ARG	A	774	152.957	150.872	258.510	1.00	151.10	C
ATOM	5277	O	ARG	A	774	152.945	150.858	259.746	1.00	151.10	O
ATOM	5278	CB	ARG	A	774	154.959	149.911	257.344	1.00	151.10	C
ATOM	5279	CG	ARG	A	774	155.516	148.871	256.386	1.00	151.10	C
ATOM	5280	CD	ARG	A	774	155.384	147.471	256.957	1.00	151.10	C
ATOM	5281	NE	ARG	A	774	155.712	146.441	255.976	1.00	151.10	N
ATOM	5282	CZ	ARG	A	774	156.930	145.944	255.792	1.00	151.10	C
ATOM	5283	NH1	ARG	A	774	157.946	146.386	256.522	1.00	151.10	N
ATOM	5284	NH2	ARG	A	774	157.136	145.007	254.878	1.00	151.10	N
ATOM	5285	N	GLN	A	775	152.504	151.912	257.808	1.00	154.55	N
ATOM	5286	CA	GLN	A	775	151.942	153.069	258.494	1.00	154.55	C
ATOM	5287	C	GLN	A	775	150.639	152.725	259.204	1.00	154.55	C
ATOM	5288	O	GLN	A	775	150.404	153.191	260.324	1.00	154.55	O

ATOM	5289	CB	GLN A 775	151.722	154.212	257.501	1.00154.55	C
ATOM	5290	CG	GLN A 775	150.968	155.407	258.070	1.00154.55	C
ATOM	5291	CD	GLN A 775	149.462	155.247	257.984	1.00154.55	C
ATOM	5292	OE1	GLN A 775	148.914	154.984	256.914	1.00154.55	O
ATOM	5293	NE2	GLN A 775	148.786	155.398	259.116	1.00154.55	N
ATOM	5294	N	ARG A 776	149.786	151.913	258.576	1.00157.83	N
ATOM	5295	CA	ARG A 776	148.486	151.613	259.168	1.00157.83	C
ATOM	5296	C	ARG A 776	148.631	150.762	260.422	1.00157.83	C
ATOM	5297	O	ARG A 776	147.873	150.931	261.384	1.00157.83	O
ATOM	5298	CB	ARG A 776	147.593	150.918	258.141	1.00157.83	C
ATOM	5299	CG	ARG A 776	146.309	150.349	258.717	1.00157.83	C
ATOM	5300	CD	ARG A 776	145.259	150.162	257.635	1.00157.83	C
ATOM	5301	NE	ARG A 776	144.842	151.436	257.055	1.00157.83	N
ATOM	5302	CZ	ARG A 776	143.822	151.578	256.216	1.00157.83	C
ATOM	5303	NH1	ARG A 776	143.107	150.522	255.853	1.00157.83	N
ATOM	5304	NH2	ARG A 776	143.516	152.777	255.739	1.00157.83	N
ATOM	5305	N	ARG A 777	149.598	149.841	260.434	1.00159.57	N
ATOM	5306	CA	ARG A 777	149.830	149.045	261.634	1.00159.57	C
ATOM	5307	C	ARG A 777	150.317	149.908	262.791	1.00159.57	C
ATOM	5308	O	ARG A 777	150.064	149.581	263.956	1.00159.57	O
ATOM	5309	CB	ARG A 777	150.835	147.931	261.345	1.00159.57	C
ATOM	5310	CG	ARG A 777	151.234	147.130	262.575	1.00159.57	C
ATOM	5311	CD	ARG A 777	152.262	146.063	262.236	1.00159.57	C
ATOM	5312	NE	ARG A 777	153.573	146.639	261.954	1.00159.57	N
ATOM	5313	CZ	ARG A 777	154.574	145.976	261.385	1.00159.57	C
ATOM	5314	NH1	ARG A 777	154.416	144.707	261.033	1.00159.57	N
ATOM	5315	NH2	ARG A 777	155.734	146.581	261.166	1.00159.57	N
ATOM	5316	N	LEU A 778	151.013	151.003	262.493	1.00161.40	N
ATOM	5317	CA	LEU A 778	151.521	151.925	263.507	1.00161.40	C
ATOM	5318	C	LEU A 778	150.714	153.215	263.554	1.00161.40	C
ATOM	5319	O	LEU A 778	151.268	154.297	263.767	1.00161.40	O
ATOM	5320	CB	LEU A 778	152.996	152.225	263.257	1.00161.40	C
ATOM	5321	CG	LEU A 778	153.972	151.082	263.539	1.00161.40	C
ATOM	5322	CD1	LEU A 778	155.365	151.623	263.818	1.00161.40	C
ATOM	5323	CD2	LEU A 778	153.480	150.232	264.700	1.00161.40	C
ATOM	5324	N	CYS A 779	149.403	153.126	263.352	1.00163.89	N
ATOM	5325	CA	CYS A 779	148.536	154.299	263.373	1.00163.89	C

ATOM	5326	C	CYS A 779	148.711	155.096	264.660	1.00163.89 C
ATOM	5327	O	CYS A 779	149.548	155.995	264.734	1.00163.89 O
ATOM	5328	CB	CYS A 779	147.073	153.884	263.209	1.00163.89 C
ATOM	5329	SG	CYS A 779	145.879	155.178	263.617	1.00163.89 S
TER							

HETATM	5330	C1	NAG A1001	185.741	114.783	200.576	1.00103.19 C
HETATM	5331	C2	NAG A1001	185.905	113.490	199.785	1.00103.19 C
HETATM	5332	C3	NAG A1001	186.919	113.682	198.663	1.00103.19 C
HETATM	5333	C4	NAG A1001	186.553	114.891	197.814	1.00103.19 C
HETATM	5334	C5	NAG A1001	186.330	116.118	198.696	1.00103.19 C
HETATM	5335	C6	NAG A1001	185.821	117.314	197.928	1.00103.19 C
HETATM	5336	C7	NAG A1001	185.436	111.484	201.117	1.00103.19 C
HETATM	5337	C8	NAG A1001	186.013	110.419	201.998	1.00103.19 C
HETATM	5338	N2	NAG A1001	186.300	112.393	200.653	1.00103.19 N
HETATM	5339	O3	NAG A1001	186.938	112.516	197.848	1.00103.19 O
HETATM	5340	O4	NAG A1001	187.598	115.157	196.885	1.00103.19 O
HETATM	5341	O5	NAG A1001	185.350	115.828	199.703	1.00103.19 O
HETATM	5342	O6	NAG A1001	184.873	118.051	198.687	1.00103.19 O
HETATM	5343	O7	NAG A1001	184.242	111.519	200.835	1.00103.19 O
HETATM	5344	H1	NAG A1001	186.595	115.017	200.985	1.00103.19 H
HETATM	5345	H2	NAG A1001	185.053	113.260	199.372	1.00103.19 H
HETATM	5346	H3	NAG A1001	187.804	113.821	199.050	1.00103.19 H
HETATM	5347	H4	NAG A1001	185.731	114.696	197.327	1.00103.19 H
HETATM	5348	H5	NAG A1001	187.168	116.353	199.137	1.00103.19 H
HETATM	5349	H61	NAG A1001	185.399	117.006	197.105	1.00103.19 H
HETATM	5350	H62	NAG A1001	186.573	117.895	197.705	1.00103.19 H
HETATM	5351	H81	NAG A1001	186.556	110.834	202.695	1.00103.19 H
HETATM	5352	H82	NAG A1001	186.568	109.820	201.463	1.00103.19 H
HETATM	5353	H83	NAG A1001	185.288	109.911	202.409	1.00103.19 H
HETATM	5354	HN2	NAG A1001	187.178	112.323	200.891	1.00103.19 H
HETATM	5355	HO3	NAG A1001	186.667	112.724	197.028	1.00103.19 H
HETATM	5356	HO6	NAG A1001	184.508	117.520	199.297	1.00103.19 H
HETATM	5357	C1	NAG A1002	188.416	114.642	195.908	1.00101.43 C
HETATM	5358	C2	NAG A1002	189.908	114.504	196.088	1.00101.43 C
HETATM	5359	C3	NAG A1002	190.509	113.834	194.867	1.00101.43 C
HETATM	5360	C4	NAG A1002	189.534	112.828	194.267	1.00101.43 C

HETATM	5361	C5	NAG A1002	188.513	112.308	195.285	1.00101.43	C
HETATM	5362	C6	NAG A1002	189.134	111.443	196.357	1.00101.43	C
HETATM	5363	C7	NAG A1002	190.155	116.622	197.302	1.00101.43	C
HETATM	5364	C8	NAG A1002	190.905	117.916	197.398	1.00101.43	C
HETATM	5365	N2	NAG A1002	190.529	115.799	196.317	1.00101.43	N
HETATM	5366	O3	NAG A1002	191.723	113.184	195.225	1.00101.43	O
HETATM	5367	O4	NAG A1002	188.846	113.420	193.171	1.00101.43	O
HETATM	5368	O5	NAG A1002	187.815	113.369	195.963	1.00101.43	O
HETATM	5369	O6	NAG A1002	188.382	110.255	196.564	1.00101.43	O
HETATM	5370	O7	NAG A1002	189.251	116.336	198.079	1.00101.43	O
HETATM	5371	H1	NAG A1002	188.235	115.047	195.040	1.00101.43	H
HETATM	5372	H2	NAG A1002	190.075	113.937	196.863	1.00101.43	H
HETATM	5373	H3	NAG A1002	190.697	114.518	194.198	1.00101.43	H
HETATM	5374	H4	NAG A1002	190.047	112.070	193.932	1.00101.43	H
HETATM	5375	H5	NAG A1002	187.856	111.772	194.803	1.00101.43	H
HETATM	5376	H61	NAG A1002	189.167	111.947	197.190	1.00101.43	H
HETATM	5377	H62	NAG A1002	190.043	111.206	196.092	1.00101.43	H
HETATM	5378	H81	NAG A1002	190.426	118.607	196.903	1.00101.43	H
HETATM	5379	H82	NAG A1002	191.797	117.804	197.019	1.00101.43	H
HETATM	5380	H83	NAG A1002	190.979	118.180	198.335	1.00101.43	H
HETATM	5381	HN2	NAG A1002	191.209	116.055	195.766	1.00101.43	H
HETATM	5382	HO4	NAG A1002	189.194	113.113	192.414	1.00101.43	H
HETATM	5383	HO6	NAG A1002	187.581	110.344	196.192	1.00101.43	H
HETATM	5384	C1	NAG A1003	193.070	115.400	193.845	1.00100.02	C
HETATM	5385	C2	NAG A1003	193.035	114.988	192.379	1.00100.02	C
HETATM	5386	C3	NAG A1003	194.389	115.252	191.724	1.00100.02	C
HETATM	5387	C4	NAG A1003	194.813	116.697	191.948	1.00100.02	C
HETATM	5388	C5	NAG A1003	194.758	117.035	193.434	1.00100.02	C
HETATM	5389	C6	NAG A1003	195.043	118.490	193.720	1.00100.02	C
HETATM	5390	C7	NAG A1003	191.598	113.180	191.545	1.00100.02	C
HETATM	5391	C8	NAG A1003	191.368	111.700	191.506	1.00100.02	C
HETATM	5392	N2	NAG A1003	192.664	113.590	192.240	1.00100.02	N
HETATM	5393	O3	NAG A1003	194.310	114.983	190.329	1.00100.02	O
HETATM	5394	O4	NAG A1003	196.137	116.897	191.468	1.00100.02	O
HETATM	5395	O5	NAG A1003	193.447	116.764	193.949	1.00100.02	O
HETATM	5396	O6	NAG A1003	194.341	118.933	194.873	1.00100.02	O
HETATM	5397	O7	NAG A1003	190.854	113.968	190.970	1.00100.02	O

HETATM	5398	H1	NAG	A	1003	193.717 114.845 194.318	1.00100.02 H
HETATM	5399	H2	NAG	A	1003	192.367 115.537 191.928	1.00100.02 H
HETATM	5400	H3	NAG	A	1003	195.054 114.661 192.123	1.00100.02 H
HETATM	5401	H4	NAG	A	1003	194.209 117.288 191.462	1.00100.02 H
HETATM	5402	H5	NAG	A	1003	195.407 116.482 193.909	1.00100.02 H
HETATM	5403	H61	NAG	A	1003	194.767 119.023 192.950	1.00100.02 H
HETATM	5404	H62	NAG	A	1003	196.001 118.606 193.861	1.00100.02 H
HETATM	5405	H81	NAG	A	1003	191.443 111.334 192.407	1.00100.02 H
HETATM	5406	H82	NAG	A	1003	192.035 111.284 190.928	1.00100.02 H
HETATM	5407	H83	NAG	A	1003	190.475 111.520 191.157	1.00100.02 H
HETATM	5408	HN2	NAG	A	1003	193.184 112.962 192.649	1.00100.02 H
HETATM	5409	HO3	NAG	A	1003	194.973 115.402 189.913	1.00100.02 H
HETATM	5410	HO4	NAG	A	1003	196.248 117.753 191.257	1.00100.02 H
HETATM	5411	HO6	NAG	A	1003	193.812 118.282 195.165	1.00100.02 H
HETATM	5412	C1	NAG	A	1004	197.622 122.500 163.021	1.00 83.30 C
HETATM	5413	C2	NAG	A	1004	197.867 121.042 162.685	1.00 83.30 C
HETATM	5414	C3	NAG	A	1004	198.638 120.934 161.379	1.00 83.30 C
HETATM	5415	C4	NAG	A	1004	197.908 121.689 160.278	1.00 83.30 C
HETATM	5416	C5	NAG	A	1004	197.601 123.118 160.721	1.00 83.30 C
HETATM	5417	C6	NAG	A	1004	196.718 123.856 159.744	1.00 83.30 C
HETATM	5418	C7	NAG	A	1004	197.971 119.921 164.858	1.00 83.30 C
HETATM	5419	C8	NAG	A	1004	198.853 119.256 165.864	1.00 83.30 C
HETATM	5420	N2	NAG	A	1004	198.578 120.372 163.759	1.00 83.30 N
HETATM	5421	O3	NAG	A	1004	198.772 119.563 161.023	1.00 83.30 O
HETATM	5422	O4	NAG	A	1004	198.712 121.725 159.105	1.00 83.30 O
HETATM	5423	O5	NAG	A	1004	196.901 123.112 161.973	1.00 83.30 O
HETATM	5424	O6	NAG	A	1004	197.425 124.888 159.072	1.00 83.30 O
HETATM	5425	O7	NAG	A	1004	196.764 120.046 165.032	1.00 83.30 O
HETATM	5426	H1	NAG	A	1004	198.481 122.949 163.124	1.00 83.30 H
HETATM	5427	H2	NAG	A	1004	197.003 120.605 162.567	1.00 83.30 H
HETATM	5428	H3	NAG	A	1004	199.524 121.325 161.500	1.00 83.30 H
HETATM	5429	H4	NAG	A	1004	197.071 121.230 160.081	1.00 83.30 H
HETATM	5430	H5	NAG	A	1004	198.441 123.601 160.834	1.00 83.30 H
HETATM	5431	H61	NAG	A	1004	195.969 124.246 160.232	1.00 83.30 H
HETATM	5432	H62	NAG	A	1004	196.373 123.219 159.091	1.00 83.30 H
HETATM	5433	H81	NAG	A	1004	199.293 119.938 166.406	1.00 83.30 H
HETATM	5434	H82	NAG	A	1004	199.526 118.729 165.395	1.00 83.30 H

HETATM	5435	H83	NAG A1004	198.315	118.673	166.430	1.00 83.30 H
HETATM	5436	HN2	NAG A1004	199.479	120.254	163.679	1.00 83.30 H
HETATM	5437	HO3	NAG A1004	197.980	119.244	160.781	1.00 83.30 H
HETATM	5438	HO4	NAG A1004	199.442	121.237	159.235	1.00 83.30 H
HETATM	5439	HO6	NAG A1004	198.298	124.775	159.191	1.00 83.30 H
HETATM	5440	C1	NAG A1005	205.381	132.662	162.951	1.00122.28 C
HETATM	5441	C2	NAG A1005	205.241	132.685	164.466	1.00122.28 C
HETATM	5442	C3	NAG A1005	206.603	132.471	165.117	1.00122.28 C
HETATM	5443	C4	NAG A1005	207.228	131.182	164.603	1.00122.28 C
HETATM	5444	C5	NAG A1005	207.277	131.190	163.077	1.00122.28 C
HETATM	5445	C6	NAG A1005	207.752	129.877	162.500	1.00122.28 C
HETATM	5446	C7	NAG A1005	204.276	134.142	166.189	1.00122.28 C
HETATM	5447	C8	NAG A1005	203.668	135.479	166.482	1.00122.28 C
HETATM	5448	N2	NAG A1005	204.641	133.929	164.921	1.00122.28 N
HETATM	5449	O3	NAG A1005	206.461	132.408	166.532	1.00122.28 O
HETATM	5450	O4	NAG A1005	208.547	131.040	165.117	1.00122.28 O
HETATM	5451	O5	NAG A1005	205.965	131.424	162.541	1.00122.28 O
HETATM	5452	O6	NAG A1005	208.511	130.073	161.315	1.00122.28 O
HETATM	5453	O7	NAG A1005	204.435	133.295	167.063	1.00122.28 O
HETATM	5454	H1	NAG A1005	205.957	133.398	162.673	1.00122.28 H
HETATM	5455	H2	NAG A1005	204.661	131.944	164.726	1.00122.28 H
HETATM	5456	H3	NAG A1005	207.186	133.218	164.887	1.00122.28 H
HETATM	5457	H4	NAG A1005	206.688	130.426	164.898	1.00122.28 H
HETATM	5458	H5	NAG A1005	207.874	131.904	162.785	1.00122.28 H
HETATM	5459	H61	NAG A1005	206.976	129.321	162.296	1.00122.28 H
HETATM	5460	H62	NAG A1005	208.306	129.422	163.162	1.00122.28 H
HETATM	5461	H81	NAG A1005	204.331	136.177	166.325	1.00122.28 H
HETATM	5462	H82	NAG A1005	203.380	135.507	167.414	1.00122.28 H
HETATM	5463	H83	NAG A1005	202.899	135.618	165.897	1.00122.28 H
HETATM	5464	HN2	NAG A1005	204.498	134.590	164.310	1.00122.28 H
HETATM	5465	HO3	NAG A1005	207.172	132.776	166.916	1.00122.28 H
HETATM	5466	HO4	NAG A1005	208.585	130.324	165.641	1.00122.28 H
HETATM	5467	HO6	NAG A1005	209.182	130.630	161.485	1.00122.28 H
HETATM	5468	C1	NAG A1007	191.423	136.988	130.477	1.00138.87 C
HETATM	5469	C2	NAG A1007	192.918	137.268	130.636	1.00138.87 C
HETATM	5470	C3	NAG A1007	193.722	136.476	129.605	1.00138.87 C
HETATM	5471	C4	NAG A1007	193.343	135.002	129.647	1.00138.87 C

HETATM 5472	C5	NAG A1007	191.834	134.841	129.519	1.00138.87 C
HETATM 5473	C6	NAG A1007	191.381	133.407	129.661	1.00138.87 C
HETATM 5474	C7	NAG A1007	194.414	139.219	130.507	1.00138.87 C
HETATM 5475	C8	NAG A1007	194.489	140.708	130.371	1.00138.87 C
HETATM 5476	N2	NAG A1007	193.185	138.692	130.511	1.00138.87 N
HETATM 5477	O3	NAG A1007	195.114	136.609	129.872	1.00138.87 O
HETATM 5478	O4	NAG A1007	193.982	134.307	128.581	1.00138.87 O
HETATM 5479	O5	NAG A1007	191.186	135.587	130.558	1.00138.87 O
HETATM 5480	O6	NAG A1007	191.025	133.106	131.003	1.00138.87 O
HETATM 5481	O7	NAG A1007	195.420	138.524	130.606	1.00138.87 O
HETATM 5482	H1	NAG A1007	191.124	137.317	129.609	1.00138.87 H
HETATM 5483	H2	NAG A1007	193.194	136.976	131.525	1.00138.87 H
HETATM 5484	H3	NAG A1007	193.531	136.829	128.715	1.00138.87 H
HETATM 5485	H4	NAG A1007	193.636	134.623	130.497	1.00138.87 H
HETATM 5486	H5	NAG A1007	191.550	135.186	128.651	1.00138.87 H
HETATM 5487	H61	NAG A1007	192.107	132.816	129.384	1.00138.87 H
HETATM 5488	H62	NAG A1007	190.611	133.256	129.081	1.00138.87 H
HETATM 5489	H81	NAG A1007	194.229	140.967	129.466	1.00138.87 H
HETATM 5490	H82	NAG A1007	195.402	141.005	130.546	1.00138.87 H
HETATM 5491	H83	NAG A1007	193.883	141.123	131.013	1.00138.87 H
HETATM 5492	HN2	NAG A1007	192.474	139.258	130.435	1.00138.87 H
HETATM 5493	HO4	NAG A1007	194.454	134.880	128.096	1.00138.87 H
HETATM 5494	HO6	NAG A1007	190.469	132.414	131.015	1.00138.87 H
HETATM 5495	C1	NAG A1008	196.138	135.733	130.146	1.00142.45 C
HETATM 5496	C2	NAG A1008	196.783	134.507	130.795	1.00142.45 C
HETATM 5497	C3	NAG A1008	198.049	134.117	130.039	1.00142.45 C
HETATM 5498	C4	NAG A1008	197.741	133.921	128.562	1.00142.45 C
HETATM 5499	C5	NAG A1008	197.074	135.173	128.003	1.00142.45 C
HETATM 5500	C6	NAG A1008	196.642	135.015	126.566	1.00142.45 C
HETATM 5501	C7	NAG A1008	196.150	135.073	133.099	1.00142.45 C
HETATM 5502	C8	NAG A1008	196.640	135.290	134.500	1.00142.45 C
HETATM 5503	N2	NAG A1008	197.082	134.751	132.197	1.00142.45 N
HETATM 5504	O3	NAG A1008	198.587	132.923	130.596	1.00142.45 O
HETATM 5505	O4	NAG A1008	198.937	133.663	127.835	1.00142.45 O
HETATM 5506	O5	NAG A1008	195.892	135.472	128.760	1.00142.45 O
HETATM 5507	O6	NAG A1008	197.618	135.530	125.671	1.00142.45 O
HETATM 5508	O7	NAG A1008	194.966	135.188	132.799	1.00142.45 O

HETATM	5509	H1	NAG A1008	196.743	136.494	130.224	1.00142.45	H
HETATM	5510	H2	NAG A1008	196.153	133.763	130.737	1.00142.45	H
HETATM	5511	H3	NAG A1008	198.707	134.833	130.133	1.00142.45	H
HETATM	5512	H4	NAG A1008	197.132	133.166	128.454	1.00142.45	H
HETATM	5513	H5	NAG A1008	197.694	135.923	128.074	1.00142.45	H
HETATM	5514	H61	NAG A1008	195.798	135.488	126.434	1.00142.45	H
HETATM	5515	H62	NAG A1008	196.508	134.066	126.383	1.00142.45	H
HETATM	5516	H81	NAG A1008	197.052	136.172	134.569	1.00142.45	H
HETATM	5517	H82	NAG A1008	197.301	134.607	134.722	1.00142.45	H
HETATM	5518	H83	NAG A1008	195.889	135.234	135.120	1.00142.45	H
HETATM	5519	HN2	NAG A1008	197.948	134.676	132.474	1.00142.45	H
HETATM	5520	HO3	NAG A1008	198.946	133.105	131.388	1.00142.45	H
HETATM	5521	HO4	NAG A1008	198.733	133.286	127.057	1.00142.45	H
HETATM	5522	HO6	NAG A1008	198.335	135.786	126.128	1.00142.45	H
HETATM	5523	C1	NAG A1009	182.547	136.631	120.771	1.00114.80	C
HETATM	5524	C2	NAG A1009	183.961	137.177	120.900	1.00114.80	C
HETATM	5525	C3	NAG A1009	184.745	136.910	119.621	1.00114.80	C
HETATM	5526	C4	NAG A1009	184.694	135.429	119.270	1.00114.80	C
HETATM	5527	C5	NAG A1009	183.251	134.929	119.248	1.00114.80	C
HETATM	5528	C6	NAG A1009	183.152	133.432	119.076	1.00114.80	C
HETATM	5529	C7	NAG A1009	183.916	139.069	122.458	1.00114.80	C
HETATM	5530	C8	NAG A1009	183.909	140.559	122.597	1.00114.80	C
HETATM	5531	N2	NAG A1009	183.950	138.597	121.208	1.00114.80	N
HETATM	5532	O3	NAG A1009	186.095	137.320	119.802	1.00114.80	O
HETATM	5533	O4	NAG A1009	185.279	135.213	117.992	1.00114.80	O
HETATM	5534	O5	NAG A1009	182.598	135.242	120.488	1.00114.80	O
HETATM	5535	O6	NAG A1009	182.862	132.788	120.309	1.00114.80	O
HETATM	5536	O7	NAG A1009	183.887	138.325	123.432	1.00114.80	O
HETATM	5537	H1	NAG A1009	182.088	137.090	120.042	1.00114.80	H
HETATM	5538	H2	NAG A1009	184.405	136.704	121.628	1.00114.80	H
HETATM	5539	H3	NAG A1009	184.352	137.427	118.893	1.00114.80	H
HETATM	5540	H4	NAG A1009	185.197	134.927	119.939	1.00114.80	H
HETATM	5541	H5	NAG A1009	182.774	135.367	118.519	1.00114.80	H
HETATM	5542	H61	NAG A1009	183.999	133.094	118.731	1.00114.80	H
HETATM	5543	H62	NAG A1009	182.443	133.232	118.436	1.00114.80	H
HETATM	5544	H81	NAG A1009	183.010	140.896	122.422	1.00114.80	H
HETATM	5545	H82	NAG A1009	184.533	140.945	121.954	1.00114.80	H

HETATM	5546	H83	NAG	A1009	184.180	140.799	123.503	1.00	114.80	H
HETATM	5547	HN2	NAG	A1009	183.970	139.193	120.518	1.00	114.80	H
HETATM	5548	HO3	NAG	A1009	186.435	137.565	119.019	1.00	114.80	H
HETATM	5549	HO4	NAG	A1009	184.702	134.782	117.473	1.00	114.80	H
HETATM	5550	HO6	NAG	A1009	182.558	133.388	120.888	1.00	114.80	H
HETATM	5551	C1	NAG	A1010	153.208	117.488	175.822	1.00	67.96	C
HETATM	5552	C2	NAG	A1010	151.989	116.903	176.503	1.00	67.96	C
HETATM	5553	C3	NAG	A1010	152.132	115.394	176.608	1.00	67.96	C
HETATM	5554	C4	NAG	A1010	152.403	114.798	175.234	1.00	67.96	C
HETATM	5555	C5	NAG	A1010	153.561	115.520	174.546	1.00	67.96	C
HETATM	5556	C6	NAG	A1010	153.729	115.110	173.103	1.00	67.96	C
HETATM	5557	C7	NAG	A1010	150.678	117.299	178.537	1.00	67.96	C
HETATM	5558	C8	NAG	A1010	150.634	117.988	179.867	1.00	67.96	C
HETATM	5559	N2	NAG	A1010	151.785	117.494	177.814	1.00	67.96	N
HETATM	5560	O3	NAG	A1010	150.940	114.840	177.151	1.00	67.96	O
HETATM	5561	O4	NAG	A1010	152.725	113.418	175.363	1.00	67.96	O
HETATM	5562	O5	NAG	A1010	153.339	116.938	174.540	1.00	67.96	O
HETATM	5563	O6	NAG	A1010	154.556	116.026	172.399	1.00	67.96	O
HETATM	5564	O7	NAG	A1010	149.757	116.596	178.138	1.00	67.96	O
HETATM	5565	H1	NAG	A1010	154.002	117.269	176.342	1.00	67.96	H
HETATM	5566	H2	NAG	A1010	151.209	117.097	175.950	1.00	67.96	H
HETATM	5567	H3	NAG	A1010	152.879	115.188	177.199	1.00	67.96	H
HETATM	5568	H4	NAG	A1010	151.602	114.891	174.685	1.00	67.96	H
HETATM	5569	H5	NAG	A1010	154.386	115.336	175.033	1.00	67.96	H
HETATM	5570	H61	NAG	A1010	152.849	115.087	172.680	1.00	67.96	H
HETATM	5571	H62	NAG	A1010	154.125	114.220	173.064	1.00	67.96	H
HETATM	5572	H81	NAG	A1010	151.522	117.974	180.272	1.00	67.96	H
HETATM	5573	H82	NAG	A1010	150.007	117.524	180.453	1.00	67.96	H
HETATM	5574	H83	NAG	A1010	150.343	118.911	179.747	1.00	67.96	H
HETATM	5575	HN2	NAG	A1010	152.442	118.027	178.151	1.00	67.96	H
HETATM	5576	HO3	NAG	A1010	150.992	114.848	178.038	1.00	67.96	H
HETATM	5577	HO4	NAG	A1010	152.499	112.990	174.618	1.00	67.96	H
HETATM	5578	HO6	NAG	A1010	154.053	116.513	171.852	1.00	67.96	H
HETATM	5579	C1	NAG	A1011	161.666	115.793	174.427	1.00	74.66	C
HETATM	5580	C2	NAG	A1011	161.323	114.382	173.979	1.00	74.66	C
HETATM	5581	C3	NAG	A1011	162.066	114.048	172.694	1.00	74.66	C
HETATM	5582	C4	NAG	A1011	161.785	115.106	171.636	1.00	74.66	C

HETATM	5583	C5	NAG A1011	162.067	116.502	172.186	1.00 74.66 C
HETATM	5584	C6	NAG A1011	161.654	117.602	171.237	1.00 74.66 C
HETATM	5585	C7	NAG A1011	160.762	113.077	175.977	1.00 74.66 C
HETATM	5586	C8	NAG A1011	161.239	112.059	176.967	1.00 74.66 C
HETATM	5587	N2	NAG A1011	161.630	113.412	175.017	1.00 74.66 N
HETATM	5588	O3	NAG A1011	161.654	112.770	172.225	1.00 74.66 O
HETATM	5589	O4	NAG A1011	162.602	114.875	170.494	1.00 74.66 O
HETATM	5590	O5	NAG A1011	161.335	116.712	173.401	1.00 74.66 O
HETATM	5591	O6	NAG A1011	162.289	118.832	171.557	1.00 74.66 O
HETATM	5592	O7	NAG A1011	159.643	113.574	176.044	1.00 74.66 O
HETATM	5593	H1	NAG A1011	162.624	115.843	174.602	1.00 74.66 H
HETATM	5594	H2	NAG A1011	160.366	114.346	173.790	1.00 74.66 H
HETATM	5595	H3	NAG A1011	163.024	114.029	172.878	1.00 74.66 H
HETATM	5596	H4	NAG A1011	160.846	115.050	171.376	1.00 74.66 H
HETATM	5597	H5	NAG A1011	163.021	116.583	172.376	1.00 74.66 H
HETATM	5598	H61	NAG A1011	160.687	117.716	171.289	1.00 74.66 H
HETATM	5599	H62	NAG A1011	161.894	117.345	170.327	1.00 74.66 H
HETATM	5600	H81	NAG A1011	162.012	112.413	177.447	1.00 74.66 H
HETATM	5601	H82	NAG A1011	161.492	111.242	176.496	1.00 74.66 H
HETATM	5602	H83	NAG A1011	160.524	111.864	177.601	1.00 74.66 H
HETATM	5603	HN2	NAG A1011	162.450	113.013	175.010	1.00 74.66 H
HETATM	5604	HO3	NAG A1011	161.508	112.234	172.918	1.00 74.66 H
HETATM	5605	HO4	NAG A1011	162.935	114.053	170.536	1.00 74.66 H
HETATM	5606	HO6	NAG A1011	162.933	118.685	172.150	1.00 74.66 H
HETATM	5607	C1	NAG A1012	185.111	118.900	150.723	1.00131.36 C
HETATM	5608	C2	NAG A1012	186.221	117.858	150.619	1.00131.36 C
HETATM	5609	C3	NAG A1012	185.690	116.586	149.964	1.00131.36 C
HETATM	5610	C4	NAG A1012	184.453	116.089	150.698	1.00131.36 C
HETATM	5611	C5	NAG A1012	183.420	117.206	150.813	1.00131.36 C
HETATM	5612	C6	NAG A1012	182.224	116.817	151.650	1.00131.36 C
HETATM	5613	C7	NAG A1012	188.507	117.709	149.735	1.00131.36 C
HETATM	5614	C8	NAG A1012	189.573	118.397	148.940	1.00131.36 C
HETATM	5615	N2	NAG A1012	187.359	118.379	149.878	1.00131.36 N
HETATM	5616	O3	NAG A1012	186.697	115.580	149.983	1.00131.36 O
HETATM	5617	O4	NAG A1012	183.883	114.992	149.993	1.00131.36 O
HETATM	5618	O5	NAG A1012	184.007	118.354	151.442	1.00131.36 O
HETATM	5619	O6	NAG A1012	182.616	116.406	152.952	1.00131.36 O

HETATM	5620	O7	NAG A1012	188.674	116.596	150.222	1.00131.36	O
HETATM	5621	H1	NAG A1012	184.818	119.154	149.828	1.00131.36	H
HETATM	5622	H2	NAG A1012	186.515	117.634	151.522	1.00131.36	H
HETATM	5623	H3	NAG A1012	185.452	116.778	149.037	1.00131.36	H
HETATM	5624	H4	NAG A1012	184.708	115.796	151.594	1.00131.36	H
HETATM	5625	H5	NAG A1012	183.117	117.452	149.918	1.00131.36	H
HETATM	5626	H61	NAG A1012	181.753	116.083	151.212	1.00131.36	H
HETATM	5627	H62	NAG A1012	181.625	117.583	151.724	1.00131.36	H
HETATM	5628	H81	NAG A1012	189.700	119.301	149.283	1.00131.36	H
HETATM	5629	H82	NAG A1012	189.304	118.438	148.002	1.00131.36	H
HETATM	5630	H83	NAG A1012	190.407	117.897	149.017	1.00131.36	H
HETATM	5631	HN2	NAG A1012	187.287	119.204	149.495	1.00131.36	H
HETATM	5632	HO3	NAG A1012	186.349	114.810	149.712	1.00131.36	H
HETATM	5633	HO4	NAG A1012	184.415	114.767	149.319	1.00131.36	H
HETATM	5634	HO6	NAG A1012	181.894	116.268	153.450	1.00131.36	H
HETATM	5635	C1	NAG A1013	164.193	128.515	121.874	1.00111.93	C
HETATM	5636	C2	NAG A1013	163.763	127.244	122.597	1.00111.93	C
HETATM	5637	C3	NAG A1013	162.965	126.347	121.656	1.00111.93	C
HETATM	5638	C4	NAG A1013	161.813	127.123	121.031	1.00111.93	C
HETATM	5639	C5	NAG A1013	162.319	128.416	120.398	1.00111.93	C
HETATM	5640	C6	NAG A1013	161.200	129.299	119.899	1.00111.93	C
HETATM	5641	C7	NAG A1013	165.470	126.821	124.309	1.00111.93	C
HETATM	5642	C8	NAG A1013	166.654	125.989	124.700	1.00111.93	C
HETATM	5643	N2	NAG A1013	164.916	126.532	123.128	1.00111.93	N
HETATM	5644	O3	NAG A1013	162.457	125.234	122.383	1.00111.93	O
HETATM	5645	O4	NAG A1013	161.188	126.336	120.024	1.00111.93	O
HETATM	5646	O5	NAG A1013	163.048	129.185	121.366	1.00111.93	O
HETATM	5647	O6	NAG A1013	160.000	128.561	119.715	1.00111.93	O
HETATM	5648	O7	NAG A1013	165.036	127.713	125.030	1.00111.93	O
HETATM	5649	H1	NAG A1013	164.781	128.278	121.132	1.00111.93	H
HETATM	5650	H2	NAG A1013	163.183	127.495	123.340	1.00111.93	H
HETATM	5651	H3	NAG A1013	163.553	126.026	120.946	1.00111.93	H
HETATM	5652	H4	NAG A1013	161.160	127.340	121.722	1.00111.93	H
HETATM	5653	H5	NAG A1013	162.911	128.194	119.655	1.00111.93	H
HETATM	5654	H61	NAG A1013	161.464	129.698	119.049	1.00111.93	H
HETATM	5655	H62	NAG A1013	161.041	130.007	120.552	1.00111.93	H
HETATM	5656	H81	NAG A1013	167.388	126.155	124.078	1.00111.93	H

HETATM	5657	H82	NAG A1013	166.409	125.045	124.670	1.00111.93	H
HETATM	5658	H83	NAG A1013	166.935	126.227	125.604	1.00111.93	H
HETATM	5659	HN2	NAG A1013	165.279	125.859	122.631	1.00111.93	H
HETATM	5660	HO3	NAG A1013	161.755	125.488	122.864	1.00111.93	H
HETATM	5661	HO4	NAG A1013	161.504	126.575	119.228	1.00111.93	H
HETATM	5662	HO6	NAG A1013	159.335	129.120	119.532	1.00111.93	H
HETATM	5663	C1	NAG A1014	181.683	157.250	123.540	1.00129.17	C
HETATM	5664	C2	NAG A1014	181.539	158.383	122.530	1.00129.17	C
HETATM	5665	C3	NAG A1014	181.828	157.875	121.121	1.00129.17	C
HETATM	5666	C4	NAG A1014	183.180	157.174	121.072	1.00129.17	C
HETATM	5667	C5	NAG A1014	183.254	156.096	122.150	1.00129.17	C
HETATM	5668	C6	NAG A1014	184.613	155.440	122.243	1.00129.17	C
HETATM	5669	C7	NAG A1014	179.980	160.280	122.439	1.00129.17	C
HETATM	5670	C8	NAG A1014	178.547	160.712	122.540	1.00129.17	C
HETATM	5671	N2	NAG A1014	180.211	158.972	122.598	1.00129.17	N
HETATM	5672	O3	NAG A1014	181.818	158.969	120.212	1.00129.17	O
HETATM	5673	O4	NAG A1014	183.369	156.575	119.795	1.00129.17	O
HETATM	5674	O5	NAG A1014	182.985	156.674	123.435	1.00129.17	O
HETATM	5675	O6	NAG A1014	185.203	155.643	123.520	1.00129.17	O
HETATM	5676	O7	NAG A1014	180.887	161.078	122.221	1.00129.17	O
HETATM	5677	H1	NAG A1014	181.012	156.569	123.347	1.00129.17	H
HETATM	5678	H2	NAG A1014	182.198	159.070	122.745	1.00129.17	H
HETATM	5679	H3	NAG A1014	181.133	157.240	120.864	1.00129.17	H
HETATM	5680	H4	NAG A1014	183.886	157.830	121.223	1.00129.17	H
HETATM	5681	H5	NAG A1014	182.585	155.411	121.960	1.00129.17	H
HETATM	5682	H61	NAG A1014	185.199	155.814	121.558	1.00129.17	H
HETATM	5683	H62	NAG A1014	184.515	154.481	122.089	1.00129.17	H
HETATM	5684	H81	NAG A1014	177.999	159.964	122.842	1.00129.17	H
HETATM	5685	H82	NAG A1014	178.236	161.011	121.664	1.00129.17	H
HETATM	5686	H83	NAG A1014	178.472	161.447	123.178	1.00129.17	H
HETATM	5687	HN2	NAG A1014	179.501	158.423	122.758	1.00129.17	H
HETATM	5688	HO3	NAG A1014	181.950	159.726	120.658	1.00129.17	H
HETATM	5689	HO4	NAG A1014	183.094	157.134	119.162	1.00129.17	H
HETATM	5690	HO6	NAG A1014	186.087	155.633	123.443	1.00129.17	H
HETATM	5691	C1	NAG A1015	189.565	118.324	157.464	1.00 93.55	C
HETATM	5692	C2	NAG A1015	190.833	117.953	158.228	1.00 93.55	C
HETATM	5693	C3	NAG A1015	191.388	116.628	157.715	1.00 93.55	C

HETATM	5694	C4	NAG A1015	190.312	115.551	157.753	1.00 93.55 C
HETATM	5695	C5	NAG A1015	189.061	116.029	157.020	1.00 93.55 C
HETATM	5696	C6	NAG A1015	187.905	115.063	157.131	1.00 93.55 C
HETATM	5697	C7	NAG A1015	192.844	119.144	158.980	1.00 93.55 C
HETATM	5698	C8	NAG A1015	193.777	120.286	158.715	1.00 93.55 C
HETATM	5699	N2	NAG A1015	191.831	119.004	158.119	1.00 93.55 N
HETATM	5700	O3	NAG A1015	192.497	116.234	158.515	1.00 93.55 O
HETATM	5701	O4	NAG A1015	190.794	114.362	157.138	1.00 93.55 O
HETATM	5702	O5	NAG A1015	188.612	117.272	157.578	1.00 93.55 O
HETATM	5703	O6	NAG A1015	186.815	115.641	157.835	1.00 93.55 O
HETATM	5704	O7	NAG A1015	193.002	118.380	159.926	1.00 93.55 O
HETATM	5705	H1	NAG A1015	189.785	118.458	156.523	1.00 93.55 H
HETATM	5706	H2	NAG A1015	190.606	117.836	159.170	1.00 93.55 H
HETATM	5707	H3	NAG A1015	191.687	116.744	156.793	1.00 93.55 H
HETATM	5708	H4	NAG A1015	190.085	115.359	158.682	1.00 93.55 H
HETATM	5709	H5	NAG A1015	189.274	116.165	156.077	1.00 93.55 H
HETATM	5710	H61	NAG A1015	188.201	114.264	157.606	1.00 93.55 H
HETATM	5711	H62	NAG A1015	187.611	114.812	156.234	1.00 93.55 H
HETATM	5712	H81	NAG A1015	193.323	120.957	158.172	1.00 93.55 H
HETATM	5713	H82	NAG A1015	194.565	119.958	158.242	1.00 93.55 H
HETATM	5714	H83	NAG A1015	194.049	120.686	159.562	1.00 93.55 H
HETATM	5715	HN2	NAG A1015	191.758	119.602	157.433	1.00 93.55 H
HETATM	5716	HO3	NAG A1015	193.059	115.752	158.025	1.00 93.55 H
HETATM	5717	HO4	NAG A1015	190.863	114.488	156.261	1.00 93.55 H
HETATM	5718	HO6	NAG A1015	186.753	115.270	158.638	1.00 93.55 H
HETATM	5719	C1	PFE A1101	155.974	177.119	221.765	1.00100.14 C
HETATM	5720	C13	PFE A1101	153.429	172.830	223.301	1.00100.14 C
HETATM	5721	C18	PFE A1101	159.120	175.261	221.560	1.00100.14 C
HETATM	5722	C2	PFE A1101	157.006	176.233	222.454	1.00100.14 C
HETATM	5723	C21	PFE A1101	160.914	174.187	220.177	1.00100.14 C
HETATM	5724	C22	PFE A1101	161.068	173.041	219.410	1.00100.14 C
HETATM	5725	C23	PFE A1101	162.328	172.538	219.150	1.00100.14 C
HETATM	5726	C24	PFE A1101	163.453	173.173	219.654	1.00100.14 C
HETATM	5727	C25	PFE A1101	163.301	174.327	220.409	1.00100.14 C
HETATM	5728	C26	PFE A1101	162.041	174.831	220.668	1.00100.14 C
HETATM	5729	C28	PFE A1101	165.109	171.736	218.491	1.00100.14 C
HETATM	5730	C3	PFE A1101	156.353	175.225	223.377	1.00100.14 C

HETATM	5731	C30	PFE	A1101	166.538 171.348 218.555	1.00100.14 C
HETATM	5732	C31	PFE	A1101	167.106 170.428 217.735	1.00100.14 C
HETATM	5733	C33	PFE	A1101	168.559 171.416 219.335	1.00100.14 C
HETATM	5734	C4	PFE	A1101	155.234 174.518 222.955	1.00100.14 C
HETATM	5735	C5	PFE	A1101	154.618 173.592 223.787	1.00100.14 C
HETATM	5736	C6	PFE	A1101	155.115 173.364 225.064	1.00100.14 C
HETATM	5737	C7	PFE	A1101	156.233 174.066 225.496	1.00100.14 C
HETATM	5738	C8	PFE	A1101	156.844 174.988 224.655	1.00100.14 C
HETATM	5739	C9	PFE	A1101	156.782 173.826 226.865	1.00100.14 C
HETATM	5740	F10	PFE	A1101	155.834 173.558 227.755	1.00100.14 F
HETATM	5741	F11	PFE	A1101	157.625 172.801 226.906	1.00100.14 F
HETATM	5742	F12	PFE	A1101	157.449 174.871 227.340	1.00100.14 F
HETATM	5743	F14	PFE	A1101	152.449 172.784 224.198	1.00100.14 F
HETATM	5744	F15	PFE	A1101	152.898 173.354 222.202	1.00100.14 F
HETATM	5745	F16	PFE	A1101	153.717 171.568 223.002	1.00100.14 F
HETATM	5746	N17	PFE	A1101	157.828 175.577 221.435	1.00100.14 N
HETATM	5747	N20	PFE	A1101	159.614 174.669 220.454	1.00100.14 N
HETATM	5748	N27	PFE	A1101	164.741 172.640 219.422	1.00100.14 N
HETATM	5749	N34	PFE	A1101	167.379 171.925 219.487	1.00100.14 N
HETATM	5750	O29	PFE	A1101	164.351 171.256 217.653	1.00100.14 O
HETATM	5751	S19	PFE	A1101	160.002 175.561 222.954	1.00100.14 S
HETATM	5752	S32	PFE	A1101	168.754 170.247 218.107	1.00100.14 S
HETATM	5753	HC2	PFE	A1101	157.652 176.879 223.046	1.00100.14 H
HETATM	5754	HC4	PFE	A1101	154.830 174.688 221.958	1.00100.14 H
HETATM	5755	HC6	PFE	A1101	154.633 172.644 225.723	1.00100.14 H
HETATM	5756	HC8	PFE	A1101	157.718 175.539 224.997	1.00100.14 H
HETATM	5757	HC1A	PFE	A1101	155.322 177.591 222.498	1.00100.14 H
HETATM	5758	HC1B	PFE	A1101	156.451 177.921 221.204	1.00100.14 H
HETATM	5759	HC1C	PFE	A1101	155.338 176.583 221.062	1.00100.14 H
HETATM	5760	HC22	PFE	A1101	160.199 172.533 218.996	1.00100.14 H
HETATM	5761	HC23	PFE	A1101	162.399 171.643 218.535	1.00100.14 H
HETATM	5762	HC25	PFE	A1101	164.167 174.853 220.806	1.00100.14 H
HETATM	5763	HC26	PFE	A1101	161.939 175.738 221.260	1.00100.14 H
HETATM	5764	HC31	PFE	A1101	166.615 169.862 216.946	1.00100.14 H
HETATM	5765	HC33	PFE	A1101	169.394 171.712 219.967	1.00100.14 H
HETATM	5766	HN17	PFE	A1101	157.322 175.360 220.583	1.00100.14 H
HETATM	5767	HN20	PFE	A1101	159.004 174.506 219.660	1.00100.14 H

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HETATM 5768 HN27 PFE A1101      165.453 173.002 220.047  1.00100.14           H

ATOM      1  N    THR B  86     187.957 161.107 163.957  1.00 68.89           N
ATOM      2  CA   THR B  86     186.849 162.040 164.110  1.00 68.89           C
ATOM      3  C    THR B  86     187.125 163.344 163.375  1.00 68.89           C
ATOM      4  O    THR B  86     187.552 164.328 163.980  1.00 68.89           O
ATOM      5  CB   THR B  86     186.569 162.353 165.589  1.00 68.89           C
ATOM      6  OG1 THR B  86     187.713 162.991 166.168  1.00 68.89           O
ATOM      7  CG2 THR B  86     186.268 161.077 166.354  1.00 68.89           C
ATOM      8  N    THR B  87     186.882 163.347 162.066  1.00 71.95           N
ATOM      9  CA   THR B  87     187.061 164.537 161.246  1.00 71.95           C
ATOM     10  C    THR B  87     185.753 165.171 160.807  1.00 71.95           C
ATOM     11  O    THR B  87     185.694 166.391 160.656  1.00 71.95           O
ATOM     12  CB   THR B  87     187.892 164.212 160.000  1.00 71.95           C
ATOM     13  OG1 THR B  87     189.175 163.711 160.397  1.00 71.95           O
ATOM     14  CG2 THR B  87     188.084 165.458 159.154  1.00 71.95           C
ATOM     15  N    LYS B  88     184.708 164.372 160.597  1.00 66.47           N
ATOM     16  CA   LYS B  88     183.381 164.890 160.312  1.00 66.47           C
ATOM     17  C    LYS B  88     182.373 164.534 161.392  1.00 66.47           C
ATOM     18  O    LYS B  88     181.221 164.975 161.314  1.00 66.47           O
ATOM     19  CB   LYS B  88     182.884 164.380 158.955  1.00 66.47           C
ATOM     20  CG   LYS B  88     183.139 162.907 158.711  1.00 66.47           C
ATOM     21  CD   LYS B  88     182.651 162.492 157.334  1.00 66.47           C
ATOM     22  CE   LYS B  88     181.182 162.829 157.149  1.00 66.47           C
ATOM     23  NZ   LYS B  88     180.660 162.341 155.845  1.00 66.47           N
ATOM     24  N    TYR B  89     182.770 163.751 162.395  1.00 60.35           N
ATOM     25  CA   TYR B  89     181.930 163.418 163.543  1.00 60.35           C
ATOM     26  C    TYR B  89     182.628 163.908 164.806  1.00 60.35           C
ATOM     27  O    TYR B  89     183.168 163.108 165.582  1.00 60.35           O
ATOM     28  CB   TYR B  89     181.657 161.920 163.626  1.00 60.35           C
ATOM     29  CG   TYR B  89     180.948 161.351 162.422  1.00 60.35           C
ATOM     30  CD1 TYR B  89     179.657 161.743 162.104  1.00 60.35           C
ATOM     31  CD2 TYR B  89     181.567 160.415 161.610  1.00 60.35           C
ATOM     32  CE1 TYR B  89     179.005 161.223 161.007  1.00 60.35           C
ATOM     33  CE2 TYR B  89     180.924 159.889 160.511  1.00 60.35           C
ATOM     34  CZ   TYR B  89     179.643 160.295 160.214  1.00 60.35           C
ATOM     35  OH   TYR B  89     179.000 159.772 159.119  1.00 60.35           O
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ATOM	36	N	PRO	B	90	182.638	165.218	165.041	1.00 51.95	N
ATOM	37	CA	PRO	B	90	183.302	165.756	166.230	1.00 51.95	C
ATOM	38	C	PRO	B	90	182.365	165.819	167.424	1.00 51.95	C
ATOM	39	O	PRO	B	90	181.182	166.140	167.306	1.00 51.95	O
ATOM	40	CB	PRO	B	90	183.708	167.162	165.772	1.00 51.95	C
ATOM	41	CG	PRO	B	90	182.625	167.548	164.825	1.00 51.95	C
ATOM	42	CD	PRO	B	90	182.121	166.285	164.170	1.00 51.95	C
ATOM	43	N	TYR	B	91	182.913	165.495	168.593	1.00 47.85	N
ATOM	44	CA	TYR	B	91	182.138	165.532	169.825	1.00 47.85	C
ATOM	45	C	TYR	B	91	181.375	166.842	169.935	1.00 47.85	C
ATOM	46	O	TYR	B	91	181.967	167.923	169.921	1.00 47.85	O
ATOM	47	CB	TYR	B	91	183.060	165.357	171.031	1.00 47.85	C
ATOM	48	CG	TYR	B	91	183.834	164.061	171.030	1.00 47.85	C
ATOM	49	CD1	TYR	B	91	183.283	162.903	171.552	1.00 47.85	C
ATOM	50	CD2	TYR	B	91	185.116	163.998	170.512	1.00 47.85	C
ATOM	51	CE1	TYR	B	91	183.986	161.718	171.554	1.00 47.85	C
ATOM	52	CE2	TYR	B	91	185.826	162.817	170.511	1.00 47.85	C
ATOM	53	CZ	TYR	B	91	185.255	161.680	171.033	1.00 47.85	C
ATOM	54	OH	TYR	B	91	185.958	160.499	171.035	1.00 47.85	O
ATOM	55	N	ARG	B	92	180.055	166.740	170.047	1.00 47.17	N
ATOM	56	CA	ARG	B	92	179.195	167.911	170.079	1.00 47.17	C
ATOM	57	C	ARG	B	92	178.080	167.676	171.082	1.00 47.17	C
ATOM	58	O	ARG	B	92	177.751	166.537	171.414	1.00 47.17	O
ATOM	59	CB	ARG	B	92	178.622	168.207	168.693	1.00 47.17	C
ATOM	60	CG	ARG	B	92	177.846	167.050	168.104	1.00 47.17	C
ATOM	61	CD	ARG	B	92	177.916	167.052	166.592	1.00 47.17	C
ATOM	62	NE	ARG	B	92	176.920	166.164	166.006	1.00 47.17	N
ATOM	63	CZ	ARG	B	92	177.132	164.883	165.737	1.00 47.17	C
ATOM	64	NH1	ARG	B	92	178.308	164.336	166.000	1.00 47.17	N
ATOM	65	NH2	ARG	B	92	176.168	164.147	165.205	1.00 47.17	N
ATOM	66	N	VAL	B	93	177.491	168.770	171.557	1.00 44.30	N
ATOM	67	CA	VAL	B	93	176.436	168.730	172.570	1.00 44.30	C
ATOM	68	C	VAL	B	93	175.309	169.630	172.077	1.00 44.30	C
ATOM	69	O	VAL	B	93	175.310	170.840	172.322	1.00 44.30	O
ATOM	70	CB	VAL	B	93	176.927	169.183	173.945	1.00 44.30	C
ATOM	71	CG1	VAL	B	93	175.748	169.467	174.849	1.00 44.30	C
ATOM	72	CG2	VAL	B	93	177.828	168.139	174.552	1.00 44.30	C

ATOM	73	N	CYS B	94	174.322	169.045	171.403	1.00 50.21	N
ATOM	74	CA	CYS B	94	173.195	169.820	170.892	1.00 50.21	C
ATOM	75	C	CYS B	94	171.871	169.171	171.275	1.00 50.21	C
ATOM	76	O	CYS B	94	171.374	168.278	170.584	1.00 50.21	O
ATOM	77	CB	CYS B	94	173.303	170.024	169.389	1.00 50.21	C
ATOM	78	SG	CYS B	94	173.374	168.570	168.349	1.00 50.21	S
ATOM	79	N	SER B	95	171.313	169.645	172.386	1.00 49.61	N
ATOM	80	CA	SER B	95	169.918	169.429	172.747	1.00 49.61	C
ATOM	81	C	SER B	95	169.213	170.703	173.175	1.00 49.61	C
ATOM	82	O	SER B	95	167.986	170.687	173.313	1.00 49.61	O
ATOM	83	CB	SER B	95	169.806	168.396	173.873	1.00 49.61	C
ATOM	84	OG	SER B	95	170.490	168.835	175.032	1.00 49.61	O
ATOM	85	N	MET B	96	169.932	171.803	173.380	1.00 50.74	N
ATOM	86	CA	MET B	96	169.353	173.068	173.804	1.00 50.74	C
ATOM	87	C	MET B	96	169.044	173.927	172.586	1.00 50.74	C
ATOM	88	O	MET B	96	169.909	174.128	171.730	1.00 50.74	O
ATOM	89	CB	MET B	96	170.320	173.802	174.732	1.00 50.74	C
ATOM	90	CG	MET B	96	171.766	173.719	174.275	1.00 50.74	C
ATOM	91	SD	MET B	96	172.953	174.283	175.505	1.00 50.74	S
ATOM	92	CE	MET B	96	172.413	173.351	176.928	1.00 50.74	C
ATOM	93	N	ALA B	97	167.813	174.436	172.511	1.00 45.76	N
ATOM	94	CA	ALA B	97	167.410	175.246	171.363	1.00 45.76	C
ATOM	95	C	ALA B	97	166.303	176.199	171.808	1.00 45.76	C
ATOM	96	O	ALA B	97	165.144	175.795	171.913	1.00 45.76	O
ATOM	97	CB	ALA B	97	166.958	174.371	170.209	1.00 45.76	C
ATOM	98	N	GLN B	98	166.672	177.454	172.050	1.00 46.20	N
ATOM	99	CA	GLN B	98	165.706	178.517	172.287	1.00 46.20	C
ATOM	100	C	GLN B	98	165.154	178.979	170.947	1.00 46.20	C
ATOM	101	O	GLN B	98	165.319	178.289	169.938	1.00 46.20	O
ATOM	102	CB	GLN B	98	166.339	179.681	173.047	1.00 46.20	C
ATOM	103	CG	GLN B	98	167.414	179.266	174.022	1.00 46.20	C
ATOM	104	CD	GLN B	98	166.857	178.526	175.214	1.00 46.20	C
ATOM	105	OE1	GLN B	98	165.813	178.889	175.750	1.00 46.20	O
ATOM	106	NE2	GLN B	98	167.554	177.483	175.639	1.00 46.20	N
ATOM	107	N	GLY B	99	164.503	180.136	170.916	1.00 43.92	N
ATOM	108	CA	GLY B	99	163.883	180.585	169.686	1.00 43.92	C
ATOM	109	C	GLY B	99	164.896	181.122	168.695	1.00 43.92	C

ATOM	110	O	GLY B	99	165.941	180.504	168.478	1.00 43.92	O
ATOM	111	N	THR B	100	164.602	182.265	168.084	1.00 43.38	N
ATOM	112	CA	THR B	100	165.352	182.900	167.008	1.00 43.38	C
ATOM	113	C	THR B	100	165.017	182.301	165.644	1.00 43.38	C
ATOM	114	O	THR B	100	165.523	182.795	164.637	1.00 43.38	O
ATOM	115	CB	THR B	100	166.879	182.839	167.209	1.00 43.38	C
ATOM	116	OG1	THR B	100	167.320	181.483	167.108	1.00 43.38	O
ATOM	117	CG2	THR B	100	167.257	183.378	168.569	1.00 43.38	C
ATOM	118	N	ASP B	101	164.200	181.251	165.570	1.00 43.41	N
ATOM	119	CA	ASP B	101	163.581	180.838	164.317	1.00 43.41	C
ATOM	120	C	ASP B	101	162.619	179.682	164.558	1.00 43.41	C
ATOM	121	O	ASP B	101	162.858	178.845	165.432	1.00 43.41	O
ATOM	122	CB	ASP B	101	164.643	180.466	163.286	1.00 43.41	C
ATOM	123	CG	ASP B	101	165.654	179.505	163.829	1.00 43.41	C
ATOM	124	OD1	ASP B	101	165.456	179.027	164.962	1.00 43.41	O
ATOM	125	OD2	ASP B	101	166.653	179.234	163.133	1.00 43.41	O
ATOM	126	N	LEU B	102	161.541	179.616	163.783	1.00 42.15	N
ATOM	127	CA	LEU B	102	160.475	178.652	164.000	1.00 42.15	C
ATOM	128	C	LEU B	102	160.044	178.067	162.662	1.00 42.15	C
ATOM	129	O	LEU B	102	160.313	178.639	161.606	1.00 42.15	O
ATOM	130	CB	LEU B	102	159.286	179.312	164.706	1.00 42.15	C
ATOM	131	CG	LEU B	102	159.662	180.323	165.793	1.00 42.15	C
ATOM	132	CD1	LEU B	102	158.467	181.154	166.203	1.00 42.15	C
ATOM	133	CD2	LEU B	102	160.246	179.623	166.997	1.00 42.15	C
ATOM	134	N	ILE B	103	159.374	176.914	162.705	1.00 44.75	N
ATOM	135	CA	ILE B	103	158.890	176.266	161.489	1.00 44.75	C
ATOM	136	C	ILE B	103	157.650	175.441	161.806	1.00 44.75	C
ATOM	137	O	ILE B	103	157.546	174.827	162.869	1.00 44.75	O
ATOM	138	CB	ILE B	103	159.977	175.384	160.835	1.00 44.75	C
ATOM	139	CG1	ILE B	103	160.266	174.165	161.702	1.00 44.75	C
ATOM	140	CG2	ILE B	103	161.246	176.169	160.598	1.00 44.75	C
ATOM	141	CD1	ILE B	103	161.288	173.235	161.102	1.00 44.75	C
ATOM	142	N	ARG B	104	156.705	175.435	160.865	1.00 52.23	N
ATOM	143	CA	ARG B	104	155.449	174.695	160.908	1.00 52.23	C
ATOM	144	C	ARG B	104	155.519	173.471	159.995	1.00 52.23	C
ATOM	145	O	ARG B	104	156.585	173.106	159.493	1.00 52.23	O
ATOM	146	CB	ARG B	104	154.292	175.605	160.511	1.00 52.23	C

ATOM	147	CG	ARG B 104	153.936	176.649	161.529	1.00 52.23	C
ATOM	148	CD	ARG B 104	152.649	177.319	161.118	1.00 52.23	C
ATOM	149	NE	ARG B 104	152.715	177.783	159.738	1.00 52.23	N
ATOM	150	CZ	ARG B 104	151.666	177.874	158.933	1.00 52.23	C
ATOM	151	NH1	ARG B 104	150.464	177.527	159.367	1.00 52.23	N
ATOM	152	NH2	ARG B 104	151.817	178.308	157.692	1.00 52.23	N
ATOM	153	N	PHE B 105	154.362	172.826	159.780	1.00 59.53	N
ATOM	154	CA	PHE B 105	154.275	171.669	158.892	1.00 59.53	C
ATOM	155	C	PHE B 105	153.134	171.753	157.879	1.00 59.53	C
ATOM	156	O	PHE B 105	152.702	170.715	157.372	1.00 59.53	O
ATOM	157	CB	PHE B 105	154.140	170.369	159.687	1.00 59.53	C
ATOM	158	CG	PHE B 105	155.430	169.867	160.262	1.00 59.53	C
ATOM	159	CD1	PHE B 105	156.314	169.146	159.476	1.00 59.53	C
ATOM	160	CD2	PHE B 105	155.752	170.097	161.585	1.00 59.53	C
ATOM	161	CE1	PHE B 105	157.495	168.675	159.997	1.00 59.53	C
ATOM	162	CE2	PHE B 105	156.934	169.628	162.113	1.00 59.53	C
ATOM	163	CZ	PHE B 105	157.808	168.916	161.317	1.00 59.53	C
ATOM	164	N	GLU B 106	152.630	172.947	157.567	1.00 71.98	N
ATOM	165	CA	GLU B 106	151.853	173.170	156.343	1.00 71.98	C
ATOM	166	C	GLU B 106	150.671	172.198	156.235	1.00 71.98	C
ATOM	167	O	GLU B 106	150.666	171.259	155.439	1.00 71.98	O
ATOM	168	CB	GLU B 106	152.746	173.083	155.102	1.00 71.98	C
ATOM	169	CG	GLU B 106	151.991	173.281	153.797	1.00 71.98	C
ATOM	170	CD	GLU B 106	151.017	174.449	153.840	1.00 71.98	C
ATOM	171	OE1	GLU B 106	151.074	175.253	154.792	1.00 71.98	O
ATOM	172	OE2	GLU B 106	150.185	174.561	152.916	1.00 71.98	O
ATOM	173	N	ARG B 107	149.673	172.449	157.079	1.00 79.28	N
ATOM	174	CA	ARG B 107	148.524	171.568	157.274	1.00 79.28	C
ATOM	175	C	ARG B 107	148.041	170.818	156.033	1.00 79.28	C
ATOM	176	O	ARG B 107	147.932	169.589	156.068	1.00 79.28	O
ATOM	177	CB	ARG B 107	147.356	172.381	157.835	1.00 79.28	C
ATOM	178	CG	ARG B 107	146.101	171.570	158.090	1.00 79.28	C
ATOM	179	CD	ARG B 107	144.934	172.468	158.467	1.00 79.28	C
ATOM	180	NE	ARG B 107	145.169	173.185	159.716	1.00 79.28	N
ATOM	181	CZ	ARG B 107	145.687	174.407	159.790	1.00 79.28	C
ATOM	182	NH1	ARG B 107	145.865	174.985	160.971	1.00 79.28	N
ATOM	183	NH2	ARG B 107	146.028	175.052	158.684	1.00 79.28	N

ATOM	184	N	ASN B 108	147.740	171.518	154.938	1.00 84.00	N
ATOM	185	CA	ASN B 108	147.051	170.889	153.816	1.00 84.00	C
ATOM	186	C	ASN B 108	147.741	171.222	152.499	1.00 84.00	C
ATOM	187	O	ASN B 108	148.551	172.147	152.408	1.00 84.00	O
ATOM	188	CB	ASN B 108	145.578	171.313	153.756	1.00 84.00	C
ATOM	189	CG	ASN B 108	145.392	172.691	153.151	1.00 84.00	C
ATOM	190	OD1	ASN B 108	145.488	172.866	151.937	1.00 84.00	O
ATOM	191	ND2	ASN B 108	145.120	173.677	153.997	1.00 84.00	N
ATOM	192	N	ILE B 109	147.389	170.458	151.467	1.00 86.09	N
ATOM	193	CA	ILE B 109	147.943	170.630	150.127	1.00 86.09	C
ATOM	194	C	ILE B 109	146.957	170.049	149.122	1.00 86.09	C
ATOM	195	O	ILE B 109	146.271	169.063	149.404	1.00 86.09	O
ATOM	196	CB	ILE B 109	149.331	169.959	149.999	1.00 86.09	C
ATOM	197	CG1	ILE B 109	150.387	170.735	150.783	1.00 86.09	C
ATOM	198	CG2	ILE B 109	149.731	169.838	148.538	1.00 86.09	C
ATOM	199	CD1	ILE B 109	151.705	170.010	150.886	1.00 86.09	C
ATOM	200	N	VAL B 110	146.891	170.668	147.943	1.00 93.76	N
ATOM	201	CA	VAL B 110	146.118	170.164	146.811	1.00 93.76	C
ATOM	202	C	VAL B 110	147.009	170.208	145.577	1.00 93.76	C
ATOM	203	O	VAL B 110	147.579	171.257	145.258	1.00 93.76	O
ATOM	204	CB	VAL B 110	144.831	170.980	146.589	1.00 93.76	C
ATOM	205	CG1	VAL B 110	143.911	170.854	147.791	1.00 93.76	C
ATOM	206	CG2	VAL B 110	145.167	172.438	146.321	1.00 93.76	C
ATOM	207	N	CYS B 111	147.130	169.073	144.881	1.00 98.50	N
ATOM	208	CA	CYS B 111	148.136	168.977	143.823	1.00 98.50	C
ATOM	209	C	CYS B 111	147.657	169.616	142.522	1.00 98.50	C
ATOM	210	O	CYS B 111	148.144	170.678	142.122	1.00 98.50	O
ATOM	211	CB	CYS B 111	148.505	167.507	143.586	1.00 98.50	C
ATOM	212	SG	CYS B 111	149.766	166.814	144.683	1.00 98.50	S
ATOM	213	N	THR B 112	146.691	168.984	141.853	1.00105.15	N
ATOM	214	CA	THR B 112	146.146	169.521	140.611	1.00105.15	C
ATOM	215	C	THR B 112	145.143	168.552	139.997	1.00105.15	C
ATOM	216	O	THR B 112	144.945	167.448	140.514	1.00105.15	O
ATOM	217	CB	THR B 112	147.262	169.832	139.614	1.00105.15	C
ATOM	218	OG1	THR B 112	146.730	170.596	138.527	1.00105.15	O
ATOM	219	CG2	THR B 112	147.859	168.547	139.077	1.00105.15	C
ATOM	220	N	SER B 113	144.503	168.955	138.897	1.00107.97	N

ATOM	221	CA	SER B 113	143.715	168.043	138.058	1.00107.97 C
ATOM	222	C	SER B 113	144.076	168.346	136.604	1.00107.97 C
ATOM	223	O	SER B 113	143.403	169.137	135.939	1.00107.97 O
ATOM	224	CB	SER B 113	142.222	168.197	138.316	1.00107.97 C
ATOM	225	OG	SER B 113	141.464	167.734	137.212	1.00107.97 O
ATOM	226	N	MET B 114	145.142	167.714	136.117	1.00105.04 N
ATOM	227	CA	MET B 114	145.680	168.023	134.791	1.00105.04 C
ATOM	228	C	MET B 114	145.172	167.074	133.708	1.00105.04 C
ATOM	229	O	MET B 114	145.960	166.530	132.937	1.00105.04 O
ATOM	230	CB	MET B 114	147.204	168.007	134.841	1.00105.04 C
ATOM	231	CG	MET B 114	147.817	169.128	135.657	1.00105.04 C
ATOM	232	SD	MET B 114	149.617	169.084	135.655	1.00105.04 S
ATOM	233	CE	MET B 114	149.924	167.719	136.772	1.00105.04 C
ATOM	234	N	LYS B 115	143.861	166.852	133.627	1.00111.43 N
ATOM	235	CA	LYS B 115	143.341	166.229	132.414	1.00111.43 C
ATOM	236	C	LYS B 115	141.972	166.781	132.026	1.00111.43 C
ATOM	237	O	LYS B 115	141.098	166.011	131.608	1.00111.43 O
ATOM	238	CB	LYS B 115	143.272	164.710	132.602	1.00111.43 C
ATOM	239	CG	LYS B 115	142.392	164.248	133.761	1.00111.43 C
ATOM	240	CD	LYS B 115	140.968	163.948	133.324	1.00111.43 C
ATOM	241	CE	LYS B 115	140.134	163.419	134.478	1.00111.43 C
ATOM	242	NZ	LYS B 115	138.727	163.152	134.069	1.00111.43 N
ATOM	243	N	PRO B 116	141.745	168.097	132.103	1.00118.44 N
ATOM	244	CA	PRO B 116	140.404	168.610	131.796	1.00118.44 C
ATOM	245	C	PRO B 116	140.123	168.828	130.316	1.00118.44 C
ATOM	246	O	PRO B 116	139.050	168.457	129.827	1.00118.44 O
ATOM	247	CB	PRO B 116	140.363	169.948	132.553	1.00118.44 C
ATOM	248	CG	PRO B 116	141.642	169.999	133.375	1.00118.44 C
ATOM	249	CD	PRO B 116	142.612	169.167	132.614	1.00118.44 C
ATOM	250	N	ILE B 117	141.073	169.412	129.593	1.00120.01 N
ATOM	251	CA	ILE B 117	140.774	170.047	128.312	1.00120.01 C
ATOM	252	C	ILE B 117	142.077	170.369	127.597	1.00120.01 C
ATOM	253	O	ILE B 117	143.150	170.363	128.210	1.00120.01 O
ATOM	254	CB	ILE B 117	139.909	171.315	128.544	1.00120.01 C
ATOM	255	CG1	ILE B 117	139.660	172.063	127.232	1.00120.01 C
ATOM	256	CG2	ILE B 117	140.558	172.206	129.581	1.00120.01 C
ATOM	257	CD1	ILE B 117	138.751	173.261	127.377	1.00120.01 C

ATOM	258	N	ASN B 118	141.980	170.653	126.295	1.00118.26	N
ATOM	259	CA	ASN B 118	143.077	171.206	125.499	1.00118.26	C
ATOM	260	C	ASN B 118	144.239	170.217	125.373	1.00118.26	C
ATOM	261	O	ASN B 118	145.351	170.439	125.857	1.00118.26	O
ATOM	262	CB	ASN B 118	143.556	172.537	126.092	1.00118.26	C
ATOM	263	CG	ASN B 118	142.779	173.727	125.563	1.00118.26	C
ATOM	264	OD1	ASN B 118	143.199	174.382	124.610	1.00118.26	O
ATOM	265	ND2	ASN B 118	141.645	174.018	126.187	1.00118.26	N
ATOM	266	N	GLU B 119	143.945	169.103	124.700	1.00108.93	N
ATOM	267	CA	GLU B 119	144.968	168.117	124.352	1.00108.93	C
ATOM	268	C	GLU B 119	145.824	168.663	123.207	1.00108.93	C
ATOM	269	O	GLU B 119	145.844	168.149	122.087	1.00108.93	O
ATOM	270	CB	GLU B 119	144.327	166.786	123.988	1.00108.93	C
ATOM	271	CG	GLU B 119	145.149	165.567	124.381	1.00108.93	C
ATOM	272	CD	GLU B 119	146.370	165.368	123.504	1.00108.93	C
ATOM	273	OE1	GLU B 119	146.310	165.710	122.306	1.00108.93	O
ATOM	274	OE2	GLU B 119	147.391	164.861	124.012	1.00108.93	O
ATOM	275	N	ASP B 120	146.535	169.753	123.512	1.00107.36	N
ATOM	276	CA	ASP B 120	147.503	170.347	122.597	1.00107.36	C
ATOM	277	C	ASP B 120	148.734	170.830	123.352	1.00107.36	C
ATOM	278	O	ASP B 120	149.355	171.827	122.968	1.00107.36	O
ATOM	279	CB	ASP B 120	146.882	171.499	121.807	1.00107.36	C
ATOM	280	CG	ASP B 120	146.173	172.497	122.695	1.00107.36	C
ATOM	281	OD1	ASP B 120	145.125	172.141	123.272	1.00107.36	O
ATOM	282	OD2	ASP B 120	146.663	173.638	122.816	1.00107.36	O
ATOM	283	N	LEU B 121	149.099	170.130	124.421	1.00 94.83	N
ATOM	284	CA	LEU B 121	150.122	170.608	125.338	1.00 94.83	C
ATOM	285	C	LEU B 121	151.457	170.826	124.631	1.00 94.83	C
ATOM	286	O	LEU B 121	151.769	170.188	123.624	1.00 94.83	O
ATOM	287	CB	LEU B 121	150.278	169.619	126.493	1.00 94.83	C
ATOM	288	CG	LEU B 121	150.871	168.253	126.166	1.00 94.83	C
ATOM	289	CD1	LEU B 121	151.243	167.526	127.439	1.00 94.83	C
ATOM	290	CD2	LEU B 121	149.886	167.432	125.365	1.00 94.83	C
ATOM	291	N	ASP B 122	152.244	171.746	125.183	1.00 95.17	N
ATOM	292	CA	ASP B 122	153.533	172.182	124.655	1.00 95.17	C
ATOM	293	C	ASP B 122	154.625	171.901	125.687	1.00 95.17	C
ATOM	294	O	ASP B 122	154.358	171.421	126.791	1.00 95.17	O

ATOM	295	CB	ASP B 122	153.481	173.670	124.289	1.00 95.17	C
ATOM	296	CG	ASP B 122	154.695	174.127	123.507	1.00 95.17	C
ATOM	297	OD1	ASP B 122	155.801	173.612	123.767	1.00 95.17	O
ATOM	298	OD2	ASP B 122	154.547	175.009	122.635	1.00 95.17	O
ATOM	299	N	GLU B 123	155.867	172.213	125.322	1.00 95.33	N
ATOM	300	CA	GLU B 123	157.031	171.962	126.164	1.00 95.33	C
ATOM	301	C	GLU B 123	157.904	173.212	126.222	1.00 95.33	C
ATOM	302	O	GLU B 123	157.585	174.248	125.631	1.00 95.33	O
ATOM	303	CB	GLU B 123	157.827	170.759	125.647	1.00 95.33	C
ATOM	304	CG	GLU B 123	158.157	170.835	124.170	1.00 95.33	C
ATOM	305	CD	GLU B 123	158.865	169.595	123.669	1.00 95.33	C
ATOM	306	OE1	GLU B 123	159.145	168.696	124.489	1.00 95.33	O
ATOM	307	OE2	GLU B 123	159.142	169.515	122.454	1.00 95.33	O
ATOM	308	N	GLY B 124	159.013	173.113	126.947	1.00 89.93	N
ATOM	309	CA	GLY B 124	159.929	174.229	127.064	1.00 89.93	C
ATOM	310	C	GLY B 124	160.902	174.022	128.208	1.00 89.93	C
ATOM	311	O	GLY B 124	160.949	172.955	128.825	1.00 89.93	O
ATOM	312	N	ILE B 125	161.679	175.073	128.474	1.00 87.86	N
ATOM	313	CA	ILE B 125	162.669	175.102	129.545	1.00 87.86	C
ATOM	314	C	ILE B 125	162.342	176.265	130.468	1.00 87.86	C
ATOM	315	O	ILE B 125	161.994	177.355	130.003	1.00 87.86	O
ATOM	316	CB	ILE B 125	164.101	175.245	128.994	1.00 87.86	C
ATOM	317	CG1	ILE B 125	164.160	176.399	127.994	1.00 87.86	C
ATOM	318	CG2	ILE B 125	164.553	173.957	128.347	1.00 87.86	C
ATOM	319	CD1	ILE B 125	165.499	176.551	127.318	1.00 87.86	C
ATOM	320	N	MET B 126	162.466	176.040	131.774	1.00 85.46	N
ATOM	321	CA	MET B 126	162.060	177.031	132.758	1.00 85.46	C
ATOM	322	C	MET B 126	163.032	177.044	133.927	1.00 85.46	C
ATOM	323	O	MET B 126	163.684	176.041	134.223	1.00 85.46	O
ATOM	324	CB	MET B 126	160.644	176.754	133.271	1.00 85.46	C
ATOM	325	CG	MET B 126	160.545	175.512	134.133	1.00 85.46	C
ATOM	326	SD	MET B 126	158.960	175.363	134.971	1.00 85.46	S
ATOM	327	CE	MET B 126	159.275	173.959	136.033	1.00 85.46	C
ATOM	328	N	VAL B 127	163.122	178.199	134.585	1.00 84.75	N
ATOM	329	CA	VAL B 127	163.854	178.358	135.838	1.00 84.75	C
ATOM	330	C	VAL B 127	162.949	179.107	136.805	1.00 84.75	C
ATOM	331	O	VAL B 127	162.539	180.240	136.527	1.00 84.75	O

ATOM	332	CB	VAL B 127	165.184	179.105	135.650	1.00 84.75	C
ATOM	333	CG1	VAL B 127	166.059	178.374	134.655	1.00 84.75	C
ATOM	334	CG2	VAL B 127	164.937	180.528	135.195	1.00 84.75	C
ATOM	335	N	VAL B 128	162.634	178.477	137.931	1.00 89.98	N
ATOM	336	CA	VAL B 128	161.685	179.015	138.896	1.00 89.98	C
ATOM	337	C	VAL B 128	162.422	179.395	140.169	1.00 89.98	C
ATOM	338	O	VAL B 128	163.440	178.793	140.522	1.00 89.98	O
ATOM	339	CB	VAL B 128	160.569	177.997	139.207	1.00 89.98	C
ATOM	340	CG1	VAL B 128	161.162	176.762	139.846	1.00 89.98	C
ATOM	341	CG2	VAL B 128	159.539	178.612	140.127	1.00 89.98	C
ATOM	342	N	TYR B 129	161.897	180.399	140.867	1.00 91.70	N
ATOM	343	CA	TYR B 129	162.360	180.684	142.216	1.00 91.70	C
ATOM	344	C	TYR B 129	161.288	181.446	142.981	1.00 91.70	C
ATOM	345	O	TYR B 129	160.304	181.924	142.414	1.00 91.70	O
ATOM	346	CB	TYR B 129	163.690	181.441	142.226	1.00 91.70	C
ATOM	347	CG	TYR B 129	163.845	182.555	141.225	1.00 91.70	C
ATOM	348	CD1	TYR B 129	163.186	183.759	141.388	1.00 91.70	C
ATOM	349	CD2	TYR B 129	164.691	182.414	140.139	1.00 91.70	C
ATOM	350	CE1	TYR B 129	163.350	184.780	140.486	1.00 91.70	C
ATOM	351	CE2	TYR B 129	164.860	183.428	139.235	1.00 91.70	C
ATOM	352	CZ	TYR B 129	164.188	184.609	139.411	1.00 91.70	C
ATOM	353	OH	TYR B 129	164.355	185.625	138.503	1.00 91.70	O
ATOM	354	N	LYS B 130	161.501	181.547	144.291	1.00 95.82	N
ATOM	355	CA	LYS B 130	160.507	181.975	145.259	1.00 95.82	C
ATOM	356	C	LYS B 130	160.899	183.310	145.888	1.00 95.82	C
ATOM	357	O	LYS B 130	161.864	183.962	145.475	1.00 95.82	O
ATOM	358	CB	LYS B 130	160.328	180.886	146.316	1.00 95.82	C
ATOM	359	CG	LYS B 130	161.580	180.624	147.126	1.00 95.82	C
ATOM	360	CD	LYS B 130	161.395	179.461	148.080	1.00 95.82	C
ATOM	361	CE	LYS B 130	162.642	179.246	148.921	1.00 95.82	C
ATOM	362	NZ	LYS B 130	163.803	178.808	148.103	1.00 95.82	N
ATOM	363	N	ARG B 131	160.135	183.718	146.898	1.00 99.74	N
ATOM	364	CA	ARG B 131	160.310	184.999	147.568	1.00 99.74	C
ATOM	365	C	ARG B 131	160.950	184.786	148.932	1.00 99.74	C
ATOM	366	O	ARG B 131	160.506	183.932	149.704	1.00 99.74	O
ATOM	367	CB	ARG B 131	158.968	185.717	147.719	1.00 99.74	C
ATOM	368	CG	ARG B 131	159.053	187.032	148.467	1.00 99.74	C

ATOM	369	CD	ARG	B	131	157.887	187.941	148.126	1.00 99.74	C
ATOM	370	NE	ARG	B	131	157.952	189.204	148.855	1.00 99.74	N
ATOM	371	CZ	ARG	B	131	158.766	190.207	148.541	1.00 99.74	C
ATOM	372	NH1	ARG	B	131	158.759	191.319	149.262	1.00 99.74	N
ATOM	373	NH2	ARG	B	131	159.592	190.095	147.510	1.00 99.74	N
ATOM	374	N	ASN	B	132	161.993	185.563	149.222	1.00 97.19	N
ATOM	375	CA	ASN	B	132	162.698	185.478	150.493	1.00 97.19	C
ATOM	376	C	ASN	B	132	163.213	186.854	150.888	1.00 97.19	C
ATOM	377	O	ASN	B	132	163.637	187.643	150.039	1.00 97.19	O
ATOM	378	CB	ASN	B	132	163.865	184.489	150.428	1.00 97.19	C
ATOM	379	CG	ASN	B	132	163.464	183.095	150.844	1.00 97.19	C
ATOM	380	OD1	ASN	B	132	162.592	182.917	151.693	1.00 97.19	O
ATOM	381	ND2	ASN	B	132	164.099	182.094	150.248	1.00 97.19	N
ATOM	382	N	ILE	B	133	163.176	187.131	152.190	1.00 87.69	N
ATOM	383	CA	ILE	B	133	163.698	188.370	152.752	1.00 87.69	C
ATOM	384	C	ILE	B	133	164.739	188.025	153.808	1.00 87.69	C
ATOM	385	O	ILE	B	133	164.653	186.995	154.483	1.00 87.69	O
ATOM	386	CB	ILE	B	133	162.583	189.252	153.349	1.00 87.69	C
ATOM	387	CG1	ILE	B	133	161.648	189.750	152.247	1.00 87.69	C
ATOM	388	CG2	ILE	B	133	163.176	190.424	154.102	1.00 87.69	C
ATOM	389	CD1	ILE	B	133	160.450	188.862	152.024	1.00 87.69	C
ATOM	390	N	VAL	B	134	165.731	188.903	153.948	1.00 75.15	N
ATOM	391	CA	VAL	B	134	166.871	188.665	154.827	1.00 75.15	C
ATOM	392	C	VAL	B	134	166.507	188.953	156.279	1.00 75.15	C
ATOM	393	O	VAL	B	134	165.498	189.607	156.564	1.00 75.15	O
ATOM	394	CB	VAL	B	134	168.080	189.511	154.391	1.00 75.15	C
ATOM	395	CG1	VAL	B	134	168.532	189.103	153.003	1.00 75.15	C
ATOM	396	CG2	VAL	B	134	167.725	190.984	154.420	1.00 75.15	C
ATOM	397	N	ALA	B	135	167.330	188.461	157.202	1.00 58.42	N
ATOM	398	CA	ALA	B	135	167.170	188.678	158.628	1.00 58.42	C
ATOM	399	C	ALA	B	135	168.175	189.726	159.103	1.00 58.42	C
ATOM	400	O	ALA	B	135	168.823	190.405	158.304	1.00 58.42	O
ATOM	401	CB	ALA	B	135	167.322	187.354	159.375	1.00 58.42	C
ATOM	402	N	HIS	B	136	168.307	189.869	160.420	1.00 49.38	N
ATOM	403	CA	HIS	B	136	169.187	190.876	160.994	1.00 49.38	C
ATOM	404	C	HIS	B	136	169.718	190.359	162.326	1.00 49.38	C
ATOM	405	O	HIS	B	136	168.978	189.730	163.083	1.00 49.38	O

ATOM	406	CB	HIS B 136	168.434	192.195	161.180	1.00 49.38	C
ATOM	407	CG	HIS B 136	169.298	193.409	161.067	1.00 49.38	C
ATOM	408	ND1	HIS B 136	168.946	194.625	161.609	1.00 49.38	N
ATOM	409	CD2	HIS B 136	170.492	193.599	160.459	1.00 49.38	C
ATOM	410	CE1	HIS B 136	169.892	195.509	161.352	1.00 49.38	C
ATOM	411	NE2	HIS B 136	170.841	194.913	160.654	1.00 49.38	N
ATOM	412	N	THR B 137	170.998	190.619	162.609	1.00 42.77	N
ATOM	413	CA	THR B 137	171.630	190.161	163.845	1.00 42.77	C
ATOM	414	C	THR B 137	172.531	191.257	164.397	1.00 42.77	C
ATOM	415	O	THR B 137	173.391	191.765	163.672	1.00 42.77	O
ATOM	416	CB	THR B 137	172.442	188.886	163.604	1.00 42.77	C
ATOM	417	OG1	THR B 137	173.666	189.222	162.947	1.00 42.77	O
ATOM	418	CG2	THR B 137	171.667	187.921	162.727	1.00 42.77	C
ATOM	419	N	PHE B 138	172.348	191.626	165.682	1.00 42.36	N
ATOM	420	CA	PHE B 138	173.000	192.842	166.161	1.00 42.36	C
ATOM	421	C	PHE B 138	173.565	192.805	167.587	1.00 42.36	C
ATOM	422	O	PHE B 138	173.810	193.874	168.157	1.00 42.36	O
ATOM	423	CB	PHE B 138	172.039	194.023	166.042	1.00 42.36	C
ATOM	424	CG	PHE B 138	170.686	193.762	166.618	1.00 42.36	C
ATOM	425	CD1	PHE B 138	169.763	193.009	165.928	1.00 42.36	C
ATOM	426	CD2	PHE B 138	170.335	194.280	167.845	1.00 42.36	C
ATOM	427	CE1	PHE B 138	168.524	192.772	166.451	1.00 42.36	C
ATOM	428	CE2	PHE B 138	169.095	194.046	168.371	1.00 42.36	C
ATOM	429	CZ	PHE B 138	168.188	193.290	167.674	1.00 42.36	C
ATOM	430	N	LYS B 139	173.793	191.640	168.192	1.00 37.90	N
ATOM	431	CA	LYS B 139	174.711	191.538	169.334	1.00 37.90	C
ATOM	432	C	LYS B 139	174.292	192.434	170.510	1.00 37.90	C
ATOM	433	O	LYS B 139	174.924	193.447	170.808	1.00 37.90	O
ATOM	434	CB	LYS B 139	176.136	191.871	168.882	1.00 37.90	C
ATOM	435	CG	LYS B 139	177.193	191.707	169.955	1.00 37.90	C
ATOM	436	CD	LYS B 139	177.397	190.246	170.311	1.00 37.90	C
ATOM	437	CE	LYS B 139	178.054	189.477	169.178	1.00 37.90	C
ATOM	438	NZ	LYS B 139	179.493	189.821	169.039	1.00 37.90	N
ATOM	439	N	VAL B 140	173.192	192.049	171.166	1.00 36.42	N
ATOM	440	CA	VAL B 140	172.677	192.778	172.329	1.00 36.42	C
ATOM	441	C	VAL B 140	173.379	192.360	173.621	1.00 36.42	C
ATOM	442	O	VAL B 140	174.061	191.332	173.665	1.00 36.42	O

ATOM	443	CB	VAL B 140	171.158	192.582	172.476	1.00 36.42	C
ATOM	444	CG1	VAL B 140	170.441	193.048	171.233	1.00 36.42	C
ATOM	445	CG2	VAL B 140	170.836	191.139	172.768	1.00 36.42	C
ATOM	446	N	ARG B 141	173.204	193.154	174.684	1.00 37.17	N
ATOM	447	CA	ARG B 141	173.766	192.893	176.006	1.00 37.17	C
ATOM	448	C	ARG B 141	172.660	192.818	177.051	1.00 37.17	C
ATOM	449	O	ARG B 141	171.590	193.406	176.882	1.00 37.17	O
ATOM	450	CB	ARG B 141	174.755	193.979	176.432	1.00 37.17	C
ATOM	451	CG	ARG B 141	175.963	194.118	175.546	1.00 37.17	C
ATOM	452	CD	ARG B 141	176.787	195.317	175.963	1.00 37.17	C
ATOM	453	NE	ARG B 141	176.116	196.571	175.644	1.00 37.17	N
ATOM	454	CZ	ARG B 141	176.256	197.221	174.495	1.00 37.17	C
ATOM	455	NH1	ARG B 141	177.049	196.735	173.551	1.00 37.17	N
ATOM	456	NH2	ARG B 141	175.605	198.355	174.289	1.00 37.17	N
ATOM	457	N	VAL B 142	172.930	192.103	178.144	1.00 35.61	N
ATOM	458	CA	VAL B 142	171.971	191.914	179.228	1.00 35.61	C
ATOM	459	C	VAL B 142	172.672	192.111	180.564	1.00 35.61	C
ATOM	460	O	VAL B 142	173.771	191.590	180.778	1.00 35.61	O
ATOM	461	CB	VAL B 142	171.319	190.518	179.179	1.00 35.61	C
ATOM	462	CG1	VAL B 142	170.317	190.374	180.296	1.00 35.61	C
ATOM	463	CG2	VAL B 142	170.657	190.286	177.843	1.00 35.61	C
ATOM	464	N	TYR B 143	172.038	192.854	181.465	1.00 41.95	N
ATOM	465	CA	TYR B 143	172.524	193.035	182.824	1.00 41.95	C
ATOM	466	C	TYR B 143	171.603	192.317	183.800	1.00 41.95	C
ATOM	467	O	TYR B 143	170.451	192.014	183.487	1.00 41.95	O
ATOM	468	CB	TYR B 143	172.617	194.519	183.192	1.00 41.95	C
ATOM	469	CG	TYR B 143	173.500	195.329	182.278	1.00 41.95	C
ATOM	470	CD1	TYR B 143	173.024	195.818	181.077	1.00 41.95	C
ATOM	471	CD2	TYR B 143	174.810	195.608	182.619	1.00 41.95	C
ATOM	472	CE1	TYR B 143	173.825	196.558	180.241	1.00 41.95	C
ATOM	473	CE2	TYR B 143	175.618	196.347	181.788	1.00 41.95	C
ATOM	474	CZ	TYR B 143	175.121	196.820	180.600	1.00 41.95	C
ATOM	475	OH	TYR B 143	175.924	197.561	179.766	1.00 41.95	O
ATOM	476	N	GLN B 144	172.120	192.046	184.995	1.00 48.15	N
ATOM	477	CA	GLN B 144	171.372	191.277	185.984	1.00 48.15	C
ATOM	478	C	GLN B 144	172.187	191.232	187.269	1.00 48.15	C
ATOM	479	O	GLN B 144	173.357	191.623	187.298	1.00 48.15	O

ATOM	480	CB	GLN B 144	171.073	189.869	185.484	1.00 48.15	C
ATOM	481	CG	GLN B 144	170.055	189.120	186.301	1.00 48.15	C
ATOM	482	CD	GLN B 144	169.445	187.972	185.533	1.00 48.15	C
ATOM	483	OE1	GLN B 144	170.069	187.411	184.636	1.00 48.15	O
ATOM	484	NE2	GLN B 144	168.217	187.618	185.876	1.00 48.15	N
ATOM	485	N	LYS B 145	171.556	190.740	188.334	1.00 55.95	N
ATOM	486	CA	LYS B 145	172.198	190.693	189.646	1.00 55.95	C
ATOM	487	C	LYS B 145	171.477	189.663	190.499	1.00 55.95	C
ATOM	488	O	LYS B 145	170.280	189.811	190.758	1.00 55.95	O
ATOM	489	CB	LYS B 145	172.166	192.064	190.310	1.00 55.95	C
ATOM	490	CG	LYS B 145	172.836	192.114	191.659	1.00 55.95	C
ATOM	491	CD	LYS B 145	172.417	193.353	192.418	1.00 55.95	C
ATOM	492	CE	LYS B 145	173.246	194.552	192.016	1.00 55.95	C
ATOM	493	NZ	LYS B 145	174.638	194.446	192.507	1.00 55.95	N
ATOM	494	N	VAL B 146	172.196	188.631	190.934	1.00 61.82	N
ATOM	495	CA	VAL B 146	171.622	187.520	191.686	1.00 61.82	C
ATOM	496	C	VAL B 146	172.034	187.637	193.146	1.00 61.82	C
ATOM	497	O	VAL B 146	173.160	188.040	193.454	1.00 61.82	O
ATOM	498	CB	VAL B 146	172.064	186.161	191.112	1.00 61.82	C
ATOM	499	CG1	VAL B 146	171.521	185.032	191.960	1.00 61.82	C
ATOM	500	CG2	VAL B 146	171.600	186.016	189.681	1.00 61.82	C
ATOM	501	N	LEU B 147	171.116	187.278	194.043	1.00 71.75	N
ATOM	502	CA	LEU B 147	171.400	187.250	195.471	1.00 71.75	C
ATOM	503	C	LEU B 147	170.638	186.089	196.090	1.00 71.75	C
ATOM	504	O	LEU B 147	169.416	185.998	195.937	1.00 71.75	O
ATOM	505	CB	LEU B 147	171.020	188.572	196.146	1.00 71.75	C
ATOM	506	CG	LEU B 147	169.539	188.860	196.372	1.00 71.75	C
ATOM	507	CD1	LEU B 147	169.377	190.001	197.352	1.00 71.75	C
ATOM	508	CD2	LEU B 147	168.861	189.189	195.066	1.00 71.75	C
ATOM	509	N	THR B 148	171.356	185.214	196.791	1.00 80.47	N
ATOM	510	CA	THR B 148	170.827	183.943	197.265	1.00 80.47	C
ATOM	511	C	THR B 148	170.837	183.882	198.786	1.00 80.47	C
ATOM	512	O	THR B 148	171.760	184.388	199.433	1.00 80.47	O
ATOM	513	CB	THR B 148	171.637	182.778	196.703	1.00 80.47	C
ATOM	514	OG1	THR B 148	171.178	181.552	197.283	1.00 80.47	O
ATOM	515	CG2	THR B 148	173.105	182.963	197.012	1.00 80.47	C
ATOM	516	N	PHE B 149	169.807	183.253	199.348	1.00 84.21	N

ATOM	517	CA	PHE B 149	169.642	183.094	200.785	1.00 84.21	C
ATOM	518	C	PHE B 149	169.884	181.645	201.188	1.00 84.21	C
ATOM	519	O	PHE B 149	169.800	180.726	200.369	1.00 84.21	O
ATOM	520	CB	PHE B 149	168.240	183.523	201.226	1.00 84.21	C
ATOM	521	CG	PHE B 149	167.926	184.959	200.932	1.00 84.21	C
ATOM	522	CD1	PHE B 149	168.687	185.973	201.481	1.00 84.21	C
ATOM	523	CD2	PHE B 149	166.869	185.294	200.109	1.00 84.21	C
ATOM	524	CE1	PHE B 149	168.398	187.294	201.214	1.00 84.21	C
ATOM	525	CE2	PHE B 149	166.577	186.613	199.839	1.00 84.21	C
ATOM	526	CZ	PHE B 149	167.343	187.614	200.392	1.00 84.21	C
ATOM	527	N	ARG B 150	170.182	181.447	202.469	1.00 95.49	N
ATOM	528	CA	ARG B 150	170.491	180.114	202.965	1.00 95.49	C
ATOM	529	C	ARG B 150	170.576	180.157	204.483	1.00 95.49	C
ATOM	530	O	ARG B 150	171.030	181.149	205.060	1.00 95.49	O
ATOM	531	CB	ARG B 150	171.803	179.597	202.366	1.00 95.49	C
ATOM	532	CG	ARG B 150	172.386	178.393	203.072	1.00 95.49	C
ATOM	533	CD	ARG B 150	173.666	177.941	202.396	1.00 95.49	C
ATOM	534	NE	ARG B 150	173.415	177.429	201.054	1.00 95.49	N
ATOM	535	CZ	ARG B 150	173.624	178.124	199.941	1.00 95.49	C
ATOM	536	NH1	ARG B 150	174.092	179.362	200.011	1.00 95.49	N
ATOM	537	NH2	ARG B 150	173.368	177.581	198.759	1.00 95.49	N
ATOM	538	N	ARG B 151	170.139	179.071	205.120	1.00 94.21	N
ATOM	539	CA	ARG B 151	170.153	178.970	206.573	1.00 94.21	C
ATOM	540	C	ARG B 151	170.418	177.526	206.976	1.00 94.21	C
ATOM	541	O	ARG B 151	169.981	176.591	206.301	1.00 94.21	O
ATOM	542	CB	ARG B 151	168.838	179.461	207.183	1.00 94.21	C
ATOM	543	CG	ARG B 151	167.604	178.788	206.626	1.00 94.21	C
ATOM	544	CD	ARG B 151	166.406	179.715	206.699	1.00 94.21	C
ATOM	545	NE	ARG B 151	165.143	178.987	206.635	1.00 94.21	N
ATOM	546	CZ	ARG B 151	164.600	178.530	205.512	1.00 94.21	C
ATOM	547	NH1	ARG B 151	165.210	178.722	204.352	1.00 94.21	N
ATOM	548	NH2	ARG B 151	163.447	177.879	205.550	1.00 94.21	N
ATOM	549	N	SER B 152	171.135	177.353	208.087	1.00 94.56	N
ATOM	550	CA	SER B 152	171.565	176.030	208.516	1.00 94.56	C
ATOM	551	C	SER B 152	171.725	175.996	210.030	1.00 94.56	C
ATOM	552	O	SER B 152	171.658	177.022	210.710	1.00 94.56	O
ATOM	553	CB	SER B 152	172.877	175.631	207.837	1.00 94.56	C

ATOM	554	OG	SER B 152	173.944	176.438	208.297	1.00	94.56	O
ATOM	555	N	TYR B 153	171.946	174.785	210.548	1.00	95.70	N
ATOM	556	CA	TYR B 153	172.181	174.530	211.963	1.00	95.70	C
ATOM	557	C	TYR B 153	173.412	173.644	212.109	1.00	95.70	C
ATOM	558	O	TYR B 153	173.567	172.663	211.377	1.00	95.70	O
ATOM	559	CB	TYR B 153	170.969	173.857	212.618	1.00	95.70	C
ATOM	560	CG	TYR B 153	170.974	173.909	214.128	1.00	95.70	C
ATOM	561	CD1	TYR B 153	171.893	173.180	214.864	1.00	95.70	C
ATOM	562	CD2	TYR B 153	170.055	174.683	214.818	1.00	95.70	C
ATOM	563	CE1	TYR B 153	171.901	173.223	216.239	1.00	95.70	C
ATOM	564	CE2	TYR B 153	170.057	174.733	216.193	1.00	95.70	C
ATOM	565	CZ	TYR B 153	170.982	174.000	216.898	1.00	95.70	C
ATOM	566	OH	TYR B 153	170.990	174.045	218.270	1.00	95.70	O
ATOM	567	N	ALA B 154	174.278	173.988	213.058	1.00	100.46	N
ATOM	568	CA	ALA B 154	175.589	173.362	213.194	1.00	100.46	C
ATOM	569	C	ALA B 154	175.647	172.524	214.466	1.00	100.46	C
ATOM	570	O	ALA B 154	175.480	173.054	215.569	1.00	100.46	O
ATOM	571	CB	ALA B 154	176.691	174.422	213.205	1.00	100.46	C
ATOM	572	N	TYR B 155	175.888	171.223	214.308	1.00	100.44	N
ATOM	573	CA	TYR B 155	176.118	170.331	215.438	1.00	100.44	C
ATOM	574	C	TYR B 155	177.608	170.276	215.763	1.00	100.44	C
ATOM	575	O	TYR B 155	178.414	171.067	215.267	1.00	100.44	O
ATOM	576	CB	TYR B 155	175.578	168.932	215.152	1.00	100.44	C
ATOM	577	CG	TYR B 155	174.082	168.800	215.260	1.00	100.44	C
ATOM	578	CD1	TYR B 155	173.329	169.758	215.918	1.00	100.44	C
ATOM	579	CD2	TYR B 155	173.422	167.715	214.707	1.00	100.44	C
ATOM	580	CE1	TYR B 155	171.960	169.640	216.019	1.00	100.44	C
ATOM	581	CE2	TYR B 155	172.055	167.588	214.802	1.00	100.44	C
ATOM	582	CZ	TYR B 155	171.327	168.551	215.457	1.00	100.44	C
ATOM	583	OH	TYR B 155	169.961	168.411	215.542	1.00	100.44	O
ATOM	584	N	ILE B 156	177.983	169.325	216.619	1.00	105.50	N
ATOM	585	CA	ILE B 156	179.388	169.063	216.895	1.00	105.50	C
ATOM	586	C	ILE B 156	180.006	168.101	215.889	1.00	105.50	C
ATOM	587	O	ILE B 156	181.240	168.032	215.789	1.00	105.50	O
ATOM	588	CB	ILE B 156	179.573	168.494	218.311	1.00	105.50	C
ATOM	589	CG1	ILE B 156	178.708	169.261	219.311	1.00	105.50	C
ATOM	590	CG2	ILE B 156	181.035	168.543	218.713	1.00	105.50	C

ATOM	591	CD1	ILE	B	156	178.390	168.475	220.562	1.00	105.50	C
ATOM	592	N	HIS	B	157	179.191	167.351	215.151	1.00	109.14	N
ATOM	593	CA	HIS	B	157	179.679	166.367	214.194	1.00	109.14	C
ATOM	594	C	HIS	B	157	179.365	166.736	212.753	1.00	109.14	C
ATOM	595	O	HIS	B	157	180.275	166.825	211.924	1.00	109.14	O
ATOM	596	CB	HIS	B	157	179.084	164.990	214.517	1.00	109.14	C
ATOM	597	CG	HIS	B	157	180.012	163.850	214.237	1.00	109.14	C
ATOM	598	ND1	HIS	B	157	181.204	163.679	214.907	1.00	109.14	N
ATOM	599	CD2	HIS	B	157	179.921	162.822	213.361	1.00	109.14	C
ATOM	600	CE1	HIS	B	157	181.808	162.595	214.455	1.00	109.14	C
ATOM	601	NE2	HIS	B	157	181.051	162.056	213.516	1.00	109.14	N
ATOM	602	N	THR	B	158	178.096	166.954	212.432	1.00	105.54	N
ATOM	603	CA	THR	B	158	177.659	167.262	211.081	1.00	105.54	C
ATOM	604	C	THR	B	158	177.127	168.691	211.013	1.00	105.54	C
ATOM	605	O	THR	B	158	177.199	169.456	211.981	1.00	105.54	O
ATOM	606	CB	THR	B	158	176.610	166.249	210.622	1.00	105.54	C
ATOM	607	OG1	THR	B	158	175.485	166.289	211.508	1.00	105.54	O
ATOM	608	CG2	THR	B	158	177.192	164.845	210.612	1.00	105.54	C
ATOM	609	N	THR	B	159	176.593	169.055	209.850	1.00	103.39	N
ATOM	610	CA	THR	B	159	176.000	170.371	209.644	1.00	103.39	C
ATOM	611	C	THR	B	159	174.837	170.221	208.679	1.00	103.39	C
ATOM	612	O	THR	B	159	175.029	169.772	207.545	1.00	103.39	O
ATOM	613	CB	THR	B	159	177.028	171.363	209.099	1.00	103.39	C
ATOM	614	OG1	THR	B	159	178.213	171.312	209.901	1.00	103.39	O
ATOM	615	CG2	THR	B	159	176.468	172.774	209.121	1.00	103.39	C
ATOM	616	N	TYR	B	160	173.643	170.592	209.122	1.00	98.20	N
ATOM	617	CA	TYR	B	160	172.436	170.438	208.328	1.00	98.20	C
ATOM	618	C	TYR	B	160	172.041	171.763	207.690	1.00	98.20	C
ATOM	619	O	TYR	B	160	172.451	172.839	208.128	1.00	98.20	O
ATOM	620	CB	TYR	B	160	171.287	169.904	209.186	1.00	98.20	C
ATOM	621	CG	TYR	B	160	171.532	168.515	209.727	1.00	98.20	C
ATOM	622	CD1	TYR	B	160	172.472	168.294	210.723	1.00	98.20	C
ATOM	623	CD2	TYR	B	160	170.824	167.426	209.243	1.00	98.20	C
ATOM	624	CE1	TYR	B	160	172.699	167.030	211.219	1.00	98.20	C
ATOM	625	CE2	TYR	B	160	171.047	166.157	209.734	1.00	98.20	C
ATOM	626	CZ	TYR	B	160	171.986	165.966	210.721	1.00	98.20	C
ATOM	627	OH	TYR	B	160	172.212	164.704	211.215	1.00	98.20	O

ATOM	628	N	LEU B 161	171.231	171.667	206.638	1.00 93.16	N
ATOM	629	CA	LEU B 161	170.742	172.829	205.908	1.00 93.16	C
ATOM	630	C	LEU B 161	169.228	172.728	205.808	1.00 93.16	C
ATOM	631	O	LEU B 161	168.708	171.788	205.202	1.00 93.16	O
ATOM	632	CB	LEU B 161	171.375	172.914	204.517	1.00 93.16	C
ATOM	633	CG	LEU B 161	171.085	174.175	203.704	1.00 93.16	C
ATOM	634	CD1	LEU B 161	172.226	174.460	202.748	1.00 93.16	C
ATOM	635	CD2	LEU B 161	169.781	174.022	202.945	1.00 93.16	C
ATOM	636	N	LEU B 162	168.529	173.694	206.395	1.00 92.08	N
ATOM	637	CA	LEU B 162	167.079	173.641	206.506	1.00 92.08	C
ATOM	638	C	LEU B 162	166.358	174.273	205.324	1.00 92.08	C
ATOM	639	O	LEU B 162	165.125	174.331	205.333	1.00 92.08	O
ATOM	640	CB	LEU B 162	166.629	174.322	207.801	1.00 92.08	C
ATOM	641	CG	LEU B 162	167.389	173.929	209.066	1.00 92.08	C
ATOM	642	CD1	LEU B 162	167.048	174.869	210.207	1.00 92.08	C
ATOM	643	CD2	LEU B 162	167.079	172.495	209.444	1.00 92.08	C
ATOM	644	N	GLY B 163	167.078	174.745	204.322	1.00 92.94	N
ATOM	645	CA	GLY B 163	166.446	175.326	203.153	1.00 92.94	C
ATOM	646	C	GLY B 163	167.326	176.383	202.525	1.00 92.94	C
ATOM	647	O	GLY B 163	168.375	176.752	203.046	1.00 92.94	O
ATOM	648	N	SER B 164	166.871	176.870	201.373	1.00 89.54	N
ATOM	649	CA	SER B 164	167.560	177.920	200.635	1.00 89.54	C
ATOM	650	C	SER B 164	166.708	178.285	199.429	1.00 89.54	C
ATOM	651	O	SER B 164	165.844	177.513	199.004	1.00 89.54	O
ATOM	652	CB	SER B 164	168.956	177.486	200.191	1.00 89.54	C
ATOM	653	OG	SER B 164	168.904	176.816	198.945	1.00 89.54	O
ATOM	654	N	ASN B 165	166.961	179.471	198.883	1.00 84.09	N
ATOM	655	CA	ASN B 165	166.244	179.943	197.708	1.00 84.09	C
ATOM	656	C	ASN B 165	167.081	181.016	197.029	1.00 84.09	C
ATOM	657	O	ASN B 165	168.089	181.477	197.568	1.00 84.09	O
ATOM	658	CB	ASN B 165	164.857	180.477	198.077	1.00 84.09	C
ATOM	659	CG	ASN B 165	164.919	181.696	198.971	1.00 84.09	C
ATOM	660	OD1	ASN B 165	165.998	182.172	199.320	1.00 84.09	O
ATOM	661	ND2	ASN B 165	163.756	182.212	199.343	1.00 84.09	N
ATOM	662	N	THR B 166	166.645	181.413	195.837	1.00 77.37	N
ATOM	663	CA	THR B 166	167.333	182.422	195.048	1.00 77.37	C
ATOM	664	C	THR B 166	166.339	183.490	194.613	1.00 77.37	C

ATOM	665	O	THR B 166	165.125	183.343	194.770	1.00 77.37	O
ATOM	666	CB	THR B 166	168.020	181.804	193.825	1.00 77.37	C
ATOM	667	OG1	THR B 166	168.633	180.565	194.200	1.00 77.37	O
ATOM	668	CG2	THR B 166	169.090	182.735	193.298	1.00 77.37	C
ATOM	669	N	GLU B 167	166.867	184.580	194.064	1.00 73.98	N
ATOM	670	CA	GLU B 167	166.026	185.682	193.613	1.00 73.98	C
ATOM	671	C	GLU B 167	166.851	186.604	192.729	1.00 73.98	C
ATOM	672	O	GLU B 167	167.968	186.974	193.095	1.00 73.98	O
ATOM	673	CB	GLU B 167	165.450	186.450	194.801	1.00 73.98	C
ATOM	674	CG	GLU B 167	164.561	187.606	194.401	1.00 73.98	C
ATOM	675	CD	GLU B 167	163.386	187.782	195.336	1.00 73.98	C
ATOM	676	OE1	GLU B 167	163.019	188.942	195.618	1.00 73.98	O
ATOM	677	OE2	GLU B 167	162.827	186.762	195.787	1.00 73.98	O
ATOM	678	N	TYR B 168	166.295	186.971	191.577	1.00 62.72	N
ATOM	679	CA	TYR B 168	166.972	187.803	190.591	1.00 62.72	C
ATOM	680	C	TYR B 168	166.369	189.199	190.591	1.00 62.72	C
ATOM	681	O	TYR B 168	165.149	189.357	190.686	1.00 62.72	O
ATOM	682	CB	TYR B 168	166.858	187.195	189.193	1.00 62.72	C
ATOM	683	CG	TYR B 168	167.331	185.768	189.106	1.00 62.72	C
ATOM	684	CD1	TYR B 168	166.511	184.721	189.487	1.00 62.72	C
ATOM	685	CD2	TYR B 168	168.599	185.465	188.640	1.00 62.72	C
ATOM	686	CE1	TYR B 168	166.940	183.415	189.409	1.00 62.72	C
ATOM	687	CE2	TYR B 168	169.039	184.165	188.559	1.00 62.72	C
ATOM	688	CZ	TYR B 168	168.205	183.144	188.944	1.00 62.72	C
ATOM	689	OH	TYR B 168	168.642	181.844	188.864	1.00 62.72	O
ATOM	690	N	VAL B 169	167.223	190.211	190.475	1.00 60.29	N
ATOM	691	CA	VAL B 169	166.770	191.596	190.488	1.00 60.29	C
ATOM	692	C	VAL B 169	167.704	192.422	189.617	1.00 60.29	C
ATOM	693	O	VAL B 169	168.902	192.139	189.533	1.00 60.29	O
ATOM	694	CB	VAL B 169	166.707	192.151	191.925	1.00 60.29	C
ATOM	695	CG1	VAL B 169	168.101	192.425	192.446	1.00 60.29	C
ATOM	696	CG2	VAL B 169	165.857	193.401	191.965	1.00 60.29	C
ATOM	697	N	ALA B 170	167.146	193.461	188.965	1.00 52.81	N
ATOM	698	CA	ALA B 170	167.875	194.301	188.019	1.00 52.81	C
ATOM	699	C	ALA B 170	168.504	195.487	188.738	1.00 52.81	C
ATOM	700	O	ALA B 170	167.814	196.180	189.492	1.00 52.81	O
ATOM	701	CB	ALA B 170	166.953	194.803	186.920	1.00 52.81	C

ATOM	702	N	PRO B 171	169.787	195.758	188.527	1.00 51.22	N
ATOM	703	CA	PRO B 171	170.465	196.807	189.293	1.00 51.22	C
ATOM	704	C	PRO B 171	169.860	198.169	189.013	1.00 51.22	C
ATOM	705	O	PRO B 171	168.991	198.308	188.142	1.00 51.22	O
ATOM	706	CB	PRO B 171	171.915	196.729	188.796	1.00 51.22	C
ATOM	707	CG	PRO B 171	171.844	196.027	187.499	1.00 51.22	C
ATOM	708	CD	PRO B 171	170.693	195.087	187.583	1.00 51.22	C
ATOM	709	N	PRO B 172	170.290	199.199	189.737	1.00 63.84	N
ATOM	710	CA	PRO B 172	169.804	200.553	189.478	1.00 63.84	C
ATOM	711	C	PRO B 172	170.625	201.251	188.409	1.00 63.84	C
ATOM	712	O	PRO B 172	171.804	200.965	188.199	1.00 63.84	O
ATOM	713	CB	PRO B 172	169.981	201.236	190.839	1.00 63.84	C
ATOM	714	CG	PRO B 172	171.199	200.590	191.391	1.00 63.84	C
ATOM	715	CD	PRO B 172	171.215	199.163	190.882	1.00 63.84	C
ATOM	716	N	MET B 173	169.971	202.197	187.734	1.00 69.89	N
ATOM	717	CA	MET B 173	170.569	202.838	186.568	1.00 69.89	C
ATOM	718	C	MET B 173	171.980	203.341	186.856	1.00 69.89	C
ATOM	719	O	MET B 173	172.928	203.002	186.140	1.00 69.89	O
ATOM	720	CB	MET B 173	169.674	203.980	186.089	1.00 69.89	C
ATOM	721	CG	MET B 173	169.882	204.368	184.636	1.00 69.89	C
ATOM	722	SD	MET B 173	169.766	202.970	183.502	1.00 69.89	S
ATOM	723	CE	MET B 173	168.228	202.229	184.030	1.00 69.89	C
ATOM	724	N	TRP B 174	172.143	204.139	187.913	1.00 82.32	N
ATOM	725	CA	TRP B 174	173.417	204.816	188.133	1.00 82.32	C
ATOM	726	C	TRP B 174	174.597	203.855	188.203	1.00 82.32	C
ATOM	727	O	TRP B 174	175.747	204.301	188.134	1.00 82.32	O
ATOM	728	CB	TRP B 174	173.368	205.660	189.410	1.00 82.32	C
ATOM	729	CG	TRP B 174	173.409	204.869	190.681	1.00 82.32	C
ATOM	730	CD1	TRP B 174	174.517	204.368	191.302	1.00 82.32	C
ATOM	731	CD2	TRP B 174	172.294	204.508	191.500	1.00 82.32	C
ATOM	732	NE1	TRP B 174	174.158	203.707	192.450	1.00 82.32	N
ATOM	733	CE2	TRP B 174	172.798	203.780	192.595	1.00 82.32	C
ATOM	734	CE3	TRP B 174	170.917	204.725	191.412	1.00 82.32	C
ATOM	735	CZ2	TRP B 174	171.974	203.268	193.591	1.00 82.32	C
ATOM	736	CZ3	TRP B 174	170.102	204.217	192.401	1.00 82.32	C
ATOM	737	CH2	TRP B 174	170.631	203.497	193.477	1.00 82.32	C
ATOM	738	N	GLU B 175	174.350	202.553	188.343	1.00 70.74	N

ATOM	739	CA	GLU	B	175	175.437	201.585	188.394	1.00 70.74	C
ATOM	740	C	GLU	B	175	175.754	200.976	187.037	1.00 70.74	C
ATOM	741	O	GLU	B	175	176.886	200.520	186.823	1.00 70.74	O
ATOM	742	CB	GLU	B	175	175.112	200.469	189.388	1.00 70.74	C
ATOM	743	CG	GLU	B	175	176.313	199.617	189.741	1.00 70.74	C
ATOM	744	CD	GLU	B	175	176.007	198.590	190.801	1.00 70.74	C
ATOM	745	OE1	GLU	B	175	174.812	198.321	191.041	1.00 70.74	O
ATOM	746	OE2	GLU	B	175	176.962	198.047	191.394	1.00 70.74	O
ATOM	747	N	ILE	B	176	174.781	200.936	186.123	1.00 61.03	N
ATOM	748	CA	ILE	B	176	175.070	200.556	184.749	1.00 61.03	C
ATOM	749	C	ILE	B	176	175.931	201.586	184.044	1.00 61.03	C
ATOM	750	O	ILE	B	176	176.408	201.331	182.934	1.00 61.03	O
ATOM	751	CB	ILE	B	176	173.765	200.329	183.966	1.00 61.03	C
ATOM	752	CG1	ILE	B	176	172.898	199.303	184.683	1.00 61.03	C
ATOM	753	CG2	ILE	B	176	174.065	199.840	182.575	1.00 61.03	C
ATOM	754	CD1	ILE	B	176	171.735	198.826	183.861	1.00 61.03	C
ATOM	755	N	HIS	B	177	176.148	202.746	184.665	1.00 67.72	N
ATOM	756	CA	HIS	B	177	177.077	203.734	184.140	1.00 67.72	C
ATOM	757	C	HIS	B	177	178.497	203.523	184.638	1.00 67.72	C
ATOM	758	O	HIS	B	177	179.437	204.036	184.022	1.00 67.72	O
ATOM	759	CB	HIS	B	177	176.617	205.147	184.505	1.00 67.72	C
ATOM	760	CG	HIS	B	177	175.396	205.594	183.765	1.00 67.72	C
ATOM	761	ND1	HIS	B	177	174.851	204.870	182.727	1.00 67.72	N
ATOM	762	CD2	HIS	B	177	174.613	206.686	183.914	1.00 67.72	C
ATOM	763	CE1	HIS	B	177	173.785	205.498	182.268	1.00 67.72	C
ATOM	764	NE2	HIS	B	177	173.617	206.603	182.971	1.00 67.72	N
ATOM	765	N	HIS	B	178	178.676	202.785	185.733	1.00 65.73	N
ATOM	766	CA	HIS	B	178	180.001	202.370	186.173	1.00 65.73	C
ATOM	767	C	HIS	B	178	180.405	201.016	185.624	1.00 65.73	C
ATOM	768	O	HIS	B	178	181.592	200.796	185.364	1.00 65.73	O
ATOM	769	CB	HIS	B	178	180.074	202.333	187.700	1.00 65.73	C
ATOM	770	CG	HIS	B	178	180.558	203.611	188.307	1.00 65.73	C
ATOM	771	ND1	HIS	B	178	181.889	203.966	188.325	1.00 65.73	N
ATOM	772	CD2	HIS	B	178	179.890	204.622	188.910	1.00 65.73	C
ATOM	773	CE1	HIS	B	178	182.020	205.140	188.917	1.00 65.73	C
ATOM	774	NE2	HIS	B	178	180.822	205.559	189.282	1.00 65.73	N
ATOM	775	N	ILE	B	179	179.451	200.105	185.438	1.00 59.23	N

ATOM	776	CA	ILE B 179	179.768	198.845	184.772	1.00 59.23	C
ATOM	777	C	ILE B 179	180.304	199.110	183.372	1.00 59.23	C
ATOM	778	O	ILE B 179	181.253	198.458	182.920	1.00 59.23	O
ATOM	779	CB	ILE B 179	178.536	197.925	184.737	1.00 59.23	C
ATOM	780	CG1	ILE B 179	178.117	197.540	186.150	1.00 59.23	C
ATOM	781	CG2	ILE B 179	178.829	196.682	183.922	1.00 59.23	C
ATOM	782	CD1	ILE B 179	177.162	196.375	186.194	1.00 59.23	C
ATOM	783	N	ASN B 180	179.711	200.069	182.665	1.00 57.86	N
ATOM	784	CA	ASN B 180	180.069	200.381	181.289	1.00 57.86	C
ATOM	785	C	ASN B 180	181.229	201.358	181.178	1.00 57.86	C
ATOM	786	O	ASN B 180	181.514	201.833	180.077	1.00 57.86	O
ATOM	787	CB	ASN B 180	178.857	200.949	180.548	1.00 57.86	C
ATOM	788	CG	ASN B 180	177.891	199.878	180.105	1.00 57.86	C
ATOM	789	OD1	ASN B 180	178.279	198.738	179.869	1.00 57.86	O
ATOM	790	ND2	ASN B 180	176.623	200.240	179.989	1.00 57.86	N
ATOM	791	N	SER B 181	181.896	201.682	182.283	1.00 59.18	N
ATOM	792	CA	SER B 181	183.039	202.583	182.220	1.00 59.18	C
ATOM	793	C	SER B 181	184.242	202.116	183.021	1.00 59.18	C
ATOM	794	O	SER B 181	185.329	202.664	182.823	1.00 59.18	O
ATOM	795	CB	SER B 181	182.640	203.984	182.696	1.00 59.18	C
ATOM	796	OG	SER B 181	181.401	204.368	182.128	1.00 59.18	O
ATOM	797	N	HIS B 182	184.097	201.142	183.918	1.00 64.81	N
ATOM	798	CA	HIS B 182	185.243	200.587	184.624	1.00 64.81	C
ATOM	799	C	HIS B 182	185.223	199.071	184.741	1.00 64.81	C
ATOM	800	O	HIS B 182	186.252	198.498	185.108	1.00 64.81	O
ATOM	801	CB	HIS B 182	185.350	201.186	186.033	1.00 64.81	C
ATOM	802	CG	HIS B 182	185.399	202.681	186.055	1.00 64.81	C
ATOM	803	ND1	HIS B 182	184.440	203.447	186.680	1.00 64.81	N
ATOM	804	CD2	HIS B 182	186.296	203.550	185.536	1.00 64.81	C
ATOM	805	CE1	HIS B 182	184.742	204.726	186.542	1.00 64.81	C
ATOM	806	NE2	HIS B 182	185.864	204.815	185.851	1.00 64.81	N
ATOM	807	N	SER B 183	184.109	198.401	184.445	1.00 65.46	N
ATOM	808	CA	SER B 183	183.990	196.960	184.648	1.00 65.46	C
ATOM	809	C	SER B 183	184.076	196.611	186.134	1.00 65.46	C
ATOM	810	O	SER B 183	184.871	195.769	186.548	1.00 65.46	O
ATOM	811	CB	SER B 183	185.048	196.201	183.847	1.00 65.46	C
ATOM	812	OG	SER B 183	184.928	196.468	182.464	1.00 65.46	O

ATOM	813	N	GLN B 184	183.246	197.274	186.942	1.00 70.92	N
ATOM	814	CA	GLN B 184	183.315	197.118	188.394	1.00 70.92	C
ATOM	815	C	GLN B 184	181.912	197.281	188.970	1.00 70.92	C
ATOM	816	O	GLN B 184	181.450	198.409	189.159	1.00 70.92	O
ATOM	817	CB	GLN B 184	184.273	198.131	189.001	1.00 70.92	C
ATOM	818	CG	GLN B 184	185.684	198.048	188.478	1.00 70.92	C
ATOM	819	CD	GLN B 184	186.616	198.982	189.212	1.00 70.92	C
ATOM	820	OE1	GLN B 184	186.174	199.904	189.894	1.00 70.92	O
ATOM	821	NE2	GLN B 184	187.915	198.746	189.082	1.00 70.92	N
ATOM	822	N	CYS B 185	181.251	196.164	189.261	1.00 74.83	N
ATOM	823	CA	CYS B 185	180.006	196.235	190.007	1.00 74.83	C
ATOM	824	C	CYS B 185	180.280	196.760	191.414	1.00 74.83	C
ATOM	825	O	CYS B 185	181.426	196.922	191.835	1.00 74.83	O
ATOM	826	CB	CYS B 185	179.333	194.865	190.075	1.00 74.83	C
ATOM	827	SG	CYS B 185	179.025	194.085	188.477	1.00 74.83	S
ATOM	828	N	TYR B 186	179.207	197.037	192.143	1.00 85.13	N
ATOM	829	CA	TYR B 186	179.329	197.404	193.544	1.00 85.13	C
ATOM	830	C	TYR B 186	179.101	196.187	194.435	1.00 85.13	C
ATOM	831	O	TYR B 186	178.744	195.101	193.975	1.00 85.13	O
ATOM	832	CB	TYR B 186	178.353	198.523	193.900	1.00 85.13	C
ATOM	833	CG	TYR B 186	178.756	199.870	193.358	1.00 85.13	C
ATOM	834	CD1	TYR B 186	180.056	200.109	192.941	1.00 85.13	C
ATOM	835	CD2	TYR B 186	177.837	200.902	193.259	1.00 85.13	C
ATOM	836	CE1	TYR B 186	180.429	201.338	192.446	1.00 85.13	C
ATOM	837	CE2	TYR B 186	178.199	202.134	192.762	1.00 85.13	C
ATOM	838	CZ	TYR B 186	179.497	202.347	192.357	1.00 85.13	C
ATOM	839	OH	TYR B 186	179.862	203.576	191.860	1.00 85.13	O
ATOM	840	N	SER B 187	179.311	196.382	195.732	1.00 95.73	N
ATOM	841	CA	SER B 187	179.238	195.309	196.713	1.00 95.73	C
ATOM	842	C	SER B 187	178.190	195.603	197.777	1.00 95.73	C
ATOM	843	O	SER B 187	178.417	195.395	198.969	1.00 95.73	O
ATOM	844	CB	SER B 187	180.602	195.075	197.358	1.00 95.73	C
ATOM	845	OG	SER B 187	181.123	196.280	197.887	1.00 95.73	O
ATOM	846	N	SER B 188	177.025	196.096	197.362	1.00 98.36	N
ATOM	847	CA	SER B 188	175.954	196.370	198.308	1.00 98.36	C
ATOM	848	C	SER B 188	174.663	196.629	197.547	1.00 98.36	C
ATOM	849	O	SER B 188	174.682	197.217	196.464	1.00 98.36	O

ATOM	850	CB	SER B 188	176.288	197.566	199.201	1.00 98.36	C
ATOM	851	OG	SER B 188	176.443	198.744	198.431	1.00 98.36	O
ATOM	852	N	TYR B 189	173.551	196.194	198.130	1.00 99.21	N
ATOM	853	CA	TYR B 189	172.233	196.334	197.535	1.00 99.21	C
ATOM	854	C	TYR B 189	171.343	197.185	198.432	1.00 99.21	C
ATOM	855	O	TYR B 189	171.635	197.399	199.611	1.00 99.21	O
ATOM	856	CB	TYR B 189	171.586	194.965	197.301	1.00 99.21	C
ATOM	857	CG	TYR B 189	170.436	195.002	196.332	1.00 99.21	C
ATOM	858	CD1	TYR B 189	170.428	195.900	195.278	1.00 99.21	C
ATOM	859	CD2	TYR B 189	169.363	194.141	196.465	1.00 99.21	C
ATOM	860	CE1	TYR B 189	169.384	195.942	194.389	1.00 99.21	C
ATOM	861	CE2	TYR B 189	168.313	194.174	195.577	1.00 99.21	C
ATOM	862	CZ	TYR B 189	168.329	195.077	194.542	1.00 99.21	C
ATOM	863	OH	TYR B 189	167.288	195.121	193.651	1.00 99.21	O
ATOM	864	N	SER B 190	170.245	197.671	197.857	1.00110.74	N
ATOM	865	CA	SER B 190	169.319	198.521	198.601	1.00110.74	C
ATOM	866	C	SER B 190	167.947	198.407	197.952	1.00110.74	C
ATOM	867	O	SER B 190	167.740	198.930	196.853	1.00110.74	O
ATOM	868	CB	SER B 190	169.805	199.964	198.614	1.00110.74	C
ATOM	869	OG	SER B 190	171.044	200.077	199.290	1.00110.74	O
ATOM	870	N	ARG B 191	167.022	197.733	198.626	1.00119.08	N
ATOM	871	CA	ARG B 191	165.666	197.557	198.139	1.00119.08	C
ATOM	872	C	ARG B 191	164.718	198.494	198.882	1.00119.08	C
ATOM	873	O	ARG B 191	165.116	199.260	199.761	1.00119.08	O
ATOM	874	CB	ARG B 191	165.226	196.101	198.298	1.00119.08	C
ATOM	875	CG	ARG B 191	165.179	195.634	199.743	1.00119.08	C
ATOM	876	CD	ARG B 191	164.433	194.318	199.887	1.00119.08	C
ATOM	877	NE	ARG B 191	165.129	193.204	199.253	1.00119.08	N
ATOM	878	CZ	ARG B 191	164.695	192.571	198.168	1.00119.08	C
ATOM	879	NH1	ARG B 191	163.564	192.947	197.589	1.00119.08	N
ATOM	880	NH2	ARG B 191	165.391	191.564	197.662	1.00119.08	N
ATOM	881	N	VAL B 192	163.440	198.432	198.513	1.00133.53	N
ATOM	882	CA	VAL B 192	162.385	199.162	199.209	1.00133.53	C
ATOM	883	C	VAL B 192	161.055	198.487	198.905	1.00133.53	C
ATOM	884	O	VAL B 192	160.740	198.218	197.741	1.00133.53	O
ATOM	885	CB	VAL B 192	162.366	200.646	198.797	1.00133.53	C
ATOM	886	CG1	VAL B 192	161.987	200.784	197.332	1.00133.53	C

ATOM	887	CG2	VAL B 192	161.401	201.428	199.669	1.00133.53	C
ATOM	888	N	ILE B 193	160.258	198.212	199.938	1.00140.69	N
ATOM	889	CA	ILE B 193	158.978	197.521	199.777	1.00140.69	C
ATOM	890	C	ILE B 193	157.898	198.387	200.422	1.00140.69	C
ATOM	891	O	ILE B 193	157.541	198.207	201.590	1.00140.69	O
ATOM	892	CB	ILE B 193	158.993	196.109	200.373	1.00140.69	C
ATOM	893	CG1	ILE B 193	157.670	195.396	200.089	1.00140.69	C
ATOM	894	CG2	ILE B 193	159.310	196.148	201.866	1.00140.69	C
ATOM	895	CD1	ILE B 193	157.372	195.238	198.616	1.00140.69	C
ATOM	896	N	ALA B 194	157.372	199.339	199.654	1.00143.94	N
ATOM	897	CA	ALA B 194	156.098	200.004	199.904	1.00143.94	C
ATOM	898	C	ALA B 194	156.056	200.819	201.192	1.00143.94	C
ATOM	899	O	ALA B 194	155.116	201.594	201.397	1.00143.94	O
ATOM	900	CB	ALA B 194	154.970	198.970	199.920	1.00143.94	C
ATOM	901	N	GLY B 195	157.048	200.668	202.067	1.00142.34	N
ATOM	902	CA	GLY B 195	157.108	201.536	203.226	1.00142.34	C
ATOM	903	C	GLY B 195	158.493	201.856	203.748	1.00142.34	C
ATOM	904	O	GLY B 195	158.633	202.652	204.682	1.00142.34	O
ATOM	905	N	THR B 196	159.525	201.257	203.157	1.00139.01	N
ATOM	906	CA	THR B 196	160.876	201.437	203.673	1.00139.01	C
ATOM	907	C	THR B 196	161.892	200.644	202.862	1.00139.01	C
ATOM	908	O	THR B 196	161.522	199.857	201.985	1.00139.01	O
ATOM	909	CB	THR B 196	160.950	201.024	205.146	1.00139.01	C
ATOM	910	OG1	THR B 196	162.229	201.382	205.681	1.00139.01	O
ATOM	911	CG2	THR B 196	160.747	199.524	205.289	1.00139.01	C
ATOM	912	N	VAL B 197	163.173	200.833	203.165	1.00131.92	N
ATOM	913	CA	VAL B 197	164.264	200.132	202.500	1.00131.92	C
ATOM	914	C	VAL B 197	164.758	199.027	203.422	1.00131.92	C
ATOM	915	O	VAL B 197	164.922	199.242	204.629	1.00131.92	O
ATOM	916	CB	VAL B 197	165.409	201.093	202.134	1.00131.92	C
ATOM	917	CG1	VAL B 197	166.703	200.324	201.918	1.00131.92	C
ATOM	918	CG2	VAL B 197	165.047	201.905	200.898	1.00131.92	C
ATOM	919	N	PHE B 198	164.987	197.846	202.857	1.00127.80	N
ATOM	920	CA	PHE B 198	165.593	196.724	203.567	1.00127.80	C
ATOM	921	C	PHE B 198	166.958	196.494	202.924	1.00127.80	C
ATOM	922	O	PHE B 198	167.105	195.681	202.010	1.00127.80	O
ATOM	923	CB	PHE B 198	164.712	195.478	203.506	1.00127.80	C

ATOM	924	CG	PHE B 198	164.838	194.587	204.711	1.00127.80 C
ATOM	925	CD1	PHE B 198	164.525	195.058	205.975	1.00127.80 C
ATOM	926	CD2	PHE B 198	165.273	193.279	204.579	1.00127.80 C
ATOM	927	CE1	PHE B 198	164.642	194.243	207.083	1.00127.80 C
ATOM	928	CE2	PHE B 198	165.391	192.458	205.684	1.00127.80 C
ATOM	929	CZ	PHE B 198	165.075	192.942	206.938	1.00127.80 C
ATOM	930	N	VAL B 199	167.960	197.219	203.415	1.00120.26 N
ATOM	931	CA	VAL B 199	169.283	197.227	202.800	1.00120.26 C
ATOM	932	C	VAL B 199	169.939	195.871	203.034	1.00120.26 C
ATOM	933	O	VAL B 199	170.305	195.531	204.162	1.00120.26 O
ATOM	934	CB	VAL B 199	170.149	198.368	203.347	1.00120.26 C
ATOM	935	CG1	VAL B 199	170.190	198.322	204.866	1.00120.26 C
ATOM	936	CG2	VAL B 199	171.553	198.290	202.769	1.00120.26 C
ATOM	937	N	ALA B 200	170.087	195.092	201.968	1.00114.44 N
ATOM	938	CA	ALA B 200	170.807	193.832	202.024	1.00114.44 C
ATOM	939	C	ALA B 200	172.295	194.099	201.802	1.00114.44 C
ATOM	940	O	ALA B 200	172.745	195.247	201.777	1.00114.44 O
ATOM	941	CB	ALA B 200	170.234	192.849	201.004	1.00114.44 C
ATOM	942	N	TYR B 201	173.075	193.039	201.636	1.00110.29 N
ATOM	943	CA	TYR B 201	174.518	193.172	201.501	1.00110.29 C
ATOM	944	C	TYR B 201	175.060	191.926	200.806	1.00110.29 C
ATOM	945	O	TYR B 201	174.297	191.136	200.241	1.00110.29 O
ATOM	946	CB	TYR B 201	175.170	193.386	202.878	1.00110.29 C
ATOM	947	CG	TYR B 201	175.284	194.828	203.317	1.00110.29 C
ATOM	948	CD1	TYR B 201	176.346	195.616	202.900	1.00110.29 C
ATOM	949	CD2	TYR B 201	174.343	195.393	204.165	1.00110.29 C
ATOM	950	CE1	TYR B 201	176.459	196.932	203.303	1.00110.29 C
ATOM	951	CE2	TYR B 201	174.448	196.708	204.572	1.00110.29 C
ATOM	952	CZ	TYR B 201	175.508	197.473	204.139	1.00110.29 C
ATOM	953	OH	TYR B 201	175.618	198.783	204.542	1.00110.29 O
ATOM	954	N	HIS B 202	176.378	191.760	200.856	1.00107.29 N
ATOM	955	CA	HIS B 202	177.039	190.489	200.594	1.00107.29 C
ATOM	956	C	HIS B 202	176.836	189.638	201.838	1.00107.29 C
ATOM	957	O	HIS B 202	175.910	189.896	202.613	1.00107.29 O
ATOM	958	CB	HIS B 202	178.525	190.682	200.281	1.00107.29 C
ATOM	959	CG	HIS B 202	179.102	189.617	199.400	1.00107.29 C
ATOM	960	ND1	HIS B 202	179.165	188.292	199.776	1.00107.29 N

ATOM	961	CD2	HIS B 202	179.646	189.680	198.161	1.00107.29	C
ATOM	962	CE1	HIS B 202	179.719	187.585	198.808	1.00107.29	C
ATOM	963	NE2	HIS B 202	180.021	188.404	197.817	1.00107.29	N
ATOM	964	N	ARG B 203	177.658	188.614	202.049	1.00112.17	N
ATOM	965	CA	ARG B 203	177.423	187.772	203.214	1.00112.17	C
ATOM	966	C	ARG B 203	177.698	188.578	204.481	1.00112.17	C
ATOM	967	O	ARG B 203	178.647	188.299	205.222	1.00112.17	O
ATOM	968	CB	ARG B 203	178.304	186.523	203.168	1.00112.17	C
ATOM	969	CG	ARG B 203	177.917	185.461	204.181	1.00112.17	C
ATOM	970	CD	ARG B 203	179.037	184.448	204.345	1.00112.17	C
ATOM	971	NE	ARG B 203	178.548	183.146	204.787	1.00112.17	N
ATOM	972	CZ	ARG B 203	178.215	182.163	203.959	1.00112.17	C
ATOM	973	NH1	ARG B 203	178.308	182.342	202.649	1.00112.17	N
ATOM	974	NH2	ARG B 203	177.780	181.005	204.436	1.00112.17	N
ATOM	975	N	ASP B 204	176.855	189.589	204.716	1.00118.90	N
ATOM	976	CA	ASP B 204	176.834	190.425	205.912	1.00118.90	C
ATOM	977	C	ASP B 204	178.222	190.878	206.359	1.00118.90	C
ATOM	978	O	ASP B 204	178.512	190.926	207.559	1.00118.90	O
ATOM	979	CB	ASP B 204	176.095	189.674	207.021	1.00118.90	C
ATOM	980	CG	ASP B 204	174.660	189.373	206.646	1.00118.90	C
ATOM	981	OD1	ASP B 204	174.367	189.388	205.435	1.00118.90	O
ATOM	982	OD2	ASP B 204	173.815	189.178	207.541	1.00118.90	O
ATOM	983	N	SER B 205	179.059	191.262	205.392	1.00120.40	N
ATOM	984	CA	SER B 205	180.390	191.806	205.633	1.00120.40	C
ATOM	985	C	SER B 205	180.396	193.323	205.755	1.00120.40	C
ATOM	986	O	SER B 205	181.459	193.908	205.991	1.00120.40	O
ATOM	987	CB	SER B 205	181.344	191.395	204.506	1.00120.40	C
ATOM	988	OG	SER B 205	181.628	190.010	204.527	1.00120.40	O
ATOM	989	N	TYR B 206	179.253	193.973	205.551	1.00121.88	N
ATOM	990	CA	TYR B 206	179.109	195.404	205.816	1.00121.88	C
ATOM	991	C	TYR B 206	180.088	196.238	204.991	1.00121.88	C
ATOM	992	O	TYR B 206	180.397	197.380	205.338	1.00121.88	O
ATOM	993	CB	TYR B 206	179.275	195.702	207.308	1.00121.88	C
ATOM	994	CG	TYR B 206	178.332	194.927	208.208	1.00121.88	C
ATOM	995	CD1	TYR B 206	177.269	194.202	207.682	1.00121.88	C
ATOM	996	CD2	TYR B 206	178.500	194.930	209.586	1.00121.88	C
ATOM	997	CE1	TYR B 206	176.408	193.497	208.498	1.00121.88	C

ATOM	998	CE2	TYR B 206	177.641	194.229	210.411	1.00121.88	C
ATOM	999	CZ	TYR B 206	176.598	193.515	209.862	1.00121.88	C
ATOM	1000	OH	TYR B 206	175.744	192.818	210.683	1.00121.88	O
ATOM	1001	N	GLU B 207	180.575	195.682	203.884	1.00114.22	N
ATOM	1002	CA	GLU B 207	181.580	196.333	203.058	1.00114.22	C
ATOM	1003	C	GLU B 207	180.970	196.807	201.745	1.00114.22	C
ATOM	1004	O	GLU B 207	180.070	196.170	201.190	1.00114.22	O
ATOM	1005	CB	GLU B 207	182.753	195.390	202.776	1.00114.22	C
ATOM	1006	CG	GLU B 207	183.713	195.264	203.940	1.00114.22	C
ATOM	1007	CD	GLU B 207	184.127	196.613	204.486	1.00114.22	C
ATOM	1008	OE1	GLU B 207	184.203	197.575	203.694	1.00114.22	O
ATOM	1009	OE2	GLU B 207	184.366	196.713	205.707	1.00114.22	O
ATOM	1010	N	ASN B 208	181.474	197.935	201.250	1.00103.12	N
ATOM	1011	CA	ASN B 208	180.976	198.545	200.020	1.00103.12	C
ATOM	1012	C	ASN B 208	182.138	198.938	199.115	1.00103.12	C
ATOM	1013	O	ASN B 208	182.224	200.063	198.622	1.00103.12	O
ATOM	1014	CB	ASN B 208	180.094	199.752	200.324	1.00103.12	C
ATOM	1015	CG	ASN B 208	179.285	200.195	199.123	1.00103.12	C
ATOM	1016	OD1	ASN B 208	179.819	200.771	198.177	1.00103.12	O
ATOM	1017	ND2	ASN B 208	177.985	199.943	199.163	1.00103.12	N
ATOM	1018	N	LYS B 209	183.057	198.007	198.894	1.00 96.60	N
ATOM	1019	CA	LYS B 209	184.173	198.235	197.992	1.00 96.60	C
ATOM	1020	C	LYS B 209	183.778	197.791	196.584	1.00 96.60	C
ATOM	1021	O	LYS B 209	182.612	197.506	196.304	1.00 96.60	O
ATOM	1022	CB	LYS B 209	185.421	197.517	198.501	1.00 96.60	C
ATOM	1023	CG	LYS B 209	185.529	197.458	200.016	1.00 96.60	C
ATOM	1024	CD	LYS B 209	185.341	198.833	200.642	1.00 96.60	C
ATOM	1025	CE	LYS B 209	186.395	199.819	200.163	1.00 96.60	C
ATOM	1026	NZ	LYS B 209	186.467	201.024	201.036	1.00 96.60	N
ATOM	1027	N	THR B 210	184.750	197.729	195.682	1.00 84.89	N
ATOM	1028	CA	THR B 210	184.502	197.386	194.291	1.00 84.89	C
ATOM	1029	C	THR B 210	184.913	195.946	194.006	1.00 84.89	C
ATOM	1030	O	THR B 210	185.491	195.255	194.848	1.00 84.89	O
ATOM	1031	CB	THR B 210	185.252	198.344	193.364	1.00 84.89	C
ATOM	1032	OG1	THR B 210	186.662	198.215	193.583	1.00 84.89	O
ATOM	1033	CG2	THR B 210	184.835	199.777	193.639	1.00 84.89	C
ATOM	1034	N	MET B 211	184.604	195.496	192.791	1.00 80.27	N

ATOM	1035	CA	MET B 211	184.926	194.139	192.370	1.00 80.27	C
ATOM	1036	C	MET B 211	185.462	194.127	190.944	1.00 80.27	C
ATOM	1037	O	MET B 211	185.760	195.183	190.379	1.00 80.27	O
ATOM	1038	CB	MET B 211	183.694	193.243	192.477	1.00 80.27	C
ATOM	1039	CG	MET B 211	183.062	193.218	193.854	1.00 80.27	C
ATOM	1040	SD	MET B 211	183.709	191.907	194.904	1.00 80.27	S
ATOM	1041	CE	MET B 211	182.333	191.673	196.025	1.00 80.27	C
ATOM	1042	N	GLN B 212	185.594	192.940	190.358	1.00 71.09	N
ATOM	1043	CA	GLN B 212	186.000	192.791	188.969	1.00 71.09	C
ATOM	1044	C	GLN B 212	185.125	191.731	188.319	1.00 71.09	C
ATOM	1045	O	GLN B 212	184.225	191.170	188.946	1.00 71.09	O
ATOM	1046	CB	GLN B 212	187.479	192.414	188.847	1.00 71.09	C
ATOM	1047	CG	GLN B 212	188.434	193.488	189.316	1.00 71.09	C
ATOM	1048	CD	GLN B 212	188.339	194.747	188.487	1.00 71.09	C
ATOM	1049	OE1	GLN B 212	187.867	195.781	188.956	1.00 71.09	O
ATOM	1050	NE2	GLN B 212	188.785	194.665	187.241	1.00 71.09	N
ATOM	1051	N	LEU B 213	185.392	191.456	187.046	1.00 58.95	N
ATOM	1052	CA	LEU B 213	184.641	190.463	186.297	1.00 58.95	C
ATOM	1053	C	LEU B 213	185.597	189.490	185.617	1.00 58.95	C
ATOM	1054	O	LEU B 213	186.742	189.833	185.315	1.00 58.95	O
ATOM	1055	CB	LEU B 213	183.727	191.131	185.269	1.00 58.95	C
ATOM	1056	CG	LEU B 213	182.578	191.944	185.870	1.00 58.95	C
ATOM	1057	CD1	LEU B 213	183.035	193.346	186.198	1.00 58.95	C
ATOM	1058	CD2	LEU B 213	181.395	191.983	184.934	1.00 58.95	C
ATOM	1059	N	MET B 214	185.117	188.262	185.390	1.00 58.72	N
ATOM	1060	CA	MET B 214	185.925	187.177	184.843	1.00 58.72	C
ATOM	1061	C	MET B 214	185.030	186.138	184.183	1.00 58.72	C
ATOM	1062	O	MET B 214	183.925	185.884	184.679	1.00 58.72	O
ATOM	1063	CB	MET B 214	186.768	186.509	185.933	1.00 58.72	C
ATOM	1064	CG	MET B 214	187.387	187.475	186.930	1.00 58.72	C
ATOM	1065	SD	MET B 214	187.908	186.697	188.469	1.00 58.72	S
ATOM	1066	CE	MET B 214	186.376	185.955	189.016	1.00 58.72	C
ATOM	1067	N	PRO B 215	185.472	185.515	183.092	1.00 51.70	N
ATOM	1068	CA	PRO B 215	184.601	184.580	182.364	1.00 51.70	C
ATOM	1069	C	PRO B 215	184.136	183.434	183.251	1.00 51.70	C
ATOM	1070	O	PRO B 215	184.871	182.969	184.123	1.00 51.70	O
ATOM	1071	CB	PRO B 215	185.495	184.083	181.224	1.00 51.70	C

ATOM	1072	CG	PRO	B	215	186.561	185.128	181.092	1.00 51.70	C
ATOM	1073	CD	PRO	B	215	186.797	185.642	182.471	1.00 51.70	C
ATOM	1074	N	ASP	B	216	182.896	182.984	183.033	1.00 56.42	N
ATOM	1075	CA	ASP	B	216	182.255	182.083	184.002	1.00 56.42	C
ATOM	1076	C	ASP	B	216	182.544	180.597	183.784	1.00 56.42	C
ATOM	1077	O	ASP	B	216	183.412	180.028	184.452	1.00 56.42	O
ATOM	1078	CB	ASP	B	216	180.749	182.340	183.981	1.00 56.42	C
ATOM	1079	CG	ASP	B	216	180.052	181.820	185.213	1.00 56.42	C
ATOM	1080	OD1	ASP	B	216	180.059	182.526	186.240	1.00 56.42	O
ATOM	1081	OD2	ASP	B	216	179.488	180.710	185.151	1.00 56.42	O
ATOM	1082	N	CYS	B	217	181.835	179.953	182.849	1.00 62.32	N
ATOM	1083	CA	CYS	B	217	182.120	178.546	182.565	1.00 62.32	C
ATOM	1084	C	CYS	B	217	181.857	178.089	181.132	1.00 62.32	C
ATOM	1085	O	CYS	B	217	182.419	177.077	180.702	1.00 62.32	O
ATOM	1086	CB	CYS	B	217	181.313	177.636	183.505	1.00 62.32	C
ATOM	1087	SG	CYS	B	217	182.140	177.081	185.033	1.00 62.32	S
ATOM	1088	N	TYR	B	218	181.022	178.802	180.380	1.00 57.21	N
ATOM	1089	CA	TYR	B	218	180.340	178.183	179.238	1.00 57.21	C
ATOM	1090	C	TYR	B	218	180.381	179.063	177.995	1.00 57.21	C
ATOM	1091	O	TYR	B	218	179.358	179.331	177.366	1.00 57.21	O
ATOM	1092	CB	TYR	B	218	178.890	177.850	179.584	1.00 57.21	C
ATOM	1093	CG	TYR	B	218	178.685	177.223	180.940	1.00 57.21	C
ATOM	1094	CD1	TYR	B	218	178.906	175.873	181.142	1.00 57.21	C
ATOM	1095	CD2	TYR	B	218	178.249	177.981	182.014	1.00 57.21	C
ATOM	1096	CE1	TYR	B	218	178.712	175.298	182.379	1.00 57.21	C
ATOM	1097	CE2	TYR	B	218	178.051	177.413	183.255	1.00 57.21	C
ATOM	1098	CZ	TYR	B	218	178.286	176.073	183.431	1.00 57.21	C
ATOM	1099	OH	TYR	B	218	178.091	175.504	184.666	1.00 57.21	O
ATOM	1100	N	SER	B	219	181.565	179.524	177.614	1.00 52.64	N
ATOM	1101	CA	SER	B	219	181.678	180.293	176.384	1.00 52.64	C
ATOM	1102	C	SER	B	219	181.164	179.487	175.197	1.00 52.64	C
ATOM	1103	O	SER	B	219	181.294	178.262	175.146	1.00 52.64	O
ATOM	1104	CB	SER	B	219	183.129	180.714	176.151	1.00 52.64	C
ATOM	1105	OG	SER	B	219	183.681	181.300	177.316	1.00 52.64	O
ATOM	1106	N	ASN	B	220	180.560	180.189	174.245	1.00 48.68	N
ATOM	1107	CA	ASN	B	220	180.122	179.655	172.961	1.00 48.68	C
ATOM	1108	C	ASN	B	220	180.643	180.556	171.847	1.00 48.68	C

ATOM	1109	O	ASN B 220	181.491	181.426	172.061	1.00 48.68	O
ATOM	1110	CB	ASN B 220	178.598	179.542	172.877	1.00 48.68	C
ATOM	1111	CG	ASN B 220	178.042	178.446	173.743	1.00 48.68	C
ATOM	1112	OD1	ASN B 220	177.313	178.702	174.699	1.00 48.68	O
ATOM	1113	ND2	ASN B 220	178.369	177.209	173.405	1.00 48.68	N
ATOM	1114	N	THR B 221	180.124	180.332	170.641	1.00 48.07	N
ATOM	1115	CA	THR B 221	180.415	181.231	169.531	1.00 48.07	C
ATOM	1116	C	THR B 221	179.587	182.507	169.630	1.00 48.07	C
ATOM	1117	O	THR B 221	180.018	183.576	169.184	1.00 48.07	O
ATOM	1118	CB	THR B 221	180.150	180.524	168.204	1.00 48.07	C
ATOM	1119	OG1	THR B 221	180.953	179.343	168.120	1.00 48.07	O
ATOM	1120	CG2	THR B 221	180.493	181.438	167.046	1.00 48.07	C
ATOM	1121	N	HIS B 222	178.391	182.413	170.208	1.00 47.92	N
ATOM	1122	CA	HIS B 222	177.446	183.525	170.239	1.00 47.92	C
ATOM	1123	C	HIS B 222	176.954	183.791	171.661	1.00 47.92	C
ATOM	1124	O	HIS B 222	175.823	184.226	171.876	1.00 47.92	O
ATOM	1125	CB	HIS B 222	176.248	183.252	169.330	1.00 47.92	C
ATOM	1126	CG	HIS B 222	176.611	182.909	167.919	1.00 47.92	C
ATOM	1127	ND1	HIS B 222	176.810	181.614	167.497	1.00 47.92	N
ATOM	1128	CD2	HIS B 222	176.779	183.689	166.826	1.00 47.92	C
ATOM	1129	CE1	HIS B 222	177.102	181.611	166.209	1.00 47.92	C
ATOM	1130	NE2	HIS B 222	177.089	182.859	165.778	1.00 47.92	N
ATOM	1131	N	SER B 223	177.791	183.522	172.663	1.00 46.80	N
ATOM	1132	CA	SER B 223	177.374	183.734	174.050	1.00 46.80	C
ATOM	1133	C	SER B 223	178.611	183.751	174.942	1.00 46.80	C
ATOM	1134	O	SER B 223	179.402	182.806	174.927	1.00 46.80	O
ATOM	1135	CB	SER B 223	176.388	182.665	174.496	1.00 46.80	C
ATOM	1136	OG	SER B 223	175.346	182.505	173.552	1.00 46.80	O
ATOM	1137	N	THR B 224	178.769	184.824	175.709	1.00 44.17	N
ATOM	1138	CA	THR B 224	179.802	184.930	176.726	1.00 44.17	C
ATOM	1139	C	THR B 224	179.209	185.562	177.976	1.00 44.17	C
ATOM	1140	O	THR B 224	178.297	186.387	177.894	1.00 44.17	O
ATOM	1141	CB	THR B 224	180.984	185.760	176.229	1.00 44.17	C
ATOM	1142	OG1	THR B 224	181.460	185.219	174.992	1.00 44.17	O
ATOM	1143	CG2	THR B 224	182.108	185.743	177.241	1.00 44.17	C
ATOM	1144	N	ARG B 225	179.725	185.174	179.138	1.00 46.82	N
ATOM	1145	CA	ARG B 225	179.209	185.680	180.400	1.00 46.82	C

ATOM	1146	C	ARG B 225	180.361	186.101	181.297	1.00 46.82	C
ATOM	1147	O	ARG B 225	181.472	185.584	181.186	1.00 46.82	O
ATOM	1148	CB	ARG B 225	178.347	184.639	181.118	1.00 46.82	C
ATOM	1149	CG	ARG B 225	177.783	185.130	182.434	1.00 46.82	C
ATOM	1150	CD	ARG B 225	176.555	184.347	182.841	1.00 46.82	C
ATOM	1151	NE	ARG B 225	176.905	183.096	183.501	1.00 46.82	N
ATOM	1152	CZ	ARG B 225	176.041	182.340	184.167	1.00 46.82	C
ATOM	1153	NH1	ARG B 225	176.445	181.217	184.739	1.00 46.82	N
ATOM	1154	NH2	ARG B 225	174.772	182.710	184.262	1.00 46.82	N
ATOM	1155	N	TYR B 226	180.083	187.049	182.189	1.00 47.52	N
ATOM	1156	CA	TYR B 226	181.085	187.568	183.108	1.00 47.52	C
ATOM	1157	C	TYR B 226	180.466	187.718	184.488	1.00 47.52	C
ATOM	1158	O	TYR B 226	179.402	188.323	184.626	1.00 47.52	O
ATOM	1159	CB	TYR B 226	181.632	188.913	182.627	1.00 47.52	C
ATOM	1160	CG	TYR B 226	182.291	188.853	181.272	1.00 47.52	C
ATOM	1161	CD1	TYR B 226	181.541	188.878	180.111	1.00 47.52	C
ATOM	1162	CD2	TYR B 226	183.666	188.783	181.155	1.00 47.52	C
ATOM	1163	CE1	TYR B 226	182.140	188.827	178.876	1.00 47.52	C
ATOM	1164	CE2	TYR B 226	184.272	188.734	179.925	1.00 47.52	C
ATOM	1165	CZ	TYR B 226	183.505	188.755	178.789	1.00 47.52	C
ATOM	1166	OH	TYR B 226	184.108	188.704	177.558	1.00 47.52	O
ATOM	1167	N	VAL B 227	181.136	187.176	185.504	1.00 51.82	N
ATOM	1168	CA	VAL B 227	180.628	187.169	186.869	1.00 51.82	C
ATOM	1169	C	VAL B 227	181.727	187.643	187.806	1.00 51.82	C
ATOM	1170	O	VAL B 227	182.917	187.516	187.509	1.00 51.82	O
ATOM	1171	CB	VAL B 227	180.137	185.772	187.285	1.00 51.82	C
ATOM	1172	CG1	VAL B 227	179.180	185.230	186.252	1.00 51.82	C
ATOM	1173	CG2	VAL B 227	181.313	184.846	187.454	1.00 51.82	C
ATOM	1174	N	THR B 228	181.323	188.184	188.952	1.00 59.73	N
ATOM	1175	CA	THR B 228	182.276	188.768	189.886	1.00 59.73	C
ATOM	1176	C	THR B 228	182.718	187.811	190.985	1.00 59.73	C
ATOM	1177	O	THR B 228	183.720	188.084	191.654	1.00 59.73	O
ATOM	1178	CB	THR B 228	181.688	190.027	190.526	1.00 59.73	C
ATOM	1179	OG1	THR B 228	182.738	190.791	191.128	1.00 59.73	O
ATOM	1180	CG2	THR B 228	180.679	189.655	191.587	1.00 59.73	C
ATOM	1181	N	VAL B 229	182.007	186.705	191.191	1.00 68.98	N
ATOM	1182	CA	VAL B 229	182.353	185.717	192.214	1.00 68.98	C

ATOM	1183	C	VAL B 229	182.138	184.341	191.589	1.00 68.98	C
ATOM	1184	O	VAL B 229	181.008	183.853	191.496	1.00 68.98	O
ATOM	1185	CB	VAL B 229	181.529	185.876	193.493	1.00 68.98	C
ATOM	1186	CG1	VAL B 229	181.830	184.745	194.450	1.00 68.98	C
ATOM	1187	CG2	VAL B 229	181.823	187.208	194.143	1.00 68.98	C
ATOM	1188	N	LYS B 230	183.227	183.698	191.169	1.00 82.59	N
ATOM	1189	CA	LYS B 230	183.109	182.392	190.530	1.00 82.59	C
ATOM	1190	C	LYS B 230	182.942	181.286	191.563	1.00 82.59	C
ATOM	1191	O	LYS B 230	181.953	180.546	191.534	1.00 82.59	O
ATOM	1192	CB	LYS B 230	184.327	182.125	189.646	1.00 82.59	C
ATOM	1193	CG	LYS B 230	184.120	181.013	188.628	1.00 82.59	C
ATOM	1194	CD	LYS B 230	185.390	180.745	187.843	1.00 82.59	C
ATOM	1195	CE	LYS B 230	186.138	182.037	187.566	1.00 82.59	C
ATOM	1196	NZ	LYS B 230	187.425	181.793	186.864	1.00 82.59	N
ATOM	1197	N	ASP B 231	183.896	181.157	192.480	1.00 97.30	N
ATOM	1198	CA	ASP B 231	183.778	180.172	193.543	1.00 97.30	C
ATOM	1199	C	ASP B 231	182.660	180.575	194.501	1.00 97.30	C
ATOM	1200	O	ASP B 231	182.034	181.630	194.367	1.00 97.30	O
ATOM	1201	CB	ASP B 231	185.104	180.025	194.285	1.00 97.30	C
ATOM	1202	CG	ASP B 231	185.515	181.295	195.001	1.00 97.30	C
ATOM	1203	OD1	ASP B 231	184.962	181.574	196.085	1.00 97.30	O
ATOM	1204	OD2	ASP B 231	186.393	182.016	194.482	1.00 97.30	O
ATOM	1205	N	GLN B 232	182.403	179.722	195.483	1.00106.92	N
ATOM	1206	CA	GLN B 232	181.382	179.970	196.488	1.00106.92	C
ATOM	1207	C	GLN B 232	182.027	180.019	197.870	1.00106.92	C
ATOM	1208	O	GLN B 232	183.184	179.637	198.058	1.00106.92	O
ATOM	1209	CB	GLN B 232	180.285	178.905	196.426	1.00106.92	C
ATOM	1210	CG	GLN B 232	179.294	179.111	195.296	1.00106.92	C
ATOM	1211	CD	GLN B 232	179.882	178.776	193.941	1.00106.92	C
ATOM	1212	OE1	GLN B 232	181.048	178.400	193.834	1.00106.92	O
ATOM	1213	NE2	GLN B 232	179.074	178.908	192.896	1.00106.92	N
ATOM	1214	N	TRP B 233	181.254	180.488	198.846	1.00116.94	N
ATOM	1215	CA	TRP B 233	181.750	180.691	200.199	1.00116.94	C
ATOM	1216	C	TRP B 233	180.774	180.065	201.182	1.00116.94	C
ATOM	1217	O	TRP B 233	179.578	180.366	201.148	1.00116.94	O
ATOM	1218	CB	TRP B 233	181.929	182.184	200.496	1.00116.94	C
ATOM	1219	CG	TRP B 233	182.234	182.494	201.927	1.00116.94	C

ATOM	1220	CD1	TRP B 233	181.337	182.619	202.948	1.00116.94	C
ATOM	1221	CD2	TRP B 233	183.525	182.735	202.497	1.00116.94	C
ATOM	1222	NE1	TRP B 233	181.991	182.914	204.119	1.00116.94	N
ATOM	1223	CE2	TRP B 233	183.336	182.992	203.869	1.00116.94	C
ATOM	1224	CE3	TRP B 233	184.823	182.755	201.981	1.00116.94	C
ATOM	1225	CZ2	TRP B 233	184.395	183.265	204.731	1.00116.94	C
ATOM	1226	CZ3	TRP B 233	185.873	183.027	202.838	1.00116.94	C
ATOM	1227	CH2	TRP B 233	185.653	183.278	204.197	1.00116.94	C
ATOM	1228	N	HIS B 234	181.286	179.196	202.054	1.00116.44	N
ATOM	1229	CA	HIS B 234	180.450	178.529	203.051	1.00116.44	C
ATOM	1230	C	HIS B 234	181.337	178.208	204.251	1.00116.44	C
ATOM	1231	O	HIS B 234	182.110	177.246	204.214	1.00116.44	O
ATOM	1232	CB	HIS B 234	179.802	177.277	202.479	1.00116.44	C
ATOM	1233	CG	HIS B 234	178.513	177.539	201.762	1.00116.44	C
ATOM	1234	ND1	HIS B 234	178.433	178.341	200.644	1.00116.44	N
ATOM	1235	CD2	HIS B 234	177.252	177.111	202.009	1.00116.44	C
ATOM	1236	CE1	HIS B 234	177.179	178.393	200.230	1.00116.44	C
ATOM	1237	NE2	HIS B 234	176.442	177.655	201.041	1.00116.44	N
ATOM	1238	N	SER B 235	181.212	179.008	205.305	1.00117.57	N
ATOM	1239	CA	SER B 235	182.060	178.877	206.481	1.00117.57	C
ATOM	1240	C	SER B 235	181.552	177.739	207.363	1.00117.57	C
ATOM	1241	O	SER B 235	180.692	176.946	206.969	1.00117.57	O
ATOM	1242	CB	SER B 235	182.121	180.200	207.238	1.00117.57	C
ATOM	1243	OG	SER B 235	182.741	180.028	208.500	1.00117.57	O
ATOM	1244	N	ARG B 236	182.091	177.645	208.579	1.00118.60	N
ATOM	1245	CA	ARG B 236	181.734	176.575	209.507	1.00118.60	C
ATOM	1246	C	ARG B 236	180.555	176.963	210.395	1.00118.60	C
ATOM	1247	O	ARG B 236	179.518	176.292	210.390	1.00118.60	O
ATOM	1248	CB	ARG B 236	182.949	176.204	210.367	1.00118.60	C
ATOM	1249	CG	ARG B 236	182.626	175.311	211.558	1.00118.60	C
ATOM	1250	CD	ARG B 236	182.422	173.864	211.137	1.00118.60	C
ATOM	1251	NE	ARG B 236	181.313	173.715	210.200	1.00118.60	N
ATOM	1252	CZ	ARG B 236	181.119	172.646	209.436	1.00118.60	C
ATOM	1253	NH1	ARG B 236	181.960	171.624	209.495	1.00118.60	N
ATOM	1254	NH2	ARG B 236	180.082	172.599	208.612	1.00118.60	N
ATOM	1255	N	GLY B 237	180.701	178.038	211.158	1.00115.98	N
ATOM	1256	CA	GLY B 237	179.695	178.442	212.119	1.00115.98	C

ATOM	1257	C	GLY B 237	180.093	178.083	213.536	1.00115.98 C
ATOM	1258	O	GLY B 237	181.229	177.698	213.829	1.00115.98 O
ATOM	1259	N	SER B 238	179.123	178.217	214.434	1.00109.24 N
ATOM	1260	CA	SER B 238	179.307	177.894	215.842	1.00109.24 C
ATOM	1261	C	SER B 238	178.304	176.823	216.244	1.00109.24 C
ATOM	1262	O	SER B 238	177.110	176.940	215.946	1.00109.24 O
ATOM	1263	CB	SER B 238	179.143	179.138	216.717	1.00109.24 C
ATOM	1264	OG	SER B 238	180.343	179.889	216.758	1.00109.24 O
ATOM	1265	N	THR B 239	178.792	175.781	216.913	1.00104.29 N
ATOM	1266	CA	THR B 239	177.936	174.666	217.294	1.00104.29 C
ATOM	1267	C	THR B 239	176.730	175.153	218.085	1.00104.29 C
ATOM	1268	O	THR B 239	176.851	175.983	218.989	1.00104.29 O
ATOM	1269	CB	THR B 239	178.727	173.653	218.120	1.00104.29 C
ATOM	1270	OG1	THR B 239	179.458	174.341	219.143	1.00104.29 O
ATOM	1271	CG2	THR B 239	179.704	172.901	217.237	1.00104.29 C
ATOM	1272	N	TRP B 240	175.555	174.628	217.738	1.00102.21 N
ATOM	1273	CA	TRP B 240	174.316	174.939	218.449	1.00102.21 C
ATOM	1274	C	TRP B 240	173.912	176.400	218.258	1.00102.21 C
ATOM	1275	O	TRP B 240	173.482	177.063	219.201	1.00102.21 O
ATOM	1276	CB	TRP B 240	174.435	174.610	219.939	1.00102.21 C
ATOM	1277	CG	TRP B 240	174.674	173.163	220.233	1.00102.21 C
ATOM	1278	CD1	TRP B 240	174.517	172.115	219.377	1.00102.21 C
ATOM	1279	CD2	TRP B 240	175.110	172.603	221.476	1.00102.21 C
ATOM	1280	NE1	TRP B 240	174.830	170.936	220.009	1.00102.21 N
ATOM	1281	CE2	TRP B 240	175.197	171.210	221.299	1.00102.21 C
ATOM	1282	CE3	TRP B 240	175.436	173.146	222.722	1.00102.21 C
ATOM	1283	CZ2	TRP B 240	175.597	170.353	222.318	1.00102.21 C
ATOM	1284	CZ3	TRP B 240	175.832	172.295	223.732	1.00102.21 C
ATOM	1285	CH2	TRP B 240	175.910	170.914	223.525	1.00102.21 C
ATOM	1286	N	LEU B 241	174.048	176.908	217.035	1.00 99.98 N
ATOM	1287	CA	LEU B 241	173.683	178.287	216.738	1.00 99.98 C
ATOM	1288	C	LEU B 241	172.973	178.347	215.395	1.00 99.98 C
ATOM	1289	O	LEU B 241	173.476	177.823	214.397	1.00 99.98 O
ATOM	1290	CB	LEU B 241	174.913	179.198	216.737	1.00 99.98 C
ATOM	1291	CG	LEU B 241	175.386	179.609	218.132	1.00 99.98 C
ATOM	1292	CD1	LEU B 241	176.626	180.477	218.052	1.00 99.98 C
ATOM	1293	CD2	LEU B 241	174.279	180.325	218.881	1.00 99.98 C

ATOM	1294	N	TYR B 242	171.810	178.991	215.381	1.00 98.34 N
ATOM	1295	CA	TYR B 242	170.956	179.063	214.202	1.00 98.34 C
ATOM	1296	C	TYR B 242	171.248	180.355	213.449	1.00 98.34 C
ATOM	1297	O	TYR B 242	171.108	181.447	214.007	1.00 98.34 O
ATOM	1298	CB	TYR B 242	169.491	178.991	214.623	1.00 98.34 C
ATOM	1299	CG	TYR B 242	168.493	179.131	213.501	1.00 98.34 C
ATOM	1300	CD1	TYR B 242	168.210	178.067	212.660	1.00 98.34 C
ATOM	1301	CD2	TYR B 242	167.816	180.322	213.299	1.00 98.34 C
ATOM	1302	CE1	TYR B 242	167.292	178.188	211.642	1.00 98.34 C
ATOM	1303	CE2	TYR B 242	166.896	180.453	212.284	1.00 98.34 C
ATOM	1304	CZ	TYR B 242	166.638	179.385	211.458	1.00 98.34 C
ATOM	1305	OH	TYR B 242	165.720	179.515	210.444	1.00 98.34 O
ATOM	1306	N	ARG B 243	171.648	180.231	212.184	1.00100.53 N
ATOM	1307	CA	ARG B 243	172.052	181.392	211.403	1.00100.53 C
ATOM	1308	C	ARG B 243	171.589	181.239	209.963	1.00100.53 C
ATOM	1309	O	ARG B 243	171.412	180.124	209.466	1.00100.53 O
ATOM	1310	CB	ARG B 243	173.569	181.585	211.435	1.00100.53 C
ATOM	1311	CG	ARG B 243	174.322	180.549	210.629	1.00100.53 C
ATOM	1312	CD	ARG B 243	175.745	180.991	210.363	1.00100.53 C
ATOM	1313	NE	ARG B 243	176.441	180.068	209.474	1.00100.53 N
ATOM	1314	CZ	ARG B 243	177.694	180.227	209.067	1.00100.53 C
ATOM	1315	NH1	ARG B 243	178.396	181.278	209.470	1.00100.53 N
ATOM	1316	NH2	ARG B 243	178.248	179.334	208.259	1.00100.53 N
ATOM	1317	N	GLU B 244	171.402	182.377	209.298	1.00 97.60 N
ATOM	1318	CA	GLU B 244	171.064	182.422	207.884	1.00 97.60 C
ATOM	1319	C	GLU B 244	171.817	183.575	207.237	1.00 97.60 C
ATOM	1320	O	GLU B 244	171.953	184.646	207.832	1.00 97.60 O
ATOM	1321	CB	GLU B 244	169.556	182.581	207.671	1.00 97.60 C
ATOM	1322	CG	GLU B 244	169.011	183.935	208.066	1.00 97.60 C
ATOM	1323	CD	GLU B 244	168.943	184.112	209.564	1.00 97.60 C
ATOM	1324	OE1	GLU B 244	169.777	183.508	210.269	1.00 97.60 O
ATOM	1325	OE2	GLU B 244	168.051	184.845	210.039	1.00 97.60 O
ATOM	1326	N	THR B 245	172.298	183.350	206.020	1.00 96.12 N
ATOM	1327	CA	THR B 245	173.220	184.262	205.357	1.00 96.12 C
ATOM	1328	C	THR B 245	172.571	184.869	204.112	1.00 96.12 C
ATOM	1329	O	THR B 245	171.392	184.646	203.825	1.00 96.12 O
ATOM	1330	CB	THR B 245	174.517	183.533	205.007	1.00 96.12 C

ATOM	1331	OG1	THR	B	245	174.210	182.346	204.267	1.00	96.12	O
ATOM	1332	CG2	THR	B	245	175.259	183.150	206.272	1.00	96.12	C
ATOM	1333	N	CYS	B	246	173.360	185.647	203.373	1.00	95.23	N
ATOM	1334	CA	CYS	B	246	172.896	186.314	202.159	1.00	95.23	C
ATOM	1335	C	CYS	B	246	174.106	186.630	201.298	1.00	95.23	C
ATOM	1336	O	CYS	B	246	174.967	187.411	201.711	1.00	95.23	O
ATOM	1337	CB	CYS	B	246	172.128	187.590	202.497	1.00	95.23	C
ATOM	1338	SG	CYS	B	246	171.495	188.488	201.064	1.00	95.23	S
ATOM	1339	N	ASN	B	247	174.175	186.033	200.111	1.00	90.19	N
ATOM	1340	CA	ASN	B	247	175.306	186.202	199.210	1.00	90.19	C
ATOM	1341	C	ASN	B	247	174.873	186.952	197.960	1.00	90.19	C
ATOM	1342	O	ASN	B	247	173.745	186.787	197.486	1.00	90.19	O
ATOM	1343	CB	ASN	B	247	175.905	184.850	198.826	1.00	90.19	C
ATOM	1344	CG	ASN	B	247	176.683	184.220	199.957	1.00	90.19	C
ATOM	1345	OD1	ASN	B	247	177.346	184.912	200.728	1.00	90.19	O
ATOM	1346	ND2	ASN	B	247	176.606	182.900	200.067	1.00	90.19	N
ATOM	1347	N	LEU	B	248	175.775	187.770	197.426	1.00	79.57	N
ATOM	1348	CA	LEU	B	248	175.495	188.626	196.283	1.00	79.57	C
ATOM	1349	C	LEU	B	248	176.338	188.210	195.084	1.00	79.57	C
ATOM	1350	O	LEU	B	248	177.344	187.509	195.212	1.00	79.57	O
ATOM	1351	CB	LEU	B	248	175.762	190.093	196.625	1.00	79.57	C
ATOM	1352	CG	LEU	B	248	175.002	191.114	195.787	1.00	79.57	C
ATOM	1353	CD1	LEU	B	248	173.512	190.924	195.966	1.00	79.57	C
ATOM	1354	CD2	LEU	B	248	175.411	192.519	196.172	1.00	79.57	C
ATOM	1355	N	ASN	B	249	175.913	188.662	193.906	1.00	64.92	N
ATOM	1356	CA	ASN	B	249	176.588	188.304	192.667	1.00	64.92	C
ATOM	1357	C	ASN	B	249	176.128	189.251	191.569	1.00	64.92	C
ATOM	1358	O	ASN	B	249	174.954	189.623	191.521	1.00	64.92	O
ATOM	1359	CB	ASN	B	249	176.290	186.851	192.280	1.00	64.92	C
ATOM	1360	CG	ASN	B	249	177.309	186.287	191.323	1.00	64.92	C
ATOM	1361	OD1	ASN	B	249	178.406	186.820	191.186	1.00	64.92	O
ATOM	1362	ND2	ASN	B	249	176.954	185.199	190.655	1.00	64.92	N
ATOM	1363	N	CYS	B	250	177.057	189.633	190.693	1.00	57.10	N
ATOM	1364	CA	CYS	B	250	176.793	190.585	189.619	1.00	57.10	C
ATOM	1365	C	CYS	B	250	177.326	190.003	188.321	1.00	57.10	C
ATOM	1366	O	CYS	B	250	178.521	189.711	188.221	1.00	57.10	O
ATOM	1367	CB	CYS	B	250	177.450	191.937	189.915	1.00	57.10	C

ATOM	1368	SG	CYS	B	250	177.202	193.207	188.664	1.00 57.10	S
ATOM	1369	N	MET	B	251	176.451	189.833	187.333	1.00 46.38	N
ATOM	1370	CA	MET	B	251	176.832	189.188	186.086	1.00 46.38	C
ATOM	1371	C	MET	B	251	176.300	189.976	184.898	1.00 46.38	C
ATOM	1372	O	MET	B	251	175.259	190.629	184.984	1.00 46.38	O
ATOM	1373	CB	MET	B	251	176.331	187.742	186.033	1.00 46.38	C
ATOM	1374	CG	MET	B	251	174.834	187.611	185.945	1.00 46.38	C
ATOM	1375	SD	MET	B	251	174.315	185.889	185.923	1.00 46.38	S
ATOM	1376	CE	MET	B	251	174.988	185.325	187.479	1.00 46.38	C
ATOM	1377	N	VAL	B	252	177.035	189.904	183.785	1.00 39.69	N
ATOM	1378	CA	VAL	B	252	176.734	190.648	182.565	1.00 39.69	C
ATOM	1379	C	VAL	B	252	176.980	189.778	181.340	1.00 39.69	C
ATOM	1380	O	VAL	B	252	178.129	189.594	180.928	1.00 39.69	O
ATOM	1381	CB	VAL	B	252	177.583	191.926	182.482	1.00 39.69	C
ATOM	1382	CG1	VAL	B	252	177.560	192.469	181.078	1.00 39.69	C
ATOM	1383	CG2	VAL	B	252	177.085	192.959	183.461	1.00 39.69	C
ATOM	1384	N	THR	B	253	175.920	189.256	180.734	1.00 35.31	N
ATOM	1385	CA	THR	B	253	176.072	188.400	179.567	1.00 35.31	C
ATOM	1386	C	THR	B	253	176.160	189.232	178.290	1.00 35.31	C
ATOM	1387	O	THR	B	253	175.989	190.451	178.299	1.00 35.31	O
ATOM	1388	CB	THR	B	253	174.918	187.403	179.480	1.00 35.31	C
ATOM	1389	OG1	THR	B	253	175.020	186.651	178.267	1.00 35.31	O
ATOM	1390	CG2	THR	B	253	173.599	188.123	179.507	1.00 35.31	C
ATOM	1391	N	ILE	B	254	176.454	188.556	177.179	1.00 37.00	N
ATOM	1392	CA	ILE	B	254	176.567	189.195	175.869	1.00 37.00	C
ATOM	1393	C	ILE	B	254	176.126	188.219	174.787	1.00 37.00	C
ATOM	1394	O	ILE	B	254	176.742	187.163	174.609	1.00 37.00	O
ATOM	1395	CB	ILE	B	254	178.002	189.680	175.607	1.00 37.00	C
ATOM	1396	CG1	ILE	B	254	178.365	190.819	176.553	1.00 37.00	C
ATOM	1397	CG2	ILE	B	254	178.150	190.130	174.174	1.00 37.00	C
ATOM	1398	CD1	ILE	B	254	179.747	191.360	176.331	1.00 37.00	C
ATOM	1399	N	THR	B	255	175.078	188.564	174.040	1.00 37.85	N
ATOM	1400	CA	THR	B	255	174.511	187.636	173.067	1.00 37.85	C
ATOM	1401	C	THR	B	255	174.257	188.294	171.716	1.00 37.85	C
ATOM	1402	O	THR	B	255	174.686	189.427	171.482	1.00 37.85	O
ATOM	1403	CB	THR	B	255	173.215	187.040	173.605	1.00 37.85	C
ATOM	1404	OG1	THR	B	255	172.272	188.089	173.843	1.00 37.85	O

ATOM	1405	CG2	THR	B	255	173.475	186.314	174.902	1.00 37.85	C
ATOM	1406	N	THR	B	256	173.565	187.591	170.819	1.00 39.35	N
ATOM	1407	CA	THR	B	256	173.273	188.092	169.479	1.00 39.35	C
ATOM	1408	C	THR	B	256	171.822	187.796	169.141	1.00 39.35	C
ATOM	1409	O	THR	B	256	171.410	186.634	169.165	1.00 39.35	O
ATOM	1410	CB	THR	B	256	174.189	187.454	168.437	1.00 39.35	C
ATOM	1411	OG1	THR	B	256	173.714	186.138	168.138	1.00 39.35	O
ATOM	1412	CG2	THR	B	256	175.602	187.358	168.965	1.00 39.35	C
ATOM	1413	N	ALA	B	257	171.059	188.832	168.807	1.00 38.91	N
ATOM	1414	CA	ALA	B	257	169.642	188.712	168.512	1.00 38.91	C
ATOM	1415	C	ALA	B	257	169.420	188.582	167.009	1.00 38.91	C
ATOM	1416	O	ALA	B	257	170.349	188.685	166.209	1.00 38.91	O
ATOM	1417	CB	ALA	B	257	168.879	189.906	169.077	1.00 38.91	C
ATOM	1418	N	ARG	B	258	168.166	188.357	166.619	1.00 44.69	N
ATOM	1419	CA	ARG	B	258	167.838	188.204	165.203	1.00 44.69	C
ATOM	1420	C	ARG	B	258	166.347	188.438	165.004	1.00 44.69	C
ATOM	1421	O	ARG	B	258	165.530	187.663	165.510	1.00 44.69	O
ATOM	1422	CB	ARG	B	258	168.238	186.823	164.707	1.00 44.69	C
ATOM	1423	CG	ARG	B	258	167.333	186.290	163.619	1.00 44.69	C
ATOM	1424	CD	ARG	B	258	167.890	185.022	163.011	1.00 44.69	C
ATOM	1425	NE	ARG	B	258	169.238	185.216	162.493	1.00 44.69	N
ATOM	1426	CZ	ARG	B	258	169.949	184.266	161.901	1.00 44.69	C
ATOM	1427	NH1	ARG	B	258	171.169	184.526	161.459	1.00 44.69	N
ATOM	1428	NH2	ARG	B	258	169.439	183.054	161.753	1.00 44.69	N
ATOM	1429	N	SER	B	259	165.997	189.484	164.260	1.00 47.82	N
ATOM	1430	CA	SER	B	259	164.622	189.781	163.891	1.00 47.82	C
ATOM	1431	C	SER	B	259	164.433	189.573	162.396	1.00 47.82	C
ATOM	1432	O	SER	B	259	165.396	189.404	161.645	1.00 47.82	O
ATOM	1433	CB	SER	B	259	164.247	191.214	164.275	1.00 47.82	C
ATOM	1434	OG	SER	B	259	165.266	192.118	163.901	1.00 47.82	O
ATOM	1435	N	LYS	B	260	163.175	189.596	161.958	1.00 58.72	N
ATOM	1436	CA	LYS	B	260	162.863	189.381	160.553	1.00 58.72	C
ATOM	1437	C	LYS	B	260	161.646	190.201	160.148	1.00 58.72	C
ATOM	1438	O	LYS	B	260	160.882	190.680	160.988	1.00 58.72	O
ATOM	1439	CB	LYS	B	260	162.639	187.897	160.252	1.00 58.72	C
ATOM	1440	CG	LYS	B	260	161.532	187.259	161.047	1.00 58.72	C
ATOM	1441	CD	LYS	B	260	161.387	185.805	160.654	1.00 58.72	C

ATOM	1442	CE	LYS B 260	162.606	185.007	161.086	1.00 58.72	C
ATOM	1443	NZ	LYS B 260	162.427	183.548	160.862	1.00 58.72	N
ATOM	1444	N	TYR B 261	161.484	190.353	158.838	1.00 62.19	N
ATOM	1445	CA	TYR B 261	160.485	191.253	158.281	1.00 62.19	C
ATOM	1446	C	TYR B 261	159.115	190.973	158.896	1.00 62.19	C
ATOM	1447	O	TYR B 261	158.742	189.806	159.067	1.00 62.19	O
ATOM	1448	CB	TYR B 261	160.430	191.081	156.761	1.00 62.19	C
ATOM	1449	CG	TYR B 261	159.768	192.215	156.014	1.00 62.19	C
ATOM	1450	CD1	TYR B 261	160.481	193.355	155.674	1.00 62.19	C
ATOM	1451	CD2	TYR B 261	158.441	192.136	155.628	1.00 62.19	C
ATOM	1452	CE1	TYR B 261	159.885	194.388	154.987	1.00 62.19	C
ATOM	1453	CE2	TYR B 261	157.838	193.164	154.939	1.00 62.19	C
ATOM	1454	CZ	TYR B 261	158.565	194.288	154.622	1.00 62.19	C
ATOM	1455	OH	TYR B 261	157.968	195.318	153.935	1.00 62.19	O
ATOM	1456	N	PRO B 262	158.329	192.012	159.229	1.00 59.61	N
ATOM	1457	CA	PRO B 262	158.623	193.438	159.056	1.00 59.61	C
ATOM	1458	C	PRO B 262	159.368	194.103	160.218	1.00 59.61	C
ATOM	1459	O	PRO B 262	159.278	195.320	160.363	1.00 59.61	O
ATOM	1460	CB	PRO B 262	157.233	194.049	158.916	1.00 59.61	C
ATOM	1461	CG	PRO B 262	156.394	193.200	159.778	1.00 59.61	C
ATOM	1462	CD	PRO B 262	156.931	191.800	159.642	1.00 59.61	C
ATOM	1463	N	TYR B 263	160.090	193.325	161.024	1.00 58.28	N
ATOM	1464	CA	TYR B 263	160.946	193.856	162.085	1.00 58.28	C
ATOM	1465	C	TYR B 263	160.148	194.668	163.110	1.00 58.28	C
ATOM	1466	O	TYR B 263	160.310	195.880	163.240	1.00 58.28	O
ATOM	1467	CB	TYR B 263	162.070	194.730	161.514	1.00 58.28	C
ATOM	1468	CG	TYR B 263	162.711	194.235	160.246	1.00 58.28	C
ATOM	1469	CD1	TYR B 263	163.138	192.927	160.124	1.00 58.28	C
ATOM	1470	CD2	TYR B 263	162.917	195.090	159.178	1.00 58.28	C
ATOM	1471	CE1	TYR B 263	163.732	192.477	158.968	1.00 58.28	C
ATOM	1472	CE2	TYR B 263	163.513	194.650	158.020	1.00 58.28	C
ATOM	1473	CZ	TYR B 263	163.918	193.342	157.920	1.00 58.28	C
ATOM	1474	OH	TYR B 263	164.513	192.899	156.765	1.00 58.28	O
ATOM	1475	N	HIS B 264	159.269	193.977	163.842	1.00 60.83	N
ATOM	1476	CA	HIS B 264	158.751	194.613	165.048	1.00 60.83	C
ATOM	1477	C	HIS B 264	158.770	193.671	166.248	1.00 60.83	C
ATOM	1478	O	HIS B 264	157.908	193.765	167.126	1.00 60.83	O

ATOM	1479	CB	HIS B 264	157.342	195.187	164.847	1.00 60.83	C
ATOM	1480	CG	HIS B 264	156.299	194.179	164.477	1.00 60.83	C
ATOM	1481	ND1	HIS B 264	155.604	194.236	163.289	1.00 60.83	N
ATOM	1482	CD2	HIS B 264	155.819	193.103	165.143	1.00 60.83	C
ATOM	1483	CE1	HIS B 264	154.744	193.235	163.236	1.00 60.83	C
ATOM	1484	NE2	HIS B 264	154.856	192.530	164.348	1.00 60.83	N
ATOM	1485	N	PHE B 265	159.734	192.753	166.296	1.00 47.73	N
ATOM	1486	CA	PHE B 265	160.072	192.055	167.531	1.00 47.73	C
ATOM	1487	C	PHE B 265	161.301	191.187	167.308	1.00 47.73	C
ATOM	1488	O	PHE B 265	161.434	190.571	166.247	1.00 47.73	O
ATOM	1489	CB	PHE B 265	158.893	191.217	168.020	1.00 47.73	C
ATOM	1490	CG	PHE B 265	158.917	189.800	167.541	1.00 47.73	C
ATOM	1491	CD1	PHE B 265	158.418	189.468	166.299	1.00 47.73	C
ATOM	1492	CD2	PHE B 265	159.429	188.796	168.338	1.00 47.73	C
ATOM	1493	CE1	PHE B 265	158.435	188.162	165.859	1.00 47.73	C
ATOM	1494	CE2	PHE B 265	159.449	187.489	167.903	1.00 47.73	C
ATOM	1495	CZ	PHE B 265	158.951	187.172	166.662	1.00 47.73	C
ATOM	1496	N	PHE B 266	162.199	191.112	168.287	1.00 38.77	N
ATOM	1497	CA	PHE B 266	163.395	190.293	168.158	1.00 38.77	C
ATOM	1498	C	PHE B 266	163.589	189.436	169.398	1.00 38.77	C
ATOM	1499	O	PHE B 266	163.114	189.762	170.485	1.00 38.77	O
ATOM	1500	CB	PHE B 266	164.642	191.143	167.907	1.00 38.77	C
ATOM	1501	CG	PHE B 266	164.955	192.120	168.997	1.00 38.77	C
ATOM	1502	CD1	PHE B 266	165.740	191.751	170.069	1.00 38.77	C
ATOM	1503	CD2	PHE B 266	164.501	193.419	168.930	1.00 38.77	C
ATOM	1504	CE1	PHE B 266	166.046	192.654	171.063	1.00 38.77	C
ATOM	1505	CE2	PHE B 266	164.807	194.326	169.923	1.00 38.77	C
ATOM	1506	CZ	PHE B 266	165.581	193.943	170.987	1.00 38.77	C
ATOM	1507	N	ALA B 267	164.306	188.329	169.217	1.00 37.76	N
ATOM	1508	CA	ALA B 267	164.547	187.356	170.274	1.00 37.76	C
ATOM	1509	C	ALA B 267	166.026	187.012	170.318	1.00 37.76	C
ATOM	1510	O	ALA B 267	166.614	186.668	169.290	1.00 37.76	O
ATOM	1511	CB	ALA B 267	163.720	186.089	170.056	1.00 37.76	C
ATOM	1512	N	THR B 268	166.618	187.085	171.506	1.00 39.01	N
ATOM	1513	CA	THR B 268	168.050	186.867	171.668	1.00 39.01	C
ATOM	1514	C	THR B 268	168.354	185.371	171.656	1.00 39.01	C
ATOM	1515	O	THR B 268	167.504	184.541	171.326	1.00 39.01	O

ATOM	1516	CB	THR B 268	168.545	187.534	172.945	1.00 39.01	C
ATOM	1517	OG1	THR B 268	167.822	187.016	174.064	1.00 39.01	O
ATOM	1518	CG2	THR B 268	168.333	189.031	172.875	1.00 39.01	C
ATOM	1519	N	SER B 269	169.588	185.012	172.009	1.00 40.29	N
ATOM	1520	CA	SER B 269	170.025	183.621	172.022	1.00 40.29	C
ATOM	1521	C	SER B 269	169.747	182.935	173.353	1.00 40.29	C
ATOM	1522	O	SER B 269	169.368	181.760	173.374	1.00 40.29	O
ATOM	1523	CB	SER B 269	171.518	183.530	171.704	1.00 40.29	C
ATOM	1524	OG	SER B 269	171.760	183.716	170.323	1.00 40.29	O
ATOM	1525	N	THR B 270	169.938	183.640	174.469	1.00 41.24	N
ATOM	1526	CA	THR B 270	169.670	183.052	175.775	1.00 41.24	C
ATOM	1527	C	THR B 270	168.191	182.758	175.988	1.00 41.24	C
ATOM	1528	O	THR B 270	167.853	181.964	176.870	1.00 41.24	O
ATOM	1529	CB	THR B 270	170.191	183.969	176.881	1.00 41.24	C
ATOM	1530	OG1	THR B 270	169.472	185.207	176.867	1.00 41.24	O
ATOM	1531	CG2	THR B 270	171.660	184.245	176.679	1.00 41.24	C
ATOM	1532	N	GLY B 271	167.302	183.381	175.219	1.00 39.88	N
ATOM	1533	CA	GLY B 271	165.899	183.016	175.265	1.00 39.88	C
ATOM	1534	C	GLY B 271	164.933	184.176	175.371	1.00 39.88	C
ATOM	1535	O	GLY B 271	163.724	184.002	175.198	1.00 39.88	O
ATOM	1536	N	ASP B 272	165.455	185.367	175.641	1.00 42.71	N
ATOM	1537	CA	ASP B 272	164.633	186.530	175.941	1.00 42.71	C
ATOM	1538	C	ASP B 272	163.816	186.961	174.722	1.00 42.71	C
ATOM	1539	O	ASP B 272	163.976	186.447	173.617	1.00 42.71	O
ATOM	1540	CB	ASP B 272	165.523	187.672	176.420	1.00 42.71	C
ATOM	1541	CG	ASP B 272	165.970	187.489	177.845	1.00 42.71	C
ATOM	1542	OD1	ASP B 272	165.142	187.037	178.668	1.00 42.71	O
ATOM	1543	OD2	ASP B 272	167.123	187.850	178.164	1.00 42.71	O
ATOM	1544	N	VAL B 273	162.926	187.926	174.939	1.00 39.85	N
ATOM	1545	CA	VAL B 273	162.051	188.433	173.883	1.00 39.85	C
ATOM	1546	C	VAL B 273	161.590	189.829	174.276	1.00 39.85	C
ATOM	1547	O	VAL B 273	161.316	190.101	175.448	1.00 39.85	O
ATOM	1548	CB	VAL B 273	160.842	187.498	173.645	1.00 39.85	C
ATOM	1549	CG1	VAL B 273	159.814	188.185	172.782	1.00 39.85	C
ATOM	1550	CG2	VAL B 273	161.277	186.205	172.994	1.00 39.85	C
ATOM	1551	N	VAL B 274	161.500	190.714	173.286	1.00 42.22	N
ATOM	1552	CA	VAL B 274	161.003	192.070	173.478	1.00 42.22	C

ATOM	1553	C	VAL B 274	160.200	192.462	172.245	1.00 42.22	C
ATOM	1554	O	VAL B 274	160.283	191.828	171.193	1.00 42.22	O
ATOM	1555	CB	VAL B 274	162.137	193.080	173.723	1.00 42.22	C
ATOM	1556	CG1	VAL B 274	162.881	192.728	174.984	1.00 42.22	C
ATOM	1557	CG2	VAL B 274	163.073	193.077	172.560	1.00 42.22	C
ATOM	1558	N	ASP B 275	159.410	193.525	172.382	1.00 51.68	N
ATOM	1559	CA	ASP B 275	158.542	194.003	171.306	1.00 51.68	C
ATOM	1560	C	ASP B 275	158.925	195.436	170.961	1.00 51.68	C
ATOM	1561	O	ASP B 275	158.313	196.393	171.437	1.00 51.68	O
ATOM	1562	CB	ASP B 275	157.085	193.896	171.706	1.00 51.68	C
ATOM	1563	CG	ASP B 275	156.575	192.477	171.661	1.00 51.68	C
ATOM	1564	OD1	ASP B 275	157.372	191.573	171.341	1.00 51.68	O
ATOM	1565	OD2	ASP B 275	155.379	192.262	171.945	1.00 51.68	O
ATOM	1566	N	ILE B 276	159.930	195.576	170.101	1.00 48.86	N
ATOM	1567	CA	ILE B 276	160.347	196.875	169.589	1.00 48.86	C
ATOM	1568	C	ILE B 276	161.059	196.617	168.275	1.00 48.86	C
ATOM	1569	O	ILE B 276	161.521	195.508	168.012	1.00 48.86	O
ATOM	1570	CB	ILE B 276	161.259	197.629	170.589	1.00 48.86	C
ATOM	1571	CG1	ILE B 276	160.518	197.934	171.886	1.00 48.86	C
ATOM	1572	CG2	ILE B 276	161.762	198.916	169.986	1.00 48.86	C
ATOM	1573	CD1	ILE B 276	161.231	198.930	172.761	1.00 48.86	C
ATOM	1574	N	SER B 277	161.142	197.632	167.444	1.00 56.45	N
ATOM	1575	CA	SER B 277	161.877	197.423	166.207	1.00 56.45	C
ATOM	1576	C	SER B 277	163.299	197.915	166.372	1.00 56.45	C
ATOM	1577	O	SER B 277	163.505	199.061	166.795	1.00 56.45	O
ATOM	1578	CB	SER B 277	161.206	198.155	165.050	1.00 56.45	C
ATOM	1579	OG	SER B 277	160.114	197.408	164.545	1.00 56.45	O
ATOM	1580	N	PRO B 278	164.297	197.095	166.055	1.00 52.41	N
ATOM	1581	CA	PRO B 278	165.687	197.522	166.258	1.00 52.41	C
ATOM	1582	C	PRO B 278	165.984	198.902	165.714	1.00 52.41	C
ATOM	1583	O	PRO B 278	166.898	199.570	166.212	1.00 52.41	O
ATOM	1584	CB	PRO B 278	166.488	196.442	165.522	1.00 52.41	C
ATOM	1585	CG	PRO B 278	165.609	195.258	165.519	1.00 52.41	C
ATOM	1586	CD	PRO B 278	164.206	195.760	165.447	1.00 52.41	C
ATOM	1587	N	PHE B 279	165.240	199.358	164.708	1.00 59.30	N
ATOM	1588	CA	PHE B 279	165.488	200.647	164.078	1.00 59.30	C
ATOM	1589	C	PHE B 279	164.768	201.799	164.763	1.00 59.30	C

ATOM	1590	O	PHE B 279	165.045	202.958	164.439	1.00 59.30	O
ATOM	1591	CB	PHE B 279	165.073	200.603	162.605	1.00 59.30	C
ATOM	1592	CG	PHE B 279	165.524	199.368	161.884	1.00 59.30	C
ATOM	1593	CD1	PHE B 279	166.823	199.249	161.435	1.00 59.30	C
ATOM	1594	CD2	PHE B 279	164.646	198.329	161.651	1.00 59.30	C
ATOM	1595	CE1	PHE B 279	167.237	198.117	160.772	1.00 59.30	C
ATOM	1596	CE2	PHE B 279	165.056	197.196	160.989	1.00 59.30	C
ATOM	1597	CZ	PHE B 279	166.353	197.091	160.549	1.00 59.30	C
ATOM	1598	N	TYR B 280	163.863	201.519	165.693	1.00 64.58	N
ATOM	1599	CA	TYR B 280	163.054	202.570	166.300	1.00 64.58	C
ATOM	1600	C	TYR B 280	163.924	203.465	167.166	1.00 64.58	C
ATOM	1601	O	TYR B 280	164.399	203.045	168.224	1.00 64.58	O
ATOM	1602	CB	TYR B 280	161.929	201.964	167.131	1.00 64.58	C
ATOM	1603	CG	TYR B 280	161.322	202.949	168.099	1.00 64.58	C
ATOM	1604	CD1	TYR B 280	160.334	203.825	167.693	1.00 64.58	C
ATOM	1605	CD2	TYR B 280	161.742	203.012	169.414	1.00 64.58	C
ATOM	1606	CE1	TYR B 280	159.780	204.730	168.567	1.00 64.58	C
ATOM	1607	CE2	TYR B 280	161.194	203.917	170.294	1.00 64.58	C
ATOM	1608	CZ	TYR B 280	160.213	204.772	169.865	1.00 64.58	C
ATOM	1609	OH	TYR B 280	159.660	205.676	170.739	1.00 64.58	O
ATOM	1610	N	ASN B 281	164.143	204.695	166.727	1.00 70.38	N
ATOM	1611	CA	ASN B 281	164.626	205.737	167.613	1.00 70.38	C
ATOM	1612	C	ASN B 281	163.437	206.565	168.091	1.00 70.38	C
ATOM	1613	O	ASN B 281	162.277	206.174	167.937	1.00 70.38	O
ATOM	1614	CB	ASN B 281	165.709	206.581	166.939	1.00 70.38	C
ATOM	1615	CG	ASN B 281	165.379	206.931	165.515	1.00 70.38	C
ATOM	1616	OD1	ASN B 281	164.252	206.752	165.061	1.00 70.38	O
ATOM	1617	ND2	ASN B 281	166.373	207.427	164.791	1.00 70.38	N
ATOM	1618	N	GLY B 282	163.723	207.703	168.711	1.00 73.55	N
ATOM	1619	CA	GLY B 282	162.702	208.522	169.332	1.00 73.55	C
ATOM	1620	C	GLY B 282	161.427	208.768	168.547	1.00 73.55	C
ATOM	1621	O	GLY B 282	160.332	208.616	169.095	1.00 73.55	O
ATOM	1622	N	THR B 283	161.541	209.142	167.273	1.00 77.44	N
ATOM	1623	CA	THR B 283	160.429	209.722	166.520	1.00 77.44	C
ATOM	1624	C	THR B 283	160.184	208.978	165.209	1.00 77.44	C
ATOM	1625	O	THR B 283	160.083	209.579	164.139	1.00 77.44	O
ATOM	1626	CB	THR B 283	160.687	211.199	166.245	1.00 77.44	C

ATOM	1627	OG1	THR	B	283	161.521 211.329 165.088	1.00 77.44	O
ATOM	1628	CG2	THR	B	283	161.388 211.840 167.431	1.00 77.44	C
ATOM	1629	N	ASN	B	284	160.082 207.651 165.271	1.00 76.77	N
ATOM	1630	CA	ASN	B	284	159.776 206.845 164.093	1.00 76.77	C
ATOM	1631	C	ASN	B	284	158.618 205.893 164.351	1.00 76.77	C
ATOM	1632	O	ASN	B	284	158.578 204.795 163.793	1.00 76.77	O
ATOM	1633	CB	ASN	B	284	161.000 206.061 163.628	1.00 76.77	C
ATOM	1634	CG	ASN	B	284	162.093 206.954 163.111	1.00 76.77	C
ATOM	1635	OD1	ASN	B	284	161.951 208.174 163.085	1.00 76.77	O
ATOM	1636	ND2	ASN	B	284	163.199 206.352 162.694	1.00 76.77	N
ATOM	1637	N	ARG	B	285	157.668 206.294 165.198	1.00 78.71	N
ATOM	1638	CA	ARG	B	285	156.547 205.413 165.503	1.00 78.71	C
ATOM	1639	C	ARG	B	285	155.742 205.071 164.256	1.00 78.71	C
ATOM	1640	O	ARG	B	285	155.118 204.006 164.196	1.00 78.71	O
ATOM	1641	CB	ARG	B	285	155.645 206.057 166.553	1.00 78.71	C
ATOM	1642	CG	ARG	B	285	156.277 206.180 167.922	1.00 78.71	C
ATOM	1643	CD	ARG	B	285	155.246 205.971 169.015	1.00 78.71	C
ATOM	1644	NE	ARG	B	285	154.449 204.771 168.783	1.00 78.71	N
ATOM	1645	CZ	ARG	B	285	153.653 204.217 169.691	1.00 78.71	C
ATOM	1646	NH1	ARG	B	285	153.546 204.753 170.897	1.00 78.71	N
ATOM	1647	NH2	ARG	B	285	152.965 203.124 169.393	1.00 78.71	N
ATOM	1648	N	ASN	B	286	155.743 205.952 163.255	1.00 88.39	N
ATOM	1649	CA	ASN	B	286	154.945 205.720 162.055	1.00 88.39	C
ATOM	1650	C	ASN	B	286	155.385 204.450 161.340	1.00 88.39	C
ATOM	1651	O	ASN	B	286	154.612 203.495 161.205	1.00 88.39	O
ATOM	1652	CB	ASN	B	286	155.044 206.927 161.123	1.00 88.39	C
ATOM	1653	CG	ASN	B	286	154.596 208.209 161.787	1.00 88.39	C
ATOM	1654	OD1	ASN	B	286	153.647 208.215 162.571	1.00 88.39	O
ATOM	1655	ND2	ASN	B	286	155.277 209.305 161.480	1.00 88.39	N
ATOM	1656	N	ALA	B	287	156.632 204.424 160.871	1.00 83.03	N
ATOM	1657	CA	ALA	B	287	157.142 203.249 160.176	1.00 83.03	C
ATOM	1658	C	ALA	B	287	157.570 202.163 161.157	1.00 83.03	C
ATOM	1659	O	ALA	B	287	157.274 200.981 160.953	1.00 83.03	O
ATOM	1660	CB	ALA	B	287	158.308 203.642 159.268	1.00 83.03	C
ATOM	1661	N	SER	B	288	158.257 202.546 162.229	1.00 74.07	N
ATOM	1662	CA	SER	B	288	158.813 201.594 163.178	1.00 74.07	C
ATOM	1663	C	SER	B	288	157.835 201.319 164.316	1.00 74.07	C

ATOM	1664	O	SER B 288	157.085	202.196	164.747	1.00 74.07	O
ATOM	1665	CB	SER B 288	160.132	202.115	163.738	1.00 74.07	C
ATOM	1666	OG	SER B 288	160.930	202.657	162.703	1.00 74.07	O
ATOM	1667	N	TYR B 289	157.863	200.081	164.801	1.00 66.18	N
ATOM	1668	CA	TYR B 289	156.950	199.605	165.828	1.00 66.18	C
ATOM	1669	C	TYR B 289	157.432	200.009	167.218	1.00 66.18	C
ATOM	1670	O	TYR B 289	158.602	200.339	167.430	1.00 66.18	O
ATOM	1671	CB	TYR B 289	156.824	198.087	165.735	1.00 66.18	C
ATOM	1672	CG	TYR B 289	155.689	197.473	166.519	1.00 66.18	C
ATOM	1673	CD1	TYR B 289	155.827	197.183	167.866	1.00 66.18	C
ATOM	1674	CD2	TYR B 289	154.498	197.143	165.900	1.00 66.18	C
ATOM	1675	CE1	TYR B 289	154.801	196.610	168.580	1.00 66.18	C
ATOM	1676	CE2	TYR B 289	153.465	196.569	166.605	1.00 66.18	C
ATOM	1677	CZ	TYR B 289	153.623	196.303	167.945	1.00 66.18	C
ATOM	1678	OH	TYR B 289	152.595	195.728	168.654	1.00 66.18	O
ATOM	1679	N	PHE B 290	156.504	199.990	168.172	1.00 65.86	N
ATOM	1680	CA	PHE B 290	156.844	200.177	169.582	1.00 65.86	C
ATOM	1681	C	PHE B 290	155.667	199.708	170.419	1.00 65.86	C
ATOM	1682	O	PHE B 290	154.566	200.249	170.283	1.00 65.86	O
ATOM	1683	CB	PHE B 290	157.161	201.631	169.878	1.00 65.86	C
ATOM	1684	CG	PHE B 290	157.539	201.882	171.299	1.00 65.86	C
ATOM	1685	CD1	PHE B 290	158.854	201.780	171.703	1.00 65.86	C
ATOM	1686	CD2	PHE B 290	156.579	202.200	172.237	1.00 65.86	C
ATOM	1687	CE1	PHE B 290	159.208	202.006	173.011	1.00 65.86	C
ATOM	1688	CE2	PHE B 290	156.928	202.425	173.545	1.00 65.86	C
ATOM	1689	CZ	PHE B 290	158.243	202.328	173.933	1.00 65.86	C
ATOM	1690	N	GLY B 291	155.890	198.723	171.285	1.00 63.55	N
ATOM	1691	CA	GLY B 291	154.781	198.143	172.016	1.00 63.55	C
ATOM	1692	C	GLY B 291	155.014	197.703	173.448	1.00 63.55	C
ATOM	1693	O	GLY B 291	154.390	196.731	173.883	1.00 63.55	O
ATOM	1694	N	GLU B 292	155.885	198.375	174.204	1.00 65.85	N
ATOM	1695	CA	GLU B 292	156.216	197.905	175.545	1.00 65.85	C
ATOM	1696	C	GLU B 292	155.726	198.830	176.652	1.00 65.85	C
ATOM	1697	O	GLU B 292	154.942	198.401	177.503	1.00 65.85	O
ATOM	1698	CB	GLU B 292	157.729	197.694	175.668	1.00 65.85	C
ATOM	1699	CG	GLU B 292	158.192	196.309	175.247	1.00 65.85	C
ATOM	1700	CD	GLU B 292	157.748	195.229	176.211	1.00 65.85	C

ATOM	1701	OE1	GLU B 292	157.346	195.568	177.341	1.00 65.85	O
ATOM	1702	OE2	GLU B 292	157.797	194.039	175.837	1.00 65.85	O
ATOM	1703	N	ASN B 293	156.149	200.085	176.676	1.00 71.25	N
ATOM	1704	CA	ASN B 293	155.766	200.975	177.771	1.00 71.25	C
ATOM	1705	C	ASN B 293	156.271	202.377	177.455	1.00 71.25	C
ATOM	1706	O	ASN B 293	156.806	202.633	176.370	1.00 71.25	O
ATOM	1707	CB	ASN B 293	156.291	200.463	179.112	1.00 71.25	C
ATOM	1708	CG	ASN B 293	155.542	201.050	180.287	1.00 71.25	C
ATOM	1709	OD1	ASN B 293	155.610	202.252	180.541	1.00 71.25	O
ATOM	1710	ND2	ASN B 293	154.815	200.205	181.009	1.00 71.25	N
ATOM	1711	N	ALA B 294	156.107	203.291	178.409	1.00 74.38	N
ATOM	1712	CA	ALA B 294	156.423	204.698	178.211	1.00 74.38	C
ATOM	1713	C	ALA B 294	157.721	205.122	178.879	1.00 74.38	C
ATOM	1714	O	ALA B 294	158.595	205.689	178.217	1.00 74.38	O
ATOM	1715	CB	ALA B 294	155.269	205.569	178.727	1.00 74.38	C
ATOM	1716	N	ASP B 295	157.872	204.877	180.178	1.00 70.52	N
ATOM	1717	CA	ASP B 295	159.055	205.295	180.922	1.00 70.52	C
ATOM	1718	C	ASP B 295	159.892	204.098	181.363	1.00 70.52	C
ATOM	1719	O	ASP B 295	160.445	204.072	182.462	1.00 70.52	O
ATOM	1720	CB	ASP B 295	158.673	206.153	182.124	1.00 70.52	C
ATOM	1721	CG	ASP B 295	159.833	206.994	182.631	1.00 70.52	C
ATOM	1722	OD1	ASP B 295	160.990	206.538	182.523	1.00 70.52	O
ATOM	1723	OD2	ASP B 295	159.593	208.113	183.132	1.00 70.52	O
ATOM	1724	N	LYS B 296	159.981	203.089	180.504	1.00 63.10	N
ATOM	1725	CA	LYS B 296	160.923	201.996	180.693	1.00 63.10	C
ATOM	1726	C	LYS B 296	161.863	201.987	179.498	1.00 63.10	C
ATOM	1727	O	LYS B 296	162.151	200.932	178.928	1.00 63.10	O
ATOM	1728	CB	LYS B 296	160.198	200.658	180.832	1.00 63.10	C
ATOM	1729	CG	LYS B 296	159.196	200.605	181.970	1.00 63.10	C
ATOM	1730	CD	LYS B 296	159.835	201.005	183.286	1.00 63.10	C
ATOM	1731	CE	LYS B 296	158.936	200.663	184.459	1.00 63.10	C
ATOM	1732	NZ	LYS B 296	158.603	199.215	184.480	1.00 63.10	N
ATOM	1733	N	PHE B 297	162.330	203.169	179.110	1.00 57.76	N
ATOM	1734	CA	PHE B 297	163.019	203.351	177.843	1.00 57.76	C
ATOM	1735	C	PHE B 297	163.904	204.583	177.957	1.00 57.76	C
ATOM	1736	O	PHE B 297	163.497	205.587	178.543	1.00 57.76	O
ATOM	1737	CB	PHE B 297	162.003	203.503	176.707	1.00 57.76	C

ATOM	1738	CG	PHE B 297	162.615	203.563	175.346	1.00 57.76	C
ATOM	1739	CD1	PHE B 297	163.027	202.410	174.710	1.00 57.76	C
ATOM	1740	CD2	PHE B 297	162.785	204.774	174.704	1.00 57.76	C
ATOM	1741	CE1	PHE B 297	163.595	202.461	173.458	1.00 57.76	C
ATOM	1742	CE2	PHE B 297	163.352	204.830	173.451	1.00 57.76	C
ATOM	1743	CZ	PHE B 297	163.755	203.670	172.827	1.00 57.76	C
ATOM	1744	N	PHE B 298	165.112	204.504	177.405	1.00 57.00	N
ATOM	1745	CA	PHE B 298	166.084	205.581	177.561	1.00 57.00	C
ATOM	1746	C	PHE B 298	167.039	205.583	176.381	1.00 57.00	C
ATOM	1747	O	PHE B 298	167.712	204.580	176.124	1.00 57.00	O
ATOM	1748	CB	PHE B 298	166.858	205.432	178.869	1.00 57.00	C
ATOM	1749	CG	PHE B 298	166.070	205.808	180.082	1.00 57.00	C
ATOM	1750	CD1	PHE B 298	165.995	207.126	180.494	1.00 57.00	C
ATOM	1751	CD2	PHE B 298	165.405	204.844	180.814	1.00 57.00	C
ATOM	1752	CE1	PHE B 298	165.271	207.473	181.611	1.00 57.00	C
ATOM	1753	CE2	PHE B 298	164.680	205.184	181.932	1.00 57.00	C
ATOM	1754	CZ	PHE B 298	164.612	206.500	182.332	1.00 57.00	C
ATOM	1755	N	ILE B 299	167.105	206.708	175.674	1.00 56.82	N
ATOM	1756	CA	ILE B 299	167.997	206.884	174.535	1.00 56.82	C
ATOM	1757	C	ILE B 299	169.090	207.864	174.937	1.00 56.82	C
ATOM	1758	O	ILE B 299	168.801	209.003	175.322	1.00 56.82	O
ATOM	1759	CB	ILE B 299	167.241	207.380	173.294	1.00 56.82	C
ATOM	1760	CG1	ILE B 299	166.089	206.437	172.951	1.00 56.82	C
ATOM	1761	CG2	ILE B 299	168.185	207.493	172.118	1.00 56.82	C
ATOM	1762	CD1	ILE B 299	166.536	205.118	172.370	1.00 56.82	C
ATOM	1763	N	PHE B 300	170.342	207.422	174.848	1.00 58.87	N
ATOM	1764	CA	PHE B 300	171.488	208.231	175.211	1.00 58.87	C
ATOM	1765	C	PHE B 300	172.356	208.484	173.987	1.00 58.87	C
ATOM	1766	O	PHE B 300	172.770	207.527	173.319	1.00 58.87	O
ATOM	1767	CB	PHE B 300	172.317	207.539	176.301	1.00 58.87	C
ATOM	1768	CG	PHE B 300	171.648	207.509	177.644	1.00 58.87	C
ATOM	1769	CD1	PHE B 300	171.809	208.554	178.533	1.00 58.87	C
ATOM	1770	CD2	PHE B 300	170.862	206.435	178.017	1.00 58.87	C
ATOM	1771	CE1	PHE B 300	171.197	208.530	179.766	1.00 58.87	C
ATOM	1772	CE2	PHE B 300	170.249	206.407	179.249	1.00 58.87	C
ATOM	1773	CZ	PHE B 300	170.416	207.455	180.124	1.00 58.87	C
ATOM	1774	N	PRO B 301	172.648	209.741	173.654	1.00 64.73	N

ATOM	1775	CA	PRO B 301	173.516	210.032	172.509	1.00 64.73	C
ATOM	1776	C	PRO B 301	174.976	210.176	172.910	1.00 64.73	C
ATOM	1777	O	PRO B 301	175.309	210.710	173.969	1.00 64.73	O
ATOM	1778	CB	PRO B 301	172.955	211.367	172.006	1.00 64.73	C
ATOM	1779	CG	PRO B 301	172.517	212.050	173.262	1.00 64.73	C
ATOM	1780	CD	PRO B 301	172.075	210.970	174.229	1.00 64.73	C
ATOM	1781	N	ASN B 302	175.859	209.695	172.039	1.00 68.53	N
ATOM	1782	CA	ASN B 302	177.302	209.762	172.265	1.00 68.53	C
ATOM	1783	C	ASN B 302	177.677	209.094	173.591	1.00 68.53	C
ATOM	1784	O	ASN B 302	178.188	209.716	174.521	1.00 68.53	O
ATOM	1785	CB	ASN B 302	177.787	211.212	172.226	1.00 68.53	C
ATOM	1786	CG	ASN B 302	178.377	211.591	170.888	1.00 68.53	C
ATOM	1787	OD1	ASN B 302	178.635	210.731	170.047	1.00 68.53	O
ATOM	1788	ND2	ASN B 302	178.600	212.885	170.682	1.00 68.53	N
ATOM	1789	N	TYR B 303	177.413	207.793	173.642	1.00 64.36	N
ATOM	1790	CA	TYR B 303	177.585	207.006	174.853	1.00 64.36	C
ATOM	1791	C	TYR B 303	178.854	206.171	174.766	1.00 64.36	C
ATOM	1792	O	TYR B 303	179.147	205.575	173.726	1.00 64.36	O
ATOM	1793	CB	TYR B 303	176.373	206.104	175.074	1.00 64.36	C
ATOM	1794	CG	TYR B 303	176.277	205.523	176.460	1.00 64.36	C
ATOM	1795	CD1	TYR B 303	176.208	206.348	177.570	1.00 64.36	C
ATOM	1796	CD2	TYR B 303	176.228	204.154	176.658	1.00 64.36	C
ATOM	1797	CE1	TYR B 303	176.112	205.826	178.837	1.00 64.36	C
ATOM	1798	CE2	TYR B 303	176.130	203.623	177.923	1.00 64.36	C
ATOM	1799	CZ	TYR B 303	176.072	204.463	179.008	1.00 64.36	C
ATOM	1800	OH	TYR B 303	175.974	203.941	180.274	1.00 64.36	O
ATOM	1801	N	THR B 304	179.607	206.138	175.861	1.00 61.34	N
ATOM	1802	CA	THR B 304	180.866	205.413	175.921	1.00 61.34	C
ATOM	1803	C	THR B 304	180.645	203.984	176.403	1.00 61.34	C
ATOM	1804	O	THR B 304	179.673	203.676	177.093	1.00 61.34	O
ATOM	1805	CB	THR B 304	181.852	206.120	176.851	1.00 61.34	C
ATOM	1806	OG1	THR B 304	181.883	207.517	176.542	1.00 61.34	O
ATOM	1807	CG2	THR B 304	183.241	205.544	176.686	1.00 61.34	C
ATOM	1808	N	ILE B 305	181.579	203.108	176.035	1.00 61.07	N
ATOM	1809	CA	ILE B 305	181.554	201.712	176.455	1.00 61.07	C
ATOM	1810	C	ILE B 305	182.978	201.190	176.389	1.00 61.07	C
ATOM	1811	O	ILE B 305	183.798	201.686	175.615	1.00 61.07	O

ATOM	1812	CB	ILE B 305	180.594	200.867	175.579	1.00 61.07	C
ATOM	1813	CG1	ILE B 305	179.141	201.272	175.813	1.00 61.07	C
ATOM	1814	CG2	ILE B 305	180.780	199.390	175.847	1.00 61.07	C
ATOM	1815	CD1	ILE B 305	178.177	200.636	174.850	1.00 61.07	C
ATOM	1816	N	VAL B 306	183.273	200.189	177.207	1.00 64.82	N
ATOM	1817	CA	VAL B 306	184.588	199.571	177.204	1.00 64.82	C
ATOM	1818	C	VAL B 306	184.609	198.453	176.170	1.00 64.82	C
ATOM	1819	O	VAL B 306	183.571	197.943	175.744	1.00 64.82	O
ATOM	1820	CB	VAL B 306	184.973	199.041	178.595	1.00 64.82	C
ATOM	1821	CG1	VAL B 306	185.195	200.194	179.548	1.00 64.82	C
ATOM	1822	CG2	VAL B 306	183.898	198.117	179.115	1.00 64.82	C
ATOM	1823	N	SER B 307	185.817	198.066	175.765	1.00 69.98	N
ATOM	1824	CA	SER B 307	185.964	197.073	174.707	1.00 69.98	C
ATOM	1825	C	SER B 307	185.875	195.653	175.248	1.00 69.98	C
ATOM	1826	O	SER B 307	185.314	194.770	174.590	1.00 69.98	O
ATOM	1827	CB	SER B 307	187.293	197.279	173.983	1.00 69.98	C
ATOM	1828	OG	SER B 307	187.340	198.549	173.359	1.00 69.98	O
ATOM	1829	N	ASP B 308	186.418	195.415	176.439	1.00 70.06	N
ATOM	1830	CA	ASP B 308	186.525	194.077	177.007	1.00 70.06	C
ATOM	1831	C	ASP B 308	186.080	194.115	178.460	1.00 70.06	C
ATOM	1832	O	ASP B 308	186.698	194.801	179.279	1.00 70.06	O
ATOM	1833	CB	ASP B 308	187.962	193.560	176.904	1.00 70.06	C
ATOM	1834	CG	ASP B 308	188.029	192.064	176.709	1.00 70.06	C
ATOM	1835	OD1	ASP B 308	186.961	191.420	176.660	1.00 70.06	O
ATOM	1836	OD2	ASP B 308	189.152	191.532	176.604	1.00 70.06	O
ATOM	1837	N	PHE B 309	185.016	193.376	178.782	1.00 59.40	N
ATOM	1838	CA	PHE B 309	184.614	193.237	180.176	1.00 59.40	C
ATOM	1839	C	PHE B 309	185.455	192.155	180.837	1.00 59.40	C
ATOM	1840	O	PHE B 309	184.926	191.278	181.523	1.00 59.40	O
ATOM	1841	CB	PHE B 309	183.133	192.871	180.291	1.00 59.40	C
ATOM	1842	CG	PHE B 309	182.200	193.893	179.716	1.00 59.40	C
ATOM	1843	CD1	PHE B 309	182.188	195.187	180.190	1.00 59.40	C
ATOM	1844	CD2	PHE B 309	181.316	193.548	178.711	1.00 59.40	C
ATOM	1845	CE1	PHE B 309	181.323	196.118	179.665	1.00 59.40	C
ATOM	1846	CE2	PHE B 309	180.451	194.475	178.185	1.00 59.40	C
ATOM	1847	CZ	PHE B 309	180.454	195.760	178.662	1.00 59.40	C
ATOM	1848	N	GLY B 310	186.765	192.217	180.641	1.00 68.78	N

ATOM	1849	CA	GLY B 310	187.681	191.248	181.205	1.00 68.78	C
ATOM	1850	C	GLY B 310	188.708	191.917	182.087	1.00 68.78	C
ATOM	1851	O	GLY B 310	188.390	192.415	183.170	1.00 68.78	O
ATOM	1852	N	ARG B 311	189.950	191.931	181.619	1.00 81.62	N
ATOM	1853	CA	ARG B 311	191.049	192.615	182.280	1.00 81.62	C
ATOM	1854	C	ARG B 311	190.620	194.015	182.698	1.00 81.62	C
ATOM	1855	O	ARG B 311	189.743	194.614	182.064	1.00 81.62	O
ATOM	1856	CB	ARG B 311	192.262	192.676	181.354	1.00 81.62	C
ATOM	1857	CG	ARG B 311	191.906	193.002	179.917	1.00 81.62	C
ATOM	1858	CD	ARG B 311	193.015	192.599	178.965	1.00 81.62	C
ATOM	1859	NE	ARG B 311	192.771	193.088	177.613	1.00 81.62	N
ATOM	1860	CZ	ARG B 311	193.170	194.273	177.167	1.00 81.62	C
ATOM	1861	NH1	ARG B 311	193.835	195.095	177.967	1.00 81.62	N
ATOM	1862	NH2	ARG B 311	192.905	194.638	175.921	1.00 81.62	N
ATOM	1863	N	PRO B 312	191.204	194.562	183.759	1.00 83.32	N
ATOM	1864	CA	PRO B 312	190.707	195.830	184.309	1.00 83.32	C
ATOM	1865	C	PRO B 312	190.704	196.977	183.313	1.00 83.32	C
ATOM	1866	O	PRO B 312	189.658	197.583	183.067	1.00 83.32	O
ATOM	1867	CB	PRO B 312	191.674	196.110	185.468	1.00 83.32	C
ATOM	1868	CG	PRO B 312	192.291	194.791	185.787	1.00 83.32	C
ATOM	1869	CD	PRO B 312	192.379	194.062	184.489	1.00 83.32	C
ATOM	1870	N	ASN B 313	191.860	197.286	182.732	1.00 86.86	N
ATOM	1871	CA	ASN B 313	192.023	198.478	181.905	1.00 86.86	C
ATOM	1872	C	ASN B 313	191.975	198.083	180.433	1.00 86.86	C
ATOM	1873	O	ASN B 313	192.907	197.453	179.920	1.00 86.86	O
ATOM	1874	CB	ASN B 313	193.331	199.189	182.241	1.00 86.86	C
ATOM	1875	CG	ASN B 313	193.153	200.684	182.400	1.00 86.86	C
ATOM	1876	OD1	ASN B 313	192.461	201.325	181.612	1.00 86.86	O
ATOM	1877	ND2	ASN B 313	193.777	201.246	183.427	1.00 86.86	N
ATOM	1878	N	SER B 314	190.892	198.456	179.757	1.00 80.87	N
ATOM	1879	CA	SER B 314	190.695	198.203	178.339	1.00 80.87	C
ATOM	1880	C	SER B 314	190.715	199.521	177.570	1.00 80.87	C
ATOM	1881	O	SER B 314	190.983	200.591	178.128	1.00 80.87	O
ATOM	1882	CB	SER B 314	189.391	197.437	178.117	1.00 80.87	C
ATOM	1883	OG	SER B 314	189.391	196.210	178.820	1.00 80.87	O
ATOM	1884	N	ALA B 315	190.430	199.443	176.273	1.00 73.95	N
ATOM	1885	CA	ALA B 315	190.376	200.606	175.400	1.00 73.95	C

ATOM	1886	C	ALA B 315	188.923	200.937	175.091	1.00 73.95	C
ATOM	1887	O	ALA B 315	188.169	200.071	174.635	1.00 73.95	O
ATOM	1888	CB	ALA B 315	191.150	200.357	174.106	1.00 73.95	C
ATOM	1889	N	LEU B 316	188.539	202.187	175.333	1.00 71.05	N
ATOM	1890	CA	LEU B 316	187.155	202.605	175.184	1.00 71.05	C
ATOM	1891	C	LEU B 316	186.809	202.842	173.715	1.00 71.05	C
ATOM	1892	O	LEU B 316	187.661	202.794	172.826	1.00 71.05	O
ATOM	1893	CB	LEU B 316	186.888	203.867	176.001	1.00 71.05	C
ATOM	1894	CG	LEU B 316	186.372	203.655	177.425	1.00 71.05	C
ATOM	1895	CD1	LEU B 316	187.343	202.810	178.224	1.00 71.05	C
ATOM	1896	CD2	LEU B 316	186.140	204.987	178.108	1.00 71.05	C
ATOM	1897	N	GLU B 317	185.528	203.103	173.470	1.00 71.76	N
ATOM	1898	CA	GLU B 317	185.024	203.379	172.134	1.00 71.76	C
ATOM	1899	C	GLU B 317	183.643	204.000	172.265	1.00 71.76	C
ATOM	1900	O	GLU B 317	182.920	203.730	173.226	1.00 71.76	O
ATOM	1901	CB	GLU B 317	184.966	202.111	171.280	1.00 71.76	C
ATOM	1902	CG	GLU B 317	183.683	201.326	171.443	1.00 71.76	C
ATOM	1903	CD	GLU B 317	183.739	199.980	170.759	1.00 71.76	C
ATOM	1904	OE1	GLU B 317	184.858	199.481	170.527	1.00 71.76	O
ATOM	1905	OE2	GLU B 317	182.666	199.420	170.455	1.00 71.76	O
ATOM	1906	N	THR B 318	183.283	204.828	171.292	1.00 67.17	N
ATOM	1907	CA	THR B 318	182.051	205.598	171.349	1.00 67.17	C
ATOM	1908	C	THR B 318	180.976	204.978	170.464	1.00 67.17	C
ATOM	1909	O	THR B 318	181.253	204.158	169.587	1.00 67.17	O
ATOM	1910	CB	THR B 318	182.304	207.047	170.927	1.00 67.17	C
ATOM	1911	OG1	THR B 318	183.509	207.519	171.540	1.00 67.17	O
ATOM	1912	CG2	THR B 318	181.151	207.935	171.357	1.00 67.17	C
ATOM	1913	N	HIS B 319	179.733	205.383	170.713	1.00 64.28	N
ATOM	1914	CA	HIS B 319	178.587	204.928	169.941	1.00 64.28	C
ATOM	1915	C	HIS B 319	177.719	206.129	169.596	1.00 64.28	C
ATOM	1916	O	HIS B 319	177.885	207.220	170.146	1.00 64.28	O
ATOM	1917	CB	HIS B 319	177.769	203.884	170.706	1.00 64.28	C
ATOM	1918	CG	HIS B 319	178.359	202.511	170.678	1.00 64.28	C
ATOM	1919	ND1	HIS B 319	177.723	201.441	170.088	1.00 64.28	N
ATOM	1920	CD2	HIS B 319	179.523	202.031	171.174	1.00 64.28	C
ATOM	1921	CE1	HIS B 319	178.472	200.360	170.219	1.00 64.28	C
ATOM	1922	NE2	HIS B 319	179.570	200.692	170.874	1.00 64.28	N

ATOM	1923	N	ARG B 320	176.779	205.920	168.676	1.00 64.82 N
ATOM	1924	CA	ARG B 320	175.894	206.995	168.247	1.00 64.82 C
ATOM	1925	C	ARG B 320	174.600	207.023	169.053	1.00 64.82 C
ATOM	1926	O	ARG B 320	174.231	208.065	169.603	1.00 64.82 O
ATOM	1927	CB	ARG B 320	175.592	206.860	166.753	1.00 64.82 C
ATOM	1928	CG	ARG B 320	175.169	208.160	166.086	1.00 64.82 C
ATOM	1929	CD	ARG B 320	174.939	207.973	164.594	1.00 64.82 C
ATOM	1930	NE	ARG B 320	173.761	207.158	164.315	1.00 64.82 N
ATOM	1931	CZ	ARG B 320	172.532	207.644	164.175	1.00 64.82 C
ATOM	1932	NH1	ARG B 320	172.317	208.946	164.287	1.00 64.82 N
ATOM	1933	NH2	ARG B 320	171.519	206.826	163.921	1.00 64.82 N
ATOM	1934	N	LEU B 321	173.900	205.896	169.130	1.00 59.61 N
ATOM	1935	CA	LEU B 321	172.706	205.777	169.950	1.00 59.61 C
ATOM	1936	C	LEU B 321	172.740	204.463	170.717	1.00 59.61 C
ATOM	1937	O	LEU B 321	173.233	203.449	170.217	1.00 59.61 O
ATOM	1938	CB	LEU B 321	171.429	205.848	169.110	1.00 59.61 C
ATOM	1939	CG	LEU B 321	171.005	207.231	168.628	1.00 59.61 C
ATOM	1940	CD1	LEU B 321	169.598	207.176	168.069	1.00 59.61 C
ATOM	1941	CD2	LEU B 321	171.096	208.237	169.753	1.00 59.61 C
ATOM	1942	N	VAL B 322	172.205	204.489	171.936	1.00 50.89 N
ATOM	1943	CA	VAL B 322	172.121	203.307	172.783	1.00 50.89 C
ATOM	1944	C	VAL B 322	170.797	203.343	173.532	1.00 50.89 C
ATOM	1945	O	VAL B 322	170.410	204.380	174.077	1.00 50.89 O
ATOM	1946	CB	VAL B 322	173.301	203.227	173.768	1.00 50.89 C
ATOM	1947	CG1	VAL B 322	173.357	201.859	174.400	1.00 50.89 C
ATOM	1948	CG2	VAL B 322	174.598	203.535	173.062	1.00 50.89 C
ATOM	1949	N	ALA B 323	170.106	202.207	173.562	1.00 48.37 N
ATOM	1950	CA	ALA B 323	168.798	202.099	174.189	1.00 48.37 C
ATOM	1951	C	ALA B 323	168.890	201.292	175.479	1.00 48.37 C
ATOM	1952	O	ALA B 323	169.775	200.450	175.642	1.00 48.37 O
ATOM	1953	CB	ALA B 323	167.788	201.444	173.244	1.00 48.37 C
ATOM	1954	N	PHE B 324	167.960	201.556	176.395	1.00 45.08 N
ATOM	1955	CA	PHE B 324	167.924	200.881	177.687	1.00 45.08 C
ATOM	1956	C	PHE B 324	166.474	200.636	178.068	1.00 45.08 C
ATOM	1957	O	PHE B 324	165.735	201.588	178.331	1.00 45.08 O
ATOM	1958	CB	PHE B 324	168.620	201.713	178.768	1.00 45.08 C
ATOM	1959	CG	PHE B 324	170.119	201.703	178.681	1.00 45.08 C

ATOM	1960	CD1	PHE B 324	170.807	200.540	178.407	1.00 45.08	C
ATOM	1961	CD2	PHE B 324	170.841	202.862	178.892	1.00 45.08	C
ATOM	1962	CE1	PHE B 324	172.182	200.537	178.335	1.00 45.08	C
ATOM	1963	CE2	PHE B 324	172.213	202.860	178.820	1.00 45.08	C
ATOM	1964	CZ	PHE B 324	172.883	201.697	178.541	1.00 45.08	C
ATOM	1965	N	LEU B 325	166.071	199.371	178.105	1.00 45.08	N
ATOM	1966	CA	LEU B 325	164.714	198.976	178.480	1.00 45.08	C
ATOM	1967	C	LEU B 325	164.794	198.163	179.765	1.00 45.08	C
ATOM	1968	O	LEU B 325	165.210	197.002	179.744	1.00 45.08	O
ATOM	1969	CB	LEU B 325	164.050	198.179	177.364	1.00 45.08	C
ATOM	1970	CG	LEU B 325	162.599	197.773	177.614	1.00 45.08	C
ATOM	1971	CD1	LEU B 325	161.843	197.637	176.315	1.00 45.08	C
ATOM	1972	CD2	LEU B 325	162.558	196.470	178.365	1.00 45.08	C
ATOM	1973	N	GLU B 326	164.380	198.758	180.881	1.00 52.92	N
ATOM	1974	CA	GLU B 326	164.523	198.131	182.192	1.00 52.92	C
ATOM	1975	C	GLU B 326	163.246	197.380	182.542	1.00 52.92	C
ATOM	1976	O	GLU B 326	162.210	197.992	182.811	1.00 52.92	O
ATOM	1977	CB	GLU B 326	164.856	199.173	183.256	1.00 52.92	C
ATOM	1978	CG	GLU B 326	163.875	200.316	183.343	1.00 52.92	C
ATOM	1979	CD	GLU B 326	164.092	201.163	184.578	1.00 52.92	C
ATOM	1980	OE1	GLU B 326	164.348	200.587	185.655	1.00 52.92	O
ATOM	1981	OE2	GLU B 326	164.013	202.405	184.472	1.00 52.92	O
ATOM	1982	N	ARG B 327	163.328	196.058	182.551	1.00 45.14	N
ATOM	1983	CA	ARG B 327	162.206	195.199	182.898	1.00 45.14	C
ATOM	1984	C	ARG B 327	162.235	194.920	184.402	1.00 45.14	C
ATOM	1985	O	ARG B 327	162.949	195.586	185.156	1.00 45.14	O
ATOM	1986	CB	ARG B 327	162.250	193.927	182.050	1.00 45.14	C
ATOM	1987	CG	ARG B 327	162.646	194.175	180.613	1.00 45.14	C
ATOM	1988	CD	ARG B 327	163.368	192.983	180.031	1.00 45.14	C
ATOM	1989	NE	ARG B 327	162.435	191.949	179.603	1.00 45.14	N
ATOM	1990	CZ	ARG B 327	162.802	190.742	179.191	1.00 45.14	C
ATOM	1991	NH1	ARG B 327	164.087	190.417	179.152	1.00 45.14	N
ATOM	1992	NH2	ARG B 327	161.887	189.859	178.820	1.00 45.14	N
ATOM	1993	N	ALA B 328	161.450	193.945	184.858	1.00 50.67	N
ATOM	1994	CA	ALA B 328	161.319	193.699	186.290	1.00 50.67	C
ATOM	1995	C	ALA B 328	162.620	193.186	186.895	1.00 50.67	C
ATOM	1996	O	ALA B 328	163.046	193.654	187.956	1.00 50.67	O

ATOM	1997	CB	ALA	B	328	160.185	192.709	186.547	1.00 50.67	C
ATOM	1998	N	ASP	B	329	163.266	192.221	186.239	1.00 51.23	N
ATOM	1999	CA	ASP	B	329	164.416	191.534	186.817	1.00 51.23	C
ATOM	2000	C	ASP	B	329	165.625	191.551	185.889	1.00 51.23	C
ATOM	2001	O	ASP	B	329	166.419	190.609	185.885	1.00 51.23	O
ATOM	2002	CB	ASP	B	329	164.054	190.094	187.171	1.00 51.23	C
ATOM	2003	CG	ASP	B	329	163.717	189.266	185.950	1.00 51.23	C
ATOM	2004	OD1	ASP	B	329	164.650	188.849	185.236	1.00 51.23	O
ATOM	2005	OD2	ASP	B	329	162.518	189.035	185.699	1.00 51.23	O
ATOM	2006	N	SER	B	330	165.779	192.604	185.091	1.00 45.18	N
ATOM	2007	CA	SER	B	330	166.942	192.713	184.222	1.00 45.18	C
ATOM	2008	C	SER	B	330	166.944	194.042	183.481	1.00 45.18	C
ATOM	2009	O	SER	B	330	166.033	194.854	183.652	1.00 45.18	O
ATOM	2010	CB	SER	B	330	166.985	191.548	183.234	1.00 45.18	C
ATOM	2011	OG	SER	B	330	165.835	191.535	182.411	1.00 45.18	O
ATOM	2012	N	VAL	B	331	167.971	194.278	182.670	1.00 39.54	N
ATOM	2013	CA	VAL	B	331	168.033	195.466	181.831	1.00 39.54	C
ATOM	2014	C	VAL	B	331	168.701	195.105	180.513	1.00 39.54	C
ATOM	2015	O	VAL	B	331	169.897	194.798	180.478	1.00 39.54	O
ATOM	2016	CB	VAL	B	331	168.784	196.606	182.540	1.00 39.54	C
ATOM	2017	CG1	VAL	B	331	169.155	197.680	181.554	1.00 39.54	C
ATOM	2018	CG2	VAL	B	331	167.935	197.184	183.642	1.00 39.54	C
ATOM	2019	N	ILE	B	332	167.942	195.133	179.422	1.00 36.52	N
ATOM	2020	CA	ILE	B	332	168.491	194.861	178.103	1.00 36.52	C
ATOM	2021	C	ILE	B	332	169.020	196.161	177.514	1.00 36.52	C
ATOM	2022	O	ILE	B	332	168.647	197.257	177.932	1.00 36.52	O
ATOM	2023	CB	ILE	B	332	167.450	194.210	177.174	1.00 36.52	C
ATOM	2024	CG1	ILE	B	332	166.988	192.879	177.742	1.00 36.52	C
ATOM	2025	CG2	ILE	B	332	168.035	193.955	175.813	1.00 36.52	C
ATOM	2026	CD1	ILE	B	332	166.238	192.041	176.743	1.00 36.52	C
ATOM	2027	N	SER	B	333	169.902	196.043	176.527	1.00 37.04	N
ATOM	2028	CA	SER	B	333	170.523	197.226	175.939	1.00 37.04	C
ATOM	2029	C	SER	B	333	171.104	196.872	174.582	1.00 37.04	C
ATOM	2030	O	SER	B	333	171.867	195.911	174.469	1.00 37.04	O
ATOM	2031	CB	SER	B	333	171.604	197.773	176.854	1.00 37.04	C
ATOM	2032	OG	SER	B	333	172.467	198.638	176.146	1.00 37.04	O
ATOM	2033	N	TRP	B	334	170.742	197.641	173.563	1.00 44.72	N

ATOM	2034	CA	TRP B 334	171.324	197.554	172.234	1.00 44.72	C
ATOM	2035	C	TRP B 334	171.633	198.961	171.740	1.00 44.72	C
ATOM	2036	O	TRP B 334	171.265	199.958	172.366	1.00 44.72	O
ATOM	2037	CB	TRP B 334	170.382	196.835	171.263	1.00 44.72	C
ATOM	2038	CG	TRP B 334	169.078	197.537	171.065	1.00 44.72	C
ATOM	2039	CD1	TRP B 334	168.789	198.463	170.114	1.00 44.72	C
ATOM	2040	CD2	TRP B 334	167.883	197.369	171.835	1.00 44.72	C
ATOM	2041	NE1	TRP B 334	167.489	198.886	170.242	1.00 44.72	N
ATOM	2042	CE2	TRP B 334	166.913	198.227	171.293	1.00 44.72	C
ATOM	2043	CE3	TRP B 334	167.540	196.576	172.929	1.00 44.72	C
ATOM	2044	CZ2	TRP B 334	165.629	198.316	171.806	1.00 44.72	C
ATOM	2045	CZ3	TRP B 334	166.264	196.666	173.436	1.00 44.72	C
ATOM	2046	CH2	TRP B 334	165.324	197.528	172.877	1.00 44.72	C
ATOM	2047	N	ASP B 335	172.318	199.046	170.606	1.00 53.54	N
ATOM	2048	CA	ASP B 335	172.613	200.324	169.973	1.00 53.54	C
ATOM	2049	C	ASP B 335	171.783	200.453	168.705	1.00 53.54	C
ATOM	2050	O	ASP B 335	171.751	199.531	167.884	1.00 53.54	O
ATOM	2051	CB	ASP B 335	174.101	200.462	169.660	1.00 53.54	C
ATOM	2052	CG	ASP B 335	174.679	199.220	169.042	1.00 53.54	C
ATOM	2053	OD1	ASP B 335	173.914	198.259	168.827	1.00 53.54	O
ATOM	2054	OD2	ASP B 335	175.898	199.201	168.774	1.00 53.54	O
ATOM	2055	N	ILE B 336	171.115	201.594	168.555	1.00 58.48	N
ATOM	2056	CA	ILE B 336	170.157	201.815	167.477	1.00 58.48	C
ATOM	2057	C	ILE B 336	170.793	201.488	166.135	1.00 58.48	C
ATOM	2058	O	ILE B 336	171.839	202.040	165.778	1.00 58.48	O
ATOM	2059	CB	ILE B 336	169.634	203.259	167.495	1.00 58.48	C
ATOM	2060	CG1	ILE B 336	168.921	203.549	168.812	1.00 58.48	C
ATOM	2061	CG2	ILE B 336	168.695	203.480	166.339	1.00 58.48	C
ATOM	2062	CD1	ILE B 336	167.660	202.748	169.005	1.00 58.48	C
ATOM	2063	N	GLN B 337	170.160	200.596	165.380	1.00 62.06	N
ATOM	2064	CA	GLN B 337	170.680	200.165	164.090	1.00 62.06	C
ATOM	2065	C	GLN B 337	170.354	201.216	163.032	1.00 62.06	C
ATOM	2066	O	GLN B 337	169.917	202.327	163.338	1.00 62.06	O
ATOM	2067	CB	GLN B 337	170.120	198.794	163.732	1.00 62.06	C
ATOM	2068	CG	GLN B 337	170.311	197.761	164.818	1.00 62.06	C
ATOM	2069	CD	GLN B 337	171.745	197.294	164.916	1.00 62.06	C
ATOM	2070	OE1	GLN B 337	172.190	196.830	165.963	1.00 62.06	O

ATOM	2071	NE2	GLN	B	337	172.480	197.412	163.818	1.00	62.06	N
ATOM	2072	N	ASN	B	338	170.568	200.874	161.765	1.00	81.47	N
ATOM	2073	CA	ASN	B	338	170.333	201.795	160.664	1.00	81.47	C
ATOM	2074	C	ASN	B	338	169.485	201.122	159.593	1.00	81.47	C
ATOM	2075	O	ASN	B	338	169.284	199.905	159.600	1.00	81.47	O
ATOM	2076	CB	ASN	B	338	171.650	202.292	160.064	1.00	81.47	C
ATOM	2077	CG	ASN	B	338	172.346	203.291	160.957	1.00	81.47	C
ATOM	2078	OD1	ASN	B	338	173.571	203.288	161.074	1.00	81.47	O
ATOM	2079	ND2	ASN	B	338	171.568	204.155	161.597	1.00	81.47	N
ATOM	2080	N	GLU	B	339	168.994	201.938	158.663	1.00	88.17	N
ATOM	2081	CA	GLU	B	339	168.011	201.473	157.694	1.00	88.17	C
ATOM	2082	C	GLU	B	339	168.630	200.519	156.680	1.00	88.17	C
ATOM	2083	O	GLU	B	339	169.757	200.716	156.219	1.00	88.17	O
ATOM	2084	CB	GLU	B	339	167.384	202.665	156.975	1.00	88.17	C
ATOM	2085	CG	GLU	B	339	166.273	203.344	157.755	1.00	88.17	C
ATOM	2086	CD	GLU	B	339	164.995	202.531	157.773	1.00	88.17	C
ATOM	2087	OE1	GLU	B	339	163.908	203.131	157.913	1.00	88.17	O
ATOM	2088	OE2	GLU	B	339	165.076	201.292	157.647	1.00	88.17	O
ATOM	2089	N	LYS	B	340	167.877	199.479	156.330	1.00	89.84	N
ATOM	2090	CA	LYS	B	340	168.277	198.568	155.270	1.00	89.84	C
ATOM	2091	C	LYS	B	340	168.248	199.292	153.923	1.00	89.84	C
ATOM	2092	O	LYS	B	340	167.876	200.464	153.824	1.00	89.84	O
ATOM	2093	CB	LYS	B	340	167.367	197.343	155.256	1.00	89.84	C
ATOM	2094	CG	LYS	B	340	167.359	196.563	156.554	1.00	89.84	C
ATOM	2095	CD	LYS	B	340	168.665	195.825	156.770	1.00	89.84	C
ATOM	2096	CE	LYS	B	340	168.673	194.500	156.040	1.00	89.84	C
ATOM	2097	NZ	LYS	B	340	169.890	193.710	156.362	1.00	89.84	N
ATOM	2098	N	ASN	B	341	168.656	198.587	152.867	1.00	112.01	N
ATOM	2099	CA	ASN	B	341	168.778	199.180	151.539	1.00	112.01	C
ATOM	2100	C	ASN	B	341	167.845	198.555	150.508	1.00	112.01	C
ATOM	2101	O	ASN	B	341	167.057	199.266	149.877	1.00	112.01	O
ATOM	2102	CB	ASN	B	341	170.234	199.084	151.071	1.00	112.01	C
ATOM	2103	CG	ASN	B	341	171.202	199.658	152.081	1.00	112.01	C
ATOM	2104	OD1	ASN	B	341	171.661	198.961	152.986	1.00	112.01	O
ATOM	2105	ND2	ASN	B	341	171.505	200.944	151.943	1.00	112.01	N
ATOM	2106	N	VAL	B	342	167.918	197.240	150.305	1.00	113.92	N
ATOM	2107	CA	VAL	B	342	167.132	196.577	149.269	1.00	113.92	C

ATOM	2108	C	VAL	B	342	166.926	195.125	149.668	1.00	113.92	C
ATOM	2109	O	VAL	B	342	167.827	194.481	150.212	1.00	113.92	O
ATOM	2110	CB	VAL	B	342	167.821	196.674	147.887	1.00	113.92	C
ATOM	2111	CG1	VAL	B	342	169.242	196.138	147.965	1.00	113.92	C
ATOM	2112	CG2	VAL	B	342	167.023	195.920	146.836	1.00	113.92	C
ATOM	2113	N	THR	B	343	165.735	194.601	149.381	1.00	113.63	N
ATOM	2114	CA	THR	B	343	165.379	193.251	149.810	1.00	113.63	C
ATOM	2115	C	THR	B	343	164.608	192.499	148.725	1.00	113.63	C
ATOM	2116	O	THR	B	343	163.622	191.811	149.011	1.00	113.63	O
ATOM	2117	CB	THR	B	343	164.559	193.294	151.101	1.00	113.63	C
ATOM	2118	OG1	THR	B	343	165.067	194.323	151.964	1.00	113.63	O
ATOM	2119	CG2	THR	B	343	164.625	191.964	151.819	1.00	113.63	C
ATOM	2120	N	CYS	B	344	165.027	192.611	147.466	1.00	112.61	N
ATOM	2121	CA	CYS	B	344	164.319	191.877	146.424	1.00	112.61	C
ATOM	2122	C	CYS	B	344	164.443	190.377	146.674	1.00	112.61	C
ATOM	2123	O	CYS	B	344	165.467	189.900	147.165	1.00	112.61	O
ATOM	2124	CB	CYS	B	344	164.845	192.246	145.031	1.00	112.61	C
ATOM	2125	SG	CYS	B	344	166.610	192.029	144.755	1.00	112.61	S
ATOM	2126	N	ALA	B	345	163.389	189.637	146.334	1.00	104.58	N
ATOM	2127	CA	ALA	B	345	163.245	188.235	146.733	1.00	104.58	C
ATOM	2128	C	ALA	B	345	163.588	187.301	145.573	1.00	104.58	C
ATOM	2129	O	ALA	B	345	162.727	186.894	144.792	1.00	104.58	O
ATOM	2130	CB	ALA	B	345	161.836	187.974	147.251	1.00	104.58	C
ATOM	2131	N	LEU	B	346	164.867	186.942	145.478	1.00	101.94	N
ATOM	2132	CA	LEU	B	346	165.344	186.027	144.448	1.00	101.94	C
ATOM	2133	C	LEU	B	346	166.172	184.926	145.094	1.00	101.94	C
ATOM	2134	O	LEU	B	346	167.093	185.214	145.861	1.00	101.94	O
ATOM	2135	CB	LEU	B	346	166.176	186.774	143.401	1.00	101.94	C
ATOM	2136	CG	LEU	B	346	167.573	187.233	143.826	1.00	101.94	C
ATOM	2137	CD1	LEU	B	346	168.600	186.138	143.582	1.00	101.94	C
ATOM	2138	CD2	LEU	B	346	167.973	188.520	143.123	1.00	101.94	C
ATOM	2139	N	THR	B	347	165.845	183.670	144.787	1.00	96.38	N
ATOM	2140	CA	THR	B	347	166.546	182.545	145.404	1.00	96.38	C
ATOM	2141	C	THR	B	347	166.971	181.441	144.446	1.00	96.38	C
ATOM	2142	O	THR	B	347	167.890	180.690	144.788	1.00	96.38	O
ATOM	2143	CB	THR	B	347	165.683	181.928	146.510	1.00	96.38	C
ATOM	2144	OG1	THR	B	347	164.330	181.810	146.054	1.00	96.38	O

ATOM	2145	CG2	THR	B	347	165.716	182.802	147.745	1.00	96.38	C
ATOM	2146	N	PHE	B	348	166.365	181.307	143.269	1.00	92.04	N
ATOM	2147	CA	PHE	B	348	166.609	180.173	142.377	1.00	92.04	C
ATOM	2148	C	PHE	B	348	166.272	178.854	143.076	1.00	92.04	C
ATOM	2149	O	PHE	B	348	167.128	178.001	143.315	1.00	92.04	O
ATOM	2150	CB	PHE	B	348	168.051	180.173	141.861	1.00	92.04	C
ATOM	2151	CG	PHE	B	348	168.368	179.022	140.947	1.00	92.04	C
ATOM	2152	CD1	PHE	B	348	167.361	178.361	140.267	1.00	92.04	C
ATOM	2153	CD2	PHE	B	348	169.672	178.598	140.775	1.00	92.04	C
ATOM	2154	CE1	PHE	B	348	167.648	177.304	139.434	1.00	92.04	C
ATOM	2155	CE2	PHE	B	348	169.966	177.541	139.940	1.00	92.04	C
ATOM	2156	CZ	PHE	B	348	168.952	176.894	139.268	1.00	92.04	C
ATOM	2157	N	TRP	B	349	164.989	178.703	143.403	1.00	91.20	N
ATOM	2158	CA	TRP	B	349	164.547	177.509	144.115	1.00	91.20	C
ATOM	2159	C	TRP	B	349	164.799	176.238	143.313	1.00	91.20	C
ATOM	2160	O	TRP	B	349	165.159	175.208	143.890	1.00	91.20	O
ATOM	2161	CB	TRP	B	349	163.067	177.630	144.469	1.00	91.20	C
ATOM	2162	CG	TRP	B	349	162.506	176.417	145.147	1.00	91.20	C
ATOM	2163	CD1	TRP	B	349	162.747	176.006	146.424	1.00	91.20	C
ATOM	2164	CD2	TRP	B	349	161.603	175.461	144.582	1.00	91.20	C
ATOM	2165	NE1	TRP	B	349	162.052	174.852	146.690	1.00	91.20	N
ATOM	2166	CE2	TRP	B	349	161.342	174.497	145.574	1.00	91.20	C
ATOM	2167	CE3	TRP	B	349	160.991	175.325	143.333	1.00	91.20	C
ATOM	2168	CZ2	TRP	B	349	160.496	173.412	145.356	1.00	91.20	C
ATOM	2169	CZ3	TRP	B	349	160.152	174.248	143.119	1.00	91.20	C
ATOM	2170	CH2	TRP	B	349	159.913	173.307	144.124	1.00	91.20	C
ATOM	2171	N	GLU	B	350	164.620	176.282	141.995	1.00	93.27	N
ATOM	2172	CA	GLU	B	350	164.716	175.074	141.180	1.00	93.27	C
ATOM	2173	C	GLU	B	350	164.785	175.481	139.714	1.00	93.27	C
ATOM	2174	O	GLU	B	350	164.488	176.623	139.351	1.00	93.27	O
ATOM	2175	CB	GLU	B	350	163.526	174.142	141.418	1.00	93.27	C
ATOM	2176	CG	GLU	B	350	163.674	172.761	140.811	1.00	93.27	C
ATOM	2177	CD	GLU	B	350	164.449	171.818	141.700	1.00	93.27	C
ATOM	2178	OE1	GLU	B	350	165.092	172.296	142.657	1.00	93.27	O
ATOM	2179	OE2	GLU	B	350	164.411	170.597	141.445	1.00	93.27	O
ATOM	2180	N	ALA	B	351	165.178	174.529	138.872	1.00	91.27	N
ATOM	2181	CA	ALA	B	351	165.222	174.773	137.433	1.00	91.27	C

ATOM	2182	C	ALA B 351	165.223	173.439	136.709	1.00 91.27	C
ATOM	2183	O	ALA B 351	166.177	172.667	136.840	1.00 91.27	O
ATOM	2184	CB	ALA B 351	166.450	175.592	137.056	1.00 91.27	C
ATOM	2185	N	SER B 352	164.174	173.176	135.941	1.00 91.46	N
ATOM	2186	CA	SER B 352	164.092	171.961	135.150	1.00 91.46	C
ATOM	2187	C	SER B 352	164.713	172.184	133.774	1.00 91.46	C
ATOM	2188	O	SER B 352	165.041	173.307	133.385	1.00 91.46	O
ATOM	2189	CB	SER B 352	162.642	171.506	135.020	1.00 91.46	C
ATOM	2190	OG	SER B 352	162.494	170.597	133.946	1.00 91.46	O
ATOM	2191	N	GLU B 353	164.876	171.089	133.031	1.00 93.87	N
ATOM	2192	CA	GLU B 353	165.470	171.136	131.703	1.00 93.87	C
ATOM	2193	C	GLU B 353	164.566	170.601	130.603	1.00 93.87	C
ATOM	2194	O	GLU B 353	164.934	170.699	129.428	1.00 93.87	O
ATOM	2195	CB	GLU B 353	166.793	170.356	131.680	1.00 93.87	C
ATOM	2196	CG	GLU B 353	168.017	171.180	132.027	1.00 93.87	C
ATOM	2197	CD	GLU B 353	169.271	170.339	132.116	1.00 93.87	C
ATOM	2198	OE1	GLU B 353	170.377	170.906	132.014	1.00 93.87	O
ATOM	2199	OE2	GLU B 353	169.149	169.108	132.294	1.00 93.87	O
ATOM	2200	N	ARG B 354	163.414	170.027	130.942	1.00 93.93	N
ATOM	2201	CA	ARG B 354	162.414	169.668	129.938	1.00 93.93	C
ATOM	2202	C	ARG B 354	161.060	169.642	130.629	1.00 93.93	C
ATOM	2203	O	ARG B 354	160.759	168.696	131.362	1.00 93.93	O
ATOM	2204	CB	ARG B 354	162.728	168.324	129.295	1.00 93.93	C
ATOM	2205	CG	ARG B 354	161.839	168.014	128.097	1.00 93.93	C
ATOM	2206	CD	ARG B 354	161.659	166.519	127.889	1.00 93.93	C
ATOM	2207	NE	ARG B 354	162.845	165.897	127.309	1.00 93.93	N
ATOM	2208	CZ	ARG B 354	163.256	166.090	126.060	1.00 93.93	C
ATOM	2209	NH1	ARG B 354	162.576	166.894	125.253	1.00 93.93	N
ATOM	2210	NH2	ARG B 354	164.347	165.481	125.617	1.00 93.93	N
ATOM	2211	N	THR B 355	160.250	170.669	130.392	1.00 91.70	N
ATOM	2212	CA	THR B 355	158.940	170.802	131.008	1.00 91.70	C
ATOM	2213	C	THR B 355	157.850	170.701	129.949	1.00 91.70	C
ATOM	2214	O	THR B 355	158.115	170.697	128.745	1.00 91.70	O
ATOM	2215	CB	THR B 355	158.815	172.130	131.760	1.00 91.70	C
ATOM	2216	OG1	THR B 355	157.645	172.101	132.584	1.00 91.70	O
ATOM	2217	CG2	THR B 355	158.702	173.279	130.778	1.00 91.70	C
ATOM	2218	N	ILE B 356	156.607	170.622	130.416	1.00 91.75	N

ATOM	2219	CA	ILE B 356	155.438	170.516	129.553	1.00 91.75	C
ATOM	2220	C	ILE B 356	154.370	171.466	130.075	1.00 91.75	C
ATOM	2221	O	ILE B 356	154.048	171.448	131.267	1.00 91.75	O
ATOM	2222	CB	ILE B 356	154.901	169.076	129.496	1.00 91.75	C
ATOM	2223	CG1	ILE B 356	156.006	168.117	129.058	1.00 91.75	C
ATOM	2224	CG2	ILE B 356	153.731	168.993	128.549	1.00 91.75	C
ATOM	2225	CD1	ILE B 356	155.565	166.680	128.979	1.00 91.75	C
ATOM	2226	N	ARG B 357	153.824	172.291	129.187	1.00 92.35	N
ATOM	2227	CA	ARG B 357	152.854	173.318	129.549	1.00 92.35	C
ATOM	2228	C	ARG B 357	151.536	173.009	128.857	1.00 92.35	C
ATOM	2229	O	ARG B 357	151.479	172.954	127.625	1.00 92.35	O
ATOM	2230	CB	ARG B 357	153.362	174.705	129.157	1.00 92.35	C
ATOM	2231	CG	ARG B 357	152.422	175.838	129.498	1.00 92.35	C
ATOM	2232	CD	ARG B 357	151.538	176.178	128.320	1.00 92.35	C
ATOM	2233	NE	ARG B 357	152.275	176.819	127.237	1.00 92.35	N
ATOM	2234	CZ	ARG B 357	152.604	178.104	127.219	1.00 92.35	C
ATOM	2235	NH1	ARG B 357	153.269	178.607	126.190	1.00 92.35	N
ATOM	2236	NH2	ARG B 357	152.271	178.888	128.232	1.00 92.35	N
ATOM	2237	N	SER B 358	150.481	172.810	129.646	1.00100.09	N
ATOM	2238	CA	SER B 358	149.165	172.436	129.129	1.00100.09	C
ATOM	2239	C	SER B 358	148.122	173.407	129.675	1.00100.09	C
ATOM	2240	O	SER B 358	147.755	173.332	130.851	1.00100.09	O
ATOM	2241	CB	SER B 358	148.822	171.000	129.504	1.00100.09	C
ATOM	2242	OG	SER B 358	148.253	170.937	130.799	1.00100.09	O
ATOM	2243	N	GLU B 359	147.643	174.307	128.822	1.00111.58	N
ATOM	2244	CA	GLU B 359	146.628	175.278	129.211	1.00111.58	C
ATOM	2245	C	GLU B 359	145.253	174.630	129.142	1.00111.58	C
ATOM	2246	O	GLU B 359	144.844	174.153	128.079	1.00111.58	O
ATOM	2247	CB	GLU B 359	146.686	176.495	128.292	1.00111.58	C
ATOM	2248	CG	GLU B 359	146.545	176.146	126.820	1.00111.58	C
ATOM	2249	CD	GLU B 359	146.029	177.305	125.992	1.00111.58	C
ATOM	2250	OE1	GLU B 359	145.155	178.045	126.488	1.00111.58	O
ATOM	2251	OE2	GLU B 359	146.499	177.474	124.847	1.00111.58	O
ATOM	2252	N	ALA B 360	144.531	174.605	130.265	1.00116.44	N
ATOM	2253	CA	ALA B 360	143.242	173.929	130.243	1.00116.44	C
ATOM	2254	C	ALA B 360	142.068	174.872	129.997	1.00116.44	C
ATOM	2255	O	ALA B 360	141.442	174.812	128.934	1.00116.44	O

ATOM	2256	CB	ALA B 360	143.031	173.167	131.554	1.00116.44	C
ATOM	2257	N	GLU B 361	141.764	175.758	130.947	1.00117.36	N
ATOM	2258	CA	GLU B 361	140.641	176.672	130.751	1.00117.36	C
ATOM	2259	C	GLU B 361	141.049	178.132	130.899	1.00117.36	C
ATOM	2260	O	GLU B 361	140.744	178.963	130.038	1.00117.36	O
ATOM	2261	CB	GLU B 361	139.501	176.347	131.723	1.00117.36	C
ATOM	2262	CG	GLU B 361	139.836	176.511	133.200	1.00117.36	C
ATOM	2263	CD	GLU B 361	140.848	175.498	133.691	1.00117.36	C
ATOM	2264	OE1	GLU B 361	141.002	174.450	133.032	1.00117.36	O
ATOM	2265	OE2	GLU B 361	141.489	175.748	134.733	1.00117.36	O
ATOM	2266	N	ASP B 362	141.735	178.451	131.998	1.00114.07	N
ATOM	2267	CA	ASP B 362	142.146	179.818	132.283	1.00114.07	C
ATOM	2268	C	ASP B 362	143.520	179.873	132.935	1.00114.07	C
ATOM	2269	O	ASP B 362	143.940	180.952	133.371	1.00114.07	O
ATOM	2270	CB	ASP B 362	141.116	180.517	133.178	1.00114.07	C
ATOM	2271	CG	ASP B 362	140.956	179.842	134.530	1.00114.07	C
ATOM	2272	OD1	ASP B 362	141.969	179.397	135.111	1.00114.07	O
ATOM	2273	OD2	ASP B 362	139.810	179.761	135.020	1.00114.07	O
ATOM	2274	N	SER B 363	144.217	178.748	133.029	1.00109.91	N
ATOM	2275	CA	SER B 363	145.503	178.676	133.706	1.00109.91	C
ATOM	2276	C	SER B 363	146.400	177.761	132.882	1.00109.91	C
ATOM	2277	O	SER B 363	146.109	177.444	131.724	1.00109.91	O
ATOM	2278	CB	SER B 363	145.318	178.199	135.154	1.00109.91	C
ATOM	2279	OG	SER B 363	144.359	178.990	135.830	1.00109.91	O
ATOM	2280	N	TYR B 364	147.507	177.331	133.475	1.00101.53	N
ATOM	2281	CA	TYR B 364	148.432	176.417	132.829	1.00101.53	C
ATOM	2282	C	TYR B 364	148.730	175.267	133.780	1.00101.53	C
ATOM	2283	O	TYR B 364	148.184	175.184	134.883	1.00101.53	O
ATOM	2284	CB	TYR B 364	149.715	177.141	132.411	1.00101.53	C
ATOM	2285	CG	TYR B 364	149.483	178.253	131.417	1.00101.53	C
ATOM	2286	CD1	TYR B 364	149.116	179.518	131.838	1.00101.53	C
ATOM	2287	CD2	TYR B 364	149.633	178.035	130.059	1.00101.53	C
ATOM	2288	CE1	TYR B 364	148.907	180.535	130.933	1.00101.53	C
ATOM	2289	CE2	TYR B 364	149.422	179.045	129.148	1.00101.53	C
ATOM	2290	CZ	TYR B 364	149.061	180.293	129.590	1.00101.53	C
ATOM	2291	OH	TYR B 364	148.851	181.303	128.682	1.00101.53	O
ATOM	2292	N	HIS B 365	149.604	174.365	133.342	1.00 99.68	N

ATOM	2293	CA	HIS B 365	149.999	173.223	134.165	1.00 99.68	C
ATOM	2294	C	HIS B 365	151.455	172.905	133.822	1.00 99.68	C
ATOM	2295	O	HIS B 365	151.738	172.170	132.875	1.00 99.68	O
ATOM	2296	CB	HIS B 365	149.091	172.025	133.929	1.00 99.68	C
ATOM	2297	CG	HIS B 365	147.750	172.146	134.582	1.00 99.68	C
ATOM	2298	ND1	HIS B 365	147.560	172.808	135.774	1.00 99.68	N
ATOM	2299	CD2	HIS B 365	146.533	171.687	134.208	1.00 99.68	C
ATOM	2300	CE1	HIS B 365	146.282	172.752	136.108	1.00 99.68	C
ATOM	2301	NE2	HIS B 365	145.638	172.076	135.174	1.00 99.68	N
ATOM	2302	N	PHE B 366	152.368	173.470	134.602	1.00 94.58	N
ATOM	2303	CA	PHE B 366	153.792	173.234	134.419	1.00 94.58	C
ATOM	2304	C	PHE B 366	154.183	171.986	135.197	1.00 94.58	C
ATOM	2305	O	PHE B 366	154.101	171.966	136.429	1.00 94.58	O
ATOM	2306	CB	PHE B 366	154.601	174.442	134.883	1.00 94.58	C
ATOM	2307	CG	PHE B 366	154.329	175.689	134.096	1.00 94.58	C
ATOM	2308	CD1	PHE B 366	155.009	175.942	132.919	1.00 94.58	C
ATOM	2309	CD2	PHE B 366	153.398	176.611	134.536	1.00 94.58	C
ATOM	2310	CE1	PHE B 366	154.763	177.088	132.197	1.00 94.58	C
ATOM	2311	CE2	PHE B 366	153.149	177.759	133.817	1.00 94.58	C
ATOM	2312	CZ	PHE B 366	153.832	177.997	132.646	1.00 94.58	C
ATOM	2313	N	SER B 367	154.605	170.946	134.479	1.00 94.04	N
ATOM	2314	CA	SER B 367	154.932	169.651	135.073	1.00 94.04	C
ATOM	2315	C	SER B 367	156.318	169.237	134.591	1.00 94.04	C
ATOM	2316	O	SER B 367	156.454	168.641	133.519	1.00 94.04	O
ATOM	2317	CB	SER B 367	153.881	168.609	134.717	1.00 94.04	C
ATOM	2318	OG	SER B 367	154.054	168.157	133.388	1.00 94.04	O
ATOM	2319	N	SER B 368	157.340	169.551	135.384	1.00 97.62	N
ATOM	2320	CA	SER B 368	158.697	169.136	135.058	1.00 97.62	C
ATOM	2321	C	SER B 368	158.740	167.636	134.804	1.00 97.62	C
ATOM	2322	O	SER B 368	158.120	166.850	135.524	1.00 97.62	O
ATOM	2323	CB	SER B 368	159.654	169.512	136.190	1.00 97.62	C
ATOM	2324	OG	SER B 368	159.079	169.227	137.452	1.00 97.62	O
ATOM	2325	N	ALA B 369	159.498	167.236	133.791	1.00 97.90	N
ATOM	2326	CA	ALA B 369	159.631	165.827	133.458	1.00 97.90	C
ATOM	2327	C	ALA B 369	160.633	165.166	134.380	1.00 97.90	C
ATOM	2328	O	ALA B 369	161.375	164.290	133.967	1.00 97.90	O
ATOM	2329	CB	ALA B 369	160.048	165.656	132.013	1.00 97.90	C

ATOM	2330	N	LYS B 370	160.664	165.616	135.627	1.00100.37	N
ATOM	2331	CA	LYS B 370	161.553	165.063	136.648	1.00100.37	C
ATOM	2332	C	LYS B 370	160.759	164.625	137.869	1.00100.37	C
ATOM	2333	O	LYS B 370	161.330	164.164	138.841	1.00100.37	O
ATOM	2334	CB	LYS B 370	162.588	166.096	137.090	1.00100.37	C
ATOM	2335	CG	LYS B 370	163.618	166.449	136.038	1.00100.37	C
ATOM	2336	CD	LYS B 370	164.865	167.018	136.681	1.00100.37	C
ATOM	2337	CE	LYS B 370	166.108	166.329	136.149	1.00100.37	C
ATOM	2338	NZ	LYS B 370	166.478	165.145	136.966	1.00100.37	N
ATOM	2339	N	MET B 371	159.437	164.764	137.791	1.00101.97	N
ATOM	2340	CA	MET B 371	158.497	164.417	138.854	1.00101.97	C
ATOM	2341	C	MET B 371	158.745	165.146	140.185	1.00101.97	C
ATOM	2342	O	MET B 371	158.474	164.604	141.249	1.00101.97	O
ATOM	2343	CB	MET B 371	158.389	162.891	139.050	1.00101.97	C
ATOM	2344	CG	MET B 371	158.570	162.037	137.800	1.00101.97	C
ATOM	2345	SD	MET B 371	157.352	162.298	136.498	1.00101.97	S
ATOM	2346	CE	MET B 371	158.094	161.424	135.126	1.00101.97	C
ATOM	2347	N	THR B 372	159.221	166.388	140.125	1.00 97.73	N
ATOM	2348	CA	THR B 372	159.494	167.148	141.344	1.00 97.73	C
ATOM	2349	C	THR B 372	158.821	168.506	141.487	1.00 97.73	C
ATOM	2350	O	THR B 372	158.924	169.112	142.547	1.00 97.73	O
ATOM	2351	CB	THR B 372	160.987	167.429	141.506	1.00 97.73	C
ATOM	2352	OG1	THR B 372	161.385	168.412	140.549	1.00 97.73	O
ATOM	2353	CG2	THR B 372	161.788	166.183	141.302	1.00 97.73	C
ATOM	2354	N	ALA B 373	158.152	168.996	140.447	1.00 99.02	N
ATOM	2355	CA	ALA B 373	157.504	170.302	140.520	1.00 99.02	C
ATOM	2356	C	ALA B 373	156.388	170.495	139.507	1.00 99.02	C
ATOM	2357	O	ALA B 373	156.658	170.626	138.326	1.00 99.02	O
ATOM	2358	CB	ALA B 373	158.536	171.408	140.338	1.00 99.02	C
ATOM	2359	N	THR B 374	155.135	170.492	139.964	1.00 97.26	N
ATOM	2360	CA	THR B 374	153.972	170.721	139.102	1.00 97.26	C
ATOM	2361	C	THR B 374	153.028	171.706	139.784	1.00 97.26	C
ATOM	2362	O	THR B 374	152.498	171.386	140.835	1.00 97.26	O
ATOM	2363	CB	THR B 374	153.158	169.434	138.813	1.00 97.26	C
ATOM	2364	OG1	THR B 374	152.184	169.216	139.842	1.00 97.26	O
ATOM	2365	CG2	THR B 374	154.036	168.203	138.696	1.00 97.26	C
ATOM	2366	N	PHE B 375	152.789	172.879	139.199	1.00 97.47	N

ATOM	2367	CA	PHE	B	375	151.884	173.855	139.817	1.00 97.47	C
ATOM	2368	C	PHE	B	375	150.757	174.337	138.907	1.00 97.47	C
ATOM	2369	O	PHE	B	375	150.419	173.678	137.938	1.00 97.47	O
ATOM	2370	CB	PHE	B	375	152.668	175.054	140.318	1.00 97.47	C
ATOM	2371	CG	PHE	B	375	154.049	175.141	139.761	1.00 97.47	C
ATOM	2372	CD1	PHE	B	375	155.065	174.375	140.283	1.00 97.47	C
ATOM	2373	CD2	PHE	B	375	154.327	175.996	138.726	1.00 97.47	C
ATOM	2374	CE1	PHE	B	375	156.339	174.451	139.777	1.00 97.47	C
ATOM	2375	CE2	PHE	B	375	155.598	176.083	138.214	1.00 97.47	C
ATOM	2376	CZ	PHE	B	375	156.606	175.307	138.739	1.00 97.47	C
ATOM	2377	N	LEU	B	376	150.157	175.476	139.242	1.00 98.78	N
ATOM	2378	CA	LEU	B	376	149.085	176.049	138.429	1.00 98.78	C
ATOM	2379	C	LEU	B	376	149.234	177.567	138.444	1.00 98.78	C
ATOM	2380	O	LEU	B	376	148.941	178.216	139.451	1.00 98.78	O
ATOM	2381	CB	LEU	B	376	147.718	175.618	138.949	1.00 98.78	C
ATOM	2382	CG	LEU	B	376	146.505	175.876	138.056	1.00 98.78	C
ATOM	2383	CD1	LEU	B	376	145.341	175.003	138.485	1.00 98.78	C
ATOM	2384	CD2	LEU	B	376	146.114	177.340	138.100	1.00 98.78	C
ATOM	2385	N	SER	B	377	149.682	178.124	137.326	1.00102.69	N
ATOM	2386	CA	SER	B	377	149.865	179.560	137.191	1.00102.69	C
ATOM	2387	C	SER	B	377	148.577	180.202	136.678	1.00102.69	C
ATOM	2388	O	SER	B	377	147.514	179.577	136.637	1.00102.69	O
ATOM	2389	CB	SER	B	377	151.044	179.859	136.273	1.00102.69	C
ATOM	2390	OG	SER	B	377	150.946	181.170	135.746	1.00102.69	O
ATOM	2391	N	LYS	B	378	148.663	181.469	136.284	1.00105.58	N
ATOM	2392	CA	LYS	B	378	147.524	182.212	135.762	1.00105.58	C
ATOM	2393	C	LYS	B	378	147.918	182.854	134.442	1.00105.58	C
ATOM	2394	O	LYS	B	378	148.991	183.456	134.338	1.00105.58	O
ATOM	2395	CB	LYS	B	378	147.056	183.277	136.757	1.00105.58	C
ATOM	2396	CG	LYS	B	378	146.160	182.742	137.862	1.00105.58	C
ATOM	2397	CD	LYS	B	378	145.663	183.861	138.760	1.00105.58	C
ATOM	2398	CE	LYS	B	378	145.397	185.130	137.969	1.00105.58	C
ATOM	2399	NZ	LYS	B	378	144.488	184.886	136.816	1.00105.58	N
ATOM	2400	N	LYS	B	379	147.044	182.738	133.443	1.00110.70	N
ATOM	2401	CA	LYS	B	379	147.353	183.165	132.078	1.00110.70	C
ATOM	2402	C	LYS	B	379	147.328	184.688	132.003	1.00110.70	C
ATOM	2403	O	LYS	B	379	146.358	185.311	131.564	1.00110.70	O

ATOM	2404	CB	LYS B 379	146.373	182.548	131.089	1.00110.70	C
ATOM	2405	CG	LYS B 379	144.913	182.777	131.434	1.00110.70	C
ATOM	2406	CD	LYS B 379	144.003	182.274	130.326	1.00110.70	C
ATOM	2407	CE	LYS B 379	144.351	180.847	129.936	1.00110.70	C
ATOM	2408	NZ	LYS B 379	143.546	180.378	128.777	1.00110.70	N
ATOM	2409	N	GLN B 380	148.428	185.298	132.435	1.00109.74	N
ATOM	2410	CA	GLN B 380	148.561	186.750	132.370	1.00109.74	C
ATOM	2411	C	GLN B 380	150.042	187.095	132.438	1.00109.74	C
ATOM	2412	O	GLN B 380	150.673	186.891	133.480	1.00109.74	O
ATOM	2413	CB	GLN B 380	147.788	187.415	133.501	1.00109.74	C
ATOM	2414	CG	GLN B 380	146.336	187.705	133.176	1.00109.74	C
ATOM	2415	CD	GLN B 380	146.182	188.812	132.156	1.00109.74	C
ATOM	2416	OE1	GLN B 380	147.142	189.192	131.486	1.00109.74	O
ATOM	2417	NE2	GLN B 380	144.970	189.340	132.033	1.00109.74	N
ATOM	2418	N	GLU B 381	150.590	187.607	131.339	1.00107.99	N
ATOM	2419	CA	GLU B 381	151.959	188.098	131.363	1.00107.99	C
ATOM	2420	C	GLU B 381	152.111	189.138	132.463	1.00107.99	C
ATOM	2421	O	GLU B 381	151.161	189.842	132.814	1.00107.99	O
ATOM	2422	CB	GLU B 381	152.338	188.696	130.008	1.00107.99	C
ATOM	2423	CG	GLU B 381	152.454	187.676	128.891	1.00107.99	C
ATOM	2424	CD	GLU B 381	153.854	187.111	128.756	1.00107.99	C
ATOM	2425	OE1	GLU B 381	154.820	187.828	129.086	1.00107.99	O
ATOM	2426	OE2	GLU B 381	153.987	185.949	128.317	1.00107.99	O
ATOM	2427	N	VAL B 382	153.318	189.233	133.015	1.00111.53	N
ATOM	2428	CA	VAL B 382	153.550	190.110	134.157	1.00111.53	C
ATOM	2429	C	VAL B 382	154.575	191.173	133.787	1.00111.53	C
ATOM	2430	O	VAL B 382	155.368	191.608	134.628	1.00111.53	O
ATOM	2431	CB	VAL B 382	153.987	189.306	135.397	1.00111.53	C
ATOM	2432	CG1	VAL B 382	155.275	188.559	135.126	1.00111.53	C
ATOM	2433	CG2	VAL B 382	154.115	190.209	136.615	1.00111.53	C
ATOM	2434	N	ASN B 383	154.573	191.595	132.522	1.00122.87	N
ATOM	2435	CA	ASN B 383	155.357	192.748	132.087	1.00122.87	C
ATOM	2436	C	ASN B 383	156.848	192.534	132.367	1.00122.87	C
ATOM	2437	O	ASN B 383	157.459	193.187	133.214	1.00122.87	O
ATOM	2438	CB	ASN B 383	154.844	194.027	132.756	1.00122.87	C
ATOM	2439	CG	ASN B 383	153.476	194.433	132.257	1.00122.87	C
ATOM	2440	OD1	ASN B 383	153.202	194.382	131.059	1.00122.87	O

ATOM	2441	ND2	ASN	B	383	152.604	194.832	133.175	1.00	122.87	N
ATOM	2442	N	MET	B	384	157.413	191.582	131.626	1.00	116.33	N
ATOM	2443	CA	MET	B	384	158.803	191.167	131.797	1.00	116.33	C
ATOM	2444	C	MET	B	384	159.751	192.348	131.968	1.00	116.33	C
ATOM	2445	O	MET	B	384	160.816	192.206	132.576	1.00	116.33	O
ATOM	2446	CB	MET	B	384	159.247	190.320	130.603	1.00	116.33	C
ATOM	2447	CG	MET	B	384	160.752	190.284	130.378	1.00	116.33	C
ATOM	2448	SD	MET	B	384	161.615	189.187	131.514	1.00	116.33	S
ATOM	2449	CE	MET	B	384	163.218	189.088	130.726	1.00	116.33	C
ATOM	2450	N	SER	B	385	159.383	193.517	131.441	1.00	128.41	N
ATOM	2451	CA	SER	B	385	160.185	194.725	131.587	1.00	128.41	C
ATOM	2452	C	SER	B	385	159.630	195.665	132.654	1.00	128.41	C
ATOM	2453	O	SER	B	385	159.732	196.889	132.518	1.00	128.41	O
ATOM	2454	CB	SER	B	385	160.299	195.447	130.245	1.00	128.41	C
ATOM	2455	OG	SER	B	385	160.603	194.537	129.203	1.00	128.41	O
ATOM	2456	N	ASP	B	386	159.049	195.115	133.715	1.00	124.81	N
ATOM	2457	CA	ASP	B	386	158.458	195.909	134.781	1.00	124.81	C
ATOM	2458	C	ASP	B	386	159.474	196.166	135.891	1.00	124.81	C
ATOM	2459	O	ASP	B	386	160.516	195.513	135.984	1.00	124.81	O
ATOM	2460	CB	ASP	B	386	157.217	195.208	135.336	1.00	124.81	C
ATOM	2461	CG	ASP	B	386	156.435	196.077	136.298	1.00	124.81	C
ATOM	2462	OD1	ASP	B	386	156.989	196.441	137.356	1.00	124.81	O
ATOM	2463	OD2	ASP	B	386	155.267	196.398	135.994	1.00	124.81	O
ATOM	2464	N	SER	B	387	159.157	197.142	136.741	1.00	126.07	N
ATOM	2465	CA	SER	B	387	160.024	197.551	137.844	1.00	126.07	C
ATOM	2466	C	SER	B	387	159.516	196.895	139.125	1.00	126.07	C
ATOM	2467	O	SER	B	387	158.995	197.552	140.027	1.00	126.07	O
ATOM	2468	CB	SER	B	387	160.060	199.073	137.969	1.00	126.07	C
ATOM	2469	OG	SER	B	387	158.753	199.617	137.970	1.00	126.07	O
ATOM	2470	N	ALA	B	388	159.678	195.577	139.196	1.00	121.05	N
ATOM	2471	CA	ALA	B	388	159.432	194.831	140.421	1.00	121.05	C
ATOM	2472	C	ALA	B	388	160.487	193.777	140.703	1.00	121.05	C
ATOM	2473	O	ALA	B	388	160.524	193.256	141.821	1.00	121.05	O
ATOM	2474	CB	ALA	B	388	158.056	194.156	140.377	1.00	121.05	C
ATOM	2475	N	LEU	B	389	161.340	193.439	139.730	1.00	116.48	N
ATOM	2476	CA	LEU	B	389	162.386	192.438	139.895	1.00	116.48	C
ATOM	2477	C	LEU	B	389	163.702	192.888	139.265	1.00	116.48	C

ATOM	2478	O	LEU B 389	164.561	192.045	138.972	1.00116.48	O
ATOM	2479	CB	LEU B 389	161.942	191.100	139.291	1.00116.48	C
ATOM	2480	CG	LEU B 389	161.391	191.183	137.866	1.00116.48	C
ATOM	2481	CD1	LEU B 389	162.508	191.219	136.836	1.00116.48	C
ATOM	2482	CD2	LEU B 389	160.442	190.028	137.592	1.00116.48	C
ATOM	2483	N	ASP B 390	163.874	194.195	139.051	1.00116.13	N
ATOM	2484	CA	ASP B 390	165.012	194.727	138.310	1.00116.13	C
ATOM	2485	C	ASP B 390	166.347	194.230	138.837	1.00116.13	C
ATOM	2486	O	ASP B 390	167.340	194.270	138.102	1.00116.13	O
ATOM	2487	CB	ASP B 390	164.965	196.256	138.341	1.00116.13	C
ATOM	2488	CG	ASP B 390	163.818	196.815	137.526	1.00116.13	C
ATOM	2489	OD1	ASP B 390	163.441	196.178	136.519	1.00116.13	O
ATOM	2490	OD2	ASP B 390	163.291	197.887	137.891	1.00116.13	O
ATOM	2491	N	CYS B 391	166.400	193.758	140.080	1.00113.78	N
ATOM	2492	CA	CYS B 391	167.652	193.228	140.600	1.00113.78	C
ATOM	2493	C	CYS B 391	167.993	191.908	139.919	1.00113.78	C
ATOM	2494	O	CYS B 391	169.018	191.797	139.240	1.00113.78	O
ATOM	2495	CB	CYS B 391	167.574	193.086	142.126	1.00113.78	C
ATOM	2496	SG	CYS B 391	166.695	191.662	142.766	1.00113.78	S
ATOM	2497	N	VAL B 392	167.133	190.904	140.064	1.00109.58	N
ATOM	2498	CA	VAL B 392	167.280	189.651	139.296	1.00109.58	C
ATOM	2499	C	VAL B 392	166.419	189.806	138.046	1.00109.58	C
ATOM	2500	O	VAL B 392	165.269	189.369	137.970	1.00109.58	O
ATOM	2501	CB	VAL B 392	166.922	188.412	140.126	1.00109.58	C
ATOM	2502	CG1	VAL B 392	165.447	188.404	140.485	1.00109.58	C
ATOM	2503	CG2	VAL B 392	167.286	187.149	139.370	1.00109.58	C
ATOM	2504	N	ARG B 393	166.994	190.458	137.033	1.00107.49	N
ATOM	2505	CA	ARG B 393	166.355	190.522	135.725	1.00107.49	C
ATOM	2506	C	ARG B 393	167.362	190.374	134.591	1.00107.49	C
ATOM	2507	O	ARG B 393	166.977	190.491	133.421	1.00107.49	O
ATOM	2508	CB	ARG B 393	165.571	191.828	135.557	1.00107.49	C
ATOM	2509	CG	ARG B 393	164.623	191.829	134.369	1.00107.49	C
ATOM	2510	CD	ARG B 393	164.087	193.220	134.083	1.00107.49	C
ATOM	2511	NE	ARG B 393	165.132	194.117	133.601	1.00107.49	N
ATOM	2512	CZ	ARG B 393	165.701	194.021	132.404	1.00107.49	C
ATOM	2513	NH1	ARG B 393	166.647	194.877	132.041	1.00107.49	N
ATOM	2514	NH2	ARG B 393	165.328	193.064	131.567	1.00107.49	N

ATOM	2515	N	ASP B 394	168.634	190.133	134.897	1.00101.94	N
ATOM	2516	CA	ASP B 394	169.632	189.886	133.867	1.00101.94	C
ATOM	2517	C	ASP B 394	170.494	188.680	134.215	1.00101.94	C
ATOM	2518	O	ASP B 394	171.502	188.440	133.540	1.00101.94	O
ATOM	2519	CB	ASP B 394	170.514	191.121	133.659	1.00101.94	C
ATOM	2520	CG	ASP B 394	171.358	191.031	132.404	1.00101.94	C
ATOM	2521	OD1	ASP B 394	170.819	191.289	131.311	1.00101.94	O
ATOM	2522	OD2	ASP B 394	172.557	190.695	132.509	1.00101.94	O
ATOM	2523	N	GLU B 395	170.131	187.922	135.247	1.00 99.53	N
ATOM	2524	CA	GLU B 395	170.857	186.727	135.654	1.00 99.53	C
ATOM	2525	C	GLU B 395	170.183	185.452	135.167	1.00 99.53	C
ATOM	2526	O	GLU B 395	170.838	184.592	134.573	1.00 99.53	O
ATOM	2527	CB	GLU B 395	170.994	186.693	137.181	1.00 99.53	C
ATOM	2528	CG	GLU B 395	171.249	185.312	137.759	1.00 99.53	C
ATOM	2529	CD	GLU B 395	172.468	184.648	137.162	1.00 99.53	C
ATOM	2530	OE1	GLU B 395	173.261	185.348	136.496	1.00 99.53	O
ATOM	2531	OE2	GLU B 395	172.634	183.427	137.358	1.00 99.53	O
ATOM	2532	N	ALA B 396	168.881	185.312	135.414	1.00 96.08	N
ATOM	2533	CA	ALA B 396	168.169	184.129	134.946	1.00 96.08	C
ATOM	2534	C	ALA B 396	168.308	183.961	133.440	1.00 96.08	C
ATOM	2535	O	ALA B 396	168.386	182.835	132.940	1.00 96.08	O
ATOM	2536	CB	ALA B 396	166.697	184.211	135.344	1.00 96.08	C
ATOM	2537	N	ILE B 397	168.345	185.070	132.700	1.00 95.14	N
ATOM	2538	CA	ILE B 397	168.447	184.986	131.246	1.00 95.14	C
ATOM	2539	C	ILE B 397	169.734	184.283	130.835	1.00 95.14	C
ATOM	2540	O	ILE B 397	169.737	183.441	129.931	1.00 95.14	O
ATOM	2541	CB	ILE B 397	168.342	186.387	130.619	1.00 95.14	C
ATOM	2542	CG1	ILE B 397	166.879	186.811	130.511	1.00 95.14	C
ATOM	2543	CG2	ILE B 397	169.017	186.413	129.259	1.00 95.14	C
ATOM	2544	CD1	ILE B 397	166.691	188.195	129.942	1.00 95.14	C
ATOM	2545	N	ASN B 398	170.848	184.615	131.488	1.00 94.06	N
ATOM	2546	CA	ASN B 398	172.115	184.001	131.112	1.00 94.06	C
ATOM	2547	C	ASN B 398	172.151	182.527	131.495	1.00 94.06	C
ATOM	2548	O	ASN B 398	172.614	181.691	130.713	1.00 94.06	O
ATOM	2549	CB	ASN B 398	173.276	184.755	131.751	1.00 94.06	C
ATOM	2550	CG	ASN B 398	173.734	185.925	130.912	1.00 94.06	C
ATOM	2551	OD1	ASN B 398	172.990	186.426	130.069	1.00 94.06	O

ATOM	2552	ND2	ASN B 398	174.964	186.368	131.133	1.00 94.06	N
ATOM	2553	N	LYS B 399	171.670	182.191	132.692	1.00 94.89	N
ATOM	2554	CA	LYS B 399	171.605	180.787	133.088	1.00 94.89	C
ATOM	2555	C	LYS B 399	170.730	179.992	132.130	1.00 94.89	C
ATOM	2556	O	LYS B 399	171.025	178.834	131.815	1.00 94.89	O
ATOM	2557	CB	LYS B 399	171.079	180.675	134.516	1.00 94.89	C
ATOM	2558	CG	LYS B 399	171.110	179.271	135.086	1.00 94.89	C
ATOM	2559	CD	LYS B 399	170.400	179.219	136.428	1.00 94.89	C
ATOM	2560	CE	LYS B 399	170.852	180.351	137.333	1.00 94.89	C
ATOM	2561	NZ	LYS B 399	169.865	180.630	138.411	1.00 94.89	N
ATOM	2562	N	LEU B 400	169.661	180.612	131.631	1.00 94.89	N
ATOM	2563	CA	LEU B 400	168.744	179.929	130.727	1.00 94.89	C
ATOM	2564	C	LEU B 400	169.376	179.726	129.355	1.00 94.89	C
ATOM	2565	O	LEU B 400	169.288	178.638	128.772	1.00 94.89	O
ATOM	2566	CB	LEU B 400	167.449	180.732	130.628	1.00 94.89	C
ATOM	2567	CG	LEU B 400	166.345	180.268	129.693	1.00 94.89	C
ATOM	2568	CD1	LEU B 400	165.009	180.726	130.238	1.00 94.89	C
ATOM	2569	CD2	LEU B 400	166.585	180.834	128.311	1.00 94.89	C
ATOM	2570	N	GLN B 401	170.009	180.770	128.817	1.00 95.22	N
ATOM	2571	CA	GLN B 401	170.764	180.611	127.580	1.00 95.22	C
ATOM	2572	C	GLN B 401	171.822	179.527	127.723	1.00 95.22	C
ATOM	2573	O	GLN B 401	172.074	178.767	126.782	1.00 95.22	O
ATOM	2574	CB	GLN B 401	171.411	181.936	127.181	1.00 95.22	C
ATOM	2575	CG	GLN B 401	170.429	182.968	126.671	1.00 95.22	C
ATOM	2576	CD	GLN B 401	169.883	182.616	125.308	1.00 95.22	C
ATOM	2577	OE1	GLN B 401	170.626	182.536	124.332	1.00 95.22	O
ATOM	2578	NE2	GLN B 401	168.577	182.398	125.234	1.00 95.22	N
ATOM	2579	N	GLN B 402	172.453	179.439	128.894	1.00 93.67	N
ATOM	2580	CA	GLN B 402	173.451	178.399	129.116	1.00 93.67	C
ATOM	2581	C	GLN B 402	172.813	177.016	129.097	1.00 93.67	C
ATOM	2582	O	GLN B 402	173.342	176.091	128.470	1.00 93.67	O
ATOM	2583	CB	GLN B 402	174.174	178.647	130.439	1.00 93.67	C
ATOM	2584	CG	GLN B 402	175.420	177.808	130.642	1.00 93.67	C
ATOM	2585	CD	GLN B 402	175.106	176.425	131.170	1.00 93.67	C
ATOM	2586	OE1	GLN B 402	174.107	176.225	131.858	1.00 93.67	O
ATOM	2587	NE2	GLN B 402	175.958	175.461	130.848	1.00 93.67	N
ATOM	2588	N	ILE B 403	171.679	176.853	129.782	1.00 91.63	N

ATOM	2589	CA	ILE B 403	170.987	175.568	129.770	1.00 91.63	C
ATOM	2590	C	ILE B 403	170.591	175.179	128.355	1.00 91.63	C
ATOM	2591	O	ILE B 403	170.598	173.993	128.003	1.00 91.63	O
ATOM	2592	CB	ILE B 403	169.756	175.604	130.694	1.00 91.63	C
ATOM	2593	CG1	ILE B 403	170.180	175.615	132.162	1.00 91.63	C
ATOM	2594	CG2	ILE B 403	168.856	174.416	130.414	1.00 91.63	C
ATOM	2595	CD1	ILE B 403	169.016	175.613	133.128	1.00 91.63	C
ATOM	2596	N	PHE B 404	170.235	176.159	127.524	1.00 94.30	N
ATOM	2597	CA	PHE B 404	169.734	175.840	126.191	1.00 94.30	C
ATOM	2598	C	PHE B 404	170.861	175.558	125.205	1.00 94.30	C
ATOM	2599	O	PHE B 404	170.729	174.679	124.348	1.00 94.30	O
ATOM	2600	CB	PHE B 404	168.852	176.975	125.673	1.00 94.30	C
ATOM	2601	CG	PHE B 404	168.641	176.951	124.188	1.00 94.30	C
ATOM	2602	CD1	PHE B 404	167.706	176.107	123.622	1.00 94.30	C
ATOM	2603	CD2	PHE B 404	169.370	177.782	123.359	1.00 94.30	C
ATOM	2604	CE1	PHE B 404	167.509	176.088	122.258	1.00 94.30	C
ATOM	2605	CE2	PHE B 404	169.178	177.766	121.996	1.00 94.30	C
ATOM	2606	CZ	PHE B 404	168.246	176.918	121.445	1.00 94.30	C
ATOM	2607	N	ASN B 405	171.972	176.288	125.300	1.00 99.81	N
ATOM	2608	CA	ASN B 405	173.084	176.131	124.371	1.00 99.81	C
ATOM	2609	C	ASN B 405	174.023	174.997	124.754	1.00 99.81	C
ATOM	2610	O	ASN B 405	175.162	174.965	124.273	1.00 99.81	O
ATOM	2611	CB	ASN B 405	173.870	177.440	124.265	1.00 99.81	C
ATOM	2612	CG	ASN B 405	173.304	178.379	123.216	1.00 99.81	C
ATOM	2613	OD1	ASN B 405	172.091	178.490	123.058	1.00 99.81	O
ATOM	2614	ND2	ASN B 405	174.184	179.067	122.499	1.00 99.81	N
ATOM	2615	N	THR B 406	173.581	174.070	125.599	1.00 97.17	N
ATOM	2616	CA	THR B 406	174.426	172.975	126.053	1.00 97.17	C
ATOM	2617	C	THR B 406	173.875	171.591	125.746	1.00 97.17	C
ATOM	2618	O	THR B 406	174.663	170.638	125.703	1.00 97.17	O
ATOM	2619	CB	THR B 406	174.671	173.081	127.566	1.00 97.17	C
ATOM	2620	OG1	THR B 406	175.271	174.346	127.865	1.00 97.17	O
ATOM	2621	CG2	THR B 406	175.591	171.966	128.040	1.00 97.17	C
ATOM	2622	N	SER B 407	172.578	171.442	125.525	1.00 95.68	N
ATOM	2623	CA	SER B 407	171.985	170.144	125.225	1.00 95.68	C
ATOM	2624	C	SER B 407	171.201	170.137	123.922	1.00 95.68	C
ATOM	2625	O	SER B 407	171.230	169.139	123.200	1.00 95.68	O

ATOM	2626	CB	SER B 407	171.070	169.705	126.379	1.00 95.68	C
ATOM	2627	OG	SER B 407	171.762	169.729	127.615	1.00 95.68	O
ATOM	2628	N	TYR B 408	170.500	171.221	123.606	1.00 94.77	N
ATOM	2629	CA	TYR B 408	169.736	171.313	122.365	1.00 94.77	C
ATOM	2630	C	TYR B 408	170.568	172.051	121.318	1.00 94.77	C
ATOM	2631	O	TYR B 408	170.267	173.167	120.896	1.00 94.77	O
ATOM	2632	CB	TYR B 408	168.398	171.998	122.621	1.00 94.77	C
ATOM	2633	CG	TYR B 408	167.659	171.459	123.828	1.00 94.77	C
ATOM	2634	CD1	TYR B 408	167.852	170.156	124.263	1.00 94.77	C
ATOM	2635	CD2	TYR B 408	166.781	172.259	124.540	1.00 94.77	C
ATOM	2636	CE1	TYR B 408	167.182	169.666	125.365	1.00 94.77	C
ATOM	2637	CE2	TYR B 408	166.107	171.776	125.642	1.00 94.77	C
ATOM	2638	CZ	TYR B 408	166.312	170.479	126.050	1.00 94.77	C
ATOM	2639	OH	TYR B 408	165.644	169.996	127.149	1.00 94.77	O
ATOM	2640	N	ASN B 409	171.642	171.385	120.900	1.00101.56	N
ATOM	2641	CA	ASN B 409	172.634	171.992	120.022	1.00101.56	C
ATOM	2642	C	ASN B 409	172.048	172.395	118.675	1.00101.56	C
ATOM	2643	O	ASN B 409	171.984	173.586	118.351	1.00101.56	O
ATOM	2644	CB	ASN B 409	173.804	171.028	119.814	1.00101.56	C
ATOM	2645	CG	ASN B 409	173.347	169.626	119.449	1.00101.56	C
ATOM	2646	OD1	ASN B 409	172.927	169.372	118.321	1.00101.56	O
ATOM	2647	ND2	ASN B 409	173.427	168.708	120.406	1.00101.56	N
ATOM	2648	N	GLN B 410	171.611	171.409	117.888	1.00106.84	N
ATOM	2649	CA	GLN B 410	171.122	171.663	116.541	1.00106.84	C
ATOM	2650	C	GLN B 410	169.854	170.895	116.197	1.00106.84	C
ATOM	2651	O	GLN B 410	169.382	171.002	115.060	1.00106.84	O
ATOM	2652	CB	GLN B 410	172.209	171.331	115.505	1.00106.84	C
ATOM	2653	CG	GLN B 410	173.391	172.286	115.517	1.00106.84	C
ATOM	2654	CD	GLN B 410	174.624	171.682	116.157	1.00106.84	C
ATOM	2655	OE1	GLN B 410	174.556	170.632	116.796	1.00106.84	O
ATOM	2656	NE2	GLN B 410	175.764	172.343	115.986	1.00106.84	N
ATOM	2657	N	THR B 411	169.290	170.127	117.129	1.00100.26	N
ATOM	2658	CA	THR B 411	168.056	169.406	116.847	1.00100.26	C
ATOM	2659	C	THR B 411	166.834	170.279	117.091	1.00100.26	C
ATOM	2660	O	THR B 411	165.861	170.216	116.331	1.00100.26	O
ATOM	2661	CB	THR B 411	167.980	168.142	117.702	1.00100.26	C
ATOM	2662	OG1	THR B 411	167.592	168.492	119.035	1.00100.26	O

ATOM	2663	CG2	THR B 411	169.332	167.454	117.744	1.00100.26	C
ATOM	2664	N	TYR B 412	166.864	171.099	118.136	1.00 96.12	N
ATOM	2665	CA	TYR B 412	165.734	171.932	118.516	1.00 96.12	C
ATOM	2666	C	TYR B 412	165.956	173.381	118.094	1.00 96.12	C
ATOM	2667	O	TYR B 412	167.026	173.767	117.618	1.00 96.12	O
ATOM	2668	CB	TYR B 412	165.494	171.847	120.025	1.00 96.12	C
ATOM	2669	CG	TYR B 412	164.876	170.545	120.478	1.00 96.12	C
ATOM	2670	CD1	TYR B 412	163.510	170.328	120.367	1.00 96.12	C
ATOM	2671	CD2	TYR B 412	165.655	169.537	121.021	1.00 96.12	C
ATOM	2672	CE1	TYR B 412	162.940	169.143	120.782	1.00 96.12	C
ATOM	2673	CE2	TYR B 412	165.094	168.349	121.438	1.00 96.12	C
ATOM	2674	CZ	TYR B 412	163.737	168.158	121.316	1.00 96.12	C
ATOM	2675	OH	TYR B 412	163.172	166.975	121.731	1.00 96.12	O
ATOM	2676	N	GLU B 413	164.914	174.188	118.280	1.00 97.58	N
ATOM	2677	CA	GLU B 413	164.944	175.599	117.914	1.00 97.58	C
ATOM	2678	C	GLU B 413	164.480	176.463	119.078	1.00 97.58	C
ATOM	2679	O	GLU B 413	164.331	175.974	120.202	1.00 97.58	O
ATOM	2680	CB	GLU B 413	164.067	175.852	116.688	1.00 97.58	C
ATOM	2681	CG	GLU B 413	164.671	175.377	115.384	1.00 97.58	C
ATOM	2682	CD	GLU B 413	165.716	176.331	114.850	1.00 97.58	C
ATOM	2683	OE1	GLU B 413	165.524	177.557	114.982	1.00 97.58	O
ATOM	2684	OE2	GLU B 413	166.730	175.856	114.299	1.00 97.58	O
ATOM	2685	N	LYS B 414	164.257	177.750	118.826	1.00 92.57	N
ATOM	2686	CA	LYS B 414	163.723	178.669	119.824	1.00 92.57	C
ATOM	2687	C	LYS B 414	162.440	179.269	119.270	1.00 92.57	C
ATOM	2688	O	LYS B 414	162.476	180.038	118.304	1.00 92.57	O
ATOM	2689	CB	LYS B 414	164.738	179.755	120.175	1.00 92.57	C
ATOM	2690	CG	LYS B 414	165.843	179.285	121.105	1.00 92.57	C
ATOM	2691	CD	LYS B 414	166.820	180.407	121.409	1.00 92.57	C
ATOM	2692	CE	LYS B 414	166.090	181.667	121.840	1.00 92.57	C
ATOM	2693	NZ	LYS B 414	166.980	182.858	121.814	1.00 92.57	N
ATOM	2694	N	TYR B 415	161.311	178.920	119.880	1.00 95.72	N
ATOM	2695	CA	TYR B 415	159.993	179.333	119.401	1.00 95.72	C
ATOM	2696	C	TYR B 415	159.497	180.472	120.284	1.00 95.72	C
ATOM	2697	O	TYR B 415	158.857	180.255	121.313	1.00 95.72	O
ATOM	2698	CB	TYR B 415	159.029	178.152	119.406	1.00 95.72	C
ATOM	2699	CG	TYR B 415	157.570	178.536	119.363	1.00 95.72	C

ATOM	2700	CD1	TYR B 415	157.100	179.453	118.436	1.00 95.72	C
ATOM	2701	CD2	TYR B 415	156.660	177.972	120.246	1.00 95.72	C
ATOM	2702	CE1	TYR B 415	155.765	179.802	118.392	1.00 95.72	C
ATOM	2703	CE2	TYR B 415	155.325	178.315	120.210	1.00 95.72	C
ATOM	2704	CZ	TYR B 415	154.881	179.231	119.281	1.00 95.72	C
ATOM	2705	OH	TYR B 415	153.551	179.577	119.240	1.00 95.72	O
ATOM	2706	N	GLY B 416	159.801	181.700	119.874	1.00 98.82	N
ATOM	2707	CA	GLY B 416	159.329	182.872	120.587	1.00 98.82	C
ATOM	2708	C	GLY B 416	160.418	183.608	121.337	1.00 98.82	C
ATOM	2709	O	GLY B 416	161.526	183.795	120.826	1.00 98.82	O
ATOM	2710	N	ASN B 417	160.109	184.035	122.556	1.00104.28	N
ATOM	2711	CA	ASN B 417	161.074	184.717	123.401	1.00104.28	C
ATOM	2712	C	ASN B 417	160.657	184.530	124.851	1.00104.28	C
ATOM	2713	O	ASN B 417	159.559	184.048	125.147	1.00104.28	O
ATOM	2714	CB	ASN B 417	161.184	186.201	123.044	1.00104.28	C
ATOM	2715	CG	ASN B 417	159.889	186.944	123.263	1.00104.28	C
ATOM	2716	OD1	ASN B 417	158.811	186.435	122.961	1.00104.28	O
ATOM	2717	ND2	ASN B 417	159.984	188.159	123.791	1.00104.28	N
ATOM	2718	N	VAL B 418	161.549	184.920	125.762	1.00 93.80	N
ATOM	2719	CA	VAL B 418	161.318	184.668	127.176	1.00 93.80	C
ATOM	2720	C	VAL B 418	160.068	185.403	127.639	1.00 93.80	C
ATOM	2721	O	VAL B 418	159.738	186.493	127.153	1.00 93.80	O
ATOM	2722	CB	VAL B 418	162.543	185.076	128.011	1.00 93.80	C
ATOM	2723	CG1	VAL B 418	162.426	184.518	129.412	1.00 93.80	C
ATOM	2724	CG2	VAL B 418	163.819	184.592	127.348	1.00 93.80	C
ATOM	2725	N	SER B 419	159.359	184.795	128.586	1.00 94.79	N
ATOM	2726	CA	SER B 419	158.154	185.380	129.151	1.00 94.79	C
ATOM	2727	C	SER B 419	158.079	184.997	130.619	1.00 94.79	C
ATOM	2728	O	SER B 419	158.504	183.909	131.011	1.00 94.79	O
ATOM	2729	CB	SER B 419	156.899	184.913	128.410	1.00 94.79	C
ATOM	2730	OG	SER B 419	156.953	183.523	128.152	1.00 94.79	O
ATOM	2731	N	VAL B 420	157.525	185.898	131.425	1.00 94.36	N
ATOM	2732	CA	VAL B 420	157.557	185.789	132.878	1.00 94.36	C
ATOM	2733	C	VAL B 420	156.134	185.603	133.386	1.00 94.36	C
ATOM	2734	O	VAL B 420	155.281	186.477	133.197	1.00 94.36	O
ATOM	2735	CB	VAL B 420	158.213	187.020	133.514	1.00 94.36	C
ATOM	2736	CG1	VAL B 420	159.677	187.081	133.143	1.00 94.36	C

ATOM	2737	CG2	VAL	B	420	157.522	188.276	133.039	1.00	94.36	C
ATOM	2738	N	PHE	B	421	155.881	184.470	134.032	1.00	94.67	N
ATOM	2739	CA	PHE	B	421	154.591	184.169	134.634	1.00	94.67	C
ATOM	2740	C	PHE	B	421	154.681	184.303	136.148	1.00	94.67	C
ATOM	2741	O	PHE	B	421	155.760	184.191	136.733	1.00	94.67	O
ATOM	2742	CB	PHE	B	421	154.117	182.759	134.266	1.00	94.67	C
ATOM	2743	CG	PHE	B	421	153.701	182.616	132.833	1.00	94.67	C
ATOM	2744	CD1	PHE	B	421	152.560	183.239	132.368	1.00	94.67	C
ATOM	2745	CD2	PHE	B	421	154.446	181.858	131.952	1.00	94.67	C
ATOM	2746	CE1	PHE	B	421	152.176	183.113	131.055	1.00	94.67	C
ATOM	2747	CE2	PHE	B	421	154.064	181.731	130.640	1.00	94.67	C
ATOM	2748	CZ	PHE	B	421	152.927	182.359	130.191	1.00	94.67	C
ATOM	2749	N	GLU	B	422	153.535	184.541	136.779	1.00	101.48	N
ATOM	2750	CA	GLU	B	422	153.452	184.745	138.222	1.00	101.48	C
ATOM	2751	C	GLU	B	422	152.401	183.799	138.787	1.00	101.48	C
ATOM	2752	O	GLU	B	422	151.208	183.948	138.503	1.00	101.48	O
ATOM	2753	CB	GLU	B	422	153.115	186.197	138.545	1.00	101.48	C
ATOM	2754	CG	GLU	B	422	153.269	186.557	140.008	1.00	101.48	C
ATOM	2755	CD	GLU	B	422	153.829	187.951	140.202	1.00	101.48	C
ATOM	2756	OE1	GLU	B	422	154.361	188.235	141.296	1.00	101.48	O
ATOM	2757	OE2	GLU	B	422	153.741	188.764	139.257	1.00	101.48	O
ATOM	2758	N	THR	B	423	152.840	182.835	139.589	1.00	100.82	N
ATOM	2759	CA	THR	B	423	151.942	181.822	140.129	1.00	100.82	C
ATOM	2760	C	THR	B	423	151.106	182.422	141.257	1.00	100.82	C
ATOM	2761	O	THR	B	423	151.128	183.627	141.520	1.00	100.82	O
ATOM	2762	CB	THR	B	423	152.729	180.611	140.611	1.00	100.82	C
ATOM	2763	OG1	THR	B	423	151.822	179.632	141.131	1.00	100.82	O
ATOM	2764	CG2	THR	B	423	153.685	181.015	141.708	1.00	100.82	C
ATOM	2765	N	THR	B	424	150.347	181.564	141.941	1.00	105.16	N
ATOM	2766	CA	THR	B	424	149.501	182.014	143.040	1.00	105.16	C
ATOM	2767	C	THR	B	424	150.291	182.139	144.338	1.00	105.16	C
ATOM	2768	O	THR	B	424	150.138	183.120	145.074	1.00	105.16	O
ATOM	2769	CB	THR	B	424	148.325	181.052	143.223	1.00	105.16	C
ATOM	2770	OG1	THR	B	424	148.817	179.710	143.327	1.00	105.16	O
ATOM	2771	CG2	THR	B	424	147.372	181.143	142.043	1.00	105.16	C
ATOM	2772	N	GLY	B	425	151.138	181.151	144.636	1.00	102.01	N
ATOM	2773	CA	GLY	B	425	151.897	181.188	145.875	1.00	102.01	C

ATOM	2774	C	GLY B 425	152.716	182.454	146.031	1.00102.01	C
ATOM	2775	O	GLY B 425	152.782	183.033	147.117	1.00102.01	O
ATOM	2776	N	GLY B 426	153.349	182.903	144.951	1.00 99.43	N
ATOM	2777	CA	GLY B 426	154.149	184.109	144.996	1.00 99.43	C
ATOM	2778	C	GLY B 426	155.460	183.990	144.249	1.00 99.43	C
ATOM	2779	O	GLY B 426	156.136	184.994	144.003	1.00 99.43	O
ATOM	2780	N	LEU B 427	155.832	182.766	143.882	1.00 94.06	N
ATOM	2781	CA	LEU B 427	157.075	182.546	143.157	1.00 94.06	C
ATOM	2782	C	LEU B 427	156.937	182.994	141.706	1.00 94.06	C
ATOM	2783	O	LEU B 427	155.881	182.842	141.088	1.00 94.06	O
ATOM	2784	CB	LEU B 427	157.475	181.074	143.236	1.00 94.06	C
ATOM	2785	CG	LEU B 427	156.466	180.038	142.741	1.00 94.06	C
ATOM	2786	CD1	LEU B 427	156.573	179.849	141.240	1.00 94.06	C
ATOM	2787	CD2	LEU B 427	156.653	178.717	143.468	1.00 94.06	C
ATOM	2788	N	VAL B 428	158.020	183.549	141.164	1.00 89.89	N
ATOM	2789	CA	VAL B 428	158.002	184.163	139.841	1.00 89.89	C
ATOM	2790	C	VAL B 428	158.803	183.318	138.861	1.00 89.89	C
ATOM	2791	O	VAL B 428	160.033	183.419	138.797	1.00 89.89	O
ATOM	2792	CB	VAL B 428	158.547	185.601	139.899	1.00 89.89	C
ATOM	2793	CG1	VAL B 428	159.013	186.051	138.527	1.00 89.89	C
ATOM	2794	CG2	VAL B 428	157.488	186.541	140.434	1.00 89.89	C
ATOM	2795	N	VAL B 429	158.113	182.482	138.089	1.00 87.79	N
ATOM	2796	CA	VAL B 429	158.741	181.607	137.106	1.00 87.79	C
ATOM	2797	C	VAL B 429	158.667	182.257	135.734	1.00 87.79	C
ATOM	2798	O	VAL B 429	157.653	182.872	135.379	1.00 87.79	O
ATOM	2799	CB	VAL B 429	158.070	180.222	137.086	1.00 87.79	C
ATOM	2800	CG1	VAL B 429	156.584	180.362	136.835	1.00 87.79	C
ATOM	2801	CG2	VAL B 429	158.698	179.354	136.019	1.00 87.79	C
ATOM	2802	N	PHE B 430	159.739	182.120	134.957	1.00 89.74	N
ATOM	2803	CA	PHE B 430	159.726	182.529	133.560	1.00 89.74	C
ATOM	2804	C	PHE B 430	160.628	181.601	132.764	1.00 89.74	C
ATOM	2805	O	PHE B 430	161.690	181.196	133.241	1.00 89.74	O
ATOM	2806	CB	PHE B 430	160.137	183.995	133.384	1.00 89.74	C
ATOM	2807	CG	PHE B 430	161.350	184.400	134.167	1.00 89.74	C
ATOM	2808	CD1	PHE B 430	161.234	184.816	135.480	1.00 89.74	C
ATOM	2809	CD2	PHE B 430	162.597	184.413	133.575	1.00 89.74	C
ATOM	2810	CE1	PHE B 430	162.341	185.209	136.193	1.00 89.74	C

ATOM	2811	CE2	PHE B 430	163.706	184.805	134.283	1.00 89.74	C
ATOM	2812	CZ	PHE B 430	163.578	185.204	135.595	1.00 89.74	C
ATOM	2813	N	TRP B 431	160.200	181.282	131.545	1.00 89.95	N
ATOM	2814	CA	TRP B 431	160.680	180.109	130.829	1.00 89.95	C
ATOM	2815	C	TRP B 431	160.886	180.468	129.361	1.00 89.95	C
ATOM	2816	O	TRP B 431	160.819	181.636	128.969	1.00 89.95	O
ATOM	2817	CB	TRP B 431	159.679	178.961	130.998	1.00 89.95	C
ATOM	2818	CG	TRP B 431	158.406	179.232	130.280	1.00 89.95	C
ATOM	2819	CD1	TRP B 431	157.592	180.310	130.449	1.00 89.95	C
ATOM	2820	CD2	TRP B 431	157.785	178.412	129.286	1.00 89.95	C
ATOM	2821	NE1	TRP B 431	156.510	180.221	129.614	1.00 89.95	N
ATOM	2822	CE2	TRP B 431	156.603	179.062	128.890	1.00 89.95	C
ATOM	2823	CE3	TRP B 431	158.116	177.193	128.690	1.00 89.95	C
ATOM	2824	CZ2	TRP B 431	155.751	178.537	127.928	1.00 89.95	C
ATOM	2825	CZ3	TRP B 431	157.270	176.674	127.736	1.00 89.95	C
ATOM	2826	CH2	TRP B 431	156.101	177.345	127.364	1.00 89.95	C
ATOM	2827	N	GLN B 432	161.135	179.442	128.545	1.00 87.48	N
ATOM	2828	CA	GLN B 432	161.385	179.595	127.119	1.00 87.48	C
ATOM	2829	C	GLN B 432	160.654	178.503	126.354	1.00 87.48	C
ATOM	2830	O	GLN B 432	160.510	177.378	126.837	1.00 87.48	O
ATOM	2831	CB	GLN B 432	162.882	179.535	126.804	1.00 87.48	C
ATOM	2832	CG	GLN B 432	163.202	179.601	125.330	1.00 87.48	C
ATOM	2833	CD	GLN B 432	162.527	180.767	124.645	1.00 87.48	C
ATOM	2834	OE1	GLN B 432	161.300	180.841	124.584	1.00 87.48	O
ATOM	2835	NE2	GLN B 432	163.325	181.689	124.124	1.00 87.48	N
ATOM	2836	N	GLY B 433	160.200	178.841	125.147	1.00 90.52	N
ATOM	2837	CA	GLY B 433	159.461	177.912	124.308	1.00 90.52	C
ATOM	2838	C	GLY B 433	160.356	177.296	123.247	1.00 90.52	C
ATOM	2839	O	GLY B 433	161.158	177.988	122.619	1.00 90.52	O
ATOM	2840	N	ILE B 434	160.198	175.988	123.049	1.00 91.61	N
ATOM	2841	CA	ILE B 434	161.081	175.225	122.176	1.00 91.61	C
ATOM	2842	C	ILE B 434	160.279	174.170	121.425	1.00 91.61	C
ATOM	2843	O	ILE B 434	159.243	173.696	121.899	1.00 91.61	O
ATOM	2844	CB	ILE B 434	162.222	174.565	122.975	1.00 91.61	C
ATOM	2845	CG1	ILE B 434	163.307	174.060	122.033	1.00 91.61	C
ATOM	2846	CG2	ILE B 434	161.690	173.425	123.818	1.00 91.61	C
ATOM	2847	CD1	ILE B 434	164.540	173.594	122.745	1.00 91.61	C

ATOM	2848	N	LYS B 435	160.768	173.805	120.240	1.00 93.35 N
ATOM	2849	CA	LYS B 435	160.163	172.742	119.448	1.00 93.35 C
ATOM	2850	C	LYS B 435	161.190	172.221	118.453	1.00 93.35 C
ATOM	2851	O	LYS B 435	162.084	172.952	118.021	1.00 93.35 O
ATOM	2852	CB	LYS B 435	158.900	173.220	118.723	1.00 93.35 C
ATOM	2853	CG	LYS B 435	159.087	174.464	117.882	1.00 93.35 C
ATOM	2854	CD	LYS B 435	159.564	174.127	116.485	1.00 93.35 C
ATOM	2855	CE	LYS B 435	159.546	175.359	115.599	1.00 93.35 C
ATOM	2856	NZ	LYS B 435	160.153	175.097	114.268	1.00 93.35 N
ATOM	2857	N	GLN B 436	161.041	170.948	118.091	1.00 97.39 N
ATOM	2858	CA	GLN B 436	162.020	170.257	117.264	1.00 97.39 C
ATOM	2859	C	GLN B 436	162.000	170.803	115.836	1.00 97.39 C
ATOM	2860	O	GLN B 436	161.256	171.726	115.498	1.00 97.39 O
ATOM	2861	CB	GLN B 436	161.750	168.754	117.274	1.00 97.39 C
ATOM	2862	CG	GLN B 436	162.913	167.904	116.794	1.00 97.39 C
ATOM	2863	CD	GLN B 436	162.745	166.441	117.141	1.00 97.39 C
ATOM	2864	OE1	GLN B 436	161.650	165.994	117.475	1.00 97.39 O
ATOM	2865	NE2	GLN B 436	163.833	165.685	117.065	1.00 97.39 N
ATOM	2866	N	LYS B 437	162.843	170.217	114.990	1.00103.13 N
ATOM	2867	CA	LYS B 437	162.936	170.596	113.588	1.00103.13 C
ATOM	2868	C	LYS B 437	161.793	169.943	112.810	1.00103.13 C
ATOM	2869	O	LYS B 437	160.850	169.396	113.385	1.00103.13 O
ATOM	2870	CB	LYS B 437	164.303	170.215	113.029	1.00103.13 C
ATOM	2871	CG	LYS B 437	165.455	171.032	113.589	1.00103.13 C
ATOM	2872	CD	LYS B 437	165.765	172.232	112.708	1.00103.13 C
ATOM	2873	CE	LYS B 437	166.930	173.038	113.260	1.00103.13 C
ATOM	2874	NZ	LYS B 437	168.168	172.223	113.391	1.00103.13 N
ATOM	2875	N	SER B 438	161.870	169.992	111.482	1.00106.36 N
ATOM	2876	CA	SER B 438	160.802	169.510	110.615	1.00106.36 C
ATOM	2877	C	SER B 438	160.957	168.042	110.230	1.00106.36 C
ATOM	2878	O	SER B 438	160.191	167.553	109.395	1.00106.36 O
ATOM	2879	CB	SER B 438	160.724	170.369	109.351	1.00106.36 C
ATOM	2880	OG	SER B 438	159.538	170.101	108.625	1.00106.36 O
ATOM	2881	N	LEU B 439	161.923	167.335	110.812	1.00106.82 N
ATOM	2882	CA	LEU B 439	162.195	165.920	110.569	1.00106.82 C
ATOM	2883	C	LEU B 439	162.771	165.658	109.186	1.00106.82 C
ATOM	2884	O	LEU B 439	163.139	164.515	108.891	1.00106.82 O

ATOM	2885	CB	LEU B 439	160.948	165.044	110.758	1.00106.82	C
ATOM	2886	CG	LEU B 439	161.143	163.538	110.579	1.00106.82	C
ATOM	2887	CD1	LEU B 439	162.136	163.007	111.590	1.00106.82	C
ATOM	2888	CD2	LEU B 439	159.818	162.814	110.708	1.00106.82	C
ATOM	2889	N	VAL B 440	162.867	166.669	108.327	1.00110.50	N
ATOM	2890	CA	VAL B 440	163.568	166.523	107.059	1.00110.50	C
ATOM	2891	C	VAL B 440	165.009	167.006	107.155	1.00110.50	C
ATOM	2892	O	VAL B 440	165.848	166.576	106.348	1.00110.50	O
ATOM	2893	CB	VAL B 440	162.836	167.268	105.925	1.00110.50	C
ATOM	2894	CG1	VAL B 440	163.580	167.094	104.617	1.00110.50	C
ATOM	2895	CG2	VAL B 440	161.411	166.763	105.799	1.00110.50	C
ATOM	2896	N	GLU B 441	165.321	167.879	108.111	1.00113.80	N
ATOM	2897	CA	GLU B 441	166.689	168.317	108.340	1.00113.80	C
ATOM	2898	C	GLU B 441	167.432	167.432	109.328	1.00113.80	C
ATOM	2899	O	GLU B 441	168.667	167.399	109.301	1.00113.80	O
ATOM	2900	CB	GLU B 441	166.703	169.762	108.844	1.00113.80	C
ATOM	2901	CG	GLU B 441	166.734	170.797	107.736	1.00113.80	C
ATOM	2902	CD	GLU B 441	165.407	170.913	107.015	1.00113.80	C
ATOM	2903	OE1	GLU B 441	164.399	171.254	107.670	1.00113.80	O
ATOM	2904	OE2	GLU B 441	165.370	170.663	105.792	1.00113.80	O
ATOM	2905	N	LEU B 442	166.715	166.726	110.205	1.00112.51	N
ATOM	2906	CA	LEU B 442	167.377	165.813	111.128	1.00112.51	C
ATOM	2907	C	LEU B 442	168.209	164.781	110.380	1.00112.51	C
ATOM	2908	O	LEU B 442	169.311	164.425	110.813	1.00112.51	O
ATOM	2909	CB	LEU B 442	166.341	165.123	112.016	1.00112.51	C
ATOM	2910	CG	LEU B 442	166.070	165.782	113.367	1.00112.51	C
ATOM	2911	CD1	LEU B 442	164.830	165.194	114.007	1.00112.51	C
ATOM	2912	CD2	LEU B 442	167.268	165.615	114.279	1.00112.51	C
ATOM	2913	N	GLU B 443	167.700	164.290	109.249	1.00116.97	N
ATOM	2914	CA	GLU B 443	168.436	163.291	108.481	1.00116.97	C
ATOM	2915	C	GLU B 443	169.619	163.913	107.752	1.00116.97	C
ATOM	2916	O	GLU B 443	170.685	163.297	107.649	1.00116.97	O
ATOM	2917	CB	GLU B 443	167.501	162.596	107.492	1.00116.97	C
ATOM	2918	CG	GLU B 443	167.984	161.230	107.034	1.00116.97	C
ATOM	2919	CD	GLU B 443	168.892	161.308	105.822	1.00116.97	C
ATOM	2920	OE1	GLU B 443	169.533	160.288	105.489	1.00116.97	O
ATOM	2921	OE2	GLU B 443	168.967	162.387	105.201	1.00116.97	O

ATOM	2922	N	ARG B 444	169.453	165.135	107.240	1.00118.60	N
ATOM	2923	CA	ARG B 444	170.534	165.788	106.514	1.00118.60	C
ATOM	2924	C	ARG B 444	171.602	166.348	107.443	1.00118.60	C
ATOM	2925	O	ARG B 444	172.679	166.725	106.972	1.00118.60	O
ATOM	2926	CB	ARG B 444	169.977	166.904	105.630	1.00118.60	C
ATOM	2927	CG	ARG B 444	170.963	167.426	104.601	1.00118.60	C
ATOM	2928	CD	ARG B 444	170.457	168.704	103.962	1.00118.60	C
ATOM	2929	NE	ARG B 444	170.364	169.793	104.929	1.00118.60	N
ATOM	2930	CZ	ARG B 444	169.787	170.964	104.680	1.00118.60	C
ATOM	2931	NH1	ARG B 444	169.748	171.900	105.619	1.00118.60	N
ATOM	2932	NH2	ARG B 444	169.249	171.200	103.492	1.00118.60	N
ATOM	2933	N	LEU B 445	171.327	166.414	108.744	1.00119.46	N
ATOM	2934	CA	LEU B 445	172.328	166.851	109.708	1.00119.46	C
ATOM	2935	C	LEU B 445	173.177	165.699	110.220	1.00119.46	C
ATOM	2936	O	LEU B 445	174.320	165.918	110.638	1.00119.46	O
ATOM	2937	CB	LEU B 445	171.655	167.559	110.886	1.00119.46	C
ATOM	2938	CG	LEU B 445	172.590	168.219	111.899	1.00119.46	C
ATOM	2939	CD1	LEU B 445	173.732	168.921	111.189	1.00119.46	C
ATOM	2940	CD2	LEU B 445	171.823	169.197	112.770	1.00119.46	C
ATOM	2941	N	ALA B 446	172.644	164.482	110.203	1.00120.36	N
ATOM	2942	CA	ALA B 446	173.388	163.269	110.534	1.00120.36	C
ATOM	2943	C	ALA B 446	173.498	162.460	109.245	1.00120.36	C
ATOM	2944	O	ALA B 446	172.583	161.721	108.877	1.00120.36	O
ATOM	2945	CB	ALA B 446	172.705	162.481	111.645	1.00120.36	C
ATOM	2946	N	ASN B 447	174.629	162.608	108.559	1.00123.06	N
ATOM	2947	CA	ASN B 447	174.826	162.000	107.249	1.00123.06	C
ATOM	2948	C	ASN B 447	174.590	160.496	107.295	1.00123.06	C
ATOM	2949	O	ASN B 447	174.699	159.874	108.357	1.00123.06	O
ATOM	2950	CB	ASN B 447	176.233	162.307	106.733	1.00123.06	C
ATOM	2951	CG	ASN B 447	176.413	161.937	105.277	1.00123.06	C
ATOM	2952	OD1	ASN B 447	175.499	161.419	104.639	1.00123.06	O
ATOM	2953	ND2	ASN B 447	177.597	162.207	104.740	1.00123.06	N
ATOM	2954	N	ARG B 448	174.262	159.906	106.149	1.00119.91	N
ATOM	2955	CA	ARG B 448	174.030	158.470	106.051	1.00119.91	C
ATOM	2956	C	ARG B 448	174.641	157.907	104.772	1.00119.91	C
ATOM	2957	O	ARG B 448	175.857	157.743	104.671	1.00119.91	O
ATOM	2958	CB	ARG B 448	172.531	158.159	106.098	1.00119.91	C

ATOM	2959	CG	ARG B 448	171.878	158.443	107.439	1.00119.91	C
ATOM	2960	CD	ARG B 448	170.381	158.163	107.401	1.00119.91	C
ATOM	2961	NE	ARG B 448	170.087	156.741	107.250	1.00119.91	N
ATOM	2962	CZ	ARG B 448	168.948	156.169	107.628	1.00119.91	C
ATOM	2963	NH1	ARG B 448	168.766	154.869	107.451	1.00119.91	N
ATOM	2964	NH2	ARG B 448	167.991	156.897	108.187	1.00119.91	N
ATOM	2965	N	ASN B 478	155.720	164.860	96.604	1.00127.42	N
ATOM	2966	CA	ASN B 478	156.540	164.750	97.804	1.00127.42	C
ATOM	2967	C	ASN B 478	155.659	164.642	99.044	1.00127.42	C
ATOM	2968	O	ASN B 478	156.060	165.031	100.140	1.00127.42	O
ATOM	2969	CB	ASN B 478	157.478	165.953	97.924	1.00127.42	C
ATOM	2970	CG	ASN B 478	158.462	166.043	96.774	1.00127.42	C
ATOM	2971	OD1	ASN B 478	158.075	166.276	95.628	1.00127.42	O
ATOM	2972	ND2	ASN B 478	159.743	165.862	97.074	1.00127.42	N
ATOM	2973	N	LEU B 479	154.450	164.105	98.860	1.00125.68	N
ATOM	2974	CA	LEU B 479	153.481	164.070	99.950	1.00125.68	C
ATOM	2975	C	LEU B 479	153.859	163.055	101.023	1.00125.68	C
ATOM	2976	O	LEU B 479	153.506	163.241	102.192	1.00125.68	O
ATOM	2977	CB	LEU B 479	152.085	163.768	99.401	1.00125.68	C
ATOM	2978	CG	LEU B 479	150.900	163.992	100.345	1.00125.68	C
ATOM	2979	CD1	LEU B 479	149.636	164.289	99.554	1.00125.68	C
ATOM	2980	CD2	LEU B 479	150.693	162.795	101.261	1.00125.68	C
ATOM	2981	N	VAL B 480	154.566	161.985	100.651	1.00123.21	N
ATOM	2982	CA	VAL B 480	154.866	160.918	101.603	1.00123.21	C
ATOM	2983	C	VAL B 480	155.588	161.470	102.827	1.00123.21	C
ATOM	2984	O	VAL B 480	155.339	161.042	103.964	1.00123.21	O
ATOM	2985	CB	VAL B 480	155.680	159.806	100.915	1.00123.21	C
ATOM	2986	CG1	VAL B 480	157.086	160.290	100.594	1.00123.21	C
ATOM	2987	CG2	VAL B 480	155.725	158.563	101.788	1.00123.21	C
ATOM	2988	N	TYR B 481	156.505	162.417	102.616	1.00121.29	N
ATOM	2989	CA	TYR B 481	157.233	163.004	103.734	1.00121.29	C
ATOM	2990	C	TYR B 481	156.270	163.578	104.765	1.00121.29	C
ATOM	2991	O	TYR B 481	156.359	163.268	105.958	1.00121.29	O
ATOM	2992	CB	TYR B 481	158.188	164.084	103.227	1.00121.29	C
ATOM	2993	CG	TYR B 481	159.281	163.565	102.320	1.00121.29	C
ATOM	2994	CD1	TYR B 481	159.043	163.346	100.969	1.00121.29	C
ATOM	2995	CD2	TYR B 481	160.551	163.300	102.812	1.00121.29	C

ATOM	2996	CE1	TYR B 481	160.039	162.875	100.137	1.00121.29	C
ATOM	2997	CE2	TYR B 481	161.553	162.828	101.987	1.00121.29	C
ATOM	2998	CZ	TYR B 481	161.292	162.618	100.651	1.00121.29	C
ATOM	2999	OH	TYR B 481	162.287	162.149	99.824	1.00121.29	O
ATOM	3000	N	ALA B 482	155.332	164.412	104.315	1.00118.61	N
ATOM	3001	CA	ALA B 482	154.374	165.010	105.239	1.00118.61	C
ATOM	3002	C	ALA B 482	153.445	163.957	105.828	1.00118.61	C
ATOM	3003	O	ALA B 482	153.075	164.034	107.006	1.00118.61	O
ATOM	3004	CB	ALA B 482	153.571	166.099	104.528	1.00118.61	C
ATOM	3005	N	GLN B 483	153.047	162.972	105.023	1.00114.41	N
ATOM	3006	CA	GLN B 483	152.167	161.929	105.530	1.00114.41	C
ATOM	3007	C	GLN B 483	152.798	161.211	106.714	1.00114.41	C
ATOM	3008	O	GLN B 483	152.112	160.886	107.689	1.00114.41	O
ATOM	3009	CB	GLN B 483	151.823	160.938	104.420	1.00114.41	C
ATOM	3010	CG	GLN B 483	150.910	159.810	104.868	1.00114.41	C
ATOM	3011	CD	GLN B 483	149.533	160.300	105.276	1.00114.41	C
ATOM	3012	OE1	GLN B 483	149.053	159.999	106.368	1.00114.41	O
ATOM	3013	NE2	GLN B 483	148.890	161.057	104.396	1.00114.41	N
ATOM	3014	N	LEU B 484	154.107	160.962	106.653	1.00109.34	N
ATOM	3015	CA	LEU B 484	154.758	160.295	107.778	1.00109.34	C
ATOM	3016	C	LEU B 484	155.066	161.263	108.915	1.00109.34	C
ATOM	3017	O	LEU B 484	155.034	160.866	110.089	1.00109.34	O
ATOM	3018	CB	LEU B 484	156.030	159.581	107.315	1.00109.34	C
ATOM	3019	CG	LEU B 484	157.180	160.396	106.732	1.00109.34	C
ATOM	3020	CD1	LEU B 484	158.048	160.946	107.844	1.00109.34	C
ATOM	3021	CD2	LEU B 484	158.000	159.534	105.792	1.00109.34	C
ATOM	3022	N	GLN B 485	155.377	162.520	108.591	1.00105.88	N
ATOM	3023	CA	GLN B 485	155.488	163.550	109.619	1.00105.88	C
ATOM	3024	C	GLN B 485	154.232	163.597	110.478	1.00105.88	C
ATOM	3025	O	GLN B 485	154.299	163.820	111.695	1.00105.88	O
ATOM	3026	CB	GLN B 485	155.739	164.907	108.958	1.00105.88	C
ATOM	3027	CG	GLN B 485	155.762	166.090	109.907	1.00105.88	C
ATOM	3028	CD	GLN B 485	157.066	166.208	110.659	1.00105.88	C
ATOM	3029	OE1	GLN B 485	157.134	165.933	111.855	1.00105.88	O
ATOM	3030	NE2	GLN B 485	158.115	166.623	109.961	1.00105.88	N
ATOM	3031	N	PHE B 486	153.073	163.391	109.852	1.00104.94	N
ATOM	3032	CA	PHE B 486	151.812	163.423	110.585	1.00104.94	C

ATOM	3033	C	PHE B 486	151.784	162.358	111.675	1.00104.94	C
ATOM	3034	O	PHE B 486	151.444	162.642	112.830	1.00104.94	O
ATOM	3035	CB	PHE B 486	150.647	163.241	109.613	1.00104.94	C
ATOM	3036	CG	PHE B 486	149.297	163.355	110.254	1.00104.94	C
ATOM	3037	CD1	PHE B 486	148.993	164.425	111.074	1.00104.94	C
ATOM	3038	CD2	PHE B 486	148.328	162.395	110.029	1.00104.94	C
ATOM	3039	CE1	PHE B 486	147.750	164.532	111.662	1.00104.94	C
ATOM	3040	CE2	PHE B 486	147.084	162.497	110.613	1.00104.94	C
ATOM	3041	CZ	PHE B 486	146.795	163.566	111.430	1.00104.94	C
ATOM	3042	N	THR B 487	152.142	161.120	111.327	1.00 98.40	N
ATOM	3043	CA	THR B 487	152.152	160.052	112.321	1.00 98.40	C
ATOM	3044	C	THR B 487	153.214	160.302	113.383	1.00 98.40	C
ATOM	3045	O	THR B 487	152.996	160.024	114.570	1.00 98.40	O
ATOM	3046	CB	THR B 487	152.383	158.705	111.643	1.00 98.40	C
ATOM	3047	OG1	THR B 487	153.674	158.698	111.027	1.00 98.40	O
ATOM	3048	CG2	THR B 487	151.327	158.463	110.579	1.00 98.40	C
ATOM	3049	N	TYR B 488	154.375	160.812	112.973	1.00 95.81	N
ATOM	3050	CA	TYR B 488	155.395	161.195	113.943	1.00 95.81	C
ATOM	3051	C	TYR B 488	154.805	162.111	115.010	1.00 95.81	C
ATOM	3052	O	TYR B 488	154.921	161.853	116.217	1.00 95.81	O
ATOM	3053	CB	TYR B 488	156.558	161.878	113.220	1.00 95.81	C
ATOM	3054	CG	TYR B 488	157.684	162.329	114.116	1.00 95.81	C
ATOM	3055	CD1	TYR B 488	157.616	163.536	114.792	1.00 95.81	C
ATOM	3056	CD2	TYR B 488	158.821	161.556	114.274	1.00 95.81	C
ATOM	3057	CE1	TYR B 488	158.644	163.953	115.609	1.00 95.81	C
ATOM	3058	CE2	TYR B 488	159.852	161.967	115.086	1.00 95.81	C
ATOM	3059	CZ	TYR B 488	159.760	163.164	115.753	1.00 95.81	C
ATOM	3060	OH	TYR B 488	160.789	163.576	116.565	1.00 95.81	O
ATOM	3061	N	ASP B 489	154.157	163.190	114.569	1.00 92.33	N
ATOM	3062	CA	ASP B 489	153.578	164.147	115.505	1.00 92.33	C
ATOM	3063	C	ASP B 489	152.488	163.502	116.354	1.00 92.33	C
ATOM	3064	O	ASP B 489	152.396	163.755	117.565	1.00 92.33	O
ATOM	3065	CB	ASP B 489	153.024	165.343	114.735	1.00 92.33	C
ATOM	3066	CG	ASP B 489	152.845	166.561	115.606	1.00 92.33	C
ATOM	3067	OD1	ASP B 489	153.094	166.459	116.824	1.00 92.33	O
ATOM	3068	OD2	ASP B 489	152.454	167.621	115.072	1.00 92.33	O
ATOM	3069	N	THR B 490	151.649	162.668	115.735	1.00 89.11	N

ATOM	3070	CA	THR B 490	150.536	162.066	116.460	1.00 89.11	C
ATOM	3071	C	THR B 490	151.017	161.099	117.533	1.00 89.11	C
ATOM	3072	O	THR B 490	150.312	160.877	118.523	1.00 89.11	O
ATOM	3073	CB	THR B 490	149.601	161.353	115.488	1.00 89.11	C
ATOM	3074	OG1	THR B 490	148.866	162.324	114.734	1.00 89.11	O
ATOM	3075	CG2	THR B 490	148.629	160.472	116.243	1.00 89.11	C
ATOM	3076	N	LEU B 491	152.202	160.513	117.360	1.00 88.29	N
ATOM	3077	CA	LEU B 491	152.755	159.666	118.414	1.00 88.29	C
ATOM	3078	C	LEU B 491	153.438	160.492	119.495	1.00 88.29	C
ATOM	3079	O	LEU B 491	153.344	160.168	120.691	1.00 88.29	O
ATOM	3080	CB	LEU B 491	153.740	158.658	117.828	1.00 88.29	C
ATOM	3081	CG	LEU B 491	153.124	157.372	117.292	1.00 88.29	C
ATOM	3082	CD1	LEU B 491	152.454	156.613	118.417	1.00 88.29	C
ATOM	3083	CD2	LEU B 491	152.136	157.699	116.204	1.00 88.29	C
ATOM	3084	N	ARG B 492	154.164	161.539	119.092	1.00 87.90	N
ATOM	3085	CA	ARG B 492	154.771	162.414	120.086	1.00 87.90	C
ATOM	3086	C	ARG B 492	153.715	162.956	121.040	1.00 87.90	C
ATOM	3087	O	ARG B 492	153.934	163.018	122.257	1.00 87.90	O
ATOM	3088	CB	ARG B 492	155.521	163.554	119.398	1.00 87.90	C
ATOM	3089	CG	ARG B 492	156.691	164.093	120.200	1.00 87.90	C
ATOM	3090	CD	ARG B 492	157.556	165.026	119.369	1.00 87.90	C
ATOM	3091	NE	ARG B 492	156.794	166.146	118.826	1.00 87.90	N
ATOM	3092	CZ	ARG B 492	157.241	166.965	117.879	1.00 87.90	C
ATOM	3093	NH1	ARG B 492	156.479	167.959	117.445	1.00 87.90	N
ATOM	3094	NH2	ARG B 492	158.450	166.791	117.365	1.00 87.90	N
ATOM	3095	N	GLY B 493	152.555	163.339	120.504	1.00 87.69	N
ATOM	3096	CA	GLY B 493	151.489	163.838	121.361	1.00 87.69	C
ATOM	3097	C	GLY B 493	151.036	162.819	122.389	1.00 87.69	C
ATOM	3098	O	GLY B 493	150.822	163.152	123.558	1.00 87.69	O
ATOM	3099	N	TYR B 494	150.883	161.563	121.969	1.00 85.53	N
ATOM	3100	CA	TYR B 494	150.446	160.511	122.880	1.00 85.53	C
ATOM	3101	C	TYR B 494	151.456	160.303	124.004	1.00 85.53	C
ATOM	3102	O	TYR B 494	151.091	160.217	125.190	1.00 85.53	O
ATOM	3103	CB	TYR B 494	150.236	159.223	122.084	1.00 85.53	C
ATOM	3104	CG	TYR B 494	149.683	158.057	122.859	1.00 85.53	C
ATOM	3105	CD1	TYR B 494	150.487	157.320	123.711	1.00 85.53	C
ATOM	3106	CD2	TYR B 494	148.361	157.672	122.713	1.00 85.53	C

ATOM	3107	CE1	TYR B 494	149.986	156.247	124.411	1.00 85.53	C
ATOM	3108	CE2	TYR B 494	147.853	156.599	123.408	1.00 85.53	C
ATOM	3109	CZ	TYR B 494	148.669	155.890	124.256	1.00 85.53	C
ATOM	3110	OH	TYR B 494	148.169	154.817	124.954	1.00 85.53	O
ATOM	3111	N	ILE B 495	152.738	160.209	123.646	1.00 84.70	N
ATOM	3112	CA	ILE B 495	153.759	160.015	124.672	1.00 84.70	C
ATOM	3113	C	ILE B 495	153.764	161.187	125.645	1.00 84.70	C
ATOM	3114	O	ILE B 495	153.891	161.003	126.864	1.00 84.70	O
ATOM	3115	CB	ILE B 495	155.141	159.805	124.033	1.00 84.70	C
ATOM	3116	CG1	ILE B 495	155.114	158.606	123.089	1.00 84.70	C
ATOM	3117	CG2	ILE B 495	156.184	159.590	125.106	1.00 84.70	C
ATOM	3118	CD1	ILE B 495	156.466	158.256	122.529	1.00 84.70	C
ATOM	3119	N	ASN B 496	153.627	162.409	125.124	1.00 85.94	N
ATOM	3120	CA	ASN B 496	153.584	163.575	125.999	1.00 85.94	C
ATOM	3121	C	ASN B 496	152.399	163.505	126.949	1.00 85.94	C
ATOM	3122	O	ASN B 496	152.520	163.839	128.133	1.00 85.94	O
ATOM	3123	CB	ASN B 496	153.529	164.852	125.166	1.00 85.94	C
ATOM	3124	CG	ASN B 496	154.898	165.352	124.786	1.00 85.94	C
ATOM	3125	OD1	ASN B 496	155.907	164.711	125.074	1.00 85.94	O
ATOM	3126	ND2	ASN B 496	154.946	166.506	124.134	1.00 85.94	N
ATOM	3127	N	ARG B 497	151.238	163.090	126.445	1.00 89.05	N
ATOM	3128	CA	ARG B 497	150.068	162.952	127.304	1.00 89.05	C
ATOM	3129	C	ARG B 497	150.356	162.012	128.468	1.00 89.05	C
ATOM	3130	O	ARG B 497	150.069	162.330	129.629	1.00 89.05	O
ATOM	3131	CB	ARG B 497	148.878	162.451	126.489	1.00 89.05	C
ATOM	3132	CG	ARG B 497	147.574	162.419	127.259	1.00 89.05	C
ATOM	3133	CD	ARG B 497	147.106	163.822	127.604	1.00 89.05	C
ATOM	3134	NE	ARG B 497	146.973	164.014	129.045	1.00 89.05	N
ATOM	3135	CZ	ARG B 497	146.519	165.125	129.613	1.00 89.05	C
ATOM	3136	NH1	ARG B 497	146.434	165.210	130.933	1.00 89.05	N
ATOM	3137	NH2	ARG B 497	146.148	166.153	128.861	1.00 89.05	N
ATOM	3138	N	ALA B 498	150.924	160.842	128.174	1.00 87.15	N
ATOM	3139	CA	ALA B 498	151.203	159.890	129.250	1.00 87.15	C
ATOM	3140	C	ALA B 498	152.197	160.463	130.258	1.00 87.15	C
ATOM	3141	O	ALA B 498	152.007	160.341	131.483	1.00 87.15	O
ATOM	3142	CB	ALA B 498	151.724	158.578	128.670	1.00 87.15	C
ATOM	3143	N	LEU B 499	153.273	161.079	129.763	1.00 85.86	N

ATOM	3144	CA	LEU B 499	154.274	161.633	130.666	1.00 85.86	C
ATOM	3145	C	LEU B 499	153.688	162.725	131.545	1.00 85.86	C
ATOM	3146	O	LEU B 499	154.092	162.873	132.703	1.00 85.86	O
ATOM	3147	CB	LEU B 499	155.465	162.170	129.875	1.00 85.86	C
ATOM	3148	CG	LEU B 499	156.438	161.119	129.348	1.00 85.86	C
ATOM	3149	CD1	LEU B 499	157.729	161.770	128.887	1.00 85.86	C
ATOM	3150	CD2	LEU B 499	156.709	160.073	130.411	1.00 85.86	C
ATOM	3151	N	ALA B 500	152.744	163.503	131.019	1.00 85.86	N
ATOM	3152	CA	ALA B 500	152.120	164.540	131.830	1.00 85.86	C
ATOM	3153	C	ALA B 500	151.117	163.963	132.815	1.00 85.86	C
ATOM	3154	O	ALA B 500	150.860	164.572	133.857	1.00 85.86	O
ATOM	3155	CB	ALA B 500	151.436	165.576	130.938	1.00 85.86	C
ATOM	3156	N	GLN B 501	150.537	162.802	132.508	1.00 88.74	N
ATOM	3157	CA	GLN B 501	149.589	162.197	133.435	1.00 88.74	C
ATOM	3158	C	GLN B 501	150.266	161.455	134.580	1.00 88.74	C
ATOM	3159	O	GLN B 501	149.619	161.207	135.602	1.00 88.74	O
ATOM	3160	CB	GLN B 501	148.658	161.237	132.697	1.00 88.74	C
ATOM	3161	CG	GLN B 501	147.413	160.868	133.481	1.00 88.74	C
ATOM	3162	CD	GLN B 501	146.367	160.190	132.622	1.00 88.74	C
ATOM	3163	OE1	GLN B 501	146.691	159.501	131.656	1.00 88.74	O
ATOM	3164	NE2	GLN B 501	145.101	160.384	132.969	1.00 88.74	N
ATOM	3165	N	ILE B 502	151.539	161.080	134.433	1.00 87.40	N
ATOM	3166	CA	ILE B 502	152.212	160.403	135.549	1.00 87.40	C
ATOM	3167	C	ILE B 502	152.520	161.369	136.702	1.00 87.40	C
ATOM	3168	O	ILE B 502	152.537	160.970	137.881	1.00 87.40	O
ATOM	3169	CB	ILE B 502	153.491	159.704	135.057	1.00 87.40	C
ATOM	3170	CG1	ILE B 502	153.141	158.563	134.103	1.00 87.40	C
ATOM	3171	CG2	ILE B 502	154.290	159.181	136.230	1.00 87.40	C
ATOM	3172	CD1	ILE B 502	152.096	157.623	134.642	1.00 87.40	C
ATOM	3173	N	ALA B 503	152.769	162.644	136.391	1.00 88.25	N
ATOM	3174	CA	ALA B 503	153.170	163.595	137.424	1.00 88.25	C
ATOM	3175	C	ALA B 503	152.070	163.821	138.453	1.00 88.25	C
ATOM	3176	O	ALA B 503	152.364	164.061	139.628	1.00 88.25	O
ATOM	3177	CB	ALA B 503	153.577	164.920	136.785	1.00 88.25	C
ATOM	3178	N	GLU B 504	150.803	163.769	138.037	1.00 95.24	N
ATOM	3179	CA	GLU B 504	149.706	163.898	138.991	1.00 95.24	C
ATOM	3180	C	GLU B 504	149.808	162.842	140.083	1.00 95.24	C

ATOM	3181	O	GLU B 504	149.747	163.154	141.281	1.00 95.24	O
ATOM	3182	CB	GLU B 504	148.367	163.776	138.270	1.00 95.24	C
ATOM	3183	CG	GLU B 504	147.858	165.048	137.634	1.00 95.24	C
ATOM	3184	CD	GLU B 504	146.479	164.864	137.032	1.00 95.24	C
ATOM	3185	OE1	GLU B 504	145.930	163.747	137.132	1.00 95.24	O
ATOM	3186	OE2	GLU B 504	145.940	165.831	136.459	1.00 95.24	O
ATOM	3187	N	ALA B 505	149.920	161.575	139.682	1.00 88.53	N
ATOM	3188	CA	ALA B 505	150.047	160.501	140.656	1.00 88.53	C
ATOM	3189	C	ALA B 505	151.272	160.700	141.529	1.00 88.53	C
ATOM	3190	O	ALA B 505	151.220	160.482	142.745	1.00 88.53	O
ATOM	3191	CB	ALA B 505	150.109	159.149	139.949	1.00 88.53	C
ATOM	3192	N	TRP B 506	152.381	161.139	140.947	1.00 91.43	N
ATOM	3193	CA	TRP B 506	153.597	161.345	141.739	1.00 91.43	C
ATOM	3194	C	TRP B 506	153.488	162.456	142.747	1.00 91.43	C
ATOM	3195	O	TRP B 506	154.160	162.447	143.748	1.00 91.43	O
ATOM	3196	CB	TRP B 506	154.831	161.547	140.887	1.00 91.43	C
ATOM	3197	CG	TRP B 506	155.938	160.721	141.387	1.00 91.43	C
ATOM	3198	CD1	TRP B 506	156.409	160.682	142.654	1.00 91.43	C
ATOM	3199	CD2	TRP B 506	156.700	159.779	140.647	1.00 91.43	C
ATOM	3200	NE1	TRP B 506	157.429	159.780	142.753	1.00 91.43	N
ATOM	3201	CE2	TRP B 506	157.625	159.210	141.527	1.00 91.43	C
ATOM	3202	CE3	TRP B 506	156.695	159.364	139.320	1.00 91.43	C
ATOM	3203	CZ2	TRP B 506	158.535	158.258	141.126	1.00 91.43	C
ATOM	3204	CZ3	TRP B 506	157.591	158.418	138.926	1.00 91.43	C
ATOM	3205	CH2	TRP B 506	158.503	157.876	139.819	1.00 91.43	C
ATOM	3206	N	CYS B 507	152.694	163.457	142.447	1.00 89.72	N
ATOM	3207	CA	CYS B 507	152.433	164.521	143.414	1.00 89.72	C
ATOM	3208	C	CYS B 507	151.521	164.031	144.532	1.00 89.72	C
ATOM	3209	O	CYS B 507	151.793	164.254	145.720	1.00 89.72	O
ATOM	3210	CB	CYS B 507	151.821	165.728	142.704	1.00 89.72	C
ATOM	3211	SG	CYS B 507	151.533	167.175	143.747	1.00 89.72	S
ATOM	3212	N	VAL B 508	150.420	163.371	144.168	1.00 85.32	N
ATOM	3213	CA	VAL B 508	149.521	162.838	145.190	1.00 85.32	C
ATOM	3214	C	VAL B 508	150.260	161.864	146.091	1.00 85.32	C
ATOM	3215	O	VAL B 508	149.901	161.691	147.261	1.00 85.32	O
ATOM	3216	CB	VAL B 508	148.291	162.177	144.544	1.00 85.32	C
ATOM	3217	CG1	VAL B 508	147.641	161.215	145.521	1.00 85.32	C

ATOM	3218	CG2	VAL	B	508	147.303 163.235 144.097	1.00 85.32	C
ATOM	3219	N	ASP	B	509	151.298 161.209 145.570	1.00 88.12	N
ATOM	3220	CA	ASP	B	509	152.119 160.341 146.404	1.00 88.12	C
ATOM	3221	C	ASP	B	509	152.961 161.153 147.378	1.00 88.12	C
ATOM	3222	O	ASP	B	509	152.891 160.954 148.595	1.00 88.12	O
ATOM	3223	CB	ASP	B	509	153.013 159.463 145.532	1.00 88.12	C
ATOM	3224	CG	ASP	B	509	154.060 158.727 146.336	1.00 88.12	C
ATOM	3225	OD1	ASP	B	509	153.770 157.609 146.810	1.00 88.12	O
ATOM	3226	OD2	ASP	B	509	155.172 159.271 146.500	1.00 88.12	O
ATOM	3227	N	GLN	B	510	153.767 162.081 146.860	1.00 87.06	N
ATOM	3228	CA	GLN	B	510	154.581 162.909 147.744	1.00 87.06	C
ATOM	3229	C	GLN	B	510	153.754 163.682 148.760	1.00 87.06	C
ATOM	3230	O	GLN	B	510	154.327 164.250 149.693	1.00 87.06	O
ATOM	3231	CB	GLN	B	510	155.423 163.897 146.940	1.00 87.06	C
ATOM	3232	CG	GLN	B	510	156.700 163.317 146.374	1.00 87.06	C
ATOM	3233	CD	GLN	B	510	157.568 164.373 145.728	1.00 87.06	C
ATOM	3234	OE1	GLN	B	510	157.209 165.551 145.697	1.00 87.06	O
ATOM	3235	NE2	GLN	B	510	158.719 163.963 145.212	1.00 87.06	N
ATOM	3236	N	ARG	B	511	152.432 163.733 148.597	1.00 81.00	N
ATOM	3237	CA	ARG	B	511	151.614 164.470 149.556	1.00 81.00	C
ATOM	3238	C	ARG	B	511	151.508 163.753 150.901	1.00 81.00	C
ATOM	3239	O	ARG	B	511	151.314 164.401 151.935	1.00 81.00	O
ATOM	3240	CB	ARG	B	511	150.226 164.714 148.974	1.00 81.00	C
ATOM	3241	CG	ARG	B	511	149.238 165.315 149.947	1.00 81.00	C
ATOM	3242	CD	ARG	B	511	148.042 165.863 149.198	1.00 81.00	C
ATOM	3243	NE	ARG	B	511	146.835 165.892 150.016	1.00 81.00	N
ATOM	3244	CZ	ARG	B	511	145.627 166.183 149.545	1.00 81.00	C
ATOM	3245	NH1	ARG	B	511	145.467 166.470 148.260	1.00 81.00	N
ATOM	3246	NH2	ARG	B	511	144.579 166.190 150.357	1.00 81.00	N
ATOM	3247	N	ARG	B	512	151.616 162.420 150.918	1.00 72.66	N
ATOM	3248	CA	ARG	B	512	151.470 161.677 152.170	1.00 72.66	C
ATOM	3249	C	ARG	B	512	152.739 161.684 153.014	1.00 72.66	C
ATOM	3250	O	ARG	B	512	152.662 161.517 154.243	1.00 72.66	O
ATOM	3251	CB	ARG	B	512	151.069 160.232 151.886	1.00 72.66	C
ATOM	3252	CG	ARG	B	512	149.766 160.077 151.136	1.00 72.66	C
ATOM	3253	CD	ARG	B	512	149.470 158.613 150.870	1.00 72.66	C
ATOM	3254	NE	ARG	B	512	148.474 158.437 149.818	1.00 72.66	N

ATOM	3255	CZ	ARG	B	512	147.167	158.607	149.989	1.00 72.66	C
ATOM	3256	NH1	ARG	B	512	146.692	158.959	151.175	1.00 72.66	N
ATOM	3257	NH2	ARG	B	512	146.336	158.426	148.973	1.00 72.66	N
ATOM	3258	N	THR	B	513	153.899	161.850	152.382	1.00 65.37	N
ATOM	3259	CA	THR	B	513	155.146	161.877	153.131	1.00 65.37	C
ATOM	3260	C	THR	B	513	155.143	162.978	154.178	1.00 65.37	C
ATOM	3261	O	THR	B	513	155.827	162.860	155.197	1.00 65.37	O
ATOM	3262	CB	THR	B	513	156.327	162.049	152.180	1.00 65.37	C
ATOM	3263	OG1	THR	B	513	156.534	160.831	151.455	1.00 65.37	O
ATOM	3264	CG2	THR	B	513	157.585	162.390	152.950	1.00 65.37	C
ATOM	3265	N	LEU	B	514	154.357	164.035	153.975	1.00 64.70	N
ATOM	3266	CA	LEU	B	514	154.334	165.110	154.962	1.00 64.70	C
ATOM	3267	C	LEU	B	514	153.623	164.677	156.238	1.00 64.70	C
ATOM	3268	O	LEU	B	514	154.122	164.923	157.342	1.00 64.70	O
ATOM	3269	CB	LEU	B	514	153.682	166.357	154.373	1.00 64.70	C
ATOM	3270	CG	LEU	B	514	154.556	167.108	153.369	1.00 64.70	C
ATOM	3271	CD1	LEU	B	514	153.977	168.481	153.076	1.00 64.70	C
ATOM	3272	CD2	LEU	B	514	155.985	167.217	153.873	1.00 64.70	C
ATOM	3273	N	GLU	B	515	152.461	164.032	156.118	1.00 56.89	N
ATOM	3274	CA	GLU	B	515	151.806	163.501	157.310	1.00 56.89	C
ATOM	3275	C	GLU	B	515	152.680	162.459	157.992	1.00 56.89	C
ATOM	3276	O	GLU	B	515	152.781	162.425	159.229	1.00 56.89	O
ATOM	3277	CB	GLU	B	515	150.448	162.908	156.944	1.00 56.89	C
ATOM	3278	CG	GLU	B	515	149.834	162.036	158.032	1.00 56.89	C
ATOM	3279	CD	GLU	B	515	149.352	162.834	159.232	1.00 56.89	C
ATOM	3280	OE1	GLU	B	515	149.625	162.415	160.376	1.00 56.89	O
ATOM	3281	OE2	GLU	B	515	148.696	163.876	159.033	1.00 56.89	O
ATOM	3282	N	VAL	B	516	153.324	161.598	157.201	1.00 54.06	N
ATOM	3283	CA	VAL	B	516	154.202	160.590	157.788	1.00 54.06	C
ATOM	3284	C	VAL	B	516	155.315	161.255	158.589	1.00 54.06	C
ATOM	3285	O	VAL	B	516	155.586	160.882	159.737	1.00 54.06	O
ATOM	3286	CB	VAL	B	516	154.764	159.660	156.701	1.00 54.06	C
ATOM	3287	CG1	VAL	B	516	155.965	158.913	157.227	1.00 54.06	C
ATOM	3288	CG2	VAL	B	516	153.702	158.683	156.250	1.00 54.06	C
ATOM	3289	N	PHE	B	517	155.978	162.253	157.998	1.00 52.95	N
ATOM	3290	CA	PHE	B	517	157.078	162.915	158.688	1.00 52.95	C
ATOM	3291	C	PHE	B	517	156.607	163.710	159.892	1.00 52.95	C

ATOM	3292	O	PHE B 517	157.352	163.840	160.859	1.00 52.95	O
ATOM	3293	CB	PHE B 517	157.856	163.823	157.741	1.00 52.95	C
ATOM	3294	CG	PHE B 517	158.825	163.092	156.865	1.00 52.95	C
ATOM	3295	CD1	PHE B 517	159.143	161.772	157.117	1.00 52.95	C
ATOM	3296	CD2	PHE B 517	159.445	163.734	155.812	1.00 52.95	C
ATOM	3297	CE1	PHE B 517	160.042	161.099	156.320	1.00 52.95	C
ATOM	3298	CE2	PHE B 517	160.346	163.065	155.014	1.00 52.95	C
ATOM	3299	CZ	PHE B 517	160.644	161.745	155.269	1.00 52.95	C
ATOM	3300	N	LYS B 518	155.388	164.242	159.873	1.00 52.81	N
ATOM	3301	CA	LYS B 518	154.876	164.895	161.072	1.00 52.81	C
ATOM	3302	C	LYS B 518	154.743	163.892	162.213	1.00 52.81	C
ATOM	3303	O	LYS B 518	155.339	164.055	163.294	1.00 52.81	O
ATOM	3304	CB	LYS B 518	153.535	165.559	160.773	1.00 52.81	C
ATOM	3305	CG	LYS B 518	152.950	166.305	161.950	1.00 52.81	C
ATOM	3306	CD	LYS B 518	151.601	166.891	161.605	1.00 52.81	C
ATOM	3307	CE	LYS B 518	151.614	167.499	160.220	1.00 52.81	C
ATOM	3308	NZ	LYS B 518	150.321	168.160	159.897	1.00 52.81	N
ATOM	3309	N	GLU B 519	153.968	162.831	161.981	1.00 52.29	N
ATOM	3310	CA	GLU B 519	153.797	161.821	163.018	1.00 52.29	C
ATOM	3311	C	GLU B 519	155.140	161.304	163.516	1.00 52.29	C
ATOM	3312	O	GLU B 519	155.312	161.059	164.713	1.00 52.29	O
ATOM	3313	CB	GLU B 519	152.934	160.674	162.501	1.00 52.29	C
ATOM	3314	CG	GLU B 519	151.506	161.080	162.214	1.00 52.29	C
ATOM	3315	CD	GLU B 519	150.875	161.820	163.371	1.00 52.29	C
ATOM	3316	OE1	GLU B 519	151.403	161.723	164.497	1.00 52.29	O
ATOM	3317	OE2	GLU B 519	149.853	162.502	163.155	1.00 52.29	O
ATOM	3318	N	LEU B 520	156.110	161.137	162.613	1.00 47.03	N
ATOM	3319	CA	LEU B 520	157.427	160.678	163.043	1.00 47.03	C
ATOM	3320	C	LEU B 520	158.173	161.747	163.831	1.00 47.03	C
ATOM	3321	O	LEU B 520	158.906	161.420	164.769	1.00 47.03	O
ATOM	3322	CB	LEU B 520	158.260	160.244	161.839	1.00 47.03	C
ATOM	3323	CG	LEU B 520	157.886	158.925	161.170	1.00 47.03	C
ATOM	3324	CD1	LEU B 520	158.976	158.509	160.209	1.00 47.03	C
ATOM	3325	CD2	LEU B 520	157.656	157.855	162.209	1.00 47.03	C
ATOM	3326	N	SER B 521	158.011	163.020	163.468	1.00 47.73	N
ATOM	3327	CA	SER B 521	158.636	164.095	164.220	1.00 47.73	C
ATOM	3328	C	SER B 521	158.092	164.172	165.627	1.00 47.73	C

ATOM	3329	O	SER B 521	158.716	164.797	166.488	1.00 47.73	O
ATOM	3330	CB	SER B 521	158.427	165.434	163.522	1.00 47.73	C
ATOM	3331	OG	SER B 521	157.151	165.960	163.832	1.00 47.73	O
ATOM	3332	N	LYS B 522	156.946	163.571	165.877	1.00 49.54	N
ATOM	3333	CA	LYS B 522	156.658	163.484	167.311	1.00 49.54	C
ATOM	3334	C	LYS B 522	157.529	162.439	168.044	1.00 49.54	C
ATOM	3335	O	LYS B 522	157.203	162.124	169.186	1.00 49.54	O
ATOM	3336	CB	LYS B 522	155.181	163.178	167.553	1.00 49.54	C
ATOM	3337	CG	LYS B 522	154.269	164.368	167.346	1.00 49.54	C
ATOM	3338	CD	LYS B 522	152.813	163.953	167.366	1.00 49.54	C
ATOM	3339	CE	LYS B 522	151.929	165.039	166.782	1.00 49.54	C
ATOM	3340	NZ	LYS B 522	150.544	164.552	166.542	1.00 49.54	N
ATOM	3341	N	ILE B 523	158.595	161.882	167.464	1.00 48.18	N
ATOM	3342	CA	ILE B 523	159.452	160.922	168.146	1.00 48.18	C
ATOM	3343	C	ILE B 523	160.859	161.465	168.359	1.00 48.18	C
ATOM	3344	O	ILE B 523	161.449	161.268	169.425	1.00 48.18	O
ATOM	3345	CB	ILE B 523	159.512	159.583	167.383	1.00 48.18	C
ATOM	3346	CG1	ILE B 523	158.196	158.825	167.513	1.00 48.18	C
ATOM	3347	CG2	ILE B 523	160.653	158.738	167.897	1.00 48.18	C
ATOM	3348	CD1	ILE B 523	158.192	157.512	166.777	1.00 48.18	C
ATOM	3349	N	ASN B 524	161.424	162.133	167.357	1.00 48.28	N
ATOM	3350	CA	ASN B 524	162.778	162.664	167.440	1.00 48.28	C
ATOM	3351	C	ASN B 524	162.961	163.775	166.413	1.00 48.28	C
ATOM	3352	O	ASN B 524	163.384	163.506	165.283	1.00 48.28	O
ATOM	3353	CB	ASN B 524	163.803	161.553	167.218	1.00 48.28	C
ATOM	3354	CG	ASN B 524	165.158	161.889	167.793	1.00 48.28	C
ATOM	3355	OD1	ASN B 524	165.288	162.791	168.618	1.00 48.28	O
ATOM	3356	ND2	ASN B 524	166.180	161.163	167.362	1.00 48.28	N
ATOM	3357	N	PRO B 525	162.656	165.027	166.758	1.00 43.70	N
ATOM	3358	CA	PRO B 525	162.698	166.090	165.740	1.00 43.70	C
ATOM	3359	C	PRO B 525	164.075	166.311	165.138	1.00 43.70	C
ATOM	3360	O	PRO B 525	164.185	166.598	163.938	1.00 43.70	O
ATOM	3361	CB	PRO B 525	162.214	167.326	166.511	1.00 43.70	C
ATOM	3362	CG	PRO B 525	161.524	166.790	167.721	1.00 43.70	C
ATOM	3363	CD	PRO B 525	162.237	165.535	168.072	1.00 43.70	C
ATOM	3364	N	SER B 526	165.133	166.203	165.942	1.00 44.51	N
ATOM	3365	CA	SER B 526	166.477	166.443	165.430	1.00 44.51	C

ATOM	3366	C	SER B 526	166.779	165.547	164.238	1.00 44.51	C
ATOM	3367	O	SER B 526	167.306	166.006	163.220	1.00 44.51	O
ATOM	3368	CB	SER B 526	167.508	166.227	166.535	1.00 44.51	C
ATOM	3369	OG	SER B 526	167.128	166.889	167.726	1.00 44.51	O
ATOM	3370	N	ALA B 527	166.442	164.262	164.342	1.00 46.43	N
ATOM	3371	CA	ALA B 527	166.759	163.327	163.269	1.00 46.43	C
ATOM	3372	C	ALA B 527	165.988	163.662	161.998	1.00 46.43	C
ATOM	3373	O	ALA B 527	166.563	163.697	160.905	1.00 46.43	O
ATOM	3374	CB	ALA B 527	166.465	161.898	163.717	1.00 46.43	C
ATOM	3375	N	ILE B 528	164.685	163.915	162.120	1.00 45.98	N
ATOM	3376	CA	ILE B 528	163.874	164.210	160.942	1.00 45.98	C
ATOM	3377	C	ILE B 528	164.371	165.469	160.246	1.00 45.98	C
ATOM	3378	O	ILE B 528	164.473	165.520	159.011	1.00 45.98	O
ATOM	3379	CB	ILE B 528	162.392	164.330	161.334	1.00 45.98	C
ATOM	3380	CG1	ILE B 528	161.864	162.985	161.818	1.00 45.98	C
ATOM	3381	CG2	ILE B 528	161.579	164.827	160.164	1.00 45.98	C
ATOM	3382	CD1	ILE B 528	162.095	161.865	160.845	1.00 45.98	C
ATOM	3383	N	LEU B 529	164.680	166.512	161.017	1.00 46.68	N
ATOM	3384	CA	LEU B 529	165.133	167.747	160.389	1.00 46.68	C
ATOM	3385	C	LEU B 529	166.512	167.576	159.763	1.00 46.68	C
ATOM	3386	O	LEU B 529	166.754	168.052	158.649	1.00 46.68	O
ATOM	3387	CB	LEU B 529	165.125	168.887	161.401	1.00 46.68	C
ATOM	3388	CG	LEU B 529	163.725	169.410	161.715	1.00 46.68	C
ATOM	3389	CD1	LEU B 529	163.793	170.736	162.441	1.00 46.68	C
ATOM	3390	CD2	LEU B 529	162.922	169.540	160.442	1.00 46.68	C
ATOM	3391	N	SER B 530	167.431	166.897	160.452	1.00 48.59	N
ATOM	3392	CA	SER B 530	168.726	166.622	159.843	1.00 48.59	C
ATOM	3393	C	SER B 530	168.576	165.789	158.581	1.00 48.59	C
ATOM	3394	O	SER B 530	169.423	165.863	157.685	1.00 48.59	O
ATOM	3395	CB	SER B 530	169.637	165.910	160.839	1.00 48.59	C
ATOM	3396	OG	SER B 530	169.665	166.590	162.078	1.00 48.59	O
ATOM	3397	N	ALA B 531	167.515	164.989	158.493	1.00 49.89	N
ATOM	3398	CA	ALA B 531	167.311	164.164	157.310	1.00 49.89	C
ATOM	3399	C	ALA B 531	166.770	164.976	156.142	1.00 49.89	C
ATOM	3400	O	ALA B 531	167.185	164.767	154.998	1.00 49.89	O
ATOM	3401	CB	ALA B 531	166.368	163.006	157.630	1.00 49.89	C
ATOM	3402	N	ILE B 532	165.844	165.897	156.399	1.00 49.61	N

ATOM	3403	CA	ILE	B	532	165.249 166.640 155.291	1.00 49.61	C
ATOM	3404	C	ILE	B	532	166.007 167.939 155.046	1.00 49.61	C
ATOM	3405	O	ILE	B	532	165.592 168.761 154.225	1.00 49.61	O
ATOM	3406	CB	ILE	B	532	163.754 166.925 155.522	1.00 49.61	C
ATOM	3407	CG1	ILE	B	532	163.553 167.898 156.676	1.00 49.61	C
ATOM	3408	CG2	ILE	B	532	163.008 165.639 155.801	1.00 49.61	C
ATOM	3409	CD1	ILE	B	532	162.134 168.392 156.789	1.00 49.61	C
ATOM	3410	N	TYR	B	533	167.123 168.137 155.751	1.00 56.43	N
ATOM	3411	CA	TYR	B	533	167.987 169.285 155.499	1.00 56.43	C
ATOM	3412	C	TYR	B	533	169.439 168.927 155.227	1.00 56.43	C
ATOM	3413	O	TYR	B	533	170.213 169.824 154.881	1.00 56.43	O
ATOM	3414	CB	TYR	B	533	167.945 170.269 156.678	1.00 56.43	C
ATOM	3415	CG	TYR	B	533	166.767 171.210 156.659	1.00 56.43	C
ATOM	3416	CD1	TYR	B	533	165.970 171.329 155.534	1.00 56.43	C
ATOM	3417	CD2	TYR	B	533	166.452 171.980 157.766	1.00 56.43	C
ATOM	3418	CE1	TYR	B	533	164.891 172.188 155.513	1.00 56.43	C
ATOM	3419	CE2	TYR	B	533	165.377 172.841 157.754	1.00 56.43	C
ATOM	3420	CZ	TYR	B	533	164.600 172.941 156.626	1.00 56.43	C
ATOM	3421	OH	TYR	B	533	163.526 173.798 156.608	1.00 56.43	O
ATOM	3422	N	ASN	B	534	169.836 167.667 155.378	1.00 59.26	N
ATOM	3423	CA	ASN	B	534	171.205 167.225 155.115	1.00 59.26	C
ATOM	3424	C	ASN	B	534	172.216 168.107 155.852	1.00 59.26	C
ATOM	3425	O	ASN	B	534	173.040 168.800 155.258	1.00 59.26	O
ATOM	3426	CB	ASN	B	534	171.484 167.205 153.610	1.00 59.26	C
ATOM	3427	CG	ASN	B	534	170.975 165.947 152.943	1.00 59.26	C
ATOM	3428	OD1	ASN	B	534	170.234 166.006 151.963	1.00 59.26	O
ATOM	3429	ND2	ASN	B	534	171.370 164.796 153.471	1.00 59.26	N
ATOM	3430	N	LYS	B	535	172.128 168.060 157.173	1.00 59.00	N
ATOM	3431	CA	LYS	B	535	172.971 168.880 158.029	1.00 59.00	C
ATOM	3432	C	LYS	B	535	172.736 168.461 159.476	1.00 59.00	C
ATOM	3433	O	LYS	B	535	171.721 167.831 159.779	1.00 59.00	O
ATOM	3434	CB	LYS	B	535	172.659 170.374 157.846	1.00 59.00	C
ATOM	3435	CG	LYS	B	535	173.822 171.306 158.102	1.00 59.00	C
ATOM	3436	CD	LYS	B	535	173.373 172.751 157.994	1.00 59.00	C
ATOM	3437	CE	LYS	B	535	172.462 172.948 156.795	1.00 59.00	C
ATOM	3438	NZ	LYS	B	535	172.081 174.374 156.616	1.00 59.00	N
ATOM	3439	N	PRO	B	536	173.662 168.788 160.376	1.00 56.09	N

ATOM	3440	CA	PRO B 536	173.419	168.549	161.803	1.00 56.09	C
ATOM	3441	C	PRO B 536	172.629	169.681	162.437	1.00 56.09	C
ATOM	3442	O	PRO B 536	173.021	170.846	162.342	1.00 56.09	O
ATOM	3443	CB	PRO B 536	174.833	168.459	162.382	1.00 56.09	C
ATOM	3444	CG	PRO B 536	175.622	169.366	161.515	1.00 56.09	C
ATOM	3445	CD	PRO B 536	175.040	169.245	160.127	1.00 56.09	C
ATOM	3446	N	ILE B 537	171.516	169.349	163.092	1.00 49.90	N
ATOM	3447	CA	ILE B 537	170.600	170.341	163.635	1.00 49.90	C
ATOM	3448	C	ILE B 537	170.103	169.867	164.993	1.00 49.90	C
ATOM	3449	O	ILE B 537	170.123	168.676	165.306	1.00 49.90	O
ATOM	3450	CB	ILE B 537	169.419	170.600	162.675	1.00 49.90	C
ATOM	3451	CG1	ILE B 537	169.893	171.392	161.463	1.00 49.90	C
ATOM	3452	CG2	ILE B 537	168.306	171.345	163.364	1.00 49.90	C
ATOM	3453	CD1	ILE B 537	168.782	171.787	160.534	1.00 49.90	C
ATOM	3454	N	ALA B 538	169.659	170.824	165.806	1.00 46.53	N
ATOM	3455	CA	ALA B 538	169.132	170.547	167.139	1.00 46.53	C
ATOM	3456	C	ALA B 538	167.822	171.300	167.294	1.00 46.53	C
ATOM	3457	O	ALA B 538	167.824	172.530	167.384	1.00 46.53	O
ATOM	3458	CB	ALA B 538	170.123	170.956	168.224	1.00 46.53	C
ATOM	3459	N	ALA B 539	166.712	170.572	167.333	1.00 41.43	N
ATOM	3460	CA	ALA B 539	165.383	171.157	167.414	1.00 41.43	C
ATOM	3461	C	ALA B 539	164.722	170.798	168.739	1.00 41.43	C
ATOM	3462	O	ALA B 539	165.237	170.003	169.525	1.00 41.43	O
ATOM	3463	CB	ALA B 539	164.517	170.690	166.241	1.00 41.43	C
ATOM	3464	N	ARG B 540	163.561	171.402	168.979	1.00 42.05	N
ATOM	3465	CA	ARG B 540	162.810	171.175	170.206	1.00 42.05	C
ATOM	3466	C	ARG B 540	161.446	171.829	170.070	1.00 42.05	C
ATOM	3467	O	ARG B 540	161.307	172.859	169.408	1.00 42.05	O
ATOM	3468	CB	ARG B 540	163.550	171.733	171.425	1.00 42.05	C
ATOM	3469	CG	ARG B 540	162.732	171.731	172.698	1.00 42.05	C
ATOM	3470	CD	ARG B 540	163.569	172.138	173.894	1.00 42.05	C
ATOM	3471	NE	ARG B 540	163.670	173.587	174.029	1.00 42.05	N
ATOM	3472	CZ	ARG B 540	162.705	174.361	174.510	1.00 42.05	C
ATOM	3473	NH1	ARG B 540	162.882	175.669	174.600	1.00 42.05	N
ATOM	3474	NH2	ARG B 540	161.557	173.827	174.896	1.00 42.05	N
ATOM	3475	N	PHE B 541	160.444	171.226	170.705	1.00 41.43	N
ATOM	3476	CA	PHE B 541	159.082	171.733	170.629	1.00 41.43	C

ATOM	3477	C	PHE B 541	158.878	172.907	171.576	1.00 41.43 C
ATOM	3478	O	PHE B 541	159.382	172.912	172.701	1.00 41.43 O
ATOM	3479	CB	PHE B 541	158.078	170.632	170.957	1.00 41.43 C
ATOM	3480	CG	PHE B 541	157.697	169.787	169.782	1.00 41.43 C
ATOM	3481	CD1	PHE B 541	156.722	170.209	168.904	1.00 41.43 C
ATOM	3482	CD2	PHE B 541	158.305	168.569	169.562	1.00 41.43 C
ATOM	3483	CE1	PHE B 541	156.366	169.438	167.827	1.00 41.43 C
ATOM	3484	CE2	PHE B 541	157.952	167.793	168.487	1.00 41.43 C
ATOM	3485	CZ	PHE B 541	156.981	168.229	167.618	1.00 41.43 C
ATOM	3486	N	MET B 542	158.123	173.898	171.112	1.00 39.59 N
ATOM	3487	CA	MET B 542	157.805	175.079	171.903	1.00 39.59 C
ATOM	3488	C	MET B 542	156.297	175.218	172.052	1.00 39.59 C
ATOM	3489	O	MET B 542	155.739	176.294	171.824	1.00 39.59 O
ATOM	3490	CB	MET B 542	158.409	176.330	171.271	1.00 39.59 C
ATOM	3491	CG	MET B 542	159.890	176.480	171.541	1.00 39.59 C
ATOM	3492	SD	MET B 542	160.653	177.781	170.567	1.00 39.59 S
ATOM	3493	CE	MET B 542	162.173	178.015	171.474	1.00 39.59 C
ATOM	3494	N	GLY B 543	155.635	174.133	172.433	1.00 42.83 N
ATOM	3495	CA	GLY B 543	154.190	174.078	172.458	1.00 42.83 C
ATOM	3496	C	GLY B 543	153.612	173.490	171.190	1.00 42.83 C
ATOM	3497	O	GLY B 543	153.088	172.375	171.208	1.00 42.83 O
ATOM	3498	N	ASP B 544	153.706	174.216	170.078	1.00 43.84 N
ATOM	3499	CA	ASP B 544	153.209	173.704	168.808	1.00 43.84 C
ATOM	3500	C	ASP B 544	154.114	174.052	167.634	1.00 43.84 C
ATOM	3501	O	ASP B 544	153.709	173.850	166.484	1.00 43.84 O
ATOM	3502	CB	ASP B 544	151.800	174.232	168.531	1.00 43.84 C
ATOM	3503	CG	ASP B 544	150.721	173.314	169.050	1.00 43.84 C
ATOM	3504	OD1	ASP B 544	151.061	172.227	169.555	1.00 43.84 O
ATOM	3505	OD2	ASP B 544	149.532	173.677	168.953	1.00 43.84 O
ATOM	3506	N	VAL B 545	155.316	174.564	167.878	1.00 38.87 N
ATOM	3507	CA	VAL B 545	156.154	175.127	166.828	1.00 38.87 C
ATOM	3508	C	VAL B 545	157.606	174.804	167.149	1.00 38.87 C
ATOM	3509	O	VAL B 545	158.138	175.275	168.158	1.00 38.87 O
ATOM	3510	CB	VAL B 545	155.958	176.641	166.694	1.00 38.87 C
ATOM	3511	CG1	VAL B 545	157.157	177.262	166.034	1.00 38.87 C
ATOM	3512	CG2	VAL B 545	154.708	176.935	165.901	1.00 38.87 C
ATOM	3513	N	LEU B 546	158.249	174.014	166.295	1.00 39.13 N

ATOM	3514	CA	LEU B 546	159.645	173.660	166.505	1.00 39.13	C
ATOM	3515	C	LEU B 546	160.518	174.910	166.574	1.00 39.13	C
ATOM	3516	O	LEU B 546	160.131	175.997	166.144	1.00 39.13	O
ATOM	3517	CB	LEU B 546	160.136	172.743	165.390	1.00 39.13	C
ATOM	3518	CG	LEU B 546	159.524	171.346	165.357	1.00 39.13	C
ATOM	3519	CD1	LEU B 546	159.382	170.862	163.936	1.00 39.13	C
ATOM	3520	CD2	LEU B 546	160.373	170.388	166.152	1.00 39.13	C
ATOM	3521	N	GLY B 547	161.712	174.743	167.135	1.00 39.34	N
ATOM	3522	CA	GLY B 547	162.685	175.816	167.207	1.00 39.34	C
ATOM	3523	C	GLY B 547	164.066	175.361	166.787	1.00 39.34	C
ATOM	3524	O	GLY B 547	164.629	174.451	167.397	1.00 39.34	O
ATOM	3525	N	LEU B 548	164.626	175.982	165.754	1.00 42.21	N
ATOM	3526	CA	LEU B 548	165.877	175.520	165.174	1.00 42.21	C
ATOM	3527	C	LEU B 548	167.079	176.105	165.912	1.00 42.21	C
ATOM	3528	O	LEU B 548	166.996	177.145	166.568	1.00 42.21	O
ATOM	3529	CB	LEU B 548	165.949	175.893	163.694	1.00 42.21	C
ATOM	3530	CG	LEU B 548	165.385	174.899	162.682	1.00 42.21	C
ATOM	3531	CD1	LEU B 548	166.258	173.674	162.604	1.00 42.21	C
ATOM	3532	CD2	LEU B 548	163.983	174.512	163.064	1.00 42.21	C
ATOM	3533	N	ALA B 549	168.206	175.423	165.789	1.00 47.11	N
ATOM	3534	CA	ALA B 549	169.470	175.854	166.380	1.00 47.11	C
ATOM	3535	C	ALA B 549	170.567	174.982	165.784	1.00 47.11	C
ATOM	3536	O	ALA B 549	170.318	174.193	164.865	1.00 47.11	O
ATOM	3537	CB	ALA B 549	169.431	175.773	167.904	1.00 47.11	C
ATOM	3538	N	SER B 550	171.781	175.116	166.304	1.00 51.12	N
ATOM	3539	CA	SER B 550	172.926	174.362	165.821	1.00 51.12	C
ATOM	3540	C	SER B 550	173.594	173.621	166.975	1.00 51.12	C
ATOM	3541	O	SER B 550	173.419	173.956	168.149	1.00 51.12	O
ATOM	3542	CB	SER B 550	173.928	175.286	165.122	1.00 51.12	C
ATOM	3543	OG	SER B 550	174.802	174.551	164.289	1.00 51.12	O
ATOM	3544	N	CYS B 551	174.365	172.595	166.630	1.00 50.83	N
ATOM	3545	CA	CYS B 551	175.068	171.795	167.621	1.00 50.83	C
ATOM	3546	C	CYS B 551	176.326	172.521	168.086	1.00 50.83	C
ATOM	3547	O	CYS B 551	177.031	173.139	167.285	1.00 50.83	O
ATOM	3548	CB	CYS B 551	175.436	170.424	167.047	1.00 50.83	C
ATOM	3549	SG	CYS B 551	174.032	169.350	166.593	1.00 50.83	S
ATOM	3550	N	VAL B 552	176.600	172.448	169.387	1.00 46.75	N

ATOM	3551	CA	VAL B 552	177.801	173.066	169.936	1.00 46.75	C
ATOM	3552	C	VAL B 552	178.975	172.095	169.828	1.00 46.75	C
ATOM	3553	O	VAL B 552	178.801	170.884	169.698	1.00 46.75	O
ATOM	3554	CB	VAL B 552	177.573	173.510	171.390	1.00 46.75	C
ATOM	3555	CG1	VAL B 552	178.751	174.302	171.881	1.00 46.75	C
ATOM	3556	CG2	VAL B 552	176.312	174.337	171.494	1.00 46.75	C
ATOM	3557	N	THR B 553	180.191	172.636	169.879	1.00 44.89	N
ATOM	3558	CA	THR B 553	181.405	171.842	169.718	1.00 44.89	C
ATOM	3559	C	THR B 553	182.270	171.978	170.963	1.00 44.89	C
ATOM	3560	O	THR B 553	182.730	173.077	171.286	1.00 44.89	O
ATOM	3561	CB	THR B 553	182.188	172.267	168.477	1.00 44.89	C
ATOM	3562	OG1	THR B 553	181.375	172.090	167.313	1.00 44.89	O
ATOM	3563	CG2	THR B 553	183.433	171.424	168.334	1.00 44.89	C
ATOM	3564	N	ILE B 554	182.485	170.860	171.653	1.00 47.57	N
ATOM	3565	CA	ILE B 554	183.252	170.793	172.893	1.00 47.57	C
ATOM	3566	C	ILE B 554	184.747	170.702	172.616	1.00 47.57	C
ATOM	3567	O	ILE B 554	185.173	170.561	171.466	1.00 47.57	O
ATOM	3568	CB	ILE B 554	182.784	169.619	173.766	1.00 47.57	C
ATOM	3569	CG1	ILE B 554	183.108	168.292	173.091	1.00 47.57	C
ATOM	3570	CG2	ILE B 554	181.302	169.727	174.031	1.00 47.57	C
ATOM	3571	CD1	ILE B 554	182.872	167.096	173.976	1.00 47.57	C
ATOM	3572	N	ASN B 555	185.544	170.797	173.684	1.00 52.11	N
ATOM	3573	CA	ASN B 555	187.001	170.889	173.605	1.00 52.11	C
ATOM	3574	C	ASN B 555	187.637	170.070	172.487	1.00 52.11	C
ATOM	3575	O	ASN B 555	188.500	170.569	171.758	1.00 52.11	O
ATOM	3576	CB	ASN B 555	187.594	170.466	174.946	1.00 52.11	C
ATOM	3577	CG	ASN B 555	188.944	171.075	175.191	1.00 52.11	C
ATOM	3578	OD1	ASN B 555	189.544	171.651	174.289	1.00 52.11	O
ATOM	3579	ND2	ASN B 555	189.438	170.947	176.414	1.00 52.11	N
ATOM	3580	N	GLN B 556	187.240	168.810	172.339	1.00 50.36	N
ATOM	3581	CA	GLN B 556	187.741	167.855	171.356	1.00 50.36	C
ATOM	3582	C	GLN B 556	189.079	167.231	171.744	1.00 50.36	C
ATOM	3583	O	GLN B 556	189.529	166.322	171.051	1.00 50.36	O
ATOM	3584	CB	GLN B 556	187.903	168.470	169.953	1.00 50.36	C
ATOM	3585	CG	GLN B 556	186.610	168.762	169.250	1.00 50.36	C
ATOM	3586	CD	GLN B 556	185.855	167.509	168.922	1.00 50.36	C
ATOM	3587	OE1	GLN B 556	186.399	166.410	168.987	1.00 50.36	O

ATOM	3588	NE2	GLN	B	556	184.588	167.661	168.573	1.00	50.36	N
ATOM	3589	N	THR	B	557	189.728	167.663	172.826	1.00	54.58	N
ATOM	3590	CA	THR	B	557	190.997	167.049	173.204	1.00	54.58	C
ATOM	3591	C	THR	B	557	191.095	166.810	174.705	1.00	54.58	C
ATOM	3592	O	THR	B	557	192.206	166.667	175.229	1.00	54.58	O
ATOM	3593	CB	THR	B	557	192.185	167.899	172.753	1.00	54.58	C
ATOM	3594	OG1	THR	B	557	193.404	167.231	173.096	1.00	54.58	O
ATOM	3595	CG2	THR	B	557	192.158	169.245	173.436	1.00	54.58	C
ATOM	3596	N	SER	B	558	189.966	166.772	175.408	1.00	51.67	N
ATOM	3597	CA	SER	B	558	189.959	166.412	176.817	1.00	51.67	C
ATOM	3598	C	SER	B	558	188.887	165.379	177.126	1.00	51.67	C
ATOM	3599	O	SER	B	558	188.716	165.017	178.295	1.00	51.67	O
ATOM	3600	CB	SER	B	558	189.747	167.642	177.694	1.00	51.67	C
ATOM	3601	OG	SER	B	558	188.365	167.873	177.894	1.00	51.67	O
ATOM	3602	N	VAL	B	559	188.162	164.902	176.125	1.00	44.69	N
ATOM	3603	CA	VAL	B	559	187.141	163.885	176.329	1.00	44.69	C
ATOM	3604	C	VAL	B	559	187.804	162.596	176.786	1.00	44.69	C
ATOM	3605	O	VAL	B	559	188.934	162.287	176.395	1.00	44.69	O
ATOM	3606	CB	VAL	B	559	186.333	163.675	175.039	1.00	44.69	C
ATOM	3607	CG1	VAL	B	559	185.270	162.628	175.253	1.00	44.69	C
ATOM	3608	CG2	VAL	B	559	185.709	164.976	174.602	1.00	44.69	C
ATOM	3609	N	LYS	B	560	187.103	161.840	177.626	1.00	41.89	N
ATOM	3610	CA	LYS	B	560	187.598	160.562	178.123	1.00	41.89	C
ATOM	3611	C	LYS	B	560	186.404	159.669	178.409	1.00	41.89	C
ATOM	3612	O	LYS	B	560	185.576	159.998	179.261	1.00	41.89	O
ATOM	3613	CB	LYS	B	560	188.445	160.745	179.383	1.00	41.89	C
ATOM	3614	CG	LYS	B	560	189.602	161.708	179.214	1.00	41.89	C
ATOM	3615	CD	LYS	B	560	190.574	161.612	180.376	1.00	41.89	C
ATOM	3616	CE	LYS	B	560	189.928	162.060	181.672	1.00	41.89	C
ATOM	3617	NZ	LYS	B	560	189.768	163.537	181.722	1.00	41.89	N
ATOM	3618	N	VAL	B	561	186.317	158.550	177.700	1.00	37.96	N
ATOM	3619	CA	VAL	B	561	185.218	157.605	177.849	1.00	37.96	C
ATOM	3620	C	VAL	B	561	185.650	156.527	178.829	1.00	37.96	C
ATOM	3621	O	VAL	B	561	186.599	155.780	178.563	1.00	37.96	O
ATOM	3622	CB	VAL	B	561	184.817	156.994	176.499	1.00	37.96	C
ATOM	3623	CG1	VAL	B	561	183.759	155.934	176.697	1.00	37.96	C
ATOM	3624	CG2	VAL	B	561	184.315	158.070	175.565	1.00	37.96	C

ATOM	3625	N	LEU B 562	184.958	156.442	179.961	1.00 38.79	N
ATOM	3626	CA	LEU B 562	185.274	155.424	180.947	1.00 38.79	C
ATOM	3627	C	LEU B 562	185.061	154.034	180.352	1.00 38.79	C
ATOM	3628	O	LEU B 562	184.457	153.867	179.293	1.00 38.79	O
ATOM	3629	CB	LEU B 562	184.423	155.614	182.200	1.00 38.79	C
ATOM	3630	CG	LEU B 562	184.569	156.962	182.905	1.00 38.79	C
ATOM	3631	CD1	LEU B 562	184.070	156.866	184.329	1.00 38.79	C
ATOM	3632	CD2	LEU B 562	186.009	157.419	182.880	1.00 38.79	C
ATOM	3633	N	ARG B 563	185.568	153.026	181.053	1.00 45.07	N
ATOM	3634	CA	ARG B 563	185.542	151.648	180.574	1.00 45.07	C
ATOM	3635	C	ARG B 563	185.025	150.714	181.656	1.00 45.07	C
ATOM	3636	O	ARG B 563	185.586	149.650	181.920	1.00 45.07	O
ATOM	3637	CB	ARG B 563	186.923	151.218	180.099	1.00 45.07	C
ATOM	3638	CG	ARG B 563	187.959	151.159	181.195	1.00 45.07	C
ATOM	3639	CD	ARG B 563	189.151	150.329	180.765	1.00 45.07	C
ATOM	3640	NE	ARG B 563	189.956	151.013	179.761	1.00 45.07	N
ATOM	3641	CZ	ARG B 563	190.852	150.410	178.986	1.00 45.07	C
ATOM	3642	NH1	ARG B 563	191.543	151.109	178.099	1.00 45.07	N
ATOM	3643	NH2	ARG B 563	191.053	149.106	179.096	1.00 45.07	N
ATOM	3644	N	ASP B 564	183.936	151.113	182.305	1.00 50.47	N
ATOM	3645	CA	ASP B 564	183.268	150.263	183.286	1.00 50.47	C
ATOM	3646	C	ASP B 564	181.875	150.823	183.512	1.00 50.47	C
ATOM	3647	O	ASP B 564	181.736	151.990	183.890	1.00 50.47	O
ATOM	3648	CB	ASP B 564	184.052	150.208	184.591	1.00 50.47	C
ATOM	3649	CG	ASP B 564	183.539	149.142	185.529	1.00 50.47	C
ATOM	3650	OD1	ASP B 564	182.488	148.542	185.231	1.00 50.47	O
ATOM	3651	OD2	ASP B 564	184.188	148.896	186.566	1.00 50.47	O
ATOM	3652	N	MET B 565	180.852	150.007	183.283	1.00 48.38	N
ATOM	3653	CA	MET B 565	179.463	150.441	183.366	1.00 48.38	C
ATOM	3654	C	MET B 565	178.760	149.850	184.584	1.00 48.38	C
ATOM	3655	O	MET B 565	177.582	149.500	184.532	1.00 48.38	O
ATOM	3656	CB	MET B 565	178.713	150.082	182.089	1.00 48.38	C
ATOM	3657	CG	MET B 565	179.340	150.648	180.833	1.00 48.38	C
ATOM	3658	SD	MET B 565	178.145	150.929	179.518	1.00 48.38	S
ATOM	3659	CE	MET B 565	177.414	149.308	179.373	1.00 48.38	C
ATOM	3660	N	ASN B 566	179.479	149.736	185.694	1.00 52.74	N
ATOM	3661	CA	ASN B 566	178.928	149.260	186.955	1.00 52.74	C

ATOM	3662	C	ASN B 566	178.807	150.430	187.918	1.00 52.74	C
ATOM	3663	O	ASN B 566	179.786	151.141	188.161	1.00 52.74	O
ATOM	3664	CB	ASN B 566	179.813	148.174	187.568	1.00 52.74	C
ATOM	3665	CG	ASN B 566	179.463	146.791	187.077	1.00 52.74	C
ATOM	3666	OD1	ASN B 566	178.311	146.374	187.131	1.00 52.74	O
ATOM	3667	ND2	ASN B 566	180.463	146.066	186.595	1.00 52.74	N
ATOM	3668	N	VAL B 567	177.610	150.629	188.465	1.00 58.06	N
ATOM	3669	CA	VAL B 567	177.416	151.683	189.454	1.00 58.06	C
ATOM	3670	C	VAL B 567	178.154	151.288	190.725	1.00 58.06	C
ATOM	3671	O	VAL B 567	177.848	150.262	191.343	1.00 58.06	O
ATOM	3672	CB	VAL B 567	175.926	151.917	189.724	1.00 58.06	C
ATOM	3673	CG1	VAL B 567	175.727	153.206	190.491	1.00 58.06	C
ATOM	3674	CG2	VAL B 567	175.156	151.948	188.426	1.00 58.06	C
ATOM	3675	N	LYS B 568	179.137	152.097	191.119	1.00 64.75	N
ATOM	3676	CA	LYS B 568	179.971	151.749	192.261	1.00 64.75	C
ATOM	3677	C	LYS B 568	179.253	151.912	193.591	1.00 64.75	C
ATOM	3678	O	LYS B 568	179.667	151.301	194.582	1.00 64.75	O
ATOM	3679	CB	LYS B 568	181.242	152.598	192.266	1.00 64.75	C
ATOM	3680	CG	LYS B 568	182.289	152.152	191.264	1.00 64.75	C
ATOM	3681	CD	LYS B 568	183.628	152.810	191.544	1.00 64.75	C
ATOM	3682	CE	LYS B 568	184.665	152.402	190.515	1.00 64.75	C
ATOM	3683	NZ	LYS B 568	184.316	152.903	189.158	1.00 64.75	N
ATOM	3684	N	GLU B 569	178.189	152.710	193.637	1.00 70.01	N
ATOM	3685	CA	GLU B 569	177.508	152.974	194.899	1.00 70.01	C
ATOM	3686	C	GLU B 569	176.540	151.851	195.256	1.00 70.01	C
ATOM	3687	O	GLU B 569	176.697	151.183	196.284	1.00 70.01	O
ATOM	3688	CB	GLU B 569	176.774	154.313	194.817	1.00 70.01	C
ATOM	3689	CG	GLU B 569	177.678	155.490	194.493	1.00 70.01	C
ATOM	3690	CD	GLU B 569	177.015	156.499	193.576	1.00 70.01	C
ATOM	3691	OE1	GLU B 569	175.801	156.367	193.319	1.00 70.01	O
ATOM	3692	OE2	GLU B 569	177.708	157.427	193.112	1.00 70.01	O
ATOM	3693	N	SER B 570	175.539	151.620	194.407	1.00 66.73	N
ATOM	3694	CA	SER B 570	174.469	150.679	194.704	1.00 66.73	C
ATOM	3695	C	SER B 570	174.666	149.398	193.909	1.00 66.73	C
ATOM	3696	O	SER B 570	174.283	149.341	192.733	1.00 66.73	O
ATOM	3697	CB	SER B 570	173.110	151.304	194.385	1.00 66.73	C
ATOM	3698	OG	SER B 570	173.062	151.748	193.041	1.00 66.73	O

ATOM	3699	N	PRO B 571	175.242	148.349	194.491	1.00 66.74	N
ATOM	3700	CA	PRO B 571	175.402	147.096	193.745	1.00 66.74	C
ATOM	3701	C	PRO B 571	174.060	146.568	193.267	1.00 66.74	C
ATOM	3702	O	PRO B 571	173.057	146.628	193.981	1.00 66.74	O
ATOM	3703	CB	PRO B 571	176.049	146.153	194.767	1.00 66.74	C
ATOM	3704	CG	PRO B 571	175.764	146.765	196.094	1.00 66.74	C
ATOM	3705	CD	PRO B 571	175.746	148.241	195.867	1.00 66.74	C
ATOM	3706	N	GLY B 572	174.048	146.048	192.043	1.00 63.76	N
ATOM	3707	CA	GLY B 572	172.850	145.544	191.410	1.00 63.76	C
ATOM	3708	C	GLY B 572	172.391	146.352	190.218	1.00 63.76	C
ATOM	3709	O	GLY B 572	171.691	145.810	189.354	1.00 63.76	O
ATOM	3710	N	ARG B 573	172.764	147.625	190.143	1.00 60.93	N
ATOM	3711	CA	ARG B 573	172.426	148.484	189.021	1.00 60.93	C
ATOM	3712	C	ARG B 573	173.649	148.688	188.138	1.00 60.93	C
ATOM	3713	O	ARG B 573	174.790	148.602	188.597	1.00 60.93	O
ATOM	3714	CB	ARG B 573	171.898	149.838	189.499	1.00 60.93	C
ATOM	3715	CG	ARG B 573	170.837	149.739	190.572	1.00 60.93	C
ATOM	3716	CD	ARG B 573	169.514	149.288	189.989	1.00 60.93	C
ATOM	3717	NE	ARG B 573	168.945	150.281	189.085	1.00 60.93	N
ATOM	3718	CZ	ARG B 573	167.755	150.168	188.507	1.00 60.93	C
ATOM	3719	NH1	ARG B 573	167.004	149.101	188.735	1.00 60.93	N
ATOM	3720	NH2	ARG B 573	167.315	151.120	187.700	1.00 60.93	N
ATOM	3721	N	CYS B 574	173.398	148.962	186.861	1.00 55.37	N
ATOM	3722	CA	CYS B 574	174.454	149.104	185.873	1.00 55.37	C
ATOM	3723	C	CYS B 574	174.026	150.126	184.833	1.00 55.37	C
ATOM	3724	O	CYS B 574	172.865	150.150	184.424	1.00 55.37	O
ATOM	3725	CB	CYS B 574	174.772	147.757	185.220	1.00 55.37	C
ATOM	3726	SG	CYS B 574	175.451	146.528	186.376	1.00 55.37	S
ATOM	3727	N	TYR B 575	174.964	150.974	184.415	1.00 47.65	N
ATOM	3728	CA	TYR B 575	174.642	152.049	183.490	1.00 47.65	C
ATOM	3729	C	TYR B 575	174.072	151.486	182.192	1.00 47.65	C
ATOM	3730	O	TYR B 575	174.140	150.290	181.913	1.00 47.65	O
ATOM	3731	CB	TYR B 575	175.880	152.892	183.190	1.00 47.65	C
ATOM	3732	CG	TYR B 575	176.277	153.836	184.298	1.00 47.65	C
ATOM	3733	CD1	TYR B 575	175.423	154.835	184.724	1.00 47.65	C
ATOM	3734	CD2	TYR B 575	177.511	153.730	184.912	1.00 47.65	C
ATOM	3735	CE1	TYR B 575	175.784	155.697	185.735	1.00 47.65	C

ATOM	3736	CE2	TYR B 575	177.882	154.584	185.921	1.00 47.65	C
ATOM	3737	CZ	TYR B 575	177.016	155.566	186.329	1.00 47.65	C
ATOM	3738	OH	TYR B 575	177.387	156.421	187.338	1.00 47.65	O
ATOM	3739	N	SER B 576	173.498	152.380	181.388	1.00 43.65	N
ATOM	3740	CA	SER B 576	172.913	152.011	180.110	1.00 43.65	C
ATOM	3741	C	SER B 576	173.697	152.526	178.915	1.00 43.65	C
ATOM	3742	O	SER B 576	173.522	152.003	177.812	1.00 43.65	O
ATOM	3743	CB	SER B 576	171.473	152.531	180.017	1.00 43.65	C
ATOM	3744	OG	SER B 576	170.750	151.857	179.006	1.00 43.65	O
ATOM	3745	N	ARG B 577	174.543	153.531	179.107	1.00 38.69	N
ATOM	3746	CA	ARG B 577	175.400	154.102	178.084	1.00 38.69	C
ATOM	3747	C	ARG B 577	176.722	154.471	178.735	1.00 38.69	C
ATOM	3748	O	ARG B 577	176.747	154.839	179.914	1.00 38.69	O
ATOM	3749	CB	ARG B 577	174.772	155.350	177.447	1.00 38.69	C
ATOM	3750	CG	ARG B 577	173.481	155.105	176.697	1.00 38.69	C
ATOM	3751	CD	ARG B 577	173.768	154.497	175.346	1.00 38.69	C
ATOM	3752	NE	ARG B 577	172.781	154.863	174.341	1.00 38.69	N
ATOM	3753	CZ	ARG B 577	172.953	154.688	173.036	1.00 38.69	C
ATOM	3754	NH1	ARG B 577	174.076	154.154	172.581	1.00 38.69	N
ATOM	3755	NH2	ARG B 577	172.005	155.046	172.186	1.00 38.69	N
ATOM	3756	N	PRO B 578	177.827	154.383	178.008	1.00 35.43	N
ATOM	3757	CA	PRO B 578	179.115	154.776	178.592	1.00 35.43	C
ATOM	3758	C	PRO B 578	179.042	156.162	179.206	1.00 35.43	C
ATOM	3759	O	PRO B 578	178.164	156.949	178.845	1.00 35.43	O
ATOM	3760	CB	PRO B 578	180.071	154.736	177.396	1.00 35.43	C
ATOM	3761	CG	PRO B 578	179.431	153.816	176.432	1.00 35.43	C
ATOM	3762	CD	PRO B 578	177.957	153.980	176.601	1.00 35.43	C
ATOM	3763	N	VAL B 579	179.945	156.483	180.126	1.00 36.68	N
ATOM	3764	CA	VAL B 579	179.910	157.751	180.845	1.00 36.68	C
ATOM	3765	C	VAL B 579	181.149	158.549	180.463	1.00 36.68	C
ATOM	3766	O	VAL B 579	182.276	158.064	180.609	1.00 36.68	O
ATOM	3767	CB	VAL B 579	179.833	157.540	182.363	1.00 36.68	C
ATOM	3768	CG1	VAL B 579	180.972	156.666	182.821	1.00 36.68	C
ATOM	3769	CG2	VAL B 579	179.864	158.864	183.077	1.00 36.68	C
ATOM	3770	N	VAL B 580	180.938	159.771	179.977	1.00 39.18	N
ATOM	3771	CA	VAL B 580	182.003	160.627	179.468	1.00 39.18	C
ATOM	3772	C	VAL B 580	182.206	161.793	180.422	1.00 39.18	C

ATOM	3773	O	VAL	B	580	181.286	162.199	181.139	1.00 39.18	O
ATOM	3774	CB	VAL	B	580	181.675	161.140	178.052	1.00 39.18	C
ATOM	3775	CG1	VAL	B	580	182.853	161.881	177.477	1.00 39.18	C
ATOM	3776	CG2	VAL	B	580	181.284	159.996	177.156	1.00 39.18	C
ATOM	3777	N	ILE	B	581	183.419	162.342	180.425	1.00 42.91	N
ATOM	3778	CA	ILE	B	581	183.746	163.531	181.212	1.00 42.91	C
ATOM	3779	C	ILE	B	581	184.394	164.535	180.260	1.00 42.91	C
ATOM	3780	O	ILE	B	581	185.614	164.550	180.077	1.00 42.91	O
ATOM	3781	CB	ILE	B	581	184.651	163.220	182.408	1.00 42.91	C
ATOM	3782	CG1	ILE	B	581	186.036	162.774	181.956	1.00 42.91	C
ATOM	3783	CG2	ILE	B	581	184.036	162.135	183.259	1.00 42.91	C
ATOM	3784	CD1	ILE	B	581	187.031	162.703	183.080	1.00 42.91	C
ATOM	3785	N	PHE	B	582	183.578	165.389	179.654	1.00 46.91	N
ATOM	3786	CA	PHE	B	582	184.050	166.348	178.669	1.00 46.91	C
ATOM	3787	C	PHE	B	582	184.360	167.685	179.337	1.00 46.91	C
ATOM	3788	O	PHE	B	582	184.459	167.790	180.561	1.00 46.91	O
ATOM	3789	CB	PHE	B	582	183.035	166.493	177.541	1.00 46.91	C
ATOM	3790	CG	PHE	B	582	181.701	166.993	177.986	1.00 46.91	C
ATOM	3791	CD1	PHE	B	582	181.440	168.345	178.039	1.00 46.91	C
ATOM	3792	CD2	PHE	B	582	180.704	166.112	178.338	1.00 46.91	C
ATOM	3793	CE1	PHE	B	582	180.211	168.806	178.442	1.00 46.91	C
ATOM	3794	CE2	PHE	B	582	179.474	166.569	178.740	1.00 46.91	C
ATOM	3795	CZ	PHE	B	582	179.226	167.917	178.793	1.00 46.91	C
ATOM	3796	N	ASN	B	583	184.544	168.722	178.524	1.00 50.90	N
ATOM	3797	CA	ASN	B	583	184.934	170.037	179.008	1.00 50.90	C
ATOM	3798	C	ASN	B	583	184.625	171.078	177.939	1.00 50.90	C
ATOM	3799	O	ASN	B	583	185.123	170.968	176.816	1.00 50.90	O
ATOM	3800	CB	ASN	B	583	186.422	170.036	179.354	1.00 50.90	C
ATOM	3801	CG	ASN	B	583	186.756	170.969	180.480	1.00 50.90	C
ATOM	3802	OD1	ASN	B	583	185.949	171.812	180.857	1.00 50.90	O
ATOM	3803	ND2	ASN	B	583	187.956	170.833	181.026	1.00 50.90	N
ATOM	3804	N	PHE	B	584	183.816	172.089	178.256	1.00 52.11	N
ATOM	3805	CA	PHE	B	584	183.383	173.025	177.219	1.00 52.11	C
ATOM	3806	C	PHE	B	584	184.536	173.788	176.585	1.00 52.11	C
ATOM	3807	O	PHE	B	584	185.696	173.617	176.967	1.00 52.11	O
ATOM	3808	CB	PHE	B	584	182.362	174.026	177.761	1.00 52.11	C
ATOM	3809	CG	PHE	B	584	180.976	173.473	177.868	1.00 52.11	C

ATOM	3810	CD1	PHE	B	584	180.159	173.422	176.753	1.00	52.11	C
ATOM	3811	CD2	PHE	B	584	180.495	173.003	179.064	1.00	52.11	C
ATOM	3812	CE1	PHE	B	584	178.887	172.914	176.838	1.00	52.11	C
ATOM	3813	CE2	PHE	B	584	179.215	172.497	179.150	1.00	52.11	C
ATOM	3814	CZ	PHE	B	584	178.414	172.449	178.031	1.00	52.11	C
ATOM	3815	N	ALA	B	585	184.207	174.630	175.610	1.00	55.03	N
ATOM	3816	CA	ALA	B	585	185.195	175.343	174.807	1.00	55.03	C
ATOM	3817	C	ALA	B	585	185.865	176.400	175.666	1.00	55.03	C
ATOM	3818	O	ALA	B	585	185.271	177.430	175.983	1.00	55.03	O
ATOM	3819	CB	ALA	B	585	184.534	175.971	173.587	1.00	55.03	C
ATOM	3820	N	ASN	B	586	187.113	176.153	176.046	1.00	64.53	N
ATOM	3821	CA	ASN	B	586	187.884	177.098	176.845	1.00	64.53	C
ATOM	3822	C	ASN	B	586	187.186	177.394	178.174	1.00	64.53	C
ATOM	3823	O	ASN	B	586	186.752	178.513	178.452	1.00	64.53	O
ATOM	3824	CB	ASN	B	586	188.142	178.387	176.066	1.00	64.53	C
ATOM	3825	CG	ASN	B	586	188.963	179.378	176.854	1.00	64.53	C
ATOM	3826	OD1	ASN	B	586	188.455	180.403	177.303	1.00	64.53	O
ATOM	3827	ND2	ASN	B	586	190.242	179.075	177.034	1.00	64.53	N
ATOM	3828	N	SER	B	587	187.080	176.355	178.996	1.00	65.21	N
ATOM	3829	CA	SER	B	587	186.574	176.475	180.352	1.00	65.21	C
ATOM	3830	C	SER	B	587	187.452	175.649	181.282	1.00	65.21	C
ATOM	3831	O	SER	B	587	188.322	174.890	180.847	1.00	65.21	O
ATOM	3832	CB	SER	B	587	185.113	176.024	180.446	1.00	65.21	C
ATOM	3833	OG	SER	B	587	184.254	176.957	179.820	1.00	65.21	O
ATOM	3834	N	SER	B	588	187.206	175.798	182.577	1.00	68.97	N
ATOM	3835	CA	SER	B	588	187.861	175.010	183.614	1.00	68.97	C
ATOM	3836	C	SER	B	588	186.787	174.402	184.502	1.00	68.97	C
ATOM	3837	O	SER	B	588	186.835	174.477	185.729	1.00	68.97	O
ATOM	3838	CB	SER	B	588	188.836	175.862	184.422	1.00	68.97	C
ATOM	3839	OG	SER	B	588	189.070	175.290	185.697	1.00	68.97	O
ATOM	3840	N	CYS	B	589	185.790	173.791	183.869	1.00	67.53	N
ATOM	3841	CA	CYS	B	589	184.507	173.559	184.519	1.00	67.53	C
ATOM	3842	C	CYS	B	589	184.096	172.138	184.160	1.00	67.53	C
ATOM	3843	O	CYS	B	589	183.397	171.929	183.164	1.00	67.53	O
ATOM	3844	CB	CYS	B	589	183.504	174.598	184.012	1.00	67.53	C
ATOM	3845	SG	CYS	B	589	182.050	175.042	184.992	1.00	67.53	S
ATOM	3846	N	VAL	B	590	184.518	171.165	184.972	1.00	58.07	N

ATOM	3847	CA	VAL B 590	184.389	169.764	184.585	1.00 58.07	C
ATOM	3848	C	VAL B 590	182.936	169.321	184.671	1.00 58.07	C
ATOM	3849	O	VAL B 590	182.159	169.807	185.503	1.00 58.07	O
ATOM	3850	CB	VAL B 590	185.285	168.872	185.458	1.00 58.07	C
ATOM	3851	CG1	VAL B 590	185.125	167.426	185.051	1.00 58.07	C
ATOM	3852	CG2	VAL B 590	186.725	169.299	185.333	1.00 58.07	C
ATOM	3853	N	GLN B 591	182.568	168.372	183.814	1.00 53.36	N
ATOM	3854	CA	GLN B 591	181.191	167.914	183.724	1.00 53.36	C
ATOM	3855	C	GLN B 591	181.160	166.442	183.341	1.00 53.36	C
ATOM	3856	O	GLN B 591	182.183	165.841	183.010	1.00 53.36	O
ATOM	3857	CB	GLN B 591	180.399	168.752	182.720	1.00 53.36	C
ATOM	3858	CG	GLN B 591	180.253	170.199	183.127	1.00 53.36	C
ATOM	3859	CD	GLN B 591	179.382	170.967	182.173	1.00 53.36	C
ATOM	3860	OE1	GLN B 591	178.918	170.423	181.177	1.00 53.36	O
ATOM	3861	NE2	GLN B 591	179.147	172.235	182.471	1.00 53.36	N
ATOM	3862	N	TYR B 592	179.961	165.866	183.387	1.00 47.90	N
ATOM	3863	CA	TYR B 592	179.743	164.453	183.114	1.00 47.90	C
ATOM	3864	C	TYR B 592	178.583	164.290	182.145	1.00 47.90	C
ATOM	3865	O	TYR B 592	177.602	165.033	182.211	1.00 47.90	O
ATOM	3866	CB	TYR B 592	179.449	163.679	184.402	1.00 47.90	C
ATOM	3867	CG	TYR B 592	180.603	163.646	185.373	1.00 47.90	C
ATOM	3868	CD1	TYR B 592	180.855	164.717	186.216	1.00 47.90	C
ATOM	3869	CD2	TYR B 592	181.443	162.547	185.447	1.00 47.90	C
ATOM	3870	CE1	TYR B 592	181.910	164.693	187.104	1.00 47.90	C
ATOM	3871	CE2	TYR B 592	182.499	162.515	186.331	1.00 47.90	C
ATOM	3872	CZ	TYR B 592	182.729	163.591	187.157	1.00 47.90	C
ATOM	3873	OH	TYR B 592	183.781	163.564	188.041	1.00 47.90	O
ATOM	3874	N	GLY B 593	178.698	163.317	181.247	1.00 40.27	N
ATOM	3875	CA	GLY B 593	177.645	163.044	180.289	1.00 40.27	C
ATOM	3876	C	GLY B 593	177.578	161.576	179.933	1.00 40.27	C
ATOM	3877	O	GLY B 593	178.187	160.751	180.617	1.00 40.27	O
ATOM	3878	N	GLN B 594	176.854	161.229	178.873	1.00 39.10	N
ATOM	3879	CA	GLN B 594	176.741	159.840	178.448	1.00 39.10	C
ATOM	3880	C	GLN B 594	176.779	159.769	176.931	1.00 39.10	C
ATOM	3881	O	GLN B 594	176.062	160.508	176.255	1.00 39.10	O
ATOM	3882	CB	GLN B 594	175.453	159.204	178.976	1.00 39.10	C
ATOM	3883	CG	GLN B 594	175.540	158.778	180.423	1.00 39.10	C

ATOM	3884	CD	GLN	B	594	174.339	157.986	180.861	1.00	39.10	C
ATOM	3885	OE1	GLN	B	594	173.206	158.359	180.584	1.00	39.10	O
ATOM	3886	NE2	GLN	B	594	174.579	156.880	181.546	1.00	39.10	N
ATOM	3887	N	LEU	B	595	177.600	158.866	176.405	1.00	39.06	N
ATOM	3888	CA	LEU	B	595	177.846	158.802	174.970	1.00	39.06	C
ATOM	3889	C	LEU	B	595	176.575	158.465	174.206	1.00	39.06	C
ATOM	3890	O	LEU	B	595	175.966	157.416	174.426	1.00	39.06	O
ATOM	3891	CB	LEU	B	595	178.923	157.762	174.676	1.00	39.06	C
ATOM	3892	CG	LEU	B	595	179.584	157.852	173.306	1.00	39.06	C
ATOM	3893	CD1	LEU	B	595	180.645	158.929	173.311	1.00	39.06	C
ATOM	3894	CD2	LEU	B	595	180.177	156.516	172.929	1.00	39.06	C
ATOM	3895	N	GLY	B	596	176.190	159.349	173.291	1.00	44.76	N
ATOM	3896	CA	GLY	B	596	175.044	159.108	172.439	1.00	44.76	C
ATOM	3897	C	GLY	B	596	175.392	158.252	171.242	1.00	44.76	C
ATOM	3898	O	GLY	B	596	176.153	157.290	171.366	1.00	44.76	O
ATOM	3899	N	GLU	B	597	174.848	158.589	170.078	1.00	53.40	N
ATOM	3900	CA	GLU	B	597	175.117	157.869	168.841	1.00	53.40	C
ATOM	3901	C	GLU	B	597	175.807	158.792	167.849	1.00	53.40	C
ATOM	3902	O	GLU	B	597	175.336	159.904	167.599	1.00	53.40	O
ATOM	3903	CB	GLU	B	597	173.827	157.319	168.234	1.00	53.40	C
ATOM	3904	CG	GLU	B	597	174.015	156.705	166.862	1.00	53.40	C
ATOM	3905	CD	GLU	B	597	172.802	155.929	166.398	1.00	53.40	C
ATOM	3906	OE1	GLU	B	597	171.841	155.795	167.184	1.00	53.40	O
ATOM	3907	OE2	GLU	B	597	172.811	155.447	165.247	1.00	53.40	O
ATOM	3908	N	ASP	B	598	176.912	158.320	167.273	1.00	53.30	N
ATOM	3909	CA	ASP	B	598	177.696	159.100	166.316	1.00	53.30	C
ATOM	3910	C	ASP	B	598	178.389	160.281	166.994	1.00	53.30	C
ATOM	3911	O	ASP	B	598	178.378	161.404	166.494	1.00	53.30	O
ATOM	3912	CB	ASP	B	598	176.827	159.573	165.150	1.00	53.30	C
ATOM	3913	CG	ASP	B	598	176.854	158.616	163.979	1.00	53.30	C
ATOM	3914	OD1	ASP	B	598	177.917	158.011	163.731	1.00	53.30	O
ATOM	3915	OD2	ASP	B	598	175.813	158.469	163.305	1.00	53.30	O
ATOM	3916	N	ASN	B	599	178.997	160.015	168.147	1.00	48.24	N
ATOM	3917	CA	ASN	B	599	179.881	160.953	168.825	1.00	48.24	C
ATOM	3918	C	ASN	B	599	179.159	162.151	169.425	1.00	48.24	C
ATOM	3919	O	ASN	B	599	179.809	163.115	169.831	1.00	48.24	O
ATOM	3920	CB	ASN	B	599	180.982	161.450	167.886	1.00	48.24	C

ATOM	3921	CG	ASN	B	599	182.272	160.692	168.055	1.00 48.24	C
ATOM	3922	OD1	ASN	B	599	182.601	160.244	169.150	1.00 48.24	O
ATOM	3923	ND2	ASN	B	599	183.021	160.554	166.972	1.00 48.24	N
ATOM	3924	N	GLU	B	600	177.833	162.136	169.496	1.00 48.19	N
ATOM	3925	CA	GLU	B	600	177.112	163.222	170.143	1.00 48.19	C
ATOM	3926	C	GLU	B	600	176.954	162.903	171.620	1.00 48.19	C
ATOM	3927	O	GLU	B	600	176.597	161.780	171.984	1.00 48.19	O
ATOM	3928	CB	GLU	B	600	175.744	163.448	169.505	1.00 48.19	C
ATOM	3929	CG	GLU	B	600	174.660	162.541	170.024	1.00 48.19	C
ATOM	3930	CD	GLU	B	600	173.281	163.111	169.787	1.00 48.19	C
ATOM	3931	OE1	GLU	B	600	173.193	164.264	169.322	1.00 48.19	O
ATOM	3932	OE2	GLU	B	600	172.287	162.408	170.067	1.00 48.19	O
ATOM	3933	N	ILE	B	601	177.219	163.890	172.464	1.00 43.13	N
ATOM	3934	CA	ILE	B	601	177.234	163.709	173.908	1.00 43.13	C
ATOM	3935	C	ILE	B	601	175.877	164.100	174.469	1.00 43.13	C
ATOM	3936	O	ILE	B	601	175.359	165.182	174.170	1.00 43.13	O
ATOM	3937	CB	ILE	B	601	178.356	164.535	174.554	1.00 43.13	C
ATOM	3938	CG1	ILE	B	601	179.693	163.822	174.377	1.00 43.13	C
ATOM	3939	CG2	ILE	B	601	178.064	164.764	176.012	1.00 43.13	C
ATOM	3940	CD1	ILE	B	601	180.870	164.626	174.832	1.00 43.13	C
ATOM	3941	N	LEU	B	602	175.296	163.215	175.271	1.00 42.28	N
ATOM	3942	CA	LEU	B	602	174.055	163.501	175.971	1.00 42.28	C
ATOM	3943	C	LEU	B	602	174.369	164.074	177.343	1.00 42.28	C
ATOM	3944	O	LEU	B	602	175.244	163.571	178.051	1.00 42.28	O
ATOM	3945	CB	LEU	B	602	173.210	162.236	176.119	1.00 42.28	C
ATOM	3946	CG	LEU	B	602	172.865	161.453	174.855	1.00 42.28	C
ATOM	3947	CD1	LEU	B	602	172.374	160.070	175.212	1.00 42.28	C
ATOM	3948	CD2	LEU	B	602	171.821	162.187	174.051	1.00 42.28	C
ATOM	3949	N	LEU	B	603	173.659	165.132	177.713	1.00 47.57	N
ATOM	3950	CA	LEU	B	603	173.851	165.718	179.028	1.00 47.57	C
ATOM	3951	C	LEU	B	603	173.294	164.795	180.108	1.00 47.57	C
ATOM	3952	O	LEU	B	603	172.459	163.922	179.853	1.00 47.57	O
ATOM	3953	CB	LEU	B	603	173.182	167.089	179.107	1.00 47.57	C
ATOM	3954	CG	LEU	B	603	173.917	168.250	178.441	1.00 47.57	C
ATOM	3955	CD1	LEU	B	603	173.005	169.452	178.316	1.00 47.57	C
ATOM	3956	CD2	LEU	B	603	175.164	168.613	179.222	1.00 47.57	C
ATOM	3957	N	GLY	B	604	173.771	164.994	181.331	1.00 48.70	N

ATOM	3958	CA	GLY B 604	173.310	164.223	182.464	1.00 48.70	C
ATOM	3959	C	GLY B 604	174.065	162.920	182.644	1.00 48.70	C
ATOM	3960	O	GLY B 604	174.874	162.503	181.815	1.00 48.70	O
ATOM	3961	N	ASN B 605	173.787	162.268	183.773	1.00 50.73	N
ATOM	3962	CA	ASN B 605	174.496	161.060	184.175	1.00 50.73	C
ATOM	3963	C	ASN B 605	173.557	160.051	184.829	1.00 50.73	C
ATOM	3964	O	ASN B 605	173.965	159.318	185.735	1.00 50.73	O
ATOM	3965	CB	ASN B 605	175.638	161.412	185.124	1.00 50.73	C
ATOM	3966	CG	ASN B 605	176.549	160.251	185.393	1.00 50.73	C
ATOM	3967	OD1	ASN B 605	176.524	159.258	184.675	1.00 50.73	O
ATOM	3968	ND2	ASN B 605	177.363	160.365	186.433	1.00 50.73	N
ATOM	3969	N	HIS B 606	172.299	159.994	184.387	1.00 51.59	N
ATOM	3970	CA	HIS B 606	171.223	159.436	185.198	1.00 51.59	C
ATOM	3971	C	HIS B 606	170.415	158.370	184.467	1.00 51.59	C
ATOM	3972	O	HIS B 606	169.216	158.231	184.712	1.00 51.59	O
ATOM	3973	CB	HIS B 606	170.287	160.550	185.654	1.00 51.59	C
ATOM	3974	CG	HIS B 606	169.568	161.215	184.524	1.00 51.59	C
ATOM	3975	ND1	HIS B 606	170.081	162.306	183.858	1.00 51.59	N
ATOM	3976	CD2	HIS B 606	168.387	160.931	183.928	1.00 51.59	C
ATOM	3977	CE1	HIS B 606	169.241	162.672	182.907	1.00 51.59	C
ATOM	3978	NE2	HIS B 606	168.206	161.853	182.928	1.00 51.59	N
ATOM	3979	N	ARG B 607	171.034	157.608	183.575	1.00 45.22	N
ATOM	3980	CA	ARG B 607	170.331	156.564	182.831	1.00 45.22	C
ATOM	3981	C	ARG B 607	170.915	155.217	183.240	1.00 45.22	C
ATOM	3982	O	ARG B 607	171.970	154.815	182.743	1.00 45.22	O
ATOM	3983	CB	ARG B 607	170.441	156.794	181.329	1.00 45.22	C
ATOM	3984	CG	ARG B 607	170.019	158.183	180.892	1.00 45.22	C
ATOM	3985	CD	ARG B 607	170.539	158.522	179.510	1.00 45.22	C
ATOM	3986	NE	ARG B 607	170.028	159.801	179.036	1.00 45.22	N
ATOM	3987	CZ	ARG B 607	170.617	160.969	179.261	1.00 45.22	C
ATOM	3988	NH1	ARG B 607	171.743	161.021	179.953	1.00 45.22	N
ATOM	3989	NH2	ARG B 607	170.081	162.085	178.795	1.00 45.22	N
ATOM	3990	N	THR B 608	170.231	154.522	184.139	1.00 51.85	N
ATOM	3991	CA	THR B 608	170.698	153.260	184.696	1.00 51.85	C
ATOM	3992	C	THR B 608	169.758	152.128	184.298	1.00 51.85	C
ATOM	3993	O	THR B 608	168.765	152.329	183.600	1.00 51.85	O
ATOM	3994	CB	THR B 608	170.825	153.349	186.218	1.00 51.85	C

ATOM	3995	OG1	THR	B	608	169.545 153.649 186.787	1.00 51.85	O
ATOM	3996	CG2	THR	B	608	171.812 154.429 186.611	1.00 51.85	C
ATOM	3997	N	GLU	B	609	170.092 150.925 184.753	1.00 56.83	N
ATOM	3998	CA	GLU	B	609	169.300 149.738 184.463	1.00 56.83	C
ATOM	3999	C	GLU	B	609	169.755 148.618 185.389	1.00 56.83	C
ATOM	4000	O	GLU	B	609	170.853 148.657 185.948	1.00 56.83	O
ATOM	4001	CB	GLU	B	609	169.425 149.335 182.994	1.00 56.83	C
ATOM	4002	CG	GLU	B	609	170.560 148.373 182.715	1.00 56.83	C
ATOM	4003	CD	GLU	B	609	170.628 147.962 181.261	1.00 56.83	C
ATOM	4004	OE1	GLU	B	609	169.952 148.603 180.432	1.00 56.83	O
ATOM	4005	OE2	GLU	B	609	171.356 146.998 180.947	1.00 56.83	O
ATOM	4006	N	GLU	B	610	168.899 147.608 185.535	1.00 59.69	N
ATOM	4007	CA	GLU	B	610	169.107 146.539 186.514	1.00 59.69	C
ATOM	4008	C	GLU	B	610	169.826 145.363 185.855	1.00 59.69	C
ATOM	4009	O	GLU	B	610	169.255 144.308 185.586	1.00 59.69	O
ATOM	4010	CB	GLU	B	610	167.770 146.118 187.115	1.00 59.69	C
ATOM	4011	CG	GLU	B	610	167.821 144.865 187.960	1.00 59.69	C
ATOM	4012	CD	GLU	B	610	166.490 144.145 188.000	1.00 59.69	C
ATOM	4013	OE1	GLU	B	610	165.908 143.909 186.922	1.00 59.69	O
ATOM	4014	OE2	GLU	B	610	166.022 143.815 189.110	1.00 59.69	O
ATOM	4015	N	CYS	B	611	171.120 145.565 185.625	1.00 59.25	N
ATOM	4016	CA	CYS	B	611	171.878 144.719 184.711	1.00 59.25	C
ATOM	4017	C	CYS	B	611	171.649 143.236 184.965	1.00 59.25	C
ATOM	4018	O	CYS	B	611	171.569 142.784 186.108	1.00 59.25	O
ATOM	4019	CB	CYS	B	611	173.367 145.047 184.803	1.00 59.25	C
ATOM	4020	SG	CYS	B	611	174.075 145.031 186.450	1.00 59.25	S
ATOM	4021	N	GLN	B	612	171.556 142.485 183.867	1.00 51.88	N
ATOM	4022	CA	GLN	B	612	171.296 141.050 183.881	1.00 51.88	C
ATOM	4023	C	GLN	B	612	172.281 140.375 182.940	1.00 51.88	C
ATOM	4024	O	GLN	B	612	172.345 140.725 181.759	1.00 51.88	O
ATOM	4025	CB	GLN	B	612	169.860 140.752 183.451	1.00 51.88	C
ATOM	4026	CG	GLN	B	612	169.551 141.207 182.034	1.00 51.88	C
ATOM	4027	CD	GLN	B	612	168.068 141.319 181.767	1.00 51.88	C
ATOM	4028	OE1	GLN	B	612	167.264 141.380 182.695	1.00 51.88	O
ATOM	4029	NE2	GLN	B	612	167.696 141.355 180.494	1.00 51.88	N
ATOM	4030	N	LEU	B	613	173.038 139.411 183.458	1.00 45.62	N
ATOM	4031	CA	LEU	B	613	174.072 138.691 182.732	1.00 45.62	C

ATOM	4032	C	LEU B 613	173.512	137.416	182.108	1.00 45.62	C
ATOM	4033	O	LEU B 613	172.526	136.860	182.600	1.00 45.62	O
ATOM	4034	CB	LEU B 613	175.218	138.333	183.670	1.00 45.62	C
ATOM	4035	CG	LEU B 613	176.183	139.461	184.021	1.00 45.62	C
ATOM	4036	CD1	LEU B 613	175.506	140.469	184.909	1.00 45.62	C
ATOM	4037	CD2	LEU B 613	177.403	138.903	184.710	1.00 45.62	C
ATOM	4038	N	PRO B 614	174.114	136.922	181.013	1.00 45.02	N
ATOM	4039	CA	PRO B 614	175.221	137.516	180.256	1.00 45.02	C
ATOM	4040	C	PRO B 614	174.733	138.556	179.255	1.00 45.02	C
ATOM	4041	O	PRO B 614	173.602	138.445	178.788	1.00 45.02	O
ATOM	4042	CB	PRO B 614	175.838	136.313	179.529	1.00 45.02	C
ATOM	4043	CG	PRO B 614	175.152	135.096	180.095	1.00 45.02	C
ATOM	4044	CD	PRO B 614	173.818	135.566	180.533	1.00 45.02	C
ATOM	4045	N	SER B 615	175.563	139.541	178.920	1.00 45.88	N
ATOM	4046	CA	SER B 615	175.144	140.644	178.066	1.00 45.88	C
ATOM	4047	C	SER B 615	176.151	140.853	176.943	1.00 45.88	C
ATOM	4048	O	SER B 615	177.186	140.187	176.866	1.00 45.88	O
ATOM	4049	CB	SER B 615	174.979	141.936	178.869	1.00 45.88	C
ATOM	4050	OG	SER B 615	176.235	142.407	179.315	1.00 45.88	O
ATOM	4051	N	LEU B 616	175.826	141.799	176.066	1.00 41.00	N
ATOM	4052	CA	LEU B 616	176.666	142.221	174.955	1.00 41.00	C
ATOM	4053	C	LEU B 616	176.107	143.526	174.415	1.00 41.00	C
ATOM	4054	O	LEU B 616	174.898	143.647	174.221	1.00 41.00	O
ATOM	4055	CB	LEU B 616	176.707	141.163	173.849	1.00 41.00	C
ATOM	4056	CG	LEU B 616	177.538	141.529	172.622	1.00 41.00	C
ATOM	4057	CD1	LEU B 616	179.016	141.372	172.913	1.00 41.00	C
ATOM	4058	CD2	LEU B 616	177.136	140.680	171.437	1.00 41.00	C
ATOM	4059	N	LYS B 617	176.984	144.497	174.175	1.00 37.67	N
ATOM	4060	CA	LYS B 617	176.547	145.816	173.748	1.00 37.67	C
ATOM	4061	C	LYS B 617	177.562	146.392	172.776	1.00 37.67	C
ATOM	4062	O	LYS B 617	178.766	146.187	172.938	1.00 37.67	O
ATOM	4063	CB	LYS B 617	176.372	146.755	174.942	1.00 37.67	C
ATOM	4064	CG	LYS B 617	175.293	146.323	175.917	1.00 37.67	C
ATOM	4065	CD	LYS B 617	175.051	147.390	176.967	1.00 37.67	C
ATOM	4066	CE	LYS B 617	173.799	147.099	177.766	1.00 37.67	C
ATOM	4067	NZ	LYS B 617	172.590	147.095	176.907	1.00 37.67	N
ATOM	4068	N	ILE B 618	177.071	147.118	171.774	1.00 34.20	N

ATOM	4069	CA	ILE B 618	177.911	147.678	170.721	1.00 34.20	C
ATOM	4070	C	ILE B 618	177.392	149.070	170.391	1.00 34.20	C
ATOM	4071	O	ILE B 618	176.308	149.212	169.816	1.00 34.20	O
ATOM	4072	CB	ILE B 618	177.929	146.795	169.471	1.00 34.20	C
ATOM	4073	CG1	ILE B 618	178.602	145.462	169.783	1.00 34.20	C
ATOM	4074	CG2	ILE B 618	178.650	147.494	168.348	1.00 34.20	C
ATOM	4075	CD1	ILE B 618	178.470	144.446	168.690	1.00 34.20	C
ATOM	4076	N	PHE B 619	178.165	150.094	170.742	1.00 37.64	N
ATOM	4077	CA	PHE B 619	177.808	151.483	170.484	1.00 37.64	C
ATOM	4078	C	PHE B 619	178.607	151.998	169.297	1.00 37.64	C
ATOM	4079	O	PHE B 619	179.832	151.847	169.257	1.00 37.64	O
ATOM	4080	CB	PHE B 619	178.067	152.347	171.715	1.00 37.64	C
ATOM	4081	CG	PHE B 619	177.487	151.786	172.973	1.00 37.64	C
ATOM	4082	CD1	PHE B 619	176.129	151.834	173.202	1.00 37.64	C
ATOM	4083	CD2	PHE B 619	178.298	151.202	173.922	1.00 37.64	C
ATOM	4084	CE1	PHE B 619	175.593	151.315	174.349	1.00 37.64	C
ATOM	4085	CE2	PHE B 619	177.764	150.682	175.072	1.00 37.64	C
ATOM	4086	CZ	PHE B 619	176.410	150.737	175.285	1.00 37.64	C
ATOM	4087	N	ILE B 620	177.922	152.607	168.345	1.00 45.33	N
ATOM	4088	CA	ILE B 620	178.530	152.995	167.078	1.00 45.33	C
ATOM	4089	C	ILE B 620	179.055	154.419	167.165	1.00 45.33	C
ATOM	4090	O	ILE B 620	178.393	155.316	167.697	1.00 45.33	O
ATOM	4091	CB	ILE B 620	177.527	152.840	165.923	1.00 45.33	C
ATOM	4092	CG1	ILE B 620	177.358	151.364	165.571	1.00 45.33	C
ATOM	4093	CG2	ILE B 620	177.993	153.619	164.717	1.00 45.33	C
ATOM	4094	CD1	ILE B 620	176.412	151.119	164.430	1.00 45.33	C
ATOM	4095	N	ALA B 621	180.257	154.619	166.637	1.00 49.64	N
ATOM	4096	CA	ALA B 621	180.938	155.907	166.563	1.00 49.64	C
ATOM	4097	C	ALA B 621	181.510	156.097	165.169	1.00 49.64	C
ATOM	4098	O	ALA B 621	182.685	156.420	164.987	1.00 49.64	O
ATOM	4099	CB	ALA B 621	182.032	156.013	167.618	1.00 49.64	C
ATOM	4100	N	GLY B 622	180.659	155.905	164.163	1.00 57.91	N
ATOM	4101	CA	GLY B 622	181.071	155.659	162.794	1.00 57.91	C
ATOM	4102	C	GLY B 622	182.310	156.382	162.318	1.00 57.91	C
ATOM	4103	O	GLY B 622	182.474	157.584	162.547	1.00 57.91	O
ATOM	4104	N	ASN B 623	183.196	155.640	161.661	1.00 59.66	N
ATOM	4105	CA	ASN B 623	182.948	154.221	161.438	1.00 59.66	C

ATOM	4106	C	ASN B 623	183.896	153.342	162.252	1.00 59.66	C
ATOM	4107	O	ASN B 623	184.925	152.884	161.763	1.00 59.66	O
ATOM	4108	CB	ASN B 623	183.069	153.888	159.952	1.00 59.66	C
ATOM	4109	CG	ASN B 623	184.436	154.208	159.394	1.00 59.66	C
ATOM	4110	OD1	ASN B 623	185.111	155.122	159.863	1.00 59.66	O
ATOM	4111	ND2	ASN B 623	184.857	153.450	158.389	1.00 59.66	N
ATOM	4112	N	SER B 624	183.516	153.108	163.504	1.00 51.74	N
ATOM	4113	CA	SER B 624	184.213	152.211	164.413	1.00 51.74	C
ATOM	4114	C	SER B 624	183.380	152.112	165.680	1.00 51.74	C
ATOM	4115	O	SER B 624	182.877	153.125	166.166	1.00 51.74	O
ATOM	4116	CB	SER B 624	185.625	152.717	164.724	1.00 51.74	C
ATOM	4117	OG	SER B 624	186.292	151.840	165.610	1.00 51.74	O
ATOM	4118	N	ALA B 625	183.233	150.902	166.207	1.00 46.41	N
ATOM	4119	CA	ALA B 625	182.309	150.649	167.300	1.00 46.41	C
ATOM	4120	C	ALA B 625	183.036	150.118	168.528	1.00 46.41	C
ATOM	4121	O	ALA B 625	184.063	149.444	168.419	1.00 46.41	O
ATOM	4122	CB	ALA B 625	181.226	149.655	166.879	1.00 46.41	C
ATOM	4123	N	TYR B 626	182.490	150.434	169.700	1.00 39.35	N
ATOM	4124	CA	TYR B 626	182.940	149.855	170.955	1.00 39.35	C
ATOM	4125	C	TYR B 626	182.203	148.547	171.206	1.00 39.35	C
ATOM	4126	O	TYR B 626	181.058	148.372	170.788	1.00 39.35	O
ATOM	4127	CB	TYR B 626	182.690	150.803	172.128	1.00 39.35	C
ATOM	4128	CG	TYR B 626	183.248	152.196	171.966	1.00 39.35	C
ATOM	4129	CD1	TYR B 626	182.534	153.176	171.297	1.00 39.35	C
ATOM	4130	CD2	TYR B 626	184.476	152.539	172.505	1.00 39.35	C
ATOM	4131	CE1	TYR B 626	183.034	154.451	171.156	1.00 39.35	C
ATOM	4132	CE2	TYR B 626	184.983	153.811	172.369	1.00 39.35	C
ATOM	4133	CZ	TYR B 626	184.258	154.762	171.693	1.00 39.35	C
ATOM	4134	OH	TYR B 626	184.759	156.032	171.553	1.00 39.35	O
ATOM	4135	N	GLU B 627	182.864	147.629	171.904	1.00 43.34	N
ATOM	4136	CA	GLU B 627	182.267	146.340	172.241	1.00 43.34	C
ATOM	4137	C	GLU B 627	182.426	146.094	173.733	1.00 43.34	C
ATOM	4138	O	GLU B 627	183.536	145.841	174.207	1.00 43.34	O
ATOM	4139	CB	GLU B 627	182.898	145.207	171.440	1.00 43.34	C
ATOM	4140	CG	GLU B 627	182.344	143.846	171.806	1.00 43.34	C
ATOM	4141	CD	GLU B 627	182.960	142.723	171.005	1.00 43.34	C
ATOM	4142	OE1	GLU B 627	183.812	143.006	170.141	1.00 43.34	O

ATOM	4143	OE2	GLU B 627	182.593	141.555	171.240	1.00 43.34	O
ATOM	4144	N	TYR B 628	181.318	146.155	174.465	1.00 39.64	N
ATOM	4145	CA	TYR B 628	181.292	145.915	175.902	1.00 39.64	C
ATOM	4146	C	TYR B 628	180.700	144.539	176.160	1.00 39.64	C
ATOM	4147	O	TYR B 628	179.568	144.264	175.753	1.00 39.64	O
ATOM	4148	CB	TYR B 628	180.474	146.986	176.620	1.00 39.64	C
ATOM	4149	CG	TYR B 628	181.174	148.313	176.771	1.00 39.64	C
ATOM	4150	CD1	TYR B 628	181.944	148.586	177.884	1.00 39.64	C
ATOM	4151	CD2	TYR B 628	181.054	149.297	175.807	1.00 39.64	C
ATOM	4152	CE1	TYR B 628	182.581	149.793	178.030	1.00 39.64	C
ATOM	4153	CE2	TYR B 628	181.689	150.508	175.946	1.00 39.64	C
ATOM	4154	CZ	TYR B 628	182.451	150.749	177.060	1.00 39.64	C
ATOM	4155	OH	TYR B 628	183.087	151.956	177.208	1.00 39.64	O
ATOM	4156	N	VAL B 629	181.456	143.682	176.839	1.00 42.23	N
ATOM	4157	CA	VAL B 629	181.021	142.331	177.176	1.00 42.23	C
ATOM	4158	C	VAL B 629	180.949	142.224	178.691	1.00 42.23	C
ATOM	4159	O	VAL B 629	181.974	142.334	179.374	1.00 42.23	O
ATOM	4160	CB	VAL B 629	181.964	141.264	176.602	1.00 42.23	C
ATOM	4161	CG1	VAL B 629	181.504	139.885	177.017	1.00 42.23	C
ATOM	4162	CG2	VAL B 629	182.018	141.368	175.099	1.00 42.23	C
ATOM	4163	N	ASP B 630	179.744	142.003	179.213	1.00 46.94	N
ATOM	4164	CA	ASP B 630	179.515	141.874	180.648	1.00 46.94	C
ATOM	4165	C	ASP B 630	179.767	143.182	181.388	1.00 46.94	C
ATOM	4166	O	ASP B 630	180.221	143.177	182.532	1.00 46.94	O
ATOM	4167	CB	ASP B 630	180.370	140.759	181.250	1.00 46.94	C
ATOM	4168	CG	ASP B 630	179.637	139.440	181.317	1.00 46.94	C
ATOM	4169	OD1	ASP B 630	178.509	139.363	180.793	1.00 46.94	O
ATOM	4170	OD2	ASP B 630	180.185	138.480	181.895	1.00 46.94	O
ATOM	4171	N	TYR B 631	179.470	144.311	180.750	1.00 48.83	N
ATOM	4172	CA	TYR B 631	179.667	145.623	181.353	1.00 48.83	C
ATOM	4173	C	TYR B 631	181.148	145.870	181.649	1.00 48.83	C
ATOM	4174	O	TYR B 631	181.549	146.154	182.776	1.00 48.83	O
ATOM	4175	CB	TYR B 631	178.814	145.764	182.614	1.00 48.83	C
ATOM	4176	CG	TYR B 631	177.349	145.501	182.367	1.00 48.83	C
ATOM	4177	CD1	TYR B 631	176.554	146.445	181.739	1.00 48.83	C
ATOM	4178	CD2	TYR B 631	176.764	144.305	182.745	1.00 48.83	C
ATOM	4179	CE1	TYR B 631	175.218	146.212	181.505	1.00 48.83	C

ATOM	4180	CE2	TYR B 631	175.428	144.062	182.512	1.00 48.83	C
ATOM	4181	CZ	TYR B 631	174.661	145.019	181.890	1.00 48.83	C
ATOM	4182	OH	TYR B 631	173.327	144.789	181.654	1.00 48.83	O
ATOM	4183	N	LEU B 632	181.957	145.752	180.598	1.00 43.17	N
ATOM	4184	CA	LEU B 632	183.393	145.989	180.657	1.00 43.17	C
ATOM	4185	C	LEU B 632	183.925	146.120	179.240	1.00 43.17	C
ATOM	4186	O	LEU B 632	183.545	145.345	178.362	1.00 43.17	O
ATOM	4187	CB	LEU B 632	184.125	144.857	181.387	1.00 43.17	C
ATOM	4188	CG	LEU B 632	183.927	144.733	182.893	1.00 43.17	C
ATOM	4189	CD1	LEU B 632	184.586	143.476	183.412	1.00 43.17	C
ATOM	4190	CD2	LEU B 632	184.502	145.945	183.580	1.00 43.17	C
ATOM	4191	N	PHE B 633	184.801	147.097	179.026	1.00 43.52	N
ATOM	4192	CA	PHE B 633	185.390	147.290	177.710	1.00 43.52	C
ATOM	4193	C	PHE B 633	186.122	146.030	177.271	1.00 43.52	C
ATOM	4194	O	PHE B 633	186.825	145.395	178.059	1.00 43.52	O
ATOM	4195	CB	PHE B 633	186.351	148.478	177.733	1.00 43.52	C
ATOM	4196	CG	PHE B 633	186.762	148.953	176.372	1.00 43.52	C
ATOM	4197	CD1	PHE B 633	185.841	149.521	175.516	1.00 43.52	C
ATOM	4198	CD2	PHE B 633	188.074	148.845	175.954	1.00 43.52	C
ATOM	4199	CE1	PHE B 633	186.217	149.960	174.270	1.00 43.52	C
ATOM	4200	CE2	PHE B 633	188.453	149.285	174.708	1.00 43.52	C
ATOM	4201	CZ	PHE B 633	187.523	149.843	173.866	1.00 43.52	C
ATOM	4202	N	LYS B 634	185.946	145.663	176.002	1.00 47.30	N
ATOM	4203	CA	LYS B 634	186.602	144.486	175.441	1.00 47.30	C
ATOM	4204	C	LYS B 634	187.600	144.852	174.351	1.00 47.30	C
ATOM	4205	O	LYS B 634	188.779	144.506	174.464	1.00 47.30	O
ATOM	4206	CB	LYS B 634	185.552	143.511	174.904	1.00 47.30	C
ATOM	4207	CG	LYS B 634	186.113	142.172	174.491	1.00 47.30	C
ATOM	4208	CD	LYS B 634	186.786	141.478	175.655	1.00 47.30	C
ATOM	4209	CE	LYS B 634	186.578	139.979	175.581	1.00 47.30	C
ATOM	4210	NZ	LYS B 634	186.782	139.473	174.200	1.00 47.30	N
ATOM	4211	N	ARG B 635	187.169	145.542	173.298	1.00 49.57	N
ATOM	4212	CA	ARG B 635	188.073	145.952	172.231	1.00 49.57	C
ATOM	4213	C	ARG B 635	187.276	146.746	171.203	1.00 49.57	C
ATOM	4214	O	ARG B 635	186.047	146.836	171.275	1.00 49.57	O
ATOM	4215	CB	ARG B 635	188.761	144.756	171.581	1.00 49.57	C
ATOM	4216	CG	ARG B 635	187.907	144.017	170.572	1.00 49.57	C

ATOM	4217	CD	ARG B 635	188.626	142.781	170.065	1.00 49.57	C
ATOM	4218	NE	ARG B 635	188.033	142.271	168.836	1.00 49.57	N
ATOM	4219	CZ	ARG B 635	186.876	141.623	168.782	1.00 49.57	C
ATOM	4220	NH1	ARG B 635	186.187	141.404	169.892	1.00 49.57	N
ATOM	4221	NH2	ARG B 635	186.408	141.193	167.620	1.00 49.57	N
ATOM	4222	N	MET B 636	187.995	147.316	170.239	1.00 49.26	N
ATOM	4223	CA	MET B 636	187.399	148.156	169.207	1.00 49.26	C
ATOM	4224	C	MET B 636	187.085	147.312	167.979	1.00 49.26	C
ATOM	4225	O	MET B 636	187.986	146.715	167.381	1.00 49.26	O
ATOM	4226	CB	MET B 636	188.338	149.303	168.841	1.00 49.26	C
ATOM	4227	CG	MET B 636	188.170	150.542	169.695	1.00 49.26	C
ATOM	4228	SD	MET B 636	186.767	151.543	169.184	1.00 49.26	S
ATOM	4229	CE	MET B 636	187.199	153.113	169.917	1.00 49.26	C
ATOM	4230	N	ILE B 637	185.817	147.266	167.606	1.00 53.84	N
ATOM	4231	CA	ILE B 637	185.373	146.512	166.445	1.00 53.84	C
ATOM	4232	C	ILE B 637	185.409	147.417	165.221	1.00 53.84	C
ATOM	4233	O	ILE B 637	185.498	148.641	165.323	1.00 53.84	O
ATOM	4234	CB	ILE B 637	183.964	145.931	166.664	1.00 53.84	C
ATOM	4235	CG1	ILE B 637	183.801	144.623	165.901	1.00 53.84	C
ATOM	4236	CG2	ILE B 637	182.911	146.920	166.215	1.00 53.84	C
ATOM	4237	CD1	ILE B 637	182.519	143.900	166.222	1.00 53.84	C
ATOM	4238	N	ASP B 638	185.350	146.804	164.043	1.00 62.97	N
ATOM	4239	CA	ASP B 638	185.278	147.522	162.779	1.00 62.97	C
ATOM	4240	C	ASP B 638	183.966	147.193	162.082	1.00 62.97	C
ATOM	4241	O	ASP B 638	183.514	146.045	162.102	1.00 62.97	O
ATOM	4242	CB	ASP B 638	186.457	147.165	161.873	1.00 62.97	C
ATOM	4243	CG	ASP B 638	186.662	145.669	161.751	1.00 62.97	C
ATOM	4244	OD1	ASP B 638	185.703	144.960	161.387	1.00 62.97	O
ATOM	4245	OD2	ASP B 638	187.787	145.199	162.023	1.00 62.97	O
ATOM	4246	N	LEU B 639	183.357	148.199	161.456	1.00 62.54	N
ATOM	4247	CA	LEU B 639	182.012	148.055	160.904	1.00 62.54	C
ATOM	4248	C	LEU B 639	182.034	147.264	159.595	1.00 62.54	C
ATOM	4249	O	LEU B 639	181.624	147.731	158.534	1.00 62.54	O
ATOM	4250	CB	LEU B 639	181.373	149.423	160.705	1.00 62.54	C
ATOM	4251	CG	LEU B 639	180.844	150.097	161.965	1.00 62.54	C
ATOM	4252	CD1	LEU B 639	180.167	151.407	161.614	1.00 62.54	C
ATOM	4253	CD2	LEU B 639	179.890	149.174	162.695	1.00 62.54	C

ATOM	4254	N	SER B 640	182.530	146.031	159.693	1.00 67.22	N
ATOM	4255	CA	SER B 640	182.469	145.100	158.577	1.00 67.22	C
ATOM	4256	C	SER B 640	182.119	143.684	159.003	1.00 67.22	C
ATOM	4257	O	SER B 640	182.080	142.796	158.147	1.00 67.22	O
ATOM	4258	CB	SER B 640	183.797	145.090	157.804	1.00 67.22	C
ATOM	4259	OG	SER B 640	184.031	146.342	157.183	1.00 67.22	O
ATOM	4260	N	SER B 641	181.868	143.442	160.284	1.00 64.94	N
ATOM	4261	CA	SER B 641	181.333	142.172	160.747	1.00 64.94	C
ATOM	4262	C	SER B 641	179.857	142.272	161.097	1.00 64.94	C
ATOM	4263	O	SER B 641	179.323	141.384	161.768	1.00 64.94	O
ATOM	4264	CB	SER B 641	182.130	141.669	161.952	1.00 64.94	C
ATOM	4265	OG	SER B 641	181.711	140.368	162.330	1.00 64.94	O
ATOM	4266	N	ILE B 642	179.191	143.337	160.656	1.00 54.96	N
ATOM	4267	CA	ILE B 642	177.780	143.576	160.928	1.00 54.96	C
ATOM	4268	C	ILE B 642	177.115	143.860	159.590	1.00 54.96	C
ATOM	4269	O	ILE B 642	177.349	144.914	158.988	1.00 54.96	O
ATOM	4270	CB	ILE B 642	177.571	144.741	161.902	1.00 54.96	C
ATOM	4271	CG1	ILE B 642	178.374	144.510	163.179	1.00 54.96	C
ATOM	4272	CG2	ILE B 642	176.106	144.901	162.225	1.00 54.96	C
ATOM	4273	CD1	ILE B 642	178.438	145.716	164.070	1.00 54.96	C
ATOM	4274	N	SER B 643	176.289	142.928	159.125	1.00 54.47	N
ATOM	4275	CA	SER B 643	175.723	143.018	157.787	1.00 54.47	C
ATOM	4276	C	SER B 643	174.549	143.986	157.766	1.00 54.47	C
ATOM	4277	O	SER B 643	173.626	143.872	158.575	1.00 54.47	O
ATOM	4278	CB	SER B 643	175.277	141.639	157.309	1.00 54.47	C
ATOM	4279	OG	SER B 643	174.105	141.228	157.983	1.00 54.47	O
ATOM	4280	N	THR B 644	174.584	144.931	156.832	1.00 58.22	N
ATOM	4281	CA	THR B 644	173.540	145.936	156.719	1.00 58.22	C
ATOM	4282	C	THR B 644	172.220	145.290	156.307	1.00 58.22	C
ATOM	4283	O	THR B 644	172.134	144.089	156.046	1.00 58.22	O
ATOM	4284	CB	THR B 644	173.948	147.009	155.718	1.00 58.22	C
ATOM	4285	OG1	THR B 644	174.530	146.385	154.570	1.00 58.22	O
ATOM	4286	CG2	THR B 644	174.964	147.941	156.337	1.00 58.22	C
ATOM	4287	N	VAL B 645	171.173	146.107	156.247	1.00 63.43	N
ATOM	4288	CA	VAL B 645	169.844	145.642	155.875	1.00 63.43	C
ATOM	4289	C	VAL B 645	169.497	146.009	154.438	1.00 63.43	C
ATOM	4290	O	VAL B 645	168.906	145.202	153.721	1.00 63.43	O

ATOM	4291	CB	VAL B 645	168.783	146.188	156.852	1.00 63.43	C
ATOM	4292	CG1	VAL B 645	167.395	145.884	156.335	1.00 63.43	C
ATOM	4293	CG2	VAL B 645	168.964	145.570	158.218	1.00 63.43	C
ATOM	4294	N	ASP B 646	169.849	147.219	153.998	1.00 75.17	N
ATOM	4295	CA	ASP B 646	169.496	147.631	152.643	1.00 75.17	C
ATOM	4296	C	ASP B 646	170.048	146.657	151.611	1.00 75.17	C
ATOM	4297	O	ASP B 646	169.295	146.096	150.807	1.00 75.17	O
ATOM	4298	CB	ASP B 646	170.004	149.042	152.359	1.00 75.17	C
ATOM	4299	CG	ASP B 646	169.652	149.506	150.961	1.00 75.17	C
ATOM	4300	OD1	ASP B 646	168.762	148.890	150.339	1.00 75.17	O
ATOM	4301	OD2	ASP B 646	170.268	150.479	150.480	1.00 75.17	O
ATOM	4302	N	SER B 647	171.363	146.447	151.612	1.00 79.06	N
ATOM	4303	CA	SER B 647	171.954	145.505	150.674	1.00 79.06	C
ATOM	4304	C	SER B 647	171.838	144.084	151.204	1.00 79.06	C
ATOM	4305	O	SER B 647	172.822	143.337	151.222	1.00 79.06	O
ATOM	4306	CB	SER B 647	173.420	145.854	150.412	1.00 79.06	C
ATOM	4307	OG	SER B 647	174.138	144.718	149.959	1.00 79.06	O
ATOM	4308	N	MET B 648	170.634	143.705	151.638	1.00 79.37	N
ATOM	4309	CA	MET B 648	170.338	142.311	151.963	1.00 79.37	C
ATOM	4310	C	MET B 648	168.821	142.132	151.918	1.00 79.37	C
ATOM	4311	O	MET B 648	168.127	142.468	152.881	1.00 79.37	O
ATOM	4312	CB	MET B 648	170.904	141.911	153.315	1.00 79.37	C
ATOM	4313	CG	MET B 648	172.374	141.542	153.297	1.00 79.37	C
ATOM	4314	SD	MET B 648	172.914	140.884	154.883	1.00 79.37	S
ATOM	4315	CE	MET B 648	171.967	139.367	154.952	1.00 79.37	C
ATOM	4316	N	ILE B 649	168.326	141.610	150.801	1.00 86.72	N
ATOM	4317	CA	ILE B 649	166.970	141.089	150.727	1.00 86.72	C
ATOM	4318	C	ILE B 649	166.960	139.577	150.582	1.00 86.72	C
ATOM	4319	O	ILE B 649	165.894	138.963	150.747	1.00 86.72	O
ATOM	4320	CB	ILE B 649	166.173	141.739	149.578	1.00 86.72	C
ATOM	4321	CG1	ILE B 649	166.386	143.252	149.557	1.00 86.72	C
ATOM	4322	CG2	ILE B 649	164.696	141.417	149.709	1.00 86.72	C
ATOM	4323	CD1	ILE B 649	165.683	143.945	148.413	1.00 86.72	C
ATOM	4324	N	ALA B 650	168.099	138.962	150.293	1.00 90.45	N
ATOM	4325	CA	ALA B 650	168.171	137.531	150.044	1.00 90.45	C
ATOM	4326	C	ALA B 650	168.001	136.777	151.359	1.00 90.45	C
ATOM	4327	O	ALA B 650	167.710	137.350	152.412	1.00 90.45	O

ATOM	4328	CB	ALA B 650	169.483	137.182	149.348	1.00 90.45	C
ATOM	4329	N	LEU B 651	168.180	135.462	151.298	1.00 89.48	N
ATOM	4330	CA	LEU B 651	167.939	134.617	152.456	1.00 89.48	C
ATOM	4331	C	LEU B 651	168.873	134.975	153.606	1.00 89.48	C
ATOM	4332	O	LEU B 651	169.964	135.520	153.417	1.00 89.48	O
ATOM	4333	CB	LEU B 651	168.101	133.144	152.079	1.00 89.48	C
ATOM	4334	CG	LEU B 651	169.513	132.635	151.779	1.00 89.48	C
ATOM	4335	CD1	LEU B 651	169.515	131.119	151.680	1.00 89.48	C
ATOM	4336	CD2	LEU B 651	170.059	133.254	150.503	1.00 89.48	C
ATOM	4337	N	ASP B 652	168.415	134.653	154.813	1.00 81.96	N
ATOM	4338	CA	ASP B 652	169.127	134.858	156.070	1.00 81.96	C
ATOM	4339	C	ASP B 652	169.175	133.511	156.785	1.00 81.96	C
ATOM	4340	O	ASP B 652	168.707	133.352	157.912	1.00 81.96	O
ATOM	4341	CB	ASP B 652	168.476	135.935	156.935	1.00 81.96	C
ATOM	4342	CG	ASP B 652	166.977	135.783	157.019	1.00 81.96	C
ATOM	4343	OD1	ASP B 652	166.475	134.676	156.736	1.00 81.96	O
ATOM	4344	OD2	ASP B 652	166.300	136.772	157.367	1.00 81.96	O
ATOM	4345	N	ILE B 653	169.778	132.532	156.110	1.00 84.10	N
ATOM	4346	CA	ILE B 653	169.284	131.162	156.018	1.00 84.10	C
ATOM	4347	C	ILE B 653	168.516	130.746	157.263	1.00 84.10	C
ATOM	4348	O	ILE B 653	167.420	130.185	157.157	1.00 84.10	O
ATOM	4349	CB	ILE B 653	170.452	130.189	155.763	1.00 84.10	C
ATOM	4350	CG1	ILE B 653	171.630	130.515	156.684	1.00 84.10	C
ATOM	4351	CG2	ILE B 653	170.889	130.248	154.311	1.00 84.10	C
ATOM	4352	CD1	ILE B 653	172.600	129.368	156.868	1.00 84.10	C
ATOM	4353	N	ASP B 654	169.058	131.009	158.437	1.00 75.25	N
ATOM	4354	CA	ASP B 654	168.206	130.770	159.590	1.00 75.25	C
ATOM	4355	C	ASP B 654	168.795	131.356	160.863	1.00 75.25	C
ATOM	4356	O	ASP B 654	169.979	131.153	161.155	1.00 75.25	O
ATOM	4357	CB	ASP B 654	167.956	129.272	159.765	1.00 75.25	C
ATOM	4358	CG	ASP B 654	169.213	128.448	159.589	1.00 75.25	C
ATOM	4359	OD1	ASP B 654	170.071	128.841	158.771	1.00 75.25	O
ATOM	4360	OD2	ASP B 654	169.343	127.405	160.263	1.00 75.25	O
ATOM	4361	N	PRO B 655	168.004	132.086	161.639	1.00 63.65	N
ATOM	4362	CA	PRO B 655	168.391	132.375	163.020	1.00 63.65	C
ATOM	4363	C	PRO B 655	168.432	131.086	163.826	1.00 63.65	C
ATOM	4364	O	PRO B 655	167.969	130.032	163.390	1.00 63.65	O

ATOM	4365	CB	PRO B 655	167.292	133.322	163.503	1.00 63.65	C
ATOM	4366	CG	PRO B 655	166.741	133.924	162.240	1.00 63.65	C
ATOM	4367	CD	PRO B 655	166.798	132.825	161.236	1.00 63.65	C
ATOM	4368	N	LEU B 656	168.995	131.175	165.027	1.00 51.88	N
ATOM	4369	CA	LEU B 656	169.348	129.983	165.783	1.00 51.88	C
ATOM	4370	C	LEU B 656	168.407	129.678	166.945	1.00 51.88	C
ATOM	4371	O	LEU B 656	168.678	128.746	167.708	1.00 51.88	O
ATOM	4372	CB	LEU B 656	170.782	130.089	166.295	1.00 51.88	C
ATOM	4373	CG	LEU B 656	171.792	129.290	165.482	1.00 51.88	C
ATOM	4374	CD1	LEU B 656	173.121	129.266	166.195	1.00 51.88	C
ATOM	4375	CD2	LEU B 656	171.276	127.889	165.261	1.00 51.88	C
ATOM	4376	N	GLU B 657	167.311	130.415	167.105	1.00 50.59	N
ATOM	4377	CA	GLU B 657	166.329	130.087	168.138	1.00 50.59	C
ATOM	4378	C	GLU B 657	166.976	130.105	169.528	1.00 50.59	C
ATOM	4379	O	GLU B 657	167.091	129.090	170.213	1.00 50.59	O
ATOM	4380	CB	GLU B 657	165.689	128.728	167.840	1.00 50.59	C
ATOM	4381	CG	GLU B 657	164.699	128.242	168.873	1.00 50.59	C
ATOM	4382	CD	GLU B 657	163.784	127.165	168.327	1.00 50.59	C
ATOM	4383	OE1	GLU B 657	163.321	127.305	167.177	1.00 50.59	O
ATOM	4384	OE2	GLU B 657	163.528	126.176	169.041	1.00 50.59	O
ATOM	4385	N	ASN B 658	167.417	131.300	169.914	1.00 47.73	N
ATOM	4386	CA	ASN B 658	168.121	131.484	171.174	1.00 47.73	C
ATOM	4387	C	ASN B 658	167.183	131.293	172.363	1.00 47.73	C
ATOM	4388	O	ASN B 658	165.958	131.336	172.238	1.00 47.73	O
ATOM	4389	CB	ASN B 658	168.746	132.875	171.235	1.00 47.73	C
ATOM	4390	CG	ASN B 658	169.626	133.164	170.048	1.00 47.73	C
ATOM	4391	OD1	ASN B 658	170.352	132.295	169.576	1.00 47.73	O
ATOM	4392	ND2	ASN B 658	169.568	134.391	169.555	1.00 47.73	N
ATOM	4393	N	THR B 659	167.781	131.082	173.534	1.00 49.56	N
ATOM	4394	CA	THR B 659	167.054	130.892	174.781	1.00 49.56	C
ATOM	4395	C	THR B 659	167.619	131.823	175.845	1.00 49.56	C
ATOM	4396	O	THR B 659	168.526	132.619	175.590	1.00 49.56	O
ATOM	4397	CB	THR B 659	167.122	129.436	175.255	1.00 49.56	C
ATOM	4398	OG1	THR B 659	166.362	129.289	176.458	1.00 49.56	O
ATOM	4399	CG2	THR B 659	168.555	129.041	175.526	1.00 49.56	C
ATOM	4400	N	ASP B 660	167.072	131.715	177.055	1.00 54.68	N
ATOM	4401	CA	ASP B 660	167.443	132.591	178.161	1.00 54.68	C

ATOM	4402	C	ASP	B	660	166.994	131.983	179.485	1.00	54.68	C
ATOM	4403	O	ASP	B	660	165.808	131.698	179.665	1.00	54.68	O
ATOM	4404	CB	ASP	B	660	166.823	133.973	177.973	1.00	54.68	C
ATOM	4405	CG	ASP	B	660	167.447	135.009	178.867	1.00	54.68	C
ATOM	4406	OD1	ASP	B	660	167.885	134.642	179.974	1.00	54.68	O
ATOM	4407	OD2	ASP	B	660	167.511	136.186	178.460	1.00	54.68	O
ATOM	4408	N	PHE	B	661	167.921	131.787	180.424	1.00	54.71	N
ATOM	4409	CA	PHE	B	661	167.621	131.009	181.616	1.00	54.71	C
ATOM	4410	C	PHE	B	661	167.428	131.833	182.879	1.00	54.71	C
ATOM	4411	O	PHE	B	661	166.890	131.305	183.855	1.00	54.71	O
ATOM	4412	CB	PHE	B	661	168.725	129.973	181.866	1.00	54.71	C
ATOM	4413	CG	PHE	B	661	168.647	128.780	180.961	1.00	54.71	C
ATOM	4414	CD1	PHE	B	661	167.642	127.848	181.112	1.00	54.71	C
ATOM	4415	CD2	PHE	B	661	169.576	128.596	179.957	1.00	54.71	C
ATOM	4416	CE1	PHE	B	661	167.568	126.754	180.280	1.00	54.71	C
ATOM	4417	CE2	PHE	B	661	169.503	127.503	179.125	1.00	54.71	C
ATOM	4418	CZ	PHE	B	661	168.498	126.582	179.287	1.00	54.71	C
ATOM	4419	N	ARG	B	662	167.844	133.098	182.896	1.00	59.66	N
ATOM	4420	CA	ARG	B	662	167.648	133.916	184.089	1.00	59.66	C
ATOM	4421	C	ARG	B	662	166.232	134.475	184.148	1.00	59.66	C
ATOM	4422	O	ARG	B	662	165.505	134.259	185.125	1.00	59.66	O
ATOM	4423	CB	ARG	B	662	168.675	135.049	184.129	1.00	59.66	C
ATOM	4424	CG	ARG	B	662	170.119	134.585	184.156	1.00	59.66	C
ATOM	4425	CD	ARG	B	662	170.553	134.208	185.558	1.00	59.66	C
ATOM	4426	NE	ARG	B	662	171.888	134.709	185.870	1.00	59.66	N
ATOM	4427	CZ	ARG	B	662	173.014	134.119	185.486	1.00	59.66	C
ATOM	4428	NH1	ARG	B	662	172.967	133.004	184.772	1.00	59.66	N
ATOM	4429	NH2	ARG	B	662	174.187	134.642	185.815	1.00	59.66	N
ATOM	4430	N	VAL	B	663	165.822	135.200	183.106	1.00	59.08	N
ATOM	4431	CA	VAL	B	663	164.486	135.785	183.103	1.00	59.08	C
ATOM	4432	C	VAL	B	663	163.424	134.699	183.108	1.00	59.08	C
ATOM	4433	O	VAL	B	663	162.341	134.882	183.674	1.00	59.08	O
ATOM	4434	CB	VAL	B	663	164.313	136.732	181.901	1.00	59.08	C
ATOM	4435	CG1	VAL	B	663	165.361	137.825	181.937	1.00	59.08	C
ATOM	4436	CG2	VAL	B	663	164.376	135.958	180.606	1.00	59.08	C
ATOM	4437	N	LEU	B	664	163.701	133.556	182.480	1.00	57.60	N
ATOM	4438	CA	LEU	B	664	162.742	132.460	182.519	1.00	57.60	C

ATOM	4439	C	LEU B 664	162.516	131.983	183.947	1.00 57.60	C
ATOM	4440	O	LEU B 664	161.379	131.723	184.351	1.00 57.60	O
ATOM	4441	CB	LEU B 664	163.218	131.311	181.636	1.00 57.60	C
ATOM	4442	CG	LEU B 664	162.892	131.441	180.152	1.00 57.60	C
ATOM	4443	CD1	LEU B 664	163.146	130.130	179.440	1.00 57.60	C
ATOM	4444	CD2	LEU B 664	161.455	131.873	179.977	1.00 57.60	C
ATOM	4445	N	GLU B 665	163.589	131.867	184.731	1.00 63.50	N
ATOM	4446	CA	GLU B 665	163.432	131.491	186.131	1.00 63.50	C
ATOM	4447	C	GLU B 665	162.710	132.578	186.910	1.00 63.50	C
ATOM	4448	O	GLU B 665	161.874	132.283	187.772	1.00 63.50	O
ATOM	4449	CB	GLU B 665	164.795	131.205	186.756	1.00 63.50	C
ATOM	4450	CG	GLU B 665	165.512	130.020	186.149	1.00 63.50	C
ATOM	4451	CD	GLU B 665	166.877	129.796	186.760	1.00 63.50	C
ATOM	4452	OE1	GLU B 665	167.486	130.777	187.234	1.00 63.50	O
ATOM	4453	OE2	GLU B 665	167.341	128.638	186.769	1.00 63.50	O
ATOM	4454	N	LEU B 666	163.017	133.844	186.623	1.00 66.79	N
ATOM	4455	CA	LEU B 666	162.322	134.938	187.293	1.00 66.79	C
ATOM	4456	C	LEU B 666	160.823	134.892	187.035	1.00 66.79	C
ATOM	4457	O	LEU B 666	160.030	135.167	187.940	1.00 66.79	O
ATOM	4458	CB	LEU B 666	162.898	136.275	186.836	1.00 66.79	C
ATOM	4459	CG	LEU B 666	162.409	137.535	187.545	1.00 66.79	C
ATOM	4460	CD1	LEU B 666	163.477	138.608	187.486	1.00 66.79	C
ATOM	4461	CD2	LEU B 666	161.125	138.034	186.917	1.00 66.79	C
ATOM	4462	N	TYR B 667	160.418	134.549	185.815	1.00 64.73	N
ATOM	4463	CA	TYR B 667	159.007	134.465	185.465	1.00 64.73	C
ATOM	4464	C	TYR B 667	158.367	133.146	185.869	1.00 64.73	C
ATOM	4465	O	TYR B 667	157.136	133.048	185.866	1.00 64.73	O
ATOM	4466	CB	TYR B 667	158.819	134.655	183.958	1.00 64.73	C
ATOM	4467	CG	TYR B 667	158.988	136.072	183.472	1.00 64.73	C
ATOM	4468	CD1	TYR B 667	158.299	137.116	184.062	1.00 64.73	C
ATOM	4469	CD2	TYR B 667	159.828	136.363	182.411	1.00 64.73	C
ATOM	4470	CE1	TYR B 667	158.448	138.409	183.612	1.00 64.73	C
ATOM	4471	CE2	TYR B 667	159.985	137.652	181.957	1.00 64.73	C
ATOM	4472	CZ	TYR B 667	159.291	138.671	182.560	1.00 64.73	C
ATOM	4473	OH	TYR B 667	159.444	139.957	182.108	1.00 64.73	O
ATOM	4474	N	SER B 668	159.167	132.129	186.195	1.00 71.63	N
ATOM	4475	CA	SER B 668	158.606	130.835	186.575	1.00 71.63	C

ATOM	4476	C	SER B 668	157.714	130.967	187.801	1.00 71.63	C
ATOM	4477	O	SER B 668	156.509	130.700	187.744	1.00 71.63	O
ATOM	4478	CB	SER B 668	159.731	129.835	186.835	1.00 71.63	C
ATOM	4479	OG	SER B 668	160.152	129.892	188.186	1.00 71.63	O
ATOM	4480	N	GLN B 669	158.297	131.375	188.929	1.00 78.96	N
ATOM	4481	CA	GLN B 669	157.540	131.606	190.158	1.00 78.96	C
ATOM	4482	C	GLN B 669	156.809	132.937	190.021	1.00 78.96	C
ATOM	4483	O	GLN B 669	157.198	133.965	190.578	1.00 78.96	O
ATOM	4484	CB	GLN B 669	158.462	131.583	191.371	1.00 78.96	C
ATOM	4485	CG	GLN B 669	159.775	132.331	191.187	1.00 78.96	C
ATOM	4486	CD	GLN B 669	159.737	133.737	191.751	1.00 78.96	C
ATOM	4487	OE1	GLN B 669	158.866	134.074	192.549	1.00 78.96	O
ATOM	4488	NE2	GLN B 669	160.692	134.563	191.345	1.00 78.96	N
ATOM	4489	N	LYS B 670	155.719	132.912	189.257	1.00 81.07	N
ATOM	4490	CA	LYS B 670	154.998	134.132	188.899	1.00 81.07	C
ATOM	4491	C	LYS B 670	153.578	134.073	189.448	1.00 81.07	C
ATOM	4492	O	LYS B 670	152.632	133.689	188.758	1.00 81.07	O
ATOM	4493	CB	LYS B 670	155.003	134.347	187.388	1.00 81.07	C
ATOM	4494	CG	LYS B 670	154.553	135.738	186.971	1.00 81.07	C
ATOM	4495	CD	LYS B 670	155.144	136.819	187.868	1.00 81.07	C
ATOM	4496	CE	LYS B 670	156.621	136.579	188.154	1.00 81.07	C
ATOM	4497	NZ	LYS B 670	157.128	137.437	189.261	1.00 81.07	N
ATOM	4498	N	GLU B 671	153.442	134.462	190.710	1.00 92.28	N
ATOM	4499	CA	GLU B 671	152.184	134.948	191.254	1.00 92.28	C
ATOM	4500	C	GLU B 671	152.365	136.206	192.086	1.00 92.28	C
ATOM	4501	O	GLU B 671	151.402	136.970	192.234	1.00 92.28	O
ATOM	4502	CB	GLU B 671	151.493	133.863	192.094	1.00 92.28	C
ATOM	4503	CG	GLU B 671	150.619	132.927	191.265	1.00 92.28	C
ATOM	4504	CD	GLU B 671	150.129	131.724	192.046	1.00 92.28	C
ATOM	4505	OE1	GLU B 671	149.162	131.872	192.822	1.00 92.28	O
ATOM	4506	OE2	GLU B 671	150.701	130.627	191.874	1.00 92.28	O
ATOM	4507	N	LEU B 672	153.557	136.447	192.625	1.00 90.54	N
ATOM	4508	CA	LEU B 672	153.974	137.768	193.085	1.00 90.54	C
ATOM	4509	C	LEU B 672	154.542	138.487	191.867	1.00 90.54	C
ATOM	4510	O	LEU B 672	155.658	138.206	191.427	1.00 90.54	O
ATOM	4511	CB	LEU B 672	154.995	137.656	194.213	1.00 90.54	C
ATOM	4512	CG	LEU B 672	156.405	137.167	193.859	1.00 90.54	C

ATOM	4513	CD1	LEU	B	672	157.385	137.473	194.979	1.00 90.54	C
ATOM	4514	CD2	LEU	B	672	156.397	135.680	193.545	1.00 90.54	C
ATOM	4515	N	ARG	B	673	153.768	139.415	191.309	1.00 82.28	N
ATOM	4516	CA	ARG	B	673	154.111	139.974	190.009	1.00 82.28	C
ATOM	4517	C	ARG	B	673	155.302	140.920	190.094	1.00 82.28	C
ATOM	4518	O	ARG	B	673	155.159	142.134	189.921	1.00 82.28	O
ATOM	4519	CB	ARG	B	673	152.906	140.688	189.400	1.00 82.28	C
ATOM	4520	CG	ARG	B	673	152.374	141.836	190.228	1.00 82.28	C
ATOM	4521	CD	ARG	B	673	150.971	142.187	189.788	1.00 82.28	C
ATOM	4522	NE	ARG	B	673	150.117	141.007	189.748	1.00 82.28	N
ATOM	4523	CZ	ARG	B	673	148.889	140.996	189.247	1.00 82.28	C
ATOM	4524	NH1	ARG	B	673	148.372	142.104	188.738	1.00 82.28	N
ATOM	4525	NH2	ARG	B	673	148.179	139.877	189.251	1.00 82.28	N
ATOM	4526	N	SER	B	674	156.486	140.362	190.356	1.00 81.50	N
ATOM	4527	CA	SER	B	674	157.748	141.073	190.207	1.00 81.50	C
ATOM	4528	C	SER	B	674	158.286	140.974	188.790	1.00 81.50	C
ATOM	4529	O	SER	B	674	159.499	141.097	188.573	1.00 81.50	O
ATOM	4530	CB	SER	B	674	158.779	140.544	191.204	1.00 81.50	C
ATOM	4531	OG	SER	B	674	159.149	139.211	190.896	1.00 81.50	O
ATOM	4532	N	SER	B	675	157.403	140.744	187.820	1.00 71.50	N
ATOM	4533	CA	SER	B	675	157.830	140.360	186.481	1.00 71.50	C
ATOM	4534	C	SER	B	675	158.663	141.450	185.819	1.00 71.50	C
ATOM	4535	O	SER	B	675	159.786	141.192	185.371	1.00 71.50	O
ATOM	4536	CB	SER	B	675	156.608	140.022	185.628	1.00 71.50	C
ATOM	4537	OG	SER	B	675	155.866	138.958	186.194	1.00 71.50	O
ATOM	4538	N	ASN	B	676	158.129	142.668	185.740	1.00 69.14	N
ATOM	4539	CA	ASN	B	676	158.744	143.728	184.949	1.00 69.14	C
ATOM	4540	C	ASN	B	676	160.258	143.718	185.105	1.00 69.14	C
ATOM	4541	O	ASN	B	676	160.781	143.770	186.221	1.00 69.14	O
ATOM	4542	CB	ASN	B	676	158.187	145.091	185.364	1.00 69.14	C
ATOM	4543	CG	ASN	B	676	158.517	146.183	184.362	1.00 69.14	C
ATOM	4544	OD1	ASN	B	676	158.017	146.181	183.238	1.00 69.14	O
ATOM	4545	ND2	ASN	B	676	159.373	147.120	184.763	1.00 69.14	N
ATOM	4546	N	VAL	B	677	160.928	143.438	184.003	1.00 66.21	N
ATOM	4547	CA	VAL	B	677	162.354	143.343	184.022	1.00 66.21	C
ATOM	4548	C	VAL	B	677	163.002	144.538	183.380	1.00 66.21	C
ATOM	4549	O	VAL	B	677	163.621	145.316	184.078	1.00 66.21	O

ATOM	4550	CB	VAL B 677	162.835	142.068	183.330	1.00 66.21	C
ATOM	4551	CG1	VAL B 677	163.011	140.960	184.346	1.00 66.21	C
ATOM	4552	CG2	VAL B 677	161.850	141.649	182.263	1.00 66.21	C
ATOM	4553	N	PHE B 678	162.813	144.747	182.084	1.00 59.19	N
ATOM	4554	CA	PHE B 678	163.535	145.846	181.494	1.00 59.19	C
ATOM	4555	C	PHE B 678	162.999	146.770	180.407	1.00 59.19	C
ATOM	4556	O	PHE B 678	163.493	147.891	180.337	1.00 59.19	O
ATOM	4557	CB	PHE B 678	164.845	145.293	180.997	1.00 59.19	C
ATOM	4558	CG	PHE B 678	165.977	145.545	181.910	1.00 59.19	C
ATOM	4559	CD1	PHE B 678	166.080	146.727	182.564	1.00 59.19	C
ATOM	4560	CD2	PHE B 678	166.918	144.589	182.121	1.00 59.19	C
ATOM	4561	CE1	PHE B 678	167.123	146.968	183.416	1.00 59.19	C
ATOM	4562	CE2	PHE B 678	167.966	144.813	182.966	1.00 59.19	C
ATOM	4563	CZ	PHE B 678	168.072	146.009	183.622	1.00 59.19	C
ATOM	4564	N	ASP B 679	162.011	146.345	179.614	1.00 58.15	N
ATOM	4565	CA	ASP B 679	161.506	147.102	178.451	1.00 58.15	C
ATOM	4566	C	ASP B 679	162.715	147.469	177.651	1.00 58.15	C
ATOM	4567	O	ASP B 679	162.988	148.641	177.448	1.00 58.15	O
ATOM	4568	CB	ASP B 679	160.739	148.364	178.786	1.00 58.15	C
ATOM	4569	CG	ASP B 679	159.894	148.193	179.935	1.00 58.15	C
ATOM	4570	OD1	ASP B 679	159.483	147.054	180.157	1.00 58.15	O
ATOM	4571	OD2	ASP B 679	159.648	149.183	180.625	1.00 58.15	O
ATOM	4572	N	LEU B 680	163.412	146.450	177.154	1.00 57.21	N
ATOM	4573	CA	LEU B 680	164.686	146.618	176.450	1.00 57.21	C
ATOM	4574	C	LEU B 680	164.841	147.771	175.503	1.00 57.21	C
ATOM	4575	O	LEU B 680	165.874	148.422	175.552	1.00 57.21	O
ATOM	4576	CB	LEU B 680	165.285	145.316	175.961	1.00 57.21	C
ATOM	4577	CG	LEU B 680	166.162	144.990	177.159	1.00 57.21	C
ATOM	4578	CD1	LEU B 680	166.200	143.530	177.537	1.00 57.21	C
ATOM	4579	CD2	LEU B 680	167.534	145.608	177.095	1.00 57.21	C
ATOM	4580	N	GLU B 681	163.837	148.039	174.677	1.00 59.13	N
ATOM	4581	CA	GLU B 681	163.880	149.221	173.842	1.00 59.13	C
ATOM	4582	C	GLU B 681	162.501	149.689	173.435	1.00 59.13	C
ATOM	4583	O	GLU B 681	162.119	150.813	173.742	1.00 59.13	O
ATOM	4584	CB	GLU B 681	164.793	149.085	172.612	1.00 59.13	C
ATOM	4585	CG	GLU B 681	165.625	150.344	172.331	1.00 59.13	C
ATOM	4586	CD	GLU B 681	166.719	150.621	173.365	1.00 59.13	C

ATOM	4587	OE1	GLU B 681	167.647	149.801	173.510	1.00 59.13	O
ATOM	4588	OE2	GLU B 681	166.667	151.673	174.035	1.00 59.13	O
ATOM	4589	N	GLU B 682	161.766	148.812	172.773	1.00 56.52	N
ATOM	4590	CA	GLU B 682	160.468	149.132	172.223	1.00 56.52	C
ATOM	4591	C	GLU B 682	159.528	149.930	173.074	1.00 56.52	C
ATOM	4592	O	GLU B 682	159.344	149.619	174.218	1.00 56.52	O
ATOM	4593	CB	GLU B 682	159.774	147.861	171.778	1.00 56.52	C
ATOM	4594	CG	GLU B 682	159.883	146.714	172.747	1.00 56.52	C
ATOM	4595	CD	GLU B 682	159.402	145.418	172.133	1.00 56.52	C
ATOM	4596	OE1	GLU B 682	160.251	144.569	171.793	1.00 56.52	O
ATOM	4597	OE2	GLU B 682	158.180	145.252	171.978	1.00 56.52	O
ATOM	4598	N	ILE B 683	158.982	151.001	172.519	1.00 55.18	N
ATOM	4599	CA	ILE B 683	157.999	151.757	173.279	1.00 55.18	C
ATOM	4600	C	ILE B 683	156.690	150.983	173.273	1.00 55.18	C
ATOM	4601	O	ILE B 683	155.785	151.258	174.056	1.00 55.18	O
ATOM	4602	CB	ILE B 683	157.776	153.165	172.696	1.00 55.18	C
ATOM	4603	CG1	ILE B 683	158.827	153.483	171.635	1.00 55.18	C
ATOM	4604	CG2	ILE B 683	157.826	154.210	173.798	1.00 55.18	C
ATOM	4605	CD1	ILE B 683	159.079	154.964	171.460	1.00 55.18	C
ATOM	4606	N	MET B 684	156.598	150.010	172.373	1.00 57.49	N
ATOM	4607	CA	MET B 684	155.414	149.161	172.269	1.00 57.49	C
ATOM	4608	C	MET B 684	155.107	148.454	173.581	1.00 57.49	C
ATOM	4609	O	MET B 684	153.993	148.547	174.104	1.00 57.49	O
ATOM	4610	CB	MET B 684	155.597	148.140	171.147	1.00 57.49	C
ATOM	4611	CG	MET B 684	154.411	147.213	170.962	1.00 57.49	C
ATOM	4612	SD	MET B 684	152.913	148.097	170.501	1.00 57.49	S
ATOM	4613	CE	MET B 684	151.889	146.744	169.931	1.00 57.49	C
ATOM	4614	N	ARG B 685	156.086	147.736	174.130	1.00 57.53	N
ATOM	4615	CA	ARG B 685	155.923	147.029	175.391	1.00 57.53	C
ATOM	4616	C	ARG B 685	156.194	147.919	176.590	1.00 57.53	C
ATOM	4617	O	ARG B 685	156.510	147.412	177.670	1.00 57.53	O
ATOM	4618	CB	ARG B 685	156.831	145.801	175.437	1.00 57.53	C
ATOM	4619	CG	ARG B 685	156.276	144.651	176.266	1.00 57.53	C
ATOM	4620	CD	ARG B 685	154.979	144.092	175.679	1.00 57.53	C
ATOM	4621	NE	ARG B 685	155.095	143.767	174.259	1.00 57.53	N
ATOM	4622	CZ	ARG B 685	154.059	143.625	173.436	1.00 57.53	C
ATOM	4623	NH1	ARG B 685	152.822	143.777	173.887	1.00 57.53	N

ATOM	4624	NH2	ARG	B	685	154.259	143.331	172.160	1.00 57.53	N
ATOM	4625	N	GLU	B	686	156.087	149.234	176.419	1.00 56.76	N
ATOM	4626	CA	GLU	B	686	156.276	150.185	177.500	1.00 56.76	C
ATOM	4627	C	GLU	B	686	155.040	151.030	177.759	1.00 56.76	C
ATOM	4628	O	GLU	B	686	155.023	151.792	178.730	1.00 56.76	O
ATOM	4629	CB	GLU	B	686	157.479	151.090	177.205	1.00 56.76	C
ATOM	4630	CG	GLU	B	686	157.690	152.190	178.208	1.00 56.76	C
ATOM	4631	CD	GLU	B	686	157.055	153.480	177.766	1.00 56.76	C
ATOM	4632	OE1	GLU	B	686	157.077	153.757	176.552	1.00 56.76	O
ATOM	4633	OE2	GLU	B	686	156.515	154.206	178.622	1.00 56.76	O
ATOM	4634	N	PHE	B	687	154.005	150.923	176.927	1.00 56.69	N
ATOM	4635	CA	PHE	B	687	152.699	151.467	177.273	1.00 56.69	C
ATOM	4636	C	PHE	B	687	151.673	150.361	177.468	1.00 56.69	C
ATOM	4637	O	PHE	B	687	150.473	150.644	177.540	1.00 56.69	O
ATOM	4638	CB	PHE	B	687	152.215	152.477	176.228	1.00 56.69	C
ATOM	4639	CG	PHE	B	687	151.855	151.876	174.904	1.00 56.69	C
ATOM	4640	CD1	PHE	B	687	152.819	151.675	173.936	1.00 56.69	C
ATOM	4641	CD2	PHE	B	687	150.542	151.563	174.609	1.00 56.69	C
ATOM	4642	CE1	PHE	B	687	152.485	151.139	172.707	1.00 56.69	C
ATOM	4643	CE2	PHE	B	687	150.202	151.030	173.384	1.00 56.69	C
ATOM	4644	CZ	PHE	B	687	151.173	150.818	172.432	1.00 56.69	C
ATOM	4645	N	ASN	B	688	152.121	149.110	177.539	1.00 54.26	N
ATOM	4646	CA	ASN	B	688	151.331	148.032	178.110	1.00 54.26	C
ATOM	4647	C	ASN	B	688	151.481	147.951	179.620	1.00 54.26	C
ATOM	4648	O	ASN	B	688	150.671	147.294	180.279	1.00 54.26	O
ATOM	4649	CB	ASN	B	688	151.738	146.692	177.496	1.00 54.26	C
ATOM	4650	CG	ASN	B	688	150.836	146.275	176.359	1.00 54.26	C
ATOM	4651	OD1	ASN	B	688	149.622	146.461	176.417	1.00 54.26	O
ATOM	4652	ND2	ASN	B	688	151.423	145.705	175.316	1.00 54.26	N
ATOM	4653	N	SER	B	689	152.502	148.606	180.176	1.00 54.91	N
ATOM	4654	CA	SER	B	689	152.784	148.578	181.602	1.00 54.91	C
ATOM	4655	C	SER	B	689	152.482	149.891	182.310	1.00 54.91	C
ATOM	4656	O	SER	B	689	152.503	149.924	183.543	1.00 54.91	O
ATOM	4657	CB	SER	B	689	154.255	148.222	181.841	1.00 54.91	C
ATOM	4658	OG	SER	B	689	154.532	146.892	181.449	1.00 54.91	O
ATOM	4659	N	TYR	B	690	152.209	150.965	181.572	1.00 55.06	N
ATOM	4660	CA	TYR	B	690	152.092	152.278	182.198	1.00 55.06	C

ATOM	4661	C	TYR B 690	150.928	152.332	183.182	1.00 55.06	C
ATOM	4662	O	TYR B 690	151.057	152.892	184.280	1.00 55.06	O
ATOM	4663	CB	TYR B 690	151.940	153.351	181.124	1.00 55.06	C
ATOM	4664	CG	TYR B 690	152.124	154.754	181.639	1.00 55.06	C
ATOM	4665	CD1	TYR B 690	153.358	155.195	182.078	1.00 55.06	C
ATOM	4666	CD2	TYR B 690	151.062	155.639	181.683	1.00 55.06	C
ATOM	4667	CE1	TYR B 690	153.527	156.475	182.549	1.00 55.06	C
ATOM	4668	CE2	TYR B 690	151.222	156.919	182.151	1.00 55.06	C
ATOM	4669	CZ	TYR B 690	152.455	157.332	182.582	1.00 55.06	C
ATOM	4670	OH	TYR B 690	152.615	158.612	183.050	1.00 55.06	O
ATOM	4671	N	LYS B 691	149.784	151.760	182.809	1.00 55.14	N
ATOM	4672	CA	LYS B 691	148.612	151.787	183.676	1.00 55.14	C
ATOM	4673	C	LYS B 691	148.791	150.963	184.938	1.00 55.14	C
ATOM	4674	O	LYS B 691	147.874	150.924	185.761	1.00 55.14	O
ATOM	4675	CB	LYS B 691	147.386	151.293	182.917	1.00 55.14	C
ATOM	4676	CG	LYS B 691	146.946	152.207	181.803	1.00 55.14	C
ATOM	4677	CD	LYS B 691	146.017	151.482	180.854	1.00 55.14	C
ATOM	4678	CE	LYS B 691	146.636	150.192	180.355	1.00 55.14	C
ATOM	4679	NZ	LYS B 691	147.952	150.432	179.711	1.00 55.14	N
ATOM	4680	N	GLN B 692	149.934	150.304	185.107	1.00 59.71	N
ATOM	4681	CA	GLN B 692	150.244	149.607	186.346	1.00 59.71	C
ATOM	4682	C	GLN B 692	151.062	150.477	187.292	1.00 59.71	C
ATOM	4683	O	GLN B 692	150.816	150.480	188.502	1.00 59.71	O
ATOM	4684	CB	GLN B 692	150.991	148.311	186.039	1.00 59.71	C
ATOM	4685	CG	GLN B 692	151.184	147.419	187.237	1.00 59.71	C
ATOM	4686	CD	GLN B 692	152.471	146.630	187.163	1.00 59.71	C
ATOM	4687	OE1	GLN B 692	153.242	146.770	186.214	1.00 59.71	O
ATOM	4688	NE2	GLN B 692	152.713	145.794	188.167	1.00 59.71	N
ATOM	4689	N	ARG B 693	152.031	151.225	186.763	1.00 59.66	N
ATOM	4690	CA	ARG B 693	152.724	152.213	187.581	1.00 59.66	C
ATOM	4691	C	ARG B 693	151.779	153.326	188.006	1.00 59.66	C
ATOM	4692	O	ARG B 693	151.901	153.869	189.111	1.00 59.66	O
ATOM	4693	CB	ARG B 693	153.910	152.795	186.818	1.00 59.66	C
ATOM	4694	CG	ARG B 693	154.770	151.766	186.135	1.00 59.66	C
ATOM	4695	CD	ARG B 693	155.608	151.014	187.137	1.00 59.66	C
ATOM	4696	NE	ARG B 693	156.087	149.754	186.585	1.00 59.66	N
ATOM	4697	CZ	ARG B 693	156.666	148.800	187.303	1.00 59.66	C

ATOM	4698	NH1	ARG B 693	156.839	148.962	188.607	1.00 59.66	N
ATOM	4699	NH2	ARG B 693	157.070	147.685	186.716	1.00 59.66	N
ATOM	4700	N	VAL B 694	150.833	153.686	187.139	1.00 59.74	N
ATOM	4701	CA	VAL B 694	149.891	154.755	187.448	1.00 59.74	C
ATOM	4702	C	VAL B 694	149.152	154.440	188.742	1.00 59.74	C
ATOM	4703	O	VAL B 694	148.639	155.345	189.408	1.00 59.74	O
ATOM	4704	CB	VAL B 694	148.901	154.981	186.291	1.00 59.74	C
ATOM	4705	CG1	VAL B 694	147.888	156.041	186.663	1.00 59.74	C
ATOM	4706	CG2	VAL B 694	149.641	155.397	185.040	1.00 59.74	C
ATOM	4707	N	LYS B 695	149.095	153.161	189.114	1.00 63.20	N
ATOM	4708	CA	LYS B 695	148.451	152.746	190.354	1.00 63.20	C
ATOM	4709	C	LYS B 695	149.432	152.370	191.450	1.00 63.20	C
ATOM	4710	O	LYS B 695	149.131	152.582	192.626	1.00 63.20	O
ATOM	4711	CB	LYS B 695	147.517	151.558	190.106	1.00 63.20	C
ATOM	4712	CG	LYS B 695	146.621	151.236	191.286	1.00 63.20	C
ATOM	4713	CD	LYS B 695	147.246	150.197	192.201	1.00 63.20	C
ATOM	4714	CE	LYS B 695	147.257	148.822	191.556	1.00 63.20	C
ATOM	4715	NZ	LYS B 695	147.773	147.779	192.484	1.00 63.20	N
ATOM	4716	N	TYR B 696	150.575	151.783	191.098	1.00 67.56	N
ATOM	4717	CA	TYR B 696	151.655	151.636	192.067	1.00 67.56	C
ATOM	4718	C	TYR B 696	151.891	152.946	192.801	1.00 67.56	C
ATOM	4719	O	TYR B 696	151.945	152.986	194.034	1.00 67.56	O
ATOM	4720	CB	TYR B 696	152.939	151.190	191.367	1.00 67.56	C
ATOM	4721	CG	TYR B 696	153.111	149.699	191.255	1.00 67.56	C
ATOM	4722	CD1	TYR B 696	152.035	148.845	191.410	1.00 67.56	C
ATOM	4723	CD2	TYR B 696	154.355	149.147	190.992	1.00 67.56	C
ATOM	4724	CE1	TYR B 696	152.191	147.481	191.305	1.00 67.56	C
ATOM	4725	CE2	TYR B 696	154.522	147.788	190.886	1.00 67.56	C
ATOM	4726	CZ	TYR B 696	153.435	146.957	191.044	1.00 67.56	C
ATOM	4727	OH	TYR B 696	153.585	145.593	190.942	1.00 67.56	O
ATOM	4728	N	VAL B 697	152.029	154.040	192.048	1.00 69.28	N
ATOM	4729	CA	VAL B 697	152.315	155.340	192.642	1.00 69.28	C
ATOM	4730	C	VAL B 697	151.165	155.881	193.475	1.00 69.28	C
ATOM	4731	O	VAL B 697	151.371	156.814	194.257	1.00 69.28	O
ATOM	4732	CB	VAL B 697	152.679	156.363	191.548	1.00 69.28	C
ATOM	4733	CG1	VAL B 697	153.001	157.706	192.165	1.00 69.28	C
ATOM	4734	CG2	VAL B 697	153.850	155.861	190.734	1.00 69.28	C

ATOM	4735	N	GLU B 698	149.964	155.326	193.336	1.00 73.64	N
ATOM	4736	CA	GLU B 698	148.824	155.792	194.114	1.00 73.64	C
ATOM	4737	C	GLU B 698	148.578	154.975	195.369	1.00 73.64	C
ATOM	4738	O	GLU B 698	148.151	155.534	196.382	1.00 73.64	O
ATOM	4739	CB	GLU B 698	147.549	155.784	193.268	1.00 73.64	C
ATOM	4740	CG	GLU B 698	146.284	155.867	194.098	1.00 73.64	C
ATOM	4741	CD	GLU B 698	145.048	156.114	193.260	1.00 73.64	C
ATOM	4742	OE1	GLU B 698	145.189	156.312	192.036	1.00 73.64	O
ATOM	4743	OE2	GLU B 698	143.937	156.111	193.827	1.00 73.64	O
ATOM	4744	N	ASP B 699	148.827	153.667	195.332	1.00 75.05	N
ATOM	4745	CA	ASP B 699	148.731	152.876	196.552	1.00 75.05	C
ATOM	4746	C	ASP B 699	149.821	153.223	197.554	1.00 75.05	C
ATOM	4747	O	ASP B 699	149.722	152.817	198.715	1.00 75.05	O
ATOM	4748	CB	ASP B 699	148.787	151.385	196.228	1.00 75.05	C
ATOM	4749	CG	ASP B 699	148.370	150.521	197.399	1.00 75.05	C
ATOM	4750	OD1	ASP B 699	149.234	150.196	198.240	1.00 75.05	O
ATOM	4751	OD2	ASP B 699	147.176	150.170	197.483	1.00 75.05	O
ATOM	4752	N	LYS B 700	150.854	153.953	197.133	1.00 76.59	N
ATOM	4753	CA	LYS B 700	151.915	154.402	198.021	1.00 76.59	C
ATOM	4754	C	LYS B 700	151.742	155.844	198.464	1.00 76.59	C
ATOM	4755	O	LYS B 700	152.410	156.268	199.410	1.00 76.59	O
ATOM	4756	CB	LYS B 700	153.282	154.258	197.341	1.00 76.59	C
ATOM	4757	CG	LYS B 700	153.809	152.834	197.251	1.00 76.59	C
ATOM	4758	CD	LYS B 700	152.800	151.898	196.600	1.00 76.59	C
ATOM	4759	CE	LYS B 700	153.483	150.762	195.858	1.00 76.59	C
ATOM	4760	NZ	LYS B 700	152.510	149.748	195.361	1.00 76.59	N
ATOM	4761	N	VAL B 701	150.882	156.604	197.796	1.00 78.43	N
ATOM	4762	CA	VAL B 701	150.620	157.989	198.153	1.00 78.43	C
ATOM	4763	C	VAL B 701	149.397	158.104	199.061	1.00 78.43	C
ATOM	4764	O	VAL B 701	148.880	159.200	199.269	1.00 78.43	O
ATOM	4765	CB	VAL B 701	150.472	158.870	196.903	1.00 78.43	C
ATOM	4766	CG1	VAL B 701	149.226	158.483	196.129	1.00 78.43	C
ATOM	4767	CG2	VAL B 701	150.418	160.331	197.287	1.00 78.43	C
ATOM	4768	N	VAL B 702	148.922	156.988	199.601	1.00 80.83	N
ATOM	4769	CA	VAL B 702	147.829	157.007	200.560	1.00 80.83	C
ATOM	4770	C	VAL B 702	148.299	156.741	201.982	1.00 80.83	C
ATOM	4771	O	VAL B 702	147.640	157.201	202.927	1.00 80.83	O

ATOM	4772	CB	VAL B 702	146.727	156.003	200.169	1.00 80.83	C
ATOM	4773	CG1	VAL B 702	145.604	156.034	201.188	1.00 80.83	C
ATOM	4774	CG2	VAL B 702	146.200	156.312	198.781	1.00 80.83	C
ATOM	4775	N	ASP B 703	149.396	156.017	202.171	1.00 85.56	N
ATOM	4776	CA	ASP B 703	149.937	155.793	203.504	1.00 85.56	C
ATOM	4777	C	ASP B 703	150.667	157.039	203.996	1.00 85.56	C
ATOM	4778	O	ASP B 703	150.295	157.605	205.031	1.00 85.56	O
ATOM	4779	CB	ASP B 703	150.868	154.581	203.503	1.00 85.56	C
ATOM	4780	CG	ASP B 703	150.268	153.389	202.787	1.00 85.56	C
ATOM	4781	OD1	ASP B 703	149.033	153.364	202.612	1.00 85.56	O
ATOM	4782	OD2	ASP B 703	151.027	152.479	202.399	1.00 85.56	O
ATOM	4783	N	PRO B 704	151.702	157.501	203.287	1.00 87.45	N
ATOM	4784	CA	PRO B 704	152.441	158.683	203.751	1.00 87.45	C
ATOM	4785	C	PRO B 704	151.593	159.942	203.757	1.00 87.45	C
ATOM	4786	O	PRO B 704	151.524	160.644	204.770	1.00 87.45	O
ATOM	4787	CB	PRO B 704	153.592	158.796	202.742	1.00 87.45	C
ATOM	4788	CG	PRO B 704	153.749	157.429	202.197	1.00 87.45	C
ATOM	4789	CD	PRO B 704	152.359	156.872	202.132	1.00 87.45	C
ATOM	4790	N	LEU B 705	150.946	160.236	202.631	1.00 92.73	N
ATOM	4791	CA	LEU B 705	150.141	161.444	202.509	1.00 92.73	C
ATOM	4792	C	LEU B 705	149.121	161.489	203.637	1.00 92.73	C
ATOM	4793	O	LEU B 705	148.888	160.471	204.301	1.00 92.73	O
ATOM	4794	CB	LEU B 705	149.463	161.514	201.142	1.00 92.73	C
ATOM	4795	CG	LEU B 705	150.321	162.176	200.064	1.00 92.73	C
ATOM	4796	CD1	LEU B 705	150.534	163.638	200.402	1.00 92.73	C
ATOM	4797	CD2	LEU B 705	151.656	161.467	199.930	1.00 92.73	C
ATOM	4798	N	PRO B 706	148.489	162.635	203.874	1.00101.21	N
ATOM	4799	CA	PRO B 706	147.847	162.880	205.170	1.00101.21	C
ATOM	4800	C	PRO B 706	146.898	161.760	205.553	1.00101.21	C
ATOM	4801	O	PRO B 706	145.841	161.581	204.931	1.00101.21	O
ATOM	4802	CB	PRO B 706	147.090	164.200	204.947	1.00101.21	C
ATOM	4803	CG	PRO B 706	146.980	164.341	203.463	1.00101.21	C
ATOM	4804	CD	PRO B 706	148.222	163.719	202.915	1.00101.21	C
ATOM	4805	N	PRO B 707	147.245	160.985	206.576	1.00101.72	N
ATOM	4806	CA	PRO B 707	146.247	160.138	207.234	1.00101.72	C
ATOM	4807	C	PRO B 707	145.355	160.995	208.112	1.00101.72	C
ATOM	4808	O	PRO B 707	145.448	162.225	208.070	1.00101.72	O

ATOM	4809	CB	PRO B 707	147.093	159.153	208.053	1.00101.72	C
ATOM	4810	CG	PRO B 707	148.495	159.294	207.519	1.00101.72	C
ATOM	4811	CD	PRO B 707	148.599	160.717	207.079	1.00101.72	C
ATOM	4812	N	TYR B 708	144.487	160.376	208.903	1.00105.59	N
ATOM	4813	CA	TYR B 708	143.537	161.134	209.701	1.00105.59	C
ATOM	4814	C	TYR B 708	143.440	160.558	211.102	1.00105.59	C
ATOM	4815	O	TYR B 708	143.311	159.344	211.275	1.00105.59	O
ATOM	4816	CB	TYR B 708	142.151	161.123	209.057	1.00105.59	C
ATOM	4817	CG	TYR B 708	141.598	159.732	208.869	1.00105.59	C
ATOM	4818	CD1	TYR B 708	141.937	158.974	207.760	1.00105.59	C
ATOM	4819	CD2	TYR B 708	140.747	159.172	209.808	1.00105.59	C
ATOM	4820	CE1	TYR B 708	141.436	157.704	207.587	1.00105.59	C
ATOM	4821	CE2	TYR B 708	140.243	157.903	209.644	1.00105.59	C
ATOM	4822	CZ	TYR B 708	140.591	157.173	208.532	1.00105.59	C
ATOM	4823	OH	TYR B 708	140.091	155.904	208.359	1.00105.59	O
ATOM	4824	N	LEU B 709	143.495	161.442	212.096	1.00105.14	N
ATOM	4825	CA	LEU B 709	143.014	161.102	213.427	1.00105.14	C
ATOM	4826	C	LEU B 709	143.638	159.805	213.928	1.00105.14	C
ATOM	4827	O	LEU B 709	142.937	158.805	214.112	1.00105.14	O
ATOM	4828	CB	LEU B 709	141.490	161.005	213.392	1.00105.14	C
ATOM	4829	CG	LEU B 709	140.875	162.178	212.623	1.00105.14	C
ATOM	4830	CD1	LEU B 709	139.359	162.121	212.603	1.00105.14	C
ATOM	4831	CD2	LEU B 709	141.348	163.481	213.222	1.00105.14	C
ATOM	4832	N	LYS B 710	144.957	159.822	214.139	1.00107.58	N
ATOM	4833	CA	LYS B 710	145.750	158.626	214.410	1.00107.58	C
ATOM	4834	C	LYS B 710	144.973	157.542	215.154	1.00107.58	C
ATOM	4835	O	LYS B 710	144.901	156.392	214.707	1.00107.58	O
ATOM	4836	CB	LYS B 710	146.997	159.029	215.211	1.00107.58	C
ATOM	4837	CG	LYS B 710	147.762	160.215	214.626	1.00107.58	C
ATOM	4838	CD	LYS B 710	148.418	159.867	213.301	1.00107.58	C
ATOM	4839	CE	LYS B 710	148.364	161.030	212.326	1.00107.58	C
ATOM	4840	NZ	LYS B 710	148.618	160.572	210.933	1.00107.58	N
ATOM	4841	N	GLY B 711	144.379	157.897	216.292	1.00103.26	N
ATOM	4842	CA	GLY B 711	143.638	156.938	217.085	1.00103.26	C
ATOM	4843	C	GLY B 711	142.157	156.890	216.774	1.00103.26	C
ATOM	4844	O	GLY B 711	141.330	156.941	217.688	1.00103.26	O
ATOM	4845	N	LEU B 712	141.807	156.796	215.491	1.00 99.05	N

ATOM	4846	CA	LEU B 712	140.411	156.689	215.072	1.00 99.05	C
ATOM	4847	C	LEU B 712	140.133	155.531	214.130	1.00 99.05	C
ATOM	4848	O	LEU B 712	138.977	155.106	214.035	1.00 99.05	O
ATOM	4849	CB	LEU B 712	139.951	157.986	214.391	1.00 99.05	C
ATOM	4850	CG	LEU B 712	138.609	157.911	213.668	1.00 99.05	C
ATOM	4851	CD1	LEU B 712	137.529	157.474	214.632	1.00 99.05	C
ATOM	4852	CD2	LEU B 712	138.258	159.242	213.043	1.00 99.05	C
ATOM	4853	N	ASP B 713	141.141	155.009	213.430	1.00101.08	N
ATOM	4854	CA	ASP B 713	140.911	153.913	212.496	1.00101.08	C
ATOM	4855	C	ASP B 713	140.299	152.699	213.184	1.00101.08	C
ATOM	4856	O	ASP B 713	139.629	151.889	212.531	1.00101.08	O
ATOM	4857	CB	ASP B 713	142.223	153.541	211.806	1.00101.08	C
ATOM	4858	CG	ASP B 713	142.045	152.486	210.746	1.00101.08	C
ATOM	4859	OD1	ASP B 713	141.789	151.321	211.108	1.00101.08	O
ATOM	4860	OD2	ASP B 713	142.164	152.815	209.547	1.00101.08	O
ATOM	4861	N	ASP B 714	140.506	152.552	214.494	1.00102.95	N
ATOM	4862	CA	ASP B 714	139.955	151.392	215.186	1.00102.95	C
ATOM	4863	C	ASP B 714	138.435	151.456	215.250	1.00102.95	C
ATOM	4864	O	ASP B 714	137.757	150.449	215.023	1.00102.95	O
ATOM	4865	CB	ASP B 714	140.545	151.276	216.588	1.00102.95	C
ATOM	4866	CG	ASP B 714	140.502	149.852	217.120	1.00102.95	C
ATOM	4867	OD1	ASP B 714	141.310	149.024	216.655	1.00102.95	O
ATOM	4868	OD2	ASP B 714	139.664	149.558	217.996	1.00102.95	O
ATOM	4869	N	LEU B 715	137.878	152.628	215.562	1.00 99.17	N
ATOM	4870	CA	LEU B 715	136.425	152.749	215.605	1.00 99.17	C
ATOM	4871	C	LEU B 715	135.804	152.312	214.288	1.00 99.17	C
ATOM	4872	O	LEU B 715	134.796	151.597	214.275	1.00 99.17	O
ATOM	4873	CB	LEU B 715	136.015	154.182	215.936	1.00 99.17	C
ATOM	4874	CG	LEU B 715	134.521	154.367	216.196	1.00 99.17	C
ATOM	4875	CD1	LEU B 715	134.048	153.430	217.291	1.00 99.17	C
ATOM	4876	CD2	LEU B 715	134.212	155.805	216.554	1.00 99.17	C
ATOM	4877	N	MET B 716	136.395	152.725	213.167	1.00102.19	N
ATOM	4878	CA	MET B 716	135.911	152.265	211.874	1.00102.19	C
ATOM	4879	C	MET B 716	136.182	150.786	211.654	1.00102.19	C
ATOM	4880	O	MET B 716	135.456	150.146	210.888	1.00102.19	O
ATOM	4881	CB	MET B 716	136.543	153.081	210.748	1.00102.19	C
ATOM	4882	CG	MET B 716	136.107	152.650	209.360	1.00102.19	C

ATOM	4883	SD	MET B 716	137.175	151.383	208.652	1.00102.19 S
ATOM	4884	CE	MET B 716	138.645	152.345	208.308	1.00102.19 C
ATOM	4885	N	SER B 717	137.205	150.229	212.298	1.00100.46 N
ATOM	4886	CA	SER B 717	137.485	148.804	212.193	1.00100.46 C
ATOM	4887	C	SER B 717	137.044	148.019	213.419	1.00100.46 C
ATOM	4888	O	SER B 717	137.052	146.785	213.381	1.00100.46 O
ATOM	4889	CB	SER B 717	138.977	148.573	211.946	1.00100.46 C
ATOM	4890	OG	SER B 717	139.346	147.256	212.311	1.00100.46 O
ATOM	4891	N	GLY B 718	136.664	148.693	214.499	1.00102.91 N
ATOM	4892	CA	GLY B 718	136.177	148.012	215.681	1.00102.91 C
ATOM	4893	C	GLY B 718	134.667	148.031	215.733	1.00102.91 C
ATOM	4894	O	GLY B 718	134.050	147.402	216.598	1.00102.91 O
ATOM	4895	N	LEU B 719	134.065	148.764	214.798	1.00105.23 N
ATOM	4896	CA	LEU B 719	132.620	148.797	214.625	1.00105.23 C
ATOM	4897	C	LEU B 719	132.169	148.371	213.240	1.00105.23 C
ATOM	4898	O	LEU B 719	131.033	147.900	213.105	1.00105.23 O
ATOM	4899	CB	LEU B 719	132.071	150.203	214.910	1.00105.23 C
ATOM	4900	CG	LEU B 719	130.569	150.411	214.714	1.00105.23 C
ATOM	4901	CD1	LEU B 719	129.793	149.255	215.306	1.00105.23 C
ATOM	4902	CD2	LEU B 719	130.128	151.720	215.339	1.00105.23 C
ATOM	4903	N	GLY B 720	133.005	148.513	212.215	1.00107.68 N
ATOM	4904	CA	GLY B 720	132.699	148.021	210.892	1.00107.68 C
ATOM	4905	C	GLY B 720	132.749	146.520	210.750	1.00107.68 C
ATOM	4906	O	GLY B 720	132.727	146.010	209.627	1.00107.68 O
ATOM	4907	N	ALA B 721	132.831	145.792	211.862	1.00111.43 N
ATOM	4908	CA	ALA B 721	132.792	144.333	211.836	1.00111.43 C
ATOM	4909	C	ALA B 721	131.892	143.715	212.892	1.00111.43 C
ATOM	4910	O	ALA B 721	131.663	142.502	212.836	1.00111.43 O
ATOM	4911	CB	ALA B 721	134.203	143.756	211.992	1.00111.43 C
ATOM	4912	N	ALA B 722	131.379	144.480	213.852	1.00112.69 N
ATOM	4913	CA	ALA B 722	130.477	143.963	214.875	1.00112.69 C
ATOM	4914	C	ALA B 722	130.032	145.136	215.738	1.00112.69 C
ATOM	4915	O	ALA B 722	130.616	146.222	215.692	1.00112.69 O
ATOM	4916	CB	ALA B 722	131.136	142.879	215.728	1.00112.69 C
ATOM	4917	N	GLY B 723	128.988	144.902	216.529	1.00115.66 N
ATOM	4918	CA	GLY B 723	128.439	145.931	217.391	1.00115.66 C
ATOM	4919	C	GLY B 723	127.244	146.621	216.766	1.00115.66 C

ATOM	4920	O	GLY B 723	127.400	147.451	215.865	1.00115.66 O
ATOM	4921	N	LYS B 724	126.041	146.294	217.239	1.00114.28 N
ATOM	4922	CA	LYS B 724	124.833	146.788	216.588	1.00114.28 C
ATOM	4923	C	LYS B 724	124.483	148.199	217.048	1.00114.28 C
ATOM	4924	O	LYS B 724	124.470	149.141	216.248	1.00114.28 O
ATOM	4925	CB	LYS B 724	123.671	145.828	216.854	1.00114.28 C
ATOM	4926	CG	LYS B 724	123.833	144.466	216.196	1.00114.28 C
ATOM	4927	CD	LYS B 724	123.726	144.568	214.684	1.00114.28 C
ATOM	4928	CE	LYS B 724	124.162	143.276	214.011	1.00114.28 C
ATOM	4929	NZ	LYS B 724	125.635	143.079	214.093	1.00114.28 N
ATOM	4930	N	ALA B 725	124.202	148.366	218.341	1.00112.61 N
ATOM	4931	CA	ALA B 725	123.759	149.643	218.876	1.00112.61 C
ATOM	4932	C	ALA B 725	124.656	150.200	219.969	1.00112.61 C
ATOM	4933	O	ALA B 725	124.553	151.393	220.277	1.00112.61 O
ATOM	4934	CB	ALA B 725	122.327	149.529	219.421	1.00112.61 C
ATOM	4935	N	VAL B 726	125.521	149.383	220.567	1.00110.97 N
ATOM	4936	CA	VAL B 726	126.401	149.881	221.618	1.00110.97 C
ATOM	4937	C	VAL B 726	127.585	150.626	221.020	1.00110.97 C
ATOM	4938	O	VAL B 726	128.020	151.650	221.557	1.00110.97 O
ATOM	4939	CB	VAL B 726	126.855	148.723	222.523	1.00110.97 C
ATOM	4940	CG1	VAL B 726	125.651	148.023	223.130	1.00110.97 C
ATOM	4941	CG2	VAL B 726	127.709	147.742	221.739	1.00110.97 C
ATOM	4942	N	GLY B 727	128.122	150.127	219.907	1.00109.35 N
ATOM	4943	CA	GLY B 727	129.262	150.736	219.250	1.00109.35 C
ATOM	4944	C	GLY B 727	129.206	152.247	219.200	1.00109.35 C
ATOM	4945	O	GLY B 727	130.217	152.922	219.416	1.00109.35 O
ATOM	4946	N	VAL B 728	128.022	152.792	218.921	1.00105.49 N
ATOM	4947	CA	VAL B 728	127.874	154.242	218.862	1.00105.49 C
ATOM	4948	C	VAL B 728	128.217	154.870	220.207	1.00105.49 C
ATOM	4949	O	VAL B 728	128.847	155.930	220.268	1.00105.49 O
ATOM	4950	CB	VAL B 728	126.453	154.619	218.407	1.00105.49 C
ATOM	4951	CG1	VAL B 728	126.277	156.126	218.424	1.00105.49 C
ATOM	4952	CG2	VAL B 728	126.179	154.056	217.024	1.00105.49 C
ATOM	4953	N	ALA B 729	127.822	154.223	221.306	1.00103.77 N
ATOM	4954	CA	ALA B 729	128.086	154.792	222.626	1.00103.77 C
ATOM	4955	C	ALA B 729	129.570	154.735	222.973	1.00103.77 C
ATOM	4956	O	ALA B 729	130.127	155.698	223.517	1.00103.77 O

ATOM	4957	CB	ALA B 729	127.258	154.067	223.684	1.00103.77 C
ATOM	4958	N	ILE B 730	130.220	153.604	222.691	1.00102.68 N
ATOM	4959	CA	ILE B 730	131.663	153.518	222.893	1.00102.68 C
ATOM	4960	C	ILE B 730	132.372	154.593	222.084	1.00102.68 C
ATOM	4961	O	ILE B 730	133.300	155.246	222.573	1.00102.68 O
ATOM	4962	CB	ILE B 730	132.174	152.110	222.539	1.00102.68 C
ATOM	4963	CG1	ILE B 730	131.610	151.079	223.515	1.00102.68 C
ATOM	4964	CG2	ILE B 730	133.686	152.079	222.544	1.00102.68 C
ATOM	4965	CD1	ILE B 730	131.877	149.651	223.109	1.00102.68 C
ATOM	4966	N	GLY B 731	131.954	154.790	220.835	1.00101.03 N
ATOM	4967	CA	GLY B 731	132.541	155.848	220.033	1.00101.03 C
ATOM	4968	C	GLY B 731	132.304	157.224	220.623	1.00101.03 C
ATOM	4969	O	GLY B 731	133.192	158.077	220.608	1.00101.03 O
ATOM	4970	N	ALA B 732	131.106	157.456	221.161	1.00101.79 N
ATOM	4971	CA	ALA B 732	130.791	158.763	221.726	1.00101.79 C
ATOM	4972	C	ALA B 732	131.614	159.052	222.973	1.00101.79 C
ATOM	4973	O	ALA B 732	131.968	160.209	223.225	1.00101.79 O
ATOM	4974	CB	ALA B 732	129.301	158.853	222.045	1.00101.79 C
ATOM	4975	N	VAL B 733	131.919	158.026	223.766	1.00 99.72 N
ATOM	4976	CA	VAL B 733	132.770	158.239	224.934	1.00 99.72 C
ATOM	4977	C	VAL B 733	134.225	158.410	224.515	1.00 99.72 C
ATOM	4978	O	VAL B 733	134.939	159.278	225.037	1.00 99.72 O
ATOM	4979	CB	VAL B 733	132.601	157.088	225.939	1.00 99.72 C
ATOM	4980	CG1	VAL B 733	133.590	157.238	227.075	1.00 99.72 C
ATOM	4981	CG2	VAL B 733	131.184	157.064	226.474	1.00 99.72 C
ATOM	4982	N	GLY B 734	134.690	157.588	223.574	1.00 99.14 N
ATOM	4983	CA	GLY B 734	136.023	157.780	223.037	1.00 99.14 C
ATOM	4984	C	GLY B 734	136.223	159.160	222.450	1.00 99.14 C
ATOM	4985	O	GLY B 734	137.323	159.706	222.506	1.00 99.14 O
ATOM	4986	N	GLY B 735	135.169	159.740	221.880	1.00100.79 N
ATOM	4987	CA	GLY B 735	135.286	161.082	221.337	1.00100.79 C
ATOM	4988	C	GLY B 735	135.879	162.063	222.326	1.00100.79 C
ATOM	4989	O	GLY B 735	136.681	162.924	221.958	1.00100.79 O
ATOM	4990	N	ALA B 736	135.498	161.943	223.596	1.00101.41 N
ATOM	4991	CA	ALA B 736	136.024	162.810	224.641	1.00101.41 C
ATOM	4992	C	ALA B 736	137.294	162.251	225.267	1.00101.41 C
ATOM	4993	O	ALA B 736	138.210	163.013	225.589	1.00101.41 O

ATOM	4994	CB	ALA B 736	134.965	163.033	225.723	1.00101.41 C
ATOM	4995	N	VAL B 737	137.373	160.929	225.441	1.00100.83 N
ATOM	4996	CA	VAL B 737	138.554	160.350	226.074	1.00100.83 C
ATOM	4997	C	VAL B 737	139.796	160.465	225.198	1.00100.83 C
ATOM	4998	O	VAL B 737	140.917	160.396	225.713	1.00100.83 O
ATOM	4999	CB	VAL B 737	138.297	158.882	226.458	1.00100.83 C
ATOM	5000	CG1	VAL B 737	139.602	158.181	226.779	1.00100.83 C
ATOM	5001	CG2	VAL B 737	137.360	158.811	227.646	1.00100.83 C
ATOM	5002	N	ALA B 738	139.638	160.650	223.889	1.00100.01 N
ATOM	5003	CA	ALA B 738	140.765	160.787	222.979	1.00100.01 C
ATOM	5004	C	ALA B 738	141.093	162.239	222.669	1.00100.01 C
ATOM	5005	O	ALA B 738	141.874	162.504	221.751	1.00100.01 O
ATOM	5006	CB	ALA B 738	140.495	160.025	221.683	1.00100.01 C
ATOM	5007	N	SER B 739	140.508	163.180	223.402	1.00101.86 N
ATOM	5008	CA	SER B 739	140.898	164.579	223.310	1.00101.86 C
ATOM	5009	C	SER B 739	141.909	164.967	224.376	1.00101.86 C
ATOM	5010	O	SER B 739	142.508	166.043	224.279	1.00101.86 O
ATOM	5011	CB	SER B 739	139.667	165.482	223.420	1.00101.86 C
ATOM	5012	OG	SER B 739	140.001	166.828	223.134	1.00101.86 O
ATOM	5013	N	VAL B 740	142.105	164.123	225.383	1.00101.64 N
ATOM	5014	CA	VAL B 740	143.120	164.358	226.404	1.00101.64 C
ATOM	5015	C	VAL B 740	144.426	163.663	226.049	1.00101.64 C
ATOM	5016	O	VAL B 740	145.510	164.215	226.264	1.00101.64 O
ATOM	5017	CB	VAL B 740	142.592	163.898	227.776	1.00101.64 C
ATOM	5018	CG1	VAL B 740	143.693	163.961	228.813	1.00101.64 C
ATOM	5019	CG2	VAL B 740	141.411	164.747	228.197	1.00101.64 C
ATOM	5020	N	VAL B 741	144.343	162.442	225.518	1.00100.21 N
ATOM	5021	CA	VAL B 741	145.550	161.722	225.134	1.00100.21 C
ATOM	5022	C	VAL B 741	146.300	162.470	224.044	1.00100.21 C
ATOM	5023	O	VAL B 741	147.533	162.470	224.020	1.00100.21 O
ATOM	5024	CB	VAL B 741	145.206	160.287	224.696	1.00100.21 C
ATOM	5025	CG1	VAL B 741	146.364	159.681	223.933	1.00100.21 C
ATOM	5026	CG2	VAL B 741	144.865	159.439	225.904	1.00100.21 C
ATOM	5027	N	GLU B 742	145.581	163.130	223.135	1.00102.36 N
ATOM	5028	CA	GLU B 742	146.261	163.901	222.099	1.00102.36 C
ATOM	5029	C	GLU B 742	147.036	165.066	222.699	1.00102.36 C
ATOM	5030	O	GLU B 742	148.185	165.319	222.316	1.00102.36 O

ATOM	5031	CB	GLU B 742	145.258	164.397	221.063	1.00102.36	C
ATOM	5032	CG	GLU B 742	144.661	163.288	220.228	1.00102.36	C
ATOM	5033	CD	GLU B 742	145.705	162.590	219.385	1.00102.36	C
ATOM	5034	OE1	GLU B 742	146.685	163.254	218.988	1.00102.36	O
ATOM	5035	OE2	GLU B 742	145.552	161.379	219.122	1.00102.36	O
ATOM	5036	N	GLY B 743	146.424	165.791	223.634	1.00103.83	N
ATOM	5037	CA	GLY B 743	147.142	166.864	224.300	1.00103.83	C
ATOM	5038	C	GLY B 743	148.351	166.361	225.062	1.00103.83	C
ATOM	5039	O	GLY B 743	149.407	166.998	225.061	1.00103.83	O
ATOM	5040	N	VAL B 744	148.217	165.208	225.720	1.00100.88	N
ATOM	5041	CA	VAL B 744	149.336	164.672	226.488	1.00100.88	C
ATOM	5042	C	VAL B 744	150.421	164.129	225.567	1.00100.88	C
ATOM	5043	O	VAL B 744	151.585	164.023	225.966	1.00100.88	O
ATOM	5044	CB	VAL B 744	148.843	163.595	227.470	1.00100.88	C
ATOM	5045	CG1	VAL B 744	150.018	162.855	228.073	1.00100.88	C
ATOM	5046	CG2	VAL B 744	148.001	164.230	228.561	1.00100.88	C
ATOM	5047	N	ALA B 745	150.068	163.775	224.330	1.00100.69	N
ATOM	5048	CA	ALA B 745	151.069	163.278	223.394	1.00100.69	C
ATOM	5049	C	ALA B 745	151.812	164.418	222.712	1.00100.69	C
ATOM	5050	O	ALA B 745	153.037	164.363	222.565	1.00100.69	O
ATOM	5051	CB	ALA B 745	150.414	162.372	222.354	1.00100.69	C
ATOM	5052	N	THR B 746	151.093	165.459	222.286	1.00103.62	N
ATOM	5053	CA	THR B 746	151.756	166.626	221.717	1.00103.62	C
ATOM	5054	C	THR B 746	152.730	167.259	222.699	1.00103.62	C
ATOM	5055	O	THR B 746	153.658	167.956	222.276	1.00103.62	O
ATOM	5056	CB	THR B 746	150.724	167.660	221.271	1.00103.62	C
ATOM	5057	OG1	THR B 746	149.887	167.093	220.256	1.00103.62	O
ATOM	5058	CG2	THR B 746	151.412	168.893	220.720	1.00103.62	C
ATOM	5059	N	PHE B 747	152.541	167.032	223.998	1.00100.32	N
ATOM	5060	CA	PHE B 747	153.462	167.534	225.007	1.00100.32	C
ATOM	5061	C	PHE B 747	154.780	166.773	225.022	1.00100.32	C
ATOM	5062	O	PHE B 747	155.769	167.287	225.550	1.00100.32	O
ATOM	5063	CB	PHE B 747	152.801	167.464	226.385	1.00100.32	C
ATOM	5064	CG	PHE B 747	153.627	168.048	227.493	1.00100.32	C
ATOM	5065	CD1	PHE B 747	154.533	167.268	228.185	1.00100.32	C
ATOM	5066	CD2	PHE B 747	153.479	169.372	227.859	1.00100.32	C
ATOM	5067	CE1	PHE B 747	155.287	167.801	229.208	1.00100.32	C

ATOM	5068	CE2	PHE B 747	154.230	169.910	228.882	1.00100.32	C
ATOM	5069	CZ	PHE B 747	155.133	169.122	229.557	1.00100.32	C
ATOM	5070	N	LEU B 748	154.816	165.566	224.455	1.00100.74	N
ATOM	5071	CA	LEU B 748	156.028	164.759	224.393	1.00100.74	C
ATOM	5072	C	LEU B 748	156.750	164.902	223.057	1.00100.74	C
ATOM	5073	O	LEU B 748	157.459	163.985	222.632	1.00100.74	O
ATOM	5074	CB	LEU B 748	155.704	163.290	224.665	1.00100.74	C
ATOM	5075	CG	LEU B 748	155.094	162.965	226.029	1.00100.74	C
ATOM	5076	CD1	LEU B 748	154.849	161.475	226.165	1.00100.74	C
ATOM	5077	CD2	LEU B 748	155.989	163.460	227.145	1.00100.74	C
ATOM	5078	N	LYS B 749	156.578	166.038	222.383	1.00101.31	N
ATOM	5079	CA	LYS B 749	157.290	166.328	221.148	1.00101.31	C
ATOM	5080	C	LYS B 749	158.216	167.528	221.269	1.00101.31	C
ATOM	5081	O	LYS B 749	158.946	167.827	220.318	1.00101.31	O
ATOM	5082	CB	LYS B 749	156.299	166.560	220.001	1.00101.31	C
ATOM	5083	CG	LYS B 749	155.187	165.532	219.926	1.00101.31	C
ATOM	5084	CD	LYS B 749	155.719	164.181	219.493	1.00101.31	C
ATOM	5085	CE	LYS B 749	154.592	163.258	219.067	1.00101.31	C
ATOM	5086	NZ	LYS B 749	153.810	163.822	217.935	1.00101.31	N
ATOM	5087	N	ASN B 750	158.204	168.223	222.402	1.00 99.22	N
ATOM	5088	CA	ASN B 750	159.104	169.331	222.659	1.00 99.22	C
ATOM	5089	C	ASN B 750	160.230	168.870	223.564	1.00 99.22	C
ATOM	5090	O	ASN B 750	159.960	168.354	224.657	1.00 99.22	O
ATOM	5091	CB	ASN B 750	158.359	170.490	223.317	1.00 99.22	C
ATOM	5092	CG	ASN B 750	157.176	170.952	222.505	1.00 99.22	C
ATOM	5093	OD1	ASN B 750	156.366	170.144	222.054	1.00 99.22	O
ATOM	5094	ND2	ASN B 750	157.069	172.257	222.308	1.00 99.22	N
ATOM	5095	N	PRO B 751	161.489	169.018	223.151	1.00100.73	N
ATOM	5096	CA	PRO B 751	162.593	168.642	224.048	1.00100.73	C
ATOM	5097	C	PRO B 751	162.400	169.146	225.467	1.00100.73	C
ATOM	5098	O	PRO B 751	162.467	168.358	226.419	1.00100.73	O
ATOM	5099	CB	PRO B 751	163.810	169.270	223.362	1.00100.73	C
ATOM	5100	CG	PRO B 751	163.450	169.278	221.925	1.00100.73	C
ATOM	5101	CD	PRO B 751	161.972	169.530	221.859	1.00100.73	C
ATOM	5102	N	PHE B 752	162.148	170.445	225.637	1.00101.71	N
ATOM	5103	CA	PHE B 752	161.872	170.979	226.963	1.00101.71	C
ATOM	5104	C	PHE B 752	160.600	170.407	227.568	1.00101.71	C

ATOM	5105	O	PHE B 752	160.381	170.568	228.773	1.00101.71	O
ATOM	5106	CB	PHE B 752	161.772	172.502	226.907	1.00101.71	C
ATOM	5107	CG	PHE B 752	162.716	173.137	225.931	1.00101.71	C
ATOM	5108	CD1	PHE B 752	164.084	173.023	226.099	1.00101.71	C
ATOM	5109	CD2	PHE B 752	162.238	173.845	224.845	1.00101.71	C
ATOM	5110	CE1	PHE B 752	164.955	173.606	225.202	1.00101.71	C
ATOM	5111	CE2	PHE B 752	163.103	174.428	223.948	1.00101.71	C
ATOM	5112	CZ	PHE B 752	164.464	174.308	224.127	1.00101.71	C
ATOM	5113	N	GLY B 753	159.759	169.754	226.771	1.00101.58	N
ATOM	5114	CA	GLY B 753	158.567	169.124	227.295	1.00101.58	C
ATOM	5115	C	GLY B 753	158.828	167.708	227.758	1.00101.58	C
ATOM	5116	O	GLY B 753	158.528	167.353	228.901	1.00101.58	O
ATOM	5117	N	ALA B 754	159.394	166.886	226.874	1.00102.92	N
ATOM	5118	CA	ALA B 754	159.723	165.513	227.225	1.00102.92	C
ATOM	5119	C	ALA B 754	160.881	165.416	228.205	1.00102.92	C
ATOM	5120	O	ALA B 754	161.151	164.322	228.708	1.00102.92	O
ATOM	5121	CB	ALA B 754	160.053	164.711	225.966	1.00102.92	C
ATOM	5122	N	PHE B 755	161.566	166.522	228.487	1.00103.84	N
ATOM	5123	CA	PHE B 755	162.688	166.502	229.414	1.00103.84	C
ATOM	5124	C	PHE B 755	162.263	166.665	230.865	1.00103.84	C
ATOM	5125	O	PHE B 755	163.035	166.311	231.763	1.00103.84	O
ATOM	5126	CB	PHE B 755	163.688	167.602	229.047	1.00103.84	C
ATOM	5127	CG	PHE B 755	164.852	167.704	229.986	1.00103.84	C
ATOM	5128	CD1	PHE B 755	165.897	166.803	229.913	1.00103.84	C
ATOM	5129	CD2	PHE B 755	164.904	168.708	230.937	1.00103.84	C
ATOM	5130	CE1	PHE B 755	166.971	166.898	230.773	1.00103.84	C
ATOM	5131	CE2	PHE B 755	165.976	168.807	231.799	1.00103.84	C
ATOM	5132	CZ	PHE B 755	167.010	167.901	231.718	1.00103.84	C
ATOM	5133	N	THR B 756	161.061	167.186	231.117	1.00104.91	N
ATOM	5134	CA	THR B 756	160.595	167.338	232.490	1.00104.91	C
ATOM	5135	C	THR B 756	160.085	166.025	233.069	1.00104.91	C
ATOM	5136	O	THR B 756	160.145	165.824	234.287	1.00104.91	O
ATOM	5137	CB	THR B 756	159.496	168.397	232.562	1.00104.91	C
ATOM	5138	OG1	THR B 756	159.118	168.604	233.927	1.00104.91	O
ATOM	5139	CG2	THR B 756	158.280	167.951	231.775	1.00104.91	C
ATOM	5140	N	ILE B 757	159.575	165.127	232.224	1.00104.67	N
ATOM	5141	CA	ILE B 757	159.140	163.823	232.711	1.00104.67	C

ATOM	5142	C	ILE B 757	160.329	163.024	233.224	1.00104.67 C
ATOM	5143	O	ILE B 757	160.226	162.296	234.219	1.00104.67 O
ATOM	5144	CB	ILE B 757	158.383	163.066	231.606	1.00104.67 C
ATOM	5145	CG1	ILE B 757	157.158	163.862	231.159	1.00104.67 C
ATOM	5146	CG2	ILE B 757	157.977	161.688	232.091	1.00104.67 C
ATOM	5147	CD1	ILE B 757	156.385	164.478	232.299	1.00104.67 C
ATOM	5148	N	ILE B 758	161.475	163.141	232.550	1.00104.92 N
ATOM	5149	CA	ILE B 758	162.666	162.420	232.977	1.00104.92 C
ATOM	5150	C	ILE B 758	163.202	162.961	234.293	1.00104.92 C
ATOM	5151	O	ILE B 758	163.974	162.275	234.971	1.00104.92 O
ATOM	5152	CB	ILE B 758	163.742	162.477	231.879	1.00104.92 C
ATOM	5153	CG1	ILE B 758	163.207	161.868	230.584	1.00104.92 C
ATOM	5154	CG2	ILE B 758	164.996	161.752	232.324	1.00104.92 C
ATOM	5155	CD1	ILE B 758	164.274	161.588	229.558	1.00104.92 C
ATOM	5156	N	LEU B 759	162.813	164.177	234.675	1.00107.20 N
ATOM	5157	CA	LEU B 759	163.164	164.716	235.983	1.00107.20 C
ATOM	5158	C	LEU B 759	162.137	164.340	237.041	1.00107.20 C
ATOM	5159	O	LEU B 759	162.498	164.064	238.189	1.00107.20 O
ATOM	5160	CB	LEU B 759	163.300	166.237	235.909	1.00107.20 C
ATOM	5161	CG	LEU B 759	164.449	166.771	235.057	1.00107.20 C
ATOM	5162	CD1	LEU B 759	164.510	168.282	235.141	1.00107.20 C
ATOM	5163	CD2	LEU B 759	165.760	166.157	235.502	1.00107.20 C
ATOM	5164	N	VAL B 760	160.856	164.320	236.671	1.00109.62 N
ATOM	5165	CA	VAL B 760	159.816	163.912	237.611	1.00109.62 C
ATOM	5166	C	VAL B 760	160.023	162.464	238.032	1.00109.62 C
ATOM	5167	O	VAL B 760	160.004	162.133	239.226	1.00109.62 O
ATOM	5168	CB	VAL B 760	158.422	164.125	236.995	1.00109.62 C
ATOM	5169	CG1	VAL B 760	157.401	163.242	237.688	1.00109.62 C
ATOM	5170	CG2	VAL B 760	158.021	165.584	237.093	1.00109.62 C
ATOM	5171	N	ALA B 761	160.206	161.573	237.056	1.00111.45 N
ATOM	5172	CA	ALA B 761	160.415	160.161	237.352	1.00111.45 C
ATOM	5173	C	ALA B 761	161.779	159.878	237.957	1.00111.45 C
ATOM	5174	O	ALA B 761	162.046	158.729	238.321	1.00111.45 O
ATOM	5175	CB	ALA B 761	160.230	159.326	236.084	1.00111.45 C
ATOM	5176	N	ILE B 762	162.644	160.884	238.071	1.00112.60 N
ATOM	5177	CA	ILE B 762	163.947	160.709	238.698	1.00112.60 C
ATOM	5178	C	ILE B 762	163.859	161.197	240.135	1.00112.60 C

ATOM	5179	O	ILE B 762	164.512	160.655	241.033	1.00112.60	O
ATOM	5180	CB	ILE B 762	165.048	161.454	237.924	1.00112.60	C
ATOM	5181	CG1	ILE B 762	165.550	160.596	236.762	1.00112.60	C
ATOM	5182	CG2	ILE B 762	166.189	161.832	238.852	1.00112.60	C
ATOM	5183	CD1	ILE B 762	166.619	161.264	235.929	1.00112.60	C
ATOM	5184	N	ALA B 763	163.048	162.230	240.359	1.00116.58	N
ATOM	5185	CA	ALA B 763	162.834	162.731	241.710	1.00116.58	C
ATOM	5186	C	ALA B 763	161.903	161.831	242.510	1.00116.58	C
ATOM	5187	O	ALA B 763	162.045	161.735	243.735	1.00116.58	O
ATOM	5188	CB	ALA B 763	162.275	164.153	241.664	1.00116.58	C
ATOM	5189	N	VAL B 764	160.948	161.175	241.849	1.00119.21	N
ATOM	5190	CA	VAL B 764	160.021	160.310	242.574	1.00119.21	C
ATOM	5191	C	VAL B 764	160.776	159.163	243.238	1.00119.21	C
ATOM	5192	O	VAL B 764	160.500	158.796	244.385	1.00119.21	O
ATOM	5193	CB	VAL B 764	158.914	159.797	241.635	1.00119.21	C
ATOM	5194	CG1	VAL B 764	159.433	158.679	240.747	1.00119.21	C
ATOM	5195	CG2	VAL B 764	157.712	159.334	242.438	1.00119.21	C
ATOM	5196	N	VAL B 765	161.754	158.593	242.533	1.00120.59	N
ATOM	5197	CA	VAL B 765	162.510	157.469	243.082	1.00120.59	C
ATOM	5198	C	VAL B 765	163.346	157.926	244.270	1.00120.59	C
ATOM	5199	O	VAL B 765	163.456	157.228	245.285	1.00120.59	O
ATOM	5200	CB	VAL B 765	163.383	156.822	241.995	1.00120.59	C
ATOM	5201	CG1	VAL B 765	164.230	155.715	242.593	1.00120.59	C
ATOM	5202	CG2	VAL B 765	162.515	156.284	240.873	1.00120.59	C
ATOM	5203	N	ILE B 766	163.964	159.098	244.152	1.00122.89	N
ATOM	5204	CA	ILE B 766	164.733	159.675	245.248	1.00122.89	C
ATOM	5205	C	ILE B 766	163.832	159.813	246.465	1.00122.89	C
ATOM	5206	O	ILE B 766	164.178	159.364	247.564	1.00122.89	O
ATOM	5207	CB	ILE B 766	165.344	161.032	244.855	1.00122.89	C
ATOM	5208	CG1	ILE B 766	166.436	160.835	243.804	1.00122.89	C
ATOM	5209	CG2	ILE B 766	165.895	161.742	246.079	1.00122.89	C
ATOM	5210	CD1	ILE B 766	167.520	159.874	244.234	1.00122.89	C
ATOM	5211	N	ILE B 767	162.666	160.434	246.278	1.00124.95	N
ATOM	5212	CA	ILE B 767	161.731	160.608	247.388	1.00124.95	C
ATOM	5213	C	ILE B 767	161.387	159.259	248.006	1.00124.95	C
ATOM	5214	O	ILE B 767	161.320	159.113	249.232	1.00124.95	O
ATOM	5215	CB	ILE B 767	160.469	161.351	246.918	1.00124.95	C

ATOM	5216	CG1	ILE B 767	160.834	162.745	246.408	1.00124.95	C
ATOM	5217	CG2	ILE B 767	159.461	161.445	248.046	1.00124.95	C
ATOM	5218	CD1	ILE B 767	161.794	163.488	247.305	1.00124.95	C
ATOM	5219	N	ILE B 768	161.161	158.251	247.162	1.00128.30	N
ATOM	5220	CA	ILE B 768	160.822	156.920	247.664	1.00128.30	C
ATOM	5221	C	ILE B 768	161.931	156.396	248.567	1.00128.30	C
ATOM	5222	O	ILE B 768	161.699	156.046	249.729	1.00128.30	O
ATOM	5223	CB	ILE B 768	160.550	155.956	246.497	1.00128.30	C
ATOM	5224	CG1	ILE B 768	159.357	156.437	245.673	1.00128.30	C
ATOM	5225	CG2	ILE B 768	160.308	154.551	247.018	1.00128.30	C
ATOM	5226	CD1	ILE B 768	158.052	156.383	246.418	1.00128.30	C
ATOM	5227	N	TYR B 769	163.149	156.330	248.039	1.00134.80	N
ATOM	5228	CA	TYR B 769	164.284	155.755	248.759	1.00134.80	C
ATOM	5229	C	TYR B 769	164.393	156.283	250.183	1.00134.80	C
ATOM	5230	O	TYR B 769	165.123	155.731	251.005	1.00134.80	O
ATOM	5231	CB	TYR B 769	165.584	156.037	248.007	1.00134.80	C
ATOM	5232	CG	TYR B 769	166.818	155.465	248.668	1.00134.80	C
ATOM	5233	CD1	TYR B 769	167.128	154.117	248.555	1.00134.80	C
ATOM	5234	CD2	TYR B 769	167.673	156.273	249.403	1.00134.80	C
ATOM	5235	CE1	TYR B 769	168.257	153.590	249.155	1.00134.80	C
ATOM	5236	CE2	TYR B 769	168.804	155.757	250.007	1.00134.80	C
ATOM	5237	CZ	TYR B 769	169.092	154.415	249.879	1.00134.80	C
ATOM	5238	OH	TYR B 769	170.216	153.895	250.479	1.00134.80	O
ATOM	5239	N	LEU B 770	163.518	159.106	250.283	1.00141.15	N
ATOM	5240	CA	LEU B 770	164.147	159.030	251.596	1.00141.15	C
ATOM	5241	C	LEU B 770	163.212	158.386	252.611	1.00141.15	C
ATOM	5242	O	LEU B 770	163.581	158.177	253.766	1.00141.15	O
ATOM	5243	CB	LEU B 770	164.563	160.422	252.068	1.00141.15	C
ATOM	5244	CG	LEU B 770	165.321	161.257	251.036	1.00141.15	C
ATOM	5245	CD1	LEU B 770	165.335	162.724	251.433	1.00141.15	C
ATOM	5246	CD2	LEU B 770	166.735	160.730	250.857	1.00141.15	C
ATOM	5247	N	ILE B 771	161.995	158.068	252.165	1.00142.28	N
ATOM	5248	CA	ILE B 771	160.975	157.551	253.075	1.00142.28	C
ATOM	5249	C	ILE B 771	161.411	156.218	253.671	1.00142.28	C
ATOM	5250	O	ILE B 771	161.303	155.991	254.881	1.00142.28	O
ATOM	5251	CB	ILE B 771	159.625	157.426	252.348	1.00142.28	C
ATOM	5252	CG1	ILE B 771	159.177	158.792	251.826	1.00142.28	C

ATOM	5253	CG2	ILE	B	771	158.578	156.830	253.272	1.00	142.28	C
ATOM	5254	CD1	ILE	B	771	157.750	158.819	251.337	1.00	142.28	C
ATOM	5255	N	TYR	B	772	161.907	155.313	252.825	1.00	146.80	N
ATOM	5256	CA	TYR	B	772	162.254	153.974	253.292	1.00	146.80	C
ATOM	5257	C	TYR	B	772	163.277	154.027	254.419	1.00	146.80	C
ATOM	5258	O	TYR	B	772	163.155	153.313	255.420	1.00	146.80	O
ATOM	5259	CB	TYR	B	772	162.777	153.134	252.127	1.00	146.80	C
ATOM	5260	CG	TYR	B	772	163.027	151.687	252.479	1.00	146.80	C
ATOM	5261	CD1	TYR	B	772	161.992	150.762	252.472	1.00	146.80	C
ATOM	5262	CD2	TYR	B	772	164.298	151.243	252.814	1.00	146.80	C
ATOM	5263	CE1	TYR	B	772	162.215	149.436	252.791	1.00	146.80	C
ATOM	5264	CE2	TYR	B	772	164.532	149.920	253.134	1.00	146.80	C
ATOM	5265	CZ	TYR	B	772	163.487	149.022	253.121	1.00	146.80	C
ATOM	5266	OH	TYR	B	772	163.717	147.703	253.440	1.00	146.80	O
ATOM	5267	N	THR	B	773	164.299	154.871	254.272	1.00	149.19	N
ATOM	5268	CA	THR	B	773	165.308	154.997	255.319	1.00	149.19	C
ATOM	5269	C	THR	B	773	164.691	155.505	256.615	1.00	149.19	C
ATOM	5270	O	THR	B	773	164.912	154.934	257.689	1.00	149.19	O
ATOM	5271	CB	THR	B	773	166.432	155.927	254.861	1.00	149.19	C
ATOM	5272	OG1	THR	B	773	166.000	157.289	254.967	1.00	149.19	O
ATOM	5273	CG2	THR	B	773	166.815	155.630	253.421	1.00	149.19	C
ATOM	5274	N	ARG	B	774	163.914	156.589	256.533	1.00	151.10	N
ATOM	5275	CA	ARG	B	774	163.292	157.150	257.729	1.00	151.10	C
ATOM	5276	C	ARG	B	774	162.532	156.087	258.510	1.00	151.10	C
ATOM	5277	O	ARG	B	774	162.550	156.083	259.746	1.00	151.10	O
ATOM	5278	CB	ARG	B	774	162.363	158.301	257.344	1.00	151.10	C
ATOM	5279	CG	ARG	B	774	162.985	159.303	256.386	1.00	151.10	C
ATOM	5280	CD	ARG	B	774	164.263	159.889	256.957	1.00	151.10	C
ATOM	5281	NE	ARG	B	774	164.991	160.688	255.976	1.00	151.10	N
ATOM	5282	CZ	ARG	B	774	164.813	161.991	255.792	1.00	151.10	C
ATOM	5283	NH1	ARG	B	774	163.922	162.650	256.522	1.00	151.10	N
ATOM	5284	NH2	ARG	B	774	165.521	162.638	254.878	1.00	151.10	N
ATOM	5285	N	GLN	B	775	161.857	155.174	257.808	1.00	154.55	N
ATOM	5286	CA	GLN	B	775	161.136	154.109	258.494	1.00	154.55	C
ATOM	5287	C	GLN	B	775	162.086	153.153	259.204	1.00	154.55	C
ATOM	5288	O	GLN	B	775	161.800	152.716	260.324	1.00	154.55	O
ATOM	5289	CB	GLN	B	775	160.257	153.347	257.501	1.00	154.55	C

ATOM	5290	CG	GLN B 775	159.599	152.096	258.070	1.00154.55	C
ATOM	5291	CD	GLN B 775	160.490	150.872	257.984	1.00154.55	C
ATOM	5292	OE1	GLN B 775	160.992	150.529	256.914	1.00154.55	O
ATOM	5293	NE2	GLN B 775	160.698	150.211	259.116	1.00154.55	N
ATOM	5294	N	ARG B 776	163.216	152.820	258.576	1.00157.83	N
ATOM	5295	CA	ARG B 776	164.125	151.844	259.168	1.00157.83	C
ATOM	5296	C	ARG B 776	164.790	152.395	260.422	1.00157.83	C
ATOM	5297	O	ARG B 776	165.023	151.654	261.384	1.00157.83	O
ATOM	5298	CB	ARG B 776	165.174	151.418	258.141	1.00157.83	C
ATOM	5299	CG	ARG B 776	166.309	150.591	258.717	1.00157.83	C
ATOM	5300	CD	ARG B 776	166.996	149.775	257.635	1.00157.83	C
ATOM	5301	NE	ARG B 776	166.101	148.777	257.055	1.00157.83	N
ATOM	5302	CZ	ARG B 776	166.488	147.822	256.216	1.00157.83	C
ATOM	5303	NH1	ARG B 776	167.760	147.731	255.853	1.00157.83	N
ATOM	5304	NH2	ARG B 776	165.603	146.958	255.739	1.00157.83	N
ATOM	5305	N	ARG B 777	165.104	153.693	260.434	1.00159.57	N
ATOM	5306	CA	ARG B 777	165.677	154.292	261.634	1.00159.57	C
ATOM	5307	C	ARG B 777	164.687	154.282	262.791	1.00159.57	C
ATOM	5308	O	ARG B 777	165.096	154.227	263.956	1.00159.57	O
ATOM	5309	CB	ARG B 777	166.140	155.719	261.345	1.00159.57	C
ATOM	5310	CG	ARG B 777	166.634	156.466	262.575	1.00159.57	C
ATOM	5311	CD	ARG B 777	167.044	157.889	262.236	1.00159.57	C
ATOM	5312	NE	ARG B 777	165.890	158.737	261.954	1.00159.57	N
ATOM	5313	CZ	ARG B 777	165.963	159.935	261.385	1.00159.57	C
ATOM	5314	NH1	ARG B 777	167.141	160.433	261.033	1.00159.57	N
ATOM	5315	NH2	ARG B 777	164.859	160.637	261.166	1.00159.57	N
ATOM	5316	N	LEU B 778	163.390	154.338	262.493	1.00161.40	N
ATOM	5317	CA	LEU B 778	162.338	154.316	263.507	1.00161.40	C
ATOM	5318	C	LEU B 778	161.624	152.973	263.554	1.00161.40	C
ATOM	5319	O	LEU B 778	160.410	152.911	263.767	1.00161.40	O
ATOM	5320	CB	LEU B 778	161.340	155.444	263.257	1.00161.40	C
ATOM	5321	CG	LEU B 778	161.842	156.861	263.539	1.00161.40	C
ATOM	5322	CD1	LEU B 778	160.677	157.797	263.818	1.00161.40	C
ATOM	5323	CD2	LEU B 778	162.824	156.860	264.700	1.00161.40	C
ATOM	5324	N	CYS B 779	162.357	151.882	263.352	1.00163.89	N
ATOM	5325	CA	CYS B 779	161.774	150.544	263.373	1.00163.89	C
ATOM	5326	C	CYS B 779	160.997	150.297	264.660	1.00163.89	C

ATOM	5327	O	CYS B 779	159.799 150.573 264.734	1.00163.89	O
ATOM	5328	CB	CYS B 779	162.865 149.485 263.209	1.00163.89	C
ATOM	5329	SG	CYS B 779	162.342 147.804 263.617	1.00163.89	S
TER						

HETATM	5330	C1	NAG B1001	177.393 202.524 200.576	1.00103.19	C
HETATM	5331	C2	NAG B1001	178.431 203.313 199.785	1.00103.19	C
HETATM	5332	C3	NAG B1001	177.758 204.095 198.663	1.00103.19	C
HETATM	5333	C4	NAG B1001	176.894 203.173 197.814	1.00103.19	C
HETATM	5334	C5	NAG B1001	175.943 202.367 198.696	1.00103.19	C
HETATM	5335	C6	NAG B1001	175.161 201.328 197.928	1.00103.19	C
HETATM	5336	C7	NAG B1001	180.403 203.910 201.117	1.00103.19	C
HETATM	5337	C8	NAG B1001	181.037 204.942 201.998	1.00103.19	C
HETATM	5338	N2	NAG B1001	179.184 204.203 200.653	1.00103.19	N
HETATM	5339	O3	NAG B1001	178.758 204.694 197.848	1.00103.19	O
HETATM	5340	O4	NAG B1001	176.141 203.945 196.885	1.00103.19	O
HETATM	5341	O5	NAG B1001	176.684 201.663 199.703	1.00103.19	O
HETATM	5342	O6	NAG B1001	174.997 200.138 198.687	1.00103.19	O
HETATM	5343	O7	NAG B1001	180.970 202.858 200.835	1.00103.19	O
HETATM	5344	H1	NAG B1001	176.764 203.147 200.985	1.00103.19	H
HETATM	5345	H2	NAG B1001	179.056 202.690 199.372	1.00103.19	H
HETATM	5346	H3	NAG B1001	177.195 204.792 199.050	1.00103.19	H
HETATM	5347	H4	NAG B1001	177.474 202.559 197.327	1.00103.19	H
HETATM	5348	H5	NAG B1001	175.320 202.975 199.137	1.00103.19	H
HETATM	5349	H61	NAG B1001	175.639 201.116 197.105	1.00103.19	H
HETATM	5350	H62	NAG B1001	174.282 201.689 197.705	1.00103.19	H
HETATM	5351	H81	NAG B1001	180.406 205.205 202.695	1.00103.19	H
HETATM	5352	H82	NAG B1001	181.278 205.722 201.463	1.00103.19	H
HETATM	5353	H83	NAG B1001	181.839 204.568 202.409	1.00103.19	H
HETATM	5354	HN2	NAG B1001	178.805 204.999 200.891	1.00103.19	H
HETATM	5355	HO3	NAG B1001	178.714 204.356 197.028	1.00103.19	H
HETATM	5356	HO6	NAG B1001	175.640 200.088 199.297	1.00103.19	H
HETATM	5357	C1	NAG B1002	176.178 204.911 195.908	1.00101.43	C
HETATM	5358	C2	NAG B1002	175.551 206.272 196.088	1.00101.43	C
HETATM	5359	C3	NAG B1002	175.831 207.128 194.867	1.00101.43	C
HETATM	5360	C4	NAG B1002	177.190 206.787 194.267	1.00101.43	C
HETATM	5361	C5	NAG B1002	178.151 206.162 195.285	1.00101.43	C

HETATM	5362	C6	NAG B1002	178.589	207.133	196.357	1.00101.43 C
HETATM	5363	C7	NAG B1002	173.594	205.427	197.302	1.00101.43 C
HETATM	5364	C8	NAG B1002	172.098	205.430	197.398	1.00101.43 C
HETATM	5365	N2	NAG B1002	174.119	206.163	196.317	1.00101.43 N
HETATM	5366	O3	NAG B1002	175.787	208.504	195.225	1.00101.43 O
HETATM	5367	O4	NAG B1002	177.021	205.895	193.171	1.00101.43 O
HETATM	5368	O5	NAG B1002	177.581	205.027	195.963	1.00101.43 O
HETATM	5369	O6	NAG B1002	179.994	207.075	196.564	1.00101.43 O
HETATM	5370	O7	NAG B1002	174.293	204.787	198.079	1.00101.43 O
HETATM	5371	H1	NAG B1002	175.918	204.552	195.040	1.00101.43 H
HETATM	5372	H2	NAG B1002	175.959	206.701	196.863	1.00101.43 H
HETATM	5373	H3	NAG B1002	175.145	206.949	194.198	1.00101.43 H
HETATM	5374	H4	NAG B1002	177.590	207.610	193.932	1.00101.43 H
HETATM	5375	H5	NAG B1002	178.943	205.861	194.803	1.00101.43 H
HETATM	5376	H61	NAG B1002	178.136	206.909	197.190	1.00101.43 H
HETATM	5377	H62	NAG B1002	178.340	208.038	196.092	1.00101.43 H
HETATM	5378	H81	NAG B1002	171.739	204.669	196.903	1.00101.43 H
HETATM	5379	H82	NAG B1002	171.749	206.258	197.019	1.00101.43 H
HETATM	5380	H83	NAG B1002	171.832	205.362	198.335	1.00101.43 H
HETATM	5381	HN2	NAG B1002	173.558	206.624	195.766	1.00101.43 H
HETATM	5382	HO4	NAG B1002	177.113	206.350	192.414	1.00101.43 H
HETATM	5383	HO6	NAG B1002	180.318	206.337	196.192	1.00101.43 H
HETATM	5384	C1	NAG B1003	173.194	208.563	193.845	1.00100.02 C
HETATM	5385	C2	NAG B1003	173.569	208.738	192.379	1.00100.02 C
HETATM	5386	C3	NAG B1003	172.663	209.779	191.724	1.00100.02 C
HETATM	5387	C4	NAG B1003	171.200	209.424	191.948	1.00100.02 C
HETATM	5388	C5	NAG B1003	170.934	209.207	193.434	1.00100.02 C
HETATM	5389	C6	NAG B1003	169.532	208.726	193.720	1.00100.02 C
HETATM	5390	C7	NAG B1003	175.853	208.398	191.545	1.00100.02 C
HETATM	5391	C8	NAG B1003	177.250	208.939	191.506	1.00100.02 C
HETATM	5392	N2	NAG B1003	174.965	209.116	192.240	1.00100.02 N
HETATM	5393	O3	NAG B1003	172.935	209.845	190.329	1.00100.02 O
HETATM	5394	O4	NAG B1003	170.364	210.470	191.468	1.00100.02 O
HETATM	5395	O5	NAG B1003	171.825	208.207	193.949	1.00100.02 O
HETATM	5396	O6	NAG B1003	169.499	207.897	194.873	1.00100.02 O
HETATM	5397	O7	NAG B1003	175.543	207.360	190.970	1.00100.02 O
HETATM	5398	H1	NAG B1003	173.351	209.401	194.318	1.00100.02 H

HETATM 5399	H2	NAG B1003	173.427	207.885	191.928	1.00100.02 H
HETATM 5400	H3	NAG B1003	172.842	210.651	192.123	1.00100.02 H
HETATM 5401	H4	NAG B1003	170.990	208.605	191.462	1.00100.02 H
HETATM 5402	H5	NAG B1003	171.089	210.046	193.909	1.00100.02 H
HETATM 5403	H61	NAG B1003	169.208	208.221	192.950	1.00100.02 H
HETATM 5404	H62	NAG B1003	168.952	209.498	193.861	1.00100.02 H
HETATM 5405	H81	NAG B1003	177.529	209.187	192.407	1.00100.02 H
HETATM 5406	H82	NAG B1003	177.276	209.725	190.928	1.00100.02 H
HETATM 5407	H83	NAG B1003	177.852	208.256	191.157	1.00100.02 H
HETATM 5408	HN2	NAG B1003	175.249	209.881	192.649	1.00100.02 H
HETATM 5409	HO3	NAG B1003	172.241	210.210	189.913	1.00100.02 H
HETATM 5410	HO4	NAG B1003	169.567	210.139	191.257	1.00100.02 H
HETATM 5411	HO6	NAG B1003	170.327	207.764	195.165	1.00100.02 H
HETATM 5412	C1	NAG B1004	164.769	208.955	163.021	1.00 83.30 C
HETATM 5413	C2	NAG B1004	165.910	209.896	162.685	1.00 83.30 C
HETATM 5414	C3	NAG B1004	165.618	210.618	161.379	1.00 83.30 C
HETATM 5415	C4	NAG B1004	165.329	209.608	160.278	1.00 83.30 C
HETATM 5416	C5	NAG B1004	164.245	208.628	160.721	1.00 83.30 C
HETATM 5417	C6	NAG B1004	164.047	207.494	159.744	1.00 83.30 C
HETATM 5418	C7	NAG B1004	166.828	210.547	164.858	1.00 83.30 C
HETATM 5419	C8	NAG B1004	166.963	211.643	165.864	1.00 83.30 C
HETATM 5420	N2	NAG B1004	166.134	210.847	163.759	1.00 83.30 N
HETATM 5421	O3	NAG B1004	166.738	211.419	161.023	1.00 83.30 O
HETATM 5422	O4	NAG B1004	164.896	210.286	159.105	1.00 83.30 O
HETATM 5423	O5	NAG B1004	164.600	208.024	161.973	1.00 83.30 O
HETATM 5424	O6	NAG B1004	162.800	207.590	159.072	1.00 83.30 O
HETATM 5425	O7	NAG B1004	167.324	209.439	165.032	1.00 83.30 O
HETATM 5426	H1	NAG B1004	163.951	209.474	163.124	1.00 83.30 H
HETATM 5427	H2	NAG B1004	166.720	209.366	162.567	1.00 83.30 H
HETATM 5428	H3	NAG B1004	164.836	211.190	161.500	1.00 83.30 H
HETATM 5429	H4	NAG B1004	166.145	209.113	160.081	1.00 83.30 H
HETATM 5430	H5	NAG B1004	163.406	209.114	160.834	1.00 83.30 H
HETATM 5431	H61	NAG B1004	164.084	206.650	160.232	1.00 83.30 H
HETATM 5432	H62	NAG B1004	164.771	207.514	159.091	1.00 83.30 H
HETATM 5433	H81	NAG B1004	166.153	211.683	166.406	1.00 83.30 H
HETATM 5434	H82	NAG B1004	167.083	212.489	165.395	1.00 83.30 H
HETATM 5435	H83	NAG B1004	167.737	211.469	166.430	1.00 83.30 H

HETATM	5436	HN2	NAG	B	1004	165.786 211.686 163.679	1.00 83.30 H
HETATM	5437	HO3	NAG	B	1004	167.410 210.893 160.781	1.00 83.30 H
HETATM	5438	HO4	NAG	B	1004	164.953 211.163 159.235	1.00 83.30 H
HETATM	5439	HO6	NAG	B	1004	162.461 208.403 159.191	1.00 83.30 H
HETATM	5440	C1	NAG	B	1005	152.089 210.593 162.951	1.00122.28 C
HETATM	5441	C2	NAG	B	1005	152.139 210.460 164.466	1.00122.28 C
HETATM	5442	C3	NAG	B	1005	151.643 211.747 165.117	1.00122.28 C
HETATM	5443	C4	NAG	B	1005	152.447 212.933 164.603	1.00122.28 C
HETATM	5444	C5	NAG	B	1005	152.416 212.971 163.077	1.00122.28 C
HETATM	5445	C6	NAG	B	1005	153.315 214.039 162.500	1.00122.28 C
HETATM	5446	C7	NAG	B	1005	151.360 208.896 166.189	1.00122.28 C
HETATM	5447	C8	NAG	B	1005	150.506 207.701 166.482	1.00122.28 C
HETATM	5448	N2	NAG	B	1005	151.362 209.319 164.921	1.00122.28 N
HETATM	5449	O3	NAG	B	1005	151.769 211.656 166.532	1.00122.28 O
HETATM	5450	O4	NAG	B	1005	151.911 214.146 165.117	1.00122.28 O
HETATM	5451	O5	NAG	B	1005	152.869 211.718 162.541	1.00122.28 O
HETATM	5452	O6	NAG	B	1005	152.766 214.598 161.315	1.00122.28 O
HETATM	5453	O7	NAG	B	1005	152.014 209.457 167.063	1.00122.28 O
HETATM	5454	H1	NAG	B	1005	151.164 210.724 162.673	1.00122.28 H
HETATM	5455	H2	NAG	B	1005	153.071 210.329 164.726	1.00122.28 H
HETATM	5456	H3	NAG	B	1005	150.705 211.878 164.887	1.00122.28 H
HETATM	5457	H4	NAG	B	1005	153.372 212.843 164.898	1.00122.28 H
HETATM	5458	H5	NAG	B	1005	151.499 213.131 162.785	1.00122.28 H
HETATM	5459	H61	NAG	B	1005	154.185 213.645 162.296	1.00122.28 H
HETATM	5460	H62	NAG	B	1005	153.432 214.746 163.162	1.00122.28 H
HETATM	5461	H81	NAG	B	1005	149.570 207.926 166.325	1.00122.28 H
HETATM	5462	H82	NAG	B	1005	150.626 207.438 167.414	1.00122.28 H
HETATM	5463	H83	NAG	B	1005	150.770 206.966 165.897	1.00122.28 H
HETATM	5464	HN2	NAG	B	1005	150.861 208.864 164.310	1.00122.28 H
HETATM	5465	HO3	NAG	B	1005	151.095 212.087 166.916	1.00122.28 H
HETATM	5466	HO4	NAG	B	1005	152.512 214.537 165.641	1.00122.28 H
HETATM	5467	HO6	NAG	B	1005	151.948 214.901 161.485	1.00122.28 H
HETATM	5468	C1	NAG	B	1007	155.322 196.342 130.477	1.00138.87 C
HETATM	5469	C2	NAG	B	1007	154.332 197.497 130.636	1.00138.87 C
HETATM	5470	C3	NAG	B	1007	154.616 198.589 129.605	1.00138.87 C
HETATM	5471	C4	NAG	B	1007	156.082 198.998 129.647	1.00138.87 C
HETATM	5472	C5	NAG	B	1007	156.976 197.771 129.519	1.00138.87 C

HETATM	5473	C6	NAG B1007	158.444	198.096	129.661	1.00138.87	C
HETATM	5474	C7	NAG B1007	151.894	197.817	130.507	1.00138.87	C
HETATM	5475	C8	NAG B1007	150.567	197.137	130.371	1.00138.87	C
HETATM	5476	N2	NAG B1007	152.965	197.016	130.511	1.00138.87	N
HETATM	5477	O3	NAG B1007	153.805	199.728	129.872	1.00138.87	O
HETATM	5478	O4	NAG B1007	156.364	199.899	128.581	1.00138.87	O
HETATM	5479	O5	NAG B1007	156.654	196.837	130.558	1.00138.87	O
HETATM	5480	O6	NAG B1007	158.883	197.938	131.003	1.00138.87	O
HETATM	5481	O7	NAG B1007	151.993	199.035	130.606	1.00138.87	O
HETATM	5482	H1	NAG B1007	155.186	195.918	129.609	1.00138.87	H
HETATM	5483	H2	NAG B1007	154.447	197.882	131.525	1.00138.87	H
HETATM	5484	H3	NAG B1007	154.406	198.247	128.715	1.00138.87	H
HETATM	5485	H4	NAG B1007	156.263	199.441	130.497	1.00138.87	H
HETATM	5486	H5	NAG B1007	156.819	197.353	128.651	1.00138.87	H
HETATM	5487	H61	NAG B1007	158.593	199.020	129.384	1.00138.87	H
HETATM	5488	H62	NAG B1007	158.960	197.505	129.081	1.00138.87	H
HETATM	5489	H81	NAG B1007	150.473	196.782	129.466	1.00138.87	H
HETATM	5490	H82	NAG B1007	149.853	197.779	130.546	1.00138.87	H
HETATM	5491	H83	NAG B1007	150.511	196.405	131.013	1.00138.87	H
HETATM	5492	HN2	NAG B1007	152.830	196.117	130.435	1.00138.87	H
HETATM	5493	HO4	NAG B1007	155.632	200.021	128.096	1.00138.87	H
HETATM	5494	HO6	NAG B1007	159.760	197.803	131.015	1.00138.87	H
HETATM	5495	C1	NAG B1008	154.051	201.053	130.146	1.00142.45	C
HETATM	5496	C2	NAG B1008	154.790	202.224	130.795	1.00142.45	C
HETATM	5497	C3	NAG B1008	154.495	203.516	130.039	1.00142.45	C
HETATM	5498	C4	NAG B1008	154.819	203.347	128.562	1.00142.45	C
HETATM	5499	C5	NAG B1008	154.068	202.143	128.003	1.00142.45	C
HETATM	5500	C6	NAG B1008	154.421	201.848	126.566	1.00142.45	C
HETATM	5501	C7	NAG B1008	154.617	201.393	133.099	1.00142.45	C
HETATM	5502	C8	NAG B1008	154.184	201.709	134.500	1.00142.45	C
HETATM	5503	N2	NAG B1008	154.430	202.361	132.197	1.00142.45	N
HETATM	5504	O3	NAG B1008	155.260	204.579	130.596	1.00142.45	O
HETATM	5505	O4	NAG B1008	154.444	204.512	127.835	1.00142.45	O
HETATM	5506	O5	NAG B1008	154.400	200.970	128.760	1.00142.45	O
HETATM	5507	O6	NAG B1008	153.487	202.436	125.671	1.00142.45	O
HETATM	5508	O7	NAG B1008	155.109	200.310	132.799	1.00142.45	O
HETATM	5509	H1	NAG B1008	153.090	201.196	130.224	1.00142.45	H

HETATM	5510	H2	NAG B1008	155.750	202.051	130.737	1.00142.45	H
HETATM	5511	H3	NAG B1008	153.546	203.728	130.133	1.00142.45	H
HETATM	5512	H4	NAG B1008	155.777	203.197	128.454	1.00142.45	H
HETATM	5513	H5	NAG B1008	153.109	202.305	128.074	1.00142.45	H
HETATM	5514	H61	NAG B1008	154.433	200.881	126.434	1.00142.45	H
HETATM	5515	H62	NAG B1008	155.310	202.207	126.383	1.00142.45	H
HETATM	5516	H81	NAG B1008	153.214	201.625	134.569	1.00142.45	H
HETATM	5517	H82	NAG B1008	154.445	202.623	134.722	1.00142.45	H
HETATM	5518	H83	NAG B1008	154.608	201.087	135.120	1.00142.45	H
HETATM	5519	HN2	NAG B1008	154.061	203.149	132.474	1.00142.45	H
HETATM	5520	HO3	NAG B1008	154.923	204.799	131.388	1.00142.45	H
HETATM	5521	HO4	NAG B1008	154.873	204.524	127.057	1.00142.45	H
HETATM	5522	HO6	NAG B1008	152.907	202.929	126.128	1.00142.45	H
HETATM	5523	C1	NAG B1009	160.069	188.834	120.771	1.00114.80	C
HETATM	5524	C2	NAG B1009	158.889	189.785	120.900	1.00114.80	C
HETATM	5525	C3	NAG B1009	158.729	190.598	119.621	1.00114.80	C
HETATM	5526	C4	NAG B1009	160.037	191.294	119.270	1.00114.80	C
HETATM	5527	C5	NAG B1009	161.191	190.294	119.248	1.00114.80	C
HETATM	5528	C6	NAG B1009	162.537	190.957	119.076	1.00114.80	C
HETATM	5529	C7	NAG B1009	157.273	188.800	122.458	1.00114.80	C
HETATM	5530	C8	NAG B1009	155.986	188.049	122.597	1.00114.80	C
HETATM	5531	N2	NAG B1009	157.665	189.066	121.208	1.00114.80	N
HETATM	5532	O3	NAG B1009	157.698	191.562	119.802	1.00114.80	O
HETATM	5533	O4	NAG B1009	159.931	191.909	117.992	1.00114.80	O
HETATM	5534	O5	NAG B1009	161.247	189.572	120.488	1.00114.80	O
HETATM	5535	O6	NAG B1009	163.240	191.028	120.309	1.00114.80	O
HETATM	5536	O7	NAG B1009	157.932	189.147	123.432	1.00114.80	O
HETATM	5537	H1	NAG B1009	159.901	188.206	120.042	1.00114.80	H
HETATM	5538	H2	NAG B1009	159.077	190.406	121.628	1.00114.80	H
HETATM	5539	H3	NAG B1009	158.477	189.999	118.893	1.00114.80	H
HETATM	5540	H4	NAG B1009	160.220	191.981	119.939	1.00114.80	H
HETATM	5541	H5	NAG B1009	161.050	189.662	118.519	1.00114.80	H
HETATM	5542	H61	NAG B1009	162.406	191.860	118.731	1.00114.80	H
HETATM	5543	H62	NAG B1009	163.065	190.443	118.436	1.00114.80	H
HETATM	5544	H81	NAG B1009	156.144	187.102	122.422	1.00114.80	H
HETATM	5545	H82	NAG B1009	155.340	188.396	121.954	1.00114.80	H
HETATM	5546	H83	NAG B1009	155.643	188.164	123.503	1.00114.80	H

HETATM	5547	HN2	NAG	B	1009	157.139 188.785 120.518 1.00	114.80 H
HETATM	5548	HO3	NAG	B	1009	157.316 191.734 119.019 1.00	114.80 H
HETATM	5549	HO4	NAG	B	1009	160.593 191.624 117.473 1.00	114.80 H
HETATM	5550	HO6	NAG	B	1009	162.872 190.465 120.888 1.00	114.80 H
HETATM	5551	C1	NAG	B	1010	191.318 172.997 175.822 1.00	67.96 C
HETATM	5552	C2	NAG	B	1010	192.434 172.234 176.503 1.00	67.96 C
HETATM	5553	C3	NAG	B	1010	193.669 173.112 176.608 1.00	67.96 C
HETATM	5554	C4	NAG	B	1010	194.050 173.645 175.234 1.00	67.96 C
HETATM	5555	C5	NAG	B	1010	192.846 174.286 174.546 1.00	67.96 C
HETATM	5556	C6	NAG	B	1010	193.117 174.637 173.103 1.00	67.96 C
HETATM	5557	C7	NAG	B	1010	192.747 170.900 178.537 1.00	67.96 C
HETATM	5558	C8	NAG	B	1010	192.172 170.518 179.867 1.00	67.96 C
HETATM	5559	N2	NAG	B	1010	192.024 171.761 177.814 1.00	67.96 N
HETATM	5560	O3	NAG	B	1010	194.745 172.357 177.151 1.00	67.96 O
HETATM	5561	O4	NAG	B	1010	195.084 174.614 175.363 1.00	67.96 O
HETATM	5562	O5	NAG	B	1010	191.729 173.385 174.540 1.00	67.96 O
HETATM	5563	O6	NAG	B	1010	191.910 174.895 172.399 1.00	67.96 O
HETATM	5564	O7	NAG	B	1010	193.816 170.454 178.138 1.00	67.96 O
HETATM	5565	H1	NAG	B	1010	191.111 173.794 176.342 1.00	67.96 H
HETATM	5566	H2	NAG	B	1010	192.656 171.461 175.950 1.00	67.96 H
HETATM	5567	H3	NAG	B	1010	193.474 173.862 177.199 1.00	67.96 H
HETATM	5568	H4	NAG	B	1010	194.370 172.904 174.685 1.00	67.96 H
HETATM	5569	H5	NAG	B	1010	192.593 175.093 175.033 1.00	67.96 H
HETATM	5570	H61	NAG	B	1010	193.577 173.886 172.680 1.00	67.96 H
HETATM	5571	H62	NAG	B	1010	193.690 175.425 173.064 1.00	67.96 H
HETATM	5572	H81	NAG	B	1010	191.740 171.294 180.272 1.00	67.96 H
HETATM	5573	H82	NAG	B	1010	192.887 170.207 180.453 1.00	67.96 H
HETATM	5574	H83	NAG	B	1010	191.518 169.804 179.747 1.00	67.96 H
HETATM	5575	HN2	NAG	B	1010	191.234 172.064 178.151 1.00	67.96 H
HETATM	5576	HO3	NAG	B	1010	194.712 172.398 178.038 1.00	67.96 H
HETATM	5577	HO4	NAG	B	1010	195.568 174.632 174.618 1.00	67.96 H
HETATM	5578	HO6	NAG	B	1010	191.740 174.216 171.852 1.00	67.96 H
HETATM	5579	C1	NAG	B	1011	188.557 181.169 174.427 1.00	74.66 C
HETATM	5580	C2	NAG	B	1011	189.950 181.578 173.979 1.00	74.66 C
HETATM	5581	C3	NAG	B	1011	189.868 182.388 172.694 1.00	74.66 C
HETATM	5582	C4	NAG	B	1011	189.092 181.616 171.636 1.00	74.66 C
HETATM	5583	C5	NAG	B	1011	187.742 181.162 172.186 1.00	74.66 C

HETATM	5584	C6	NAG B1011	186.996	180.254	171.237	1.00 74.66 C
HETATM	5585	C7	NAG B1011	191.361	181.744	175.977	1.00 74.66 C
HETATM	5586	C8	NAG B1011	192.004	182.667	176.967	1.00 74.66 C
HETATM	5587	N2	NAG B1011	190.637	182.329	175.017	1.00 74.66 N
HETATM	5588	O3	NAG B1011	191.181	182.670	172.225	1.00 74.66 O
HETATM	5589	O4	NAG B1011	188.884	182.439	170.494	1.00 74.66 O
HETATM	5590	O5	NAG B1011	187.926	180.423	173.401	1.00 74.66 O
HETATM	5591	O6	NAG B1011	185.613	180.189	171.557	1.00 74.66 O
HETATM	5592	O7	NAG B1011	191.490	180.527	176.044	1.00 74.66 O
HETATM	5593	H1	NAG B1011	188.034	181.974	174.602	1.00 74.66 H
HETATM	5594	H2	NAG B1011	190.460	180.767	173.790	1.00 74.66 H
HETATM	5595	H3	NAG B1011	189.405	183.227	172.878	1.00 74.66 H
HETATM	5596	H4	NAG B1011	189.610	180.831	171.376	1.00 74.66 H
HETATM	5597	H5	NAG B1011	187.195	181.948	172.376	1.00 74.66 H
HETATM	5598	H61	NAG B1011	187.381	179.360	171.289	1.00 74.66 H
HETATM	5599	H62	NAG B1011	187.099	180.591	170.327	1.00 74.66 H
HETATM	5600	H81	NAG B1011	191.311	183.159	177.447	1.00 74.66 H
HETATM	5601	H82	NAG B1011	192.585	183.294	176.496	1.00 74.66 H
HETATM	5602	H83	NAG B1011	192.530	182.145	177.601	1.00 74.66 H
HETATM	5603	HN2	NAG B1011	190.572	183.238	175.010	1.00 74.66 H
HETATM	5604	HO3	NAG B1011	191.718	182.812	172.918	1.00 74.66 H
HETATM	5605	HO4	NAG B1011	189.429	183.138	170.536	1.00 74.66 H
HETATM	5606	HO6	NAG B1011	185.419	180.820	172.150	1.00 74.66 H
HETATM	5607	C1	NAG B1012	174.143	199.920	150.723	1.00131.36 C
HETATM	5608	C2	NAG B1012	174.490	201.402	150.619	1.00131.36 C
HETATM	5609	C3	NAG B1012	175.857	201.578	149.964	1.00131.36 C
HETATM	5610	C4	NAG B1012	176.906	200.756	150.698	1.00131.36 C
HETATM	5611	C5	NAG B1012	176.455	199.302	150.813	1.00131.36 C
HETATM	5612	C6	NAG B1012	177.390	198.461	151.650	1.00131.36 C
HETATM	5613	C7	NAG B1012	173.476	203.457	149.735	1.00131.36 C
HETATM	5614	C8	NAG B1012	172.347	204.036	148.940	1.00131.36 C
HETATM	5615	N2	NAG B1012	173.470	202.127	149.878	1.00131.36 N
HETATM	5616	O3	NAG B1012	176.225	202.954	149.983	1.00131.36 O
HETATM	5617	O4	NAG B1012	178.141	200.811	149.993	1.00131.36 O
HETATM	5618	O5	NAG B1012	175.168	199.237	151.442	1.00131.36 O
HETATM	5619	O6	NAG B1012	177.550	199.006	152.952	1.00131.36 O
HETATM	5620	O7	NAG B1012	174.357	204.158	150.222	1.00131.36 O

HETATM	5621	H1	NAG B1012	174.069	199.539	149.828	1.00131.36	H
HETATM	5622	H2	NAG B1012	174.537	201.769	151.522	1.00131.36	H
HETATM	5623	H3	NAG B1012	175.810	201.276	149.037	1.00131.36	H
HETATM	5624	H4	NAG B1012	177.033	201.123	151.594	1.00131.36	H
HETATM	5625	H5	NAG B1012	176.394	198.917	149.918	1.00131.36	H
HETATM	5626	H61	NAG B1012	178.262	198.420	151.212	1.00131.36	H
HETATM	5627	H62	NAG B1012	177.027	197.559	151.724	1.00131.36	H
HETATM	5628	H81	NAG B1012	171.501	203.694	149.283	1.00131.36	H
HETATM	5629	H82	NAG B1012	172.446	203.782	148.002	1.00131.36	H
HETATM	5630	H83	NAG B1012	172.363	205.008	149.017	1.00131.36	H
HETATM	5631	HN2	NAG B1012	172.792	201.652	149.495	1.00131.36	H
HETATM	5632	HO3	NAG B1012	177.066	203.037	149.712	1.00131.36	H
HETATM	5633	HO4	NAG B1012	178.070	201.384	149.319	1.00131.36	H
HETATM	5634	HO6	NAG B1012	178.031	198.450	153.450	1.00131.36	H
HETATM	5635	C1	NAG B1013	176.275	176.996	121.874	1.00111.93	C
HETATM	5636	C2	NAG B1013	177.591	177.260	122.597	1.00111.93	C
HETATM	5637	C3	NAG B1013	178.767	177.017	121.656	1.00111.93	C
HETATM	5638	C4	NAG B1013	178.671	175.631	121.031	1.00111.93	C
HETATM	5639	C5	NAG B1013	177.298	175.423	120.398	1.00111.93	C
HETATM	5640	C6	NAG B1013	177.093	174.012	119.899	1.00111.93	C
HETATM	5641	C7	NAG B1013	177.104	178.949	124.309	1.00111.93	C
HETATM	5642	C8	NAG B1013	177.232	180.391	124.700	1.00111.93	C
HETATM	5643	N2	NAG B1013	177.631	178.614	123.128	1.00111.93	N
HETATM	5644	O3	NAG B1013	179.985	177.134	122.383	1.00111.93	O
HETATM	5645	O4	NAG B1013	179.665	175.484	120.024	1.00111.93	O
HETATM	5646	O5	NAG B1013	176.268	175.670	121.366	1.00111.93	O
HETATM	5647	O6	NAG B1013	178.332	173.342	119.715	1.00111.93	O
HETATM	5648	O7	NAG B1013	176.548	178.128	125.030	1.00111.93	O
HETATM	5649	H1	NAG B1013	176.187	177.624	121.132	1.00111.93	H
HETATM	5650	H2	NAG B1013	177.664	176.632	123.340	1.00111.93	H
HETATM	5651	H3	NAG B1013	178.751	177.687	120.946	1.00111.93	H
HETATM	5652	H4	NAG B1013	178.810	174.957	121.722	1.00111.93	H
HETATM	5653	H5	NAG B1013	177.194	176.047	119.655	1.00111.93	H
HETATM	5654	H61	NAG B1013	176.615	174.041	119.049	1.00111.93	H
HETATM	5655	H62	NAG B1013	176.559	173.521	120.552	1.00111.93	H
HETATM	5656	H81	NAG B1013	176.722	180.943	124.078	1.00111.93	H
HETATM	5657	H82	NAG B1013	178.172	180.651	124.670	1.00111.93	H

HETATM	5658	H83	NAG B1013	176.886	180.515	125.604	1.00	111.93	H
HETATM	5659	HN2	NAG B1013	178.033	179.265	122.631	1.00	111.93	H
HETATM	5660	HO3	NAG B1013	180.116	176.399	122.864	1.00	111.93	H
HETATM	5661	HO4	NAG B1013	179.300	175.638	119.228	1.00	111.93	H
HETATM	5662	HO6	NAG B1013	178.181	172.487	119.532	1.00	111.93	H
HETATM	5663	C1	NAG B1014	142.644	177.775	123.540	1.00	129.17	C
HETATM	5664	C2	NAG B1014	141.735	177.084	122.530	1.00	129.17	C
HETATM	5665	C3	NAG B1014	142.031	177.588	121.121	1.00	129.17	C
HETATM	5666	C4	NAG B1014	141.962	179.110	121.072	1.00	129.17	C
HETATM	5667	C5	NAG B1014	142.858	179.713	122.150	1.00	129.17	C
HETATM	5668	C6	NAG B1014	142.747	181.218	122.243	1.00	129.17	C
HETATM	5669	C7	NAG B1014	140.872	174.785	122.439	1.00	129.17	C
HETATM	5670	C8	NAG B1014	141.214	173.328	122.540	1.00	129.17	C
HETATM	5671	N2	NAG B1014	141.889	175.639	122.598	1.00	129.17	N
HETATM	5672	O3	NAG B1014	141.088	177.033	120.212	1.00	129.17	O
HETATM	5673	O4	NAG B1014	142.386	179.573	119.795	1.00	129.17	O
HETATM	5674	O5	NAG B1014	142.492	179.191	123.435	1.00	129.17	O
HETATM	5675	O6	NAG B1014	142.276	181.627	123.520	1.00	129.17	O
HETATM	5676	O7	NAG B1014	139.727	175.172	122.221	1.00	129.17	O
HETATM	5677	H1	NAG B1014	143.570	177.535	123.347	1.00	129.17	H
HETATM	5678	H2	NAG B1014	140.811	177.311	122.745	1.00	129.17	H
HETATM	5679	H3	NAG B1014	142.928	177.304	120.864	1.00	129.17	H
HETATM	5680	H4	NAG B1014	141.041	179.393	121.223	1.00	129.17	H
HETATM	5681	H5	NAG B1014	143.786	179.476	121.960	1.00	129.17	H
HETATM	5682	H61	NAG B1014	142.130	181.538	121.558	1.00	129.17	H
HETATM	5683	H62	NAG B1014	143.626	181.612	122.089	1.00	129.17	H
HETATM	5684	H81	NAG B1014	142.136	173.228	122.842	1.00	129.17	H
HETATM	5685	H82	NAG B1014	141.111	172.909	121.664	1.00	129.17	H
HETATM	5686	H83	NAG B1014	140.615	172.896	123.178	1.00	129.17	H
HETATM	5687	HN2	NAG B1014	142.720	175.299	122.758	1.00	129.17	H
HETATM	5688	HO3	NAG B1014	140.367	176.768	120.658	1.00	129.17	H
HETATM	5689	HO4	NAG B1014	142.039	179.055	119.162	1.00	129.17	H
HETATM	5690	HO6	NAG B1014	141.843	182.398	123.443	1.00	129.17	H
HETATM	5691	C1	NAG B1015	172.415	204.065	157.464	1.00	93.55	C
HETATM	5692	C2	NAG B1015	172.102	205.349	158.228	1.00	93.55	C
HETATM	5693	C3	NAG B1015	172.972	206.492	157.715	1.00	93.55	C
HETATM	5694	C4	NAG B1015	174.443	206.099	157.753	1.00	93.55	C

HETATM	5695	C5	NAG B1015	174.654	204.776	157.020	1.00 93.55 C
HETATM	5696	C6	NAG B1015	176.069	204.258	157.131	1.00 93.55 C
HETATM	5697	C7	NAG B1015	170.065	206.495	158.980	1.00 93.55 C
HETATM	5698	C8	NAG B1015	168.609	206.732	158.715	1.00 93.55 C
HETATM	5699	N2	NAG B1015	170.693	205.688	158.119	1.00 93.55 N
HETATM	5700	O3	NAG B1015	172.759	207.650	158.515	1.00 93.55 O
HETATM	5701	O4	NAG B1015	175.231	207.111	157.138	1.00 93.55 O
HETATM	5702	O5	NAG B1015	173.802	203.766	157.578	1.00 93.55 O
HETATM	5703	O6	NAG B1015	176.113	203.025	157.835	1.00 93.55 O
HETATM	5704	O7	NAG B1015	170.648	207.014	159.926	1.00 93.55 O
HETATM	5705	H1	NAG B1015	172.189	204.189	156.523	1.00 93.55 H
HETATM	5706	H2	NAG B1015	172.317	205.211	159.170	1.00 93.55 H
HETATM	5707	H3	NAG B1015	172.722	206.693	156.793	1.00 93.55 H
HETATM	5708	H4	NAG B1015	174.722	205.998	158.682	1.00 93.55 H
HETATM	5709	H5	NAG B1015	174.430	204.893	156.077	1.00 93.55 H
HETATM	5710	H61	NAG B1015	176.613	204.914	157.606	1.00 93.55 H
HETATM	5711	H62	NAG B1015	176.433	204.129	156.234	1.00 93.55 H
HETATM	5712	H81	NAG B1015	168.255	206.003	158.172	1.00 93.55 H
HETATM	5713	H82	NAG B1015	168.499	207.578	158.242	1.00 93.55 H
HETATM	5714	H83	NAG B1015	168.127	206.768	159.562	1.00 93.55 H
HETATM	5715	HN2	NAG B1015	170.211	205.325	157.433	1.00 93.55 H
HETATM	5716	HO3	NAG B1015	172.895	208.377	158.025	1.00 93.55 H
HETATM	5717	HO4	NAG B1015	175.088	207.107	156.261	1.00 93.55 H
HETATM	5718	HO6	NAG B1015	176.466	203.157	158.638	1.00 93.55 H
HETATM	5719	C1	PFE B1101	138.292	145.575	221.765	1.00100.14 C
HETATM	5720	C13	PFE B1101	143.279	145.516	223.301	1.00100.14 C
HETATM	5721	C18	PFE B1101	138.328	149.229	221.560	1.00100.14 C
HETATM	5722	C2	PFE B1101	138.543	146.912	222.454	1.00100.14 C
HETATM	5723	C21	PFE B1101	138.361	151.320	220.177	1.00100.14 C
HETATM	5724	C22	PFE B1101	139.277	152.026	219.410	1.00100.14 C
HETATM	5725	C23	PFE B1101	139.082	153.369	219.150	1.00100.14 C
HETATM	5726	C24	PFE B1101	137.970	154.026	219.654	1.00100.14 C
HETATM	5727	C25	PFE B1101	137.046	153.317	220.409	1.00100.14 C
HETATM	5728	C26	PFE B1101	137.240	151.974	220.668	1.00100.14 C
HETATM	5729	C28	PFE B1101	138.386	156.178	218.491	1.00100.14 C
HETATM	5730	C3	PFE B1101	139.743	146.851	223.377	1.00100.14 C
HETATM	5731	C30	PFE B1101	138.008	157.610	218.555	1.00100.14 C

HETATM	5732	C31	PFE	B1101	138.521 158.562 217.735	1.00100.14 C
HETATM	5733	C33	PFE	B1101	136.938 159.326 219.335	1.00100.14 C
HETATM	5734	C4	PFE	B1101	140.915 146.235 222.955	1.00100.14 C
HETATM	5735	C5	PFE	B1101	142.025 146.165 223.787	1.00100.14 C
HETATM	5736	C6	PFE	B1101	141.974 146.709 225.064	1.00100.14 C
HETATM	5737	C7	PFE	B1101	140.807 147.326 225.496	1.00100.14 C
HETATM	5738	C8	PFE	B1101	139.703 147.394 224.655	1.00100.14 C
HETATM	5739	C9	PFE	B1101	140.740 147.922 226.865	1.00100.14 C
HETATM	5740	F10	PFE	B1101	141.446 147.235 227.755	1.00100.14 F
HETATM	5741	F11	PFE	B1101	141.206 149.164 226.906	1.00100.14 F
HETATM	5742	F12	PFE	B1101	139.501 147.977 227.340	1.00100.14 F
HETATM	5743	F14	PFE	B1101	143.809 144.690 224.198	1.00100.14 F
HETATM	5744	F15	PFE	B1101	143.091 144.794 222.202	1.00100.14 F
HETATM	5745	F16	PFE	B1101	144.228 146.396 223.002	1.00100.14 F
HETATM	5746	N17	PFE	B1101	138.701 147.952 221.435	1.00100.14 N
HETATM	5747	N20	PFE	B1101	138.594 149.953 220.454	1.00100.14 N
HETATM	5748	N27	PFE	B1101	137.787 155.408 219.422	1.00100.14 N
HETATM	5749	N34	PFE	B1101	137.088 158.050 219.487	1.00100.14 N
HETATM	5750	O29	PFE	B1101	139.181 155.762 217.653	1.00100.14 O
HETATM	5751	S19	PFE	B1101	137.627 149.843 222.954	1.00100.14 S
HETATM	5752	S32	PFE	B1101	137.853 160.079 218.107	1.00100.14 S
HETATM	5753	HC2	PFE	B1101	137.661 147.149 223.046	1.00100.14 H
HETATM	5754	HC4	PFE	B1101	140.970 145.800 221.958	1.00100.14 H
HETATM	5755	HC6	PFE	B1101	142.838 146.652 225.723	1.00100.14 H
HETATM	5756	HC8	PFE	B1101	138.788 147.876 224.997	1.00100.14 H
HETATM	5757	HC1A	PFE	B1101	138.209 144.775 222.498	1.00100.14 H
HETATM	5758	HC1B	PFE	B1101	137.359 145.587 221.204	1.00100.14 H
HETATM	5759	HC1C	PFE	B1101	139.074 145.293 221.062	1.00100.14 H
HETATM	5760	HC22	PFE	B1101	140.151 151.527 218.996	1.00100.14 H
HETATM	5761	HC23	PFE	B1101	139.822 153.878 218.535	1.00100.14 H
HETATM	5762	HC25	PFE	B1101	136.158 153.804 220.806	1.00100.14 H
HETATM	5763	HC26	PFE	B1101	136.506 151.432 221.260	1.00100.14 H
HETATM	5764	HC31	PFE	B1101	139.256 158.420 216.946	1.00100.14 H
HETATM	5765	HC33	PFE	B1101	136.265 159.901 219.967	1.00100.14 H
HETATM	5766	HN17	PFE	B1101	139.141 147.622 220.583	1.00100.14 H
HETATM	5767	HN20	PFE	B1101	139.040 149.506 219.660	1.00100.14 H
HETATM	5768	HN27	PFE	B1101	137.118 155.843 220.047	1.00100.14 H

ATOM	1	N	THR	C	86	136.177	181.279	163.957	1.00 68.89	N
ATOM	2	CA	THR	C	86	135.924	179.852	164.110	1.00 68.89	C
ATOM	3	C	THR	C	86	134.656	179.440	163.375	1.00 68.89	C
ATOM	4	O	THR	C	86	133.591	179.317	163.980	1.00 68.89	O
ATOM	5	CB	THR	C	86	135.793	179.453	165.589	1.00 68.89	C
ATOM	6	OG1	THR	C	86	134.668	180.125	166.168	1.00 68.89	O
ATOM	7	CG2	THR	C	86	137.048	179.831	166.354	1.00 68.89	C
ATOM	8	N	THR	C	87	134.775	179.228	162.066	1.00 71.95	N
ATOM	9	CA	THR	C	87	133.655	178.788	161.246	1.00 71.95	C
ATOM	10	C	THR	C	87	133.760	177.338	160.807	1.00 71.95	C
ATOM	11	O	THR	C	87	132.733	176.677	160.656	1.00 71.95	O
ATOM	12	CB	THR	C	87	133.521	179.670	160.000	1.00 71.95	C
ATOM	13	OG1	THR	C	87	133.314	181.031	160.397	1.00 71.95	O
ATOM	14	CG2	THR	C	87	132.346	179.213	159.154	1.00 71.95	C
ATOM	15	N	LYS	C	88	134.974	176.833	160.597	1.00 66.47	N
ATOM	16	CA	LYS	C	88	135.190	175.424	160.312	1.00 66.47	C
ATOM	17	C	LYS	C	88	136.002	174.729	161.392	1.00 66.47	C
ATOM	18	O	LYS	C	88	136.196	173.511	161.314	1.00 66.47	O
ATOM	19	CB	LYS	C	88	135.879	175.249	158.955	1.00 66.47	C
ATOM	20	CG	LYS	C	88	137.028	176.206	158.711	1.00 66.47	C
ATOM	21	CD	LYS	C	88	137.631	175.991	157.334	1.00 66.47	C
ATOM	22	CE	LYS	C	88	138.074	174.550	157.149	1.00 66.47	C
ATOM	23	NZ	LYS	C	88	138.758	174.342	155.845	1.00 66.47	N
ATOM	24	N	TYR	C	89	136.482	175.464	162.395	1.00 60.35	N
ATOM	25	CA	TYR	C	89	137.189	174.903	163.543	1.00 60.35	C
ATOM	26	C	TYR	C	89	136.416	175.263	164.806	1.00 60.35	C
ATOM	27	O	TYR	C	89	136.839	176.131	165.582	1.00 60.35	O
ATOM	28	CB	TYR	C	89	138.624	175.416	163.626	1.00 60.35	C
ATOM	29	CG	TYR	C	89	139.470	175.086	162.422	1.00 60.35	C
ATOM	30	CD1	TYR	C	89	139.776	173.772	162.104	1.00 60.35	C
ATOM	31	CD2	TYR	C	89	139.971	176.090	161.610	1.00 60.35	C
ATOM	32	CE1	TYR	C	89	140.553	173.468	161.007	1.00 60.35	C
ATOM	33	CE2	TYR	C	89	140.749	175.796	160.511	1.00 60.35	C
ATOM	34	CZ	TYR	C	89	141.037	174.484	160.214	1.00 60.35	C
ATOM	35	OH	TYR	C	89	141.813	174.189	159.119	1.00 60.35	O
ATOM	36	N	PRO	C	90	135.277	174.617	165.041	1.00 51.95	N

ATOM	37	CA	PRO	C	90	134.479	174.923	166.230	1.00 51.95	C
ATOM	38	C	PRO	C	90	134.893	174.080	167.424	1.00 51.95	C
ATOM	39	O	PRO	C	90	135.206	172.895	167.306	1.00 51.95	O
ATOM	40	CB	PRO	C	90	133.059	174.571	165.772	1.00 51.95	C
ATOM	41	CG	PRO	C	90	133.265	173.441	164.825	1.00 51.95	C
ATOM	42	CD	PRO	C	90	134.612	173.635	164.170	1.00 51.95	C
ATOM	43	N	TYR	C	91	134.899	174.717	168.593	1.00 47.85	N
ATOM	44	CA	TYR	C	91	135.255	174.027	169.825	1.00 47.85	C
ATOM	45	C	TYR	C	91	134.502	172.711	169.935	1.00 47.85	C
ATOM	46	O	TYR	C	91	133.270	172.683	169.921	1.00 47.85	O
ATOM	47	CB	TYR	C	91	134.945	174.913	171.031	1.00 47.85	C
ATOM	48	CG	TYR	C	91	135.681	176.231	171.030	1.00 47.85	C
ATOM	49	CD1	TYR	C	91	136.959	176.333	171.552	1.00 47.85	C
ATOM	50	CD2	TYR	C	91	135.094	177.373	170.512	1.00 47.85	C
ATOM	51	CE1	TYR	C	91	137.634	177.534	171.554	1.00 47.85	C
ATOM	52	CE2	TYR	C	91	135.762	178.578	170.511	1.00 47.85	C
ATOM	53	CZ	TYR	C	91	137.033	178.652	171.033	1.00 47.85	C
ATOM	54	OH	TYR	C	91	137.704	179.851	171.035	1.00 47.85	O
ATOM	55	N	ARG	C	92	135.250	171.619	170.047	1.00 47.17	N
ATOM	56	CA	ARG	C	92	134.666	170.289	170.079	1.00 47.17	C
ATOM	57	C	ARG	C	92	135.428	169.440	171.082	1.00 47.17	C
ATOM	58	O	ARG	C	92	136.578	169.725	171.414	1.00 47.17	O
ATOM	59	CB	ARG	C	92	134.696	169.644	168.693	1.00 47.17	C
ATOM	60	CG	ARG	C	92	136.086	169.551	168.104	1.00 47.17	C
ATOM	61	CD	ARG	C	92	136.049	169.610	166.592	1.00 47.17	C
ATOM	62	NE	ARG	C	92	137.316	169.192	166.006	1.00 47.17	N
ATOM	63	CZ	ARG	C	92	138.320	170.016	165.737	1.00 47.17	C
ATOM	64	NH1	ARG	C	92	138.205	171.308	166.000	1.00 47.17	N
ATOM	65	NH2	ARG	C	92	139.439	169.549	165.205	1.00 47.17	N
ATOM	66	N	VAL	C	93	134.774	168.384	171.557	1.00 44.30	N
ATOM	67	CA	VAL	C	93	135.336	167.490	172.570	1.00 44.30	C
ATOM	68	C	VAL	C	93	135.120	166.064	172.077	1.00 44.30	C
ATOM	69	O	VAL	C	93	134.072	165.460	172.322	1.00 44.30	O
ATOM	70	CB	VAL	C	93	134.698	167.688	173.945	1.00 44.30	C
ATOM	71	CG1	VAL	C	93	135.042	166.526	174.849	1.00 44.30	C
ATOM	72	CG2	VAL	C	93	135.152	168.991	174.552	1.00 44.30	C
ATOM	73	N	CYS	C	94	136.120	165.501	171.403	1.00 50.21	N

ATOM	74	CA	CYS C	94	136.012	164.137	170.892	1.00 50.21 C
ATOM	75	C	CYS C	94	137.236	163.315	171.275	1.00 50.21 C
ATOM	76	O	CYS C	94	138.258	163.331	170.584	1.00 50.21 O
ATOM	77	CB	CYS C	94	135.782	164.130	169.389	1.00 50.21 C
ATOM	78	SG	CYS C	94	137.005	164.917	168.349	1.00 50.21 S
ATOM	79	N	SER C	95	137.105	162.595	172.386	1.00 49.61 N
ATOM	80	CA	SER C	95	137.990	161.496	172.747	1.00 49.61 C
ATOM	81	C	SER C	95	137.239	160.248	173.175	1.00 49.61 C
ATOM	82	O	SER C	95	137.866	159.193	173.313	1.00 49.61 O
ATOM	83	CB	SER C	95	138.940	161.914	173.873	1.00 49.61 C
ATOM	84	OG	SER C	95	138.218	162.287	175.032	1.00 49.61 O
ATOM	85	N	MET C	96	135.927	160.321	173.380	1.00 50.74 N
ATOM	86	CA	MET C	96	135.121	159.187	173.804	1.00 50.74 C
ATOM	87	C	MET C	96	134.531	158.490	172.586	1.00 50.74 C
ATOM	88	O	MET C	96	133.925	159.138	171.730	1.00 50.74 O
ATOM	89	CB	MET C	96	134.002	159.657	174.732	1.00 50.74 C
ATOM	90	CG	MET C	96	133.350	160.950	174.275	1.00 50.74 C
ATOM	91	SD	MET C	96	132.268	161.696	175.505	1.00 50.74 S
ATOM	92	CE	MET C	96	133.346	161.695	176.928	1.00 50.74 C
ATOM	93	N	ALA C	97	134.706	157.169	172.511	1.00 45.76 N
ATOM	94	CA	ALA C	97	134.206	156.415	171.363	1.00 45.76 C
ATOM	95	C	ALA C	97	133.934	154.979	171.808	1.00 45.76 C
ATOM	96	O	ALA C	97	134.864	154.178	171.913	1.00 45.76 O
ATOM	97	CB	ALA C	97	135.190	156.461	170.209	1.00 45.76 C
ATOM	98	N	GLN C	98	132.663	154.672	172.050	1.00 46.20 N
ATOM	99	CA	GLN C	98	132.225	153.303	172.287	1.00 46.20 C
ATOM	100	C	GLN C	98	132.101	152.594	170.947	1.00 46.20 C
ATOM	101	O	GLN C	98	132.616	153.082	169.938	1.00 46.20 O
ATOM	102	CB	GLN C	98	130.901	153.270	173.047	1.00 46.20 C
ATOM	103	CG	GLN C	98	130.722	154.409	174.022	1.00 46.20 C
ATOM	104	CD	GLN C	98	131.641	154.296	175.214	1.00 46.20 C
ATOM	105	OE1	GLN C	98	131.849	153.211	175.750	1.00 46.20 O
ATOM	106	NE2	GLN C	98	132.197	155.421	175.639	1.00 46.20 N
ATOM	107	N	GLY C	99	131.424	151.453	170.916	1.00 43.92 N
ATOM	108	CA	GLY C	99	131.345	150.691	169.686	1.00 43.92 C
ATOM	109	C	GLY C	99	130.374	151.299	168.695	1.00 43.92 C
ATOM	110	O	GLY C	99	130.387	152.513	168.478	1.00 43.92 O

ATOM	111	N	THR	C	100	129.531	150.474	168.084	1.00	43.38	N
ATOM	112	CA	THR	C	100	128.606	150.806	167.008	1.00	43.38	C
ATOM	113	C	THR	C	100	129.292	150.815	165.644	1.00	43.38	C
ATOM	114	O	THR	C	100	128.611	151.006	164.637	1.00	43.38	O
ATOM	115	CB	THR	C	100	127.895	152.159	167.209	1.00	43.38	C
ATOM	116	OG1	THR	C	100	128.849	153.219	167.108	1.00	43.38	O
ATOM	117	CG2	THR	C	100	127.239	152.216	168.569	1.00	43.38	C
ATOM	118	N	ASP	C	101	130.610	150.633	165.570	1.00	43.41	N
ATOM	119	CA	ASP	C	101	131.278	150.303	164.317	1.00	43.41	C
ATOM	120	C	ASP	C	101	132.760	150.048	164.558	1.00	43.41	C
ATOM	121	O	ASP	C	101	133.364	150.673	165.432	1.00	43.41	O
ATOM	122	CB	ASP	C	101	131.069	151.408	163.286	1.00	43.41	C
ATOM	123	CG	ASP	C	101	131.395	152.765	163.829	1.00	43.41	C
ATOM	124	OD1	ASP	C	101	131.908	152.833	164.962	1.00	43.41	O
ATOM	125	OD2	ASP	C	101	131.130	153.765	163.133	1.00	43.41	O
ATOM	126	N	LEU	C	102	133.355	149.147	163.783	1.00	42.15	N
ATOM	127	CA	LEU	C	102	134.723	148.706	164.000	1.00	42.15	C
ATOM	128	C	LEU	C	102	135.445	148.625	162.662	1.00	42.15	C
ATOM	129	O	LEU	C	102	134.815	148.572	161.606	1.00	42.15	O
ATOM	130	CB	LEU	C	102	134.746	147.346	164.706	1.00	42.15	C
ATOM	131	CG	LEU	C	102	133.683	147.167	165.793	1.00	42.15	C
ATOM	132	CD1	LEU	C	102	133.560	145.716	166.203	1.00	42.15	C
ATOM	133	CD2	LEU	C	102	133.997	148.023	166.997	1.00	42.15	C
ATOM	134	N	ILE	C	103	136.779	148.622	162.705	1.00	44.75	N
ATOM	135	CA	ILE	C	103	137.582	148.526	161.489	1.00	44.75	C
ATOM	136	C	ILE	C	103	138.916	147.865	161.806	1.00	44.75	C
ATOM	137	O	ILE	C	103	139.500	148.082	162.869	1.00	44.75	O
ATOM	138	CB	ILE	C	103	137.803	149.908	160.835	1.00	44.75	C
ATOM	139	CG1	ILE	C	103	138.714	150.768	161.702	1.00	44.75	C
ATOM	140	CG2	ILE	C	103	136.488	150.615	160.598	1.00	44.75	C
ATOM	141	CD1	ILE	C	103	139.009	152.119	161.102	1.00	44.75	C
ATOM	142	N	ARG	C	104	139.395	147.049	160.865	1.00	52.23	N
ATOM	143	CA	ARG	C	104	140.663	146.332	160.908	1.00	52.23	C
ATOM	144	C	ARG	C	104	141.689	147.004	159.995	1.00	52.23	C
ATOM	145	O	ARG	C	104	141.471	148.110	159.493	1.00	52.23	O
ATOM	146	CB	ARG	C	104	140.453	144.875	160.511	1.00	52.23	C
ATOM	147	CG	ARG	C	104	139.728	144.044	161.529	1.00	52.23	C

ATOM	148	CD	ARG C 104	139.790	142.595	161.118	1.00 52.23	C
ATOM	149	NE	ARG C 104	139.356	142.420	159.738	1.00 52.23	N
ATOM	150	CZ	ARG C 104	139.801	141.466	158.933	1.00 52.23	C
ATOM	151	NH1	ARG C 104	140.704	140.598	159.367	1.00 52.23	N
ATOM	152	NH2	ARG C 104	139.350	141.380	157.692	1.00 52.23	N
ATOM	153	N	PHE C 105	142.825	146.325	159.780	1.00 59.53	N
ATOM	154	CA	PHE C 105	143.871	146.828	158.892	1.00 59.53	C
ATOM	155	C	PHE C 105	144.368	145.798	157.879	1.00 59.53	C
ATOM	156	O	PHE C 105	145.483	145.943	157.372	1.00 59.53	O
ATOM	157	CB	PHE C 105	145.064	147.361	159.687	1.00 59.53	C
ATOM	158	CG	PHE C 105	144.854	148.729	160.262	1.00 59.53	C
ATOM	159	CD1	PHE C 105	145.037	149.855	159.476	1.00 59.53	C
ATOM	160	CD2	PHE C 105	144.494	148.893	161.585	1.00 59.53	C
ATOM	161	CE1	PHE C 105	144.853	151.114	159.997	1.00 59.53	C
ATOM	162	CE2	PHE C 105	144.309	150.151	162.113	1.00 59.53	C
ATOM	163	CZ	PHE C 105	144.489	151.264	161.317	1.00 59.53	C
ATOM	164	N	GLU C 106	143.586	144.765	157.567	1.00 71.98	N
ATOM	165	CA	GLU C 106	143.782	143.980	156.343	1.00 71.98	C
ATOM	166	C	GLU C 106	145.215	143.442	156.235	1.00 71.98	C
ATOM	167	O	GLU C 106	146.031	143.907	155.439	1.00 71.98	O
ATOM	168	CB	GLU C 106	143.410	144.797	155.102	1.00 71.98	C
ATOM	169	CG	GLU C 106	143.617	144.044	153.797	1.00 71.98	C
ATOM	170	CD	GLU C 106	143.093	142.616	153.840	1.00 71.98	C
ATOM	171	OE1	GLU C 106	142.367	142.264	154.792	1.00 71.98	O
ATOM	172	OE2	GLU C 106	143.411	141.840	152.916	1.00 71.98	O
ATOM	173	N	ARG C 107	145.497	142.452	157.079	1.00 79.28	N
ATOM	174	CA	ARG C 107	146.834	141.897	157.274	1.00 79.28	C
ATOM	175	C	ARG C 107	147.724	141.854	156.033	1.00 79.28	C
ATOM	176	O	ARG C 107	148.843	142.375	156.068	1.00 79.28	O
ATOM	177	CB	ARG C 107	146.713	140.480	157.835	1.00 79.28	C
ATOM	178	CG	ARG C 107	148.043	139.798	158.090	1.00 79.28	C
ATOM	179	CD	ARG C 107	147.849	138.339	158.467	1.00 79.28	C
ATOM	180	NE	ARG C 107	147.111	138.183	159.716	1.00 79.28	N
ATOM	181	CZ	ARG C 107	145.793	138.021	159.790	1.00 79.28	C
ATOM	182	NH1	ARG C 107	145.204	137.887	160.971	1.00 79.28	N
ATOM	183	NH2	ARG C 107	145.064	137.994	158.684	1.00 79.28	N
ATOM	184	N	ASN C 108	147.269	141.244	154.938	1.00 84.00	N

ATOM	185	CA	ASN	C	108	148.158	140.962	153.816	1.00	84.00	C
ATOM	186	C	ASN	C	108	147.525	141.392	152.499	1.00	84.00	C
ATOM	187	O	ASN	C	108	146.318	141.631	152.408	1.00	84.00	O
ATOM	188	CB	ASN	C	108	148.528	139.474	153.756	1.00	84.00	C
ATOM	189	CG	ASN	C	108	147.427	138.624	153.151	1.00	84.00	C
ATOM	190	OD1	ASN	C	108	147.227	138.619	151.937	1.00	84.00	O
ATOM	191	ND2	ASN	C	108	146.709	137.896	153.997	1.00	84.00	N
ATOM	192	N	ILE	C	109	148.363	141.470	151.467	1.00	86.09	N
ATOM	193	CA	ILE	C	109	147.936	141.864	150.127	1.00	86.09	C
ATOM	194	C	ILE	C	109	148.932	141.300	149.122	1.00	86.09	C
ATOM	195	O	ILE	C	109	150.129	141.199	149.404	1.00	86.09	O
ATOM	196	CB	ILE	C	109	147.824	143.401	149.999	1.00	86.09	C
ATOM	197	CG1	ILE	C	109	146.623	143.928	150.783	1.00	86.09	C
ATOM	198	CG2	ILE	C	109	147.729	143.808	148.538	1.00	86.09	C
ATOM	199	CD1	ILE	C	109	146.592	145.432	150.886	1.00	86.09	C
ATOM	200	N	VAL	C	110	148.429	140.933	147.943	1.00	93.76	N
ATOM	201	CA	VAL	C	110	149.252	140.516	146.811	1.00	93.76	C
ATOM	202	C	VAL	C	110	148.769	141.266	145.577	1.00	93.76	C
ATOM	203	O	VAL	C	110	147.576	141.235	145.258	1.00	93.76	O
ATOM	204	CB	VAL	C	110	149.189	138.994	146.589	1.00	93.76	C
ATOM	205	CG1	VAL	C	110	149.759	138.260	147.791	1.00	93.76	C
ATOM	206	CG2	VAL	C	110	147.758	138.555	146.321	1.00	93.76	C
ATOM	207	N	CYS	C	111	149.692	141.938	144.881	1.00	98.50	N
ATOM	208	CA	CYS	C	111	149.271	142.857	143.823	1.00	98.50	C
ATOM	209	C	CYS	C	111	148.958	142.123	142.522	1.00	98.50	C
ATOM	210	O	CYS	C	111	147.794	142.014	142.122	1.00	98.50	O
ATOM	211	CB	CYS	C	111	150.360	143.911	143.586	1.00	98.50	C
ATOM	212	SG	CYS	C	111	150.329	145.350	144.683	1.00	98.50	S
ATOM	213	N	THR	C	112	149.988	141.603	141.853	1.00	105.15	N
ATOM	214	CA	THR	C	112	149.796	140.862	140.611	1.00	105.15	C
ATOM	215	C	THR	C	112	151.136	140.478	139.997	1.00	105.15	C
ATOM	216	O	THR	C	112	152.191	140.859	140.514	1.00	105.15	O
ATOM	217	CB	THR	C	112	148.968	141.673	139.614	1.00	105.15	C
ATOM	218	OG1	THR	C	112	148.572	140.830	138.527	1.00	105.15	O
ATOM	219	CG2	THR	C	112	149.782	142.832	139.077	1.00	105.15	C
ATOM	220	N	SER	C	113	151.108	139.722	138.897	1.00	107.97	N
ATOM	221	CA	SER	C	113	152.291	139.496	138.058	1.00	107.97	C

ATOM	222	C	SER C 113	151.848	139.657	136.604	1.00107.97 C
ATOM	223	O	SER C 113	151.499	138.678	135.939	1.00107.97 O
ATOM	224	CB	SER C 113	152.904	138.126	138.316	1.00107.97 C
ATOM	225	OG	SER C 113	153.684	137.701	137.212	1.00107.97 O
ATOM	226	N	MET C 114	151.863	140.896	136.117	1.00105.04 N
ATOM	227	CA	MET C 114	151.325	141.207	134.791	1.00105.04 C
ATOM	228	C	MET C 114	152.402	141.242	133.708	1.00105.04 C
ATOM	229	O	MET C 114	152.478	142.196	132.937	1.00105.04 O
ATOM	230	CB	MET C 114	150.578	142.535	134.841	1.00105.04 C
ATOM	231	CG	MET C 114	149.300	142.506	135.657	1.00105.04 C
ATOM	232	SD	MET C 114	148.438	144.087	135.655	1.00105.04 S
ATOM	233	CE	MET C 114	149.467	145.034	136.772	1.00105.04 C
ATOM	234	N	LYS C 115	153.249	140.218	133.627	1.00111.43 N
ATOM	235	CA	LYS C 115	154.049	140.078	132.414	1.00111.43 C
ATOM	236	C	LYS C 115	154.256	138.617	132.026	1.00111.43 C
ATOM	237	O	LYS C 115	155.359	138.245	131.608	1.00111.43 O
ATOM	238	CB	LYS C 115	155.399	140.779	132.602	1.00111.43 C
ATOM	239	CG	LYS C 115	156.238	140.247	133.761	1.00111.43 C
ATOM	240	CD	LYS C 115	157.210	139.164	133.324	1.00111.43 C
ATOM	241	CE	LYS C 115	158.086	138.707	134.478	1.00111.43 C
ATOM	242	NZ	LYS C 115	159.020	137.621	134.069	1.00111.43 N
ATOM	243	N	PRO C 116	153.229	137.763	132.103	1.00118.44 N
ATOM	244	CA	PRO C 116	153.455	136.344	131.796	1.00118.44 C
ATOM	245	C	PRO C 116	153.407	135.993	130.316	1.00118.44 C
ATOM	246	O	PRO C 116	154.265	135.248	129.827	1.00118.44 O
ATOM	247	CB	PRO C 116	152.317	135.640	132.553	1.00118.44 C
ATOM	248	CG	PRO C 116	151.633	136.722	133.375	1.00118.44 C
ATOM	249	CD	PRO C 116	151.869	137.979	132.614	1.00118.44 C
ATOM	250	N	ILE C 117	152.426	136.523	129.593	1.00120.01 N
ATOM	251	CA	ILE C 117	152.026	135.947	128.312	1.00120.01 C
ATOM	252	C	ILE C 117	151.096	136.914	127.597	1.00120.01 C
ATOM	253	O	ILE C 117	150.564	137.846	128.210	1.00120.01 O
ATOM	254	CB	ILE C 117	151.360	134.563	128.544	1.00120.01 C
ATOM	255	CG1	ILE C 117	150.837	133.974	127.232	1.00120.01 C
ATOM	256	CG2	ILE C 117	150.264	134.680	129.581	1.00120.01 C
ATOM	257	CD1	ILE C 117	150.254	132.588	127.377	1.00120.01 C
ATOM	258	N	ASN C 118	150.898	136.688	126.295	1.00118.26 N

ATOM	259	CA	ASN C 118	149.870	137.361	125.499	1.00118.26	C
ATOM	260	C	ASN C 118	150.146	138.863	125.373	1.00118.26	C
ATOM	261	O	ASN C 118	149.398	139.715	125.857	1.00118.26	O
ATOM	262	CB	ASN C 118	148.479	137.111	126.092	1.00118.26	C
ATOM	263	CG	ASN C 118	147.837	135.843	125.563	1.00118.26	C
ATOM	264	OD1	ASN C 118	147.060	135.879	124.610	1.00118.26	O
ATOM	265	ND2	ASN C 118	148.151	134.715	126.187	1.00118.26	N
ATOM	266	N	GLU C 119	151.258	139.164	124.700	1.00108.93	N
ATOM	267	CA	GLU C 119	151.600	140.544	124.352	1.00108.93	C
ATOM	268	C	GLU C 119	150.700	141.012	123.207	1.00108.93	C
ATOM	269	O	GLU C 119	151.134	141.286	122.087	1.00108.93	O
ATOM	270	CB	GLU C 119	153.074	140.654	123.988	1.00108.93	C
ATOM	271	CG	GLU C 119	153.718	141.976	124.381	1.00108.93	C
ATOM	272	CD	GLU C 119	153.280	143.133	123.504	1.00108.93	C
ATOM	273	OE1	GLU C 119	153.013	142.909	122.306	1.00108.93	O
ATOM	274	OE2	GLU C 119	153.208	144.270	124.012	1.00108.93	O
ATOM	275	N	ASP C 120	149.400	141.083	123.512	1.00107.36	N
ATOM	276	CA	ASP C 120	148.402	141.624	122.597	1.00107.36	C
ATOM	277	C	ASP C 120	147.368	142.449	123.352	1.00107.36	C
ATOM	278	O	ASP C 120	146.194	142.487	122.968	1.00107.36	O
ATOM	279	CB	ASP C 120	147.714	140.510	121.807	1.00107.36	C
ATOM	280	CG	ASP C 120	147.204	139.397	122.695	1.00107.36	C
ATOM	281	OD1	ASP C 120	148.037	138.668	123.272	1.00107.36	O
ATOM	282	OD2	ASP C 120	145.971	139.251	122.816	1.00107.36	O
ATOM	283	N	LEU C 121	147.791	143.115	124.421	1.00 94.83	N
ATOM	284	CA	LEU C 121	146.866	143.762	125.338	1.00 94.83	C
ATOM	285	C	LEU C 121	146.010	144.809	124.631	1.00 94.83	C
ATOM	286	O	LEU C 121	146.407	145.398	123.624	1.00 94.83	O
ATOM	287	CB	LEU C 121	147.644	144.391	126.493	1.00 94.83	C
ATOM	288	CG	LEU C 121	148.531	145.588	126.166	1.00 94.83	C
ATOM	289	CD1	LEU C 121	148.974	146.273	127.439	1.00 94.83	C
ATOM	290	CD2	LEU C 121	149.734	145.145	125.365	1.00 94.83	C
ATOM	291	N	ASP C 122	144.819	145.031	125.183	1.00 95.17	N
ATOM	292	CA	ASP C 122	143.797	145.929	124.655	1.00 95.17	C
ATOM	293	C	ASP C 122	143.495	147.015	125.687	1.00 95.17	C
ATOM	294	O	ASP C 122	144.044	147.024	126.791	1.00 95.17	O
ATOM	295	CB	ASP C 122	142.535	145.140	124.289	1.00 95.17	C

ATOM	296	CG	ASP	C	122	141.532	145.963	123.507	1.00 95.17	C
ATOM	297	OD1	ASP	C	122	141.425	147.178	123.767	1.00 95.17	O
ATOM	298	OD2	ASP	C	122	140.843	145.393	122.635	1.00 95.17	O
ATOM	299	N	GLU	C	123	142.603	147.935	125.322	1.00 95.33	N
ATOM	300	CA	GLU	C	123	142.239	149.068	126.164	1.00 95.33	C
ATOM	301	C	GLU	C	123	140.720	149.199	126.222	1.00 95.33	C
ATOM	302	O	GLU	C	123	139.982	148.405	125.631	1.00 95.33	O
ATOM	303	CB	GLU	C	123	142.883	150.359	125.647	1.00 95.33	C
ATOM	304	CG	GLU	C	123	142.652	150.607	124.170	1.00 95.33	C
ATOM	305	CD	GLU	C	123	143.372	151.841	123.669	1.00 95.33	C
ATOM	306	OE1	GLU	C	123	144.011	152.532	124.489	1.00 95.33	O
ATOM	307	OE2	GLU	C	123	143.303	152.120	122.454	1.00 95.33	O
ATOM	308	N	GLY	C	124	140.251	150.209	126.947	1.00 89.93	N
ATOM	309	CA	GLY	C	124	138.827	150.444	127.064	1.00 89.93	C
ATOM	310	C	GLY	C	124	138.520	151.390	128.208	1.00 89.93	C
ATOM	311	O	GLY	C	124	139.420	151.965	128.825	1.00 89.93	O
ATOM	312	N	ILE	C	125	137.221	151.539	128.474	1.00 87.86	N
ATOM	313	CA	ILE	C	125	136.700	152.381	129.545	1.00 87.86	C
ATOM	314	C	ILE	C	125	135.857	151.517	130.468	1.00 87.86	C
ATOM	315	O	ILE	C	125	135.087	150.670	130.003	1.00 87.86	O
ATOM	316	CB	ILE	C	125	135.861	153.549	128.994	1.00 87.86	C
ATOM	317	CG1	ILE	C	125	134.833	153.024	127.994	1.00 87.86	C
ATOM	318	CG2	ILE	C	125	136.750	154.585	128.347	1.00 87.86	C
ATOM	319	CD1	ILE	C	125	134.031	154.108	127.318	1.00 87.86	C
ATOM	320	N	MET	C	126	135.990	151.737	131.774	1.00 85.46	N
ATOM	321	CA	MET	C	126	135.334	150.889	132.758	1.00 85.46	C
ATOM	322	C	MET	C	126	134.837	151.724	133.927	1.00 85.46	C
ATOM	323	O	MET	C	126	135.380	152.791	134.223	1.00 85.46	O
ATOM	324	CB	MET	C	126	136.283	149.801	133.271	1.00 85.46	C
ATOM	325	CG	MET	C	126	137.408	150.336	134.133	1.00 85.46	C
ATOM	326	SD	MET	C	126	138.329	149.038	134.971	1.00 85.46	S
ATOM	327	CE	MET	C	126	139.388	150.013	136.033	1.00 85.46	C
ATOM	328	N	VAL	C	127	133.793	151.225	134.585	1.00 84.75	N
ATOM	329	CA	VAL	C	127	133.288	151.779	135.838	1.00 84.75	C
ATOM	330	C	VAL	C	127	133.092	150.621	136.805	1.00 84.75	C
ATOM	331	O	VAL	C	127	132.316	149.700	136.527	1.00 84.75	O
ATOM	332	CB	VAL	C	127	131.977	152.557	135.650	1.00 84.75	C

ATOM	333	CG1	VAL	C	127	132.173	153.681	134.655	1.00 84.75	C
ATOM	334	CG2	VAL	C	127	130.868	151.633	135.195	1.00 84.75	C
ATOM	335	N	VAL	C	128	133.795	150.663	137.931	1.00 89.98	N
ATOM	336	CA	VAL	C	128	133.804	149.573	138.896	1.00 89.98	C
ATOM	337	C	VAL	C	128	133.107	150.020	140.169	1.00 89.98	C
ATOM	338	O	VAL	C	128	133.119	151.204	140.522	1.00 89.98	O
ATOM	339	CB	VAL	C	128	135.243	149.115	139.207	1.00 89.98	C
ATOM	340	CG1	VAL	C	128	136.016	150.246	139.846	1.00 89.98	C
ATOM	341	CG2	VAL	C	128	135.226	147.916	140.127	1.00 89.98	C
ATOM	342	N	TYR	C	129	132.499	149.064	140.867	1.00 91.70	N
ATOM	343	CA	TYR	C	129	132.021	149.323	142.216	1.00 91.70	C
ATOM	344	C	TYR	C	129	131.897	148.013	142.981	1.00 91.70	C
ATOM	345	O	TYR	C	129	131.975	146.922	142.414	1.00 91.70	O
ATOM	346	CB	TYR	C	129	130.701	150.095	142.226	1.00 91.70	C
ATOM	347	CG	TYR	C	129	129.658	149.673	141.225	1.00 91.70	C
ATOM	348	CD1	TYR	C	129	128.945	148.501	141.388	1.00 91.70	C
ATOM	349	CD2	TYR	C	129	129.357	150.476	140.139	1.00 91.70	C
ATOM	350	CE1	TYR	C	129	127.979	148.132	140.486	1.00 91.70	C
ATOM	351	CE2	TYR	C	129	128.395	150.116	139.235	1.00 91.70	C
ATOM	352	CZ	TYR	C	129	127.709	148.943	139.411	1.00 91.70	C
ATOM	353	OH	TYR	C	129	126.745	148.579	138.503	1.00 91.70	O
ATOM	354	N	LYS	C	130	131.703	148.147	144.291	1.00 95.82	N
ATOM	355	CA	LYS	C	130	131.829	147.072	145.259	1.00 95.82	C
ATOM	356	C	LYS	C	130	130.477	146.744	145.888	1.00 95.82	C
ATOM	357	O	LYS	C	130	129.430	147.254	145.475	1.00 95.82	O
ATOM	358	CB	LYS	C	130	132.862	147.462	146.316	1.00 95.82	C
ATOM	359	CG	LYS	C	130	132.463	148.677	147.126	1.00 95.82	C
ATOM	360	CD	LYS	C	130	133.562	149.098	148.080	1.00 95.82	C
ATOM	361	CE	LYS	C	130	133.126	150.285	148.921	1.00 95.82	C
ATOM	362	NZ	LYS	C	130	132.924	151.510	148.103	1.00 95.82	N
ATOM	363	N	ARG	C	131	130.506	145.879	146.898	1.00 99.74	N
ATOM	364	CA	ARG	C	131	129.309	145.390	147.568	1.00 99.74	C
ATOM	365	C	ARG	C	131	129.173	146.050	148.932	1.00 99.74	C
ATOM	366	O	ARG	C	131	130.136	146.093	149.704	1.00 99.74	O
ATOM	367	CB	ARG	C	131	129.358	143.868	147.719	1.00 99.74	C
ATOM	368	CG	ARG	C	131	128.177	143.285	148.467	1.00 99.74	C
ATOM	369	CD	ARG	C	131	127.973	141.821	148.126	1.00 99.74	C

ATOM	370	NE	ARG	C	131	126.846	141.246	148.855	1.00 99.74	N
ATOM	371	CZ	ARG	C	131	125.571	141.449	148.541	1.00 99.74	C
ATOM	372	NH1	ARG	C	131	124.611	140.886	149.262	1.00 99.74	N
ATOM	373	NH2	ARG	C	131	125.255	142.220	147.510	1.00 99.74	N
ATOM	374	N	ASN	C	132	127.979	146.565	149.222	1.00 97.19	N
ATOM	375	CA	ASN	C	132	127.700	147.218	150.493	1.00 97.19	C
ATOM	376	C	ASN	C	132	126.251	146.976	150.888	1.00 97.19	C
ATOM	377	O	ASN	C	132	125.356	146.949	150.039	1.00 97.19	O
ATOM	378	CB	ASN	C	132	127.973	148.723	150.428	1.00 97.19	C
ATOM	379	CG	ASN	C	132	129.381	149.073	150.844	1.00 97.19	C
ATOM	380	OD1	ASN	C	132	129.971	148.407	151.693	1.00 97.19	O
ATOM	381	ND2	ASN	C	132	129.930	150.123	150.248	1.00 97.19	N
ATOM	382	N	ILE	C	133	126.030	146.806	152.190	1.00 87.69	N
ATOM	383	CA	ILE	C	133	124.696	146.639	152.752	1.00 87.69	C
ATOM	384	C	ILE	C	133	124.474	147.713	153.808	1.00 87.69	C
ATOM	385	O	ILE	C	133	125.409	148.153	154.483	1.00 87.69	O
ATOM	386	CB	ILE	C	133	124.489	145.231	153.349	1.00 87.69	C
ATOM	387	CG1	ILE	C	133	124.526	144.173	152.247	1.00 87.69	C
ATOM	388	CG2	ILE	C	133	123.178	145.160	154.102	1.00 87.69	C
ATOM	389	CD1	ILE	C	133	125.894	143.580	152.024	1.00 87.69	C
ATOM	390	N	VAL	C	134	123.218	148.133	153.948	1.00 75.15	N
ATOM	391	CA	VAL	C	134	122.854	149.239	154.827	1.00 75.15	C
ATOM	392	C	VAL	C	134	122.787	148.780	156.279	1.00 75.15	C
ATOM	393	O	VAL	C	134	122.725	147.579	156.564	1.00 75.15	O
ATOM	394	CB	VAL	C	134	121.517	149.863	154.391	1.00 75.15	C
ATOM	395	CG1	VAL	C	134	121.644	150.459	153.003	1.00 75.15	C
ATOM	396	CG2	VAL	C	134	120.419	148.819	154.420	1.00 75.15	C
ATOM	397	N	ALA	C	135	122.802	149.738	157.202	1.00 58.42	N
ATOM	398	CA	ALA	C	135	122.694	149.491	158.628	1.00 58.42	C
ATOM	399	C	ALA	C	135	121.283	149.838	159.103	1.00 58.42	C
ATOM	400	O	ALA	C	135	120.371	150.060	158.304	1.00 58.42	O
ATOM	401	CB	ALA	C	135	123.764	150.285	159.375	1.00 58.42	C
ATOM	402	N	HIS	C	136	121.093	149.881	160.420	1.00 49.38	N
ATOM	403	CA	HIS	C	136	119.781	150.139	160.994	1.00 49.38	C
ATOM	404	C	HIS	C	136	119.963	150.857	162.326	1.00 49.38	C
ATOM	405	O	HIS	C	136	120.878	150.531	163.083	1.00 49.38	O
ATOM	406	CB	HIS	C	136	119.015	148.827	161.180	1.00 49.38	C

ATOM	407	CG	HIS	C	136	117.532 148.969 161.067	1.00 49.38	C
ATOM	408	ND1	HIS	C	136	116.655 148.056 161.609	1.00 49.38	N
ATOM	409	CD2	HIS	C	136	116.770 149.908 160.459	1.00 49.38	C
ATOM	410	CE1	HIS	C	136	115.416 148.433 161.352	1.00 49.38	C
ATOM	411	NE2	HIS	C	136	115.458 149.553 160.654	1.00 49.38	N
ATOM	412	N	THR	C	137	119.098 151.836 162.609	1.00 42.77	N
ATOM	413	CA	THR	C	137	119.179 152.612 163.845	1.00 42.77	C
ATOM	414	C	THR	C	137	117.779 152.845 164.397	1.00 42.77	C
ATOM	415	O	THR	C	137	116.910 153.335 163.672	1.00 42.77	O
ATOM	416	CB	THR	C	137	119.877 153.953 163.604	1.00 42.77	C
ATOM	417	OG1	THR	C	137	118.974 154.845 162.947	1.00 42.77	O
ATOM	418	CG2	THR	C	137	121.100 153.765 162.727	1.00 42.77	C
ATOM	419	N	PHE	C	138	117.551 152.502 165.682	1.00 42.36	N
ATOM	420	CA	PHE	C	138	116.172 152.458 166.161	1.00 42.36	C
ATOM	421	C	PHE	C	138	115.921 152.966 167.587	1.00 42.36	C
ATOM	422	O	PHE	C	138	114.873 152.644 168.157	1.00 42.36	O
ATOM	423	CB	PHE	C	138	115.630 151.036 166.042	1.00 42.36	C
ATOM	424	CG	PHE	C	138	116.532 149.994 166.618	1.00 42.36	C
ATOM	425	CD1	PHE	C	138	117.646 149.571 165.928	1.00 42.36	C
ATOM	426	CD2	PHE	C	138	116.259 149.431 167.845	1.00 42.36	C
ATOM	427	CE1	PHE	C	138	118.471 148.617 166.451	1.00 42.36	C
ATOM	428	CE2	PHE	C	138	117.081 148.475 168.371	1.00 42.36	C
ATOM	429	CZ	PHE	C	138	118.190 148.067 167.674	1.00 42.36	C
ATOM	430	N	LYS	C	139	116.817 153.747 168.192	1.00 37.90	N
ATOM	431	CA	LYS	C	139	116.446 154.592 169.334	1.00 37.90	C
ATOM	432	C	LYS	C	139	115.879 153.781 170.510	1.00 37.90	C
ATOM	433	O	LYS	C	139	114.686 153.822 170.808	1.00 37.90	O
ATOM	434	CB	LYS	C	139	115.445 155.660 168.882	1.00 37.90	C
ATOM	435	CG	LYS	C	139	115.059 156.658 169.955	1.00 37.90	C
ATOM	436	CD	LYS	C	139	116.222 157.565 170.311	1.00 37.90	C
ATOM	437	CE	LYS	C	139	116.559 158.518 169.178	1.00 37.90	C
ATOM	438	NZ	LYS	C	139	115.542 159.592 169.039	1.00 37.90	N
ATOM	439	N	VAL	C	140	116.763 153.021 171.166	1.00 36.42	N
ATOM	440	CA	VAL	C	140	116.390 152.210 172.329	1.00 36.42	C
ATOM	441	C	VAL	C	140	116.400 153.027 173.621	1.00 36.42	C
ATOM	442	O	VAL	C	140	116.949 154.132 173.665	1.00 36.42	O
ATOM	443	CB	VAL	C	140	117.318 150.993 172.476	1.00 36.42	C

ATOM	444	CG1	VAL	C	140	117.273	150.139	171.233	1.00 36.42	C
ATOM	445	CG2	VAL	C	140	118.729	151.436	172.768	1.00 36.42	C
ATOM	446	N	ARG	C	141	115.800	152.479	174.684	1.00 37.17	N
ATOM	447	CA	ARG	C	141	115.745	153.096	176.006	1.00 37.17	C
ATOM	448	C	ARG	C	141	116.363	152.176	177.051	1.00 37.17	C
ATOM	449	O	ARG	C	141	116.389	150.956	176.882	1.00 37.17	O
ATOM	450	CB	ARG	C	141	114.311	153.410	176.432	1.00 37.17	C
ATOM	451	CG	ARG	C	141	113.586	154.386	175.546	1.00 37.17	C
ATOM	452	CD	ARG	C	141	112.135	154.501	175.963	1.00 37.17	C
ATOM	453	NE	ARG	C	141	111.385	153.293	175.644	1.00 37.17	N
ATOM	454	CZ	ARG	C	141	110.752	153.089	174.495	1.00 37.17	C
ATOM	455	NH1	ARG	C	141	110.776	154.018	173.551	1.00 37.17	N
ATOM	456	NH2	ARG	C	141	110.095	151.958	174.289	1.00 37.17	N
ATOM	457	N	VAL	C	142	116.847	152.767	178.144	1.00 35.61	N
ATOM	458	CA	VAL	C	142	117.490	152.031	179.228	1.00 35.61	C
ATOM	459	C	VAL	C	142	116.969	152.540	180.564	1.00 35.61	C
ATOM	460	O	VAL	C	142	116.871	153.752	180.778	1.00 35.61	O
ATOM	461	CB	VAL	C	142	119.025	152.165	179.179	1.00 35.61	C
ATOM	462	CG1	VAL	C	142	119.651	151.369	180.296	1.00 35.61	C
ATOM	463	CG2	VAL	C	142	119.557	151.707	177.843	1.00 35.61	C
ATOM	464	N	TYR	C	143	116.643	151.619	181.465	1.00 41.95	N
ATOM	465	CA	TYR	C	143	116.243	151.950	182.824	1.00 41.95	C
ATOM	466	C	TYR	C	143	117.325	151.511	183.800	1.00 41.95	C
ATOM	467	O	TYR	C	143	118.164	150.665	183.487	1.00 41.95	O
ATOM	468	CB	TYR	C	143	114.911	151.288	183.192	1.00 41.95	C
ATOM	469	CG	TYR	C	143	113.768	151.648	182.278	1.00 41.95	C
ATOM	470	CD1	TYR	C	143	113.583	150.991	181.077	1.00 41.95	C
ATOM	471	CD2	TYR	C	143	112.872	152.643	182.619	1.00 41.95	C
ATOM	472	CE1	TYR	C	143	112.541	151.316	180.241	1.00 41.95	C
ATOM	473	CE2	TYR	C	143	111.828	152.974	181.788	1.00 41.95	C
ATOM	474	CZ	TYR	C	143	111.666	152.306	180.600	1.00 41.95	C
ATOM	475	OH	TYR	C	143	110.623	152.631	179.766	1.00 41.95	O
ATOM	476	N	GLN	C	144	117.301	152.094	184.995	1.00 48.15	N
ATOM	477	CA	GLN	C	144	118.341	151.831	185.984	1.00 48.15	C
ATOM	478	C	GLN	C	144	117.973	152.559	187.269	1.00 48.15	C
ATOM	479	O	GLN	C	144	117.049	153.377	187.298	1.00 48.15	O
ATOM	480	CB	GLN	C	144	119.710	152.276	185.484	1.00 48.15	C

ATOM	481	CG	GLN	C	144	120.868	151.769	186.301	1.00 48.15	C
ATOM	482	CD	GLN	C	144	122.167	151.815	185.533	1.00 48.15	C
ATOM	483	OE1	GLN	C	144	122.341	152.636	184.636	1.00 48.15	O
ATOM	484	NE2	GLN	C	144	123.088	150.927	185.876	1.00 48.15	N
ATOM	485	N	LYS	C	145	118.714	152.259	188.334	1.00 55.95	N
ATOM	486	CA	LYS	C	145	118.434	152.838	189.646	1.00 55.95	C
ATOM	487	C	LYS	C	145	119.687	152.729	190.499	1.00 55.95	C
ATOM	488	O	LYS	C	145	120.157	151.618	190.758	1.00 55.95	O
ATOM	489	CB	LYS	C	145	117.263	152.125	190.310	1.00 55.95	C
ATOM	490	CG	LYS	C	145	116.885	152.680	191.659	1.00 55.95	C
ATOM	491	CD	LYS	C	145	116.021	151.698	192.418	1.00 55.95	C
ATOM	492	CE	LYS	C	145	114.568	151.816	192.016	1.00 55.95	C
ATOM	493	NZ	LYS	C	145	113.964	153.075	192.507	1.00 55.95	N
ATOM	494	N	VAL	C	146	120.222	153.867	190.934	1.00 61.82	N
ATOM	495	CA	VAL	C	146	121.470	153.926	191.686	1.00 61.82	C
ATOM	496	C	VAL	C	146	121.163	154.224	193.146	1.00 61.82	C
ATOM	497	O	VAL	C	146	120.251	154.998	193.454	1.00 61.82	O
ATOM	498	CB	VAL	C	146	122.426	154.988	191.112	1.00 61.82	C
ATOM	499	CG1	VAL	C	146	123.675	155.083	191.960	1.00 61.82	C
ATOM	500	CG2	VAL	C	146	122.783	154.659	189.681	1.00 61.82	C
ATOM	501	N	LEU	C	147	121.933	153.609	194.043	1.00 71.75	N
ATOM	502	CA	LEU	C	147	121.815	153.869	195.471	1.00 71.75	C
ATOM	503	C	LEU	C	147	123.202	153.789	196.090	1.00 71.75	C
ATOM	504	O	LEU	C	147	123.891	152.777	195.937	1.00 71.75	O
ATOM	505	CB	LEU	C	147	120.861	152.878	196.146	1.00 71.75	C
ATOM	506	CG	LEU	C	147	121.351	151.452	196.372	1.00 71.75	C
ATOM	507	CD1	LEU	C	147	120.444	150.741	197.352	1.00 71.75	C
ATOM	508	CD2	LEU	C	147	121.405	150.700	195.066	1.00 71.75	C
ATOM	509	N	THR	C	148	123.600	154.849	196.791	1.00 80.47	N
ATOM	510	CA	THR	C	148	124.965	155.026	197.265	1.00 80.47	C
ATOM	511	C	THR	C	148	125.013	155.065	198.786	1.00 80.47	C
ATOM	512	O	THR	C	148	124.114	155.611	199.433	1.00 80.47	O
ATOM	513	CB	THR	C	148	125.569	156.310	196.703	1.00 80.47	C
ATOM	514	OG1	THR	C	148	126.860	156.525	197.283	1.00 80.47	O
ATOM	515	CG2	THR	C	148	124.675	157.489	197.012	1.00 80.47	C
ATOM	516	N	PHE	C	149	126.073	154.488	199.348	1.00 84.21	N
ATOM	517	CA	PHE	C	149	126.293	154.424	200.785	1.00 84.21	C

ATOM	518	C	PHE C 149	127.428	155.358	201.188	1.00 84.21	C
ATOM	519	O	PHE C 149	128.265	155.744	200.369	1.00 84.21	O
ATOM	520	CB	PHE C 149	126.622	152.995	201.226	1.00 84.21	C
ATOM	521	CG	PHE C 149	125.536	152.006	200.932	1.00 84.21	C
ATOM	522	CD1	PHE C 149	124.277	152.158	201.481	1.00 84.21	C
ATOM	523	CD2	PHE C 149	125.774	150.923	200.109	1.00 84.21	C
ATOM	524	CE1	PHE C 149	123.278	151.247	201.214	1.00 84.21	C
ATOM	525	CE2	PHE C 149	124.778	150.010	199.839	1.00 84.21	C
ATOM	526	CZ	PHE C 149	123.528	150.173	200.392	1.00 84.21	C
ATOM	527	N	ARG C 150	127.449	155.715	202.469	1.00 95.49	N
ATOM	528	CA	ARG C 150	128.449	156.650	202.965	1.00 95.49	C
ATOM	529	C	ARG C 150	128.369	156.701	204.483	1.00 95.49	C
ATOM	530	O	ARG C 150	127.283	156.599	205.060	1.00 95.49	O
ATOM	531	CB	ARG C 150	128.242	158.044	202.366	1.00 95.49	C
ATOM	532	CG	ARG C 150	128.993	159.151	203.072	1.00 95.49	C
ATOM	533	CD	ARG C 150	128.743	160.485	202.396	1.00 95.49	C
ATOM	534	NE	ARG C 150	129.313	160.524	201.054	1.00 95.49	N
ATOM	535	CZ	ARG C 150	128.606	160.358	199.941	1.00 95.49	C
ATOM	536	NH1	ARG C 150	127.300	160.144	200.011	1.00 95.49	N
ATOM	537	NH2	ARG C 150	129.204	160.407	198.759	1.00 95.49	N
ATOM	538	N	ARG C 151	129.529	156.866	205.120	1.00 94.21	N
ATOM	539	CA	ARG C 151	129.609	156.929	206.573	1.00 94.21	C
ATOM	540	C	ARG C 151	130.728	157.880	206.976	1.00 94.21	C
ATOM	541	O	ARG C 151	131.756	157.969	206.301	1.00 94.21	O
ATOM	542	CB	ARG C 151	129.841	155.544	207.183	1.00 94.21	C
ATOM	543	CG	ARG C 151	131.042	154.812	206.626	1.00 94.21	C
ATOM	544	CD	ARG C 151	130.838	153.311	206.699	1.00 94.21	C
ATOM	545	NE	ARG C 151	132.099	152.581	206.635	1.00 94.21	N
ATOM	546	CZ	ARG C 151	132.766	152.339	205.512	1.00 94.21	C
ATOM	547	NH1	ARG C 151	132.296	152.772	204.352	1.00 94.21	N
ATOM	548	NH2	ARG C 151	133.907	151.667	205.550	1.00 94.21	N
ATOM	549	N	SER C 152	130.518	158.588	208.087	1.00 94.56	N
ATOM	550	CA	SER C 152	131.449	159.622	208.516	1.00 94.56	C
ATOM	551	C	SER C 152	131.399	159.777	210.030	1.00 94.56	C
ATOM	552	O	SER C 152	130.544	159.206	210.710	1.00 94.56	O
ATOM	553	CB	SER C 152	131.139	160.957	207.837	1.00 94.56	C
ATOM	554	OG	SER C 152	129.906	161.478	208.297	1.00 94.56	O

ATOM	555	N	TYR C 153	132.337	160.573	210.548	1.00 95.70	N
ATOM	556	CA	TYR C 153	132.441	160.905	211.963	1.00 95.70	C
ATOM	557	C	TYR C 153	132.592	162.413	212.109	1.00 95.70	C
ATOM	558	O	TYR C 153	133.364	163.039	211.377	1.00 95.70	O
ATOM	559	CB	TYR C 153	133.629	160.191	212.618	1.00 95.70	C
ATOM	560	CG	TYR C 153	133.582	160.170	214.128	1.00 95.70	C
ATOM	561	CD1	TYR C 153	133.754	161.330	214.864	1.00 95.70	C
ATOM	562	CD2	TYR C 153	133.370	158.987	214.818	1.00 95.70	C
ATOM	563	CE1	TYR C 153	133.712	161.315	216.239	1.00 95.70	C
ATOM	564	CE2	TYR C 153	133.327	158.964	216.193	1.00 95.70	C
ATOM	565	CZ	TYR C 153	133.499	160.131	216.898	1.00 95.70	C
ATOM	566	OH	TYR C 153	133.456	160.116	218.270	1.00 95.70	O
ATOM	567	N	ALA C 154	131.862	162.992	213.058	1.00100.46	N
ATOM	568	CA	ALA C 154	131.747	164.440	213.194	1.00100.46	C
ATOM	569	C	ALA C 154	132.444	164.910	214.466	1.00100.46	C
ATOM	570	O	ALA C 154	132.070	164.500	215.569	1.00100.46	O
ATOM	571	CB	ALA C 154	130.279	164.864	213.205	1.00100.46	C
ATOM	572	N	TYR C 155	133.451	165.769	214.308	1.00100.44	N
ATOM	573	CA	TYR C 155	134.109	166.414	215.438	1.00100.44	C
ATOM	574	C	TYR C 155	133.411	167.732	215.763	1.00100.44	C
ATOM	575	O	TYR C 155	132.323	168.034	215.267	1.00100.44	O
ATOM	576	CB	TYR C 155	135.590	166.646	215.152	1.00100.44	C
ATOM	577	CG	TYR C 155	136.452	165.415	215.260	1.00100.44	C
ATOM	578	CD1	TYR C 155	135.999	164.284	215.918	1.00100.44	C
ATOM	579	CD2	TYR C 155	137.722	165.387	214.707	1.00100.44	C
ATOM	580	CE1	TYR C 155	136.786	163.158	216.019	1.00100.44	C
ATOM	581	CE2	TYR C 155	138.515	164.266	214.802	1.00100.44	C
ATOM	582	CZ	TYR C 155	138.046	163.155	215.457	1.00100.44	C
ATOM	583	OH	TYR C 155	138.850	162.042	215.542	1.00100.44	O
ATOM	584	N	ILE C 156	134.047	168.532	216.619	1.00105.50	N
ATOM	585	CA	ILE C 156	133.572	169.880	216.895	1.00105.50	C
ATOM	586	C	ILE C 156	134.096	170.896	215.889	1.00105.50	C
ATOM	587	O	ILE C 156	133.539	171.999	215.789	1.00105.50	O
ATOM	588	CB	ILE C 156	133.973	170.324	218.311	1.00105.50	C
ATOM	589	CG1	ILE C 156	133.740	169.192	219.311	1.00105.50	C
ATOM	590	CG2	ILE C 156	133.198	171.566	218.713	1.00105.50	C
ATOM	591	CD1	ILE C 156	134.580	169.309	220.562	1.00105.50	C

ATOM	592	N	HIS C 157	135.153	170.565	215.151	1.00109.14	N
ATOM	593	CA	HIS C 157	135.761	171.480	214.194	1.00109.14	C
ATOM	594	C	HIS C 157	135.599	171.023	212.753	1.00109.14	C
ATOM	595	O	HIS C 157	135.066	171.767	211.924	1.00109.14	O
ATOM	596	CB	HIS C 157	137.251	171.653	214.517	1.00109.14	C
ATOM	597	CG	HIS C 157	137.774	173.027	214.237	1.00109.14	C
ATOM	598	ND1	HIS C 157	137.326	174.144	214.907	1.00109.14	N
ATOM	599	CD2	HIS C 157	138.710	173.462	213.361	1.00109.14	C
ATOM	600	CE1	HIS C 157	137.963	175.210	214.455	1.00109.14	C
ATOM	601	NE2	HIS C 157	138.808	174.823	213.516	1.00109.14	N
ATOM	602	N	THR C 158	136.045	169.815	212.432	1.00105.54	N
ATOM	603	CA	THR C 158	135.996	169.283	211.081	1.00105.54	C
ATOM	604	C	THR C 158	135.024	168.107	211.013	1.00105.54	C
ATOM	605	O	THR C 158	134.326	167.788	211.981	1.00105.54	O
ATOM	606	CB	THR C 158	137.398	168.881	210.622	1.00105.54	C
ATOM	607	OG1	THR C 158	137.926	167.887	211.508	1.00105.54	O
ATOM	608	CG2	THR C 158	138.322	170.086	210.612	1.00105.54	C
ATOM	609	N	THR C 159	134.976	167.463	209.850	1.00103.39	N
ATOM	610	CA	THR C 159	134.133	166.292	209.644	1.00103.39	C
ATOM	611	C	THR C 159	134.844	165.359	208.679	1.00103.39	C
ATOM	612	O	THR C 159	135.137	165.750	207.545	1.00103.39	O
ATOM	613	CB	THR C 159	132.760	166.686	209.099	1.00103.39	C
ATOM	614	OG1	THR C 159	132.212	167.738	209.901	1.00103.39	O
ATOM	615	CG2	THR C 159	131.818	165.495	209.121	1.00103.39	C
ATOM	616	N	TYR C 160	135.120	164.140	209.122	1.00 98.20	N
ATOM	617	CA	TYR C 160	135.857	163.172	208.328	1.00 98.20	C
ATOM	618	C	TYR C 160	134.907	162.167	207.690	1.00 98.20	C
ATOM	619	O	TYR C 160	133.769	161.984	208.128	1.00 98.20	O
ATOM	620	CB	TYR C 160	136.894	162.444	209.186	1.00 98.20	C
ATOM	621	CG	TYR C 160	137.974	163.350	209.727	1.00 98.20	C
ATOM	622	CD1	TYR C 160	137.696	164.275	210.723	1.00 98.20	C
ATOM	623	CD2	TYR C 160	139.271	163.281	209.243	1.00 98.20	C
ATOM	624	CE1	TYR C 160	138.677	165.104	211.219	1.00 98.20	C
ATOM	625	CE2	TYR C 160	140.259	164.109	209.734	1.00 98.20	C
ATOM	626	CZ	TYR C 160	139.955	165.018	210.721	1.00 98.20	C
ATOM	627	OH	TYR C 160	140.935	165.845	211.215	1.00 98.20	O
ATOM	628	N	LEU C 161	135.395	161.513	206.638	1.00 93.16	N

ATOM	629	CA	LEU C 161	134.633	160.509	205.908	1.00 93.16	C
ATOM	630	C	LEU C 161	135.477	159.249	205.808	1.00 93.16	C
ATOM	631	O	LEU C 161	136.552	159.268	205.202	1.00 93.16	O
ATOM	632	CB	LEU C 161	134.243	161.014	204.517	1.00 93.16	C
ATOM	633	CG	LEU C 161	133.296	160.133	203.704	1.00 93.16	C
ATOM	634	CD1	LEU C 161	132.479	160.979	202.748	1.00 93.16	C
ATOM	635	CD2	LEU C 161	134.080	159.081	202.945	1.00 93.16	C
ATOM	636	N	LEU C 162	134.991	158.160	206.395	1.00 92.08	N
ATOM	637	CA	LEU C 162	135.762	156.931	206.506	1.00 92.08	C
ATOM	638	C	LEU C 162	135.574	155.991	205.324	1.00 92.08	C
ATOM	639	O	LEU C 162	136.141	154.893	205.333	1.00 92.08	O
ATOM	640	CB	LEU C 162	135.397	156.201	207.801	1.00 92.08	C
ATOM	641	CG	LEU C 162	135.356	157.055	209.066	1.00 92.08	C
ATOM	642	CD1	LEU C 162	134.714	156.290	210.207	1.00 92.08	C
ATOM	643	CD2	LEU C 162	136.754	157.504	209.444	1.00 92.08	C
ATOM	644	N	GLY C 163	134.806	156.378	204.322	1.00 92.94	N
ATOM	645	CA	GLY C 163	134.619	155.540	203.153	1.00 92.94	C
ATOM	646	C	GLY C 163	133.263	155.773	202.525	1.00 92.94	C
ATOM	647	O	GLY C 163	132.419	156.497	203.046	1.00 92.94	O
ATOM	648	N	SER C 164	133.068	155.136	201.373	1.00 89.54	N
ATOM	649	CA	SER C 164	131.815	155.207	200.635	1.00 89.54	C
ATOM	650	C	SER C 164	131.925	154.287	199.429	1.00 89.54	C
ATOM	651	O	SER C 164	133.025	153.925	199.004	1.00 89.54	O
ATOM	652	CB	SER C 164	131.493	156.633	200.191	1.00 89.54	C
ATOM	653	OG	SER C 164	132.099	156.924	198.945	1.00 89.54	O
ATOM	654	N	ASN C 165	130.771	153.914	198.883	1.00 84.09	N
ATOM	655	CA	ASN C 165	130.721	153.056	197.708	1.00 84.09	C
ATOM	656	C	ASN C 165	129.374	153.245	197.029	1.00 84.09	C
ATOM	657	O	ASN C 165	128.470	153.888	197.568	1.00 84.09	O
ATOM	658	CB	ASN C 165	130.952	151.589	198.077	1.00 84.09	C
ATOM	659	CG	ASN C 165	129.865	151.033	198.971	1.00 84.09	C
ATOM	660	OD1	ASN C 165	128.913	151.729	199.320	1.00 84.09	O
ATOM	661	ND2	ASN C 165	130.000	149.768	199.343	1.00 84.09	N
ATOM	662	N	THR C 166	129.248	152.669	195.837	1.00 77.37	N
ATOM	663	CA	THR C 166	128.029	152.760	195.048	1.00 77.37	C
ATOM	664	C	THR C 166	127.601	151.365	194.613	1.00 77.37	C
ATOM	665	O	THR C 166	128.336	150.388	194.770	1.00 77.37	O

ATOM	666	CB	THR	C	166	128.221	153.665	193.825	1.00 77.37	C
ATOM	667	OG1	THR	C	166	128.988	154.814	194.200	1.00 77.37	O
ATOM	668	CG2	THR	C	166	126.880	154.126	193.298	1.00 77.37	C
ATOM	669	N	GLU	C	167	126.394	151.277	194.064	1.00 73.98	N
ATOM	670	CA	GLU	C	167	125.860	149.999	193.613	1.00 73.98	C
ATOM	671	C	GLU	C	167	124.649	150.252	192.729	1.00 73.98	C
ATOM	672	O	GLU	C	167	123.770	151.035	193.095	1.00 73.98	O
ATOM	673	CB	GLU	C	167	125.482	149.115	194.801	1.00 73.98	C
ATOM	674	CG	GLU	C	167	124.926	147.768	194.401	1.00 73.98	C
ATOM	675	CD	GLU	C	167	125.361	146.662	195.336	1.00 73.98	C
ATOM	676	OE1	GLU	C	167	124.540	145.765	195.618	1.00 73.98	O
ATOM	677	OE2	GLU	C	167	126.524	146.688	195.787	1.00 73.98	O
ATOM	678	N	TYR	C	168	124.609	149.587	191.577	1.00 62.72	N
ATOM	679	CA	TYR	C	168	123.550	149.757	190.591	1.00 62.72	C
ATOM	680	C	TYR	C	168	122.643	148.537	190.591	1.00 62.72	C
ATOM	681	O	TYR	C	168	123.116	147.402	190.686	1.00 62.72	O
ATOM	682	CB	TYR	C	168	124.133	149.962	189.193	1.00 62.72	C
ATOM	683	CG	TYR	C	168	125.133	151.086	189.106	1.00 62.72	C
ATOM	684	CD1	TYR	C	168	126.450	150.899	189.487	1.00 62.72	C
ATOM	685	CD2	TYR	C	168	124.761	152.336	188.640	1.00 62.72	C
ATOM	686	CE1	TYR	C	168	127.366	151.924	189.409	1.00 62.72	C
ATOM	687	CE2	TYR	C	168	125.668	153.366	188.559	1.00 62.72	C
ATOM	688	CZ	TYR	C	168	126.968	153.155	188.944	1.00 62.72	C
ATOM	689	OH	TYR	C	168	127.876	154.183	188.864	1.00 62.72	O
ATOM	690	N	VAL	C	169	121.339	148.771	190.475	1.00 60.29	N
ATOM	691	CA	VAL	C	169	120.366	147.686	190.488	1.00 60.29	C
ATOM	692	C	VAL	C	169	119.184	148.082	189.617	1.00 60.29	C
ATOM	693	O	VAL	C	169	118.830	149.261	189.533	1.00 60.29	O
ATOM	694	CB	VAL	C	169	119.917	147.354	191.925	1.00 60.29	C
ATOM	695	CG1	VAL	C	169	118.983	148.424	192.446	1.00 60.29	C
ATOM	696	CG2	VAL	C	169	119.260	145.993	191.965	1.00 60.29	C
ATOM	697	N	ALA	C	170	118.563	147.079	188.965	1.00 52.81	N
ATOM	698	CA	ALA	C	170	117.470	147.291	188.019	1.00 52.81	C
ATOM	699	C	ALA	C	170	116.129	147.242	188.738	1.00 52.81	C
ATOM	700	O	ALA	C	170	115.874	146.298	189.492	1.00 52.81	O
ATOM	701	CB	ALA	C	170	117.497	146.241	186.920	1.00 52.81	C
ATOM	702	N	PRO	C	171	115.253	148.218	188.527	1.00 51.22	N

ATOM	703	CA	PRO C 171	114.006	148.280	189.293	1.00 51.22	C
ATOM	704	C	PRO C 171	113.128	147.076	189.013	1.00 51.22	C
ATOM	705	O	PRO C 171	113.443	146.253	188.142	1.00 51.22	O
ATOM	706	CB	PRO C 171	113.348	149.575	188.796	1.00 51.22	C
ATOM	707	CG	PRO C 171	113.992	149.865	187.499	1.00 51.22	C
ATOM	708	CD	PRO C 171	115.381	149.338	187.583	1.00 51.22	C
ATOM	709	N	PRO C 172	112.022	146.933	189.737	1.00 63.84	N
ATOM	710	CA	PRO C 172	111.092	145.835	189.478	1.00 63.84	C
ATOM	711	C	PRO C 172	110.077	146.197	188.409	1.00 63.84	C
ATOM	712	O	PRO C 172	109.736	147.362	188.199	1.00 63.84	O
ATOM	713	CB	PRO C 172	110.412	145.647	190.839	1.00 63.84	C
ATOM	714	CG	PRO C 172	110.362	147.025	191.391	1.00 63.84	C
ATOM	715	CD	PRO C 172	111.591	147.753	190.882	1.00 63.84	C
ATOM	716	N	MET C 173	109.584	145.158	187.734	1.00 69.89	N
ATOM	717	CA	MET C 173	108.731	145.355	186.568	1.00 69.89	C
ATOM	718	C	MET C 173	107.590	146.326	186.856	1.00 69.89	C
ATOM	719	O	MET C 173	107.409	147.316	186.140	1.00 69.89	O
ATOM	720	CB	MET C 173	108.189	144.009	186.089	1.00 69.89	C
ATOM	721	CG	MET C 173	107.749	143.996	184.636	1.00 69.89	C
ATOM	722	SD	MET C 173	109.017	144.594	183.502	1.00 69.89	S
ATOM	723	CE	MET C 173	110.429	143.632	184.030	1.00 69.89	C
ATOM	724	N	TRP C 174	106.816	146.068	187.913	1.00 82.32	N
ATOM	725	CA	TRP C 174	105.593	146.833	188.133	1.00 82.32	C
ATOM	726	C	TRP C 174	105.836	148.335	188.203	1.00 82.32	C
ATOM	727	O	TRP C 174	104.874	149.108	188.134	1.00 82.32	O
ATOM	728	CB	TRP C 174	104.887	146.369	189.410	1.00 82.32	C
ATOM	729	CG	TRP C 174	105.552	146.799	190.681	1.00 82.32	C
ATOM	730	CD1	TRP C 174	105.432	148.009	191.302	1.00 82.32	C
ATOM	731	CD2	TRP C 174	106.422	146.014	191.500	1.00 82.32	C
ATOM	732	NE1	TRP C 174	106.183	148.029	192.450	1.00 82.32	N
ATOM	733	CE2	TRP C 174	106.801	146.815	192.595	1.00 82.32	C
ATOM	734	CE3	TRP C 174	106.922	144.713	191.412	1.00 82.32	C
ATOM	735	CZ2	TRP C 174	107.655	146.357	193.591	1.00 82.32	C
ATOM	736	CZ3	TRP C 174	107.770	144.261	192.401	1.00 82.32	C
ATOM	737	CH2	TRP C 174	108.129	145.079	193.477	1.00 82.32	C
ATOM	738	N	GLU C 175	107.087	148.772	188.343	1.00 70.74	N
ATOM	739	CA	GLU C 175	107.382	150.197	188.394	1.00 70.74	C

ATOM	740	C	GLU C 175	107.751	150.777	187.037	1.00 70.74	C
ATOM	741	O	GLU C 175	107.580	151.985	186.823	1.00 70.74	O
ATOM	742	CB	GLU C 175	108.511	150.474	189.388	1.00 70.74	C
ATOM	743	CG	GLU C 175	108.648	151.940	189.741	1.00 70.74	C
ATOM	744	CD	GLU C 175	109.691	152.189	190.801	1.00 70.74	C
ATOM	745	OE1	GLU C 175	110.521	151.288	191.041	1.00 70.74	O
ATOM	746	OE2	GLU C 175	109.683	153.287	191.394	1.00 70.74	O
ATOM	747	N	ILE C 176	108.272	149.954	186.123	1.00 61.03	N
ATOM	748	CA	ILE C 176	108.457	150.395	184.749	1.00 61.03	C
ATOM	749	C	ILE C 176	107.133	150.625	184.044	1.00 61.03	C
ATOM	750	O	ILE C 176	107.116	151.165	182.934	1.00 61.03	O
ATOM	751	CB	ILE C 176	109.306	149.378	183.966	1.00 61.03	C
ATOM	752	CG1	ILE C 176	110.628	149.140	184.683	1.00 61.03	C
ATOM	753	CG2	ILE C 176	109.579	149.882	182.575	1.00 61.03	C
ATOM	754	CD1	ILE C 176	111.622	148.372	183.861	1.00 61.03	C
ATOM	755	N	HIS C 177	106.020	150.233	184.665	1.00 67.72	N
ATOM	756	CA	HIS C 177	104.701	150.543	184.140	1.00 67.72	C
ATOM	757	C	HIS C 177	104.174	151.879	184.638	1.00 67.72	C
ATOM	758	O	HIS C 177	103.259	152.437	184.022	1.00 67.72	O
ATOM	759	CB	HIS C 177	103.707	149.438	184.505	1.00 67.72	C
ATOM	760	CG	HIS C 177	103.931	148.158	183.765	1.00 67.72	C
ATOM	761	ND1	HIS C 177	104.830	148.047	182.727	1.00 67.72	N
ATOM	762	CD2	HIS C 177	103.376	146.933	183.914	1.00 67.72	C
ATOM	763	CE1	HIS C 177	104.819	146.810	182.268	1.00 67.72	C
ATOM	764	NE2	HIS C 177	103.946	146.112	182.971	1.00 67.72	N
ATOM	765	N	HIS C 178	104.723	152.402	185.733	1.00 65.73	N
ATOM	766	CA	HIS C 178	104.420	153.757	186.173	1.00 65.73	C
ATOM	767	C	HIS C 178	105.391	154.785	185.624	1.00 65.73	C
ATOM	768	O	HIS C 178	104.988	155.923	185.364	1.00 65.73	O
ATOM	769	CB	HIS C 178	104.416	153.840	187.700	1.00 65.73	C
ATOM	770	CG	HIS C 178	103.067	153.620	188.307	1.00 65.73	C
ATOM	771	ND1	HIS C 178	102.094	154.595	188.325	1.00 65.73	N
ATOM	772	CD2	HIS C 178	102.525	152.535	188.910	1.00 65.73	C
ATOM	773	CE1	HIS C 178	101.011	154.122	188.917	1.00 65.73	C
ATOM	774	NE2	HIS C 178	101.247	152.874	189.282	1.00 65.73	N
ATOM	775	N	ILE C 179	106.657	154.414	185.438	1.00 59.23	N
ATOM	776	CA	ILE C 179	107.589	155.318	184.772	1.00 59.23	C

ATOM	777	C	ILE C 179	107.092	155.650	183.372	1.00 59.23	C
ATOM	778	O	ILE C 179	107.182	156.798	182.920	1.00 59.23	O
ATOM	779	CB	ILE C 179	109.002	154.711	184.737	1.00 59.23	C
ATOM	780	CG1	ILE C 179	109.545	154.541	186.150	1.00 59.23	C
ATOM	781	CG2	ILE C 179	109.932	155.586	183.922	1.00 59.23	C
ATOM	782	CD1	ILE C 179	111.031	154.296	186.194	1.00 59.23	C
ATOM	783	N	ASN C 180	106.558	154.657	182.665	1.00 57.86	N
ATOM	784	CA	ASN C 180	106.109	154.811	181.289	1.00 57.86	C
ATOM	785	C	ASN C 180	104.682	155.328	181.178	1.00 57.86	C
ATOM	786	O	ASN C 180	104.129	155.337	180.077	1.00 57.86	O
ATOM	787	CB	ASN C 180	106.223	153.478	180.548	1.00 57.86	C
ATOM	788	CG	ASN C 180	107.633	153.176	180.105	1.00 57.86	C
ATOM	789	OD1	ASN C 180	108.427	154.083	179.869	1.00 57.86	O
ATOM	790	ND2	ASN C 180	107.954	151.897	179.989	1.00 57.86	N
ATOM	791	N	SER C 181	104.069	155.743	182.283	1.00 59.18	N
ATOM	792	CA	SER C 181	102.717	156.282	182.220	1.00 59.18	C
ATOM	793	C	SER C 181	102.520	157.558	183.021	1.00 59.18	C
ATOM	794	O	SER C 181	101.502	158.225	182.823	1.00 59.18	O
ATOM	795	CB	SER C 181	101.703	155.236	182.696	1.00 59.18	C
ATOM	796	OG	SER C 181	101.989	153.971	182.128	1.00 59.18	O
ATOM	797	N	HIS C 182	103.436	157.919	183.918	1.00 64.81	N
ATOM	798	CA	HIS C 182	103.343	159.189	184.624	1.00 64.81	C
ATOM	799	C	HIS C 182	104.666	159.929	184.741	1.00 64.81	C
ATOM	800	O	HIS C 182	104.649	161.107	185.108	1.00 64.81	O
ATOM	801	CB	HIS C 182	102.771	158.982	186.033	1.00 64.81	C
ATOM	802	CG	HIS C 182	101.452	158.277	186.055	1.00 64.81	C
ATOM	803	ND1	HIS C 182	101.268	157.064	186.680	1.00 64.81	N
ATOM	804	CD2	HIS C 182	100.251	158.620	185.536	1.00 64.81	C
ATOM	805	CE1	HIS C 182	100.009	156.686	186.542	1.00 64.81	C
ATOM	806	NE2	HIS C 182	99.371	157.613	185.851	1.00 64.81	N
ATOM	807	N	SER C 183	105.803	159.299	184.445	1.00 65.46	N
ATOM	808	CA	SER C 183	107.112	159.917	184.648	1.00 65.46	C
ATOM	809	C	SER C 183	107.370	160.166	186.134	1.00 65.46	C
ATOM	810	O	SER C 183	107.702	161.276	186.548	1.00 65.46	O
ATOM	811	CB	SER C 183	107.239	161.213	183.847	1.00 65.46	C
ATOM	812	OG	SER C 183	107.068	160.976	182.464	1.00 65.46	O
ATOM	813	N	GLN C 184	107.211	159.116	186.942	1.00 70.92	N

ATOM	814	CA	GLN C 184	107.312	159.254	188.394	1.00 70.92	C
ATOM	815	C	GLN C 184	107.872	157.957	188.970	1.00 70.92	C
ATOM	816	O	GLN C 184	107.126	156.993	189.159	1.00 70.92	O
ATOM	817	CB	GLN C 184	105.955	159.577	189.001	1.00 70.92	C
ATOM	818	CG	GLN C 184	105.322	160.841	188.478	1.00 70.92	C
ATOM	819	CD	GLN C 184	104.047	161.181	189.212	1.00 70.92	C
ATOM	820	OE1	GLN C 184	103.469	160.336	189.894	1.00 70.92	O
ATOM	821	NE2	GLN C 184	103.602	162.424	189.082	1.00 70.92	N
ATOM	822	N	CYS C 185	109.170	157.944	189.261	1.00 74.83	N
ATOM	823	CA	CYS C 185	109.731	156.830	190.007	1.00 74.83	C
ATOM	824	C	CYS C 185	109.139	156.804	191.414	1.00 74.83	C
ATOM	825	O	CYS C 185	108.426	157.716	191.835	1.00 74.83	O
ATOM	826	CB	CYS C 185	111.254	156.931	190.075	1.00 74.83	C
ATOM	827	SG	CYS C 185	112.084	157.055	188.477	1.00 74.83	S
ATOM	828	N	TYR C 186	109.436	155.737	192.143	1.00 85.13	N
ATOM	829	CA	TYR C 186	109.057	155.659	193.544	1.00 85.13	C
ATOM	830	C	TYR C 186	110.225	156.070	194.435	1.00 85.13	C
ATOM	831	O	TYR C 186	111.344	156.304	193.975	1.00 85.13	O
ATOM	832	CB	TYR C 186	108.576	154.254	193.900	1.00 85.13	C
ATOM	833	CG	TYR C 186	107.208	153.930	193.358	1.00 85.13	C
ATOM	834	CD1	TYR C 186	106.351	154.936	192.941	1.00 85.13	C
ATOM	835	CD2	TYR C 186	106.773	152.617	193.259	1.00 85.13	C
ATOM	836	CE1	TYR C 186	105.100	154.645	192.446	1.00 85.13	C
ATOM	837	CE2	TYR C 186	105.525	152.316	192.762	1.00 85.13	C
ATOM	838	CZ	TYR C 186	104.692	153.333	192.357	1.00 85.13	C
ATOM	839	OH	TYR C 186	103.445	153.034	191.860	1.00 85.13	O
ATOM	840	N	SER C 187	109.951	156.154	195.732	1.00 95.73	N
ATOM	841	CA	SER C 187	110.917	156.628	196.713	1.00 95.73	C
ATOM	842	C	SER C 187	111.186	155.573	197.777	1.00 95.73	C
ATOM	843	O	SER C 187	111.253	155.874	198.969	1.00 95.73	O
ATOM	844	CB	SER C 187	110.437	157.925	197.358	1.00 95.73	C
ATOM	845	OG	SER C 187	109.133	157.774	197.887	1.00 95.73	O
ATOM	846	N	SER C 188	111.342	154.318	197.362	1.00 98.36	N
ATOM	847	CA	SER C 188	111.640	153.253	198.308	1.00 98.36	C
ATOM	848	C	SER C 188	112.061	152.005	197.547	1.00 98.36	C
ATOM	849	O	SER C 188	111.542	151.727	196.464	1.00 98.36	O
ATOM	850	CB	SER C 188	110.437	152.944	199.201	1.00 98.36	C

ATOM	851	OG	SER C 188	109.340	152.490	198.431	1.00 98.36	O
ATOM	852	N	TYR C 189	112.994	151.260	198.130	1.00 99.21	N
ATOM	853	CA	TYR C 189	113.531	150.048	197.535	1.00 99.21	C
ATOM	854	C	TYR C 189	113.239	148.853	198.432	1.00 99.21	C
ATOM	855	O	TYR C 189	112.908	148.998	199.611	1.00 99.21	O
ATOM	856	CB	TYR C 189	115.040	150.172	197.301	1.00 99.21	C
ATOM	857	CG	TYR C 189	115.583	149.158	196.332	1.00 99.21	C
ATOM	858	CD1	TYR C 189	114.810	148.702	195.278	1.00 99.21	C
ATOM	859	CD2	TYR C 189	116.866	148.659	196.465	1.00 99.21	C
ATOM	860	CE1	TYR C 189	115.295	147.777	194.389	1.00 99.21	C
ATOM	861	CE2	TYR C 189	117.362	147.733	195.577	1.00 99.21	C
ATOM	862	CZ	TYR C 189	116.572	147.296	194.542	1.00 99.21	C
ATOM	863	OH	TYR C 189	117.054	146.372	193.651	1.00 99.21	O
ATOM	864	N	SER C 190	113.368	147.658	197.857	1.00110.74	N
ATOM	865	CA	SER C 190	113.095	146.432	198.601	1.00110.74	C
ATOM	866	C	SER C 190	113.879	145.300	197.952	1.00110.74	C
ATOM	867	O	SER C 190	113.530	144.859	196.853	1.00110.74	O
ATOM	868	CB	SER C 190	111.602	146.130	198.614	1.00110.74	C
ATOM	869	OG	SER C 190	110.884	147.148	199.290	1.00110.74	O
ATOM	870	N	ARG C 191	114.925	144.836	198.626	1.00119.08	N
ATOM	871	CA	ARG C 191	115.756	143.749	198.139	1.00119.08	C
ATOM	872	C	ARG C 191	115.418	142.460	198.882	1.00119.08	C
ATOM	873	O	ARG C 191	114.555	142.422	199.761	1.00119.08	O
ATOM	874	CB	ARG C 191	117.237	144.096	198.298	1.00119.08	C
ATOM	875	CG	ARG C 191	117.665	144.289	199.743	1.00119.08	C
ATOM	876	CD	ARG C 191	119.177	144.301	199.887	1.00119.08	C
ATOM	877	NE	ARG C 191	119.794	145.461	199.253	1.00119.08	N
ATOM	878	CZ	ARG C 191	120.559	145.401	198.168	1.00119.08	C
ATOM	879	NH1	ARG C 191	120.799	144.234	197.589	1.00119.08	N
ATOM	880	NH2	ARG C 191	121.083	146.508	197.662	1.00119.08	N
ATOM	881	N	VAL C 192	116.111	141.384	198.513	1.00133.53	N
ATOM	882	CA	VAL C 192	116.006	140.105	199.209	1.00133.53	C
ATOM	883	C	VAL C 192	117.256	139.291	198.905	1.00133.53	C
ATOM	884	O	VAL C 192	117.646	139.152	197.741	1.00133.53	O
ATOM	885	CB	VAL C 192	114.731	139.347	198.797	1.00133.53	C
ATOM	886	CG1	VAL C 192	114.800	138.950	197.332	1.00133.53	C
ATOM	887	CG2	VAL C 192	114.535	138.121	199.669	1.00133.53	C

ATOM	888	N	ILE C 193	117.892	138.739	199.938	1.00140.69	N
ATOM	889	CA	ILE C 193	119.130	137.976	199.777	1.00140.69	C
ATOM	890	C	ILE C 193	118.921	136.607	200.422	1.00140.69	C
ATOM	891	O	ILE C 193	119.255	136.387	201.590	1.00140.69	O
ATOM	892	CB	ILE C 193	120.346	138.694	200.373	1.00140.69	C
ATOM	893	CG1	ILE C 193	121.624	137.905	200.089	1.00140.69	C
ATOM	894	CG2	ILE C 193	120.153	138.950	201.866	1.00140.69	C
ATOM	895	CD1	ILE C 193	121.910	137.726	198.616	1.00140.69	C
ATOM	896	N	ALA C 194	118.359	135.676	199.654	1.00143.94	N
ATOM	897	CA	ALA C 194	118.420	134.240	199.904	1.00143.94	C
ATOM	898	C	ALA C 194	117.736	133.796	201.192	1.00143.94	C
ATOM	899	O	ALA C 194	117.534	132.595	201.397	1.00143.94	O
ATOM	900	CB	ALA C 194	119.880	133.780	199.920	1.00143.94	C
ATOM	901	N	GLY C 195	117.370	134.731	202.067	1.00142.34	N
ATOM	902	CA	GLY C 195	116.588	134.349	203.226	1.00142.34	C
ATOM	903	C	GLY C 195	115.619	135.388	203.748	1.00142.34	C
ATOM	904	O	GLY C 195	114.860	135.111	204.682	1.00142.34	O
ATOM	905	N	THR C 196	115.622	136.581	203.157	1.00139.01	N
ATOM	906	CA	THR C 196	114.791	137.661	203.673	1.00139.01	C
ATOM	907	C	THR C 196	114.969	138.938	202.862	1.00139.01	C
ATOM	908	O	THR C 196	115.835	139.011	201.985	1.00139.01	O
ATOM	909	CB	THR C 196	115.111	137.931	205.146	1.00139.01	C
ATOM	910	OG1	THR C 196	114.161	138.861	205.681	1.00139.01	O
ATOM	911	CG2	THR C 196	116.512	138.506	205.289	1.00139.01	C
ATOM	912	N	VAL C 197	114.164	139.952	203.165	1.00131.92	N
ATOM	913	CA	VAL C 197	114.226	141.248	202.500	1.00131.92	C
ATOM	914	C	VAL C 197	114.937	142.228	203.422	1.00131.92	C
ATOM	915	O	VAL C 197	114.668	142.263	204.629	1.00131.92	O
ATOM	916	CB	VAL C 197	112.822	141.759	202.134	1.00131.92	C
ATOM	917	CG1	VAL C 197	112.841	143.264	201.918	1.00131.92	C
ATOM	918	CG2	VAL C 197	112.300	141.039	200.898	1.00131.92	C
ATOM	919	N	PHE C 198	115.845	143.017	202.857	1.00127.80	N
ATOM	920	CA	PHE C 198	116.513	144.103	203.567	1.00127.80	C
ATOM	921	C	PHE C 198	116.030	145.400	202.924	1.00127.80	C
ATOM	922	O	PHE C 198	116.661	145.934	202.010	1.00127.80	O
ATOM	923	CB	PHE C 198	118.033	143.963	203.506	1.00127.80	C
ATOM	924	CG	PHE C 198	118.742	144.517	204.711	1.00127.80	C

ATOM	925	CD1	PHE	C	198	118.490	144.010	205.975	1.00	127.80	C
ATOM	926	CD2	PHE	C	198	119.657	145.548	204.579	1.00	127.80	C
ATOM	927	CE1	PHE	C	198	119.137	144.520	207.083	1.00	127.80	C
ATOM	928	CE2	PHE	C	198	120.309	146.061	205.684	1.00	127.80	C
ATOM	929	CZ	PHE	C	198	120.048	145.545	206.938	1.00	127.80	C
ATOM	930	N	VAL	C	199	114.901	145.905	203.415	1.00	120.26	N
ATOM	931	CA	VAL	C	199	114.233	147.047	202.800	1.00	120.26	C
ATOM	932	C	VAL	C	199	115.080	148.294	203.034	1.00	120.26	C
ATOM	933	O	VAL	C	199	115.191	148.780	204.162	1.00	120.26	O
ATOM	934	CB	VAL	C	199	112.812	147.226	203.347	1.00	120.26	C
ATOM	935	CG1	VAL	C	199	112.831	147.285	204.866	1.00	120.26	C
ATOM	936	CG2	VAL	C	199	112.178	148.482	202.769	1.00	120.26	C
ATOM	937	N	ALA	C	200	115.680	148.811	201.968	1.00	114.44	N
ATOM	938	CA	ALA	C	200	116.411	150.064	202.024	1.00	114.44	C
ATOM	939	C	ALA	C	200	115.436	151.219	201.802	1.00	114.44	C
ATOM	940	O	ALA	C	200	114.217	151.035	201.777	1.00	114.44	O
ATOM	941	CB	ALA	C	200	117.548	150.060	201.004	1.00	114.44	C
ATOM	942	N	TYR	C	201	115.964	152.425	201.636	1.00	110.29	N
ATOM	943	CA	TYR	C	201	115.127	153.608	201.501	1.00	110.29	C
ATOM	944	C	TYR	C	201	115.935	154.700	200.806	1.00	110.29	C
ATOM	945	O	TYR	C	201	117.002	154.434	200.241	1.00	110.29	O
ATOM	946	CB	TYR	C	201	114.616	154.066	202.878	1.00	110.29	C
ATOM	947	CG	TYR	C	201	113.310	153.443	203.317	1.00	110.29	C
ATOM	948	CD1	TYR	C	201	112.097	153.970	202.900	1.00	110.29	C
ATOM	949	CD2	TYR	C	201	113.291	152.346	204.165	1.00	110.29	C
ATOM	950	CE1	TYR	C	201	110.901	153.410	203.303	1.00	110.29	C
ATOM	951	CE2	TYR	C	201	112.100	151.779	204.572	1.00	110.29	C
ATOM	952	CZ	TYR	C	201	110.907	152.316	204.139	1.00	110.29	C
ATOM	953	OH	TYR	C	201	109.718	151.755	204.542	1.00	110.29	O
ATOM	954	N	HIS	C	202	115.420	155.925	200.856	1.00	107.29	N
ATOM	955	CA	HIS	C	202	116.190	157.133	200.594	1.00	107.29	C
ATOM	956	C	HIS	C	202	117.029	157.383	201.838	1.00	107.29	C
ATOM	957	O	HIS	C	202	117.269	156.451	202.613	1.00	107.29	O
ATOM	958	CB	HIS	C	202	115.280	158.323	200.281	1.00	107.29	C
ATOM	959	CG	HIS	C	202	115.914	159.355	199.400	1.00	107.29	C
ATOM	960	ND1	HIS	C	202	117.030	160.073	199.776	1.00	107.29	N
ATOM	961	CD2	HIS	C	202	115.587	159.795	198.161	1.00	107.29	C

ATOM	962	CE1	HIS	C	202	117.365	160.906	198.808	1.00107.29	C
ATOM	963	NE2	HIS	C	202	116.506	160.758	197.817	1.00107.29	N
ATOM	964	N	ARG	C	203	117.505	158.606	202.049	1.00112.17	N
ATOM	965	CA	ARG	C	203	118.351	158.824	203.214	1.00112.17	C
ATOM	966	C	ARG	C	203	117.516	158.659	204.481	1.00112.17	C
ATOM	967	O	ARG	C	203	117.283	159.620	205.222	1.00112.17	O
ATOM	968	CB	ARG	C	203	118.993	160.211	203.168	1.00112.17	C
ATOM	969	CG	ARG	C	203	120.106	160.407	204.181	1.00112.17	C
ATOM	970	CD	ARG	C	203	120.424	161.884	204.345	1.00112.17	C
ATOM	971	NE	ARG	C	203	121.795	162.111	204.787	1.00112.17	N
ATOM	972	CZ	ARG	C	203	122.813	162.314	203.959	1.00112.17	C
ATOM	973	NH1	ARG	C	203	122.612	162.305	202.649	1.00112.17	N
ATOM	974	NH2	ARG	C	203	124.034	162.516	204.436	1.00112.17	N
ATOM	975	N	ASP	C	204	117.062	157.424	204.716	1.00118.90	N
ATOM	976	CA	ASP	C	204	116.348	156.987	205.912	1.00118.90	C
ATOM	977	C	ASP	C	204	115.263	157.963	206.359	1.00118.90	C
ATOM	978	O	ASP	C	204	115.075	158.190	207.559	1.00118.90	O
ATOM	979	CB	ASP	C	204	117.368	156.723	207.021	1.00118.90	C
ATOM	980	CG	ASP	C	204	118.346	155.631	206.646	1.00118.90	C
ATOM	981	OD1	ASP	C	204	118.480	155.369	205.435	1.00118.90	O
ATOM	982	OD2	ASP	C	204	118.938	154.996	207.541	1.00118.90	O
ATOM	983	N	SER	C	205	114.511	158.496	205.392	1.00120.40	N
ATOM	984	CA	SER	C	205	113.374	159.376	205.633	1.00120.40	C
ATOM	985	C	SER	C	205	112.058	158.624	205.755	1.00120.40	C
ATOM	986	O	SER	C	205	111.019	159.251	205.991	1.00120.40	O
ATOM	987	CB	SER	C	205	113.253	160.408	204.506	1.00120.40	C
ATOM	988	OG	SER	C	205	114.311	161.347	204.527	1.00120.40	O
ATOM	989	N	TYR	C	206	112.066	157.308	205.551	1.00121.88	N
ATOM	990	CA	TYR	C	206	110.899	156.468	205.816	1.00121.88	C
ATOM	991	C	TYR	C	206	109.688	156.899	204.991	1.00121.88	C
ATOM	992	O	TYR	C	206	108.544	156.596	205.338	1.00121.88	O
ATOM	993	CB	TYR	C	206	110.558	156.463	207.308	1.00121.88	C
ATOM	994	CG	TYR	C	206	111.701	156.033	208.208	1.00121.88	C
ATOM	995	CD1	TYR	C	206	112.860	155.476	207.682	1.00121.88	C
ATOM	996	CD2	TYR	C	206	111.614	156.178	209.586	1.00121.88	C
ATOM	997	CE1	TYR	C	206	113.901	155.083	208.498	1.00121.88	C
ATOM	998	CE2	TYR	C	206	112.651	155.785	210.411	1.00121.88	C

ATOM	999	CZ	TYR C 206	113.790	155.238	209.862	1.00121.88 C
ATOM	1000	OH	TYR C 206	114.822	154.847	210.683	1.00121.88 O
ATOM	1001	N	GLU C 207	109.925	157.599	203.884	1.00114.22 N
ATOM	1002	CA	GLU C 207	108.859	158.144	203.058	1.00114.22 C
ATOM	1003	C	GLU C 207	108.753	157.378	201.745	1.00114.22 C
ATOM	1004	O	GLU C 207	109.755	156.917	201.190	1.00114.22 O
ATOM	1005	CB	GLU C 207	109.089	159.631	202.776	1.00114.22 C
ATOM	1006	CG	GLU C 207	108.718	160.525	203.940	1.00114.22 C
ATOM	1007	CD	GLU C 207	107.343	160.210	204.486	1.00114.22 C
ATOM	1008	OE1	GLU C 207	106.472	159.795	203.694	1.00114.22 O
ATOM	1009	OE2	GLU C 207	107.137	160.367	205.707	1.00114.22 O
ATOM	1010	N	ASN C 208	107.525	157.250	201.250	1.00103.12 N
ATOM	1011	CA	ASN C 208	107.245	156.514	200.020	1.00103.12 C
ATOM	1012	C	ASN C 208	106.324	157.325	199.115	1.00103.12 C
ATOM	1013	O	ASN C 208	105.307	156.837	198.622	1.00103.12 O
ATOM	1014	CB	ASN C 208	106.641	155.147	200.324	1.00103.12 C
ATOM	1015	CG	ASN C 208	106.662	154.225	199.123	1.00103.12 C
ATOM	1016	OD1	ASN C 208	105.896	154.400	198.177	1.00103.12 O
ATOM	1017	ND2	ASN C 208	107.530	153.225	199.163	1.00103.12 N
ATOM	1018	N	LYS C 209	106.671	158.586	198.894	1.00 96.60 N
ATOM	1019	CA	LYS C 209	105.915	159.438	197.992	1.00 96.60 C
ATOM	1020	C	LYS C 209	106.497	159.318	196.584	1.00 96.60 C
ATOM	1021	O	LYS C 209	107.327	158.451	196.304	1.00 96.60 O
ATOM	1022	CB	LYS C 209	105.913	160.878	198.501	1.00 96.60 C
ATOM	1023	CG	LYS C 209	105.910	161.001	200.016	1.00 96.60 C
ATOM	1024	CD	LYS C 209	104.813	160.150	200.642	1.00 96.60 C
ATOM	1025	CE	LYS C 209	103.432	160.570	200.163	1.00 96.60 C
ATOM	1026	NZ	LYS C 209	102.353	160.031	201.036	1.00 96.60 N
ATOM	1027	N	THR C 210	106.065	160.191	195.682	1.00 84.89 N
ATOM	1028	CA	THR C 210	106.486	160.148	194.291	1.00 84.89 C
ATOM	1029	C	THR C 210	107.528	161.224	194.006	1.00 84.89 C
ATOM	1030	O	THR C 210	107.837	162.070	194.848	1.00 84.89 O
ATOM	1031	CB	THR C 210	105.281	160.318	193.364	1.00 84.89 C
ATOM	1032	OG1	THR C 210	104.688	161.604	193.583	1.00 84.89 O
ATOM	1033	CG2	THR C 210	104.249	159.241	193.639	1.00 84.89 C
ATOM	1034	N	MET C 211	108.072	161.181	192.791	1.00 80.27 N
ATOM	1035	CA	MET C 211	109.086	162.139	192.370	1.00 80.27 C

ATOM	1036	C	MET C 211	108.828	162.608	190.944	1.00 80.27	C
ATOM	1037	O	MET C 211	107.765	162.339	190.379	1.00 80.27	O
ATOM	1038	CB	MET C 211	110.478	161.520	192.477	1.00 80.27	C
ATOM	1039	CG	MET C 211	110.815	160.984	193.854	1.00 80.27	C
ATOM	1040	SD	MET C 211	111.627	162.200	194.904	1.00 80.27	S
ATOM	1041	CE	MET C 211	112.518	161.126	196.025	1.00 80.27	C
ATOM	1042	N	GLN C 212	109.790	163.316	190.358	1.00 71.09	N
ATOM	1043	CA	GLN C 212	109.716	163.742	188.969	1.00 71.09	C
ATOM	1044	C	GLN C 212	111.072	163.515	188.319	1.00 71.09	C
ATOM	1045	O	GLN C 212	112.008	163.015	188.946	1.00 71.09	O
ATOM	1046	CB	GLN C 212	109.304	165.212	188.847	1.00 71.09	C
ATOM	1047	CG	GLN C 212	107.896	165.501	189.316	1.00 71.09	C
ATOM	1048	CD	GLN C 212	106.854	164.790	188.487	1.00 71.09	C
ATOM	1049	OE1	GLN C 212	106.193	163.864	188.956	1.00 71.09	O
ATOM	1050	NE2	GLN C 212	106.701	165.218	187.241	1.00 71.09	N
ATOM	1051	N	LEU C 213	111.176	163.883	187.046	1.00 58.95	N
ATOM	1052	CA	LEU C 213	112.412	163.730	186.297	1.00 58.95	C
ATOM	1053	C	LEU C 213	112.777	165.043	185.617	1.00 58.95	C
ATOM	1054	O	LEU C 213	111.908	165.864	185.315	1.00 58.95	O
ATOM	1055	CB	LEU C 213	112.291	162.603	185.269	1.00 58.95	C
ATOM	1056	CG	LEU C 213	112.161	161.203	185.870	1.00 58.95	C
ATOM	1057	CD1	LEU C 213	110.718	160.897	186.198	1.00 58.95	C
ATOM	1058	CD2	LEU C 213	112.719	160.159	184.934	1.00 58.95	C
ATOM	1059	N	MET C 214	114.080	165.242	185.390	1.00 58.72	N
ATOM	1060	CA	MET C 214	114.616	166.485	184.843	1.00 58.72	C
ATOM	1061	C	MET C 214	115.964	166.229	184.183	1.00 58.72	C
ATOM	1062	O	MET C 214	116.736	165.398	184.679	1.00 58.72	O
ATOM	1063	CB	MET C 214	114.773	167.549	185.933	1.00 58.72	C
ATOM	1064	CG	MET C 214	113.627	167.601	186.930	1.00 58.72	C
ATOM	1065	SD	MET C 214	114.041	168.442	188.469	1.00 58.72	S
ATOM	1066	CE	MET C 214	115.449	167.486	189.016	1.00 58.72	C
ATOM	1067	N	PRO C 215	116.281	166.923	183.092	1.00 51.70	N
ATOM	1068	CA	PRO C 215	117.527	166.637	182.364	1.00 51.70	C
ATOM	1069	C	PRO C 215	118.752	166.806	183.251	1.00 51.70	C
ATOM	1070	O	PRO C 215	118.787	167.675	184.123	1.00 51.70	O
ATOM	1071	CB	PRO C 215	117.511	167.659	181.224	1.00 51.70	C
ATOM	1072	CG	PRO C 215	116.073	168.060	181.092	1.00 51.70	C

ATOM	1073	CD	PRO C 215	115.510	168.007	182.471	1.00 51.70	C
ATOM	1074	N	ASP C 216	119.762	165.957	183.033	1.00 56.42	N
ATOM	1075	CA	ASP C 216	120.862	165.853	184.002	1.00 56.42	C
ATOM	1076	C	ASP C 216	122.005	166.846	183.784	1.00 56.42	C
ATOM	1077	O	ASP C 216	122.064	167.882	184.452	1.00 56.42	O
ATOM	1078	CB	ASP C 216	121.393	164.420	183.981	1.00 56.42	C
ATOM	1079	CG	ASP C 216	122.192	164.076	185.213	1.00 56.42	C
ATOM	1080	OD1	ASP C 216	121.576	163.730	186.240	1.00 56.42	O
ATOM	1081	OD2	ASP C 216	123.435	164.143	185.151	1.00 56.42	O
ATOM	1082	N	CYS C 217	122.917	166.554	182.849	1.00 62.32	N
ATOM	1083	CA	CYS C 217	123.993	167.504	182.565	1.00 62.32	C
ATOM	1084	C	CYS C 217	124.521	167.505	181.132	1.00 62.32	C
ATOM	1085	O	CYS C 217	125.116	168.498	180.702	1.00 62.32	O
ATOM	1086	CB	CYS C 217	125.185	167.260	183.505	1.00 62.32	C
ATOM	1087	SG	CYS C 217	125.252	168.254	185.033	1.00 62.32	S
ATOM	1088	N	TYR C 218	124.321	166.426	180.380	1.00 57.21	N
ATOM	1089	CA	TYR C 218	125.198	166.144	179.238	1.00 57.21	C
ATOM	1090	C	TYR C 218	124.415	165.740	177.995	1.00 57.21	C
ATOM	1091	O	TYR C 218	124.694	164.720	177.366	1.00 57.21	O
ATOM	1092	CB	TYR C 218	126.211	165.055	179.584	1.00 57.21	C
ATOM	1093	CG	TYR C 218	126.856	165.190	180.940	1.00 57.21	C
ATOM	1094	CD1	TYR C 218	127.914	166.058	181.142	1.00 57.21	C
ATOM	1095	CD2	TYR C 218	126.417	164.435	182.014	1.00 57.21	C
ATOM	1096	CE1	TYR C 218	128.510	166.177	182.379	1.00 57.21	C
ATOM	1097	CE2	TYR C 218	127.009	164.547	183.255	1.00 57.21	C
ATOM	1098	CZ	TYR C 218	128.052	165.420	183.431	1.00 57.21	C
ATOM	1099	OH	TYR C 218	128.642	165.536	184.666	1.00 57.21	O
ATOM	1100	N	SER C 219	123.423	166.535	177.614	1.00 52.64	N
ATOM	1101	CA	SER C 219	122.701	166.248	176.384	1.00 52.64	C
ATOM	1102	C	SER C 219	123.656	166.207	175.197	1.00 52.64	C
ATOM	1103	O	SER C 219	124.652	166.931	175.146	1.00 52.64	O
ATOM	1104	CB	SER C 219	121.611	167.294	176.151	1.00 52.64	C
ATOM	1105	OG	SER C 219	120.828	167.479	177.316	1.00 52.64	O
ATOM	1106	N	ASN C 220	123.350	165.332	174.245	1.00 48.68	N
ATOM	1107	CA	ASN C 220	124.031	165.220	172.961	1.00 48.68	C
ATOM	1108	C	ASN C 220	122.991	165.220	171.847	1.00 48.68	C
ATOM	1109	O	ASN C 220	121.814	165.520	172.061	1.00 48.68	O

ATOM	1110	CB	ASN C 220	124.892	163.956	172.877	1.00 48.68	C
ATOM	1111	CG	ASN C 220	126.118	164.023	173.743	1.00 48.68	C
ATOM	1112	OD1	ASN C 220	126.262	163.263	174.699	1.00 48.68	O
ATOM	1113	ND2	ASN C 220	127.027	164.924	173.405	1.00 48.68	N
ATOM	1114	N	THR C 221	123.444	164.883	170.641	1.00 48.07	N
ATOM	1115	CA	THR C 221	122.521	164.686	169.531	1.00 48.07	C
ATOM	1116	C	THR C 221	121.830	163.331	169.630	1.00 48.07	C
ATOM	1117	O	THR C 221	120.688	163.169	169.184	1.00 48.07	O
ATOM	1118	CB	THR C 221	123.265	164.809	168.204	1.00 48.07	C
ATOM	1119	OG1	THR C 221	123.887	166.095	168.120	1.00 48.07	O
ATOM	1120	CG2	THR C 221	122.302	164.649	167.046	1.00 48.07	C
ATOM	1121	N	HIS C 222	122.508	162.342	170.208	1.00 47.92	N
ATOM	1122	CA	HIS C 222	122.018	160.967	170.239	1.00 47.92	C
ATOM	1123	C	HIS C 222	122.034	160.408	171.661	1.00 47.92	C
ATOM	1124	O	HIS C 222	122.222	159.211	171.876	1.00 47.92	O
ATOM	1125	CB	HIS C 222	122.854	160.066	169.330	1.00 47.92	C
ATOM	1126	CG	HIS C 222	122.969	160.552	167.919	1.00 47.92	C
ATOM	1127	ND1	HIS C 222	123.991	161.372	167.497	1.00 47.92	N
ATOM	1128	CD2	HIS C 222	122.209	160.308	166.826	1.00 47.92	C
ATOM	1129	CE1	HIS C 222	123.848	161.626	166.209	1.00 47.92	C
ATOM	1130	NE2	HIS C 222	122.773	160.991	165.778	1.00 47.92	N
ATOM	1131	N	SER C 223	121.849	161.268	172.663	1.00 46.80	N
ATOM	1132	CA	SER C 223	121.873	160.800	174.050	1.00 46.80	C
ATOM	1133	C	SER C 223	121.240	161.863	174.942	1.00 46.80	C
ATOM	1134	O	SER C 223	121.663	163.020	174.927	1.00 46.80	O
ATOM	1135	CB	SER C 223	123.291	160.481	174.496	1.00 46.80	C
ATOM	1136	OG	SER C 223	123.952	159.658	173.552	1.00 46.80	O
ATOM	1137	N	THR C 224	120.232	161.463	175.709	1.00 44.17	N
ATOM	1138	CA	THR C 224	119.623	162.305	176.726	1.00 44.17	C
ATOM	1139	C	THR C 224	119.373	161.475	177.976	1.00 44.17	C
ATOM	1140	O	THR C 224	119.114	160.273	177.894	1.00 44.17	O
ATOM	1141	CB	THR C 224	118.313	162.914	176.229	1.00 44.17	C
ATOM	1142	OG1	THR C 224	118.544	163.597	174.992	1.00 44.17	O
ATOM	1143	CG2	THR C 224	117.767	163.896	177.241	1.00 44.17	C
ATOM	1144	N	ARG C 225	119.451	162.116	179.138	1.00 46.82	N
ATOM	1145	CA	ARG C 225	119.271	161.417	180.400	1.00 46.82	C
ATOM	1146	C	ARG C 225	118.330	162.203	181.297	1.00 46.82	C

ATOM	1147	O	ARG C 225	118.222	163.425	181.186	1.00 46.82	O
ATOM	1148	CB	ARG C 225	120.603	161.190	181.118	1.00 46.82	C
ATOM	1149	CG	ARG C 225	120.460	160.456	182.434	1.00 46.82	C
ATOM	1150	CD	ARG C 225	121.752	159.784	182.841	1.00 46.82	C
ATOM	1151	NE	ARG C 225	122.660	160.713	183.501	1.00 46.82	N
ATOM	1152	CZ	ARG C 225	123.746	160.343	184.167	1.00 46.82	C
ATOM	1153	NH1	ARG C 225	124.518	161.254	184.739	1.00 46.82	N
ATOM	1154	NH2	ARG C 225	124.061	159.059	184.262	1.00 46.82	N
ATOM	1155	N	TYR C 226	117.647	161.489	182.189	1.00 47.52	N
ATOM	1156	CA	TYR C 226	116.697	162.097	183.108	1.00 47.52	C
ATOM	1157	C	TYR C 226	116.877	161.487	184.488	1.00 47.52	C
ATOM	1158	O	TYR C 226	116.885	160.262	184.626	1.00 47.52	O
ATOM	1159	CB	TYR C 226	115.259	161.899	182.627	1.00 47.52	C
ATOM	1160	CG	TYR C 226	114.981	162.499	181.272	1.00 47.52	C
ATOM	1161	CD1	TYR C 226	115.335	161.838	180.111	1.00 47.52	C
ATOM	1162	CD2	TYR C 226	114.354	163.725	181.155	1.00 47.52	C
ATOM	1163	CE1	TYR C 226	115.079	162.381	178.876	1.00 47.52	C
ATOM	1164	CE2	TYR C 226	114.094	164.275	179.925	1.00 47.52	C
ATOM	1165	CZ	TYR C 226	114.459	163.600	178.789	1.00 47.52	C
ATOM	1166	OH	TYR C 226	114.202	164.148	177.558	1.00 47.52	O
ATOM	1167	N	VAL C 227	117.011	162.338	185.504	1.00 51.82	N
ATOM	1168	CA	VAL C 227	117.271	161.901	186.869	1.00 51.82	C
ATOM	1169	C	VAL C 227	116.312	162.616	187.806	1.00 51.82	C
ATOM	1170	O	VAL C 227	115.827	163.710	187.509	1.00 51.82	O
ATOM	1171	CB	VAL C 227	118.726	162.174	187.285	1.00 51.82	C
ATOM	1172	CG1	VAL C 227	119.675	161.616	186.252	1.00 51.82	C
ATOM	1173	CG2	VAL C 227	118.941	163.655	187.454	1.00 51.82	C
ATOM	1174	N	THR C 228	116.045	161.995	188.952	1.00 59.73	N
ATOM	1175	CA	THR C 228	115.063	162.528	189.886	1.00 59.73	C
ATOM	1176	C	THR C 228	115.670	163.390	190.985	1.00 59.73	C
ATOM	1177	O	THR C 228	114.933	164.121	191.654	1.00 59.73	O
ATOM	1178	CB	THR C 228	114.266	161.390	190.526	1.00 59.73	C
ATOM	1179	OG1	THR C 228	113.079	161.917	191.128	1.00 59.73	O
ATOM	1180	CG2	THR C 228	115.093	160.703	191.587	1.00 59.73	C
ATOM	1181	N	VAL C 229	116.983	163.327	191.191	1.00 68.98	N
ATOM	1182	CA	VAL C 229	117.667	164.121	192.214	1.00 68.98	C
ATOM	1183	C	VAL C 229	118.966	164.623	191.589	1.00 68.98	C

ATOM	1184	O	VAL C 229	119.953	163.889	191.496	1.00 68.98	O
ATOM	1185	CB	VAL C 229	117.941	163.327	193.493	1.00 68.98	C
ATOM	1186	CG1	VAL C 229	118.769	164.154	194.450	1.00 68.98	C
ATOM	1187	CG2	VAL C 229	116.640	162.916	194.143	1.00 68.98	C
ATOM	1188	N	LYS C 230	118.978	165.887	191.169	1.00 82.59	N
ATOM	1189	CA	LYS C 230	120.168	166.438	190.530	1.00 82.59	C
ATOM	1190	C	LYS C 230	121.210	166.847	191.563	1.00 82.59	C
ATOM	1191	O	LYS C 230	122.344	166.360	191.534	1.00 82.59	O
ATOM	1192	CB	LYS C 230	119.790	167.626	189.646	1.00 82.59	C
ATOM	1193	CG	LYS C 230	120.856	168.003	188.628	1.00 82.59	C
ATOM	1194	CD	LYS C 230	120.453	169.237	187.843	1.00 82.59	C
ATOM	1195	CE	LYS C 230	118.961	169.238	187.566	1.00 82.59	C
ATOM	1196	NZ	LYS C 230	118.529	170.475	186.864	1.00 82.59	N
ATOM	1197	N	ASP C 231	120.844	167.737	192.480	1.00 97.30	N
ATOM	1198	CA	ASP C 231	121.756	168.127	193.543	1.00 97.30	C
ATOM	1199	C	ASP C 231	121.966	166.957	194.501	1.00 97.30	C
ATOM	1200	O	ASP C 231	121.365	165.888	194.367	1.00 97.30	O
ATOM	1201	CB	ASP C 231	121.220	169.350	194.285	1.00 97.30	C
ATOM	1202	CG	ASP C 231	119.915	169.070	195.001	1.00 97.30	C
ATOM	1203	OD1	ASP C 231	119.950	168.451	196.085	1.00 97.30	O
ATOM	1204	OD2	ASP C 231	118.851	169.470	194.482	1.00 97.30	O
ATOM	1205	N	GLN C 232	122.833	167.161	195.483	1.00106.92	N
ATOM	1206	CA	GLN C 232	123.129	166.153	196.488	1.00106.92	C
ATOM	1207	C	GLN C 232	122.764	166.687	197.870	1.00106.92	C
ATOM	1208	O	GLN C 232	122.517	167.881	198.058	1.00106.92	O
ATOM	1209	CB	GLN C 232	124.599	165.736	196.426	1.00106.92	C
ATOM	1210	CG	GLN C 232	124.916	164.775	195.296	1.00106.92	C
ATOM	1211	CD	GLN C 232	124.913	165.451	193.941	1.00106.92	C
ATOM	1212	OE1	GLN C 232	124.656	166.649	193.834	1.00106.92	O
ATOM	1213	NE2	GLN C 232	125.203	164.685	192.896	1.00106.92	N
ATOM	1214	N	TRP C 233	122.745	165.784	198.846	1.00116.94	N
ATOM	1215	CA	TRP C 233	122.321	166.112	200.199	1.00116.94	C
ATOM	1216	C	TRP C 233	123.351	165.579	201.182	1.00116.94	C
ATOM	1217	O	TRP C 233	123.688	164.393	201.148	1.00116.94	O
ATOM	1218	CB	TRP C 233	120.938	165.520	200.496	1.00116.94	C
ATOM	1219	CG	TRP C 233	120.517	165.629	201.927	1.00116.94	C
ATOM	1220	CD1	TRP C 233	120.857	164.790	202.948	1.00116.94	C

ATOM	1221	CD2	TRP C 233	119.662	166.627	202.497	1.00116.94	C
ATOM	1222	NE1	TRP C 233	120.274	165.209	204.119	1.00116.94	N
ATOM	1223	CE2	TRP C 233	119.535	166.334	203.869	1.00116.94	C
ATOM	1224	CE3	TRP C 233	118.996	167.741	201.981	1.00116.94	C
ATOM	1225	CZ2	TRP C 233	118.769	167.115	204.731	1.00116.94	C
ATOM	1226	CZ3	TRP C 233	118.236	168.515	202.838	1.00116.94	C
ATOM	1227	CH2	TRP C 233	118.128	168.198	204.197	1.00116.94	C
ATOM	1228	N	HIS C 234	123.847	166.457	202.054	1.00116.44	N
ATOM	1229	CA	HIS C 234	124.842	166.067	203.051	1.00116.44	C
ATOM	1230	C	HIS C 234	124.677	166.995	204.251	1.00116.44	C
ATOM	1231	O	HIS C 234	125.124	168.146	204.214	1.00116.44	O
ATOM	1232	CB	HIS C 234	126.251	166.131	202.479	1.00116.44	C
ATOM	1233	CG	HIS C 234	126.669	164.884	201.762	1.00116.44	C
ATOM	1234	ND1	HIS C 234	126.014	164.414	200.644	1.00116.44	N
ATOM	1235	CD2	HIS C 234	127.670	164.006	202.009	1.00116.44	C
ATOM	1236	CE1	HIS C 234	126.596	163.302	200.230	1.00116.44	C
ATOM	1237	NE2	HIS C 234	127.603	163.033	201.041	1.00116.44	N
ATOM	1238	N	SER C 235	124.047	166.487	205.305	1.00117.57	N
ATOM	1239	CA	SER C 235	123.736	167.287	206.481	1.00117.57	C
ATOM	1240	C	SER C 235	124.976	167.416	207.363	1.00117.57	C
ATOM	1241	O	SER C 235	126.092	167.068	206.969	1.00117.57	O
ATOM	1242	CB	SER C 235	122.561	166.679	207.238	1.00117.57	C
ATOM	1243	OG	SER C 235	122.399	167.301	208.500	1.00117.57	O
ATOM	1244	N	ARG C 236	124.788	167.930	208.579	1.00118.60	N
ATOM	1245	CA	ARG C 236	125.892	168.156	209.507	1.00118.60	C
ATOM	1246	C	ARG C 236	126.147	166.940	210.395	1.00118.60	C
ATOM	1247	O	ARG C 236	127.246	166.378	210.390	1.00118.60	O
ATOM	1248	CB	ARG C 236	125.607	169.393	210.367	1.00118.60	C
ATOM	1249	CG	ARG C 236	126.542	169.560	211.558	1.00118.60	C
ATOM	1250	CD	ARG C 236	127.897	170.107	211.137	1.00118.60	C
ATOM	1251	NE	ARG C 236	128.581	169.221	210.200	1.00118.60	N
ATOM	1252	CZ	ARG C 236	129.603	169.587	209.436	1.00118.60	C
ATOM	1253	NH1	ARG C 236	130.068	170.827	209.495	1.00118.60	N
ATOM	1254	NH2	ARG C 236	130.163	168.713	208.612	1.00118.60	N
ATOM	1255	N	GLY C 237	125.143	166.529	211.158	1.00115.98	N
ATOM	1256	CA	GLY C 237	125.296	165.456	212.119	1.00115.98	C
ATOM	1257	C	GLY C 237	125.408	165.980	213.536	1.00115.98	C

ATOM	1258	O	GLY C 237	125.173	167.157	213.829	1.00115.98 O
ATOM	1259	N	SER C 238	125.777	165.073	214.434	1.00109.24 N
ATOM	1260	CA	SER C 238	125.964	165.394	215.842	1.00109.24 C
ATOM	1261	C	SER C 238	127.394	165.061	216.244	1.00109.24 C
ATOM	1262	O	SER C 238	127.888	163.969	215.946	1.00109.24 O
ATOM	1263	CB	SER C 238	124.969	164.630	216.717	1.00109.24 C
ATOM	1264	OG	SER C 238	123.718	165.294	216.758	1.00109.24 O
ATOM	1265	N	THR C 239	128.051	166.005	216.913	1.00104.29 N
ATOM	1266	CA	THR C 239	129.445	165.821	217.294	1.00104.29 C
ATOM	1267	C	THR C 239	129.627	164.533	218.085	1.00104.29 C
ATOM	1268	O	THR C 239	128.847	164.223	218.989	1.00104.29 O
ATOM	1269	CB	THR C 239	129.926	167.012	218.120	1.00104.29 C
ATOM	1270	OG1	THR C 239	128.966	167.301	219.143	1.00104.29 O
ATOM	1271	CG2	THR C 239	130.090	168.234	217.237	1.00104.29 C
ATOM	1272	N	TRP C 240	130.669	163.778	217.738	1.00102.21 N
ATOM	1273	CA	TRP C 240	131.018	162.549	218.449	1.00102.21 C
ATOM	1274	C	TRP C 240	129.956	161.469	218.258	1.00102.21 C
ATOM	1275	O	TRP C 240	129.597	160.765	219.201	1.00102.21 O
ATOM	1276	CB	TRP C 240	131.244	162.817	219.939	1.00102.21 C
ATOM	1277	CG	TRP C 240	132.378	163.747	220.233	1.00102.21 C
ATOM	1278	CD1	TRP C 240	133.364	164.135	219.377	1.00102.21 C
ATOM	1279	CD2	TRP C 240	132.645	164.405	221.476	1.00102.21 C
ATOM	1280	NE1	TRP C 240	134.229	164.996	220.009	1.00102.21 N
ATOM	1281	CE2	TRP C 240	133.808	165.177	221.299	1.00102.21 C
ATOM	1282	CE3	TRP C 240	132.012	164.416	222.722	1.00102.21 C
ATOM	1283	CZ2	TRP C 240	134.350	165.952	222.318	1.00102.21 C
ATOM	1284	CZ3	TRP C 240	132.551	165.184	223.732	1.00102.21 C
ATOM	1285	CH2	TRP C 240	133.708	165.942	223.525	1.00102.21 C
ATOM	1286	N	LEU C 241	129.447	161.333	217.035	1.00 99.98 N
ATOM	1287	CA	LEU C 241	128.436	160.327	216.738	1.00 99.98 C
ATOM	1288	C	LEU C 241	128.738	159.682	215.395	1.00 99.98 C
ATOM	1289	O	LEU C 241	128.941	160.379	214.397	1.00 99.98 O
ATOM	1290	CB	LEU C 241	127.032	160.937	216.737	1.00 99.98 C
ATOM	1291	CG	LEU C 241	126.440	161.141	218.132	1.00 99.98 C
ATOM	1292	CD1	LEU C 241	125.068	161.781	218.052	1.00 99.98 C
ATOM	1293	CD2	LEU C 241	126.373	159.824	218.881	1.00 99.98 C
ATOM	1294	N	TYR C 242	128.763	158.353	215.381	1.00 98.34 N

ATOM	1295	CA	TYR C 242	129.127	157.578	214.202	1.00 98.34	C
ATOM	1296	C	TYR C 242	127.863	157.184	213.449	1.00 98.34	C
ATOM	1297	O	TYR C 242	126.987	156.517	214.007	1.00 98.34	O
ATOM	1298	CB	TYR C 242	129.922	156.344	214.623	1.00 98.34	C
ATOM	1299	CG	TYR C 242	130.299	155.410	213.501	1.00 98.34	C
ATOM	1300	CD1	TYR C 242	131.362	155.697	212.660	1.00 98.34	C
ATOM	1301	CD2	TYR C 242	129.607	154.228	213.299	1.00 98.34	C
ATOM	1302	CE1	TYR C 242	131.717	154.841	211.642	1.00 98.34	C
ATOM	1303	CE2	TYR C 242	129.953	153.367	212.284	1.00 98.34	C
ATOM	1304	CZ	TYR C 242	131.008	153.677	211.458	1.00 98.34	C
ATOM	1305	OH	TYR C 242	131.354	152.817	210.444	1.00 98.34	O
ATOM	1306	N	ARG C 243	127.770	157.593	212.184	1.00100.53	N
ATOM	1307	CA	ARG C 243	126.563	157.362	211.403	1.00100.53	C
ATOM	1308	C	ARG C 243	126.926	157.038	209.963	1.00100.53	C
ATOM	1309	O	ARG C 243	127.980	157.442	209.466	1.00100.53	O
ATOM	1310	CB	ARG C 243	125.636	158.580	211.435	1.00100.53	C
ATOM	1311	CG	ARG C 243	126.157	159.750	210.629	1.00100.53	C
ATOM	1312	CD	ARG C 243	125.063	160.761	210.363	1.00100.53	C
ATOM	1313	NE	ARG C 243	125.515	161.825	209.474	1.00100.53	N
ATOM	1314	CZ	ARG C 243	124.750	162.831	209.067	1.00100.53	C
ATOM	1315	NH1	ARG C 243	123.489	162.913	209.470	1.00100.53	N
ATOM	1316	NH2	ARG C 243	125.247	163.757	208.259	1.00100.53	N
ATOM	1317	N	GLU C 244	126.034	156.307	209.298	1.00 97.60	N
ATOM	1318	CA	GLU C 244	126.164	155.992	207.884	1.00 97.60	C
ATOM	1319	C	GLU C 244	124.790	156.067	207.237	1.00 97.60	C
ATOM	1320	O	GLU C 244	123.793	155.649	207.832	1.00 97.60	O
ATOM	1321	CB	GLU C 244	126.781	154.606	207.671	1.00 97.60	C
ATOM	1322	CG	GLU C 244	125.881	153.457	208.066	1.00 97.60	C
ATOM	1323	CD	GLU C 244	125.761	153.310	209.564	1.00 97.60	C
ATOM	1324	OE1	GLU C 244	125.867	154.334	210.269	1.00 97.60	O
ATOM	1325	OE2	GLU C 244	125.572	152.171	210.039	1.00 97.60	O
ATOM	1326	N	THR C 245	124.743	156.596	206.020	1.00 96.12	N
ATOM	1327	CA	THR C 245	123.492	156.939	205.357	1.00 96.12	C
ATOM	1328	C	THR C 245	123.292	156.073	204.112	1.00 96.12	C
ATOM	1329	O	THR C 245	124.074	155.164	203.825	1.00 96.12	O
ATOM	1330	CB	THR C 245	123.475	158.427	205.007	1.00 96.12	C
ATOM	1331	OG1	THR C 245	124.657	158.754	204.267	1.00 96.12	O

ATOM	1332	CG2	THR	C	245	123.437 159.260 206.272	1.00 96.12	C
ATOM	1333	N	CYS	C	246	122.223 156.368 203.373	1.00 95.23	N
ATOM	1334	CA	CYS	C	246	121.878 155.632 202.159	1.00 95.23	C
ATOM	1335	C	CYS	C	246	120.999 156.522 201.298	1.00 95.23	C
ATOM	1336	O	CYS	C	246	119.892 156.877 201.711	1.00 95.23	O
ATOM	1337	CB	CYS	C	246	121.156 154.329 202.497	1.00 95.23	C
ATOM	1338	SG	CYS	C	246	120.695 153.332 201.064	1.00 95.23	S
ATOM	1339	N	ASN	C	247	121.482 156.880 200.111	1.00 90.19	N
ATOM	1340	CA	ASN	C	247	120.770 157.775 199.210	1.00 90.19	C
ATOM	1341	C	ASN	C	247	120.337 157.025 197.960	1.00 90.19	C
ATOM	1342	O	ASN	C	247	121.043 156.131 197.486	1.00 90.19	O
ATOM	1343	CB	ASN	C	247	121.641 158.970 198.826	1.00 90.19	C
ATOM	1344	CG	ASN	C	247	121.797 159.959 199.957	1.00 90.19	C
ATOM	1345	OD1	ASN	C	247	120.867 160.187 200.728	1.00 90.19	O
ATOM	1346	ND2	ASN	C	247	122.979 160.552 200.067	1.00 90.19	N
ATOM	1347	N	LEU	C	248	119.178 157.397 197.426	1.00 79.57	N
ATOM	1348	CA	LEU	C	248	118.576 156.727 196.283	1.00 79.57	C
ATOM	1349	C	LEU	C	248	118.514 157.665 195.084	1.00 79.57	C
ATOM	1350	O	LEU	C	248	118.618 158.887 195.212	1.00 79.57	O
ATOM	1351	CB	LEU	C	248	117.172 156.225 196.625	1.00 79.57	C
ATOM	1352	CG	LEU	C	248	116.667 155.056 195.787	1.00 79.57	C
ATOM	1353	CD1	LEU	C	248	117.577 153.861 195.966	1.00 79.57	C
ATOM	1354	CD2	LEU	C	248	115.246 154.708 196.172	1.00 79.57	C
ATOM	1355	N	ASN	C	249	118.336 157.072 193.906	1.00 64.92	N
ATOM	1356	CA	ASN	C	249	118.309 157.834 192.667	1.00 64.92	C
ATOM	1357	C	ASN	C	249	117.718 156.963 191.569	1.00 64.92	C
ATOM	1358	O	ASN	C	249	117.983 155.760 191.521	1.00 64.92	O
ATOM	1359	CB	ASN	C	249	119.715 158.303 192.280	1.00 64.92	C
ATOM	1360	CG	ASN	C	249	119.695 159.467 191.323	1.00 64.92	C
ATOM	1361	OD1	ASN	C	249	118.684 160.151 191.186	1.00 64.92	O
ATOM	1362	ND2	ASN	C	249	120.814 159.704 190.655	1.00 64.92	N
ATOM	1363	N	CYS	C	250	116.923 157.576 190.693	1.00 57.10	N
ATOM	1364	CA	CYS	C	250	116.230 156.872 189.619	1.00 57.10	C
ATOM	1365	C	CYS	C	250	116.468 157.625 188.321	1.00 57.10	C
ATOM	1366	O	CYS	C	250	116.123 158.805 188.221	1.00 57.10	O
ATOM	1367	CB	CYS	C	250	114.731 156.765 189.915	1.00 57.10	C
ATOM	1368	SG	CYS	C	250	113.755 155.915 188.664	1.00 57.10	S

ATOM	1369	N	MET	C	251	117.053	156.951	187.333	1.00	46.38	N
ATOM	1370	CA	MET	C	251	117.421	157.605	186.086	1.00	46.38	C
ATOM	1371	C	MET	C	251	117.004	156.749	184.898	1.00	46.38	C
ATOM	1372	O	MET	C	251	116.959	155.521	184.984	1.00	46.38	O
ATOM	1373	CB	MET	C	251	118.923	157.893	186.033	1.00	46.38	C
ATOM	1374	CG	MET	C	251	119.785	156.662	185.945	1.00	46.38	C
ATOM	1375	SD	MET	C	251	121.537	157.073	185.923	1.00	46.38	S
ATOM	1376	CE	MET	C	251	121.689	157.938	187.479	1.00	46.38	C
ATOM	1377	N	VAL	C	252	116.700	157.422	183.785	1.00	39.69	N
ATOM	1378	CA	VAL	C	252	116.205	156.789	182.565	1.00	39.69	C
ATOM	1379	C	VAL	C	252	116.835	157.437	181.340	1.00	39.69	C
ATOM	1380	O	VAL	C	252	116.420	158.524	180.928	1.00	39.69	O
ATOM	1381	CB	VAL	C	252	114.674	156.886	182.482	1.00	39.69	C
ATOM	1382	CG1	VAL	C	252	114.215	156.594	181.078	1.00	39.69	C
ATOM	1383	CG2	VAL	C	252	114.029	155.937	183.461	1.00	39.69	C
ATOM	1384	N	THR	C	253	117.818	156.781	180.734	1.00	35.31	N
ATOM	1385	CA	THR	C	253	118.484	157.340	179.567	1.00	35.31	C
ATOM	1386	C	THR	C	253	117.718	157.000	178.290	1.00	35.31	C
ATOM	1387	O	THR	C	253	116.749	156.242	178.299	1.00	35.31	O
ATOM	1388	CB	THR	C	253	119.923	156.839	179.480	1.00	35.31	C
ATOM	1389	OG1	THR	C	253	120.524	157.303	178.267	1.00	35.31	O
ATOM	1390	CG2	THR	C	253	119.959	155.337	179.507	1.00	35.31	C
ATOM	1391	N	ILE	C	254	118.158	157.593	177.179	1.00	37.00	N
ATOM	1392	CA	ILE	C	254	117.547	157.371	175.869	1.00	37.00	C
ATOM	1393	C	ILE	C	254	118.613	157.477	174.787	1.00	37.00	C
ATOM	1394	O	ILE	C	254	119.220	158.538	174.609	1.00	37.00	O
ATOM	1395	CB	ILE	C	254	116.409	158.371	175.607	1.00	37.00	C
ATOM	1396	CG1	ILE	C	254	115.242	158.117	176.553	1.00	37.00	C
ATOM	1397	CG2	ILE	C	254	115.946	158.275	174.174	1.00	37.00	C
ATOM	1398	CD1	ILE	C	254	114.082	159.042	176.331	1.00	37.00	C
ATOM	1399	N	THR	C	255	118.838	156.397	174.040	1.00	37.85	N
ATOM	1400	CA	THR	C	255	119.925	156.370	173.067	1.00	37.85	C
ATOM	1401	C	THR	C	255	119.482	155.821	171.716	1.00	37.85	C
ATOM	1402	O	THR	C	255	118.287	155.627	171.482	1.00	37.85	O
ATOM	1403	CB	THR	C	255	121.090	155.545	173.605	1.00	37.85	C
ATOM	1404	OG1	THR	C	255	120.652	154.205	173.843	1.00	37.85	O
ATOM	1405	CG2	THR	C	255	121.588	156.134	174.902	1.00	37.85	C

ATOM	1406	N	THR	C	256	120.437	155.573	170.819	1.00	39.35	N
ATOM	1407	CA	THR	C	256	120.149	155.070	169.479	1.00	39.35	C
ATOM	1408	C	THR	C	256	121.131	153.961	169.141	1.00	39.35	C
ATOM	1409	O	THR	C	256	122.344	154.185	169.165	1.00	39.35	O
ATOM	1410	CB	THR	C	256	120.244	156.182	168.437	1.00	39.35	C
ATOM	1411	OG1	THR	C	256	121.621	156.429	168.138	1.00	39.35	O
ATOM	1412	CG2	THR	C	256	119.620	157.454	168.965	1.00	39.35	C
ATOM	1413	N	ALA	C	257	120.615	152.782	168.807	1.00	38.91	N
ATOM	1414	CA	ALA	C	257	121.428	151.615	168.512	1.00	38.91	C
ATOM	1415	C	ALA	C	257	121.651	151.488	167.009	1.00	38.91	C
ATOM	1416	O	ALA	C	257	121.097	152.241	166.209	1.00	38.91	O
ATOM	1417	CB	ALA	C	257	120.775	150.358	169.077	1.00	38.91	C
ATOM	1418	N	ARG	C	258	122.473	150.515	166.619	1.00	44.69	N
ATOM	1419	CA	ARG	C	258	122.770	150.307	165.203	1.00	44.69	C
ATOM	1420	C	ARG	C	258	123.313	148.899	165.004	1.00	44.69	C
ATOM	1421	O	ARG	C	258	124.392	148.579	165.510	1.00	44.69	O
ATOM	1422	CB	ARG	C	258	123.765	151.343	164.707	1.00	44.69	C
ATOM	1423	CG	ARG	C	258	124.680	150.827	163.619	1.00	44.69	C
ATOM	1424	CD	ARG	C	258	125.499	151.943	163.011	1.00	44.69	C
ATOM	1425	NE	ARG	C	258	124.658	153.013	162.493	1.00	44.69	N
ATOM	1426	CZ	ARG	C	258	125.125	154.104	161.901	1.00	44.69	C
ATOM	1427	NH1	ARG	C	258	124.289	155.031	161.459	1.00	44.69	N
ATOM	1428	NH2	ARG	C	258	126.430	154.268	161.753	1.00	44.69	N
ATOM	1429	N	SER	C	259	122.582	148.073	164.260	1.00	47.82	N
ATOM	1430	CA	SER	C	259	123.012	146.733	163.891	1.00	47.82	C
ATOM	1431	C	SER	C	259	123.287	146.674	162.396	1.00	47.82	C
ATOM	1432	O	SER	C	259	122.951	147.592	161.645	1.00	47.82	O
ATOM	1433	CB	SER	C	259	121.958	145.692	164.275	1.00	47.82	C
ATOM	1434	OG	SER	C	259	120.666	146.123	163.901	1.00	47.82	O
ATOM	1435	N	LYS	C	260	123.896	145.573	161.958	1.00	58.72	N
ATOM	1436	CA	LYS	C	260	124.238	145.410	160.553	1.00	58.72	C
ATOM	1437	C	LYS	C	260	124.136	143.946	160.148	1.00	58.72	C
ATOM	1438	O	LYS	C	260	124.103	143.044	160.988	1.00	58.72	O
ATOM	1439	CB	LYS	C	260	125.635	145.958	160.252	1.00	58.72	C
ATOM	1440	CG	LYS	C	260	126.741	145.318	161.047	1.00	58.72	C
ATOM	1441	CD	LYS	C	260	128.073	145.920	160.654	1.00	58.72	C
ATOM	1442	CE	LYS	C	260	128.154	147.374	161.086	1.00	58.72	C

ATOM	1443	NZ	LYS C 260	129.507	147.948	160.862	1.00 58.72	N
ATOM	1444	N	TYR C 261	124.086	143.730	158.838	1.00 62.19	N
ATOM	1445	CA	TYR C 261	123.805	142.415	158.281	1.00 62.19	C
ATOM	1446	C	TYR C 261	124.732	141.368	158.896	1.00 62.19	C
ATOM	1447	O	TYR C 261	125.930	141.628	159.067	1.00 62.19	O
ATOM	1448	CB	TYR C 261	123.982	142.453	156.761	1.00 62.19	C
ATOM	1449	CG	TYR C 261	123.331	141.313	156.014	1.00 62.19	C
ATOM	1450	CD1	TYR C 261	121.987	141.360	155.674	1.00 62.19	C
ATOM	1451	CD2	TYR C 261	124.063	140.203	155.628	1.00 62.19	C
ATOM	1452	CE1	TYR C 261	121.390	140.328	154.987	1.00 62.19	C
ATOM	1453	CE2	TYR C 261	123.474	139.166	154.939	1.00 62.19	C
ATOM	1454	CZ	TYR C 261	122.136	139.234	154.622	1.00 62.19	C
ATOM	1455	OH	TYR C 261	121.543	138.203	153.935	1.00 62.19	O
ATOM	1456	N	PRO C 262	124.226	140.167	159.229	1.00 59.61	N
ATOM	1457	CA	PRO C 262	122.844	139.709	159.056	1.00 59.61	C
ATOM	1458	C	PRO C 262	121.896	140.022	160.218	1.00 59.61	C
ATOM	1459	O	PRO C 262	120.887	139.336	160.363	1.00 59.61	O
ATOM	1460	CB	PRO C 262	123.009	138.200	158.916	1.00 59.61	C
ATOM	1461	CG	PRO C 262	124.164	137.898	159.778	1.00 59.61	C
ATOM	1462	CD	PRO C 262	125.108	139.063	159.642	1.00 59.61	C
ATOM	1463	N	TYR C 263	122.208	141.037	161.024	1.00 58.28	N
ATOM	1464	CA	TYR C 263	121.320	141.513	162.085	1.00 58.28	C
ATOM	1465	C	TYR C 263	121.017	140.415	163.110	1.00 58.28	C
ATOM	1466	O	TYR C 263	119.885	139.949	163.240	1.00 58.28	O
ATOM	1467	CB	TYR C 263	120.002	142.049	161.514	1.00 58.28	C
ATOM	1468	CG	TYR C 263	120.109	142.851	160.246	1.00 58.28	C
ATOM	1469	CD1	TYR C 263	121.029	143.875	160.124	1.00 58.28	C
ATOM	1470	CD2	TYR C 263	119.267	142.602	159.178	1.00 58.28	C
ATOM	1471	CE1	TYR C 263	121.122	144.615	158.968	1.00 58.28	C
ATOM	1472	CE2	TYR C 263	119.350	143.338	158.020	1.00 58.28	C
ATOM	1473	CZ	TYR C 263	120.280	144.343	157.920	1.00 58.28	C
ATOM	1474	OH	TYR C 263	120.366	145.080	156.765	1.00 58.28	O
ATOM	1475	N	HIS C 264	122.054	140.000	163.842	1.00 60.83	N
ATOM	1476	CA	HIS C 264	121.763	139.233	165.048	1.00 60.83	C
ATOM	1477	C	HIS C 264	122.568	139.720	166.248	1.00 60.83	C
ATOM	1478	O	HIS C 264	122.919	138.927	167.126	1.00 60.83	O
ATOM	1479	CB	HIS C 264	121.970	137.725	164.847	1.00 60.83	C

ATOM	1480	CG	HIS	C	264	123.364	137.327	164.477	1.00	60.83	C
ATOM	1481	ND1	HIS	C	264	123.663	136.696	163.289	1.00	60.83	N
ATOM	1482	CD2	HIS	C	264	124.536	137.449	165.143	1.00	60.83	C
ATOM	1483	CE1	HIS	C	264	124.960	136.452	163.236	1.00	60.83	C
ATOM	1484	NE2	HIS	C	264	125.513	136.901	164.348	1.00	60.83	N
ATOM	1485	N	PHE	C	265	122.881	141.014	166.296	1.00	47.73	N
ATOM	1486	CA	PHE	C	265	123.317	141.655	167.531	1.00	47.73	C
ATOM	1487	C	PHE	C	265	123.455	143.154	167.308	1.00	47.73	C
ATOM	1488	O	PHE	C	265	123.921	143.578	166.247	1.00	47.73	O
ATOM	1489	CB	PHE	C	265	124.633	141.054	168.020	1.00	47.73	C
ATOM	1490	CG	PHE	C	265	125.848	141.783	167.541	1.00	47.73	C
ATOM	1491	CD1	PHE	C	265	126.385	141.517	166.299	1.00	47.73	C
ATOM	1492	CD2	PHE	C	265	126.461	142.729	168.338	1.00	47.73	C
ATOM	1493	CE1	PHE	C	265	127.507	142.184	165.859	1.00	47.73	C
ATOM	1494	CE2	PHE	C	265	127.583	143.399	167.903	1.00	47.73	C
ATOM	1495	CZ	PHE	C	265	128.107	143.127	166.662	1.00	47.73	C
ATOM	1496	N	PHE	C	266	123.070	143.970	168.287	1.00	38.77	N
ATOM	1497	CA	PHE	C	266	123.182	145.415	168.158	1.00	38.77	C
ATOM	1498	C	PHE	C	266	123.827	146.011	169.398	1.00	38.77	C
ATOM	1499	O	PHE	C	266	123.782	145.436	170.485	1.00	38.77	O
ATOM	1500	CB	PHE	C	266	121.822	146.069	167.907	1.00	38.77	C
ATOM	1501	CG	PHE	C	266	120.820	145.852	168.997	1.00	38.77	C
ATOM	1502	CD1	PHE	C	266	120.747	146.716	170.069	1.00	38.77	C
ATOM	1503	CD2	PHE	C	266	119.921	144.810	168.930	1.00	38.77	C
ATOM	1504	CE1	PHE	C	266	119.812	146.530	171.063	1.00	38.77	C
ATOM	1505	CE2	PHE	C	266	118.983	144.621	169.923	1.00	38.77	C
ATOM	1506	CZ	PHE	C	266	118.928	145.483	170.987	1.00	38.77	C
ATOM	1507	N	ALA	C	267	124.427	147.185	169.217	1.00	37.76	N
ATOM	1508	CA	ALA	C	267	125.149	147.880	170.274	1.00	37.76	C
ATOM	1509	C	ALA	C	267	124.708	149.334	170.318	1.00	37.76	C
ATOM	1510	O	ALA	C	267	124.712	150.015	169.290	1.00	37.76	O
ATOM	1511	CB	ALA	C	267	126.660	147.798	170.056	1.00	37.76	C
ATOM	1512	N	THR	C	268	124.349	149.810	171.506	1.00	39.01	N
ATOM	1513	CA	THR	C	268	123.821	151.159	171.668	1.00	39.01	C
ATOM	1514	C	THR	C	268	124.965	152.170	171.656	1.00	39.01	C
ATOM	1515	O	THR	C	268	126.109	151.849	171.326	1.00	39.01	O
ATOM	1516	CB	THR	C	268	122.997	151.254	172.945	1.00	39.01	C

ATOM	1517	OG1	THR C 268	123.806	150.887	174.064	1.00 39.01	O
ATOM	1518	CG2	THR C 268	121.806	150.322	172.875	1.00 39.01	C
ATOM	1519	N	SER C 269	124.660	153.418	172.009	1.00 40.29	N
ATOM	1520	CA	SER C 269	125.646	154.492	172.022	1.00 40.29	C
ATOM	1521	C	SER C 269	126.378	154.595	173.353	1.00 40.29	C
ATOM	1522	O	SER C 269	127.585	154.854	173.374	1.00 40.29	O
ATOM	1523	CB	SER C 269	124.977	155.831	171.704	1.00 40.29	C
ATOM	1524	OG	SER C 269	124.696	155.947	170.323	1.00 40.29	O
ATOM	1525	N	THR C 270	125.672	154.408	174.469	1.00 41.24	N
ATOM	1526	CA	THR C 270	126.315	154.469	175.775	1.00 41.24	C
ATOM	1527	C	THR C 270	127.309	153.335	175.988	1.00 41.24	C
ATOM	1528	O	THR C 270	128.166	153.440	176.870	1.00 41.24	O
ATOM	1529	CB	THR C 270	125.261	154.462	176.881	1.00 41.24	C
ATOM	1530	OG1	THR C 270	124.548	153.221	176.867	1.00 41.24	O
ATOM	1531	CG2	THR C 270	124.288	155.596	176.679	1.00 41.24	C
ATOM	1532	N	GLY C 271	127.215	152.254	175.219	1.00 39.88	N
ATOM	1533	CA	GLY C 271	128.232	151.222	175.265	1.00 39.88	C
ATOM	1534	C	GLY C 271	127.711	149.805	175.371	1.00 39.88	C
ATOM	1535	O	GLY C 271	128.466	148.844	175.198	1.00 39.88	O
ATOM	1536	N	ASP C 272	126.418	149.662	175.641	1.00 42.71	N
ATOM	1537	CA	ASP C 272	125.822	148.368	175.941	1.00 42.71	C
ATOM	1538	C	ASP C 272	125.857	147.445	174.722	1.00 42.71	C
ATOM	1539	O	ASP C 272	126.222	147.841	173.617	1.00 42.71	O
ATOM	1540	CB	ASP C 272	124.388	148.568	176.420	1.00 42.71	C
ATOM	1541	CG	ASP C 272	124.323	149.047	177.845	1.00 42.71	C
ATOM	1542	OD1	ASP C 272	125.128	148.555	178.668	1.00 42.71	O
ATOM	1543	OD2	ASP C 272	123.434	149.865	178.164	1.00 42.71	O
ATOM	1544	N	VAL C 273	125.466	146.191	174.939	1.00 39.85	N
ATOM	1545	CA	VAL C 273	125.465	145.181	173.883	1.00 39.85	C
ATOM	1546	C	VAL C 273	124.486	144.083	174.276	1.00 39.85	C
ATOM	1547	O	VAL C 273	124.388	143.710	175.448	1.00 39.85	O
ATOM	1548	CB	VAL C 273	126.878	144.601	173.645	1.00 39.85	C
ATOM	1549	CG1	VAL C 273	126.798	143.367	172.782	1.00 39.85	C
ATOM	1550	CG2	VAL C 273	127.781	145.624	172.994	1.00 39.85	C
ATOM	1551	N	VAL C 274	123.765	143.563	173.286	1.00 42.22	N
ATOM	1552	CA	VAL C 274	122.839	142.455	173.478	1.00 42.22	C
ATOM	1553	C	VAL C 274	122.901	141.563	172.245	1.00 42.22	C

ATOM	1554	O	VAL C 274	123.409	141.952	171.193	1.00 42.22	O
ATOM	1555	CB	VAL C 274	121.397	142.931	173.723	1.00 42.22	C
ATOM	1556	CG1	VAL C 274	121.330	143.752	174.984	1.00 42.22	C
ATOM	1557	CG2	VAL C 274	120.932	143.744	172.560	1.00 42.22	C
ATOM	1558	N	ASP C 275	122.375	140.348	172.382	1.00 51.68	N
ATOM	1559	CA	ASP C 275	122.396	139.357	171.306	1.00 51.68	C
ATOM	1560	C	ASP C 275	120.963	138.972	170.961	1.00 51.68	C
ATOM	1561	O	ASP C 275	120.440	137.964	171.437	1.00 51.68	O
ATOM	1562	CB	ASP C 275	123.216	138.149	171.706	1.00 51.68	C
ATOM	1563	CG	ASP C 275	124.700	138.417	171.661	1.00 51.68	C
ATOM	1564	OD1	ASP C 275	125.085	139.558	171.341	1.00 51.68	O
ATOM	1565	OD2	ASP C 275	125.485	137.488	171.945	1.00 51.68	O
ATOM	1566	N	ILE C 276	120.339	139.772	170.101	1.00 48.86	N
ATOM	1567	CA	ILE C 276	119.006	139.484	169.589	1.00 48.86	C
ATOM	1568	C	ILE C 276	118.873	140.230	168.275	1.00 48.86	C
ATOM	1569	O	ILE C 276	119.603	141.184	168.012	1.00 48.86	O
ATOM	1570	CB	ILE C 276	117.897	139.897	170.589	1.00 48.86	C
ATOM	1571	CG1	ILE C 276	118.003	139.102	171.886	1.00 48.86	C
ATOM	1572	CG2	ILE C 276	116.531	139.689	169.986	1.00 48.86	C
ATOM	1573	CD1	ILE C 276	116.784	139.222	172.761	1.00 48.86	C
ATOM	1574	N	SER C 277	117.953	139.794	167.444	1.00 56.45	N
ATOM	1575	CA	SER C 277	117.766	140.535	166.207	1.00 56.45	C
ATOM	1576	C	SER C 277	116.629	141.520	166.372	1.00 56.45	C
ATOM	1577	O	SER C 277	115.534	141.126	166.795	1.00 56.45	O
ATOM	1578	CB	SER C 277	117.468	139.588	165.050	1.00 56.45	C
ATOM	1579	OG	SER C 277	118.661	139.016	164.545	1.00 56.45	O
ATOM	1580	N	PRO C 278	116.840	142.795	166.055	1.00 52.41	N
ATOM	1581	CA	PRO C 278	115.776	143.785	166.258	1.00 52.41	C
ATOM	1582	C	PRO C 278	114.431	143.353	165.714	1.00 52.41	C
ATOM	1583	O	PRO C 278	113.396	143.810	166.212	1.00 52.41	O
ATOM	1584	CB	PRO C 278	116.310	145.019	165.522	1.00 52.41	C
ATOM	1585	CG	PRO C 278	117.775	144.850	165.519	1.00 52.41	C
ATOM	1586	CD	PRO C 278	118.041	143.384	165.447	1.00 52.41	C
ATOM	1587	N	PHE C 279	114.409	142.480	164.708	1.00 59.30	N
ATOM	1588	CA	PHE C 279	113.169	142.050	164.078	1.00 59.30	C
ATOM	1589	C	PHE C 279	112.531	140.851	164.763	1.00 59.30	C
ATOM	1590	O	PHE C 279	111.389	140.511	164.439	1.00 59.30	O

ATOM	1591	CB	PHE	C	279	113.414	141.713	162.605	1.00	59.30	C
ATOM	1592	CG	PHE	C	279	114.258	142.721	161.884	1.00	59.30	C
ATOM	1593	CD1	PHE	C	279	113.711	143.906	161.435	1.00	59.30	C
ATOM	1594	CD2	PHE	C	279	115.597	142.480	161.651	1.00	59.30	C
ATOM	1595	CE1	PHE	C	279	114.485	144.830	160.772	1.00	59.30	C
ATOM	1596	CE2	PHE	C	279	116.373	143.402	160.989	1.00	59.30	C
ATOM	1597	CZ	PHE	C	279	115.816	144.577	160.549	1.00	59.30	C
ATOM	1598	N	TYR	C	280	113.226	140.207	165.693	1.00	64.58	N
ATOM	1599	CA	TYR	C	280	112.720	138.981	166.300	1.00	64.58	C
ATOM	1600	C	TYR	C	280	111.510	139.287	167.166	1.00	64.58	C
ATOM	1601	O	TYR	C	280	111.637	139.908	168.224	1.00	64.58	O
ATOM	1602	CB	TYR	C	280	113.807	138.310	167.131	1.00	64.58	C
ATOM	1603	CG	TYR	C	280	113.257	137.291	168.099	1.00	64.58	C
ATOM	1604	CD1	TYR	C	280	112.993	135.998	167.693	1.00	64.58	C
ATOM	1605	CD2	TYR	C	280	112.993	137.624	169.414	1.00	64.58	C
ATOM	1606	CE1	TYR	C	280	112.486	135.066	168.567	1.00	64.58	C
ATOM	1607	CE2	TYR	C	280	112.483	136.697	170.294	1.00	64.58	C
ATOM	1608	CZ	TYR	C	280	112.233	135.420	169.865	1.00	64.58	C
ATOM	1609	OH	TYR	C	280	111.727	134.489	170.739	1.00	64.58	O
ATOM	1610	N	ASN	C	281	110.335	138.862	166.727	1.00	70.38	N
ATOM	1611	CA	ASN	C	281	109.191	138.759	167.613	1.00	70.38	C
ATOM	1612	C	ASN	C	281	109.069	137.315	168.091	1.00	70.38	C
ATOM	1613	O	ASN	C	281	109.987	136.506	167.937	1.00	70.38	O
ATOM	1614	CB	ASN	C	281	107.919	139.275	166.939	1.00	70.38	C
ATOM	1615	CG	ASN	C	281	107.781	138.814	165.515	1.00	70.38	C
ATOM	1616	OD1	ASN	C	281	108.499	137.928	165.061	1.00	70.38	O
ATOM	1617	ND2	ASN	C	281	106.854	139.427	164.791	1.00	70.38	N
ATOM	1618	N	GLY	C	282	107.940	136.994	168.711	1.00	73.55	N
ATOM	1619	CA	GLY	C	282	107.741	135.700	169.332	1.00	73.55	C
ATOM	1620	C	GLY	C	282	108.166	134.473	168.547	1.00	73.55	C
ATOM	1621	O	GLY	C	282	108.845	133.601	169.095	1.00	73.55	O
ATOM	1622	N	THR	C	283	107.785	134.385	167.273	1.00	77.44	N
ATOM	1623	CA	THR	C	283	107.838	133.132	166.520	1.00	77.44	C
ATOM	1624	C	THR	C	283	108.605	133.292	165.209	1.00	77.44	C
ATOM	1625	O	THR	C	283	108.135	132.904	164.139	1.00	77.44	O
ATOM	1626	CB	THR	C	283	106.430	132.617	166.245	1.00	77.44	C
ATOM	1627	OG1	THR	C	283	105.901	133.274	165.088	1.00	77.44	O

ATOM	1628	CG2	THR	C	283	105.525	132.903	167.431	1.00 77.44	C
ATOM	1629	N	ASN	C	284	109.806	133.867	165.271	1.00 76.77	N
ATOM	1630	CA	ASN	C	284	110.656	134.004	164.093	1.00 76.77	C
ATOM	1631	C	ASN	C	284	112.060	133.478	164.351	1.00 76.77	C
ATOM	1632	O	ASN	C	284	113.031	133.992	163.793	1.00 76.77	O
ATOM	1633	CB	ASN	C	284	110.723	135.457	163.628	1.00 76.77	C
ATOM	1634	CG	ASN	C	284	109.404	135.957	163.111	1.00 76.77	C
ATOM	1635	OD1	ASN	C	284	108.418	135.224	163.085	1.00 76.77	O
ATOM	1636	ND2	ASN	C	284	109.372	137.216	162.694	1.00 76.77	N
ATOM	1637	N	ARG	C	285	112.188	132.455	165.198	1.00 78.71	N
ATOM	1638	CA	ARG	C	285	113.511	131.924	165.503	1.00 78.71	C
ATOM	1639	C	ARG	C	285	114.210	131.398	164.256	1.00 78.71	C
ATOM	1640	O	ARG	C	285	115.445	131.390	164.196	1.00 78.71	O
ATOM	1641	CB	ARG	C	285	113.405	130.821	166.553	1.00 78.71	C
ATOM	1642	CG	ARG	C	285	112.982	131.307	167.922	1.00 78.71	C
ATOM	1643	CD	ARG	C	285	113.678	130.518	169.015	1.00 78.71	C
ATOM	1644	NE	ARG	C	285	115.116	130.428	168.783	1.00 78.71	N
ATOM	1645	CZ	ARG	C	285	115.994	130.016	169.691	1.00 78.71	C
ATOM	1646	NH1	ARG	C	285	115.583	129.655	170.897	1.00 78.71	N
ATOM	1647	NH2	ARG	C	285	117.284	129.966	169.393	1.00 78.71	N
ATOM	1648	N	ASN	C	286	113.446	130.958	163.255	1.00 88.39	N
ATOM	1649	CA	ASN	C	286	114.046	130.383	162.055	1.00 88.39	C
ATOM	1650	C	ASN	C	286	114.926	131.400	161.340	1.00 88.39	C
ATOM	1651	O	ASN	C	286	116.140	131.208	161.205	1.00 88.39	O
ATOM	1652	CB	ASN	C	286	112.951	129.865	161.123	1.00 88.39	C
ATOM	1653	CG	ASN	C	286	112.065	128.837	161.787	1.00 88.39	C
ATOM	1654	OD1	ASN	C	286	112.535	128.012	162.571	1.00 88.39	O
ATOM	1655	ND2	ASN	C	286	110.776	128.879	161.480	1.00 88.39	N
ATOM	1656	N	ALA	C	287	114.325	132.493	160.871	1.00 83.03	N
ATOM	1657	CA	ALA	C	287	115.088	133.522	160.176	1.00 83.03	C
ATOM	1658	C	ALA	C	287	115.815	134.435	161.157	1.00 83.03	C
ATOM	1659	O	ALA	C	287	116.986	134.770	160.953	1.00 83.03	O
ATOM	1660	CB	ALA	C	287	114.164	134.335	159.268	1.00 83.03	C
ATOM	1661	N	SER	C	288	115.139	134.839	162.229	1.00 74.07	N
ATOM	1662	CA	SER	C	288	115.686	135.796	163.178	1.00 74.07	C
ATOM	1663	C	SER	C	288	116.413	135.087	164.316	1.00 74.07	C
ATOM	1664	O	SER	C	288	116.028	133.999	164.747	1.00 74.07	O

ATOM	1665	CB	SER C 288	114.575	136.677	163.738	1.00 74.07	C
ATOM	1666	OG	SER C 288	113.707	137.098	162.703	1.00 74.07	O
ATOM	1667	N	TYR C 289	117.471	135.729	164.801	1.00 66.18	N
ATOM	1668	CA	TYR C 289	118.339	135.177	165.828	1.00 66.18	C
ATOM	1669	C	TYR C 289	117.749	135.393	167.218	1.00 66.18	C
ATOM	1670	O	TYR C 289	116.878	136.240	167.430	1.00 66.18	O
ATOM	1671	CB	TYR C 289	119.718	135.827	165.735	1.00 66.18	C
ATOM	1672	CG	TYR C 289	120.816	135.151	166.519	1.00 66.18	C
ATOM	1673	CD1	TYR C 289	120.999	135.415	167.866	1.00 66.18	C
ATOM	1674	CD2	TYR C 289	121.698	134.284	165.900	1.00 66.18	C
ATOM	1675	CE1	TYR C 289	122.008	134.813	168.580	1.00 66.18	C
ATOM	1676	CE2	TYR C 289	122.711	133.677	166.605	1.00 66.18	C
ATOM	1677	CZ	TYR C 289	122.863	133.946	167.945	1.00 66.18	C
ATOM	1678	OH	TYR C 289	123.874	133.344	168.654	1.00 66.18	O
ATOM	1679	N	PHE C 290	118.229	134.599	168.172	1.00 65.86	N
ATOM	1680	CA	PHE C 290	117.897	134.800	169.582	1.00 65.86	C
ATOM	1681	C	PHE C 290	118.892	134.015	170.419	1.00 65.86	C
ATOM	1682	O	PHE C 290	118.974	132.791	170.283	1.00 65.86	O
ATOM	1683	CB	PHE C 290	116.480	134.347	169.878	1.00 65.86	C
ATOM	1684	CG	PHE C 290	116.073	134.549	171.299	1.00 65.86	C
ATOM	1685	CD1	PHE C 290	115.504	135.739	171.703	1.00 65.86	C
ATOM	1686	CD2	PHE C 290	116.278	133.559	172.237	1.00 65.86	C
ATOM	1687	CE1	PHE C 290	115.132	135.932	173.011	1.00 65.86	C
ATOM	1688	CE2	PHE C 290	115.909	133.748	173.545	1.00 65.86	C
ATOM	1689	CZ	PHE C 290	115.335	134.936	173.933	1.00 65.86	C
ATOM	1690	N	GLY C 291	119.633	134.700	171.285	1.00 63.55	N
ATOM	1691	CA	GLY C 291	120.690	134.030	172.016	1.00 63.55	C
ATOM	1692	C	GLY C 291	120.955	134.451	173.448	1.00 63.55	C
ATOM	1693	O	GLY C 291	122.108	134.397	173.883	1.00 63.55	O
ATOM	1694	N	GLU C 292	119.938	134.870	174.204	1.00 65.85	N
ATOM	1695	CA	GLU C 292	120.179	135.391	175.545	1.00 65.85	C
ATOM	1696	C	GLU C 292	119.623	134.504	176.652	1.00 65.85	C
ATOM	1697	O	GLU C 292	120.386	134.040	177.503	1.00 65.85	O
ATOM	1698	CB	GLU C 292	119.605	136.808	175.668	1.00 65.85	C
ATOM	1699	CG	GLU C 292	120.573	137.900	175.247	1.00 65.85	C
ATOM	1700	CD	GLU C 292	121.731	138.056	176.211	1.00 65.85	C
ATOM	1701	OE1	GLU C 292	121.638	137.538	177.341	1.00 65.85	O

ATOM	1702	OE2	GLU	C	292	122.737	138.694	175.837	1.00 65.85	O
ATOM	1703	N	ASN	C	293	118.324	134.243	176.676	1.00 71.25	N
ATOM	1704	CA	ASN	C	293	117.745	133.467	177.771	1.00 71.25	C
ATOM	1705	C	ASN	C	293	116.278	133.203	177.455	1.00 71.25	C
ATOM	1706	O	ASN	C	293	115.789	133.539	176.370	1.00 71.25	O
ATOM	1707	CB	ASN	C	293	117.926	134.178	179.112	1.00 71.25	C
ATOM	1708	CG	ASN	C	293	117.792	133.236	180.287	1.00 71.25	C
ATOM	1709	OD1	ASN	C	293	116.717	132.693	180.541	1.00 71.25	O
ATOM	1710	ND2	ASN	C	293	118.887	133.028	181.009	1.00 71.25	N
ATOM	1711	N	ALA	C	294	115.570	132.604	178.409	1.00 74.38	N
ATOM	1712	CA	ALA	C	294	114.192	132.174	178.211	1.00 74.38	C
ATOM	1713	C	ALA	C	294	113.176	133.087	178.879	1.00 74.38	C
ATOM	1714	O	ALA	C	294	112.248	133.560	178.217	1.00 74.38	O
ATOM	1715	CB	ALA	C	294	114.015	130.740	178.727	1.00 74.38	C
ATOM	1716	N	ASP	C	295	113.313	133.340	180.178	1.00 70.52	N
ATOM	1717	CA	ASP	C	295	112.359	134.155	180.922	1.00 70.52	C
ATOM	1718	C	ASP	C	295	112.977	135.478	181.363	1.00 70.52	C
ATOM	1719	O	ASP	C	295	112.723	135.970	182.462	1.00 70.52	O
ATOM	1720	CB	ASP	C	295	111.807	133.396	182.124	1.00 70.52	C
ATOM	1721	CG	ASP	C	295	110.499	133.980	182.631	1.00 70.52	C
ATOM	1722	OD1	ASP	C	295	110.315	135.210	182.523	1.00 70.52	O
ATOM	1723	OD2	ASP	C	295	109.650	133.212	183.132	1.00 70.52	O
ATOM	1724	N	LYS	C	296	113.807	136.060	180.504	1.00 63.10	N
ATOM	1725	CA	LYS	C	296	114.282	137.423	180.693	1.00 63.10	C
ATOM	1726	C	LYS	C	296	113.821	138.241	179.498	1.00 63.10	C
ATOM	1727	O	LYS	C	296	114.590	139.018	178.928	1.00 63.10	O
ATOM	1728	CB	LYS	C	296	115.803	137.463	180.832	1.00 63.10	C
ATOM	1729	CG	LYS	C	296	116.350	136.622	181.970	1.00 63.10	C
ATOM	1730	CD	LYS	C	296	115.685	136.975	183.286	1.00 63.10	C
ATOM	1731	CE	LYS	C	296	116.431	136.368	184.459	1.00 63.10	C
ATOM	1732	NZ	LYS	C	296	117.851	136.803	184.480	1.00 63.10	N
ATOM	1733	N	PHE	C	297	112.563	138.055	179.110	1.00 57.76	N
ATOM	1734	CA	PHE	C	297	112.062	138.560	177.843	1.00 57.76	C
ATOM	1735	C	PHE	C	297	110.551	138.711	177.957	1.00 57.76	C
ATOM	1736	O	PHE	C	297	109.886	137.856	178.543	1.00 57.76	O
ATOM	1737	CB	PHE	C	297	112.437	137.605	176.707	1.00 57.76	C
ATOM	1738	CG	PHE	C	297	112.079	138.105	175.346	1.00 57.76	C

ATOM	1739	CD1	PHE C 297	112.872	139.038	174.710	1.00 57.76	C
ATOM	1740	CD2	PHE C 297	110.946	137.646	174.704	1.00 57.76	C
ATOM	1741	CE1	PHE C 297	112.544	139.504	173.458	1.00 57.76	C
ATOM	1742	CE2	PHE C 297	110.614	138.109	173.451	1.00 57.76	C
ATOM	1743	CZ	PHE C 297	111.417	139.038	172.827	1.00 57.76	C
ATOM	1744	N	PHE C 298	110.017	139.796	177.405	1.00 57.00	N
ATOM	1745	CA	PHE C 298	108.598	140.099	177.561	1.00 57.00	C
ATOM	1746	C	PHE C 298	108.118	140.926	176.381	1.00 57.00	C
ATOM	1747	O	PHE C 298	108.650	142.010	176.124	1.00 57.00	O
ATOM	1748	CB	PHE C 298	108.340	140.844	178.869	1.00 57.00	C
ATOM	1749	CG	PHE C 298	108.408	139.974	180.082	1.00 57.00	C
ATOM	1750	CD1	PHE C 298	107.304	139.251	180.494	1.00 57.00	C
ATOM	1751	CD2	PHE C 298	109.575	139.880	180.814	1.00 57.00	C
ATOM	1752	CE1	PHE C 298	107.365	138.450	181.611	1.00 57.00	C
ATOM	1753	CE2	PHE C 298	109.643	139.082	181.932	1.00 57.00	C
ATOM	1754	CZ	PHE C 298	108.538	138.365	182.332	1.00 57.00	C
ATOM	1755	N	ILE C 299	107.111	140.421	175.674	1.00 56.82	N
ATOM	1756	CA	ILE C 299	106.512	141.105	174.535	1.00 56.82	C
ATOM	1757	C	ILE C 299	105.118	141.561	174.937	1.00 56.82	C
ATOM	1758	O	ILE C 299	104.275	140.742	175.322	1.00 56.82	O
ATOM	1759	CB	ILE C 299	106.461	140.203	173.294	1.00 56.82	C
ATOM	1760	CG1	ILE C 299	107.853	139.676	172.951	1.00 56.82	C
ATOM	1761	CG2	ILE C 299	105.891	140.963	172.118	1.00 56.82	C
ATOM	1762	CD1	ILE C 299	108.772	140.723	172.370	1.00 56.82	C
ATOM	1763	N	PHE C 300	104.875	142.867	174.848	1.00 58.87	N
ATOM	1764	CA	PHE C 300	103.601	143.454	175.211	1.00 58.87	C
ATOM	1765	C	PHE C 300	102.947	144.080	173.987	1.00 58.87	C
ATOM	1766	O	PHE C 300	103.569	144.917	173.319	1.00 58.87	O
ATOM	1767	CB	PHE C 300	103.786	144.519	176.301	1.00 58.87	C
ATOM	1768	CG	PHE C 300	104.146	143.954	177.644	1.00 58.87	C
ATOM	1769	CD1	PHE C 300	103.160	143.571	178.533	1.00 58.87	C
ATOM	1770	CD2	PHE C 300	105.469	143.810	178.017	1.00 58.87	C
ATOM	1771	CE1	PHE C 300	103.487	143.054	179.766	1.00 58.87	C
ATOM	1772	CE2	PHE C 300	105.800	143.293	179.249	1.00 58.87	C
ATOM	1773	CZ	PHE C 300	104.809	142.914	180.124	1.00 58.87	C
ATOM	1774	N	PRO C 301	101.713	143.704	173.654	1.00 64.73	N
ATOM	1775	CA	PRO C 301	101.027	144.310	172.509	1.00 64.73	C

ATOM	1776	C	PRO C 301	100.173	145.503	172.910	1.00 64.73 C
ATOM	1777	O	PRO C 301	99.543	145.525	173.969	1.00 64.73 O
ATOM	1778	CB	PRO C 301	100.151	143.158	172.006	1.00 64.73 C
ATOM	1779	CG	PRO C 301	99.779	142.436	173.262	1.00 64.73 C
ATOM	1780	CD	PRO C 301	100.935	142.594	174.229	1.00 64.73 C
ATOM	1781	N	ASN C 302	100.147	146.509	172.039	1.00 68.53 N
ATOM	1782	CA	ASN C 302	99.367	147.724	172.265	1.00 68.53 C
ATOM	1783	C	ASN C 302	99.758	148.383	173.591	1.00 68.53 C
ATOM	1784	O	ASN C 302	98.965	148.515	174.521	1.00 68.53 O
ATOM	1785	CB	ASN C 302	97.869	147.420	172.226	1.00 68.53 C
ATOM	1786	CG	ASN C 302	97.247	147.741	170.888	1.00 68.53 C
ATOM	1787	OD1	ASN C 302	97.862	148.395	170.047	1.00 68.53 O
ATOM	1788	ND2	ASN C 302	96.015	147.287	170.682	1.00 68.53 N
ATOM	1789	N	TYR C 303	101.017	148.805	173.642	1.00 64.36 N
ATOM	1790	CA	TYR C 303	101.613	149.347	174.853	1.00 64.36 C
ATOM	1791	C	TYR C 303	101.701	150.864	174.766	1.00 64.36 C
ATOM	1792	O	TYR C 303	102.072	151.416	173.726	1.00 64.36 O
ATOM	1793	CB	TYR C 303	103.001	148.749	175.074	1.00 64.36 C
ATOM	1794	CG	TYR C 303	103.551	148.957	176.460	1.00 64.36 C
ATOM	1795	CD1	TYR C 303	102.872	148.484	177.570	1.00 64.36 C
ATOM	1796	CD2	TYR C 303	104.761	149.599	176.658	1.00 64.36 C
ATOM	1797	CE1	TYR C 303	103.372	148.662	178.837	1.00 64.36 C
ATOM	1798	CE2	TYR C 303	105.271	149.779	177.923	1.00 64.36 C
ATOM	1799	CZ	TYR C 303	104.572	149.308	179.008	1.00 64.36 C
ATOM	1800	OH	TYR C 303	105.073	149.484	180.274	1.00 64.36 O
ATOM	1801	N	THR C 304	101.354	151.532	175.861	1.00 61.34 N
ATOM	1802	CA	THR C 304	101.352	152.986	175.921	1.00 61.34 C
ATOM	1803	C	THR C 304	102.700	153.509	176.403	1.00 61.34 C
ATOM	1804	O	THR C 304	103.453	152.820	177.093	1.00 61.34 O
ATOM	1805	CB	THR C 304	100.247	153.486	176.851	1.00 61.34 C
ATOM	1806	OG1	THR C 304	99.021	152.815	176.542	1.00 61.34 O
ATOM	1807	CG2	THR C 304	100.052	154.977	176.686	1.00 61.34 C
ATOM	1808	N	ILE C 305	102.992	154.755	176.035	1.00 61.07 N
ATOM	1809	CA	ILE C 305	104.213	155.431	176.455	1.00 61.07 C
ATOM	1810	C	ILE C 305	103.954	156.926	176.389	1.00 61.07 C
ATOM	1811	O	ILE C 305	103.113	157.388	175.615	1.00 61.07 O
ATOM	1812	CB	ILE C 305	105.425	155.022	175.579	1.00 61.07 C

ATOM	1813	CG1	ILE	C 305	105.801	153.562	175.813	1.00 61.07 C
ATOM	1814	CG2	ILE	C 305	106.612	155.923	175.847	1.00 61.07 C
ATOM	1815	CD1	ILE	C 305	106.834	153.045	174.850	1.00 61.07 C
ATOM	1816	N	VAL	C 306	104.673	157.682	177.207	1.00 64.82 N
ATOM	1817	CA	VAL	C 306	104.551	159.130	177.204	1.00 64.82 C
ATOM	1818	C	VAL	C 306	105.508	159.706	176.170	1.00 64.82 C
ATOM	1819	O	VAL	C 306	106.469	159.063	175.744	1.00 64.82 O
ATOM	1820	CB	VAL	C 306	104.817	159.728	178.595	1.00 64.82 C
ATOM	1821	CG1	VAL	C 306	103.708	159.344	179.548	1.00 64.82 C
ATOM	1822	CG2	VAL	C 306	106.155	159.259	179.115	1.00 64.82 C
ATOM	1823	N	SER	C 307	105.240	160.947	175.765	1.00 69.98 N
ATOM	1824	CA	SER	C 307	106.026	161.571	174.707	1.00 69.98 C
ATOM	1825	C	SER	C 307	107.300	162.203	175.248	1.00 69.98 C
ATOM	1826	O	SER	C 307	108.346	162.158	174.590	1.00 69.98 O
ATOM	1827	CB	SER	C 307	105.183	162.618	173.983	1.00 69.98 C
ATOM	1828	OG	SER	C 307	104.060	162.024	173.359	1.00 69.98 O
ATOM	1829	N	ASP	C 308	107.235	162.793	176.439	1.00 70.06 N
ATOM	1830	CA	ASP	C 308	108.340	163.554	177.007	1.00 70.06 C
ATOM	1831	C	ASP	C 308	108.530	163.150	178.460	1.00 70.06 C
ATOM	1832	O	ASP	C 308	107.627	163.341	179.279	1.00 70.06 O
ATOM	1833	CB	ASP	C 308	108.070	165.057	176.904	1.00 70.06 C
ATOM	1834	CG	ASP	C 308	109.332	165.863	176.709	1.00 70.06 C
ATOM	1835	OD1	ASP	C 308	110.423	165.260	176.660	1.00 70.06 O
ATOM	1836	OD2	ASP	C 308	109.231	167.102	176.604	1.00 70.06 O
ATOM	1837	N	PHE	C 309	109.702	162.598	178.782	1.00 59.40 N
ATOM	1838	CA	PHE	C 309	110.024	162.319	180.176	1.00 59.40 C
ATOM	1839	C	PHE	C 309	110.539	163.588	180.837	1.00 59.40 C
ATOM	1840	O	PHE	C 309	111.564	163.568	181.523	1.00 59.40 O
ATOM	1841	CB	PHE	C 309	111.080	161.219	180.291	1.00 59.40 C
ATOM	1842	CG	PHE	C 309	110.662	159.901	179.716	1.00 59.40 C
ATOM	1843	CD1	PHE	C 309	109.547	159.243	180.190	1.00 59.40 C
ATOM	1844	CD2	PHE	C 309	111.403	159.308	178.711	1.00 59.40 C
ATOM	1845	CE1	PHE	C 309	109.174	158.029	179.665	1.00 59.40 C
ATOM	1846	CE2	PHE	C 309	111.033	158.094	178.185	1.00 59.40 C
ATOM	1847	CZ	PHE	C 309	109.918	157.455	178.662	1.00 59.40 C
ATOM	1848	N	GLY	C 310	109.832	164.692	180.641	1.00 68.78 N
ATOM	1849	CA	GLY	C 310	110.212	165.970	181.205	1.00 68.78 C

ATOM	1850	C	GLY C 310	109.119	166.525	182.087	1.00 68.78	C
ATOM	1851	O	GLY C 310	108.847	166.001	183.170	1.00 68.78	O
ATOM	1852	N	ARG C 311	108.487	167.593	181.619	1.00 81.62	N
ATOM	1853	CA	ARG C 311	107.345	168.203	182.280	1.00 81.62	C
ATOM	1854	C	ARG C 311	106.346	167.131	182.698	1.00 81.62	C
ATOM	1855	O	ARG C 311	106.266	166.073	182.064	1.00 81.62	O
ATOM	1856	CB	ARG C 311	106.686	169.223	181.354	1.00 81.62	C
ATOM	1857	CG	ARG C 311	106.581	168.751	179.917	1.00 81.62	C
ATOM	1858	CD	ARG C 311	106.375	169.914	178.965	1.00 81.62	C
ATOM	1859	NE	ARG C 311	106.074	169.458	177.613	1.00 81.62	N
ATOM	1860	CZ	ARG C 311	104.848	169.211	177.167	1.00 81.62	C
ATOM	1861	NH1	ARG C 311	103.804	169.376	177.967	1.00 81.62	N
ATOM	1862	NH2	ARG C 311	104.665	168.799	175.921	1.00 81.62	N
ATOM	1863	N	PRO C 312	105.581	167.364	183.759	1.00 83.32	N
ATOM	1864	CA	PRO C 312	104.731	166.300	184.309	1.00 83.32	C
ATOM	1865	C	PRO C 312	103.739	165.724	183.313	1.00 83.32	C
ATOM	1866	O	PRO C 312	103.737	164.514	183.067	1.00 83.32	O
ATOM	1867	CB	PRO C 312	104.005	166.997	185.468	1.00 83.32	C
ATOM	1868	CG	PRO C 312	104.839	168.191	185.787	1.00 83.32	C
ATOM	1869	CD	PRO C 312	105.427	168.631	184.489	1.00 83.32	C
ATOM	1870	N	ASN C 313	102.894	166.570	182.732	1.00 86.86	N
ATOM	1871	CA	ASN C 313	101.780	166.115	181.905	1.00 86.86	C
ATOM	1872	C	ASN C 313	102.146	166.271	180.433	1.00 86.86	C
ATOM	1873	O	ASN C 313	102.226	167.393	179.920	1.00 86.86	O
ATOM	1874	CB	ASN C 313	100.510	166.893	182.241	1.00 86.86	C
ATOM	1875	CG	ASN C 313	99.305	165.992	182.400	1.00 86.86	C
ATOM	1876	OD1	ASN C 313	99.095	165.071	181.612	1.00 86.86	O
ATOM	1877	ND2	ASN C 313	98.506	166.250	183.427	1.00 86.86	N
ATOM	1878	N	SER C 314	102.364	165.147	179.757	1.00 80.87	N
ATOM	1879	CA	SER C 314	102.682	165.103	178.339	1.00 80.87	C
ATOM	1880	C	SER C 314	101.530	164.460	177.570	1.00 80.87	C
ATOM	1881	O	SER C 314	100.470	164.158	178.128	1.00 80.87	O
ATOM	1882	CB	SER C 314	103.998	164.356	178.117	1.00 80.87	C
ATOM	1883	OG	SER C 314	105.060	164.970	178.820	1.00 80.87	O
ATOM	1884	N	ALA C 315	101.741	164.253	176.273	1.00 73.95	N
ATOM	1885	CA	ALA C 315	100.760	163.625	175.400	1.00 73.95	C
ATOM	1886	C	ALA C 315	101.200	162.201	175.091	1.00 73.95	C

ATOM	1887	O	ALA C 315	102.327	161.981	174.635	1.00 73.95	O
ATOM	1888	CB	ALA C 315	100.589	164.420	174.106	1.00 73.95	C
ATOM	1889	N	LEU C 316	100.310	161.243	175.333	1.00 71.05	N
ATOM	1890	CA	LEU C 316	100.640	159.836	175.184	1.00 71.05	C
ATOM	1891	C	LEU C 316	100.608	159.418	173.715	1.00 71.05	C
ATOM	1892	O	LEU C 316	100.223	160.180	172.826	1.00 71.05	O
ATOM	1893	CB	LEU C 316	99.680	158.974	176.001	1.00 71.05	C
ATOM	1894	CG	LEU C 316	100.122	158.633	177.425	1.00 71.05	C
ATOM	1895	CD1	LEU C 316	100.368	159.896	178.224	1.00 71.05	C
ATOM	1896	CD2	LEU C 316	99.084	157.766	178.108	1.00 71.05	C
ATOM	1897	N	GLU C 317	101.022	158.178	173.470	1.00 71.76	N
ATOM	1898	CA	GLU C 317	101.035	157.604	172.134	1.00 71.76	C
ATOM	1899	C	GLU C 317	101.188	156.097	172.265	1.00 71.76	C
ATOM	1900	O	GLU C 317	101.783	155.606	173.226	1.00 71.76	O
ATOM	1901	CB	GLU C 317	102.162	158.187	171.280	1.00 71.76	C
ATOM	1902	CG	GLU C 317	103.483	157.468	171.443	1.00 71.76	C
ATOM	1903	CD	GLU C 317	104.621	158.190	170.759	1.00 71.76	C
ATOM	1904	OE1	GLU C 317	104.494	159.409	170.527	1.00 71.76	O
ATOM	1905	OE2	GLU C 317	105.643	157.541	170.455	1.00 71.76	O
ATOM	1906	N	THR C 318	100.651	155.371	171.292	1.00 67.17	N
ATOM	1907	CA	THR C 318	100.600	153.919	171.349	1.00 67.17	C
ATOM	1908	C	THR C 318	101.673	153.298	170.464	1.00 67.17	C
ATOM	1909	O	THR C 318	102.246	153.948	169.587	1.00 67.17	O
ATOM	1910	CB	THR C 318	99.218	153.413	170.927	1.00 67.17	C
ATOM	1911	OG1	THR C 318	98.206	154.221	171.540	1.00 67.17	O
ATOM	1912	CG2	THR C 318	99.026	151.971	171.357	1.00 67.17	C
ATOM	1913	N	HIS C 319	101.944	152.019	170.713	1.00 64.28	N
ATOM	1914	CA	HIS C 319	102.911	151.254	169.941	1.00 64.28	C
ATOM	1915	C	HIS C 319	102.305	149.902	169.596	1.00 64.28	C
ATOM	1916	O	HIS C 319	101.277	149.500	170.146	1.00 64.28	O
ATOM	1917	CB	HIS C 319	104.225	151.068	170.706	1.00 64.28	C
ATOM	1918	CG	HIS C 319	105.119	152.265	170.678	1.00 64.28	C
ATOM	1919	ND1	HIS C 319	106.364	152.250	170.088	1.00 64.28	N
ATOM	1920	CD2	HIS C 319	104.953	153.514	171.174	1.00 64.28	C
ATOM	1921	CE1	HIS C 319	106.925	153.438	170.219	1.00 64.28	C
ATOM	1922	NE2	HIS C 319	106.089	154.224	170.874	1.00 64.28	N
ATOM	1923	N	ARG C 320	102.957	149.193	168.676	1.00 64.82	N

ATOM	1924	CA	ARG C 320	102.468	147.888	168.247	1.00 64.82	C
ATOM	1925	C	ARG C 320	103.091	146.753	169.053	1.00 64.82	C
ATOM	1926	O	ARG C 320	102.373	145.913	169.603	1.00 64.82	O
ATOM	1927	CB	ARG C 320	102.736	147.694	166.753	1.00 64.82	C
ATOM	1928	CG	ARG C 320	101.821	146.678	166.086	1.00 64.82	C
ATOM	1929	CD	ARG C 320	102.099	146.572	164.594	1.00 64.82	C
ATOM	1930	NE	ARG C 320	103.394	145.960	164.315	1.00 64.82	N
ATOM	1931	CZ	ARG C 320	103.587	144.653	164.175	1.00 64.82	C
ATOM	1932	NH1	ARG C 320	102.566	143.815	164.287	1.00 64.82	N
ATOM	1933	NH2	ARG C 320	104.801	144.184	163.921	1.00 64.82	N
ATOM	1934	N	LEU C 321	104.416	146.711	169.130	1.00 59.61	N
ATOM	1935	CA	LEU C 321	105.117	145.736	169.950	1.00 59.61	C
ATOM	1936	C	LEU C 321	106.237	146.423	170.717	1.00 59.61	C
ATOM	1937	O	LEU C 321	106.869	147.357	170.217	1.00 59.61	O
ATOM	1938	CB	LEU C 321	105.694	144.596	169.110	1.00 59.61	C
ATOM	1939	CG	LEU C 321	104.708	143.537	168.628	1.00 59.61	C
ATOM	1940	CD1	LEU C 321	105.459	142.346	168.069	1.00 59.61	C
ATOM	1941	CD2	LEU C 321	103.791	143.112	169.753	1.00 59.61	C
ATOM	1942	N	VAL C 322	106.483	145.946	171.936	1.00 50.89	N
ATOM	1943	CA	VAL C 322	107.549	146.465	172.783	1.00 50.89	C
ATOM	1944	C	VAL C 322	108.179	145.301	173.532	1.00 50.89	C
ATOM	1945	O	VAL C 322	107.474	144.447	174.077	1.00 50.89	O
ATOM	1946	CB	VAL C 322	107.028	147.526	173.768	1.00 50.89	C
ATOM	1947	CG1	VAL C 322	108.185	148.259	174.400	1.00 50.89	C
ATOM	1948	CG2	VAL C 322	106.112	148.496	173.062	1.00 50.89	C
ATOM	1949	N	ALA C 323	109.508	145.270	173.562	1.00 48.37	N
ATOM	1950	CA	ALA C 323	110.256	144.192	174.189	1.00 48.37	C
ATOM	1951	C	ALA C 323	110.909	144.674	175.479	1.00 48.37	C
ATOM	1952	O	ALA C 323	111.195	145.862	175.642	1.00 48.37	O
ATOM	1953	CB	ALA C 323	111.328	143.644	173.244	1.00 48.37	C
ATOM	1954	N	PHE C 324	111.145	143.737	176.395	1.00 45.08	N
ATOM	1955	CA	PHE C 324	111.748	144.043	177.687	1.00 45.08	C
ATOM	1956	C	PHE C 324	112.685	142.910	178.068	1.00 45.08	C
ATOM	1957	O	PHE C 324	112.230	141.794	178.331	1.00 45.08	O
ATOM	1958	CB	PHE C 324	110.679	144.230	178.768	1.00 45.08	C
ATOM	1959	CG	PHE C 324	109.938	145.533	178.681	1.00 45.08	C
ATOM	1960	CD1	PHE C 324	110.602	146.710	178.407	1.00 45.08	C

ATOM	1961	CD2	PHE	C	324	108.573	145.579	178.892	1.00 45.08	C
ATOM	1962	CE1	PHE	C	324	109.917	147.902	178.335	1.00 45.08	C
ATOM	1963	CE2	PHE	C	324	107.889	146.768	178.820	1.00 45.08	C
ATOM	1964	CZ	PHE	C	324	108.561	147.930	178.541	1.00 45.08	C
ATOM	1965	N	LEU	C	325	113.982	143.193	178.105	1.00 45.08	N
ATOM	1966	CA	LEU	C	325	115.002	142.216	178.480	1.00 45.08	C
ATOM	1967	C	LEU	C	325	115.667	142.691	179.765	1.00 45.08	C
ATOM	1968	O	LEU	C	325	116.464	143.632	179.744	1.00 45.08	O
ATOM	1969	CB	LEU	C	325	116.025	142.039	177.364	1.00 45.08	C
ATOM	1970	CG	LEU	C	325	117.101	140.985	177.614	1.00 45.08	C
ATOM	1971	CD1	LEU	C	325	117.598	140.399	176.315	1.00 45.08	C
ATOM	1972	CD2	LEU	C	325	118.250	141.601	178.365	1.00 45.08	C
ATOM	1973	N	GLU	C	326	115.359	142.035	180.881	1.00 52.92	N
ATOM	1974	CA	GLU	C	326	115.830	142.473	182.192	1.00 52.92	C
ATOM	1975	C	GLU	C	326	117.119	141.742	182.542	1.00 52.92	C
ATOM	1976	O	GLU	C	326	117.107	140.539	182.811	1.00 52.92	O
ATOM	1977	CB	GLU	C	326	114.761	142.240	183.256	1.00 52.92	C
ATOM	1978	CG	GLU	C	326	114.262	140.819	183.343	1.00 52.92	C
ATOM	1979	CD	GLU	C	326	113.419	140.584	184.578	1.00 52.92	C
ATOM	1980	OE1	GLU	C	326	113.791	141.093	185.655	1.00 52.92	O
ATOM	1981	OE2	GLU	C	326	112.384	139.894	184.472	1.00 52.92	O
ATOM	1982	N	ARG	C	327	118.223	142.474	182.551	1.00 45.14	N
ATOM	1983	CA	ARG	C	327	119.528	141.932	182.898	1.00 45.14	C
ATOM	1984	C	ARG	C	327	119.755	142.097	184.402	1.00 45.14	C
ATOM	1985	O	ARG	C	327	118.821	142.382	185.156	1.00 45.14	O
ATOM	1986	CB	ARG	C	327	120.607	142.606	182.050	1.00 45.14	C
ATOM	1987	CG	ARG	C	327	120.195	142.825	180.613	1.00 45.14	C
ATOM	1988	CD	ARG	C	327	120.866	144.046	180.031	1.00 45.14	C
ATOM	1989	NE	ARG	C	327	122.228	143.755	179.603	1.00 45.14	N
ATOM	1990	CZ	ARG	C	327	123.090	144.677	179.191	1.00 45.14	C
ATOM	1991	NH1	ARG	C	327	122.728	145.951	179.152	1.00 45.14	N
ATOM	1992	NH2	ARG	C	327	124.312	144.326	178.820	1.00 45.14	N
ATOM	1993	N	ALA	C	328	120.992	141.904	184.858	1.00 50.67	N
ATOM	1994	CA	ALA	C	328	121.270	141.913	186.290	1.00 50.67	C
ATOM	1995	C	ALA	C	328	121.064	143.297	186.895	1.00 50.67	C
ATOM	1996	O	ALA	C	328	120.446	143.432	187.956	1.00 50.67	O
ATOM	1997	CB	ALA	C	328	122.695	141.427	186.547	1.00 50.67	C

ATOM	1998	N	ASP C 329	121.577	144.339	186.239	1.00 51.23	N
ATOM	1999	CA	ASP C 329	121.597	145.678	186.817	1.00 51.23	C
ATOM	2000	C	ASP C 329	120.977	146.716	185.889	1.00 51.23	C
ATOM	2001	O	ASP C 329	121.396	147.875	185.885	1.00 51.23	O
ATOM	2002	CB	ASP C 329	123.025	146.085	187.171	1.00 51.23	C
ATOM	2003	CG	ASP C 329	123.910	146.207	185.950	1.00 51.23	C
ATOM	2004	OD1	ASP C 329	123.805	147.224	185.236	1.00 51.23	O
ATOM	2005	OD2	ASP C 329	124.710	145.284	185.699	1.00 51.23	O
ATOM	2006	N	SER C 330	119.989	146.324	185.091	1.00 45.18	N
ATOM	2007	CA	SER C 330	119.312	147.277	184.222	1.00 45.18	C
ATOM	2008	C	SER C 330	118.161	146.614	183.481	1.00 45.18	C
ATOM	2009	O	SER C 330	117.913	145.419	183.652	1.00 45.18	O
ATOM	2010	CB	SER C 330	120.300	147.896	183.234	1.00 45.18	C
ATOM	2011	OG	SER C 330	120.887	146.907	182.411	1.00 45.18	O
ATOM	2012	N	VAL C 331	117.443	147.385	182.670	1.00 39.54	N
ATOM	2013	CA	VAL C 331	116.383	146.845	181.831	1.00 39.54	C
ATOM	2014	C	VAL C 331	116.362	147.604	180.513	1.00 39.54	C
ATOM	2015	O	VAL C 331	116.029	148.793	180.478	1.00 39.54	O
ATOM	2016	CB	VAL C 331	115.020	146.925	182.540	1.00 39.54	C
ATOM	2017	CG1	VAL C 331	113.904	146.710	181.554	1.00 39.54	C
ATOM	2018	CG2	VAL C 331	114.944	145.901	183.642	1.00 39.54	C
ATOM	2019	N	ILE C 332	116.716	146.933	179.422	1.00 36.52	N
ATOM	2020	CA	ILE C 332	116.678	147.544	178.103	1.00 36.52	C
ATOM	2021	C	ILE C 332	115.288	147.352	177.514	1.00 36.52	C
ATOM	2022	O	ILE C 332	114.525	146.481	177.932	1.00 36.52	O
ATOM	2023	CB	ILE C 332	117.762	146.968	177.174	1.00 36.52	C
ATOM	2024	CG1	ILE C 332	119.146	147.233	177.742	1.00 36.52	C
ATOM	2025	CG2	ILE C 332	117.691	147.602	175.813	1.00 36.52	C
ATOM	2026	CD1	ILE C 332	120.247	147.003	176.743	1.00 36.52	C
ATOM	2027	N	SER C 333	114.949	148.175	176.527	1.00 37.04	N
ATOM	2028	CA	SER C 333	113.614	148.121	175.939	1.00 37.04	C
ATOM	2029	C	SER C 333	113.630	148.801	174.582	1.00 37.04	C
ATOM	2030	O	SER C 333	114.080	149.943	174.469	1.00 37.04	O
ATOM	2031	CB	SER C 333	112.600	148.784	176.854	1.00 37.04	C
ATOM	2032	OG	SER C 333	111.419	149.099	176.146	1.00 37.04	O
ATOM	2033	N	TRP C 334	113.145	148.103	173.563	1.00 44.72	N
ATOM	2034	CA	TRP C 334	112.929	148.651	172.234	1.00 44.72	C

ATOM	2035	C	TRP C 334	111.556	148.215	171.740	1.00 44.72	C
ATOM	2036	O	TRP C 334	110.877	147.398	172.366	1.00 44.72	O
ATOM	2037	CB	TRP C 334	114.023	148.195	171.263	1.00 44.72	C
ATOM	2038	CG	TRP C 334	114.067	146.714	171.065	1.00 44.72	C
ATOM	2039	CD1	TRP C 334	113.410	146.001	170.114	1.00 44.72	C
ATOM	2040	CD2	TRP C 334	114.810	145.763	171.835	1.00 44.72	C
ATOM	2041	NE1	TRP C 334	113.693	144.664	170.242	1.00 44.72	N
ATOM	2042	CE2	TRP C 334	114.551	144.495	171.293	1.00 44.72	C
ATOM	2043	CE3	TRP C 334	115.668	145.863	172.929	1.00 44.72	C
ATOM	2044	CZ2	TRP C 334	115.117	143.338	171.806	1.00 44.72	C
ATOM	2045	CZ3	TRP C 334	116.228	144.713	173.436	1.00 44.72	C
ATOM	2046	CH2	TRP C 334	115.952	143.468	172.877	1.00 44.72	C
ATOM	2047	N	ASP C 335	111.140	148.766	170.606	1.00 53.54	N
ATOM	2048	CA	ASP C 335	109.886	148.382	169.973	1.00 53.54	C
ATOM	2049	C	ASP C 335	110.189	147.600	168.705	1.00 53.54	C
ATOM	2050	O	ASP C 335	111.004	148.032	167.884	1.00 53.54	O
ATOM	2051	CB	ASP C 335	109.022	149.603	169.660	1.00 53.54	C
ATOM	2052	CG	ASP C 335	109.809	150.723	169.042	1.00 53.54	C
ATOM	2053	OD1	ASP C 335	111.024	150.542	168.827	1.00 53.54	O
ATOM	2054	OD2	ASP C 335	109.216	151.788	168.774	1.00 53.54	O
ATOM	2055	N	ILE C 336	109.535	146.450	168.555	1.00 58.48	N
ATOM	2056	CA	ILE C 336	109.822	145.510	167.477	1.00 58.48	C
ATOM	2057	C	ILE C 336	109.788	146.224	166.135	1.00 58.48	C
ATOM	2058	O	ILE C 336	108.787	146.854	165.778	1.00 58.48	O
ATOM	2059	CB	ILE C 336	108.833	144.335	167.495	1.00 58.48	C
ATOM	2060	CG1	ILE C 336	108.939	143.572	168.812	1.00 58.48	C
ATOM	2061	CG2	ILE C 336	109.112	143.411	166.339	1.00 58.48	C
ATOM	2062	CD1	ILE C 336	110.263	142.881	169.005	1.00 58.48	C
ATOM	2063	N	GLN C 337	110.877	146.122	165.380	1.00 62.06	N
ATOM	2064	CA	GLN C 337	110.990	146.788	164.090	1.00 62.06	C
ATOM	2065	C	GLN C 337	110.243	145.980	163.032	1.00 62.06	C
ATOM	2066	O	GLN C 337	109.499	145.046	163.338	1.00 62.06	O
ATOM	2067	CB	GLN C 337	112.457	146.988	163.732	1.00 62.06	C
ATOM	2068	CG	GLN C 337	113.257	147.670	164.818	1.00 62.06	C
ATOM	2069	CD	GLN C 337	112.943	149.146	164.916	1.00 62.06	C
ATOM	2070	OE1	GLN C 337	113.123	149.763	165.963	1.00 62.06	O
ATOM	2071	NE2	GLN C 337	112.474	149.723	163.818	1.00 62.06	N

ATOM	2072	N	ASN C 338	110.432	146.336	161.765	1.00 81.47	N
ATOM	2073	CA	ASN C 338	109.752	145.672	160.664	1.00 81.47	C
ATOM	2074	C	ASN C 338	110.759	145.274	159.593	1.00 81.47	C
ATOM	2075	O	ASN C 338	111.913	145.709	159.600	1.00 81.47	O
ATOM	2076	CB	ASN C 338	108.663	146.564	160.064	1.00 81.47	C
ATOM	2077	CG	ASN C 338	107.449	146.668	160.957	1.00 81.47	C
ATOM	2078	OD1	ASN C 338	106.840	147.730	161.074	1.00 81.47	O
ATOM	2079	ND2	ASN C 338	107.090	145.562	161.597	1.00 81.47	N
ATOM	2080	N	GLU C 339	110.298	144.441	158.663	1.00 88.17	N
ATOM	2081	CA	GLU C 339	111.192	143.822	157.694	1.00 88.17	C
ATOM	2082	C	GLU C 339	111.709	144.836	156.680	1.00 88.17	C
ATOM	2083	O	GLU C 339	110.974	145.713	156.219	1.00 88.17	O
ATOM	2084	CB	GLU C 339	110.473	142.683	156.975	1.00 88.17	C
ATOM	2085	CG	GLU C 339	110.440	141.382	157.755	1.00 88.17	C
ATOM	2086	CD	GLU C 339	111.784	140.681	157.773	1.00 88.17	C
ATOM	2087	OE1	GLU C 339	111.807	139.440	157.913	1.00 88.17	O
ATOM	2088	OE2	GLU C 339	112.816	141.371	157.647	1.00 88.17	O
ATOM	2089	N	LYS C 340	112.986	144.703	156.330	1.00 89.84	N
ATOM	2090	CA	LYS C 340	113.575	145.505	155.270	1.00 89.84	C
ATOM	2091	C	LYS C 340	112.962	145.118	153.923	1.00 89.84	C
ATOM	2092	O	LYS C 340	112.133	144.210	153.824	1.00 89.84	O
ATOM	2093	CB	LYS C 340	115.090	145.330	155.256	1.00 89.84	C
ATOM	2094	CG	LYS C 340	115.770	145.713	156.554	1.00 89.84	C
ATOM	2095	CD	LYS C 340	115.756	147.213	156.770	1.00 89.84	C
ATOM	2096	CE	LYS C 340	116.900	147.882	156.040	1.00 89.84	C
ATOM	2097	NZ	LYS C 340	116.975	149.331	156.362	1.00 89.84	N
ATOM	2098	N	ASN C 341	113.369	145.824	152.867	1.00112.01	N
ATOM	2099	CA	ASN C 341	112.794	145.633	151.539	1.00112.01	C
ATOM	2100	C	ASN C 341	113.801	145.138	150.508	1.00112.01	C
ATOM	2101	O	ASN C 341	113.580	144.100	149.877	1.00112.01	O
ATOM	2102	CB	ASN C 341	112.149	146.943	151.071	1.00112.01	C
ATOM	2103	CG	ASN C 341	111.168	147.493	152.081	1.00112.01	C
ATOM	2104	OD1	ASN C 341	111.542	148.239	152.986	1.00112.01	O
ATOM	2105	ND2	ASN C 341	109.902	147.113	151.943	1.00112.01	N
ATOM	2106	N	VAL C 342	114.904	145.858	150.305	1.00113.92	N
ATOM	2107	CA	VAL C 342	115.871	145.509	149.269	1.00113.92	C
ATOM	2108	C	VAL C 342	117.232	146.057	149.668	1.00113.92	C

ATOM	2109	O	VAL	C	342	117.339	147.159	150.212	1.00	113.92	O
ATOM	2110	CB	VAL	C	342	115.443	146.057	147.887	1.00	113.92	C
ATOM	2111	CG1	VAL	C	342	115.197	147.556	147.965	1.00	113.92	C
ATOM	2112	CG2	VAL	C	342	116.495	145.743	146.836	1.00	113.92	C
ATOM	2113	N	THR	C	343	118.281	145.287	149.381	1.00	113.63	N
ATOM	2114	CA	THR	C	343	119.628	145.654	149.810	1.00	113.63	C
ATOM	2115	C	THR	C	343	120.665	145.362	148.725	1.00	113.63	C
ATOM	2116	O	THR	C	343	121.754	144.852	149.011	1.00	113.63	O
ATOM	2117	CB	THR	C	343	120.000	144.922	151.101	1.00	113.63	C
ATOM	2118	OG1	THR	C	343	118.856	144.848	151.964	1.00	113.63	O
ATOM	2119	CG2	THR	C	343	121.120	145.644	151.819	1.00	113.63	C
ATOM	2120	N	CYS	C	344	120.358	145.668	147.466	1.00	112.61	N
ATOM	2121	CA	CYS	C	344	121.348	145.423	146.424	1.00	112.61	C
ATOM	2122	C	CYS	C	344	122.585	146.280	146.674	1.00	112.61	C
ATOM	2123	O	CYS	C	344	122.486	147.405	147.165	1.00	112.61	O
ATOM	2124	CB	CYS	C	344	120.766	145.694	145.031	1.00	112.61	C
ATOM	2125	SG	CYS	C	344	120.071	147.331	144.755	1.00	112.61	S
ATOM	2126	N	ALA	C	345	123.753	145.737	146.334	1.00	104.58	N
ATOM	2127	CA	ALA	C	345	125.039	146.313	146.733	1.00	104.58	C
ATOM	2128	C	ALA	C	345	125.676	147.077	145.573	1.00	104.58	C
ATOM	2129	O	ALA	C	345	126.460	146.536	144.792	1.00	104.58	O
ATOM	2130	CB	ALA	C	345	125.970	145.224	147.251	1.00	104.58	C
ATOM	2131	N	LEU	C	346	125.348	148.365	145.478	1.00	101.94	N
ATOM	2132	CA	LEU	C	346	125.902	149.236	144.448	1.00	101.94	C
ATOM	2133	C	LEU	C	346	126.442	150.503	145.094	1.00	101.94	C
ATOM	2134	O	LEU	C	346	125.732	151.157	145.861	1.00	101.94	O
ATOM	2135	CB	LEU	C	346	124.839	149.583	143.401	1.00	101.94	C
ATOM	2136	CG	LEU	C	346	123.743	150.563	143.826	1.00	101.94	C
ATOM	2137	CD1	LEU	C	346	124.178	152.000	143.582	1.00	101.94	C
ATOM	2138	CD2	LEU	C	346	122.428	150.265	143.123	1.00	101.94	C
ATOM	2139	N	THR	C	347	127.693	150.848	144.787	1.00	96.38	N
ATOM	2140	CA	THR	C	347	128.316	152.017	145.404	1.00	96.38	C
ATOM	2141	C	THR	C	347	129.060	152.938	144.446	1.00	96.38	C
ATOM	2142	O	THR	C	347	129.251	154.109	144.788	1.00	96.38	O
ATOM	2143	CB	THR	C	347	129.282	151.578	146.510	1.00	96.38	C
ATOM	2144	OG1	THR	C	347	130.061	150.466	146.054	1.00	96.38	O
ATOM	2145	CG2	THR	C	347	128.509	151.170	147.745	1.00	96.38	C

ATOM	2146	N	PHE C 348	129.479	152.480	143.269	1.00 92.04	N
ATOM	2147	CA	PHE C 348	130.339	153.258	142.377	1.00 92.04	C
ATOM	2148	C	PHE C 348	131.650	153.626	143.076	1.00 92.04	C
ATOM	2149	O	PHE C 348	131.960	154.793	143.315	1.00 92.04	O
ATOM	2150	CB	PHE C 348	129.618	154.507	141.861	1.00 92.04	C
ATOM	2151	CG	PHE C 348	130.457	155.357	140.947	1.00 92.04	C
ATOM	2152	CD1	PHE C 348	131.532	154.815	140.267	1.00 92.04	C
ATOM	2153	CD2	PHE C 348	130.172	156.698	140.775	1.00 92.04	C
ATOM	2154	CE1	PHE C 348	132.304	155.592	139.434	1.00 92.04	C
ATOM	2155	CE2	PHE C 348	130.941	157.481	139.940	1.00 92.04	C
ATOM	2156	CZ	PHE C 348	132.007	156.926	139.268	1.00 92.04	C
ATOM	2157	N	TRP C 349	132.423	152.590	143.403	1.00 91.20	N
ATOM	2158	CA	TRP C 349	133.677	152.804	144.115	1.00 91.20	C
ATOM	2159	C	TRP C 349	134.652	153.657	143.313	1.00 91.20	C
ATOM	2160	O	TRP C 349	135.364	154.485	143.890	1.00 91.20	O
ATOM	2161	CB	TRP C 349	134.313	151.461	144.469	1.00 91.20	C
ATOM	2162	CG	TRP C 349	135.643	151.582	145.147	1.00 91.20	C
ATOM	2163	CD1	TRP C 349	135.879	151.996	146.424	1.00 91.20	C
ATOM	2164	CD2	TRP C 349	136.923	151.279	144.582	1.00 91.20	C
ATOM	2165	NE1	TRP C 349	137.226	151.971	146.690	1.00 91.20	N
ATOM	2166	CE2	TRP C 349	137.888	151.534	145.574	1.00 91.20	C
ATOM	2167	CE3	TRP C 349	137.347	150.816	143.333	1.00 91.20	C
ATOM	2168	CZ2	TRP C 349	139.251	151.345	145.356	1.00 91.20	C
ATOM	2169	CZ3	TRP C 349	138.699	150.628	143.119	1.00 91.20	C
ATOM	2170	CH2	TRP C 349	139.634	150.892	144.124	1.00 91.20	C
ATOM	2171	N	GLU C 350	134.704	153.481	141.995	1.00 93.27	N
ATOM	2172	CA	GLU C 350	135.702	154.167	141.180	1.00 93.27	C
ATOM	2173	C	GLU C 350	135.314	154.024	139.714	1.00 93.27	C
ATOM	2174	O	GLU C 350	134.475	153.196	139.351	1.00 93.27	O
ATOM	2175	CB	GLU C 350	137.103	153.603	141.418	1.00 93.27	C
ATOM	2176	CG	GLU C 350	138.225	154.422	140.811	1.00 93.27	C
ATOM	2177	CD	GLU C 350	138.655	155.564	141.700	1.00 93.27	C
ATOM	2178	OE1	GLU C 350	137.920	155.882	142.657	1.00 93.27	O
ATOM	2179	OE2	GLU C 350	139.731	156.142	141.445	1.00 93.27	O
ATOM	2180	N	ALA C 351	135.943	154.840	138.872	1.00 91.27	N
ATOM	2181	CA	ALA C 351	135.709	154.757	137.433	1.00 91.27	C
ATOM	2182	C	ALA C 351	136.864	155.424	136.709	1.00 91.27	C

ATOM	2183	O	ALA C 351	137.056	156.636	136.840	1.00 91.27	O
ATOM	2184	CB	ALA C 351	134.386	155.411	137.056	1.00 91.27	C
ATOM	2185	N	SER C 352	137.616	154.648	135.941	1.00 91.46	N
ATOM	2186	CA	SER C 352	138.709	155.184	135.150	1.00 91.46	C
ATOM	2187	C	SER C 352	138.206	155.610	133.774	1.00 91.46	C
ATOM	2188	O	SER C 352	137.070	155.333	133.385	1.00 91.46	O
ATOM	2189	CB	SER C 352	139.829	154.155	135.020	1.00 91.46	C
ATOM	2190	OG	SER C 352	140.689	154.482	133.946	1.00 91.46	O
ATOM	2191	N	GLU C 353	139.073	156.298	133.031	1.00 93.87	N
ATOM	2192	CA	GLU C 353	138.735	156.789	131.703	1.00 93.87	C
ATOM	2193	C	GLU C 353	139.651	156.275	130.603	1.00 93.87	C
ATOM	2194	O	GLU C 353	139.381	156.544	129.428	1.00 93.87	O
ATOM	2195	CB	GLU C 353	138.749	158.325	131.680	1.00 93.87	C
ATOM	2196	CG	GLU C 353	137.424	158.974	132.027	1.00 93.87	C
ATOM	2197	CD	GLU C 353	137.525	160.480	132.116	1.00 93.87	C
ATOM	2198	OE1	GLU C 353	136.481	161.154	132.014	1.00 93.87	O
ATOM	2199	OE2	GLU C 353	138.651	160.990	132.294	1.00 93.87	O
ATOM	2200	N	ARG C 354	140.724	155.564	130.942	1.00 93.93	N
ATOM	2201	CA	ARG C 354	141.534	154.877	129.938	1.00 93.93	C
ATOM	2202	C	ARG C 354	142.234	153.717	130.629	1.00 93.93	C
ATOM	2203	O	ARG C 354	143.203	153.930	131.362	1.00 93.93	O
ATOM	2204	CB	ARG C 354	142.541	155.821	129.295	1.00 93.93	C
ATOM	2205	CG	ARG C 354	143.254	155.206	128.097	1.00 93.93	C
ATOM	2206	CD	ARG C 354	144.638	155.798	127.889	1.00 93.93	C
ATOM	2207	NE	ARG C 354	144.584	157.136	127.309	1.00 93.93	N
ATOM	2208	CZ	ARG C 354	144.212	157.395	126.060	1.00 93.93	C
ATOM	2209	NH1	ARG C 354	143.856	156.404	125.253	1.00 93.93	N
ATOM	2210	NH2	ARG C 354	144.194	158.644	125.617	1.00 93.93	N
ATOM	2211	N	THR C 355	141.750	152.502	130.392	1.00 91.70	N
ATOM	2212	CA	THR C 355	142.290	151.302	131.008	1.00 91.70	C
ATOM	2213	C	THR C 355	142.922	150.408	129.949	1.00 91.70	C
ATOM	2214	O	THR C 355	142.792	150.640	128.745	1.00 91.70	O
ATOM	2215	CB	THR C 355	141.202	150.529	131.760	1.00 91.70	C
ATOM	2216	OG1	THR C 355	141.812	149.530	132.584	1.00 91.70	O
ATOM	2217	CG2	THR C 355	140.263	149.857	130.778	1.00 91.70	C
ATOM	2218	N	ILE C 356	143.612	149.371	130.416	1.00 91.75	N
ATOM	2219	CA	ILE C 356	144.287	148.411	129.553	1.00 91.75	C

ATOM	2220	C	ILE C 356	143.999	147.012	130.075	1.00 91.75	C
ATOM	2221	O	ILE C 356	144.175	146.742	131.267	1.00 91.75	O
ATOM	2222	CB	ILE C 356	145.803	148.667	129.496	1.00 91.75	C
ATOM	2223	CG1	ILE C 356	146.082	150.103	129.058	1.00 91.75	C
ATOM	2224	CG2	ILE C 356	146.460	147.695	128.549	1.00 91.75	C
ATOM	2225	CD1	ILE C 356	147.547	150.439	128.979	1.00 91.75	C
ATOM	2226	N	ARG C 357	143.557	146.126	129.187	1.00 92.35	N
ATOM	2227	CA	ARG C 357	143.153	144.773	129.549	1.00 92.35	C
ATOM	2228	C	ARG C 357	144.080	143.786	128.857	1.00 92.35	C
ATOM	2229	O	ARG C 357	144.156	143.764	127.625	1.00 92.35	O
ATOM	2230	CB	ARG C 357	141.698	144.519	129.157	1.00 92.35	C
ATOM	2231	CG	ARG C 357	141.187	143.139	129.498	1.00 92.35	C
ATOM	2232	CD	ARG C 357	141.334	142.203	128.320	1.00 92.35	C
ATOM	2233	NE	ARG C 357	140.411	142.521	127.237	1.00 92.35	N
ATOM	2234	CZ	ARG C 357	139.134	142.163	127.219	1.00 92.35	C
ATOM	2235	NH1	ARG C 357	138.365	142.488	126.190	1.00 92.35	N
ATOM	2236	NH2	ARG C 357	138.621	141.483	128.232	1.00 92.35	N
ATOM	2237	N	SER C 358	144.779	142.972	129.646	1.00100.09	N
ATOM	2238	CA	SER C 358	145.762	142.019	129.129	1.00100.09	C
ATOM	2239	C	SER C 358	145.442	140.630	129.675	1.00100.09	C
ATOM	2240	O	SER C 358	145.690	140.350	130.851	1.00100.09	O
ATOM	2241	CB	SER C 358	147.177	142.440	129.504	1.00100.09	C
ATOM	2242	OG	SER C 358	147.515	141.978	130.799	1.00100.09	O
ATOM	2243	N	GLU C 359	144.903	139.765	128.822	1.00111.58	N
ATOM	2244	CA	GLU C 359	144.568	138.400	129.211	1.00111.58	C
ATOM	2245	C	GLU C 359	145.818	137.534	129.142	1.00111.58	C
ATOM	2246	O	GLU C 359	146.435	137.419	128.079	1.00111.58	O
ATOM	2247	CB	GLU C 359	143.486	137.843	128.292	1.00111.58	C
ATOM	2248	CG	GLU C 359	143.858	137.895	126.820	1.00111.58	C
ATOM	2249	CD	GLU C 359	143.113	136.869	125.992	1.00111.58	C
ATOM	2250	OE1	GLU C 359	142.909	135.742	126.488	1.00111.58	O
ATOM	2251	OE2	GLU C 359	142.732	137.191	124.847	1.00111.58	O
ATOM	2252	N	ALA C 360	146.200	136.922	130.265	1.00116.44	N
ATOM	2253	CA	ALA C 360	147.430	136.143	130.243	1.00116.44	C
ATOM	2254	C	ALA C 360	147.200	134.655	129.997	1.00116.44	C
ATOM	2255	O	ALA C 360	147.565	134.143	128.934	1.00116.44	O
ATOM	2256	CB	ALA C 360	148.195	136.341	131.554	1.00116.44	C

ATOM	2257	N	GLU C 361	146.585	133.949	130.947	1.00117.36 N
ATOM	2258	CA	GLU C 361	146.355	132.519	130.751	1.00117.36 C
ATOM	2259	C	GLU C 361	144.886	132.142	130.899	1.00117.36 C
ATOM	2260	O	GLU C 361	144.319	131.462	130.038	1.00117.36 O
ATOM	2261	CB	GLU C 361	147.206	131.694	131.723	1.00117.36 C
ATOM	2262	CG	GLU C 361	146.897	131.903	133.200	1.00117.36 C
ATOM	2263	CD	GLU C 361	147.268	133.285	133.691	1.00117.36 C
ATOM	2264	OE1	GLU C 361	148.099	133.943	133.032	1.00117.36 O
ATOM	2265	OE2	GLU C 361	146.731	133.715	134.733	1.00117.36 O
ATOM	2266	N	ASP C 362	144.267	132.577	131.998	1.00114.07 N
ATOM	2267	CA	ASP C 362	142.878	132.250	132.283	1.00114.07 C
ATOM	2268	C	ASP C 362	142.143	133.412	132.935	1.00114.07 C
ATOM	2269	O	ASP C 362	140.999	133.236	133.371	1.00114.07 O
ATOM	2270	CB	ASP C 362	142.787	131.007	133.178	1.00114.07 C
ATOM	2271	CG	ASP C 362	143.452	131.207	134.530	1.00114.07 C
ATOM	2272	OD1	ASP C 362	143.331	132.307	135.111	1.00114.07 O
ATOM	2273	OD2	ASP C 362	144.095	130.255	135.020	1.00114.07 O
ATOM	2274	N	SER C 363	142.769	134.578	133.029	1.00109.91 N
ATOM	2275	CA	SER C 363	142.188	135.727	133.706	1.00109.91 C
ATOM	2276	C	SER C 363	142.532	136.962	132.882	1.00109.91 C
ATOM	2277	O	SER C 363	142.952	136.868	131.724	1.00109.91 O
ATOM	2278	CB	SER C 363	142.694	135.806	135.154	1.00109.91 C
ATOM	2279	OG	SER C 363	142.488	134.580	135.830	1.00109.91 O
ATOM	2280	N	TYR C 364	142.351	138.136	133.475	1.00101.53 N
ATOM	2281	CA	TYR C 364	142.680	139.394	132.829	1.00101.53 C
ATOM	2282	C	TYR C 364	143.527	140.227	133.780	1.00101.53 C
ATOM	2283	O	TYR C 364	143.873	139.795	134.883	1.00101.53 O
ATOM	2284	CB	TYR C 364	141.412	140.143	132.411	1.00101.53 C
ATOM	2285	CG	TYR C 364	140.565	139.386	131.417	1.00101.53 C
ATOM	2286	CD1	TYR C 364	139.653	138.436	131.838	1.00101.53 C
ATOM	2287	CD2	TYR C 364	140.678	139.625	130.059	1.00101.53 C
ATOM	2288	CE1	TYR C 364	138.876	137.746	130.933	1.00101.53 C
ATOM	2289	CE2	TYR C 364	139.909	138.937	129.148	1.00101.53 C
ATOM	2290	CZ	TYR C 364	139.009	138.001	129.590	1.00101.53 C
ATOM	2291	OH	TYR C 364	138.239	137.314	128.682	1.00101.53 O
ATOM	2292	N	HIS C 365	143.871	141.435	133.342	1.00 99.68 N
ATOM	2293	CA	HIS C 365	144.663	142.348	134.165	1.00 99.68 C

ATOM	2294	C	HIS C 365	144.210	143.768	133.822	1.00 99.68 C
ATOM	2295	O	HIS C 365	144.706	144.380	132.875	1.00 99.68 O
ATOM	2296	CB	HIS C 365	146.154	142.161	133.929	1.00 99.68 C
ATOM	2297	CG	HIS C 365	146.720	140.939	134.582	1.00 99.68 C
ATOM	2298	ND1	HIS C 365	146.242	140.442	135.774	1.00 99.68 N
ATOM	2299	CD2	HIS C 365	147.726	140.114	134.208	1.00 99.68 C
ATOM	2300	CE1	HIS C 365	146.929	139.364	136.108	1.00 99.68 C
ATOM	2301	NE2	HIS C 365	147.836	139.144	135.174	1.00 99.68 N
ATOM	2302	N	PHE C 366	143.264	144.276	134.602	1.00 94.58 N
ATOM	2303	CA	PHE C 366	142.757	145.627	134.419	1.00 94.58 C
ATOM	2304	C	PHE C 366	143.642	146.590	135.197	1.00 94.58 C
ATOM	2305	O	PHE C 366	143.700	146.529	136.429	1.00 94.58 O
ATOM	2306	CB	PHE C 366	141.306	145.724	134.883	1.00 94.58 C
ATOM	2307	CG	PHE C 366	140.362	144.865	134.096	1.00 94.58 C
ATOM	2308	CD1	PHE C 366	139.803	145.327	132.919	1.00 94.58 C
ATOM	2309	CD2	PHE C 366	140.030	143.597	134.536	1.00 94.58 C
ATOM	2310	CE1	PHE C 366	138.934	144.542	132.197	1.00 94.58 C
ATOM	2311	CE2	PHE C 366	139.160	142.808	133.817	1.00 94.58 C
ATOM	2312	CZ	PHE C 366	138.612	143.280	132.646	1.00 94.58 C
ATOM	2313	N	SER C 367	144.332	147.475	134.479	1.00 94.04 N
ATOM	2314	CA	SER C 367	145.290	148.406	135.073	1.00 94.04 C
ATOM	2315	C	SER C 367	144.956	149.813	134.591	1.00 94.04 C
ATOM	2316	O	SER C 367	145.404	150.229	133.519	1.00 94.04 O
ATOM	2317	CB	SER C 367	146.717	148.016	134.717	1.00 94.04 C
ATOM	2318	OG	SER C 367	147.022	148.392	133.388	1.00 94.04 O
ATOM	2319	N	SER C 368	144.173	150.541	135.384	1.00 97.62 N
ATOM	2320	CA	SER C 368	143.854	151.924	135.058	1.00 97.62 C
ATOM	2321	C	SER C 368	145.131	152.711	134.804	1.00 97.62 C
ATOM	2322	O	SER C 368	146.122	152.567	135.524	1.00 97.62 O
ATOM	2323	CB	SER C 368	143.050	152.565	136.190	1.00 97.62 C
ATOM	2324	OG	SER C 368	143.584	152.209	137.452	1.00 97.62 O
ATOM	2325	N	ALA C 369	145.098	153.568	133.791	1.00 97.90 N
ATOM	2326	CA	ALA C 369	146.252	154.387	133.458	1.00 97.90 C
ATOM	2327	C	ALA C 369	146.323	155.586	134.380	1.00 97.90 C
ATOM	2328	O	ALA C 369	146.711	156.666	133.967	1.00 97.90 O
ATOM	2329	CB	ALA C 369	146.192	154.834	132.013	1.00 97.90 C
ATOM	2330	N	LYS C 370	145.919	155.387	135.627	1.00100.37 N

ATOM	2331	CA	LYS C 370	145.953	156.434	136.648	1.00100.37	C
ATOM	2332	C	LYS C 370	146.729	155.965	137.869	1.00100.37	C
ATOM	2333	O	LYS C 370	146.843	156.690	138.841	1.00100.37	O
ATOM	2334	CB	LYS C 370	144.541	156.813	137.090	1.00100.37	C
ATOM	2335	CG	LYS C 370	143.720	157.529	136.038	1.00100.37	C
ATOM	2336	CD	LYS C 370	142.603	158.325	136.681	1.00100.37	C
ATOM	2337	CE	LYS C 370	142.579	159.745	136.149	1.00100.37	C
ATOM	2338	NZ	LYS C 370	143.420	160.658	136.966	1.00100.37	N
ATOM	2339	N	MET C 371	147.270	154.751	137.791	1.00101.97	N
ATOM	2340	CA	MET C 371	148.041	154.110	138.854	1.00101.97	C
ATOM	2341	C	MET C 371	147.284	153.960	140.185	1.00101.97	C
ATOM	2342	O	MET C 371	147.890	153.997	141.249	1.00101.97	O
ATOM	2343	CB	MET C 371	149.416	154.780	139.050	1.00101.97	C
ATOM	2344	CG	MET C 371	150.064	155.363	137.800	1.00101.97	C
ATOM	2345	SD	MET C 371	150.448	154.178	136.498	1.00101.97	S
ATOM	2346	CE	MET C 371	150.834	155.258	135.126	1.00101.97	C
ATOM	2347	N	THR C 372	145.971	153.752	140.125	1.00 97.73	N
ATOM	2348	CA	THR C 372	145.177	153.608	141.344	1.00 97.73	C
ATOM	2349	C	THR C 372	144.337	152.346	141.487	1.00 97.73	C
ATOM	2350	O	THR C 372	143.760	152.133	142.547	1.00 97.73	O
ATOM	2351	CB	THR C 372	144.186	154.761	141.506	1.00 97.73	C
ATOM	2352	OG1	THR C 372	143.136	154.614	140.549	1.00 97.73	O
ATOM	2353	CG2	THR C 372	144.866	156.077	141.302	1.00 97.73	C
ATOM	2354	N	ALA C 373	144.247	151.522	140.447	1.00 99.02	N
ATOM	2355	CA	ALA C 373	143.440	150.308	140.520	1.00 99.02	C
ATOM	2356	C	ALA C 373	143.831	149.245	139.507	1.00 99.02	C
ATOM	2357	O	ALA C 373	143.583	149.413	138.326	1.00 99.02	O
ATOM	2358	CB	ALA C 373	141.967	150.648	140.338	1.00 99.02	C
ATOM	2359	N	THR C 374	144.460	148.161	139.964	1.00 97.26	N
ATOM	2360	CA	THR C 374	144.843	147.040	139.102	1.00 97.26	C
ATOM	2361	C	THR C 374	144.463	145.729	139.784	1.00 97.26	C
ATOM	2362	O	THR C 374	145.004	145.431	140.835	1.00 97.26	O
ATOM	2363	CB	THR C 374	146.365	146.978	138.813	1.00 97.26	C
ATOM	2364	OG1	THR C 374	147.040	146.244	139.842	1.00 97.26	O
ATOM	2365	CG2	THR C 374	146.992	148.353	138.696	1.00 97.26	C
ATOM	2366	N	PHE C 375	143.566	144.936	139.199	1.00 97.47	N
ATOM	2367	CA	PHE C 375	143.173	143.664	139.817	1.00 97.47	C

ATOM	2368	C	PHE C 375	143.319	142.447	138.907	1.00 97.47	C
ATOM	2369	O	PHE C 375	144.059	142.484	137.938	1.00 97.47	O
ATOM	2370	CB	PHE C 375	141.743	143.744	140.318	1.00 97.47	C
ATOM	2371	CG	PHE C 375	140.977	144.896	139.761	1.00 97.47	C
ATOM	2372	CD1	PHE C 375	141.132	146.159	140.283	1.00 97.47	C
ATOM	2373	CD2	PHE C 375	140.097	144.710	138.726	1.00 97.47	C
ATOM	2374	CE1	PHE C 375	140.430	147.224	139.777	1.00 97.47	C
ATOM	2375	CE2	PHE C 375	139.386	145.767	138.214	1.00 97.47	C
ATOM	2376	CZ	PHE C 375	139.554	147.028	138.739	1.00 97.47	C
ATOM	2377	N	LEU C 376	142.633	141.358	139.242	1.00 98.78	N
ATOM	2378	CA	LEU C 376	142.673	140.143	138.429	1.00 98.78	C
ATOM	2379	C	LEU C 376	141.284	139.513	138.444	1.00 98.78	C
ATOM	2380	O	LEU C 376	140.868	138.935	139.451	1.00 98.78	O
ATOM	2381	CB	LEU C 376	143.729	139.175	138.949	1.00 98.78	C
ATOM	2382	CG	LEU C 376	144.112	137.995	138.056	1.00 98.78	C
ATOM	2383	CD1	LEU C 376	145.450	137.424	138.485	1.00 98.78	C
ATOM	2384	CD2	LEU C 376	143.040	136.925	138.100	1.00 98.78	C
ATOM	2385	N	SER C 377	140.577	139.623	137.326	1.00102.69	N
ATOM	2386	CA	SER C 377	139.242	139.063	137.191	1.00102.69	C
ATOM	2387	C	SER C 377	139.330	137.627	136.678	1.00102.69	C
ATOM	2388	O	SER C 377	140.403	137.019	136.637	1.00102.69	O
ATOM	2389	CB	SER C 377	138.393	139.935	136.273	1.00102.69	C
ATOM	2390	OG	SER C 377	137.307	139.194	135.746	1.00102.69	O
ATOM	2391	N	LYS C 378	138.190	137.068	136.284	1.00105.58	N
ATOM	2392	CA	LYS C 378	138.116	135.710	135.762	1.00105.58	C
ATOM	2393	C	LYS C 378	137.363	135.730	134.442	1.00105.58	C
ATOM	2394	O	LYS C 378	136.305	136.358	134.338	1.00105.58	O
ATOM	2395	CB	LYS C 378	137.427	134.772	136.757	1.00105.58	C
ATOM	2396	CG	LYS C 378	138.339	134.264	137.862	1.00105.58	C
ATOM	2397	CD	LYS C 378	137.618	133.274	138.760	1.00105.58	C
ATOM	2398	CE	LYS C 378	136.652	132.409	137.969	1.00105.58	C
ATOM	2399	NZ	LYS C 378	137.318	131.744	136.816	1.00105.58	N
ATOM	2400	N	LYS C 379	137.900	135.031	133.443	1.00110.70	N
ATOM	2401	CA	LYS C 379	137.376	135.085	132.078	1.00110.70	C
ATOM	2402	C	LYS C 379	136.069	134.302	132.003	1.00110.70	C
ATOM	2403	O	LYS C 379	136.015	133.151	131.564	1.00110.70	O
ATOM	2404	CB	LYS C 379	138.400	134.545	131.089	1.00110.70	C

ATOM	2405	CG	LYS	C	379	138.932	133.166	131.434	1.00	110.70	C
ATOM	2406	CD	LYS	C	379	139.822	132.630	130.326	1.00	110.70	C
ATOM	2407	CE	LYS	C	379	140.884	133.644	129.936	1.00	110.70	C
ATOM	2408	NZ	LYS	C	379	141.693	133.182	128.777	1.00	110.70	N
ATOM	2409	N	GLN	C	380	134.991	134.950	132.435	1.00	109.74	N
ATOM	2410	CA	GLN	C	380	133.667	134.339	132.370	1.00	109.74	C
ATOM	2411	C	GLN	C	380	132.628	135.449	132.438	1.00	109.74	C
ATOM	2412	O	GLN	C	380	132.488	136.098	133.480	1.00	109.74	O
ATOM	2413	CB	GLN	C	380	133.478	133.337	133.501	1.00	109.74	C
ATOM	2414	CG	GLN	C	380	133.952	131.935	133.176	1.00	109.74	C
ATOM	2415	CD	GLN	C	380	133.071	131.248	132.156	1.00	109.74	C
ATOM	2416	OE1	GLN	C	380	132.262	131.889	131.486	1.00	109.74	O
ATOM	2417	NE2	GLN	C	380	133.220	129.934	132.033	1.00	109.74	N
ATOM	2418	N	GLU	C	381	131.910	135.668	131.339	1.00	107.99	N
ATOM	2419	CA	GLU	C	381	130.800	136.608	131.363	1.00	107.99	C
ATOM	2420	C	GLU	C	381	129.823	136.220	132.463	1.00	107.99	C
ATOM	2421	O	GLU	C	381	129.689	135.045	132.814	1.00	107.99	O
ATOM	2422	CB	GLU	C	381	130.093	136.637	130.008	1.00	107.99	C
ATOM	2423	CG	GLU	C	381	130.919	137.248	128.891	1.00	107.99	C
ATOM	2424	CD	GLU	C	381	130.708	138.742	128.756	1.00	107.99	C
ATOM	2425	OE1	GLU	C	381	129.603	139.221	129.086	1.00	107.99	O
ATOM	2426	OE2	GLU	C	381	131.647	139.439	128.317	1.00	107.99	O
ATOM	2427	N	VAL	C	382	129.138	137.217	133.015	1.00	111.53	N
ATOM	2428	CA	VAL	C	382	128.263	136.980	134.157	1.00	111.53	C
ATOM	2429	C	VAL	C	382	126.829	137.336	133.787	1.00	111.53	C
ATOM	2430	O	VAL	C	382	126.057	137.806	134.628	1.00	111.53	O
ATOM	2431	CB	VAL	C	382	128.741	137.761	135.397	1.00	111.53	C
ATOM	2432	CG1	VAL	C	382	128.744	139.250	135.126	1.00	111.53	C
ATOM	2433	CG2	VAL	C	382	127.895	137.420	136.615	1.00	111.53	C
ATOM	2434	N	ASN	C	383	126.465	137.123	132.522	1.00	122.87	N
ATOM	2435	CA	ASN	C	383	125.074	137.226	132.087	1.00	122.87	C
ATOM	2436	C	ASN	C	383	124.514	138.625	132.367	1.00	122.87	C
ATOM	2437	O	ASN	C	383	123.644	138.827	133.214	1.00	122.87	O
ATOM	2438	CB	ASN	C	383	124.223	136.142	132.756	1.00	122.87	C
ATOM	2439	CG	ASN	C	383	124.556	134.754	132.257	1.00	122.87	C
ATOM	2440	OD1	ASN	C	383	124.737	134.542	131.059	1.00	122.87	O
ATOM	2441	ND2	ASN	C	383	124.647	133.800	133.175	1.00	122.87	N

ATOM	2442	N	MET C 384	125.057	139.590	131.626	1.00116.33	N
ATOM	2443	CA	MET C 384	124.721	141.001	131.797	1.00116.33	C
ATOM	2444	C	MET C 384	123.224	141.231	131.968	1.00116.33	C
ATOM	2445	O	MET C 384	122.815	142.225	132.576	1.00116.33	O
ATOM	2446	CB	MET C 384	125.233	141.809	130.603	1.00116.33	C
ATOM	2447	CG	MET C 384	124.511	143.130	130.378	1.00116.33	C
ATOM	2448	SD	MET C 384	125.030	144.426	131.514	1.00116.33	S
ATOM	2449	CE	MET C 384	124.314	145.864	130.726	1.00116.33	C
ATOM	2450	N	SER C 385	122.396	140.328	131.441	1.00128.41	N
ATOM	2451	CA	SER C 385	120.949	140.419	131.587	1.00128.41	C
ATOM	2452	C	SER C 385	120.412	139.468	132.654	1.00128.41	C
ATOM	2453	O	SER C 385	119.301	138.944	132.518	1.00128.41	O
ATOM	2454	CB	SER C 385	120.266	140.157	130.245	1.00128.41	C
ATOM	2455	OG	SER C 385	120.903	140.875	129.203	1.00128.41	O
ATOM	2456	N	ASP C 386	121.179	139.240	133.715	1.00124.81	N
ATOM	2457	CA	ASP C 386	120.787	138.331	134.781	1.00124.81	C
ATOM	2458	C	ASP C 386	120.056	139.083	135.891	1.00124.81	C
ATOM	2459	O	ASP C 386	120.100	140.312	135.984	1.00124.81	O
ATOM	2460	CB	ASP C 386	122.015	137.607	135.336	1.00124.81	C
ATOM	2461	CG	ASP C 386	121.653	136.495	136.298	1.00124.81	C
ATOM	2462	OD1	ASP C 386	121.061	136.793	137.356	1.00124.81	O
ATOM	2463	OD2	ASP C 386	121.958	135.323	135.994	1.00124.81	O
ATOM	2464	N	SER C 387	119.370	138.320	136.741	1.00126.07	N
ATOM	2465	CA	SER C 387	118.581	138.866	137.844	1.00126.07	C
ATOM	2466	C	SER C 387	119.403	138.754	139.125	1.00126.07	C
ATOM	2467	O	SER C 387	119.095	137.975	140.027	1.00126.07	O
ATOM	2468	CB	SER C 387	117.245	138.137	137.969	1.00126.07	C
ATOM	2469	OG	SER C 387	117.428	136.732	137.970	1.00126.07	O
ATOM	2470	N	ALA C 388	120.464	139.553	139.196	1.00121.05	N
ATOM	2471	CA	ALA C 388	121.233	139.714	140.421	1.00121.05	C
ATOM	2472	C	ALA C 388	121.618	141.155	140.703	1.00121.05	C
ATOM	2473	O	ALA C 388	122.051	141.446	141.821	1.00121.05	O
ATOM	2474	CB	ALA C 388	122.506	138.859	140.377	1.00121.05	C
ATOM	2475	N	LEU C 389	121.485	142.062	139.730	1.00116.48	N
ATOM	2476	CA	LEU C 389	121.828	143.469	139.895	1.00116.48	C
ATOM	2477	C	LEU C 389	120.781	144.383	139.265	1.00116.48	C
ATOM	2478	O	LEU C 389	121.081	145.549	138.972	1.00116.48	O

ATOM	2479	CB	LEU C 389	123.210	143.753	139.291	1.00116.48	C
ATOM	2480	CG	LEU C 389	123.413	143.234	137.866	1.00116.48	C
ATOM	2481	CD1	LEU C 389	122.823	144.184	136.836	1.00116.48	C
ATOM	2482	CD2	LEU C 389	124.888	142.990	137.592	1.00116.48	C
ATOM	2483	N	ASP C 390	119.563	143.878	139.051	1.00116.13	N
ATOM	2484	CA	ASP C 390	118.533	144.597	138.310	1.00116.13	C
ATOM	2485	C	ASP C 390	118.296	146.003	138.837	1.00116.13	C
ATOM	2486	O	ASP C 390	117.765	146.842	138.102	1.00116.13	O
ATOM	2487	CB	ASP C 390	117.233	143.793	138.341	1.00116.13	C
ATOM	2488	CG	ASP C 390	117.322	142.520	137.526	1.00116.13	C
ATOM	2489	OD1	ASP C 390	118.062	142.511	136.519	1.00116.13	O
ATOM	2490	OD2	ASP C 390	116.657	141.528	137.891	1.00116.13	O
ATOM	2491	N	CYS C 391	118.678	146.285	140.080	1.00113.78	N
ATOM	2492	CA	CYS C 391	118.512	147.634	140.600	1.00113.78	C
ATOM	2493	C	CYS C 391	119.484	148.589	139.919	1.00113.78	C
ATOM	2494	O	CYS C 391	119.068	149.532	139.240	1.00113.78	O
ATOM	2495	CB	CYS C 391	118.674	147.637	142.126	1.00113.78	C
ATOM	2496	SG	CYS C 391	120.346	147.588	142.766	1.00113.78	S
ATOM	2497	N	VAL C 392	120.784	148.346	140.064	1.00109.58	N
ATOM	2498	CA	VAL C 392	121.795	149.100	139.296	1.00109.58	C
ATOM	2499	C	VAL C 392	122.092	148.277	138.046	1.00109.58	C
ATOM	2500	O	VAL C 392	123.045	147.500	137.970	1.00109.58	O
ATOM	2501	CB	VAL C 392	123.047	149.409	140.126	1.00109.58	C
ATOM	2502	CG1	VAL C 392	123.792	148.136	140.485	1.00109.58	C
ATOM	2503	CG2	VAL C 392	123.959	150.356	139.370	1.00109.58	C
ATOM	2504	N	ARG C 393	121.240	148.449	137.033	1.00107.49	N
ATOM	2505	CA	ARG C 393	121.504	147.864	135.725	1.00107.49	C
ATOM	2506	C	ARG C 393	121.128	148.809	134.591	1.00107.49	C
ATOM	2507	O	ARG C 393	121.220	148.418	133.421	1.00107.49	O
ATOM	2508	CB	ARG C 393	120.765	146.532	135.557	1.00107.49	C
ATOM	2509	CG	ARG C 393	121.238	145.710	134.369	1.00107.49	C
ATOM	2510	CD	ARG C 393	120.301	144.550	134.083	1.00107.49	C
ATOM	2511	NE	ARG C 393	119.002	145.007	133.601	1.00107.49	N
ATOM	2512	CZ	ARG C 393	118.800	145.548	132.404	1.00107.49	C
ATOM	2513	NH1	ARG C 393	117.586	145.939	132.041	1.00107.49	N
ATOM	2514	NH2	ARG C 393	119.816	145.703	131.567	1.00107.49	N
ATOM	2515	N	ASP C 394	120.701	150.032	134.897	1.00101.94	N

ATOM	2516	CA	ASP	C	394	120.417	151.019	133.867	1.00101.94	C
ATOM	2517	C	ASP	C	394	121.029	152.369	134.215	1.00101.94	C
ATOM	2518	O	ASP	C	394	120.733	153.362	133.540	1.00101.94	O
ATOM	2519	CB	ASP	C	394	118.906	151.166	133.659	1.00101.94	C
ATOM	2520	CG	ASP	C	394	118.562	151.942	132.404	1.00101.94	C
ATOM	2521	OD1	ASP	C	394	118.607	151.346	131.311	1.00101.94	O
ATOM	2522	OD2	ASP	C	394	118.253	153.148	132.509	1.00101.94	O
ATOM	2523	N	GLU	C	395	121.867	152.434	135.247	1.00 99.53	N
ATOM	2524	CA	GLU	C	395	122.539	153.660	135.654	1.00 99.53	C
ATOM	2525	C	GLU	C	395	123.980	153.714	135.167	1.00 99.53	C
ATOM	2526	O	GLU	C	395	124.398	154.710	134.573	1.00 99.53	O
ATOM	2527	CB	GLU	C	395	122.500	153.796	137.181	1.00 99.53	C
ATOM	2528	CG	GLU	C	395	123.569	154.707	137.759	1.00 99.53	C
ATOM	2529	CD	GLU	C	395	123.534	156.095	137.162	1.00 99.53	C
ATOM	2530	OE1	GLU	C	395	122.532	156.431	136.496	1.00 99.53	O
ATOM	2531	OE2	GLU	C	395	124.509	156.849	137.358	1.00 99.53	O
ATOM	2532	N	ALA	C	396	124.753	152.655	135.414	1.00 96.08	N
ATOM	2533	CA	ALA	C	396	126.133	152.631	134.946	1.00 96.08	C
ATOM	2534	C	ALA	C	396	126.209	152.836	133.440	1.00 96.08	C
ATOM	2535	O	ALA	C	396	127.145	153.466	132.940	1.00 96.08	O
ATOM	2536	CB	ALA	C	396	126.799	151.315	135.344	1.00 96.08	C
ATOM	2537	N	ILE	C	397	125.230	152.313	132.700	1.00 95.14	N
ATOM	2538	CA	ILE	C	397	125.252	152.443	131.246	1.00 95.14	C
ATOM	2539	C	ILE	C	397	125.217	153.909	130.835	1.00 95.14	C
ATOM	2540	O	ILE	C	397	125.945	154.333	129.931	1.00 95.14	O
ATOM	2541	CB	ILE	C	397	124.091	151.652	130.619	1.00 95.14	C
ATOM	2542	CG1	ILE	C	397	124.455	150.172	130.511	1.00 95.14	C
ATOM	2543	CG2	ILE	C	397	123.731	152.224	129.259	1.00 95.14	C
ATOM	2544	CD1	ILE	C	397	123.351	149.318	129.942	1.00 95.14	C
ATOM	2545	N	ASN	C	398	124.373	154.707	131.488	1.00 94.06	N
ATOM	2546	CA	ASN	C	398	124.272	156.112	131.112	1.00 94.06	C
ATOM	2547	C	ASN	C	398	125.529	156.880	131.495	1.00 94.06	C
ATOM	2548	O	ASN	C	398	126.023	157.699	130.713	1.00 94.06	O
ATOM	2549	CB	ASN	C	398	123.038	156.741	131.751	1.00 94.06	C
ATOM	2550	CG	ASN	C	398	121.795	156.553	130.912	1.00 94.06	C
ATOM	2551	OD1	ASN	C	398	121.733	155.658	130.069	1.00 94.06	O
ATOM	2552	ND2	ASN	C	398	120.797	157.397	131.133	1.00 94.06	N

ATOM	2553	N	LYS C 399	126.061	156.632	132.692	1.00 94.89	N
ATOM	2554	CA	LYS C 399	127.309	157.278	133.088	1.00 94.89	C
ATOM	2555	C	LYS C 399	128.436	156.917	132.130	1.00 94.89	C
ATOM	2556	O	LYS C 399	129.291	157.752	131.815	1.00 94.89	O
ATOM	2557	CB	LYS C 399	127.670	156.878	134.516	1.00 94.89	C
ATOM	2558	CG	LYS C 399	128.870	157.606	135.086	1.00 94.89	C
ATOM	2559	CD	LYS C 399	129.270	157.017	136.428	1.00 94.89	C
ATOM	2560	CE	LYS C 399	128.063	156.843	137.333	1.00 94.89	C
ATOM	2561	NZ	LYS C 399	128.315	155.849	138.411	1.00 94.89	N
ATOM	2562	N	LEU C 400	128.433	155.682	131.631	1.00 94.89	N
ATOM	2563	CA	LEU C 400	129.483	155.229	130.727	1.00 94.89	C
ATOM	2564	C	LEU C 400	129.343	155.877	129.355	1.00 94.89	C
ATOM	2565	O	LEU C 400	130.329	156.346	128.772	1.00 94.89	O
ATOM	2566	CB	LEU C 400	129.435	153.706	130.628	1.00 94.89	C
ATOM	2567	CG	LEU C 400	130.389	152.982	129.693	1.00 94.89	C
ATOM	2568	CD1	LEU C 400	130.660	151.596	130.238	1.00 94.89	C
ATOM	2569	CD2	LEU C 400	129.779	152.906	128.311	1.00 94.89	C
ATOM	2570	N	GLN C 401	128.122	155.904	128.817	1.00 95.22	N
ATOM	2571	CA	GLN C 401	127.882	156.637	127.580	1.00 95.22	C
ATOM	2572	C	GLN C 401	128.292	158.096	127.723	1.00 95.22	C
ATOM	2573	O	GLN C 401	128.824	158.694	126.782	1.00 95.22	O
ATOM	2574	CB	GLN C 401	126.412	156.535	127.181	1.00 95.22	C
ATOM	2575	CG	GLN C 401	126.009	155.169	126.671	1.00 95.22	C
ATOM	2576	CD	GLN C 401	126.586	154.872	125.308	1.00 95.22	C
ATOM	2577	OE1	GLN C 401	126.284	155.555	124.332	1.00 95.22	O
ATOM	2578	NE2	GLN C 401	127.428	153.850	125.234	1.00 95.22	N
ATOM	2579	N	GLN C 402	128.053	158.686	128.894	1.00 93.67	N
ATOM	2580	CA	GLN C 402	128.455	160.070	129.116	1.00 93.67	C
ATOM	2581	C	GLN C 402	129.972	160.209	129.097	1.00 93.67	C
ATOM	2582	O	GLN C 402	130.508	161.129	128.470	1.00 93.67	O
ATOM	2583	CB	GLN C 402	127.879	160.572	130.439	1.00 93.67	C
ATOM	2584	CG	GLN C 402	127.982	162.071	130.642	1.00 93.67	C
ATOM	2585	CD	GLN C 402	129.336	162.491	131.170	1.00 93.67	C
ATOM	2586	OE1	GLN C 402	130.010	161.725	131.858	1.00 93.67	O
ATOM	2587	NE2	GLN C 402	129.746	163.710	130.848	1.00 93.67	N
ATOM	2588	N	ILE C 403	130.679	159.309	129.782	1.00 91.63	N
ATOM	2589	CA	ILE C 403	132.139	159.352	129.770	1.00 91.63	C

ATOM	2590	C	ILE C 403	132.673	159.204	128.355	1.00 91.63	C
ATOM	2591	O	ILE C 403	133.697	159.802	128.003	1.00 91.63	O
ATOM	2592	CB	ILE C 403	132.723	158.267	130.694	1.00 91.63	C
ATOM	2593	CG1	ILE C 403	132.501	158.630	132.162	1.00 91.63	C
ATOM	2594	CG2	ILE C 403	134.201	158.082	130.414	1.00 91.63	C
ATOM	2595	CD1	ILE C 403	133.084	157.622	133.128	1.00 91.63	C
ATOM	2596	N	PHE C 404	132.003	158.405	127.524	1.00 94.30	N
ATOM	2597	CA	PHE C 404	132.529	158.131	126.191	1.00 94.30	C
ATOM	2598	C	PHE C 404	132.210	159.248	125.205	1.00 94.30	C
ATOM	2599	O	PHE C 404	133.038	159.573	124.348	1.00 94.30	O
ATOM	2600	CB	PHE C 404	131.987	156.800	125.673	1.00 94.30	C
ATOM	2601	CG	PHE C 404	132.114	156.628	124.188	1.00 94.30	C
ATOM	2602	CD1	PHE C 404	133.312	156.240	123.622	1.00 94.30	C
ATOM	2603	CD2	PHE C 404	131.029	156.845	123.359	1.00 94.30	C
ATOM	2604	CE1	PHE C 404	133.427	156.080	122.258	1.00 94.30	C
ATOM	2605	CE2	PHE C 404	131.140	156.686	121.996	1.00 94.30	C
ATOM	2606	CZ	PHE C 404	132.340	156.303	121.445	1.00 94.30	C
ATOM	2607	N	ASN C 405	131.023	159.845	125.300	1.00 99.81	N
ATOM	2608	CA	ASN C 405	130.603	160.886	124.371	1.00 99.81	C
ATOM	2609	C	ASN C 405	131.115	162.266	124.754	1.00 99.81	C
ATOM	2610	O	ASN C 405	130.573	163.268	124.273	1.00 99.81	O
ATOM	2611	CB	ASN C 405	129.075	160.913	124.265	1.00 99.81	C
ATOM	2612	CG	ASN C 405	128.546	159.953	123.216	1.00 99.81	C
ATOM	2613	OD1	ASN C 405	129.056	158.847	123.058	1.00 99.81	O
ATOM	2614	ND2	ASN C 405	127.510	160.371	122.499	1.00 99.81	N
ATOM	2615	N	THR C 406	132.139	162.347	125.599	1.00 97.17	N
ATOM	2616	CA	THR C 406	132.665	163.627	126.053	1.00 97.17	C
ATOM	2617	C	THR C 406	134.138	163.842	125.746	1.00 97.17	C
ATOM	2618	O	THR C 406	134.570	165.000	125.703	1.00 97.17	O
ATOM	2619	CB	THR C 406	132.451	163.786	127.566	1.00 97.17	C
ATOM	2620	OG1	THR C 406	131.055	163.673	127.865	1.00 97.17	O
ATOM	2621	CG2	THR C 406	132.956	165.140	128.040	1.00 97.17	C
ATOM	2622	N	SER C 407	134.916	162.792	125.525	1.00 95.68	N
ATOM	2623	CA	SER C 407	136.337	162.928	125.225	1.00 95.68	C
ATOM	2624	C	SER C 407	136.735	162.252	123.922	1.00 95.68	C
ATOM	2625	O	SER C 407	137.585	162.777	123.200	1.00 95.68	O
ATOM	2626	CB	SER C 407	137.175	162.355	126.379	1.00 95.68	C

ATOM	2627	OG	SER C 407	136.808	162.943	127.615	1.00 95.68	O
ATOM	2628	N	TYR C 408	136.147	161.104	123.606	1.00 94.77	N
ATOM	2629	CA	TYR C 408	136.449	160.395	122.365	1.00 94.77	C
ATOM	2630	C	TYR C 408	135.394	160.747	121.318	1.00 94.77	C
ATOM	2631	O	TYR C 408	134.578	159.929	120.896	1.00 94.77	O
ATOM	2632	CB	TYR C 408	136.525	158.895	122.621	1.00 94.77	C
ATOM	2633	CG	TYR C 408	137.360	158.524	123.828	1.00 94.77	C
ATOM	2634	CD1	TYR C 408	138.393	159.342	124.263	1.00 94.77	C
ATOM	2635	CD2	TYR C 408	137.107	157.363	124.540	1.00 94.77	C
ATOM	2636	CE1	TYR C 408	139.152	159.008	125.365	1.00 94.77	C
ATOM	2637	CE2	TYR C 408	137.863	157.022	125.642	1.00 94.77	C
ATOM	2638	CZ	TYR C 408	138.883	157.847	126.050	1.00 94.77	C
ATOM	2639	OH	TYR C 408	139.636	157.511	127.149	1.00 94.77	O
ATOM	2640	N	ASN C 409	135.434	162.011	120.900	1.00101.56	N
ATOM	2641	CA	ASN C 409	134.412	162.566	120.022	1.00101.56	C
ATOM	2642	C	ASN C 409	134.356	161.857	118.675	1.00101.56	C
ATOM	2643	O	ASN C 409	133.357	161.206	118.351	1.00101.56	O
ATOM	2644	CB	ASN C 409	134.661	164.061	119.814	1.00101.56	C
ATOM	2645	CG	ASN C 409	136.105	164.367	119.449	1.00101.56	C
ATOM	2646	OD1	ASN C 409	136.534	164.129	118.321	1.00101.56	O
ATOM	2647	ND2	ASN C 409	136.859	164.894	120.406	1.00101.56	N
ATOM	2648	N	GLN C 410	135.429	161.972	117.888	1.00106.84	N
ATOM	2649	CA	GLN C 410	135.453	161.421	116.541	1.00106.84	C
ATOM	2650	C	GLN C 410	136.752	160.707	116.197	1.00106.84	C
ATOM	2651	O	GLN C 410	136.895	160.244	115.060	1.00106.84	O
ATOM	2652	CB	GLN C 410	135.197	162.528	115.505	1.00106.84	C
ATOM	2653	CG	GLN C 410	133.779	163.075	115.517	1.00106.84	C
ATOM	2654	CD	GLN C 410	133.685	164.445	116.157	1.00106.84	C
ATOM	2655	OE1	GLN C 410	134.629	164.911	116.796	1.00106.84	O
ATOM	2656	NE2	GLN C 410	132.543	165.101	115.986	1.00106.84	N
ATOM	2657	N	THR C 411	137.699	160.602	117.129	1.00100.26	N
ATOM	2658	CA	THR C 411	138.940	159.895	116.847	1.00100.26	C
ATOM	2659	C	THR C 411	138.795	158.399	117.091	1.00100.26	C
ATOM	2660	O	THR C 411	139.337	157.589	116.331	1.00100.26	O
ATOM	2661	CB	THR C 411	140.073	160.460	117.702	1.00100.26	C
ATOM	2662	OG1	THR C 411	139.964	159.949	119.035	1.00100.26	O
ATOM	2663	CG2	THR C 411	139.993	161.975	117.744	1.00100.26	C

ATOM	2664	N	TYR C 412	138.070	158.015	118.136	1.00 96.12	N
ATOM	2665	CA	TYR C 412	137.914	156.620	118.516	1.00 96.12	C
ATOM	2666	C	TYR C 412	136.547	156.088	118.094	1.00 96.12	C
ATOM	2667	O	TYR C 412	135.679	156.822	117.618	1.00 96.12	O
ATOM	2668	CB	TYR C 412	138.107	156.455	120.025	1.00 96.12	C
ATOM	2669	CG	TYR C 412	139.544	156.570	120.478	1.00 96.12	C
ATOM	2670	CD1	TYR C 412	140.415	155.496	120.367	1.00 96.12	C
ATOM	2671	CD2	TYR C 412	140.028	157.750	121.021	1.00 96.12	C
ATOM	2672	CE1	TYR C 412	141.726	155.595	120.782	1.00 96.12	C
ATOM	2673	CE2	TYR C 412	141.337	157.857	121.438	1.00 96.12	C
ATOM	2674	CZ	TYR C 412	142.181	156.778	121.316	1.00 96.12	C
ATOM	2675	OH	TYR C 412	143.488	156.880	121.731	1.00 96.12	O
ATOM	2676	N	GLU C 413	136.370	154.782	118.280	1.00 97.58	N
ATOM	2677	CA	GLU C 413	135.133	154.102	117.914	1.00 97.58	C
ATOM	2678	C	GLU C 413	134.616	153.269	119.078	1.00 97.58	C
ATOM	2679	O	GLU C 413	135.115	153.384	120.202	1.00 97.58	O
ATOM	2680	CB	GLU C 413	135.353	153.217	116.688	1.00 97.58	C
ATOM	2681	CG	GLU C 413	135.462	153.977	115.384	1.00 97.58	C
ATOM	2682	CD	GLU C 413	134.113	154.406	114.850	1.00 97.58	C
ATOM	2683	OE1	GLU C 413	133.147	153.626	114.982	1.00 97.58	O
ATOM	2684	OE2	GLU C 413	134.017	155.521	114.299	1.00 97.58	O
ATOM	2685	N	LYS C 414	133.613	152.432	118.826	1.00 92.57	N
ATOM	2686	CA	LYS C 414	133.084	151.510	119.824	1.00 92.57	C
ATOM	2687	C	LYS C 414	133.206	150.099	119.270	1.00 92.57	C
ATOM	2688	O	LYS C 414	132.522	149.746	118.304	1.00 92.57	O
ATOM	2689	CB	LYS C 414	131.637	151.847	120.175	1.00 92.57	C
ATOM	2690	CG	LYS C 414	131.491	153.039	121.105	1.00 92.57	C
ATOM	2691	CD	LYS C 414	130.031	153.324	121.409	1.00 92.57	C
ATOM	2692	CE	LYS C 414	129.305	152.062	121.840	1.00 92.57	C
ATOM	2693	NZ	LYS C 414	127.828	152.237	121.814	1.00 92.57	N
ATOM	2694	N	TYR C 415	134.073	149.296	119.880	1.00 95.72	N
ATOM	2695	CA	TYR C 415	134.374	147.948	119.401	1.00 95.72	C
ATOM	2696	C	TYR C 415	133.636	146.949	120.284	1.00 95.72	C
ATOM	2697	O	TYR C 415	134.144	146.503	121.313	1.00 95.72	O
ATOM	2698	CB	TYR C 415	135.879	147.704	119.406	1.00 95.72	C
ATOM	2699	CG	TYR C 415	136.276	146.248	119.363	1.00 95.72	C
ATOM	2700	CD1	TYR C 415	135.717	145.383	118.436	1.00 95.72	C

ATOM	2701	CD2	TYR C 415	137.219	145.742	120.246	1.00 95.72	C
ATOM	2702	CE1	TYR C 415	136.082	144.052	118.392	1.00 95.72	C
ATOM	2703	CE2	TYR C 415	137.590	144.414	120.210	1.00 95.72	C
ATOM	2704	CZ	TYR C 415	137.019	143.572	119.281	1.00 95.72	C
ATOM	2705	OH	TYR C 415	137.384	142.247	119.240	1.00 95.72	O
ATOM	2706	N	GLY C 416	132.420	146.598	119.874	1.00 98.82	N
ATOM	2707	CA	GLY C 416	131.642	145.604	120.587	1.00 98.82	C
ATOM	2708	C	GLY C 416	130.460	146.179	121.337	1.00 98.82	C
ATOM	2709	O	GLY C 416	129.744	147.045	120.826	1.00 98.82	O
ATOM	2710	N	ASN C 417	130.244	145.697	122.556	1.00104.28	N
ATOM	2711	CA	ASN C 417	129.171	146.192	123.401	1.00104.28	C
ATOM	2712	C	ASN C 417	129.542	145.925	124.851	1.00104.28	C
ATOM	2713	O	ASN C 417	130.508	145.215	125.147	1.00104.28	O
ATOM	2714	CB	ASN C 417	127.831	145.545	123.044	1.00104.28	C
ATOM	2715	CG	ASN C 417	127.835	144.052	123.263	1.00104.28	C
ATOM	2716	OD1	ASN C 417	128.815	143.374	122.961	1.00104.28	O
ATOM	2717	ND2	ASN C 417	126.736	143.528	123.791	1.00104.28	N
ATOM	2718	N	VAL C 418	128.758	146.502	125.762	1.00 93.80	N
ATOM	2719	CA	VAL C 418	129.092	146.429	127.176	1.00 93.80	C
ATOM	2720	C	VAL C 418	129.080	144.978	127.639	1.00 93.80	C
ATOM	2721	O	VAL C 418	128.301	144.147	127.153	1.00 93.80	O
ATOM	2722	CB	VAL C 418	128.126	147.285	128.011	1.00 93.80	C
ATOM	2723	CG1	VAL C 418	128.668	147.463	129.412	1.00 93.80	C
ATOM	2724	CG2	VAL C 418	127.908	148.632	127.348	1.00 93.80	C
ATOM	2725	N	SER C 419	129.961	144.668	128.586	1.00 94.79	N
ATOM	2726	CA	SER C 419	130.057	143.332	129.151	1.00 94.79	C
ATOM	2727	C	SER C 419	130.426	143.458	130.619	1.00 94.79	C
ATOM	2728	O	SER C 419	131.156	144.371	131.011	1.00 94.79	O
ATOM	2729	CB	SER C 419	131.089	142.478	128.410	1.00 94.79	C
ATOM	2730	OG	SER C 419	132.266	143.221	128.152	1.00 94.79	O
ATOM	2731	N	VAL C 420	129.923	142.528	131.425	1.00 94.36	N
ATOM	2732	CA	VAL C 420	130.001	142.610	132.878	1.00 94.36	C
ATOM	2733	C	VAL C 420	130.874	141.471	133.386	1.00 94.36	C
ATOM	2734	O	VAL C 420	130.543	140.295	133.197	1.00 94.36	O
ATOM	2735	CB	VAL C 420	128.607	142.563	133.514	1.00 94.36	C
ATOM	2736	CG1	VAL C 420	127.822	143.800	133.143	1.00 94.36	C
ATOM	2737	CG2	VAL C 420	127.865	141.336	133.039	1.00 94.36	C

ATOM	2738	N	PHE	C	421	131.982	141.819	134.032	1.00	94.67	N
ATOM	2739	CA	PHE	C	421	132.887	140.852	134.634	1.00	94.67	C
ATOM	2740	C	PHE	C	421	132.726	140.863	136.148	1.00	94.67	C
ATOM	2741	O	PHE	C	421	132.284	141.853	136.733	1.00	94.67	O
ATOM	2742	CB	PHE	C	421	134.345	141.146	134.266	1.00	94.67	C
ATOM	2743	CG	PHE	C	421	134.677	140.857	132.833	1.00	94.67	C
ATOM	2744	CD1	PHE	C	421	134.708	139.558	132.368	1.00	94.67	C
ATOM	2745	CD2	PHE	C	421	134.961	141.882	131.952	1.00	94.67	C
ATOM	2746	CE1	PHE	C	421	135.009	139.288	131.055	1.00	94.67	C
ATOM	2747	CE2	PHE	C	421	135.262	141.614	130.640	1.00	94.67	C
ATOM	2748	CZ	PHE	C	421	135.287	140.316	130.191	1.00	94.67	C
ATOM	2749	N	GLU	C	422	133.093	139.751	136.779	1.00	101.48	N
ATOM	2750	CA	GLU	C	422	132.958	139.577	138.222	1.00	101.48	C
ATOM	2751	C	GLU	C	422	134.303	139.140	138.787	1.00	101.48	C
ATOM	2752	O	GLU	C	422	134.770	138.033	138.503	1.00	101.48	O
ATOM	2753	CB	GLU	C	422	131.868	138.560	138.545	1.00	101.48	C
ATOM	2754	CG	GLU	C	422	131.480	138.513	140.008	1.00	101.48	C
ATOM	2755	CD	GLU	C	422	129.993	138.301	140.202	1.00	101.48	C
ATOM	2756	OE1	GLU	C	422	129.481	138.619	141.296	1.00	101.48	O
ATOM	2757	OE2	GLU	C	422	129.333	137.818	139.257	1.00	101.48	O
ATOM	2758	N	THR	C	423	134.918	140.002	139.589	1.00	100.82	N
ATOM	2759	CA	THR	C	423	136.244	139.731	140.129	1.00	100.82	C
ATOM	2760	C	THR	C	423	136.143	138.707	141.257	1.00	100.82	C
ATOM	2761	O	THR	C	423	135.088	138.124	141.520	1.00	100.82	O
ATOM	2762	CB	THR	C	423	136.900	141.019	140.611	1.00	100.82	C
ATOM	2763	OG1	THR	C	423	138.201	140.722	141.131	1.00	100.82	O
ATOM	2764	CG2	THR	C	423	136.072	141.644	141.708	1.00	100.82	C
ATOM	2765	N	THR	C	424	137.265	138.479	141.941	1.00	105.16	N
ATOM	2766	CA	THR	C	424	137.299	137.521	143.040	1.00	105.16	C
ATOM	2767	C	THR	C	424	136.795	138.143	144.338	1.00	105.16	C
ATOM	2768	O	THR	C	424	136.022	137.520	145.074	1.00	105.16	O
ATOM	2769	CB	THR	C	424	138.720	136.984	143.223	1.00	105.16	C
ATOM	2770	OG1	THR	C	424	139.636	138.081	143.327	1.00	105.16	O
ATOM	2771	CG2	THR	C	424	139.117	136.113	142.043	1.00	105.16	C
ATOM	2772	N	GLY	C	425	137.227	139.370	144.636	1.00	102.01	N
ATOM	2773	CA	GLY	C	425	136.816	140.009	145.875	1.00	102.01	C
ATOM	2774	C	GLY	C	425	135.310	140.085	146.031	1.00	102.01	C

ATOM	2775	O	GLY C 425	134.776	139.853	147.117	1.00102.01 O
ATOM	2776	N	GLY C 426	134.605	140.409	144.951	1.00 99.43 N
ATOM	2777	CA	GLY C 426	133.160	140.499	144.996	1.00 99.43 C
ATOM	2778	C	GLY C 426	132.608	141.694	144.249	1.00 99.43 C
ATOM	2779	O	GLY C 426	131.400	141.777	144.003	1.00 99.43 O
ATOM	2780	N	LEU C 427	133.482	142.628	143.882	1.00 94.06 N
ATOM	2781	CA	LEU C 427	133.051	143.815	143.157	1.00 94.06 C
ATOM	2782	C	LEU C 427	132.732	143.471	141.706	1.00 94.06 C
ATOM	2783	O	LEU C 427	133.392	142.632	141.088	1.00 94.06 O
ATOM	2784	CB	LEU C 427	134.126	144.897	143.236	1.00 94.06 C
ATOM	2785	CG	LEU C 427	135.527	144.541	142.741	1.00 94.06 C
ATOM	2786	CD1	LEU C 427	135.638	144.729	141.240	1.00 94.06 C
ATOM	2787	CD2	LEU C 427	136.578	145.364	143.468	1.00 94.06 C
ATOM	2788	N	VAL C 428	131.710	144.132	141.164	1.00 89.89 N
ATOM	2789	CA	VAL C 428	131.187	143.809	139.841	1.00 89.89 C
ATOM	2790	C	VAL C 428	131.518	144.925	138.861	1.00 89.89 C
ATOM	2791	O	VAL C 428	130.816	145.940	138.797	1.00 89.89 O
ATOM	2792	CB	VAL C 428	129.669	143.562	139.899	1.00 89.89 C
ATOM	2793	CG1	VAL C 428	129.046	143.740	138.527	1.00 89.89 C
ATOM	2794	CG2	VAL C 428	129.385	142.175	140.434	1.00 89.89 C
ATOM	2795	N	VAL C 429	132.587	144.745	138.089	1.00 87.79 N
ATOM	2796	CA	VAL C 429	133.031	145.727	137.106	1.00 87.79 C
ATOM	2797	C	VAL C 429	132.506	145.337	135.734	1.00 87.79 C
ATOM	2798	O	VAL C 429	132.480	144.153	135.379	1.00 87.79 O
ATOM	2799	CB	VAL C 429	134.566	145.838	137.086	1.00 87.79 C
ATOM	2800	CG1	VAL C 429	135.188	144.481	136.835	1.00 87.79 C
ATOM	2801	CG2	VAL C 429	135.004	146.816	136.019	1.00 87.79 C
ATOM	2802	N	PHE C 430	132.088	146.335	134.957	1.00 89.74 N
ATOM	2803	CA	PHE C 430	131.741	146.119	133.560	1.00 89.74 C
ATOM	2804	C	PHE C 430	132.093	147.364	132.764	1.00 89.74 C
ATOM	2805	O	PHE C 430	131.913	148.487	133.241	1.00 89.74 O
ATOM	2806	CB	PHE C 430	130.265	145.742	133.384	1.00 89.74 C
ATOM	2807	CG	PHE C 430	129.308	146.590	134.167	1.00 89.74 C
ATOM	2808	CD1	PHE C 430	129.005	146.281	135.480	1.00 89.74 C
ATOM	2809	CD2	PHE C 430	128.673	147.663	133.575	1.00 89.74 C
ATOM	2810	CE1	PHE C 430	128.112	147.044	136.193	1.00 89.74 C
ATOM	2811	CE2	PHE C 430	127.779	148.428	134.283	1.00 89.74 C

ATOM	2812	CZ	PHE C 430	127.498	148.118	135.595	1.00 89.74	C
ATOM	2813	N	TRP C 431	132.583	147.153	131.545	1.00 89.95	N
ATOM	2814	CA	TRP C 431	133.359	148.155	130.829	1.00 89.95	C
ATOM	2815	C	TRP C 431	132.946	148.154	129.361	1.00 89.95	C
ATOM	2816	O	TRP C 431	131.967	147.512	128.969	1.00 89.95	O
ATOM	2817	CB	TRP C 431	134.854	147.863	130.998	1.00 89.95	C
ATOM	2818	CG	TRP C 431	135.255	146.624	130.280	1.00 89.95	C
ATOM	2819	CD1	TRP C 431	134.729	145.380	130.449	1.00 89.95	C
ATOM	2820	CD2	TRP C 431	136.276	146.496	129.286	1.00 89.95	C
ATOM	2821	NE1	TRP C 431	135.347	144.488	129.614	1.00 89.95	N
ATOM	2822	CE2	TRP C 431	136.304	145.148	128.890	1.00 89.95	C
ATOM	2823	CE3	TRP C 431	137.167	147.392	128.690	1.00 89.95	C
ATOM	2824	CZ2	TRP C 431	137.185	144.673	127.928	1.00 89.95	C
ATOM	2825	CZ3	TRP C 431	138.039	146.919	127.736	1.00 89.95	C
ATOM	2826	CH2	TRP C 431	138.042	145.571	127.364	1.00 89.95	C
ATOM	2827	N	GLN C 432	133.709	148.883	128.545	1.00 87.48	N
ATOM	2828	CA	GLN C 432	133.452	149.022	127.119	1.00 87.48	C
ATOM	2829	C	GLN C 432	134.763	148.936	126.354	1.00 87.48	C
ATOM	2830	O	GLN C 432	135.809	149.373	126.837	1.00 87.48	O
ATOM	2831	CB	GLN C 432	132.756	150.349	126.804	1.00 87.48	C
ATOM	2832	CG	GLN C 432	132.538	150.594	125.330	1.00 87.48	C
ATOM	2833	CD	GLN C 432	131.866	149.425	124.645	1.00 87.48	C
ATOM	2834	OE1	GLN C 432	132.415	148.326	124.584	1.00 87.48	O
ATOM	2835	NE2	GLN C 432	130.668	149.656	124.124	1.00 87.48	N
ATOM	2836	N	GLY C 433	134.697	148.373	125.147	1.00 90.52	N
ATOM	2837	CA	GLY C 433	135.872	148.198	124.308	1.00 90.52	C
ATOM	2838	C	GLY C 433	135.958	149.281	123.247	1.00 90.52	C
ATOM	2839	O	GLY C 433	134.957	149.630	122.619	1.00 90.52	O
ATOM	2840	N	ILE C 434	137.169	149.799	123.049	1.00 91.61	N
ATOM	2841	CA	ILE C 434	137.388	150.944	122.176	1.00 91.61	C
ATOM	2842	C	ILE C 434	138.703	150.777	121.425	1.00 91.61	C
ATOM	2843	O	ILE C 434	139.631	150.117	121.899	1.00 91.61	O
ATOM	2844	CB	ILE C 434	137.389	152.262	122.975	1.00 91.61	C
ATOM	2845	CG1	ILE C 434	137.285	153.455	122.033	1.00 91.61	C
ATOM	2846	CG2	ILE C 434	138.642	152.372	123.818	1.00 91.61	C
ATOM	2847	CD1	ILE C 434	137.071	154.756	122.745	1.00 91.61	C
ATOM	2848	N	LYS C 435	138.774	151.383	120.240	1.00 93.35	N

ATOM	2849	CA	LYS C 435	139.997	151.391	119.448	1.00 93.35	C
ATOM	2850	C	LYS C 435	139.936	152.541	118.453	1.00 93.35	C
ATOM	2851	O	LYS C 435	138.855	152.949	118.021	1.00 93.35	O
ATOM	2852	CB	LYS C 435	140.215	150.058	118.723	1.00 93.35	C
ATOM	2853	CG	LYS C 435	139.044	149.598	117.882	1.00 93.35	C
ATOM	2854	CD	LYS C 435	139.098	150.179	116.485	1.00 93.35	C
ATOM	2855	CE	LYS C 435	138.039	149.548	115.599	1.00 93.35	C
ATOM	2856	NZ	LYS C 435	137.964	150.205	114.268	1.00 93.35	N
ATOM	2857	N	GLN C 436	141.112	153.048	118.091	1.00 97.39	N
ATOM	2858	CA	GLN C 436	141.221	154.241	117.264	1.00 97.39	C
ATOM	2859	C	GLN C 436	140.758	153.951	115.836	1.00 97.39	C
ATOM	2860	O	GLN C 436	140.331	152.846	115.498	1.00 97.39	O
ATOM	2861	CB	GLN C 436	142.658	154.759	117.274	1.00 97.39	C
ATOM	2862	CG	GLN C 436	142.813	156.191	116.794	1.00 97.39	C
ATOM	2863	CD	GLN C 436	144.164	156.777	117.141	1.00 97.39	C
ATOM	2864	OE1	GLN C 436	145.098	156.052	117.475	1.00 97.39	O
ATOM	2865	NE2	GLN C 436	144.274	158.097	117.065	1.00 97.39	N
ATOM	2866	N	LYS C 437	140.844	154.974	114.990	1.00103.13	N
ATOM	2867	CA	LYS C 437	140.470	154.865	113.588	1.00103.13	C
ATOM	2868	C	LYS C 437	141.606	154.202	112.810	1.00103.13	C
ATOM	2869	O	LYS C 437	142.552	153.658	113.385	1.00103.13	O
ATOM	2870	CB	LYS C 437	140.116	156.239	113.029	1.00103.13	C
ATOM	2871	CG	LYS C 437	138.833	156.829	113.589	1.00103.13	C
ATOM	2872	CD	LYS C 437	137.638	156.497	112.708	1.00103.13	C
ATOM	2873	CE	LYS C 437	136.358	157.103	113.260	1.00103.13	C
ATOM	2874	NZ	LYS C 437	136.445	158.583	113.391	1.00103.13	N
ATOM	2875	N	SER C 438	141.525	154.244	111.482	1.00106.36	N
ATOM	2876	CA	SER C 438	142.477	153.560	110.615	1.00106.36	C
ATOM	2877	C	SER C 438	143.671	154.428	110.230	1.00106.36	C
ATOM	2878	O	SER C 438	144.478	154.009	109.395	1.00106.36	O
ATOM	2879	CB	SER C 438	141.772	153.063	109.351	1.00106.36	C
ATOM	2880	OG	SER C 438	142.597	152.170	108.625	1.00106.36	O
ATOM	2881	N	LEU C 439	143.801	155.619	110.812	1.00106.82	N
ATOM	2882	CA	LEU C 439	144.890	156.561	110.569	1.00106.82	C
ATOM	2883	C	LEU C 439	144.829	157.191	109.186	1.00106.82	C
ATOM	2884	O	LEU C 439	145.635	158.081	108.891	1.00106.82	O
ATOM	2885	CB	LEU C 439	146.272	155.919	110.758	1.00106.82	C

ATOM	2886	CG	LEU C 439	147.479	156.841	110.579	1.00106.82	C
ATOM	2887	CD1	LEU C 439	147.442	157.967	111.590	1.00106.82	C
ATOM	2888	CD2	LEU C 439	148.768	156.056	110.708	1.00106.82	C
ATOM	2889	N	VAL C 440	143.905	156.769	108.327	1.00110.50	N
ATOM	2890	CA	VAL C 440	143.681	157.449	107.059	1.00110.50	C
ATOM	2891	C	VAL C 440	142.543	158.456	107.155	1.00110.50	C
ATOM	2892	O	VAL C 440	142.495	159.397	106.348	1.00110.50	O
ATOM	2893	CB	VAL C 440	143.402	156.442	105.925	1.00110.50	C
ATOM	2894	CG1	VAL C 440	143.181	157.174	104.617	1.00110.50	C
ATOM	2895	CG2	VAL C 440	144.552	155.461	105.799	1.00110.50	C
ATOM	2896	N	GLU C 441	141.630	158.290	108.111	1.00113.80	N
ATOM	2897	CA	GLU C 441	140.566	159.255	108.340	1.00113.80	C
ATOM	2898	C	GLU C 441	140.961	160.341	109.328	1.00113.80	C
ATOM	2899	O	GLU C 441	140.373	161.426	109.301	1.00113.80	O
ATOM	2900	CB	GLU C 441	139.309	158.545	108.844	1.00113.80	C
ATOM	2901	CG	GLU C 441	138.397	158.054	107.736	1.00113.80	C
ATOM	2902	CD	GLU C 441	138.960	156.846	107.015	1.00113.80	C
ATOM	2903	OE1	GLU C 441	139.168	155.803	107.670	1.00113.80	O
ATOM	2904	OE2	GLU C 441	139.195	156.939	105.792	1.00113.80	O
ATOM	2905	N	LEU C 442	141.931	160.073	110.205	1.00112.51	N
ATOM	2906	CA	LEU C 442	142.392	161.103	111.128	1.00112.51	C
ATOM	2907	C	LEU C 442	142.869	162.339	110.380	1.00112.51	C
ATOM	2908	O	LEU C 442	142.626	163.471	110.813	1.00112.51	O
ATOM	2909	CB	LEU C 442	143.507	160.550	112.016	1.00112.51	C
ATOM	2910	CG	LEU C 442	143.072	159.986	113.367	1.00112.51	C
ATOM	2911	CD1	LEU C 442	144.201	159.206	114.007	1.00112.51	C
ATOM	2912	CD2	LEU C 442	142.618	161.108	114.279	1.00112.51	C
ATOM	2913	N	GLU C 443	143.549	162.143	109.249	1.00116.97	N
ATOM	2914	CA	GLU C 443	144.046	163.280	108.481	1.00116.97	C
ATOM	2915	C	GLU C 443	142.916	163.994	107.752	1.00116.97	C
ATOM	2916	O	GLU C 443	142.917	165.226	107.649	1.00116.97	O
ATOM	2917	CB	GLU C 443	145.115	162.818	107.492	1.00116.97	C
ATOM	2918	CG	GLU C 443	146.057	163.920	107.034	1.00116.97	C
ATOM	2919	CD	GLU C 443	145.536	164.668	105.822	1.00116.97	C
ATOM	2920	OE1	GLU C 443	146.098	165.732	105.489	1.00116.97	O
ATOM	2921	OE2	GLU C 443	144.564	164.192	105.201	1.00116.97	O
ATOM	2922	N	ARG C 444	141.941	163.240	107.240	1.00118.60	N

ATOM	2923	CA	ARG C 444	140.835	163.849	106.514	1.00118.60 C
ATOM	2924	C	ARG C 444	139.816	164.494	107.443	1.00118.60 C
ATOM	2925	O	ARG C 444	138.951	165.239	106.972	1.00118.60 O
ATOM	2926	CB	ARG C 444	140.147	162.809	105.630	1.00118.60 C
ATOM	2927	CG	ARG C 444	139.202	163.402	104.601	1.00118.60 C
ATOM	2928	CD	ARG C 444	138.348	162.324	103.962	1.00118.60 C
ATOM	2929	NE	ARG C 444	137.451	161.699	104.929	1.00118.60 N
ATOM	2930	CZ	ARG C 444	136.726	160.615	104.680	1.00118.60 C
ATOM	2931	NH1	ARG C 444	135.935	160.113	105.619	1.00118.60 N
ATOM	2932	NH2	ARG C 444	136.790	160.031	103.492	1.00118.60 N
ATOM	2933	N	LEU C 445	139.896	164.223	108.744	1.00119.46 N
ATOM	2934	CA	LEU C 445	139.017	164.871	109.708	1.00119.46 C
ATOM	2935	C	LEU C 445	139.590	166.182	110.220	1.00119.46 C
ATOM	2936	O	LEU C 445	138.830	167.063	110.638	1.00119.46 O
ATOM	2937	CB	LEU C 445	138.741	163.935	110.886	1.00119.46 C
ATOM	2938	CG	LEU C 445	137.702	164.415	111.899	1.00119.46 C
ATOM	2939	CD1	LEU C 445	136.523	165.053	111.189	1.00119.46 C
ATOM	2940	CD2	LEU C 445	137.238	163.261	112.770	1.00119.46 C
ATOM	2941	N	ALA C 446	140.911	166.330	110.203	1.00120.36 N
ATOM	2942	CA	ALA C 446	141.589	167.580	110.534	1.00120.36 C
ATOM	2943	C	ALA C 446	142.236	168.080	109.245	1.00120.36 C
ATOM	2944	O	ALA C 446	143.332	167.657	108.877	1.00120.36 O
ATOM	2945	CB	ALA C 446	142.614	167.382	111.645	1.00120.36 C
ATOM	2946	N	ASN C 447	141.541	168.985	108.559	1.00123.06 N
ATOM	2947	CA	ASN C 447	141.969	169.460	107.249	1.00123.06 C
ATOM	2948	C	ASN C 447	143.390	170.008	107.295	1.00123.06 C
ATOM	2949	O	ASN C 447	143.875	170.413	108.357	1.00123.06 O
ATOM	2950	CB	ASN C 447	141.000	170.526	106.733	1.00123.06 C
ATOM	2951	CG	ASN C 447	141.230	170.866	105.277	1.00123.06 C
ATOM	2952	OD1	ASN C 447	142.136	170.334	104.639	1.00123.06 O
ATOM	2953	ND2	ASN C 447	140.405	171.757	104.740	1.00123.06 N
ATOM	2954	N	ARG C 448	144.065	170.018	106.149	1.00119.91 N
ATOM	2955	CA	ARG C 448	145.425	170.535	106.051	1.00119.91 C
ATOM	2956	C	ARG C 448	145.606	171.346	104.772	1.00119.91 C
ATOM	2957	O	ARG C 448	145.141	172.481	104.671	1.00119.91 O
ATOM	2958	CB	ARG C 448	146.443	169.393	106.098	1.00119.91 C
ATOM	2959	CG	ARG C 448	146.524	168.685	107.439	1.00119.91 C

ATOM	2960	CD	ARG C 448	147.515	167.530	107.401	1.00119.91	C
ATOM	2961	NE	ARG C 448	148.893	167.985	107.250	1.00119.91	N
ATOM	2962	CZ	ARG C 448	149.958	167.285	107.628	1.00119.91	C
ATOM	2963	NH1	ARG C 448	151.175	167.778	107.451	1.00119.91	N
ATOM	2964	NH2	ARG C 448	149.806	166.092	108.187	1.00119.91	N
ATOM	2965	N	ASN C 478	149.045	151.483	96.604	1.00127.42	N
ATOM	2966	CA	ASN C 478	148.731	152.249	97.804	1.00127.42	C
ATOM	2967	C	ASN C 478	149.265	151.540	99.044	1.00127.42	C
ATOM	2968	O	ASN C 478	148.727	151.692	100.140	1.00127.42	O
ATOM	2969	CB	ASN C 478	147.219	152.460	97.924	1.00127.42	C
ATOM	2970	CG	ASN C 478	146.650	153.267	96.774	1.00127.42	C
ATOM	2971	OD1	ASN C 478	146.642	152.815	95.628	1.00127.42	O
ATOM	2972	ND2	ASN C 478	146.166	154.467	97.074	1.00127.42	N
ATOM	2973	N	LEU C 479	150.333	150.761	98.860	1.00125.68	N
ATOM	2974	CA	LEU C 479	150.849	149.940	99.950	1.00125.68	C
ATOM	2975	C	LEU C 479	151.539	150.775	101.023	1.00125.68	C
ATOM	2976	O	LEU C 479	151.554	150.376	102.192	1.00125.68	O
ATOM	2977	CB	LEU C 479	151.808	148.882	99.401	1.00125.68	C
ATOM	2978	CG	LEU C 479	152.206	147.743	100.345	1.00125.68	C
ATOM	2979	CD1	LEU C 479	152.582	146.500	99.554	1.00125.68	C
ATOM	2980	CD2	LEU C 479	153.347	148.162	101.261	1.00125.68	C
ATOM	2981	N	VAL C 480	152.112	151.922	100.651	1.00123.21	N
ATOM	2982	CA	VAL C 480	152.886	152.715	101.603	1.00123.21	C
ATOM	2983	C	VAL C 480	152.047	153.064	102.827	1.00123.21	C
ATOM	2984	O	VAL C 480	152.542	153.062	103.964	1.00123.21	O
ATOM	2985	CB	VAL C 480	153.442	153.976	100.915	1.00123.21	C
ATOM	2986	CG1	VAL C 480	152.320	154.952	100.594	1.00123.21	C
ATOM	2987	CG2	VAL C 480	154.496	154.636	101.788	1.00123.21	C
ATOM	2988	N	TYR C 481	150.769	153.385	102.616	1.00121.29	N
ATOM	2989	CA	TYR C 481	149.896	153.722	103.734	1.00121.29	C
ATOM	2990	C	TYR C 481	149.881	152.601	104.765	1.00121.29	C
ATOM	2991	O	TYR C 481	150.105	152.833	105.958	1.00121.29	O
ATOM	2992	CB	TYR C 481	148.483	154.009	103.227	1.00121.29	C
ATOM	2993	CG	TYR C 481	148.386	155.215	102.320	1.00121.29	C
ATOM	2994	CD1	TYR C 481	148.694	155.119	100.969	1.00121.29	C
ATOM	2995	CD2	TYR C 481	147.981	156.447	102.812	1.00121.29	C
ATOM	2996	CE1	TYR C 481	148.605	156.217	100.137	1.00121.29	C

ATOM	2997	CE2	TYR C 481	147.888	157.551	101.987	1.00121.29	C
ATOM	2998	CZ	TYR C 481	148.201	157.430	100.651	1.00121.29	C
ATOM	2999	OH	TYR C 481	148.110	158.526	99.824	1.00121.29	O
ATOM	3000	N	ALA C 482	149.627	151.371	104.315	1.00118.61	N
ATOM	3001	CA	ALA C 482	149.589	150.243	105.239	1.00118.61	C
ATOM	3002	C	ALA C 482	150.965	149.965	105.828	1.00118.61	C
ATOM	3003	O	ALA C 482	151.083	149.606	107.006	1.00118.61	O
ATOM	3004	CB	ALA C 482	149.047	149.003	104.528	1.00118.61	C
ATOM	3005	N	GLN C 483	152.017	150.113	105.023	1.00114.41	N
ATOM	3006	CA	GLN C 483	153.360	149.872	105.530	1.00114.41	C
ATOM	3007	C	GLN C 483	153.666	150.777	106.714	1.00114.41	C
ATOM	3008	O	GLN C 483	154.291	150.346	107.689	1.00114.41	O
ATOM	3009	CB	GLN C 483	154.390	150.069	104.420	1.00114.41	C
ATOM	3010	CG	GLN C 483	155.824	149.843	104.868	1.00114.41	C
ATOM	3011	CD	GLN C 483	156.088	148.406	105.276	1.00114.41	C
ATOM	3012	OE1	GLN C 483	156.588	148.141	106.368	1.00114.41	O
ATOM	3013	NE2	GLN C 483	155.753	147.470	104.396	1.00114.41	N
ATOM	3014	N	LEU C 484	153.228	152.036	106.653	1.00109.34	N
ATOM	3015	CA	LEU C 484	153.480	152.933	107.778	1.00109.34	C
ATOM	3016	C	LEU C 484	152.488	152.716	108.915	1.00109.34	C
ATOM	3017	O	LEU C 484	152.847	152.886	110.089	1.00109.34	O
ATOM	3018	CB	LEU C 484	153.462	154.392	107.315	1.00109.34	C
ATOM	3019	CG	LEU C 484	152.181	154.980	106.732	1.00109.34	C
ATOM	3020	CD1	LEU C 484	151.271	155.457	107.844	1.00109.34	C
ATOM	3021	CD2	LEU C 484	152.518	156.121	105.792	1.00109.34	C
ATOM	3022	N	GLN C 485	151.243	152.356	108.591	1.00105.88	N
ATOM	3023	CA	GLN C 485	150.296	151.938	109.619	1.00105.88	C
ATOM	3024	C	GLN C 485	150.883	150.826	110.478	1.00105.88	C
ATOM	3025	O	GLN C 485	150.657	150.773	111.695	1.00105.88	O
ATOM	3026	CB	GLN C 485	148.995	151.477	108.958	1.00105.88	C
ATOM	3027	CG	GLN C 485	147.959	150.905	109.907	1.00105.88	C
ATOM	3028	CD	GLN C 485	147.204	151.976	110.659	1.00105.88	C
ATOM	3029	OE1	GLN C 485	147.409	152.172	111.855	1.00105.88	O
ATOM	3030	NE2	GLN C 485	146.321	152.676	109.961	1.00105.88	N
ATOM	3031	N	PHE C 486	151.641	149.926	109.852	1.00104.94	N
ATOM	3032	CA	PHE C 486	152.244	148.818	110.585	1.00104.94	C
ATOM	3033	C	PHE C 486	153.180	149.326	111.675	1.00104.94	C

ATOM	3034	O	PHE	C	486	153.104	148.889	112.830	1.00	104.94	O
ATOM	3035	CB	PHE	C	486	152.984	147.900	109.613	1.00	104.94	C
ATOM	3036	CG	PHE	C	486	153.560	146.673	110.254	1.00	104.94	C
ATOM	3037	CD1	PHE	C	486	152.785	145.876	111.074	1.00	104.94	C
ATOM	3038	CD2	PHE	C	486	154.876	146.314	110.029	1.00	104.94	C
ATOM	3039	CE1	PHE	C	486	153.314	144.746	111.662	1.00	104.94	C
ATOM	3040	CE2	PHE	C	486	155.409	145.186	110.613	1.00	104.94	C
ATOM	3041	CZ	PHE	C	486	154.628	144.402	111.430	1.00	104.94	C
ATOM	3042	N	THR	C	487	154.073	150.255	111.327	1.00	98.40	N
ATOM	3043	CA	THR	C	487	154.993	150.797	112.321	1.00	98.40	C
ATOM	3044	C	THR	C	487	154.245	151.593	113.383	1.00	98.40	C
ATOM	3045	O	THR	C	487	154.595	151.543	114.570	1.00	98.40	O
ATOM	3046	CB	THR	C	487	156.044	151.671	111.643	1.00	98.40	C
ATOM	3047	OG1	THR	C	487	155.405	152.793	111.027	1.00	98.40	O
ATOM	3048	CG2	THR	C	487	156.782	150.878	110.579	1.00	98.40	C
ATOM	3049	N	TYR	C	488	153.224	152.343	112.973	1.00	95.81	N
ATOM	3050	CA	TYR	C	488	152.382	153.035	113.943	1.00	95.81	C
ATOM	3051	C	TYR	C	488	151.884	152.066	115.010	1.00	95.81	C
ATOM	3052	O	TYR	C	488	152.049	152.295	116.217	1.00	95.81	O
ATOM	3053	CB	TYR	C	488	151.209	153.700	113.220	1.00	95.81	C
ATOM	3054	CG	TYR	C	488	150.255	154.450	114.116	1.00	95.81	C
ATOM	3055	CD1	TYR	C	488	149.244	153.788	114.792	1.00	95.81	C
ATOM	3056	CD2	TYR	C	488	150.356	155.821	114.274	1.00	95.81	C
ATOM	3057	CE1	TYR	C	488	148.369	154.469	115.609	1.00	95.81	C
ATOM	3058	CE2	TYR	C	488	149.484	156.509	115.086	1.00	95.81	C
ATOM	3059	CZ	TYR	C	488	148.494	155.830	115.753	1.00	95.81	C
ATOM	3060	OH	TYR	C	488	147.623	156.515	116.565	1.00	95.81	O
ATOM	3061	N	ASP	C	489	151.273	150.965	114.569	1.00	92.33	N
ATOM	3062	CA	ASP	C	489	150.734	149.985	115.505	1.00	92.33	C
ATOM	3063	C	ASP	C	489	151.837	149.364	116.354	1.00	92.33	C
ATOM	3064	O	ASP	C	489	151.664	149.157	117.565	1.00	92.33	O
ATOM	3065	CB	ASP	C	489	149.974	148.907	114.735	1.00	92.33	C
ATOM	3066	CG	ASP	C	489	149.010	148.143	115.606	1.00	92.33	C
ATOM	3067	OD1	ASP	C	489	148.974	148.410	116.824	1.00	92.33	O
ATOM	3068	OD2	ASP	C	489	148.287	147.275	115.072	1.00	92.33	O
ATOM	3069	N	THR	C	490	152.979	149.054	115.735	1.00	89.11	N
ATOM	3070	CA	THR	C	490	154.057	148.391	116.460	1.00	89.11	C

ATOM	3071	C	THR C 490	154.654	149.291	117.533	1.00 89.11	C
ATOM	3072	O	THR C 490	155.199	148.792	118.523	1.00 89.11	O
ATOM	3073	CB	THR C 490	155.142	147.938	115.488	1.00 89.11	C
ATOM	3074	OG1	THR C 490	154.669	146.816	114.734	1.00 89.11	O
ATOM	3075	CG2	THR C 490	156.391	147.537	116.243	1.00 89.11	C
ATOM	3076	N	LEU C 491	154.569	150.611	117.360	1.00 88.29	N
ATOM	3077	CA	LEU C 491	155.026	151.513	118.414	1.00 88.29	C
ATOM	3078	C	LEU C 491	153.969	151.691	119.495	1.00 88.29	C
ATOM	3079	O	LEU C 491	154.297	151.772	120.691	1.00 88.29	O
ATOM	3080	CB	LEU C 491	155.406	152.869	117.828	1.00 88.29	C
ATOM	3081	CG	LEU C 491	156.828	152.979	117.292	1.00 88.29	C
ATOM	3082	CD1	LEU C 491	157.820	152.778	118.417	1.00 88.29	C
ATOM	3083	CD2	LEU C 491	157.038	151.960	116.204	1.00 88.29	C
ATOM	3084	N	ARG C 492	152.699	151.797	119.092	1.00 87.90	N
ATOM	3085	CA	ARG C 492	151.638	151.885	120.086	1.00 87.90	C
ATOM	3086	C	ARG C 492	151.697	150.699	121.040	1.00 87.90	C
ATOM	3087	O	ARG C 492	151.533	150.857	122.257	1.00 87.90	O
ATOM	3088	CB	ARG C 492	150.276	151.964	119.398	1.00 87.90	C
ATOM	3089	CG	ARG C 492	149.224	152.708	120.200	1.00 87.90	C
ATOM	3090	CD	ARG C 492	147.983	152.991	119.369	1.00 87.90	C
ATOM	3091	NE	ARG C 492	147.394	151.771	118.826	1.00 87.90	N
ATOM	3092	CZ	ARG C 492	146.461	151.749	117.879	1.00 87.90	C
ATOM	3093	NH1	ARG C 492	145.981	150.592	117.445	1.00 87.90	N
ATOM	3094	NH2	ARG C 492	146.007	152.883	117.365	1.00 87.90	N
ATOM	3095	N	GLY C 493	151.945	149.503	120.504	1.00 87.69	N
ATOM	3096	CA	GLY C 493	152.045	148.331	121.361	1.00 87.69	C
ATOM	3097	C	GLY C 493	153.155	148.448	122.389	1.00 87.69	C
ATOM	3098	O	GLY C 493	152.974	148.096	123.558	1.00 87.69	O
ATOM	3099	N	TYR C 494	154.318	148.943	121.969	1.00 85.53	N
ATOM	3100	CA	TYR C 494	155.449	149.091	122.880	1.00 85.53	C
ATOM	3101	C	TYR C 494	155.123	150.070	124.004	1.00 85.53	C
ATOM	3102	O	TYR C 494	155.380	149.797	125.190	1.00 85.53	O
ATOM	3103	CB	TYR C 494	156.669	149.553	122.084	1.00 85.53	C
ATOM	3104	CG	TYR C 494	157.955	149.656	122.859	1.00 85.53	C
ATOM	3105	CD1	TYR C 494	158.191	150.721	123.711	1.00 85.53	C
ATOM	3106	CD2	TYR C 494	158.950	148.705	122.713	1.00 85.53	C
ATOM	3107	CE1	TYR C 494	159.371	150.824	124.411	1.00 85.53	C

ATOM	3108	CE2	TYR	C	494	160.133	148.801	123.408	1.00 85.53	C
ATOM	3109	CZ	TYR	C	494	160.339	149.862	124.256	1.00 85.53	C
ATOM	3110	OH	TYR	C	494	161.518	149.965	124.954	1.00 85.53	O
ATOM	3111	N	ILE	C	495	154.564	151.226	123.646	1.00 84.70	N
ATOM	3112	CA	ILE	C	495	154.222	152.208	124.672	1.00 84.70	C
ATOM	3113	C	ILE	C	495	153.204	151.626	125.645	1.00 84.70	C
ATOM	3114	O	ILE	C	495	153.299	151.828	126.864	1.00 84.70	O
ATOM	3115	CB	ILE	C	495	153.713	153.510	124.033	1.00 84.70	C
ATOM	3116	CG1	ILE	C	495	154.764	154.085	123.089	1.00 84.70	C
ATOM	3117	CG2	ILE	C	495	153.377	154.520	125.106	1.00 84.70	C
ATOM	3118	CD1	ILE	C	495	154.392	155.432	122.529	1.00 84.70	C
ATOM	3119	N	ASN	C	496	152.214	150.897	125.124	1.00 85.94	N
ATOM	3120	CA	ASN	C	496	151.225	150.276	125.999	1.00 85.94	C
ATOM	3121	C	ASN	C	496	151.879	149.285	126.949	1.00 85.94	C
ATOM	3122	O	ASN	C	496	151.529	149.222	128.133	1.00 85.94	O
ATOM	3123	CB	ASN	C	496	150.148	149.590	125.166	1.00 85.94	C
ATOM	3124	CG	ASN	C	496	149.030	150.525	124.786	1.00 85.94	C
ATOM	3125	OD1	ASN	C	496	149.081	151.720	125.074	1.00 85.94	O
ATOM	3126	ND2	ASN	C	496	148.007	149.990	124.134	1.00 85.94	N
ATOM	3127	N	ARG	C	497	152.819	148.487	126.445	1.00 89.05	N
ATOM	3128	CA	ARG	C	497	153.524	147.543	127.304	1.00 89.05	C
ATOM	3129	C	ARG	C	497	154.194	148.262	128.468	1.00 89.05	C
ATOM	3130	O	ARG	C	497	154.062	147.855	129.629	1.00 89.05	O
ATOM	3131	CB	ARG	C	497	154.553	146.763	126.489	1.00 89.05	C
ATOM	3132	CG	ARG	C	497	155.232	145.649	127.259	1.00 89.05	C
ATOM	3133	CD	ARG	C	497	154.251	144.542	127.604	1.00 89.05	C
ATOM	3134	NE	ARG	C	497	154.151	144.332	129.045	1.00 89.05	N
ATOM	3135	CZ	ARG	C	497	153.416	143.382	129.613	1.00 89.05	C
ATOM	3136	NH1	ARG	C	497	153.385	143.266	130.933	1.00 89.05	N
ATOM	3137	NH2	ARG	C	497	152.711	142.548	128.861	1.00 89.05	N
ATOM	3138	N	ALA	C	498	154.922	149.339	128.174	1.00 87.15	N
ATOM	3139	CA	ALA	C	498	155.608	150.057	129.250	1.00 87.15	C
ATOM	3140	C	ALA	C	498	154.615	150.631	130.258	1.00 87.15	C
ATOM	3141	O	ALA	C	498	154.815	150.527	131.483	1.00 87.15	O
ATOM	3142	CB	ALA	C	498	156.484	151.164	128.670	1.00 87.15	C
ATOM	3143	N	LEU	C	499	153.543	151.255	129.763	1.00 85.86	N
ATOM	3144	CA	LEU	C	499	152.563	151.845	130.666	1.00 85.86	C

ATOM	3145	C	LEU C 499	151.910	150.791	131.545	1.00 85.86	C
ATOM	3146	O	LEU C 499	151.580	151.067	132.703	1.00 85.86	O
ATOM	3147	CB	LEU C 499	151.502	152.607	129.875	1.00 85.86	C
ATOM	3148	CG	LEU C 499	151.926	153.976	129.348	1.00 85.86	C
ATOM	3149	CD1	LEU C 499	150.717	154.768	128.887	1.00 85.86	C
ATOM	3150	CD2	LEU C 499	152.696	154.734	130.411	1.00 85.86	C
ATOM	3151	N	ALA C 500	151.708	149.584	131.019	1.00 85.86	N
ATOM	3152	CA	ALA C 500	151.122	148.525	131.830	1.00 85.86	C
ATOM	3153	C	ALA C 500	152.124	147.946	132.815	1.00 85.86	C
ATOM	3154	O	ALA C 500	151.725	147.419	133.857	1.00 85.86	O
ATOM	3155	CB	ALA C 500	150.567	147.416	130.938	1.00 85.86	C
ATOM	3156	N	GLN C 501	153.418	148.024	132.508	1.00 88.74	N
ATOM	3157	CA	GLN C 501	154.417	147.505	133.435	1.00 88.74	C
ATOM	3158	C	GLN C 501	154.721	148.462	134.580	1.00 88.74	C
ATOM	3159	O	GLN C 501	155.259	148.026	135.602	1.00 88.74	O
ATOM	3160	CB	GLN C 501	155.713	147.179	132.697	1.00 88.74	C
ATOM	3161	CG	GLN C 501	156.656	146.285	133.481	1.00 88.74	C
ATOM	3162	CD	GLN C 501	157.766	145.718	132.622	1.00 88.74	C
ATOM	3163	OE1	GLN C 501	158.201	146.344	131.656	1.00 88.74	O
ATOM	3164	NE2	GLN C 501	158.231	144.525	132.969	1.00 88.74	N
ATOM	3165	N	ILE C 502	154.409	149.752	134.433	1.00 87.40	N
ATOM	3166	CA	ILE C 502	154.658	150.674	135.549	1.00 87.40	C
ATOM	3167	C	ILE C 502	153.668	150.457	136.702	1.00 87.40	C
ATOM	3168	O	ILE C 502	154.006	150.672	137.881	1.00 87.40	O
ATOM	3169	CB	ILE C 502	154.625	152.131	135.057	1.00 87.40	C
ATOM	3170	CG1	ILE C 502	155.788	152.398	134.103	1.00 87.40	C
ATOM	3171	CG2	ILE C 502	154.678	153.084	136.230	1.00 87.40	C
ATOM	3172	CD1	ILE C 502	157.125	151.964	134.642	1.00 87.40	C
ATOM	3173	N	ALA C 503	152.440	150.036	136.391	1.00 88.25	N
ATOM	3174	CA	ALA C 503	151.416	149.908	137.424	1.00 88.25	C
ATOM	3175	C	ALA C 503	151.770	148.842	138.453	1.00 88.25	C
ATOM	3176	O	ALA C 503	151.415	148.976	139.628	1.00 88.25	O
ATOM	3177	CB	ALA C 503	150.065	149.598	136.785	1.00 88.25	C
ATOM	3178	N	GLU C 504	152.449	147.771	138.037	1.00 95.24	N
ATOM	3179	CA	GLU C 504	152.885	146.757	138.991	1.00 95.24	C
ATOM	3180	C	GLU C 504	153.749	147.373	140.083	1.00 95.24	C
ATOM	3181	O	GLU C 504	153.509	147.163	141.281	1.00 95.24	O

ATOM	3182	CB	GLU C 504	153.661	145.658	138.270	1.00 95.24	C
ATOM	3183	CG	GLU C 504	152.814	144.581	137.634	1.00 95.24	C
ATOM	3184	CD	GLU C 504	153.662	143.478	137.032	1.00 95.24	C
ATOM	3185	OE1	GLU C 504	154.904	143.561	137.132	1.00 95.24	O
ATOM	3186	OE2	GLU C 504	153.094	142.529	136.459	1.00 95.24	O
ATOM	3187	N	ALA C 505	154.789	148.103	139.682	1.00 88.53	N
ATOM	3188	CA	ALA C 505	155.657	148.750	140.656	1.00 88.53	C
ATOM	3189	C	ALA C 505	154.872	149.712	141.529	1.00 88.53	C
ATOM	3190	O	ALA C 505	155.087	149.776	142.745	1.00 88.53	O
ATOM	3191	CB	ALA C 505	156.797	149.480	139.949	1.00 88.53	C
ATOM	3192	N	TRP C 506	153.937	150.452	140.947	1.00 91.43	N
ATOM	3193	CA	TRP C 506	153.151	151.403	141.739	1.00 91.43	C
ATOM	3194	C	TRP C 506	152.243	150.752	142.747	1.00 91.43	C
ATOM	3195	O	TRP C 506	151.915	151.339	143.748	1.00 91.43	O
ATOM	3196	CB	TRP C 506	152.358	152.370	140.887	1.00 91.43	C
ATOM	3197	CG	TRP C 506	152.521	153.742	141.387	1.00 91.43	C
ATOM	3198	CD1	TRP C 506	152.319	154.169	142.654	1.00 91.43	C
ATOM	3199	CD2	TRP C 506	152.956	154.873	140.647	1.00 91.43	C
ATOM	3200	NE1	TRP C 506	152.590	155.504	142.753	1.00 91.43	N
ATOM	3201	CE2	TRP C 506	152.986	155.959	141.527	1.00 91.43	C
ATOM	3202	CE3	TRP C 506	153.317	155.075	139.320	1.00 91.43	C
ATOM	3203	CZ2	TRP C 506	153.355	157.222	141.126	1.00 91.43	C
ATOM	3204	CZ3	TRP C 506	153.689	156.325	138.926	1.00 91.43	C
ATOM	3205	CH2	TRP C 506	153.702	157.386	139.819	1.00 91.43	C
ATOM	3206	N	CYS C 507	151.773	149.565	142.447	1.00 89.72	N
ATOM	3207	CA	CYS C 507	150.982	148.807	143.414	1.00 89.72	C
ATOM	3208	C	CYS C 507	151.863	148.262	144.532	1.00 89.72	C
ATOM	3209	O	CYS C 507	151.534	148.386	145.720	1.00 89.72	O
ATOM	3210	CB	CYS C 507	150.243	147.673	142.704	1.00 89.72	C
ATOM	3211	SG	CYS C 507	149.133	146.700	143.747	1.00 89.72	S
ATOM	3212	N	VAL C 508	152.985	147.638	144.168	1.00 85.32	N
ATOM	3213	CA	VAL C 508	153.895	147.126	145.190	1.00 85.32	C
ATOM	3214	C	VAL C 508	154.369	148.253	146.091	1.00 85.32	C
ATOM	3215	O	VAL C 508	154.699	148.028	147.261	1.00 85.32	O
ATOM	3216	CB	VAL C 508	155.083	146.391	144.544	1.00 85.32	C
ATOM	3217	CG1	VAL C 508	156.241	146.310	145.521	1.00 85.32	C
ATOM	3218	CG2	VAL C 508	154.661	145.006	144.097	1.00 85.32	C

ATOM	3219	N	ASP C 509	154.418	149.479	145.570	1.00 88.12	N
ATOM	3220	CA	ASP C 509	154.759	150.625	146.404	1.00 88.12	C
ATOM	3221	C	ASP C 509	153.635	150.947	147.378	1.00 88.12	C
ATOM	3222	O	ASP C 509	153.842	150.987	148.595	1.00 88.12	O
ATOM	3223	CB	ASP C 509	155.073	151.838	145.532	1.00 88.12	C
ATOM	3224	CG	ASP C 509	155.187	153.113	146.336	1.00 88.12	C
ATOM	3225	OD1	ASP C 509	156.300	153.421	146.810	1.00 88.12	O
ATOM	3226	OD2	ASP C 509	154.159	153.804	146.500	1.00 88.12	O
ATOM	3227	N	GLN C 510	152.429	151.182	146.860	1.00 87.06	N
ATOM	3228	CA	GLN C 510	151.304	151.473	147.744	1.00 87.06	C
ATOM	3229	C	GLN C 510	151.049	150.370	148.760	1.00 87.06	C
ATOM	3230	O	GLN C 510	150.269	150.582	149.693	1.00 87.06	O
ATOM	3231	CB	GLN C 510	150.028	151.708	146.940	1.00 87.06	C
ATOM	3232	CG	GLN C 510	149.892	153.104	146.374	1.00 87.06	C
ATOM	3233	CD	GLN C 510	148.543	153.328	145.728	1.00 87.06	C
ATOM	3234	OE1	GLN C 510	147.702	152.428	145.697	1.00 87.06	O
ATOM	3235	NE2	GLN C 510	148.323	154.529	145.212	1.00 87.06	N
ATOM	3236	N	ARG C 511	151.665	149.200	148.597	1.00 81.00	N
ATOM	3237	CA	ARG C 511	151.436	148.123	149.556	1.00 81.00	C
ATOM	3238	C	ARG C 511	152.109	148.389	150.901	1.00 81.00	C
ATOM	3239	O	ARG C 511	151.645	147.898	151.935	1.00 81.00	O
ATOM	3240	CB	ARG C 511	151.919	146.799	148.974	1.00 81.00	C
ATOM	3241	CG	ARG C 511	151.892	145.642	149.947	1.00 81.00	C
ATOM	3242	CD	ARG C 511	152.016	144.333	149.198	1.00 81.00	C
ATOM	3243	NE	ARG C 511	152.594	143.273	150.016	1.00 81.00	N
ATOM	3244	CZ	ARG C 511	152.945	142.081	149.545	1.00 81.00	C
ATOM	3245	NH1	ARG C 511	152.777	141.800	148.260	1.00 81.00	N
ATOM	3246	NH2	ARG C 511	153.463	141.170	150.357	1.00 81.00	N
ATOM	3247	N	ARG C 512	153.210	149.150	150.918	1.00 72.66	N
ATOM	3248	CA	ARG C 512	153.927	149.395	152.170	1.00 72.66	C
ATOM	3249	C	ARG C 512	153.286	150.489	153.014	1.00 72.66	C
ATOM	3250	O	ARG C 512	153.469	150.506	154.243	1.00 72.66	O
ATOM	3251	CB	ARG C 512	155.379	149.770	151.886	1.00 72.66	C
ATOM	3252	CG	ARG C 512	156.164	148.718	151.136	1.00 72.66	C
ATOM	3253	CD	ARG C 512	157.580	149.194	150.870	1.00 72.66	C
ATOM	3254	NE	ARG C 512	158.231	148.420	149.818	1.00 72.66	N
ATOM	3255	CZ	ARG C 512	158.736	147.203	149.989	1.00 72.66	C

ATOM	3256	NH1	ARG	C	512	158.670	146.616	151.175	1.00 72.66	N
ATOM	3257	NH2	ARG	C	512	159.309	146.573	148.973	1.00 72.66	N
ATOM	3258	N	THR	C	513	152.562	151.412	152.382	1.00 65.37	N
ATOM	3259	CA	THR	C	513	151.916	152.478	153.131	1.00 65.37	C
ATOM	3260	C	THR	C	513	150.964	151.925	154.178	1.00 65.37	C
ATOM	3261	O	THR	C	513	150.724	152.576	155.197	1.00 65.37	O
ATOM	3262	CB	THR	C	513	151.176	153.415	152.180	1.00 65.37	C
ATOM	3263	OG1	THR	C	513	152.127	154.202	151.455	1.00 65.37	O
ATOM	3264	CG2	THR	C	513	150.252	154.334	152.950	1.00 65.37	C
ATOM	3265	N	LEU	C	514	150.441	150.715	153.975	1.00 64.70	N
ATOM	3266	CA	LEU	C	514	149.522	150.158	154.962	1.00 64.70	C
ATOM	3267	C	LEU	C	514	150.252	149.759	156.238	1.00 64.70	C
ATOM	3268	O	LEU	C	514	149.790	150.068	157.342	1.00 64.70	O
ATOM	3269	CB	LEU	C	514	148.768	148.970	154.373	1.00 64.70	C
ATOM	3270	CG	LEU	C	514	147.680	149.352	153.369	1.00 64.70	C
ATOM	3271	CD1	LEU	C	514	146.781	148.164	153.076	1.00 64.70	C
ATOM	3272	CD2	LEU	C	514	146.871	150.535	153.873	1.00 64.70	C
ATOM	3273	N	GLU	C	515	151.391	149.075	156.118	1.00 56.89	N
ATOM	3274	CA	GLU	C	515	152.179	148.773	157.310	1.00 56.89	C
ATOM	3275	C	GLU	C	515	152.644	150.052	157.992	1.00 56.89	C
ATOM	3276	O	GLU	C	515	152.624	150.156	159.229	1.00 56.89	O
ATOM	3277	CB	GLU	C	515	153.372	147.894	156.944	1.00 56.89	C
ATOM	3278	CG	GLU	C	515	154.433	147.798	158.032	1.00 56.89	C
ATOM	3279	CD	GLU	C	515	153.984	146.982	159.232	1.00 56.89	C
ATOM	3280	OE1	GLU	C	515	154.210	147.427	160.376	1.00 56.89	O
ATOM	3281	OE2	GLU	C	515	153.409	145.892	159.033	1.00 56.89	O
ATOM	3282	N	VAL	C	516	153.068	151.039	157.201	1.00 54.06	N
ATOM	3283	CA	VAL	C	516	153.502	152.304	157.788	1.00 54.06	C
ATOM	3284	C	VAL	C	516	152.369	152.936	158.589	1.00 54.06	C
ATOM	3285	O	VAL	C	516	152.557	153.356	159.737	1.00 54.06	O
ATOM	3286	CB	VAL	C	516	154.027	153.256	156.701	1.00 54.06	C
ATOM	3287	CG1	VAL	C	516	154.073	154.669	157.227	1.00 54.06	C
ATOM	3288	CG2	VAL	C	516	155.404	152.825	156.250	1.00 54.06	C
ATOM	3289	N	PHE	C	517	151.174	153.011	157.998	1.00 52.95	N
ATOM	3290	CA	PHE	C	517	150.051	153.632	158.688	1.00 52.95	C
ATOM	3291	C	PHE	C	517	149.598	152.827	159.892	1.00 52.95	C
ATOM	3292	O	PHE	C	517	149.113	153.407	160.859	1.00 52.95	O

ATOM	3293	CB	PHE	C	517	148.875	153.852	157.741	1.00	52.95	C
ATOM	3294	CG	PHE	C	517	149.024	155.057	156.865	1.00	52.95	C
ATOM	3295	CD1	PHE	C	517	150.008	155.992	157.117	1.00	52.95	C
ATOM	3296	CD2	PHE	C	517	148.158	155.273	155.812	1.00	52.95	C
ATOM	3297	CE1	PHE	C	517	150.141	157.107	156.320	1.00	52.95	C
ATOM	3298	CE2	PHE	C	517	148.287	156.387	155.014	1.00	52.95	C
ATOM	3299	CZ	PHE	C	517	149.281	157.306	155.269	1.00	52.95	C
ATOM	3300	N	LYS	C	518	149.747	151.505	159.873	1.00	52.81	N
ATOM	3301	CA	LYS	C	518	149.436	150.735	161.072	1.00	52.81	C
ATOM	3302	C	LYS	C	518	150.372	151.121	162.213	1.00	52.81	C
ATOM	3303	O	LYS	C	518	149.933	151.556	163.294	1.00	52.81	O
ATOM	3304	CB	LYS	C	518	149.532	149.241	160.773	1.00	52.81	C
ATOM	3305	CG	LYS	C	518	149.178	148.362	161.950	1.00	52.81	C
ATOM	3306	CD	LYS	C	518	149.346	146.901	161.605	1.00	52.81	C
ATOM	3307	CE	LYS	C	518	148.813	146.608	160.220	1.00	52.81	C
ATOM	3308	NZ	LYS	C	518	148.887	145.158	159.897	1.00	52.81	N
ATOM	3309	N	GLU	C	519	151.678	150.980	161.981	1.00	52.29	N
ATOM	3310	CA	GLU	C	519	152.639	151.338	163.018	1.00	52.29	C
ATOM	3311	C	GLU	C	519	152.414	152.760	163.516	1.00	52.29	C
ATOM	3312	O	GLU	C	519	152.541	153.031	164.713	1.00	52.29	O
ATOM	3313	CB	GLU	C	519	154.063	151.163	162.501	1.00	52.29	C
ATOM	3314	CG	GLU	C	519	154.425	149.724	162.214	1.00	52.29	C
ATOM	3315	CD	GLU	C	519	154.101	148.808	163.371	1.00	52.29	C
ATOM	3316	OE1	GLU	C	519	153.920	149.314	164.497	1.00	52.29	O
ATOM	3317	OE2	GLU	C	519	154.021	147.582	163.155	1.00	52.29	O
ATOM	3318	N	LEU	C	520	152.075	153.683	162.613	1.00	47.03	N
ATOM	3319	CA	LEU	C	520	151.814	155.053	163.043	1.00	47.03	C
ATOM	3320	C	LEU	C	520	150.515	155.164	163.831	1.00	47.03	C
ATOM	3321	O	LEU	C	520	150.431	155.962	164.769	1.00	47.03	O
ATOM	3322	CB	LEU	C	520	151.773	155.991	161.839	1.00	47.03	C
ATOM	3323	CG	LEU	C	520	153.102	156.327	161.170	1.00	47.03	C
ATOM	3324	CD1	LEU	C	520	152.917	157.478	160.209	1.00	47.03	C
ATOM	3325	CD2	LEU	C	520	154.144	156.663	162.209	1.00	47.03	C
ATOM	3326	N	SER	C	521	149.493	154.388	163.468	1.00	47.73	N
ATOM	3327	CA	SER	C	521	148.250	154.391	164.220	1.00	47.73	C
ATOM	3328	C	SER	C	521	148.455	153.882	165.627	1.00	47.73	C
ATOM	3329	O	SER	C	521	147.602	154.110	166.488	1.00	47.73	O

ATOM	3330	CB	SER C 521	147.195	153.541	163.522	1.00 47.73	C
ATOM	3331	OG	SER C 521	147.377	152.173	163.832	1.00 47.73	O
ATOM	3332	N	LYS C 522	149.549	153.190	165.877	1.00 49.54	N
ATOM	3333	CA	LYS C 522	149.768	152.984	167.311	1.00 49.54	C
ATOM	3334	C	LYS C 522	150.237	154.260	168.044	1.00 49.54	C
ATOM	3335	O	LYS C 522	150.673	154.136	169.186	1.00 49.54	O
ATOM	3336	CB	LYS C 522	150.772	151.858	167.553	1.00 49.54	C
ATOM	3337	CG	LYS C 522	150.197	150.473	167.346	1.00 49.54	C
ATOM	3338	CD	LYS C 522	151.284	149.419	167.366	1.00 49.54	C
ATOM	3339	CE	LYS C 522	150.786	148.111	166.782	1.00 49.54	C
ATOM	3340	NZ	LYS C 522	151.900	147.155	166.542	1.00 49.54	N
ATOM	3341	N	ILE C 523	150.187	155.462	167.464	1.00 48.18	N
ATOM	3342	CA	ILE C 523	150.590	156.685	168.146	1.00 48.18	C
ATOM	3343	C	ILE C 523	149.416	157.632	168.359	1.00 48.18	C
ATOM	3344	O	ILE C 523	149.292	158.241	169.425	1.00 48.18	O
ATOM	3345	CB	ILE C 523	151.719	157.406	167.383	1.00 48.18	C
ATOM	3346	CG1	ILE C 523	153.034	156.645	167.513	1.00 48.18	C
ATOM	3347	CG2	ILE C 523	151.881	158.817	167.897	1.00 48.18	C
ATOM	3348	CD1	ILE C 523	154.173	157.298	166.777	1.00 48.18	C
ATOM	3349	N	ASN C 524	148.555	157.787	167.357	1.00 48.28	N
ATOM	3350	CA	ASN C 524	147.418	158.694	167.440	1.00 48.28	C
ATOM	3351	C	ASN C 524	146.365	158.298	166.413	1.00 48.28	C
ATOM	3352	O	ASN C 524	146.386	158.798	165.283	1.00 48.28	O
ATOM	3353	CB	ASN C 524	147.868	160.137	167.218	1.00 48.28	C
ATOM	3354	CG	ASN C 524	146.899	161.143	167.793	1.00 48.28	C
ATOM	3355	OD1	ASN C 524	146.053	160.804	168.618	1.00 48.28	O
ATOM	3356	ND2	ASN C 524	147.017	162.391	167.362	1.00 48.28	N
ATOM	3357	N	PRO C 525	145.433	157.407	166.758	1.00 43.70	N
ATOM	3358	CA	PRO C 525	144.491	156.912	165.740	1.00 43.70	C
ATOM	3359	C	PRO C 525	143.611	157.994	165.138	1.00 43.70	C
ATOM	3360	O	PRO C 525	143.308	157.946	163.938	1.00 43.70	O
ATOM	3361	CB	PRO C 525	143.663	155.875	166.511	1.00 43.70	C
ATOM	3362	CG	PRO C 525	144.472	155.545	167.721	1.00 43.70	C
ATOM	3363	CD	PRO C 525	145.202	156.790	168.072	1.00 43.70	C
ATOM	3364	N	SER C 526	143.176	158.964	165.942	1.00 44.51	N
ATOM	3365	CA	SER C 526	142.296	160.008	165.430	1.00 44.51	C
ATOM	3366	C	SER C 526	142.921	160.717	164.238	1.00 44.51	C

ATOM	3367	O	SER C 526	142.260	160.944	163.220	1.00 44.51	O
ATOM	3368	CB	SER C 526	141.968	161.010	166.535	1.00 44.51	C
ATOM	3369	OG	SER C 526	141.584	160.349	167.726	1.00 44.51	O
ATOM	3370	N	ALA C 527	144.202	161.068	164.342	1.00 46.43	N
ATOM	3371	CA	ALA C 527	144.853	161.810	163.269	1.00 46.43	C
ATOM	3372	C	ALA C 527	144.949	160.975	161.998	1.00 46.43	C
ATOM	3373	O	ALA C 527	144.631	161.455	160.905	1.00 46.43	O
ATOM	3374	CB	ALA C 527	146.238	162.270	163.717	1.00 46.43	C
ATOM	3375	N	ILE C 528	145.381	159.720	162.120	1.00 45.98	N
ATOM	3376	CA	ILE C 528	145.531	158.870	160.942	1.00 45.98	C
ATOM	3377	C	ILE C 528	144.192	158.671	160.246	1.00 45.98	C
ATOM	3378	O	ILE C 528	144.098	158.735	159.011	1.00 45.98	O
ATOM	3379	CB	ILE C 528	146.168	157.527	161.334	1.00 45.98	C
ATOM	3380	CG1	ILE C 528	147.597	157.742	161.818	1.00 45.98	C
ATOM	3381	CG2	ILE C 528	146.144	156.574	160.164	1.00 45.98	C
ATOM	3382	CD1	ILE C 528	148.452	158.502	160.845	1.00 45.98	C
ATOM	3383	N	LEU C 529	143.135	158.417	161.017	1.00 46.68	N
ATOM	3384	CA	LEU C 529	141.839	158.192	160.389	1.00 46.68	C
ATOM	3385	C	LEU C 529	141.297	159.472	159.763	1.00 46.68	C
ATOM	3386	O	LEU C 529	140.764	159.443	158.649	1.00 46.68	O
ATOM	3387	CB	LEU C 529	140.855	157.615	161.401	1.00 46.68	C
ATOM	3388	CG	LEU C 529	141.103	156.142	161.715	1.00 46.68	C
ATOM	3389	CD1	LEU C 529	139.920	155.537	162.441	1.00 46.68	C
ATOM	3390	CD2	LEU C 529	141.391	155.381	160.442	1.00 46.68	C
ATOM	3391	N	SER C 530	141.426	160.607	160.452	1.00 48.59	N
ATOM	3392	CA	SER C 530	141.016	161.866	159.843	1.00 48.59	C
ATOM	3393	C	SER C 530	141.813	162.153	158.581	1.00 48.59	C
ATOM	3394	O	SER C 530	141.325	162.849	157.685	1.00 48.59	O
ATOM	3395	CB	SER C 530	141.178	163.012	160.839	1.00 48.59	C
ATOM	3396	OG	SER C 530	140.575	162.696	162.078	1.00 48.59	O
ATOM	3397	N	ALA C 531	143.036	161.634	158.493	1.00 49.89	N
ATOM	3398	CA	ALA C 531	143.853	161.870	157.310	1.00 49.89	C
ATOM	3399	C	ALA C 531	143.420	160.995	156.142	1.00 49.89	C
ATOM	3400	O	ALA C 531	143.393	161.459	154.998	1.00 49.89	O
ATOM	3401	CB	ALA C 531	145.327	161.632	157.630	1.00 49.89	C
ATOM	3402	N	ILE C 532	143.085	159.733	156.399	1.00 49.61	N
ATOM	3403	CA	ILE C 532	142.739	158.846	155.291	1.00 49.61	C

ATOM	3404	C	ILE C 532	141.235	158.854	155.046	1.00 49.61 C
ATOM	3405	O	ILE C 532	140.731	158.082	154.225	1.00 49.61 O
ATOM	3406	CB	ILE C 532	143.240	157.409	155.522	1.00 49.61 C
ATOM	3407	CG1	ILE C 532	142.498	156.748	156.676	1.00 49.61 C
ATOM	3408	CG2	ILE C 532	144.727	157.406	155.801	1.00 49.61 C
ATOM	3409	CD1	ILE C 532	142.780	155.273	156.789	1.00 49.61 C
ATOM	3410	N	TYR C 533	140.506	159.720	155.751	1.00 56.43 N
ATOM	3411	CA	TYR C 533	139.080	159.895	155.499	1.00 56.43 C
ATOM	3412	C	TYR C 533	138.664	161.332	155.227	1.00 56.43 C
ATOM	3413	O	TYR C 533	137.500	161.553	154.881	1.00 56.43 O
ATOM	3414	CB	TYR C 533	138.249	159.367	156.678	1.00 56.43 C
ATOM	3415	CG	TYR C 533	138.023	157.876	156.659	1.00 56.43 C
ATOM	3416	CD1	TYR C 533	138.318	157.126	155.534	1.00 56.43 C
ATOM	3417	CD2	TYR C 533	137.513	157.219	157.766	1.00 56.43 C
ATOM	3418	CE1	TYR C 533	138.114	155.762	155.513	1.00 56.43 C
ATOM	3419	CE2	TYR C 533	137.305	155.856	157.754	1.00 56.43 C
ATOM	3420	CZ	TYR C 533	137.607	155.133	156.626	1.00 56.43 C
ATOM	3421	OH	TYR C 533	137.401	153.775	156.608	1.00 56.43 O
ATOM	3422	N	ASN C 534	139.557	162.306	155.378	1.00 59.26 N
ATOM	3423	CA	ASN C 534	139.255	163.712	155.115	1.00 59.26 C
ATOM	3424	C	ASN C 534	137.986	164.147	155.852	1.00 59.26 C
ATOM	3425	O	ASN C 534	136.973	164.513	155.258	1.00 59.26 O
ATOM	3426	CB	ASN C 534	139.133	163.964	153.610	1.00 59.26 C
ATOM	3427	CG	ASN C 534	140.477	164.152	152.943	1.00 59.26 C
ATOM	3428	OD1	ASN C 534	140.796	163.480	151.963	1.00 59.26 O
ATOM	3429	ND2	ASN C 534	141.276	165.069	153.471	1.00 59.26 N
ATOM	3430	N	LYS C 535	138.070	164.093	157.173	1.00 59.00 N
ATOM	3431	CA	LYS C 535	136.938	164.413	158.029	1.00 59.00 C
ATOM	3432	C	LYS C 535	137.419	164.420	159.476	1.00 59.00 C
ATOM	3433	O	LYS C 535	138.472	163.856	159.779	1.00 59.00 O
ATOM	3434	CB	LYS C 535	135.801	163.397	157.846	1.00 59.00 C
ATOM	3435	CG	LYS C 535	134.412	163.938	158.102	1.00 59.00 C
ATOM	3436	CD	LYS C 535	133.385	162.826	157.994	1.00 59.00 C
ATOM	3437	CE	LYS C 535	133.670	161.939	156.795	1.00 59.00 C
ATOM	3438	NZ	LYS C 535	132.626	160.896	156.616	1.00 59.00 N
ATOM	3439	N	PRO C 536	136.673	165.059	160.376	1.00 56.09 N
ATOM	3440	CA	PRO C 536	137.001	164.967	161.803	1.00 56.09 C

ATOM	3441	C	PRO C 536	136.416	163.717	162.437	1.00 56.09	C
ATOM	3442	O	PRO C 536	135.210	163.474	162.342	1.00 56.09	O
ATOM	3443	CB	PRO C 536	136.372	166.237	162.382	1.00 56.09	C
ATOM	3444	CG	PRO C 536	135.192	166.466	161.515	1.00 56.09	C
ATOM	3445	CD	PRO C 536	135.588	166.023	160.127	1.00 56.09	C
ATOM	3446	N	ILE C 537	137.260	162.919	163.092	1.00 49.90	N
ATOM	3447	CA	ILE C 537	136.859	161.630	163.635	1.00 49.90	C
ATOM	3448	C	ILE C 537	137.518	161.437	164.993	1.00 49.90	C
ATOM	3449	O	ILE C 537	138.539	162.049	165.306	1.00 49.90	O
ATOM	3450	CB	ILE C 537	137.225	160.477	162.675	1.00 49.90	C
ATOM	3451	CG1	ILE C 537	136.302	160.492	161.463	1.00 49.90	C
ATOM	3452	CG2	ILE C 537	137.136	159.142	163.364	1.00 49.90	C
ATOM	3453	CD1	ILE C 537	136.516	159.333	160.534	1.00 49.90	C
ATOM	3454	N	ALA C 538	136.911	160.573	165.806	1.00 46.53	N
ATOM	3455	CA	ALA C 538	137.415	160.256	167.139	1.00 46.53	C
ATOM	3456	C	ALA C 538	137.417	158.744	167.294	1.00 46.53	C
ATOM	3457	O	ALA C 538	136.351	158.131	167.384	1.00 46.53	O
ATOM	3458	CB	ALA C 538	136.565	160.910	168.224	1.00 46.53	C
ATOM	3459	N	ALA C 539	138.603	158.147	167.333	1.00 41.43	N
ATOM	3460	CA	ALA C 539	138.761	156.704	167.414	1.00 41.43	C
ATOM	3461	C	ALA C 539	139.401	156.311	168.739	1.00 41.43	C
ATOM	3462	O	ALA C 539	139.833	157.154	169.525	1.00 41.43	O
ATOM	3463	CB	ALA C 539	139.598	156.187	166.241	1.00 41.43	C
ATOM	3464	N	ARG C 540	139.460	155.004	168.979	1.00 42.05	N
ATOM	3465	CA	ARG C 540	140.032	154.467	170.206	1.00 42.05	C
ATOM	3466	C	ARG C 540	140.147	152.958	170.070	1.00 42.05	C
ATOM	3467	O	ARG C 540	139.324	152.323	169.408	1.00 42.05	O
ATOM	3468	CB	ARG C 540	139.178	154.828	171.425	1.00 42.05	C
ATOM	3469	CG	ARG C 540	139.588	154.121	172.698	1.00 42.05	C
ATOM	3470	CD	ARG C 540	138.818	154.642	173.894	1.00 42.05	C
ATOM	3471	NE	ARG C 540	137.513	154.005	174.029	1.00 42.05	N
ATOM	3472	CZ	ARG C 540	137.325	152.782	174.510	1.00 42.05	C
ATOM	3473	NH1	ARG C 540	136.103	152.282	174.600	1.00 42.05	N
ATOM	3474	NH2	ARG C 540	138.361	152.056	174.896	1.00 42.05	N
ATOM	3475	N	PHE C 541	141.170	152.393	170.705	1.00 41.43	N
ATOM	3476	CA	PHE C 541	141.412	150.959	170.629	1.00 41.43	C
ATOM	3477	C	PHE C 541	140.497	150.195	171.576	1.00 41.43	C

ATOM	3478	O	PHE C 541	140.241	150.629	172.701	1.00 41.43	O
ATOM	3479	CB	PHE C 541	142.867	150.640	170.957	1.00 41.43	C
ATOM	3480	CG	PHE C 541	143.789	150.733	169.782	1.00 41.43	C
ATOM	3481	CD1	PHE C 541	143.912	149.677	168.904	1.00 41.43	C
ATOM	3482	CD2	PHE C 541	144.541	151.868	169.562	1.00 41.43	C
ATOM	3483	CE1	PHE C 541	144.758	149.754	167.827	1.00 41.43	C
ATOM	3484	CE2	PHE C 541	145.389	151.950	168.487	1.00 41.43	C
ATOM	3485	CZ	PHE C 541	145.497	150.891	167.618	1.00 41.43	C
ATOM	3486	N	MET C 542	140.016	149.046	171.112	1.00 39.59	N
ATOM	3487	CA	MET C 542	139.152	148.180	171.903	1.00 39.59	C
ATOM	3488	C	MET C 542	139.786	146.805	172.052	1.00 39.59	C
ATOM	3489	O	MET C 542	139.134	145.783	171.824	1.00 39.59	O
ATOM	3490	CB	MET C 542	137.767	148.078	171.271	1.00 39.59	C
ATOM	3491	CG	MET C 542	136.897	149.285	171.541	1.00 39.59	C
ATOM	3492	SD	MET C 542	135.389	149.295	170.567	1.00 39.59	S
ATOM	3493	CE	MET C 542	134.426	150.495	171.474	1.00 39.59	C
ATOM	3494	N	GLY C 543	141.057	146.774	172.433	1.00 42.83	N
ATOM	3495	CA	GLY C 543	141.827	145.550	172.458	1.00 42.83	C
ATOM	3496	C	GLY C 543	142.626	145.343	171.190	1.00 42.83	C
ATOM	3497	O	GLY C 543	143.853	145.447	171.208	1.00 42.83	O
ATOM	3498	N	ASP C 544	141.949	145.062	170.078	1.00 43.84	N
ATOM	3499	CA	ASP C 544	142.642	144.887	168.808	1.00 43.84	C
ATOM	3500	C	ASP C 544	141.887	145.497	167.634	1.00 43.84	C
ATOM	3501	O	ASP C 544	142.265	145.247	166.484	1.00 43.84	O
ATOM	3502	CB	ASP C 544	142.889	143.403	168.531	1.00 43.84	C
ATOM	3503	CG	ASP C 544	144.223	142.928	169.050	1.00 43.84	C
ATOM	3504	OD1	ASP C 544	144.994	143.766	169.555	1.00 43.84	O
ATOM	3505	OD2	ASP C 544	144.503	141.717	168.953	1.00 43.84	O
ATOM	3506	N	VAL C 545	140.843	146.282	167.878	1.00 38.87	N
ATOM	3507	CA	VAL C 545	139.937	146.726	166.828	1.00 38.87	C
ATOM	3508	C	VAL C 545	139.490	148.145	167.149	1.00 38.87	C
ATOM	3509	O	VAL C 545	138.817	148.370	168.158	1.00 38.87	O
ATOM	3510	CB	VAL C 545	138.723	145.800	166.694	1.00 38.87	C
ATOM	3511	CG1	VAL C 545	137.586	146.527	166.034	1.00 38.87	C
ATOM	3512	CG2	VAL C 545	139.093	144.570	165.901	1.00 38.87	C
ATOM	3513	N	LEU C 546	139.853	149.097	166.295	1.00 39.13	N
ATOM	3514	CA	LEU C 546	139.461	150.483	166.505	1.00 39.13	C

ATOM	3515	C	LEU C 546	137.942	150.614	166.574	1.00 39.13 C
ATOM	3516	O	LEU C 546	137.195	149.735	166.144	1.00 39.13 O
ATOM	3517	CB	LEU C 546	140.010	151.367	165.390	1.00 39.13 C
ATOM	3518	CG	LEU C 546	141.526	151.535	165.357	1.00 39.13 C
ATOM	3519	CD1	LEU C 546	142.017	151.654	163.936	1.00 39.13 C
ATOM	3520	CD2	LEU C 546	141.932	152.750	166.152	1.00 39.13 C
ATOM	3521	N	GLY C 547	137.491	151.732	167.135	1.00 39.34 N
ATOM	3522	CA	GLY C 547	136.075	152.038	167.207	1.00 39.34 C
ATOM	3523	C	GLY C 547	135.778	153.462	166.787	1.00 39.34 C
ATOM	3524	O	GLY C 547	136.284	154.404	167.397	1.00 39.34 O
ATOM	3525	N	LEU C 548	134.961	153.636	165.754	1.00 42.21 N
ATOM	3526	CA	LEU C 548	134.735	154.951	165.174	1.00 42.21 C
ATOM	3527	C	LEU C 548	133.628	155.699	165.912	1.00 42.21 C
ATOM	3528	O	LEU C 548	132.769	155.107	166.568	1.00 42.21 O
ATOM	3529	CB	LEU C 548	134.375	154.826	163.694	1.00 42.21 C
ATOM	3530	CG	LEU C 548	135.519	154.834	162.682	1.00 42.21 C
ATOM	3531	CD1	LEU C 548	136.143	156.204	162.604	1.00 42.21 C
ATOM	3532	CD2	LEU C 548	136.554	153.814	163.064	1.00 42.21 C
ATOM	3533	N	ALA C 549	133.655	157.016	165.789	1.00 47.11 N
ATOM	3534	CA	ALA C 549	132.650	157.895	166.380	1.00 47.11 C
ATOM	3535	C	ALA C 549	132.856	159.281	165.784	1.00 47.11 C
ATOM	3536	O	ALA C 549	133.664	159.460	164.865	1.00 47.11 O
ATOM	3537	CB	ALA C 549	132.739	157.901	167.904	1.00 47.11 C
ATOM	3538	N	SER C 550	132.133	160.265	166.304	1.00 51.12 N
ATOM	3539	CA	SER C 550	132.214	161.634	165.821	1.00 51.12 C
ATOM	3540	C	SER C 550	132.521	162.582	166.975	1.00 51.12 C
ATOM	3541	O	SER C 550	132.319	162.264	168.149	1.00 51.12 O
ATOM	3542	CB	SER C 550	130.912	162.040	165.122	1.00 51.12 C
ATOM	3543	OG	SER C 550	131.112	163.164	164.289	1.00 51.12 O
ATOM	3544	N	CYS C 551	133.024	163.764	166.630	1.00 50.83 N
ATOM	3545	CA	CYS C 551	133.365	164.773	167.621	1.00 50.83 C
ATOM	3546	C	CYS C 551	132.108	165.499	168.086	1.00 50.83 C
ATOM	3547	O	CYS C 551	131.220	165.800	167.285	1.00 50.83 O
ATOM	3548	CB	CYS C 551	134.369	165.777	167.047	1.00 50.83 C
ATOM	3549	SG	CYS C 551	136.001	165.098	166.593	1.00 50.83 S
ATOM	3550	N	VAL C 552	132.034	165.773	169.387	1.00 46.75 N
ATOM	3551	CA	VAL C 552	130.899	166.504	169.936	1.00 46.75 C

ATOM	3552	C	VAL C 552	131.152	168.006	169.828	1.00 46.75	C
ATOM	3553	O	VAL C 552	132.288	168.461	169.698	1.00 46.75	O
ATOM	3554	CB	VAL C 552	130.627	166.085	171.390	1.00 46.75	C
ATOM	3555	CG1	VAL C 552	129.353	166.709	171.881	1.00 46.75	C
ATOM	3556	CG2	VAL C 552	130.542	164.579	171.494	1.00 46.75	C
ATOM	3557	N	THR C 553	130.076	168.789	169.879	1.00 44.89	N
ATOM	3558	CA	THR C 553	130.157	170.237	169.718	1.00 44.89	C
ATOM	3559	C	THR C 553	129.606	170.918	170.963	1.00 44.89	C
ATOM	3560	O	THR C 553	128.424	170.767	171.286	1.00 44.89	O
ATOM	3561	CB	THR C 553	129.397	170.703	168.477	1.00 44.89	C
ATOM	3562	OG1	THR C 553	129.957	170.087	167.313	1.00 44.89	O
ATOM	3563	CG2	THR C 553	129.505	172.202	168.334	1.00 44.89	C
ATOM	3564	N	ILE C 554	130.467	171.663	171.653	1.00 47.57	N
ATOM	3565	CA	ILE C 554	130.141	172.361	172.893	1.00 47.57	C
ATOM	3566	C	ILE C 554	129.473	173.701	172.616	1.00 47.57	C
ATOM	3567	O	ILE C 554	129.382	174.141	171.466	1.00 47.57	O
ATOM	3568	CB	ILE C 554	131.392	172.543	173.766	1.00 47.57	C
ATOM	3569	CG1	ILE C 554	132.380	173.487	173.091	1.00 47.57	C
ATOM	3570	CG2	ILE C 554	132.040	171.205	174.031	1.00 47.57	C
ATOM	3571	CD1	ILE C 554	133.534	173.880	173.976	1.00 47.57	C
ATOM	3572	N	ASN C 555	128.992	174.344	173.684	1.00 52.11	N
ATOM	3573	CA	ASN C 555	128.184	175.560	173.605	1.00 52.11	C
ATOM	3574	C	ASN C 555	128.575	176.520	172.487	1.00 52.11	C
ATOM	3575	O	ASN C 555	127.712	177.019	171.758	1.00 52.11	O
ATOM	3576	CB	ASN C 555	128.254	176.285	174.946	1.00 52.11	C
ATOM	3577	CG	ASN C 555	127.052	177.149	175.191	1.00 52.11	C
ATOM	3578	OD1	ASN C 555	126.252	177.381	174.289	1.00 52.11	O
ATOM	3579	ND2	ASN C 555	126.915	177.641	176.414	1.00 52.11	N
ATOM	3580	N	GLN C 556	129.865	176.806	172.339	1.00 50.36	N
ATOM	3581	CA	GLN C 556	130.441	177.718	171.356	1.00 50.36	C
ATOM	3582	C	GLN C 556	130.313	179.189	171.744	1.00 50.36	C
ATOM	3583	O	GLN C 556	130.876	180.033	171.051	1.00 50.36	O
ATOM	3584	CB	GLN C 556	129.828	177.551	169.953	1.00 50.36	C
ATOM	3585	CG	GLN C 556	130.221	176.285	169.250	1.00 50.36	C
ATOM	3586	CD	GLN C 556	131.684	176.257	168.922	1.00 50.36	C
ATOM	3587	OE1	GLN C 556	132.364	177.278	168.987	1.00 50.36	O
ATOM	3588	NE2	GLN C 556	132.186	175.084	168.573	1.00 50.36	N

ATOM	3589	N	THR C 557	129.615	179.534	172.826	1.00 54.58	N
ATOM	3590	CA	THR C 557	129.512	180.940	173.204	1.00 54.58	C
ATOM	3591	C	THR C 557	129.669	181.145	174.705	1.00 54.58	C
ATOM	3592	O	THR C 557	129.238	182.178	175.229	1.00 54.58	O
ATOM	3593	CB	THR C 557	128.182	181.544	172.753	1.00 54.58	C
ATOM	3594	OG1	THR C 557	128.150	182.934	173.096	1.00 54.58	O
ATOM	3595	CG2	THR C 557	127.029	180.848	173.436	1.00 54.58	C
ATOM	3596	N	SER C 558	130.267	180.186	175.408	1.00 51.67	N
ATOM	3597	CA	SER C 558	130.582	180.360	176.817	1.00 51.67	C
ATOM	3598	C	SER C 558	132.013	179.948	177.126	1.00 51.67	C
ATOM	3599	O	SER C 558	132.412	179.981	178.295	1.00 51.67	O
ATOM	3600	CB	SER C 558	129.623	179.562	177.694	1.00 51.67	C
ATOM	3601	OG	SER C 558	130.114	178.249	177.894	1.00 51.67	O
ATOM	3602	N	VAL C 559	132.788	179.559	176.125	1.00 44.69	N
ATOM	3603	CA	VAL C 559	134.180	179.183	176.329	1.00 44.69	C
ATOM	3604	C	VAL C 559	134.964	180.402	176.786	1.00 44.69	C
ATOM	3605	O	VAL C 559	134.667	181.535	176.395	1.00 44.69	O
ATOM	3606	CB	VAL C 559	134.766	178.588	175.039	1.00 44.69	C
ATOM	3607	CG1	VAL C 559	136.204	178.191	175.253	1.00 44.69	C
ATOM	3608	CG2	VAL C 559	133.951	177.397	174.602	1.00 44.69	C
ATOM	3609	N	LYS C 560	135.969	180.173	177.626	1.00 41.89	N
ATOM	3610	CA	LYS C 560	136.829	181.240	178.123	1.00 41.89	C
ATOM	3611	C	LYS C 560	138.199	180.653	178.409	1.00 41.89	C
ATOM	3612	O	LYS C 560	138.329	179.771	179.261	1.00 41.89	O
ATOM	3613	CB	LYS C 560	136.248	181.882	179.383	1.00 41.89	C
ATOM	3614	CG	LYS C 560	134.834	182.403	179.214	1.00 41.89	C
ATOM	3615	CD	LYS C 560	134.431	183.293	180.376	1.00 41.89	C
ATOM	3616	CE	LYS C 560	134.367	182.509	181.672	1.00 41.89	C
ATOM	3617	NZ	LYS C 560	133.168	181.632	181.722	1.00 41.89	N
ATOM	3618	N	VAL C 561	139.212	181.137	177.700	1.00 37.96	N
ATOM	3619	CA	VAL C 561	140.579	180.657	177.849	1.00 37.96	C
ATOM	3620	C	VAL C 561	141.297	181.571	178.829	1.00 37.96	C
ATOM	3621	O	VAL C 561	141.470	182.766	178.563	1.00 37.96	O
ATOM	3622	CB	VAL C 561	141.309	180.616	176.499	1.00 37.96	C
ATOM	3623	CG1	VAL C 561	142.756	180.230	176.697	1.00 37.96	C
ATOM	3624	CG2	VAL C 561	140.629	179.643	175.565	1.00 37.96	C
ATOM	3625	N	LEU C 562	141.717	181.014	179.961	1.00 38.79	N

ATOM	3626	CA	LEU C 562	142.440	181.797	180.947	1.00 38.79	C
ATOM	3627	C	LEU C 562	143.751	182.307	180.352	1.00 38.79	C
ATOM	3628	O	LEU C 562	144.198	181.867	179.293	1.00 38.79	O
ATOM	3629	CB	LEU C 562	142.701	180.965	182.200	1.00 38.79	C
ATOM	3630	CG	LEU C 562	141.462	180.417	182.905	1.00 38.79	C
ATOM	3631	CD1	LEU C 562	141.794	180.033	184.329	1.00 38.79	C
ATOM	3632	CD2	LEU C 562	140.346	181.435	182.880	1.00 38.79	C
ATOM	3633	N	ARG C 563	144.371	183.250	181.053	1.00 45.07	N
ATOM	3634	CA	ARG C 563	145.577	183.917	180.574	1.00 45.07	C
ATOM	3635	C	ARG C 563	146.644	183.935	181.656	1.00 45.07	C
ATOM	3636	O	ARG C 563	147.285	184.953	181.920	1.00 45.07	O
ATOM	3637	CB	ARG C 563	145.259	185.327	180.099	1.00 45.07	C
ATOM	3638	CG	ARG C 563	144.792	186.254	181.195	1.00 45.07	C
ATOM	3639	CD	ARG C 563	144.915	187.701	180.765	1.00 45.07	C
ATOM	3640	NE	ARG C 563	143.920	188.057	179.761	1.00 45.07	N
ATOM	3641	CZ	ARG C 563	143.994	189.134	178.986	1.00 45.07	C
ATOM	3642	NH1	ARG C 563	143.043	189.383	178.099	1.00 45.07	N
ATOM	3643	NH2	ARG C 563	145.023	189.960	179.096	1.00 45.07	N
ATOM	3644	N	ASP C 564	146.843	182.793	182.305	1.00 50.47	N
ATOM	3645	CA	ASP C 564	147.913	182.639	183.286	1.00 50.47	C
ATOM	3646	C	ASP C 564	148.124	181.153	183.512	1.00 50.47	C
ATOM	3647	O	ASP C 564	147.183	180.450	183.890	1.00 50.47	O
ATOM	3648	CB	ASP C 564	147.569	183.346	184.591	1.00 50.47	C
ATOM	3649	CG	ASP C 564	148.749	183.435	185.529	1.00 50.47	C
ATOM	3650	OD1	ASP C 564	149.794	182.825	185.231	1.00 50.47	O
ATOM	3651	OD2	ASP C 564	148.637	184.119	186.566	1.00 50.47	O
ATOM	3652	N	MET C 565	149.343	180.675	183.283	1.00 48.38	N
ATOM	3653	CA	MET C 565	149.661	179.255	183.366	1.00 48.38	C
ATOM	3654	C	MET C 565	150.524	178.942	184.584	1.00 48.38	C
ATOM	3655	O	MET C 565	151.417	178.096	184.532	1.00 48.38	O
ATOM	3656	CB	MET C 565	150.347	178.786	182.089	1.00 48.38	C
ATOM	3657	CG	MET C 565	149.544	179.045	180.833	1.00 48.38	C
ATOM	3658	SD	MET C 565	149.897	177.870	179.518	1.00 48.38	S
ATOM	3659	CE	MET C 565	151.667	178.047	179.373	1.00 48.38	C
ATOM	3660	N	ASN C 566	150.264	179.621	185.694	1.00 52.74	N
ATOM	3661	CA	ASN C 566	150.952	179.382	186.955	1.00 52.74	C
ATOM	3662	C	ASN C 566	149.999	178.692	187.918	1.00 52.74	C

ATOM	3663	O	ASN C 566	148.893	179.185	188.161	1.00 52.74	O
ATOM	3664	CB	ASN C 566	151.450	180.692	187.568	1.00 52.74	C
ATOM	3665	CG	ASN C 566	152.823	181.080	187.077	1.00 52.74	C
ATOM	3666	OD1	ASN C 566	153.760	180.291	187.131	1.00 52.74	O
ATOM	3667	ND2	ASN C 566	152.950	182.308	186.595	1.00 52.74	N
ATOM	3668	N	VAL C 567	150.425	177.556	188.465	1.00 58.06	N
ATOM	3669	CA	VAL C 567	149.610	176.862	189.454	1.00 58.06	C
ATOM	3670	C	VAL C 567	149.582	177.698	190.725	1.00 58.06	C
ATOM	3671	O	VAL C 567	150.624	177.946	191.343	1.00 58.06	O
ATOM	3672	CB	VAL C 567	150.151	175.454	189.724	1.00 58.06	C
ATOM	3673	CG1	VAL C 567	149.135	174.637	190.491	1.00 58.06	C
ATOM	3674	CG2	VAL C 567	150.510	174.771	188.426	1.00 58.06	C
ATOM	3675	N	LYS C 568	148.391	178.145	191.119	1.00 64.75	N
ATOM	3676	CA	LYS C 568	148.275	179.041	192.261	1.00 64.75	C
ATOM	3677	C	LYS C 568	148.493	178.338	193.591	1.00 64.75	C
ATOM	3678	O	LYS C 568	148.815	179.002	194.582	1.00 64.75	O
ATOM	3679	CB	LYS C 568	146.904	179.717	192.266	1.00 64.75	C
ATOM	3680	CG	LYS C 568	146.766	180.847	191.264	1.00 64.75	C
ATOM	3681	CD	LYS C 568	145.528	181.678	191.544	1.00 64.75	C
ATOM	3682	CE	LYS C 568	145.363	182.780	190.515	1.00 64.75	C
ATOM	3683	NZ	LYS C 568	145.102	182.227	189.158	1.00 64.75	N
ATOM	3684	N	GLU C 569	148.334	177.018	193.637	1.00 70.01	N
ATOM	3685	CA	GLU C 569	148.446	176.296	194.899	1.00 70.01	C
ATOM	3686	C	GLU C 569	149.901	176.019	195.256	1.00 70.01	C
ATOM	3687	O	GLU C 569	150.401	176.489	196.284	1.00 70.01	O
ATOM	3688	CB	GLU C 569	147.653	174.990	194.817	1.00 70.01	C
ATOM	3689	CG	GLU C 569	146.182	175.185	194.493	1.00 70.01	C
ATOM	3690	CD	GLU C 569	145.639	174.107	193.576	1.00 70.01	C
ATOM	3691	OE1	GLU C 569	146.361	173.121	193.319	1.00 70.01	O
ATOM	3692	OE2	GLU C 569	144.489	174.243	193.112	1.00 70.01	O
ATOM	3693	N	SER C 570	150.603	175.268	194.407	1.00 66.73	N
ATOM	3694	CA	SER C 570	151.952	174.811	194.704	1.00 66.73	C
ATOM	3695	C	SER C 570	152.964	175.623	193.909	1.00 66.73	C
ATOM	3696	O	SER C 570	153.204	175.319	192.733	1.00 66.73	O
ATOM	3697	CB	SER C 570	152.091	173.322	194.385	1.00 66.73	C
ATOM	3698	OG	SER C 570	151.730	173.059	193.041	1.00 66.73	O
ATOM	3699	N	PRO C 571	153.584	176.645	194.491	1.00 66.74	N

ATOM	3700	CA	PRO C 571	154.589	177.410	193.745	1.00 66.74 C
ATOM	3701	C	PRO C 571	155.717	176.512	193.267	1.00 66.74 C
ATOM	3702	O	PRO C 571	156.167	175.614	193.981	1.00 66.74 O
ATOM	3703	CB	PRO C 571	155.082	178.442	194.767	1.00 66.74 C
ATOM	3704	CG	PRO C 571	154.695	177.890	196.094	1.00 66.74 C
ATOM	3705	CD	PRO C 571	153.425	177.137	195.867	1.00 66.74 C
ATOM	3706	N	GLY C 572	156.174	176.762	192.043	1.00 63.76 N
ATOM	3707	CA	GLY C 572	157.209	175.976	191.410	1.00 63.76 C
ATOM	3708	C	GLY C 572	156.739	175.175	190.218	1.00 63.76 C
ATOM	3709	O	GLY C 572	157.558	174.840	189.354	1.00 63.76 O
ATOM	3710	N	ARG C 573	155.450	174.861	190.143	1.00 60.93 N
ATOM	3711	CA	ARG C 573	154.875	174.139	189.021	1.00 60.93 C
ATOM	3712	C	ARG C 573	154.087	175.096	188.138	1.00 60.93 C
ATOM	3713	O	ARG C 573	153.591	176.128	188.597	1.00 60.93 O
ATOM	3714	CB	ARG C 573	153.966	173.006	189.499	1.00 60.93 C
ATOM	3715	CG	ARG C 573	154.582	172.136	190.572	1.00 60.93 C
ATOM	3716	CD	ARG C 573	155.635	171.215	189.989	1.00 60.93 C
ATOM	3717	NE	ARG C 573	155.059	170.226	189.085	1.00 60.93 N
ATOM	3718	CZ	ARG C 573	155.752	169.252	188.507	1.00 60.93 C
ATOM	3719	NH1	ARG C 573	157.052	169.135	188.735	1.00 60.93 N
ATOM	3720	NH2	ARG C 573	155.147	168.395	187.700	1.00 60.93 N
ATOM	3721	N	CYS C 574	153.975	174.742	186.861	1.00 55.37 N
ATOM	3722	CA	CYS C 574	153.323	175.586	185.873	1.00 55.37 C
ATOM	3723	C	CYS C 574	152.653	174.704	184.833	1.00 55.37 C
ATOM	3724	O	CYS C 574	153.213	173.687	184.424	1.00 55.37 O
ATOM	3725	CB	CYS C 574	154.332	176.535	185.220	1.00 55.37 C
ATOM	3726	SG	CYS C 574	155.056	177.738	186.376	1.00 55.37 S
ATOM	3727	N	TYR C 575	151.450	175.093	184.415	1.00 47.65 N
ATOM	3728	CA	TYR C 575	150.679	174.276	183.490	1.00 47.65 C
ATOM	3729	C	TYR C 575	151.452	174.064	182.192	1.00 47.65 C
ATOM	3730	O	TYR C 575	152.453	174.721	181.913	1.00 47.65 O
ATOM	3731	CB	TYR C 575	149.331	174.927	183.190	1.00 47.65 C
ATOM	3732	CG	TYR C 575	148.315	174.799	184.298	1.00 47.65 C
ATOM	3733	CD1	TYR C 575	147.876	173.559	184.724	1.00 47.65 C
ATOM	3734	CD2	TYR C 575	147.789	175.921	184.912	1.00 47.65 C
ATOM	3735	CE1	TYR C 575	146.949	173.442	185.735	1.00 47.65 C
ATOM	3736	CE2	TYR C 575	146.864	175.814	185.921	1.00 47.65 C

ATOM	3737	CZ	TYR C 575	146.447	174.573	186.329	1.00 47.65	C
ATOM	3738	OH	TYR C 575	145.521	174.467	187.338	1.00 47.65	O
ATOM	3739	N	SER C 576	150.964	173.120	181.388	1.00 43.65	N
ATOM	3740	CA	SER C 576	151.577	172.797	180.110	1.00 43.65	C
ATOM	3741	C	SER C 576	150.739	173.219	178.915	1.00 43.65	C
ATOM	3742	O	SER C 576	151.279	173.330	177.812	1.00 43.65	O
ATOM	3743	CB	SER C 576	151.847	171.291	180.017	1.00 43.65	C
ATOM	3744	OG	SER C 576	152.792	171.001	179.006	1.00 43.65	O
ATOM	3745	N	ARG C 577	149.446	173.449	179.107	1.00 38.69	N
ATOM	3746	CA	ARG C 577	148.522	173.906	178.084	1.00 38.69	C
ATOM	3747	C	ARG C 577	147.542	174.866	178.735	1.00 38.69	C
ATOM	3748	O	ARG C 577	147.210	174.704	179.914	1.00 38.69	O
ATOM	3749	CB	ARG C 577	147.755	172.738	177.447	1.00 38.69	C
ATOM	3750	CG	ARG C 577	148.614	171.743	176.697	1.00 38.69	C
ATOM	3751	CD	ARG C 577	148.996	172.295	175.346	1.00 38.69	C
ATOM	3752	NE	ARG C 577	149.173	171.257	174.341	1.00 38.69	N
ATOM	3753	CZ	ARG C 577	149.239	171.494	173.036	1.00 38.69	C
ATOM	3754	NH1	ARG C 577	149.140	172.734	172.581	1.00 38.69	N
ATOM	3755	NH2	ARG C 577	149.403	170.494	172.186	1.00 38.69	N
ATOM	3756	N	PRO C 578	147.066	175.867	178.008	1.00 35.43	N
ATOM	3757	CA	PRO C 578	146.081	176.787	178.592	1.00 35.43	C
ATOM	3758	C	PRO C 578	144.917	176.030	179.206	1.00 35.43	C
ATOM	3759	O	PRO C 578	144.675	174.877	178.845	1.00 35.43	O
ATOM	3760	CB	PRO C 578	145.638	177.634	177.396	1.00 35.43	C
ATOM	3761	CG	PRO C 578	146.754	177.540	176.432	1.00 35.43	C
ATOM	3762	CD	PRO C 578	147.350	176.181	176.601	1.00 35.43	C
ATOM	3763	N	VAL C 579	144.188	176.651	180.126	1.00 36.68	N
ATOM	3764	CA	VAL C 579	143.107	175.988	180.845	1.00 36.68	C
ATOM	3765	C	VAL C 579	141.797	176.661	180.463	1.00 36.68	C
ATOM	3766	O	VAL C 579	141.654	177.880	180.609	1.00 36.68	O
ATOM	3767	CB	VAL C 579	143.328	176.026	182.363	1.00 36.68	C
ATOM	3768	CG1	VAL C 579	143.516	177.449	182.821	1.00 36.68	C
ATOM	3769	CG2	VAL C 579	142.166	175.391	183.077	1.00 36.68	C
ATOM	3770	N	VAL C 580	140.844	175.867	179.977	1.00 39.18	N
ATOM	3771	CA	VAL C 580	139.571	176.362	179.468	1.00 39.18	C
ATOM	3772	C	VAL C 580	138.459	175.954	180.422	1.00 39.18	C
ATOM	3773	O	VAL C 580	138.568	174.955	181.139	1.00 39.18	O

ATOM	3774	CB	VAL	C	580	139.290	175.821	178.052	1.00	39.18	C
ATOM	3775	CG1	VAL	C	580	138.060	176.471	177.477	1.00	39.18	C
ATOM	3776	CG2	VAL	C	580	140.477	176.055	177.156	1.00	39.18	C
ATOM	3777	N	ILE	C	581	137.377	176.730	180.425	1.00	42.91	N
ATOM	3778	CA	ILE	C	581	136.183	176.419	181.212	1.00	42.91	C
ATOM	3779	C	ILE	C	581	134.990	176.479	180.260	1.00	42.91	C
ATOM	3780	O	ILE	C	581	134.367	177.528	180.077	1.00	42.91	O
ATOM	3781	CB	ILE	C	581	136.001	177.359	182.408	1.00	42.91	C
ATOM	3782	CG1	ILE	C	581	135.695	178.781	181.956	1.00	42.91	C
ATOM	3783	CG2	ILE	C	581	137.248	177.369	183.259	1.00	42.91	C
ATOM	3784	CD1	ILE	C	581	135.258	179.679	183.080	1.00	42.91	C
ATOM	3785	N	PHE	C	582	134.659	175.345	179.654	1.00	46.91	N
ATOM	3786	CA	PHE	C	582	133.592	175.275	178.669	1.00	46.91	C
ATOM	3787	C	PHE	C	582	132.279	174.875	179.337	1.00	46.91	C
ATOM	3788	O	PHE	C	582	132.139	174.908	180.561	1.00	46.91	O
ATOM	3789	CB	PHE	C	582	133.974	174.323	177.541	1.00	46.91	C
ATOM	3790	CG	PHE	C	582	134.208	172.918	177.986	1.00	46.91	C
ATOM	3791	CD1	PHE	C	582	133.168	172.016	178.039	1.00	46.91	C
ATOM	3792	CD2	PHE	C	582	135.469	172.495	178.338	1.00	46.91	C
ATOM	3793	CE1	PHE	C	582	133.383	170.721	178.442	1.00	46.91	C
ATOM	3794	CE2	PHE	C	582	135.689	171.201	178.740	1.00	46.91	C
ATOM	3795	CZ	PHE	C	582	134.645	170.313	178.793	1.00	46.91	C
ATOM	3796	N	ASN	C	583	131.290	174.515	178.524	1.00	50.90	N
ATOM	3797	CA	ASN	C	583	129.955	174.196	179.008	1.00	50.90	C
ATOM	3798	C	ASN	C	583	129.208	173.408	177.939	1.00	50.90	C
ATOM	3799	O	ASN	C	583	129.054	173.894	176.816	1.00	50.90	O
ATOM	3800	CB	ASN	C	583	129.212	175.485	179.354	1.00	50.90	C
ATOM	3801	CG	ASN	C	583	128.237	175.308	180.480	1.00	50.90	C
ATOM	3802	OD1	ASN	C	583	127.910	174.187	180.857	1.00	50.90	O
ATOM	3803	ND2	ASN	C	583	127.755	176.415	181.026	1.00	50.90	N
ATOM	3804	N	PHE	C	584	128.737	172.202	178.256	1.00	52.11	N
ATOM	3805	CA	PHE	C	584	128.143	171.359	177.219	1.00	52.11	C
ATOM	3806	C	PHE	C	584	126.906	171.976	176.585	1.00	52.11	C
ATOM	3807	O	PHE	C	584	126.474	173.066	176.967	1.00	52.11	O
ATOM	3808	CB	PHE	C	584	127.787	169.974	177.761	1.00	52.11	C
ATOM	3809	CG	PHE	C	584	128.958	169.050	177.868	1.00	52.11	C
ATOM	3810	CD1	PHE	C	584	129.411	168.368	176.753	1.00	52.11	C

ATOM	3811	CD2	PHE	C	584	129.606	168.868	179.064	1.00 52.11	C
ATOM	3812	CE1	PHE	C	584	130.487	167.520	176.838	1.00 52.11	C
ATOM	3813	CE2	PHE	C	584	130.684	168.013	179.150	1.00 52.11	C
ATOM	3814	CZ	PHE	C	584	131.126	167.343	178.031	1.00 52.11	C
ATOM	3815	N	ALA	C	585	126.341	171.270	175.610	1.00 55.03	N
ATOM	3816	CA	ALA	C	585	125.230	171.769	174.807	1.00 55.03	C
ATOM	3817	C	ALA	C	585	123.979	171.820	175.666	1.00 55.03	C
ATOM	3818	O	ALA	C	585	123.384	170.791	175.983	1.00 55.03	O
ATOM	3819	CB	ALA	C	585	125.016	170.882	173.587	1.00 55.03	C
ATOM	3820	N	ASN	C	586	123.569	173.025	176.046	1.00 64.53	N
ATOM	3821	CA	ASN	C	586	122.365	173.220	176.845	1.00 64.53	C
ATOM	3822	C	ASN	C	586	122.458	172.468	178.174	1.00 64.53	C
ATOM	3823	O	ASN	C	586	121.706	171.532	178.452	1.00 64.53	O
ATOM	3824	CB	ASN	C	586	121.120	172.799	176.066	1.00 64.53	C
ATOM	3825	CG	ASN	C	586	119.851	173.014	176.854	1.00 64.53	C
ATOM	3826	OD1	ASN	C	586	119.218	172.063	177.303	1.00 64.53	O
ATOM	3827	ND2	ASN	C	586	119.474	174.273	177.034	1.00 64.53	N
ATOM	3828	N	SER	C	587	123.411	172.896	178.996	1.00 65.21	N
ATOM	3829	CA	SER	C	587	123.560	172.397	180.352	1.00 65.21	C
ATOM	3830	C	SER	C	587	123.836	173.570	181.282	1.00 65.21	C
ATOM	3831	O	SER	C	587	124.058	174.703	180.847	1.00 65.21	O
ATOM	3832	CB	SER	C	587	124.681	171.357	180.446	1.00 65.21	C
ATOM	3833	OG	SER	C	587	124.302	170.147	179.820	1.00 65.21	O
ATOM	3834	N	SER	C	588	123.830	173.283	182.577	1.00 68.97	N
ATOM	3835	CA	SER	C	588	124.185	174.244	183.614	1.00 68.97	C
ATOM	3836	C	SER	C	588	125.249	173.619	184.502	1.00 68.97	C
ATOM	3837	O	SER	C	588	125.160	173.623	185.729	1.00 68.97	O
ATOM	3838	CB	SER	C	588	122.960	174.663	184.422	1.00 68.97	C
ATOM	3839	OG	SER	C	588	123.338	175.151	185.697	1.00 68.97	O
ATOM	3840	N	CYS	C	589	126.276	173.060	183.869	1.00 67.53	N
ATOM	3841	CA	CYS	C	589	127.119	172.065	184.519	1.00 67.53	C
ATOM	3842	C	CYS	C	589	128.555	172.420	184.160	1.00 67.53	C
ATOM	3843	O	CYS	C	589	129.085	171.919	183.164	1.00 67.53	O
ATOM	3844	CB	CYS	C	589	126.720	170.677	184.012	1.00 67.53	C
ATOM	3845	SG	CYS	C	589	127.063	169.196	184.992	1.00 67.53	S
ATOM	3846	N	VAL	C	590	129.187	173.271	184.972	1.00 58.07	N
ATOM	3847	CA	VAL	C	590	130.464	173.860	184.585	1.00 58.07	C

ATOM	3848	C	VAL C 590	131.575	172.823	184.671	1.00 58.07	C
ATOM	3849	O	VAL C 590	131.542	171.907	185.503	1.00 58.07	O
ATOM	3850	CB	VAL C 590	130.789	175.083	185.458	1.00 58.07	C
ATOM	3851	CG1	VAL C 590	132.121	175.667	185.051	1.00 58.07	C
ATOM	3852	CG2	VAL C 590	129.699	176.116	185.333	1.00 58.07	C
ATOM	3853	N	GLN C 591	132.580	172.979	183.814	1.00 53.36	N
ATOM	3854	CA	GLN C 591	133.665	172.016	183.724	1.00 53.36	C
ATOM	3855	C	GLN C 591	134.955	172.724	183.341	1.00 53.36	C
ATOM	3856	O	GLN C 591	134.965	173.911	183.010	1.00 53.36	O
ATOM	3857	CB	GLN C 591	133.336	170.911	182.720	1.00 53.36	C
ATOM	3858	CG	GLN C 591	132.156	170.061	183.127	1.00 53.36	C
ATOM	3859	CD	GLN C 591	131.926	168.923	182.173	1.00 53.36	C
ATOM	3860	OE1	GLN C 591	132.629	168.793	181.177	1.00 53.36	O
ATOM	3861	NE2	GLN C 591	130.945	168.085	182.471	1.00 53.36	N
ATOM	3862	N	TYR C 592	136.055	171.974	183.387	1.00 47.90	N
ATOM	3863	CA	TYR C 592	137.387	172.492	183.114	1.00 47.90	C
ATOM	3864	C	TYR C 592	138.108	171.568	182.145	1.00 47.90	C
ATOM	3865	O	TYR C 592	137.955	170.347	182.211	1.00 47.90	O
ATOM	3866	CB	TYR C 592	138.204	172.625	184.402	1.00 47.90	C
ATOM	3867	CG	TYR C 592	137.655	173.640	185.373	1.00 47.90	C
ATOM	3868	CD1	TYR C 592	136.602	173.323	186.216	1.00 47.90	C
ATOM	3869	CD2	TYR C 592	138.188	174.917	185.447	1.00 47.90	C
ATOM	3870	CE1	TYR C 592	136.095	174.249	187.104	1.00 47.90	C
ATOM	3871	CE2	TYR C 592	137.687	175.848	186.331	1.00 47.90	C
ATOM	3872	CZ	TYR C 592	136.640	175.509	187.157	1.00 47.90	C
ATOM	3873	OH	TYR C 592	136.137	176.433	188.041	1.00 47.90	O
ATOM	3874	N	GLY C 593	138.893	172.155	181.247	1.00 40.27	N
ATOM	3875	CA	GLY C 593	139.656	171.380	180.289	1.00 40.27	C
ATOM	3876	C	GLY C 593	140.960	172.055	179.933	1.00 40.27	C
ATOM	3877	O	GLY C 593	141.370	172.995	180.617	1.00 40.27	O
ATOM	3878	N	GLN C 594	141.624	171.602	178.873	1.00 39.10	N
ATOM	3879	CA	GLN C 594	142.883	172.198	178.448	1.00 39.10	C
ATOM	3880	C	GLN C 594	142.926	172.267	176.931	1.00 39.10	C
ATOM	3881	O	GLN C 594	142.643	171.276	176.255	1.00 39.10	O
ATOM	3882	CB	GLN C 594	144.077	171.401	178.976	1.00 39.10	C
ATOM	3883	CG	GLN C 594	144.403	171.689	180.423	1.00 39.10	C
ATOM	3884	CD	GLN C 594	145.689	171.045	180.861	1.00 39.10	C

ATOM	3885	OE1	GLN	C	594	145.933	169.877	180.584	1.00 39.10	O
ATOM	3886	NE2	GLN	C	594	146.527	171.807	181.546	1.00 39.10	N
ATOM	3887	N	LEU	C	595	143.296	173.429	176.405	1.00 39.06	N
ATOM	3888	CA	LEU	C	595	143.229	173.675	174.970	1.00 39.06	C
ATOM	3889	C	LEU	C	595	144.156	172.742	174.206	1.00 39.06	C
ATOM	3890	O	LEU	C	595	145.369	172.739	174.426	1.00 39.06	O
ATOM	3891	CB	LEU	C	595	143.591	175.128	174.676	1.00 39.06	C
ATOM	3892	CG	LEU	C	595	143.183	175.654	173.306	1.00 39.06	C
ATOM	3893	CD1	LEU	C	595	141.719	176.035	173.311	1.00 39.06	C
ATOM	3894	CD2	LEU	C	595	144.044	176.836	172.929	1.00 39.06	C
ATOM	3895	N	GLY	C	596	143.584	171.967	173.291	1.00 44.76	N
ATOM	3896	CA	GLY	C	596	144.366	171.095	172.439	1.00 44.76	C
ATOM	3897	C	GLY	C	596	144.932	171.824	171.242	1.00 44.76	C
ATOM	3898	O	GLY	C	596	145.385	172.965	171.366	1.00 44.76	O
ATOM	3899	N	GLU	C	597	144.913	171.184	170.078	1.00 53.40	N
ATOM	3900	CA	GLU	C	597	145.402	171.777	168.841	1.00 53.40	C
ATOM	3901	C	GLU	C	597	144.257	171.914	167.849	1.00 53.40	C
ATOM	3902	O	GLU	C	597	143.530	170.949	167.599	1.00 53.40	O
ATOM	3903	CB	GLU	C	597	146.523	170.935	168.234	1.00 53.40	C
ATOM	3904	CG	GLU	C	597	146.960	171.405	166.862	1.00 53.40	C
ATOM	3905	CD	GLU	C	597	148.240	170.743	166.398	1.00 53.40	C
ATOM	3906	OE1	GLU	C	597	148.836	169.977	167.184	1.00 53.40	O
ATOM	3907	OE2	GLU	C	597	148.652	170.992	165.247	1.00 53.40	O
ATOM	3908	N	ASP	C	598	144.114	173.106	167.273	1.00 53.30	N
ATOM	3909	CA	ASP	C	598	143.046	173.396	166.316	1.00 53.30	C
ATOM	3910	C	ASP	C	598	141.676	173.405	166.994	1.00 53.30	C
ATOM	3911	O	ASP	C	598	140.709	172.834	166.494	1.00 53.30	O
ATOM	3912	CB	ASP	C	598	143.071	172.406	165.150	1.00 53.30	C
ATOM	3913	CG	ASP	C	598	143.886	172.909	163.979	1.00 53.30	C
ATOM	3914	OD1	ASP	C	598	143.878	174.131	163.731	1.00 53.30	O
ATOM	3915	OD2	ASP	C	598	144.534	172.081	163.305	1.00 53.30	O
ATOM	3916	N	ASN	C	599	141.603	174.065	168.147	1.00 48.24	N
ATOM	3917	CA	ASN	C	599	140.348	174.361	168.825	1.00 48.24	C
ATOM	3918	C	ASN	C	599	139.672	173.137	169.425	1.00 48.24	C
ATOM	3919	O	ASN	C	599	138.512	173.218	169.831	1.00 48.24	O
ATOM	3920	CB	ASN	C	599	139.368	175.067	167.886	1.00 48.24	C
ATOM	3921	CG	ASN	C	599	139.379	176.563	168.055	1.00 48.24	C

ATOM	3922	OD1	ASN	C	599	139.602	177.071	169.150	1.00 48.24	O
ATOM	3923	ND2	ASN	C	599	139.124	177.281	166.972	1.00 48.24	N
ATOM	3924	N	GLU	C	600	140.348	171.997	169.496	1.00 48.19	N
ATOM	3925	CA	GLU	C	600	139.768	170.829	170.143	1.00 48.19	C
ATOM	3926	C	GLU	C	600	140.123	170.851	171.620	1.00 48.19	C
ATOM	3927	O	GLU	C	600	141.275	171.104	171.984	1.00 48.19	O
ATOM	3928	CB	GLU	C	600	140.256	169.531	169.505	1.00 48.19	C
ATOM	3929	CG	GLU	C	600	141.584	169.046	170.024	1.00 48.19	C
ATOM	3930	CD	GLU	C	600	141.780	167.567	169.787	1.00 48.19	C
ATOM	3931	OE1	GLU	C	600	140.825	166.914	169.322	1.00 48.19	O
ATOM	3932	OE2	GLU	C	600	142.885	167.057	170.067	1.00 48.19	O
ATOM	3933	N	ILE	C	601	139.136	170.588	172.464	1.00 43.13	N
ATOM	3934	CA	ILE	C	601	139.285	170.691	173.908	1.00 43.13	C
ATOM	3935	C	ILE	C	601	139.625	169.320	174.469	1.00 43.13	C
ATOM	3936	O	ILE	C	601	138.947	168.331	174.170	1.00 43.13	O
ATOM	3937	CB	ILE	C	601	138.009	171.250	174.554	1.00 43.13	C
ATOM	3938	CG1	ILE	C	601	137.959	172.764	174.377	1.00 43.13	C
ATOM	3939	CG2	ILE	C	601	137.957	170.883	176.012	1.00 43.13	C
ATOM	3940	CD1	ILE	C	601	136.673	173.382	174.832	1.00 43.13	C
ATOM	3941	N	LEU	C	602	140.682	169.260	175.271	1.00 42.28	N
ATOM	3942	CA	LEU	C	602	141.055	168.042	175.971	1.00 42.28	C
ATOM	3943	C	LEU	C	602	140.402	168.028	177.343	1.00 42.28	C
ATOM	3944	O	LEU	C	602	140.400	169.037	178.051	1.00 42.28	O
ATOM	3945	CB	LEU	C	602	142.573	167.943	176.119	1.00 42.28	C
ATOM	3946	CG	LEU	C	602	143.424	168.036	174.855	1.00 42.28	C
ATOM	3947	CD1	LEU	C	602	144.867	168.301	175.212	1.00 42.28	C
ATOM	3948	CD2	LEU	C	602	143.310	166.765	174.051	1.00 42.28	C
ATOM	3949	N	LEU	C	603	139.840	166.883	177.713	1.00 47.57	N
ATOM	3950	CA	LEU	C	603	139.237	166.757	179.028	1.00 47.57	C
ATOM	3951	C	LEU	C	603	140.315	166.736	180.108	1.00 47.57	C
ATOM	3952	O	LEU	C	603	141.488	166.449	179.853	1.00 47.57	O
ATOM	3953	CB	LEU	C	603	138.384	165.492	179.107	1.00 47.57	C
ATOM	3954	CG	LEU	C	603	137.011	165.548	178.441	1.00 47.57	C
ATOM	3955	CD1	LEU	C	603	136.426	164.157	178.316	1.00 47.57	C
ATOM	3956	CD2	LEU	C	603	136.074	166.447	179.222	1.00 47.57	C
ATOM	3957	N	GLY	C	604	139.904	167.050	181.331	1.00 48.70	N
ATOM	3958	CA	GLY	C	604	140.802	167.036	182.464	1.00 48.70	C

ATOM	3959	C	GLY C 604	141.553	168.341	182.644	1.00 48.70 C
ATOM	3960	O	GLY C 604	141.510	169.251	181.815	1.00 48.70 O
ATOM	3961	N	ASN C 605	142.257	168.427	183.773	1.00 50.73 N
ATOM	3962	CA	ASN C 605	142.948	169.644	184.175	1.00 50.73 C
ATOM	3963	C	ASN C 605	144.292	169.335	184.829	1.00 50.73 C
ATOM	3964	O	ASN C 605	144.722	170.055	185.735	1.00 50.73 O
ATOM	3965	CB	ASN C 605	142.072	170.457	185.124	1.00 50.73 C
ATOM	3966	CG	ASN C 605	142.623	171.826	185.393	1.00 50.73 C
ATOM	3967	OD1	ASN C 605	143.495	172.302	184.675	1.00 50.73 O
ATOM	3968	ND2	ASN C 605	142.117	172.474	186.433	1.00 50.73 N
ATOM	3969	N	HIS C 606	144.970	168.275	184.387	1.00 51.59 N
ATOM	3970	CA	HIS C 606	145.991	167.622	185.198	1.00 51.59 C
ATOM	3971	C	HIS C 606	147.318	167.455	184.467	1.00 51.59 C
ATOM	3972	O	HIS C 606	148.038	166.486	184.712	1.00 51.59 O
ATOM	3973	CB	HIS C 606	145.495	166.255	185.654	1.00 51.59 C
ATOM	3974	CG	HIS C 606	145.278	165.299	184.524	1.00 51.59 C
ATOM	3975	ND1	HIS C 606	144.077	165.198	183.858	1.00 51.59 N
ATOM	3976	CD2	HIS C 606	146.115	164.419	183.928	1.00 51.59 C
ATOM	3977	CE1	HIS C 606	144.180	164.288	182.907	1.00 51.59 C
ATOM	3978	NE2	HIS C 606	145.407	163.800	182.928	1.00 51.59 N
ATOM	3979	N	ARG C 607	147.669	168.372	183.575	1.00 45.22 N
ATOM	3980	CA	ARG C 607	148.924	168.285	182.831	1.00 45.22 C
ATOM	3981	C	ARG C 607	149.799	169.465	183.240	1.00 45.22 C
ATOM	3982	O	ARG C 607	149.620	170.579	182.743	1.00 45.22 O
ATOM	3983	CB	ARG C 607	148.671	168.265	181.329	1.00 45.22 C
ATOM	3984	CG	ARG C 607	147.679	167.205	180.892	1.00 45.22 C
ATOM	3985	CD	ARG C 607	147.125	167.487	179.510	1.00 45.22 C
ATOM	3986	NE	ARG C 607	146.273	166.404	179.036	1.00 45.22 N
ATOM	3987	CZ	ARG C 607	144.967	166.330	179.261	1.00 45.22 C
ATOM	3988	NH1	ARG C 607	144.359	167.279	179.953	1.00 45.22 N
ATOM	3989	NH2	ARG C 607	144.268	165.308	178.795	1.00 45.22 N
ATOM	3990	N	THR C 608	150.744	169.220	184.139	1.00 51.85 N
ATOM	3991	CA	THR C 608	151.602	170.255	184.696	1.00 51.85 C
ATOM	3992	C	THR C 608	153.052	170.007	184.298	1.00 51.85 C
ATOM	3993	O	THR C 608	153.376	169.046	183.600	1.00 51.85 O
ATOM	3994	CB	THR C 608	151.462	170.320	186.218	1.00 51.85 C
ATOM	3995	OG1	THR C 608	151.842	169.062	186.787	1.00 51.85 O

ATOM	3996	CG2	THR	C	608	150.033 170.635 186.611	1.00 51.85	C
ATOM	3997	N	GLU	C	609	153.928 170.897 184.753	1.00 56.83	N
ATOM	3998	CA	GLU	C	609	155.352 170.805 184.463	1.00 56.83	C
ATOM	3999	C	GLU	C	609	156.095 171.760 185.389	1.00 56.83	C
ATOM	4000	O	GLU	C	609	155.512 172.691 185.948	1.00 56.83	O
ATOM	4001	CB	GLU	C	609	155.638 171.115 182.994	1.00 56.83	C
ATOM	4002	CG	GLU	C	609	155.904 172.579 182.715	1.00 56.83	C
ATOM	4003	CD	GLU	C	609	156.226 172.843 181.261	1.00 56.83	C
ATOM	4004	OE1	GLU	C	609	156.009 171.937 180.432	1.00 56.83	O
ATOM	4005	OE2	GLU	C	609	156.697 173.955 180.947	1.00 56.83	O
ATOM	4006	N	GLU	C	610	157.397 171.523 185.535	1.00 59.69	N
ATOM	4007	CA	GLU	C	610	158.219 172.237 186.514	1.00 59.69	C
ATOM	4008	C	GLU	C	610	158.878 173.448 185.855	1.00 59.69	C
ATOM	4009	O	GLU	C	610	160.077 173.481 185.586	1.00 59.69	O
ATOM	4010	CB	GLU	C	610	159.252 171.290 187.115	1.00 59.69	C
ATOM	4011	CG	GLU	C	610	160.311 171.961 187.960	1.00 59.69	C
ATOM	4012	CD	GLU	C	610	161.601 171.168 188.000	1.00 59.69	C
ATOM	4013	OE1	GLU	C	610	162.096 170.782 186.922	1.00 59.69	O
ATOM	4014	OE2	GLU	C	610	162.120 170.928 189.110	1.00 59.69	O
ATOM	4015	N	CYS	C	611	158.056 174.468 185.625	1.00 59.25	N
ATOM	4016	CA	CYS	C	611	158.409 175.547 184.711	1.00 59.25	C
ATOM	4017	C	CYS	C	611	159.808 176.090 184.965	1.00 59.25	C
ATOM	4018	O	CYS	C	611	160.240 176.247 186.108	1.00 59.25	O
ATOM	4019	CB	CYS	C	611	157.381 176.673 184.803	1.00 59.25	C
ATOM	4020	SG	CYS	C	611	157.041 177.294 186.450	1.00 59.25	S
ATOM	4021	N	GLN	C	612	160.505 176.385 183.867	1.00 51.88	N
ATOM	4022	CA	GLN	C	612	161.878 176.878 183.881	1.00 51.88	C
ATOM	4023	C	GLN	C	612	161.970 178.068 182.940	1.00 51.88	C
ATOM	4024	O	GLN	C	612	161.635 177.949 181.759	1.00 51.88	O
ATOM	4025	CB	GLN	C	612	162.854 175.783 183.451	1.00 51.88	C
ATOM	4026	CG	GLN	C	612	162.615 175.288 182.034	1.00 51.88	C
ATOM	4027	CD	GLN	C	612	163.259 173.948 181.767	1.00 51.88	C
ATOM	4028	OE1	GLN	C	612	163.608 173.221 182.695	1.00 51.88	O
ATOM	4029	NE2	GLN	C	612	163.414 173.607 180.494	1.00 51.88	N
ATOM	4030	N	LEU	C	613	162.426 179.206 183.458	1.00 45.62	N
ATOM	4031	CA	LEU	C	613	162.533 180.461 182.732	1.00 45.62	C
ATOM	4032	C	LEU	C	613	163.917 180.614 182.108	1.00 45.62	C

ATOM	4033	O	LEU C 613	164.892	180.038	182.600	1.00 45.62	O
ATOM	4034	CB	LEU C 613	162.271	181.632	183.670	1.00 45.62	C
ATOM	4035	CG	LEU C 613	160.811	181.904	184.021	1.00 45.62	C
ATOM	4036	CD1	LEU C 613	160.276	180.814	184.909	1.00 45.62	C
ATOM	4037	CD2	LEU C 613	160.684	183.240	184.710	1.00 45.62	C
ATOM	4038	N	PRO C 614	164.044	181.382	181.013	1.00 45.02	N
ATOM	4039	CA	PRO C 614	162.976	182.044	180.256	1.00 45.02	C
ATOM	4040	C	PRO C 614	162.319	181.101	179.255	1.00 45.02	C
ATOM	4041	O	PRO C 614	162.981	180.177	178.788	1.00 45.02	O
ATOM	4042	CB	PRO C 614	163.709	183.180	179.529	1.00 45.02	C
ATOM	4043	CG	PRO C 614	165.106	183.194	180.095	1.00 45.02	C
ATOM	4044	CD	PRO C 614	165.366	181.804	180.533	1.00 45.02	C
ATOM	4045	N	SER C 615	161.051	181.328	178.920	1.00 45.88	N
ATOM	4046	CA	SER C 615	160.306	180.413	178.066	1.00 45.88	C
ATOM	4047	C	SER C 615	159.621	181.181	176.943	1.00 45.88	C
ATOM	4048	O	SER C 615	159.680	182.410	176.866	1.00 45.88	O
ATOM	4049	CB	SER C 615	159.269	179.624	178.869	1.00 45.88	C
ATOM	4050	OG	SER C 615	158.233	180.476	179.315	1.00 45.88	O
ATOM	4051	N	LEU C 616	158.964	180.426	176.066	1.00 41.00	N
ATOM	4052	CA	LEU C 616	158.179	180.943	174.955	1.00 41.00	C
ATOM	4053	C	LEU C 616	157.328	179.806	174.415	1.00 41.00	C
ATOM	4054	O	LEU C 616	157.828	178.698	174.221	1.00 41.00	O
ATOM	4055	CB	LEU C 616	159.074	181.507	173.849	1.00 41.00	C
ATOM	4056	CG	LEU C 616	158.342	182.044	172.622	1.00 41.00	C
ATOM	4057	CD1	LEU C 616	157.739	183.402	172.913	1.00 41.00	C
ATOM	4058	CD2	LEU C 616	159.278	182.120	171.437	1.00 41.00	C
ATOM	4059	N	LYS C 617	156.049	180.080	174.175	1.00 37.67	N
ATOM	4060	CA	LYS C 617	155.125	179.042	173.748	1.00 37.67	C
ATOM	4061	C	LYS C 617	154.119	179.634	172.776	1.00 37.67	C
ATOM	4062	O	LYS C 617	153.694	180.778	172.938	1.00 37.67	O
ATOM	4063	CB	LYS C 617	154.399	178.421	174.942	1.00 37.67	C
ATOM	4064	CG	LYS C 617	155.312	177.703	175.917	1.00 37.67	C
ATOM	4065	CD	LYS C 617	154.510	176.959	176.967	1.00 37.67	C
ATOM	4066	CE	LYS C 617	155.388	176.021	177.766	1.00 37.67	C
ATOM	4067	NZ	LYS C 617	155.996	174.976	176.907	1.00 37.67	N
ATOM	4068	N	ILE C 618	153.735	178.846	171.774	1.00 34.20	N
ATOM	4069	CA	ILE C 618	152.830	179.292	170.721	1.00 34.20	C

ATOM	4070	C	ILE C 618	151.884	178.148	170.391	1.00 34.20	C
ATOM	4071	O	ILE C 618	152.304	177.138	169.816	1.00 34.20	O
ATOM	4072	CB	ILE C 618	153.586	179.749	169.471	1.00 34.20	C
ATOM	4073	CG1	ILE C 618	154.404	180.999	169.783	1.00 34.20	C
ATOM	4074	CG2	ILE C 618	152.620	180.024	168.348	1.00 34.20	C
ATOM	4075	CD1	ILE C 618	155.350	181.392	168.690	1.00 34.20	C
ATOM	4076	N	PHE C 619	150.611	178.304	170.742	1.00 37.64	N
ATOM	4077	CA	PHE C 619	149.587	177.301	170.484	1.00 37.64	C
ATOM	4078	C	PHE C 619	148.741	177.736	169.297	1.00 37.64	C
ATOM	4079	O	PHE C 619	148.260	178.872	169.257	1.00 37.64	O
ATOM	4080	CB	PHE C 619	148.709	177.093	171.715	1.00 37.64	C
ATOM	4081	CG	PHE C 619	149.485	176.871	172.973	1.00 37.64	C
ATOM	4082	CD1	PHE C 619	150.122	175.671	173.202	1.00 37.64	C
ATOM	4083	CD2	PHE C 619	149.585	177.865	173.922	1.00 37.64	C
ATOM	4084	CE1	PHE C 619	150.840	175.467	174.349	1.00 37.64	C
ATOM	4085	CE2	PHE C 619	150.302	177.664	175.072	1.00 37.64	C
ATOM	4086	CZ	PHE C 619	150.932	176.463	175.285	1.00 37.64	C
ATOM	4087	N	ILE C 620	148.556	176.837	168.345	1.00 45.33	N
ATOM	4088	CA	ILE C 620	147.916	177.171	167.078	1.00 45.33	C
ATOM	4089	C	ILE C 620	146.421	176.913	167.165	1.00 45.33	C
ATOM	4090	O	ILE C 620	145.974	175.891	167.697	1.00 45.33	O
ATOM	4091	CB	ILE C 620	148.552	176.379	165.923	1.00 45.33	C
ATOM	4092	CG1	ILE C 620	149.915	176.971	165.571	1.00 45.33	C
ATOM	4093	CG2	ILE C 620	147.644	176.394	164.717	1.00 45.33	C
ATOM	4094	CD1	ILE C 620	150.599	176.274	164.430	1.00 45.33	C
ATOM	4095	N	ALA C 621	145.647	177.854	166.637	1.00 49.64	N
ATOM	4096	CA	ALA C 621	144.191	177.800	166.563	1.00 49.64	C
ATOM	4097	C	ALA C 621	143.739	178.200	165.169	1.00 49.64	C
ATOM	4098	O	ALA C 621	142.872	179.056	164.987	1.00 49.64	O
ATOM	4099	CB	ALA C 621	143.552	178.694	167.618	1.00 49.64	C
ATOM	4100	N	GLY C 622	144.331	177.559	164.163	1.00 57.91	N
ATOM	4101	CA	GLY C 622	144.339	178.039	162.794	1.00 57.91	C
ATOM	4102	C	GLY C 622	143.093	178.750	162.318	1.00 57.91	C
ATOM	4103	O	GLY C 622	141.970	178.292	162.547	1.00 57.91	O
ATOM	4104	N	ASN C 623	143.293	179.889	161.661	1.00 59.66	N
ATOM	4105	CA	ASN C 623	144.645	180.384	161.438	1.00 59.66	C
ATOM	4106	C	ASN C 623	144.933	181.644	162.252	1.00 59.66	C

ATOM	4107	O	ASN C 623	144.814	182.764	161.763	1.00 59.66	O
ATOM	4108	CB	ASN C 623	144.874	180.655	159.952	1.00 59.66	C
ATOM	4109	CG	ASN C 623	143.913	181.679	159.394	1.00 59.66	C
ATOM	4110	OD1	ASN C 623	142.783	181.806	159.863	1.00 59.66	O
ATOM	4111	ND2	ASN C 623	144.358	182.422	158.389	1.00 59.66	N
ATOM	4112	N	SER C 624	145.326	181.432	163.504	1.00 51.74	N
ATOM	4113	CA	SER C 624	145.754	182.484	164.413	1.00 51.74	C
ATOM	4114	C	SER C 624	146.256	181.812	165.680	1.00 51.74	C
ATOM	4115	O	SER C 624	145.630	180.869	166.166	1.00 51.74	O
ATOM	4116	CB	SER C 624	144.610	183.454	164.724	1.00 51.74	C
ATOM	4117	OG	SER C 624	145.036	184.470	165.610	1.00 51.74	O
ATOM	4118	N	ALA C 625	147.378	182.290	166.207	1.00 46.41	N
ATOM	4119	CA	ALA C 625	148.059	181.616	167.300	1.00 46.41	C
ATOM	4120	C	ALA C 625	148.155	182.511	168.528	1.00 46.41	C
ATOM	4121	O	ALA C 625	148.225	183.737	168.419	1.00 46.41	O
ATOM	4122	CB	ALA C 625	149.461	181.175	166.879	1.00 46.41	C
ATOM	4123	N	TYR C 626	148.154	181.880	169.700	1.00 39.35	N
ATOM	4124	CA	TYR C 626	148.431	182.560	170.955	1.00 39.35	C
ATOM	4125	C	TYR C 626	149.932	182.575	171.206	1.00 39.35	C
ATOM	4126	O	TYR C 626	150.656	181.671	170.788	1.00 39.35	O
ATOM	4127	CB	TYR C 626	147.735	181.869	172.128	1.00 39.35	C
ATOM	4128	CG	TYR C 626	146.249	181.655	171.966	1.00 39.35	C
ATOM	4129	CD1	TYR C 626	145.757	180.548	171.297	1.00 39.35	C
ATOM	4130	CD2	TYR C 626	145.338	182.547	172.505	1.00 39.35	C
ATOM	4131	CE1	TYR C 626	144.404	180.343	171.156	1.00 39.35	C
ATOM	4132	CE2	TYR C 626	143.983	182.350	172.369	1.00 39.35	C
ATOM	4133	CZ	TYR C 626	143.522	181.247	171.693	1.00 39.35	C
ATOM	4134	OH	TYR C 626	142.171	181.047	171.553	1.00 39.35	O
ATOM	4135	N	GLU C 627	150.397	183.607	171.904	1.00 43.34	N
ATOM	4136	CA	GLU C 627	151.811	183.734	172.241	1.00 43.34	C
ATOM	4137	C	GLU C 627	151.945	183.995	173.733	1.00 43.34	C
ATOM	4138	O	GLU C 627	151.609	185.083	174.207	1.00 43.34	O
ATOM	4139	CB	GLU C 627	152.477	184.847	171.440	1.00 43.34	C
ATOM	4140	CG	GLU C 627	153.933	185.047	171.806	1.00 43.34	C
ATOM	4141	CD	GLU C 627	154.597	186.142	171.005	1.00 43.34	C
ATOM	4142	OE1	GLU C 627	153.927	186.739	170.141	1.00 43.34	O
ATOM	4143	OE2	GLU C 627	155.793	186.408	171.240	1.00 43.34	O

ATOM	4144	N	TYR C 628	152.446	183.005	174.465	1.00 39.64	N
ATOM	4145	CA	TYR C 628	152.667	183.102	175.902	1.00 39.64	C
ATOM	4146	C	TYR C 628	154.155	183.278	176.160	1.00 39.64	C
ATOM	4147	O	TYR C 628	154.959	182.435	175.753	1.00 39.64	O
ATOM	4148	CB	TYR C 628	152.148	181.858	176.620	1.00 39.64	C
ATOM	4149	CG	TYR C 628	150.649	181.801	176.771	1.00 39.64	C
ATOM	4150	CD1	TYR C 628	150.028	182.332	177.884	1.00 39.64	C
ATOM	4151	CD2	TYR C 628	149.857	181.205	175.807	1.00 39.64	C
ATOM	4152	CE1	TYR C 628	148.664	182.280	178.030	1.00 39.64	C
ATOM	4153	CE2	TYR C 628	148.491	181.150	175.946	1.00 39.64	C
ATOM	4154	CZ	TYR C 628	147.901	181.689	177.060	1.00 39.64	C
ATOM	4155	OH	TYR C 628	146.538	181.636	177.208	1.00 39.64	O
ATOM	4156	N	VAL C 629	154.519	184.361	176.839	1.00 42.23	N
ATOM	4157	CA	VAL C 629	155.906	184.659	177.176	1.00 42.23	C
ATOM	4158	C	VAL C 629	156.035	184.651	178.691	1.00 42.23	C
ATOM	4159	O	VAL C 629	155.427	185.483	179.374	1.00 42.23	O
ATOM	4160	CB	VAL C 629	156.359	186.009	176.602	1.00 42.23	C
ATOM	4161	CG1	VAL C 629	157.783	186.301	177.017	1.00 42.23	C
ATOM	4162	CG2	VAL C 629	156.241	186.004	175.099	1.00 42.23	C
ATOM	4163	N	ASP C 630	156.829	183.718	179.213	1.00 46.94	N
ATOM	4164	CA	ASP C 630	157.055	183.584	180.648	1.00 46.94	C
ATOM	4165	C	ASP C 630	155.797	183.147	181.388	1.00 46.94	C
ATOM	4166	O	ASP C 630	155.573	183.543	182.532	1.00 46.94	O
ATOM	4167	CB	ASP C 630	157.593	184.881	181.250	1.00 46.94	C
ATOM	4168	CG	ASP C 630	159.102	184.906	181.317	1.00 46.94	C
ATOM	4169	OD1	ASP C 630	159.732	183.968	180.793	1.00 46.94	O
ATOM	4170	OD2	ASP C 630	159.659	185.861	181.895	1.00 46.94	O
ATOM	4171	N	TYR C 631	154.967	182.326	180.750	1.00 48.83	N
ATOM	4172	CA	TYR C 631	153.732	181.841	181.353	1.00 48.83	C
ATOM	4173	C	TYR C 631	152.778	183.000	181.649	1.00 48.83	C
ATOM	4174	O	TYR C 631	152.331	183.205	182.776	1.00 48.83	O
ATOM	4175	CB	TYR C 631	154.037	181.032	182.614	1.00 48.83	C
ATOM	4176	CG	TYR C 631	154.997	179.894	182.367	1.00 48.83	C
ATOM	4177	CD1	TYR C 631	154.576	178.734	181.739	1.00 48.83	C
ATOM	4178	CD2	TYR C 631	156.325	179.985	182.745	1.00 48.83	C
ATOM	4179	CE1	TYR C 631	155.447	177.694	181.505	1.00 48.83	C
ATOM	4180	CE2	TYR C 631	157.203	178.950	182.512	1.00 48.83	C

ATOM	4181	CZ	TYR C 631	156.758	177.807	181.890	1.00 48.83	C
ATOM	4182	OH	TYR C 631	157.625	176.768	181.654	1.00 48.83	O
ATOM	4183	N	LEU C 632	152.475	183.759	180.598	1.00 43.17	N
ATOM	4184	CA	LEU C 632	151.552	184.884	180.657	1.00 43.17	C
ATOM	4185	C	LEU C 632	151.173	185.280	179.240	1.00 43.17	C
ATOM	4186	O	LEU C 632	152.034	185.338	178.362	1.00 43.17	O
ATOM	4187	CB	LEU C 632	152.167	186.085	181.387	1.00 43.17	C
ATOM	4188	CG	LEU C 632	152.374	185.975	182.893	1.00 43.17	C
ATOM	4189	CD1	LEU C 632	153.132	187.174	183.412	1.00 43.17	C
ATOM	4190	CD2	LEU C 632	151.036	185.867	183.580	1.00 43.17	C
ATOM	4191	N	PHE C 633	149.889	185.550	179.026	1.00 43.52	N
ATOM	4192	CA	PHE C 633	149.427	185.964	177.710	1.00 43.52	C
ATOM	4193	C	PHE C 633	150.152	187.227	177.271	1.00 43.52	C
ATOM	4194	O	PHE C 633	150.351	188.154	178.059	1.00 43.52	O
ATOM	4195	CB	PHE C 633	147.918	186.202	177.733	1.00 43.52	C
ATOM	4196	CG	PHE C 633	147.301	186.321	176.372	1.00 43.52	C
ATOM	4197	CD1	PHE C 633	147.270	185.239	175.516	1.00 43.52	C
ATOM	4198	CD2	PHE C 633	146.738	187.510	175.954	1.00 43.52	C
ATOM	4199	CE1	PHE C 633	146.701	185.344	174.270	1.00 43.52	C
ATOM	4200	CE2	PHE C 633	146.168	187.619	174.708	1.00 43.52	C
ATOM	4201	CZ	PHE C 633	146.150	186.535	173.866	1.00 43.52	C
ATOM	4202	N	LYS C 634	150.558	187.259	176.002	1.00 47.30	N
ATOM	4203	CA	LYS C 634	151.249	188.415	175.441	1.00 47.30	C
ATOM	4204	C	LYS C 634	150.433	189.096	174.351	1.00 47.30	C
ATOM	4205	O	LYS C 634	150.144	190.291	174.464	1.00 47.30	O
ATOM	4206	CB	LYS C 634	152.619	187.994	174.904	1.00 47.30	C
ATOM	4207	CG	LYS C 634	153.498	189.149	174.491	1.00 47.30	C
ATOM	4208	CD	LYS C 634	153.762	190.078	175.655	1.00 47.30	C
ATOM	4209	CE	LYS C 634	155.165	190.647	175.581	1.00 47.30	C
ATOM	4210	NZ	LYS C 634	155.501	191.078	174.200	1.00 47.30	N
ATOM	4211	N	ARG C 635	150.051	188.378	173.298	1.00 49.57	N
ATOM	4212	CA	ARG C 635	149.244	188.956	172.231	1.00 49.57	C
ATOM	4213	C	ARG C 635	148.955	187.869	171.203	1.00 49.57	C
ATOM	4214	O	ARG C 635	149.492	186.760	171.275	1.00 49.57	O
ATOM	4215	CB	ARG C 635	149.937	190.150	171.581	1.00 49.57	C
ATOM	4216	CG	ARG C 635	151.003	189.780	170.572	1.00 49.57	C
ATOM	4217	CD	ARG C 635	151.714	191.021	170.065	1.00 49.57	C

ATOM	4218	NE	ARG	C	635	152.453	190.762	168.836	1.00 49.57	N
ATOM	4219	CZ	ARG	C	635	153.592	190.084	168.782	1.00 49.57	C
ATOM	4220	NH1	ARG	C	635	154.126	189.597	169.892	1.00 49.57	N
ATOM	4221	NH2	ARG	C	635	154.198	189.894	167.620	1.00 49.57	N
ATOM	4222	N	MET	C	636	148.102	188.207	170.239	1.00 49.26	N
ATOM	4223	CA	MET	C	636	147.673	187.271	169.207	1.00 49.26	C
ATOM	4224	C	MET	C	636	148.561	187.421	167.979	1.00 49.26	C
ATOM	4225	O	MET	C	636	148.627	188.500	167.381	1.00 49.26	O
ATOM	4226	CB	MET	C	636	146.210	187.510	168.841	1.00 49.26	C
ATOM	4227	CG	MET	C	636	145.221	186.745	169.695	1.00 49.26	C
ATOM	4228	SD	MET	C	636	145.056	185.030	169.184	1.00 49.26	S
ATOM	4229	CE	MET	C	636	143.480	184.619	169.917	1.00 49.26	C
ATOM	4230	N	ILE	C	637	149.234	186.345	167.606	1.00 53.84	N
ATOM	4231	CA	ILE	C	637	150.110	186.337	166.445	1.00 53.84	C
ATOM	4232	C	ILE	C	637	149.308	185.917	165.221	1.00 53.84	C
ATOM	4233	O	ILE	C	637	148.203	185.382	165.323	1.00 53.84	O
ATOM	4234	CB	ILE	C	637	151.317	185.408	166.664	1.00 53.84	C
ATOM	4235	CG1	ILE	C	637	152.532	185.921	165.901	1.00 53.84	C
ATOM	4236	CG2	ILE	C	637	150.987	184.002	166.215	1.00 53.84	C
ATOM	4237	CD1	ILE	C	637	153.798	185.172	166.222	1.00 53.84	C
ATOM	4238	N	ASP	C	638	149.868	186.172	164.043	1.00 62.97	N
ATOM	4239	CA	ASP	C	638	149.282	185.750	162.779	1.00 62.97	C
ATOM	4240	C	ASP	C	638	150.223	184.779	162.082	1.00 62.97	C
ATOM	4241	O	ASP	C	638	151.443	184.961	162.102	1.00 62.97	O
ATOM	4242	CB	ASP	C	638	149.002	186.950	161.873	1.00 62.97	C
ATOM	4243	CG	ASP	C	638	150.195	187.876	161.751	1.00 62.97	C
ATOM	4244	OD1	ASP	C	638	151.288	187.399	161.387	1.00 62.97	O
ATOM	4245	OD2	ASP	C	638	150.040	189.084	162.023	1.00 62.97	O
ATOM	4246	N	LEU	C	639	149.656	183.748	161.456	1.00 62.54	N
ATOM	4247	CA	LEU	C	639	150.453	182.655	160.904	1.00 62.54	C
ATOM	4248	C	LEU	C	639	151.128	183.071	159.595	1.00 62.54	C
ATOM	4249	O	LEU	C	639	150.928	182.481	158.534	1.00 62.54	O
ATOM	4250	CB	LEU	C	639	149.588	181.419	160.705	1.00 62.54	C
ATOM	4251	CG	LEU	C	639	149.269	180.623	161.965	1.00 62.54	C
ATOM	4252	CD1	LEU	C	639	148.473	179.381	161.614	1.00 62.54	C
ATOM	4253	CD2	LEU	C	639	150.545	180.258	162.695	1.00 62.54	C
ATOM	4254	N	SER	C	640	151.947	184.116	159.693	1.00 67.22	N

ATOM	4255	CA	SER C 640	152.785	184.529	158.577	1.00 67.22	C
ATOM	4256	C	SER C 640	154.186	184.933	159.003	1.00 67.22	C
ATOM	4257	O	SER C 640	154.974	185.344	158.147	1.00 67.22	O
ATOM	4258	CB	SER C 640	152.129	185.684	157.804	1.00 67.22	C
ATOM	4259	OG	SER C 640	150.928	185.261	157.183	1.00 67.22	O
ATOM	4260	N	SER C 641	154.521	184.838	160.284	1.00 64.94	N
ATOM	4261	CA	SER C 641	155.888	185.009	160.747	1.00 64.94	C
ATOM	4262	C	SER C 641	156.539	183.681	161.097	1.00 64.94	C
ATOM	4263	O	SER C 641	157.575	183.662	161.768	1.00 64.94	O
ATOM	4264	CB	SER C 641	155.925	185.951	161.952	1.00 64.94	C
ATOM	4265	OG	SER C 641	157.261	186.238	162.330	1.00 64.94	O
ATOM	4266	N	ILE C 642	155.950	182.571	160.656	1.00 54.96	N
ATOM	4267	CA	ILE C 642	156.448	181.230	160.928	1.00 54.96	C
ATOM	4268	C	ILE C 642	156.535	180.512	159.590	1.00 54.96	C
ATOM	4269	O	ILE C 642	155.505	180.188	158.988	1.00 54.96	O
ATOM	4270	CB	ILE C 642	155.544	180.466	161.902	1.00 54.96	C
ATOM	4271	CG1	ILE C 642	155.342	181.277	163.179	1.00 54.96	C
ATOM	4272	CG2	ILE C 642	156.138	179.118	162.225	1.00 54.96	C
ATOM	4273	CD1	ILE C 642	154.266	180.730	164.070	1.00 54.96	C
ATOM	4274	N	SER C 643	157.755	180.263	159.125	1.00 54.47	N
ATOM	4275	CA	SER C 643	157.960	179.728	157.787	1.00 54.47	C
ATOM	4276	C	SER C 643	157.709	178.227	157.766	1.00 54.47	C
ATOM	4277	O	SER C 643	158.269	177.484	158.575	1.00 54.47	O
ATOM	4278	CB	SER C 643	159.377	180.031	157.309	1.00 54.47	C
ATOM	4279	OG	SER C 643	160.319	179.221	157.983	1.00 54.47	O
ATOM	4280	N	THR C 644	156.873	177.784	156.832	1.00 58.22	N
ATOM	4281	CA	THR C 644	156.525	176.378	156.719	1.00 58.22	C
ATOM	4282	C	THR C 644	157.744	175.558	156.307	1.00 58.22	C
ATOM	4283	O	THR C 644	158.827	176.084	156.046	1.00 58.22	O
ATOM	4284	CB	THR C 644	155.391	176.196	155.718	1.00 58.22	C
ATOM	4285	OG1	THR C 644	155.641	177.011	154.570	1.00 58.22	O
ATOM	4286	CG2	THR C 644	154.076	176.609	156.337	1.00 58.22	C
ATOM	4287	N	VAL C 645	157.559	174.243	156.247	1.00 63.43	N
ATOM	4288	CA	VAL C 645	158.627	173.324	155.875	1.00 63.43	C
ATOM	4289	C	VAL C 645	158.483	172.840	154.438	1.00 63.43	C
ATOM	4290	O	VAL C 645	159.477	172.732	153.721	1.00 63.43	O
ATOM	4291	CB	VAL C 645	158.685	172.132	156.852	1.00 63.43	C

ATOM	4292	CG1	VAL	C 645	159.642	171.082	156.335	1.00 63.43 C
ATOM	4293	CG2	VAL	C 645	159.130	172.598	158.218	1.00 63.43 C
ATOM	4294	N	ASP	C 646	157.259	172.540	153.998	1.00 75.17 N
ATOM	4295	CA	ASP	C 646	157.079	172.028	152.643	1.00 75.17 C
ATOM	4296	C	ASP	C 646	157.646	172.993	151.611	1.00 75.17 C
ATOM	4297	O	ASP	C 646	158.508	172.622	150.807	1.00 75.17 O
ATOM	4298	CB	ASP	C 646	155.602	171.763	152.359	1.00 75.17 C
ATOM	4299	CG	ASP	C 646	155.377	171.226	150.961	1.00 75.17 C
ATOM	4300	OD1	ASP	C 646	156.355	170.763	150.339	1.00 75.17 O
ATOM	4301	OD2	ASP	C 646	154.226	171.274	150.480	1.00 75.17 O
ATOM	4302	N	SER	C 647	157.170	174.237	151.612	1.00 79.06 N
ATOM	4303	CA	SER	C 647	157.691	175.220	150.674	1.00 79.06 C
ATOM	4304	C	SER	C 647	158.980	175.830	151.204	1.00 79.06 C
ATOM	4305	O	SER	C 647	159.134	177.056	151.222	1.00 79.06 O
ATOM	4306	CB	SER	C 647	156.656	176.315	150.412	1.00 79.06 C
ATOM	4307	OG	SER	C 647	157.280	177.505	149.959	1.00 79.06 O
ATOM	4308	N	MET	C 648	159.910	174.977	151.638	1.00 79.37 N
ATOM	4309	CA	MET	C 648	161.264	175.418	151.963	1.00 79.37 C
ATOM	4310	C	MET	C 648	162.178	174.193	151.918	1.00 79.37 C
ATOM	4311	O	MET	C 648	162.234	173.424	152.881	1.00 79.37 O
ATOM	4312	CB	MET	C 648	161.328	176.108	153.315	1.00 79.37 C
ATOM	4313	CG	MET	C 648	160.913	177.565	153.297	1.00 79.37 C
ATOM	4314	SD	MET	C 648	161.213	178.362	154.883	1.00 79.37 S
ATOM	4315	CE	MET	C 648	163.000	178.300	154.952	1.00 79.37 C
ATOM	4316	N	ILE	C 649	162.878	174.026	150.801	1.00 86.72 N
ATOM	4317	CA	ILE	C 649	164.007	173.112	150.727	1.00 86.72 C
ATOM	4318	C	ILE	C 649	165.321	173.858	150.582	1.00 86.72 C
ATOM	4319	O	ILE	C 649	166.386	173.242	150.747	1.00 86.72 O
ATOM	4320	CB	ILE	C 649	163.842	172.097	149.578	1.00 86.72 C
ATOM	4321	CG1	ILE	C 649	162.425	171.525	149.557	1.00 86.72 C
ATOM	4322	CG2	ILE	C 649	164.859	170.978	149.709	1.00 86.72 C
ATOM	4323	CD1	ILE	C 649	162.177	170.569	148.413	1.00 86.72 C
ATOM	4324	N	ALA	C 650	165.285	175.153	150.293	1.00 90.45 N
ATOM	4325	CA	ALA	C 650	166.488	175.931	150.044	1.00 90.45 C
ATOM	4326	C	ALA	C 650	167.227	176.160	151.359	1.00 90.45 C
ATOM	4327	O	ALA	C 650	166.875	175.622	152.412	1.00 90.45 O
ATOM	4328	CB	ALA	C 650	166.134	177.241	149.348	1.00 90.45 C

ATOM	4329	N	LEU C 651	168.275	176.973	151.298	1.00 89.48	N
ATOM	4330	CA	LEU C 651	169.127	177.186	152.456	1.00 89.48	C
ATOM	4331	C	LEU C 651	168.350	177.816	153.606	1.00 89.48	C
ATOM	4332	O	LEU C 651	167.333	178.489	153.417	1.00 89.48	O
ATOM	4333	CB	LEU C 651	170.322	178.064	152.079	1.00 89.48	C
ATOM	4334	CG	LEU C 651	170.057	179.541	151.779	1.00 89.48	C
ATOM	4335	CD1	LEU C 651	171.369	180.301	151.680	1.00 89.48	C
ATOM	4336	CD2	LEU C 651	169.248	179.704	150.503	1.00 89.48	C
ATOM	4337	N	ASP C 652	168.858	177.581	154.813	1.00 81.96	N
ATOM	4338	CA	ASP C 652	168.325	178.095	156.070	1.00 81.96	C
ATOM	4339	C	ASP C 652	169.467	178.810	156.785	1.00 81.96	C
ATOM	4340	O	ASP C 652	169.839	178.485	157.912	1.00 81.96	O
ATOM	4341	CB	ASP C 652	167.718	176.993	156.935	1.00 81.96	C
ATOM	4342	CG	ASP C 652	168.599	175.771	157.019	1.00 81.96	C
ATOM	4343	OD1	ASP C 652	169.808	175.889	156.736	1.00 81.96	O
ATOM	4344	OD2	ASP C 652	168.081	174.690	157.367	1.00 81.96	O
ATOM	4345	N	ILE C 653	170.014	179.822	156.110	1.00 84.10	N
ATOM	4346	CA	ILE C 653	171.447	180.079	156.018	1.00 84.10	C
ATOM	4347	C	ILE C 653	172.192	179.622	157.263	1.00 84.10	C
ATOM	4348	O	ILE C 653	173.225	178.953	157.157	1.00 84.10	O
ATOM	4349	CB	ILE C 653	171.706	181.576	155.763	1.00 84.10	C
ATOM	4350	CG1	ILE C 653	170.834	182.434	156.684	1.00 84.10	C
ATOM	4351	CG2	ILE C 653	171.436	181.926	154.311	1.00 84.10	C
ATOM	4352	CD1	ILE C 653	171.343	183.848	156.868	1.00 84.10	C
ATOM	4353	N	ASP C 654	171.693	179.959	158.437	1.00 75.25	N
ATOM	4354	CA	ASP C 654	172.325	179.341	159.590	1.00 75.25	C
ATOM	4355	C	ASP C 654	171.523	179.558	160.863	1.00 75.25	C
ATOM	4356	O	ASP C 654	171.107	180.685	161.155	1.00 75.25	O
ATOM	4357	CB	ASP C 654	173.748	179.874	159.765	1.00 75.25	C
ATOM	4358	CG	ASP C 654	173.833	181.375	159.589	1.00 75.25	C
ATOM	4359	OD1	ASP C 654	173.064	181.920	158.771	1.00 75.25	O
ATOM	4360	OD2	ASP C 654	174.671	182.008	160.263	1.00 75.25	O
ATOM	4361	N	PRO C 655	171.287	178.509	161.639	1.00 63.65	N
ATOM	4362	CA	PRO C 655	170.844	178.699	163.020	1.00 63.65	C
ATOM	4363	C	PRO C 655	171.940	179.379	163.826	1.00 63.65	C
ATOM	4364	O	PRO C 655	173.084	179.505	163.390	1.00 63.65	O
ATOM	4365	CB	PRO C 655	170.573	177.273	163.503	1.00 63.65	C

ATOM	4366	CG	PRO	C	655	170.326	176.495	162.240	1.00 63.65	C
ATOM	4367	CD	PRO	C	655	171.250	177.095	161.236	1.00 63.65	C
ATOM	4368	N	LEU	C	656	171.580	179.822	165.027	1.00 51.88	N
ATOM	4369	CA	LEU	C	656	172.436	180.724	165.783	1.00 51.88	C
ATOM	4370	C	LEU	C	656	173.171	180.062	166.945	1.00 51.88	C
ATOM	4371	O	LEU	C	656	173.842	180.762	167.708	1.00 51.88	O
ATOM	4372	CB	LEU	C	656	171.627	181.913	166.295	1.00 51.88	C
ATOM	4373	CG	LEU	C	656	171.815	183.187	165.482	1.00 51.88	C
ATOM	4374	CD1	LEU	C	656	171.171	184.349	166.195	1.00 51.88	C
ATOM	4375	CD2	LEU	C	656	173.286	183.441	165.261	1.00 51.88	C
ATOM	4376	N	GLU	C	657	173.081	178.743	167.105	1.00 50.59	N
ATOM	4377	CA	GLU	C	657	173.855	178.057	168.138	1.00 50.59	C
ATOM	4378	C	GLU	C	657	173.516	178.608	169.528	1.00 50.59	C
ATOM	4379	O	GLU	C	657	174.338	179.216	170.213	1.00 50.59	O
ATOM	4380	CB	GLU	C	657	175.352	178.182	167.840	1.00 50.59	C
ATOM	4381	CG	GLU	C	657	176.268	177.568	168.873	1.00 50.59	C
ATOM	4382	CD	GLU	C	657	177.658	177.314	168.327	1.00 50.59	C
ATOM	4383	OE1	GLU	C	657	177.769	176.844	167.177	1.00 50.59	O
ATOM	4384	OE2	GLU	C	657	178.644	177.587	169.041	1.00 50.59	O
ATOM	4385	N	ASN	C	658	172.262	178.393	169.914	1.00 47.73	N
ATOM	4386	CA	ASN	C	658	171.750	178.910	171.174	1.00 47.73	C
ATOM	4387	C	ASN	C	658	172.384	178.194	172.363	1.00 47.73	C
ATOM	4388	O	ASN	C	658	172.959	177.111	172.238	1.00 47.73	O
ATOM	4389	CB	ASN	C	658	170.233	178.757	171.235	1.00 47.73	C
ATOM	4390	CG	ASN	C	658	169.542	179.374	170.048	1.00 47.73	C
ATOM	4391	OD1	ASN	C	658	169.932	180.438	169.576	1.00 47.73	O
ATOM	4392	ND2	ASN	C	658	168.509	178.711	169.555	1.00 47.73	N
ATOM	4393	N	THR	C	659	172.268	178.818	173.534	1.00 49.56	N
ATOM	4394	CA	THR	C	659	172.796	178.283	174.781	1.00 49.56	C
ATOM	4395	C	THR	C	659	171.707	178.307	175.845	1.00 49.56	C
ATOM	4396	O	THR	C	659	170.565	178.694	175.590	1.00 49.56	O
ATOM	4397	CB	THR	C	659	174.023	179.070	175.255	1.00 49.56	C
ATOM	4398	OG1	THR	C	659	174.531	178.485	176.458	1.00 49.56	O
ATOM	4399	CG2	THR	C	659	173.649	180.508	175.526	1.00 49.56	C
ATOM	4400	N	ASP	C	660	172.074	177.887	177.055	1.00 54.68	N
ATOM	4401	CA	ASP	C	660	171.131	177.770	178.161	1.00 54.68	C
ATOM	4402	C	ASP	C	660	171.881	177.685	179.485	1.00 54.68	C

ATOM	4403	O	ASP	C	660	172.721	176.801	179.665	1.00	54.68	O
ATOM	4404	CB	ASP	C	660	170.243	176.542	177.973	1.00	54.68	C
ATOM	4405	CG	ASP	C	660	169.034	176.565	178.867	1.00	54.68	C
ATOM	4406	OD1	ASP	C	660	169.133	177.128	179.974	1.00	54.68	O
ATOM	4407	OD2	ASP	C	660	167.983	176.032	178.460	1.00	54.68	O
ATOM	4408	N	PHE	C	661	171.587	178.586	180.424	1.00	54.71	N
ATOM	4409	CA	PHE	C	661	172.411	178.715	181.616	1.00	54.71	C
ATOM	4410	C	PHE	C	661	171.795	178.136	182.879	1.00	54.71	C
ATOM	4411	O	PHE	C	661	172.520	177.934	183.855	1.00	54.71	O
ATOM	4412	CB	PHE	C	661	172.756	180.189	181.866	1.00	54.71	C
ATOM	4413	CG	PHE	C	661	173.828	180.718	180.961	1.00	54.71	C
ATOM	4414	CD1	PHE	C	661	175.139	180.314	181.112	1.00	54.71	C
ATOM	4415	CD2	PHE	C	661	173.524	181.615	179.957	1.00	54.71	C
ATOM	4416	CE1	PHE	C	661	176.123	180.796	180.280	1.00	54.71	C
ATOM	4417	CE2	PHE	C	661	174.506	182.098	179.125	1.00	54.71	C
ATOM	4418	CZ	PHE	C	661	175.806	181.688	179.287	1.00	54.71	C
ATOM	4419	N	ARG	C	662	170.491	177.863	182.896	1.00	59.66	N
ATOM	4420	CA	ARG	C	662	169.880	177.285	184.089	1.00	59.66	C
ATOM	4421	C	ARG	C	662	170.104	175.780	184.148	1.00	59.66	C
ATOM	4422	O	ARG	C	662	170.654	175.257	185.125	1.00	59.66	O
ATOM	4423	CB	ARG	C	662	168.386	177.608	184.129	1.00	59.66	C
ATOM	4424	CG	ARG	C	662	168.065	179.091	184.156	1.00	59.66	C
ATOM	4425	CD	ARG	C	662	168.175	179.654	185.558	1.00	59.66	C
ATOM	4426	NE	ARG	C	662	167.073	180.561	185.870	1.00	59.66	N
ATOM	4427	CZ	ARG	C	662	167.021	181.831	185.486	1.00	59.66	C
ATOM	4428	NH1	ARG	C	662	168.010	182.347	184.772	1.00	59.66	N
ATOM	4429	NH2	ARG	C	662	165.982	182.585	185.815	1.00	59.66	N
ATOM	4430	N	VAL	C	663	169.681	175.062	183.106	1.00	59.08	N
ATOM	4431	CA	VAL	C	663	169.842	173.612	183.103	1.00	59.08	C
ATOM	4432	C	VAL	C	663	171.314	173.236	183.108	1.00	59.08	C
ATOM	4433	O	VAL	C	663	171.697	172.206	183.674	1.00	59.08	O
ATOM	4434	CB	VAL	C	663	169.109	172.989	181.901	1.00	59.08	C
ATOM	4435	CG1	VAL	C	663	167.638	173.350	181.937	1.00	59.08	C
ATOM	4436	CG2	VAL	C	663	169.748	173.431	180.606	1.00	59.08	C
ATOM	4437	N	LEU	C	664	172.165	174.047	182.480	1.00	57.60	N
ATOM	4438	CA	LEU	C	664	173.594	173.764	182.519	1.00	57.60	C
ATOM	4439	C	LEU	C	664	174.120	173.807	183.947	1.00	57.60	C

ATOM	4440	O	LEU C 664	174.913	172.952	184.351	1.00 57.60	O
ATOM	4441	CB	LEU C 664	174.351	174.751	181.636	1.00 57.60	C
ATOM	4442	CG	LEU C 664	174.402	174.403	180.152	1.00 57.60	C
ATOM	4443	CD1	LEU C 664	175.410	175.280	179.440	1.00 57.60	C
ATOM	4444	CD2	LEU C 664	174.746	172.944	179.977	1.00 57.60	C
ATOM	4445	N	GLU C 665	173.684	174.794	184.731	1.00 63.50	N
ATOM	4446	CA	GLU C 665	174.088	174.846	186.131	1.00 63.50	C
ATOM	4447	C	GLU C 665	173.508	173.677	186.910	1.00 63.50	C
ATOM	4448	O	GLU C 665	174.181	173.101	187.772	1.00 63.50	O
ATOM	4449	CB	GLU C 665	173.655	176.169	186.756	1.00 63.50	C
ATOM	4450	CG	GLU C 665	174.322	177.383	186.149	1.00 63.50	C
ATOM	4451	CD	GLU C 665	173.833	178.677	186.760	1.00 63.50	C
ATOM	4452	OE1	GLU C 665	172.679	178.714	187.234	1.00 63.50	O
ATOM	4453	OE2	GLU C 665	174.604	179.658	186.769	1.00 63.50	O
ATOM	4454	N	LEU C 666	172.258	173.311	186.623	1.00 66.79	N
ATOM	4455	CA	LEU C 666	171.658	172.162	187.293	1.00 66.79	C
ATOM	4456	C	LEU C 666	172.447	170.886	187.035	1.00 66.79	C
ATOM	4457	O	LEU C 666	172.606	170.063	187.940	1.00 66.79	O
ATOM	4458	CB	LEU C 666	170.212	171.992	186.836	1.00 66.79	C
ATOM	4459	CG	LEU C 666	169.365	170.938	187.545	1.00 66.79	C
ATOM	4460	CD1	LEU C 666	167.902	171.327	187.486	1.00 66.79	C
ATOM	4461	CD2	LEU C 666	169.575	169.577	186.917	1.00 66.79	C
ATOM	4462	N	TYR C 667	172.947	170.707	185.815	1.00 64.73	N
ATOM	4463	CA	TYR C 667	173.725	169.527	185.465	1.00 64.73	C
ATOM	4464	C	TYR C 667	175.187	169.632	185.869	1.00 64.73	C
ATOM	4465	O	TYR C 667	175.888	168.616	185.866	1.00 64.73	O
ATOM	4466	CB	TYR C 667	173.655	169.270	183.958	1.00 64.73	C
ATOM	4467	CG	TYR C 667	172.343	168.707	183.472	1.00 64.73	C
ATOM	4468	CD1	TYR C 667	171.783	167.588	184.062	1.00 64.73	C
ATOM	4469	CD2	TYR C 667	171.671	169.289	182.411	1.00 64.73	C
ATOM	4470	CE1	TYR C 667	170.589	167.071	183.612	1.00 64.73	C
ATOM	4471	CE2	TYR C 667	170.476	168.781	181.957	1.00 64.73	C
ATOM	4472	CZ	TYR C 667	169.940	167.671	182.560	1.00 64.73	C
ATOM	4473	OH	TYR C 667	168.750	167.159	182.108	1.00 64.73	O
ATOM	4474	N	SER C 668	175.668	170.833	186.195	1.00 71.63	N
ATOM	4475	CA	SER C 668	177.069	170.995	186.575	1.00 71.63	C
ATOM	4476	C	SER C 668	177.401	170.156	187.801	1.00 71.63	C

ATOM	4477	O	SER C 668	178.235	169.247	187.744	1.00 71.63	O
ATOM	4478	CB	SER C 668	177.373	172.470	186.835	1.00 71.63	C
ATOM	4479	OG	SER C 668	177.113	172.805	188.186	1.00 71.63	O
ATOM	4480	N	GLN C 669	176.756	170.457	188.929	1.00 78.96	N
ATOM	4481	CA	GLN C 669	176.935	169.687	190.158	1.00 78.96	C
ATOM	4482	C	GLN C 669	176.147	168.387	190.021	1.00 78.96	C
ATOM	4483	O	GLN C 669	175.062	168.210	190.578	1.00 78.96	O
ATOM	4484	CB	GLN C 669	176.493	170.496	191.371	1.00 78.96	C
ATOM	4485	CG	GLN C 669	175.189	171.259	191.187	1.00 78.96	C
ATOM	4486	CD	GLN C 669	173.991	170.524	191.751	1.00 78.96	C
ATOM	4487	OE1	GLN C 669	174.134	169.600	192.549	1.00 78.96	O
ATOM	4488	NE2	GLN C 669	172.798	170.938	191.345	1.00 78.96	N
ATOM	4489	N	LYS C 670	176.714	167.456	189.257	1.00 81.07	N
ATOM	4490	CA	LYS C 670	176.018	166.222	188.899	1.00 81.07	C
ATOM	4491	C	LYS C 670	176.779	165.021	189.448	1.00 81.07	C
ATOM	4492	O	LYS C 670	177.585	164.395	188.758	1.00 81.07	O
ATOM	4493	CB	LYS C 670	175.828	166.119	187.388	1.00 81.07	C
ATOM	4494	CG	LYS C 670	174.850	165.034	186.971	1.00 81.07	C
ATOM	4495	CD	LYS C 670	173.618	165.005	187.868	1.00 81.07	C
ATOM	4496	CE	LYS C 670	173.087	166.404	188.154	1.00 81.07	C
ATOM	4497	NZ	LYS C 670	172.090	166.414	189.261	1.00 81.07	N
ATOM	4498	N	GLU C 671	176.510	164.709	190.710	1.00 92.28	N
ATOM	4499	CA	GLU C 671	176.718	163.377	191.254	1.00 92.28	C
ATOM	4500	C	GLU C 671	175.538	162.904	192.086	1.00 92.28	C
ATOM	4501	O	GLU C 671	175.358	161.688	192.234	1.00 92.28	O
ATOM	4502	CB	GLU C 671	178.003	163.321	192.094	1.00 92.28	C
ATOM	4503	CG	GLU C 671	179.251	163.032	191.265	1.00 92.28	C
ATOM	4504	CD	GLU C 671	180.538	163.209	192.046	1.00 92.28	C
ATOM	4505	OE1	GLU C 671	180.893	162.298	192.822	1.00 92.28	O
ATOM	4506	OE2	GLU C 671	181.202	164.253	191.874	1.00 92.28	O
ATOM	4507	N	LEU C 672	174.733	163.816	192.625	1.00 90.54	N
ATOM	4508	CA	LEU C 672	173.381	163.517	193.085	1.00 90.54	C
ATOM	4509	C	LEU C 672	172.474	163.649	191.867	1.00 90.54	C
ATOM	4510	O	LEU C 672	172.160	164.756	191.427	1.00 90.54	O
ATOM	4511	CB	LEU C 672	172.968	164.458	194.213	1.00 90.54	C
ATOM	4512	CG	LEU C 672	172.686	165.922	193.859	1.00 90.54	C
ATOM	4513	CD1	LEU C 672	171.931	166.618	194.979	1.00 90.54	C

ATOM	4514	CD2	LEU	C	672	173.978	166.659	193.545	1.00 90.54	C
ATOM	4515	N	ARG	C	673	172.057	162.515	191.309	1.00 82.28	N
ATOM	4516	CA	ARG	C	673	171.401	162.533	190.009	1.00 82.28	C
ATOM	4517	C	ARG	C	673	169.987	163.092	190.094	1.00 82.28	C
ATOM	4518	O	ARG	C	673	169.007	162.361	189.921	1.00 82.28	O
ATOM	4519	CB	ARG	C	673	171.386	161.132	189.400	1.00 82.28	C
ATOM	4520	CG	ARG	C	673	170.658	160.097	190.228	1.00 82.28	C
ATOM	4521	CD	ARG	C	673	171.055	158.707	189.788	1.00 82.28	C
ATOM	4522	NE	ARG	C	673	172.504	158.557	189.748	1.00 82.28	N
ATOM	4523	CZ	ARG	C	673	173.128	157.499	189.247	1.00 82.28	C
ATOM	4524	NH1	ARG	C	673	172.426	156.498	188.738	1.00 82.28	N
ATOM	4525	NH2	ARG	C	673	174.451	157.444	189.251	1.00 82.28	N
ATOM	4526	N	SER	C	674	169.879	164.396	190.356	1.00 81.50	N
ATOM	4527	CA	SER	C	674	168.631	165.133	190.207	1.00 81.50	C
ATOM	4528	C	SER	C	674	168.449	165.649	188.790	1.00 81.50	C
ATOM	4529	O	SER	C	674	167.736	166.638	188.573	1.00 81.50	O
ATOM	4530	CB	SER	C	674	168.574	166.291	191.204	1.00 81.50	C
ATOM	4531	OG	SER	C	674	169.544	167.277	190.896	1.00 81.50	O
ATOM	4532	N	SER	C	675	169.089	164.998	187.820	1.00 71.50	N
ATOM	4533	CA	SER	C	675	169.208	165.560	186.481	1.00 71.50	C
ATOM	4534	C	SER	C	675	167.848	165.737	185.819	1.00 71.50	C
ATOM	4535	O	SER	C	675	167.510	166.839	185.371	1.00 71.50	O
ATOM	4536	CB	SER	C	675	170.112	164.671	185.628	1.00 71.50	C
ATOM	4537	OG	SER	C	675	171.405	164.561	186.194	1.00 71.50	O
ATOM	4538	N	ASN	C	676	167.060	164.665	185.740	1.00 69.14	N
ATOM	4539	CA	ASN	C	676	165.834	164.669	184.949	1.00 69.14	C
ATOM	4540	C	ASN	C	676	165.086	165.984	185.105	1.00 69.14	C
ATOM	4541	O	ASN	C	676	164.779	166.412	186.221	1.00 69.14	O
ATOM	4542	CB	ASN	C	676	164.932	163.504	185.364	1.00 69.14	C
ATOM	4543	CG	ASN	C	676	163.821	163.244	184.362	1.00 69.14	C
ATOM	4544	OD1	ASN	C	676	164.074	162.812	183.238	1.00 69.14	O
ATOM	4545	ND2	ASN	C	676	162.583	163.517	184.763	1.00 69.14	N
ATOM	4546	N	VAL	C	677	164.994	166.705	184.003	1.00 66.21	N
ATOM	4547	CA	VAL	C	677	164.363	167.987	184.022	1.00 66.21	C
ATOM	4548	C	VAL	C	677	163.004	167.950	183.380	1.00 66.21	C
ATOM	4549	O	VAL	C	677	162.021	168.098	184.078	1.00 66.21	O
ATOM	4550	CB	VAL	C	677	165.227	169.041	183.330	1.00 66.21	C

ATOM	4551	CG1	VAL	C	677	166.098 169.748 184.346	1.00 66.21	C
ATOM	4552	CG2	VAL	C	677	166.082 168.397 182.263	1.00 66.21	C
ATOM	4553	N	PHE	C	678	162.917 167.683 182.084	1.00 59.19	N
ATOM	4554	CA	PHE	C	678	161.604 167.758 181.494	1.00 59.19	C
ATOM	4555	C	PHE	C	678	161.073 166.832 180.407	1.00 59.19	C
ATOM	4556	O	PHE	C	678	159.854 166.700 180.337	1.00 59.19	O
ATOM	4557	CB	PHE	C	678	161.428 169.170 180.997	1.00 59.19	C
ATOM	4558	CG	PHE	C	678	160.644 170.024 181.910	1.00 59.19	C
ATOM	4559	CD1	PHE	C	678	159.570 169.522 182.564	1.00 59.19	C
ATOM	4560	CD2	PHE	C	678	161.002 171.317 182.121	1.00 59.19	C
ATOM	4561	CE1	PHE	C	678	158.839 170.305 183.416	1.00 59.19	C
ATOM	4562	CE2	PHE	C	678	160.284 172.112 182.966	1.00 59.19	C
ATOM	4563	CZ	PHE	C	678	159.195 171.606 183.622	1.00 59.19	C
ATOM	4564	N	ASP	C	679	161.935 166.189 179.614	1.00 58.15	N
ATOM	4565	CA	ASP	C	679	161.532 165.373 178.451	1.00 58.15	C
ATOM	4566	C	ASP	C	679	160.609 166.236 177.651	1.00 58.15	C
ATOM	4567	O	ASP	C	679	159.457 165.887 177.448	1.00 58.15	O
ATOM	4568	CB	ASP	C	679	160.822 164.077 178.786	1.00 58.15	C
ATOM	4569	CG	ASP	C	679	161.392 163.432 179.935	1.00 58.15	C
ATOM	4570	OD1	ASP	C	679	162.585 163.645 180.157	1.00 58.15	O
ATOM	4571	OD2	ASP	C	679	160.658 162.724 180.625	1.00 58.15	O
ATOM	4572	N	LEU	C	680	161.143 167.350 177.154	1.00 57.21	N
ATOM	4573	CA	LEU	C	680	160.361 168.369 176.450	1.00 57.21	C
ATOM	4574	C	LEU	C	680	159.285 167.927 175.503	1.00 57.21	C
ATOM	4575	O	LEU	C	680	158.205 168.496 175.552	1.00 57.21	O
ATOM	4576	CB	LEU	C	680	161.189 169.539 175.961	1.00 57.21	C
ATOM	4577	CG	LEU	C	680	161.033 170.461 177.159	1.00 57.21	C
ATOM	4578	CD1	LEU	C	680	162.277 171.224 177.537	1.00 57.21	C
ATOM	4579	CD2	LEU	C	680	159.811 171.341 177.095	1.00 57.21	C
ATOM	4580	N	GLU	C	681	159.554 166.924 174.677	1.00 59.13	N
ATOM	4581	CA	GLU	C	681	158.509 166.370 173.842	1.00 59.13	C
ATOM	4582	C	GLU	C	681	158.793 164.942 173.435	1.00 59.13	C
ATOM	4583	O	GLU	C	681	158.011 164.049 173.742	1.00 59.13	O
ATOM	4584	CB	GLU	C	681	158.170 167.229 172.612	1.00 59.13	C
ATOM	4585	CG	GLU	C	681	156.665 167.319 172.331	1.00 59.13	C
ATOM	4586	CD	GLU	C	681	155.878 168.128 173.365	1.00 59.13	C
ATOM	4587	OE1	GLU	C	681	156.124 169.342 173.510	1.00 59.13	O

ATOM	4588	OE2	GLU C 681	154.993	167.557	174.035	1.00 59.13	O
ATOM	4589	N	GLU C 682	159.920	164.744	172.773	1.00 56.52	N
ATOM	4590	CA	GLU C 682	160.292	163.460	172.223	1.00 56.52	C
ATOM	4591	C	GLU C 682	160.072	162.246	173.074	1.00 56.52	C
ATOM	4592	O	GLU C 682	160.432	162.242	174.218	1.00 56.52	O
ATOM	4593	CB	GLU C 682	161.740	163.493	171.778	1.00 56.52	C
ATOM	4594	CG	GLU C 682	162.679	164.161	172.747	1.00 56.52	C
ATOM	4595	CD	GLU C 682	164.041	164.393	172.133	1.00 56.52	C
ATOM	4596	OE1	GLU C 682	164.353	165.553	171.793	1.00 56.52	O
ATOM	4597	OE2	GLU C 682	164.797	163.418	171.978	1.00 56.52	O
ATOM	4598	N	ILE C 683	159.417	161.237	172.519	1.00 55.18	N
ATOM	4599	CA	ILE C 683	159.253	160.008	173.279	1.00 55.18	C
ATOM	4600	C	ILE C 683	160.579	159.262	173.273	1.00 55.18	C
ATOM	4601	O	ILE C 683	160.792	158.340	174.056	1.00 55.18	O
ATOM	4602	CB	ILE C 683	158.145	159.111	172.696	1.00 55.18	C
ATOM	4603	CG1	ILE C 683	157.344	159.862	171.635	1.00 55.18	C
ATOM	4604	CG2	ILE C 683	157.215	158.632	173.798	1.00 55.18	C
ATOM	4605	CD1	ILE C 683	155.936	159.341	171.460	1.00 55.18	C
ATOM	4606	N	MET C 684	161.467	159.668	172.373	1.00 57.49	N
ATOM	4607	CA	MET C 684	162.794	159.068	172.269	1.00 57.49	C
ATOM	4608	C	MET C 684	163.560	159.156	173.581	1.00 57.49	C
ATOM	4609	O	MET C 684	164.036	158.144	174.104	1.00 57.49	O
ATOM	4610	CB	MET C 684	163.587	159.736	171.147	1.00 57.49	C
ATOM	4611	CG	MET C 684	164.982	159.173	170.962	1.00 57.49	C
ATOM	4612	SD	MET C 684	164.967	157.434	170.501	1.00 57.49	S
ATOM	4613	CE	MET C 684	166.650	157.223	169.931	1.00 57.49	C
ATOM	4614	N	ARG C 685	163.692	160.363	174.130	1.00 57.53	N
ATOM	4615	CA	ARG C 685	164.386	160.574	175.391	1.00 57.53	C
ATOM	4616	C	ARG C 685	163.479	160.364	176.590	1.00 57.53	C
ATOM	4617	O	ARG C 685	163.761	160.891	177.670	1.00 57.53	O
ATOM	4618	CB	ARG C 685	164.995	161.975	175.437	1.00 57.53	C
ATOM	4619	CG	ARG C 685	166.269	162.070	176.266	1.00 57.53	C
ATOM	4620	CD	ARG C 685	167.402	161.225	175.679	1.00 57.53	C
ATOM	4621	NE	ARG C 685	167.625	161.488	174.259	1.00 57.53	N
ATOM	4622	CZ	ARG C 685	168.266	160.662	173.436	1.00 57.53	C
ATOM	4623	NH1	ARG C 685	168.752	159.515	173.887	1.00 57.53	N
ATOM	4624	NH2	ARG C 685	168.421	160.982	172.160	1.00 57.53	N

ATOM	4625	N	GLU	C	686	162.394	159.614	176.419	1.00	56.76	N
ATOM	4626	CA	GLU	C	686	161.476	159.302	177.500	1.00	56.76	C
ATOM	4627	C	GLU	C	686	161.362	157.809	177.759	1.00	56.76	C
ATOM	4628	O	GLU	C	686	160.711	157.414	178.730	1.00	56.76	O
ATOM	4629	CB	GLU	C	686	160.091	159.892	177.205	1.00	56.76	C
ATOM	4630	CG	GLU	C	686	159.033	159.525	178.208	1.00	56.76	C
ATOM	4631	CD	GLU	C	686	158.233	158.330	177.766	1.00	56.76	C
ATOM	4632	OE1	GLU	C	686	157.982	158.210	176.552	1.00	56.76	O
ATOM	4633	OE2	GLU	C	686	157.875	157.499	178.622	1.00	56.76	O
ATOM	4634	N	PHE	C	687	161.973	156.966	176.927	1.00	56.69	N
ATOM	4635	CA	PHE	C	687	162.154	155.563	177.273	1.00	56.69	C
ATOM	4636	C	PHE	C	687	163.625	155.228	177.468	1.00	56.69	C
ATOM	4637	O	PHE	C	687	163.980	154.047	177.540	1.00	56.69	O
ATOM	4638	CB	PHE	C	687	161.522	154.640	176.228	1.00	56.69	C
ATOM	4639	CG	PHE	C	687	162.222	154.628	174.904	1.00	56.69	C
ATOM	4640	CD1	PHE	C	687	161.914	155.563	173.936	1.00	56.69	C
ATOM	4641	CD2	PHE	C	687	163.150	153.647	174.609	1.00	56.69	C
ATOM	4642	CE1	PHE	C	687	162.545	155.542	172.707	1.00	56.69	C
ATOM	4643	CE2	PHE	C	687	163.781	153.619	173.384	1.00	56.69	C
ATOM	4644	CZ	PHE	C	687	163.479	154.566	172.432	1.00	56.69	C
ATOM	4645	N	ASN	C	688	164.485	156.241	177.539	1.00	54.26	N
ATOM	4646	CA	ASN	C	688	165.813	156.096	178.110	1.00	54.26	C
ATOM	4647	C	ASN	C	688	165.808	156.267	179.620	1.00	54.26	C
ATOM	4648	O	ASN	C	688	166.783	155.893	180.279	1.00	54.26	O
ATOM	4649	CB	ASN	C	688	166.771	157.119	177.496	1.00	54.26	C
ATOM	4650	CG	ASN	C	688	167.582	156.546	176.359	1.00	54.26	C
ATOM	4651	OD1	ASN	C	688	168.028	155.402	176.417	1.00	54.26	O
ATOM	4652	ND2	ASN	C	688	167.783	157.339	175.316	1.00	54.26	N
ATOM	4653	N	SER	C	689	164.731	156.823	180.176	1.00	54.91	N
ATOM	4654	CA	SER	C	689	164.614	157.082	181.602	1.00	54.91	C
ATOM	4655	C	SER	C	689	163.628	156.164	182.310	1.00	54.91	C
ATOM	4656	O	SER	C	689	163.588	156.165	183.543	1.00	54.91	O
ATOM	4657	CB	SER	C	689	164.187	158.533	181.841	1.00	54.91	C
ATOM	4658	OG	SER	C	689	165.200	159.439	181.449	1.00	54.91	O
ATOM	4659	N	TYR	C	690	162.834	155.390	181.572	1.00	55.06	N
ATOM	4660	CA	TYR	C	690	161.755	154.632	182.198	1.00	55.06	C
ATOM	4661	C	TYR	C	690	162.291	153.598	183.182	1.00	55.06	C

ATOM	4662	O	TYR C 690	161.741	153.429	184.280	1.00 55.06	O
ATOM	4663	CB	TYR C 690	160.902	153.964	181.124	1.00 55.06	C
ATOM	4664	CG	TYR C 690	159.595	153.422	181.639	1.00 55.06	C
ATOM	4665	CD1	TYR C 690	158.596	154.270	182.078	1.00 55.06	C
ATOM	4666	CD2	TYR C 690	159.360	152.060	181.683	1.00 55.06	C
ATOM	4667	CE1	TYR C 690	157.403	153.776	182.549	1.00 55.06	C
ATOM	4668	CE2	TYR C 690	158.171	151.558	182.151	1.00 55.06	C
ATOM	4669	CZ	TYR C 690	157.197	152.420	182.582	1.00 55.06	C
ATOM	4670	OH	TYR C 690	156.009	151.919	183.050	1.00 55.06	O
ATOM	4671	N	LYS C 691	163.358	152.892	182.809	1.00 55.14	N
ATOM	4672	CA	LYS C 691	163.921	151.864	183.676	1.00 55.14	C
ATOM	4673	C	LYS C 691	164.545	152.431	184.938	1.00 55.14	C
ATOM	4674	O	LYS C 691	165.037	151.656	185.761	1.00 55.14	O
ATOM	4675	CB	LYS C 691	164.961	151.049	182.917	1.00 55.14	C
ATOM	4676	CG	LYS C 691	164.390	150.211	181.803	1.00 55.14	C
ATOM	4677	CD	LYS C 691	165.482	149.769	180.854	1.00 55.14	C
ATOM	4678	CE	LYS C 691	166.290	150.950	180.355	1.00 55.14	C
ATOM	4679	NZ	LYS C 691	165.424	151.970	179.711	1.00 55.14	N
ATOM	4680	N	GLN C 692	164.544	153.750	185.107	1.00 59.71	N
ATOM	4681	CA	GLN C 692	164.993	154.368	186.346	1.00 59.71	C
ATOM	4682	C	GLN C 692	163.830	154.641	187.292	1.00 59.71	C
ATOM	4683	O	GLN C 692	163.951	154.427	188.502	1.00 59.71	O
ATOM	4684	CB	GLN C 692	165.741	155.662	186.039	1.00 59.71	C
ATOM	4685	CG	GLN C 692	166.418	156.275	187.237	1.00 59.71	C
ATOM	4686	CD	GLN C 692	166.458	157.784	187.163	1.00 59.71	C
ATOM	4687	OE1	GLN C 692	165.950	158.382	186.214	1.00 59.71	O
ATOM	4688	NE2	GLN C 692	167.060	158.412	188.167	1.00 59.71	N
ATOM	4689	N	ARG C 693	162.698	155.106	186.763	1.00 59.66	N
ATOM	4690	CA	ARG C 693	161.496	155.213	187.581	1.00 59.66	C
ATOM	4691	C	ARG C 693	161.005	153.838	188.006	1.00 59.66	C
ATOM	4692	O	ARG C 693	160.473	153.671	189.111	1.00 59.66	O
ATOM	4693	CB	ARG C 693	160.399	155.949	186.818	1.00 59.66	C
ATOM	4694	CG	ARG C 693	160.860	157.208	186.135	1.00 59.66	C
ATOM	4695	CD	ARG C 693	161.092	158.309	187.137	1.00 59.66	C
ATOM	4696	NE	ARG C 693	161.944	159.355	186.585	1.00 59.66	N
ATOM	4697	CZ	ARG C 693	162.481	160.332	187.303	1.00 59.66	C
ATOM	4698	NH1	ARG C 693	162.254	160.402	188.607	1.00 59.66	N

ATOM	4699	NH2	ARG	C	693	163.245	161.240	186.716	1.00 59.66	N
ATOM	4700	N	VAL	C	694	161.166	152.839	187.139	1.00 59.74	N
ATOM	4701	CA	VAL	C	694	160.711	151.488	187.448	1.00 59.74	C
ATOM	4702	C	VAL	C	694	161.353	151.005	188.742	1.00 59.74	C
ATOM	4703	O	VAL	C	694	160.826	150.109	189.408	1.00 59.74	O
ATOM	4704	CB	VAL	C	694	161.010	150.517	186.291	1.00 59.74	C
ATOM	4705	CG1	VAL	C	694	160.599	149.111	186.663	1.00 59.74	C
ATOM	4706	CG2	VAL	C	694	160.280	150.950	185.040	1.00 59.74	C
ATOM	4707	N	LYS	C	695	162.489	151.595	189.114	1.00 63.20	N
ATOM	4708	CA	LYS	C	695	163.171	151.246	190.354	1.00 63.20	C
ATOM	4709	C	LYS	C	695	163.006	152.283	191.450	1.00 63.20	C
ATOM	4710	O	LYS	C	695	162.973	151.916	192.626	1.00 63.20	O
ATOM	4711	CB	LYS	C	695	164.667	151.031	190.106	1.00 63.20	C
ATOM	4712	CG	LYS	C	695	165.393	150.415	191.286	1.00 63.20	C
ATOM	4713	CD	LYS	C	695	165.981	151.476	192.201	1.00 63.20	C
ATOM	4714	CE	LYS	C	695	167.166	152.173	191.556	1.00 63.20	C
ATOM	4715	NZ	LYS	C	695	167.811	153.141	192.484	1.00 63.20	N
ATOM	4716	N	TYR	C	696	162.943	153.567	191.098	1.00 67.56	N
ATOM	4717	CA	TYR	C	696	162.530	154.575	192.067	1.00 67.56	C
ATOM	4718	C	TYR	C	696	161.277	154.124	192.801	1.00 67.56	C
ATOM	4719	O	TYR	C	696	161.217	154.151	194.034	1.00 67.56	O
ATOM	4720	CB	TYR	C	696	162.275	155.910	191.367	1.00 67.56	C
ATOM	4721	CG	TYR	C	696	163.479	156.804	191.255	1.00 67.56	C
ATOM	4722	CD1	TYR	C	696	164.757	156.299	191.410	1.00 67.56	C
ATOM	4723	CD2	TYR	C	696	163.336	158.157	190.992	1.00 67.56	C
ATOM	4724	CE1	TYR	C	696	165.861	157.116	191.305	1.00 67.56	C
ATOM	4725	CE2	TYR	C	696	164.430	158.982	190.886	1.00 67.56	C
ATOM	4726	CZ	TYR	C	696	165.692	158.456	191.044	1.00 67.56	C
ATOM	4727	OH	TYR	C	696	166.798	159.268	190.942	1.00 67.56	O
ATOM	4728	N	VAL	C	697	160.261	153.697	192.048	1.00 69.28	N
ATOM	4729	CA	VAL	C	697	158.992	153.294	192.642	1.00 69.28	C
ATOM	4730	C	VAL	C	697	159.099	152.029	193.475	1.00 69.28	C
ATOM	4731	O	VAL	C	697	158.188	151.740	194.257	1.00 69.28	O
ATOM	4732	CB	VAL	C	697	157.924	153.099	191.548	1.00 69.28	C
ATOM	4733	CG1	VAL	C	697	156.600	152.705	192.165	1.00 69.28	C
ATOM	4734	CG2	VAL	C	697	157.774	154.364	190.734	1.00 69.28	C
ATOM	4735	N	GLU	C	698	160.180	151.266	193.336	1.00 73.64	N

ATOM	4736	CA	GLU C 698	160.346	150.045	194.114	1.00 73.64	C
ATOM	4737	C	GLU C 698	161.177	150.241	195.369	1.00 73.64	C
ATOM	4738	O	GLU C 698	160.906	149.591	196.382	1.00 73.64	O
ATOM	4739	CB	GLU C 698	160.991	148.945	193.268	1.00 73.64	C
ATOM	4740	CG	GLU C 698	161.551	147.808	194.098	1.00 73.64	C
ATOM	4741	CD	GLU C 698	161.955	146.615	193.260	1.00 73.64	C
ATOM	4742	OE1	GLU C 698	161.713	146.637	192.036	1.00 73.64	O
ATOM	4743	OE2	GLU C 698	162.513	145.653	193.827	1.00 73.64	O
ATOM	4744	N	ASP C 699	162.185	151.110	195.332	1.00 75.05	N
ATOM	4745	CA	ASP C 699	162.918	151.422	196.552	1.00 75.05	C
ATOM	4746	C	ASP C 699	162.073	152.194	197.554	1.00 75.05	C
ATOM	4747	O	ASP C 699	162.474	152.311	198.715	1.00 75.05	O
ATOM	4748	CB	ASP C 699	164.182	152.216	196.228	1.00 75.05	C
ATOM	4749	CG	ASP C 699	165.138	152.287	197.399	1.00 75.05	C
ATOM	4750	OD1	ASP C 699	164.988	153.199	198.240	1.00 75.05	O
ATOM	4751	OD2	ASP C 699	166.039	151.429	197.483	1.00 75.05	O
ATOM	4752	N	LYS C 700	160.924	152.723	197.133	1.00 76.59	N
ATOM	4753	CA	LYS C 700	160.005	153.418	198.021	1.00 76.59	C
ATOM	4754	C	LYS C 700	158.842	152.546	198.464	1.00 76.59	C
ATOM	4755	O	LYS C 700	158.140	152.913	199.410	1.00 76.59	O
ATOM	4756	CB	LYS C 700	159.446	154.673	197.341	1.00 76.59	C
ATOM	4757	CG	LYS C 700	160.415	155.841	197.251	1.00 76.59	C
ATOM	4758	CD	LYS C 700	161.731	155.435	196.600	1.00 76.59	C
ATOM	4759	CE	LYS C 700	162.374	156.595	195.858	1.00 76.59	C
ATOM	4760	NZ	LYS C 700	163.737	156.259	195.361	1.00 76.59	N
ATOM	4761	N	VAL C 701	158.614	151.421	197.796	1.00 78.43	N
ATOM	4762	CA	VAL C 701	157.545	150.503	198.153	1.00 78.43	C
ATOM	4763	C	VAL C 701	158.057	149.385	199.061	1.00 78.43	C
ATOM	4764	O	VAL C 701	157.367	148.390	199.269	1.00 78.43	O
ATOM	4765	CB	VAL C 701	156.857	149.934	196.903	1.00 78.43	C
ATOM	4766	CG1	VAL C 701	157.814	149.048	196.129	1.00 78.43	C
ATOM	4767	CG2	VAL C 701	155.618	149.157	197.287	1.00 78.43	C
ATOM	4768	N	VAL C 702	159.261	149.533	199.601	1.00 80.83	N
ATOM	4769	CA	VAL C 702	159.791	148.577	200.560	1.00 80.83	C
ATOM	4770	C	VAL C 702	159.787	149.116	201.982	1.00 80.83	C
ATOM	4771	O	VAL C 702	159.718	148.315	202.927	1.00 80.83	O
ATOM	4772	CB	VAL C 702	161.212	148.123	200.169	1.00 80.83	C

ATOM	4773	CG1	VAL	C	702	161.747 147.136 201.188	1.00 80.83	C
ATOM	4774	CG2	VAL	C	702	161.207 147.513 198.781	1.00 80.83	C
ATOM	4775	N	ASP	C	703	159.865 150.429 202.171	1.00 85.56	N
ATOM	4776	CA	ASP	C	703	159.789 151.009 203.504	1.00 85.56	C
ATOM	4777	C	ASP	C	703	158.345 151.018 203.996	1.00 85.56	C
ATOM	4778	O	ASP	C	703	158.041 150.413 205.031	1.00 85.56	O
ATOM	4779	CB	ASP	C	703	160.373 152.421 203.503	1.00 85.56	C
ATOM	4780	CG	ASP	C	703	161.705 152.497 202.787	1.00 85.56	C
ATOM	4781	OD1	ASP	C	703	162.344 151.440 202.612	1.00 85.56	O
ATOM	4782	OD2	ASP	C	703	162.114 153.610 202.399	1.00 85.56	O
ATOM	4783	N	PRO	C	704	157.427 151.683 203.287	1.00 87.45	N
ATOM	4784	CA	PRO	C	704	156.034 151.732 203.751	1.00 87.45	C
ATOM	4785	C	PRO	C	704	155.368 150.369 203.757	1.00 87.45	C
ATOM	4786	O	PRO	C	704	154.795 149.958 204.770	1.00 87.45	O
ATOM	4787	CB	PRO	C	704	155.361 152.673 202.742	1.00 87.45	C
ATOM	4788	CG	PRO	C	704	156.466 153.492 202.197	1.00 87.45	C
ATOM	4789	CD	PRO	C	704	157.643 152.566 202.132	1.00 87.45	C
ATOM	4790	N	LEU	C	705	155.436 149.661 202.631	1.00 92.73	N
ATOM	4791	CA	LEU	C	705	154.792 148.360 202.509	1.00 92.73	C
ATOM	4792	C	LEU	C	705	155.263 147.454 203.637	1.00 92.73	C
ATOM	4793	O	LEU	C	705	156.262 147.761 204.301	1.00 92.73	O
ATOM	4794	CB	LEU	C	705	155.072 147.738 201.142	1.00 92.73	C
ATOM	4795	CG	LEU	C	705	154.069 148.149 200.064	1.00 92.73	C
ATOM	4796	CD1	LEU	C	705	152.696 147.604 200.402	1.00 92.73	C
ATOM	4797	CD2	LEU	C	705	154.016 149.661 199.930	1.00 92.73	C
ATOM	4798	N	PRO	C	706	154.588 146.334 203.874	1.00101.21	N
ATOM	4799	CA	PRO	C	706	154.696 145.656 205.170	1.00101.21	C
ATOM	4800	C	PRO	C	706	156.141 145.393 205.553	1.00101.21	C
ATOM	4801	O	PRO	C	706	156.824 144.567 204.931	1.00101.21	O
ATOM	4802	CB	PRO	C	706	153.932 144.340 204.947	1.00101.21	C
ATOM	4803	CG	PRO	C	706	153.865 144.174 203.463	1.00101.21	C
ATOM	4804	CD	PRO	C	706	153.782 145.561 202.915	1.00101.21	C
ATOM	4805	N	PRO	C	707	156.639 146.082 206.576	1.00101.72	N
ATOM	4806	CA	PRO	C	707	157.871 145.640 207.234	1.00101.72	C
ATOM	4807	C	PRO	C	707	157.575 144.439 208.112	1.00101.72	C
ATOM	4808	O	PRO	C	707	156.463 143.905 208.070	1.00101.72	O
ATOM	4809	CB	PRO	C	707	158.301 146.865 208.053	1.00101.72	C

ATOM	4810	CG	PRO C 707	157.478	148.009	207.519	1.00	101.72 C
ATOM	4811	CD	PRO C 707	156.194	147.388	207.079	1.00	101.72 C
ATOM	4812	N	TYR C 708	158.545	143.997	208.903	1.00	105.59 N
ATOM	4813	CA	TYR C 708	158.364	142.796	209.701	1.00	105.59 C
ATOM	4814	C	TYR C 708	158.911	142.999	211.102	1.00	105.59 C
ATOM	4815	O	TYR C 708	160.027	143.495	211.275	1.00	105.59 O
ATOM	4816	CB	TYR C 708	159.065	141.601	209.057	1.00	105.59 C
ATOM	4817	CG	TYR C 708	160.547	141.817	208.869	1.00	105.59 C
ATOM	4818	CD1	TYR C 708	161.034	142.490	207.760	1.00	105.59 C
ATOM	4819	CD2	TYR C 708	161.458	141.360	209.808	1.00	105.59 C
ATOM	4820	CE1	TYR C 708	162.384	142.691	207.587	1.00	105.59 C
ATOM	4821	CE2	TYR C 708	162.809	141.558	209.644	1.00	105.59 C
ATOM	4822	CZ	TYR C 708	163.267	142.225	208.532	1.00	105.59 C
ATOM	4823	OH	TYR C 708	164.616	142.426	208.359	1.00	105.59 O
ATOM	4824	N	LEU C 709	158.118	142.605	212.096	1.00	105.14 N
ATOM	4825	CA	LEU C 709	158.653	142.359	213.427	1.00	105.14 C
ATOM	4826	C	LEU C 709	159.464	143.547	213.928	1.00	105.14 C
ATOM	4827	O	LEU C 709	160.680	143.440	214.112	1.00	105.14 O
ATOM	4828	CB	LEU C 709	159.499	141.087	213.392	1.00	105.14 C
ATOM	4829	CG	LEU C 709	158.790	139.968	212.623	1.00	105.14 C
ATOM	4830	CD1	LEU C 709	159.597	138.684	212.603	1.00	105.14 C
ATOM	4831	CD2	LEU C 709	157.425	139.726	213.222	1.00	105.14 C
ATOM	4832	N	LYS C 710	158.790	144.681	214.139	1.00	107.58 N
ATOM	4833	CA	LYS C 710	159.429	145.966	214.410	1.00	107.58 C
ATOM	4834	C	LYS C 710	160.756	145.835	215.154	1.00	107.58 C
ATOM	4835	O	LYS C 710	161.788	146.348	214.707	1.00	107.58 O
ATOM	4836	CB	LYS C 710	158.456	146.844	215.211	1.00	107.58 C
ATOM	4837	CG	LYS C 710	157.046	146.914	214.626	1.00	107.58 C
ATOM	4838	CD	LYS C 710	157.020	147.657	213.301	1.00	107.58 C
ATOM	4839	CE	LYS C 710	156.039	147.028	212.326	1.00	107.58 C
ATOM	4840	NZ	LYS C 710	156.310	147.477	210.933	1.00	107.58 N
ATOM	4841	N	GLY C 711	160.746	145.143	216.292	1.00	103.26 N
ATOM	4842	CA	GLY C 711	161.947	144.981	217.085	1.00	103.26 C
ATOM	4843	C	GLY C 711	162.729	143.722	216.774	1.00	103.26 C
ATOM	4844	O	GLY C 711	163.097	142.981	217.688	1.00	103.26 O
ATOM	4845	N	LEU C 712	162.985	143.466	215.491	1.00	99.05 N
ATOM	4846	CA	LEU C 712	163.775	142.311	215.072	1.00	99.05 C

ATOM	4847	C	LEU C 712	164.918	142.649	214.130	1.00 99.05	C
ATOM	4848	O	LEU C 712	165.864	141.860	214.035	1.00 99.05	O
ATOM	4849	CB	LEU C 712	162.882	141.264	214.391	1.00 99.05	C
ATOM	4850	CG	LEU C 712	163.619	140.139	213.668	1.00 99.05	C
ATOM	4851	CD1	LEU C 712	164.537	139.422	214.632	1.00 99.05	C
ATOM	4852	CD2	LEU C 712	162.641	139.170	213.043	1.00 99.05	C
ATOM	4853	N	ASP C 713	164.866	143.783	213.430	1.00101.08	N
ATOM	4854	CA	ASP C 713	165.930	144.132	212.496	1.00101.08	C
ATOM	4855	C	ASP C 713	167.287	144.209	213.184	1.00101.08	C
ATOM	4856	O	ASP C 713	168.324	144.033	212.531	1.00101.08	O
ATOM	4857	CB	ASP C 713	165.596	145.454	211.806	1.00101.08	C
ATOM	4858	CG	ASP C 713	166.599	145.827	210.746	1.00101.08	C
ATOM	4859	OD1	ASP C 713	167.736	146.188	211.108	1.00101.08	O
ATOM	4860	OD2	ASP C 713	166.254	145.766	209.547	1.00101.08	O
ATOM	4861	N	ASP C 714	167.311	144.462	214.494	1.00102.95	N
ATOM	4862	CA	ASP C 714	168.591	144.564	215.186	1.00102.95	C
ATOM	4863	C	ASP C 714	169.296	143.216	215.250	1.00102.95	C
ATOM	4864	O	ASP C 714	170.507	143.132	215.023	1.00102.95	O
ATOM	4865	CB	ASP C 714	168.397	145.133	216.588	1.00102.95	C
ATOM	4866	CG	ASP C 714	169.651	145.808	217.120	1.00102.95	C
ATOM	4867	OD1	ASP C 714	169.965	146.922	216.655	1.00102.95	O
ATOM	4868	OD2	ASP C 714	170.325	145.229	217.996	1.00102.95	O
ATOM	4869	N	LEU C 715	168.559	142.147	215.562	1.00 99.17	N
ATOM	4870	CA	LEU C 715	169.181	140.829	215.605	1.00 99.17	C
ATOM	4871	C	LEU C 715	169.870	140.509	214.288	1.00 99.17	C
ATOM	4872	O	LEU C 715	170.993	139.994	214.275	1.00 99.17	O
ATOM	4873	CB	LEU C 715	168.145	139.757	215.936	1.00 99.17	C
ATOM	4874	CG	LEU C 715	168.732	138.371	216.196	1.00 99.17	C
ATOM	4875	CD1	LEU C 715	169.779	138.430	217.291	1.00 99.17	C
ATOM	4876	CD2	LEU C 715	167.641	137.384	216.554	1.00 99.17	C
ATOM	4877	N	MET C 716	169.217	140.815	213.167	1.00102.19	N
ATOM	4878	CA	MET C 716	169.857	140.625	211.874	1.00102.19	C
ATOM	4879	C	MET C 716	171.002	141.599	211.654	1.00102.19	C
ATOM	4880	O	MET C 716	171.920	141.291	210.888	1.00102.19	O
ATOM	4881	CB	MET C 716	168.835	140.765	210.748	1.00102.19	C
ATOM	4882	CG	MET C 716	169.426	140.603	209.360	1.00102.19	C
ATOM	4883	SD	MET C 716	169.989	142.161	208.652	1.00102.19	S

ATOM	4884	CE	MET C 716	168.421	142.953	208.308	1.00102.19 C
ATOM	4885	N	SER C 717	170.973	142.764	212.298	1.00100.46 N
ATOM	4886	CA	SER C 717	172.067	143.719	212.193	1.00100.46 C
ATOM	4887	C	SER C 717	172.968	143.730	213.419	1.00100.46 C
ATOM	4888	O	SER C 717	174.032	144.353	213.381	1.00100.46 O
ATOM	4889	CB	SER C 717	171.521	145.126	211.946	1.00100.46 C
ATOM	4890	OG	SER C 717	172.477	146.104	212.311	1.00100.46 O
ATOM	4891	N	GLY C 718	172.574	143.064	214.499	1.00102.91 N
ATOM	4892	CA	GLY C 718	173.407	142.982	215.681	1.00102.91 C
ATOM	4893	C	GLY C 718	174.146	141.665	215.733	1.00102.91 C
ATOM	4894	O	GLY C 718	174.999	141.445	216.598	1.00102.91 O
ATOM	4895	N	LEU C 719	173.812	140.777	214.798	1.00105.23 N
ATOM	4896	CA	LEU C 719	174.506	139.509	214.625	1.00105.23 C
ATOM	4897	C	LEU C 719	175.100	139.331	213.240	1.00105.23 C
ATOM	4898	O	LEU C 719	176.076	138.583	213.105	1.00105.23 O
ATOM	4899	CB	LEU C 719	173.563	138.331	214.910	1.00105.23 C
ATOM	4900	CG	LEU C 719	174.133	136.927	214.714	1.00105.23 C
ATOM	4901	CD1	LEU C 719	175.523	136.832	215.306	1.00105.23 C
ATOM	4902	CD2	LEU C 719	173.221	135.890	215.339	1.00105.23 C
ATOM	4903	N	GLY C 720	174.559	139.984	212.215	1.00107.68 N
ATOM	4904	CA	GLY C 720	175.139	139.966	210.892	1.00107.68 C
ATOM	4905	C	GLY C 720	176.413	140.759	210.750	1.00107.68 C
ATOM	4906	O	GLY C 720	176.866	140.995	209.627	1.00107.68 O
ATOM	4907	N	ALA C 721	177.003	141.195	211.862	1.00111.43 N
ATOM	4908	CA	ALA C 721	178.286	141.891	211.836	1.00111.43 C
ATOM	4909	C	ALA C 721	179.271	141.420	212.892	1.00111.43 C
ATOM	4910	O	ALA C 721	180.436	141.828	212.836	1.00111.43 O
ATOM	4911	CB	ALA C 721	178.080	143.401	211.992	1.00111.43 C
ATOM	4912	N	ALA C 722	178.865	140.593	213.852	1.00112.69 N
ATOM	4913	CA	ALA C 722	179.764	140.071	214.875	1.00112.69 C
ATOM	4914	C	ALA C 722	178.970	139.098	215.738	1.00112.69 C
ATOM	4915	O	ALA C 722	177.738	139.061	215.692	1.00112.69 O
ATOM	4916	CB	ALA C 722	180.373	141.183	215.728	1.00112.69 C
ATOM	4917	N	GLY C 723	179.695	138.311	216.529	1.00115.66 N
ATOM	4918	CA	GLY C 723	179.078	137.321	217.391	1.00115.66 C
ATOM	4919	C	GLY C 723	179.078	135.941	216.766	1.00115.66 C
ATOM	4920	O	GLY C 723	178.282	135.662	215.865	1.00115.66 O

ATOM	4921	N	LYS C 724	179.963	135.063	217.239	1.00114.28	N
ATOM	4922	CA	LYS C 724	180.139	133.770	216.588	1.00114.28	C
ATOM	4923	C	LYS C 724	179.092	132.761	217.048	1.00114.28	C
ATOM	4924	O	LYS C 724	178.283	132.279	216.248	1.00114.28	O
ATOM	4925	CB	LYS C 724	181.552	133.244	216.854	1.00114.28	C
ATOM	4926	CG	LYS C 724	182.650	134.065	216.196	1.00114.28	C
ATOM	4927	CD	LYS C 724	182.615	133.921	214.684	1.00114.28	C
ATOM	4928	CE	LYS C 724	183.516	134.945	214.011	1.00114.28	C
ATOM	4929	NZ	LYS C 724	182.950	136.319	214.093	1.00114.28	N
ATOM	4930	N	ALA C 725	179.088	132.434	218.341	1.00112.61	N
ATOM	4931	CA	ALA C 725	178.204	131.412	218.876	1.00112.61	C
ATOM	4932	C	ALA C 725	177.273	131.911	219.969	1.00112.61	C
ATOM	4933	O	ALA C 725	176.290	131.225	220.277	1.00112.61	O
ATOM	4934	CB	ALA C 725	179.018	130.230	219.421	1.00112.61	C
ATOM	4935	N	VAL C 726	177.548	133.068	220.567	1.00110.97	N
ATOM	4936	CA	VAL C 726	176.677	133.582	221.618	1.00110.97	C
ATOM	4937	C	VAL C 726	175.439	134.235	221.020	1.00110.97	C
ATOM	4938	O	VAL C 726	174.334	134.099	221.557	1.00110.97	O
ATOM	4939	CB	VAL C 726	177.453	134.554	222.523	1.00110.97	C
ATOM	4940	CG1	VAL C 726	178.660	133.861	223.130	1.00110.97	C
ATOM	4941	CG2	VAL C 726	177.875	135.783	221.739	1.00110.97	C
ATOM	4942	N	GLY C 727	175.602	134.949	219.907	1.00109.35	N
ATOM	4943	CA	GLY C 727	174.506	135.632	219.250	1.00109.35	C
ATOM	4944	C	GLY C 727	173.225	134.827	219.200	1.00109.35	C
ATOM	4945	O	GLY C 727	172.135	135.366	219.416	1.00109.35	O
ATOM	4946	N	VAL C 728	173.345	133.529	218.921	1.00105.49	N
ATOM	4947	CA	VAL C 728	172.163	132.676	218.862	1.00105.49	C
ATOM	4948	C	VAL C 728	171.448	132.659	220.207	1.00105.49	C
ATOM	4949	O	VAL C 728	170.214	132.675	220.268	1.00105.49	O
ATOM	4950	CB	VAL C 728	172.547	131.258	218.407	1.00105.49	C
ATOM	4951	CG1	VAL C 728	171.330	130.351	218.424	1.00105.49	C
ATOM	4952	CG2	VAL C 728	173.172	131.301	217.024	1.00105.49	C
ATOM	4953	N	ALA C 729	172.205	132.641	221.306	1.00103.77	N
ATOM	4954	CA	ALA C 729	171.580	132.585	222.626	1.00103.77	C
ATOM	4955	C	ALA C 729	170.889	133.899	222.973	1.00103.77	C
ATOM	4956	O	ALA C 729	169.776	133.900	223.517	1.00103.77	O
ATOM	4957	CB	ALA C 729	172.623	132.230	223.684	1.00103.77	C

ATOM	4958	N	ILE C 730	171.543	135.027	222.691	1.00102.68	N
ATOM	4959	CA	ILE C 730	170.896	136.320	222.893	1.00102.68	C
ATOM	4960	C	ILE C 730	169.610	136.397	222.084	1.00102.68	C
ATOM	4961	O	ILE C 730	168.581	136.874	222.573	1.00102.68	O
ATOM	4962	CB	ILE C 730	171.860	137.467	222.539	1.00102.68	C
ATOM	4963	CG1	ILE C 730	173.035	137.494	223.515	1.00102.68	C
ATOM	4964	CG2	ILE C 730	171.131	138.792	222.544	1.00102.68	C
ATOM	4965	CD1	ILE C 730	174.138	138.439	223.109	1.00102.68	C
ATOM	4966	N	GLY C 731	169.649	135.936	220.835	1.00101.03	N
ATOM	4967	CA	GLY C 731	168.439	135.915	220.033	1.00101.03	C
ATOM	4968	C	GLY C 731	167.365	135.022	220.623	1.00101.03	C
ATOM	4969	O	GLY C 731	166.183	135.364	220.608	1.00101.03	O
ATOM	4970	N	ALA C 732	167.764	133.869	221.161	1.00101.79	N
ATOM	4971	CA	ALA C 732	166.789	132.943	221.726	1.00101.79	C
ATOM	4972	C	ALA C 732	166.128	133.511	222.973	1.00101.79	C
ATOM	4973	O	ALA C 732	164.949	133.239	223.225	1.00101.79	O
ATOM	4974	CB	ALA C 732	167.457	131.607	222.045	1.00101.79	C
ATOM	4975	N	VAL C 733	166.864	134.288	223.766	1.00 99.72	N
ATOM	4976	CA	VAL C 733	166.253	134.918	224.934	1.00 99.72	C
ATOM	4977	C	VAL C 733	165.378	136.092	224.515	1.00 99.72	C
ATOM	4978	O	VAL C 733	164.270	136.277	225.037	1.00 99.72	O
ATOM	4979	CB	VAL C 733	167.335	135.348	225.939	1.00 99.72	C
ATOM	4980	CG1	VAL C 733	166.711	136.129	227.075	1.00 99.72	C
ATOM	4981	CG2	VAL C 733	168.064	134.133	226.474	1.00 99.72	C
ATOM	4982	N	GLY C 734	165.857	136.907	223.574	1.00 99.14	N
ATOM	4983	CA	GLY C 734	165.025	137.965	223.037	1.00 99.14	C
ATOM	4984	C	GLY C 734	163.730	137.448	222.450	1.00 99.14	C
ATOM	4985	O	GLY C 734	162.707	138.128	222.506	1.00 99.14	O
ATOM	4986	N	GLY C 735	163.754	136.246	221.880	1.00100.79	N
ATOM	4987	CA	GLY C 735	162.533	135.676	221.337	1.00100.79	C
ATOM	4988	C	GLY C 735	161.387	135.699	222.326	1.00100.79	C
ATOM	4989	O	GLY C 735	160.241	135.963	221.958	1.00100.79	O
ATOM	4990	N	ALA C 736	161.682	135.429	223.596	1.00101.41	N
ATOM	4991	CA	ALA C 736	160.668	135.451	224.641	1.00101.41	C
ATOM	4992	C	ALA C 736	160.518	136.830	225.267	1.00101.41	C
ATOM	4993	O	ALA C 736	159.399	137.243	225.589	1.00101.41	O
ATOM	4994	CB	ALA C 736	161.004	134.423	225.723	1.00101.41	C

ATOM	4995	N	VAL C 737	161.622	137.560	225.441	1.00100.83	N
ATOM	4996	CA	VAL C 737	161.534	138.872	226.074	1.00100.83	C
ATOM	4997	C	VAL C 737	160.813	139.890	225.198	1.00100.83	C
ATOM	4998	O	VAL C 737	160.313	140.896	225.713	1.00100.83	O
ATOM	4999	CB	VAL C 737	162.934	139.383	226.458	1.00100.83	C
ATOM	5000	CG1	VAL C 737	162.888	140.864	226.779	1.00100.83	C
ATOM	5001	CG2	VAL C 737	163.463	138.608	227.646	1.00100.83	C
ATOM	5002	N	ALA C 738	160.732	139.661	223.889	1.00100.01	N
ATOM	5003	CA	ALA C 738	160.050	140.568	222.979	1.00100.01	C
ATOM	5004	C	ALA C 738	158.629	140.127	222.669	1.00100.01	C
ATOM	5005	O	ALA C 738	158.009	140.671	221.751	1.00100.01	O
ATOM	5006	CB	ALA C 738	160.845	140.715	221.683	1.00100.01	C
ATOM	5007	N	SER C 739	158.106	139.149	223.402	1.00101.86	N
ATOM	5008	CA	SER C 739	156.700	138.788	223.310	1.00101.86	C
ATOM	5009	C	SER C 739	155.858	139.469	224.376	1.00101.86	C
ATOM	5010	O	SER C 739	154.626	139.450	224.279	1.00101.86	O
ATOM	5011	CB	SER C 739	156.532	137.270	223.420	1.00101.86	C
ATOM	5012	OG	SER C 739	155.200	136.886	223.134	1.00101.86	O
ATOM	5013	N	VAL C 740	156.490	140.061	225.383	1.00101.64	N
ATOM	5014	CA	VAL C 740	155.780	140.822	226.404	1.00101.64	C
ATOM	5015	C	VAL C 740	155.728	142.301	226.049	1.00101.64	C
ATOM	5016	O	VAL C 740	154.709	142.964	226.264	1.00101.64	O
ATOM	5017	CB	VAL C 740	156.442	140.596	227.776	1.00101.64	C
ATOM	5018	CG1	VAL C 740	155.837	141.518	228.813	1.00101.64	C
ATOM	5019	CG2	VAL C 740	156.297	139.148	228.197	1.00101.64	C
ATOM	5020	N	VAL C 741	156.828	142.840	225.518	1.00100.21	N
ATOM	5021	CA	VAL C 741	156.847	144.245	225.134	1.00100.21	C
ATOM	5022	C	VAL C 741	155.825	144.520	224.044	1.00100.21	C
ATOM	5023	O	VAL C 741	155.208	145.589	224.020	1.00100.21	O
ATOM	5024	CB	VAL C 741	158.262	144.664	224.696	1.00100.21	C
ATOM	5025	CG1	VAL C 741	158.208	145.971	223.933	1.00100.21	C
ATOM	5026	CG2	VAL C 741	159.167	144.794	225.904	1.00100.21	C
ATOM	5027	N	GLU C 742	155.612	143.568	223.135	1.00102.36	N
ATOM	5028	CA	GLU C 742	154.605	143.772	222.099	1.00102.36	C
ATOM	5029	C	GLU C 742	153.208	143.860	222.699	1.00102.36	C
ATOM	5030	O	GLU C 742	152.415	144.728	222.316	1.00102.36	O
ATOM	5031	CB	GLU C 742	154.677	142.654	221.063	1.00102.36	C

ATOM	5032	CG	GLU	C	742	155.935	142.692	220.228	1.00	102.36	C
ATOM	5033	CD	GLU	C	742	156.018	143.946	219.385	1.00	102.36	C
ATOM	5034	OE1	GLU	C	742	154.954	144.462	218.988	1.00	102.36	O
ATOM	5035	OE2	GLU	C	742	157.143	144.418	219.122	1.00	102.36	O
ATOM	5036	N	GLY	C	743	152.887	142.967	223.634	1.00	103.83	N
ATOM	5037	CA	GLY	C	743	151.599	143.053	224.300	1.00	103.83	C
ATOM	5038	C	GLY	C	743	151.429	144.351	225.062	1.00	103.83	C
ATOM	5039	O	GLY	C	743	150.350	144.948	225.061	1.00	103.83	O
ATOM	5040	N	VAL	C	744	152.495	144.811	225.720	1.00	100.88	N
ATOM	5041	CA	VAL	C	744	152.400	146.049	226.488	1.00	100.88	C
ATOM	5042	C	VAL	C	744	152.328	147.260	225.567	1.00	100.88	C
ATOM	5043	O	VAL	C	744	151.838	148.321	225.966	1.00	100.88	O
ATOM	5044	CB	VAL	C	744	153.579	146.160	227.470	1.00	100.88	C
ATOM	5045	CG1	VAL	C	744	153.633	147.548	228.073	1.00	100.88	C
ATOM	5046	CG2	VAL	C	744	153.450	145.114	228.561	1.00	100.88	C
ATOM	5047	N	ALA	C	745	152.810	147.131	224.330	1.00	100.69	N
ATOM	5048	CA	ALA	C	745	152.741	148.247	223.394	1.00	100.69	C
ATOM	5049	C	ALA	C	745	151.381	148.320	222.712	1.00	100.69	C
ATOM	5050	O	ALA	C	745	150.817	149.409	222.565	1.00	100.69	O
ATOM	5051	CB	ALA	C	745	153.853	148.132	222.354	1.00	100.69	C
ATOM	5052	N	THR	C	746	150.840	147.177	222.286	1.00	103.62	N
ATOM	5053	CA	THR	C	746	149.498	147.168	221.717	1.00	103.62	C
ATOM	5054	C	THR	C	746	148.463	147.695	222.699	1.00	103.62	C
ATOM	5055	O	THR	C	746	147.395	148.150	222.276	1.00	103.62	O
ATOM	5056	CB	THR	C	746	149.119	145.757	221.271	1.00	103.62	C
ATOM	5057	OG1	THR	C	746	150.028	145.316	220.256	1.00	103.62	O
ATOM	5058	CG2	THR	C	746	147.707	145.736	220.720	1.00	103.62	C
ATOM	5059	N	PHE	C	747	148.753	147.645	223.998	1.00	100.32	N
ATOM	5060	CA	PHE	C	747	147.859	148.191	225.007	1.00	100.32	C
ATOM	5061	C	PHE	C	747	147.859	149.713	225.022	1.00	100.32	C
ATOM	5062	O	PHE	C	747	146.919	150.313	225.550	1.00	100.32	O
ATOM	5063	CB	PHE	C	747	148.249	147.654	226.385	1.00	100.32	C
ATOM	5064	CG	PHE	C	747	147.331	148.077	227.493	1.00	100.32	C
ATOM	5065	CD1	PHE	C	747	147.553	149.252	228.185	1.00	100.32	C
ATOM	5066	CD2	PHE	C	747	146.258	147.286	227.859	1.00	100.32	C
ATOM	5067	CE1	PHE	C	747	146.715	149.638	229.208	1.00	100.32	C
ATOM	5068	CE2	PHE	C	747	145.417	147.668	228.882	1.00	100.32	C

ATOM	5069	CZ	PHE C 747	145.647	148.845	229.557	1.00100.32 C
ATOM	5070	N	LEU C 748	148.886	150.348	224.455	1.00100.74 N
ATOM	5071	CA	LEU C 748	148.979	151.801	224.393	1.00100.74 C
ATOM	5072	C	LEU C 748	148.494	152.355	223.057	1.00100.74 C
ATOM	5073	O	LEU C 748	148.934	153.427	222.632	1.00100.74 O
ATOM	5074	CB	LEU C 748	150.413	152.255	224.665	1.00100.74 C
ATOM	5075	CG	LEU C 748	150.999	151.888	226.029	1.00100.74 C
ATOM	5076	CD1	LEU C 748	152.412	152.421	226.165	1.00100.74 C
ATOM	5077	CD2	LEU C 748	150.123	152.416	227.145	1.00100.74 C
ATOM	5078	N	LYS C 749	147.596	151.638	222.383	1.00101.31 N
ATOM	5079	CA	LYS C 749	146.989	152.109	221.148	1.00101.31 C
ATOM	5080	C	LYS C 749	145.487	152.311	221.269	1.00101.31 C
ATOM	5081	O	LYS C 749	144.863	152.794	220.318	1.00101.31 O
ATOM	5082	CB	LYS C 749	147.284	151.135	220.001	1.00101.31 C
ATOM	5083	CG	LYS C 749	148.730	150.686	219.926	1.00101.31 C
ATOM	5084	CD	LYS C 749	149.634	151.822	219.493	1.00101.31 C
ATOM	5085	CE	LYS C 749	150.997	151.308	219.067	1.00101.31 C
ATOM	5086	NZ	LYS C 749	150.899	150.348	217.935	1.00101.31 N
ATOM	5087	N	ASN C 750	144.890	151.954	222.402	1.00 99.22 N
ATOM	5088	CA	ASN C 750	143.481	152.179	222.659	1.00 99.22 C
ATOM	5089	C	ASN C 750	143.318	153.385	223.564	1.00 99.22 C
ATOM	5090	O	ASN C 750	143.899	153.409	224.657	1.00 99.22 O
ATOM	5091	CB	ASN C 750	142.850	150.954	223.317	1.00 99.22 C
ATOM	5092	CG	ASN C 750	143.041	149.699	222.505	1.00 99.22 C
ATOM	5093	OD1	ASN C 750	144.146	149.401	222.054	1.00 99.22 O
ATOM	5094	ND2	ASN C 750	141.964	148.954	222.308	1.00 99.22 N
ATOM	5095	N	PRO C 751	142.560	154.401	223.151	1.00100.73 N
ATOM	5096	CA	PRO C 751	142.333	155.545	224.048	1.00100.73 C
ATOM	5097	C	PRO C 751	141.993	155.126	225.467	1.00100.73 C
ATOM	5098	O	PRO C 751	142.642	155.578	226.419	1.00100.73 O
ATOM	5099	CB	PRO C 751	141.181	156.285	223.362	1.00100.73 C
ATOM	5100	CG	PRO C 751	141.354	155.969	221.925	1.00100.73 C
ATOM	5101	CD	PRO C 751	141.875	154.563	221.859	1.00100.73 C
ATOM	5102	N	PHE C 752	140.995	154.258	225.637	1.00101.71 N
ATOM	5103	CA	PHE C 752	140.670	153.752	226.963	1.00101.71 C
ATOM	5104	C	PHE C 752	141.802	152.937	227.568	1.00101.71 C
ATOM	5105	O	PHE C 752	141.772	152.666	228.773	1.00101.71 O

ATOM	5106	CB	PHE	C	752	139.401	152.904	226.907	1.00	101.71	C
ATOM	5107	CG	PHE	C	752	138.379	153.405	225.931	1.00	101.71	C
ATOM	5108	CD1	PHE	C	752	137.793	154.646	226.099	1.00	101.71	C
ATOM	5109	CD2	PHE	C	752	138.005	152.636	224.845	1.00	101.71	C
ATOM	5110	CE1	PHE	C	752	136.854	155.109	225.202	1.00	101.71	C
ATOM	5111	CE2	PHE	C	752	137.067	153.094	223.948	1.00	101.71	C
ATOM	5112	CZ	PHE	C	752	136.491	154.332	224.127	1.00	101.71	C
ATOM	5113	N	GLY	C	753	142.787	152.535	226.771	1.00	101.58	N
ATOM	5114	CA	GLY	C	753	143.929	151.817	227.295	1.00	101.58	C
ATOM	5115	C	GLY	C	753	145.025	152.751	227.758	1.00	101.58	C
ATOM	5116	O	GLY	C	753	145.482	152.669	228.901	1.00	101.58	O
ATOM	5117	N	ALA	C	754	145.453	153.653	226.874	1.00	102.92	N
ATOM	5118	CA	ALA	C	754	146.478	154.624	227.225	1.00	102.92	C
ATOM	5119	C	ALA	C	754	145.983	155.675	228.205	1.00	102.92	C
ATOM	5120	O	ALA	C	754	146.796	156.456	228.708	1.00	102.92	O
ATOM	5121	CB	ALA	C	754	147.008	155.311	225.966	1.00	102.92	C
ATOM	5122	N	PHE	C	755	144.682	155.716	228.487	1.00	103.84	N
ATOM	5123	CA	PHE	C	755	144.139	156.697	229.414	1.00	103.84	C
ATOM	5124	C	PHE	C	755	144.210	156.248	230.865	1.00	103.84	C
ATOM	5125	O	PHE	C	755	144.131	157.093	231.763	1.00	103.84	O
ATOM	5126	CB	PHE	C	755	142.687	157.013	229.047	1.00	103.84	C
ATOM	5127	CG	PHE	C	755	142.016	157.970	229.986	1.00	103.84	C
ATOM	5128	CD1	PHE	C	755	142.274	159.326	229.913	1.00	103.84	C
ATOM	5129	CD2	PHE	C	755	141.121	157.513	230.937	1.00	103.84	C
ATOM	5130	CE1	PHE	C	755	141.655	160.208	230.773	1.00	103.84	C
ATOM	5131	CE2	PHE	C	755	140.499	158.392	231.799	1.00	103.84	C
ATOM	5132	CZ	PHE	C	755	140.767	159.741	231.718	1.00	103.84	C
ATOM	5133	N	THR	C	756	144.361	154.946	231.117	1.00	104.91	N
ATOM	5134	CA	THR	C	756	144.462	154.466	232.490	1.00	104.91	C
ATOM	5135	C	THR	C	756	145.854	154.681	233.069	1.00	104.91	C
ATOM	5136	O	THR	C	756	145.998	154.834	234.287	1.00	104.91	O
ATOM	5137	CB	THR	C	756	144.094	152.985	232.562	1.00	104.91	C
ATOM	5138	OG1	THR	C	756	144.104	152.554	233.927	1.00	104.91	O
ATOM	5139	CG2	THR	C	756	145.089	152.155	231.775	1.00	104.91	C
ATOM	5140	N	ILE	C	757	146.886	154.689	232.224	1.00	104.67	N
ATOM	5141	CA	ILE	C	757	148.233	154.964	232.711	1.00	104.67	C
ATOM	5142	C	ILE	C	757	148.331	156.393	233.224	1.00	104.67	C

ATOM	5143	O	ILE C 757	149.013	156.668	234.219	1.00104.67	O
ATOM	5144	CB	ILE C 757	149.268	154.687	231.606	1.00104.67	C
ATOM	5145	CG1	ILE C 757	149.191	153.228	231.159	1.00104.67	C
ATOM	5146	CG2	ILE C 757	150.664	155.024	232.091	1.00104.67	C
ATOM	5147	CD1	ILE C 757	149.043	152.251	232.299	1.00104.67	C
ATOM	5148	N	ILE C 758	147.657	157.327	232.550	1.00104.92	N
ATOM	5149	CA	ILE C 758	147.685	158.719	232.977	1.00104.92	C
ATOM	5150	C	ILE C 758	146.949	158.913	234.293	1.00104.92	C
ATOM	5151	O	ILE C 758	147.157	159.924	234.971	1.00104.92	O
ATOM	5152	CB	ILE C 758	147.098	159.623	231.879	1.00104.92	C
ATOM	5153	CG1	ILE C 758	147.893	159.463	230.584	1.00104.92	C
ATOM	5154	CG2	ILE C 758	147.099	161.071	232.324	1.00104.92	C
ATOM	5155	CD1	ILE C 758	147.602	160.528	229.558	1.00104.92	C
ATOM	5156	N	LEU C 759	146.090	157.969	234.675	1.00107.20	N
ATOM	5157	CA	LEU C 759	145.448	158.002	235.983	1.00107.20	C
ATOM	5158	C	LEU C 759	146.287	157.301	237.041	1.00107.20	C
ATOM	5159	O	LEU C 759	146.345	157.752	238.189	1.00107.20	O
ATOM	5160	CB	LEU C 759	144.062	157.360	235.909	1.00107.20	C
ATOM	5161	CG	LEU C 759	143.026	158.088	235.057	1.00107.20	C
ATOM	5162	CD1	LEU C 759	141.687	157.385	235.141	1.00107.20	C
ATOM	5163	CD2	LEU C 759	142.902	159.530	235.502	1.00107.20	C
ATOM	5164	N	VAL C 760	146.945	156.202	236.671	1.00109.62	N
ATOM	5165	CA	VAL C 760	147.818	155.505	237.611	1.00109.62	C
ATOM	5166	C	VAL C 760	148.969	156.408	238.032	1.00109.62	C
ATOM	5167	O	VAL C 760	149.265	156.557	239.226	1.00109.62	O
ATOM	5168	CB	VAL C 760	148.331	154.191	236.995	1.00109.62	C
ATOM	5169	CG1	VAL C 760	149.606	153.749	237.688	1.00109.62	C
ATOM	5170	CG2	VAL C 760	147.268	153.114	237.093	1.00109.62	C
ATOM	5171	N	ALA C 761	149.649	157.012	237.056	1.00111.45	N
ATOM	5172	CA	ALA C 761	150.767	157.899	237.352	1.00111.45	C
ATOM	5173	C	ALA C 761	150.330	159.222	237.957	1.00111.45	C
ATOM	5174	O	ALA C 761	151.192	160.028	238.321	1.00111.45	O
ATOM	5175	CB	ALA C 761	151.583	158.156	236.084	1.00111.45	C
ATOM	5176	N	ILE C 762	149.027	159.468	238.071	1.00112.60	N
ATOM	5177	CA	ILE C 762	148.527	160.684	238.698	1.00112.60	C
ATOM	5178	C	ILE C 762	148.148	160.364	240.135	1.00112.60	C
ATOM	5179	O	ILE C 762	148.291	161.200	241.033	1.00112.60	O

ATOM	5180	CB	ILE	C	762	147.331	161.265	237.924	1.00	112.60	C
ATOM	5181	CG1	ILE	C	762	147.823	162.129	236.762	1.00	112.60	C
ATOM	5182	CG2	ILE	C	762	146.433	162.064	238.852	1.00	112.60	C
ATOM	5183	CD1	ILE	C	762	146.710	162.720	235.929	1.00	112.60	C
ATOM	5184	N	ALA	C	763	147.659	159.145	240.359	1.00	116.58	N
ATOM	5185	CA	ALA	C	763	147.332	158.709	241.710	1.00	116.58	C
ATOM	5186	C	ALA	C	763	148.577	158.353	242.510	1.00	116.58	C
ATOM	5187	O	ALA	C	763	148.589	158.524	243.735	1.00	116.58	O
ATOM	5188	CB	ALA	C	763	146.380	157.514	241.664	1.00	116.58	C
ATOM	5189	N	VAL	C	764	149.623	157.854	241.849	1.00	119.21	N
ATOM	5190	CA	VAL	C	764	150.835	157.483	242.574	1.00	119.21	C
ATOM	5191	C	VAL	C	764	151.451	158.711	243.238	1.00	119.21	C
ATOM	5192	O	VAL	C	764	151.907	158.655	244.385	1.00	119.21	O
ATOM	5193	CB	VAL	C	764	151.833	156.781	241.635	1.00	119.21	C
ATOM	5194	CG1	VAL	C	764	152.542	157.790	240.747	1.00	119.21	C
ATOM	5195	CG2	VAL	C	764	152.835	155.972	242.438	1.00	119.21	C
ATOM	5196	N	VAL	C	765	151.456	159.843	242.533	1.00	120.59	N
ATOM	5197	CA	VAL	C	765	152.052	161.059	243.082	1.00	120.59	C
ATOM	5198	C	VAL	C	765	151.237	161.555	244.270	1.00	120.59	C
ATOM	5199	O	VAL	C	765	151.787	161.999	245.285	1.00	120.59	O
ATOM	5200	CB	VAL	C	765	152.175	162.139	241.995	1.00	120.59	C
ATOM	5201	CG1	VAL	C	765	152.710	163.426	242.593	1.00	120.59	C
ATOM	5202	CG2	VAL	C	765	153.075	161.656	240.873	1.00	120.59	C
ATOM	5203	N	ILE	C	766	149.913	161.504	244.152	1.00	122.89	N
ATOM	5204	CA	ILE	C	766	149.029	161.882	245.248	1.00	122.89	C
ATOM	5205	C	ILE	C	766	149.360	161.032	246.465	1.00	122.89	C
ATOM	5206	O	ILE	C	766	149.576	161.557	247.564	1.00	122.89	O
ATOM	5207	CB	ILE	C	766	147.549	161.732	244.855	1.00	122.89	C
ATOM	5208	CG1	ILE	C	766	147.173	162.776	243.804	1.00	122.89	C
ATOM	5209	CG2	ILE	C	766	146.658	161.854	246.079	1.00	122.89	C
ATOM	5210	CD1	ILE	C	766	147.463	164.196	244.234	1.00	122.89	C
ATOM	5211	N	ILE	C	767	149.405	159.712	246.278	1.00	124.95	N
ATOM	5212	CA	ILE	C	767	149.722	158.816	247.388	1.00	124.95	C
ATOM	5213	C	ILE	C	767	151.062	159.192	248.006	1.00	124.95	C
ATOM	5214	O	ILE	C	767	151.222	159.207	249.232	1.00	124.95	O
ATOM	5215	CB	ILE	C	767	149.710	157.351	246.918	1.00	124.95	C
ATOM	5216	CG1	ILE	C	767	148.320	156.970	246.408	1.00	124.95	C

ATOM	5217	CG2	ILE C 767	150.132	156.431	248.046	1.00124.95	C
ATOM	5218	CD1	ILE C 767	147.197	157.430	247.305	1.00124.95	C
ATOM	5219	N	ILE C 768	152.048	159.500	247.162	1.00128.30	N
ATOM	5220	CA	ILE C 768	153.371	159.872	247.664	1.00128.30	C
ATOM	5221	C	ILE C 768	153.271	161.094	248.567	1.00128.30	C
ATOM	5222	O	ILE C 768	153.690	161.068	249.729	1.00128.30	O
ATOM	5223	CB	ILE C 768	154.341	160.118	246.497	1.00128.30	C
ATOM	5224	CG1	ILE C 768	154.521	158.845	245.673	1.00128.30	C
ATOM	5225	CG2	ILE C 768	155.679	160.612	247.018	1.00128.30	C
ATOM	5226	CD1	ILE C 768	155.221	157.742	246.418	1.00128.30	C
ATOM	5227	N	TYR C 769	152.718	162.182	248.039	1.00134.80	N
ATOM	5228	CA	TYR C 769	152.648	163.453	248.759	1.00134.80	C
ATOM	5229	C	TYR C 769	152.137	163.283	250.183	1.00134.80	C
ATOM	5230	O	TYR C 769	152.250	164.191	251.005	1.00134.80	O
ATOM	5231	CB	TYR C 769	151.754	164.438	248.007	1.00134.80	C
ATOM	5232	CG	TYR C 769	151.633	165.792	248.668	1.00134.80	C
ATOM	5233	CD1	TYR C 769	152.645	166.735	248.555	1.00134.80	C
ATOM	5234	CD2	TYR C 769	150.505	166.129	249.403	1.00134.80	C
ATOM	5235	CE1	TYR C 769	152.537	167.976	249.155	1.00134.80	C
ATOM	5236	CE2	TYR C 769	150.387	167.366	250.007	1.00134.80	C
ATOM	5237	CZ	TYR C 769	151.406	168.287	249.879	1.00134.80	C
ATOM	5238	OH	TYR C 769	151.293	169.520	250.479	1.00134.80	O
ATOM	5239	N	LEU C 770	150.130	161.114	250.283	1.00141.15	N
ATOM	5240	CA	LEU C 770	149.881	161.697	251.596	1.00141.15	C
ATOM	5241	C	LEU C 770	150.906	161.209	252.611	1.00141.15	C
ATOM	5242	O	LEU C 770	150.902	161.633	253.766	1.00141.15	O
ATOM	5243	CB	LEU C 770	148.467	161.361	252.068	1.00141.15	C
ATOM	5244	CG	LEU C 770	147.365	161.600	251.036	1.00141.15	C
ATOM	5245	CD1	LEU C 770	146.088	160.879	251.433	1.00141.15	C
ATOM	5246	CD2	LEU C 770	147.115	163.088	250.857	1.00141.15	C
ATOM	5247	N	ILE C 771	151.790	160.314	252.165	1.00142.28	N
ATOM	5248	CA	ILE C 771	152.748	159.689	253.075	1.00142.28	C
ATOM	5249	C	ILE C 771	153.684	160.733	253.671	1.00142.28	C
ATOM	5250	O	ILE C 771	153.935	160.753	254.881	1.00142.28	O
ATOM	5251	CB	ILE C 771	153.531	158.582	252.348	1.00142.28	C
ATOM	5252	CG1	ILE C 771	152.572	157.512	251.826	1.00142.28	C
ATOM	5253	CG2	ILE C 771	154.570	157.973	253.272	1.00142.28	C

ATOM	5254	CD1	ILE	C	771	153.262	156.262	251.337	1.00142.28	C
ATOM	5255	N	TYR	C	772	154.220	161.615	252.825	1.00146.80	N
ATOM	5256	CA	TYR	C	772	155.206	162.585	253.292	1.00146.80	C
ATOM	5257	C	TYR	C	772	154.648	163.444	254.419	1.00146.80	C
ATOM	5258	O	TYR	C	772	155.328	163.696	255.420	1.00146.80	O
ATOM	5259	CB	TYR	C	772	155.672	163.458	252.127	1.00146.80	C
ATOM	5260	CG	TYR	C	772	156.800	164.398	252.479	1.00146.80	C
ATOM	5261	CD1	TYR	C	772	158.119	163.964	252.472	1.00146.80	C
ATOM	5262	CD2	TYR	C	772	156.549	165.721	252.814	1.00146.80	C
ATOM	5263	CE1	TYR	C	772	159.155	164.820	252.791	1.00146.80	C
ATOM	5264	CE2	TYR	C	772	157.578	166.585	253.134	1.00146.80	C
ATOM	5265	CZ	TYR	C	772	158.878	166.129	253.121	1.00146.80	C
ATOM	5266	OH	TYR	C	772	159.905	166.988	253.440	1.00146.80	O
ATOM	5267	N	THR	C	773	153.406	163.907	254.272	1.00149.19	N
ATOM	5268	CA	THR	C	773	152.794	164.718	255.319	1.00149.19	C
ATOM	5269	C	THR	C	773	152.662	163.930	256.615	1.00149.19	C
ATOM	5270	O	THR	C	773	153.046	164.407	257.689	1.00149.19	O
ATOM	5271	CB	THR	C	773	151.426	165.228	254.861	1.00149.19	C
ATOM	5272	OG1	THR	C	773	150.462	164.172	254.967	1.00149.19	O
ATOM	5273	CG2	THR	C	773	151.491	165.707	253.421	1.00149.19	C
ATOM	5274	N	ARG	C	774	152.112	162.715	256.533	1.00151.10	N
ATOM	5275	CA	ARG	C	774	151.936	161.896	257.729	1.00151.10	C
ATOM	5276	C	ARG	C	774	153.238	161.769	258.510	1.00151.10	C
ATOM	5277	O	ARG	C	774	153.231	161.787	259.746	1.00151.10	O
ATOM	5278	CB	ARG	C	774	151.404	160.516	257.344	1.00151.10	C
ATOM	5279	CG	ARG	C	774	150.225	160.554	256.386	1.00151.10	C
ATOM	5280	CD	ARG	C	774	149.079	161.368	256.957	1.00151.10	C
ATOM	5281	NE	ARG	C	774	148.023	161.599	255.976	1.00151.10	N
ATOM	5282	CZ	ARG	C	774	146.983	160.793	255.792	1.00151.10	C
ATOM	5283	NH1	ARG	C	774	146.858	159.692	256.522	1.00151.10	N
ATOM	5284	NH2	ARG	C	774	146.069	161.083	254.878	1.00151.10	N
ATOM	5285	N	GLN	C	775	154.365	161.642	257.808	1.00154.55	N
ATOM	5286	CA	GLN	C	775	155.648	161.550	258.494	1.00154.55	C
ATOM	5287	C	GLN	C	775	156.001	162.850	259.204	1.00154.55	C
ATOM	5288	O	GLN	C	775	156.522	162.821	260.324	1.00154.55	O
ATOM	5289	CB	GLN	C	775	156.748	161.169	257.501	1.00154.55	C
ATOM	5290	CG	GLN	C	775	158.160	161.224	258.070	1.00154.55	C

ATOM	5291	CD	GLN	C	775	158.774	162.609	257.984	1.00	154.55	C
ATOM	5292	OE1	GLN	C	775	158.820	163.215	256.914	1.00	154.55	O
ATOM	5293	NE2	GLN	C	775	159.243	163.118	259.116	1.00	154.55	N
ATOM	5294	N	ARG	C	776	155.725	163.995	258.576	1.00	157.83	N
ATOM	5295	CA	ARG	C	776	156.115	165.271	259.168	1.00	157.83	C
ATOM	5296	C	ARG	C	776	155.305	165.571	260.422	1.00	157.83	C
ATOM	5297	O	ARG	C	776	155.831	166.143	261.384	1.00	157.83	O
ATOM	5298	CB	ARG	C	776	155.960	166.392	258.141	1.00	157.83	C
ATOM	5299	CG	ARG	C	776	156.109	167.788	258.717	1.00	157.83	C
ATOM	5300	CD	ARG	C	776	156.472	168.791	257.635	1.00	157.83	C
ATOM	5301	NE	ARG	C	776	157.784	168.515	257.055	1.00	157.83	N
ATOM	5302	CZ	ARG	C	776	158.417	169.328	256.216	1.00	157.83	C
ATOM	5303	NH1	ARG	C	776	157.860	170.475	255.853	1.00	157.83	N
ATOM	5304	NH2	ARG	C	776	159.608	168.993	255.739	1.00	157.83	N
ATOM	5305	N	ARG	C	777	154.024	165.194	260.434	1.00	159.57	N
ATOM	5306	CA	ARG	C	777	153.219	165.391	261.634	1.00	159.57	C
ATOM	5307	C	ARG	C	777	153.723	164.538	262.791	1.00	159.57	C
ATOM	5308	O	ARG	C	777	153.566	164.920	263.956	1.00	159.57	O
ATOM	5309	CB	ARG	C	777	151.752	165.078	261.345	1.00	159.57	C
ATOM	5310	CG	ARG	C	777	150.858	165.133	262.575	1.00	159.57	C
ATOM	5311	CD	ARG	C	777	149.420	164.776	262.236	1.00	159.57	C
ATOM	5312	NE	ARG	C	777	149.264	163.352	261.954	1.00	159.57	N
ATOM	5313	CZ	ARG	C	777	148.189	162.817	261.385	1.00	159.57	C
ATOM	5314	NH1	ARG	C	777	147.169	163.588	261.033	1.00	159.57	N
ATOM	5315	NH2	ARG	C	777	148.133	161.510	261.166	1.00	159.57	N
ATOM	5316	N	LEU	C	778	154.323	163.387	262.493	1.00	161.40	N
ATOM	5317	CA	LEU	C	778	154.868	162.486	263.507	1.00	161.40	C
ATOM	5318	C	LEU	C	778	156.388	162.540	263.554	1.00	161.40	C
ATOM	5319	O	LEU	C	778	157.048	161.519	263.767	1.00	161.40	O
ATOM	5320	CB	LEU	C	778	154.390	161.059	263.257	1.00	161.40	C
ATOM	5321	CG	LEU	C	778	152.912	160.785	263.539	1.00	161.40	C
ATOM	5322	CD1	LEU	C	778	152.684	159.308	263.818	1.00	161.40	C
ATOM	5323	CD2	LEU	C	778	152.422	161.636	264.700	1.00	161.40	C
ATOM	5324	N	CYS	C	779	156.967	163.720	263.352	1.00	163.89	N
ATOM	5325	CA	CYS	C	779	158.416	163.884	263.373	1.00	163.89	C
ATOM	5326	C	CYS	C	779	159.019	163.334	264.660	1.00	163.89	C
ATOM	5327	O	CYS	C	779	159.379	162.160	264.734	1.00	163.89	O

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ATOM   5328  CB  CYS C 779     158.788 165.359 263.209  1.00163.89           C
ATOM   5329  SG  CYS C 779     160.506 165.746 263.617  1.00163.89           S
TER

HETATM 5330  C1  NAG C1001     105.590 151.422 200.576  1.00103.19           C
HETATM 5331  C2  NAG C1001     104.389 151.927 199.785  1.00103.19           C
HETATM 5332  C3  NAG C1001     104.048 150.953 198.663  1.00103.19           C
HETATM 5333  C4  NAG C1001     105.278 150.665 197.814  1.00103.19           C
HETATM 5334  C5  NAG C1001     106.452 150.245 198.696  1.00103.19           C
HETATM 5335  C6  NAG C1001     107.742 150.088 197.928  1.00103.19           C
HETATM 5336  C7  NAG C1001     102.886 153.336 201.117  1.00103.19           C
HETATM 5337  C8  NAG C1001     101.675 153.369 201.998  1.00103.19           C
HETATM 5338  N2  NAG C1001     103.241 152.133 200.653  1.00103.19           N
HETATM 5339  O3  NAG C1001     103.029 151.519 197.848  1.00103.19           O
HETATM 5340  O4  NAG C1001     104.986 149.627 196.885  1.00103.19           O
HETATM 5341  O5  NAG C1001     106.691 151.238 199.703  1.00103.19           O
HETATM 5342  O6  NAG C1001     108.855 150.540 198.687  1.00103.19           O
HETATM 5343  O7  NAG C1001     103.513 154.353 200.835  1.00103.19           O
HETATM 5344  H1  NAG C1001     105.366 150.566 200.985  1.00103.19           H
HETATM 5345  H2  NAG C1001     104.615 152.780 199.372  1.00103.19           H
HETATM 5346  H3  NAG C1001     103.726 150.117 199.050  1.00103.19           H
HETATM 5347  H4  NAG C1001     105.520 151.475 197.327  1.00103.19           H
HETATM 5348  H5  NAG C1001     106.237 149.402 199.137  1.00103.19           H
HETATM 5349  H61 NAG C1001     107.687 150.607 197.105  1.00103.19           H
HETATM 5350  H62 NAG C1001     107.870 149.146 197.705  1.00103.19           H
HETATM 5351  H81 NAG C1001     101.763 152.691 202.695  1.00103.19           H
HETATM 5352  H82 NAG C1001     100.879 153.188 201.463  1.00103.19           H
HETATM 5353  H83 NAG C1001     101.598 154.251 202.409  1.00103.19           H
HETATM 5354  HN2 NAG C1001     102.741 151.408 200.891  1.00103.19           H
HETATM 5355  HO3 NAG C1001     103.344 151.650 197.028  1.00103.19           H
HETATM 5356  HO6 NAG C1001     108.577 151.122 199.297  1.00103.19           H
HETATM 5357  C1  NAG C1002     104.131 149.176 195.908  1.00101.43           C
HETATM 5358  C2  NAG C1002     103.265 147.953 196.088  1.00101.43           C
HETATM 5359  C3  NAG C1002     102.384 147.768 194.867  1.00101.43           C
HETATM 5360  C4  NAG C1002     102.001 149.115 194.267  1.00101.43           C
HETATM 5361  C5  NAG C1002     102.061 150.259 195.285  1.00101.43           C
HETATM 5362  C6  NAG C1002     101.001 150.154 196.357  1.00101.43           C
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HETATM 5363	C7	NAG C1002	104.976	146.680	197.302	1.00101.43 C
HETATM 5364	C8	NAG C1002	105.722	145.384	197.398	1.00101.43 C
HETATM 5365	N2	NAG C1002	104.076	146.768	196.317	1.00101.43 N
HETATM 5366	O3	NAG C1002	101.214	147.041	195.225	1.00101.43 O
HETATM 5367	O4	NAG C1002	102.857	149.415	193.171	1.00101.43 O
HETATM 5368	O5	NAG C1002	103.329	150.333	195.963	1.00101.43 O
HETATM 5369	O6	NAG C1002	100.348	151.399	196.564	1.00101.43 O
HETATM 5370	O7	NAG C1002	105.180	147.606	198.079	1.00101.43 O
HETATM 5371	H1	NAG C1002	104.572	149.130	195.040	1.00101.43 H
HETATM 5372	H2	NAG C1002	102.691	148.092	196.863	1.00101.43 H
HETATM 5373	H3	NAG C1002	102.883	147.263	194.198	1.00101.43 H
HETATM 5374	H4	NAG C1002	101.088	149.050	193.932	1.00101.43 H
HETATM 5375	H5	NAG C1002	101.925	151.096	194.803	1.00101.43 H
HETATM 5376	H61	NAG C1002	101.421	149.873	197.190	1.00101.43 H
HETATM 5377	H62	NAG C1002	100.341	149.485	196.092	1.00101.43 H
HETATM 5378	H81	NAG C1002	106.560	145.453	196.903	1.00101.43 H
HETATM 5379	H82	NAG C1002	105.179	144.667	197.019	1.00101.43 H
HETATM 5380	H83	NAG C1002	105.913	145.188	198.335	1.00101.43 H
HETATM 5381	HN2	NAG C1002	103.958	146.051	195.766	1.00101.43 H
HETATM 5382	HO4	NAG C1002	102.418	149.267	192.414	1.00101.43 H
HETATM 5383	HO6	NAG C1002	100.826	152.048	196.192	1.00101.43 H
HETATM 5384	C1	NAG C1003	102.460	144.767	193.845	1.00100.02 C
HETATM 5385	C2	NAG C1003	102.121	145.003	192.379	1.00100.02 C
HETATM 5386	C3	NAG C1003	101.672	143.698	191.724	1.00100.02 C
HETATM 5387	C4	NAG C1003	102.712	142.609	191.948	1.00100.02 C
HETATM 5388	C5	NAG C1003	103.032	142.487	193.434	1.00100.02 C
HETATM 5389	C6	NAG C1003	104.150	141.513	193.720	1.00100.02 C
HETATM 5390	C7	NAG C1003	101.274	147.152	191.545	1.00100.02 C
HETATM 5391	C8	NAG C1003	100.107	148.091	191.506	1.00100.02 C
HETATM 5392	N2	NAG C1003	101.096	146.023	192.240	1.00100.02 N
HETATM 5393	O3	NAG C1003	101.479	143.901	190.329	1.00100.02 O
HETATM 5394	O4	NAG C1003	102.223	141.362	191.468	1.00100.02 O
HETATM 5395	O5	NAG C1003	103.453	143.758	193.949	1.00100.02 O
HETATM 5396	O6	NAG C1003	104.884	141.899	194.873	1.00100.02 O
HETATM 5397	O7	NAG C1003	102.328	147.402	190.970	1.00100.02 O
HETATM 5398	H1	NAG C1003	101.656	144.484	194.318	1.00100.02 H
HETATM 5399	H2	NAG C1003	102.930	145.307	191.928	1.00100.02 H

HETATM 5400	H3	NAG C1003	100.828	143.418	192.123	1.00100.02 H
HETATM 5401	H4	NAG C1003	103.526	142.836	191.462	1.00100.02 H
HETATM 5402	H5	NAG C1003	102.229	142.202	193.909	1.00100.02 H
HETATM 5403	H61	NAG C1003	104.749	141.485	192.950	1.00100.02 H
HETATM 5404	H62	NAG C1003	103.771	140.625	193.861	1.00100.02 H
HETATM 5405	H81	NAG C1003	99.752	148.209	192.407	1.00100.02 H
HETATM 5406	H82	NAG C1003	99.413	147.721	190.928	1.00100.02 H
HETATM 5407	H83	NAG C1003	100.397	148.954	191.157	1.00100.02 H
HETATM 5408	HN2	NAG C1003	100.292	145.887	192.649	1.00100.02 H
HETATM 5409	HO3	NAG C1003	101.510	143.118	189.913	1.00100.02 H
HETATM 5410	HO4	NAG C1003	102.909	140.838	191.257	1.00100.02 H
HETATM 5411	HO6	NAG C1003	104.585	142.683	195.165	1.00100.02 H
HETATM 5412	C1	NAG C1004	106.333	137.274	163.021	1.00 83.30 C
HETATM 5413	C2	NAG C1004	104.948	137.791	162.685	1.00 83.30 C
HETATM 5414	C3	NAG C1004	104.469	137.177	161.379	1.00 83.30 C
HETATM 5415	C4	NAG C1004	105.488	137.432	160.278	1.00 83.30 C
HETATM 5416	C5	NAG C1004	106.879	136.983	160.721	1.00 83.30 C
HETATM 5417	C6	NAG C1004	107.959	137.379	159.744	1.00 83.30 C
HETATM 5418	C7	NAG C1004	103.925	138.262	164.858	1.00 83.30 C
HETATM 5419	C8	NAG C1004	102.908	137.830	165.864	1.00 83.30 C
HETATM 5420	N2	NAG C1004	104.012	137.510	163.759	1.00 83.30 N
HETATM 5421	O3	NAG C1004	103.214	137.747	161.023	1.00 83.30 O
HETATM 5422	O4	NAG C1004	105.117	136.718	159.105	1.00 83.30 O
HETATM 5423	O5	NAG C1004	107.223	137.593	161.973	1.00 83.30 O
HETATM 5424	O6	NAG C1004	108.499	136.251	159.072	1.00 83.30 O
HETATM 5425	O7	NAG C1004	104.637	139.244	165.032	1.00 83.30 O
HETATM 5426	H1	NAG C1004	106.292	136.306	163.124	1.00 83.30 H
HETATM 5427	H2	NAG C1004	105.001	138.758	162.567	1.00 83.30 H
HETATM 5428	H3	NAG C1004	104.364	136.215	161.500	1.00 83.30 H
HETATM 5429	H4	NAG C1004	105.509	138.387	160.081	1.00 83.30 H
HETATM 5430	H5	NAG C1004	106.877	136.015	160.834	1.00 83.30 H
HETATM 5431	H61	NAG C1004	108.672	137.833	160.232	1.00 83.30 H
HETATM 5432	H62	NAG C1004	107.580	137.996	159.091	1.00 83.30 H
HETATM 5433	H81	NAG C1004	103.279	137.108	166.406	1.00 83.30 H
HETATM 5434	H82	NAG C1004	102.115	137.511	165.395	1.00 83.30 H
HETATM 5435	H83	NAG C1004	102.672	138.588	166.430	1.00 83.30 H
HETATM 5436	HN2	NAG C1004	103.459	136.789	163.679	1.00 83.30 H

HETATM	5437	HO3	NAG	C1004	103.334	138.592	160.781	1.00	83.30	H
HETATM	5438	HO4	NAG	C1004	104.329	136.330	159.235	1.00	83.30	H
HETATM	5439	HO6	NAG	C1004	107.965	135.551	159.191	1.00	83.30	H
HETATM	5440	C1	NAG	C1005	111.254	125.474	162.951	1.00	122.28	C
HETATM	5441	C2	NAG	C1005	111.344	125.583	164.466	1.00	122.28	C
HETATM	5442	C3	NAG	C1005	110.477	124.511	165.117	1.00	122.28	C
HETATM	5443	C4	NAG	C1005	109.049	124.614	164.603	1.00	122.28	C
HETATM	5444	C5	NAG	C1005	109.031	124.568	163.077	1.00	122.28	C
HETATM	5445	C6	NAG	C1005	107.656	124.813	162.500	1.00	122.28	C
HETATM	5446	C7	NAG	C1005	113.088	125.690	166.189	1.00	122.28	C
HETATM	5447	C8	NAG	C1005	114.550	125.548	166.482	1.00	122.28	C
HETATM	5448	N2	NAG	C1005	112.721	125.481	164.921	1.00	122.28	N
HETATM	5449	O3	NAG	C1005	110.494	124.665	166.532	1.00	122.28	O
HETATM	5450	O4	NAG	C1005	108.266	123.543	165.117	1.00	122.28	O
HETATM	5451	O5	NAG	C1005	109.890	125.587	162.541	1.00	122.28	O
HETATM	5452	O6	NAG	C1005	107.447	124.057	161.315	1.00	122.28	O
HETATM	5453	O7	NAG	C1005	112.275	125.976	167.063	1.00	122.28	O
HETATM	5454	H1	NAG	C1005	111.603	124.607	162.673	1.00	122.28	H
HETATM	5455	H2	NAG	C1005	110.992	126.456	164.726	1.00	122.28	H
HETATM	5456	H3	NAG	C1005	110.833	123.632	164.887	1.00	122.28	H
HETATM	5457	H4	NAG	C1005	108.664	125.460	164.898	1.00	122.28	H
HETATM	5458	H5	NAG	C1005	109.351	123.693	162.785	1.00	122.28	H
HETATM	5459	H61	NAG	C1005	107.563	125.763	162.296	1.00	122.28	H
HETATM	5460	H62	NAG	C1005	106.985	124.560	163.162	1.00	122.28	H
HETATM	5461	H81	NAG	C1005	114.823	124.625	166.325	1.00	122.28	H
HETATM	5462	H82	NAG	C1005	114.718	125.784	167.414	1.00	122.28	H
HETATM	5463	H83	NAG	C1005	115.055	126.145	165.897	1.00	122.28	H
HETATM	5464	HN2	NAG	C1005	113.365	125.274	164.310	1.00	122.28	H
HETATM	5465	HO3	NAG	C1005	110.457	123.865	166.916	1.00	122.28	H
HETATM	5466	HO4	NAG	C1005	107.627	123.868	165.641	1.00	122.28	H
HETATM	5467	HO6	NAG	C1005	107.594	123.198	161.485	1.00	122.28	H
HETATM	5468	C1	NAG	C1007	121.980	135.399	130.477	1.00	138.87	C
HETATM	5469	C2	NAG	C1007	121.475	133.964	130.636	1.00	138.87	C
HETATM	5470	C3	NAG	C1007	120.387	133.664	129.605	1.00	138.87	C
HETATM	5471	C4	NAG	C1007	119.300	134.729	129.647	1.00	138.87	C
HETATM	5472	C5	NAG	C1007	119.915	136.116	129.519	1.00	138.87	C
HETATM	5473	C6	NAG	C1007	118.899	137.226	129.661	1.00	138.87	C

HETATM 5474	C7	NAG C1007	122.416	131.693	130.507	1.00138.87 C
HETATM 5475	C8	NAG C1007	123.668	130.883	130.371	1.00138.87 C
HETATM 5476	N2	NAG C1007	122.574	133.021	130.511	1.00138.87 N
HETATM 5477	O3	NAG C1007	119.806	132.392	129.872	1.00138.87 O
HETATM 5478	O4	NAG C1007	118.378	134.523	128.581	1.00138.87 O
HETATM 5479	O5	NAG C1007	120.885	136.304	130.558	1.00138.87 O
HETATM 5480	O6	NAG C1007	118.817	137.684	131.003	1.00138.87 O
HETATM 5481	O7	NAG C1007	121.311	131.169	130.606	1.00138.87 O
HETATM 5482	H1	NAG C1007	122.414	135.493	129.609	1.00138.87 H
HETATM 5483	H2	NAG C1007	121.084	133.871	131.525	1.00138.87 H
HETATM 5484	H3	NAG C1007	120.788	133.652	128.715	1.00138.87 H
HETATM 5485	H4	NAG C1007	118.825	134.665	130.497	1.00138.87 H
HETATM 5486	H5	NAG C1007	120.356	136.190	128.651	1.00138.87 H
HETATM 5487	H61	NAG C1007	118.025	136.892	129.384	1.00138.87 H
HETATM 5488	H62	NAG C1007	119.154	137.968	129.081	1.00138.87 H
HETATM 5489	H81	NAG C1007	124.023	130.979	129.466	1.00138.87 H
HETATM 5490	H82	NAG C1007	123.469	129.944	130.546	1.00138.87 H
HETATM 5491	H83	NAG C1007	124.331	131.201	131.013	1.00138.87 H
HETATM 5492	HN2	NAG C1007	123.420	133.353	130.435	1.00138.87 H
HETATM 5493	HO4	NAG C1007	118.638	133.828	128.096	1.00138.87 H
HETATM 5494	HO6	NAG C1007	118.495	138.512	131.015	1.00138.87 H
HETATM 5495	C1	NAG C1008	118.535	131.943	130.146	1.00142.45 C
HETATM 5496	C2	NAG C1008	117.151	131.997	130.795	1.00142.45 C
HETATM 5497	C3	NAG C1008	116.180	131.096	130.039	1.00142.45 C
HETATM 5498	C4	NAG C1008	116.164	131.461	128.562	1.00142.45 C
HETATM 5499	C5	NAG C1008	117.582	131.412	128.003	1.00142.45 C
HETATM 5500	C6	NAG C1008	117.661	131.865	126.566	1.00142.45 C
HETATM 5501	C7	NAG C1008	117.958	132.262	133.099	1.00142.45 C
HETATM 5502	C8	NAG C1008	117.901	131.729	134.500	1.00142.45 C
HETATM 5503	N2	NAG C1008	117.213	131.616	132.197	1.00142.45 N
HETATM 5504	O3	NAG C1008	114.877	131.227	130.596	1.00142.45 O
HETATM 5505	O4	NAG C1008	115.343	130.554	127.835	1.00142.45 O
HETATM 5506	O5	NAG C1008	118.432	132.286	128.760	1.00142.45 O
HETATM 5507	O6	NAG C1008	117.619	130.763	125.671	1.00142.45 O
HETATM 5508	O7	NAG C1008	118.649	133.230	132.799	1.00142.45 O
HETATM 5509	H1	NAG C1008	118.892	131.038	130.224	1.00142.45 H
HETATM 5510	H2	NAG C1008	116.822	132.915	130.737	1.00142.45 H

HETATM 5511	H3	NAG C1008	116.471	130.168	130.133	1.00142.45 H
HETATM 5512	H4	NAG C1008	115.815	132.365	128.454	1.00142.45 H
HETATM 5513	H5	NAG C1008	117.922	130.500	128.074	1.00142.45 H
HETATM 5514	H61	NAG C1008	118.493	132.360	126.434	1.00142.45 H
HETATM 5515	H62	NAG C1008	116.906	132.456	126.383	1.00142.45 H
HETATM 5516	H81	NAG C1008	118.458	130.932	134.569	1.00142.45 H
HETATM 5517	H82	NAG C1008	116.978	131.499	134.722	1.00142.45 H
HETATM 5518	H83	NAG C1008	118.228	132.408	135.120	1.00142.45 H
HETATM 5519	HN2	NAG C1008	116.715	130.904	132.474	1.00142.45 H
HETATM 5520	HO3	NAG C1008	114.855	130.825	131.388	1.00142.45 H
HETATM 5521	HO4	NAG C1008	115.118	130.919	127.057	1.00142.45 H
HETATM 5522	HO6	NAG C1008	117.483	130.014	126.128	1.00142.45 H
HETATM 5523	C1	NAG C1009	126.109	143.264	120.771	1.00114.80 C
HETATM 5524	C2	NAG C1009	125.875	141.766	120.900	1.00114.80 C
HETATM 5525	C3	NAG C1009	125.251	141.221	119.621	1.00114.80 C
HETATM 5526	C4	NAG C1009	123.994	142.006	119.270	1.00114.80 C
HETATM 5527	C5	NAG C1009	124.283	143.505	119.248	1.00114.80 C
HETATM 5528	C6	NAG C1009	123.036	144.340	119.076	1.00114.80 C
HETATM 5529	C7	NAG C1009	127.536	140.859	122.458	1.00114.80 C
HETATM 5530	C8	NAG C1009	128.829	140.120	122.597	1.00114.80 C
HETATM 5531	N2	NAG C1009	127.110	141.066	121.208	1.00114.80 N
HETATM 5532	O3	NAG C1009	124.931	139.847	119.802	1.00114.80 O
HETATM 5533	O4	NAG C1009	123.515	141.607	117.992	1.00114.80 O
HETATM 5534	O5	NAG C1009	124.880	143.914	120.488	1.00114.80 O
HETATM 5535	O6	NAG C1009	122.623	144.913	120.309	1.00114.80 O
HETATM 5536	O7	NAG C1009	126.906	141.257	123.432	1.00114.80 O
HETATM 5537	H1	NAG C1009	126.736	143.432	120.042	1.00114.80 H
HETATM 5538	H2	NAG C1009	125.243	141.618	121.628	1.00114.80 H
HETATM 5539	H3	NAG C1009	125.896	141.303	118.893	1.00114.80 H
HETATM 5540	H4	NAG C1009	123.308	141.821	119.939	1.00114.80 H
HETATM 5541	H5	NAG C1009	124.901	143.699	118.519	1.00114.80 H
HETATM 5542	H61	NAG C1009	122.319	143.775	118.731	1.00114.80 H
HETATM 5543	H62	NAG C1009	123.217	145.054	118.436	1.00114.80 H
HETATM 5544	H81	NAG C1009	129.571	140.730	122.422	1.00114.80 H
HETATM 5545	H82	NAG C1009	128.852	139.387	121.954	1.00114.80 H
HETATM 5546	H83	NAG C1009	128.902	139.766	123.503	1.00114.80 H
HETATM 5547	HN2	NAG C1009	127.616	140.751	120.518	1.00114.80 H

HETATM	5548	HO3	NAG	C1009	124.973	139.430	119.019	1.00	114.80	H
HETATM	5549	HO4	NAG	C1009	123.430	142.322	117.473	1.00	114.80	H
HETATM	5550	HO6	NAG	C1009	123.295	144.876	120.888	1.00	114.80	H
HETATM	5551	C1	NAG	C1010	124.200	178.245	175.822	1.00	67.96	C
HETATM	5552	C2	NAG	C1010	124.303	179.593	176.503	1.00	67.96	C
HETATM	5553	C3	NAG	C1010	122.925	180.224	176.608	1.00	67.96	C
HETATM	5554	C4	NAG	C1010	122.273	180.287	175.234	1.00	67.96	C
HETATM	5555	C5	NAG	C1010	122.319	178.923	174.546	1.00	67.96	C
HETATM	5556	C6	NAG	C1010	121.880	178.982	173.103	1.00	67.96	C
HETATM	5557	C7	NAG	C1010	125.302	180.530	178.537	1.00	67.96	C
HETATM	5558	C8	NAG	C1010	125.920	180.224	179.867	1.00	67.96	C
HETATM	5559	N2	NAG	C1010	124.917	179.474	177.814	1.00	67.96	N
HETATM	5560	O3	NAG	C1010	123.041	181.533	177.151	1.00	67.96	O
HETATM	5561	O4	NAG	C1010	120.917	180.698	175.363	1.00	67.96	O
HETATM	5562	O5	NAG	C1010	123.658	178.406	174.540	1.00	67.96	O
HETATM	5563	O6	NAG	C1010	122.260	177.808	172.399	1.00	67.96	O
HETATM	5564	O7	NAG	C1010	125.153	181.679	178.138	1.00	67.96	O
HETATM	5565	H1	NAG	C1010	123.614	177.667	176.342	1.00	67.96	H
HETATM	5566	H2	NAG	C1010	124.861	180.171	175.950	1.00	67.96	H
HETATM	5567	H3	NAG	C1010	122.373	179.680	177.199	1.00	67.96	H
HETATM	5568	H4	NAG	C1010	122.754	180.934	174.685	1.00	67.96	H
HETATM	5569	H5	NAG	C1010	121.748	178.301	175.033	1.00	67.96	H
HETATM	5570	H61	NAG	C1010	122.300	179.756	172.680	1.00	67.96	H
HETATM	5571	H62	NAG	C1010	120.912	179.085	173.064	1.00	67.96	H
HETATM	5572	H81	NAG	C1010	125.464	179.462	180.272	1.00	67.96	H
HETATM	5573	H82	NAG	C1010	125.832	180.999	180.453	1.00	67.96	H
HETATM	5574	H83	NAG	C1010	126.865	180.014	179.747	1.00	67.96	H
HETATM	5575	HN2	NAG	C1010	125.050	178.639	178.151	1.00	67.96	H
HETATM	5576	HO3	NAG	C1010	123.022	181.484	178.038	1.00	67.96	H
HETATM	5577	HO4	NAG	C1010	120.659	181.108	174.618	1.00	67.96	H
HETATM	5578	HO6	NAG	C1010	122.933	178.000	171.852	1.00	67.96	H
HETATM	5579	C1	NAG	C1011	118.503	171.767	174.427	1.00	74.66	C
HETATM	5580	C2	NAG	C1011	117.453	172.770	173.979	1.00	74.66	C
HETATM	5581	C3	NAG	C1011	116.792	172.293	172.694	1.00	74.66	C
HETATM	5582	C4	NAG	C1011	117.849	172.008	171.636	1.00	74.66	C
HETATM	5583	C5	NAG	C1011	118.917	171.065	172.186	1.00	74.66	C
HETATM	5584	C6	NAG	C1011	120.076	170.873	171.237	1.00	74.66	C

HETATM 5585	C7	NAG C1011	116.603 173.908 175.977	1.00 74.66		C
HETATM 5586	C8	NAG C1011	115.483 174.004 176.967	1.00 74.66		C
HETATM 5587	N2	NAG C1011	116.459 172.989 175.017	1.00 74.66		N
HETATM 5588	O3	NAG C1011	115.891 173.289 172.225	1.00 74.66		O
HETATM 5589	O4	NAG C1011	117.240 171.416 170.494	1.00 74.66		O
HETATM 5590	O5	NAG C1011	119.465 171.594 173.401	1.00 74.66		O
HETATM 5591	O6	NAG C1011	120.824 169.708 171.557	1.00 74.66		O
HETATM 5592	O7	NAG C1011	117.593 174.629 176.044	1.00 74.66		O
HETATM 5593	H1	NAG C1011	118.067 170.913 174.602	1.00 74.66		H
HETATM 5594	H2	NAG C1011	117.900 173.617 173.790	1.00 74.66		H
HETATM 5595	H3	NAG C1011	116.296 171.473 172.878	1.00 74.66		H
HETATM 5596	H4	NAG C1011	118.270 172.849 171.376	1.00 74.66		H
HETATM 5597	H5	NAG C1011	118.510 170.199 172.376	1.00 74.66		H
HETATM 5598	H61	NAG C1011	120.658 171.654 171.289	1.00 74.66		H
HETATM 5599	H62	NAG C1011	119.733 170.794 170.327	1.00 74.66		H
HETATM 5600	H81	NAG C1011	115.403 173.158 177.447	1.00 74.66		H
HETATM 5601	H82	NAG C1011	114.649 174.194 176.496	1.00 74.66		H
HETATM 5602	H83	NAG C1011	115.672 174.721 177.601	1.00 74.66		H
HETATM 5603	HN2	NAG C1011	115.704 172.478 175.010	1.00 74.66		H
HETATM 5604	HO3	NAG C1011	115.500 173.684 172.918	1.00 74.66		H
HETATM 5605	HO4	NAG C1011	116.362 171.538 170.536	1.00 74.66		H
HETATM 5606	HO6	NAG C1011	120.374 169.224 172.150	1.00 74.66		H
HETATM 5607	C1	NAG C1012	109.471 149.909 150.723	1.00131.36		C
HETATM 5608	C2	NAG C1012	108.013 149.469 150.619	1.00131.36		C
HETATM 5609	C3	NAG C1012	107.177 150.565 149.964	1.00131.36		C
HETATM 5610	C4	NAG C1012	107.365 151.885 150.698	1.00131.36		C
HETATM 5611	C5	NAG C1012	108.849 152.221 150.813	1.00131.36		C
HETATM 5612	C6	NAG C1012	109.111 153.451 151.650	1.00131.36		C
HETATM 5613	C7	NAG C1012	106.741 147.564 149.735	1.00131.36		C
HETATM 5614	C8	NAG C1012	106.804 146.297 148.940	1.00131.36		C
HETATM 5615	N2	NAG C1012	107.896 148.223 149.878	1.00131.36		N
HETATM 5616	O3	NAG C1012	105.803 150.196 149.983	1.00131.36		O
HETATM 5617	O4	NAG C1012	106.700 152.927 149.993	1.00131.36		O
HETATM 5618	O5	NAG C1012	109.550 151.139 151.442	1.00131.36		O
HETATM 5619	O6	NAG C1012	108.559 153.317 152.952	1.00131.36		O
HETATM 5620	O7	NAG C1012	105.694 147.976 150.222	1.00131.36		O
HETATM 5621	H1	NAG C1012	109.837 150.036 149.828	1.00131.36		H

HETATM	5622	H2	NAG C1012	107.672	149.327	151.522	1.00131.36	H
HETATM	5623	H3	NAG C1012	107.463	150.675	149.037	1.00131.36	H
HETATM	5624	H4	NAG C1012	106.984	151.810	151.594	1.00131.36	H
HETATM	5625	H5	NAG C1012	109.214	152.360	149.918	1.00131.36	H
HETATM	5626	H61	NAG C1012	108.710	154.226	151.212	1.00131.36	H
HETATM	5627	H62	NAG C1012	110.073	153.587	151.724	1.00131.36	H
HETATM	5628	H81	NAG C1012	107.524	145.735	149.283	1.00131.36	H
HETATM	5629	H82	NAG C1012	106.974	146.509	148.002	1.00131.36	H
HETATM	5630	H83	NAG C1012	105.954	145.824	149.017	1.00131.36	H
HETATM	5631	HN2	NAG C1012	108.646	147.873	149.495	1.00131.36	H
HETATM	5632	HO3	NAG C1012	105.310	150.882	149.712	1.00131.36	H
HETATM	5633	HO4	NAG C1012	106.240	152.579	149.319	1.00131.36	H
HETATM	5634	HO6	NAG C1012	108.800	154.012	153.450	1.00131.36	H
HETATM	5635	C1	NAG C1013	128.257	163.217	121.874	1.00111.93	C
HETATM	5636	C2	NAG C1013	127.372	164.225	122.597	1.00111.93	C
HETATM	5637	C3	NAG C1013	126.994	165.365	121.656	1.00111.93	C
HETATM	5638	C4	NAG C1013	128.242	165.975	121.031	1.00111.93	C
HETATM	5639	C5	NAG C1013	129.109	164.890	120.398	1.00111.93	C
HETATM	5640	C6	NAG C1013	130.433	165.418	119.899	1.00111.93	C
HETATM	5641	C7	NAG C1013	126.152	162.959	124.309	1.00111.93	C
HETATM	5642	C8	NAG C1013	124.839	162.349	124.700	1.00111.93	C
HETATM	5643	N2	NAG C1013	126.178	163.583	123.128	1.00111.93	N
HETATM	5644	O3	NAG C1013	126.284	166.361	122.383	1.00111.93	O
HETATM	5645	O4	NAG C1013	127.873	166.909	120.024	1.00111.93	O
HETATM	5646	O5	NAG C1013	129.410	163.874	121.366	1.00111.93	O
HETATM	5647	O6	NAG C1013	130.394	166.826	119.715	1.00111.93	O
HETATM	5648	O7	NAG C1013	127.141	162.888	125.030	1.00111.93	O
HETATM	5649	H1	NAG C1013	127.758	162.827	121.132	1.00111.93	H
HETATM	5650	H2	NAG C1013	127.879	164.602	123.340	1.00111.93	H
HETATM	5651	H3	NAG C1013	126.422	165.016	120.946	1.00111.93	H
HETATM	5652	H4	NAG C1013	128.756	166.432	121.722	1.00111.93	H
HETATM	5653	H5	NAG C1013	128.620	164.488	119.655	1.00111.93	H
HETATM	5654	H61	NAG C1013	130.646	164.989	119.049	1.00111.93	H
HETATM	5655	H62	NAG C1013	131.126	165.201	120.552	1.00111.93	H
HETATM	5656	H81	NAG C1013	124.616	161.631	124.078	1.00111.93	H
HETATM	5657	H82	NAG C1013	124.144	163.033	124.670	1.00111.93	H
HETATM	5658	H83	NAG C1013	124.905	161.987	125.604	1.00111.93	H

HETATM	5659	HN2	NAG C1013	125.414	163.605	122.631	1.00111.93 H
HETATM	5660	HO3	NAG C1013	126.855	166.842	122.864	1.00111.93 H
HETATM	5661	HO4	NAG C1013	127.922	166.516	119.228	1.00111.93 H
HETATM	5662	HO6	NAG C1013	131.210	167.122	119.532	1.00111.93 H
HETATM	5663	C1	NAG C1014	144.398	133.702	123.540	1.00129.17 C
HETATM	5664	C2	NAG C1014	145.451	133.261	122.530	1.00129.17 C
HETATM	5665	C3	NAG C1014	144.866	133.264	121.121	1.00129.17 C
HETATM	5666	C4	NAG C1014	143.583	132.444	121.072	1.00129.17 C
HETATM	5667	C5	NAG C1014	142.613	132.919	122.150	1.00129.17 C
HETATM	5668	C6	NAG C1014	141.365	132.070	122.243	1.00129.17 C
HETATM	5669	C7	NAG C1014	147.873	133.662	122.439	1.00129.17 C
HETATM	5670	C8	NAG C1014	148.964	134.687	122.540	1.00129.17 C
HETATM	5671	N2	NAG C1014	146.625	134.116	122.598	1.00129.17 N
HETATM	5672	O3	NAG C1014	145.819	132.726	120.212	1.00129.17 O
HETATM	5673	O4	NAG C1014	142.970	132.580	119.795	1.00129.17 O
HETATM	5674	O5	NAG C1014	143.248	132.863	123.435	1.00129.17 O
HETATM	5675	O6	NAG C1014	141.246	131.457	123.520	1.00129.17 O
HETATM	5676	O7	NAG C1014	148.111	132.478	122.221	1.00129.17 O
HETATM	5677	H1	NAG C1014	144.143	134.624	123.347	1.00129.17 H
HETATM	5678	H2	NAG C1014	145.716	132.346	122.745	1.00129.17 H
HETATM	5679	H3	NAG C1014	144.664	134.184	120.864	1.00129.17 H
HETATM	5680	H4	NAG C1014	143.798	131.504	121.223	1.00129.17 H
HETATM	5681	H5	NAG C1014	142.354	133.841	121.960	1.00129.17 H
HETATM	5682	H61	NAG C1014	141.396	131.375	121.558	1.00129.17 H
HETATM	5683	H62	NAG C1014	140.583	132.634	122.089	1.00129.17 H
HETATM	5684	H81	NAG C1014	148.590	135.536	122.842	1.00129.17 H
HETATM	5685	H82	NAG C1014	149.378	134.807	121.664	1.00129.17 H
HETATM	5686	H83	NAG C1014	149.638	134.385	123.178	1.00129.17 H
HETATM	5687	HN2	NAG C1014	146.504	135.006	122.758	1.00129.17 H
HETATM	5688	HO3	NAG C1014	146.408	132.233	120.658	1.00129.17 H
HETATM	5689	HO4	NAG C1014	143.592	132.538	119.162	1.00129.17 H
HETATM	5690	HO6	NAG C1014	140.795	130.697	123.443	1.00129.17 H
HETATM	5691	C1	NAG C1015	106.745	146.340	157.464	1.00 93.55 C
HETATM	5692	C2	NAG C1015	105.790	145.427	158.228	1.00 93.55 C
HETATM	5693	C3	NAG C1015	104.365	145.609	157.715	1.00 93.55 C
HETATM	5694	C4	NAG C1015	103.970	147.080	157.753	1.00 93.55 C
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Cys Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Cys Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val

900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Cys Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Cys Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly

405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Cys Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Cys Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp

820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Cys Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile

325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Cys Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Cys Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Cys Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe

740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Cys Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
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Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Cys Asn Ser Ser Tyr Val Gln Tyr
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
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Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Cys Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Cys Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu

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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile

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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Cys Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
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Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
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Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Cys His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
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Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met

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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Cys
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
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Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
    770                 775                 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785                 790                 795                 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
                805                 810                 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
            820                 825                 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
        835                 840                 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
    850                 855                 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865                 870                 875                 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
                885                 890                 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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<400> 14

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
            20                  25                  30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
        35                  40                  45
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Cys Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg

500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Cys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Cys Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Cys Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Cys Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln

420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Cys Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Cys Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Cys Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met

835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser

340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Cys Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Cys Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<220>
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Cys Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Cys Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile

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        755                 760                 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
    770                 775                 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785                 790                 795                 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
                805                 810                 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
            820                 825                 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
        835                 840                 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
    850                 855                 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865                 870                 875                 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
                885                 890                 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
            20                  25                  30
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
        35                  40                  45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Cys Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Cys Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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            20                  25                  30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
        35                  40                  45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Cys Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Cys Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn

675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val

180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Cys Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Cys Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Cys Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr

595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Cys Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr

100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Cys Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Cys Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<400> 25

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20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile

515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Cys His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Cys Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser

20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Cys Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Cys Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705                 710                 715                 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
                725                 730                 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
            740                 745                 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
        755                 760                 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
    770                 775                 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785                 790                 795                 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
                805                 810                 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
            820                 825                 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
        835                 840                 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
    850                 855                 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865                 870                 875                 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
                885                 890                 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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            20                  25                  30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
        35                  40                  45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg

435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Cys
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Cys Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
        275                 280                 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
    290                 295                 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305                 310                 315                 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
                325                 330                 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
            340                 345                 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
        355                 360                 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
    370                 375                 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385                 390                 395                 400
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Cys Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Cys Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn

850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser

355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

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465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Cys Cys Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Cys Cys Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln

770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser

275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Cys Cys Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Cys Cys Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro

690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn

195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Cys Cys
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser

610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Cys Cys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val

115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Cys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Cys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
        275                 280                 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
    290                 295                 300
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp

530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Cys Cys Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser

35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Cys Cys Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
        35                  40                  45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly

450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Leu Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Phe Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln

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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met

370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Leu Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
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Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Phe Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
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Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Ser Tyr Leu Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
        755                 760                 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
    770                 775                 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785                 790                 795                 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
                805                 810                 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
            820                 825                 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
        835                 840                 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
    850                 855                 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865                 870                 875                 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
                885                 890                 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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<210> 43
<211> 907
<212> PRT
<213> 人工序列

<220>
<223> 合成胺基酸序列：gB-042 K691F

<400> 43

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1               5                   10                  15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
            20                  25                  30
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Phe Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly

705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 44
<211> 630
<212> PRT
<213> 人巨細胞病毒

<400> 44

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Tyr Gly Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val
1               5                  10                  15

Cys Ser Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile
            20                  25                  30

Ile Cys Thr Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile
        35                  40                  45

Met Val Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg
    50                  55                  60

Val Tyr Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Gly His Arg
65                  70                  75                  80

Thr Thr Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met
                85                  90                  95

Trp Glu Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr
            100                 105                 110

Ser Arg Val Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser
        115                 120                 125

His Glu Asn Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr
    130                 135                 140

His Ser Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly
145                 150                 155                 160

Ser Thr Ala Thr His Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr
                165                 170                 175

Ile Thr Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser
            180                 185                 190

Thr Gly Asp Val Val Tyr Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg
        195                 200                 205

Asn Ala Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro
    210                 215                 220
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Asn Tyr Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu
225 230 235 240

Thr His Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser
245 250 255

Trp Asp Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp
260 265 270

Glu Ala Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His
275 280 285

Phe Ser Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu
290 295 300

Val Asn Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile
305 310 315 320

Asn Lys Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu
325 330 335

Lys Tyr Gly Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val
340 345 350

Phe Trp Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu
355 360 365

Ala Asn Arg Ser Ser Leu Asn Ile Thr His Asp Asp Asp Asp Lys Ser
370 375 380

Thr Ser Asp Asn Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His
385 390 395 400

Asn Leu Val Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly
405 410 415

Tyr Ile Asn Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp
420 425 430

Gln Arg Arg Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro
435 440 445

Ser Ala Ile Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe

```
     450                 455                 460

Met Gly Asp Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr
465                 470                 475                 480

Ser Val Lys Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg
                485                 490                 495

Cys Tyr Ser Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr
            500                 505                 510

Val Gln Tyr Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn
        515                 520                 525

His Arg Thr Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala
    530                 535                 540

Gly Asn Ser Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile
545                 550                 555                 560

Asp Leu Ser Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile
                565                 570                 575

Asp Pro Leu Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln
            580                 585                 590

Lys Glu Leu Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg
        595                 600                 605

Glu Phe Asn Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val
    610                 615                 620

Val Asp Pro Leu Pro Pro
625                 630
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<210> 45
<211> 705
<212> PRT
<213> 人工序列

<220>
<223> 合成序列：gB705

<400> 45

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Val Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Ala His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Gly His Arg Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Ala

225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Ala Thr Lys Ala Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro
705

<210> 46
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 46

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile

165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Arg Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 47
<211> 907
<212> PRT
<213> 人工序列

<220>
<223> 合成胺基酸序列

<400> 47

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Cys
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr

580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Cys Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 48
<211> 907
<212> PRT
<213> 人工序列

<220>
<223> 合成胺基酸序列

<400> 48

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met

85 90 95

Ala Cys Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Cys Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Cys Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Cys Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg

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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Cys Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Cys
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Cys Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln

420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Cys Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Cys Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Cys Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met

835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Cys Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser

340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Cys Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Cys Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Cys Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile

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        755                 760                 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
    770                 775                 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785                 790                 795                 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
                805                 810                 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
            820                 825                 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
        835                 840                 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
    850                 855                 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865                 870                 875                 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
                885                 890                 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
            20                  25                  30
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Cys Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp

260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Cys Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
            20                  25                  30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
        35                  40                  45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Cys Tyr Ser Asn Thr His Ser Thr
    210                 215                 220
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Cys Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn

675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val

180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Cys Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Cys Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Cys Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Cys Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr

595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr

100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Cys Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Cys Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Cys Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile

515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Cys Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Cys Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Cys Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
                725                 730                 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
            740                 745                 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
        755                 760                 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
    770                 775                 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785                 790                 795                 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
                805                 810                 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
            820                 825                 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
        835                 840                 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
    850                 855                 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865                 870                 875                 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Cys Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg

435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Cys Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Cys
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
        275                 280                 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
    290                 295                 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305                 310                 315                 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
                325                 330                 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
            340                 345                 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
        355                 360                 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
    370                 375                 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385                 390                 395                 400
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Cys Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn

850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Cys
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser

355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Cys Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Cys Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Cys Ala Ile Gly Ala Val Gly Gly Ala
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln

770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Cys Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser

275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
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Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Cys Ala Val Gly Gly Ala
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Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
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Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Cys Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

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580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Cys
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro

690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<400> 68

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn

195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Cys Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Cys
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<400> 69

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Cys Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser

610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Cys Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val

115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Cys
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Cys Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270

Cys Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
        275                 280                 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
    290                 295                 300
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp

530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Cys Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser

35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Cys Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Cys Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<400> 73

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Cys Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly

450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Cys Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Cys Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Cys Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln

865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Cys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met

370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Cys Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Cys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Cys Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser

785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr

290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Cys Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Cys Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Cys Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Cys Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly

705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr

210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Cys Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Cys Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Cys Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser

625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Cys Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln

130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Cys Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Cys Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Cys Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys

545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Cys Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 83
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<400> 83

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser

50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Cys Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Cys Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<400> 84

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val

465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Cys Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Cys Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Cys Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Cys Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg

885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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<400> 86

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu

385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Cys Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Cys Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Cys Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Cys Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu

805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg

305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Cys Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Cys Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Cys Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Cys
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala

725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp

225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Cys Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Cys
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Cys
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu

645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Cys Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr

145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Cys Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Cys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser

565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Cys Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Cys Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp

65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Cys Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Cys Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn

485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Cys Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Cys Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
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Cys Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
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Gly Ala Cys Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
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Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
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Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
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Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
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Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
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Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
        355                 360                 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
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Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
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Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
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Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
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Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
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Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
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His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
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His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
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Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
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Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
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Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
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Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
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Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu

660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Gln Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile

165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Ser Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr

580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Gln Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met

85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Pro Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
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Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg

500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
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Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Pro Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

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740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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<400> 107

Tyr Gly Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val

1 5 10 15

Cys Ser Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile
20 25 30

Ile Cys Thr Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile
35 40 45

Met Val Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg
50 55 60

Val Tyr Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Gly His Arg
65 70 75 80

Thr Thr Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met
85 90 95

Trp Glu Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr
100 105 110

Ser Arg Val Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser
115 120 125

His Glu Asn Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr
130 135 140

His Ser Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly
145 150 155 160

Ser Thr Ala Thr His Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr
165 170 175

Ile Thr Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser
180 185 190

Thr Gly Asp Val Val Tyr Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg
195 200 205

Asn Ala Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro
210 215 220

Asn Tyr Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu
225 230 235 240

Thr His Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser
245 250 255

Trp Asp Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp
260 265 270

Glu Ala Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His
275 280 285

Phe Ser Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu
290 295 300

Val Asn Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile
305 310 315 320

Asn Lys Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu
325 330 335

Lys Tyr Gly Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val
340 345 350

Phe Trp Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu
355 360 365

Ala Asn Arg Ser Ser Leu Asn Ile Thr His Asp Asp Asp Asp Lys Ser
370 375 380

Thr Ser Asp Asn Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His
385 390 395 400

Asn Leu Val Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly
405 410 415

Tyr Ile Asn Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp
420 425 430

Gln Arg Arg Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro
435 440 445

Ser Ala Ile Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe
450 455 460

```
Met Gly Asp Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr
465                 470                 475                 480

Ser Val Lys Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg
                485                 490                 495

Cys Tyr Ser Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr
            500                 505                 510

Val Gln Tyr Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn
        515                 520                 525

His Arg Thr Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala
    530                 535                 540

Gly Asn Ser Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile
545                 550                 555                 560

Asp Leu Ser Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile
                565                 570                 575

Asp Pro Leu Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln
            580                 585                 590

Lys Glu Leu Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg
        595                 600                 605

Glu Phe Asn Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val
    610                 615                 620

Val Asp Pro Leu Pro Pro
625                 630
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<210> 108
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Tyr Gly Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val
1               5                   10                  15
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Cys Ser Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile
20 25 30

Ile Cys Thr Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile
35 40 45

Met Val Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg
50 55 60

Val Tyr Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Gly His Arg
65 70 75 80

Thr Thr Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met
85 90 95

Trp Glu Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr
100 105 110

Ser Arg Val Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser
115 120 125

His Glu Asn Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr
130 135 140

His Ser Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly
145 150 155 160

Ser Thr Ala Thr His Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr
165 170 175

Ile Thr Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser
180 185 190

Thr Gly Asp Val Val Tyr Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg
195 200 205

Asn Ala Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro
210 215 220

Asn Tyr Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu
225 230 235 240

Thr His Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser
245 250 255

Trp Asp Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp
260 265 270

Glu Ala Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His
275 280 285

Phe Ser Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu
290 295 300

Val Asn Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile
305 310 315 320

Asn Lys Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu
325 330 335

Lys Tyr Gly Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val
340 345 350

Phe Trp Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu
355 360 365

Ala Asn Arg Ser Ser Leu Asn Ile Thr His Asp Asp Asp Asp Lys Ser
370 375 380

Thr Ser Asp Asn Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His
385 390 395 400

Asn Leu Val Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly
405 410 415

Tyr Ile Asn Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp
420 425 430

Gln Arg Arg Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro
435 440 445

Ser Ala Ile Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe
450 455 460

```
Met Gly Asp Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr
465                 470                 475                 480

Ser Val Lys Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg
                485                 490                 495

Cys Tyr Ser Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr
            500                 505                 510

Val Gln Tyr Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn
        515                 520                 525

His Arg Thr Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala
    530                 535                 540

Gly Asn Ser Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile
545                 550                 555                 560

Asp Leu Ser Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile
                565                 570                 575

Asp Pro Leu Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln
            580                 585                 590

Lys Glu Leu Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg
        595                 600                 605

Glu Phe Asn Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val
    610                 615                 620

Val Asp Pro Leu Pro Pro
625                 630
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<210> 109
<211> 630
<212> PRT
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<400> 109

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Tyr Gly Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val
1               5                   10                  15
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Cys Ser Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile
20 25 30

Ile Cys Thr Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile
35 40 45

Met Val Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg
50 55 60

Val Tyr Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Gly His Arg
65 70 75 80

Thr Thr Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met
85 90 95

Trp Glu Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr
100 105 110

Ser Arg Val Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser
115 120 125

His Glu Asn Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr
130 135 140

His Ser Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly
145 150 155 160

Ser Thr Ala Thr His Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr
165 170 175

Ile Thr Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser
180 185 190

Thr Gly Asp Val Val Tyr Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg
195 200 205

Asn Ala Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro
210 215 220

Asn Tyr Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu
225 230 235 240

Thr His Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser
245 250 255

Trp Asp Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp
260 265 270

Glu Ala Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His
275 280 285

Phe Ser Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu
290 295 300

Val Asn Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile
305 310 315 320

Asn Lys Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu
325 330 335

Lys Tyr Gly Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val
340 345 350

Phe Trp Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu
355 360 365

Ala Asn Arg Ser Ser Leu Asn Ile Thr His Asp Asp Asp Asp Lys Ser
370 375 380

Thr Ser Asp Asn Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His
385 390 395 400

Asn Leu Val Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly
405 410 415

Tyr Ile Asn Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp
420 425 430

Gln Arg Arg Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro
435 440 445

Ser Ala Ile Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe
450 455 460

Met Gly Asp Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr

465 470 475 480

Ser Val Lys Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg
485 490 495

Cys Tyr Ser Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr
500 505 510

Val Gln Tyr Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn
515 520 525

His Arg Thr Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala
530 535 540

Gly Asn Ser Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile
545 550 555 560

Asp Leu Ser Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile
565 570 575

Asp Pro Leu Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln
580 585 590

Lys Glu Leu Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg
595 600 605

Glu Phe Asn Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val
610 615 620

Val Asp Pro Leu Pro Pro
625 630

<210> 110
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 110

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Ala His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala

485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 111
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 111

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1               5                  10                  15

Val Cys Leu Gly Ala Val Val Ser Ser Ser Ser Thr Ser His Ala Thr
            20                  25                  30

Ser Ser Ala His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
        35                  40                  45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
    50                  55                  60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
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225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 112
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 112

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Val Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Ala His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Ser
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Arg Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu

885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 113
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 113

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Tyr
1 5 10 15

Val Cys Leu Gly Ala Val Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Ala His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile

625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

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Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865                 870                 875                 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
                885                 890                 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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<210> 114
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 114

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1               5                   10                  15

Val Cys Leu Gly Val Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
            20                  25                  30

Ser Ser Ala His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
        35                  40                  45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
    50                  55                  60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140
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Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met

370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 115
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 115

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val

115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Arg Asn Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Arg Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Ser
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 116
<211> 905
<212> PRT
<213> 人巨細胞病毒

<400> 116

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Ala Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Lys Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Ile
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Pro Val Leu Asp Cys Val Arg Asn Gln Ala Leu Asp Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser
435 440 445

Ser Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr
450 455 460

Thr Thr Leu Ser Pro Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala
485 490 495

Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu

770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 117
<211> 904
<212> PRT
<213> 人巨細胞病毒

<400> 117

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Asn Gly Ser His Thr Ser His Thr Thr Ser Ala Gln Thr
35 40 45

Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser His
50 55 60

Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val
65 70 75 80

Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala
85 90 95

Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Pro
100 105 110

Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr
115 120 125

Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys
130 135 140

Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu
145 150 155 160

Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His
165 170 175

His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile
180 185 190

Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys
195 200 205

Thr Met Gln Leu Met Leu Asp Asp Tyr Ser Asn Thr His Ser Thr Arg
210 215 220

Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu
225 230 235 240

Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala
245 250 255

Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val
260 265 270

Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Thr Ser Tyr
275 280 285

Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile
290 295 300

Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg Leu
305 310 315 320

Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln
325 330 335

Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu
340 345 350

Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala
355 360 365

Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser
370 375 380

Asp Pro Val Leu Asp Cys Val Arg Asn Gln Ala Leu Asn Lys Leu Gln
385 390 395 400

Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn
405 410 415

Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly
420 425 430

Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala Asn Ser Ser
435 440 445

Gly Val Asn Ser Thr Arg Arg Thr Lys Arg Ser Thr Gly Asn Thr Thr
450 455 460

Thr Leu Ser Leu Glu Ser Glu Ser Val Arg Asn Val Leu Tyr Ala Gln
465 470 475 480

Leu Gln Phe Thr Tyr Asp Thr Leu Arg Ser Tyr Ile Asn Arg Ala Leu
485 490 495

Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu Glu
500 505 510

Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser Ala

515 520 525

Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly
530 535 540

Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg
545 550 555 560

Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val
565 570 575

Val Ile Phe Asn Phe Val Asn Ser Ser Tyr Val Gln Tyr Gly Gln Leu
580 585 590

Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys
595 600 605

Gln Phe Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu
610 615 620

Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser
625 630 635 640

Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn Thr
645 650 655

Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser Ser
660 665 670

Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr Lys
675 680 685

Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro Pro
690 695 700

Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala Gly
705 710 715 720

Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala Ser
725 730 735

Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala Phe
740 745 750

Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu Ile
755 760 765

Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu Phe
770 775 780

Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Ser Ser Thr
785 790 795 800

Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val Tyr
805 810 815

Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser Thr
820 825 830

Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu Ala
835 840 845

Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr Asp
850 855 860

Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro Asn
865 870 875 880

Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu Lys
885 890 895

Asp Ser Asp Glu Glu Glu Asn Val
900

<210> 118
<211> 906
<212> PRT
<213> 人巨細胞病毒

<400> 118

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Tyr Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Ile Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp

260 265 270

Val Val Tyr Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp Asn
450 455 460

Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr
500 505 510

Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg
660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr Tyr
755 760 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
770 775 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785 790 795 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
805 810 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
820 825 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
835 840 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
850 855 860

Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys
865 870 875 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
885 890 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 119
<211> 906
<212> PRT
<213> 人巨細胞病毒

<400> 119

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Tyr Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Ile Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp Asn
450 455 460

Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr
500 505 510

Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg
660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr Tyr
755 760 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
770 775 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785 790 795 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
805 810 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
820 825 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
835 840 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
850 855 860

Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys
865 870 875 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
885 890 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 120

<211> 906
<212> PRT
<213> 人巨細胞病毒

<400> 120

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Tyr Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Ile Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp Asn
450 455 460

Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr
500 505 510

Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg

660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr Tyr
755 760 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
770 775 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785 790 795 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
805 810 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
820 825 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
835 840 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
850 855 860

Thr Asp Ser Leu Asp Gly Gln Ala Gly Thr Gln Asp Lys Gly Gln Lys
865 870 875 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
885 890 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 121
<211> 906
<212> PRT
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<400> 121

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Ser Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly

405 410 415

Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp Asn
450 455 460

Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr
500 505 510

Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg
660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr Tyr
755 760 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
770 775 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785 790 795 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
805 810 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
820 825 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
835 840 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
850 855 860

Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys
865 870 875 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
885 890 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 122
<211> 906
<212> PRT
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<400> 122

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser His Ala Thr
20 25 30

Ser Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln
35 40 45

Thr Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser
50 55 60

His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr

145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp Asn
450 455 460

Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr
500 505 510

Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg
660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr Tyr
755 760 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
770 775 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785 790 795 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
805 810 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
820 825 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
835 840 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
850 855 860

Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys
865 870 875 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
885 890 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 123
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 123

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr His Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Ser Gln Arg Val Thr Ser Ser Glu Ala Val
50 55 60

Ser His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly
65 70 75 80

Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser
85 90 95

Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys
100 105 110

Thr Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val
115 120 125

Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr
130 135 140

Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Thr Thr
145 150 155 160

Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu
165 170 175

Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg
180 185 190

Val Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu
195 200 205

Asn Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr His Ser
210 215 220

Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr
225 230 235 240

Trp Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr Ile Thr
245 250 255

Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly
260 265 270

Asp Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala
275 280 285

Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr
290 295 300

Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His
305 310 315 320

Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp
325 330 335

Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala
340 345 350

Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser
355 360 365

Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn
370 375 380

Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys
385 390 395 400

Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr
405 410 415

Gly Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp
420 425 430

Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn
435 440 445

Arg Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp
450 455 460

Asn Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu

805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 124
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 124

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr His Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Ser Gln Arg Val Thr Ser Ser Glu Ala Val
50 55 60

Ser His Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly
65 70 75 80

Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser
85 90 95

Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys
100 105 110

Thr Pro Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val
115 120 125

Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr
130 135 140

Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Thr Thr
145 150 155 160

Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu
165 170 175

Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser Arg
180 185 190

Val Ile Gly Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu
195 200 205

Asn Lys Thr Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr His Ser
210 215 220

Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr
225 230 235 240

Trp Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Leu Thr Ile Thr
245 250 255

Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly
260 265 270

Asp Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala
275 280 285

Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr
290 295 300

Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Pro Glu Thr His
305 310 315 320

Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp
325 330 335

Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala
340 345 350

Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser
355 360 365

Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn
370 375 380

Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys
385 390 395 400

Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr
405 410 415

Gly Asn Val Ser Val Phe Glu Thr Ser Gly Gly Leu Val Val Phe Trp
420 425 430

Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn
435 440 445

Arg Ser Ser Leu Asn Ile Thr His Arg Thr Arg Arg Ser Thr Ser Asp
450 455 460

Asn Asn Thr Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Lys Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys

545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 125
<211> 906
<212> PRT
<213> 人巨細胞病毒

<400> 125

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Thr Ser His Ala Thr Ser
20 25 30

Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln Thr
35 40 45

Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser His
50 55 60

Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val
65 70 75 80

Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala
85 90 95

Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser
100 105 110

Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr
115 120 125

Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys
130 135 140

Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu
145 150 155 160

Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His
165 170 175

His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile
180 185 190

Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys
195 200 205

Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg
210 215 220

Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu
225 230 235 240

Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala
245 250 255

Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val
260 265 270

Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr
275 280 285

Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile

290 295 300

Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg Ser
305 310 315 320

Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln
325 330 335

Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu
340 345 350

Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala
355 360 365

Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser
370 375 380

Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln
385 390 395 400

Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn
405 410 415

Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly
420 425 430

Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser
435 440 445

Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asn Gly Asn
450 455 460

Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Ser
500 505 510

Leu Glu Val Phe Arg Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg
660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

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Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr
        755                 760                 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
    770                 775                 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785                 790                 795                 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
                805                 810                 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
            820                 825                 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
        835                 840                 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
    850                 855                 860

Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys
865                 870                 875                 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
                885                 890                 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
            900                 905
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<210> 126
<211> 906
<212> PRT
<213> 人巨細胞病毒

<400> 126

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1               5                   10                  15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Thr Ser His Ala Thr Ser
            20                  25                  30

Ser Thr His Asn Gly Ser His Thr Ser Arg Thr Thr Ser Ala Gln Thr
```

35 40 45

Arg Ser Val Ser Ser Gln His Val Thr Ser Ser Glu Ala Val Ser His
50 55 60

Arg Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val
65 70 75 80

Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala
85 90 95

Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser
100 105 110

Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr
115 120 125

Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys
130 135 140

Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu
145 150 155 160

Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His
165 170 175

His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile
180 185 190

Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys
195 200 205

Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg
210 215 220

Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu
225 230 235 240

Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala
245 250 255

Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val
260 265 270

Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr
275 280 285

Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile
290 295 300

Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg Ser
305 310 315 320

Val Ala Phe Leu Glu Arg Ala Glu Ser Val Ile Ser Trp Asp Ile Gln
325 330 335

Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu
340 345 350

Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala
355 360 365

Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser
370 375 380

Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln
385 390 395 400

Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn
405 410 415

Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly
420 425 430

Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser
435 440 445

Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asn Gly Ser
450 455 460

Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val Tyr
465 470 475 480

Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg
485 490 495

Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Ser
500 505 510

Leu Glu Val Phe Arg Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu
515 520 525

Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val
530 535 540

Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val
545 550 555 560

Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg
565 570 575

Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly
580 585 590

Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu
595 600 605

Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala
610 615 620

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser
625 630 635 640

Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu
645 650 655

Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg
660 665 670

Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser
675 680 685

Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu
690 695 700

Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala
705 710 715 720

Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val
725 730 735

Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly
740 745 750

Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr
755 760 765

Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn
770 775 780

Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly
785 790 795 800

Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser
805 810 815

Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala
820 825 830

Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu
835 840 845

Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly
850 855 860

Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys
865 870 875 880

Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His
885 890 895

Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 127
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 127

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro

690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 128
<211> 907

<212> PRT
<213> 人巨細胞病毒

<400> 128

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Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Arg Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
            20                  25                  30

Ala Thr His Ser His His Ser Ser Arg Thr Thr Ser Ala Ala His Ser
        35                  40                  45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
    50                  55                  60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65                  70                  75                  80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
                85                  90                  95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
            100                 105                 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
        115                 120                 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
    130                 135                 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145                 150                 155                 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205
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Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asn
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg

435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 129
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 129

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val

180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Arg Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 130
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 130

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

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Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
                165                 170                 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
            180                 185                 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
        195                 200                 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
    210                 215                 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225                 230                 235                 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
                245                 250                 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
            260                 265                 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
        275                 280                 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
    290                 295                 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305                 310                 315                 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
                325                 330                 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
            340                 345                 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
        355                 360                 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
    370                 375                 380
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Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Leu
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met

835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 131
<211> 907
<212> PRT
<213> 人巨細胞病毒

<400> 131

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Val Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr

580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 132
<211> 908
<212> PRT
<213> 人巨細胞病毒

<400> 132

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Ser Arg Gly Thr
20 25 30

Ser Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His
35 40 45

Ser Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val
50 55 60

Ser His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly
65 70 75 80

Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser
85 90 95

Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys
100 105 110

Thr Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val
115 120 125

Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr
130 135 140

Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr
145 150 155 160

Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu
165 170 175

Ile His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg
180 185 190

Val Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu
195 200 205

Asn Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser
210 215 220

Thr Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr
225 230 235 240

Trp Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr
245 250 255

Thr Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly
260 265 270

Asp Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala
275 280 285

Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr
290 295 300

Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His
305 310 315 320

Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp

325 330 335

Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala
340 345 350

Ser Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser
355 360 365

Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn
370 375 380

Met Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys
385 390 395 400

Leu Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr
405 410 415

Gly Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp
420 425 430

Gln Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn
435 440 445

Arg Ser Ser Leu Asn Leu Thr His Ser Arg Thr Lys Arg Ser Ala Asp
450 455 460

Gly Asn Asn Ala Thr His Leu Ser Ser Met Glu Ser Val His Asn Leu
465 470 475 480

Val Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile
485 490 495

Asn Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg
500 505 510

Arg Ser Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala
515 520 525

Ile Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly
530 535 540

Asp Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val
545 550 555 560

Lys Val Leu Arg Asp Met Asn Val Lys Asp Ser Pro Gly Arg Cys Tyr
565 570 575

Ser Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln
580 585 590

Tyr Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg
595 600 605

Thr Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn
610 615 620

Ser Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu
625 630 635 640

Ser Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro
645 650 655

Leu Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu
660 665 670

Leu Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe
675 680 685

Asn Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp
690 695 700

Pro Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu
705 710 715 720

Gly Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly
725 730 735

Ala Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro
740 745 750

Phe Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile
755 760 765

Thr Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu
770 775 780

Gln Asn Leu Phe Pro Tyr Leu Val Ser Ala Asn Gly Thr Thr Val Thr
785 790 795 800

Ser Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu
805 810 815

Glu Ser Val Tyr Asn Ser Gly Arg Lys Gly Ser Gly Pro Pro Ser Ser
820 825 830

Asp Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln
835 840 845

Met Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln
850 855 860

Asn Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly
865 870 875 880

Gln Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr
885 890 895

Arg His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 133
<211> 907
<212> PRT
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<400> 133

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp

65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Pro
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Arg Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 134
<211> 907
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<400> 134

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Ala Asn Ser Ala Pro Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Val Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Ser Arg Ala Lys Arg Ser Ala Asp Gly
450 455 460

Asn Asn Thr Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Ser Leu Glu Val Phe Arg Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala

725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Thr Ser Arg Ala Thr Ser
20 25 30

Thr His Asn Gly Ser His Ile Ser Arg Thr Thr Ser Ala Gln Thr Arg
35 40 45

Ser Ile Ser Ser Gln Arg Val Thr Ser Ser Glu Ala Val Ser His Arg
50 55 60

Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val
65 70 75 80

Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln
85 90 95

Gly Thr Asp Leu Ile Arg Phe Asp Arg Asn Ile Val Cys Thr Pro Met
100 105 110

Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys
115 120 125

Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val
130 135 140

Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu Leu
145 150 155 160

Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His
165 170 175

Ile Asn Arg His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala
180 185 190

Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr
195 200 205

Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr
210 215 220

Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu Tyr
225 230 235 240

Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg
245 250 255

Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val
260 265 270

Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe
275 280 285

Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val
290 295 300

Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val
305 310 315 320

Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp
325 330 335

Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg
340 345 350

Thr Ile Arg Ser Glu Ala Glu Glu Ser Tyr His Phe Ser Ser Ala Lys
355 360 365

Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp
370 375 380

Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Leu Asn Lys Leu Gln Gln
385 390 395 400

Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val
405 410 415

Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile
420 425 430

Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser
435 440 445

Leu Asn Leu Thr His Ser Arg Thr Arg Arg Ser Thr Asp Gly Thr Asn
450 455 460

Val Thr His Leu Ser Asn Met Asp Ser Val His Asn Leu Val Tyr Ala

465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala
485 490 495

Leu Thr Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Ser
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 136
<211> 905
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<213> 人巨細胞病毒

<400> 136

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Thr Ser Arg Ala Thr Ser
20 25 30

Thr His Asn Gly Asn His Thr Ser His Thr Thr Ser Ala Gln Thr Arg
35 40 45

Ser Ile Ser Ser Gln Arg Val Thr Ser Ser Glu Ala Val Ser His Arg
50 55 60

Ala Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val
65 70 75 80

Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln
85 90 95

Gly Thr Asp Leu Ile Arg Phe Asp Arg Asn Ile Val Cys Thr Pro Met
100 105 110

Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys
115 120 125

Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val
130 135 140

Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu Leu
145 150 155 160

Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His
165 170 175

Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala
180 185 190

Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr
195 200 205

Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr

210 215 220

Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu Tyr
225 230 235 240

Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg
245 250 255

Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val
260 265 270

Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe
275 280 285

Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val
290 295 300

Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val
305 310 315 320

Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp
325 330 335

Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg
340 345 350

Thr Ile Arg Ser Glu Ala Glu Glu Ser Tyr His Phe Ser Ser Ala Lys
355 360 365

Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp
370 375 380

Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Leu Asn Lys Leu Gln Gln
385 390 395 400

Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val
405 410 415

Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile
420 425 430

Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser
435 440 445

Leu Asn Leu Thr His Ser Arg Thr Arg Arg Ser Thr Asp Gly Thr Asn
450 455 460

Val Thr His Leu Ser Asn Met Asp Ser Val His Asn Leu Val Tyr Ala
465 470 475 480

Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala
485 490 495

Leu Thr Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu
500 505 510

Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser
515 520 525

Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu
530 535 540

Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu
545 550 555 560

Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro
565 570 575

Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly Gln
580 585 590

Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu
595 600 605

Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr
610 615 620

Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile
625 630 635 640

Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn
645 650 655

Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser
660 665 670

Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr
675 680 685

Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro
690 695 700

Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala
705 710 715 720

Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala
725 730 735

Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala
740 745 750

Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu
755 760 765

Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu
770 775 780

Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn
785 790 795 800

Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val
805 810 815

Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser
820 825 830

Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu
835 840 845

Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr
850 855 860

Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro
865 870 875 880

Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg His Leu
885 890 895

Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 137
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<400> 137

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
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Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln

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885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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Ser Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Arg Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
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Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

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325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

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385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Ile Asp Gly
450 455 460

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465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

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580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
690 695 700

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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
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Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Gly Thr Ser Thr His Asn His His Ser Ser His Thr Thr Ser Ala Ala
35 40 45

Arg Ser Gln Ser Gly Ser Val Ser His His Val Thr Ser Ser Gln Thr
50 55 60

Val Ser His Asp Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr
65 70 75 80

Gly Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys
85 90 95

Ser Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val
100 105 110

Cys Thr Pro Val Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met
115 120 125

Val Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val
130 135 140

Tyr Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Ser
145 150 155 160

Thr Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp
165 170 175

Glu Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser
180 185 190

Arg Val Ile Ala Gly Thr Leu Phe Val Ala Tyr His Arg Asp Ser Tyr
195 200 205

Glu Asn Lys Thr Met Gln Leu Met Ser Asp Asp Tyr Ser Asn Thr His
210 215 220

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225 230 235 240

Thr Trp Leu Tyr His Glu Thr Cys Asn Leu Asn Cys Met Val Thr Met
245 250 255

Thr Ala Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr
260 265 270

Gly Asp Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn
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Thr Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn
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Tyr Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Gln Glu Thr
305 310 315 320

His Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp
325 330 335

Asp Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu
340 345 350

Ala Ser Glu Arg Thr Ile Arg Ser Glu Ala Lys Asp Ser Tyr His Phe

355 360 365

Ser Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val
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Asn Met Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn
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Lys Leu Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys
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Tyr Gly Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe
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Trp Gln Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala
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Asn Ser Ser Gly Val Asn Ala Thr Arg Arg Ser Lys Arg Ser Thr Asn
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
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Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
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Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Arg Ser Gln Ser Gly Ser Val Ser His His Val Thr Ser Ser Gln Thr
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Val Ser His Asp Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr
65 70 75 80

Gly Asp Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys
85 90 95

Ser Met Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val

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Cys Thr Pro Val Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met
115 120 125

Val Val Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val
130 135 140

Tyr Gln Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile Tyr Ser
145 150 155 160

Thr Tyr Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp
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Glu Ile His His Ile Asn Lys Phe Ala Gln Cys Tyr Ser Ser Tyr Ser
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Glu Asn Lys Thr Met Gln Leu Met Ser Asp Asp Tyr Ser Asn Thr His
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225 230 235 240

Thr Trp Leu Tyr His Glu Thr Cys Asn Leu Asn Cys Met Val Thr Met
245 250 255

Thr Ala Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr
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Gly Asp Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn
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Thr Ser Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn
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Tyr Thr Ile Val Ser Asp Phe Gly Arg Pro Asn Ala Ala Gln Glu Thr
305 310 315 320

His Arg Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp
325 330 335

Asp Ile Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu
340 345 350

Ala Ser Glu Arg Thr Ile Arg Ser Glu Ala Lys Asp Ser Tyr His Phe
355 360 365

Ser Ser Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val
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Asn Met Ser Asp Pro Val Leu Asp Cys Val Arg Asp Gln Ala Leu Asn
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Lys Leu Gln Gln Ile Phe Asn Ala Ser Tyr Asn Gln Thr Tyr Glu Lys
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Tyr Gly Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe
420 425 430

Trp Gln Gly Ile Lys Gln Lys Ser Leu Leu Glu Leu Glu Arg Leu Ala
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Asn Ser Ser Gly Val Asn Ala Thr Arg Arg Ser Lys Arg Ser Thr Asn
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Asn Thr Thr Thr Leu Ser Leu Glu Asn Asp Ser Val Arg Ser Val Leu
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Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Asn Tyr Ile Asn
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Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
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Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
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Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
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Val Leu Arg Asp Met Thr Ile Lys Asp Ser Thr Gly Arg Cys Tyr Ser
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Arg Pro Val Val Ile Phe Thr Phe Ala Asn Ser Ser His Val Gln Tyr
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Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
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Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
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Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
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Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro
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Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
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Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
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Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
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Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Gln Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asn Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
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Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
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His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
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gcttcctgcg tgaaaatacc acccagtgta cctacaacag cagcctccgt aacagcacgg 300

tcgtcaggga aaacgccatc agtttcaact tcttccaaag ctataatcaa tactatgtat 360

tccatatgcc tcgatgtctc tttgcgggtc ctctggcgga gcagtttctg aaccaggtag 420

atctgaccga aaccctggaa agataccaac agagacttaa cacttacgcg ctggtatcca 480

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<213> 人工序列

<220>
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<400> 146

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<223> 合成多肽

<400> 154

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gaaagaagct ccacctgggt caagaaggta atctggtacc tgagcggcag aaaccagaca 360

atactccaga gaatgccacg gaccgctagc aagcctagcg atggaaacgt gcagattagc 420

gtggaggacg caaagatttt cggcgcccac atggtgccaa agcagacaaa gctgctgcgg 480

ttcgtggtca acgacggcac ccggtaccag atgtgcgtga tgaagctgga gagctgggct 540

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cctgagtgtc ggaacgagac tctgtacctg ttgtataaca gagagggaca gaccctggtg 300

gagcggtcct ccacctgggt gaagaaggtg atctggtatc tgagcggcag aaaccagacc 360

atcctgcagc ggatgccaag gaccgctagc aagccaagcg acggcaatgt gcagattagc 420

gtggaggatg ctaagatttt cggcgcacac atggttccta agcagaccaa gctgttacgg 480

ttcgtggtga acgatggaac tcggtaccaa atgtgcgtga tgaagctgga gtcatgggca 540

catgtgttcc gtgactactc tgtttctttc caggtgcgcc tgaccttcac cgaggccaat 600

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tggagcaagc tcacatatag caagcctcac gacgcggcaa ccttctactg cccattcctg 180

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cctgagtgca gaaatgaaac actgtatctt ctctacaaca gagagggcca gacccttgtg 300

gagagaagca gcacctgggt gaagaaggtc atttggtatc tgtctggcag aaaccagacc 360

atactgcagc ggatgccaag aacagcctcc aagccatccg acggtaacgt gcagatctcc 420

gtggaggacg ccaagatttt cggcgcccac atggtgccaa agcagaccaa gctgctgaga 480

ttcgtggtga acgatggcac caggtaccag atgtgcgtta tgaagcttga gtcctgggct 540

cacgtgttca gagactactc tgtgagcttc caggtgagac tgacattcac agaggccaac 600

aaccagactt acaccttctg cacgcatcct aatctgatcg tg 642

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tggagcaagc tcacttacag caagccgcac gacgccgcca ccttctactg tcctttcctg 180

taccctagcc ctccaagatc tcctctgcaa ttctctggat tccagagagt gagcaccggc 240

ccagagtgcc ggaacgagac tctgtatctg ctgtacaata gggagggaca aaccctggtg 300

gagaggagca gcacatgggt gaagaaggtg atctggtacc tgagcggcag aaaccagacc 360

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ttcgtggtga acgacggtac ccgctaccaa atgtgcgtga tgaagctgga gtcatgggcc 540

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ccagaatgca gaaacgaaac actgtatctg ctgtacaacc gggagggcca gaccctggtc 300

gagcggagct ctacctgggt caagaaggtt atatggtatc tgagcggcag gaaccagacc 360

atcctgcagc gcatgcctag aaccgctagc aagccaagcg acggcaacgt tcagatctcc 420

gtggaggacg ctaagatctt cggcgcccat atggtgccaa agcagactaa gctgctgaga 480

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catgtgttca gggactactc cgtgagtttc caggtgaggc tgacattcac cgaggctaat 600

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tggagcaagc tcacttatag caagccacac gatgcggcca ctttctactg tcctttcctg 180

tatccatccc ctcctagatc tcctctgcag ttcagcggat tccagagagt atctactggc 240

cctgagtgca gaaatgaaac cctctatctc ctgtacaatc gggagggcca gactttggtg 300

gagcgcagct ccacctgggt gaagaaggtg atctggtacc tgagcggcag aaaccagacc 360

atcctacaga ggatgccaag gaccgccagc aagccatctg acggcaacgt gcagatctct 420

gtggaggacg ccaagatctt cggagcccat atggtgccta agcagacaaa gctgttgagg 480

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cacgtgttcc gagactacag cgtctcgttc caggtgagac tgacattcac cgaggcaaac 600

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tggtctaagt taacctacag caagccccac gacgccgcca ccttctactg cccccttcctg 180

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gagcggagca gcacctgggt gaagaaggtg atctggtacc tgagcggccg gaaccagacc 360

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gtggaggacg ccaagatctt cggcgcccac atggtgccca agcagaccaa gttgctgcgc 480

ttcgtggtga acgacggcac ccggtaccag atgtgcgtga tgaagctgga gagctgggcc 540

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cccgagtgcc ggaacgaaac cctgtacctg ctgtacaacc gggagggcca gaccctggtg 300

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gtggaggacg ccaagatctt cggcgcccac atggtgccca agcagaccaa gctgcttagg 480

ttcgtggtga acgacggcac ccggtaccag atgtgcgtga tgaagctgga gagctgggcc 540

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gagaggtcat ccacctgggt caagaaggtc atctggtacc tctccggccg caaccagacc 360

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gtcgaggacg ccaagatctt cggcgcccac atggtcccca agcagaccaa gctcctccgc 480

ttcgtcgtca acgacggcac ccgctaccag atgtgcgtca tgaagctcga gtcctgggcc 540

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gagaggtcat ccacctgggt caagaaggtc atctggtacc tctccggccg caaccagacc 360

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<400> 209
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gagcgctcct ccacctgggt caagaaggtc atctggtacc tctccggccg caaccagacc 360

atcctccagc gcatgccccg caccgcaagc aagccatccg acggcaacgt ccagatctcc 420

gtcgaggacg ccaagatctt cggcgcccac atggtcccca agcagaccaa gctcctccgc 480

ttcgtcgtca acgacggcac ccgctaccag atgtgcgtca tgaagctcga gtcctgggcc 540

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tctcgcgcgc tgcccgacca aacccgttac aagtatgtgg aacagctcgt ggacctcacg 180

ttgaactacc actacgatgc gagccacggc ttggacaact ttgacgtgct caagagaatc 240

aacgtgaccg aggtgtcgtt gctcatcagc gactttagac gtcagaaccg tcgcggcggc 300

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gagttcagcg tgcggctctt tgccaac 387

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<212> PRT
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<220>
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<400> 211

Met Arg Pro Gly Leu Pro Ser Tyr Leu Ile Ile Leu Ala Val Cys Leu
1 5 10 15

Phe Ser His Leu Leu Ser Ser Arg Tyr Gly Ala Glu Ala Val Ser Glu
20 25 30

Pro Leu Asp Lys Ala Phe His Leu Leu Leu Asn Thr Tyr Gly Arg Pro
35 40 45

Ile Arg Phe Leu Arg Glu Asn Thr Thr Gln Cys Thr Tyr Asn Ser Ser
50 55 60

Leu Arg Asn Ser Thr Val Val Arg Glu Asn Ala Ile Ser Phe Asn Phe
65 70 75 80

Phe Gln Ser Tyr Asn Gln Tyr Tyr Val Phe His Met Pro Arg Cys Leu
85 90 95

Phe Ala Gly Pro Leu Ala Glu Gln Phe Leu Asn Gln Val Asp Leu Thr
100 105 110

Glu Thr Leu Glu Arg Tyr Gln Gln Arg Leu Asn Thr Tyr Ala Leu Val
115 120 125

Ser Lys Asp Leu Ala Ser Tyr Arg Ser Phe Ser Gln Gln Leu Lys Ala
130 135 140

Gln Asp Ser Leu Gly Glu Gln Pro Thr Thr Val Pro Pro Pro Ile Asp
145 150 155 160

Leu Ser Ile Pro His Val Trp Met Pro Pro Gln Thr Thr Pro His Gly
165 170 175

Trp Thr Glu Ser His Thr Thr Ser Gly Leu His Arg Pro His Phe Asn
180 185 190

Gln Thr Cys Ile Leu Phe Asp Gly His Asp Leu Leu Phe Ser Thr Val

195 200 205

Thr Pro Cys Leu His Gln Gly Phe Tyr Leu Ile Asp Glu Leu Arg Tyr
210 215 220

Val Lys Ile Thr Leu Thr Glu Asp Phe Phe Val Val Thr Val Ser Ile
225 230 235 240

Asp Asp Asp Thr Pro Met Leu Leu Ile Phe Gly His Leu Pro Arg Val
245 250 255

Leu Phe Lys Ala Pro Tyr Gln Arg Asp Asn Phe Ile Leu Arg Gln Thr
260 265 270

Glu Lys His Glu Leu Leu Val Leu Val Lys Lys Asp Gln Leu Asn Arg
275 280 285

His Ser Tyr Leu Lys Asp Pro Asp Phe Leu Asp Ala Ala Leu Asp Phe
290 295 300

Asn Tyr Leu Asp Leu Ser Ala Leu Leu Arg Asn Ser Phe His Arg Tyr
305 310 315 320

Ala Val Asp Val Leu Lys Ser Gly Arg Cys Gln Met Leu Asp Arg Arg
325 330 335

Thr Val Glu Met Ala Phe Ala Tyr Ala Leu Ala Leu Phe Ala Ala Ala
340 345 350

Arg Gln Glu Glu Ala Gly Ala Gln Val Ser Val Pro Arg Ala Leu Asp
355 360 365

Arg Gln Ala Ala Leu Leu Gln Ile Gln Glu Phe Met Ile Thr Cys Leu
370 375 380

Ser Gln Thr Pro Pro Arg Thr Thr Leu Leu Leu Tyr Pro Thr Ala Val
385 390 395 400

Asp Leu Ala Lys Arg Ala Leu Trp Thr Pro Asn Gln Ile Thr Asp Ile
405 410 415

Thr Ser Leu Val Arg Leu Val Tyr Ile Leu Ser Lys Gln Asn Gln Gln
420 425 430

His Leu Ile Pro Gln Trp Ala Leu Arg Gln Ile Ala Asp Phe Ala Leu
435 440 445

Lys Leu His Lys Thr His Leu Ala Ser Phe Leu Ser Ala Phe Ala Arg
450 455 460

Gln Glu Leu Tyr Leu Met Gly Ser Leu Val His Ser Met Leu Val His
465 470 475 480

Thr Thr Glu Arg Arg Glu Ile Phe Ile Val Glu Thr Gly Leu Cys Ser
485 490 495

Leu Ala Glu Leu Ser His Phe Thr Gln Leu Leu Ala His Pro His His
500 505 510

Glu Tyr Leu Ser Asp Leu Tyr Thr Pro Cys Ser Ser Ser Gly Arg Arg
515 520 525

Asp His Ser Leu Glu Arg Leu Thr Arg Leu Phe Pro Asp Ala Thr Val
530 535 540

Pro Ala Thr Val Pro Ala Ala Leu Ser Ile Leu Ser Thr Met Gln Pro
545 550 555 560

Ser Thr Leu Glu Thr Phe Pro Asp Leu Phe Cys Leu Pro Leu Gly Glu
565 570 575

Ser Phe Ser Ala Leu Thr Val Ser Glu His Val Ser Tyr Ile Val Thr
580 585 590

Asn Gln Tyr Leu Ile Lys Gly Ile Ser Tyr Pro Val Ser Thr Thr Val
595 600 605

Val Gly Gln Ser Leu Ile Ile Thr Gln Thr Asp Ser Gln Thr Lys Cys
610 615 620

Glu Leu Thr Arg Asn Met His Thr Thr His Ser Ile Thr Val Ala Leu
625 630 635 640

Asn Ile Ser Leu Glu Asn Cys Ala Phe Cys Gln Ser Ala Leu Leu Glu
645 650 655

Tyr Asp Asp Thr Gln Gly Val Ile Asn Ile Met Tyr Met His Asp Ser
660 665 670

Asp Asp Val Leu Phe Ala Leu Asp Pro Tyr Asn Glu Val Val Val Ser
675 680 685

Ser Pro Arg Thr His Tyr Leu Met Leu Leu Lys Asn Gly Thr Val Leu
690 695 700

Glu Val Thr Asp Val Val Val Asp Ala Thr Asp Ser Arg Leu Leu Met
705 710 715 720

Met Ser Val Tyr Ala Leu Ser Ala Ile Ile Gly Ile Tyr Leu Leu Tyr
725 730 735

Arg Met Leu Lys Thr Cys
740

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<211> 278
<212> PRT
<213> 人工序列

<220>
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<400> 212

Met Cys Arg Arg Pro Asp Cys Gly Phe Ser Phe Ser Pro Gly Pro Val
1 5 10 15

Ile Leu Leu Trp Cys Cys Leu Leu Leu Pro Ile Val Ser Ser Ala Ala
20 25 30

Val Ser Val Ala Pro Thr Ala Ala Glu Lys Val Pro Ala Glu Cys Pro
35 40 45

Glu Leu Thr Arg Arg Cys Leu Leu Gly Glu Val Phe Glu Gly Asp Lys
50 55 60

Tyr Glu Ser Trp Leu Arg Pro Leu Val Asn Val Thr Gly Arg Asp Gly
65 70 75 80

Pro Leu Ser Gln Leu Ile Arg Tyr Arg Pro Val Thr Pro Glu Ala Ala
85 90 95

Asn Ser Val Leu Leu Asp Glu Ala Phe Leu Asp Thr Leu Ala Leu Leu
100 105 110

Tyr Asn Asn Pro Asp Gln Leu Arg Ala Leu Leu Thr Leu Leu Ser Ser
115 120 125

Asp Thr Ala Pro Arg Trp Met Thr Val Met Arg Gly Tyr Ser Glu Cys
130 135 140

Gly Asp Gly Ser Pro Ala Val Tyr Thr Cys Val Asp Asp Leu Cys Arg
145 150 155 160

Gly Tyr Asp Leu Thr Arg Leu Ser Tyr Gly Arg Ser Ile Phe Thr Glu
165 170 175

His Val Leu Gly Phe Glu Leu Val Pro Pro Ser Leu Phe Asn Val Val
180 185 190

Val Ala Ile Arg Asn Glu Ala Thr Arg Thr Asn Arg Ala Val Arg Leu
195 200 205

Pro Val Ser Thr Ala Ala Ala Pro Glu Gly Ile Thr Leu Phe Tyr Gly
210 215 220

Leu Tyr Asn Ala Val Lys Glu Phe Cys Leu Arg His Gln Leu Asp Pro
225 230 235 240

Pro Leu Leu Arg His Leu Asp Lys Tyr Tyr Ala Gly Leu Pro Pro Glu
245 250 255

Leu Lys Gln Thr Arg Val Asn Leu Pro Ala His Ser Arg Tyr Gly Pro
260 265 270

Gln Ala Val Asp Ala Arg
275

<210> 213
<211> 171
<212> PRT
<213> 人工序列

<220>
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<400> 213

Met Ser Pro Lys Asp Leu Thr Pro Phe Leu Thr Ala Leu Trp Leu Leu
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Leu Gly His Ser Arg Val Pro Arg Val Arg Ala Glu Glu Cys Cys Glu
20 25 30

Phe Ile Asn Val Asn His Pro Pro Glu Arg Cys Tyr Asp Phe Lys Met
35 40 45

Cys Asn Arg Phe Thr Val Ala Leu Arg Cys Pro Asp Gly Glu Val Cys
50 55 60

Tyr Ser Pro Glu Lys Thr Ala Glu Ile Arg Gly Ile Val Thr Thr Met
65 70 75 80

Thr His Ser Leu Thr Arg Gln Val Val His Asn Lys Leu Thr Ser Cys
85 90 95

Asn Tyr Asn Pro Leu Tyr Leu Glu Ala Asp Gly Arg Ile Arg Cys Gly
100 105 110

Lys Val Asn Asp Lys Ala Gln Tyr Leu Leu Gly Ala Ala Gly Ser Val
115 120 125

Pro Tyr Arg Trp Ile Asn Leu Glu Tyr Asp Lys Ile Thr Arg Ile Val
130 135 140

Gly Leu Asp Gln Tyr Leu Glu Ser Val Lys Lys His Lys Arg Leu Asp
145 150 155 160

Val Cys Arg Ala Lys Met Gly Tyr Met Leu Gln
165 170

<210> 214
<211> 214
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 214

Met Leu Arg Leu Leu Leu Arg His His Phe His Cys Leu Leu Leu Cys
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Ala Val Trp Ala Thr Pro Cys Leu Ala Ser Pro Trp Ser Thr Leu Thr
20 25 30

Ala Asn Gln Asn Pro Ser Pro Pro Trp Ser Lys Leu Thr Tyr Ser Lys
35 40 45

Pro His Asp Ala Ala Thr Phe Tyr Cys Pro Phe Leu Tyr Pro Ser Pro
50 55 60

Pro Arg Ser Pro Leu Gln Phe Ser Gly Phe Gln Arg Val Ser Thr Gly
65 70 75 80

Pro Glu Cys Arg Asn Glu Thr Leu Tyr Leu Leu Tyr Asn Arg Glu Gly
85 90 95

Gln Thr Leu Val Glu Arg Ser Ser Thr Trp Val Lys Lys Val Ile Trp
100 105 110

Tyr Leu Ser Gly Arg Asn Gln Thr Ile Leu Gln Arg Met Pro Arg Thr
115 120 125

Ala Ser Lys Pro Ser Asp Gly Asn Val Gln Ile Ser Val Glu Asp Ala
130 135 140

Lys Ile Phe Gly Ala His Met Val Pro Lys Gln Thr Lys Leu Leu Arg
145 150 155 160

Phe Val Val Asn Asp Gly Thr Arg Tyr Gln Met Cys Val Met Lys Leu
165 170 175

Glu Ser Trp Ala His Val Phe Arg Asp Tyr Ser Val Ser Phe Gln Val
180 185 190

Arg Leu Thr Phe Thr Glu Ala Asn Asn Gln Thr Tyr Thr Phe Cys Thr
195 200 205

His Pro Asn Leu Ile Val
210

<210> 215

<211> 129
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 215

Met Arg Leu Cys Arg Val Trp Leu Ser Val Cys Leu Cys Ala Val Val
1 5 10 15

Leu Gly Gln Cys Gln Arg Glu Thr Ala Glu Lys Asn Asp Tyr Tyr Arg
20 25 30

Val Pro His Tyr Trp Asp Ala Cys Ser Arg Ala Leu Pro Asp Gln Thr
35 40 45

Arg Tyr Lys Tyr Val Glu Gln Leu Val Asp Leu Thr Leu Asn Tyr His
50 55 60

Tyr Asp Ala Ser His Gly Leu Asp Asn Phe Asp Val Leu Lys Arg Ile
65 70 75 80

Asn Val Thr Glu Val Ser Leu Leu Ile Ser Asp Phe Arg Arg Gln Asn
85 90 95

Arg Arg Gly Gly Thr Asn Lys Arg Thr Thr Phe Asn Ala Ala Gly Ser
100 105 110

Leu Ala Pro His Ala Arg Ser Leu Glu Phe Ser Val Arg Leu Phe Ala
115 120 125

Asn

<210> 216
<211> 907
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 216

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile
325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln Arg Val Lys Tyr Val Glu Asp Lys Val Val Asp Pro

690 695 700

Leu Pro Pro Tyr Leu Lys Gly Leu Asp Asp Leu Met Ser Gly Leu Gly
705 710 715 720

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Thr
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Thr Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Ser Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Ala Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Arg Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 217
<211> 557

<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 217

Met Glu Ser Arg Gly Arg Arg Cys Pro Glu Met Ile Ser Val Leu Gly
1 5 10 15

Pro Ile Ser Gly His Val Leu Lys Ala Val Phe Ser Arg Gly Asp Thr
20 25 30

Pro Val Leu Pro His Glu Thr Arg Leu Leu Gln Thr Gly Ile His Val
35 40 45

Arg Val Ser Gln Pro Ser Leu Ile Leu Val Ser Gln Tyr Thr Pro Asp
50 55 60

Ser Thr Pro Cys His Arg Gly Asp Asn Gln Leu Gln Val Gln His Thr
65 70 75 80

Tyr Phe Thr Gly Ser Glu Val Glu Asn Val Ser Val Asn Val His Asn
85 90 95

Pro Thr Gly Arg Ser Ile Cys Pro Ser Gln Glu Pro Met Ser Ile Tyr
100 105 110

Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val
115 120 125

His His Tyr Pro Ser Ala Ala Glu Arg Lys His Arg His Leu Pro Val
130 135 140

Ala Asp Ala Val Ile His Ala Ser Gly Lys Gln Met Trp Gln Ala Arg
145 150 155 160

Leu Thr Val Ser Gly Leu Ala Trp Thr Arg Gln Gln Asn Gln Trp Lys
165 170 175

Glu Pro Asp Val Tyr Tyr Thr Ser Ala Phe Val Phe Pro Thr Lys Asp
180 185 190

Val Ala Leu Arg His Val Val Cys Ala His Glu Leu Val Cys Ser Met

195 200 205

Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile Gly Asp Gln Tyr Val
210 215 220

Lys Val Tyr Leu Glu Ser Phe Cys Glu Asp Val Pro Ser Gly Lys Leu
225 230 235 240

Phe Met His Val Thr Leu Gly Ser Asp Val Glu Glu Asp Leu Thr Met
245 250 255

Thr Arg Asn Pro Gln Pro Phe Met Arg Pro His Glu Arg Asn Gly Phe
260 265 270

Thr Val Leu Cys Pro Lys Asn Met Ile Ile Lys Pro Gly Lys Ile Ser
275 280 285

His Ile Met Leu Asp Val Ala Phe Thr Ser His Glu His Phe Gly Leu
290 295 300

Leu Cys Pro Lys Ser Ile Pro Gly Leu Ser Ile Ser Gly Asn Leu Leu
305 310 315 320

Met Asn Gly Gln Gln Ile Phe Leu Glu Val Gln Ala Ile Arg Glu Thr
325 330 335

Val Glu Leu Arg Gln Tyr Asp Pro Val Ala Ala Leu Phe Phe Phe Asp
340 345 350

Ile Asp Leu Leu Leu Gln Arg Gly Pro Gln Tyr Ser Glu His Pro Thr
355 360 365

Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu Glu Tyr Arg His Thr
370 375 380

Trp Asp Arg His Asp Glu Gly Ala Ala Gln Gly Asp Asp Asp Val Trp
385 390 395 400

Thr Ser Gly Ser Asp Ser Asp Glu Glu Leu Val Thr Thr Glu Arg Lys
405 410 415

Thr Pro Arg Val Thr Gly Gly Gly Ala Met Ala Ser Ala Ser Thr Ser
420 425 430

Ala Gly Ser Ala Ser Ser Ala Thr Ala Cys Thr Ala Gly Val Met Thr
435 440 445

Arg Gly Arg Leu Lys Ala Glu Ser Thr Val Ala Pro Glu Glu Asp Thr
450 455 460

Asp Glu Asp Ser Asp Asn Glu Ile His Asn Pro Ala Val Phe Thr Trp
465 470 475 480

Pro Pro Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu Val Pro Met Val
485 490 495

Ala Thr Val Gln Gly Gln Asn Leu Lys Tyr Gln Glu Phe Phe Trp Asp
500 505 510

Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu Gly Val Trp Gln
515 520 525

Pro Ala Ala Gln Pro Lys Arg Arg Arg His Arg Gln Asp Ala Leu Pro
530 535 540

Gly Pro Cys Ile Ala Ser Thr Pro Lys Lys His Arg Gly
545 550 555

<210> 218
<211> 900
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<213> 人工序列

<220>
<223> 合成多肽

<400> 218

Met Glu Ser Arg Gly Arg Arg Cys Pro Glu Met Ile Ser Val Leu Gly
1 5 10 15

Pro Ile Ser Gly His Val Leu Lys Ala Val Phe Ser Arg Gly Asp Thr
20 25 30

Pro Val Leu Pro His Glu Thr Arg Leu Leu Gln Thr Gly Ile His Val
35 40 45

Arg Val Ser Gln Pro Ser Leu Ile Leu Val Ser Gln Tyr Thr Pro Asp

50 55 60

Ser Thr Pro Cys His Arg Gly Asp Asn Gln Leu Gln Val Gln His Thr
65 70 75 80

Tyr Phe Thr Gly Ser Glu Val Glu Asn Val Ser Val Asn Val His Asn
85 90 95

Pro Thr Gly Arg Ser Ile Cys Pro Ser Gln Glu Pro Met Ser Ile Tyr
100 105 110

Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val
115 120 125

His His Tyr Pro Ser Ala Ala Glu Arg Lys His Arg His Leu Pro Val
130 135 140

Ala Asp Ala Val Ile His Ala Ser Gly Lys Gln Met Trp Gln Ala Arg
145 150 155 160

Leu Thr Val Ser Gly Leu Ala Trp Thr Arg Gln Gln Asn Gln Trp Lys
165 170 175

Glu Pro Asp Val Tyr Tyr Thr Ser Ala Phe Val Phe Pro Thr Lys Asp
180 185 190

Val Ala Leu Arg His Val Val Cys Ala His Glu Leu Val Cys Ser Met
195 200 205

Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile Gly Asp Gln Tyr Val
210 215 220

Lys Val Tyr Leu Glu Ser Phe Cys Glu Asp Val Pro Ser Gly Lys Leu
225 230 235 240

Phe Met His Val Thr Leu Gly Ser Asp Val Glu Glu Asp Leu Thr Met
245 250 255

Thr Arg Asn Pro Gln Pro Phe Met Arg Pro His Glu Arg Asn Gly Phe
260 265 270

Thr Val Leu Cys Pro Lys Asn Met Ile Ile Lys Pro Gly Lys Ile Ser
275 280 285

His Ile Met Leu Asp Val Ala Phe Thr Ser His Glu His Phe Gly Leu
290 295 300

Leu Cys Pro Lys Ser Ile Pro Gly Leu Ser Ile Ser Gly Asn Leu Leu
305 310 315 320

Met Asn Gly Gln Gln Ile Phe Leu Glu Val Gln Ala Ile Arg Glu Thr
325 330 335

Val Glu Leu Arg Gln Tyr Asp Pro Val Ala Ala Leu Phe Phe Phe Asp
340 345 350

Ile Asp Leu Leu Leu Gln Arg Gly Pro Gln Tyr Ser Glu His Pro Thr
355 360 365

Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu Glu Tyr Arg His Thr
370 375 380

Trp Asp Arg His Asp Glu Gly Ala Ala Gln Gly Asp Asp Asp Val Trp
385 390 395 400

Thr Ser Gly Ser Asp Ser Asp Glu Glu Leu Val Thr Thr Glu Arg Lys
405 410 415

Thr Pro Arg Val Thr Gly Gly Gly Ala Met Ala Ser Ala Ser Thr Ser
420 425 430

Ala Gly Arg Lys Arg Lys Ser Ala Ser Ser Ala Thr Ala Cys Thr Ala
435 440 445

Gly Val Met Thr Arg Gly Arg Leu Lys Ala Glu Ser Thr Val Ala Pro
450 455 460

Glu Glu Asp Thr Asp Glu Asp Ser Asp Asn Glu Ile His Asn Pro Ala
465 470 475 480

Val Phe Thr Trp Pro Pro Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu
485 490 495

Val Pro Met Val Ala Thr Val Gln Gly Gln Asn Leu Lys Tyr Gln Glu
500 505 510

Phe Phe Trp Asp Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu
515 520 525

Gly Val Trp Gln Pro Ala Ala Gln Pro Lys Arg Arg Arg His Arg Gln
530 535 540

Asp Ala Leu Pro Gly Pro Cys Ile Ala Ser Thr Pro Lys Lys His Arg
545 550 555 560

Gly Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu
565 570 575

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala
580 585 590

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu
595 600 605

Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys
610 615 620

Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp
625 630 635 640

Val Leu Thr Glu Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val
645 650 655

Arg His Arg Ile Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu
660 665 670

Glu Lys Phe Thr Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn
675 680 685

Ala Leu Asp Ile Leu Asp Lys Val His Glu Pro Phe Glu Asp Met Lys
690 695 700

Cys Ile Gly Leu Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro
705 710 715 720

Glu Asp Lys Arg Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp
725 730 735

Val Ser Lys Gly Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys
740 745 750

Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys
755 760 765

Tyr Arg Asn Ile Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr
770 775 780

Thr Asn Gly Cys Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln
785 790 795 800

Cys Ser Pro Asp Glu Ile Met Ser Tyr Ala Gln Lys Ile Phe Lys Ile
805 810 815

Leu Asp Glu Glu Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe
820 825 830

Met Asp Ile Leu Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys
835 840 845

Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu
850 855 860

Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr
865 870 875 880

Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile
885 890 895

Ser Val Met Lys
900

<210> 219
<211> 1047
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 219

Met Glu Ser Arg Gly Arg Arg Cys Pro Glu Met Ile Ser Val Leu Gly
1 5 10 15

Pro Ile Ser Gly His Val Leu Lys Ala Val Phe Ser Arg Gly Asp Thr
20 25 30

Pro Val Leu Pro His Glu Thr Arg Leu Leu Gln Thr Gly Ile His Val
35 40 45

Arg Val Ser Gln Pro Ser Leu Ile Leu Val Ser Gln Tyr Thr Pro Asp
50 55 60

Ser Thr Pro Cys His Arg Gly Asp Asn Gln Leu Gln Val Gln His Thr
65 70 75 80

Tyr Phe Thr Gly Ser Glu Val Glu Asn Val Ser Val Asn Val His Asn
85 90 95

Pro Thr Gly Arg Ser Ile Cys Pro Ser Gln Glu Pro Met Ser Ile Tyr
100 105 110

Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val
115 120 125

His His Tyr Pro Ser Ala Ala Glu Arg Lys His Arg His Leu Pro Val
130 135 140

Ala Asp Ala Val Ile His Ala Ser Gly Lys Gln Met Trp Gln Ala Arg
145 150 155 160

Leu Thr Val Ser Gly Leu Ala Trp Thr Arg Gln Gln Asn Gln Trp Lys
165 170 175

Glu Pro Asp Val Tyr Tyr Thr Ser Ala Phe Val Phe Pro Thr Lys Asp
180 185 190

Val Ala Leu Arg His Val Val Cys Ala His Glu Leu Val Cys Ser Met
195 200 205

Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile Gly Asp Gln Tyr Val
210 215 220

Lys Val Tyr Leu Glu Ser Phe Cys Glu Asp Val Pro Ser Gly Lys Leu
225 230 235 240

Phe Met His Val Thr Leu Gly Ser Asp Val Glu Glu Asp Leu Thr Met
245 250 255

Thr Arg Asn Pro Gln Pro Phe Met Arg Pro His Glu Arg Asn Gly Phe
260 265 270

Thr Val Leu Cys Pro Lys Asn Met Ile Ile Lys Pro Gly Lys Ile Ser
275 280 285

His Ile Met Leu Asp Val Ala Phe Thr Ser His Glu His Phe Gly Leu
290 295 300

Leu Cys Pro Lys Ser Ile Pro Gly Leu Ser Ile Ser Gly Asn Leu Leu
305 310 315 320

Met Asn Gly Gln Gln Ile Phe Leu Glu Val Gln Ala Ile Arg Glu Thr
325 330 335

Val Glu Leu Arg Gln Tyr Asp Pro Val Ala Ala Leu Phe Phe Phe Asp
340 345 350

Ile Asp Leu Leu Leu Gln Arg Gly Pro Gln Tyr Ser Glu His Pro Thr
355 360 365

Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu Glu Tyr Arg His Thr
370 375 380

Trp Asp Arg His Asp Glu Gly Ala Ala Gln Gly Asp Asp Asp Val Trp
385 390 395 400

Thr Ser Gly Ser Asp Ser Asp Glu Glu Leu Val Thr Thr Glu Arg Lys
405 410 415

Thr Pro Arg Val Thr Gly Gly Gly Ala Met Ala Ser Ala Ser Thr Ser
420 425 430

Ala Gly Ser Ala Ser Ser Ala Thr Ala Cys Thr Ala Gly Val Met Thr
435 440 445

Arg Gly Arg Leu Lys Ala Glu Ser Thr Val Ala Pro Glu Glu Asp Thr
450 455 460

Asp Glu Asp Ser Asp Asn Glu Ile His Asn Pro Ala Val Phe Thr Trp

465 470 475 480

Pro Pro Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu Val Pro Met Val
485 490 495

Ala Thr Val Gln Gly Gln Asn Leu Lys Tyr Gln Glu Phe Phe Trp Asp
500 505 510

Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu Gly Val Trp Gln
515 520 525

Pro Ala Ala Gln Pro Lys Arg Arg Arg His Arg Gln Asp Ala Leu Pro
530 535 540

Gly Pro Cys Ile Ala Ser Thr Pro Lys Lys His Arg Gly Glu Ser Ser
545 550 555 560

Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu Gly Pro Ser Ser
565 570 575

Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala Thr Thr Phe Leu
580 585 590

Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu Ser Leu Gly Asp
595 600 605

Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys Thr Phe Glu Gln
610 615 620

Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp Val Leu Thr Glu
625 630 635 640

Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val Arg His Arg Ile
645 650 655

Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu Glu Lys Phe Thr
660 665 670

Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn Ala Leu Asp Ile
675 680 685

Leu Asp Lys Val His Glu Pro Phe Glu Asp Met Lys Cys Ile Gly Leu
690 695 700

Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro Glu Asp Lys Arg
705 710 715 720

Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp Val Ser Lys Gly
725 730 735

Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys Ala Arg Ala Lys
740 745 750

Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys Tyr Arg Asn Ile
755 760 765

Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr Thr Asn Gly Cys
770 775 780

Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln Cys Ser Pro Asp
785 790 795 800

Glu Ile Met Ser Tyr Ala Gln Lys Ile Phe Lys Ile Leu Asp Glu Glu
805 810 815

Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe Met Asp Ile Leu
820 825 830

Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys Val Thr Ser Asp
835 840 845

Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu Leu Ser Glu Phe
850 855 860

Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr Ser Val Met Leu
865 870 875 880

Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile Ser Val Met Lys
885 890 895

Arg Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala Gln Tyr Ile Leu
900 905 910

Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val Asp Asp Leu Arg
915 920 925

Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile Val Ala Tyr Thr
930 935 940

Leu Ala Thr Ala Gly Ala Ser Ser Ser Asp Ser Leu Val Ser Pro Pro
945 950 955 960

Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser Val Ile Val Ala
965 970 975

Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp Glu Glu Gln Glu
980 985 990

Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser Val Lys Ser Glu
995 1000 1005

Pro Val Ser Glu Ile Glu Glu Val Ala Ser Glu Glu Glu Glu Asp
1010 1015 1020

Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr His Pro
1025 1030 1035

Met Val Thr Arg Ser Lys Ala Asp Gln
1040 1045

<210> 220
<211> 491
<212> PRT
<213> 人工序列

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<223> 合成多肽

<400> 220

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu
1 5 10 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala
20 25 30

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu
35 40 45

Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys
50 55 60

Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp
65 70 75 80

Val Leu Thr Glu Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val
85 90 95

Arg His Arg Ile Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu
100 105 110

Glu Lys Phe Thr Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn
115 120 125

Ala Leu Asp Ile Leu Asp Lys Val His Glu Pro Phe Glu Asp Met Lys
130 135 140

Cys Ile Gly Leu Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro
145 150 155 160

Glu Asp Lys Arg Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp
165 170 175

Val Ser Lys Gly Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys
180 185 190

Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys
195 200 205

Tyr Arg Asn Ile Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr
210 215 220

Thr Asn Gly Cys Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln
225 230 235 240

Cys Ser Pro Asp Glu Ile Met Ser Tyr Ala Gln Lys Ile Phe Lys Ile
245 250 255

Leu Asp Glu Glu Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe
260 265 270

Met Asp Ile Leu Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys
275 280 285

Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu
290 295 300

Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr
305 310 315 320

Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile
325 330 335

Ser Val Met Lys Arg Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala
340 345 350

Gln Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val
355 360 365

Asp Asp Leu Arg Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile
370 375 380

Val Ala Tyr Thr Leu Ala Thr Ala Gly Ala Ser Ser Ser Asp Ser Leu
385 390 395 400

Val Ser Pro Pro Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser
405 410 415

Val Ile Val Ala Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp
420 425 430

Glu Glu Gln Glu Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser
435 440 445

Val Lys Ser Glu Pro Val Ser Glu Ile Glu Glu Val Ala Ser Glu Glu
450 455 460

Glu Glu Asp Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr
465 470 475 480

His Pro Met Val Thr Arg Ser Lys Ala Asp Gln
485 490

<210> 221
<211> 580
<212> PRT
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<400> 221

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu
1 5 10 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala
20 25 30

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu
35 40 45

Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys
50 55 60

Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp
65 70 75 80

Val Leu Thr Glu Leu Gly Asp Ile Leu Ala Gln Ala Val Asn His Ala
85 90 95

Gly Ile Asp Ser Ser Ser Thr Gly Pro Thr Leu Thr Thr His Ser Cys
100 105 110

Ser Val Ser Ser Ala Pro Leu Asn Lys Pro Thr Pro Thr Ser Val Ala
115 120 125

Val Thr Asn Thr Pro Leu Pro Gly Ala Ser Ala Thr Pro Glu Leu Ser
130 135 140

Pro Arg Lys Lys Pro Arg Lys Thr Thr Arg Pro Phe Lys Val Ile Ile
145 150 155 160

Lys Pro Pro Val Pro Pro Ala Pro Ile Met Leu Pro Leu Ile Lys Gln
165 170 175

Glu Asp Ile Lys Pro Glu Pro Asp Phe Thr Ile Gln Tyr Arg Asn Lys
180 185 190

Ile Ile Asp Thr Ala Gly Cys Ile Val Ile Ser Asp Ser Glu Glu Glu
195 200 205

Gln Gly Glu Glu Val Glu Thr Arg Gly Ala Thr Ala Ser Ser Pro Ser
210 215 220

Thr Gly Ser Gly Thr Pro Arg Val Thr Ser Pro Thr His Pro Leu Ser
225 230 235 240

Gln Met Asn His Pro Pro Leu Pro Asp Pro Leu Gly Arg Pro Asp Glu
245 250 255

Asp Ser Ser Ser Ser Ser Ser Ser Ser Cys Ser Ser Ala Ser Asp Ser
260 265 270

Glu Ser Glu Ser Glu Glu Met Lys Cys Ser Ser Gly Gly Gly Ala Ser
275 280 285

Val Thr Ser Ser His His Gly Arg Gly Gly Phe Gly Gly Ala Ala Ser
290 295 300

Ser Ser Leu Leu Ser Cys Gly His Gln Ser Ser Gly Gly Ala Ser Thr
305 310 315 320

Gly Pro Arg Lys Lys Lys Ser Lys Arg Ile Ser Glu Leu Asp Asn Glu
325 330 335

Lys Val Arg Asn Ile Met Lys Asp Lys Asn Thr Pro Phe Cys Thr Pro
340 345 350

Asn Val Gln Thr Arg Arg Gly Arg Val Lys Ile Asp Glu Val Ser Arg
355 360 365

Met Phe Arg His Thr Asn Arg Ser Leu Glu Tyr Lys Asn Leu Pro Phe
370 375 380

Met Ile Pro Ser Met His Gln Val Leu Glu Glu Ala Ile Lys Val Cys
385 390 395 400

Lys Thr Met Gln Val Asn Asn Lys Gly Ile Gln Ile Ile Tyr Thr Arg
405 410 415

Asn His Glu Val Lys Asn Glu Val Asp Gln Val Arg Cys Arg Leu Gly
420 425 430

Ser Met Cys Asn Leu Ala Leu Ser Thr Pro Phe Leu Met Glu His Thr
435 440 445

Met Pro Val Thr His Pro Pro Asp Val Ala Gln Arg Thr Ala Asp Ala
450 455 460

Cys Asn Asp Gly Val Lys Ala Val Trp Asn Leu Lys Glu Leu His Thr
465 470 475 480

His Gln Leu Cys Pro Arg Ser Ser Asp Tyr Arg Asn Met Ile Ile His
485 490 495

Ala Ala Thr Pro Val Asp Leu Leu Gly Ala Leu Asn Leu Cys Leu Pro
500 505 510

Leu Met Gln Lys Phe Pro Lys Gln Val Met Val Arg Ile Phe Ser Thr
515 520 525

Asn Gln Gly Gly Phe Met Leu Pro Ile Tyr Glu Thr Ala Ala Lys Ala
530 535 540

Tyr Ala Val Gly Gln Phe Glu Lys Pro Thr Glu Thr Pro Pro Glu Asp
545 550 555 560

Leu Asp Thr Leu Ser Leu Ala Ile Glu Ala Ala Ile Gln Asp Leu Arg
565 570 575

Asn Lys Ser Gln
580

<210> 222
<211> 561
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 222

Met Glu Ser Arg Gly Arg Arg Cys Pro Glu Met Ile Ser Val Leu Gly
1 5 10 15

Pro Ile Ser Gly His Val Leu Lys Ala Val Phe Ser Arg Gly Asp Thr
20 25 30

Pro Val Leu Pro His Glu Thr Arg Leu Leu Gln Thr Gly Ile His Val
35 40 45

Arg Val Ser Gln Pro Ser Leu Ile Leu Val Ser Gln Tyr Thr Pro Asp
50 55 60

Ser Thr Pro Cys His Arg Gly Asp Asn Gln Leu Gln Val Gln His Thr
65 70 75 80

Tyr Phe Thr Gly Ser Glu Val Glu Asn Val Ser Val Asn Val His Asn
85 90 95

Pro Thr Gly Arg Ser Ile Cys Pro Ser Gln Glu Pro Met Ser Ile Tyr
100 105 110

Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val
115 120 125

His His Tyr Pro Ser Ala Ala Glu Arg Lys His Arg His Leu Pro Val
130 135 140

Ala Asp Ala Val Ile His Ala Ser Gly Lys Gln Met Trp Gln Ala Arg
145 150 155 160

Leu Thr Val Ser Gly Leu Ala Trp Thr Arg Gln Gln Asn Gln Trp Lys
165 170 175

Glu Pro Asp Val Tyr Tyr Thr Ser Ala Phe Val Phe Pro Thr Lys Asp
180 185 190

Val Ala Leu Arg His Val Val Cys Ala His Glu Leu Val Cys Ser Met
195 200 205

Glu Asn Thr Arg Ala Thr Lys Met Gln Val Ile Gly Asp Gln Tyr Val
210 215 220

Lys Val Tyr Leu Glu Ser Phe Cys Glu Asp Val Pro Ser Gly Lys Leu
225 230 235 240

Phe Met His Val Thr Leu Gly Ser Asp Val Glu Glu Asp Leu Thr Met
245 250 255

Thr Arg Asn Pro Gln Pro Phe Met Arg Pro His Glu Arg Asn Gly Phe
260 265 270

Thr Val Leu Cys Pro Lys Asn Met Ile Ile Lys Pro Gly Lys Ile Ser
275 280 285

His Ile Met Leu Asp Val Ala Phe Thr Ser His Glu His Phe Gly Leu
290 295 300

Leu Cys Pro Lys Ser Ile Pro Gly Leu Ser Ile Ser Gly Asn Leu Leu
305 310 315 320

Met Asn Gly Gln Gln Ile Phe Leu Glu Val Gln Ala Ile Arg Glu Thr
325 330 335

Val Glu Leu Arg Gln Tyr Asp Pro Val Ala Ala Leu Phe Phe Phe Asp
340 345 350

Ile Asp Leu Leu Leu Gln Arg Gly Pro Gln Tyr Ser Glu His Pro Thr
355 360 365

Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu Glu Tyr Arg His Thr
370 375 380

Trp Asp Arg His Asp Glu Gly Ala Ala Gln Gly Asp Asp Asp Val Trp
385 390 395 400

Thr Ser Gly Ser Asp Ser Asp Glu Glu Leu Val Thr Thr Glu Arg Lys
405 410 415

Thr Pro Arg Val Thr Gly Gly Gly Ala Met Ala Ser Ala Ser Thr Ser
420 425 430

Ala Gly Arg Lys Arg Lys Ser Ala Ser Ser Ala Thr Ala Cys Thr Ala
435 440 445

Gly Val Met Thr Arg Gly Arg Leu Lys Ala Glu Ser Thr Val Ala Pro
450 455 460

Glu Glu Asp Thr Asp Glu Asp Ser Asp Asn Glu Ile His Asn Pro Ala
465 470 475 480

Val Phe Thr Trp Pro Pro Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu

485 490 495

Val Pro Met Val Ala Thr Val Gln Gly Gln Asn Leu Lys Tyr Gln Glu
500 505 510

Phe Phe Trp Asp Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu
515 520 525

Gly Val Trp Gln Pro Ala Ala Gln Pro Lys Arg Arg Arg His Arg Gln
530 535 540

Asp Ala Leu Pro Gly Pro Cys Ile Ala Ser Thr Pro Lys Lys His Arg
545 550 555 560

Gly

<210> 223
<211> 698
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 223

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Ser Thr Arg Gly Thr Ser
20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
210 215 220

Arg Tyr Val Thr Val Lys Asp Gln Trp His Ser Arg Gly Ser Thr Trp
225 230 235 240

Leu Tyr Arg Glu Thr Cys Asn Leu Asn Cys Met Val Thr Ile Thr Thr
245 250 255

Ala Arg Ser Lys Tyr Pro Tyr His Phe Phe Ala Thr Ser Thr Gly Asp
260 265 270

Val Val Asp Ile Ser Pro Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser
275 280 285

Tyr Phe Gly Glu Asn Ala Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr
290 295 300

Ile Val Ser Asp Phe Gly Arg Pro Asn Ser Ala Leu Glu Thr His Arg
305 310 315 320

Leu Val Ala Phe Leu Glu Arg Ala Asp Ser Val Ile Ser Trp Asp Ile

325 330 335

Gln Asp Glu Lys Asn Val Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser
340 345 350

Glu Arg Thr Ile Arg Ser Glu Ala Glu Asp Ser Tyr His Phe Ser Ser
355 360 365

Ala Lys Met Thr Ala Thr Phe Leu Ser Lys Lys Gln Glu Val Asn Met
370 375 380

Ser Asp Ser Ala Leu Asp Cys Val Arg Asp Glu Ala Ile Asn Lys Leu
385 390 395 400

Gln Gln Ile Phe Asn Thr Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly
405 410 415

Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln
420 425 430

Gly Ile Lys Gln Lys Ser Leu Val Glu Leu Glu Arg Leu Ala Asn Arg
435 440 445

Ser Ser Leu Asn Leu Thr His Asn Arg Thr Lys Arg Ser Thr Asp Gly
450 455 460

Asn Asn Ala Thr His Leu Ser Asn Met Glu Ser Val His Asn Leu Val
465 470 475 480

Tyr Ala Gln Leu Gln Phe Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn
485 490 495

Arg Ala Leu Ala Gln Ile Ala Glu Ala Trp Cys Val Asp Gln Arg Arg
500 505 510

Thr Leu Glu Val Phe Lys Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile
515 520 525

Leu Ser Ala Ile Tyr Asn Lys Pro Ile Ala Ala Arg Phe Met Gly Asp
530 535 540

Val Leu Gly Leu Ala Ser Cys Val Thr Ile Asn Gln Thr Ser Val Lys
545 550 555 560

Val Leu Arg Asp Met Asn Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser
565 570 575

Arg Pro Val Val Ile Phe Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr
580 585 590

Gly Gln Leu Gly Glu Asp Asn Glu Ile Leu Leu Gly Asn His Arg Thr
595 600 605

Glu Glu Cys Gln Leu Pro Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser
610 615 620

Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser
625 630 635 640

Ser Ile Ser Thr Val Asp Ser Met Ile Ala Leu Asp Ile Asp Pro Leu
645 650 655

Glu Asn Thr Asp Phe Arg Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu
660 665 670

Arg Ser Ser Asn Val Phe Asp Leu Glu Glu Ile Met Arg Glu Phe Asn
675 680 685

Ser Tyr Lys Gln His His His His His His
690 695

<210> 224
<211> 742
<212> PRT
<213> 人工序列

<220>
<223> 合成多肽

<400> 224

Met Arg Pro Gly Leu Pro Ser Tyr Leu Ile Ile Leu Ala Val Cys Leu
1 5 10 15

Phe Ser His Leu Leu Ser Ser Arg Tyr Gly Ala Glu Ala Val Ser Glu
20 25 30

Pro Leu Asp Lys Ala Phe His Leu Leu Leu Asn Thr Tyr Gly Arg Pro

35 40 45

Ile Arg Phe Leu Arg Glu Asn Thr Thr Gln Cys Thr Tyr Asn Ser Ser
50 55 60

Leu Arg Asn Ser Thr Val Val Arg Glu Asn Ala Ile Ser Phe Asn Phe
65 70 75 80

Phe Gln Ser Tyr Asn Gln Tyr Tyr Val Phe His Met Pro Arg Cys Leu
85 90 95

Phe Ala Gly Pro Leu Ala Glu Gln Phe Leu Asn Gln Val Asp Leu Thr
100 105 110

Glu Thr Leu Glu Arg Tyr Gln Gln Arg Leu Asn Thr Tyr Ala Leu Val
115 120 125

Ser Lys Asp Leu Ala Ser Tyr Arg Ser Phe Ser Gln Gln Leu Lys Ala
130 135 140

Gln Asp Ser Leu Gly Glu Gln Pro Thr Thr Val Pro Pro Pro Ile Asp
145 150 155 160

Leu Ser Ile Pro His Val Trp Met Pro Pro Gln Thr Thr Pro His Gly
165 170 175

Trp Thr Glu Ser His Thr Thr Ser Gly Leu His Arg Pro His Phe Asn
180 185 190

Gln Thr Cys Ile Leu Phe Asp Gly His Asp Leu Leu Phe Ser Thr Val
195 200 205

Thr Pro Cys Leu His Gln Gly Phe Tyr Leu Ile Asp Glu Leu Arg Tyr
210 215 220

Val Lys Ile Thr Leu Thr Glu Asp Phe Phe Val Val Thr Val Ser Ile
225 230 235 240

Asp Asp Asp Thr Pro Met Leu Leu Ile Phe Gly His Leu Pro Arg Val
245 250 255

Leu Phe Lys Ala Pro Tyr Gln Arg Asp Asn Phe Ile Leu Arg Gln Thr
260 265 270

Glu Lys His Glu Leu Leu Val Leu Val Lys Lys Asp Gln Leu Asn Arg
275 280 285

His Ser Tyr Leu Lys Asp Pro Asp Phe Leu Asp Ala Ala Leu Asp Phe
290 295 300

Asn Tyr Leu Asp Leu Ser Ala Leu Leu Arg Asn Ser Phe His Arg Tyr
305 310 315 320

Ala Val Asp Val Leu Lys Ser Gly Arg Cys Gln Met Leu Asp Arg Arg
325 330 335

Thr Val Glu Met Ala Phe Ala Tyr Ala Leu Ala Leu Phe Ala Ala Ala
340 345 350

Arg Gln Glu Glu Ala Gly Ala Gln Val Ser Val Pro Arg Ala Leu Asp
355 360 365

Arg Gln Ala Ala Leu Leu Gln Ile Gln Glu Phe Met Ile Thr Cys Leu
370 375 380

Ser Gln Thr Pro Pro Arg Thr Thr Leu Leu Leu Tyr Pro Thr Ala Val
385 390 395 400

Asp Leu Ala Lys Arg Ala Leu Trp Thr Pro Asn Gln Ile Thr Asp Ile
405 410 415

Thr Ser Leu Val Arg Leu Val Tyr Ile Leu Ser Lys Gln Asn Gln Gln
420 425 430

His Leu Ile Pro Gln Trp Ala Leu Arg Gln Ile Ala Asp Phe Ala Leu
435 440 445

Lys Leu His Lys Thr His Leu Ala Ser Phe Leu Ser Ala Phe Ala Arg
450 455 460

Gln Glu Leu Tyr Leu Met Gly Ser Leu Val His Ser Met Leu Val His
465 470 475 480

Thr Thr Glu Arg Arg Glu Ile Phe Ile Val Glu Thr Gly Leu Cys Ser
485 490 495

Leu Ala Glu Leu Ser His Phe Thr Gln Leu Leu Ala His Pro His His
500 505 510

Glu Tyr Leu Ser Asp Leu Tyr Thr Pro Cys Ser Ser Ser Gly Arg Arg
515 520 525

Asp His Ser Leu Glu Arg Leu Thr Arg Leu Phe Pro Asp Ala Thr Val
530 535 540

Pro Ala Thr Val Pro Ala Ala Leu Ser Ile Leu Ser Thr Met Gln Pro
545 550 555 560

Ser Thr Leu Glu Thr Phe Pro Asp Leu Phe Cys Leu Pro Leu Gly Glu
565 570 575

Ser Phe Ser Ala Leu Thr Val Ser Glu His Val Ser Tyr Ile Val Thr
580 585 590

Asn Gln Tyr Leu Ile Lys Gly Ile Ser Tyr Pro Val Ser Thr Thr Val
595 600 605

Val Gly Gln Ser Leu Ile Ile Thr Gln Thr Asp Ser Gln Thr Lys Cys
610 615 620

Glu Leu Thr Arg Asn Met His Thr Thr His Ser Ile Thr Val Ala Leu
625 630 635 640

Asn Ile Ser Leu Glu Asn Cys Ala Phe Cys Gln Ser Ala Leu Leu Glu
645 650 655

Tyr Asp Asp Thr Gln Gly Val Ile Asn Ile Met Tyr Met His Asp Ser
660 665 670

Asp Asp Val Leu Phe Ala Leu Asp Pro Tyr Asn Glu Val Val Val Ser
675 680 685

Ser Pro Arg Thr His Tyr Leu Met Leu Leu Lys Asn Gly Thr Val Leu
690 695 700

Glu Val Thr Asp Val Val Val Asp Ala Thr Asp Ser Arg Leu Leu Met
705 710 715 720

Met Ser Val Tyr Ala Leu Ser Ala Ile Ile Gly Ile Tyr Leu Leu Tyr
725 730 735

Arg Met Leu Lys Thr Cys
740

<210> 225
<211> 2464
<212> DNA
<213> 人工序列

<220>
<223> 合成多肽

<400> 225
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aaagaagagt aagaagaaat ataagagcca ccatgcggcc aggcctcccc tcctacctca 120

tcatcctcgc cgtctgtctc ttcagccacc tactttcgtc acgatatggc gcagaagccg 180

tatccgaacc gctggacaaa gcgtttcacc tactgctcaa cacctacggg agacccatcc 240

gcttcctgcg tgaaaatacc acccagtgta cctacaacag cagcctccgt aacagcacgg 300

tcgtcaggga aaacgccatc agtttcaact ttttccaaag ctataatcaa tactatgtat 360

tccatatgcc tcgatgtctt tttgcgggtc ctctggcgga gcagtttctg aaccaggtag 420

atctgaccga aaccctggaa agataccaac agagacttaa cacttacgcg ctggtatcca 480

aagacctggc cagctaccga tctttttcgc agcagctaaa ggcacaagac agcctaggtg 540

aacagcccac cactgtgcca ccgcccattg acctgtcaat acctcacgtt tggatgccac 600

cgcaaaccac tccacacggc tggacagaat cacataccac ctcaggacta caccgaccac 660

actttaacca gacctgtatc ctctttgatg gacacgatct actattcagc accgtcacac 720

cttgtttgca ccaaggcttt tacctcatcg acgaactacg ttacgttaaa ataacactga 780

ccgaggactt cttcgtagtt acggtgtcca tagacgacga cacacccatg ctgcttatct 840

tcggccatct tccacgcgta cttttcaaag cgccctatca acgcgacaac tttatactac 900

gacaaactga aaaacacgag ctcctggtgc tagttaagaa agatcaactg aaccgtcact 960

cttatctcaa agacccggac tttcttgacg ccgcacttga cttcaactac ctagacctca 1020

gcgcactact acgtaacagc tttcaccgtt acgccgtgga tgtactcaag agcggtcgat 1080

gtcagatgct ggaccgccgc acggtagaaa tggccttcgc ctacgcatta gcactgttcg 1140

cagcagcccg acaagaagag gccggcgccc aagtctccgt cccacgggcc ctagaccgcc 1200

aggccgcact cttacaaata caagaattta tgatcacctg cctctcacaa acaccaccac 1260

gcaccacgtt gctgctgtat cccacggccg tggacctggc caaacgagcc ctttggacac 1320

cgaatcagat caccgacatc accagcctcg tacgcctggt ctacatactc tctaaacaga 1380

atcagcaaca tctcatcccc caatgggcac tacgacagat cgccgacttt gccctaaaac 1440

tacacaaaac gcacctggcc tcttttcttt cagccttcgc acgccaagaa ctctacctca 1500

tgggcagcct cgtccactcc atgctggtac atacgacgga gagacgcgaa atcttcatcg 1560

tagaaacggg cctctgttca ttggccgagc tatcacactt tacgcagttg ttagctcatc 1620

cacaccacga atacctcagc gacctgtaca caccctgttc cagtagcggg cgacgcgatc 1680

actcgctcga acgcctcacg cgtctcttcc ccgatgccac cgtccccgct accgttcccg 1740

ccgccctctc catcctatct accatgcaac caagcacgct ggaaaccttc cccgacctgt 1800

tttgcttgcc gctcggcgaa tccttctccg cgctgaccgt ctccgaacac gtcagttata 1860

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tgcataccac acacagcatc acagtggcgc tcaacatttc gctagaaaac tgcgcctttt 2040

gccaaagcgc cctgctagaa tacgacgaca cgcaaggcgt catcaacatc atgtacatgc 2100

acgactcgga cgacgtcctt ttcgccctgg atccctacaa cgaagtggtg gtctcatctc 2160

cgcgaactca ctacctcatg cttttgaaaa acggtacggt actagaagta actgacgtcg 2220

tcgtggacgc caccgacagt cgtctcctca tgatgtccgt ctacgcgcta tcggccatca 2280

tcggcatcta tctgctctac cgcatgctca agacatgcga ttacaaggac gatgacgata 2340

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agcccctcct ccccttcctg cacccgtacc cccgtggtct ttgaataaag tctgagtggg 2460

cggc 2464

<210> 226
<211> 1045
<212> DNA
<213> 人工序列

<220>
<223> 合成多肽

<400> 226
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aaagaagagt aagaagaaat ataagagcca ccatgtgccg ccgcccggat tgcggcttct 120

ctttctcacc tggaccggtg atactgctgt ggtgttgcct tctgctgccc attgtttcct 180

cagccgccgt cagcgtcgct cctaccgccg ccgagaaagt ccccgcggag tgccccgaac 240

taacgcgccg atgcttgttg ggtgaggtgt ttgagggtga caagtatgaa agttggctgc 300

gcccgttggt gaatgttacc gggcgcgatg gcccgctatc gcaacttatc cgttaccgtc 360

ccgttacgcc ggaggccgcc aactccgtgc tgttggacga ggctttcctg gacactctgg 420

ccctgctgta caacaatccg gatcaattgc gggccctgct gacgctgttg agctcggaca 480

cagcgccgcg ctggatgacg gtgatgcgcg gctacagcga gtgcggcgat ggctcgccgg 540

ccgtgtacac gtgcgtggac gacctgtgcc gcggctacga cctcacgcga ctgtcatacg 600

ggcgcagcat cttcacggaa cacgtgttag gcttcgagct ggtgccaccg tctctcttta 660

acgtggtggt ggccatacgc aacgaagcca cgcgtaccaa ccgcgccgtg cgtctgcccg 720

tgagcaccgc tgccgcgccc gagggcatca cgctctttta cggcctgtac aacgcagtga 780

aggaattctg cctgcgtcac cagctggacc cgccgctgct acgccaccta gataaatact 840

acgccggact gccgcccgag ctgaagcaga cgcgcgtcaa cctgccggct cactcgcgct 900

atggccctca agcagtggat gctcgctgat aataggctgg agcctcggtg gccatgcttc 960

ttgccccttg ggcctccccc cagcccctcc tccccttcct gcacccgtac ccccgtggtc 1020

tttgaataaa gtctgagtgg gcggc 1045

<210> 227
<211> 1072
<212> DNA
<213> 人工序列

<220>
<223> 合成多肽

<400> 227
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aaagaagagt aagaagaaat ataagagcca ccatgtgccg ccgcccggat tgcggcttct 120

ctttctcacc tggaccggtg atactgctgt ggtgttgcct tctgctgccc attgtttcct 180

cagccgccgt cagcgtcgct cctaccgccg ccgagaaagt ccccgcggag tgccccgaac 240

taacgcgccg atgcttgttg ggtgaggtgt ttgagggtga caagtatgaa agttggctgc 300

gcccgttggt gaatgttacc gggcgcgatg gcccgctatc gcaacttatc cgttaccgtc 360

ccgttacgcc ggaggccgcc aactccgtgc tgttggacga ggctttcctg gacactctgg 420

ccctgctgta caacaatccg gatcaattgc gggccctgct gacgctgttg agctcggaca 480

cagcgccgcg ctggatgacg gtgatgcgcg gctacagcga gtgcggcgat ggctcgccgg 540

ccgtgtacac gtgcgtggac gacctgtgcc gcggctacga cctcacgcga ctgtcatacg 600

ggcgcagcat cttcacggaa cacgtgttag gcttcgagct ggtgccaccg tctctcttta 660

acgtggtggt ggccatacgc aacgaagcca cgcgtaccaa ccgcgccgtg cgtctgcccg 720

tgagcaccgc tgccgcgccc gagggcatca cgctctttta cggcctgtac aacgcagtga 780

aggaattctg cctgcgtcac cagctggacc cgccgctgct acgccaccta gataaatact 840

acgccggact gccgcccgag ctgaagcaga cgcgcgtcaa cctgccggct cactcgcgct 900

atggccctca agcagtggat gctcgcgatt acaaggacga tgacgataag tgatgataat 960

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ccttcctgca cccgtacccc cgtggtcttt gaataaagtc tgagtgggcg gc 1072

<210> 228
<211> 2932
<212> DNA
<213> 人工序列

<220>
<223> 合成多肽

<400> 228
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aaagaagagt aagaagaaat ataagagcca ccatggaatc caggatctgg tgcctggtag 120

tctgcgttaa cttgtgtatc gtctgtctgg gtgctgcggt ttcctcatct tctactcgtg 180

gaacttctgc tactcacagt caccattcct ctcatacgac gtctgctgct cactctcgat 240

ccggttcagt ctctcaacgc gtaacttctt cccaaacggt cagccatggt gttaacgaga 300

ccatctacaa cactaccctc aagtacggag atgtggtggg ggtcaatacc accaagtacc 360

cctatcgcgt gtgttctatg gcccagggta cggatcttat tcgctttgaa cgtaatatcg 420

tctgcacctc gatgaagccc atcaatgaag acctggacga gggcatcatg gtggtctaca 480

aacgcaacat cgtcgcgcac acctttaagg tacgagtcta ccagaaggtt ttgacgtttc 540

gtcgtagcta cgcttacatc cacaccactt atctgctggg cagcaacacg gaatacgtgg 600

cgcctcctat gtgggagatt catcatatca acagccacag tcagtgctac agttcctaca 660

gccgcgttat agcaggcacg gttttcgtgg cttatcatag ggacagctat gaaaacaaaa 720

ccatgcaatt aatgcccgac gattattcca acacccacag tacccgttac gtgacggtca 780

aggatcaatg gcacagccgc ggcagcacct ggctctatcg tgagacctgt aatctgaatt 840

gtatggtgac catcactact gcgcgctcca aatatcctta tcatttttc gccacttcca 900

cgggtgacgt ggttgacatt tctcctttct acaacggaac caatcgcaat gccagctact 960

ttggagaaaa cgccgacaag tttttcattt ttccgaacta cactatcgtc tccgactttg 1020

gaagaccgaa ttctgcgtta gagacccaca ggttggtggc ttttcttgaa cgtgcggact 1080

cggtgatctc ctgggatata caggacgaaa agaatgtcac ttgtcaactc actttctggg 1140

aagcctcgga acgcaccatt cgttccgaag ccgaggactc gtatcacttt tcttctgcca 1200

aaatgaccgc cactttctta tctaagaagc aagaggtgaa catgtccgac tctgcgctgg 1260

actgcgtacg tgatgaggct ataaataagt tacagcagat tttcaatact tcatacaatc 1320

aaacatatga aaaatatgga aacgtgtccg tctttgaaac cactggtggt ttggtagtgt 1380

tctggcaagg tatcaagcaa aaatctctgg tggaactcga acgtttggcc aaccgctcca 1440

gtctgaatct tactcataat agaaccaaaa gaagtacaga tggcaacaat gcaactcatt 1500

tatccaacat ggaatcggtg cacaatctgg tctacgccca gctgcagttc acctatgaca 1560

cgttgcgcgg ttacatcaac cgggcgctgg cgcaaatcgc agaagcctgg tgtgtggatc 1620

aacggcgcac cctagaggtc ttcaaggaac tcagcaagat caacccgtca gccattctct 1680

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gaacttctgc tactcacagt caccattcct ctcatacgac gtctgctgct cactctcgat 240

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cgggtgacgt ggttgacatt tctcctttct acaacggaac caatcgcaat gccagctact 960

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tgacggcgtt gtggctgcta ttgggtcaca gccgcgtgcc gcgggtgcgc gcagaagaat 180

gttgcgaatt cataaacgtc aaccacccgc cggaacgctg ttacgatttc aaaatgtgca 240

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cggctgagat tcgcgggatc gtcaccacca tgacccattc attgacacgc caggtcgtac 360

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cggc 724

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<220>
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cggctgagat tcgcgggatc gtcaccacca tgacccattc attgacacgc caggtcgtac 360

acaacaaact gacgagctgc aactacaatc cgttatacct cgaagctgac gggcgaatac 420

gctgcggcaa agtaaacgac aaggcgcagt acctgctggg cgccgctggc agcgttccct 480

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<220>
<223> 合成多肽

<400> 238
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ctgagtgggc ggc 853

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<220>
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<400> 240
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<220>
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<220>
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35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
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Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
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Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
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Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu Leu Gly Ser Asn Thr
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Pro Asp Cys Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
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Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu Tyr Arg Glu Thr Cys
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Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
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Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala

260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
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Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu
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Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser
325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Met Thr Ala Thr
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Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp
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Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
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Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
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Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
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Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
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Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
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Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
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Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
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35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
85 90 95

Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
100 105 110

Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
115 120 125

Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu Leu Gly Ser Asn Thr
130 135 140

Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His Ile Asn Ser His
145 150 155 160

Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala Gly Thr Val Phe
165 170 175

Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr Met Gln Leu Met
180 185 190

Pro Asp Cys Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
195 200 205

Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu Tyr Arg Glu Thr Cys
210 215 220

Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg Ser Lys Tyr Pro
225 230 235 240

Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
245 250 255

Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala
260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
275 280 285

Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu

290 295 300

Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp Glu Lys Asn Val
305 310 315 320

Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser
325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Cys Thr Ala Thr
340 345 350

Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp
355 360 365

Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
370 375 380

Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
385 390 395 400

Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys Gln Lys Ser
405 410 415

Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
435 440 445

Ser Asn Met Glu Ser Val His Asn Leu Val Tyr Ala Gln Leu Gln Phe
450 455 460

Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala Leu Ala Gln Ile
465 470 475 480

Ala Glu Ala Cys Cys Val Asp Gln Arg Arg Thr Leu Glu Val Phe Lys
485 490 495

Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
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Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
515 520 525

Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
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Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
545 550 555 560

Asn Phe Ala Asn Ser Ser Cys Val Gln Tyr Gly Gln Leu Gly Glu Asp
565 570 575

Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys Gln Leu Pro
580 585 590

Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu Tyr Val Asp
595 600 605

Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser Thr Val Asp
610 615 620

Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn Thr Asp Phe Arg
625 630 635 640

Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser Ser Asn Val Phe
645 650 655

Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr Lys Gln Arg Val
660 665 670

Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro Pro Tyr Leu Lys
675 680 685

Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala Gly Lys Ala Val
690 695 700

Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala Ser Val Val Glu
705 710 715 720

Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala Phe Thr Ile Ile
725 730 735

Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu Ile Tyr Thr Arg
740 745 750

Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu Phe Pro Tyr Leu
755 760 765

Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn Thr Lys Asp Thr
770 775 780

Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val Tyr Asn Ser Gly
785 790 795 800

Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser Thr Ala Ala Pro
805 810 815

Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu Ala Leu Val Arg
820 825 830

Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr Asp Ser Leu Asp
835 840 845

Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro Asn Leu Leu Asp
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Glu Glu Glu Asn Val
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gtgtctcacg gcgtcaacga gacaatttac aacacgacgc tgaaatacgg cgatgtcgtg 180

ggtgtgaata ctaccaagta cccctataga gtctgtagca tggcccaggg caccgacctg 240

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35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
85 90 95

Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
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Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
115 120 125

Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu Leu Gly Ser Asn Thr
130 135 140

Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His Ile Asn Ser His
145 150 155 160

Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala Gly Thr Val Phe
165 170 175

Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr Met Gln Leu Met
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Pro Asp Cys Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
195 200 205

Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu Tyr Arg Glu Thr Cys
210 215 220

Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg Ser Lys Tyr Pro
225 230 235 240

Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
245 250 255

Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala
260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
275 280 285

Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu
290 295 300

Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp Glu Lys Asn Val
305 310 315 320

Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser

325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Met Thr Ala Thr
340 345 350

Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp
355 360 365

Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
370 375 380

Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
385 390 395 400

Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys Gln Lys Ser
405 410 415

Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
435 440 445

Ser Asn Met Glu Ser Val His Asn Leu Val Tyr Ala Gln Leu Gln Phe
450 455 460

Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala Leu Ala Gln Ile
465 470 475 480

Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu Glu Val Phe Lys
485 490 495

Glu Leu Ser Lys Ile Cys Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
500 505 510

Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
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Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
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Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
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Asn Phe Ala Asn Ser Ser Cys Val Gln Tyr Gly Gln Leu Gly Glu Asp
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Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys Gln Leu Pro
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Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu Tyr Val Asp
595 600 605

Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser Thr Val Asp
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Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn Thr Asp Phe Arg
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Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser Ser Asn Val Phe
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Asp Leu Glu Glu Ile Cys Arg Glu Phe Asn Ser Tyr Lys Gln Arg Val
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Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro Pro Tyr Leu Lys
675 680 685

Gly Leu Asp Asp Leu Met Ser Gly Leu Gly Ala Ala Gly Lys Ala Val
690 695 700

Gly Val Ala Ile Gly Ala Val Gly Gly Ala Val Ala Ser Val Val Glu
705 710 715 720

Gly Val Ala Thr Phe Leu Lys Asn Pro Phe Gly Ala Phe Thr Ile Ile
725 730 735

Leu Val Ala Ile Ala Val Val Ile Ile Ile Tyr Leu Ile Tyr Thr Arg
740 745 750

Gln Arg Arg Leu Cys Met Gln Pro Leu Gln Asn Leu Phe Pro Tyr Leu
755 760 765

Val Ser Ala Asp Gly Thr Thr Val Thr Ser Gly Asn Thr Lys Asp Thr
770 775 780

Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu Ser Val Tyr Asn Ser Gly
785 790 795 800

Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp Ala Ser Thr Ala Ala Pro
805 810 815

Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met Leu Leu Ala Leu Val Arg
820 825 830

Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn Gly Thr Asp Ser Leu Asp
835 840 845

Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln Lys Pro Asn Leu Leu Asp
850 855 860

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Glu Glu Glu Asn Val
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35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
85 90 95

Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
100 105 110

Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
115 120 125

Arg Ser Tyr Ala Gly His Arg Thr Thr Tyr Leu Leu Gly Ser Asn Thr
130 135 140

Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His Ile Asn Ser His
145 150 155 160

Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala Gly Thr Val Phe
165 170 175

Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr Met Gln Leu Met
180 185 190

Pro Asp Cys Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
195 200 205

Asp Gln Trp His Ser Arg Gly Ser Thr Ala Leu Tyr Arg Glu Thr Ser
210 215 220

Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg Ser Lys Tyr Pro
225 230 235 240

Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
245 250 255

Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala
260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
275 280 285

Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu
290 295 300

Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp Glu Lys Asn Val
305 310 315 320

Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser
325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Cys Thr Ala Thr
340 345 350

Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp

355 360 365

Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
370 375 380

Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
385 390 395 400

Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys Gln Lys Ser
405 410 415

Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
435 440 445

Ser Asn Met Glu Ser Val His Asn Leu Val Tyr Ala Gln Leu Gln Phe
450 455 460

Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala Leu Ala Gln Ile
465 470 475 480

Ala Glu Ala Cys Cys Val Asp Gln Arg Arg Thr Leu Glu Val Phe Lys
485 490 495

Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
500 505 510

Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
515 520 525

Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
530 535 540

Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
545 550 555 560

Asn Phe Ala Asn Ser Ser Cys Val Gln Tyr Gly Gln Leu Gly Glu Asp
565 570 575

Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys Gln Leu Pro
580 585 590

Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu Tyr Val Asp
595 600 605

Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser Thr Val Asp
610 615 620

Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn Thr Asp Phe Arg
625 630 635 640

Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser Ser Asn Val Phe
645 650 655

Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr Lys Gln Arg Val
660 665 670

Lys Tyr Val Glu Asp Lys Val Val Lys Ile Glu Glu Ile Leu Ser Lys
675 680 685

Gln Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Gly
690 695 700

<210> 262
<211> 2112
<212> DNA
<213> 人工序列

<220>
<223> 合成核苷酸序列

<400> 262
gtatcctcca gctctactag aggaacgagc gcgacccatt cacaccacag ctcccacact 60

acgagcgctg cccattctag gagtggctcc gtgtcacaac gcgttactag tagccagacc 120

gtgtctcacg gcgtcaacga gacaatttac aacacgacgc tgaaatacgg cgatgtcgtg 180

ggtgtgaata ctaccaagta cccctataga gtctgtagca tggcccaggg caccgacctg 240

atcaggttcg aacggaacat cgtttgcaca tcaatgaagc ctatcaacga agaccttgac 300

gaggggatta tggtggtata caaacggaat atcgtggctc acaccttcaa agtgcgagtg 360

tatcagaagg ttctgacatt ccgaagaagt tacgccggtc atcgtaccac ctatctgctg 420

ggctccaaca ctgagtacgt ggcgccccca atgtgggaaa tccaccacat caacagccat 480

tcacagtgct actcttccta cagcagggtg attgcgggca cagtgtttgt ggcctaccac 540

agggacagct atgagaacaa gacgatgcag ttgatgccag attgttacag taacactcac 600

agtacacggt atgttacagt taaggatcag tggcattcac gcggaagcac agcactgtat 660

agagagacct ctaatttgaa ttgtatggta actatcacta ctgcacggag caagtaccct 720

tatcatttct ttgctacaag cacgggcgat gtggtagaca tcagcccctt ctataatggc 780

acaaatcgga acgcaagcta tttcggggag aacgccgaca agtttttcat ttttcctaat 840

tatactattg tttctgactt cgggagaccc aactccgccc tggaaactca cagactggtt 900

gcgttcctcg aaagagcaga ttctgtgata tcctgggaca ttcaggatga aaagaacgtc 960

acgtgtcagc tgaccttctg ggaggcctca gagcggacga tccggtctga ggccgaggac 1020

tcttaccact ttagcagcgc caagtgcacc gcaaccttcc tgtctaaaaa acaggaagtg 1080

aacatgtccg attctgcttt ggactgcgtt cgcgatgagg ccatcaacaa gcttcaacaa 1140

attttcaata cctcctacaa tcagacatat gaaaaatacg gaaacgtgag tgtctttgaa 1200

accaccgggg gcctggtcgt gttctggcag ggtatcaaac agaagagcct ggtggaactg 1260

gaacgcctgg ccaacagaag cagtttgaac ctcacgcaca accggacaaa gaggagcacc 1320

gacggaaaca atgctacaca cctttccaac atggagtctg tccacaatct ggtttatgca 1380

cagcttcagt tcacttatga cacactgcgg ggctacataa acagggctct ggcacagata 1440

gccgaggctt gctgtgtgga ccagcggaga accctggagg tatttaaaga actgtctaag 1500

atcaacccct ctgcgattct gagcgctatt tacaacaaac ccattgccgc acgcttcatg 1560

ggggacgtcc tcggtcttgc ctcctgtgtg acaattaacc agacgagcgt gaaggtgctg 1620

cgagatatga acgtgaagga atcccctggg cggtgttaca gtaggcctgt ggtgattttc 1680

aacttcgcca actcttcctg tgtccaatac ggtcaactcg gtgaagataa cgagattctg 1740

ctgggcaatc atcggacaga agaatgccag ttgccaagcc ttaaaatctt tattgcagga 1800

aattcagcct acgagtacgt cgactatctg tttaaaagaa tgattgatct gagcagcatt 1860

tccactgtgg acagtatgat cgcactggac attgaccctt tggaaaacac cgattttcgc 1920

gtccttgagc tgtactccca gaaagaactg cgctctagca acgtctttga tcttgaggag 1980

atcatgaggg agtttaactc ttataaacag agggtgaagt atgtggagga taaagtggtc 2040

aagatcgagg agatcctgtc caagcagtac cacatcgaga acgagatcgc ccgcatcaag 2100

aagctgatcg gc 2112

<210> 263
<211> 704

<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 263

Val Ser Ser Ser Ser Thr Arg Gly Thr Ser Ala Thr His Ser His His
1 5 10 15

Ser Ser His Thr Thr Ser Ala Ala His Ser Arg Ser Gly Ser Val Ser
20 25 30

Gln Arg Val Thr Ser Ser Gln Thr Val Ser His Gly Val Asn Glu Thr
35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
85 90 95

Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
100 105 110

Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
115 120 125

Arg Ser Tyr Ala Gly His Arg Thr Thr Tyr Leu Leu Gly Ser Asn Thr
130 135 140

Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His Ile Asn Ser His
145 150 155 160

Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala Gly Thr Val Phe
165 170 175

Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr Met Gln Leu Met
180 185 190

Pro Asp Cys Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys

195 200 205

Asp Gln Trp His Ser Arg Gly Ser Thr Ala Leu Tyr Arg Glu Thr Ser
210 215 220

Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg Ser Lys Tyr Pro
225 230 235 240

Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
245 250 255

Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala
260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
275 280 285

Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu
290 295 300

Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp Glu Lys Asn Val
305 310 315 320

Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser
325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Met Thr Ala Thr
340 345 350

Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp
355 360 365

Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
370 375 380

Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
385 390 395 400

Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys Gln Lys Ser
405 410 415

Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
435 440 445

Ser Asn Met Glu Ser Val His Asn Leu Val Tyr Ala Gln Leu Gln Phe
450 455 460

Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala Leu Ala Gln Ile
465 470 475 480

Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu Glu Val Phe Lys
485 490 495

Glu Leu Ser Lys Ile Cys Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
500 505 510

Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
515 520 525

Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
530 535 540

Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
545 550 555 560

Asn Phe Ala Asn Ser Ser Cys Val Gln Tyr Gly Gln Leu Gly Glu Asp
565 570 575

Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys Gln Leu Pro
580 585 590

Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu Tyr Val Asp
595 600 605

Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser Thr Val Asp
610 615 620

Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn Thr Asp Phe Arg
625 630 635 640

Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser Ser Asn Val Phe
645 650 655

Asp Leu Glu Glu Ile Cys Arg Glu Phe Asn Ser Tyr Lys Gln Arg Val
660 665 670

Lys Tyr Val Glu Asp Lys Val Val Lys Ile Glu Glu Ile Leu Ser Lys
675 680 685

Gln Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Gly
690 695 700

<210> 264
<211> 2112
<212> DNA
<213> 人工序列

<220>
<223> 合成核苷酸序列

<400> 264
gtatcctcca gctctactag aggaacgagc gcgacccatt cacaccacag ctcccacact 60

acgagcgctg cccattctag gagtggctcc gtgtcacaac gcgttactag tagccagacc 120

gtgtctcacg gcgtcaacga gacaatttac aacacgacgc tgaaatacgg cgatgtcgtg 180

ggtgtgaata ctaccaagta cccctataga gtctgtagca tggcccaggg caccgacctg 240

atcaggttcg aacggaacat cgtttgcaca tcaatgaagc ctatcaacga agaccttgac 300

gaggggatta tggtggtata caaacggaat atcgtggctc acaccttcaa agtgcgagtg 360

tatcagaagg ttctgacatt ccgaagaagt tacgccggtc atcgtaccac ctatctgctg 420

ggctccaaca ctgagtacgt ggcgccccca atgtgggaaa tccaccacat caacagccat 480

tcacagtgct actcttccta cagcagggtg attgcgggca cagtgtttgt ggcctaccac 540

agggacagct atgagaacaa gacgatgcag ttgatgccag attgttacag taacactcac 600

agtacacggt atgttacagt taaggatcag tggcattcac gcggaagcac agcactgtat 660

agagagacct ctaatttgaa ttgtatggta actatcacta ctgcacggag caagtaccct 720

tatcatttct ttgctacaag cacgggcgat gtggtagaca tcagcccctt ctataatggc 780

acaaatcgga acgcaagcta tttcggggag aacgccgaca agtttttcat ttttcctaat 840

tatactattg tttctgactt cgggagaccc aactccgccc tggaaactca cagactggtt 900

gcgttcctcg aaagagcaga ttctgtgata tcctgggaca ttcaggatga aaagaacgtc 960

acgtgtcagc tgaccttctg ggaggcctca gagcggacga tccggtctga ggccgaggac 1020

tcttaccact ttagcagcgc caagatgacc gcaaccttcc tgtctaaaaa acaggaagtg 1080

aacatgtccg attctgcttt ggactgcgtt cgcgatgagg ccatcaacaa gcttcaacaa 1140

attttcaata cctcctacaa tcagacatat gaaaaatacg gaaacgtgag tgtctttgaa 1200

accaccgggg gcctggtcgt gttctggcag ggtatcaaac agaagagcct ggtggaactg 1260

gaacgcctgg ccaacagaag cagtttgaac ctcacgcaca accggacaaa gaggagcacc 1320

gacggaaaca atgctacaca cctttccaac atggagtctg tccacaatct ggtttatgca 1380

cagcttcagt tcacttatga cacactgcgg ggctacataa acagggctct ggcacagata 1440

gccgaggctt ggtgtgtgga ccagcggaga accctggagg tatttaaaga actgtctaag 1500

atctgtccct ctgcgattct gagcgctatt tacaacaaac ccattgccgc acgcttcatg 1560

ggggacgtcc tcggtcttgc ctcctgtgtg acaattaacc agacgagcgt gaaggtgctg 1620

cgagatatga acgtgaagga atcccctggg cggtgttaca gtaggcctgt ggtgattttc 1680

aacttcgcca actcttcctg tgtccaatac ggtcaactcg gtgaagataa cgagattctg 1740

ctgggcaatc atcggacaga agaatgccag ttgccaagcc ttaaaatctt tattgcagga 1800

aattcagcct acgagtacgt cgactatctg tttaaaagaa tgattgatct gagcagcatt 1860

tccactgtgg acagtatgat cgcactggac attgaccctt tggaaaacac cgattttcgc 1920

gtccttgagc tgtactccca gaaagaactg cgctctagca acgtctttga tcttgaggag 1980

atctgtaggg agtttaactc ttataaacag agggtgaagt atgtggagga taaagtggtc 2040

aagatcgagg agatcctgtc caagcagtac cacatcgaga acgagatcgc ccgcatcaag 2100

aagctgatcg gc 2112

<210> 265
<211> 624
<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 265

Val Ser Ser Ser Ser Thr Arg Gly Thr Ser Ala Thr His Ser His His
1 5 10 15

Ser Ser His Thr Thr Ser Ala Ala His Ser Arg Ser Gly Ser Val Ser
20 25 30

Gln Arg Val Thr Ser Ser Gln Thr Val Ser His Gly Val Asn Glu Thr

35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
85 90 95

Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
100 105 110

Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
115 120 125

Arg Ser Tyr Ala Gly His Arg Thr Thr Tyr Leu Leu Gly Ser Asn Thr
130 135 140

Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His Ile Asn Ser His
145 150 155 160

Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala Gly Thr Val Phe
165 170 175

Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr Met Gln Leu Met
180 185 190

Pro Asp Cys Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
195 200 205

Asp Gln Trp His Ser Arg Gly Ser Thr Ala Leu Tyr Arg Glu Thr Ser
210 215 220

Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg Ser Lys Tyr Pro
225 230 235 240

Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
245 250 255

Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala
260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
275 280 285

Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu
290 295 300

Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp Glu Lys Asn Val
305 310 315 320

Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser
325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Cys Thr Ala Thr
340 345 350

Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp
355 360 365

Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
370 375 380

Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
385 390 395 400

Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys Gln Lys Ser
405 410 415

Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
435 440 445

Ser Asn Met Glu Ser Val His Asn Leu Val Tyr Ala Gln Leu Gln Phe
450 455 460

Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala Leu Ala Gln Ile
465 470 475 480

Ala Glu Ala Cys Cys Val Asp Gln Arg Arg Thr Leu Glu Val Phe Lys
485 490 495

Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
500 505 510

Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
515 520 525

Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
530 535 540

Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
545 550 555 560

Asn Phe Ala Asn Ser Ser Cys Val Gln Tyr Gly Gln Leu Gly Glu Asp
565 570 575

Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys Gln Leu Pro
580 585 590

Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu Tyr Val Asp
595 600 605

Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser Thr Val Asp
610 615 620

<210> 266
<211> 1872
<212> DNA
<213> 人工序列

<220>
<223> 合成核苷酸序列

<400> 266
gtatcctcca gctctactag aggaacgagc gcgacccatt cacaccacag ctcccacact 60

acgagcgctg cccattctag gagtggctcc gtgtcacaac gcgttactag tagccagacc 120

gtgtctcacg gcgtcaacga gacaatttac aacacgacgc tgaaatacgg cgatgtcgtg 180

ggtgtgaata ctaccaagta cccctataga gtctgtagca tggcccaggg caccgacctg 240

atcaggttcg aacggaacat cgtttgcaca tcaatgaagc ctatcaacga agaccttgac 300

gaggggatta tggtggtata caaacggaat atcgtggctc acaccttcaa agtgcgagtg 360

tatcagaagg ttctgacatt ccgaagaagt tacgccggtc atcgtaccac ctatctgctg 420

ggctccaaca ctgagtacgt ggcgccccca atgtgggaaa tccaccacat caacagccat 480

tcacagtgct actcttccta cagcagggtg attgcgggca cagtgtttgt ggcctaccac 540

agggacagct atgagaacaa gacgatgcag ttgatgccag attgttacag taacactcac 600

agtacacggt atgttacagt taaggatcag tggcattcac gcggaagcac agcactgtat 660

agagagacct ctaatttgaa ttgtatggta actatcacta ctgcacggag caagtaccct 720

tatcatttct ttgctacaag cacgggcgat gtggtagaca tcagcccctt ctataatggc 780

acaaatcgga acgcaagcta tttcggggag aacgccgaca agtttttcat ttttcctaat 840

tatactattg tttctgactt cgggagaccc aactccgccc tggaaactca cagactggtt 900

gcgttcctcg aaagagcaga ttctgtgata tcctgggaca ttcaggatga aaagaacgtc 960

acgtgtcagc tgaccttctg ggaggcctca gagcggacga tccggtctga ggccgaggac 1020

tcttaccact ttagcagcgc caagtgcacc gcaaccttcc tgtctaaaaa acaggaagtg 1080

aacatgtccg attctgcttt ggactgcgtt cgcgatgagg ccatcaacaa gcttcaacaa 1140

attttcaata cctcctacaa tcagacatat gaaaaatacg gaaacgtgag tgtctttgaa 1200

accaccgggg gcctggtcgt gttctggcag ggtatcaaac agaagagcct ggtggaactg 1260

gaacgcctgg ccaacagaag cagtttgaac ctcacgcaca accggacaaa gaggagcacc 1320

gacggaaaca atgctacaca cctttccaac atggagtctg tccacaatct ggtttatgca 1380

cagcttcagt tcacttatga cacactgcgg ggctacataa acagggctct ggcacagata 1440

gccgaggctt gctgtgtgga ccagcggaga accctggagg tatttaaaga actgtctaag 1500

atcaacccct ctgcgattct gagcgctatt tacaacaaac ccattgccgc acgcttcatg 1560

ggggacgtcc tcggtcttgc ctcctgtgtg acaattaacc agacgagcgt gaaggtgctg 1620

cgagatatga acgtgaagga atcccctggg cggtgttaca gtaggcctgt ggtgattttc 1680

aacttcgcca actcttcctg tgtccaatac ggtcaactcg gtgaagataa cgagattctg 1740

ctgggcaatc atcggacaga agaatgccag ttgccaagcc ttaaaatctt tattgcagga 1800

aattcagcct acgagtacgt cgactatctg tttaaaagaa tgattgatct gagcagcatt 1860

tccactgtgg ac 1872

<210> 267
<211> 685
<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 267

Val Ser Ser Ser Ser Thr Arg Gly Thr Ser Ala Thr His Ser His His
1 5 10 15

Ser Ser His Thr Thr Ser Ala Ala His Ser Arg Ser Gly Ser Val Ser
20 25 30

Gln Arg Val Thr Ser Ser Gln Thr Val Ser His Gly Val Asn Glu Thr
35 40 45

Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp Val Val Gly Val Asn Thr
50 55 60

Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met Ala Gln Gly Thr Asp Leu
65 70 75 80

Ile Arg Phe Glu Arg Asn Ile Val Cys Thr Ser Met Lys Pro Ile Asn
85 90 95

Glu Asp Leu Asp Glu Gly Ile Met Val Val Tyr Lys Arg Asn Ile Val
100 105 110

Ala His Thr Phe Lys Val Arg Val Tyr Gln Lys Val Leu Thr Phe Arg
115 120 125

Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr Leu Leu Gly Ser Asn Thr
130 135 140

Glu Tyr Val Ala Pro Pro Met Trp Glu Ile His His Ile Asn Ser His
145 150 155 160

Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val Ile Ala Gly Thr Val Phe
165 170 175

Val Ala Tyr His Arg Asp Ser Tyr Glu Asn Lys Thr Met Gln Leu Met
180 185 190

Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
195 200 205

Asp Gln Trp His Ser Arg Gly Ser Thr Trp Leu Tyr Arg Glu Thr Cys
210 215 220

Asn Leu Asn Cys Met Val Thr Ile Thr Thr Ala Arg Ser Lys Tyr Pro
225 230 235 240

Tyr His Phe Phe Ala Thr Ser Thr Gly Asp Val Val Asp Ile Ser Pro
245 250 255

Phe Tyr Asn Gly Thr Asn Arg Asn Ala Ser Tyr Phe Gly Glu Asn Ala
260 265 270

Asp Lys Phe Phe Ile Phe Pro Asn Tyr Thr Ile Val Ser Asp Phe Gly
275 280 285

Arg Pro Asn Ser Ala Leu Glu Thr His Arg Leu Val Ala Phe Leu Glu
290 295 300

Arg Ala Asp Ser Val Ile Ser Trp Asp Ile Gln Asp Glu Lys Asn Val
305 310 315 320

Thr Cys Gln Leu Thr Phe Trp Glu Ala Ser Glu Arg Thr Ile Arg Ser
325 330 335

Glu Ala Glu Asp Ser Tyr His Phe Ser Ser Ala Lys Met Thr Ala Thr
340 345 350

Phe Leu Ser Lys Lys Gln Glu Val Asn Met Ser Asp Ser Ala Leu Asp
355 360 365

Cys Val Arg Asp Glu Ala Ile Asn Lys Leu Gln Gln Ile Phe Asn Thr
370 375 380

Ser Tyr Asn Gln Thr Tyr Glu Lys Tyr Gly Asn Val Ser Val Phe Glu
385 390 395 400

Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys Gln Lys Ser
405 410 415

Leu Val Glu Leu Glu Arg Leu Ala Asn Arg Ser Ser Leu Asn Leu Thr
420 425 430

His Asn Arg Thr Lys Arg Ser Thr Asp Gly Asn Asn Ala Thr His Leu
435 440 445

Ser Asn Met Glu Ser Val His Asn Leu Val Tyr Ala Gln Leu Gln Phe
450 455 460

Thr Tyr Asp Thr Leu Arg Gly Tyr Ile Asn Arg Ala Leu Ala Gln Ile
465 470 475 480

Ala Glu Ala Trp Cys Val Asp Gln Arg Arg Thr Leu Glu Val Phe Lys
485 490 495

Glu Leu Ser Lys Ile Asn Pro Ser Ala Ile Leu Ser Ala Ile Tyr Asn
500 505 510

Lys Pro Ile Ala Ala Arg Phe Met Gly Asp Val Leu Gly Leu Ala Ser
515 520 525

Cys Val Thr Ile Asn Gln Thr Ser Val Lys Val Leu Arg Asp Met Asn
530 535 540

Val Lys Glu Ser Pro Gly Arg Cys Tyr Ser Arg Pro Val Val Ile Phe
545 550 555 560

Asn Phe Ala Asn Ser Ser Tyr Val Gln Tyr Gly Gln Leu Gly Glu Asp
565 570 575

Asn Glu Ile Leu Leu Gly Asn His Arg Thr Glu Glu Cys Gln Leu Pro
580 585 590

Ser Leu Lys Ile Phe Ile Ala Gly Asn Ser Ala Tyr Glu Tyr Val Asp
595 600 605

Tyr Leu Phe Lys Arg Met Ile Asp Leu Ser Ser Ile Ser Thr Val Asp
610 615 620

Ser Met Ile Ala Leu Asp Ile Asp Pro Leu Glu Asn Thr Asp Phe Arg
625 630 635 640

Val Leu Glu Leu Tyr Ser Gln Lys Glu Leu Arg Ser Ser Asn Val Phe
645 650 655

Asp Leu Glu Glu Ile Met Arg Glu Phe Asn Ser Tyr Lys Gln Arg Val
660 665 670

Lys Tyr Val Glu Asp Lys Val Val Asp Pro Leu Pro Pro
675 680 685

<210> 268
<211> 22
<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 268

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
1 5 10 15

Val Cys Leu Gly Ala Ala
20

<210> 269
<211> 24
<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 269

Lys Ile Glu Glu Ile Leu Ser Lys Gln Tyr His Ile Glu Asn Glu Ile
1 5 10 15

Ala Arg Ile Lys Lys Leu Ile Gly
20

<210> 270
<211> 72
<212> DNA
<213> 人工序列

<220>
<223> 合成核苷酸序列

<400> 270
aagatcgagg agatcctgtc caagcagtac cacatcgaga acgagatcgc ccgcatcaag 60

aagctgatcg gc 72

<210> 271
<211> 27
<212> PRT

<213> 人工序列

<220>
<223> 合成肽序列

<400> 271

Gly Tyr Ile Pro Glu Ala Pro Arg Asp Gly Gln Ala Tyr Val Arg Lys
1 5 10 15

Asp Gly Glu Trp Val Leu Leu Ser Thr Phe Leu
20 25

<210> 272
<211> 31
<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 272

Arg Ile Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Leu Ser Lys Gln
1 5 10 15

Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Gly
20 25 30

<210> 273
<211> 17
<212> PRT
<213> 人工序列

<220>
<223> 合成肽序列

<400> 273

Lys Ile Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile
1 5 10 15

Gly

<210> 274
<211> 32
<212> PRT
<213> 人工序列

<220>

<223> 合成肽序列

<400> 274

Leu Ser Ala Ile Gly Gly Tyr Ile Pro Glu Ala Pro Arg Asp Gly Gln
1 5 10 15

Ala Tyr Val Arg Lys Asp Gly Glu Trp Val Leu Leu Ser Thr Phe Leu
20 25 30

【發明申請專利範圍】

【請求項1】一種人巨細胞病毒(HCMV)免疫原性組成物，其包含經調配於脂質奈米粒子內之RNA，其中該RNA編碼HCMV糖蛋白B (gB)蛋白之胺基酸序列，該HCMV gB蛋白包含至少1個經工程改造之雙硫鍵突變，其中該至少1個經工程改造之雙硫鍵突變係選自由下列所組成之群組：依據SEQ ID NO: 1編號之(i) D217C及Y589C；和(ii) M371C及W506C。

【請求項2】如請求項1之HCMV免疫原性組成物，其中該脂質奈米粒子包含陽離子脂質、經PEG修飾之脂質、固醇及非陽離子脂質。

【請求項3】如請求項2之HCMV免疫原性組成物，其中該陽離子脂質係可離子化陽離子脂質，該非陽離子脂質係中性脂質，且該固醇係膽固醇。

【請求項4】如請求項2之HCMV免疫原性組成物，其中該陽離子脂質係選自由下列所組成之群組：2,2-二亞油烯基-4-二甲基胺基乙基-[1,3]-二噁戊烷(DLin-KC2-DMA)、二亞油烯基-甲基-4-二甲基胺基丁酸酯(DLin-MC3-DMA)及二((Z)-壬-2-烯-1-基) 9-((4-(二甲基胺基)丁醯基)氧基)十七烷二酯(L319)。

【請求項5】如請求項2之HCMV免疫原性組成物，其中該脂質奈米粒子具有20至60%陽離子脂質、5至25%非陽離子脂質、25至55%固醇及0.5至15%經PEG修飾之脂質的莫耳比。

【請求項6】如請求項1之HCMV免疫原性組成物，其進一步包含編碼額外HCMV抗原性多肽之多核苷酸。

【請求項7】如請求項6之HCMV免疫原性組成物，其中該額外HCMV抗原性多肽係選自由下列所組成之群組：gH、gL、gO、gM、gN、UL128、UL130、UL131A、pp65、及其免疫原性片段。

【請求項8】如請求項7之HCMV免疫原性組成物，其中該額外HCMV抗原性多肽形成三聚體或五聚體。

【請求項9】一種人巨細胞病毒(HCMV)免疫原性組成物，其包含經調配於脂質奈米粒子內之RNA，其中該RNA編碼HCMV糖蛋白B (gB)蛋白之胺基酸序列，該HCMV gB蛋白包含至少2個胺基酸突變，且其中相對於野生型HCMV gB蛋白的如SEQ ID NO: 1所示之胺基酸序列，該至少2個胺基酸突變包含：

a) 至少1個選自由下列所組成之群組的經工程改造之雙硫鍵突變：D217C及Y589C；和M371C及W506C；和

b) 至少1個選自由下列所組成之群組的額外突變：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；

(3)以S取代位置246之C；

(4)以S取代位置655之P；

(5)以S取代位置678之F；

(6)以T取代位置680之L；

(7)以A取代位置685之R；

(8)以GSGKDG取代位置648-653之MIALDI；

(9)以V取代位置693之R；

(10)以S取代位置675之I；

(11)以C取代位置767及768之I；

(12)以C取代位置703之D及位置704之P；及

(13)以C取代位置696之Y及位置697之V。

【請求項10】如請求項9之HCMV免疫原性組成物，其中該至少1個額外突變係選自由下列所組成之群組：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；及

(3)以S取代位置246之C。

【請求項11】如請求項9之HCMV免疫原性組成物，其中該等胺基酸突變係下述突變之組合：D217C及Y589C、M371C及W506C、Y155G、I156H及H157R、W240A、及C246S。

【請求項12】如請求項1之HCMV免疫原性組成物，其中該RNA係由SEQ ID NO: 266列示之序列編碼。

【請求項13】一種野生型人巨細胞病毒(HCMV)糖蛋白B (gB)蛋白之經工程改造之突變體，其中該經工程改造之突變體包含至少2個胺基酸突變，且其中相對於該野生型HCMV gB蛋白的如SEQ ID NO: 1所示之胺基酸序列，該至少2個胺基酸突變包含：

a) 至少1個選自由下列所組成之群組的經工程改造之雙硫鍵突變：D217C及Y589C；和M371C及W506C；和

b) 至少1個選自由下列所組成之群組的額外突變：

(1)以GHR取代位置155-157之YIH；

(2)以A取代位置240之W；及

(3)以S取代位置246之C。

【請求項14】如請求項13之經工程改造之突變體，其中該等胺基酸突變係下述突變之組合：D217C及Y589C、M371C及W506C、Y155G、I156H及H157R、W240A、及C246S。

【請求項15】如請求項13之經工程改造之突變體，其中該經工程改造之突變體包含與SEQ ID NO: 265之胺基酸序列具有至少97%、98%或99%同一性之胺基酸序列。

【請求項16】如請求項13之經工程改造之突變體，其中該經工程改造之突變體包含SEQ ID NO: 265列示之胺基酸序列。

【請求項17】一種如請求項1至12中任一項之HCMV免疫原性組成物或如請求項13至16中任一項之經工程改造之突變體於製備疫苗之用途，該疫苗係用於減少個體之CMV感染。

【請求項18】一種如請求項1至12中任一項之HCMV免疫原性組成物或如請求項13至16中任一項之經工程改造之突變體於製備疫苗之用途，該疫苗係用於誘發個體對

CMV感染之免疫反應。

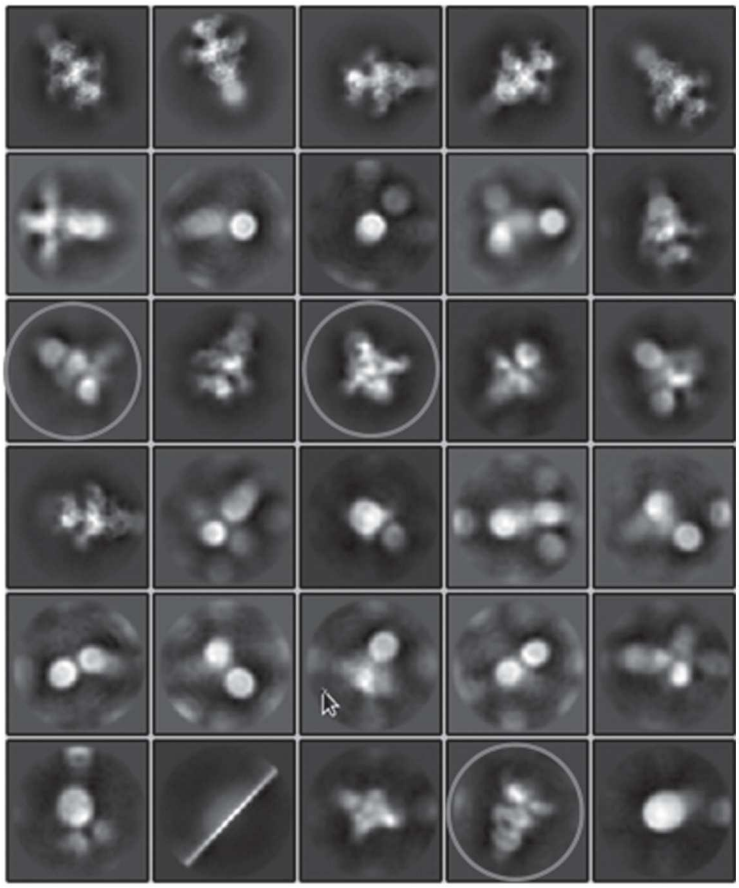
【請求項19】一種如請求項1至12中任一項之HCMV免疫原性組成物或如請求項13至16中任一項之經工程改造之突變體於製備疫苗之用途，該疫苗係用於預防個體之CMV感染。

【發明圖式】

【圖 1A】



【圖 1B】



893368-1

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS

61 QTVSHGVNET IYNTTLKYGD VVGVNT**TKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED**
QTVSHGVNET IYNTTLKYGD VVGVNT**TKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED**

121 **LDEGIMVVYK RN***IVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN*
LDEGIMVVYK RN*IVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN*

181 *SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTV K DQWHSRGSTW*
SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW

241 *LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF*
LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF

301 *PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTC***QLTFWE ASERTIRSEA**
*PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTC***QLTFWE ASERTIRSEA**

361 **EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV**
EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV

421 **FETTGGLVVF WQGIKQ**KSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNM**ESVHNLV**

481 YA**QLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR**
YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR

541 **FMGDVLGLAS** *CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE*
FMGDVLGLAS *CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE*

601 *ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS S* ***ISTVDSMIA LDIDPLENTD***
ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS S ***ISTVDSMIA LDIDPLENTD***

661 ***FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG***
FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG

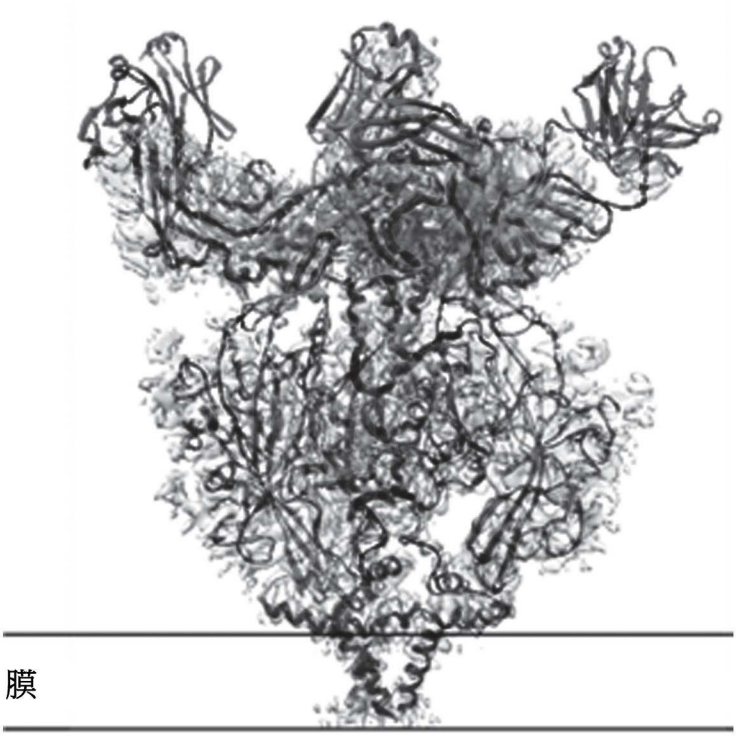
721 ***AAGK***AVGVAI GAVGGAVASV VEGVATFLKN ***PFGAFTIILV AIAVVIIIY***L IYTRQRRLCM
AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM

781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY

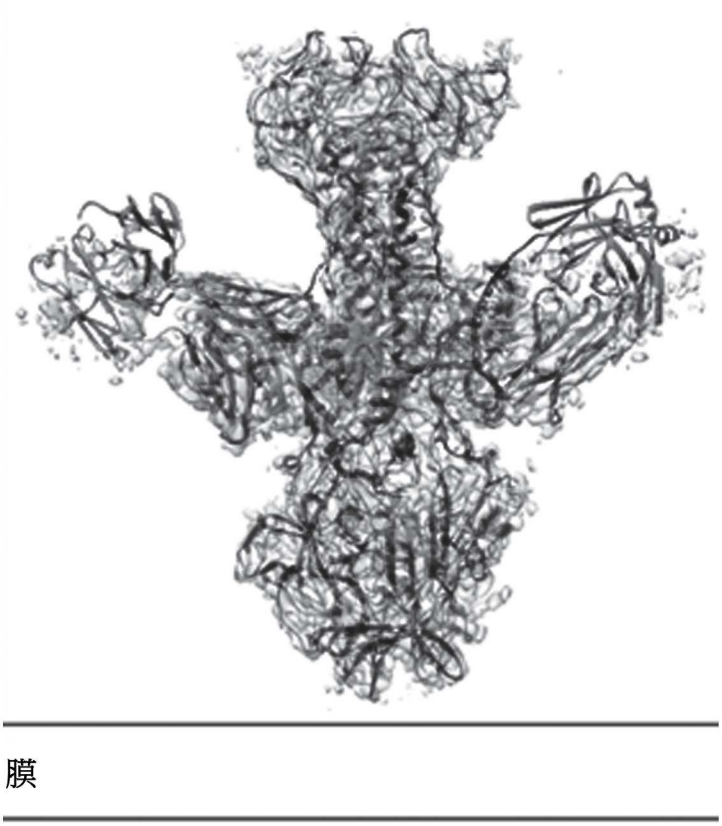
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGT QDKGQ KPNLLDRLRH RKNGYRHLKD
TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD

901 SDEEENV
SDEEENV

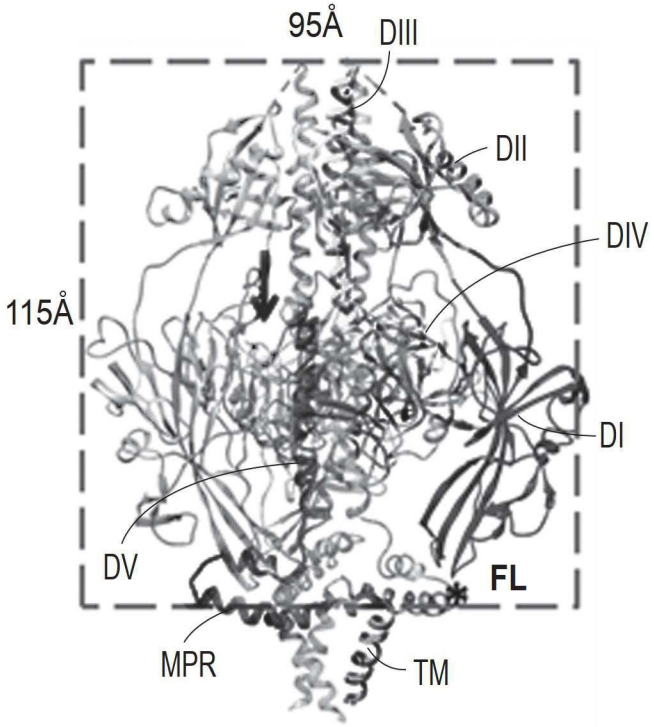
【圖 2】



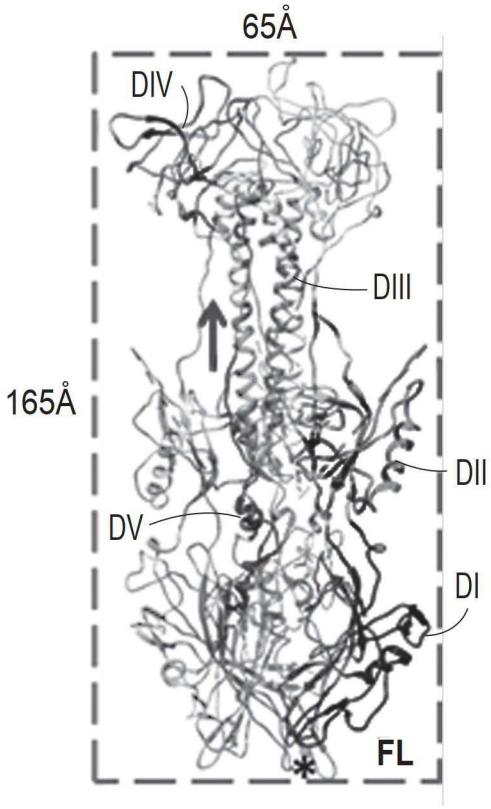
【圖 3A】



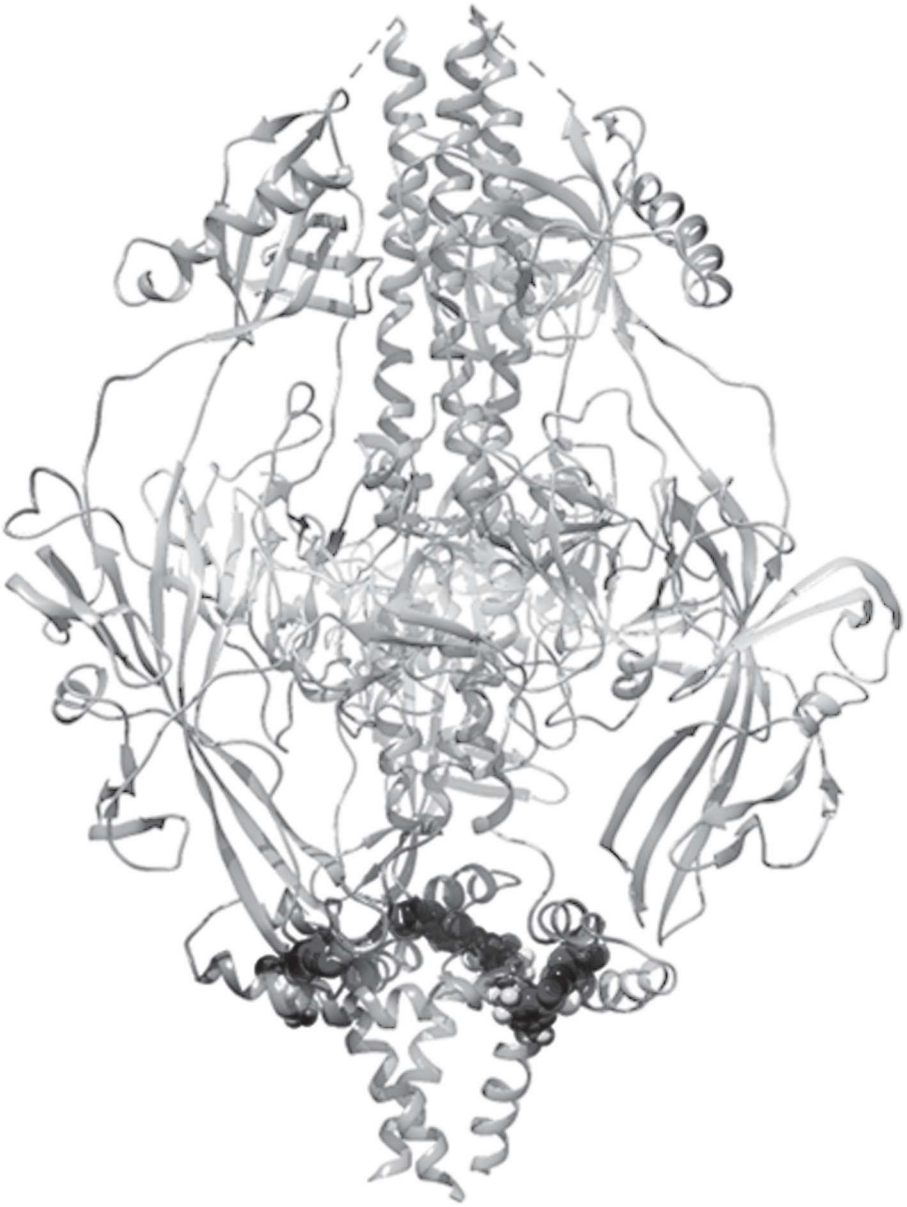
【圖 3B】


95Å
DIII
DII
DIV
115Å
DI
DV
FL
MPR
TM

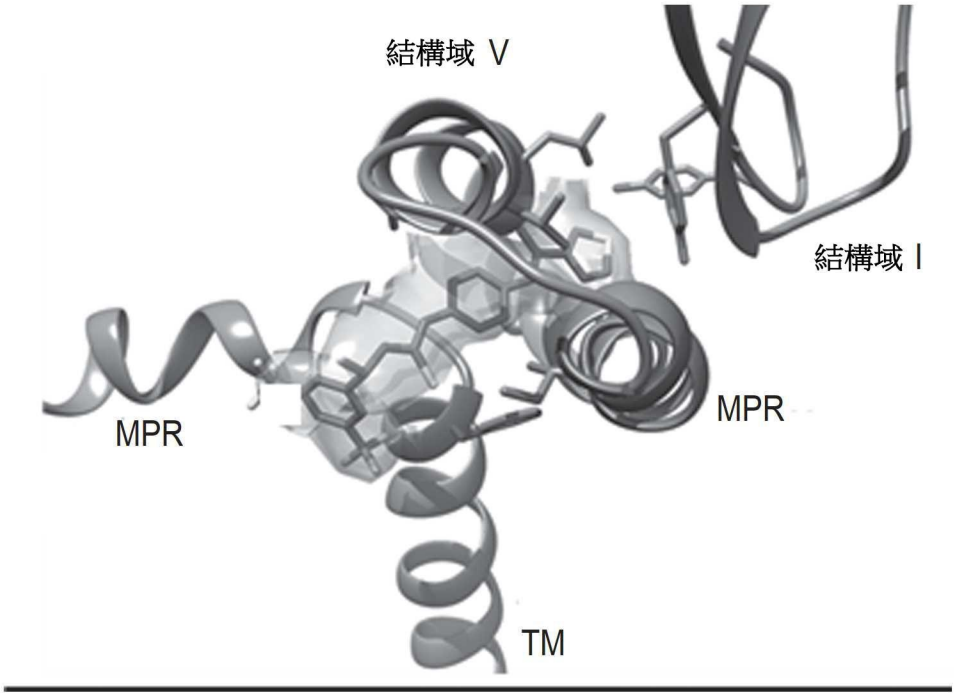
【圖 4A】


65Å
DIV
DIII
165Å
DII
DV
DI
FL

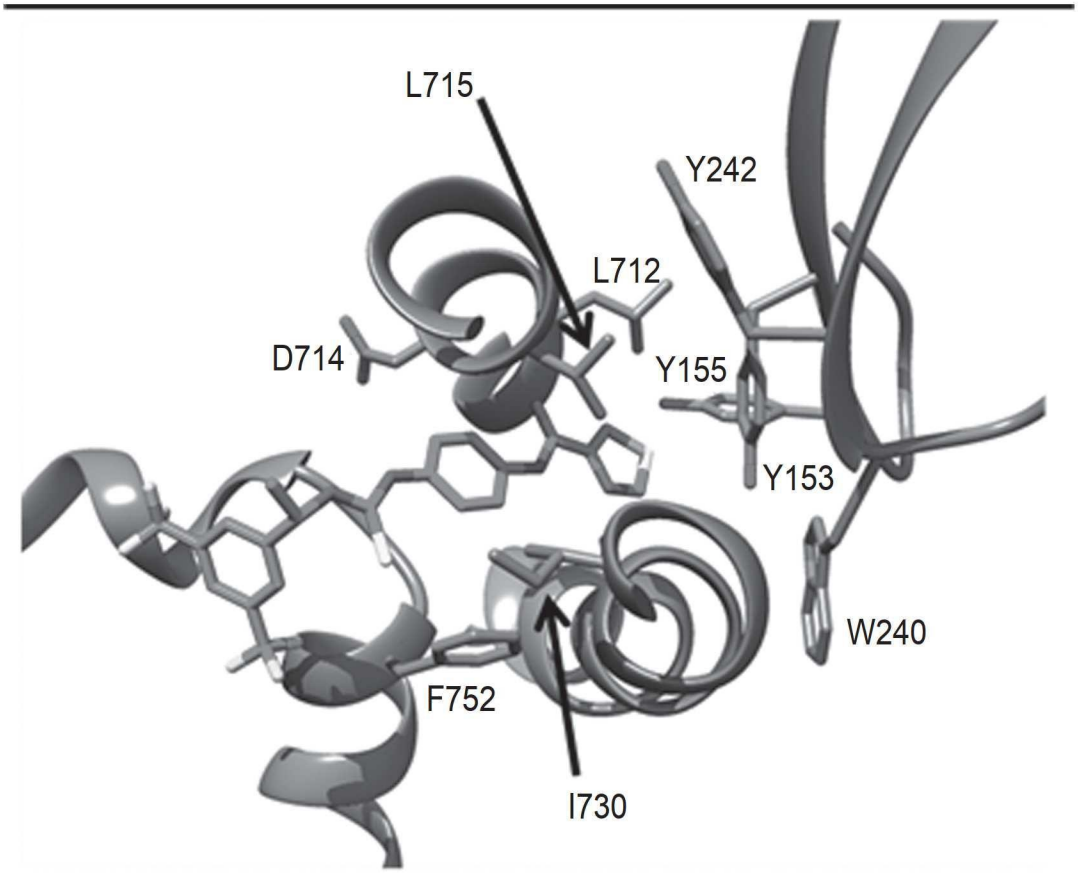
【圖 4B】



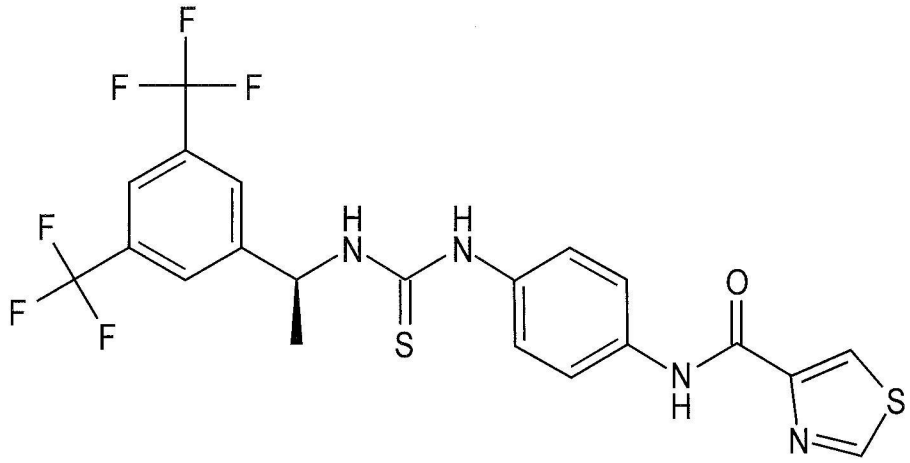
【圖 5A】


結構域 V
結構域 I
MPR
MPR
TM

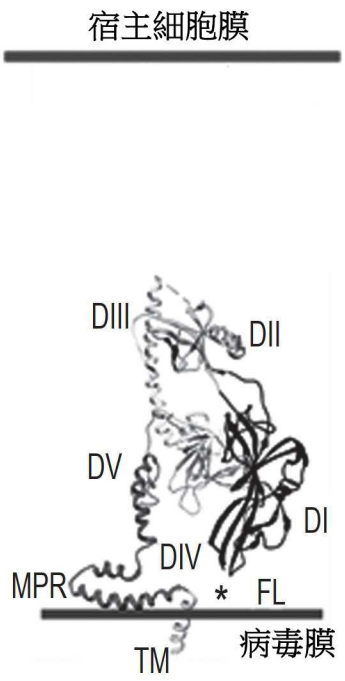
【圖 5B】


L715
Y242
L712
D714
Y155
Y153
W240
F752
I730

【圖 5C】



【圖 5D】



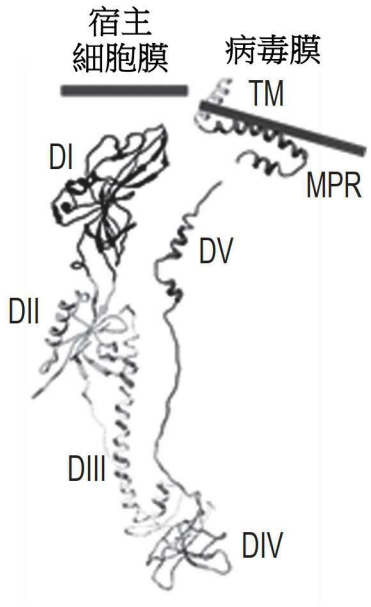
融合前

【圖 6A】



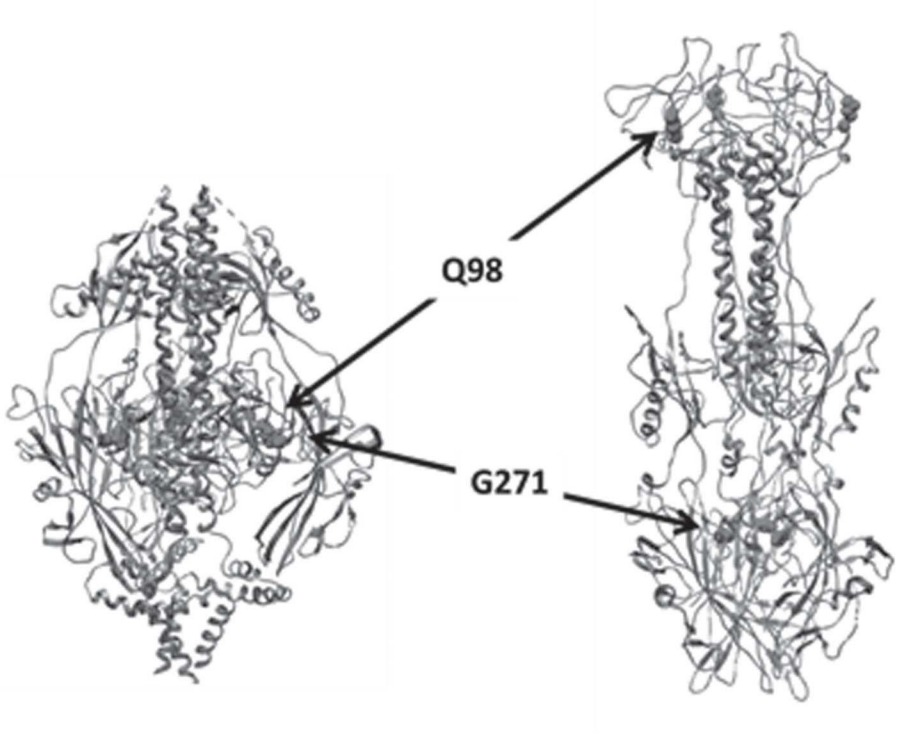
延伸
中間物

【圖 6B】

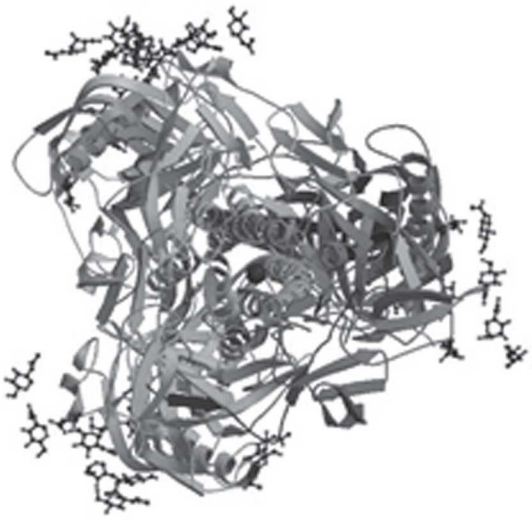


融合前

【圖 6C】



【圖 7A】　　【圖 7B】



>5CXF:A|PDBID|鏈 I 序列
YGDVVGVNTTKYPYRVCSMAQGTDLIRFERNIICTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFRRSYAGHR
TTYLLGSNTEYVAPPMWEIHHINKFAQCYSSYSRVIGGTVFVAYHRDSHENKTMQLIPDDYSNTHSTRYVTVKDQWHSRG
STATHRETCNLNCMLTITTARSKYPYHFFATSTGDVVYISPFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNAAPE
THRLVAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSYHFSSAKMTATFLSKKQEVNMSDSALDCVRDEAI
NKLQQIFNTSYNQTYEKYGNVSVFETSGGLVVFWQGIKQKSLVELERLANRSSLNITHDDDDKSTSDNNTTHLSSMESVH
NLVYAQLQFTYDTLRGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKPIAARFMGDVLGLASCVTINQT
SVKVLRDMNVKESPGRCYSRPVVIFNFANSSYVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNSAYEYVDYLFKRMI
DLSSISTVDSMIALDIDPLENTDFRVLELYSQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPP **(SEQ ID NO: 107)**

>5CXF:B|PDBID|鏈 I 序列
YGDVVGVNTTKYPYRVCSMAQGTDLIRFERNIICTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFRRSYAGHR
TTYLLGSNTEYVAPPMWEIHHINKFAQCYSSYSRVIGGTVFVAYHRDSHENKTMQLIPDDYSNTHSTRYVTVKDQWHSRG
STATHRETCNLNCMLTITTARSKYPYHFFATSTGDVVYISPFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNAAPE
THRLVAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSYHFSSAKMTATFLSKKQEVNMSDSALDCVRDEAI
NKLQQIFNTSYNQTYEKYGNVSVFETSGGLVVFWQGIKQKSLVELERLANRSSLNITHDDDDKSTSDNNTTHLSSMESVH
NLVYAQLQFTYDTLRGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKPIAARFMGDVLGLASCVTINQT
SVKVLRDMNVKESPGRCYSRPVVIFNFANSSYVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNSAYEYVDYLFKRMI
DLSSISTVDSMIALDIDPLENTDFRVLELYSQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPP **(SEQ ID NO: 108)**

>5CXF:C|PDBID|鏈 I 序列
YGDVVGVNTTKYPYRVCSMAQGTDLIRFERNIICTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFRRSYAGHR
TTYLLGSNTEYVAPPMWEIHHINKFAQCYSSYSRVIGGTVFVAYHRDSHENKTMQLIPDDYSNTHSTRYVTVKDQWHSRG
STATHRETCNLNCMLTITTARSKYPYHFFATSTGDVVYISPFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNAAPE
THRLVAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSYHFSSAKMTATFLSKKQEVNMSDSALDCVRDEAI
NKLQQIFNTSYNQTYEKYGNVSVFETSGGLVVFWQGIKQKSLVELERLANRSSLNITHDDDDKSTSDNNTTHLSSMESVH
NLVYAQLQFTYDTLRGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKPIAARFMGDVLGLASCVTINQT
SVKVLRDMNVKESPGRCYSRPVVIFNFANSSYVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNSAYEYVDYLFKRMI
DLSSISTVDSMIALDIDPLENTDFRVLELYSQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPP **(SEQ ID NO: 109)**

【圖 8】

>HAN13 gi|242345614|gb|GQ221973.1|:81988-84705
人疱疹病毒5株**HAN13**，完整基因體反向互補序列
MESRIWCLVVCVNLCIVCLGAAVSSSSTSHATSSAHNGSHTSRTTSAQTRSVSSQHVTSS
EAVSHRANETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFERNIVCTPMKPINED
LDEGIMVVYKRNIVAHTFKVRVYQKVLTFRRSYAYIHTTYLLGSNTEYVAPPMWEIHHIN
RHSQCYSSYSRVIAGTVFVAYHRDSYENKTMQLMLDDYSNTHSTRYVTVKDQWHSRGSTW
LYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDISPFYNGTNRNTSYFGENADKFFIF
PNYTIVSDFGRANSAPETHRLVAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEA
EDSYHFSSAKMTATFLSKKQEVNMSDPVLDCVRDQALNKLQQIFNASYNQTYEKYGNVSV
FETTGGLVVFWQGIKQKSLLELERLANSSGVNSTRRTKRSTGNTTTLSLESESVRNVLYA
QLQFTYDTLRSYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKPIAARFM
GDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVVIFNFVNSSYVQYGQLGEDNEIL
LGNHRTEECQFPSLKIFIAGNSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFR
VLELYSQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPPYLKGLDDLMSGLGAA
GKAVGVAIGAVGGAVASVVEGVATFLKNPFGAFTIILVAIAVVIIIYLIYTRQRRLCMQP
LQNLFPYLVSADGTTVTSGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPYTN
EQAYQMLLALARLDAEQRAQQNGTDSLDGQTGTQDKGQKPNLLDRLRHRKNGYRHLKDSD
EEENV **(SEQ ID NO: 110)**

>VR1814 gi|270355759|gb|GU179289.1|:81925-84642
人疱疹病毒5株**VR1814**，完整基因體反向互補序列
MESRIWCLVVCVNLCIVCLGAVVSSSSTSHATSSAHNGSHTSRTTSAQTRSVSSQHVTSS
EAVSHRANETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFERNIVCTPMKPINED
LDEGIMVVYKRNIVAHTFKVRVYQKVLTFRRSYAYIHTTYLLGSNTEYVAPPMWEIHHIN
RHSQCYSSYSRVIAGTVFVAYHRDSYENKTMQLMLDDYSNTHSTRYVTVKDQWHSRGSTW
LYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDISPFYNGTNRNTSYFGENADKFFIF
PNYTIVSDFGRANSAPETHRLVAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEA
EDSYHFSSAKMTATFLSKKQEVNMSDPVLDCVRDQALNKLQQIFNASYNQTYEKYGNVSV
FETTGGLVVFWQGIKQKSLLELERLANSSGVNSTRRTKRSTGNTTTLSLESESVRNVLYA
QLQFTYDTLRSYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKPIAARFM
GDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVVIFNFVNSSYVQYGQLGEDNEIL
LGNHRTEECQFPSLKIFIAGNSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFR
VLELYSQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPPYLKGLDDLMSGLGAA
GKAVGVAIGAVGGAVASVVEGVATFLKNPFGAFTIILVAIAVVIIIYLIYTRQRRLCMQP
LQNLFPYLVSADGTTVTSGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPYTN
EQAYQMLLALARLDAEQRAQQNGTDSLDGQTGTQDKGQKPNLLDRLRHRKNGYRHLKDSD
EEENV **(SEQ ID NO: 111)**

【圖 9】

原始 **HCMV gB (Towne)** 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 1)**

gB-001 Q98C, G271C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMACGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST CDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 2)**

【圖 10】

gB-002 Q98C, I653C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMACGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDCDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 3)**

gB-003 G99C, A267C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQCT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFCTST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 4)**

【圖 10(續)】

gB-004 T100C, A267C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGC DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFCTST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 5)**

gB-005 T100C, S269C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGC DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATCT GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 6)**

【圖 10(續)】

gB-006 T100C, L651C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGC DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA CDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 7)**

gB-007 D217C, F584C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDCYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNCANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 8)**

【圖 10(續)】

gB-008 Y218C, A585C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDCSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFCNSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 9)**

gB-009 S219C, D654C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYCN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDICPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 10)**

【圖 10(續)】

gB-010 N220C, D652C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSC THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LCIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 11)**

gB-011 T221C, D652C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN CHSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LCIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 12)**

【圖 10(續)】

gB-012 W240C, G718C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTC
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSCLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 13)**

gB-013 Y242C, K710C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LCRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLC GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 14)**

【圖 10(續)】

gB-014 Y242C, D714C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LCRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDCLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 15)**

gB-015 S269C, I653C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATCT GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDCDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 16)**

【圖 10(續)】

gB-016 G271C, P614C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST CDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLCSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 17)**

gB-017 S367C, L499C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFCSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRACA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 18)**

【圖 10(續)】

gB-018 T372C, W506C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MCATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEACCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 19)**

gB-019 F541C, Q669C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 CMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSCK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 20)**

【圖 10(續)】

gB-020 L548C, A650C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGCAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIC LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 21)**

gB-021 A549C, I653C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLCS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDCDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 22)**

【圖 10(續)】

gB-022 S550C, D652C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAC CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LCIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 23)**

gB-023 G604C, F661C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLCNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 CRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 24)**

【圖 10(續)】

gB-024 N605C, E665C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGCHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLCLYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 25)**

gB-025 R607C, S675C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHCTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSCNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 26)**

【圖 10(續)】

gB-026 T608C, D679C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRCEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFCL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 27)**

gB-027 E609C, F678C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTCE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVCDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 28)**

【圖 10(續)】

gB-028 R673C, S674C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELCCSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 29)**

gB-029 N676C, V677C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSCCFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 30)**

【圖 10(續)】

gB-030 L680C, E681C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDC CEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 31)**

gB-031 I683C, M684C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EECCREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 32)**

【圖 10(續)】

gB-032 F687C, N688C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMRECCSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV (**SEQ ID NO: 33)**

gB-033 Y690C, K691C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSC CQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 34)**

【圖 10(續)】

gB-034 K695C, K724C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVCYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGCAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 35)**

gB-035 T746C, F747C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVACCLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 36)**

【圖 10(續)】

gB-036 K749C, N750C

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLCC PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 37)**

gB-037 K670L

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQL ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 38)**

【圖 10(續)】

gB-038 K670F

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQF ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 39)**

gB-039 R673L

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELLSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 40)**

【圖 10(續)】

gB-040 R673F

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELFSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 41)**

gB-041 K691L

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY LQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 42)**

【圖 10(續)】

gB-042 K691F

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY FQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 43)**

gB-043 M96C, D660C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSCAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTC
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 47)**

【圖 10(續)】

gB-044 Q98C, N658C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMACGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLECTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 48)**

gB-045 T100C, R258C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGC DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTACSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 49)**

【圖 10(續)】

gB-046 T100C, L656C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGC DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPCENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 50)**

gB-047 T100C, N658C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGC DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLECTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 51)**

【圖 10(續)】

gB-048 I117C, T406C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPCNED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNCSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 52)**

gB-049 I117C, S407C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPCNED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTCYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 53)**

【圖 10(續)】

gB-050 Y153C, L712C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSCAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GCDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 54)**

gB-051 L162C, M716C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LCGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLCSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 55)**

【圖 10(續)】

gB-052 D217C, S587C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDCYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANCSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 56)**

gB-053 D217C, Y589C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDCYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSCV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 57)**

【圖 10(續)】

gB-054 S219C, F584C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYCN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNCANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 58)**

gB-055 S219C, A585C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYCN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFCNSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 59)**

【圖 10(續)】

gB-056 S219C, N586C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYCN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFACSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 60)**

gB-057 N220C, T659C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSC THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENCD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 61)**

【圖 10(續)】

gB-058 S223C, T659C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THCTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENCD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 62)**

gB-059 W240C, A732C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTC
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GCVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 63)**

【圖 10(續)】

gB-060 W240C, G735C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTC
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGCAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 64)**

gB-061 Y242C, V728C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LCRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGCAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 65)**

【圖 10(續)】

gB-062 Y242C, G731C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LCRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI CAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 66)**

gB-063 R258C, L656C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTACSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPCENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 67)**

【圖 10(續)】

gB-064 S269C, L656C 序列

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  1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
 61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATCT GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPCENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV (SEQ ID NO: 68)
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gB-065 S269C, N658C 序列

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  1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
 61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATCT GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLECTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV (SEQ ID NO: 69)
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【圖 10(續)】

gB-066 D272C, P614C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GCVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLCSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 70)**

gB-067 V273C, V629C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDCVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYCD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 71)**

【圖 10(續)】

gB-068 W349C, A650C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFCE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIC LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 72)**

gB-069 S367C, A500C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFCSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALC QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 73)**

【圖 10(續)】

gB-070 S367C, A503C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFCSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QICEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 74)**

gB-071 K370C, Q501C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAC MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA CIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 75)**

【圖 10(續)】

gB-072 K522C, I683C 序列

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   1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
  61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
 121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
 181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
 241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
 301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
 361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
 421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
 481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SCINPSAILS AIYNKPIAAR
 541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
 601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
 661 FRVLELYSQK ELRSSNVFDL EECMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
 721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
 781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
 841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
 901 SDEEENV
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(SEQ ID NO: 76)

gB-073 I523C, I683C 序列

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   1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
  61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
 121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
 181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
 241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
 301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
 361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
 421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
 481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKCNPSAILS AIYNKPIAAR
 541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
 601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
 661 FRVLELYSQK ELRSSNVFDL EECMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
 721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
 781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
 841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
 901 SDEEENV
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(SEQ ID NO: 77)

【圖 10(續)】

gB-074 I523C, M684C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKCNPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEICREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 78)**

gB-075 N524C, M684C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKICPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEICREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 79)**

【圖 10(續)】

gB-076 P525C, E681C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINCSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL CEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 80)**

gB-077 R540C, L680C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAC
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDC EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 81)**

【圖 10(續)】

gB-078 F541C, L680C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 CMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDC EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 82)**

gB-079 L548C, P655C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGCAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDCLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 83)**

【圖 10(續)】

gB-080 A549C, N658C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLCS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLECTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 84)**

gB-081 S550C, P655C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAC CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDCLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 85)**

【圖 10(續)】

gB-082 S550C, E657C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAC CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLCNTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 86)**

gB-083 Q591C, S668C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV CYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYCQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 87)**

【圖 10(續)】

gB-084 L603C, Y667C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILCGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELCSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 88)**

gB-085 G604C, L672C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLCNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ECRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 89)**

【圖 10(續)】

gB-086 R607C, N688C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHCTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFCSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 90)**

gB-087 T608C, Q692C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRCEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KCRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 91)**

【圖 10(續)】

gB-088 E609C, K691C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTCE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY CQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 92)**

gB-089 E610C, S674C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEC CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRCSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 93)**

【圖 10(續)】

gB-090 E610C, S675C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEC CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSCNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 94)**

gB-091 Q612C, V663C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CCLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRCLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 95)**

【圖 10(續)】

gB-092 V737C, F755C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGACASV VEGVATFLKN PFGACTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 96)**

gB-093 V741C, A754C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV CEGVATFLKN PFGCFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 97)**

【圖 10(續)】

gB-094 V741C, F755C 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV CEGVATFLKN PFGACTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 98)**

gB-095 D679S 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFSL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 99)**

【圖 10(續)】

gB-096 D679N 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFNL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 100)**

gB-097 E682S 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL ESIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 101)**

【圖 10(續)】

gB-098 E682Q 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EQIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 102)**

gB-099 E686S 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
541 FMGDVLGLAS CVTINQTSVK VLRDMNVKES PGRCYSRPVV IFNFANSSYV QYGQLGEDNE
601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMRSFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 103)**

【圖 10(續)】

gB-100 E686Q 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
121 LDEGIMVVYK RNIVAHTFKV RVYQKVLTFR RSYAYIHTTY LLGSNTEYVA PPMWEIHHIN
181 SHSQCYSSYS RVIAGTVFVA YHRDSYENKT MQLMPDDYSN THSTRYVTVK DQWHSRGSTW
241 LYRETCNLNC MVTITTARSK YPYHFFATST GDVVDISPFY NGTNRNASYF GENADKFFIF
301 PNYTIVSDFG RPNSALETHR LVAFLERADS VISWDIQDEK NVTCQLTFWE ASERTIRSEA
361 EDSYHFSSAK MTATFLSKKQ EVNMSDSALD CVRDEAINKL QQIFNTSYNQ TYEKYGNVSV
421 FETTGGLVVF WQGIKQKSLV ELERLANRSS LNLTHNRTKR STDGNNATHL SNMESVHNLV
481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
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601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMRQFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 104)**

gB-101 N118P 序列

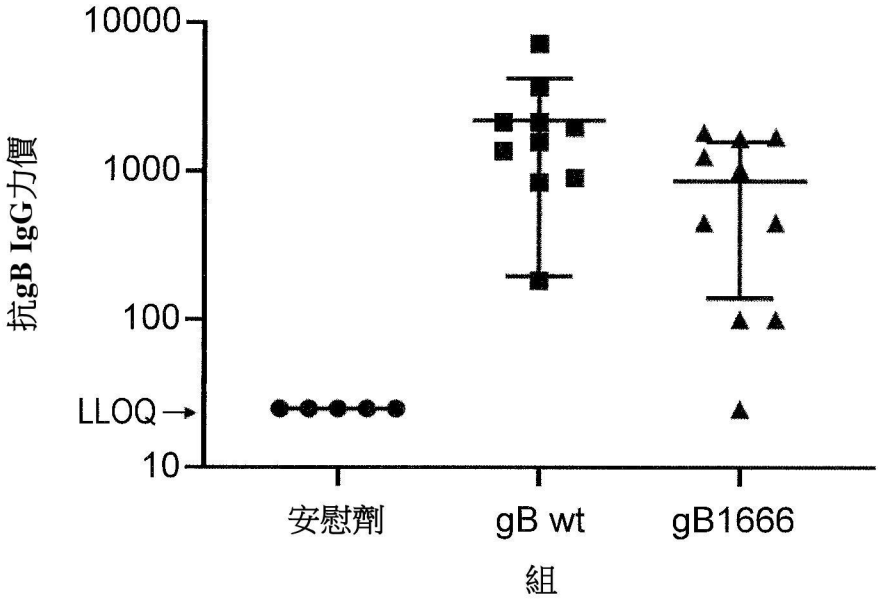
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601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVDSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
841 TNEQAYQMLL ALVRLDAEQR AQQNGTDSLD GQTGTQDKGQ KPNLLDRLRH RKNGYRHLKD
901 SDEEENV **(SEQ ID NO: 105)**

【圖 10(續)】

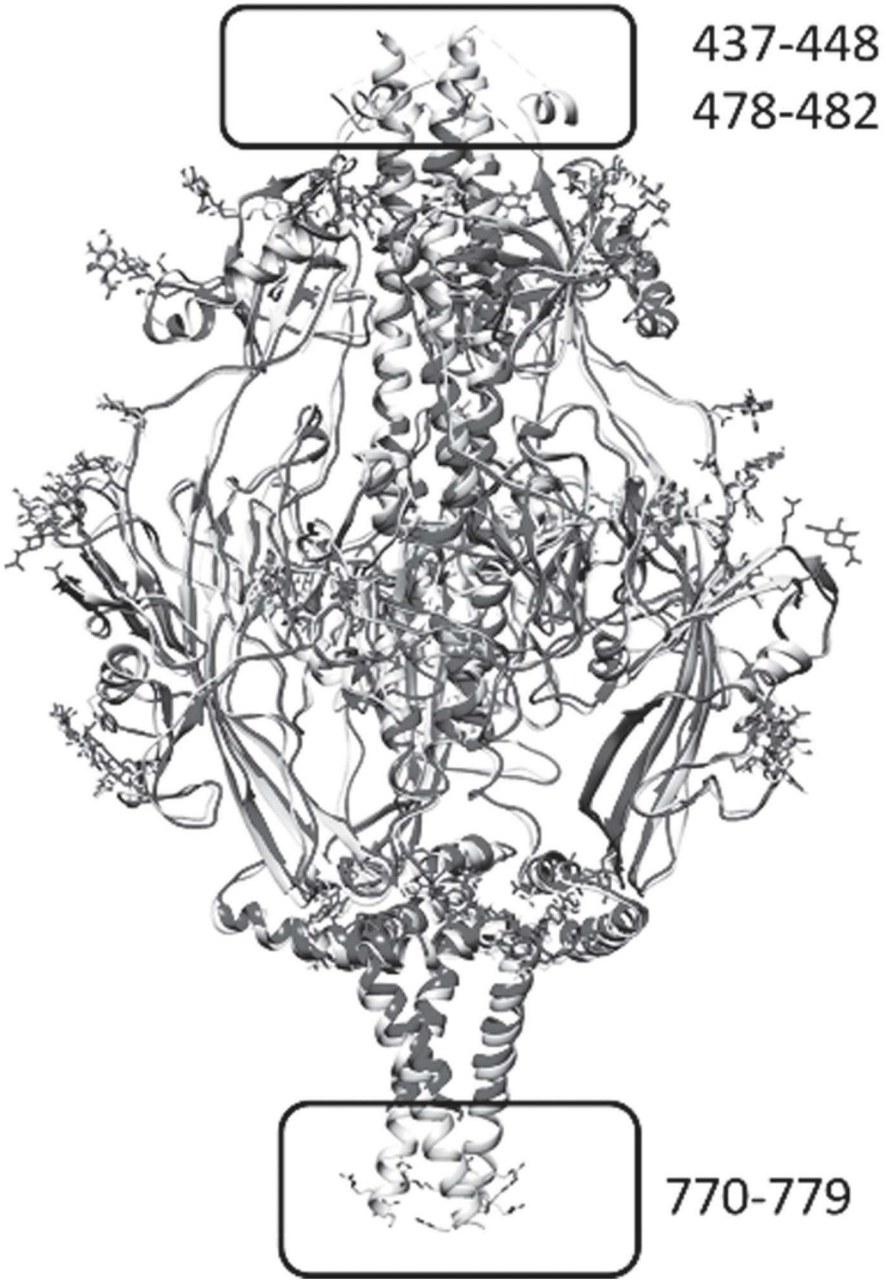
gB-102 D646P 序列

1 MESRIWCLVV CVNLCIVCLG AAVSSSSTRG TSATHSHHSS HTTSAAHSRS GSVSQRVTSS
61 QTVSHGVNET IYNTTLKYGD VVGVNTTKYP YRVCSMAQGT DLIRFERNIV CTSMKPINED
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481 YAQLQFTYDT LRGYINRALA QIAEAWCVDQ RRTLEVFKEL SKINPSAILS AIYNKPIAAR
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601 ILLGNHRTEE CQLPSLKIFI AGNSAYEYVD YLFKRMIDLS SISTVPSMIA LDIDPLENTD
661 FRVLELYSQK ELRSSNVFDL EEIMREFNSY KQRVKYVEDK VVDPLPPYLK GLDDLMSGLG
721 AAGKAVGVAI GAVGGAVASV VEGVATFLKN PFGAFTIILV AIAVVIIIYL IYTRQRRLCM
781 QPLQNLFPYL VSADGTTVTS GNTKDTSLQA PPSYEESVYN SGRKGPGPPS SDASTAAPPY
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901 SDEEENV **(SEQ ID NO: 106)**

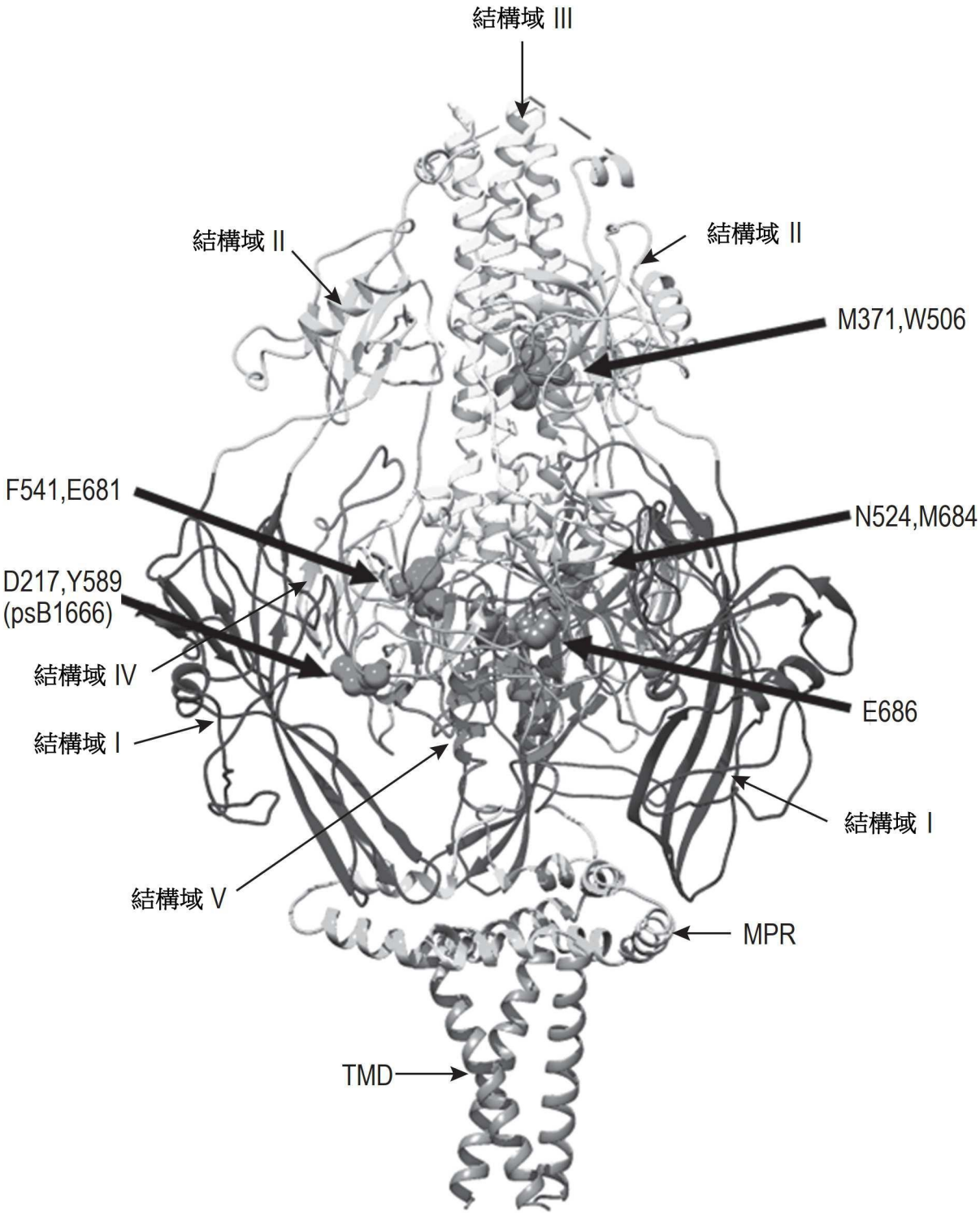
【圖 10(續)】



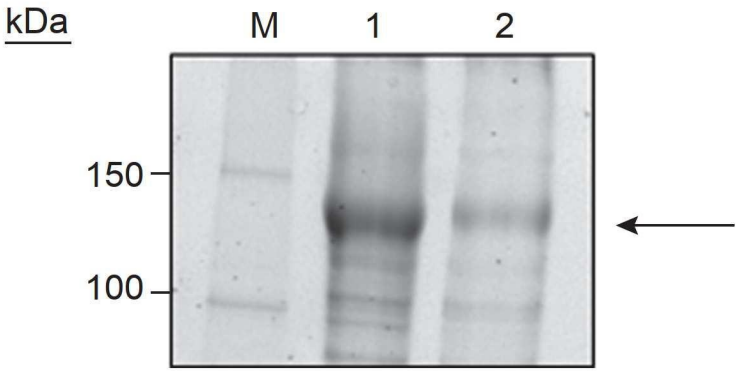
【圖 11】



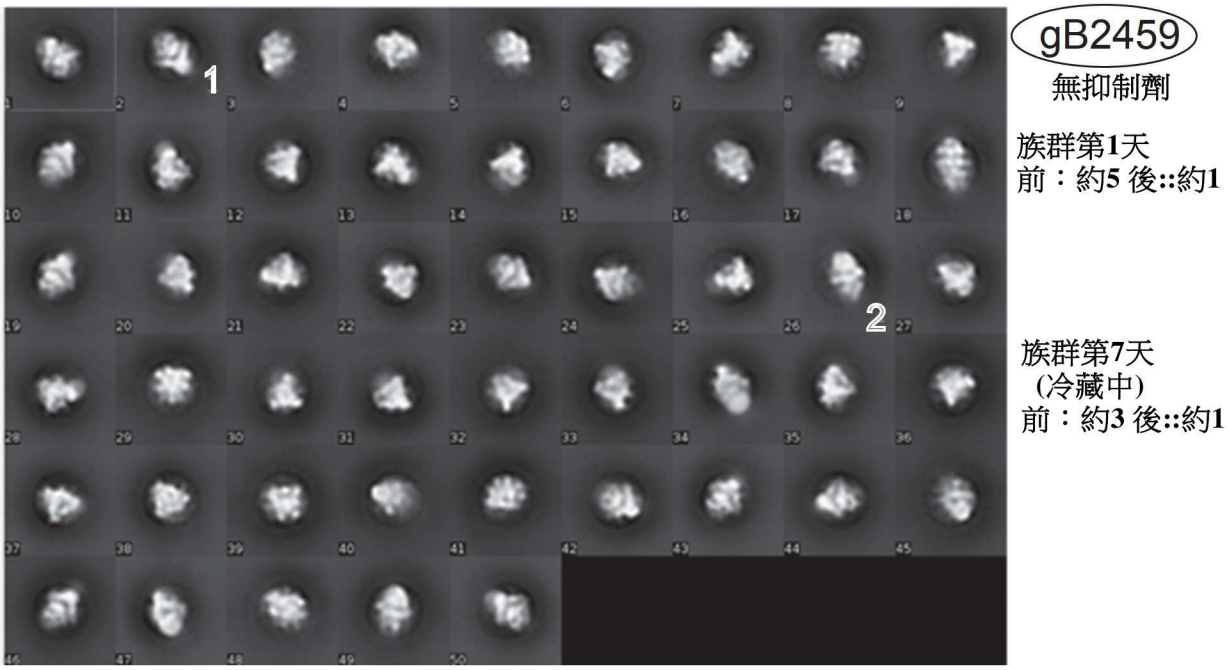
【圖 12】


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結構域 II
結構域 II
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F541,E681
N524,M684
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結構域 I
結構域 V
MPR
TMD

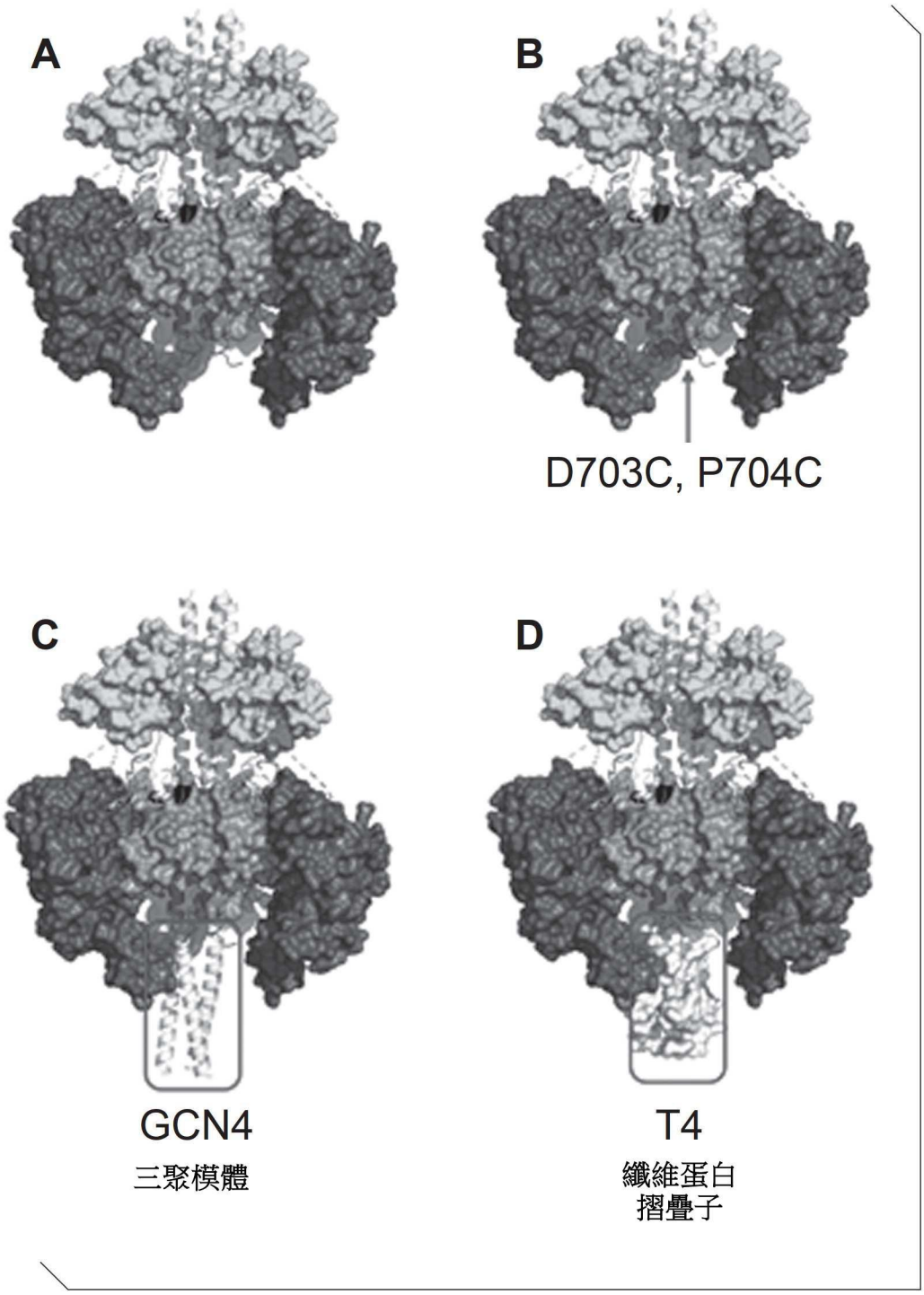
【圖 13】



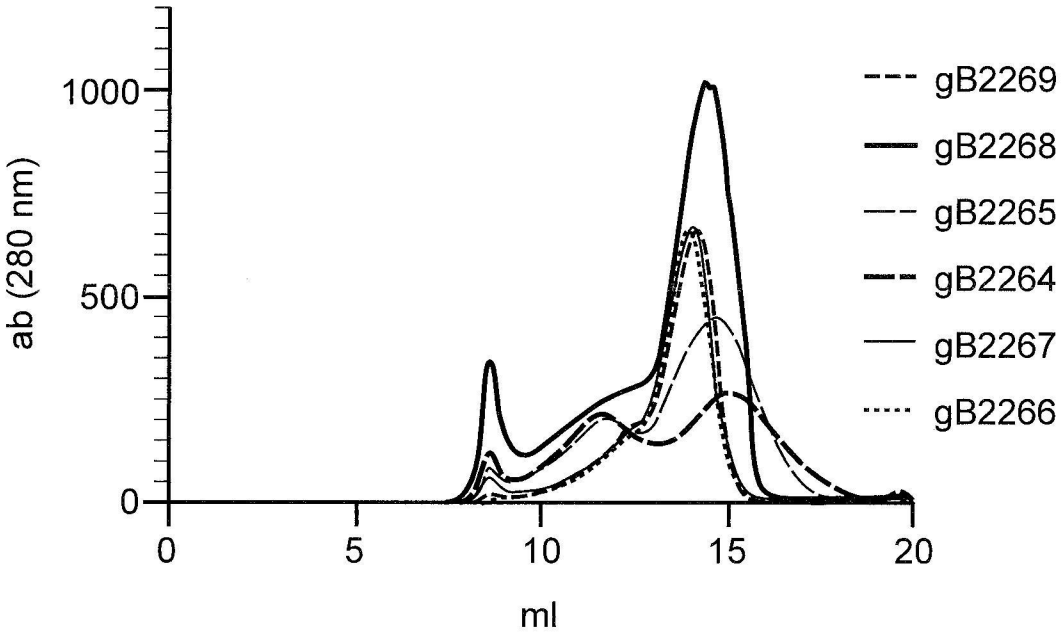
【圖 14】



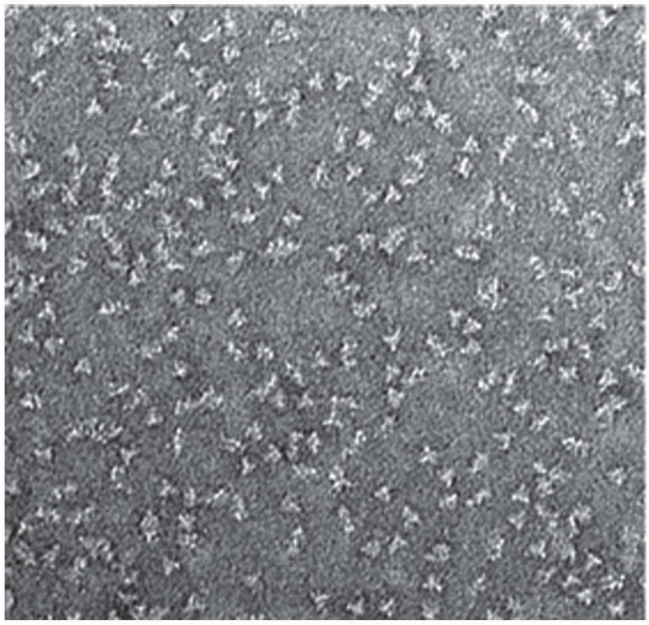
【圖 15】



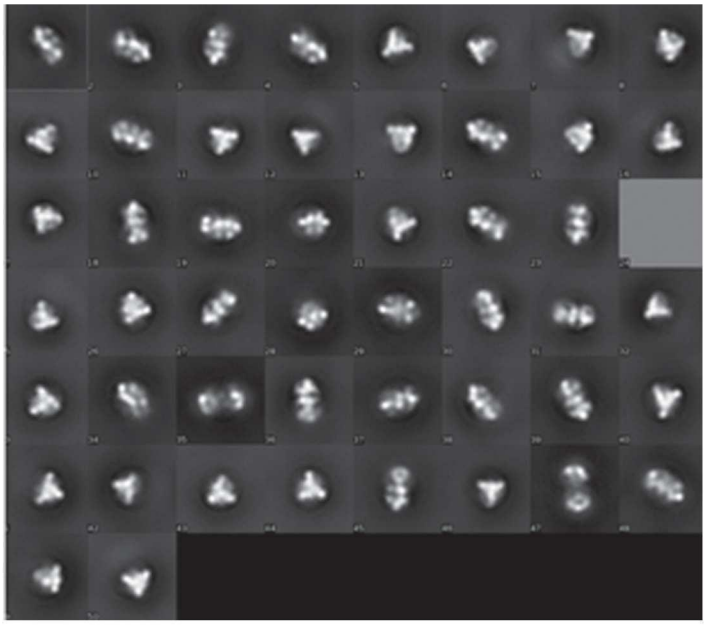
【圖 16】


ab (280 nm)
1000
500
0
0
5
10
15
20
ml
gB2269
gB2268
gB2265
gB2264
gB2267
gB2266

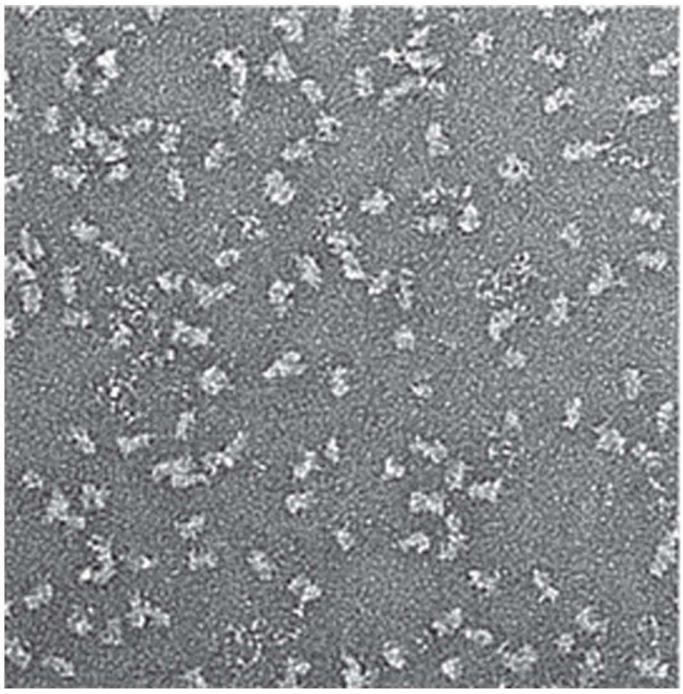
【圖 17】



【圖 18A】



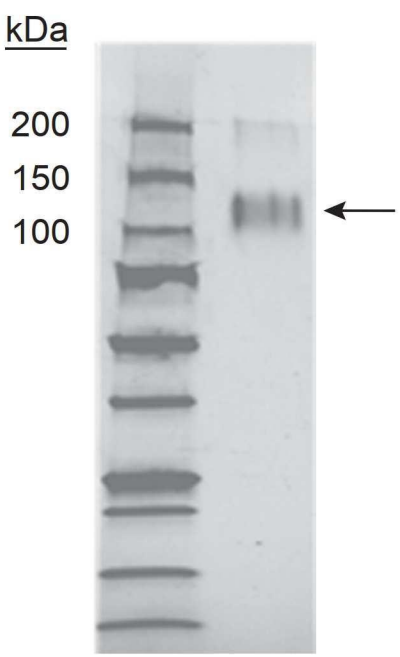
【圖 18B】



【圖 19A】



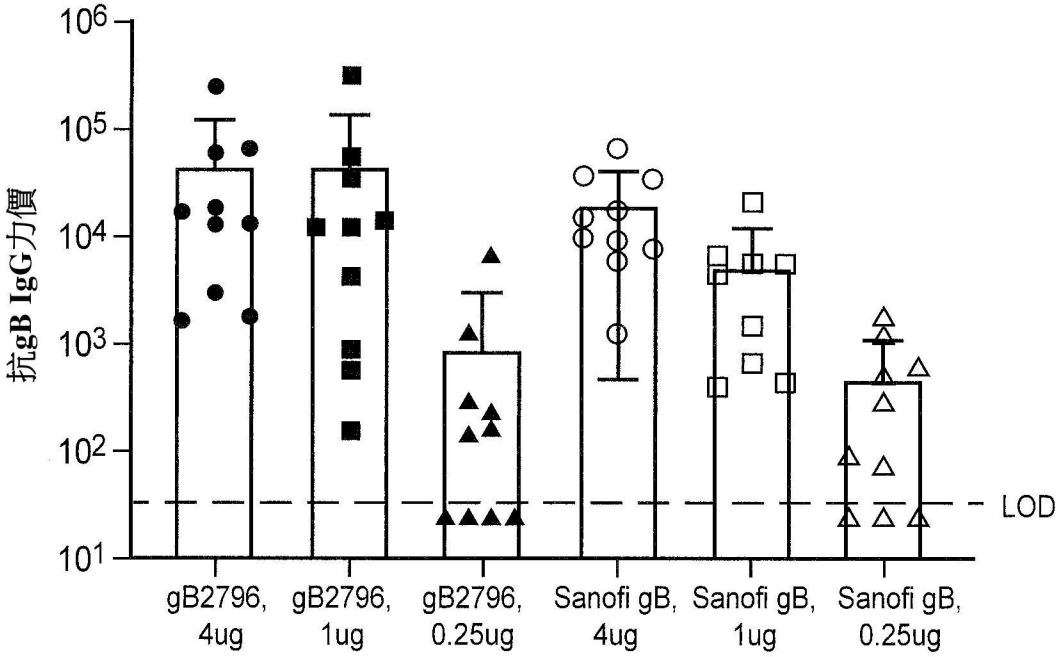
【圖 19B】



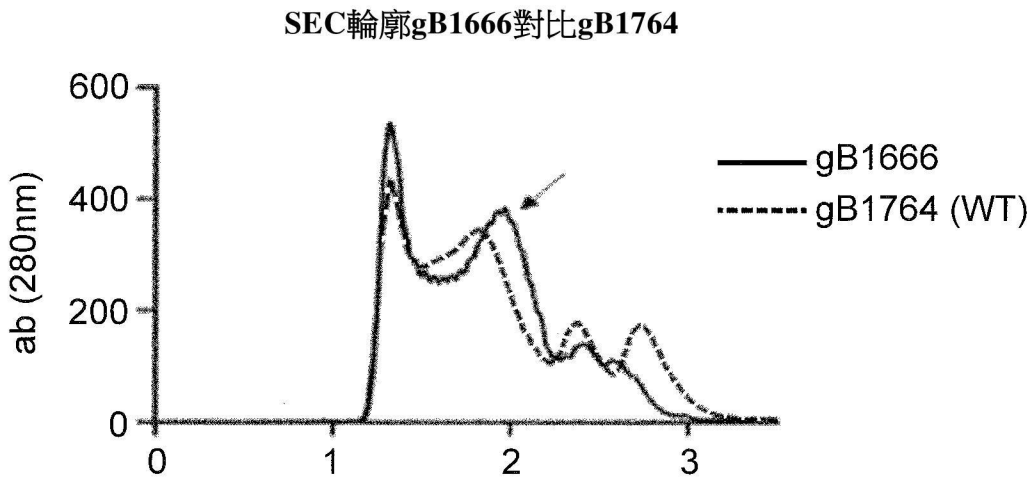
【圖 20A】



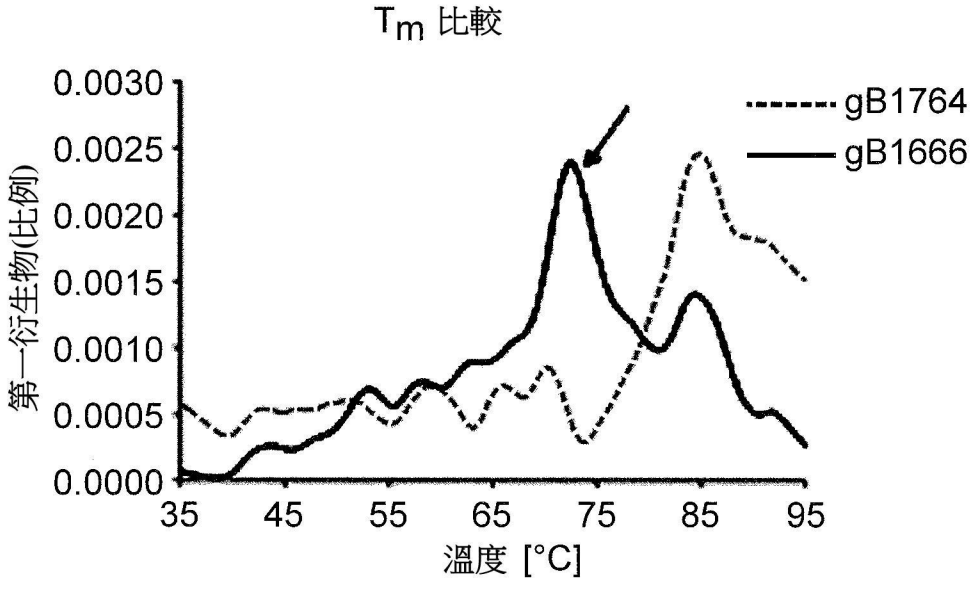
【圖 20B】


抗gB IgG力價
10^6
10^5
10^4
10^3
10^2
10^1
LOD
gB2796, 4ug
gB2796, 1ug
gB2796, 0.25ug
Sanofi gB, 4ug
Sanofi gB, 1ug
Sanofi gB, 0.25ug

【圖 21】

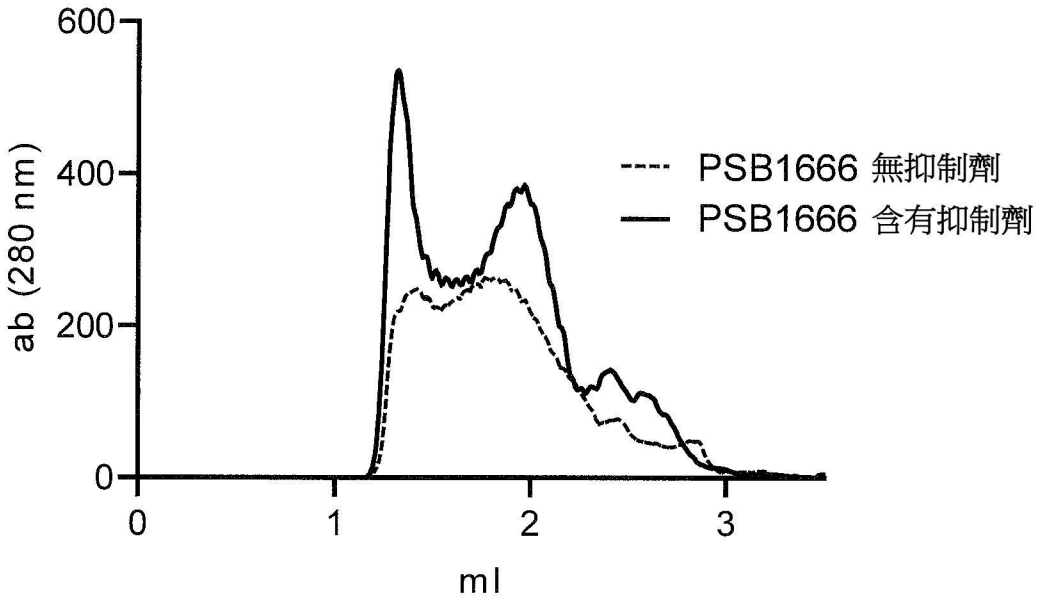

SEC輪廓gB1666對比gB1764
600
400
200
0
ab (280nm)
0
1
2
3
gB1666
gB1764 (WT)

【圖 22A】

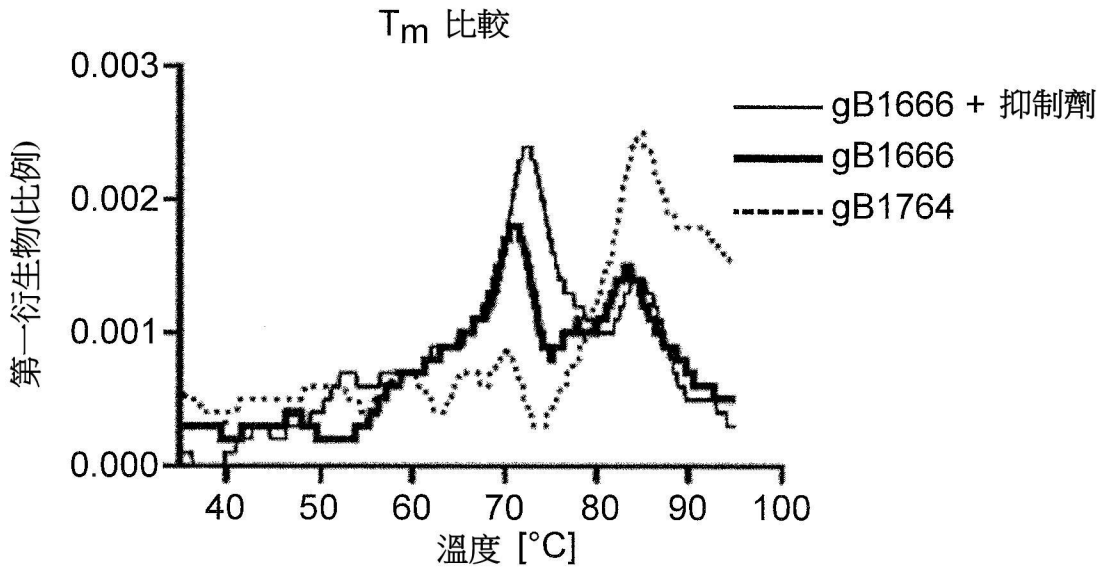

Tm 比較
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
第一衍生物(比例)
35
45
55
65
75
85
95
溫度 [°C]
gB1764
gB1666

【圖 22B】

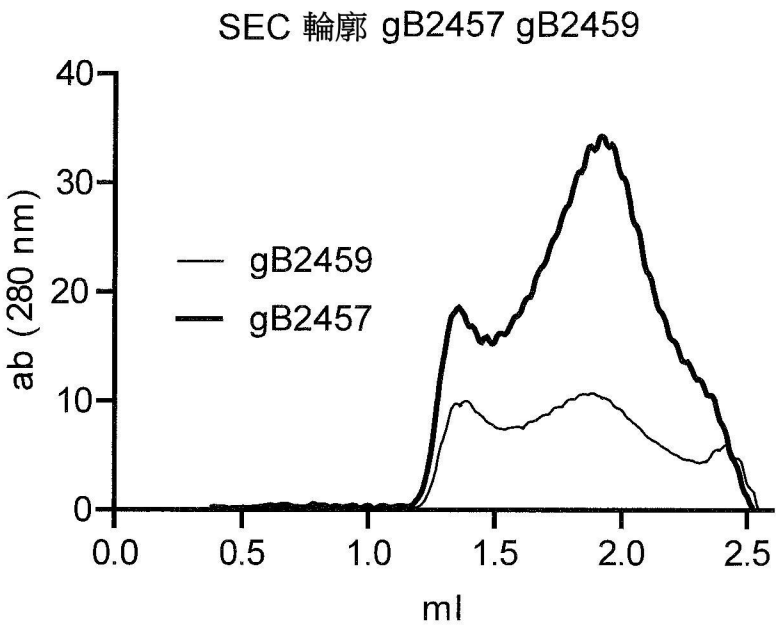
PSB1666含有或不含WAY-174865



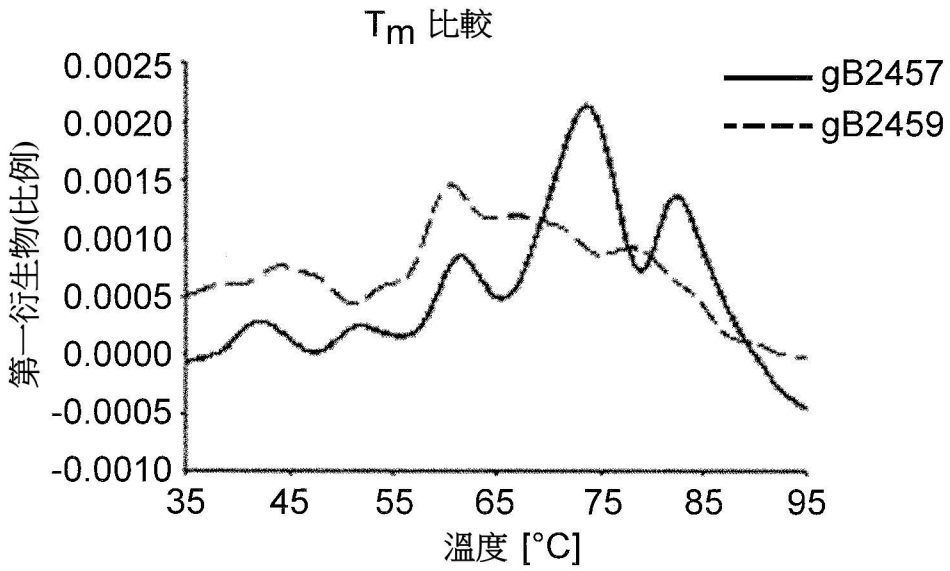
【圖 23A】



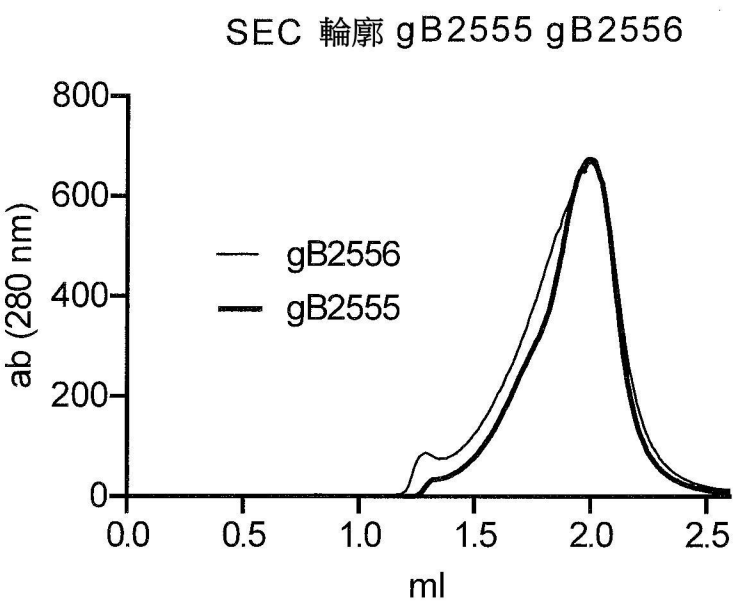
【圖 23B】


SEC 輪廓 gB2457 gB2459
40
30
20
10
0
ab (280 nm)
gB2459
gB2457
0.0
0.5
1.0
1.5
2.0
2.5
ml

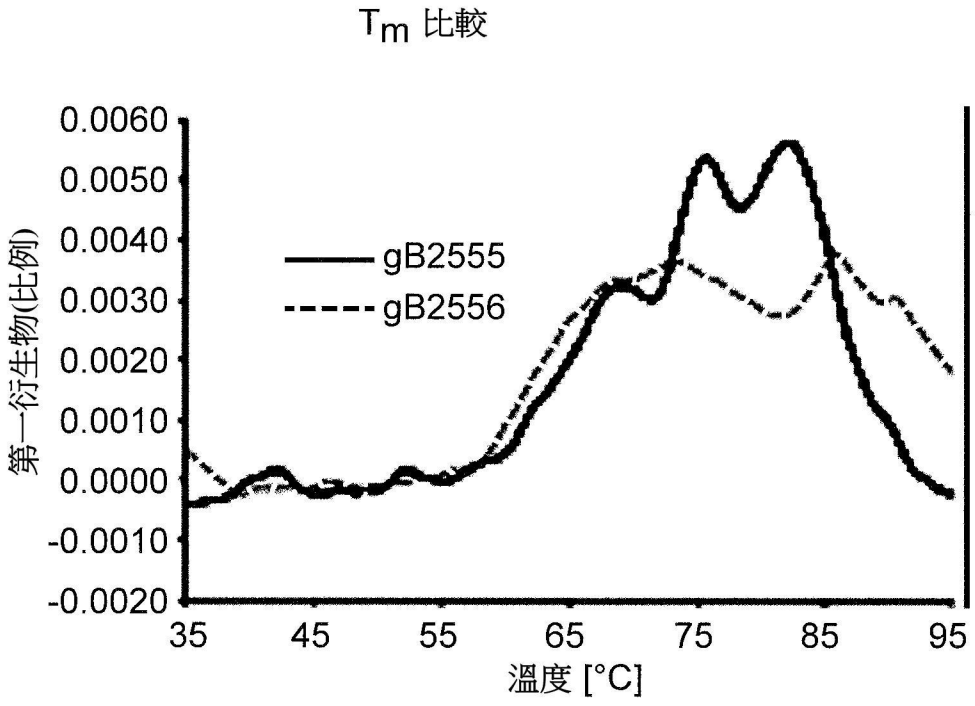
【圖 24A】


Tm 比較
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
-0.0005
-0.0010
第一衍生物(比例)
gB2457
gB2459
35
45
55
65
75
85
95
溫度 [°C]

【圖 24B】

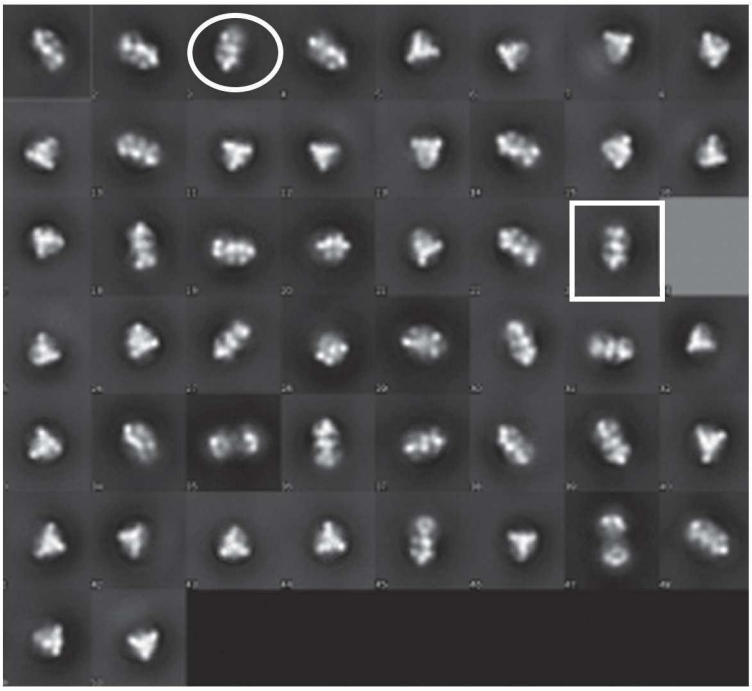

SEC 輪廓 gB2555 gB2556
800
600
400
200
0
ab (280 nm)
gB2556
gB2555
0.0
0.5
1.0
1.5
2.0
2.5
ml

【圖 25A】


Tm 比較
0.0060
0.0050
0.0040
0.0030
0.0020
0.0010
0.0000
-0.0010
-0.0020
第一衍生物(比例)
gB2555
gB2556
35
45
55
65
75
85
95
溫度 [°C]

【圖 25B】

gB2555 GCN4 1666
+(M371,W506)

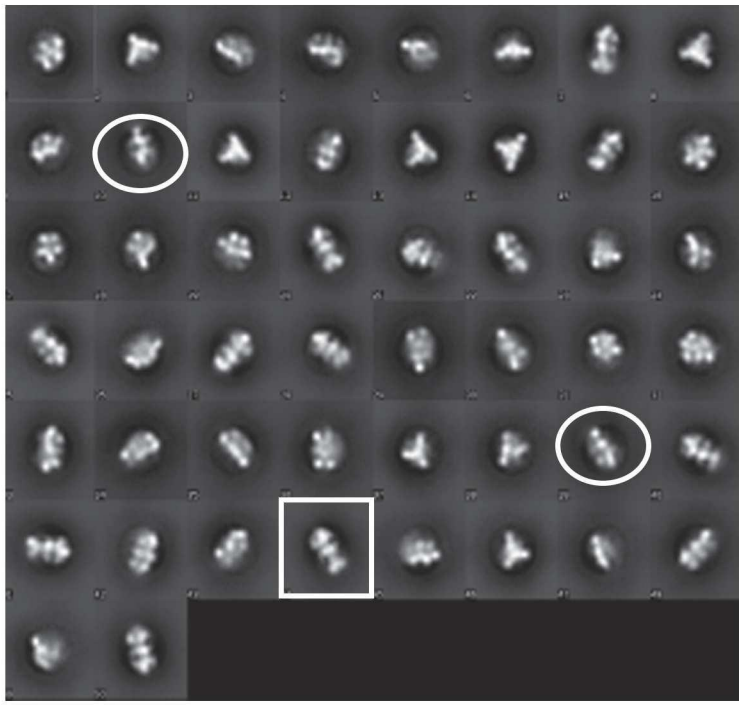


【圖 25C】

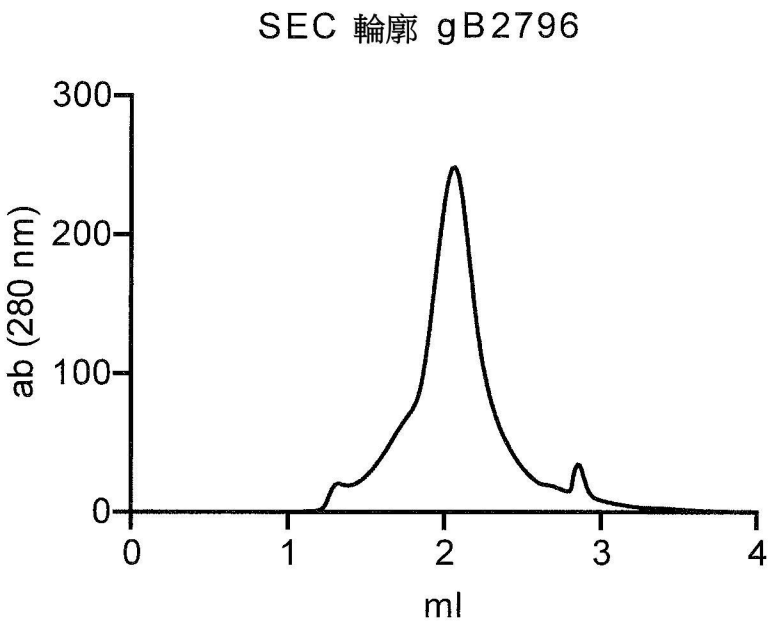
融合前樣,
錐形

融合後
結構域特徵

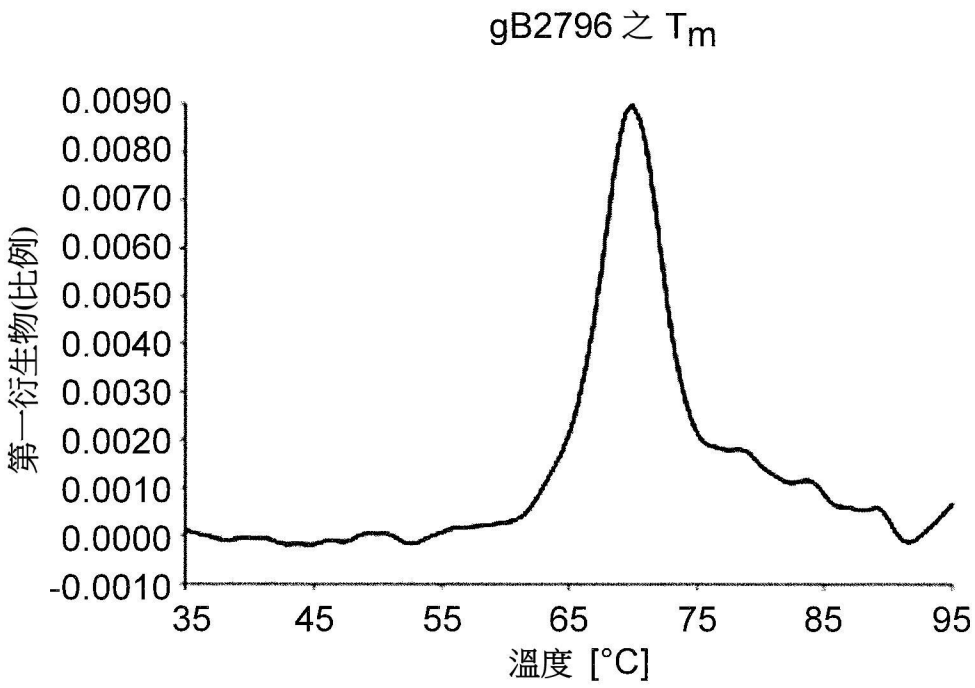
gB2556 GCN4 1666
+(N524,M684)



【圖 25D】


SEC 輪廓 gB2796
300
200
100
0
ab (280 nm)
0
1
2
3
4
ml

【圖 26A】


gB2796 之 Tm
0.0090
0.0080
0.0070
0.0060
0.0050
0.0040
0.0030
0.0020
0.0010
0.0000
-0.0010
第一衍生物(比例)
35
45
55
65
75
85
95
溫度 [°C]

【圖 26B】