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(54) Title: PHOSPHODIESTERASE 10 CATALYTIC DOMAIN CRYSTALS

(57) Abstract: The invention provides a crystal or co-crystal of PDE10 catalytic domain, which crystallizes in the rhombohedral space group H3 and their uses in drug design.

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PHOSPHODIESTERASE 10 CATALYTIC DOMAIN CRYSTALS

The present invention relates to crystals and co-crystals of the phosphodiesterase 10 catalytic domain (PDE10-cat) and their use in drug design.

The cyclic nucleotides cAMP and cGMP are second messengers that transmit a large body of hormone-, neurotransmitter-, and light-induced signals to regulate synaptic function, muscle contraction, immune response, vision, lipid metabolism, and gene expression. cAMP and cGMP levels are tightly regulated via their synthesis (adenylyl and guanylyl cyclases) and degradation (PDEs).

PDEs are multi domain proteins grouped into 11 families encoded by 21 genes. Alternative splicing generates more than 60 functionally unique enzymes. Differences in substrate specificity allow for classification of PDEs in cAMP-specific (PDE4, 7, and 8), cGMP-specific (PDE5, 6, and 9), and dual specificity (PDE1, 2, 3, 10, and 11). For the catalytic domain, sequence conservation is high among PDEs, with >75% sequence homology within a family and 20-45% sequence homology across families. Despite the high sequence and also structural homology, PDEs exhibit diversity in their functional properties. In addition, PDEs are regulated by various mechanisms including cGMP binding to GAF domains (PDE5), phosphorylation (PDE4), association with other proteins such as kinase-A anchoring protein and PKA (PDE4), and oligomerization (PDE4D3).

PDE10 is a dual specificity enzyme that was originally identified from mouse (Soderling et al., PNAS 96, 7071–7076 (1999)), and subsequently shown to play a major role in the progression of the neurodegenerative Huntington's disease (HD). PDE10 mRNA levels decrease in HD mice prior to onset of motor symptoms (Hebb et al., Neuroscience 123, 967-981 (2004)). PDE10 is highly expressed in testes, thyroid, and brain with a predominant distribution in the putamen and caudate nucleus. This expression pattern is conserved across species. Four splice isoforms of PDE10 have been cloned from humans, two of which (PDE10A1 and PDE10A2) have been partially characterized and may be regulated differently *via* phosphorylation.

PDE inhibitors have recently been suggested as antipsychotic agents (Becker & Grecksch, Behav. Brain Res. (2008) 186(2):155-60). The weak PDE10 inhibitor papaverine was shown to potentiate haloperidol-induced catalepsy in rats, suggesting that inhibition of PDE10A might improve executive function deficits associated with schizophrenia or, more general, other models predictive of antipsychotic activity. However, papaverine and other broadband PDE inhibitors

typically induce extrapyramidal side-effects, resulting in moderate compliance of prescribed therapies. Thus, there is need for compounds that specifically modulate PDE10 activity without side-effects. Such compounds may show superior therapeutic efficacy on psychotic indications than current therapies that address PDE activity in a more unspecific manner.

In 2007 the crystal structures of wildtype human and rat PDE10-cat were published. The PDE10-cat domains recapitulate the fold known from previous PDE isoforms, consisting of 15 α-helices and no β-sheets. Key residues in the active site include Val678, Thr685, Ala689, Ile692, Tyr693, Met713, Gly725, Gln726, Phe729, Tyr730, and Trp762. All human PDE10 crystal structures share the same orthorhombic space group $P2_12_12_1$ with cell axes a=48.7-51.4 Å, b=81.9-82.3 Å, c=153.2-156.7 Å. For human PDE10 both the wildtype and the catalytically inactive Asp674Ala mutant structure were determined. Ligands bound to the active site include the substrates cAMP and cGMP and the products AMP and GMP (PNAS, 104, 5782-5787 (2007)). The rat structures were determined in complex with two 6,7-dimethoxy-4-pyrrolidylquinazolines, demonstrating the principal drugability of PDE10 (J.Med.Chem. 50, 182-185 (2007)).

Reproducible generation of well-diffracting crystals of the PDE10-cat proved to be difficult. Therefore, there is a need for PDE10-cat crystal forms allowing more reproducible crystallization for subsequent X-ray crystallographic analysis and structure-based drug design.

In a first aspect, the present invention relates to a crystal of a PDE10-cat polypeptide, wherein the crystal belongs to space group H3.

In a preferred embodiment, the crystal has unit cell dimensions of a = b = 135 ± 4 Å, c = 235 ± 4 Å, α = β = 90°, γ = 120°. In a preferred embodiment, the crystal has unit cell dimensions of a = b = 135 ± 3 Å, c = 235 ± 3 Å, α = β = 90°, γ = 120°.

In another preferred embodiment, the crystal has unit cell dimensions of a = b = 135 ± 2 Å, c = 235 ± 2 Å, α = β = 90°, γ = 120°. In a further preferred embodiment, the crystal has unit cell dimensions of a = b = 135 ± 1 Å, c = 235 ± 1 Å, α = β = 90°, γ = 120°. In yet another preferred embodiment, the crystal has unit cell dimensions of a = b = 135 Å, c = 235 Å, α = β = 90°, γ = 120°.

In a second aspect, the present invention relates to a co-crystal of a PDE10-cat polypeptide and a ligand bound to the PDE10-cat, wherein the crystal belongs to space group H3.

In a preferred embodiment, the co-crystal has unit cell dimensions of a = b = 135 ± 3Å, c = 235 ± 3 Å, α = β = 90°, γ = 120°. In another preferred embodiment, the co-crystal has unit cell dimensions of a = b = 135 ± 2 Å, c = 235 ± 2 Å, α = β = 90°, γ = 120°. In a further preferred em-

bodiment, the crystal has unit cell dimensions of a = b = 135 ± 1 Å, c = 235 ± 1 Å, α = β = 90°, γ = 120°. In yet another preferred embodiment, the crystal has unit cell dimensions of a = b = 135.0 Å, c = 235 Å, α = β = 90°, γ = 120°.

In a further preferred embodiment, the ligand is 1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline (papaverin).

In a preferred embodiment of the crystal and co-crystal of the present invention, the PDE10-cat polypeptide is a polypeptide comprising a sequence having a similarity to the catalytic domain of a polypeptide of Seq. Id. No. 1 of at least 80%, preferably at least 85%, more preferably at least 90%, even more preferably at least 95%, most preferably 100%.

In a further preferred embodiment, the PDE10-cat polypeptide comprises amino acids 449-779 of Seq. Id. No.1 (human PDE10A2 polypeptide, Gene bank accession No. CAG38804.1).

In a third aspect, the present invention relates to a method for crystallizing a PDE10-cat polypeptide comprising the steps of: providing an aqueous solution of the PDE10-cat polypeptide, mixing with a precipitant, and growing crystals by sitting drop vapor diffusion or microbatch using a buffered precipitant solution of 5 % to 30 % (w/v) PEG, wherein the PEG has an average molecular weight of 200Da to 20 kDa. In a preferred embodiment, the buffered precipitant solution comprises 0 M to 1 M Bis-tris pH 6.5, 0 M to 0.1 M zinc chloride, 0 M to 0.5 M magnesium chloride, and 0 M to 1 M sodium chloride.

In a fourth aspect, the present invention relates to a method for generating a co-crystal of a PDE10-cat polypeptide with a ligand that binds to the active site of PDE10-cat, a) providing a crystal of the PDE10-cat polypeptide of the present invention,

b) adding a molar excess of the ligand to the crystal of the polypeptide, and

c) generating a co-crystal.

Crystals of the present invention can be grown by a number of techniques including batch crystallization, vapour diffusion (either by sitting drop or hanging drop) and by microdialysis. Seeding of the crystals in some instances is required to obtain X-ray quality crystals. Standard micro- and/or macroseeding of crystals may therefore be used.

In a preferred embodiment of the invention, (co-)crystals are grown by vapor diffusion. In this method, the polypeptide solution is allowed to equilibrate in a closed container with a larger aqueous reservoir having a precipitant concentration optimal for producing crystals. Generally, less than about 10 µL of substantially pure polypeptide solution is mixed with an equal or similar volume of reservoir solution, giving a precipitant concentration about half that required

for crystallization. This solution is placed as a droplet on a plastic post surrounded by reservoir, which is sealed. The sealed container is allowed to stand, from one day to one year, usually for about 2-6 weeks, until crystals grow.

The crystals or co-crystals of the present invention can be obtained by a method which comprises: providing a buffered, aqueous solution of 3.75 to 50 mg/ml of a PDE10-cat polypeptide, optionally adding a molar excess of the ligand to the aqueous polypeptide solution, and growing crystals by vapor diffusion or microbatch using a buffered reservoir solution of 0 % to 30 % (w/v) PEG, wherein the PEG has an average molecular weight of 200 Da to 20000 Da. The PEG may be added as monomethyl ether. A preferred PEG has an average molecular weight of 500 Da to 5,000 Da. A preferred buffered reservoir solution further comprises 0 M to 1 M Bis-tris pH 6.5, 0 M to 0.1 M zinc chloride, 0 M to 0.5 M magnesium chloride, and 0 M to 1 M sodium chloride. Said microbatch may be modified.

In a preferred embodiment of the method for generating a co-crystal of the PDE10-cat polypeptide, the method is performed in presence of a 10 – 15 molar excess of the ligand.

Methods for obtaining the three-dimensional structure of the crystals described herein, as well as the atomic structure coordinates, are well-known in the art (see, e.g., D. E. McRee, Practical Protein Crystallography, published by Academic Press, San Diego (1993), and references cited therein).

The crystals of the invention, and particularly the atomic structure coordinates obtained therefrom, have a wide variety of uses. For example, the crystals and structure coordinates described herein are particularly useful for identifying compounds that bind to PDE10 as an approach towards developing new therapeutic agents.

The structure coordinates described herein can be used as phasing models in determining the crystal structures of additional native or mutated, as well as the structures of co-crystals of PDE10 with bound ligand. The structure coordinates, as well as models of the three-dimensional structures obtained therefrom, can also be used to aid the elucidation of solution-based structures of native or mutated PDEs, such as those obtained via NMR. Thus, the crystals and atomic structure coordinates of the invention provide a convenient means for elucidating the structures and functions of a PDE10.

The present invention also provides a method of identifying compounds that can bind to PDE10, comprising the steps of: applying a 3-dimensional molecular modeling algorithm to the atomic coordinates of a protein shown in Fig. 1 or 2 to determine the spatial coordinates of the binding site of PDE10-cat; and electronically screening the stored spatial coordinates of a set of

candidate compounds against the spatial coordinates of the PDE10 catalytic domain to identify a compound that can bind to PDE10.

In a preferred embodiment, the method comprises the steps of: generating a three dimensional model of a binding pocket of PDE10-cat using the relative structural data coordinates of Figure 1 or 2 of Leu635, Phe639, Asp674, Leu675, Ser677, Val678, Thr685, Ala689, Ile692, Tyr693, Phe696, Met713, Gly725, Gln726, Phe729, Tyr730, Val733, and Trp762 ± a root mean square deviation from the backbone atoms of said amino acids of not more than 2 Å; and performing computer fitting analysis to identify a compound that can bind to a PDE10-cat binding site.

The term "root mean square deviation" means the square root of the arithmetic mean of the squares of the deviations. It is a way to express the deviation or variation from a trend or object. For purposes of this invention, the "root mean square deviation" defines the variation in the backbone of a protein from the backbone of PDE10-cat or an active binding site thereof, as defined by the structure coordinates of PDE10-cat described herein.

Molecular docking of large compound databases to target proteins of known or modelled 3-dimensional structure is now a common approach in the identification of new lead compounds. This "virtual screening" approach relies on fast and accurate estimation of the ligand binding mode and an estimate of ligand affinity. Typically a large database of compounds, either real or virtual is docked to a target structure and a list of the best potential ligands is produced. This ranking should be highly enriched for active compounds which may then be subject to further experimental validation.

The calculation of the ligand binding mode may be carried out by molecular docking programs which are able to dock the ligands in a flexible manner to a protein structure. The estimation of ligand affinity is typically carried out by the use of a separate scoring function. These scoring functions include energy-based approaches which calculate the molecular mechanics force field and rule-based approaches which use empirical rules derived from the analysis of a suitable database of structural information. Consensus scoring involves rescoring each ligand with multiple scoring functions and then using a combination of these rankings to generate a hit list.

Short description of the figures

Figure 1 shows the coordinates of an apo crystal of human PDE10-cat (amino acids 449 – 758 of Seq. Id. No. 1) and

Figure 2 shows the coordinates of a co-crystal of human PDE10-cat (amino acids 449 – 759 of Seq. Id. No. 1) with ligand 1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline (papaverin).

Examples

Example 0: Production of human PDE10-cat

DNA manipulation and sequence analysis

Preparation of DNA probes, digestion with restriction endonucleases, DNA ligation and transformation of *E.coli* strains were performed as described (Sambrook, J., Fritsch, E.F. & Maniatis, T. (1989). *Molecular Cloning: A Laboratory Manual.* Cold Spring Harbor Laboratory Press: Cold Spring Harbor, NY.). Mutagenesis was performed by using the QuikChange Multi Kit from Stratagene. For DNA sequencing, the ABI PRISM BigDye Terminator Cycle Sequencing Ready Reaction Kit and ABI PRISM 310 Genetic analyzer were used. PCR were performed in the T3 Thermocycler (Whatman Biometra), using the Expand polymerase (Roche).

Production and Purification of recombinant human PDE10-cat in *E.coli*

The catalytic domain of human PDE10A2, residues 449-779 of Seq. Id. No. 1 (PDE10-cat), was amplified by PCR using cDNA (Origene) and the oligonucleotides 5'-GGGG**ACAAGTTTGTACAAAAAAGCAGGC***TTA*GTACCTAGAGGATCAAGCATTT GTACTTCAGAAG-3' (*Att*B1 recombination site in bold, thrombin protease cleavage site in italics; Seq. Id. No. 2) and 5'-GGGG**ACCACTTTGTACAAGAAAGCTGGGT**CAAT CTTCAGATGCAGCTG-3' (*Att*B2 recombination site in bold; Seq. Id. No. 3), which conferred Gateway recombination sites (Invitrogen). The PCR product was used in a BP recombination reaction with pDONR221 (Invitrogen) to generate pENTR Thm-PDE10A2 (449-779). The DNA sequence was verified and used in an LR recombination reaction with a Gateway-modified version of pET11a (Novagen). The sequence of the resulting expression vector, placT7.2 H6-(gwl)-Thm-PDE10A2 (449-779), was confirmed and transformed into *E.coli* strain BL21(DE3) p*Lys*S (Invitrogen). Recombinant protein was produced at 22°C by induction to a final IPTG concentration of 0.1mM at an optical density of 1.0 at 600nm for 20h. About 30% of the protein was in the soluble fraction of the cell homogenate. The protein was purified using sequential chromatography on Ni-NTA and HiTrapQ/HiTrapS. After thrombin digest overnight at room temperature, impurities, uncleaved protein and thrombin were removed by HiTrapChelating / HiTrap benzamindine chromatography. The last step in purification ofPDE10-cat was Superdex 75 size exclusion chromatography equilibrated with 25mM HEPES/NaOH pH8.4, 0.1M NaCl. The protein was >95% pure, monomeric and monodisperse as shown by SDS-PAGE, HPLC, and analytical ultracentrifugation, respectively.

Example 1: Crystal structure of human PDE10-cat

Protein used for crystallization of PDE10-cat has been purified as described above. The crystallization droplet was set up at 22 °C by mixing 0.3 µl of protein solution at a concentration of 10mg/mL with 0.3 µl reservoir in vapor diffusion sitting drop experiments. Crystals appeared out of 0.1 M bis-TRIS/NaOH pH 6.5, 25% PEG 3350 or 0.1 M HEPES/NaOH pH 7.5, 0.2 M $MgCl_2$, 25% PEG 3350 after 1 day and grew to a maximum final size of $0.1x0.1x0.1mm^3$ within 7 days.

Crystals were harvested with paraffin oil as cryoprotectant and then flash cooled in liquid N_2. Diffraction images were collected at a temperature of 100K at the beamline X10SA of the Swiss Light Source and processed with the programs DENZO and SCALEPACK (HKL Research) yielding data to 2.1 Å resolution. Standard crystallographic programs from the CCP4 software suite were used to determine the structure by molecular replacement (CCP4 (Collaborative Computational Project, N. The CCP4 suite: programs for protein crystallography. Acta Crystallogr. D50, 760-763 (1994)). The structure 2OUN (Structural insight into substrate specificity of phosphodiesterase 10, PNAS, 104, 5782-5787 (2007)) was used as search model. Refinement and model building cycles were performed with REFMAC and COOT, respectively (Table 1).

Crystals belong to space group H3 with cell axes a=b=136.31Å, c=235.95Å, $\alpha = \beta=90°$, $\gamma=120°$ and contain a tetramer of PDE10-cat in the asymmetric unit. The structure is not isomorphous to the orthorhombic crystals of human PDE10-cat in the PDB entries 2OUN, 2OUP, 2OUQ, 2OUR, 2OUS, 2OUU, 2OUV, and 2OUY (Structural insight into substrate specificity of phosphodiesterase 10, PNAS, 104, 5782-5787 (2007)). The active site harbors a hydrated two metal ion cluster, which were assigned as Mg^{2+} and Zn^{2+}. The Zn^{2+} ion was assigned based on an electron density map using anomalous differences and model phases.

Table 1: Data collection and structure refinement statistics for PDE10-cat

Data Collection	No ligand
Wavelength (Å)	0.9999
Resolution[1] (Å)	41.7-2.1 (2.359-2.3)
Unique reflections[1]	27273
Completeness (%)[1]	99.3 (99.3)
R_{merge} (%)[1,2]	7.5 (26.4)
$\langle I/\sigma \rangle$[1]	5.2 (2.5)
Unit Cell (Space group H3)	a=b=136.31Å, c=235.95Å, $\alpha=\beta=90°$, $\gamma=120°$
Refinement	

Resolution (Å)	41.1-2.1 (2.23-2.10)
R_{cryst} [1,3]	17.8 (21.7)
R_{free} [1,4]	21.7 (23.4)
R.m.s. deviations from ideality Bond lengths (Å) / angles (°)	0.006 / 0.920
Main chain dihedral angles (%) Most favored / allowed / generous / disallowed [5]	93.4 / 6.6 / 0.0 / 0.0

[1] Values in parentheses refer to the highest resolution bins.
[2] $R_{merge}=\Sigma|I-<I>|/\Sigma I$ where I is the reflection intensity.
[3] $R_{cryst}=\Sigma|F_o-<F_c>|/\Sigma F_o$ where F_o is the observed and F_c is the calculated structure factor amplitude.
[4] R_{free} was calculated based on 5% of the total data omitted during refinement.
[5] Calculated with PROCHECK [Laskowski, R.A., MacArthur, M.W., Moss, D.S. & Thornton, J.M. PROCHECK: a program to check the stereochemical quality of protein structure. J. Appl. Crystallogr. 26, 283-291 (1993)].

Example 2: Crystal structure of human PDE10-cat with inhibitor 1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline

Protein used for crystallization of PDE10-cat together with 1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline has been purified as described above. The protein crystals were incubated with ligand in a 10 fold molar excess for 2 hours at room temperature.

Crystals were harvested with reservoir as cryoprotectant and then flash cooled in liquid N_2. Diffraction images were collected at a temperature of 100K at the beamline X10SA of the Swiss Light Source and processed with the programs DENZO and SCALEPACK (HKL Research) yielding data to a resolution of 2.1 Å. Standard crystallographic programs from the CCP4 software suite were used to determine the structure by molecular replacement using an in-house PDE10-cat structure as search model (CCP4 (Collaborative Computational Project, N. The CCP4 suite: programs for protein crystallography. Acta Crystallogr. D 50, 760-763 (1994)). Refinement and model building cycles were performed with REFMAC, autoBUSTER (Acta Crystallogr., D56, 1313-1323 (2000)) and COOT, respectively (Table 2).

Crystals belong to space group H3 with cell axes a=b=136.96Å, c=237.36Å, $\alpha = \beta=90°$, $\gamma=120°$ and diffracted to 2.1 Å resolution. The ligand was clearly defined in the initial Fo-Fc electron density map in all four monomers. The ligand is bound to the protein by one hydrogen bond to Gln726 and mainly hydrophobic interactions via residues Leu635, Leu675, Val678, Tyr693, Phe696, and Phe729. The structure is isomorphous to the structure in example 1 but not isomorphous to the orthorhombic crystals of human PDE10-cat in the PDB entries 2OUN,

2OUP, 2OUQ, 2OUR, 2OUS, 2OUU, 2OUV, and 2OUY (Structural insight into substrate specificity of phosphodiesterase 10, PNAS, 104, 5782-5787 (2007)).

Table 2: Data collection and structure refinement statistics for 1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline co-crystal

Data Collection	1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline
Wavelength (Å)	0.9910
Resolution[1] (Å)	44.1-2.1 (2.15-2.10)
Unique reflections[1]	95401
Completeness (%)[1]	98.4 (97.8)
R_{merge} (%)[1,2]	18.6 (86.0)
$\langle I/\sigma \rangle$[1]	6.3 (1.0)
Unit Cell (Space group H3)	a=b=136.96 Å, c= 237.36 Å, $\alpha=\beta=90$ °, $\gamma=120$°
Refinement	
Resolution (Å)	44.1-2.1 (2.23-2.10)
R_{cryst}[1,3]	25.8 (34.2)
R_{free}[1,4]	29.5 (36.2)
R.m.s. deviations from ideality Bond lengths (Å) / angles (°)	0.011 / 1.22
Main chain dihedral angles (%) Most favored/allowed/generous/ disallowed [5]	90.7/ 9.2 / 0.1 / 0.0

[1] Values in parentheses refer to the highest resolution bins.

[2] $R_{merge}=\Sigma|I-\langle I\rangle|/\Sigma I$ where I is the reflection intensity.

[3] $R_{cryst}=\Sigma||F_o|-\langle|F_c|\rangle|/\Sigma|F_o|$ where F_o is the observed and F_c is the calculated structure factor amplitude.

[4] R_{free} was calculated based on 5% of the total data omitted during refinement.

[5] Calculated with PROCHECK [Laskowski, R.A., MacArthur, M.W., Moss, D.S. & Thornton, J.M. PROCHECK: a program to check the stereochemical quality of protein structure. J. Appl. Crystallogr. 26, 283-291 (1993)].

While there are shown and described presently preferred embodiments of the invention, it is to be distinctly understood that the invention is not limited thereto but may be otherwise variously embodied and practiced within the scope of the following claims.

Claims

1. A crystal of a PDE10-cat polypeptide, wherein the crystal belongs to space group H3.

2. The crystal of claim 1, wherein the crystal has unit cell dimensions of a = b = 135 ± 4 Å, c = 235 ± 4 Å, α = β = 90°, γ = 120°.

3. A co-crystal of a PDE10-cat polypeptide and a ligand bound to the PDE10-cat, wherein the crystal belongs to space group H3.

4. The co-crystal of claim 3, wherein the crystal has unit cell dimensions of a = b = 135 ± 3 Å, c = 235 ± 3 Å, α = β = 90°, γ = 120°.

5. The co-crystal of claim 3 or 4, wherein the ligand is 1-(3,4-Dimethoxy-benzyl)-6,7-dimethoxy-isoquinoline (papaverin).

6. The crystal of claim 1 or 2 or the co-crystal of claims 3 to 5, wherein the PDE10-cat polypeptide is a polypeptide comprising a sequence having a similarity to the catalytic domain of a polypeptide of Seq. Id. No. 1 of at least 80%, preferably at least 85%, more preferably at least 90%, even more preferably at least 95%, most preferably 100%.

7. The crystal or co-crystal of claim 6, wherein the PDE10-cat polypeptide comprises amino acids 449-779 of Seq. Id. No.1.

8. A method for crystallizing a PDE10-cat polypeptide, the method comprising:

a) providing an aqueous solution of the polypeptide and

b) growing crystals.

9. A method for co-crystallizing a PDE10-cat polypeptide with a compound that binds to the binding site of said polypeptide, the method comprising:

a) providing an aqueous solution of the polypeptide,

b) adding a molar excess of the ligand to the aqueous solution of the polypeptide, and

c) growing crystals.

10. The method of claim 8 or 9, wherein the aqueous solution comprise 5 % to 30 % (w/v) PEG, wherein the PEG has an average molecular weight of 200Da to 20 kDa.

11. The method of claims 8–10, wherein the aqueous solution comprises 0 M to 1 M Bis-tris pH 6.5, 0 M to 0.1 M zinc chloride, 0 M to 0.5 M magnesium chloride, and 0 M to 1 M sodium chloride.

12. A method for generating a co-crystal of a PDE10-cat polypeptide with a ligand that binds to the active site of PDE10-cat, the method comprising:

a) providing a crystal of claim 1 or 2,
b) adding a molar excess of the ligand to the crystal of the polypeptide, and
c) generating a co-crystal.

13. The method of claims 9–12, wherein the ligand is added in a 10 – 15 molar excess.

14. A method for identifying a compound that can bind to the binding site of PDE10-cat comprising the steps:
a) determining an active site of PDE10-cat from a three dimensional model of PDE10-cat using the atomic coordinates of Fig. 1 or Fig. 2, ± a root mean square deviation from the backbone atoms of said amino acids of not more than 2 Å; and
b) performing computer fitting analysis to identify a compound that can bind to the PDE10-cat active site.

15. The method of claim 13 comprising the steps:
a) generating a three dimensional model of an active site of PDE10-cat using the relative structural data coordinates of Figure 1 or 2 of residues, Leu635, Phe639, Asp674, Leu675, Ser677, Val678, Thr685, Ala689, Ile692, Tyr693, Phe696, Met713, Gly725, Gln726, Phe729, Tyr730, Val733, and Trp762 ± a root mean square deviation from the backbone atoms of said amino acids of not more than 2 Å; and
b) performing computer fitting analysis to identify a compound that can bind to the PDE10-cat active site.

16. A crystal or co-crystal of PDE10-cat containing PDE10-cat in a conformation defined by the coordinates of Fig.1 or Fig. 2, optionally varied by an rmsd of less than 3.0Å.

17. The crystals and methods substantially as hereinbefore described, especially with reference to the foregoing examples.

Fig. 1

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CRYST1  136.308  136.308  235.947  90.00  90.00 120.00 H 3
ATOM      1  N   LEU A 459      42.548  33.546 -44.815  1.00 53.15           N
ATOM      2  CA  LEU A 459      42.171  32.271 -45.460  1.00 50.42           C
ATOM      3  C   LEU A 459      41.981  31.159 -44.424  1.00 49.89           C
ATOM      4  CB  LEU A 459      43.258  31.823 -46.446  1.00 49.69           C
ATOM      5  CG  LEU A 459      43.491  32.750 -47.655  1.00 53.25           C
ATOM      6  CD1 LEU A 459      44.633  32.203 -48.525  1.00 51.69           C
ATOM      7  CD2 LEU A 459      42.202  32.799 -48.522  1.00 54.12           C
ATOM      8  O   LEU A 459      41.899  29.967 -44.781  1.00 54.17           O
ATOM      9  N   MET A 460      41.895  31.559 -43.155  1.00 50.31           N
ATOM     10  CA  MET A 460      41.827  30.635 -42.032  1.00 53.55           C
ATOM     11  CB  MET A 460      42.840  31.099 -40.987  1.00 56.63           C
ATOM     12  CG  MET A 460      43.840  30.040 -40.552  1.00 61.41           C
ATOM     13  SD  MET A 460      44.689  30.482 -38.996  1.00 67.59           S
ATOM     14  CE  MET A 460      45.460  32.085 -39.441  1.00 65.66           C
ATOM     15  C   MET A 460      40.441  30.540 -41.369  1.00 62.39           C
ATOM     16  O   MET A 460      40.305  30.737 -40.146  1.00 64.50           O
ATOM     17  N   GLN A 461      39.429  30.211 -42.168  1.00 57.77           N
ATOM     18  CA  GLN A 461      38.051  30.129 -41.696  1.00 57.11           C
ATOM     19  CB  GLN A 461      37.108  29.853 -42.875  1.00 58.08           C
ATOM     20  CG  GLN A 461      36.676  31.094 -43.666  1.00 62.65           C
ATOM     21  CD  GLN A 461      36.163  32.211 -42.780  1.00 73.88           C
ATOM     22  OE1 GLN A 461      34.949  32.343 -42.549  1.00 66.25           O
ATOM     23  NE2 GLN A 461      37.091  33.006 -42.244  1.00 65.59           N
ATOM     24  C   GLN A 461      37.791  29.108 -40.589  1.00 60.48           C
ATOM     25  O   GLN A 461      38.204  27.956 -40.674  1.00 60.38           O
ATOM     26  N   PHE A 462      37.014  29.522 -39.592  1.00 56.29           N
ATOM     27  CA  PHE A 462      36.605  28.617 -38.519  1.00 54.34           C
ATOM     28  CB  PHE A 462      36.201  29.421 -37.281  1.00 55.88           C
ATOM     29  CG  PHE A 462      37.235  29.429 -36.193  1.00 57.53           C
ATOM     30  CD1 PHE A 462      38.033  30.541 -35.999  1.00 60.13           C
ATOM     31  CE1 PHE A 462      38.991  30.568 -35.003  1.00 61.51           C
ATOM     32  CZ  PHE A 462      39.168  29.465 -34.179  1.00 62.28           C
ATOM     33  CE2 PHE A 462      38.370  28.335 -34.359  1.00 64.22           C
ATOM     34  CD2 PHE A 462      37.404  28.328 -35.360  1.00 60.76           C
ATOM     35  C   PHE A 462      35.391  27.831 -39.020  1.00 54.37           C
ATOM     36  O   PHE A 462      34.537  28.369 -39.735  1.00 54.99           O
ATOM     37  N   THR A 463      35.339  26.546 -38.680  1.00 49.64           N
ATOM     38  CA  THR A 463      34.178  25.700 -38.994  1.00 48.79           C
ATOM     39  CB  THR A 463      34.388  24.702 -40.160  1.00 56.13           C
ATOM     40  OG1 THR A 463      35.667  24.080 -40.042  1.00 57.69           O
ATOM     41  CG2 THR A 463      34.253  25.381 -41.502  1.00 57.44           C
ATOM     42  C   THR A 463      33.849  24.924 -37.740  1.00 51.54           C
ATOM     43  O   THR A 463      34.717  24.571 -36.952  1.00 53.06           O
ATOM     44  N   LEU A 464      32.580  24.616 -37.595  1.00 45.63           N
ATOM     45  CA  LEU A 464      32.104  23.881 -36.461  1.00 44.24           C
ATOM     46  CB  LEU A 464      30.903  24.618 -35.853  1.00 43.94           C
ATOM     47  CG  LEU A 464      31.020  26.132 -35.650  1.00 47.76           C
ATOM     48  CD1 LEU A 464      31.971  26.458 -34.501  1.00 48.00           C
ATOM     49  CD2 LEU A 464      29.658  26.726 -35.384  1.00 50.60           C
ATOM     50  C   LEU A 464      31.634  22.540 -36.984  1.00 47.99           C
ATOM     51  O   LEU A 464      31.422  22.379 -38.190  1.00 48.29           O
ATOM     52  N   PRO A 465      31.409  21.576 -36.074  1.00 42.60           N
ATOM     53  CA  PRO A 465      30.885  20.266 -36.463  1.00 41.90           C
ATOM     54  CB  PRO A 465      30.782  19.521 -35.128  1.00 42.95           C
ATOM     55  CG  PRO A 465      31.835  20.134 -34.274  1.00 47.22           C
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ATOM     56  CD  PRO A 465      31.921  21.583 -34.692  1.00 43.42           C
ATOM     57  C   PRO A 465      29.498  20.473 -37.050  1.00 46.50           C
ATOM     58  O   PRO A 465      28.820  21.462 -36.727  1.00 45.87           O
ATOM     59  N   VAL A 466      29.081  19.542 -37.907  1.00 43.28           N
ATOM     60  CA  VAL A 466      27.772  19.616 -38.569  1.00 42.21           C
ATOM     61  CB  VAL A 466      27.438  18.324 -39.352  1.00 44.84           C
ATOM     62  CG1 VAL A 466      26.048  18.412 -39.947  1.00 44.57           C
ATOM     63  CG2 VAL A 466      28.486  18.104 -40.437  1.00 44.29           C
ATOM     64  C   VAL A 466      26.614  20.063 -37.695  1.00 44.12           C
ATOM     65  O   VAL A 466      25.958  21.034 -38.034  1.00 45.71           O
ATOM     66  N   ARG A 467      26.358  19.362 -36.590  1.00 37.84           N
ATOM     67  CA  ARG A 467      25.252  19.732 -35.724  1.00 36.99           C
ATOM     68  CB  ARG A 467      25.110  18.815 -34.510  1.00 37.20           C
ATOM     69  CG  ARG A 467      23.774  19.049 -33.781  1.00 38.44           C
ATOM     70  CD  ARG A 467      23.713  18.372 -32.421  1.00 44.74           C
ATOM     71  NE  ARG A 467      24.753  18.880 -31.520  1.00 47.44           N
ATOM     72  CZ  ARG A 467      24.662  20.013 -30.824  1.00 53.52           C
ATOM     73  NH1 ARG A 467      23.583  20.788 -30.928  1.00 41.04           N
ATOM     74  NH2 ARG A 467      25.660  20.376 -30.026  1.00 34.12           N
ATOM     75  C   ARG A 467      25.269  21.191 -35.278  1.00 40.09           C
ATOM     76  O   ARG A 467      24.223  21.838 -35.288  1.00 41.47           O
ATOM     77  N   LEU A 468      26.443  21.687 -34.870  1.00 34.07           N
ATOM     78  CA  LEU A 468      26.595  23.065 -34.431  1.00 34.15           C
ATOM     79  CB  LEU A 468      27.945  23.278 -33.722  1.00 33.91           C
ATOM     80  CG  LEU A 468      28.040  22.773 -32.259  1.00 38.68           C
ATOM     81  CD1 LEU A 468      28.223  21.242 -32.220  1.00 37.44           C
ATOM     82  CD2 LEU A 468      29.204  23.450 -31.538  1.00 41.75           C
ATOM     83  C   LEU A 468      26.443  24.056 -35.593  1.00 43.08           C
ATOM     84  O   LEU A 468      25.728  25.059 -35.475  1.00 43.89           O
ATOM     85  N   CYS A 469      27.108  23.778 -36.714  1.00 39.55           N
ATOM     86  CA ACYS A 469      27.023  24.643 -37.885  0.50 39.50           C
ATOM     87  CA BCYS A 469      27.018  24.640 -37.884  0.50 38.55           C
ATOM     88  CB ACYS A 469      27.761  24.011 -39.076  0.50 39.98           C
ATOM     89  CB BCYS A 469      27.738  23.998 -39.073  0.50 38.21           C
ATOM     90  SG ACYS A 469      29.450  24.666 -39.381  0.50 43.67           S
ATOM     91  SG BCYS A 469      27.605  24.952 -40.612  0.50 41.45           S
ATOM     92  C   CYS A 469      25.554  24.865 -38.238  1.00 40.06           C
ATOM     93  O   CYS A 469      25.139  25.979 -38.542  1.00 39.33           O
ATOM     94  N   ARG A 470      24.774  23.795 -38.177  1.00 34.33           N
ATOM     95  CA AARG A 470      23.349  23.840 -38.498  0.50 34.10           C
ATOM     96  CA BARG A 470      23.353  23.863 -38.508  0.50 33.99           C
ATOM     97  CB AARG A 470      22.836  22.398 -38.649  0.50 34.08           C
ATOM     98  CB BARG A 470      22.770  22.457 -38.736  0.50 33.48           C
ATOM     99  CG AARG A 470      21.332  22.210 -38.765  0.50 42.25           C
ATOM    100  CG BARG A 470      23.282  21.704 -39.976  0.50 39.03           C
ATOM    101  CD AARG A 470      21.018  20.868 -39.471  0.50 43.78           C
ATOM    102  CD BARG A 470      22.753  20.256 -39.996  0.50 40.90           C
ATOM    103  NE AARG A 470      19.578  20.611 -39.592  0.50 44.45           N
ATOM    104  NE BARG A 470      23.321  19.455 -41.083  0.50 42.75           N
ATOM    105  CZ AARG A 470      19.019  19.909 -40.577  0.50 53.11           C
ATOM    106  CZ BARG A 470      23.074  18.155 -41.263  0.50 55.76           C
ATOM    107  NH1AARG A 470      19.777  19.390 -41.544  0.50 42.00           N
ATOM    108  NH1BARG A 470      22.260  17.500 -40.437  0.50 45.80           N
ATOM    109  NH2AARG A 470      17.700  19.730 -40.598  0.50 41.36           N
ATOM    110  NH2BARG A 470      23.636  17.500 -42.272  0.50 42.27           N
ATOM    111  C   ARG A 470      22.562  24.575 -37.399  1.00 37.87           C
ATOM    112  O   ARG A 470      21.870  25.558 -37.646  1.00 35.09           O
ATOM    113  N   GLU A 471      22.666  24.061 -36.179  1.00 34.83           N
ATOM    114  CA  GLU A 471      21.971  24.582 -35.008  1.00 33.73           C
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ATOM    115  CB  GLU A 471      22.163  23.599 -33.833  1.00 35.51           C
ATOM    116  CG  GLU A 471      20.880  23.031 -33.251  1.00 48.17           C
ATOM    117  CD  GLU A 471      20.760  21.508 -33.405  1.00 60.64           C
ATOM    118  OE1 GLU A 471      20.645  20.799 -32.369  1.00 60.54           O
ATOM    119  OE2 GLU A 471      20.732  21.014 -34.561  1.00 58.84           O
ATOM    120  C   GLU A 471      22.305  26.035 -34.575  1.00 31.12           C
ATOM    121  O   GLU A 471      21.477  26.729 -33.961  1.00 26.42           O
ATOM    122  N   ILE A 472      23.519  26.486 -34.867  1.00 28.86           N
ATOM    123  CA  ILE A 472      23.952  27.813 -34.455  1.00 28.58           C
ATOM    124  CB  ILE A 472      25.469  27.984 -34.604  1.00 30.88           C
ATOM    125  CG1 ILE A 472      25.974  29.186 -33.778  1.00 30.95           C
ATOM    126  CD1 ILE A 472      27.478  29.263 -33.696  1.00 34.36           C
ATOM    127  CG2 ILE A 472      25.869  28.137 -36.088  1.00 28.46           C
ATOM    128  C   ILE A 472      23.168  28.938 -35.130  1.00 31.38           C
ATOM    129  O   ILE A 472      23.183  30.091 -34.675  1.00 28.82           O
ATOM    130  N   GLU A 473      22.487  28.612 -36.220  1.00 30.21           N
ATOM    131  CA  GLU A 473      21.746  29.625 -36.976  1.00 31.36           C
ATOM    132  CB  GLU A 473      21.614  29.218 -38.449  1.00 33.21           C
ATOM    133  CG  GLU A 473      22.959  29.118 -39.181  1.00 38.67           C
ATOM    134  CD  GLU A 473      23.738  30.418 -39.133  1.00 42.73           C
ATOM    135  OE1 GLU A 473      23.117  31.494 -39.292  1.00 39.65           O
ATOM    136  OE2 GLU A 473      24.979  30.371 -38.974  1.00 39.37           O
ATOM    137  C   GLU A 473      20.378  29.860 -36.382  1.00 34.02           C
ATOM    138  O   GLU A 473      19.719  30.857 -36.687  1.00 35.75           O
ATOM    139  N   LEU A 474      19.939  28.905 -35.570  1.00 27.04           N
ATOM    140  CA  LEU A 474      18.648  28.972 -34.916  1.00 26.80           C
ATOM    141  CB  LEU A 474      18.138  27.564 -34.642  1.00 27.16           C
ATOM    142  CG  LEU A 474      18.344  26.573 -35.801  1.00 33.21           C
ATOM    143  CD1 LEU A 474      17.726  25.245 -35.442  1.00 31.67           C
ATOM    144  CD2 LEU A 474      17.747  27.111 -37.112  1.00 37.85           C
ATOM    145  C   LEU A 474      18.701  29.785 -33.602  1.00 32.62           C
ATOM    146  O   LEU A 474      19.705  29.798 -32.883  1.00 34.24           O
ATOM    147  N   PHE A 475      17.611  30.474 -33.311  1.00 28.56           N
ATOM    148  CA  PHE A 475      17.515  31.294 -32.132  1.00 29.99           C
ATOM    149  CB  PHE A 475      16.183  32.055 -32.102  1.00 31.91           C
ATOM    150  CG  PHE A 475      16.142  33.236 -33.036  1.00 33.57           C
ATOM    151  CD1 PHE A 475      16.767  34.435 -32.700  1.00 33.99           C
ATOM    152  CE1 PHE A 475      16.742  35.508 -33.563  1.00 35.69           C
ATOM    153  CZ  PHE A 475      16.094  35.406 -34.806  1.00 36.74           C
ATOM    154  CE2 PHE A 475      15.476  34.220 -35.153  1.00 39.05           C
ATOM    155  CD2 PHE A 475      15.507  33.135 -34.276  1.00 36.16           C
ATOM    156  C   PHE A 475      17.717  30.534 -30.833  1.00 35.13           C
ATOM    157  O   PHE A 475      18.316  31.038 -29.911  1.00 37.70           O
ATOM    158  N   HIS A 476      17.206  29.317 -30.763  1.00 31.18           N
ATOM    159  CA  HIS A 476      17.245  28.535 -29.528  1.00 30.11           C
ATOM    160  CB  HIS A 476      15.986  27.668 -29.411  1.00 31.25           C
ATOM    161  CG  HIS A 476      15.866  26.653 -30.506  1.00 35.92           C
ATOM    162  ND1 HIS A 476      15.226  26.918 -31.697  1.00 38.63           N
ATOM    163  CE1 HIS A 476      15.286  25.847 -32.469  1.00 38.91           C
ATOM    164  NE2 HIS A 476      15.974  24.911 -31.838  1.00 39.04           N
ATOM    165  CD2 HIS A 476      16.352  25.393 -30.610  1.00 38.70           C
ATOM    166  C   HIS A 476      18.520  27.696 -29.319  1.00 30.52           C
ATOM    167  O   HIS A 476      18.563  26.803 -28.478  1.00 29.41           O
ATOM    168  N   PHE A 477      19.548  27.974 -30.101  1.00 26.22           N
ATOM    169  CA  PHE A 477      20.807  27.262 -29.944  1.00 26.60           C
ATOM    170  CB  PHE A 477      21.851  27.873 -30.869  1.00 27.81           C
ATOM    171  CG  PHE A 477      23.182  27.166 -30.838  1.00 28.64           C
ATOM    172  CD1 PHE A 477      23.264  25.814 -31.096  1.00 31.36           C
ATOM    173  CE1 PHE A 477      24.475  25.162 -31.089  1.00 32.18           C
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ATOM    174  CZ  PHE A 477      25.641  25.865 -30.834  1.00 30.45           C
ATOM    175  CE2 PHE A 477      25.578  27.222 -30.551  1.00 31.97           C
ATOM    176  CD2 PHE A 477      24.350  27.865 -30.556  1.00 29.27           C
ATOM    177  C   PHE A 477      21.334  27.370 -28.494  1.00 29.51           C
ATOM    178  O   PHE A 477      21.306  28.439 -27.890  1.00 28.27           O
ATOM    179  N   ASP A 478      21.838  26.259 -27.968  1.00 25.61           N
ATOM    180  CA  ASP A 478      22.475  26.193 -26.643  1.00 24.88           C
ATOM    181  CB  ASP A 478      21.932  25.004 -25.838  1.00 27.08           C
ATOM    182  CG  ASP A 478      22.595  24.893 -24.464  1.00 36.20           C
ATOM    183  OD1 ASP A 478      22.206  25.653 -23.549  1.00 35.72           O
ATOM    184  OD2 ASP A 478      23.560  24.121 -24.322  1.00 41.05           O
ATOM    185  C   ASP A 478      23.976  25.961 -26.927  1.00 27.74           C
ATOM    186  O   ASP A 478      24.331  25.072 -27.681  1.00 25.80           O
ATOM    187  N   ILE A 479      24.845  26.816 -26.393  1.00 26.37           N
ATOM    188  CA  ILE A 479      26.274  26.708 -26.657  1.00 25.16           C
ATOM    189  CB  ILE A 479      27.024  28.014 -26.370  1.00 27.25           C
ATOM    190  CG1 ILE A 479      27.080  28.308 -24.860  1.00 25.46           C
ATOM    191  CD1 ILE A 479      27.797  29.613 -24.539  1.00 19.54           C
ATOM    192  CG2 ILE A 479      26.392  29.182 -27.147  1.00 28.19           C
ATOM    193  C   ILE A 479      26.997  25.479 -26.082  1.00 26.43           C
ATOM    194  O   ILE A 479      28.153  25.248 -26.402  1.00 25.46           O
ATOM    195  N   GLY A 480      26.314  24.685 -25.269  1.00 22.22           N
ATOM    196  CA  GLY A 480      26.912  23.472 -24.744  1.00 23.22           C
ATOM    197  C   GLY A 480      27.808  23.664 -23.527  1.00 29.65           C
ATOM    198  O   GLY A 480      28.161  24.788 -23.184  1.00 29.31           O
ATOM    199  N   PRO A 481      28.232  22.552 -22.891  1.00 25.55           N
ATOM    200  CA  PRO A 481      29.043  22.549 -21.668  1.00 24.94           C
ATOM    201  CB  PRO A 481      28.718  21.193 -21.049  1.00 25.20           C
ATOM    202  CG  PRO A 481      28.585  20.306 -22.243  1.00 29.25           C
ATOM    203  CD  PRO A 481      27.983  21.178 -23.367  1.00 25.67           C
ATOM    204  C   PRO A 481      30.554  22.659 -21.860  1.00 29.28           C
ATOM    205  O   PRO A 481      31.267  22.802 -20.890  1.00 29.19           O
ATOM    206  N   PHE A 482      31.030  22.574 -23.100  1.00 26.02           N
ATOM    207  CA  PHE A 482      32.455  22.628 -23.400  1.00 25.14           C
ATOM    208  CB  PHE A 482      32.750  21.838 -24.678  1.00 26.20           C
ATOM    209  CG  PHE A 482      32.275  20.416 -24.629  1.00 27.17           C
ATOM    210  CD1 PHE A 482      31.063  20.047 -25.238  1.00 28.17           C
ATOM    211  CE1 PHE A 482      30.613  18.750 -25.178  1.00 29.35           C
ATOM    212  CZ  PHE A 482      31.374  17.770 -24.493  1.00 29.95           C
ATOM    213  CE2 PHE A 482      32.589  18.122 -23.888  1.00 32.14           C
ATOM    214  CD2 PHE A 482      33.025  19.437 -23.948  1.00 29.81           C
ATOM    215  C   PHE A 482      32.983  24.065 -23.497  1.00 28.53           C
ATOM    216  O   PHE A 482      33.039  24.643 -24.590  1.00 26.31           O
ATOM    217  N   GLU A 483      33.355  24.621 -22.334  1.00 26.98           N
ATOM    218  CA AGLU A 483      33.875  25.985 -22.224  0.50 27.10           C
ATOM    219  CA BGLU A 483      33.894  25.983 -22.208  0.50 27.19           C
ATOM    220  CB AGLU A 483      34.331  26.317 -20.783  0.50 28.09           C
ATOM    221  CB BGLU A 483      34.458  26.205 -20.794  0.50 28.21           C
ATOM    222  CG AGLU A 483      33.505  25.612 -19.679  0.50 35.87           C
ATOM    223  CG BGLU A 483      34.722  27.653 -20.412  0.50 34.53           C
ATOM    224  CD AGLU A 483      33.409  26.385 -18.342  0.50 40.05           C
ATOM    225  CD BGLU A 483      34.511  27.928 -18.907  0.50 47.56           C
ATOM    226  OE1AGLU A 483      34.097  27.410 -18.142  0.50 42.02           O
ATOM    227  OE1BGLU A 483      34.971  27.097 -18.090  0.50 44.54           O
ATOM    228  OE2AGLU A 483      32.626  25.958 -17.472  0.50 37.19           O
ATOM    229  OE2BGLU A 483      33.862  28.952 -18.537  0.50 33.93           O
ATOM    230  C   GLU A 483      34.956  26.350 -23.249  1.00 33.99           C
ATOM    231  O   GLU A 483      34.963  27.471 -23.771  1.00 33.56           O
ATOM    232  N   ASN A 484      35.863  25.413 -23.544  1.00 31.58           N
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ATOM    233  CA AASN A 484      36.949  25.663 -24.494  0.50 30.62           C
ATOM    234  CA BASN A 484      36.942  25.664 -24.499  0.50 30.60           C
ATOM    235  CB AASN A 484      38.020  24.570 -24.395  0.50 30.95           C
ATOM    236  CB BASN A 484      38.054  24.612 -24.379  0.50 30.80           C
ATOM    237  CG AASN A 484      38.665  24.501 -23.016  0.50 43.58           C
ATOM    238  CG BASN A 484      37.654  23.259 -24.922  0.50 40.17           C
ATOM    239  OD1AASN A 484      39.273  23.500 -22.664  0.50 37.74           O
ATOM    240  OD1BASN A 484      36.566  23.085 -25.443  0.50 36.13           O
ATOM    241  ND2AASN A 484      38.571  25.586 -22.251  0.50 35.05           N
ATOM    242  ND2BASN A 484      38.545  22.282 -24.781  0.50 36.61           N
ATOM    243  C    ASN A 484      36.523  25.841 -25.947  1.00 32.32           C
ATOM    244  O    ASN A 484      37.321  26.277 -26.769  1.00 30.54           O
ATOM    245  N    MET A 485      35.272  25.521 -26.265  1.00 30.35           N
ATOM    246  CA   MET A 485      34.771  25.732 -27.636  1.00 30.36           C
ATOM    247  CB   MET A 485      33.763  24.654 -28.012  1.00 32.83           C
ATOM    248  CG   MET A 485      34.396  23.291 -28.318  1.00 37.21           C
ATOM    249  SD   MET A 485      33.142  22.129 -28.749  1.00 42.12           S
ATOM    250  CE   MET A 485      32.765  22.699 -30.450  1.00 38.62           C
ATOM    251  C    MET A 485      34.102  27.104 -27.789  1.00 32.56           C
ATOM    252  O    MET A 485      33.853  27.542 -28.912  1.00 30.92           O
ATOM    253  N    TRP A 486      33.749  27.747 -26.665  1.00 27.43           N
ATOM    254  CA   TRP A 486      33.038  29.042 -26.726  1.00 27.15           C
ATOM    255  CB   TRP A 486      32.515  29.500 -25.357  1.00 25.44           C
ATOM    256  CG   TRP A 486      31.638  28.498 -24.624  1.00 28.64           C
ATOM    257  CD1  TRP A 486      30.940  27.427 -25.150  1.00 29.20           C
ATOM    258  NE1  TRP A 486      30.314  26.732 -24.125  1.00 29.18           N
ATOM    259  CE2  TRP A 486      30.574  27.362 -22.939  1.00 29.76           C
ATOM    260  CD2  TRP A 486      31.391  28.480 -23.213  1.00 26.10           C
ATOM    261  CE3  TRP A 486      31.800  29.297 -22.152  1.00 28.36           C
ATOM    262  CZ3  TRP A 486      31.387  28.985 -20.880  1.00 28.57           C
ATOM    263  CH2  TRP A 486      30.574  27.872 -20.639  1.00 29.36           C
ATOM    264  CZ2  TRP A 486      30.163  27.046 -21.659  1.00 28.83           C
ATOM    265  C    TRP A 486      33.723  30.185 -27.479  1.00 31.72           C
ATOM    266  O    TRP A 486      33.084  30.917 -28.227  1.00 32.90           O
ATOM    267  N    PRO A 487      35.048  30.316 -27.339  1.00 31.09           N
ATOM    268  CA   PRO A 487      35.774  31.347 -28.097  1.00 30.17           C
ATOM    269  CB   PRO A 487      37.211  31.176 -27.608  1.00 31.25           C
ATOM    270  CG   PRO A 487      37.030  30.719 -26.175  1.00 35.20           C
ATOM    271  CD   PRO A 487      35.889  29.722 -26.282  1.00 32.40           C
ATOM    272  C    PRO A 487      35.684  31.095 -29.609  1.00 34.17           C
ATOM    273  O    PRO A 487      35.378  32.009 -30.371  1.00 34.40           O
ATOM    274  N    GLY A 488      35.905  29.852 -30.045  1.00 30.65           N
ATOM    275  CA   GLY A 488      35.805  29.515 -31.464  1.00 30.40           C
ATOM    276  C    GLY A 488      34.402  29.786 -31.989  1.00 34.28           C
ATOM    277  O    GLY A 488      34.226  30.303 -33.085  1.00 34.59           O
ATOM    278  N    ILE A 489      33.400  29.447 -31.183  1.00 31.00           N
ATOM    279  CA   ILE A 489      32.003  29.707 -31.530  1.00 30.57           C
ATOM    280  CB   ILE A 489      31.043  29.155 -30.447  1.00 32.88           C
ATOM    281  CG1  ILE A 489      30.976  27.625 -30.515  1.00 32.88           C
ATOM    282  CD1  ILE A 489      30.333  26.984 -29.270  1.00 35.31           C
ATOM    283  CG2  ILE A 489      29.639  29.779 -30.583  1.00 32.19           C
ATOM    284  C    ILE A 489      31.788  31.210 -31.765  1.00 30.86           C
ATOM    285  O    ILE A 489      31.126  31.626 -32.709  1.00 29.95           O
ATOM    286  N    PHE A 490      32.345  32.025 -30.885  1.00 27.77           N
ATOM    287  CA   PHE A 490      32.206  33.477 -31.007  1.00 27.37           C
ATOM    288  CB   PHE A 490      32.724  34.204 -29.759  1.00 28.46           C
ATOM    289  CG   PHE A 490      32.545  35.708 -29.820  1.00 29.71           C
ATOM    290  CD1  PHE A 490      31.287  36.283 -29.580  1.00 30.32           C
ATOM    291  CE1  PHE A 490      31.092  37.641 -29.648  1.00 30.53           C
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ATOM    292  CZ  PHE A 490      32.165  38.493 -29.941  1.00 31.37           C
ATOM    293  CE2 PHE A 490      33.446  37.941 -30.152  1.00 33.87           C
ATOM    294  CD2 PHE A 490      33.619  36.545 -30.104  1.00 31.41           C
ATOM    295  C   PHE A 490      32.892  34.024 -32.262  1.00 30.39           C
ATOM    296  O   PHE A 490      32.334  34.848 -32.964  1.00 29.28           O
ATOM    297  N   VAL A 491      34.098  33.546 -32.553  1.00 30.92           N
ATOM    298  CA  VAL A 491      34.831  33.997 -33.744  1.00 31.44           C
ATOM    299  CB  VAL A 491      36.273  33.447 -33.764  1.00 35.23           C
ATOM    300  CG1 VAL A 491      36.953  33.775 -35.108  1.00 35.02           C
ATOM    301  CG2 VAL A 491      37.064  34.045 -32.606  1.00 34.94           C
ATOM    302  C   VAL A 491      34.070  33.601 -35.001  1.00 35.11           C
ATOM    303  O   VAL A 491      33.971  34.367 -35.952  1.00 36.71           O
ATOM    304  N   TYR A 492      33.502  32.404 -34.984  1.00 30.84           N
ATOM    305  CA  TYR A 492      32.715  31.910 -36.106  1.00 30.65           C
ATOM    306  CB  TYR A 492      32.149  30.526 -35.783  1.00 31.31           C
ATOM    307  CG  TYR A 492      31.253  29.949 -36.851  1.00 33.67           C
ATOM    308  CD1 TYR A 492      31.774  29.142 -37.868  1.00 36.59           C
ATOM    309  CE1 TYR A 492      30.933  28.572 -38.843  1.00 38.63           C
ATOM    310  CZ  TYR A 492      29.573  28.794 -38.785  1.00 42.11           C
ATOM    311  OH  TYR A 492      28.716  28.260 -39.726  1.00 37.69           O
ATOM    312  CE2 TYR A 492      29.042  29.572 -37.774  1.00 34.76           C
ATOM    313  CD2 TYR A 492      29.874  30.142 -36.812  1.00 34.05           C
ATOM    314  C   TYR A 492      31.584  32.889 -36.363  1.00 36.58           C
ATOM    315  O   TYR A 492      31.332  33.289 -37.508  1.00 36.60           O
ATOM    316  N   MET A 493      30.888  33.272 -35.292  1.00 31.80           N
ATOM    317  CA  MET A 493      29.761  34.202 -35.419  1.00 28.86           C
ATOM    318  CB  MET A 493      29.015  34.341 -34.096  1.00 29.04           C
ATOM    319  CG  MET A 493      28.342  33.022 -33.685  1.00 29.48           C
ATOM    320  SD  MET A 493      27.218  33.169 -32.305  1.00 31.06           S
ATOM    321  CE  MET A 493      28.297  33.694 -30.956  1.00 24.27           C
ATOM    322  C   MET A 493      30.192  35.561 -35.971  1.00 35.10           C
ATOM    323  O   MET A 493      29.572  36.088 -36.888  1.00 34.85           O
ATOM    324  N   VAL A 494      31.287  36.096 -35.443  1.00 34.06           N
ATOM    325  CA  VAL A 494      31.816  37.363 -35.912  1.00 34.04           C
ATOM    326  CB  VAL A 494      33.065  37.783 -35.103  1.00 36.74           C
ATOM    327  CG1 VAL A 494      33.809  38.899 -35.806  1.00 37.00           C
ATOM    328  CG2 VAL A 494      32.686  38.191 -33.713  1.00 36.14           C
ATOM    329  C   VAL A 494      32.109  37.291 -37.417  1.00 40.96           C
ATOM    330  O   VAL A 494      31.673  38.163 -38.183  1.00 42.04           O
ATOM    331  N   HIS A 495      32.863  36.272 -37.836  1.00 39.13           N
ATOM    332  CA  HIS A 495      33.208  36.113 -39.257  1.00 40.25           C
ATOM    333  CB  HIS A 495      34.031  34.855 -39.490  1.00 40.69           C
ATOM    334  CG  HIS A 495      35.448  34.968 -39.036  1.00 43.79           C
ATOM    335  ND1 HIS A 495      36.293  33.883 -38.979  1.00 45.07           N
ATOM    336  CE1 HIS A 495      37.471  34.271 -38.521  1.00 44.45           C
ATOM    337  NE2 HIS A 495      37.414  35.565 -38.266  1.00 44.91           N
ATOM    338  CD2 HIS A 495      36.161  36.028 -38.586  1.00 45.37           C
ATOM    339  C   HIS A 495      31.971  36.035 -40.164  1.00 46.48           C
ATOM    340  O   HIS A 495      31.963  36.603 -41.261  1.00 48.68           O
ATOM    341  N   ARG A 496      30.967  35.266 -39.748  1.00 40.49           N
ATOM    342  CA  ARG A 496      29.774  35.108 -40.554  1.00 40.90           C
ATOM    343  CB  ARG A 496      28.978  33.888 -40.098  1.00 39.50           C
ATOM    344  CG  ARG A 496      28.960  32.720 -41.092  1.00 52.73           C
ATOM    345  CD  ARG A 496      27.984  31.624 -40.661  1.00 54.15           C
ATOM    346  NE  ARG A 496      27.307  30.965 -41.782  1.00 51.18           N
ATOM    347  CZ  ARG A 496      26.082  31.279 -42.211  1.00 65.68           C
ATOM    348  NH1 ARG A 496      25.401  32.282 -41.651  1.00 58.43           N
ATOM    349  NH2 ARG A 496      25.533  30.605 -43.215  1.00 56.20           N
ATOM    350  C   ARG A 496      28.899  36.361 -40.501  1.00 50.33           C
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ATOM    351  O   ARG A 496      28.169  36.663 -41.447  1.00 52.50           O
ATOM    352  N   SER A 497      28.948  37.065 -39.376  1.00 47.30           N
ATOM    353  CA  SER A 497      28.101  38.228 -39.155  1.00 47.25           C
ATOM    354  CB  SER A 497      27.808  38.399 -37.676  1.00 47.18           C
ATOM    355  OG  SER A 497      26.429  38.628 -37.493  1.00 59.90           O
ATOM    356  C   SER A 497      28.569  39.556 -39.763  1.00 56.41           C
ATOM    357  O   SER A 497      27.751  40.445 -40.038  1.00 57.65           O
ATOM    358  N   CYS A 498      29.876  39.719 -39.934  1.00 55.67           N
ATOM    359  CA  CYS A 498      30.373  40.958 -40.512  1.00 57.64           C
ATOM    360  CB  CYS A 498      30.561  42.049 -39.457  1.00 59.20           C
ATOM    361  SG  CYS A 498      31.493  41.511 -38.050  1.00 63.46           S
ATOM    362  C   CYS A 498      31.600  40.804 -41.372  1.00 61.88           C
ATOM    363  O   CYS A 498      31.928  41.701 -42.167  1.00 64.97           O
ATOM    364  N   GLY A 499      32.258  39.656 -41.259  1.00 55.76           N
ATOM    365  CA  GLY A 499      33.395  39.413 -42.122  1.00 54.65           C
ATOM    366  C   GLY A 499      34.642  38.822 -41.513  1.00 56.80           C
ATOM    367  O   GLY A 499      34.999  39.087 -40.361  1.00 56.49           O
ATOM    368  N   THR A 500      35.338  38.051 -42.336  1.00 53.49           N
ATOM    369  CA  THR A 500      36.594  37.430 -41.949  1.00 53.77           C
ATOM    370  CB  THR A 500      37.048  36.444 -43.058  1.00 64.58           C
ATOM    371  OG1 THR A 500      37.244  37.168 -44.291  1.00 62.50           O
ATOM    372  CG2 THR A 500      35.982  35.359 -43.275  1.00 60.46           C
ATOM    373  C   THR A 500      37.643  38.532 -41.819  1.00 57.01           C
ATOM    374  O   THR A 500      38.658  38.376 -41.147  1.00 56.65           O
ATOM    375  N   SER A 501      37.400  39.631 -42.522  1.00 54.53           N
ATOM    376  CA  SER A 501      38.338  40.757 -42.615  1.00 54.65           C
ATOM    377  CB  SER A 501      38.184  41.400 -43.992  1.00 57.68           C
ATOM    378  OG  SER A 501      36.865  41.911 -44.171  1.00 62.48           O
ATOM    379  C   SER A 501      38.200  41.877 -41.585  1.00 59.53           C
ATOM    380  O   SER A 501      39.106  42.692 -41.417  1.00 59.82           O
ATOM    381  N   CYS A 502      37.049  41.945 -40.932  1.00 55.70           N
ATOM    382  CA ACYS A 502      36.796  43.024 -39.994  0.60 56.21           C
ATOM    383  CA BCYS A 502      36.747  42.995 -39.956  0.40 54.87           C
ATOM    384  CB ACYS A 502      35.320  43.109 -39.641  0.60 57.28           C
ATOM    385  CB BCYS A 502      35.313  42.848 -39.447  0.40 54.76           C
ATOM    386  SG ACYS A 502      34.827  41.980 -38.341  0.60 61.52           S
ATOM    387  SG BCYS A 502      34.031  42.793 -40.726  0.40 58.24           S
ATOM    388  C   CYS A 502      37.687  43.123 -38.755  1.00 57.55           C
ATOM    389  O   CYS A 502      37.913  44.225 -38.244  1.00 58.62           O
ATOM    390  N   PHE A 503      38.175  41.996 -38.254  1.00 50.13           N
ATOM    391  CA  PHE A 503      39.048  42.020 -37.090  1.00 49.46           C
ATOM    392  CB  PHE A 503      38.369  41.369 -35.873  1.00 50.74           C
ATOM    393  CG  PHE A 503      37.266  42.191 -35.262  1.00 51.89           C
ATOM    394  CD1 PHE A 503      35.967  41.695 -35.188  1.00 54.98           C
ATOM    395  CE1 PHE A 503      34.955  42.451 -34.632  1.00 55.76           C
ATOM    396  CZ  PHE A 503      35.230  43.724 -34.143  1.00 53.67           C
ATOM    397  CE2 PHE A 503      36.511  44.214 -34.208  1.00 55.30           C
ATOM    398  CD2 PHE A 503      37.523  43.447 -34.759  1.00 52.76           C
ATOM    399  C   PHE A 503      40.304  41.232 -37.401  1.00 54.29           C
ATOM    400  O   PHE A 503      40.278  40.302 -38.202  1.00 55.96           O
ATOM    401  N   GLU A 504      41.397  41.580 -36.731  1.00 50.40           N
ATOM    402  CA  GLU A 504      42.638  40.835 -36.880  1.00 50.25           C
ATOM    403  CB  GLU A 504      43.855  41.737 -36.595  1.00 51.54           C
ATOM    404  CG  GLU A 504      45.142  41.280 -37.286  1.00 60.14           C
ATOM    405  CD  GLU A 504      46.020  40.423 -36.377  1.00 70.69           C
ATOM    406  OE1 GLU A 504      46.713  41.004 -35.502  1.00 64.81           O
ATOM    407  OE2 GLU A 504      46.029  39.172 -36.546  1.00 64.07           O
ATOM    408  C   GLU A 504      42.536  39.698 -35.849  1.00 52.92           C
ATOM    409  O   GLU A 504      42.290  39.954 -34.662  1.00 51.73           O
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ATOM    410  N   LEU A 505      42.637  38.455 -36.326  1.00 47.81           N
ATOM    411  CA  LEU A 505      42.523  37.263 -35.487  1.00 46.67           C
ATOM    412  CB  LEU A 505      42.750  35.995 -36.311  1.00 46.75           C
ATOM    413  CG  LEU A 505      42.182  34.671 -35.789  1.00 52.36           C
ATOM    414  CD1 LEU A 505      40.675  34.753 -35.549  1.00 53.50           C
ATOM    415  CD2 LEU A 505      42.500  33.539 -36.765  1.00 54.93           C
ATOM    416  C   LEU A 505      43.359  37.242 -34.212  1.00 50.04           C
ATOM    417  O   LEU A 505      42.858  36.867 -33.154  1.00 50.90           O
ATOM    418  N   GLU A 506      44.627  37.620 -34.318  1.00 45.21           N
ATOM    419  CA AGLU A 506      45.508  37.642 -33.166  0.50 45.06           C
ATOM    420  CA BGLU A 506      45.524  37.662 -33.167  0.50 44.93           C
ATOM    421  CB AGLU A 506      46.938  38.016 -33.585  0.50 46.49           C
ATOM    422  CB BGLU A 506      46.921  38.139 -33.590  0.50 46.21           C
ATOM    423  CG AGLU A 506      47.587  37.005 -34.549  0.50 54.63           C
ATOM    424  CG BGLU A 506      47.980  38.067 -32.483  0.50 51.87           C
ATOM    425  CD AGLU A 506      49.053  37.314 -34.874  0.50 59.30           C
ATOM    426  CD BGLU A 506      49.361  38.570 -32.935  0.50 58.79           C
ATOM    427  OE1AGLU A 506      49.417  38.508 -34.946  0.50 52.90           O
ATOM    428  OE1BGLU A 506      49.920  38.015 -33.907  0.50 51.42           O
ATOM    429  OE2AGLU A 506      49.840  36.357 -35.079  0.50 53.07           O
ATOM    430  OE2BGLU A 506      49.903  39.504 -32.300  0.50 52.10           O
ATOM    431  C   GLU A 506      44.966  38.599 -32.096  1.00 47.60           C
ATOM    432  O   GLU A 506      44.955  38.267 -30.906  1.00 45.22           O
ATOM    433  N   LYS A 507      44.495  39.768 -32.528  1.00 43.99           N
ATOM    434  CA  LYS A 507      43.950  40.767 -31.610  1.00 42.96           C
ATOM    435  CB  LYS A 507      43.822  42.120 -32.295  1.00 44.91           C
ATOM    436  CG  LYS A 507      45.139  42.854 -32.473  1.00 53.77           C
ATOM    437  CD  LYS A 507      44.914  44.316 -32.856  1.00 53.68           C
ATOM    438  CE  LYS A 507      46.221  45.006 -33.139  1.00 56.07           C
ATOM    439  NZ  LYS A 507      46.060  46.493 -33.126  1.00 63.24           N
ATOM    440  C   LYS A 507      42.592  40.341 -31.040  1.00 45.01           C
ATOM    441  O   LYS A 507      42.341  40.488 -29.847  1.00 44.68           O
ATOM    442  N   LEU A 508      41.718  39.827 -31.900  1.00 40.91           N
ATOM    443  CA  LEU A 508      40.393  39.406 -31.474  1.00 41.61           C
ATOM    444  CB  LEU A 508      39.565  38.881 -32.658  1.00 42.13           C
ATOM    445  CG  LEU A 508      38.100  38.500 -32.393  1.00 47.22           C
ATOM    446  CD1 LEU A 508      37.364  39.601 -31.631  1.00 47.74           C
ATOM    447  CD2 LEU A 508      37.367  38.156 -33.679  1.00 48.80           C
ATOM    448  C   LEU A 508      40.506  38.352 -30.380  1.00 45.87           C
ATOM    449  O   LEU A 508      39.896  38.472 -29.317  1.00 44.73           O
ATOM    450  N   CYS A 509      41.334  37.345 -30.632  1.00 44.34           N
ATOM    451  CA  CYS A 509      41.533  36.253 -29.704  1.00 45.95           C
ATOM    452  CB  CYS A 509      42.467  35.203 -30.302  1.00 48.94           C
ATOM    453  SG  CYS A 509      41.653  34.102 -31.535  1.00 53.97           S
ATOM    454  C   CYS A 509      42.008  36.697 -28.332  1.00 45.75           C
ATOM    455  O   CYS A 509      41.476  36.270 -27.302  1.00 45.83           O
ATOM    456  N   ARG A 510      43.015  37.551 -28.303  1.00 39.88           N
ATOM    457  CA AARG A 510      43.505  37.996 -27.017  0.50 38.95           C
ATOM    458  CA BARG A 510      43.564  38.069 -27.055  0.50 38.89           C
ATOM    459  CB AARG A 510      44.955  38.507 -27.059  0.50 38.44           C
ATOM    460  CB BARG A 510      44.816  38.909 -27.363  0.50 37.75           C
ATOM    461  CG AARG A 510      45.175  39.837 -27.729  0.50 43.30           C
ATOM    462  CG BARG A 510      45.820  39.013 -26.220  0.50 44.45           C
ATOM    463  CD AARG A 510      46.548  40.414 -27.344  0.50 46.84           C
ATOM    464  CD BARG A 510      47.232  39.329 -26.756  0.50 46.41           C
ATOM    465  NE AARG A 510      47.662  39.604 -27.847  0.50 45.44           N
ATOM    466  NE BARG A 510      47.185  40.243 -27.897  0.50 46.35           N
ATOM    467  CZ AARG A 510      48.159  39.694 -29.082  0.50 59.59           C
ATOM    468  CZ BARG A 510      48.054  40.246 -28.909  0.50 58.41           C
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ATOM    469  NH1AARG A 510      49.164  38.902 -29.453  0.50 47.38           N
ATOM    470  NH1BARG A 510      47.903  41.119 -29.909  0.50 42.68           N
ATOM    471  NH2AARG A 510      47.656  40.577 -29.953  0.50 45.17           N
ATOM    472  NH2BARG A 510      49.064  39.376 -28.927  0.50 49.09           N
ATOM    473  C    ARG A 510      42.523  38.920 -26.317  1.00 40.17           C
ATOM    474  O    ARG A 510      42.506  38.987 -25.091  1.00 38.17           O
ATOM    475  N    PHE A 511      41.641  39.560 -27.084  1.00 35.73           N
ATOM    476  CA   PHE A 511      40.577  40.390 -26.497  1.00 34.97           C
ATOM    477  CB   PHE A 511      39.903  41.246 -27.568  1.00 36.09           C
ATOM    478  CG   PHE A 511      38.760  42.087 -27.051  1.00 36.75           C
ATOM    479  CD1  PHE A 511      39.005  43.297 -26.420  1.00 38.12           C
ATOM    480  CE1  PHE A 511      37.966  44.074 -25.925  1.00 39.37           C
ATOM    481  CZ   PHE A 511      36.662  43.668 -26.083  1.00 39.07           C
ATOM    482  CE2  PHE A 511      36.388  42.459 -26.729  1.00 40.92           C
ATOM    483  CD2  PHE A 511      37.440  41.669 -27.202  1.00 37.89           C
ATOM    484  C    PHE A 511      39.554  39.479 -25.809  1.00 35.55           C
ATOM    485  O    PHE A 511      39.246  39.649 -24.652  1.00 34.95           O
ATOM    486  N    ILE A 512      39.110  38.454 -26.527  1.00 33.63           N
ATOM    487  CA   ILE A 512      38.183  37.431 -26.014  1.00 33.43           C
ATOM    488  CB   ILE A 512      38.003  36.272 -27.039  1.00 36.30           C
ATOM    489  CG1  ILE A 512      37.187  36.719 -28.257  1.00 36.36           C
ATOM    490  CD1  ILE A 512      37.255  35.695 -29.411  1.00 40.70           C
ATOM    491  CG2  ILE A 512      37.376  35.044 -26.362  1.00 36.70           C
ATOM    492  C    ILE A 512      38.683  36.813 -24.704  1.00 34.02           C
ATOM    493  O    ILE A 512      37.951  36.637 -23.754  1.00 30.86           O
ATOM    494  N    MET A 513      39.930  36.376 -24.706  1.00 33.72           N
ATOM    495  CA   MET A 513      40.519  35.743 -23.535  1.00 33.77           C
ATOM    496  CB   MET A 513      41.839  35.074 -23.898  1.00 37.48           C
ATOM    497  CG   MET A 513      41.685  34.060 -25.048  1.00 43.76           C
ATOM    498  SD   MET A 513      40.353  32.801 -24.790  1.00 50.19           S
ATOM    499  CE   MET A 513      41.139  31.769 -23.539  1.00 47.75           C
ATOM    500  C    MET A 513      40.654  36.671 -22.324  1.00 32.71           C
ATOM    501  O    MET A 513      40.499  36.248 -21.192  1.00 30.57           O
ATOM    502  N    SER A 514      40.858  37.956 -22.569  1.00 29.78           N
ATOM    503  CA   SER A 514      40.938  38.923 -21.489  1.00 29.13           C
ATOM    504  CB   SER A 514      41.631  40.219 -21.949  1.00 33.36           C
ATOM    505  OG   SER A 514      43.017  40.001 -22.101  1.00 45.23           O
ATOM    506  C    SER A 514      39.537  39.199 -20.972  1.00 29.45           C
ATOM    507  O    SER A 514      39.338  39.308 -19.756  1.00 25.86           O
ATOM    508  N    VAL A 515      38.562  39.266 -21.886  1.00 27.24           N
ATOM    509  CA   VAL A 515      37.165  39.437 -21.479  1.00 27.36           C
ATOM    510  CB   VAL A 515      36.207  39.592 -22.688  1.00 31.14           C
ATOM    511  CG1  VAL A 515      34.746  39.427 -22.245  1.00 30.15           C
ATOM    512  CG2  VAL A 515      36.402  40.973 -23.348  1.00 31.42           C
ATOM    513  C    VAL A 515      36.764  38.243 -20.603  1.00 30.69           C
ATOM    514  O    VAL A 515      36.261  38.426 -19.491  1.00 29.82           O
ATOM    515  N    LYS A 516      37.032  37.027 -21.087  1.00 28.26           N
ATOM    516  CA   LYS A 516      36.714  35.815 -20.336  1.00 28.01           C
ATOM    517  CB   LYS A 516      37.293  34.579 -21.028  1.00 30.24           C
ATOM    518  CG   LYS A 516      37.303  33.323 -20.135  1.00 31.26           C
ATOM    519  CD   LYS A 516      37.618  32.048 -20.938  1.00 37.54           C
ATOM    520  CE   LYS A 516      37.917  30.873 -19.999  1.00 39.28           C
ATOM    521  NZ   LYS A 516      36.704  30.109 -19.609  1.00 50.34           N
ATOM    522  C    LYS A 516      37.279  35.901 -18.917  1.00 33.24           C
ATOM    523  O    LYS A 516      36.561  35.651 -17.927  1.00 35.16           O
ATOM    524  N    LYS A 517      38.565  36.236 -18.819  1.00 28.16           N
ATOM    525  CA   LYS A 517      39.233  36.375 -17.527  1.00 28.42           C
ATOM    526  CB   LYS A 517      40.707  36.789 -17.726  1.00 32.20           C
ATOM    527  CG   LYS A 517      41.552  36.653 -16.471  1.00 39.20           C
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ATOM    528  CD  LYS A 517      42.689  37.681 -16.405  1.00 47.15           C
ATOM    529  CE  LYS A 517      43.650  37.537 -17.594  1.00 48.35           C
ATOM    530  NZ  LYS A 517      43.940  38.869 -18.253  1.00 56.12           N
ATOM    531  C   LYS A 517      38.561  37.371 -16.582  1.00 32.97           C
ATOM    532  O   LYS A 517      38.707  37.276 -15.372  1.00 36.22           O
ATOM    533  N   ASN A 518      37.855  38.343 -17.147  1.00 28.44           N
ATOM    534  CA  ASN A 518      37.211  39.382 -16.368  1.00 26.97           C
ATOM    535  CB  ASN A 518      37.482  40.754 -16.969  1.00 23.85           C
ATOM    536  CG  ASN A 518      38.954  41.182 -16.785  1.00 44.11           C
ATOM    537  OD1 ASN A 518      39.348  41.561 -15.699  1.00 37.21           O
ATOM    538  ND2 ASN A 518      39.772  41.060 -17.838  1.00 34.22           N
ATOM    539  C   ASN A 518      35.757  39.136 -15.955  1.00 31.31           C
ATOM    540  O   ASN A 518      35.149  39.956 -15.248  1.00 31.60           O
ATOM    541  N   TYR A 519      35.232  37.969 -16.347  1.00 26.28           N
ATOM    542  CA  TYR A 519      33.925  37.495 -15.887  1.00 26.33           C
ATOM    543  CB  TYR A 519      33.193  36.674 -16.971  1.00 25.72           C
ATOM    544  CG  TYR A 519      32.323  37.523 -17.871  1.00 25.98           C
ATOM    545  CD1 TYR A 519      32.835  38.065 -19.042  1.00 27.11           C
ATOM    546  CE1 TYR A 519      32.049  38.871 -19.861  1.00 28.76           C
ATOM    547  CZ  TYR A 519      30.740  39.161 -19.490  1.00 27.41           C
ATOM    548  OH  TYR A 519      29.953  39.926 -20.321  1.00 25.23           O
ATOM    549  CE2 TYR A 519      30.214  38.638 -18.345  1.00 26.17           C
ATOM    550  CD2 TYR A 519      31.007  37.843 -17.517  1.00 26.41           C
ATOM    551  C   TYR A 519      34.259  36.620 -14.674  1.00 36.22           C
ATOM    552  O   TYR A 519      35.339  36.032 -14.589  1.00 40.10           O
ATOM    553  N   ARG A 520      33.361  36.602 -13.706  1.00 31.37           N
ATOM    554  CA  ARG A 520      33.563  35.887 -12.467  1.00 30.60           C
ATOM    555  CB  ARG A 520      33.091  36.763 -11.311  1.00 30.85           C
ATOM    556  CG  ARG A 520      33.800  38.097 -11.225  1.00 40.48           C
ATOM    557  CD  ARG A 520      33.213  38.878 -10.083  1.00 47.40           C
ATOM    558  NE  ARG A 520      34.124  39.890  -9.556  1.00 54.35           N
ATOM    559  CZ  ARG A 520      35.126  39.642  -8.711  1.00 64.55           C
ATOM    560  NH1 ARG A 520      35.383  38.397  -8.316  1.00 45.37           N
ATOM    561  NH2 ARG A 520      35.899  40.641  -8.282  1.00 58.30           N
ATOM    562  C   ARG A 520      32.848  34.544 -12.392  1.00 36.68           C
ATOM    563  O   ARG A 520      31.966  34.238 -13.205  1.00 34.55           O
ATOM    564  N   ARG A 521      33.195  33.766 -11.369  1.00 35.63           N
ATOM    565  CA  ARG A 521      32.594  32.451 -11.184  1.00 36.09           C
ATOM    566  CB  ARG A 521      33.583  31.516 -10.481  1.00 36.14           C
ATOM    567  CG  ARG A 521      34.782  31.183 -11.326  1.00 45.85           C
ATOM    568  CD  ARG A 521      35.324  29.790 -10.994  1.00 56.59           C
ATOM    569  NE  ARG A 521      36.627  29.558 -11.621  1.00 59.23           N
ATOM    570  CZ  ARG A 521      37.774  30.114 -11.219  1.00 68.25           C
ATOM    571  NH1 ARG A 521      37.793  30.954 -10.170  1.00 52.94           N
ATOM    572  NH2 ARG A 521      38.910  29.827 -11.874  1.00 58.28           N
ATOM    573  C   ARG A 521      31.289  32.541 -10.398  1.00 40.70           C
ATOM    574  O   ARG A 521      31.186  32.012  -9.298  1.00 42.67           O
ATOM    575  N   VAL A 522      30.309  33.239 -10.970  1.00 35.09           N
ATOM    576  CA  VAL A 522      28.992  33.399 -10.363  1.00 32.64           C
ATOM    577  CB  VAL A 522      28.491  34.859 -10.469  1.00 34.24           C
ATOM    578  CG1 VAL A 522      29.364  35.781  -9.612  1.00 33.36           C
ATOM    579  CG2 VAL A 522      28.508  35.296 -11.907  1.00 33.27           C
ATOM    580  C   VAL A 522      28.057  32.411 -11.076  1.00 35.30           C
ATOM    581  O   VAL A 522      28.360  31.929 -12.170  1.00 34.23           O
ATOM    582  N   PRO A 523      26.954  32.031 -10.417  1.00 32.32           N
ATOM    583  CA  PRO A 523      26.043  31.020 -10.960  1.00 32.13           C
ATOM    584  CB  PRO A 523      24.965  30.882  -9.873  1.00 33.30           C
ATOM    585  CG  PRO A 523      25.547  31.500  -8.655  1.00 36.31           C
ATOM    586  CD  PRO A 523      26.467  32.570  -9.134  1.00 32.66           C
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ATOM    587  C   PRO A 523      25.406  31.350 -12.301  1.00 34.49           C
ATOM    588  O   PRO A 523      25.195  30.463 -13.134  1.00 36.47           O
ATOM    589  N   TYR A 524      25.063  32.611 -12.505  1.00 27.53           N
ATOM    590  CA  TYR A 524      24.384  33.001 -13.751  1.00 26.74           C
ATOM    591  CB  TYR A 524      22.948  33.457 -13.464  1.00 28.61           C
ATOM    592  CG  TYR A 524      22.182  33.755 -14.727  1.00 30.24           C
ATOM    593  CD1 TYR A 524      21.913  32.737 -15.636  1.00 30.11           C
ATOM    594  CE1 TYR A 524      21.251  33.010 -16.828  1.00 31.56           C
ATOM    595  CZ  TYR A 524      20.914  34.321 -17.150  1.00 38.63           C
ATOM    596  OH  TYR A 524      20.325  34.595 -18.350  1.00 43.74           O
ATOM    597  CE2 TYR A 524      21.225  35.369 -16.299  1.00 33.44           C
ATOM    598  CD2 TYR A 524      21.856  35.085 -15.088  1.00 32.16           C
ATOM    599  C   TYR A 524      25.096  34.033 -14.638  1.00 27.10           C
ATOM    600  O   TYR A 524      25.299  33.781 -15.818  1.00 27.58           O
ATOM    601  N   HIS A 525      25.409  35.203 -14.081  1.00 23.36           N
ATOM    602  CA  HIS A 525      26.079  36.282 -14.822  1.00 24.82           C
ATOM    603  CB  HIS A 525      25.896  37.623 -14.110  1.00 26.67           C
ATOM    604  CG  HIS A 525      24.476  38.080 -14.040  1.00 30.85           C
ATOM    605  ND1 HIS A 525      23.643  37.759 -12.989  1.00 33.21           N
ATOM    606  CE1 HIS A 525      22.439  38.249 -13.218  1.00 32.34           C
ATOM    607  NE2 HIS A 525      22.456  38.853 -14.393  1.00 32.70           N
ATOM    608  CD2 HIS A 525      23.714  38.749 -14.934  1.00 32.65           C
ATOM    609  C   HIS A 525      27.569  36.021 -15.064  1.00 27.93           C
ATOM    610  O   HIS A 525      28.425  36.804 -14.702  1.00 27.16           O
ATOM    611  N   ASN A 526      27.846  34.930 -15.753  1.00 24.77           N
ATOM    612  CA  ASN A 526      29.196  34.468 -16.024  1.00 23.70           C
ATOM    613  CB  ASN A 526      29.324  33.036 -15.479  1.00 25.64           C
ATOM    614  CG  ASN A 526      28.155  32.124 -15.928  1.00 32.41           C
ATOM    615  OD1 ASN A 526      27.762  32.154 -17.077  1.00 29.52           O
ATOM    616  ND2 ASN A 526      27.664  31.271 -15.036  1.00 27.93           N
ATOM    617  C   ASN A 526      29.538  34.489 -17.524  1.00 25.59           C
ATOM    618  O   ASN A 526      28.836  35.063 -18.349  1.00 27.30           O
ATOM    619  N   TRP A 527      30.676  33.907 -17.851  1.00 22.15           N
ATOM    620  CA  TRP A 527      31.191  33.870 -19.216  1.00 23.09           C
ATOM    621  CB  TRP A 527      32.577  33.182 -19.182  1.00 22.67           C
ATOM    622  CG  TRP A 527      33.216  32.932 -20.511  1.00 25.05           C
ATOM    623  CD1 TRP A 527      33.750  31.747 -20.959  1.00 25.66           C
ATOM    624  NE1 TRP A 527      34.291  31.932 -22.217  1.00 25.58           N
ATOM    625  CE2 TRP A 527      34.182  33.254 -22.567  1.00 26.68           C
ATOM    626  CD2 TRP A 527      33.512  33.919 -21.515  1.00 23.05           C
ATOM    627  CE3 TRP A 527      33.217  35.286 -21.649  1.00 26.26           C
ATOM    628  CZ3 TRP A 527      33.626  35.940 -22.785  1.00 27.56           C
ATOM    629  CH2 TRP A 527      34.328  35.250 -23.810  1.00 28.42           C
ATOM    630  CZ2 TRP A 527      34.604  33.911 -23.717  1.00 26.14           C
ATOM    631  C   TRP A 527      30.216  33.151 -20.177  1.00 23.65           C
ATOM    632  O   TRP A 527      30.072  33.529 -21.328  1.00 21.75           O
ATOM    633  N   LYS A 528      29.551  32.110 -19.696  1.00 22.25           N
ATOM    634  CA  LYS A 528      28.579  31.380 -20.516  1.00 22.26           C
ATOM    635  CB  LYS A 528      28.044  30.153 -19.775  1.00 22.96           C
ATOM    636  CG  LYS A 528      27.191  29.245 -20.663  1.00 27.68           C
ATOM    637  CD  LYS A 528      26.916  27.930 -20.008  1.00 31.57           C
ATOM    638  CE  LYS A 528      26.198  26.980 -20.964  1.00 30.99           C
ATOM    639  NZ  LYS A 528      25.994  25.616 -20.344  1.00 38.96           N
ATOM    640  C   LYS A 528      27.407  32.283 -20.932  1.00 26.63           C
ATOM    641  O   LYS A 528      26.920  32.195 -22.049  1.00 24.50           O
ATOM    642  N   HIS A 529      26.946  33.118 -20.005  1.00 23.14           N
ATOM    643  CA  HIS A 529      25.871  34.069 -20.277  1.00 22.67           C
ATOM    644  CB  HIS A 529      25.507  34.823 -18.975  1.00 22.57           C
ATOM    645  CG  HIS A 529      24.525  35.944 -19.165  1.00 25.48           C
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ATOM    646  ND1 HIS A 529      23.261  35.745 -19.678  1.00 26.73           N
ATOM    647  CE1 HIS A 529      22.598  36.886 -19.689  1.00 26.00           C
ATOM    648  NE2 HIS A 529      23.408  37.835 -19.257  1.00 26.60           N
ATOM    649  CD2 HIS A 529      24.616  37.271 -18.913  1.00 27.22           C
ATOM    650  C   HIS A 529      26.280  35.073 -21.359  1.00 26.20           C
ATOM    651  O   HIS A 529      25.503  35.430 -22.232  1.00 25.78           O
ATOM    652  N   ALA A 530      27.502  35.561 -21.267  1.00 24.16           N
ATOM    653  CA  ALA A 530      28.018  36.539 -22.219  1.00 24.54           C
ATOM    654  CB  ALA A 530      29.488  36.932 -21.853  1.00 24.94           C
ATOM    655  C   ALA A 530      27.975  36.005 -23.651  1.00 27.80           C
ATOM    656  O   ALA A 530      27.608  36.721 -24.586  1.00 27.14           O
ATOM    657  N   VAL A 531      28.411  34.764 -23.810  1.00 24.36           N
ATOM    658  CA  VAL A 531      28.461  34.106 -25.106  1.00 22.90           C
ATOM    659  CB  VAL A 531      29.418  32.857 -25.079  1.00 25.57           C
ATOM    660  CG1 VAL A 531      29.482  32.170 -26.515  1.00 24.44           C
ATOM    661  CG2 VAL A 531      30.818  33.314 -24.684  1.00 25.21           C
ATOM    662  C   VAL A 531      27.088  33.759 -25.607  1.00 23.86           C
ATOM    663  O   VAL A 531      26.798  33.889 -26.790  1.00 20.88           O
ATOM    664  N   THR A 532      26.227  33.344 -24.692  1.00 23.25           N
ATOM    665  CA  THR A 532      24.829  33.030 -25.032  1.00 23.83           C
ATOM    666  CB  THR A 532      24.082  32.452 -23.812  1.00 26.47           C
ATOM    667  OG1 THR A 532      24.698  31.214 -23.448  1.00 27.66           O
ATOM    668  CG2 THR A 532      22.610  32.214 -24.142  1.00 23.39           C
ATOM    669  C   THR A 532      24.114  34.278 -25.517  1.00 28.38           C
ATOM    670  O   THR A 532      23.365  34.228 -26.499  1.00 27.82           O
ATOM    671  N   VAL A 533      24.355  35.401 -24.826  1.00 25.16           N
ATOM    672  CA  VAL A 533      23.737  36.677 -25.193  1.00 22.98           C
ATOM    673  CB  VAL A 533      23.930  37.737 -24.111  1.00 23.67           C
ATOM    674  CG1 VAL A 533      23.661  39.113 -24.647  1.00 23.18           C
ATOM    675  CG2 VAL A 533      23.080  37.438 -22.909  1.00 21.98           C
ATOM    676  C   VAL A 533      24.255  37.150 -26.563  1.00 29.34           C
ATOM    677  O   VAL A 533      23.465  37.663 -27.389  1.00 28.31           O
ATOM    678  N   ALA A 534      25.565  36.972 -26.805  1.00 23.51           N
ATOM    679  CA  ALA A 534      26.158  37.363 -28.090  1.00 21.85           C
ATOM    680  CB  ALA A 534      27.673  37.301 -28.039  1.00 21.78           C
ATOM    681  C   ALA A 534      25.622  36.485 -29.223  1.00 24.89           C
ATOM    682  O   ALA A 534      25.445  36.960 -30.327  1.00 24.93           O
ATOM    683  N   HIS A 535      25.319  35.218 -28.938  1.00 23.27           N
ATOM    684  CA  HIS A 535      24.754  34.354 -29.961  1.00 23.42           C
ATOM    685  CB  HIS A 535      24.716  32.873 -29.551  1.00 23.67           C
ATOM    686  CG  HIS A 535      23.753  32.072 -30.381  1.00 26.43           C
ATOM    687  ND1 HIS A 535      22.421  31.945 -30.050  1.00 27.13           N
ATOM    688  CE1 HIS A 535      21.794  31.284 -31.005  1.00 25.96           C
ATOM    689  NE2 HIS A 535      22.662  31.017 -31.968  1.00 26.28           N
ATOM    690  CD2 HIS A 535      23.894  31.495 -31.603  1.00 26.45           C
ATOM    691  C   HIS A 535      23.316  34.796 -30.325  1.00 28.39           C
ATOM    692  O   HIS A 535      22.922  34.679 -31.468  1.00 27.47           O
ATOM    693  N   CYS A 536      22.525  35.255 -29.352  1.00 25.91           N
ATOM    694  CA  CYS A 536      21.195  35.761 -29.662  1.00 27.23           C
ATOM    695  CB  CYS A 536      20.410  36.102 -28.417  1.00 28.66           C
ATOM    696  SG  CYS A 536      18.645  36.481 -28.748  1.00 33.32           S
ATOM    697  C   CYS A 536      21.306  36.994 -30.585  1.00 32.44           C
ATOM    698  O   CYS A 536      20.547  37.136 -31.538  1.00 33.64           O
ATOM    699  N   MET A 537      22.297  37.845 -30.353  1.00 27.84           N
ATOM    700  CA  MET A 537      22.491  39.002 -31.216  1.00 26.88           C
ATOM    701  CB  MET A 537      23.588  39.940 -30.635  1.00 27.67           C
ATOM    702  CG  MET A 537      23.859  41.206 -31.484  1.00 28.65           C
ATOM    703  SD  MET A 537      22.375  42.272 -31.626  1.00 29.68           S
ATOM    704  CE  MET A 537      22.279  42.971 -29.901  1.00 23.48           C
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ATOM    705  C   MET A 537      22.885  38.539 -32.630  1.00 31.36           C
ATOM    706  O   MET A 537      22.506  39.151 -33.627  1.00 32.32           O
ATOM    707  N   TYR A 538      23.682  37.474 -32.701  1.00 28.24           N
ATOM    708  CA  TYR A 538      24.147  36.947 -33.984  1.00 27.92           C
ATOM    709  CB  TYR A 538      25.125  35.780 -33.768  1.00 27.33           C
ATOM    710  CG  TYR A 538      25.372  34.935 -34.994  1.00 28.23           C
ATOM    711  CD1 TYR A 538      26.243  35.378 -35.998  1.00 30.81           C
ATOM    712  CE1 TYR A 538      26.494  34.605 -37.106  1.00 33.01           C
ATOM    713  CZ  TYR A 538      25.893  33.369 -37.232  1.00 36.94           C
ATOM    714  OH  TYR A 538      26.168  32.618 -38.344  1.00 41.77           O
ATOM    715  CE2 TYR A 538      25.045  32.886 -36.257  1.00 28.78           C
ATOM    716  CD2 TYR A 538      24.778  33.665 -35.139  1.00 28.44           C
ATOM    717  C   TYR A 538      22.909  36.477 -34.785  1.00 33.90           C
ATOM    718  O   TYR A 538      22.750  36.829 -35.957  1.00 33.37           O
ATOM    719  N   ALA A 539      22.035  35.707 -34.133  1.00 30.40           N
ATOM    720  CA  ALA A 539      20.808  35.226 -34.754  1.00 31.08           C
ATOM    721  CB  ALA A 539      20.035  34.343 -33.792  1.00 32.30           C
ATOM    722  C   ALA A 539      19.924  36.370 -35.258  1.00 34.60           C
ATOM    723  O   ALA A 539      19.395  36.306 -36.364  1.00 33.36           O
ATOM    724  N   ILE A 540      19.776  37.414 -34.449  1.00 31.68           N
ATOM    725  CA  ILE A 540      18.977  38.580 -34.830  1.00 31.96           C
ATOM    726  CB  ILE A 540      18.814  39.599 -33.672  1.00 34.14           C
ATOM    727  CG1 ILE A 540      17.988  39.012 -32.527  1.00 32.79           C
ATOM    728  CD1 ILE A 540      17.896  39.936 -31.350  1.00 32.71           C
ATOM    729  CG2 ILE A 540      18.134  40.842 -34.199  1.00 37.19           C
ATOM    730  C   ILE A 540      19.589  39.293 -36.035  1.00 36.14           C
ATOM    731  O   ILE A 540      18.883  39.717 -36.952  1.00 37.31           O
ATOM    732  N   LEU A 541      20.902  39.470 -36.005  1.00 31.50           N
ATOM    733  CA  LEU A 541      21.587  40.150 -37.097  1.00 32.45           C
ATOM    734  CB  LEU A 541      23.048  40.451 -36.752  1.00 32.27           C
ATOM    735  CG  LEU A 541      23.335  41.559 -35.732  1.00 37.56           C
ATOM    736  CD1 LEU A 541      24.786  41.496 -35.282  1.00 37.12           C
ATOM    737  CD2 LEU A 541      22.991  42.934 -36.286  1.00 40.54           C
ATOM    738  C   LEU A 541      21.523  39.348 -38.395  1.00 40.84           C
ATOM    739  O   LEU A 541      21.362  39.932 -39.460  1.00 45.57           O
ATOM    740  N   GLN A 542      21.678  38.026 -38.309  1.00 34.88           N
ATOM    741  CA  GLN A 542      21.686  37.179 -39.496  1.00 35.14           C
ATOM    742  CB  GLN A 542      22.150  35.755 -39.174  1.00 36.31           C
ATOM    743  CG  GLN A 542      23.653  35.594 -38.872  1.00 37.60           C
ATOM    744  CD  GLN A 542      24.557  35.971 -40.037  1.00 50.11           C
ATOM    745  OE1 GLN A 542      24.947  35.123 -40.825  1.00 49.14           O
ATOM    746  NE2 GLN A 542      24.937  37.238 -40.111  1.00 45.73           N
ATOM    747  C   GLN A 542      20.308  37.141 -40.146  1.00 42.80           C
ATOM    748  O   GLN A 542      20.195  37.017 -41.364  1.00 44.37           O
ATOM    749  N   ASN A 543      19.269  37.277 -39.326  1.00 40.97           N
ATOM    750  CA  ASN A 543      17.879  37.286 -39.796  1.00 40.85           C
ATOM    751  CB  ASN A 543      16.945  36.695 -38.733  1.00 32.63           C
ATOM    752  CG  ASN A 543      17.012  35.174 -38.688  1.00 54.56           C
ATOM    753  OD1 ASN A 543      16.214  34.481 -39.350  1.00 40.13           O
ATOM    754  ND2 ASN A 543      18.004  34.642 -37.950  1.00 36.91           N
ATOM    755  C   ASN A 543      17.385  38.680 -40.242  1.00 47.09           C
ATOM    756  O   ASN A 543      16.260  38.813 -40.727  1.00 48.00           O
ATOM    757  N   ASN A 544      18.218  39.705 -40.047  1.00 43.06           N
ATOM    758  CA  ASN A 544      17.904  41.090 -40.422  1.00 41.72           C
ATOM    759  CB  ASN A 544      17.501  41.938 -39.207  1.00 35.07           C
ATOM    760  CG  ASN A 544      16.209  41.476 -38.583  1.00 48.49           C
ATOM    761  OD1 ASN A 544      15.138  41.907 -38.972  1.00 44.90           O
ATOM    762  ND2 ASN A 544      16.302  40.575 -37.626  1.00 42.57           N
ATOM    763  C   ASN A 544      19.144  41.660 -41.102  1.00 44.00           C
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ATOM    764  O   ASN A 544      19.619  42.749 -40.811  1.00 40.65           O
ATOM    765  N   HIS A 545      19.659  40.852 -42.013  1.00 45.40           N
ATOM    766  CA  HIS A 545      20.886  41.100 -42.759  1.00 47.47           C
ATOM    767  CB  HIS A 545      20.978  40.066 -43.890  1.00 49.20           C
ATOM    768  CG  HIS A 545      22.072  40.325 -44.883  1.00 53.76           C
ATOM    769  ND1 HIS A 545      23.410  40.195 -44.573  1.00 56.35           N
ATOM    770  CE1 HIS A 545      24.137  40.450 -45.649  1.00 55.77           C
ATOM    771  NE2 HIS A 545      23.318  40.721 -46.651  1.00 56.00           N
ATOM    772  CD2 HIS A 545      22.021  40.639 -46.200  1.00 56.11           C
ATOM    773  C   HIS A 545      21.141  42.535 -43.271  1.00 53.66           C
ATOM    774  O   HIS A 545      22.180  43.169 -42.959  1.00 55.60           O
ATOM    775  N   THR A 546      20.199  43.037 -44.057  1.00 48.36           N
ATOM    776  CA  THR A 546      20.343  44.333 -44.707  1.00 47.28           C
ATOM    777  CB  THR A 546      19.447  44.357 -45.989  1.00 54.00           C
ATOM    778  OG1 THR A 546      19.926  43.376 -46.919  1.00 55.91           O
ATOM    779  CG2 THR A 546      19.474  45.715 -46.662  1.00 53.75           C
ATOM    780  C   THR A 546      20.090  45.567 -43.819  1.00 49.55           C
ATOM    781  O   THR A 546      20.400  46.691 -44.216  1.00 50.06           O
ATOM    782  N   LEU A 547      19.517  45.362 -42.637  1.00 44.12           N
ATOM    783  CA  LEU A 547      19.138  46.463 -41.753  1.00 44.01           C
ATOM    784  CB  LEU A 547      18.170  45.945 -40.691  1.00 44.96           C
ATOM    785  CG  LEU A 547      16.698  46.340 -40.808  1.00 51.88           C
ATOM    786  CD1 LEU A 547      16.087  45.722 -42.067  1.00 53.24           C
ATOM    787  CD2 LEU A 547      15.917  45.929 -39.568  1.00 55.42           C
ATOM    788  C   LEU A 547      20.234  47.270 -41.048  1.00 48.47           C
ATOM    789  O   LEU A 547      20.004  48.425 -40.653  1.00 49.38           O
ATOM    790  N   PHE A 548      21.377  46.636 -40.799  1.00 43.47           N
ATOM    791  CA  PHE A 548      22.413  47.241 -39.976  1.00 42.58           C
ATOM    792  CB  PHE A 548      22.683  46.346 -38.760  1.00 42.91           C
ATOM    793  CG  PHE A 548      21.458  46.050 -37.958  1.00 43.08           C
ATOM    794  CD1 PHE A 548      20.744  44.862 -38.142  1.00 45.44           C
ATOM    795  CE1 PHE A 548      19.597  44.594 -37.389  1.00 45.44           C
ATOM    796  CZ  PHE A 548      19.145  45.522 -36.488  1.00 45.87           C
ATOM    797  CE2 PHE A 548      19.842  46.726 -36.300  1.00 47.73           C
ATOM    798  CD2 PHE A 548      20.994  46.975 -37.025  1.00 44.38           C
ATOM    799  C   PHE A 548      23.714  47.601 -40.663  1.00 48.12           C
ATOM    800  O   PHE A 548      24.159  46.920 -41.576  1.00 49.84           O
ATOM    801  N   THR A 549      24.348  48.658 -40.167  1.00 45.77           N
ATOM    802  CA  THR A 549      25.621  49.132 -40.713  1.00 45.99           C
ATOM    803  CB  THR A 549      25.914  50.584 -40.310  1.00 52.86           C
ATOM    804  OG1 THR A 549      26.350  50.626 -38.940  1.00 50.72           O
ATOM    805  CG2 THR A 549      24.663  51.458 -40.493  1.00 47.27           C
ATOM    806  C   THR A 549      26.775  48.239 -40.314  1.00 48.41           C
ATOM    807  O   THR A 549      26.668  47.429 -39.396  1.00 46.62           O
ATOM    808  N   ASP A 550      27.889  48.415 -41.010  1.00 46.01           N
ATOM    809  CA  ASP A 550      29.109  47.647 -40.757  1.00 45.63           C
ATOM    810  CB  ASP A 550      30.197  48.040 -41.773  1.00 47.10           C
ATOM    811  CG  ASP A 550      29.652  48.139 -43.218  1.00 60.90           C
ATOM    812  OD1 ASP A 550      30.246  47.517 -44.139  1.00 60.82           O
ATOM    813  OD2 ASP A 550      28.637  48.862 -43.434  1.00 65.01           O
ATOM    814  C   ASP A 550      29.615  47.850 -39.311  1.00 50.04           C
ATOM    815  O   ASP A 550      30.017  46.894 -38.637  1.00 50.47           O
ATOM    816  N   LEU A 551      29.564  49.093 -38.835  1.00 46.32           N
ATOM    817  CA  LEU A 551      30.000  49.429 -37.482  1.00 45.92           C
ATOM    818  CB  LEU A 551      30.153  50.948 -37.321  1.00 46.26           C
ATOM    819  CG  LEU A 551      31.475  51.547 -37.809  1.00 50.81           C
ATOM    820  CD1 LEU A 551      31.654  52.932 -37.214  1.00 51.48           C
ATOM    821  CD2 LEU A 551      32.649  50.641 -37.458  1.00 51.30           C
ATOM    822  C   LEU A 551      29.065  48.885 -36.397  1.00 46.89           C
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ATOM    823  O   LEU A 551      29.502  48.583 -35.282  1.00 46.20           O
ATOM    824  N   GLU A 552      27.781  48.779 -36.717  1.00 41.95           N
ATOM    825  CA  GLU A 552      26.812  48.254 -35.768  1.00 41.85           C
ATOM    826  CB  GLU A 552      25.386  48.524 -36.241  1.00 42.86           C
ATOM    827  CG  GLU A 552      24.985  49.980 -36.132  1.00 52.70           C
ATOM    828  CD  GLU A 552      23.712  50.318 -36.908  1.00 58.20           C
ATOM    829  OE1 GLU A 552      22.992  51.247 -36.468  1.00 51.01           O
ATOM    830  OE2 GLU A 552      23.448  49.677 -37.957  1.00 46.34           O
ATOM    831  C   GLU A 552      27.019  46.760 -35.554  1.00 46.73           C
ATOM    832  O   GLU A 552      26.990  46.270 -34.427  1.00 46.70           O
ATOM    833  N   ARG A 553      27.209  46.032 -36.644  1.00 43.96           N
ATOM    834  CA  ARG A 553      27.397  44.593 -36.552  1.00 43.85           C
ATOM    835  CB  ARG A 553      27.457  43.953 -37.955  1.00 41.78           C
ATOM    836  CG  ARG A 553      26.151  44.093 -38.726  1.00 50.66           C
ATOM    837  CD  ARG A 553      26.000  43.055 -39.855  1.00 53.63           C
ATOM    838  NE  ARG A 553      26.056  43.649 -41.188  1.00 48.29           N
ATOM    839  CZ  ARG A 553      27.191  43.884 -41.850  1.00 68.83           C
ATOM    840  NH1 ARG A 553      28.371  43.619 -41.283  1.00 56.92           N
ATOM    841  NH2 ARG A 553      27.163  44.403 -43.079  1.00 60.20           N
ATOM    842  C   ARG A 553      28.642  44.310 -35.709  1.00 47.73           C
ATOM    843  O   ARG A 553      28.587  43.530 -34.773  1.00 47.54           O
ATOM    844  N   LYS A 554      29.728  45.026 -35.989  1.00 44.58           N
ATOM    845  CA  LYS A 554      30.974  44.890 -35.249  1.00 44.09           C
ATOM    846  CB  LYS A 554      32.013  45.881 -35.791  1.00 46.21           C
ATOM    847  CG  LYS A 554      32.757  45.417 -37.044  1.00 50.61           C
ATOM    848  CD  LYS A 554      34.059  46.199 -37.257  1.00 51.24           C
ATOM    849  CE  LYS A 554      34.248  46.567 -38.722  1.00 53.90           C
ATOM    850  NZ  LYS A 554      35.680  46.794 -39.095  1.00 60.56           N
ATOM    851  C   LYS A 554      30.781  45.185 -33.762  1.00 47.33           C
ATOM    852  O   LYS A 554      31.217  44.399 -32.917  1.00 48.41           O
ATOM    853  N   GLY A 555      30.191  46.342 -33.454  1.00 40.79           N
ATOM    854  CA  GLY A 555      30.006  46.800 -32.086  1.00 38.91           C
ATOM    855  C   GLY A 555      29.049  46.009 -31.201  1.00 38.93           C
ATOM    856  O   GLY A 555      29.294  45.847 -30.005  1.00 37.08           O
ATOM    857  N   LEU A 556      27.941  45.557 -31.780  1.00 33.41           N
ATOM    858  CA  LEU A 556      26.917  44.846 -31.046  1.00 32.73           C
ATOM    859  CB  LEU A 556      25.603  44.809 -31.827  1.00 33.22           C
ATOM    860  CG  LEU A 556      24.932  46.176 -31.990  1.00 38.41           C
ATOM    861  CD1 LEU A 556      23.705  46.056 -32.834  1.00 38.47           C
ATOM    862  CD2 LEU A 556      24.600  46.797 -30.659  1.00 41.08           C
ATOM    863  C   LEU A 556      27.313  43.470 -30.527  1.00 32.29           C
ATOM    864  O   LEU A 556      26.946  43.081 -29.416  1.00 30.96           O
ATOM    865  N   LEU A 557      28.094  42.748 -31.314  1.00 29.66           N
ATOM    866  CA  LEU A 557      28.548  41.428 -30.903  1.00 31.07           C
ATOM    867  CB  LEU A 557      29.217  40.685 -32.078  1.00 33.38           C
ATOM    868  CG  LEU A 557      28.223  39.905 -32.976  1.00 41.13           C
ATOM    869  CD1 LEU A 557      28.914  39.475 -34.287  1.00 42.72           C
ATOM    870  CD2 LEU A 557      27.683  38.688 -32.225  1.00 42.56           C
ATOM    871  C   LEU A 557      29.537  41.591 -29.746  1.00 28.98           C
ATOM    872  O   LEU A 557      29.509  40.827 -28.792  1.00 26.44           O
ATOM    873  N   ILE A 558      30.381  42.614 -29.835  1.00 25.56           N
ATOM    874  CA  ILE A 558      31.327  42.933 -28.786  1.00 26.43           C
ATOM    875  CB  ILE A 558      32.404  43.931 -29.289  1.00 30.00           C
ATOM    876  CG1 ILE A 558      33.196  43.316 -30.455  1.00 30.29           C
ATOM    877  CD1 ILE A 558      34.085  42.137 -30.048  1.00 28.35           C
ATOM    878  CG2 ILE A 558      33.337  44.304 -28.152  1.00 32.58           C
ATOM    879  C   ILE A 558      30.583  43.489 -27.572  1.00 29.29           C
ATOM    880  O   ILE A 558      30.885  43.135 -26.425  1.00 27.95           O
ATOM    881  N   ALA A 559      29.576  44.325 -27.818  1.00 28.36           N
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ATOM    882  CA  ALA A 559      28.796  44.882 -26.717  1.00 28.48           C
ATOM    883  CB  ALA A 559      27.713  45.785 -27.226  1.00 29.45           C
ATOM    884  C   ALA A 559      28.198  43.722 -25.900  1.00 30.57           C
ATOM    885  O   ALA A 559      28.206  43.722 -24.683  1.00 29.00           O
ATOM    886  N   CYS A 560      27.678  42.728 -26.596  1.00 27.95           N
ATOM    887  CA  CYS A 560      27.024  41.586 -25.962  1.00 27.56           C
ATOM    888  CB  CYS A 560      26.293  40.740 -27.009  1.00 28.27           C
ATOM    889  SG  CYS A 560      24.714  41.465 -27.580  1.00 32.28           S
ATOM    890  C   CYS A 560      27.974  40.716 -25.170  1.00 28.25           C
ATOM    891  O   CYS A 560      27.637  40.299 -24.068  1.00 28.45           O
ATOM    892  N   LEU A 561      29.163  40.458 -25.714  1.00 25.49           N
ATOM    893  CA  LEU A 561      30.154  39.651 -25.012  1.00 25.71           C
ATOM    894  CB  LEU A 561      31.333  39.376 -25.948  1.00 26.59           C
ATOM    895  CG  LEU A 561      32.305  38.285 -25.445  1.00 31.72           C
ATOM    896  CD1 LEU A 561      31.620  36.919 -25.432  1.00 31.45           C
ATOM    897  CD2 LEU A 561      33.588  38.240 -26.286  1.00 32.32           C
ATOM    898  C   LEU A 561      30.660  40.378 -23.737  1.00 26.85           C
ATOM    899  O   LEU A 561      31.002  39.752 -22.730  1.00 25.72           O
ATOM    900  N   CYS A 562      30.682  41.706 -23.779  1.00 23.82           N
ATOM    901  CA  CYS A 562      31.185  42.522 -22.661  1.00 25.67           C
ATOM    902  CB  CYS A 562      31.981  43.690 -23.205  1.00 26.87           C
ATOM    903  SG  CYS A 562      33.478  43.230 -24.076  1.00 31.43           S
ATOM    904  C   CYS A 562      30.133  43.082 -21.700  1.00 28.97           C
ATOM    905  O   CYS A 562      30.479  43.666 -20.672  1.00 29.25           O
ATOM    906  N   HIS A 563      28.853  42.919 -22.036  1.00 25.31           N
ATOM    907  CA  HIS A 563      27.749  43.525 -21.266  1.00 23.21           C
ATOM    908  CB  HIS A 563      26.417  43.311 -21.960  1.00 22.94           C
ATOM    909  CG  HIS A 563      25.696  42.073 -21.518  1.00 25.23           C
ATOM    910  ND1 HIS A 563      26.095  40.806 -21.885  1.00 25.94           N
ATOM    911  CE1 HIS A 563      25.332  39.913 -21.281  1.00 25.56           C
ATOM    912  NE2 HIS A 563      24.435  40.555 -20.556  1.00 26.16           N
ATOM    913  CD2 HIS A 563      24.654  41.907 -20.676  1.00 26.89           C
ATOM    914  C   HIS A 563      27.622  43.315 -19.781  1.00 24.65           C
ATOM    915  O   HIS A 563      27.010  44.128 -19.086  1.00 24.73           O
ATOM    916  N   ASP A 564      28.190  42.226 -19.284  1.00 22.57           N
ATOM    917  CA  ASP A 564      28.128  41.935 -17.846  1.00 22.66           C
ATOM    918  CB  ASP A 564      27.283  40.699 -17.598  1.00 24.03           C
ATOM    919  CG  ASP A 564      25.817  41.020 -17.402  1.00 27.59           C
ATOM    920  OD1 ASP A 564      25.496  42.145 -16.989  1.00 23.58           O
ATOM    921  OD2 ASP A 564      24.989  40.111 -17.599  1.00 33.08           O
ATOM    922  C   ASP A 564      29.524  41.731 -17.224  1.00 26.43           C
ATOM    923  O   ASP A 564      29.650  41.081 -16.177  1.00 24.45           O
ATOM    924  N   LEU A 565      30.551  42.279 -17.877  1.00 23.85           N
ATOM    925  CA  LEU A 565      31.920  42.192 -17.383  1.00 24.76           C
ATOM    926  CB  LEU A 565      32.837  43.102 -18.188  1.00 25.60           C
ATOM    927  CG  LEU A 565      33.517  42.446 -19.373  1.00 30.70           C
ATOM    928  CD1 LEU A 565      34.226  43.516 -20.174  1.00 30.30           C
ATOM    929  CD2 LEU A 565      34.485  41.379 -18.885  1.00 33.30           C
ATOM    930  C   LEU A 565      32.072  42.504 -15.894  1.00 28.63           C
ATOM    931  O   LEU A 565      31.612  43.551 -15.404  1.00 25.39           O
ATOM    932  N   ASP A 566      32.733  41.586 -15.182  1.00 26.29           N
ATOM    933  CA  ASP A 566      33.001  41.762 -13.752  1.00 26.47           C
ATOM    934  CB  ASP A 566      33.932  42.978 -13.523  1.00 28.11           C
ATOM    935  CG  ASP A 566      34.494  43.043 -12.092  1.00 35.17           C
ATOM    936  OD1 ASP A 566      34.831  41.994 -11.515  1.00 36.04           O
ATOM    937  OD2 ASP A 566      34.580  44.155 -11.540  1.00 33.39           O
ATOM    938  C   ASP A 566      31.758  41.832 -12.863  1.00 31.68           C
ATOM    939  O   ASP A 566      31.792  42.403 -11.775  1.00 32.56           O
ATOM    940  N   HIS A 567      30.670  41.226 -13.316  1.00 28.35           N
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ATOM    941  CA  HIS A 567      29.449  41.134 -12.526  1.00 26.70           C
ATOM    942  CB  HIS A 567      28.335  40.510 -13.374  1.00 27.02           C
ATOM    943  CG  HIS A 567      26.963  40.883 -12.921  1.00 30.32           C
ATOM    944  ND1 HIS A 567      26.422  40.410 -11.746  1.00 32.16           N
ATOM    945  CE1 HIS A 567      25.208  40.906 -11.600  1.00 31.93           C
ATOM    946  NE2 HIS A 567      24.947  41.687 -12.634  1.00 32.23           N
ATOM    947  CD2 HIS A 567      26.038  41.710 -13.462  1.00 32.11           C
ATOM    948  C   HIS A 567      29.703  40.219 -11.324  1.00 31.40           C
ATOM    949  O   HIS A 567      30.321  39.152 -11.453  1.00 30.74           O
ATOM    950  N   ARG A 568      29.169  40.603 -10.168  1.00 30.13           N
ATOM    951  CA AARG A 568      29.378  39.829  -8.941  0.50 30.74           C
ATOM    952  CA BARG A 568      29.372  39.838  -8.939  0.50 30.72           C
ATOM    953  CB AARG A 568      30.053  40.696  -7.879  0.50 29.61           C
ATOM    954  CB BARG A 568      30.029  40.718  -7.880  0.50 29.53           C
ATOM    955  CG AARG A 568      30.953  41.752  -8.517  0.50 36.42           C
ATOM    956  CG BARG A 568      31.306  41.366  -8.417  0.50 36.00           C
ATOM    957  CD AARG A 568      32.121  42.185  -7.640  0.50 41.75           C
ATOM    958  CD BARG A 568      31.891  42.382  -7.451  0.50 40.82           C
ATOM    959  NE AARG A 568      32.913  43.210  -8.325  0.50 42.29           N
ATOM    960  NE BARG A 568      32.804  41.748  -6.498  0.50 38.64           N
ATOM    961  CZ AARG A 568      33.606  44.169  -7.726  0.50 50.26           C
ATOM    962  CZ BARG A 568      33.778  42.383  -5.854  0.50 49.65           C
ATOM    963  NH1AARG A 568      33.636  44.252  -6.402  0.50 45.86           N
ATOM    964  NH1BARG A 568      34.534  41.724  -4.987  0.50 31.97           N
ATOM    965  NH2AARG A 568      34.272  45.046  -8.464  0.50 39.35           N
ATOM    966  NH2BARG A 568      33.977  43.682  -6.063  0.50 47.35           N
ATOM    967  C   ARG A 568      28.127  39.147  -8.397  1.00 34.51           C
ATOM    968  O   ARG A 568      28.121  38.657  -7.279  1.00 36.02           O
ATOM    969  N   GLY A 569      27.086  39.080  -9.216  1.00 28.55           N
ATOM    970  CA  GLY A 569      25.846  38.429  -8.845  1.00 28.05           C
ATOM    971  C   GLY A 569      24.881  39.282  -8.050  1.00 33.87           C
ATOM    972  O   GLY A 569      23.920  38.757  -7.504  1.00 36.11           O
ATOM    973  N   PHE A 570      25.130  40.591  -7.989  1.00 30.71           N
ATOM    974  CA  PHE A 570      24.277  41.507  -7.230  1.00 30.19           C
ATOM    975  CB  PHE A 570      25.075  42.178  -6.105  1.00 30.79           C
ATOM    976  CG  PHE A 570      25.643  41.209  -5.125  1.00 31.61           C
ATOM    977  CD1 PHE A 570      24.803  40.341  -4.423  1.00 34.87           C
ATOM    978  CE1 PHE A 570      25.324  39.410  -3.557  1.00 36.22           C
ATOM    979  CZ  PHE A 570      26.713  39.306  -3.414  1.00 34.37           C
ATOM    980  CE2 PHE A 570      27.553  40.154  -4.116  1.00 35.52           C
ATOM    981  CD2 PHE A 570      27.018  41.105  -4.957  1.00 32.69           C
ATOM    982  C   PHE A 570      23.640  42.587  -8.101  1.00 34.93           C
ATOM    983  O   PHE A 570      24.290  43.177  -8.963  1.00 33.99           O
ATOM    984  N   SER A 571      22.387  42.904  -7.795  1.00 31.78           N
ATOM    985  CA  SER A 571      21.656  43.956  -8.504  1.00 31.29           C
ATOM    986  CB  SER A 571      20.165  43.814  -8.209  1.00 31.86           C
ATOM    987  OG  SER A 571      19.922  43.975  -6.812  1.00 34.68           O
ATOM    988  C   SER A 571      22.112  45.349  -8.062  1.00 34.86           C
ATOM    989  O   SER A 571      22.726  45.526  -6.988  1.00 34.50           O
ATOM    990  N   ASN A 572      21.738  46.334  -8.871  1.00 31.77           N
ATOM    991  CA  ASN A 572      22.016  47.741  -8.612  1.00 32.18           C
ATOM    992  CB  ASN A 572      21.433  48.608  -9.757  1.00 32.24           C
ATOM    993  CG  ASN A 572      22.315  48.596 -11.006  1.00 40.82           C
ATOM    994  OD1 ASN A 572      23.488  48.264 -10.939  1.00 36.43           O
ATOM    995  ND2 ASN A 572      21.741  48.928 -12.146  1.00 24.13           N
ATOM    996  C   ASN A 572      21.391  48.147  -7.275  1.00 35.37           C
ATOM    997  O   ASN A 572      21.982  48.912  -6.544  1.00 34.96           O
ATOM    998  N   SER A 573      20.202  47.622  -6.968  1.00 31.56           N
ATOM    999  CA  SER A 573      19.537  47.924  -5.702  1.00 31.16           C
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ATOM   1000  CB  SER A 573      18.195  47.187  -5.587  1.00 35.01           C
ATOM   1001  OG  SER A 573      17.223  47.856  -6.349  1.00 56.47           O
ATOM   1002  C   SER A 573      20.423  47.509  -4.525  1.00 34.26           C
ATOM   1003  O   SER A 573      20.569  48.268  -3.569  1.00 34.74           O
ATOM   1004  N   TYR A 574      20.936  46.275  -4.555  1.00 28.81           N
ATOM   1005  CA  TYR A 574      21.777  45.802  -3.467  1.00 29.12           C
ATOM   1006  CB  TYR A 574      22.114  44.314  -3.585  1.00 30.50           C
ATOM   1007  CG  TYR A 574      23.078  43.857  -2.498  1.00 32.94           C
ATOM   1008  CD1 TYR A 574      22.643  43.638  -1.187  1.00 33.75           C
ATOM   1009  CE1 TYR A 574      23.537  43.297  -0.183  1.00 32.31           C
ATOM   1010  CZ  TYR A 574      24.865  43.182  -0.482  1.00 34.88           C
ATOM   1011  OH  TYR A 574      25.757  42.819   0.473  1.00 29.28           O
ATOM   1012  CE2 TYR A 574      25.318  43.408  -1.765  1.00 34.59           C
ATOM   1013  CD2 TYR A 574      24.437  43.755  -2.756  1.00 33.74           C
ATOM   1014  C   TYR A 574      23.033  46.648  -3.215  1.00 34.33           C
ATOM   1015  O   TYR A 574      23.378  46.906  -2.059  1.00 33.81           O
ATOM   1016  N   LEU A 575      23.684  47.098  -4.288  1.00 33.13           N
ATOM   1017  CA  LEU A 575      24.876  47.927  -4.173  1.00 34.03           C
ATOM   1018  CB  LEU A 575      25.469  48.235  -5.562  1.00 34.14           C
ATOM   1019  CG  LEU A 575      26.120  47.152  -6.424  1.00 39.26           C
ATOM   1020  CD1 LEU A 575      27.276  47.696  -7.199  1.00 39.62           C
ATOM   1021  CD2 LEU A 575      26.518  45.940  -5.656  1.00 42.32           C
ATOM   1022  C   LEU A 575      24.524  49.247  -3.491  1.00 38.99           C
ATOM   1023  O   LEU A 575      25.314  49.787  -2.733  1.00 37.84           O
ATOM   1024  N   GLN A 576      23.353  49.787  -3.822  1.00 37.03           N
ATOM   1025  CA  GLN A 576      22.883  51.047  -3.256  1.00 36.45           C
ATOM   1026  CB  GLN A 576      21.618  51.503  -3.980  1.00 37.85           C
ATOM   1027  CG  GLN A 576      21.569  53.011  -4.172  1.00 51.24           C
ATOM   1028  CD  GLN A 576      20.226  53.492  -4.707  1.00 68.40           C
ATOM   1029  OE1 GLN A 576      19.890  54.693  -4.603  1.00 62.72           O
ATOM   1030  NE2 GLN A 576      19.459  52.567  -5.315  1.00 61.48           N
ATOM   1031  C   GLN A 576      22.618  50.918  -1.758  1.00 39.23           C
ATOM   1032  O   GLN A 576      23.023  51.771  -0.973  1.00 42.34           O
ATOM   1033  N   LYS A 577      21.933  49.847  -1.372  1.00 34.04           N
ATOM   1034  CA  LYS A 577      21.639  49.576   0.030  1.00 33.73           C
ATOM   1035  CB  LYS A 577      20.584  48.488   0.165  1.00 35.51           C
ATOM   1036  CG  LYS A 577      19.218  48.939  -0.318  1.00 45.17           C
ATOM   1037  CD  LYS A 577      18.245  47.775  -0.438  1.00 43.26           C
ATOM   1038  CE  LYS A 577      16.927  48.217  -1.122  1.00 50.13           C
ATOM   1039  NZ  LYS A 577      16.035  47.017  -1.427  1.00 56.25           N
ATOM   1040  C   LYS A 577      22.904  49.206   0.803  1.00 38.35           C
ATOM   1041  O   LYS A 577      23.039  49.555   1.974  1.00 40.65           O
ATOM   1042  N   PHE A 578      23.846  48.540   0.137  1.00 32.01           N
ATOM   1043  CA  PHE A 578      25.100  48.175   0.786  1.00 30.98           C
ATOM   1044  CB  PHE A 578      25.821  47.087  -0.022  1.00 31.53           C
ATOM   1045  CG  PHE A 578      27.123  46.653   0.580  1.00 31.51           C
ATOM   1046  CD1 PHE A 578      27.156  45.645   1.540  1.00 31.90           C
ATOM   1047  CE1 PHE A 578      28.359  45.271   2.128  1.00 32.91           C
ATOM   1048  CZ  PHE A 578      29.537  45.902   1.763  1.00 33.08           C
ATOM   1049  CE2 PHE A 578      29.514  46.927   0.831  1.00 35.55           C
ATOM   1050  CD2 PHE A 578      28.313  47.300   0.240  1.00 32.51           C
ATOM   1051  C   PHE A 578      25.990  49.413   0.936  1.00 34.65           C
ATOM   1052  O   PHE A 578      26.835  49.477   1.817  1.00 34.36           O
ATOM   1053  N   ASP A 579      25.765  50.394   0.069  1.00 32.30           N
ATOM   1054  CA  ASP A 579      26.551  51.617  -0.007  1.00 31.94           C
ATOM   1055  CB  ASP A 579      26.676  52.291   1.365  1.00 33.61           C
ATOM   1056  CG  ASP A 579      26.988  53.802   1.269  1.00 45.28           C
ATOM   1057  OD1 ASP A 579      27.279  54.327   0.157  1.00 45.71           O
ATOM   1058  OD2 ASP A 579      26.985  54.459   2.331  1.00 46.67           O
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ATOM   1059  C   ASP A 579      27.918  51.290  -0.625  1.00 36.69           C
ATOM   1060  O   ASP A 579      28.963  51.638  -0.078  1.00 38.65           O
ATOM   1061  N   HIS A 580      27.894  50.586  -1.758  1.00 30.71           N
ATOM   1062  CA  HIS A 580      29.114  50.218  -2.475  1.00 30.00           C
ATOM   1063  CB  HIS A 580      28.789  49.144  -3.511  1.00 30.20           C
ATOM   1064  CG  HIS A 580      29.989  48.398  -4.014  1.00 32.95           C
ATOM   1065  ND1 HIS A 580      30.830  48.901  -4.986  1.00 33.41           N
ATOM   1066  CE1 HIS A 580      31.827  48.055  -5.181  1.00 33.22           C
ATOM   1067  NE2 HIS A 580      31.654  47.017  -4.380  1.00 33.98           N
ATOM   1068  CD2 HIS A 580      30.507  47.200  -3.650  1.00 34.63           C
ATOM   1069  C   HIS A 580      29.725  51.444  -3.164  1.00 36.67           C
ATOM   1070  O   HIS A 580      29.010  52.269  -3.707  1.00 37.18           O
ATOM   1071  N   PRO A 581      31.064  51.559  -3.175  1.00 35.87           N
ATOM   1072  CA  PRO A 581      31.751  52.674  -3.855  1.00 35.70           C
ATOM   1073  CB  PRO A 581      33.204  52.187  -3.920  1.00 37.06           C
ATOM   1074  CG  PRO A 581      33.361  51.381  -2.687  1.00 40.80           C
ATOM   1075  CD  PRO A 581      32.005  50.739  -2.391  1.00 36.80           C
ATOM   1076  C   PRO A 581      31.214  52.920  -5.287  1.00 37.47           C
ATOM   1077  O   PRO A 581      31.094  54.066  -5.719  1.00 36.50           O
ATOM   1078  N   LEU A 582      30.905  51.841  -6.015  1.00 33.05           N
ATOM   1079  CA  LEU A 582      30.390  51.947  -7.385  1.00 32.83           C
ATOM   1080  CB  LEU A 582      30.228  50.560  -8.009  1.00 32.74           C
ATOM   1081  CG  LEU A 582      31.519  49.836  -8.397  1.00 36.97           C
ATOM   1082  CD1 LEU A 582      31.202  48.404  -8.816  1.00 35.89           C
ATOM   1083  CD2 LEU A 582      32.248  50.586  -9.530  1.00 37.79           C
ATOM   1084  C   LEU A 582      29.050  52.714  -7.406  1.00 36.48           C
ATOM   1085  O   LEU A 582      28.719  53.396  -8.360  1.00 36.75           O
ATOM   1086  N   ALA A 583      28.285  52.616  -6.329  1.00 33.43           N
ATOM   1087  CA  ALA A 583      27.001  53.322  -6.243  1.00 33.85           C
ATOM   1088  CB  ALA A 583      26.146  52.772  -5.119  1.00 34.24           C
ATOM   1089  C   ALA A 583      27.251  54.828  -6.063  1.00 38.68           C
ATOM   1090  O   ALA A 583      26.443  55.645  -6.483  1.00 36.91           O
ATOM   1091  N   ALA A 584      28.411  55.183  -5.507  1.00 37.61           N
ATOM   1092  CA  ALA A 584      28.800  56.595  -5.346  1.00 38.22           C
ATOM   1093  CB  ALA A 584      29.847  56.740  -4.253  1.00 39.07           C
ATOM   1094  C   ALA A 584      29.354  57.127  -6.658  1.00 41.50           C
ATOM   1095  O   ALA A 584      29.145  58.285  -7.009  1.00 41.56           O
ATOM   1096  N   LEU A 585      30.068  56.266  -7.378  1.00 37.73           N
ATOM   1097  CA  LEU A 585      30.646  56.612  -8.682  1.00 37.87           C
ATOM   1098  CB  LEU A 585      31.627  55.521  -9.108  1.00 38.31           C
ATOM   1099  CG  LEU A 585      32.713  55.860 -10.111  1.00 44.31           C
ATOM   1100  CD1 LEU A 585      33.646  56.918  -9.511  1.00 46.02           C
ATOM   1101  CD2 LEU A 585      33.495  54.598 -10.456  1.00 45.96           C
ATOM   1102  C   LEU A 585      29.567  56.773  -9.758  1.00 42.42           C
ATOM   1103  O   LEU A 585      29.622  57.709 -10.538  1.00 42.96           O
ATOM   1104  N   TYR A 586      28.602  55.850  -9.799  1.00 39.96           N
ATOM   1105  CA  TYR A 586      27.491  55.880 -10.773  1.00 39.79           C
ATOM   1106  CB  TYR A 586      27.647  54.800 -11.863  1.00 40.18           C
ATOM   1107  CG  TYR A 586      29.063  54.547 -12.364  1.00 39.77           C
ATOM   1108  CD1 TYR A 586      29.710  53.331 -12.087  1.00 39.99           C
ATOM   1109  CE1 TYR A 586      30.993  53.060 -12.579  1.00 39.14           C
ATOM   1110  CZ  TYR A 586      31.626  53.988 -13.379  1.00 49.23           C
ATOM   1111  OH  TYR A 586      32.883  53.693 -13.875  1.00 54.83           O
ATOM   1112  CE2 TYR A 586      30.988  55.183 -13.724  1.00 41.19           C
ATOM   1113  CD2 TYR A 586      29.696  55.450 -13.226  1.00 40.16           C
ATOM   1114  C   TYR A 586      26.142  55.696 -10.077  1.00 44.00           C
ATOM   1115  O   TYR A 586      25.764  54.585  -9.683  1.00 43.00           O
ATOM   1116  N   SER A 587      25.395  56.788  -9.977  1.00 42.16           N
ATOM   1117  CA  SER A 587      24.097  56.808  -9.293  1.00 42.20           C
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ATOM   1118  CB  SER A 587      23.630  58.256  -9.118  1.00 43.77           C
ATOM   1119  OG  SER A 587      24.230  59.076 -10.116  1.00 48.18           O
ATOM   1120  C   SER A 587      22.996  55.984  -9.964  1.00 47.59           C
ATOM   1121  O   SER A 587      22.157  55.362  -9.282  1.00 50.14           O
ATOM   1122  N   THR A 588      22.981  55.981 -11.295  1.00 40.54           N
ATOM   1123  CA  THR A 588      22.005  55.162 -12.025  1.00 37.60           C
ATOM   1124  CB  THR A 588      21.077  56.015 -12.891  1.00 43.21           C
ATOM   1125  OG1 THR A 588      21.872  56.780 -13.797  1.00 43.12           O
ATOM   1126  CG2 THR A 588      20.225  56.939 -12.025  1.00 41.90           C
ATOM   1127  C   THR A 588      22.730  54.177 -12.917  1.00 34.45           C
ATOM   1128  O   THR A 588      23.841  54.459 -13.395  1.00 32.39           O
ATOM   1129  N   SER A 589      22.063  53.055 -13.190  1.00 30.61           N
ATOM   1130  CA  SER A 589      22.634  51.981 -14.022  1.00 29.38           C
ATOM   1131  CB  SER A 589      22.685  52.397 -15.509  1.00 30.88           C
ATOM   1132  OG  SER A 589      21.394  52.691 -15.984  1.00 33.03           O
ATOM   1133  C   SER A 589      24.036  51.688 -13.502  1.00 28.88           C
ATOM   1134  O   SER A 589      24.976  51.610 -14.258  1.00 28.49           O
ATOM   1135  N   THR A 590      24.154  51.585 -12.184  1.00 26.11           N
ATOM   1136  CA  THR A 590      25.443  51.379 -11.524  1.00 26.05           C
ATOM   1137  CB  THR A 590      25.262  51.096 -10.004  1.00 33.57           C
ATOM   1138  OG1 THR A 590      24.346  52.046  -9.459  1.00 35.90           O
ATOM   1139  CG2 THR A 590      26.621  51.174  -9.241  1.00 27.33           C
ATOM   1140  C   THR A 590      26.327  50.313 -12.178  1.00 28.78           C
ATOM   1141  O   THR A 590      27.443  50.611 -12.605  1.00 27.61           O
ATOM   1142  N   MET A 591      25.845  49.069 -12.191  1.00 25.33           N
ATOM   1143  CA  MET A 591      26.621  47.957 -12.712  1.00 24.98           C
ATOM   1144  CB  MET A 591      25.942  46.637 -12.445  1.00 28.07           C
ATOM   1145  CG  MET A 591      26.120  46.077 -11.036  1.00 33.58           C
ATOM   1146  SD  MET A 591      27.851  46.063 -10.458  1.00 40.63           S
ATOM   1147  CE  MET A 591      28.744  45.218 -11.764  1.00 38.82           C
ATOM   1148  C   MET A 591      26.916  48.113 -14.182  1.00 26.89           C
ATOM   1149  O   MET A 591      28.005  47.779 -14.629  1.00 26.72           O
ATOM   1150  N   GLU A 592      25.942  48.627 -14.928  1.00 24.76           N
ATOM   1151  CA  GLU A 592      26.067  48.796 -16.382  1.00 25.30           C
ATOM   1152  CB  GLU A 592      24.680  49.095 -17.016  1.00 26.68           C
ATOM   1153  CG  GLU A 592      23.649  47.925 -16.859  1.00 29.07           C
ATOM   1154  CD  GLU A 592      23.024  47.850 -15.459  1.00 42.91           C
ATOM   1155  OE1 GLU A 592      22.986  48.876 -14.732  1.00 37.44           O
ATOM   1156  OE2 GLU A 592      22.558  46.761 -15.076  1.00 36.12           O
ATOM   1157  C   GLU A 592      27.130  49.816 -16.779  1.00 27.85           C
ATOM   1158  O   GLU A 592      27.839  49.646 -17.758  1.00 28.26           O
ATOM   1159  N   GLN A 593      27.280  50.867 -15.983  1.00 25.82           N
ATOM   1160  CA  GLN A 593      28.333  51.853 -16.247  1.00 26.37           C
ATOM   1161  CB  GLN A 593      28.095  53.159 -15.469  1.00 28.62           C
ATOM   1162  CG  GLN A 593      26.848  53.893 -15.960  1.00 34.72           C
ATOM   1163  CD  GLN A 593      26.929  55.367 -15.745  1.00 45.41           C
ATOM   1164  OE1 GLN A 593      27.768  56.035 -16.335  1.00 42.88           O
ATOM   1165  NE2 GLN A 593      26.126  55.873 -14.811  1.00 38.65           N
ATOM   1166  C   GLN A 593      29.684  51.257 -15.913  1.00 27.28           C
ATOM   1167  O   GLN A 593      30.678  51.547 -16.574  1.00 25.50           O
ATOM   1168  N   HIS A 594      29.702  50.370 -14.923  1.00 26.40           N
ATOM   1169  CA  HIS A 594      30.920  49.638 -14.568  1.00 26.02           C
ATOM   1170  CB  HIS A 594      30.731  48.892 -13.238  1.00 27.01           C
ATOM   1171  CG  HIS A 594      31.962  48.175 -12.761  1.00 30.42           C
ATOM   1172  ND1 HIS A 594      33.157  48.825 -12.519  1.00 32.31           N
ATOM   1173  CE1 HIS A 594      34.057  47.953 -12.106  1.00 31.58           C
ATOM   1174  NE2 HIS A 594      33.487  46.760 -12.062  1.00 31.84           N
ATOM   1175  CD2 HIS A 594      32.177  46.871 -12.463  1.00 31.59           C
ATOM   1176  C   HIS A 594      31.318  48.669 -15.690  1.00 28.37           C
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ATOM   1177  O   HIS A 594      32.451  48.700 -16.146  1.00 31.26           O
ATOM   1178  N   HIS A 595      30.371  47.863 -16.192  1.00 23.35           N
ATOM   1179  CA  HIS A 595      30.652  46.931 -17.309  1.00 21.81           C
ATOM   1180  CB  HIS A 595      29.363  46.213 -17.790  1.00 22.93           C
ATOM   1181  CG  HIS A 595      28.612  45.498 -16.708  1.00 25.20           C
ATOM   1182  ND1 HIS A 595      29.239  44.699 -15.778  1.00 25.94           N
ATOM   1183  CE1 HIS A 595      28.338  44.195 -14.953  1.00 24.12           C
ATOM   1184  NE2 HIS A 595      27.145  44.628 -15.324  1.00 24.47           N
ATOM   1185  CD2 HIS A 595      27.287  45.447 -16.418  1.00 25.22           C
ATOM   1186  C   HIS A 595      31.227  47.671 -18.502  1.00 25.06           C
ATOM   1187  O   HIS A 595      32.106  47.161 -19.194  1.00 26.89           O
ATOM   1188  N   PHE A 596      30.700  48.851 -18.806  1.00 24.25           N
ATOM   1189  CA  PHE A 596      31.228  49.610 -19.940  1.00 25.15           C
ATOM   1190  CB  PHE A 596      30.336  50.798 -20.324  1.00 25.81           C
ATOM   1191  CG  PHE A 596      30.929  51.646 -21.404  1.00 26.21           C
ATOM   1192  CD1 PHE A 596      31.066  51.141 -22.695  1.00 27.67           C
ATOM   1193  CE1 PHE A 596      31.689  51.926 -23.703  1.00 28.08           C
ATOM   1194  CZ  PHE A 596      32.164  53.207 -23.398  1.00 23.82           C
ATOM   1195  CE2 PHE A 596      32.054  53.698 -22.119  1.00 26.01           C
ATOM   1196  CD2 PHE A 596      31.452  52.915 -21.114  1.00 26.05           C
ATOM   1197  C   PHE A 596      32.668  50.087 -19.657  1.00 31.40           C
ATOM   1198  O   PHE A 596      33.546  50.024 -20.528  1.00 31.26           O
ATOM   1199  N   SER A 597      32.904  50.516 -18.417  1.00 28.36           N
ATOM   1200  CA  SER A 597      34.239  50.943 -17.971  1.00 28.31           C
ATOM   1201  CB  SER A 597      34.189  51.305 -16.496  1.00 31.16           C
ATOM   1202  OG  SER A 597      35.068  52.356 -16.264  1.00 50.76           O
ATOM   1203  C   SER A 597      35.246  49.815 -18.109  1.00 33.09           C
ATOM   1204  O   SER A 597      36.392  50.037 -18.499  1.00 33.43           O
ATOM   1205  N   GLN A 598      34.816  48.607 -17.756  1.00 29.28           N
ATOM   1206  CA  GLN A 598      35.667  47.414 -17.860  1.00 27.55           C
ATOM   1207  CB  GLN A 598      34.938  46.206 -17.250  1.00 27.49           C
ATOM   1208  CG  GLN A 598      34.830  46.297 -15.754  1.00 28.58           C
ATOM   1209  CD  GLN A 598      36.161  46.020 -15.080  1.00 48.41           C
ATOM   1210  OE1 GLN A 598      36.630  44.881 -15.090  1.00 47.46           O
ATOM   1211  NE2 GLN A 598      36.782  47.060 -14.496  1.00 37.64           N
ATOM   1212  C   GLN A 598      36.038  47.132 -19.309  1.00 31.03           C
ATOM   1213  O   GLN A 598      37.171  46.809 -19.608  1.00 31.85           O
ATOM   1214  N   THR A 599      35.069  47.307 -20.203  1.00 28.39           N
ATOM   1215  CA  THR A 599      35.255  47.138 -21.642  1.00 28.36           C
ATOM   1216  CB  THR A 599      33.920  47.356 -22.392  1.00 31.99           C
ATOM   1217  OG1 THR A 599      32.911  46.549 -21.781  1.00 27.09           O
ATOM   1218  CG2 THR A 599      34.050  46.997 -23.861  1.00 28.28           C
ATOM   1219  C   THR A 599      36.321  48.083 -22.186  1.00 33.67           C
ATOM   1220  O   THR A 599      37.191  47.658 -22.951  1.00 34.85           O
ATOM   1221  N   VAL A 600      36.224  49.362 -21.829  1.00 30.46           N
ATOM   1222  CA  VAL A 600      37.198  50.353 -22.277  1.00 31.17           C
ATOM   1223  CB  VAL A 600      36.773  51.799 -21.839  1.00 36.09           C
ATOM   1224  CG1 VAL A 600      37.881  52.792 -22.118  1.00 37.00           C
ATOM   1225  CG2 VAL A 600      35.473  52.198 -22.522  1.00 35.04           C
ATOM   1226  C   VAL A 600      38.599  49.996 -21.749  1.00 34.21           C
ATOM   1227  O   VAL A 600      39.569  50.116 -22.458  1.00 35.01           O
ATOM   1228  N   SER A 601      38.681  49.499 -20.520  1.00 29.97           N
ATOM   1229  CA  SER A 601      39.958  49.108 -19.946  1.00 31.42           C
ATOM   1230  CB  SER A 601      39.795  48.640 -18.494  1.00 35.66           C
ATOM   1231  OG  SER A 601      39.384  49.728 -17.676  1.00 51.51           O
ATOM   1232  C   SER A 601      40.625  48.015 -20.765  1.00 40.36           C
ATOM   1233  O   SER A 601      41.820  48.118 -21.102  1.00 42.71           O
ATOM   1234  N   ILE A 602      39.870  46.953 -21.054  1.00 35.71           N
ATOM   1235  CA  ILE A 602      40.409  45.832 -21.827  1.00 34.16           C
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ATOM   1236  CB  ILE A 602      39.448  44.634 -21.820  1.00 36.06           C
ATOM   1237  CG1 ILE A 602      39.290  44.099 -20.395  1.00 35.41           C
ATOM   1238  CD1 ILE A 602      38.174  43.078 -20.240  1.00 40.34           C
ATOM   1239  CG2 ILE A 602      39.967  43.544 -22.749  1.00 38.45           C
ATOM   1240  C   ILE A 602      40.805  46.280 -23.252  1.00 37.85           C
ATOM   1241  O   ILE A 602      41.872  45.930 -23.747  1.00 36.53           O
ATOM   1242  N   LEU A 603      39.960  47.093 -23.882  1.00 35.69           N
ATOM   1243  CA  LEU A 603      40.233  47.614 -25.215  1.00 36.92           C
ATOM   1244  CB  LEU A 603      39.069  48.499 -25.661  1.00 37.40           C
ATOM   1245  CG  LEU A 603      37.975  47.816 -26.489  1.00 41.31           C
ATOM   1246  CD1 LEU A 603      36.808  48.765 -26.674  1.00 41.37           C
ATOM   1247  CD2 LEU A 603      38.515  47.359 -27.830  1.00 42.26           C
ATOM   1248  C   LEU A 603      41.534  48.448 -25.245  1.00 44.05           C
ATOM   1249  O   LEU A 603      42.148  48.639 -26.306  1.00 44.90           O
ATOM   1250  N   GLN A 604      41.943  48.949 -24.080  1.00 41.81           N
ATOM   1251  CA  GLN A 604      43.153  49.764 -23.961  1.00 41.40           C
ATOM   1252  CB  GLN A 604      42.886  51.006 -23.109  1.00 41.91           C
ATOM   1253  CG  GLN A 604      41.988  51.971 -23.860  1.00 43.93           C
ATOM   1254  CD  GLN A 604      41.664  53.229 -23.092  1.00 56.27           C
ATOM   1255  OE1 GLN A 604      41.050  54.146 -23.634  1.00 54.17           O
ATOM   1256  NE2 GLN A 604      41.993  53.247 -21.801  1.00 52.69           N
ATOM   1257  C   GLN A 604      44.430  49.026 -23.544  1.00 45.39           C
ATOM   1258  O   GLN A 604      45.509  49.626 -23.473  1.00 46.12           O
ATOM   1259  N   LEU A 605      44.319  47.719 -23.312  1.00 41.46           N
ATOM   1260  CA  LEU A 605      45.500  46.919 -22.981  1.00 40.45           C
ATOM   1261  CB  LEU A 605      45.088  45.524 -22.533  1.00 39.75           C
ATOM   1262  CG  LEU A 605      44.864  45.189 -21.060  1.00 43.59           C
ATOM   1263  CD1 LEU A 605      44.789  46.428 -20.204  1.00 45.95           C
ATOM   1264  CD2 LEU A 605      43.633  44.305 -20.860  1.00 41.36           C
ATOM   1265  C   LEU A 605      46.333  46.817 -24.268  1.00 45.61           C
ATOM   1266  O   LEU A 605      45.772  46.887 -25.371  1.00 44.96           O
ATOM   1267  N   GLU A 606      47.653  46.647 -24.138  1.00 43.51           N
ATOM   1268  CA  GLU A 606      48.521  46.513 -25.305  1.00 42.75           C
ATOM   1269  CB  GLU A 606      50.006  46.450 -24.877  1.00 44.44           C
ATOM   1270  CG  GLU A 606      50.596  47.819 -24.482  1.00 55.28           C
ATOM   1271  CD  GLU A 606      52.034  47.765 -23.910  1.00 69.28           C
ATOM   1272  OE1 GLU A 606      52.550  46.654 -23.581  1.00 61.44           O
ATOM   1273  OE2 GLU A 606      52.641  48.867 -23.752  1.00 68.70           O
ATOM   1274  C   GLU A 606      48.123  45.262 -26.084  1.00 43.59           C
ATOM   1275  O   GLU A 606      47.966  44.189 -25.508  1.00 43.63           O
ATOM   1276  N   GLY A 607      47.933  45.414 -27.390  1.00 40.06           N
ATOM   1277  CA  GLY A 607      47.572  44.322 -28.278  1.00 40.18           C
ATOM   1278  C   GLY A 607      46.100  43.965 -28.283  1.00 45.84           C
ATOM   1279  O   GLY A 607      45.705  43.021 -28.963  1.00 47.88           O
ATOM   1280  N   HIS A 608      45.284  44.748 -27.577  1.00 41.67           N
ATOM   1281  CA  HIS A 608      43.859  44.434 -27.418  1.00 41.37           C
ATOM   1282  CB  HIS A 608      43.473  44.512 -25.941  1.00 42.13           C
ATOM   1283  CG  HIS A 608      43.879  43.315 -25.136  1.00 45.85           C
ATOM   1284  ND1 HIS A 608      45.195  42.961 -24.925  1.00 47.27           N
ATOM   1285  CE1 HIS A 608      45.242  41.903 -24.135  1.00 47.16           C
ATOM   1286  NE2 HIS A 608      44.005  41.557 -23.829  1.00 48.07           N
ATOM   1287  CD2 HIS A 608      43.134  42.435 -24.423  1.00 48.41           C
ATOM   1288  C   HIS A 608      42.907  45.320 -28.201  1.00 45.10           C
ATOM   1289  O   HIS A 608      41.686  45.148 -28.114  1.00 44.10           O
ATOM   1290  N   ASN A 609      43.440  46.305 -28.913  1.00 42.28           N
ATOM   1291  CA  ASN A 609      42.567  47.181 -29.670  1.00 42.03           C
ATOM   1292  CB  ASN A 609      43.050  48.622 -29.759  1.00 41.48           C
ATOM   1293  CG  ASN A 609      41.875  49.613 -29.775  1.00 57.95           C
ATOM   1294  OD1 ASN A 609      41.187  49.756 -30.803  1.00 43.78           O
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ATOM   1295  ND2 ASN A 609      41.563  50.207 -28.595  1.00 43.54           N
ATOM   1296  C   ASN A 609      42.139  46.638 -31.017  1.00 45.45           C
ATOM   1297  O   ASN A 609      42.778  46.898 -32.041  1.00 44.10           O
ATOM   1298  N   ILE A 610      41.017  45.919 -30.977  1.00 41.61           N
ATOM   1299  CA  ILE A 610      40.404  45.268 -32.116  1.00 40.40           C
ATOM   1300  CB  ILE A 610      39.310  44.263 -31.638  1.00 42.20           C
ATOM   1301  CG1 ILE A 610      38.256  44.994 -30.800  1.00 41.40           C
ATOM   1302  CD1 ILE A 610      37.055  44.139 -30.446  1.00 45.41           C
ATOM   1303  CG2 ILE A 610      39.934  43.118 -30.857  1.00 40.44           C
ATOM   1304  C   ILE A 610      39.824  46.264 -33.108  1.00 42.13           C
ATOM   1305  O   ILE A 610      39.401  45.885 -34.193  1.00 42.00           O
ATOM   1306  N   PHE A 611      39.778  47.534 -32.723  1.00 39.69           N
ATOM   1307  CA  PHE A 611      39.233  48.577 -33.600  1.00 40.39           C
ATOM   1308  CB  PHE A 611      38.195  49.436 -32.854  1.00 41.38           C
ATOM   1309  CG  PHE A 611      36.979  48.666 -32.384  1.00 41.79           C
ATOM   1310  CD1 PHE A 611      36.674  48.584 -31.033  1.00 43.19           C
ATOM   1311  CE1 PHE A 611      35.578  47.877 -30.595  1.00 42.93           C
ATOM   1312  CZ  PHE A 611      34.770  47.235 -31.500  1.00 42.41           C
ATOM   1313  CE2 PHE A 611      35.053  47.308 -32.852  1.00 44.80           C
ATOM   1314  CD2 PHE A 611      36.146  48.015 -33.289  1.00 42.63           C
ATOM   1315  C   PHE A 611      40.346  49.470 -34.156  1.00 46.62           C
ATOM   1316  O   PHE A 611      40.089  50.566 -34.652  1.00 46.60           O
ATOM   1317  N   SER A 612      41.587  49.000 -34.061  1.00 45.57           N
ATOM   1318  CA  SER A 612      42.756  49.782 -34.515  1.00 46.17           C
ATOM   1319  CB  SER A 612      44.052  49.006 -34.275  1.00 48.47           C
ATOM   1320  OG  SER A 612      44.079  47.832 -35.075  1.00 62.27           O
ATOM   1321  C   SER A 612      42.727  50.340 -35.949  1.00 51.11           C
ATOM   1322  O   SER A 612      43.334  51.378 -36.206  1.00 52.32           O
ATOM   1323  N   THR A 613      42.046  49.652 -36.870  1.00 48.08           N
ATOM   1324  CA  THR A 613      41.971  50.090 -38.270  1.00 47.52           C
ATOM   1325  CB  THR A 613      41.862  48.929 -39.258  1.00 54.25           C
ATOM   1326  OG1 THR A 613      40.483  48.554 -39.388  1.00 61.94           O
ATOM   1327  CG2 THR A 613      42.684  47.728 -38.806  1.00 53.95           C
ATOM   1328  C   THR A 613      40.850  51.077 -38.557  1.00 54.21           C
ATOM   1329  O   THR A 613      40.628  51.432 -39.728  1.00 57.62           O
ATOM   1330  N   LEU A 614      40.103  51.473 -37.527  1.00 48.45           N
ATOM   1331  CA  LEU A 614      39.027  52.436 -37.716  1.00 47.41           C
ATOM   1332  CB  LEU A 614      37.930  52.254 -36.655  1.00 47.25           C
ATOM   1333  CG  LEU A 614      36.799  51.245 -36.880  1.00 51.58           C
ATOM   1334  CD1 LEU A 614      37.353  49.912 -37.388  1.00 52.68           C
ATOM   1335  CD2 LEU A 614      36.018  51.056 -35.608  1.00 49.42           C
ATOM   1336  C   LEU A 614      39.642  53.806 -37.525  1.00 51.11           C
ATOM   1337  O   LEU A 614      40.622  53.953 -36.809  1.00 51.96           O
ATOM   1338  N   SER A 615      39.039  54.821 -38.129  1.00 47.34           N
ATOM   1339  CA  SER A 615      39.501  56.198 -37.960  1.00 46.07           C
ATOM   1340  CB  SER A 615      38.833  57.098 -39.002  1.00 46.93           C
ATOM   1341  OG  SER A 615      37.443  57.237 -38.743  1.00 51.03           O
ATOM   1342  C   SER A 615      39.068  56.653 -36.574  1.00 50.88           C
ATOM   1343  O   SER A 615      38.334  55.950 -35.882  1.00 52.05           O
ATOM   1344  N   SER A 616      39.486  57.849 -36.186  1.00 47.07           N
ATOM   1345  CA  SER A 616      39.112  58.397 -34.895  1.00 46.31           C
ATOM   1346  CB  SER A 616      39.759  59.771 -34.729  1.00 48.00           C
ATOM   1347  OG  SER A 616      40.692  59.770 -33.676  1.00 56.14           O
ATOM   1348  C   SER A 616      37.584  58.543 -34.808  1.00 49.40           C
ATOM   1349  O   SER A 616      36.998  58.379 -33.749  1.00 47.94           O
ATOM   1350  N   SER A 617      36.959  58.898 -35.928  1.00 46.75           N
ATOM   1351  CA  SER A 617      35.512  59.089 -35.999  1.00 46.19           C
ATOM   1352  CB  SER A 617      35.126  59.738 -37.329  1.00 48.13           C
ATOM   1353  OG  SER A 617      35.198  61.139 -37.202  1.00 59.15           O
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ATOM   1354  C   SER A 617      34.750  57.790 -35.857  1.00 48.48           C
ATOM   1355  O   SER A 617      33.813  57.710 -35.070  1.00 49.43           O
ATOM   1356  N   GLU A 618      35.132  56.803 -36.667  1.00 44.42           N
ATOM   1357  CA  GLU A 618      34.506  55.485 -36.664  1.00 43.82           C
ATOM   1358  CB  GLU A 618      35.172  54.580 -37.696  1.00 44.75           C
ATOM   1359  CG  GLU A 618      34.568  54.633 -39.104  1.00 56.44           C
ATOM   1360  CD  GLU A 618      35.254  53.648 -40.073  1.00 65.04           C
ATOM   1361  OE1 GLU A 618      36.473  53.848 -40.338  1.00 55.54           O
ATOM   1362  OE2 GLU A 618      34.585  52.671 -40.536  1.00 60.23           O
ATOM   1363  C   GLU A 618      34.667  54.863 -35.280  1.00 47.37           C
ATOM   1364  O   GLU A 618      33.721  54.306 -34.731  1.00 49.98           O
ATOM   1365  N   TYR A 619      35.873  54.963 -34.727  1.00 40.85           N
ATOM   1366  CA  TYR A 619      36.182  54.400 -33.420  1.00 40.03           C
ATOM   1367  CB  TYR A 619      37.675  54.590 -33.079  1.00 40.54           C
ATOM   1368  CG  TYR A 619      38.075  54.063 -31.713  1.00 40.83           C
ATOM   1369  CD1 TYR A 619      38.633  52.798 -31.574  1.00 43.13           C
ATOM   1370  CE1 TYR A 619      38.968  52.289 -30.327  1.00 44.30           C
ATOM   1371  CZ  TYR A 619      38.733  53.048 -29.201  1.00 47.97           C
ATOM   1372  OH  TYR A 619      39.044  52.545 -27.966  1.00 47.48           O
ATOM   1373  CE2 TYR A 619      38.166  54.300 -29.310  1.00 41.34           C
ATOM   1374  CD2 TYR A 619      37.831  54.798 -30.561  1.00 40.73           C
ATOM   1375  C   TYR A 619      35.295  54.981 -32.319  1.00 43.06           C
ATOM   1376  O   TYR A 619      34.758  54.234 -31.487  1.00 41.89           O
ATOM   1377  N   GLU A 620      35.136  56.308 -32.325  1.00 38.78           N
ATOM   1378  CA  GLU A 620      34.302  56.992 -31.330  1.00 37.28           C
ATOM   1379  CB  GLU A 620      34.507  58.519 -31.402  1.00 38.12           C
ATOM   1380  CG  GLU A 620      33.617  59.265 -30.429  1.00 48.99           C
ATOM   1381  CD  GLU A 620      34.091  60.686 -30.077  1.00 59.50           C
ATOM   1382  OE1 GLU A 620      35.272  61.021 -30.341  1.00 52.63           O
ATOM   1383  OE2 GLU A 620      33.268  61.443 -29.487  1.00 50.68           O
ATOM   1384  C   GLU A 620      32.824  56.630 -31.511  1.00 40.01           C
ATOM   1385  O   GLU A 620      32.052  56.532 -30.562  1.00 40.48           O
ATOM   1386  N   GLN A 621      32.449  56.395 -32.753  1.00 36.73           N
ATOM   1387  CA  GLN A 621      31.091  56.004 -33.088  1.00 36.46           C
ATOM   1388  CB  GLN A 621      30.939  56.082 -34.599  1.00 37.38           C
ATOM   1389  CG  GLN A 621      29.525  56.174 -35.079  1.00 51.41           C
ATOM   1390  CD  GLN A 621      29.427  55.882 -36.571  1.00 60.84           C
ATOM   1391  OE1 GLN A 621      28.674  54.984 -37.000  1.00 55.31           O
ATOM   1392  NE2 GLN A 621      30.270  56.569 -37.364  1.00 46.28           N
ATOM   1393  C   GLN A 621      30.790  54.572 -32.599  1.00 37.30           C
ATOM   1394  O   GLN A 621      29.744  54.310 -32.013  1.00 34.79           O
ATOM   1395  N   VAL A 622      31.723  53.653 -32.828  1.00 34.52           N
ATOM   1396  CA  VAL A 622      31.536  52.260 -32.387  1.00 34.40           C
ATOM   1397  CB  VAL A 622      32.542  51.271 -33.035  1.00 38.11           C
ATOM   1398  CG1 VAL A 622      33.908  51.454 -32.443  1.00 38.50           C
ATOM   1399  CG2 VAL A 622      32.084  49.826 -32.852  1.00 37.86           C
ATOM   1400  C   VAL A 622      31.480  52.152 -30.855  1.00 36.16           C
ATOM   1401  O   VAL A 622      30.642  51.430 -30.306  1.00 33.97           O
ATOM   1402  N   LEU A 623      32.321  52.929 -30.172  1.00 32.93           N
ATOM   1403  CA  LEU A 623      32.362  52.906 -28.710  1.00 32.67           C
ATOM   1404  CB  LEU A 623      33.581  53.673 -28.180  1.00 33.00           C
ATOM   1405  CG  LEU A 623      34.838  52.857 -27.831  1.00 38.02           C
ATOM   1406  CD1 LEU A 623      34.583  52.040 -26.583  1.00 38.76           C
ATOM   1407  CD2 LEU A 623      35.231  51.896 -28.986  1.00 38.08           C
ATOM   1408  C   LEU A 623      31.076  53.475 -28.121  1.00 35.48           C
ATOM   1409  O   LEU A 623      30.627  53.086 -27.041  1.00 33.09           O
ATOM   1410  N   GLU A 624      30.473  54.399 -28.853  1.00 34.27           N
ATOM   1411  CA  GLU A 624      29.200  55.003 -28.463  1.00 33.31           C
ATOM   1412  CB  GLU A 624      28.972  56.320 -29.242  1.00 35.11           C
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ATOM   1413  CG  GLU A 624      27.794  57.134 -28.739  1.00 42.83           C
ATOM   1414  CD  GLU A 624      28.065  57.830 -27.399  1.00 60.69           C
ATOM   1415  OE1 GLU A 624      28.993  57.430 -26.646  1.00 51.09           O
ATOM   1416  OE2 GLU A 624      27.281  58.754 -27.069  1.00 63.42           O
ATOM   1417  C   GLU A 624      28.039  54.015 -28.679  1.00 30.75           C
ATOM   1418  O   GLU A 624      27.115  53.951 -27.883  1.00 27.35           O
ATOM   1419  N   ILE A 625      28.135  53.206 -29.732  1.00 28.43           N
ATOM   1420  CA  ILE A 625      27.159  52.147 -29.990  1.00 28.48           C
ATOM   1421  CB  ILE A 625      27.486  51.403 -31.297  1.00 31.33           C
ATOM   1422  CG1 ILE A 625      27.086  52.247 -32.506  1.00 32.52           C
ATOM   1423  CD1 ILE A 625      27.614  51.712 -33.831  1.00 30.56           C
ATOM   1424  CG2 ILE A 625      26.809  50.053 -31.330  1.00 32.61           C
ATOM   1425  C   ILE A 625      27.273  51.173 -28.804  1.00 30.23           C
ATOM   1426  O   ILE A 625      26.291  50.763 -28.212  1.00 29.44           O
ATOM   1427  N   ILE A 626      28.504  50.835 -28.446  1.00 27.51           N
ATOM   1428  CA  ILE A 626      28.766  49.892 -27.352  1.00 27.90           C
ATOM   1429  CB  ILE A 626      30.273  49.500 -27.291  1.00 30.13           C
ATOM   1430  CG1 ILE A 626      30.634  48.655 -28.516  1.00 28.98           C
ATOM   1431  CD1 ILE A 626      32.137  48.481 -28.744  1.00 33.36           C
ATOM   1432  CG2 ILE A 626      30.612  48.783 -25.986  1.00 30.00           C
ATOM   1433  C   ILE A 626      28.246  50.389 -26.023  1.00 31.36           C
ATOM   1434  O   ILE A 626      27.584  49.645 -25.291  1.00 32.00           O
ATOM   1435  N   ARG A 627      28.525  51.661 -25.732  1.00 27.97           N
ATOM   1436  CA  ARG A 627      28.138  52.253 -24.470  1.00 27.33           C
ATOM   1437  CB  ARG A 627      28.638  53.693 -24.368  1.00 24.95           C
ATOM   1438  CG  ARG A 627      28.426  54.291 -22.971  1.00 36.29           C
ATOM   1439  CD  ARG A 627      28.757  55.808 -22.893  1.00 32.98           C
ATOM   1440  NE  ARG A 627      27.950  56.591 -23.844  1.00 37.34           N
ATOM   1441  CZ  ARG A 627      26.665  56.899 -23.681  1.00 45.90           C
ATOM   1442  NH1 ARG A 627      26.050  57.575 -24.627  1.00 41.77           N
ATOM   1443  NH2 ARG A 627      25.986  56.525 -22.592  1.00 31.47           N
ATOM   1444  C   ARG A 627      26.621  52.210 -24.293  1.00 31.90           C
ATOM   1445  O   ARG A 627      26.122  51.775 -23.250  1.00 27.74           O
ATOM   1446  N   LYS A 628      25.901  52.695 -25.304  1.00 31.48           N
ATOM   1447  CA  LYS A 628      24.437  52.737 -25.245  1.00 30.27           C
ATOM   1448  CB  LYS A 628      23.849  53.453 -26.473  1.00 30.86           C
ATOM   1449  CG  LYS A 628      24.185  54.946 -26.574  1.00 35.07           C
ATOM   1450  CD  LYS A 628      24.098  55.402 -28.061  1.00 44.17           C
ATOM   1451  CE  LYS A 628      24.198  56.928 -28.216  1.00 46.99           C
ATOM   1452  NZ  LYS A 628      24.160  57.353 -29.662  1.00 41.52           N
ATOM   1453  C   LYS A 628      23.886  51.318 -25.151  1.00 30.29           C
ATOM   1454  O   LYS A 628      22.982  51.059 -24.377  1.00 29.81           O
ATOM   1455  N   ALA A 629      24.464  50.401 -25.921  1.00 25.87           N
ATOM   1456  CA  ALA A 629      24.008  49.016 -25.929  1.00 25.03           C
ATOM   1457  CB  ALA A 629      24.820  48.202 -26.930  1.00 25.36           C
ATOM   1458  C   ALA A 629      24.126  48.418 -24.520  1.00 27.53           C
ATOM   1459  O   ALA A 629      23.204  47.763 -24.034  1.00 26.66           O
ATOM   1460  N   ILE A 630      25.252  48.672 -23.856  1.00 24.09           N
ATOM   1461  CA  ILE A 630      25.493  48.120 -22.518  1.00 24.08           C
ATOM   1462  CB  ILE A 630      26.989  48.160 -22.115  1.00 26.30           C
ATOM   1463  CG1 ILE A 630      27.805  47.218 -23.002  1.00 24.87           C
ATOM   1464  CD1 ILE A 630      29.306  47.122 -22.629  1.00 33.14           C
ATOM   1465  CG2 ILE A 630      27.143  47.791 -20.642  1.00 28.09           C
ATOM   1466  C   ILE A 630      24.580  48.694 -21.455  1.00 28.10           C
ATOM   1467  O   ILE A 630      23.983  47.949 -20.672  1.00 27.42           O
ATOM   1468  N   ILE A 631      24.423  50.014 -21.481  1.00 27.75           N
ATOM   1469  CA  ILE A 631      23.527  50.724 -20.568  1.00 28.27           C
ATOM   1470  CB  ILE A 631      23.604  52.248 -20.816  1.00 31.47           C
ATOM   1471  CG1 ILE A 631      25.021  52.784 -20.523  1.00 32.69           C
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ATOM   1472  CD1 ILE A 631      25.423  52.565 -19.061  1.00 38.72           C
ATOM   1473  CG2 ILE A 631      22.544  53.010 -19.968  1.00 28.14           C
ATOM   1474  C   ILE A 631      22.088  50.230 -20.737  1.00 31.57           C
ATOM   1475  O   ILE A 631      21.373  50.099 -19.746  1.00 32.63           O
ATOM   1476  N   ALA A 632      21.675  49.967 -21.986  1.00 26.53           N
ATOM   1477  CA  ALA A 632      20.313  49.491 -22.262  1.00 27.19           C
ATOM   1478  CB  ALA A 632      20.057  49.419 -23.774  1.00 27.66           C
ATOM   1479  C   ALA A 632      20.006  48.137 -21.572  1.00 30.66           C
ATOM   1480  O   ALA A 632      18.832  47.760 -21.406  1.00 29.76           O
ATOM   1481  N   THR A 633      21.057  47.409 -21.177  1.00 28.32           N
ATOM   1482  CA  THR A 633      20.858  46.131 -20.467  1.00 28.08           C
ATOM   1483  CB  THR A 633      22.053  45.136 -20.552  1.00 31.78           C
ATOM   1484  OG1 THR A 633      23.184  45.670 -19.829  1.00 29.56           O
ATOM   1485  CG2 THR A 633      22.422  44.867 -22.010  1.00 25.13           C
ATOM   1486  C   THR A 633      20.390  46.347 -19.037  1.00 30.07           C
ATOM   1487  O   THR A 633      20.138  45.389 -18.311  1.00 31.24           O
ATOM   1488  N   ASP A 634      20.253  47.606 -18.640  1.00 25.16           N
ATOM   1489  CA  ASP A 634      19.714  47.929 -17.316  1.00 25.29           C
ATOM   1490  CB  ASP A 634      20.076  49.358 -16.891  1.00 26.77           C
ATOM   1491  CG  ASP A 634      19.503  49.722 -15.518  1.00 34.45           C
ATOM   1492  OD1 ASP A 634      18.822  48.889 -14.896  1.00 37.43           O
ATOM   1493  OD2 ASP A 634      19.762  50.828 -15.026  1.00 43.11           O
ATOM   1494  C   ASP A 634      18.194  47.812 -17.460  1.00 30.69           C
ATOM   1495  O   ASP A 634      17.562  48.643 -18.107  1.00 29.14           O
ATOM   1496  N   LEU A 635      17.632  46.733 -16.916  1.00 30.44           N
ATOM   1497  CA  LEU A 635      16.201  46.455 -17.050  1.00 31.38           C
ATOM   1498  CB  LEU A 635      15.825  45.145 -16.356  1.00 31.28           C
ATOM   1499  CG  LEU A 635      14.582  44.397 -16.858  1.00 35.54           C
ATOM   1500  CD1 LEU A 635      14.683  43.978 -18.332  1.00 34.31           C
ATOM   1501  CD2 LEU A 635      14.344  43.161 -15.969  1.00 38.18           C
ATOM   1502  C   LEU A 635      15.266  47.599 -16.626  1.00 37.01           C
ATOM   1503  O   LEU A 635      14.173  47.752 -17.179  1.00 37.02           O
ATOM   1504  N   ALA A 636      15.694  48.394 -15.651  1.00 32.84           N
ATOM   1505  CA  ALA A 636      14.891  49.510 -15.212  1.00 33.00           C
ATOM   1506  CB  ALA A 636      15.575  50.239 -14.027  1.00 33.46           C
ATOM   1507  C   ALA A 636      14.630  50.480 -16.365  1.00 37.05           C
ATOM   1508  O   ALA A 636      13.589  51.130 -16.387  1.00 38.69           O
ATOM   1509  N   LEU A 637      15.550  50.549 -17.332  1.00 31.09           N
ATOM   1510  CA  LEU A 637      15.396  51.449 -18.472  1.00 29.95           C
ATOM   1511  CB  LEU A 637      16.764  51.802 -19.074  1.00 30.81           C
ATOM   1512  CG  LEU A 637      17.789  52.548 -18.205  1.00 36.82           C
ATOM   1513  CD1 LEU A 637      19.047  52.836 -19.044  1.00 35.74           C
ATOM   1514  CD2 LEU A 637      17.167  53.843 -17.684  1.00 39.45           C
ATOM   1515  C   LEU A 637      14.535  50.853 -19.593  1.00 32.08           C
ATOM   1516  O   LEU A 637      14.089  51.573 -20.497  1.00 30.21           O
ATOM   1517  N   TYR A 638      14.390  49.533 -19.586  1.00 29.06           N
ATOM   1518  CA  TYR A 638      13.674  48.826 -20.643  1.00 29.16           C
ATOM   1519  CB  TYR A 638      13.836  47.316 -20.449  1.00 30.02           C
ATOM   1520  CG  TYR A 638      12.630  46.517 -20.899  1.00 31.20           C
ATOM   1521  CD1 TYR A 638      12.412  46.239 -22.252  1.00 32.09           C
ATOM   1522  CE1 TYR A 638      11.314  45.539 -22.663  1.00 33.01           C
ATOM   1523  CZ  TYR A 638      10.397  45.112 -21.734  1.00 41.16           C
ATOM   1524  OH  TYR A 638       9.287  44.421 -22.144  1.00 43.09           O
ATOM   1525  CE2 TYR A 638      10.595  45.351 -20.385  1.00 33.42           C
ATOM   1526  CD2 TYR A 638      11.706  46.057 -19.977  1.00 31.92           C
ATOM   1527  C   TYR A 638      12.180  49.190 -20.731  1.00 33.22           C
ATOM   1528  O   TYR A 638      11.626  49.365 -21.817  1.00 32.66           O
ATOM   1529  N   PHE A 639      11.536  49.297 -19.578  1.00 32.87           N
ATOM   1530  CA  PHE A 639      10.091  49.580 -19.504  1.00 33.72           C
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ATOM   1531  CB  PHE A 639       9.620  49.640 -18.039  1.00 34.79           C
ATOM   1532  CG  PHE A 639       9.843  48.359 -17.294  1.00 36.37           C
ATOM   1533  CD1 PHE A 639       9.075  47.220 -17.591  1.00 38.01           C
ATOM   1534  CE1 PHE A 639       9.291  46.033 -16.921  1.00 38.36           C
ATOM   1535  CZ  PHE A 639      10.328  45.927 -16.011  1.00 39.01           C
ATOM   1536  CE2 PHE A 639      11.126  47.040 -15.726  1.00 41.37           C
ATOM   1537  CD2 PHE A 639      10.892  48.243 -16.377  1.00 38.19           C
ATOM   1538  C   PHE A 639       9.685  50.822 -20.284  1.00 39.75           C
ATOM   1539  O   PHE A 639       8.825  50.758 -21.153  1.00 41.90           O
ATOM   1540  N   GLY A 640      10.358  51.932 -20.018  1.00 35.85           N
ATOM   1541  CA  GLY A 640      10.104  53.167 -20.727  1.00 34.38           C
ATOM   1542  C   GLY A 640      10.494  53.087 -22.181  1.00 39.32           C
ATOM   1543  O   GLY A 640       9.844  53.696 -23.032  1.00 41.47           O
ATOM   1544  N   ASN A 641      11.578  52.370 -22.474  1.00 35.84           N
ATOM   1545  CA  ASN A 641      12.056  52.234 -23.853  1.00 34.88           C
ATOM   1546  CB  ASN A 641      13.382  51.456 -23.902  1.00 33.07           C
ATOM   1547  CG  ASN A 641      14.024  51.498 -25.268  1.00 40.12           C
ATOM   1548  OD1 ASN A 641      14.031  52.529 -25.912  1.00 39.53           O
ATOM   1549  ND2 ASN A 641      14.568  50.377 -25.712  1.00 33.90           N
ATOM   1550  C   ASN A 641      11.027  51.526 -24.743  1.00 36.93           C
ATOM   1551  O   ASN A 641      10.738  51.964 -25.854  1.00 33.75           O
ATOM   1552  N   ARG A 642      10.519  50.401 -24.255  1.00 37.02           N
ATOM   1553  CA  ARG A 642       9.529  49.621 -24.986  1.00 37.83           C
ATOM   1554  CB  ARG A 642       9.270  48.289 -24.289  1.00 35.81           C
ATOM   1555  CG  ARG A 642       8.409  47.357 -25.114  1.00 43.58           C
ATOM   1556  CD  ARG A 642       7.607  46.413 -24.211  1.00 48.35           C
ATOM   1557  NE  ARG A 642       6.662  47.139 -23.365  1.00 45.27           N
ATOM   1558  CZ  ARG A 642       5.472  47.561 -23.780  1.00 56.83           C
ATOM   1559  NH1 ARG A 642       4.662  48.220 -22.942  1.00 39.28           N
ATOM   1560  NH2 ARG A 642       5.103  47.312 -25.037  1.00 43.02           N
ATOM   1561  C   ARG A 642       8.212  50.390 -25.193  1.00 42.57           C
ATOM   1562  O   ARG A 642       7.667  50.381 -26.293  1.00 42.89           O
ATOM   1563  N   LYS A 643       7.739  51.072 -24.150  1.00 39.80           N
ATOM   1564  CA  LYS A 643       6.525  51.885 -24.240  1.00 40.37           C
ATOM   1565  CB  LYS A 643       6.259  52.625 -22.924  1.00 42.65           C
ATOM   1566  CG  LYS A 643       5.804  51.739 -21.767  1.00 53.24           C
ATOM   1567  CD  LYS A 643       5.993  52.452 -20.397  1.00 58.27           C
ATOM   1568  CE  LYS A 643       5.814  51.462 -19.222  1.00 54.84           C
ATOM   1569  NZ  LYS A 643       6.405  52.002 -17.937  1.00 58.68           N
ATOM   1570  C   LYS A 643       6.674  52.897 -25.373  1.00 45.60           C
ATOM   1571  O   LYS A 643       5.799  53.013 -26.220  1.00 48.23           O
ATOM   1572  N   GLN A 644       7.797  53.609 -25.400  1.00 39.69           N
ATOM   1573  CA  GLN A 644       8.054  54.606 -26.441  1.00 39.12           C
ATOM   1574  CB  GLN A 644       9.386  55.325 -26.193  1.00 39.91           C
ATOM   1575  CG  GLN A 644       9.354  56.335 -25.060  1.00 47.43           C
ATOM   1576  CD  GLN A 644       8.926  57.724 -25.522  1.00 64.48           C
ATOM   1577  OE1 GLN A 644       9.330  58.734 -24.931  1.00 62.64           O
ATOM   1578  NE2 GLN A 644       8.094  57.783 -26.573  1.00 55.72           N
ATOM   1579  C   GLN A 644       8.081  53.990 -27.822  1.00 45.48           C
ATOM   1580  O   GLN A 644       7.609  54.588 -28.779  1.00 47.49           O
ATOM   1581  N   LEU A 645       8.685  52.813 -27.937  1.00 43.37           N
ATOM   1582  CA  LEU A 645       8.760  52.114 -29.222  1.00 43.47           C
ATOM   1583  CB  LEU A 645       9.761  50.952 -29.167  1.00 43.76           C
ATOM   1584  CG  LEU A 645      11.235  51.335 -29.289  1.00 47.41           C
ATOM   1585  CD1 LEU A 645      12.129  50.176 -28.875  1.00 46.02           C
ATOM   1586  CD2 LEU A 645      11.558  51.808 -30.688  1.00 46.63           C
ATOM   1587  C   LEU A 645       7.383  51.623 -29.676  1.00 43.05           C
ATOM   1588  O   LEU A 645       7.063  51.674 -30.853  1.00 39.29           O
ATOM   1589  N   GLU A 646       6.584  51.159 -28.721  1.00 42.06           N
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ATOM   1590  CA AGLU A 646       5.238  50.684 -29.019  0.50 43.26           C
ATOM   1591  CA BGLU A 646       5.220  50.688 -28.974  0.50 43.20           C
ATOM   1592  CB AGLU A 646       4.594  50.057 -27.777  0.50 44.61           C
ATOM   1593  CB BGLU A 646       4.585  50.200 -27.661  0.50 44.53           C
ATOM   1594  CG AGLU A 646       3.261  49.339 -28.031  0.50 51.68           C
ATOM   1595  CG BGLU A 646       3.215  49.512 -27.801  0.50 51.38           C
ATOM   1596  CD AGLU A 646       3.407  48.051 -28.836  0.50 59.32           C
ATOM   1597  CD BGLU A 646       2.517  49.277 -26.459  0.50 55.93           C
ATOM   1598  OE1AGLU A 646       4.522  47.481 -28.873  0.50 51.63           O
ATOM   1599  OE1BGLU A 646       2.947  49.859 -25.442  0.50 53.85           O
ATOM   1600  OE2AGLU A 646       2.395  47.600 -29.430  0.50 51.09           O
ATOM   1601  OE2BGLU A 646       1.530  48.511 -26.413  0.50 49.72           O
ATOM   1602  C    GLU A 646       4.388  51.835 -29.553  1.00 48.45           C
ATOM   1603  O    GLU A 646       3.680  51.673 -30.546  1.00 48.36           O
ATOM   1604  N    GLU A 647       4.511  53.006 -28.929  1.00 46.89           N
ATOM   1605  CA AGLU A 647       3.774  54.197 -29.353  0.50 47.36           C
ATOM   1606  CA BGLU A 647       3.788  54.204 -29.354  0.50 47.29           C
ATOM   1607  CB AGLU A 647       3.908  55.330 -28.318  0.50 48.68           C
ATOM   1608  CB BGLU A 647       3.982  55.340 -28.343  0.50 48.55           C
ATOM   1609  CG AGLU A 647       2.677  56.249 -28.208  0.50 55.46           C
ATOM   1610  CG BGLU A 647       3.479  55.017 -26.936  0.50 54.31           C
ATOM   1611  CD AGLU A 647       2.523  56.909 -26.831  0.50 61.46           C
ATOM   1612  CD BGLU A 647       3.885  56.063 -25.904  0.50 60.14           C
ATOM   1613  OE1AGLU A 647       2.785  56.231 -25.805  0.50 56.12           O
ATOM   1614  OE1BGLU A 647       4.435  57.123 -26.295  0.50 55.53           O
ATOM   1615  OE2AGLU A 647       2.090  58.091 -26.773  0.50 52.46           O
ATOM   1616  OE2BGLU A 647       3.640  55.829 -24.699  0.50 53.04           O
ATOM   1617  C    GLU A 647       4.198  54.674 -30.746  1.00 52.05           C
ATOM   1618  O    GLU A 647       3.347  54.951 -31.593  1.00 52.66           O
ATOM   1619  N    MET A 648       5.509  54.755 -30.986  1.00 48.69           N
ATOM   1620  CA   MET A 648       6.037  55.197 -32.281  1.00 48.79           C
ATOM   1621  CB   MET A 648       7.563  55.269 -32.237  1.00 51.57           C
ATOM   1622  CG   MET A 648       8.147  56.346 -31.360  1.00 56.94           C
ATOM   1623  SD   MET A 648       9.957  56.128 -31.154  1.00 62.80           S
ATOM   1624  CE   MET A 648      10.360  57.525 -30.082  1.00 60.13           C
ATOM   1625  C    MET A 648       5.636  54.251 -33.411  1.00 54.10           C
ATOM   1626  O    MET A 648       5.392  54.671 -34.533  1.00 54.64           O
ATOM   1627  N    TYR A 649       5.647  52.957 -33.122  1.00 52.29           N
ATOM   1628  CA   TYR A 649       5.315  51.935 -34.120  1.00 52.60           C
ATOM   1629  CB   TYR A 649       5.575  50.525 -33.555  1.00 52.39           C
ATOM   1630  CG   TYR A 649       4.870  49.401 -34.302  1.00 52.06           C
ATOM   1631  CD1  TYR A 649       5.369  48.925 -35.503  1.00 52.98           C
ATOM   1632  CE1  TYR A 649       4.750  47.894 -36.175  1.00 52.82           C
ATOM   1633  CZ   TYR A 649       3.607  47.329 -35.655  1.00 60.72           C
ATOM   1634  OH   TYR A 649       2.988  46.288 -36.325  1.00 62.00           O
ATOM   1635  CE2  TYR A 649       3.085  47.790 -34.459  1.00 53.16           C
ATOM   1636  CD2  TYR A 649       3.718  48.807 -33.789  1.00 52.37           C
ATOM   1637  C    TYR A 649       3.853  52.061 -34.571  1.00 57.75           C
ATOM   1638  O    TYR A 649       3.545  51.947 -35.768  1.00 57.06           O
ATOM   1639  N    GLN A 650       2.968  52.268 -33.597  1.00 54.68           N
ATOM   1640  CA   GLN A 650       1.531  52.386 -33.843  1.00 54.60           C
ATOM   1641  CB   GLN A 650       0.743  52.134 -32.555  1.00 55.43           C
ATOM   1642  CG   GLN A 650       0.680  50.654 -32.210  1.00 58.28           C
ATOM   1643  CD   GLN A 650       0.189  50.423 -30.810  1.00 67.52           C
ATOM   1644  OE1  GLN A 650      -0.561  51.233 -30.268  1.00 66.37           O
ATOM   1645  NE2  GLN A 650       0.608  49.318 -30.210  1.00 61.83           N
ATOM   1646  C    GLN A 650       1.096  53.694 -34.500  1.00 58.88           C
ATOM   1647  O    GLN A 650       0.255  53.690 -35.396  1.00 61.25           O
ATOM   1648  N    THR A 651       1.678  54.804 -34.061  1.00 53.86           N
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ATOM   1649  CA  THR A 651       1.384  56.094 -34.658  1.00 52.90           C
ATOM   1650  CB  THR A 651       1.748  57.252 -33.727  1.00 57.33           C
ATOM   1651  OG1 THR A 651       3.162  57.243 -33.491  1.00 59.20           O
ATOM   1652  CG2 THR A 651       0.975  57.174 -32.409  1.00 53.00           C
ATOM   1653  C   THR A 651       2.174  56.206 -35.963  1.00 58.02           C
ATOM   1654  O   THR A 651       2.239  57.285 -36.567  1.00 61.16           O
ATOM   1655  N   GLY A 652       2.805  55.109 -36.381  1.00 51.76           N
ATOM   1656  CA  GLY A 652       3.571  55.060 -37.624  1.00 51.18           C
ATOM   1657  C   GLY A 652       4.761  55.996 -37.766  1.00 55.38           C
ATOM   1658  O   GLY A 652       5.287  56.187 -38.875  1.00 56.98           O
ATOM   1659  N   SER A 653       5.214  56.547 -36.643  1.00 51.07           N
ATOM   1660  CA  SER A 653       6.343  57.471 -36.652  1.00 50.56           C
ATOM   1661  CB  SER A 653       6.140  58.566 -35.611  1.00 52.47           C
ATOM   1662  OG  SER A 653       5.873  58.006 -34.332  1.00 63.77           O
ATOM   1663  C   SER A 653       7.739  56.830 -36.510  1.00 55.50           C
ATOM   1664  O   SER A 653       8.753  57.523 -36.597  1.00 56.19           O
ATOM   1665  N   LEU A 654       7.796  55.517 -36.304  1.00 51.86           N
ATOM   1666  CA  LEU A 654       9.083  54.847 -36.185  1.00 51.26           C
ATOM   1667  CB  LEU A 654       8.933  53.362 -35.811  1.00 51.10           C
ATOM   1668  CG  LEU A 654      10.256  52.688 -35.394  1.00 54.55           C
ATOM   1669  CD1 LEU A 654      10.848  53.358 -34.144  1.00 53.82           C
ATOM   1670  CD2 LEU A 654      10.069  51.196 -35.175  1.00 54.69           C
ATOM   1671  C   LEU A 654       9.854  54.998 -37.485  1.00 54.80           C
ATOM   1672  O   LEU A 654       9.364  54.647 -38.565  1.00 56.68           O
ATOM   1673  N   ASN A 655      11.055  55.546 -37.375  1.00 49.16           N
ATOM   1674  CA  ASN A 655      11.880  55.809 -38.533  1.00 48.75           C
ATOM   1675  CB  ASN A 655      11.869  57.318 -38.796  1.00 48.04           C
ATOM   1676  CG  ASN A 655      12.849  57.723 -39.845  1.00 59.16           C
ATOM   1677  OD1 ASN A 655      13.231  56.916 -40.691  1.00 52.83           O
ATOM   1678  ND2 ASN A 655      13.285  58.977 -39.794  1.00 53.19           N
ATOM   1679  C   ASN A 655      13.310  55.329 -38.305  1.00 52.38           C
ATOM   1680  O   ASN A 655      14.060  55.911 -37.516  1.00 53.19           O
ATOM   1681  N   LEU A 656      13.694  54.283 -39.023  1.00 49.23           N
ATOM   1682  CA  LEU A 656      15.020  53.703 -38.875  1.00 49.52           C
ATOM   1683  CB  LEU A 656      15.069  52.312 -39.504  1.00 49.82           C
ATOM   1684  CG  LEU A 656      14.147  51.279 -38.859  1.00 54.82           C
ATOM   1685  CD1 LEU A 656      13.822  50.128 -39.826  1.00 55.47           C
ATOM   1686  CD2 LEU A 656      14.757  50.755 -37.573  1.00 55.56           C
ATOM   1687  C   LEU A 656      16.188  54.577 -39.343  1.00 53.86           C
ATOM   1688  O   LEU A 656      17.343  54.252 -39.080  1.00 54.89           O
ATOM   1689  N   ASN A 657      15.891  55.695 -40.000  1.00 50.59           N
ATOM   1690  CA  ASN A 657      16.945  56.601 -40.460  1.00 50.22           C
ATOM   1691  CB  ASN A 657      16.541  57.303 -41.759  1.00 49.34           C
ATOM   1692  CG  ASN A 657      16.408  56.349 -42.923  1.00 66.66           C
ATOM   1693  OD1 ASN A 657      17.203  55.401 -43.071  1.00 55.92           O
ATOM   1694  ND2 ASN A 657      15.395  56.590 -43.767  1.00 56.32           N
ATOM   1695  C   ASN A 657      17.238  57.638 -39.381  1.00 52.82           C
ATOM   1696  O   ASN A 657      18.237  58.359 -39.454  1.00 53.96           O
ATOM   1697  N   ASN A 658      16.360  57.703 -38.382  1.00 46.20           N
ATOM   1698  CA  ASN A 658      16.522  58.630 -37.268  1.00 44.99           C
ATOM   1699  CB  ASN A 658      15.144  58.930 -36.659  1.00 41.98           C
ATOM   1700  CG  ASN A 658      15.204  59.945 -35.512  1.00 59.91           C
ATOM   1701  OD1 ASN A 658      16.178  59.997 -34.756  1.00 55.78           O
ATOM   1702  ND2 ASN A 658      14.131  60.719 -35.352  1.00 49.41           N
ATOM   1703  C   ASN A 658      17.417  57.893 -36.250  1.00 49.62           C
ATOM   1704  O   ASN A 658      17.043  56.833 -35.728  1.00 49.54           O
ATOM   1705  N   GLN A 659      18.613  58.427 -36.017  1.00 45.09           N
ATOM   1706  CA  GLN A 659      19.580  57.823 -35.103  1.00 43.73           C
ATOM   1707  CB  GLN A 659      20.827  58.695 -34.989  1.00 44.15           C
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ATOM   1708  CG  GLN A 659      21.898  58.103 -34.074  1.00 49.61           C
ATOM   1709  CD  GLN A 659      22.406  56.751 -34.571  1.00 56.72           C
ATOM   1710  OE1 GLN A 659      22.807  56.624 -35.731  1.00 50.92           O
ATOM   1711  NE2 GLN A 659      22.391  55.734 -33.693  1.00 39.22           N
ATOM   1712  C   GLN A 659      19.019  57.558 -33.708  1.00 45.11           C
ATOM   1713  O   GLN A 659      19.308  56.547 -33.083  1.00 44.00           O
ATOM   1714  N   SER A 660      18.221  58.494 -33.231  1.00 41.65           N
ATOM   1715  CA  SER A 660      17.617  58.409 -31.917  1.00 41.17           C
ATOM   1716  CB  SER A 660      16.920  59.741 -31.579  1.00 45.04           C
ATOM   1717  OG  SER A 660      16.063  59.620 -30.460  1.00 59.01           O
ATOM   1718  C   SER A 660      16.641  57.239 -31.856  1.00 42.58           C
ATOM   1719  O   SER A 660      16.468  56.612 -30.813  1.00 41.73           O
ATOM   1720  N   HIS A 661      16.012  56.945 -32.984  1.00 39.75           N
ATOM   1721  CA  HIS A 661      15.062  55.836 -33.064  1.00 40.76           C
ATOM   1722  CB  HIS A 661      14.157  55.989 -34.299  1.00 43.47           C
ATOM   1723  CG  HIS A 661      13.078  57.018 -34.140  1.00 48.11           C
ATOM   1724  ND1 HIS A 661      12.041  57.166 -35.040  1.00 50.36           N
ATOM   1725  CE1 HIS A 661      11.247  58.143 -34.638  1.00 49.95           C
ATOM   1726  NE2 HIS A 661      11.727  58.630 -33.507  1.00 50.41           N
ATOM   1727  CD2 HIS A 661      12.869  57.941 -33.173  1.00 50.52           C
ATOM   1728  C   HIS A 661      15.856  54.539 -33.163  1.00 40.89           C
ATOM   1729  O   HIS A 661      15.438  53.528 -32.623  1.00 38.76           O
ATOM   1730  N   ARG A 662      17.002  54.590 -33.849  1.00 38.07           N
ATOM   1731  CA  ARG A 662      17.871  53.432 -33.992  1.00 38.54           C
ATOM   1732  CB  ARG A 662      19.032  53.735 -34.925  1.00 40.41           C
ATOM   1733  CG  ARG A 662      18.691  53.591 -36.388  1.00 47.81           C
ATOM   1734  CD  ARG A 662      19.893  53.879 -37.246  1.00 44.11           C
ATOM   1735  NE  ARG A 662      20.585  52.654 -37.634  1.00 45.51           N
ATOM   1736  CZ  ARG A 662      20.105  51.773 -38.501  1.00 51.46           C
ATOM   1737  NH1 ARG A 662      18.911  51.957 -39.041  1.00 37.42           N
ATOM   1738  NH2 ARG A 662      20.805  50.696 -38.806  1.00 41.60           N
ATOM   1739  C   ARG A 662      18.412  53.004 -32.630  1.00 41.17           C
ATOM   1740  O   ARG A 662      18.452  51.811 -32.323  1.00 40.45           O
ATOM   1741  N   ASP A 663      18.846  53.981 -31.835  1.00 36.65           N
ATOM   1742  CA  ASP A 663      19.355  53.710 -30.497  1.00 35.79           C
ATOM   1743  CB  ASP A 663      19.679  55.023 -29.766  1.00 37.03           C
ATOM   1744  CG  ASP A 663      20.868  55.762 -30.367  1.00 42.70           C
ATOM   1745  OD1 ASP A 663      21.578  55.164 -31.210  1.00 45.76           O
ATOM   1746  OD2 ASP A 663      21.100  56.939 -29.977  1.00 41.95           O
ATOM   1747  C   ASP A 663      18.289  52.948 -29.698  1.00 39.99           C
ATOM   1748  O   ASP A 663      18.603  52.004 -28.962  1.00 39.89           O
ATOM   1749  N   ARG A 664      17.032  53.379 -29.812  1.00 36.81           N
ATOM   1750  CA  ARG A 664      15.936  52.726 -29.083  1.00 35.98           C
ATOM   1751  CB  ARG A 664      14.623  53.470 -29.297  1.00 37.45           C
ATOM   1752  CG  ARG A 664      14.573  54.852 -28.650  1.00 45.58           C
ATOM   1753  CD  ARG A 664      13.116  55.311 -28.421  1.00 40.51           C
ATOM   1754  NE  ARG A 664      13.037  56.561 -27.667  1.00 35.22           N
ATOM   1755  CZ  ARG A 664      13.108  56.631 -26.341  1.00 50.48           C
ATOM   1756  NH1 ARG A 664      13.260  55.531 -25.607  1.00 43.92           N
ATOM   1757  NH2 ARG A 664      13.022  57.798 -25.739  1.00 39.38           N
ATOM   1758  C   ARG A 664      15.772  51.259 -29.492  1.00 36.93           C
ATOM   1759  O   ARG A 664      15.641  50.370 -28.646  1.00 35.77           O
ATOM   1760  N   VAL A 665      15.775  51.024 -30.800  1.00 32.59           N
ATOM   1761  CA  VAL A 665      15.645  49.684 -31.375  1.00 31.35           C
ATOM   1762  CB  VAL A 665      15.556  49.744 -32.944  1.00 34.03           C
ATOM   1763  CG1 VAL A 665      15.629  48.333 -33.519  1.00 32.94           C
ATOM   1764  CG2 VAL A 665      14.233  50.433 -33.367  1.00 33.84           C
ATOM   1765  C   VAL A 665      16.816  48.805 -30.945  1.00 34.38           C
ATOM   1766  O   VAL A 665      16.631  47.638 -30.605  1.00 33.60           O
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ATOM   1767  N   ILE A 666      18.025  49.357 -30.970  1.00 31.27           N
ATOM   1768  CA  ILE A 666      19.201  48.595 -30.520  1.00 31.80           C
ATOM   1769  CB  ILE A 666      20.519  49.342 -30.815  1.00 34.73           C
ATOM   1770  CG1 ILE A 666      20.789  49.350 -32.324  1.00 34.98           C
ATOM   1771  CD1 ILE A 666      21.698  50.511 -32.788  1.00 37.59           C
ATOM   1772  CG2 ILE A 666      21.659  48.716 -30.035  1.00 36.08           C
ATOM   1773  C   ILE A 666      19.059  48.248 -29.040  1.00 34.08           C
ATOM   1774  O   ILE A 666      19.364  47.148 -28.616  1.00 36.85           O
ATOM   1775  N   GLY A 667      18.525  49.174 -28.257  1.00 29.90           N
ATOM   1776  CA  GLY A 667      18.304  48.940 -26.831  1.00 29.60           C
ATOM   1777  C   GLY A 667      17.335  47.804 -26.539  1.00 33.23           C
ATOM   1778  O   GLY A 667      17.549  47.014 -25.633  1.00 34.64           O
ATOM   1779  N   LEU A 668      16.287  47.690 -27.349  1.00 30.63           N
ATOM   1780  CA  LEU A 668      15.293  46.624 -27.196  1.00 29.55           C
ATOM   1781  CB  LEU A 668      14.035  46.916 -28.044  1.00 30.16           C
ATOM   1782  CG  LEU A 668      12.836  45.993 -27.705  1.00 34.16           C
ATOM   1783  CD1 LEU A 668      12.432  46.115 -26.256  1.00 32.78           C
ATOM   1784  CD2 LEU A 668      11.636  46.307 -28.604  1.00 39.44           C
ATOM   1785  C   LEU A 668      15.874  45.267 -27.595  1.00 28.91           C
ATOM   1786  O   LEU A 668      15.538  44.257 -27.006  1.00 25.63           O
ATOM   1787  N   MET A 669      16.735  45.265 -28.608  1.00 27.48           N
ATOM   1788  CA  MET A 669      17.443  44.058 -29.070  1.00 27.19           C
ATOM   1789  CB  MET A 669      18.313  44.423 -30.295  1.00 28.55           C
ATOM   1790  CG  MET A 669      17.505  44.613 -31.588  1.00 31.47           C
ATOM   1791  SD  MET A 669      18.335  45.460 -32.899  1.00 34.98           S
ATOM   1792  CE  MET A 669      19.794  44.405 -33.137  1.00 32.60           C
ATOM   1793  C   MET A 669      18.380  43.560 -27.938  1.00 32.04           C
ATOM   1794  O   MET A 669      18.514  42.372 -27.732  1.00 31.49           O
ATOM   1795  N   MET A 670      19.015  44.490 -27.216  1.00 28.44           N
ATOM   1796  CA  MET A 670      19.899  44.161 -26.087  1.00 26.47           C
ATOM   1797  CB  MET A 670      20.662  45.406 -25.567  1.00 27.46           C
ATOM   1798  CG  MET A 670      21.698  45.963 -26.540  1.00 29.69           C
ATOM   1799  SD  MET A 670      22.998  44.760 -27.037  1.00 34.32           S
ATOM   1800  CE  MET A 670      23.767  44.413 -25.394  1.00 31.10           C
ATOM   1801  C   MET A 670      19.101  43.524 -24.954  1.00 29.29           C
ATOM   1802  O   MET A 670      19.525  42.509 -24.402  1.00 28.24           O
ATOM   1803  N   THR A 671      17.909  44.052 -24.670  1.00 26.81           N
ATOM   1804  CA  THR A 671      17.078  43.439 -23.634  1.00 26.89           C
ATOM   1805  CB  THR A 671      15.744  44.224 -23.395  1.00 31.92           C
ATOM   1806  OG1 THR A 671      16.015  45.590 -23.070  1.00 29.68           O
ATOM   1807  CG2 THR A 671      14.948  43.583 -22.257  1.00 26.43           C
ATOM   1808  C   THR A 671      16.725  42.025 -24.091  1.00 28.99           C
ATOM   1809  O   THR A 671      16.806  41.057 -23.333  1.00 27.68           O
ATOM   1810  N   ALA A 672      16.265  41.942 -25.331  1.00 24.92           N
ATOM   1811  CA  ALA A 672      15.832  40.674 -25.903  1.00 25.07           C
ATOM   1812  CB  ALA A 672      15.300  40.879 -27.349  1.00 25.07           C
ATOM   1813  C   ALA A 672      16.924  39.594 -25.866  1.00 28.15           C
ATOM   1814  O   ALA A 672      16.659  38.442 -25.530  1.00 29.04           O
ATOM   1815  N   CYS A 673      18.137  39.971 -26.253  1.00 25.19           N
ATOM   1816  CA  CYS A 673      19.287  39.059 -26.226  1.00 24.78           C
ATOM   1817  CB  CYS A 673      20.494  39.724 -26.882  1.00 25.69           C
ATOM   1818  SG  CYS A 673      20.321  39.928 -28.656  1.00 30.14           S
ATOM   1819  C   CYS A 673      19.628  38.706 -24.783  1.00 24.46           C
ATOM   1820  O   CYS A 673      19.877  37.572 -24.443  1.00 22.45           O
ATOM   1821  N   ASP A 674      19.604  39.709 -23.925  1.00 23.50           N
ATOM   1822  CA  ASP A 674      19.891  39.539 -22.503  1.00 23.36           C
ATOM   1823  CB  ASP A 674      19.937  40.914 -21.823  1.00 24.99           C
ATOM   1824  CG  ASP A 674      20.691  40.895 -20.509  1.00 30.32           C
ATOM   1825  OD1 ASP A 674      21.539  39.995 -20.306  1.00 32.31           O
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ATOM   1826  OD2 ASP A 674      20.436  41.776 -19.674  1.00 34.59           O
ATOM   1827  C   ASP A 674      18.917  38.645 -21.757  1.00 28.04           C
ATOM   1828  O   ASP A 674      19.328  37.925 -20.841  1.00 24.51           O
ATOM   1829  N   LEU A 675      17.639  38.658 -22.156  1.00 28.25           N
ATOM   1830  CA  LEU A 675      16.604  37.817 -21.523  1.00 27.65           C
ATOM   1831  CB  LEU A 675      15.258  38.564 -21.572  1.00 28.67           C
ATOM   1832  CG  LEU A 675      15.128  39.827 -20.717  1.00 35.77           C
ATOM   1833  CD1 LEU A 675      13.657  40.264 -20.588  1.00 35.38           C
ATOM   1834  CD2 LEU A 675      15.727  39.608 -19.348  1.00 41.96           C
ATOM   1835  C   LEU A 675      16.427  36.462 -22.227  1.00 28.12           C
ATOM   1836  O   LEU A 675      15.550  35.673 -21.864  1.00 26.65           O
ATOM   1837  N   CYS A 676      17.208  36.232 -23.278  1.00 26.12           N
ATOM   1838  CA  CYS A 676      17.067  35.023 -24.101  1.00 29.13           C
ATOM   1839  CB  CYS A 676      18.043  35.034 -25.276  1.00 31.51           C
ATOM   1840  SG  CYS A 676      19.714  34.495 -24.800  1.00 36.02           S
ATOM   1841  C   CYS A 676      16.954  33.619 -23.481  1.00 32.49           C
ATOM   1842  O   CYS A 676      16.576  32.669 -24.167  1.00 32.77           O
ATOM   1843  N   SER A 677      17.210  33.480 -22.188  1.00 28.45           N
ATOM   1844  CA  SER A 677      17.048  32.173 -21.567  1.00 28.87           C
ATOM   1845  CB  SER A 677      17.552  32.183 -20.114  1.00 34.28           C
ATOM   1846  OG  SER A 677      16.780  33.069 -19.320  1.00 51.31           O
ATOM   1847  C   SER A 677      15.590  31.729 -21.633  1.00 33.28           C
ATOM   1848  O   SER A 677      15.299  30.526 -21.698  1.00 33.86           O
ATOM   1849  N   VAL A 678      14.682  32.711 -21.623  1.00 29.91           N
ATOM   1850  CA  VAL A 678      13.231  32.466 -21.696  1.00 29.87           C
ATOM   1851  CB  VAL A 678      12.391  33.694 -21.183  1.00 34.09           C
ATOM   1852  CG1 VAL A 678      12.782  34.052 -19.759  1.00 33.95           C
ATOM   1853  CG2 VAL A 678      12.538  34.907 -22.113  1.00 33.81           C
ATOM   1854  C   VAL A 678      12.783  32.061 -23.102  1.00 32.71           C
ATOM   1855  O   VAL A 678      11.652  31.686 -23.303  1.00 34.76           O
ATOM   1856  N   THR A 679      13.696  32.120 -24.063  1.00 30.17           N
ATOM   1857  CA  THR A 679      13.399  31.762 -25.453  1.00 29.88           C
ATOM   1858  CB  THR A 679      13.775  32.875 -26.419  1.00 31.23           C
ATOM   1859  OG1 THR A 679      15.192  32.888 -26.600  1.00 34.07           O
ATOM   1860  CG2 THR A 679      13.294  34.224 -25.912  1.00 31.16           C
ATOM   1861  C   THR A 679      14.030  30.442 -25.910  1.00 31.72           C
ATOM   1862  O   THR A 679      14.034  30.128 -27.097  1.00 30.46           O
ATOM   1863  N   LYS A 680      14.628  29.698 -24.989  1.00 26.80           N
ATOM   1864  CA  LYS A 680      15.242  28.416 -25.358  1.00 25.58           C
ATOM   1865  CB  LYS A 680      16.404  28.063 -24.398  1.00 24.66           C
ATOM   1866  CG  LYS A 680      17.542  29.113 -24.370  1.00 25.37           C
ATOM   1867  CD  LYS A 680      18.004  29.450 -25.778  1.00 26.14           C
ATOM   1868  CE  LYS A 680      19.264  30.304 -25.764  1.00 31.51           C
ATOM   1869  NZ  LYS A 680      19.710  30.660 -27.152  1.00 29.88           N
ATOM   1870  C   LYS A 680      14.161  27.340 -25.254  1.00 31.77           C
ATOM   1871  O   LYS A 680      13.036  27.607 -24.828  1.00 30.90           O
ATOM   1872  N   LEU A 681      14.513  26.108 -25.582  1.00 30.36           N
ATOM   1873  CA  LEU A 681      13.572  25.006 -25.440  1.00 29.33           C
ATOM   1874  CB  LEU A 681      14.059  23.778 -26.235  1.00 29.35           C
ATOM   1875  CG  LEU A 681      14.178  24.026 -27.758  1.00 32.98           C
ATOM   1876  CD1 LEU A 681      14.408  22.754 -28.492  1.00 32.31           C
ATOM   1877  CD2 LEU A 681      12.962  24.762 -28.308  1.00 33.87           C
ATOM   1878  C   LEU A 681      13.431  24.698 -23.965  1.00 30.54           C
ATOM   1879  O   LEU A 681      14.380  24.885 -23.205  1.00 28.73           O
ATOM   1880  N   TRP A 682      12.251  24.222 -23.570  1.00 28.76           N
ATOM   1881  CA  TRP A 682      11.925  23.980 -22.164  1.00 30.52           C
ATOM   1882  CB  TRP A 682      10.584  23.241 -22.026  1.00 28.45           C
ATOM   1883  CG  TRP A 682      10.200  22.958 -20.594  1.00 30.98           C
ATOM   1884  CD1 TRP A 682       9.997  21.733 -20.029  1.00 29.93           C
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ATOM   1885  NE1 TRP A 682       9.641  21.875 -18.713  1.00 28.91           N
ATOM   1886  CE2 TRP A 682       9.593  23.206 -18.397  1.00 29.92           C
ATOM   1887  CD2 TRP A 682       9.929  23.927 -19.558  1.00 26.68           C
ATOM   1888  CE3 TRP A 682       9.967  25.331 -19.498  1.00 28.88           C
ATOM   1889  CZ3 TRP A 682       9.667  25.944 -18.295  1.00 28.88           C
ATOM   1890  CH2 TRP A 682       9.338  25.196 -17.163  1.00 29.48           C
ATOM   1891  CZ2 TRP A 682       9.287  23.829 -17.192  1.00 29.13           C
ATOM   1892  C   TRP A 682      13.005  23.376 -21.257  1.00 35.21           C
ATOM   1893  O   TRP A 682      13.293  23.896 -20.185  1.00 33.13           O
ATOM   1894  N   PRO A 683      13.625  22.271 -21.691  1.00 33.39           N
ATOM   1895  CA  PRO A 683      14.650  21.689 -20.800  1.00 33.03           C
ATOM   1896  CB  PRO A 683      15.160  20.471 -21.584  1.00 34.28           C
ATOM   1897  CG  PRO A 683      14.000  20.170 -22.593  1.00 37.26           C
ATOM   1898  CD  PRO A 683      13.485  21.530 -22.962  1.00 33.26           C
ATOM   1899  C   PRO A 683      15.789  22.668 -20.501  1.00 33.58           C
ATOM   1900  O   PRO A 683      16.264  22.708 -19.374  1.00 34.82           O
ATOM   1901  N   VAL A 684      16.205  23.463 -21.493  1.00 26.74           N
ATOM   1902  CA  VAL A 684      17.255  24.471 -21.276  1.00 25.43           C
ATOM   1903  CB  VAL A 684      17.804  25.047 -22.619  1.00 27.60           C
ATOM   1904  CG1 VAL A 684      18.746  26.229 -22.375  1.00 24.51           C
ATOM   1905  CG2 VAL A 684      18.498  23.958 -23.422  1.00 27.75           C
ATOM   1906  C   VAL A 684      16.762  25.597 -20.369  1.00 28.71           C
ATOM   1907  O   VAL A 684      17.433  25.943 -19.388  1.00 29.49           O
ATOM   1908  N   THR A 685      15.586  26.148 -20.692  1.00 24.90           N
ATOM   1909  CA  THR A 685      14.950  27.215 -19.917  1.00 25.04           C
ATOM   1910  CB  THR A 685      13.563  27.593 -20.547  1.00 34.30           C
ATOM   1911  OG1 THR A 685      13.783  28.195 -21.827  1.00 37.00           O
ATOM   1912  CG2 THR A 685      12.815  28.576 -19.640  1.00 24.05           C
ATOM   1913  C   THR A 685      14.758  26.824 -18.453  1.00 30.75           C
ATOM   1914  O   THR A 685      14.995  27.627 -17.523  1.00 33.60           O
ATOM   1915  N   LYS A 686      14.263  25.609 -18.257  1.00 26.73           N
ATOM   1916  CA  LYS A 686      14.005  25.100 -16.923  1.00 27.51           C
ATOM   1917  CB  LYS A 686      13.241  23.780 -17.029  1.00 30.05           C
ATOM   1918  CG  LYS A 686      12.825  23.152 -15.688  1.00 37.55           C
ATOM   1919  CD  LYS A 686      12.353  21.715 -15.946  1.00 41.84           C
ATOM   1920  CE  LYS A 686      11.905  21.012 -14.685  1.00 41.73           C
ATOM   1921  NZ  LYS A 686      11.530  19.613 -15.030  1.00 54.53           N
ATOM   1922  C   LYS A 686      15.310  24.946 -16.105  1.00 32.85           C
ATOM   1923  O   LYS A 686      15.362  25.312 -14.942  1.00 33.86           O
ATOM   1924  N   LEU A 687      16.385  24.470 -16.726  1.00 28.37           N
ATOM   1925  CA  LEU A 687      17.657  24.319 -15.996  1.00 27.94           C
ATOM   1926  CB  LEU A 687      18.605  23.351 -16.731  1.00 27.82           C
ATOM   1927  CG  LEU A 687      18.179  21.879 -16.657  1.00 30.98           C
ATOM   1928  CD1 LEU A 687      18.726  21.083 -17.852  1.00 31.32           C
ATOM   1929  CD2 LEU A 687      18.637  21.300 -15.350  1.00 31.31           C
ATOM   1930  C   LEU A 687      18.350  25.652 -15.755  1.00 31.85           C
ATOM   1931  O   LEU A 687      18.948  25.854 -14.700  1.00 31.31           O
ATOM   1932  N   THR A 688      18.242  26.578 -16.708  1.00 29.44           N
ATOM   1933  CA  THR A 688      18.849  27.912 -16.540  1.00 30.06           C
ATOM   1934  CB  THR A 688      18.782  28.748 -17.847  1.00 34.04           C
ATOM   1935  OG1 THR A 688      19.479  28.070 -18.900  1.00 34.77           O
ATOM   1936  CG2 THR A 688      19.396  30.102 -17.664  1.00 30.96           C
ATOM   1937  C   THR A 688      18.208  28.665 -15.354  1.00 36.37           C
ATOM   1938  O   THR A 688      18.857  29.466 -14.683  1.00 36.01           O
ATOM   1939  N   ALA A 689      16.928  28.409 -15.100  1.00 34.57           N
ATOM   1940  CA  ALA A 689      16.200  29.063 -13.998  1.00 33.43           C
ATOM   1941  CB  ALA A 689      14.736  28.618 -13.993  1.00 33.82           C
ATOM   1942  C   ALA A 689      16.842  28.760 -12.654  1.00 35.72           C
ATOM   1943  O   ALA A 689      16.847  29.609 -11.766  1.00 36.44           O
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ATOM   1944  N   ASN A 690      17.399  27.556 -12.505  1.00 31.36           N
ATOM   1945  CA  ASN A 690      18.098  27.180 -11.267  1.00 30.73           C
ATOM   1946  CB  ASN A 690      18.618  25.739 -11.352  1.00 31.26           C
ATOM   1947  CG  ASN A 690      17.521  24.726 -11.400  1.00 51.81           C
ATOM   1948  OD1 ASN A 690      16.375  24.979 -10.978  1.00 55.14           O
ATOM   1949  ND2 ASN A 690      17.853  23.557 -11.930  1.00 44.54           N
ATOM   1950  C   ASN A 690      19.309  28.083 -10.985  1.00 35.45           C
ATOM   1951  O   ASN A 690      19.600  28.392  -9.824  1.00 35.75           O
ATOM   1952  N   ASP A 691      20.041  28.448 -12.045  1.00 31.41           N
ATOM   1953  CA  ASP A 691      21.213  29.315 -11.920  1.00 30.18           C
ATOM   1954  CB  ASP A 691      22.048  29.272 -13.194  1.00 31.72           C
ATOM   1955  CG  ASP A 691      22.610  27.882 -13.471  1.00 44.14           C
ATOM   1956  OD1 ASP A 691      22.972  27.192 -12.497  1.00 47.27           O
ATOM   1957  OD2 ASP A 691      22.709  27.479 -14.656  1.00 51.61           O
ATOM   1958  C   ASP A 691      20.801  30.745 -11.606  1.00 32.51           C
ATOM   1959  O   ASP A 691      21.387  31.390 -10.743  1.00 32.02           O
ATOM   1960  N   ILE A 692      19.779  31.225 -12.306  1.00 29.17           N
ATOM   1961  CA  ILE A 692      19.259  32.581 -12.117  1.00 29.43           C
ATOM   1962  CB  ILE A 692      18.032  32.839 -13.044  1.00 32.25           C
ATOM   1963  CG1 ILE A 692      18.475  32.916 -14.505  1.00 33.24           C
ATOM   1964  CD1 ILE A 692      17.348  33.001 -15.468  1.00 36.78           C
ATOM   1965  CG2 ILE A 692      17.301  34.094 -12.634  1.00 31.03           C
ATOM   1966  C   ILE A 692      18.844  32.759 -10.652  1.00 32.82           C
ATOM   1967  O   ILE A 692      19.182  33.740  -9.996  1.00 30.28           O
ATOM   1968  N   TYR A 693      18.076  31.799 -10.153  1.00 32.54           N
ATOM   1969  CA  TYR A 693      17.581  31.847  -8.776  1.00 32.98           C
ATOM   1970  CB  TYR A 693      16.353  30.926  -8.580  1.00 34.50           C
ATOM   1971  CG  TYR A 693      15.064  31.592  -9.029  1.00 36.22           C
ATOM   1972  CD1 TYR A 693      14.316  32.367  -8.148  1.00 37.21           C
ATOM   1973  CE1 TYR A 693      13.163  33.012  -8.558  1.00 37.50           C
ATOM   1974  CZ  TYR A 693      12.738  32.877  -9.865  1.00 48.03           C
ATOM   1975  OH  TYR A 693      11.609  33.519 -10.296  1.00 48.68           O
ATOM   1976  CE2 TYR A 693      13.457  32.100 -10.767  1.00 39.48           C
ATOM   1977  CD2 TYR A 693      14.614  31.470 -10.344  1.00 37.93           C
ATOM   1978  C   TYR A 693      18.646  31.609  -7.716  1.00 36.47           C
ATOM   1979  O   TYR A 693      18.542  32.143  -6.599  1.00 36.09           O
ATOM   1980  N   ALA A 694      19.686  30.850  -8.071  1.00 32.64           N
ATOM   1981  CA  ALA A 694      20.803  30.611  -7.146  1.00 31.65           C
ATOM   1982  CB  ALA A 694      21.834  29.668  -7.754  1.00 31.84           C
ATOM   1983  C   ALA A 694      21.428  31.962  -6.829  1.00 34.59           C
ATOM   1984  O   ALA A 694      21.804  32.228  -5.690  1.00 37.17           O
ATOM   1985  N   GLU A 695      21.480  32.846  -7.821  1.00 30.22           N
ATOM   1986  CA  GLU A 695      22.006  34.202  -7.598  1.00 30.51           C
ATOM   1987  CB  GLU A 695      22.357  34.897  -8.929  1.00 32.09           C
ATOM   1988  CG  GLU A 695      23.724  34.543  -9.461  1.00 41.41           C
ATOM   1989  CD  GLU A 695      24.206  35.471 -10.591  1.00 41.54           C
ATOM   1990  OE1 GLU A 695      23.689  36.599 -10.740  1.00 41.85           O
ATOM   1991  OE2 GLU A 695      25.130  35.058 -11.326  1.00 31.47           O
ATOM   1992  C   GLU A 695      21.026  35.067  -6.819  1.00 32.90           C
ATOM   1993  O   GLU A 695      21.427  35.769  -5.880  1.00 34.27           O
ATOM   1994  N   PHE A 696      19.753  35.050  -7.230  1.00 29.17           N
ATOM   1995  CA  PHE A 696      18.715  35.853  -6.540  1.00 28.41           C
ATOM   1996  CB  PHE A 696      17.319  35.589  -7.124  1.00 29.78           C
ATOM   1997  CG  PHE A 696      17.073  36.234  -8.455  1.00 32.16           C
ATOM   1998  CD1 PHE A 696      17.806  37.333  -8.870  1.00 36.45           C
ATOM   1999  CE1 PHE A 696      17.559  37.921 -10.121  1.00 38.42           C
ATOM   2000  CZ  PHE A 696      16.565  37.410 -10.961  1.00 37.24           C
ATOM   2001  CE2 PHE A 696      15.824  36.307 -10.547  1.00 39.00           C
ATOM   2002  CD2 PHE A 696      16.084  35.725  -9.305  1.00 35.69           C
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ATOM   2003  C   PHE A 696      18.705  35.531  -5.039  1.00 30.41           C
ATOM   2004  O   PHE A 696      18.646  36.427  -4.205  1.00 28.83           O
ATOM   2005  N   TRP A 697      18.752  34.241  -4.710  1.00 30.96           N
ATOM   2006  CA  TRP A 697      18.718  33.786  -3.307  1.00 33.15           C
ATOM   2007  CB  TRP A 697      18.520  32.288  -3.208  1.00 32.80           C
ATOM   2008  CG  TRP A 697      17.206  31.840  -3.766  1.00 36.89           C
ATOM   2009  CD1 TRP A 697      16.025  32.550  -3.809  1.00 37.37           C
ATOM   2010  NE1 TRP A 697      15.035  31.768  -4.383  1.00 37.76           N
ATOM   2011  CE2 TRP A 697      15.565  30.546  -4.713  1.00 38.46           C
ATOM   2012  CD2 TRP A 697      16.925  30.550  -4.330  1.00 34.29           C
ATOM   2013  CE3 TRP A 697      17.710  29.408  -4.577  1.00 37.24           C
ATOM   2014  CZ3 TRP A 697      17.129  28.317  -5.183  1.00 38.11           C
ATOM   2015  CH2 TRP A 697      15.776  28.342  -5.562  1.00 38.72           C
ATOM   2016  CZ2 TRP A 697      14.980  29.456  -5.348  1.00 37.85           C
ATOM   2017  C   TRP A 697      19.932  34.216  -2.484  1.00 35.11           C
ATOM   2018  O   TRP A 697      19.786  34.626  -1.331  1.00 33.15           O
ATOM   2019  N   ALA A 698      21.116  34.159  -3.097  1.00 30.69           N
ATOM   2020  CA  ALA A 698      22.334  34.651  -2.462  1.00 29.29           C
ATOM   2021  CB  ALA A 698      23.539  34.443  -3.384  1.00 29.56           C
ATOM   2022  C   ALA A 698      22.167  36.131  -2.131  1.00 32.12           C
ATOM   2023  O   ALA A 698      22.494  36.554  -1.037  1.00 32.38           O
ATOM   2024  N   GLU A 699      21.673  36.920  -3.087  1.00 29.15           N
ATOM   2025  CA  GLU A 699      21.458  38.356  -2.851  1.00 27.69           C
ATOM   2026  CB  GLU A 699      20.977  39.079  -4.111  1.00 27.85           C
ATOM   2027  CG  GLU A 699      20.842  40.572  -3.885  1.00 34.95           C
ATOM   2028  CD  GLU A 699      20.513  41.346  -5.155  1.00 38.97           C
ATOM   2029  OE1 GLU A 699      21.094  41.043  -6.227  1.00 33.53           O
ATOM   2030  OE2 GLU A 699      19.746  42.326  -5.070  1.00 36.89           O
ATOM   2031  C   GLU A 699      20.439  38.539  -1.717  1.00 33.08           C
ATOM   2032  O   GLU A 699      20.581  39.425  -0.879  1.00 33.68           O
ATOM   2033  N   GLY A 700      19.414  37.690  -1.695  1.00 31.23           N
ATOM   2034  CA  GLY A 700      18.402  37.727  -0.654  1.00 31.52           C
ATOM   2035  C   GLY A 700      19.062  37.528   0.702  1.00 36.69           C
ATOM   2036  O   GLY A 700      18.726  38.201   1.680  1.00 39.09           O
ATOM   2037  N   ASP A 701      19.999  36.588   0.760  1.00 32.10           N
ATOM   2038  CA  ASP A 701      20.740  36.301   1.985  1.00 31.06           C
ATOM   2039  CB  ASP A 701      21.736  35.139   1.769  1.00 32.88           C
ATOM   2040  CG  ASP A 701      21.059  33.778   1.669  1.00 44.67           C
ATOM   2041  OD1 ASP A 701      19.808  33.704   1.790  1.00 48.85           O
ATOM   2042  OD2 ASP A 701      21.788  32.780   1.455  1.00 43.27           O
ATOM   2043  C   ASP A 701      21.525  37.551   2.419  1.00 31.15           C
ATOM   2044  O   ASP A 701      21.589  37.870   3.594  1.00 30.24           O
ATOM   2045  N   GLU A 702      22.170  38.212   1.463  1.00 26.59           N
ATOM   2046  CA  GLU A 702      22.943  39.421   1.749  1.00 27.35           C
ATOM   2047  CB  GLU A 702      23.834  39.834   0.562  1.00 28.07           C
ATOM   2048  CG  GLU A 702      24.949  38.850   0.263  1.00 37.22           C
ATOM   2049  CD  GLU A 702      25.913  38.646   1.456  1.00 48.88           C
ATOM   2050  OE1 GLU A 702      26.169  39.616   2.220  1.00 40.33           O
ATOM   2051  OE2 GLU A 702      26.468  37.537   1.576  1.00 41.60           O
ATOM   2052  C   GLU A 702      22.049  40.575   2.184  1.00 33.76           C
ATOM   2053  O   GLU A 702      22.434  41.366   3.051  1.00 33.90           O
ATOM   2054  N   MET A 703      20.834  40.626   1.637  1.00 30.73           N
ATOM   2055  CA  MET A 703      19.854  41.636   2.056  1.00 30.80           C
ATOM   2056  CB  MET A 703      18.560  41.519   1.235  1.00 33.41           C
ATOM   2057  CG  MET A 703      18.653  42.161  -0.155  1.00 38.57           C
ATOM   2058  SD  MET A 703      18.844  43.913  -0.046  1.00 45.74           S
ATOM   2059  CE  MET A 703      18.746  44.429  -1.852  1.00 45.12           C
ATOM   2060  C   MET A 703      19.546  41.395   3.541  1.00 34.77           C
ATOM   2061  O   MET A 703      19.571  42.324   4.328  1.00 34.58           O
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ATOM   2062  N   LYS A 704      19.281  40.142   3.912  1.00 31.82           N
ATOM   2063  CA  LYS A 704      18.984  39.788   5.301  1.00 33.04           C
ATOM   2064  CB  LYS A 704      18.615  38.303   5.437  1.00 37.32           C
ATOM   2065  CG  LYS A 704      17.279  37.927   4.788  1.00 33.48           C
ATOM   2066  CD  LYS A 704      17.107  36.412   4.769  1.00 34.93           C
ATOM   2067  CE  LYS A 704      15.941  36.012   3.884  1.00 41.49           C
ATOM   2068  NZ  LYS A 704      15.780  34.540   3.800  1.00 47.17           N
ATOM   2069  C   LYS A 704      20.137  40.144   6.244  1.00 38.65           C
ATOM   2070  O   LYS A 704      19.910  40.576   7.359  1.00 38.46           O
ATOM   2071  N   LYS A 705      21.372  40.042   5.766  1.00 37.92           N
ATOM   2072  CA  LYS A 705      22.540  40.426   6.559  1.00 36.90           C
ATOM   2073  CB  LYS A 705      23.823  39.923   5.909  1.00 37.93           C
ATOM   2074  CG  LYS A 705      23.953  38.401   5.861  1.00 33.04           C
ATOM   2075  CD  LYS A 705      25.343  38.038   5.356  1.00 37.72           C
ATOM   2076  CE  LYS A 705      25.464  36.562   5.125  1.00 37.52           C
ATOM   2077  NZ  LYS A 705      26.818  36.216   4.577  1.00 45.86           N
ATOM   2078  C   LYS A 705      22.610  41.952   6.752  1.00 40.03           C
ATOM   2079  O   LYS A 705      23.232  42.435   7.709  1.00 38.77           O
ATOM   2080  N   LEU A 706      21.969  42.709   5.856  1.00 36.13           N
ATOM   2081  CA  LEU A 706      21.916  44.165   5.984  1.00 37.03           C
ATOM   2082  CB  LEU A 706      21.747  44.838   4.617  1.00 37.79           C
ATOM   2083  CG  LEU A 706      22.956  44.885   3.669  1.00 41.83           C
ATOM   2084  CD1 LEU A 706      22.558  45.586   2.362  1.00 40.33           C
ATOM   2085  CD2 LEU A 706      24.133  45.576   4.365  1.00 41.93           C
ATOM   2086  C   LEU A 706      20.728  44.558   6.860  1.00 42.69           C
ATOM   2087  O   LEU A 706      20.545  45.737   7.155  1.00 44.25           O
ATOM   2088  N   GLY A 707      19.903  43.577   7.231  1.00 39.75           N
ATOM   2089  CA  GLY A 707      18.735  43.794   8.065  1.00 39.98           C
ATOM   2090  C   GLY A 707      17.530  44.188   7.240  1.00 47.47           C
ATOM   2091  O   GLY A 707      16.589  44.792   7.740  1.00 48.27           O
ATOM   2092  N   ILE A 708      17.574  43.846   5.956  1.00 44.87           N
ATOM   2093  CA  ILE A 708      16.495  44.159   5.031  1.00 44.35           C
ATOM   2094  CB  ILE A 708      17.007  45.002   3.843  1.00 45.97           C
ATOM   2095  CG1 ILE A 708      17.785  46.235   4.347  1.00 45.64           C
ATOM   2096  CD1 ILE A 708      18.472  47.036   3.269  1.00 46.44           C
ATOM   2097  CG2 ILE A 708      15.857  45.428   2.967  1.00 45.37           C
ATOM   2098  C   ILE A 708      15.846  42.869   4.531  1.00 50.09           C
ATOM   2099  O   ILE A 708      16.515  41.982   4.017  1.00 49.68           O
ATOM   2100  N   GLN A 709      14.531  42.773   4.659  1.00 47.95           N
ATOM   2101  CA  GLN A 709      13.833  41.609   4.158  1.00 47.85           C
ATOM   2102  CB  GLN A 709      12.403  41.521   4.710  1.00 48.91           C
ATOM   2103  CG  GLN A 709      12.227  40.440   5.796  1.00 54.20           C
ATOM   2104  CD  GLN A 709      12.454  39.036   5.275  1.00 64.55           C
ATOM   2105  OE1 GLN A 709      13.290  38.287   5.812  1.00 61.57           O
ATOM   2106  NE2 GLN A 709      11.699  38.657   4.233  1.00 51.42           N
ATOM   2107  C   GLN A 709      13.787  41.745   2.646  1.00 51.37           C
ATOM   2108  O   GLN A 709      13.287  42.732   2.110  1.00 51.09           O
ATOM   2109  N   PRO A 710      14.353  40.766   1.938  1.00 47.66           N
ATOM   2110  CA  PRO A 710      14.327  40.853   0.477  1.00 47.03           C
ATOM   2111  CB  PRO A 710      15.238  39.695   0.060  1.00 47.99           C
ATOM   2112  CG  PRO A 710      15.124  38.710   1.151  1.00 51.25           C
ATOM   2113  CD  PRO A 710      14.979  39.517   2.413  1.00 47.46           C
ATOM   2114  C   PRO A 710      12.918  40.630  -0.102  1.00 49.57           C
ATOM   2115  O   PRO A 710      12.056  40.026   0.538  1.00 48.65           O
ATOM   2116  N   ILE A 711      12.723  41.049  -1.350  1.00 46.68           N
ATOM   2117  CA  ILE A 711      11.481  40.770  -2.064  1.00 46.86           C
ATOM   2118  CB  ILE A 711      11.476  41.423  -3.469  1.00 49.24           C
ATOM   2119  CG1 ILE A 711      12.554  40.799  -4.368  1.00 48.53           C
ATOM   2120  CD1 ILE A 711      12.633  41.448  -5.745  1.00 50.00           C
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ATOM   2121  CG2 ILE A 711      11.678  42.941  -3.364  1.00 52.03           C
ATOM   2122  C   ILE A 711      11.409  39.234  -2.147  1.00 51.56           C
ATOM   2123  O   ILE A 711      12.436  38.558  -2.162  1.00 50.95           O
ATOM   2124  N   PRO A 712      10.197  38.664  -2.179  1.00 49.02           N
ATOM   2125  CA  PRO A 712      10.028  37.198  -2.187  1.00 48.69           C
ATOM   2126  CB  PRO A 712       8.517  37.014  -2.418  1.00 50.60           C
ATOM   2127  CG  PRO A 712       7.904  38.312  -1.960  1.00 54.81           C
ATOM   2128  CD  PRO A 712       8.913  39.374  -2.326  1.00 50.47           C
ATOM   2129  C   PRO A 712      10.832  36.437  -3.237  1.00 50.58           C
ATOM   2130  O   PRO A 712      11.258  35.296  -3.015  1.00 49.51           O
ATOM   2131  N   MET A 713      11.013  37.068  -4.389  1.00 47.65           N
ATOM   2132  CA  MET A 713      11.750  36.478  -5.494  1.00 47.68           C
ATOM   2133  CB  MET A 713      11.810  37.484  -6.631  1.00 50.60           C
ATOM   2134  CG  MET A 713      12.217  36.895  -7.934  1.00 56.40           C
ATOM   2135  SD  MET A 713      12.895  38.157  -9.021  1.00 63.50           S
ATOM   2136  CE  MET A 713      12.510  37.331 -10.638  1.00 61.83           C
ATOM   2137  C   MET A 713      13.183  36.120  -5.081  1.00 51.75           C
ATOM   2138  O   MET A 713      13.770  35.160  -5.595  1.00 53.67           O
ATOM   2139  N   MET A 714      13.749  36.908  -4.170  1.00 45.93           N
ATOM   2140  CA  MET A 714      15.116  36.693  -3.718  1.00 44.62           C
ATOM   2141  CB  MET A 714      15.844  38.027  -3.627  1.00 46.60           C
ATOM   2142  CG  MET A 714      15.993  38.727  -4.966  1.00 50.80           C
ATOM   2143  SD  MET A 714      17.007  40.202  -4.799  1.00 56.33           S
ATOM   2144  CE  MET A 714      16.926  40.850  -6.521  1.00 54.30           C
ATOM   2145  C   MET A 714      15.205  35.920  -2.395  1.00 46.82           C
ATOM   2146  O   MET A 714      16.291  35.618  -1.902  1.00 45.97           O
ATOM   2147  N   ASP A 715      14.054  35.578  -1.834  1.00 42.43           N
ATOM   2148  CA  ASP A 715      14.014  34.856  -0.569  1.00 42.76           C
ATOM   2149  CB  ASP A 715      12.814  35.342   0.267  1.00 44.27           C
ATOM   2150  CG  ASP A 715      12.884  34.895   1.723  1.00 51.75           C
ATOM   2151  OD1 ASP A 715      13.678  33.973   2.061  1.00 50.06           O
ATOM   2152  OD2 ASP A 715      12.099  35.443   2.522  1.00 56.38           O
ATOM   2153  C   ASP A 715      13.949  33.346  -0.804  1.00 48.78           C
ATOM   2154  O   ASP A 715      13.012  32.850  -1.421  1.00 50.23           O
ATOM   2155  N   ARG A 716      14.967  32.627  -0.344  1.00 46.50           N
ATOM   2156  CA  ARG A 716      15.010  31.193  -0.535  1.00 47.01           C
ATOM   2157  CB  ARG A 716      16.438  30.663  -0.499  1.00 44.50           C
ATOM   2158  CG  ARG A 716      17.088  30.629   0.840  1.00 47.82           C
ATOM   2159  CD  ARG A 716      18.427  29.908   0.745  1.00 49.06           C
ATOM   2160  NE  ARG A 716      19.488  30.788   0.261  1.00 47.02           N
ATOM   2161  CZ  ARG A 716      20.278  30.532  -0.779  1.00 56.04           C
ATOM   2162  NH1 ARG A 716      20.136  29.411  -1.479  1.00 50.14           N
ATOM   2163  NH2 ARG A 716      21.210  31.408  -1.125  1.00 40.74           N
ATOM   2164  C   ARG A 716      14.087  30.427   0.398  1.00 53.62           C
ATOM   2165  O   ARG A 716      13.922  29.211   0.267  1.00 54.74           O
ATOM   2166  N   ASP A 717      13.449  31.152   1.312  1.00 50.92           N
ATOM   2167  CA  ASP A 717      12.473  30.539   2.217  1.00 50.33           C
ATOM   2168  CB  ASP A 717      12.322  31.371   3.495  1.00 51.42           C
ATOM   2169  CG  ASP A 717      13.555  31.314   4.380  1.00 57.82           C
ATOM   2170  OD1 ASP A 717      14.092  30.204   4.569  1.00 59.50           O
ATOM   2171  OD2 ASP A 717      13.993  32.378   4.877  1.00 62.48           O
ATOM   2172  C   ASP A 717      11.138  30.507   1.469  1.00 53.95           C
ATOM   2173  O   ASP A 717      10.234  29.754   1.832  1.00 54.19           O
ATOM   2174  N   LYS A 718      11.028  31.323   0.416  1.00 49.77           N
ATOM   2175  CA  LYS A 718       9.798  31.400  -0.389  1.00 49.03           C
ATOM   2176  CB  LYS A 718       9.342  32.864  -0.541  1.00 50.21           C
ATOM   2177  CG  LYS A 718       9.386  33.634   0.783  1.00 52.63           C
ATOM   2178  CD  LYS A 718       8.638  34.968   0.736  1.00 56.84           C
ATOM   2179  CE  LYS A 718       8.538  35.569   2.156  1.00 62.72           C
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ATOM   2180  NZ  LYS A 718       8.100  37.009   2.184  1.00 62.02           N
ATOM   2181  C   LYS A 718       9.993  30.727  -1.747  1.00 52.56           C
ATOM   2182  O   LYS A 718       9.496  31.195  -2.775  1.00 51.65           O
ATOM   2183  N   LYS A 719      10.748  29.630  -1.721  1.00 49.81           N
ATOM   2184  CA  LYS A 719      11.123  28.848  -2.905  1.00 49.88           C
ATOM   2185  CB  LYS A 719      12.022  27.667  -2.490  1.00 51.11           C
ATOM   2186  CG  LYS A 719      13.281  27.530  -3.301  1.00 55.29           C
ATOM   2187  CD  LYS A 719      14.086  26.304  -2.887  1.00 55.00           C
ATOM   2188  CE  LYS A 719      15.020  26.617  -1.752  1.00 54.88           C
ATOM   2189  NZ  LYS A 719      16.445  26.684  -2.184  1.00 60.71           N
ATOM   2190  C   LYS A 719       9.895  28.331  -3.631  1.00 55.80           C
ATOM   2191  O   LYS A 719       9.834  28.340  -4.862  1.00 57.83           O
ATOM   2192  N   ASP A 720       8.905  27.927  -2.840  1.00 51.45           N
ATOM   2193  CA  ASP A 720       7.617  27.438  -3.324  1.00 51.02           C
ATOM   2194  CB  ASP A 720       6.708  27.222  -2.101  1.00 52.82           C
ATOM   2195  CG  ASP A 720       7.040  28.198  -0.932  1.00 62.95           C
ATOM   2196  OD1 ASP A 720       7.960  27.884  -0.121  1.00 61.65           O
ATOM   2197  OD2 ASP A 720       6.358  29.257  -0.800  1.00 67.18           O
ATOM   2198  C   ASP A 720       6.931  28.449  -4.269  1.00 53.34           C
ATOM   2199  O   ASP A 720       6.066  28.088  -5.062  1.00 55.38           O
ATOM   2200  N   GLU A 721       7.290  29.721  -4.149  1.00 46.27           N
ATOM   2201  CA  GLU A 721       6.640  30.816  -4.882  1.00 45.75           C
ATOM   2202  CB  GLU A 721       6.794  32.087  -4.035  1.00 46.63           C
ATOM   2203  CG  GLU A 721       5.657  33.092  -4.070  1.00 56.02           C
ATOM   2204  CD  GLU A 721       5.701  34.059  -2.876  1.00 66.12           C
ATOM   2205  OE1 GLU A 721       5.587  35.294  -3.081  1.00 62.80           O
ATOM   2206  OE2 GLU A 721       5.828  33.581  -1.722  1.00 63.13           O
ATOM   2207  C   GLU A 721       7.164  31.089  -6.309  1.00 51.13           C
ATOM   2208  O   GLU A 721       6.647  31.970  -7.026  1.00 51.01           O
ATOM   2209  N   VAL A 722       8.198  30.344  -6.703  1.00 47.86           N
ATOM   2210  CA  VAL A 722       8.884  30.541  -7.989  1.00 46.12           C
ATOM   2211  CB  VAL A 722      10.134  29.632  -8.117  1.00 48.18           C
ATOM   2212  CG1 VAL A 722      10.656  29.640  -9.559  1.00 47.75           C
ATOM   2213  CG2 VAL A 722      11.207  30.061  -7.135  1.00 47.58           C
ATOM   2214  C   VAL A 722       8.044  30.530  -9.276  1.00 46.99           C
ATOM   2215  O   VAL A 722       8.136  31.447 -10.104  1.00 45.00           O
ATOM   2216  N   PRO A 723       7.280  29.454  -9.493  1.00 42.17           N
ATOM   2217  CA  PRO A 723       6.480  29.317 -10.716  1.00 41.81           C
ATOM   2218  CB  PRO A 723       5.672  28.042 -10.457  1.00 43.10           C
ATOM   2219  CG  PRO A 723       6.516  27.243  -9.520  1.00 46.64           C
ATOM   2220  CD  PRO A 723       7.171  28.272  -8.619  1.00 42.75           C
ATOM   2221  C   PRO A 723       5.559  30.509 -10.958  1.00 44.51           C
ATOM   2222  O   PRO A 723       5.408  30.968 -12.085  1.00 44.60           O
ATOM   2223  N   GLN A 724       4.946  31.008  -9.889  1.00 41.30           N
ATOM   2224  CA  GLN A 724       4.042  32.145  -9.979  1.00 41.22           C
ATOM   2225  CB  GLN A 724       3.325  32.336  -8.644  1.00 42.73           C
ATOM   2226  CG  GLN A 724       1.994  33.038  -8.802  1.00 49.20           C
ATOM   2227  CD  GLN A 724       0.969  32.116  -9.414  1.00 63.64           C
ATOM   2228  OE1 GLN A 724       0.565  31.119  -8.793  1.00 64.57           O
ATOM   2229  NE2 GLN A 724       0.583  32.400 -10.658  1.00 53.13           N
ATOM   2230  C   GLN A 724       4.797  33.422 -10.349  1.00 44.00           C
ATOM   2231  O   GLN A 724       4.322  34.209 -11.174  1.00 43.10           O
ATOM   2232  N   GLY A 725       5.991  33.592  -9.768  1.00 40.80           N
ATOM   2233  CA  GLY A 725       6.860  34.719 -10.058  1.00 39.38           C
ATOM   2234  C   GLY A 725       7.351  34.665 -11.486  1.00 39.63           C
ATOM   2235  O   GLY A 725       7.492  35.686 -12.142  1.00 40.33           O
ATOM   2236  N   GLN A 726       7.567  33.462 -11.999  1.00 35.74           N
ATOM   2237  CA  GLN A 726       7.958  33.319 -13.408  1.00 35.59           C
ATOM   2238  CB  GLN A 726       8.391  31.877 -13.709  1.00 37.02           C
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ATOM   2239  CG  GLN A 726       9.817  31.548 -13.198  1.00 40.58           C
ATOM   2240  CD  GLN A 726      10.893  32.338 -13.947  1.00 47.30           C
ATOM   2241  OE1 GLN A 726      11.114  32.127 -15.140  1.00 38.50           O
ATOM   2242  NE2 GLN A 726      11.513  33.296 -13.265  1.00 46.39           N
ATOM   2243  C   GLN A 726       6.827  33.782 -14.335  1.00 38.01           C
ATOM   2244  O   GLN A 726       7.070  34.518 -15.282  1.00 38.30           O
ATOM   2245  N   LEU A 727       5.585  33.398 -14.033  1.00 38.02           N
ATOM   2246  CA  LEU A 727       4.419  33.832 -14.839  1.00 39.11           C
ATOM   2247  CB  LEU A 727       3.095  33.358 -14.207  1.00 40.28           C
ATOM   2248  CG  LEU A 727       2.498  31.980 -14.534  1.00 45.27           C
ATOM   2249  CD1 LEU A 727       0.993  31.936 -14.160  1.00 44.41           C
ATOM   2250  CD2 LEU A 727       2.693  31.655 -16.003  1.00 47.81           C
ATOM   2251  C   LEU A 727       4.388  35.351 -14.897  1.00 40.53           C
ATOM   2252  O   LEU A 727       4.199  35.931 -15.970  1.00 39.56           O
ATOM   2253  N   GLY A 728       4.559  35.999 -13.738  1.00 37.17           N
ATOM   2254  CA  GLY A 728       4.542  37.457 -13.685  1.00 36.11           C
ATOM   2255  C   GLY A 728       5.595  38.048 -14.601  1.00 39.78           C
ATOM   2256  O   GLY A 728       5.341  38.975 -15.373  1.00 39.57           O
ATOM   2257  N   PHE A 729       6.799  37.490 -14.516  1.00 36.30           N
ATOM   2258  CA  PHE A 729       7.906  37.958 -15.320  1.00 34.67           C
ATOM   2259  CB  PHE A 729       9.183  37.199 -14.941  1.00 36.50           C
ATOM   2260  CG  PHE A 729      10.393  37.701 -15.649  1.00 37.61           C
ATOM   2261  CD1 PHE A 729      11.075  38.829 -15.176  1.00 40.77           C
ATOM   2262  CE1 PHE A 729      12.182  39.321 -15.851  1.00 41.06           C
ATOM   2263  CZ  PHE A 729      12.585  38.712 -17.025  1.00 39.19           C
ATOM   2264  CE2 PHE A 729      11.900  37.612 -17.521  1.00 40.67           C
ATOM   2265  CD2 PHE A 729      10.794  37.119 -16.834  1.00 38.17           C
ATOM   2266  C   PHE A 729       7.644  37.858 -16.824  1.00 34.12           C
ATOM   2267  O   PHE A 729       7.911  38.791 -17.580  1.00 33.78           O
ATOM   2268  N   TYR A 730       7.117  36.719 -17.255  1.00 29.18           N
ATOM   2269  CA  TYR A 730       6.787  36.518 -18.657  1.00 29.84           C
ATOM   2270  CB  TYR A 730       6.319  35.060 -18.917  1.00 31.81           C
ATOM   2271  CG  TYR A 730       7.450  34.080 -19.135  1.00 33.16           C
ATOM   2272  CD1 TYR A 730       8.237  33.658 -18.064  1.00 34.68           C
ATOM   2273  CE1 TYR A 730       9.267  32.762 -18.234  1.00 35.19           C
ATOM   2274  CZ  TYR A 730       9.553  32.303 -19.492  1.00 35.64           C
ATOM   2275  OH  TYR A 730      10.571  31.430 -19.617  1.00 30.84           O
ATOM   2276  CE2 TYR A 730       8.787  32.683 -20.590  1.00 34.18           C
ATOM   2277  CD2 TYR A 730       7.744  33.597 -20.398  1.00 33.72           C
ATOM   2278  C   TYR A 730       5.684  37.473 -19.089  1.00 34.69           C
ATOM   2279  O   TYR A 730       5.743  38.049 -20.183  1.00 35.10           O
ATOM   2280  N   ASN A 731       4.673  37.635 -18.235  1.00 35.01           N
ATOM   2281  CA  ASN A 731       3.549  38.550 -18.552  1.00 36.06           C
ATOM   2282  CB  ASN A 731       2.364  38.330 -17.593  1.00 35.00           C
ATOM   2283  CG  ASN A 731       1.662  36.991 -17.841  1.00 49.69           C
ATOM   2284  OD1 ASN A 731       1.423  36.610 -19.001  1.00 41.67           O
ATOM   2285  ND2 ASN A 731       1.362  36.257 -16.759  1.00 40.76           N
ATOM   2286  C   ASN A 731       3.969  40.009 -18.543  1.00 40.01           C
ATOM   2287  O   ASN A 731       3.732  40.741 -19.501  1.00 42.66           O
ATOM   2288  N   ALA A 732       4.628  40.427 -17.472  1.00 34.74           N
ATOM   2289  CA  ALA A 732       5.051  41.831 -17.341  1.00 35.13           C
ATOM   2290  CB  ALA A 732       5.274  42.186 -15.863  1.00 35.43           C
ATOM   2291  C   ALA A 732       6.263  42.255 -18.167  1.00 39.90           C
ATOM   2292  O   ALA A 732       6.375  43.424 -18.579  1.00 40.75           O
ATOM   2293  N   VAL A 733       7.198  41.325 -18.370  1.00 36.48           N
ATOM   2294  CA  VAL A 733       8.463  41.662 -19.048  1.00 34.51           C
ATOM   2295  CB  VAL A 733       9.679  41.415 -18.100  1.00 37.54           C
ATOM   2296  CG1 VAL A 733      10.968  41.945 -18.704  1.00 37.32           C
ATOM   2297  CG2 VAL A 733       9.434  41.980 -16.694  1.00 37.11           C
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ATOM   2298  C   VAL A 733       8.737  41.020 -20.390  1.00 34.23           C
ATOM   2299  O   VAL A 733       8.952  41.709 -21.386  1.00 35.08           O
ATOM   2300  N   ALA A 734       8.927  39.704 -20.355  1.00 29.38           N
ATOM   2301  CA  ALA A 734       9.328  38.935 -21.529  1.00 28.39           C
ATOM   2302  CB  ALA A 734       9.618  37.479 -21.142  1.00 28.34           C
ATOM   2303  C   ALA A 734       8.374  38.996 -22.732  1.00 32.58           C
ATOM   2304  O   ALA A 734       8.796  39.319 -23.831  1.00 31.20           O
ATOM   2305  N   ILE A 735       7.113  38.648 -22.518  1.00 33.49           N
ATOM   2306  CA  ILE A 735       6.130  38.663 -23.602  1.00 34.75           C
ATOM   2307  CB  ILE A 735       4.744  38.094 -23.109  1.00 38.64           C
ATOM   2308  CG1 ILE A 735       4.884  36.587 -22.775  1.00 38.65           C
ATOM   2309  CD1 ILE A 735       5.343  35.748 -23.947  1.00 40.72           C
ATOM   2310  CG2 ILE A 735       3.676  38.271 -24.211  1.00 40.78           C
ATOM   2311  C   ILE A 735       6.036  40.041 -24.275  1.00 34.73           C
ATOM   2312  O   ILE A 735       6.189  40.158 -25.490  1.00 33.21           O
ATOM   2313  N   PRO A 736       5.891  41.115 -23.476  1.00 32.18           N
ATOM   2314  CA  PRO A 736       5.845  42.471 -24.054  1.00 31.53           C
ATOM   2315  CB  PRO A 736       5.804  43.368 -22.821  1.00 32.14           C
ATOM   2316  CG  PRO A 736       5.129  42.537 -21.770  1.00 36.99           C
ATOM   2317  CD  PRO A 736       5.530  41.107 -22.041  1.00 33.44           C
ATOM   2318  C   PRO A 736       7.085  42.797 -24.889  1.00 37.80           C
ATOM   2319  O   PRO A 736       6.982  43.376 -25.981  1.00 38.36           O
ATOM   2320  N   CYS A 737       8.256  42.415 -24.372  1.00 34.35           N
ATOM   2321  CA  CYS A 737       9.543  42.675 -25.029  1.00 33.23           C
ATOM   2322  CB  CYS A 737      10.687  42.155 -24.120  1.00 33.87           C
ATOM   2323  SG  CYS A 737      12.315  42.151 -24.889  1.00 37.92           S
ATOM   2324  C   CYS A 737       9.665  42.028 -26.413  1.00 34.24           C
ATOM   2325  O   CYS A 737      10.045  42.655 -27.399  1.00 34.34           O
ATOM   2326  N   TYR A 738       9.363  40.746 -26.482  1.00 31.02           N
ATOM   2327  CA  TYR A 738       9.456  40.030 -27.753  1.00 31.49           C
ATOM   2328  CB  TYR A 738       9.595  38.508 -27.502  1.00 32.88           C
ATOM   2329  CG  TYR A 738      10.924  38.138 -26.834  1.00 32.95           C
ATOM   2330  CD1 TYR A 738      12.144  38.440 -27.438  1.00 33.85           C
ATOM   2331  CE1 TYR A 738      13.337  38.155 -26.814  1.00 33.04           C
ATOM   2332  CZ  TYR A 738      13.331  37.596 -25.557  1.00 36.40           C
ATOM   2333  OH  TYR A 738      14.517  37.327 -24.925  1.00 29.84           O
ATOM   2334  CE2 TYR A 738      12.140  37.345 -24.915  1.00 33.01           C
ATOM   2335  CD2 TYR A 738      10.946  37.617 -25.561  1.00 32.70           C
ATOM   2336  C   TYR A 738       8.317  40.358 -28.725  1.00 35.56           C
ATOM   2337  O   TYR A 738       8.502  40.264 -29.946  1.00 36.24           O
ATOM   2338  N   THR A 739       7.175  40.801 -28.193  1.00 34.80           N
ATOM   2339  CA  THR A 739       6.032  41.236 -29.045  1.00 35.43           C
ATOM   2340  CB  THR A 739       4.786  41.507 -28.193  1.00 39.99           C
ATOM   2341  OG1 THR A 739       4.366  40.303 -27.522  1.00 35.82           O
ATOM   2342  CG2 THR A 739       3.646  42.056 -29.069  1.00 38.65           C
ATOM   2343  C   THR A 739       6.440  42.520 -29.786  1.00 38.16           C
ATOM   2344  O   THR A 739       6.469  42.576 -31.016  1.00 38.62           O
ATOM   2345  N   THR A 740       6.804  43.539 -29.016  1.00 33.90           N
ATOM   2346  CA  THR A 740       7.272  44.807 -29.589  1.00 34.13           C
ATOM   2347  CB  THR A 740       7.613  45.825 -28.461  1.00 40.84           C
ATOM   2348  OG1 THR A 740       6.507  45.909 -27.546  1.00 43.86           O
ATOM   2349  CG2 THR A 740       7.937  47.211 -29.033  1.00 37.26           C
ATOM   2350  C   THR A 740       8.472  44.578 -30.515  1.00 41.18           C
ATOM   2351  O   THR A 740       8.595  45.233 -31.534  1.00 45.20           O
ATOM   2352  N   LEU A 741       9.357  43.641 -30.182  1.00 35.49           N
ATOM   2353  CA  LEU A 741      10.514  43.394 -31.051  1.00 34.50           C
ATOM   2354  CB  LEU A 741      11.571  42.503 -30.356  1.00 34.67           C
ATOM   2355  CG  LEU A 741      12.866  42.297 -31.160  1.00 39.12           C
ATOM   2356  CD1 LEU A 741      13.709  43.567 -31.144  1.00 38.23           C
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ATOM   2357  CD2 LEU A 741      13.664  41.097 -30.645  1.00 43.93           C
ATOM   2358  C   LEU A 741      10.118  42.801 -32.404  1.00 35.83           C
ATOM   2359  O   LEU A 741      10.693  43.138 -33.432  1.00 37.33           O
ATOM   2360  N   THR A 742       9.182  41.862 -32.390  1.00 33.11           N
ATOM   2361  CA  THR A 742       8.705  41.244 -33.637  1.00 33.97           C
ATOM   2362  CB  THR A 742       7.807  40.040 -33.384  1.00 44.79           C
ATOM   2363  OG1 THR A 742       8.428  39.187 -32.420  1.00 49.43           O
ATOM   2364  CG2 THR A 742       7.608  39.260 -34.688  1.00 45.36           C
ATOM   2365  C   THR A 742       7.947  42.263 -34.467  1.00 39.60           C
ATOM   2366  O   THR A 742       8.020  42.225 -35.686  1.00 40.82           O
ATOM   2367  N   GLN A 743       7.232  43.175 -33.800  1.00 36.87           N
ATOM   2368  CA  GLN A 743       6.483  44.234 -34.491  1.00 37.04           C
ATOM   2369  CB  GLN A 743       5.731  45.114 -33.487  1.00 37.65           C
ATOM   2370  CG  GLN A 743       4.479  44.454 -32.920  1.00 36.46           C
ATOM   2371  CD  GLN A 743       3.794  45.302 -31.864  1.00 55.67           C
ATOM   2372  OE1 GLN A 743       2.705  44.959 -31.389  1.00 54.65           O
ATOM   2373  NE2 GLN A 743       4.441  46.398 -31.466  1.00 53.29           N
ATOM   2374  C   GLN A 743       7.473  45.074 -35.270  1.00 42.94           C
ATOM   2375  O   GLN A 743       7.252  45.369 -36.430  1.00 44.63           O
ATOM   2376  N   ILE A 744       8.600  45.412 -34.645  1.00 39.10           N
ATOM   2377  CA  ILE A 744       9.619  46.227 -35.309  1.00 38.96           C
ATOM   2378  CB  ILE A 744      10.470  47.021 -34.301  1.00 41.99           C
ATOM   2379  CG1 ILE A 744       9.587  47.862 -33.394  1.00 42.81           C
ATOM   2380  CD1 ILE A 744      10.350  48.684 -32.373  1.00 46.92           C
ATOM   2381  CG2 ILE A 744      11.460  47.879 -35.012  1.00 43.88           C
ATOM   2382  C   ILE A 744      10.499  45.380 -36.229  1.00 43.22           C
ATOM   2383  O   ILE A 744      10.948  45.849 -37.279  1.00 45.84           O
ATOM   2384  N   LEU A 745      10.764  44.133 -35.835  1.00 37.71           N
ATOM   2385  CA  LEU A 745      11.640  43.264 -36.632  1.00 37.23           C
ATOM   2386  CB  LEU A 745      13.006  43.106 -35.927  1.00 36.98           C
ATOM   2387  CG  LEU A 745      13.906  44.332 -35.788  1.00 39.48           C
ATOM   2388  CD1 LEU A 745      15.175  43.919 -35.060  1.00 39.66           C
ATOM   2389  CD2 LEU A 745      14.250  44.913 -37.150  1.00 38.13           C
ATOM   2390  C   LEU A 745      11.000  41.894 -36.812  1.00 41.15           C
ATOM   2391  O   LEU A 745      11.286  40.962 -36.064  1.00 37.88           O
ATOM   2392  N   PRO A 746      10.119  41.759 -37.812  1.00 40.90           N
ATOM   2393  CA  PRO A 746       9.365  40.523 -38.046  1.00 40.21           C
ATOM   2394  CB  PRO A 746       8.640  40.768 -39.392  1.00 41.84           C
ATOM   2395  CG  PRO A 746       9.101  42.085 -39.893  1.00 46.24           C
ATOM   2396  CD  PRO A 746       9.748  42.828 -38.756  1.00 42.94           C
ATOM   2397  C   PRO A 746      10.133  39.198 -38.032  1.00 40.06           C
ATOM   2398  O   PRO A 746       9.630  38.203 -37.526  1.00 40.92           O
ATOM   2399  N   PRO A 747      11.344  39.159 -38.585  1.00 36.59           N
ATOM   2400  CA  PRO A 747      12.071  37.871 -38.581  1.00 37.61           C
ATOM   2401  CB  PRO A 747      13.315  38.157 -39.435  1.00 38.50           C
ATOM   2402  CG  PRO A 747      12.971  39.348 -40.230  1.00 42.02           C
ATOM   2403  CD  PRO A 747      12.044  40.181 -39.368  1.00 37.61           C
ATOM   2404  C   PRO A 747      12.513  37.355 -37.174  1.00 42.75           C
ATOM   2405  O   PRO A 747      13.115  36.290 -37.081  1.00 43.12           O
ATOM   2406  N   THR A 748      12.181  38.086 -36.103  1.00 37.89           N
ATOM   2407  CA  THR A 748      12.555  37.691 -34.745  1.00 36.62           C
ATOM   2408  CB  THR A 748      13.054  38.871 -33.923  1.00 38.58           C
ATOM   2409  OG1 THR A 748      11.985  39.792 -33.705  1.00 34.80           O
ATOM   2410  CG2 THR A 748      14.218  39.580 -34.616  1.00 39.32           C
ATOM   2411  C   THR A 748      11.406  36.969 -34.060  1.00 40.79           C
ATOM   2412  O   THR A 748      11.449  36.670 -32.856  1.00 39.10           O
ATOM   2413  N   GLU A 749      10.371  36.697 -34.848  1.00 37.47           N
ATOM   2414  CA  GLU A 749       9.159  36.021 -34.377  1.00 35.55           C
ATOM   2415  CB  GLU A 749       8.205  35.778 -35.586  1.00 36.63           C
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ATOM   2416  CG  GLU A 749       7.236  34.631 -35.406  1.00 45.07           C
ATOM   2417  CD  GLU A 749       6.038  34.997 -34.554  1.00 58.04           C
ATOM   2418  OE1 GLU A 749       5.575  36.164 -34.635  1.00 54.56           O
ATOM   2419  OE2 GLU A 749       5.534  34.099 -33.819  1.00 61.56           O
ATOM   2420  C   GLU A 749       9.450  34.713 -33.624  1.00 34.79           C
ATOM   2421  O   GLU A 749       8.787  34.384 -32.629  1.00 33.28           O
ATOM   2422  N   PRO A 750      10.452  33.950 -34.082  1.00 31.33           N
ATOM   2423  CA  PRO A 750      10.728  32.684 -33.372  1.00 32.08           C
ATOM   2424  CB  PRO A 750      11.959  32.107 -34.115  1.00 32.83           C
ATOM   2425  CG  PRO A 750      11.904  32.712 -35.436  1.00 34.89           C
ATOM   2426  CD  PRO A 750      11.296  34.100 -35.275  1.00 30.58           C
ATOM   2427  C   PRO A 750      11.025  32.883 -31.881  1.00 35.29           C
ATOM   2428  O   PRO A 750      10.732  32.018 -31.083  1.00 38.01           O
ATOM   2429  N   LEU A 751      11.582  34.036 -31.515  1.00 30.48           N
ATOM   2430  CA  LEU A 751      11.853  34.355 -30.105  1.00 29.34           C
ATOM   2431  CB  LEU A 751      12.697  35.631 -29.966  1.00 27.92           C
ATOM   2432  CG  LEU A 751      14.162  35.526 -30.372  1.00 30.92           C
ATOM   2433  CD1 LEU A 751      14.761  36.903 -30.482  1.00 30.04           C
ATOM   2434  CD2 LEU A 751      14.934  34.639 -29.385  1.00 32.34           C
ATOM   2435  C   LEU A 751      10.552  34.514 -29.320  1.00 32.89           C
ATOM   2436  O   LEU A 751      10.416  34.013 -28.210  1.00 30.81           O
ATOM   2437  N   LEU A 752       9.585  35.210 -29.905  1.00 33.21           N
ATOM   2438  CA  LEU A 752       8.266  35.408 -29.244  1.00 32.45           C
ATOM   2439  CB  LEU A 752       7.405  36.353 -30.103  1.00 32.05           C
ATOM   2440  CG  LEU A 752       5.935  36.490 -29.722  1.00 34.29           C
ATOM   2441  CD1 LEU A 752       5.774  36.859 -28.253  1.00 32.53           C
ATOM   2442  CD2 LEU A 752       5.307  37.559 -30.615  1.00 36.08           C
ATOM   2443  C   LEU A 752       7.564  34.042 -29.124  1.00 33.98           C
ATOM   2444  O   LEU A 752       7.030  33.665 -28.083  1.00 34.30           O
ATOM   2445  N   LYS A 753       7.592  33.290 -30.211  1.00 30.41           N
ATOM   2446  CA ALYS A 753       7.004  31.953 -30.244  0.50 30.41           C
ATOM   2447  CA BLYS A 753       6.992  31.962 -30.227  0.50 30.39           C
ATOM   2448  CB ALYS A 753       7.302  31.298 -31.604  0.50 31.74           C
ATOM   2449  CB BLYS A 753       7.225  31.290 -31.585  0.50 31.72           C
ATOM   2450  CG ALYS A 753       6.550  29.999 -31.872  0.50 39.00           C
ATOM   2451  CG BLYS A 753       6.913  29.801 -31.586  0.50 38.24           C
ATOM   2452  CD ALYS A 753       6.636  29.610 -33.349  0.50 37.53           C
ATOM   2453  CD BLYS A 753       6.796  29.266 -33.005  0.50 39.59           C
ATOM   2454  CE ALYS A 753       5.345  28.953 -33.840  0.50 37.19           C
ATOM   2455  CE BLYS A 753       7.280  27.816 -33.089  0.50 37.85           C
ATOM   2456  NZ ALYS A 753       4.339  29.962 -34.298  0.50 39.23           N
ATOM   2457  NZ BLYS A 753       6.701  26.959 -32.022  0.50 37.53           N
ATOM   2458  C   LYS A 753       7.563  31.087 -29.108  1.00 35.64           C
ATOM   2459  O   LYS A 753       6.807  30.467 -28.343  1.00 36.82           O
ATOM   2460  N   ALA A 754       8.894  31.039 -29.004  1.00 31.90           N
ATOM   2461  CA  ALA A 754       9.544  30.221 -27.963  1.00 31.48           C
ATOM   2462  CB  ALA A 754      11.089  30.163 -28.181  1.00 31.68           C
ATOM   2463  C   ALA A 754       9.213  30.708 -26.551  1.00 32.64           C
ATOM   2464  O   ALA A 754       9.026  29.918 -25.631  1.00 32.58           O
ATOM   2465  N   CYS A 755       9.135  32.019 -26.392  1.00 29.37           N
ATOM   2466  CA  CYS A 755       8.782  32.613 -25.109  1.00 30.09           C
ATOM   2467  CB  CYS A 755       8.868  34.139 -25.237  1.00 32.06           C
ATOM   2468  SG  CYS A 755       8.676  35.040 -23.730  1.00 36.90           S
ATOM   2469  C   CYS A 755       7.384  32.162 -24.677  1.00 30.27           C
ATOM   2470  O   CYS A 755       7.169  31.711 -23.540  1.00 25.94           O
ATOM   2471  N   ARG A 756       6.423  32.265 -25.595  1.00 31.95           N
ATOM   2472  CA AARG A 756       5.041  31.831 -25.328  0.70 32.42           C
ATOM   2473  CB AARG A 756       4.148  32.084 -26.550  0.70 34.24           C
ATOM   2474  CG AARG A 756       3.853  33.564 -26.819  0.70 40.25           C
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ATOM   2475  CD AARG A 756       2.732  33.746 -27.845  0.70 39.76           C
ATOM   2476  NE AARG A 756       2.466  35.156 -28.142  0.70 37.74           N
ATOM   2477  CZ AARG A 756       1.803  35.984 -27.337  0.70 46.37           C
ATOM   2478 NH1AARG A 756       1.326  35.577 -26.168  0.70 29.22           N
ATOM   2479 NH2AARG A 756       1.600  37.229 -27.708  0.70 37.08           N
ATOM   2480  C    ARG A 756       4.992  30.351 -24.953  1.00 34.57           C
ATOM   2481  O    ARG A 756       4.266  29.936 -24.034  1.00 32.53           O
ATOM   2482  CA BARG A 756       5.047  31.845 -25.317  0.30 32.11           C
ATOM   2483  CB BARG A 756       4.146  32.137 -26.524  0.30 32.72           C
ATOM   2484  CG BARG A 756       3.916  33.626 -26.868  0.30 38.82           C
ATOM   2485  CD BARG A 756       2.825  33.709 -27.949  0.30 38.71           C
ATOM   2486  NE BARG A 756       2.597  35.015 -28.572  0.30 37.09           N
ATOM   2487  CZ BARG A 756       2.682  35.242 -29.881  0.30 46.68           C
ATOM   2488 NH1BARG A 756       3.090  34.278 -30.696  0.30 33.94           N
ATOM   2489 NH2BARG A 756       2.400  36.442 -30.371  0.30 35.67           N
ATOM   2490  N    ASP A 757       5.808  29.543 -25.624  1.00 32.35           N
ATOM   2491  CA  ASP A 757       5.827  28.096 -25.312  1.00 32.73           C
ATOM   2492  CB  ASP A 757       6.703  27.305 -26.286  1.00 34.66           C
ATOM   2493  CG  ASP A 757       6.070  27.187 -27.659  1.00 47.41           C
ATOM   2494  OD1 ASP A 757       4.856  27.507 -27.762  1.00 52.04           O
ATOM   2495  OD2 ASP A 757       6.774  26.792 -28.625  1.00 48.60           O
ATOM   2496  C   ASP A 757       6.293  27.871 -23.885  1.00 36.56           C
ATOM   2497  O   ASP A 757       5.707  27.065 -23.155  1.00 39.78           O
ATOM   2498  N   ASN A 758       7.283  28.657 -23.461  1.00 28.87           N
ATOM   2499  CA  ASN A 758       7.812  28.544 -22.102  1.00 27.25           C
ATOM   2500  CB  ASN A 758       9.188  29.234 -21.981  1.00 24.77           C
ATOM   2501  CG  ASN A 758      10.311  28.412 -22.593  1.00 38.25           C
ATOM   2502  OD1 ASN A 758      10.350  27.196 -22.440  1.00 34.94           O
ATOM   2503  ND2 ASN A 758      11.181  29.064 -23.355  1.00 23.10           N
ATOM   2504  C   ASN A 758       6.816  29.039 -21.044  1.00 30.47           C
ATOM   2505  O   ASN A 758       6.741  28.498 -19.952  1.00 29.56           O
ATOM   2506  N   LEU A 759       6.051  30.075 -21.366  1.00 30.92           N
ATOM   2507  CA  LEU A 759       5.044  30.607 -20.429  1.00 30.43           C
ATOM   2508  CB  LEU A 759       4.325  31.812 -21.063  1.00 30.78           C
ATOM   2509  CG  LEU A 759       3.070  32.416 -20.384  1.00 36.23           C
ATOM   2510  CD1 LEU A 759       3.204  32.502 -18.873  1.00 36.92           C
ATOM   2511  CD2 LEU A 759       2.751  33.772 -20.953  1.00 39.40           C
ATOM   2512  C   LEU A 759       4.043  29.481 -20.162  1.00 33.20           C
ATOM   2513  O   LEU A 759       3.666  29.209 -19.032  1.00 32.94           O
ATOM   2514  N   SER A 760       3.615  28.828 -21.233  1.00 32.62           N
ATOM   2515  CA  SER A 760       2.684  27.705 -21.148  1.00 33.59           C
ATOM   2516  CB  SER A 760       2.272  27.253 -22.557  1.00 37.56           C
ATOM   2517  OG  SER A 760       1.569  26.041 -22.469  1.00 59.38           O
ATOM   2518  C   SER A 760       3.255  26.541 -20.347  1.00 39.49           C
ATOM   2519  O   SER A 760       2.521  25.901 -19.590  1.00 41.48           O
ATOM   2520  N   GLN A 761       4.564  26.292 -20.468  1.00 34.54           N
ATOM   2521  CA  GLN A 761       5.206  25.239 -19.679  1.00 32.66           C
ATOM   2522  CB  GLN A 761       6.654  24.982 -20.165  1.00 33.72           C
ATOM   2523  CG  GLN A 761       6.782  24.175 -21.447  1.00 35.49           C
ATOM   2524  CD  GLN A 761       6.146  22.798 -21.341  1.00 49.04           C
ATOM   2525  OE1 GLN A 761       6.564  21.976 -20.545  1.00 42.51           O
ATOM   2526  NE2 GLN A 761       5.074  22.578 -22.095  1.00 51.99           N
ATOM   2527  C   GLN A 761       5.170  25.592 -18.187  1.00 35.74           C
ATOM   2528  O   GLN A 761       4.980  24.706 -17.350  1.00 38.14           O
ATOM   2529  N   TRP A 762       5.336  26.878 -17.845  1.00 31.28           N
ATOM   2530  CA  TRP A 762       5.270  27.308 -16.434  1.00 31.38           C
ATOM   2531  CB  TRP A 762       5.784  28.736 -16.236  1.00 29.62           C
ATOM   2532  CG  TRP A 762       7.296  28.834 -16.180  1.00 35.13           C
ATOM   2533  CD1 TRP A 762       8.111  29.467 -17.086  1.00 33.52           C
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ATOM   2534  NE1 TRP A 762       9.417  29.317 -16.721  1.00 34.24           N
ATOM   2535  CE2 TRP A 762       9.484  28.584 -15.564  1.00 35.82           C
ATOM   2536  CD2 TRP A 762       8.166  28.242 -15.202  1.00 30.85           C
ATOM   2537  CE3 TRP A 762       7.952  27.534 -14.015  1.00 34.99           C
ATOM   2538  CZ3 TRP A 762       9.050  27.148 -13.267  1.00 36.30           C
ATOM   2539  CH2 TRP A 762      10.364  27.469 -13.683  1.00 37.21           C
ATOM   2540  CZ2 TRP A 762      10.593  28.190 -14.819  1.00 34.86           C
ATOM   2541  C   TRP A 762       3.846  27.171 -15.875  1.00 36.59           C
ATOM   2542  O   TRP A 762       3.647  26.742 -14.734  1.00 36.13           O
ATOM   2543  N   GLU A 763       2.846  27.485 -16.690  1.00 36.32           N
ATOM   2544  CA  GLU A 763       1.452  27.290 -16.240  1.00 38.67           C
ATOM   2545  CB  GLU A 763       0.454  27.895 -17.219  1.00 40.08           C
ATOM   2546  CG  GLU A 763       0.382  29.401 -17.053  1.00 43.06           C
ATOM   2547  CD  GLU A 763      -0.141  30.105 -18.264  1.00 55.75           C
ATOM   2548  OE1 GLU A 763      -0.083  29.493 -19.357  1.00 48.43           O
ATOM   2549  OE2 GLU A 763      -0.598  31.277 -18.122  1.00 58.60           O
ATOM   2550  C   GLU A 763       1.170  25.818 -15.965  1.00 44.92           C
ATOM   2551  O   GLU A 763       0.468  25.504 -15.010  1.00 47.96           O
ATOM   2552  N   LYS A 764       1.822  24.919 -16.707  1.00 40.01           N
ATOM   2553  CA  LYS A 764       1.709  23.493 -16.407  1.00 39.67           C
ATOM   2554  CB  LYS A 764       2.286  22.637 -17.530  1.00 40.70           C
ATOM   2555  CG  LYS A 764       1.582  22.858 -18.837  1.00 44.92           C
ATOM   2556  CD  LYS A 764       2.086  21.927 -19.915  1.00 50.34           C
ATOM   2557  CE  LYS A 764       1.210  22.068 -21.159  1.00 55.08           C
ATOM   2558  NZ  LYS A 764       1.699  21.215 -22.298  1.00 57.82           N
ATOM   2559  C   LYS A 764       2.370  23.169 -15.064  1.00 47.21           C
ATOM   2560  O   LYS A 764       1.856  22.362 -14.296  1.00 49.64           O
ATOM   2561  N   VAL A 765       3.485  23.821 -14.752  1.00 45.19           N
ATOM   2562  CA  VAL A 765       4.140  23.586 -13.462  1.00 45.03           C
ATOM   2563  CB  VAL A 765       5.427  24.461 -13.271  1.00 48.27           C
ATOM   2564  CG1 VAL A 765       5.994  24.270 -11.857  1.00 47.34           C
ATOM   2565  CG2 VAL A 765       6.485  24.121 -14.315  1.00 48.32           C
ATOM   2566  C   VAL A 765       3.136  23.895 -12.347  1.00 48.30           C
ATOM   2567  O   VAL A 765       2.961  23.099 -11.423  1.00 47.13           O
ATOM   2568  N   ILE A 766       2.518  25.077 -12.427  1.00 46.57           N
ATOM   2569  CA  ILE A 766       1.534  25.533 -11.431  1.00 47.25           C
ATOM   2570  CB  ILE A 766       0.975  26.929 -11.784  1.00 49.65           C
ATOM   2571  CG1 ILE A 766       2.104  27.966 -11.837  1.00 48.41           C
ATOM   2572  CD1 ILE A 766       1.662  29.274 -12.368  1.00 51.04           C
ATOM   2573  CG2 ILE A 766      -0.081  27.345 -10.756  1.00 51.90           C
ATOM   2574  C   ILE A 766       0.368  24.552 -11.234  1.00 52.52           C
ATOM   2575  O   ILE A 766      -0.006  24.244 -10.104  1.00 54.90           O
ATOM   2576  N   ARG A 767      -0.227  24.107 -12.335  1.00 47.96           N
ATOM   2577  CA  ARG A 767      -1.355  23.200 -12.285  1.00 47.95           C
ATOM   2578  CB  ARG A 767      -2.094  23.259 -13.610  1.00 42.73           C
ATOM   2579  CG  ARG A 767      -2.340  24.642 -14.098  1.00 53.85           C
ATOM   2580  CD  ARG A 767      -3.295  24.555 -15.264  1.00 53.11           C
ATOM   2581  NE  ARG A 767      -2.694  23.817 -16.372  1.00 60.42           N
ATOM   2582  CZ  ARG A 767      -2.449  24.354 -17.568  1.00 69.78           C
ATOM   2583  NH1 ARG A 767      -2.786  25.629 -17.796  1.00 50.84           N
ATOM   2584  NH2 ARG A 767      -1.892  23.619 -18.538  1.00 51.58           N
ATOM   2585  C   ARG A 767      -0.814  21.806 -12.209  1.00 56.41           C
ATOM   2586  O   ARG A 767      -0.918  21.080 -13.209  1.00 58.75           O
ATOM   2587  N   GLY A 768      -0.222  21.413 -11.085  1.00 52.14           N
ATOM   2588  CA  GLY A 768       0.373  20.091 -11.065  1.00 60.67           C
ATOM   2589  C   GLY A 768       1.221  19.941 -12.320  1.00 58.94           C
ATOM   2590  O   GLY A 768       0.765  19.398 -13.338  1.00 55.23           O
TER    2591      GLY A 768
ATOM   2592  N   LEU B 459      70.370   5.904  -0.304  1.00 59.80           N
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ATOM   2593  CA  LEU B 459      69.337   6.476  -1.157  1.00 60.03           C
ATOM   2594  CB  LEU B 459      68.715   5.444  -2.106  1.00 60.38           C
ATOM   2595  CG  LEU B 459      68.566   5.991  -3.531  1.00 65.63           C
ATOM   2596  CD1 LEU B 459      69.466   7.232  -3.725  1.00 66.05           C
ATOM   2597  CD2 LEU B 459      68.953   4.902  -4.513  1.00 68.23           C
ATOM   2598  C   LEU B 459      68.271   7.297  -0.438  1.00 63.36           C
ATOM   2599  O   LEU B 459      68.328   7.515   0.769  1.00 64.08           O
ATOM   2600  N   MET B 460      67.299   7.736  -1.221  1.00 59.88           N
ATOM   2601  CA  MET B 460      66.275   8.663  -0.798  1.00 60.04           C
ATOM   2602  CB  MET B 460      66.238   9.734  -1.862  1.00 63.00           C
ATOM   2603  CG  MET B 460      65.566  11.021  -1.501  1.00 67.93           C
ATOM   2604  SD  MET B 460      66.390  12.453  -2.310  1.00 73.60           S
ATOM   2605  CE  MET B 460      68.068  12.319  -1.637  1.00 70.91           C
ATOM   2606  C   MET B 460      64.889   8.036  -0.680  1.00 63.45           C
ATOM   2607  O   MET B 460      63.915   8.578  -1.205  1.00 64.26           O
ATOM   2608  N   GLN B 461      64.796   6.914   0.025  1.00 58.59           N
ATOM   2609  CA  GLN B 461      63.523   6.226   0.171  1.00 57.81           C
ATOM   2610  CB  GLN B 461      63.677   4.932   0.970  1.00 58.99           C
ATOM   2611  CG  GLN B 461      63.333   5.015   2.446  1.00 60.78           C
ATOM   2612  CD  GLN B 461      63.412   3.655   3.151  1.00 71.08           C
ATOM   2613  OE1 GLN B 461      63.395   2.588   2.508  1.00 62.68           O
ATOM   2614  NE2 GLN B 461      63.470   3.689   4.483  1.00 59.38           N
ATOM   2615  C   GLN B 461      62.362   7.081   0.686  1.00 59.46           C
ATOM   2616  O   GLN B 461      62.488   7.814   1.668  1.00 59.63           O
ATOM   2617  N   PHE B 462      61.219   6.965   0.018  1.00 54.06           N
ATOM   2618  CA  PHE B 462      60.022   7.684   0.431  1.00 52.44           C
ATOM   2619  CB  PHE B 462      59.047   7.833  -0.726  1.00 53.93           C
ATOM   2620  CG  PHE B 462      59.222   9.100  -1.498  1.00 55.03           C
ATOM   2621  CD1 PHE B 462      60.419   9.381  -2.127  1.00 58.14           C
ATOM   2622  CE1 PHE B 462      60.572  10.552  -2.842  1.00 59.81           C
ATOM   2623  CZ  PHE B 462      59.517  11.452  -2.933  1.00 58.50           C
ATOM   2624  CE2 PHE B 462      58.328  11.179  -2.296  1.00 59.91           C
ATOM   2625  CD2 PHE B 462      58.185  10.017  -1.580  1.00 56.82           C
ATOM   2626  C   PHE B 462      59.368   6.956   1.588  1.00 53.25           C
ATOM   2627  O   PHE B 462      59.348   5.728   1.634  1.00 52.04           O
ATOM   2628  N   THR B 463      58.861   7.736   2.534  1.00 50.27           N
ATOM   2629  CA  THR B 463      58.280   7.209   3.757  1.00 50.46           C
ATOM   2630  CB  THR B 463      59.215   7.526   4.946  1.00 54.90           C
ATOM   2631  OG1 THR B 463      60.565   7.252   4.566  1.00 61.26           O
ATOM   2632  CG2 THR B 463      58.845   6.707   6.161  1.00 51.19           C
ATOM   2633  C   THR B 463      56.913   7.826   4.043  1.00 54.39           C
ATOM   2634  O   THR B 463      56.737   9.034   3.971  1.00 58.57           O
ATOM   2635  N   LEU B 464      55.981   7.006   4.486  1.00 46.75           N
ATOM   2636  CA  LEU B 464      54.669   7.491   4.848  1.00 46.57           C
ATOM   2637  CB  LEU B 464      53.583   6.659   4.141  1.00 46.49           C
ATOM   2638  CG  LEU B 464      53.599   6.628   2.609  1.00 50.54           C
ATOM   2639  CD1 LEU B 464      53.457   8.024   2.065  1.00 50.02           C
ATOM   2640  CD2 LEU B 464      52.497   5.732   2.078  1.00 55.06           C
ATOM   2641  C   LEU B 464      54.505   7.360   6.355  1.00 50.69           C
ATOM   2642  O   LEU B 464      55.212   6.579   6.996  1.00 50.92           O
ATOM   2643  N   PRO B 465      53.526   8.080   6.925  1.00 46.87           N
ATOM   2644  CA  PRO B 465      53.185   7.980   8.346  1.00 47.00           C
ATOM   2645  CB  PRO B 465      52.021   8.977   8.485  1.00 48.56           C
ATOM   2646  CG  PRO B 465      52.324  10.030   7.476  1.00 51.93           C
ATOM   2647  CD  PRO B 465      52.965   9.299   6.309  1.00 47.70           C
ATOM   2648  C   PRO B 465      52.692   6.556   8.621  1.00 50.32           C
ATOM   2649  O   PRO B 465      52.225   5.868   7.721  1.00 50.84           O
ATOM   2650  N   VAL B 466      52.785   6.124   9.869  1.00 46.10           N
ATOM   2651  CA  VAL B 466      52.402   4.765  10.245  1.00 45.67           C
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ATOM   2652  CB  VAL B 466      52.581   4.497  11.759  1.00 48.30           C
ATOM   2653  CG1 VAL B 466      52.313   3.037  12.064  1.00 47.68           C
ATOM   2654  CG2 VAL B 466      53.998   4.915  12.204  1.00 47.82           C
ATOM   2655  C   VAL B 466      51.068   4.243   9.728  1.00 50.20           C
ATOM   2656  O   VAL B 466      51.009   3.133   9.178  1.00 52.52           O
ATOM   2657  N   ARG B 467      49.995   4.999   9.949  1.00 44.08           N
ATOM   2658  CA  ARG B 467      48.696   4.545   9.496  1.00 42.94           C
ATOM   2659  CB  ARG B 467      47.552   5.444   9.960  1.00 42.27           C
ATOM   2660  CG  ARG B 467      46.195   4.763   9.777  1.00 45.22           C
ATOM   2661  CD  ARG B 467      45.035   5.703   9.768  1.00 44.38           C
ATOM   2662  NE  ARG B 467      45.202   6.813   8.825  1.00 49.14           N
ATOM   2663  CZ  ARG B 467      44.943   6.756   7.520  1.00 57.04           C
ATOM   2664  NH1 ARG B 467      44.532   5.634   6.957  1.00 46.24           N
ATOM   2665  NH2 ARG B 467      45.110   7.831   6.769  1.00 40.43           N
ATOM   2666  C   ARG B 467      48.640   4.303   8.005  1.00 46.06           C
ATOM   2667  O   ARG B 467      48.108   3.294   7.561  1.00 47.63           O
ATOM   2668  N   LEU B 468      49.222   5.217   7.238  1.00 42.00           N
ATOM   2669  CA  LEU B 468      49.231   5.100   5.789  1.00 41.88           C
ATOM   2670  CB  LEU B 468      49.673   6.419   5.123  1.00 41.81           C
ATOM   2671  CG  LEU B 468      48.650   7.581   5.100  1.00 46.39           C
ATOM   2672  CD1 LEU B 468      48.702   8.397   6.389  1.00 46.64           C
ATOM   2673  CD2 LEU B 468      48.885   8.474   3.908  1.00 46.87           C
ATOM   2674  C   LEU B 468      50.102   3.936   5.352  1.00 47.84           C
ATOM   2675  O   LEU B 468      49.683   3.121   4.531  1.00 46.05           O
ATOM   2676  N   CYS B 469      51.300   3.840   5.923  1.00 48.37           N
ATOM   2677  CA  CYS B 469      52.220   2.759   5.585  1.00 51.20           C
ATOM   2678  CB  CYS B 469      53.489   2.807   6.461  1.00 55.35           C
ATOM   2679  SG  CYS B 469      55.032   3.178   5.541  1.00 61.14           S
ATOM   2680  C   CYS B 469      51.551   1.377   5.670  1.00 47.48           C
ATOM   2681  O   CYS B 469      51.656   0.573   4.754  1.00 45.42           O
ATOM   2682  N   ARG B 470      50.849   1.112   6.763  1.00 43.28           N
ATOM   2683  CA  ARG B 470      50.179  -0.177   6.926  1.00 43.37           C
ATOM   2684  CB  ARG B 470      49.814  -0.429   8.387  1.00 41.57           C
ATOM   2685  CG  ARG B 470      48.696   0.437   8.917  1.00 46.58           C
ATOM   2686  CD  ARG B 470      47.833  -0.291   9.964  1.00 51.95           C
ATOM   2687  NE  ARG B 470      47.392   0.622  11.018  1.00 56.43           N
ATOM   2688  CZ  ARG B 470      46.143   0.723  11.467  1.00 65.22           C
ATOM   2689  NH1 ARG B 470      45.188  -0.041  10.963  1.00 57.94           N
ATOM   2690  NH2 ARG B 470      45.847   1.589  12.432  1.00 57.70           N
ATOM   2691  C   ARG B 470      48.930  -0.363   6.054  1.00 46.49           C
ATOM   2692  O   ARG B 470      48.684  -1.438   5.517  1.00 44.21           O
ATOM   2693  N   GLU B 471      48.141   0.698   5.942  1.00 42.67           N
ATOM   2694  CA  GLU B 471      46.890   0.683   5.212  1.00 41.56           C
ATOM   2695  CB  GLU B 471      46.064   1.901   5.640  1.00 43.44           C
ATOM   2696  CG  GLU B 471      44.709   1.594   6.252  1.00 53.67           C
ATOM   2697  CD  GLU B 471      44.678   1.795   7.754  1.00 63.79           C
ATOM   2698  OE1 GLU B 471      43.640   2.267   8.294  1.00 60.08           O
ATOM   2699  OE2 GLU B 471      45.696   1.448   8.398  1.00 64.77           O
ATOM   2700  C   GLU B 471      47.025   0.624   3.694  1.00 40.63           C
ATOM   2701  O   GLU B 471      46.173   0.073   3.014  1.00 39.53           O
ATOM   2702  N   ILE B 472      48.087   1.213   3.167  1.00 37.17           N
ATOM   2703  CA  ILE B 472      48.297   1.281   1.723  1.00 36.44           C
ATOM   2704  CB  ILE B 472      49.453   2.234   1.343  1.00 37.92           C
ATOM   2705  CG1 ILE B 472      49.374   2.602  -0.145  1.00 36.43           C
ATOM   2706  CD1 ILE B 472      50.264   3.782  -0.535  1.00 38.09           C
ATOM   2707  CG2 ILE B 472      50.806   1.605   1.678  1.00 38.42           C
ATOM   2708  C   ILE B 472      48.435  -0.079   1.078  1.00 39.80           C
ATOM   2709  O   ILE B 472      48.188  -0.230  -0.118  1.00 38.27           O
ATOM   2710  N   GLU B 473      48.825  -1.070   1.872  1.00 37.11           N
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ATOM   2711  CA  GLU B 473      49.023  -2.414   1.348  1.00 37.12           C
ATOM   2712  CB  GLU B 473      49.994  -3.209   2.238  1.00 38.32           C
ATOM   2713  CG  GLU B 473      51.419  -2.584   2.334  1.00 42.45           C
ATOM   2714  CD  GLU B 473      52.124  -2.471   0.982  1.00 47.45           C
ATOM   2715  OE1 GLU B 473      52.090  -3.430   0.189  1.00 50.13           O
ATOM   2716  OE2 GLU B 473      52.742  -1.430   0.701  1.00 45.92           O
ATOM   2717  C   GLU B 473      47.677  -3.130   1.184  1.00 40.66           C
ATOM   2718  O   GLU B 473      47.582  -4.160   0.523  1.00 40.49           O
ATOM   2719  N   LEU B 474      46.637  -2.554   1.780  1.00 36.39           N
ATOM   2720  CA  LEU B 474      45.280  -3.090   1.689  1.00 35.72           C
ATOM   2721  CB  LEU B 474      44.479  -2.716   2.928  1.00 36.13           C
ATOM   2722  CG  LEU B 474      45.144  -3.003   4.285  1.00 42.60           C
ATOM   2723  CD1 LEU B 474      44.376  -2.315   5.439  1.00 44.27           C
ATOM   2724  CD2 LEU B 474      45.201  -4.506   4.509  1.00 42.74           C
ATOM   2725  C   LEU B 474      44.553  -2.563   0.442  1.00 38.79           C
ATOM   2726  O   LEU B 474      44.691  -1.393   0.072  1.00 39.08           O
ATOM   2727  N   PHE B 475      43.791  -3.439  -0.203  1.00 33.43           N
ATOM   2728  CA  PHE B 475      43.025  -3.082  -1.386  1.00 32.55           C
ATOM   2729  CB  PHE B 475      42.325  -4.311  -1.979  1.00 34.32           C
ATOM   2730  CG  PHE B 475      43.253  -5.278  -2.703  1.00 35.36           C
ATOM   2731  CD1 PHE B 475      43.539  -5.105  -4.048  1.00 36.87           C
ATOM   2732  CE1 PHE B 475      44.357  -5.986  -4.727  1.00 37.89           C
ATOM   2733  CZ  PHE B 475      44.907  -7.084  -4.052  1.00 38.89           C
ATOM   2734  CE2 PHE B 475      44.625  -7.276  -2.704  1.00 40.35           C
ATOM   2735  CD2 PHE B 475      43.790  -6.390  -2.046  1.00 37.58           C
ATOM   2736  C   PHE B 475      42.004  -1.967  -1.096  1.00 34.30           C
ATOM   2737  O   PHE B 475      41.777  -1.112  -1.932  1.00 34.38           O
ATOM   2738  N   HIS B 476      41.423  -1.955   0.099  1.00 31.13           N
ATOM   2739  CA  HIS B 476      40.394  -0.962   0.460  1.00 31.23           C
ATOM   2740  CB  HIS B 476      39.325  -1.574   1.395  1.00 32.33           C
ATOM   2741  CG  HIS B 476      39.837  -1.901   2.760  1.00 36.21           C
ATOM   2742  ND1 HIS B 476      40.323  -3.148   3.092  1.00 38.35           N
ATOM   2743  CE1 HIS B 476      40.729  -3.140   4.349  1.00 37.45           C
ATOM   2744  NE2 HIS B 476      40.518  -1.934   4.846  1.00 37.65           N
ATOM   2745  CD2 HIS B 476      39.976  -1.135   3.868  1.00 37.81           C
ATOM   2746  C   HIS B 476      40.917   0.372   1.030  1.00 33.48           C
ATOM   2747  O   HIS B 476      40.143   1.184   1.546  1.00 31.21           O
ATOM   2748  N   PHE B 477      42.221   0.602   0.900  1.00 31.85           N
ATOM   2749  CA  PHE B 477      42.836   1.863   1.325  1.00 33.26           C
ATOM   2750  CB  PHE B 477      44.308   1.854   0.923  1.00 35.30           C
ATOM   2751  CG  PHE B 477      45.056   3.112   1.297  1.00 36.37           C
ATOM   2752  CD1 PHE B 477      45.134   3.511   2.625  1.00 39.50           C
ATOM   2753  CE1 PHE B 477      45.843   4.647   2.989  1.00 39.17           C
ATOM   2754  CZ  PHE B 477      46.502   5.382   2.020  1.00 37.03           C
ATOM   2755  CE2 PHE B 477      46.439   4.995   0.694  1.00 38.29           C
ATOM   2756  CD2 PHE B 477      45.716   3.868   0.339  1.00 35.98           C
ATOM   2757  C   PHE B 477      42.174   3.066   0.612  1.00 36.75           C
ATOM   2758  O   PHE B 477      41.864   3.006  -0.586  1.00 35.36           O
ATOM   2759  N   ASP B 478      41.953   4.140   1.370  1.00 31.79           N
ATOM   2760  CA  ASP B 478      41.423   5.391   0.839  1.00 30.65           C
ATOM   2761  CB  ASP B 478      40.247   5.901   1.681  1.00 32.35           C
ATOM   2762  CG  ASP B 478      39.674   7.263   1.152  1.00 42.51           C
ATOM   2763  OD1 ASP B 478      38.817   7.253   0.238  1.00 37.77           O
ATOM   2764  OD2 ASP B 478      40.113   8.343   1.624  1.00 43.58           O
ATOM   2765  C   ASP B 478      42.596   6.375   0.948  1.00 33.65           C
ATOM   2766  O   ASP B 478      43.257   6.415   1.994  1.00 33.74           O
ATOM   2767  N   ILE B 479      42.895   7.093  -0.140  1.00 27.84           N
ATOM   2768  CA  ILE B 479      44.002   8.045  -0.160  1.00 26.87           C
ATOM   2769  CB  ILE B 479      44.519   8.318  -1.579  1.00 28.51           C
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ATOM   2770  CG1 ILE B 479      43.527   9.175  -2.387  1.00 26.18           C
ATOM   2771  CD1 ILE B 479      44.037   9.542  -3.746  1.00 26.28           C
ATOM   2772  CG2 ILE B 479      44.877   6.995  -2.291  1.00 30.65           C
ATOM   2773  C   ILE B 479      43.806   9.346   0.646  1.00 31.00           C
ATOM   2774  O   ILE B 479      44.731  10.131   0.784  1.00 32.64           O
ATOM   2775  N   GLY B 480      42.626   9.547   1.216  1.00 27.91           N
ATOM   2776  CA  GLY B 480      42.348  10.704   2.045  1.00 27.18           C
ATOM   2777  C   GLY B 480      42.107  11.999   1.300  1.00 33.33           C
ATOM   2778  O   GLY B 480      42.229  12.063   0.062  1.00 31.65           O
ATOM   2779  N   PRO B 481      41.754  13.070   2.051  1.00 31.30           N
ATOM   2780  CA  PRO B 481      41.406  14.398   1.501  1.00 29.74           C
ATOM   2781  CB  PRO B 481      40.522  14.971   2.593  1.00 29.87           C
ATOM   2782  CG  PRO B 481      41.128  14.425   3.863  1.00 32.64           C
ATOM   2783  CD  PRO B 481      41.634  13.039   3.529  1.00 30.37           C
ATOM   2784  C   PRO B 481      42.575  15.364   1.257  1.00 33.20           C
ATOM   2785  O   PRO B 481      42.395  16.419   0.680  1.00 35.72           O
ATOM   2786  N   PHE B 482      43.765  15.043   1.746  1.00 28.35           N
ATOM   2787  CA  PHE B 482      44.907  15.950   1.551  1.00 27.69           C
ATOM   2788  CB  PHE B 482      45.928  15.803   2.681  1.00 28.46           C
ATOM   2789  CG  PHE B 482      45.326  15.924   4.066  1.00 29.64           C
ATOM   2790  CD1 PHE B 482      44.972  14.786   4.783  1.00 32.02           C
ATOM   2791  CE1 PHE B 482      44.405  14.882   6.037  1.00 33.57           C
ATOM   2792  CZ  PHE B 482      44.170  16.144   6.604  1.00 33.28           C
ATOM   2793  CE2 PHE B 482      44.517  17.294   5.886  1.00 35.23           C
ATOM   2794  CD2 PHE B 482      45.061  17.177   4.618  1.00 31.81           C
ATOM   2795  C   PHE B 482      45.575  15.774   0.189  1.00 33.78           C
ATOM   2796  O   PHE B 482      46.446  14.914   0.033  1.00 34.10           O
ATOM   2797  N   GLU B 483      45.153  16.578  -0.795  1.00 30.69           N
ATOM   2798  CA  GLU B 483      45.694  16.497  -2.168  1.00 31.19           C
ATOM   2799  CB  GLU B 483      45.129  17.613  -3.069  1.00 32.65           C
ATOM   2800  CG  GLU B 483      43.642  17.878  -2.903  1.00 47.57           C
ATOM   2801  CD  GLU B 483      43.013  18.578  -4.133  1.00 62.77           C
ATOM   2802  OE1 GLU B 483      43.775  19.109  -4.999  1.00 57.72           O
ATOM   2803  OE2 GLU B 483      41.754  18.526  -4.242  1.00 54.00           O
ATOM   2804  C   GLU B 483      47.221  16.566  -2.247  1.00 35.89           C
ATOM   2805  O   GLU B 483      47.841  15.902  -3.075  1.00 36.69           O
ATOM   2806  N   ASN B 484      47.812  17.408  -1.405  1.00 32.52           N
ATOM   2807  CA AASN B 484      49.258  17.605  -1.434  0.60 32.23           C
ATOM   2808  CA BASN B 484      49.264  17.633  -1.350  0.40 32.07           C
ATOM   2809  CB AASN B 484      49.676  18.882  -0.682  0.60 28.07           C
ATOM   2810  CB BASN B 484      49.602  18.703  -0.296  0.40 28.23           C
ATOM   2811  CG AASN B 484      49.108  20.149  -1.334  0.60 46.25           C
ATOM   2812  CG BASN B 484      49.327  18.234   1.120  0.40 41.81           C
ATOM   2813  OD1AASN B 484      49.095  21.217  -0.728  0.60 44.75           O
ATOM   2814  OD1BASN B 484      48.284  17.645   1.407  0.40 32.68           O
ATOM   2815  ND2AASN B 484      48.643  20.027  -2.582  0.60 41.42           N
ATOM   2816  ND2BASN B 484      50.250  18.531   2.025  0.40 36.62           N
ATOM   2817  C   ASN B 484      50.091  16.385  -1.067  1.00 36.05           C
ATOM   2818  O   ASN B 484      51.281  16.327  -1.377  1.00 37.32           O
ATOM   2819  N   MET B 485      49.456  15.389  -0.465  1.00 32.27           N
ATOM   2820  CA  MET B 485      50.137  14.146  -0.141  1.00 32.18           C
ATOM   2821  CB  MET B 485      49.511  13.563   1.107  1.00 35.02           C
ATOM   2822  CG  MET B 485      49.814  14.383   2.357  1.00 39.70           C
ATOM   2823  SD  MET B 485      49.273  13.504   3.770  1.00 44.39           S
ATOM   2824  CE  MET B 485      50.547  12.147   3.829  1.00 40.76           C
ATOM   2825  C   MET B 485      50.069  13.097  -1.245  1.00 34.70           C
ATOM   2826  O   MET B 485      50.791  12.102  -1.213  1.00 36.94           O
ATOM   2827  N   TRP B 486      49.144  13.266  -2.182  1.00 29.25           N
ATOM   2828  CA  TRP B 486      48.937  12.244  -3.232  1.00 27.62           C
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ATOM   2829  CB  TRP B 486      47.677  12.536  -4.088  1.00 24.65           C
ATOM   2830  CG  TRP B 486      46.390  12.592  -3.302  1.00 26.68           C
ATOM   2831  CD1 TRP B 486      46.144  12.045  -2.069  1.00 26.40           C
ATOM   2832  NE1 TRP B 486      44.849  12.336  -1.674  1.00 26.97           N
ATOM   2833  CE2 TRP B 486      44.238  13.059  -2.667  1.00 28.02           C
ATOM   2834  CD2 TRP B 486      45.175  13.227  -3.713  1.00 23.25           C
ATOM   2835  CE3 TRP B 486      44.798  13.947  -4.854  1.00 25.62           C
ATOM   2836  CZ3 TRP B 486      43.533  14.466  -4.922  1.00 26.28           C
ATOM   2837  CH2 TRP B 486      42.614  14.274  -3.874  1.00 27.31           C
ATOM   2838  CZ2 TRP B 486      42.945  13.556  -2.749  1.00 27.17           C
ATOM   2839  C   TRP B 486      50.152  11.924  -4.107  1.00 31.72           C
ATOM   2840  O   TRP B 486      50.418  10.764  -4.386  1.00 30.93           O
ATOM   2841  N   PRO B 487      50.902  12.954  -4.544  1.00 29.32           N
ATOM   2842  CA  PRO B 487      52.083  12.692  -5.371  1.00 29.76           C
ATOM   2843  CB  PRO B 487      52.626  14.094  -5.643  1.00 31.02           C
ATOM   2844  CG  PRO B 487      51.421  14.986  -5.562  1.00 33.45           C
ATOM   2845  CD  PRO B 487      50.577  14.396  -4.488  1.00 29.82           C
ATOM   2846  C   PRO B 487      53.131  11.870  -4.615  1.00 34.59           C
ATOM   2847  O   PRO B 487      53.780  11.015  -5.193  1.00 34.63           O
ATOM   2848  N   GLY B 488      53.271  12.098  -3.314  1.00 31.53           N
ATOM   2849  CA  GLY B 488      54.243  11.366  -2.520  1.00 30.93           C
ATOM   2850  C   GLY B 488      53.797   9.929  -2.351  1.00 36.26           C
ATOM   2851  O   GLY B 488      54.616   9.020  -2.258  1.00 38.69           O
ATOM   2852  N   ILE B 489      52.482   9.735  -2.285  1.00 31.83           N
ATOM   2853  CA  ILE B 489      51.881   8.399  -2.167  1.00 30.93           C
ATOM   2854  CB  ILE B 489      50.381   8.502  -1.837  1.00 33.43           C
ATOM   2855  CG1 ILE B 489      50.184   8.921  -0.365  1.00 33.83           C
ATOM   2856  CD1 ILE B 489      48.756   9.402  -0.035  1.00 33.29           C
ATOM   2857  CG2 ILE B 489      49.642   7.228  -2.147  1.00 33.63           C
ATOM   2858  C   ILE B 489      52.143   7.624  -3.450  1.00 31.33           C
ATOM   2859  O   ILE B 489      52.530   6.455  -3.420  1.00 30.56           O
ATOM   2860  N   PHE B 490      52.016   8.316  -4.579  1.00 26.95           N
ATOM   2861  CA  PHE B 490      52.272   7.705  -5.866  1.00 26.09           C
ATOM   2862  CB  PHE B 490      51.797   8.587  -7.018  1.00 26.18           C
ATOM   2863  CG  PHE B 490      51.991   7.944  -8.368  1.00 26.45           C
ATOM   2864  CD1 PHE B 490      51.140   6.926  -8.789  1.00 24.20           C
ATOM   2865  CE1 PHE B 490      51.327   6.309 -10.000  1.00 24.77           C
ATOM   2866  CZ  PHE B 490      52.381   6.689 -10.832  1.00 26.33           C
ATOM   2867  CE2 PHE B 490      53.248   7.695 -10.427  1.00 29.42           C
ATOM   2868  CD2 PHE B 490      53.065   8.304  -9.190  1.00 27.92           C
ATOM   2869  C   PHE B 490      53.749   7.330  -6.050  1.00 32.49           C
ATOM   2870  O   PHE B 490      54.051   6.214  -6.510  1.00 32.50           O
ATOM   2871  N   VAL B 491      54.662   8.245  -5.682  1.00 29.97           N
ATOM   2872  CA  VAL B 491      56.104   7.958  -5.749  1.00 28.72           C
ATOM   2873  CB  VAL B 491      56.964   9.161  -5.385  1.00 31.71           C
ATOM   2874  CG1 VAL B 491      58.428   8.715  -5.286  1.00 31.36           C
ATOM   2875  CG2 VAL B 491      56.790  10.287  -6.414  1.00 30.89           C
ATOM   2876  C   VAL B 491      56.463   6.773  -4.844  1.00 29.34           C
ATOM   2877  O   VAL B 491      57.256   5.931  -5.224  1.00 30.21           O
ATOM   2878  N   TYR B 492      55.917   6.754  -3.629  1.00 24.92           N
ATOM   2879  CA  TYR B 492      56.145   5.650  -2.686  1.00 27.26           C
ATOM   2880  CB  TYR B 492      55.339   5.879  -1.408  1.00 30.43           C
ATOM   2881  CG  TYR B 492      55.336   4.717  -0.413  1.00 36.00           C
ATOM   2882  CD1 TYR B 492      56.276   4.642   0.607  1.00 38.40           C
ATOM   2883  CE1 TYR B 492      56.240   3.630   1.558  1.00 39.19           C
ATOM   2884  CZ  TYR B 492      55.251   2.667   1.502  1.00 46.65           C
ATOM   2885  OH  TYR B 492      55.216   1.627   2.425  1.00 39.52           O
ATOM   2886  CE2 TYR B 492      54.294   2.730   0.515  1.00 40.11           C
ATOM   2887  CD2 TYR B 492      54.333   3.766  -0.429  1.00 38.58           C
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ATOM   2888  C   TYR B 492      55.709   4.324  -3.333  1.00 35.07           C
ATOM   2889  O   TYR B 492      56.423   3.323  -3.242  1.00 35.31           O
ATOM   2890  N   MET B 493      54.554   4.333  -4.012  1.00 31.17           N
ATOM   2891  CA  MET B 493      54.053   3.147  -4.711  1.00 27.66           C
ATOM   2892  CB  MET B 493      52.605   3.348  -5.168  1.00 28.52           C
ATOM   2893  CG  MET B 493      51.637   3.289  -3.969  1.00 31.35           C
ATOM   2894  SD  MET B 493      49.914   3.299  -4.372  1.00 34.25           S
ATOM   2895  CE  MET B 493      49.827   4.743  -5.419  1.00 30.18           C
ATOM   2896  C   MET B 493      54.953   2.713  -5.851  1.00 31.10           C
ATOM   2897  O   MET B 493      55.236   1.532  -5.991  1.00 30.03           O
ATOM   2898  N   VAL B 494      55.438   3.669  -6.638  1.00 29.55           N
ATOM   2899  CA  VAL B 494      56.354   3.359  -7.723  1.00 31.14           C
ATOM   2900  CB  VAL B 494      56.601   4.580  -8.615  1.00 35.50           C
ATOM   2901  CG1 VAL B 494      57.671   4.295  -9.667  1.00 35.82           C
ATOM   2902  CG2 VAL B 494      55.313   5.018  -9.297  1.00 35.29           C
ATOM   2903  C   VAL B 494      57.679   2.755  -7.191  1.00 40.72           C
ATOM   2904  O   VAL B 494      58.219   1.823  -7.785  1.00 42.58           O
ATOM   2905  N   HIS B 495      58.190   3.268  -6.070  1.00 38.00           N
ATOM   2906  CA  HIS B 495      59.460   2.790  -5.519  1.00 38.71           C
ATOM   2907  CB  HIS B 495      59.980   3.730  -4.421  1.00 39.43           C
ATOM   2908  CG  HIS B 495      60.650   4.961  -4.946  1.00 42.64           C
ATOM   2909  ND1 HIS B 495      61.053   5.995  -4.126  1.00 43.99           N
ATOM   2910  CE1 HIS B 495      61.602   6.946  -4.862  1.00 43.38           C
ATOM   2911  NE2 HIS B 495      61.558   6.573  -6.129  1.00 43.98           N
ATOM   2912  CD2 HIS B 495      60.967   5.335  -6.209  1.00 44.47           C
ATOM   2913  C   HIS B 495      59.394   1.354  -4.990  1.00 45.44           C
ATOM   2914  O   HIS B 495      60.291   0.556  -5.267  1.00 48.55           O
ATOM   2915  N   ARG B 496      58.341   1.051  -4.232  1.00 39.96           N
ATOM   2916  CA  ARG B 496      58.111  -0.263  -3.661  1.00 40.66           C
ATOM   2917  CB  ARG B 496      57.013  -0.154  -2.597  1.00 39.78           C
ATOM   2918  CG  ARG B 496      57.493  -0.095  -1.163  1.00 50.28           C
ATOM   2919  CD  ARG B 496      56.336  -0.415  -0.198  1.00 55.64           C
ATOM   2920  NE  ARG B 496      56.710  -1.343   0.870  1.00 52.36           N
ATOM   2921  CZ  ARG B 496      56.307  -2.609   0.948  1.00 66.50           C
ATOM   2922  NH1 ARG B 496      55.547  -3.138  -0.004  1.00 60.49           N
ATOM   2923  NH2 ARG B 496      56.698  -3.365   1.967  1.00 61.52           N
ATOM   2924  C   ARG B 496      57.637  -1.266  -4.724  1.00 49.87           C
ATOM   2925  O   ARG B 496      57.684  -2.483  -4.505  1.00 52.06           O
ATOM   2926  N   SER B 497      57.094  -0.761  -5.827  1.00 46.64           N
ATOM   2927  CA  SER B 497      56.495  -1.616  -6.852  1.00 46.89           C
ATOM   2928  CB  SER B 497      55.301  -0.920  -7.508  1.00 48.67           C
ATOM   2929  OG  SER B 497      54.306  -1.873  -7.809  1.00 62.83           O
ATOM   2930  C   SER B 497      57.449  -2.101  -7.928  1.00 54.79           C
ATOM   2931  O   SER B 497      57.323  -3.225  -8.421  1.00 56.83           O
ATOM   2932  N   CYS B 498      58.377  -1.245  -8.333  1.00 53.80           N
ATOM   2933  CA  CYS B 498      59.342  -1.656  -9.351  1.00 55.57           C
ATOM   2934  CB  CYS B 498      58.916  -1.221 -10.760  1.00 57.03           C
ATOM   2935  SG  CYS B 498      58.285   0.450 -10.806  1.00 61.23           S
ATOM   2936  C   CYS B 498      60.762  -1.234  -9.058  1.00 58.07           C
ATOM   2937  O   CYS B 498      61.680  -1.650  -9.763  1.00 60.63           O
ATOM   2938  N   GLY B 499      60.946  -0.423  -8.021  1.00 52.13           N
ATOM   2939  CA  GLY B 499      62.283  -0.013  -7.638  1.00 51.29           C
ATOM   2940  C   GLY B 499      62.593   1.471  -7.568  1.00 55.49           C
ATOM   2941  O   GLY B 499      61.961   2.300  -8.240  1.00 55.82           O
ATOM   2942  N   THR B 500      63.614   1.794  -6.773  1.00 51.23           N
ATOM   2943  CA  THR B 500      64.092   3.170  -6.605  1.00 51.26           C
ATOM   2944  CB  THR B 500      64.989   3.267  -5.350  1.00 59.90           C
ATOM   2945  OG1 THR B 500      64.185   3.111  -4.167  1.00 56.58           O
ATOM   2946  CG2 THR B 500      65.702   4.618  -5.304  1.00 60.91           C
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ATOM   2947  C   THR B 500      64.878   3.619  -7.851  1.00 55.67           C
ATOM   2948  O   THR B 500      65.112   4.810  -8.066  1.00 56.18           O
ATOM   2949  N   SER B 501      65.272   2.644  -8.665  1.00 51.87           N
ATOM   2950  CA  SER B 501      66.094   2.865  -9.855  1.00 51.57           C
ATOM   2951  CB  SER B 501      66.954   1.620 -10.082  1.00 53.96           C
ATOM   2952  OG  SER B 501      66.165   0.538 -10.580  1.00 62.60           O
ATOM   2953  C   SER B 501      65.368   3.146 -11.176  1.00 56.13           C
ATOM   2954  O   SER B 501      65.930   3.779 -12.079  1.00 56.77           O
ATOM   2955  N   CYS B 502      64.153   2.622 -11.314  1.00 51.85           N
ATOM   2956  CA ACYS B 502      63.427   2.761 -12.565  0.70 52.80           C
ATOM   2957  CA BCYS B 502      63.357   2.753 -12.540  0.30 50.72           C
ATOM   2958  CB ACYS B 502      62.200   1.866 -12.611  0.70 54.83           C
ATOM   2959  CB BCYS B 502      61.999   2.066 -12.382  0.30 50.95           C
ATOM   2960  SG ACYS B 502      60.817   2.536 -11.723  0.70 59.46           S
ATOM   2961  SG BCYS B 502      62.048   0.382 -11.689  0.30 54.58           S
ATOM   2962  C   CYS B 502      63.141   4.161 -13.098  1.00 51.73           C
ATOM   2963  O   CYS B 502      63.077   4.353 -14.316  1.00 51.29           O
ATOM   2964  N   PHE B 503      62.982   5.132 -12.213  1.00 43.32           N
ATOM   2965  CA  PHE B 503      62.736   6.488 -12.658  1.00 42.68           C
ATOM   2966  CB  PHE B 503      61.285   6.926 -12.346  1.00 43.66           C
ATOM   2967  CG  PHE B 503      60.231   6.183 -13.112  1.00 44.60           C
ATOM   2968  CD1 PHE B 503      59.291   5.411 -12.442  1.00 50.04           C
ATOM   2969  CE1 PHE B 503      58.304   4.726 -13.145  1.00 52.01           C
ATOM   2970  CZ  PHE B 503      58.274   4.807 -14.525  1.00 49.11           C
ATOM   2971  CE2 PHE B 503      59.211   5.582 -15.190  1.00 49.41           C
ATOM   2972  CD2 PHE B 503      60.170   6.259 -14.487  1.00 45.34           C
ATOM   2973  C   PHE B 503      63.686   7.477 -11.995  1.00 48.30           C
ATOM   2974  O   PHE B 503      64.048   7.331 -10.828  1.00 48.35           O
ATOM   2975  N   GLU B 504      64.038   8.519 -12.738  1.00 45.01           N
ATOM   2976  CA  GLU B 504      64.832   9.598 -12.190  1.00 44.69           C
ATOM   2977  CB  GLU B 504      65.546  10.383 -13.294  1.00 45.86           C
ATOM   2978  CG  GLU B 504      66.801  11.082 -12.827  1.00 53.08           C
ATOM   2979  CD  GLU B 504      66.507  12.434 -12.188  1.00 69.51           C
ATOM   2980  OE1 GLU B 504      66.131  13.374 -12.949  1.00 69.10           O
ATOM   2981  OE2 GLU B 504      66.660  12.563 -10.932  1.00 61.39           O
ATOM   2982  C   GLU B 504      63.805  10.470 -11.471  1.00 47.64           C
ATOM   2983  O   GLU B 504      62.801  10.883 -12.069  1.00 46.59           O
ATOM   2984  N   LEU B 505      64.017  10.660 -10.169  1.00 43.42           N
ATOM   2985  CA  LEU B 505      63.081  11.380  -9.326  1.00 43.17           C
ATOM   2986  CB  LEU B 505      63.542  11.384  -7.868  1.00 43.33           C
ATOM   2987  CG  LEU B 505      62.580  11.926  -6.809  1.00 48.22           C
ATOM   2988  CD1 LEU B 505      61.278  11.122  -6.760  1.00 48.89           C
ATOM   2989  CD2 LEU B 505      63.245  11.928  -5.446  1.00 52.11           C
ATOM   2990  C   LEU B 505      62.611  12.742  -9.778  1.00 45.62           C
ATOM   2991  O   LEU B 505      61.443  13.056  -9.649  1.00 45.39           O
ATOM   2992  N   GLU B 506      63.527  13.549 -10.292  1.00 42.92           N
ATOM   2993  CA AGLU B 506      63.197  14.898 -10.728  0.70 43.27           C
ATOM   2994  CA BGLU B 506      63.207  14.899 -10.745  0.30 42.58           C
ATOM   2995  CB AGLU B 506      64.477  15.700 -11.084  0.70 44.92           C
ATOM   2996  CB BGLU B 506      64.478  15.649 -11.179  0.30 43.85           C
ATOM   2997  CG AGLU B 506      65.481  15.837  -9.916  0.70 51.40           C
ATOM   2998  CG BGLU B 506      64.234  17.096 -11.603  0.30 48.06           C
ATOM   2999  CD AGLU B 506      66.645  16.803 -10.204  0.70 60.76           C
ATOM   3000  CD BGLU B 506      65.493  17.781 -12.121  0.30 54.83           C
ATOM   3001  OE1AGLU B 506      66.841  17.189 -11.386  0.70 53.69           O
ATOM   3002  OE1BGLU B 506      66.203  17.170 -12.956  0.30 46.91           O
ATOM   3003  OE2AGLU B 506      67.396  17.143  -9.245  0.70 53.10           O
ATOM   3004  OE2BGLU B 506      65.765  18.932 -11.704  0.30 47.33           O
ATOM   3005  C   GLU B 506      62.211  14.864 -11.892  1.00 44.95           C
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ATOM   3006  O   GLU B 506      61.224  15.585 -11.878  1.00 43.96           O
ATOM   3007  N   LYS B 507      62.490  14.022 -12.885  1.00 41.61           N
ATOM   3008  CA  LYS B 507      61.634  13.864 -14.064  1.00 41.59           C
ATOM   3009  CB  LYS B 507      62.296  12.914 -15.069  1.00 44.76           C
ATOM   3010  CG  LYS B 507      63.510  13.467 -15.766  1.00 46.46           C
ATOM   3011  CD  LYS B 507      63.835  12.649 -17.011  1.00 45.96           C
ATOM   3012  CE  LYS B 507      65.148  13.091 -17.635  1.00 50.05           C
ATOM   3013  NZ  LYS B 507      65.281  12.629 -19.056  1.00 54.48           N
ATOM   3014  C   LYS B 507      60.256  13.300 -13.678  1.00 42.49           C
ATOM   3015  O   LYS B 507      59.223  13.789 -14.142  1.00 42.91           O
ATOM   3016  N   LEU B 508      60.263  12.253 -12.853  1.00 36.79           N
ATOM   3017  CA  LEU B 508      59.033  11.620 -12.383  1.00 36.48           C
ATOM   3018  CB  LEU B 508      59.334  10.473 -11.425  1.00 36.14           C
ATOM   3019  CG  LEU B 508      58.129   9.693 -10.868  1.00 40.37           C
ATOM   3020  CD1 LEU B 508      57.248   9.155 -12.008  1.00 39.36           C
ATOM   3021  CD2 LEU B 508      58.588   8.570  -9.962  1.00 41.63           C
ATOM   3022  C   LEU B 508      58.117  12.633 -11.692  1.00 41.50           C
ATOM   3023  O   LEU B 508      56.898  12.645 -11.891  1.00 40.45           O
ATOM   3024  N   CYS B 509      58.706  13.472 -10.853  1.00 40.43           N
ATOM   3025  CA  CYS B 509      57.946  14.468 -10.127  1.00 42.21           C
ATOM   3026  CB  CYS B 509      58.765  15.086  -8.989  1.00 46.26           C
ATOM   3027  SG  CYS B 509      59.168  13.916  -7.608  1.00 51.83           S
ATOM   3028  C   CYS B 509      57.391  15.538 -11.035  1.00 37.87           C
ATOM   3029  O   CYS B 509      56.272  15.996 -10.845  1.00 36.88           O
ATOM   3030  N   ARG B 510      58.143  15.921 -12.055  1.00 32.40           N
ATOM   3031  CA  ARG B 510      57.623  16.923 -12.976  1.00 32.70           C
ATOM   3032  CB  ARG B 510      58.721  17.797 -13.633  1.00 34.50           C
ATOM   3033  CG  ARG B 510      59.377  17.233 -14.836  1.00 45.15           C
ATOM   3034  CD  ARG B 510      60.017  18.356 -15.683  1.00 50.02           C
ATOM   3035  NE  ARG B 510      61.026  19.128 -14.950  1.00 49.27           N
ATOM   3036  CZ  ARG B 510      62.255  18.686 -14.649  1.00 62.36           C
ATOM   3037  NH1 ARG B 510      63.094  19.473 -13.976  1.00 50.55           N
ATOM   3038  NH2 ARG B 510      62.663  17.457 -15.005  1.00 45.27           N
ATOM   3039  C   ARG B 510      56.591  16.352 -13.951  1.00 34.64           C
ATOM   3040  O   ARG B 510      55.680  17.051 -14.377  1.00 30.73           O
ATOM   3041  N   PHE B 511      56.696  15.051 -14.207  1.00 32.92           N
ATOM   3042  CA  PHE B 511      55.695  14.330 -14.989  1.00 32.76           C
ATOM   3043  CB  PHE B 511      56.147  12.874 -15.244  1.00 34.15           C
ATOM   3044  CG  PHE B 511      55.155  12.069 -16.040  1.00 33.51           C
ATOM   3045  CD1 PHE B 511      55.020  12.274 -17.406  1.00 33.27           C
ATOM   3046  CE1 PHE B 511      54.071  11.577 -18.136  1.00 34.01           C
ATOM   3047  CZ  PHE B 511      53.231  10.659 -17.496  1.00 33.59           C
ATOM   3048  CE2 PHE B 511      53.342  10.461 -16.125  1.00 35.23           C
ATOM   3049  CD2 PHE B 511      54.290  11.182 -15.404  1.00 33.60           C
ATOM   3050  C   PHE B 511      54.407  14.305 -14.138  1.00 31.68           C
ATOM   3051  O   PHE B 511      53.348  14.709 -14.586  1.00 29.45           O
ATOM   3052  N   ILE B 512      54.528  13.882 -12.884  1.00 29.81           N
ATOM   3053  CA  ILE B 512      53.362  13.822 -11.969  1.00 30.85           C
ATOM   3054  CB  ILE B 512      53.749  13.357 -10.556  1.00 32.81           C
ATOM   3055  CG1 ILE B 512      54.148  11.888 -10.555  1.00 32.84           C
ATOM   3056  CD1 ILE B 512      54.762  11.429  -9.221  1.00 39.01           C
ATOM   3057  CG2 ILE B 512      52.616  13.618  -9.575  1.00 32.49           C
ATOM   3058  C   ILE B 512      52.576  15.156 -11.888  1.00 35.00           C
ATOM   3059  O   ILE B 512      51.334  15.191 -11.988  1.00 33.25           O
ATOM   3060  N   MET B 513      53.304  16.252 -11.701  1.00 32.15           N
ATOM   3061  CA  MET B 513      52.672  17.566 -11.574  1.00 31.76           C
ATOM   3062  CB  MET B 513      53.657  18.608 -11.014  1.00 35.01           C
ATOM   3063  CG  MET B 513      54.275  18.209  -9.691  1.00 40.89           C
ATOM   3064  SD  MET B 513      53.098  17.829  -8.370  1.00 48.80           S
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ATOM   3065  CE  MET B 513      52.152  19.442  -8.308  1.00 47.96           C
ATOM   3066  C   MET B 513      52.026  18.048 -12.851  1.00 31.46           C
ATOM   3067  O   MET B 513      51.036  18.767 -12.800  1.00 30.74           O
ATOM   3068  N   SER B 514      52.593  17.666 -13.995  1.00 29.61           N
ATOM   3069  CA  SER B 514      51.986  17.982 -15.291  1.00 30.07           C
ATOM   3070  CB  SER B 514      52.983  17.744 -16.422  1.00 35.53           C
ATOM   3071  OG  SER B 514      54.033  18.683 -16.335  1.00 48.03           O
ATOM   3072  C   SER B 514      50.699  17.162 -15.522  1.00 29.82           C
ATOM   3073  O   SER B 514      49.726  17.680 -16.030  1.00 28.97           O
ATOM   3074  N   VAL B 515      50.703  15.899 -15.104  1.00 25.06           N
ATOM   3075  CA  VAL B 515      49.523  15.041 -15.186  1.00 24.79           C
ATOM   3076  CB  VAL B 515      49.835  13.582 -14.745  1.00 29.21           C
ATOM   3077  CG1 VAL B 515      48.549  12.758 -14.658  1.00 28.91           C
ATOM   3078  CG2 VAL B 515      50.817  12.936 -15.733  1.00 28.93           C
ATOM   3079  C   VAL B 515      48.412  15.650 -14.330  1.00 28.40           C
ATOM   3080  O   VAL B 515      47.322  15.897 -14.817  1.00 27.96           O
ATOM   3081  N   LYS B 516      48.712  15.936 -13.066  1.00 26.67           N
ATOM   3082  CA  LYS B 516      47.761  16.587 -12.147  1.00 26.46           C
ATOM   3083  CB  LYS B 516      48.503  17.062 -10.891  1.00 26.68           C
ATOM   3084  CG  LYS B 516      47.642  17.874  -9.931  1.00 30.37           C
ATOM   3085  CD  LYS B 516      48.456  18.365  -8.732  1.00 33.95           C
ATOM   3086  CE  LYS B 516      47.714  19.467  -7.978  1.00 35.34           C
ATOM   3087  NZ  LYS B 516      46.672  18.936  -7.025  1.00 44.99           N
ATOM   3088  C   LYS B 516      47.097  17.802 -12.802  1.00 32.53           C
ATOM   3089  O   LYS B 516      45.866  17.945 -12.823  1.00 32.42           O
ATOM   3090  N   LYS B 517      47.937  18.699 -13.302  1.00 31.07           N
ATOM   3091  CA  LYS B 517      47.494  19.934 -13.975  1.00 31.01           C
ATOM   3092  CB  LYS B 517      48.742  20.670 -14.515  1.00 33.68           C
ATOM   3093  CG  LYS B 517      48.488  22.010 -15.139  1.00 43.65           C
ATOM   3094  CD  LYS B 517      49.807  22.641 -15.618  1.00 45.90           C
ATOM   3095  CE  LYS B 517      49.584  24.024 -16.241  1.00 49.11           C
ATOM   3096  NZ  LYS B 517      50.872  24.618 -16.832  1.00 57.23           N
ATOM   3097  C   LYS B 517      46.510  19.673 -15.127  1.00 32.21           C
ATOM   3098  O   LYS B 517      45.710  20.528 -15.483  1.00 30.41           O
ATOM   3099  N   ASN B 518      46.624  18.502 -15.744  1.00 29.70           N
ATOM   3100  CA  ASN B 518      45.801  18.145 -16.881  1.00 28.32           C
ATOM   3101  CB  ASN B 518      46.635  17.594 -18.030  1.00 25.37           C
ATOM   3102  CG  ASN B 518      47.530  18.681 -18.665  1.00 45.15           C
ATOM   3103  OD1 ASN B 518      47.101  19.413 -19.555  1.00 37.92           O
ATOM   3104  ND2 ASN B 518      48.758  18.818 -18.161  1.00 35.26           N
ATOM   3105  C   ASN B 518      44.519  17.359 -16.574  1.00 33.25           C
ATOM   3106  O   ASN B 518      43.767  16.972 -17.462  1.00 32.72           O
ATOM   3107  N   TYR B 519      44.233  17.215 -15.288  1.00 30.41           N
ATOM   3108  CA  TYR B 519      42.969  16.659 -14.832  1.00 29.45           C
ATOM   3109  CB  TYR B 519      43.137  15.723 -13.614  1.00 27.48           C
ATOM   3110  CG  TYR B 519      43.353  14.272 -13.997  1.00 23.98           C
ATOM   3111  CD1 TYR B 519      44.648  13.783 -14.167  1.00 23.89           C
ATOM   3112  CE1 TYR B 519      44.878  12.468 -14.536  1.00 25.57           C
ATOM   3113  CZ  TYR B 519      43.786  11.602 -14.695  1.00 31.63           C
ATOM   3114  OH  TYR B 519      44.012  10.295 -15.036  1.00 21.17           O
ATOM   3115  CE2 TYR B 519      42.487  12.063 -14.546  1.00 24.44           C
ATOM   3116  CD2 TYR B 519      42.276  13.408 -14.211  1.00 23.62           C
ATOM   3117  C   TYR B 519      42.132  17.882 -14.489  1.00 35.12           C
ATOM   3118  O   TYR B 519      42.655  18.954 -14.220  1.00 35.19           O
ATOM   3119  N   ARG B 520      40.823  17.733 -14.567  1.00 31.67           N
ATOM   3120  CA  ARG B 520      39.922  18.849 -14.347  1.00 29.80           C
ATOM   3121  CB  ARG B 520      38.911  18.900 -15.485  1.00 27.24           C
ATOM   3122  CG  ARG B 520      39.554  19.126 -16.836  1.00 31.90           C
ATOM   3123  CD  ARG B 520      38.469  19.386 -17.842  1.00 45.80           C
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ATOM   3124  NE  ARG B 520      39.002  19.673 -19.169  1.00 49.01           N
ATOM   3125  CZ  ARG B 520      39.252  20.896 -19.645  1.00 61.45           C
ATOM   3126  NH1 ARG B 520      39.016  21.983 -18.887  1.00 44.40           N
ATOM   3127  NH2 ARG B 520      39.763  21.027 -20.880  1.00 51.59           N
ATOM   3128  C   ARG B 520      39.176  18.777 -13.036  1.00 32.90           C
ATOM   3129  O   ARG B 520      39.154  17.749 -12.363  1.00 29.61           O
ATOM   3130  N   ARG B 521      38.509  19.875 -12.710  1.00 33.27           N
ATOM   3131  CA  ARG B 521      37.721  19.969 -11.495  1.00 34.46           C
ATOM   3132  CB  ARG B 521      37.692  21.418 -11.025  1.00 37.72           C
ATOM   3133  CG  ARG B 521      39.111  21.929 -10.759  1.00 48.78           C
ATOM   3134  CD  ARG B 521      39.135  22.923  -9.606  1.00 59.10           C
ATOM   3135  NE  ARG B 521      40.442  23.559  -9.461  1.00 57.06           N
ATOM   3136  CZ  ARG B 521      40.900  24.509 -10.276  1.00 70.89           C
ATOM   3137  NH1 ARG B 521      40.141  24.944 -11.302  1.00 56.77           N
ATOM   3138  NH2 ARG B 521      42.114  25.033 -10.058  1.00 57.89           N
ATOM   3139  C   ARG B 521      36.321  19.436 -11.695  1.00 41.31           C
ATOM   3140  O   ARG B 521      35.343  20.180 -11.606  1.00 46.15           O
ATOM   3141  N   VAL B 522      36.238  18.137 -11.968  1.00 34.11           N
ATOM   3142  CA  VAL B 522      34.973  17.443 -12.155  1.00 31.34           C
ATOM   3143  CB  VAL B 522      35.003  16.562 -13.421  1.00 33.97           C
ATOM   3144  CG1 VAL B 522      34.988  17.444 -14.660  1.00 33.86           C
ATOM   3145  CG2 VAL B 522      36.211  15.646 -13.416  1.00 32.91           C
ATOM   3146  C   VAL B 522      34.705  16.630 -10.883  1.00 33.38           C
ATOM   3147  O   VAL B 522      35.619  16.379 -10.088  1.00 32.70           O
ATOM   3148  N   PRO B 523      33.437  16.285 -10.626  1.00 28.86           N
ATOM   3149  CA  PRO B 523      33.054  15.634  -9.371  1.00 28.53           C
ATOM   3150  CB  PRO B 523      31.532  15.505  -9.491  1.00 29.91           C
ATOM   3151  CG  PRO B 523      31.138  16.510 -10.489  1.00 34.05           C
ATOM   3152  CD  PRO B 523      32.267  16.601 -11.458  1.00 30.35           C
ATOM   3153  C   PRO B 523      33.695  14.264  -9.145  1.00 31.53           C
ATOM   3154  O   PRO B 523      33.996  13.890  -8.019  1.00 31.52           O
ATOM   3155  N   TYR B 524      33.906  13.519 -10.216  1.00 28.00           N
ATOM   3156  CA  TYR B 524      34.468  12.189 -10.097  1.00 27.22           C
ATOM   3157  CB  TYR B 524      33.375  11.138 -10.310  1.00 28.15           C
ATOM   3158  CG  TYR B 524      33.879   9.749 -10.109  1.00 28.86           C
ATOM   3159  CD1 TYR B 524      34.325   9.344  -8.867  1.00 29.46           C
ATOM   3160  CE1 TYR B 524      34.834   8.081  -8.679  1.00 32.63           C
ATOM   3161  CZ  TYR B 524      34.917   7.215  -9.738  1.00 39.31           C
ATOM   3162  OH  TYR B 524      35.437   5.980  -9.525  1.00 44.16           O
ATOM   3163  CE2 TYR B 524      34.486   7.590 -10.999  1.00 33.22           C
ATOM   3164  CD2 TYR B 524      33.972   8.859 -11.176  1.00 31.11           C
ATOM   3165  C   TYR B 524      35.737  11.840 -10.897  1.00 28.16           C
ATOM   3166  O   TYR B 524      36.698  11.304 -10.330  1.00 27.99           O
ATOM   3167  N   HIS B 525      35.716  12.053 -12.211  1.00 23.03           N
ATOM   3168  CA  HIS B 525      36.858  11.694 -13.071  1.00 22.06           C
ATOM   3169  CB  HIS B 525      36.441  11.467 -14.533  1.00 23.05           C
ATOM   3170  CG  HIS B 525      35.525  10.295 -14.717  1.00 27.24           C
ATOM   3171  ND1 HIS B 525      34.156  10.426 -14.788  1.00 29.14           N
ATOM   3172  CE1 HIS B 525      33.606   9.232 -14.917  1.00 29.31           C
ATOM   3173  NE2 HIS B 525      34.566   8.328 -14.896  1.00 30.20           N
ATOM   3174  CD2 HIS B 525      35.778   8.965 -14.769  1.00 30.30           C
ATOM   3175  C   HIS B 525      37.948  12.726 -12.975  1.00 24.88           C
ATOM   3176  O   HIS B 525      38.346  13.356 -13.946  1.00 25.07           O
ATOM   3177  N   ASN B 526      38.420  12.890 -11.756  1.00 24.94           N
ATOM   3178  CA  ASN B 526      39.405  13.908 -11.413  1.00 25.02           C
ATOM   3179  CB  ASN B 526      38.798  14.834 -10.324  1.00 24.64           C
ATOM   3180  CG  ASN B 526      38.295  14.053  -9.117  1.00 32.57           C
ATOM   3181  OD1 ASN B 526      38.913  13.085  -8.716  1.00 26.36           O
ATOM   3182  ND2 ASN B 526      37.234  14.532  -8.481  1.00 23.43           N
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ATOM   3183  C   ASN B 526      40.724  13.286 -10.945  1.00 26.05           C
ATOM   3184  O   ASN B 526      40.946  12.082 -11.076  1.00 26.58           O
ATOM   3185  N   TRP B 527      41.612  14.131 -10.444  1.00 23.40           N
ATOM   3186  CA  TRP B 527      42.936  13.724 -10.005  1.00 23.25           C
ATOM   3187  CB  TRP B 527      43.715  14.999  -9.596  1.00 21.72           C
ATOM   3188  CG  TRP B 527      45.076  14.795  -9.003  1.00 22.69           C
ATOM   3189  CD1 TRP B 527      45.547  15.351  -7.847  1.00 23.39           C
ATOM   3190  NE1 TRP B 527      46.856  14.998  -7.652  1.00 23.12           N
ATOM   3191  CE2 TRP B 527      47.274  14.228  -8.706  1.00 25.17           C
ATOM   3192  CD2 TRP B 527      46.182  14.098  -9.594  1.00 20.88           C
ATOM   3193  CE3 TRP B 527      46.339  13.326 -10.760  1.00 23.18           C
ATOM   3194  CZ3 TRP B 527      47.566  12.767 -11.025  1.00 24.54           C
ATOM   3195  CH2 TRP B 527      48.633  12.910 -10.133  1.00 25.85           C
ATOM   3196  CZ2 TRP B 527      48.508  13.629  -8.952  1.00 25.26           C
ATOM   3197  C   TRP B 527      42.900  12.672  -8.883  1.00 27.68           C
ATOM   3198  O   TRP B 527      43.731  11.759  -8.837  1.00 28.25           O
ATOM   3199  N   LYS B 528      41.936  12.797  -7.979  1.00 24.37           N
ATOM   3200  CA  LYS B 528      41.786  11.819  -6.903  1.00 23.80           C
ATOM   3201  CB  LYS B 528      40.659  12.201  -5.933  1.00 23.39           C
ATOM   3202  CG  LYS B 528      40.701  11.420  -4.646  1.00 23.24           C
ATOM   3203  CD  LYS B 528      39.837  12.081  -3.558  1.00 22.27           C
ATOM   3204  CE  LYS B 528      39.842  11.242  -2.265  1.00 33.11           C
ATOM   3205  NZ  LYS B 528      39.139  11.993  -1.165  1.00 42.97           N
ATOM   3206  C   LYS B 528      41.529  10.409  -7.440  1.00 26.49           C
ATOM   3207  O   LYS B 528      42.054   9.418  -6.915  1.00 25.45           O
ATOM   3208  N   HIS B 529      40.696  10.337  -8.473  1.00 24.28           N
ATOM   3209  CA  HIS B 529      40.317   9.089  -9.092  1.00 22.55           C
ATOM   3210  CB  HIS B 529      39.242   9.354 -10.174  1.00 21.89           C
ATOM   3211  CG  HIS B 529      38.928   8.152 -11.019  1.00 22.60           C
ATOM   3212  ND1 HIS B 529      38.426   6.979 -10.492  1.00 22.39           N
ATOM   3213  CE1 HIS B 529      38.197   6.118 -11.467  1.00 20.97           C
ATOM   3214  NE2 HIS B 529      38.577   6.668 -12.607  1.00 22.07           N
ATOM   3215  CD2 HIS B 529      39.006   7.953 -12.356  1.00 23.43           C
ATOM   3216  C   HIS B 529      41.562   8.442  -9.706  1.00 26.01           C
ATOM   3217  O   HIS B 529      41.814   7.267  -9.526  1.00 27.32           O
ATOM   3218  N   ALA B 530      42.344   9.237 -10.424  1.00 21.96           N
ATOM   3219  CA  ALA B 530      43.561   8.768 -11.055  1.00 21.00           C
ATOM   3220  CB  ALA B 530      44.273   9.894 -11.721  1.00 20.44           C
ATOM   3221  C   ALA B 530      44.491   8.070 -10.062  1.00 26.73           C
ATOM   3222  O   ALA B 530      45.010   6.998 -10.346  1.00 27.06           O
ATOM   3223  N   VAL B 531      44.739   8.714  -8.925  1.00 24.50           N
ATOM   3224  CA  VAL B 531      45.642   8.176  -7.907  1.00 24.94           C
ATOM   3225  CB  VAL B 531      46.061   9.282  -6.875  1.00 29.10           C
ATOM   3226  CG1 VAL B 531      47.071   8.689  -5.847  1.00 29.35           C
ATOM   3227  CG2 VAL B 531      46.683  10.501  -7.616  1.00 28.59           C
ATOM   3228  C   VAL B 531      45.041   6.956  -7.211  1.00 26.25           C
ATOM   3229  O   VAL B 531      45.749   5.999  -6.866  1.00 24.09           O
ATOM   3230  N   THR B 532      43.721   6.974  -7.057  1.00 22.96           N
ATOM   3231  CA  THR B 532      42.991   5.857  -6.436  1.00 22.22           C
ATOM   3232  CB  THR B 532      41.531   6.266  -6.179  1.00 26.69           C
ATOM   3233  OG1 THR B 532      41.513   7.333  -5.229  1.00 27.26           O
ATOM   3234  CG2 THR B 532      40.700   5.105  -5.683  1.00 20.03           C
ATOM   3235  C   THR B 532      43.061   4.614  -7.334  1.00 25.46           C
ATOM   3236  O   THR B 532      43.216   3.499  -6.844  1.00 25.05           O
ATOM   3237  N   VAL B 533      42.974   4.825  -8.645  1.00 21.69           N
ATOM   3238  CA  VAL B 533      43.050   3.744  -9.609  1.00 20.41           C
ATOM   3239  CB  VAL B 533      42.534   4.166 -11.009  1.00 21.45           C
ATOM   3240  CG1 VAL B 533      42.807   3.097 -12.013  1.00 19.82           C
ATOM   3241  CG2 VAL B 533      41.054   4.531 -10.954  1.00 20.34           C
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ATOM   3242  C   VAL B 533      44.475   3.196  -9.659  1.00 25.91           C
ATOM   3243  O   VAL B 533      44.655   1.974  -9.758  1.00 24.79           O
ATOM   3244  N   ALA B 534      45.467   4.098  -9.573  1.00 21.10           N
ATOM   3245  CA  ALA B 534      46.878   3.709  -9.549  1.00 19.69           C
ATOM   3246  CB  ALA B 534      47.794   4.950  -9.622  1.00 19.47           C
ATOM   3247  C   ALA B 534      47.153   2.898  -8.267  1.00 24.83           C
ATOM   3248  O   ALA B 534      47.911   1.951  -8.306  1.00 26.94           O
ATOM   3249  N   HIS B 535      46.540   3.267  -7.142  1.00 21.49           N
ATOM   3250  CA  HIS B 535      46.736   2.513  -5.923  1.00 21.94           C
ATOM   3251  CB  HIS B 535      46.093   3.156  -4.697  1.00 23.09           C
ATOM   3252  CG  HIS B 535      46.042   2.217  -3.522  1.00 26.62           C
ATOM   3253  ND1 HIS B 535      44.943   1.428  -3.252  1.00 29.00           N
ATOM   3254  CE1 HIS B 535      45.211   0.647  -2.218  1.00 28.32           C
ATOM   3255  NE2 HIS B 535      46.468   0.846  -1.855  1.00 27.92           N
ATOM   3256  CD2 HIS B 535      47.024   1.793  -2.682  1.00 27.61           C
ATOM   3257  C   HIS B 535      46.150   1.092  -6.049  1.00 29.71           C
ATOM   3258  O   HIS B 535      46.726   0.139  -5.520  1.00 28.96           O
ATOM   3259  N   CYS B 536      44.999   0.940  -6.707  1.00 28.22           N
ATOM   3260  CA  CYS B 536      44.445  -0.399  -6.861  1.00 28.71           C
ATOM   3261  CB  CYS B 536      43.080  -0.391  -7.561  1.00 29.69           C
ATOM   3262  SG  CYS B 536      42.236  -2.014  -7.458  1.00 33.58           S
ATOM   3263  C   CYS B 536      45.433  -1.255  -7.653  1.00 28.20           C
ATOM   3264  O   CYS B 536      45.652  -2.410  -7.311  1.00 28.26           O
ATOM   3265  N   MET B 537      46.021  -0.676  -8.703  1.00 21.77           N
ATOM   3266  CA  MET B 537      46.951  -1.401  -9.533  1.00 21.17           C
ATOM   3267  CB  MET B 537      47.338  -0.571 -10.754  1.00 22.67           C
ATOM   3268  CG  MET B 537      48.422  -1.190 -11.639  1.00 25.39           C
ATOM   3269  SD  MET B 537      47.873  -2.815 -12.355  1.00 28.86           S
ATOM   3270  CE  MET B 537      46.672  -2.265 -13.592  1.00 23.45           C
ATOM   3271  C   MET B 537      48.186  -1.789  -8.706  1.00 30.84           C
ATOM   3272  O   MET B 537      48.713  -2.892  -8.836  1.00 33.58           O
ATOM   3273  N   TYR B 538      48.625  -0.886  -7.833  1.00 28.50           N
ATOM   3274  CA  TYR B 538      49.773  -1.124  -6.961  1.00 27.26           C
ATOM   3275  CB  TYR B 538      50.050   0.128  -6.099  1.00 28.47           C
ATOM   3276  CG  TYR B 538      50.958  -0.105  -4.912  1.00 29.93           C
ATOM   3277  CD1 TYR B 538      52.345  -0.165  -5.069  1.00 31.21           C
ATOM   3278  CE1 TYR B 538      53.175  -0.395  -3.981  1.00 30.26           C
ATOM   3279  CZ  TYR B 538      52.639  -0.540  -2.739  1.00 35.54           C
ATOM   3280  OH  TYR B 538      53.469  -0.737  -1.658  1.00 40.38           O
ATOM   3281  CE2 TYR B 538      51.269  -0.494  -2.543  1.00 32.16           C
ATOM   3282  CD2 TYR B 538      50.430  -0.274  -3.628  1.00 31.25           C
ATOM   3283  C   TYR B 538      49.487  -2.346  -6.085  1.00 29.04           C
ATOM   3284  O   TYR B 538      50.317  -3.237  -6.006  1.00 27.82           O
ATOM   3285  N   ALA B 539      48.298  -2.407  -5.480  1.00 27.00           N
ATOM   3286  CA  ALA B 539      47.900  -3.547  -4.651  1.00 27.66           C
ATOM   3287  CB  ALA B 539      46.525  -3.316  -4.024  1.00 28.01           C
ATOM   3288  C   ALA B 539      47.940  -4.873  -5.441  1.00 34.24           C
ATOM   3289  O   ALA B 539      48.460  -5.874  -4.956  1.00 35.60           O
ATOM   3290  N   ILE B 540      47.457  -4.848  -6.681  1.00 30.08           N
ATOM   3291  CA  ILE B 540      47.459  -6.022  -7.547  1.00 29.36           C
ATOM   3292  CB  ILE B 540      46.699  -5.751  -8.877  1.00 31.68           C
ATOM   3293  CG1 ILE B 540      45.197  -5.504  -8.619  1.00 31.55           C
ATOM   3294  CD1 ILE B 540      44.376  -5.356  -9.916  1.00 28.47           C
ATOM   3295  CG2 ILE B 540      46.931  -6.902  -9.859  1.00 30.79           C
ATOM   3296  C   ILE B 540      48.887  -6.483  -7.840  1.00 32.98           C
ATOM   3297  O   ILE B 540      49.206  -7.687  -7.799  1.00 30.88           O
ATOM   3298  N   LEU B 541      49.724  -5.535  -8.245  1.00 32.12           N
ATOM   3299  CA  LEU B 541      51.118  -5.828  -8.588  1.00 32.29           C
ATOM   3300  CB  LEU B 541      51.794  -4.601  -9.184  1.00 32.97           C
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ATOM   3301  CG  LEU B 541      51.239  -4.129 -10.539  1.00 38.42           C
ATOM   3302  CD1 LEU B 541      51.786  -2.771 -10.917  1.00 36.95           C
ATOM   3303  CD2 LEU B 541      51.565  -5.156 -11.607  1.00 42.48           C
ATOM   3304  C   LEU B 541      51.914  -6.311  -7.367  1.00 35.59           C
ATOM   3305  O   LEU B 541      52.776  -7.183  -7.498  1.00 37.29           O
ATOM   3306  N   GLN B 542      51.619  -5.760  -6.191  1.00 30.97           N
ATOM   3307  CA  GLN B 542      52.310  -6.156  -4.972  1.00 33.41           C
ATOM   3308  CB  GLN B 542      52.036  -5.183  -3.826  1.00 35.43           C
ATOM   3309  CG  GLN B 542      52.754  -3.836  -3.944  1.00 37.03           C
ATOM   3310  CD  GLN B 542      54.271  -3.961  -3.799  1.00 46.99           C
ATOM   3311  OE1 GLN B 542      54.793  -3.949  -2.690  1.00 48.38           O
ATOM   3312  NE2 GLN B 542      54.979  -4.009  -4.918  1.00 34.11           N
ATOM   3313  C   GLN B 542      51.971  -7.587  -4.536  1.00 41.36           C
ATOM   3314  O   GLN B 542      52.796  -8.266  -3.945  1.00 42.78           O
ATOM   3315  N   ASN B 543      50.764  -8.043  -4.856  1.00 38.71           N
ATOM   3316  CA  ASN B 543      50.308  -9.387  -4.501  1.00 37.53           C
ATOM   3317  CB  ASN B 543      48.867  -9.348  -4.019  1.00 34.89           C
ATOM   3318  CG  ASN B 543      48.730  -8.617  -2.719  1.00 53.91           C
ATOM   3319  OD1 ASN B 543      48.921  -9.198  -1.647  1.00 49.30           O
ATOM   3320  ND2 ASN B 543      48.439  -7.316  -2.798  1.00 43.15           N
ATOM   3321  C   ASN B 543      50.484 -10.434  -5.603  1.00 40.03           C
ATOM   3322  O   ASN B 543      50.190 -11.608  -5.406  1.00 40.51           O
ATOM   3323  N   ASN B 544      50.997 -10.010  -6.751  1.00 36.39           N
ATOM   3324  CA  ASN B 544      51.269 -10.919  -7.862  1.00 36.67           C
ATOM   3325  CB  ASN B 544      50.191 -10.834  -8.942  1.00 35.58           C
ATOM   3326  CG  ASN B 544      48.822 -11.150  -8.402  1.00 46.97           C
ATOM   3327  OD1 ASN B 544      48.388 -12.287  -8.452  1.00 38.59           O
ATOM   3328  ND2 ASN B 544      48.150 -10.148  -7.840  1.00 39.24           N
ATOM   3329  C   ASN B 544      52.599 -10.515  -8.433  1.00 41.92           C
ATOM   3330  O   ASN B 544      52.793 -10.459  -9.638  1.00 41.04           O
ATOM   3331  N   HIS B 545      53.535 -10.254  -7.546  1.00 42.74           N
ATOM   3332  CA  HIS B 545      54.807  -9.726  -7.982  1.00 45.32           C
ATOM   3333  CB  HIS B 545      55.577  -9.047  -6.854  1.00 48.13           C
ATOM   3334  CG  HIS B 545      56.715  -9.843  -6.305  1.00 53.61           C
ATOM   3335  ND1 HIS B 545      58.033  -9.529  -6.573  1.00 56.90           N
ATOM   3336  CE1 HIS B 545      58.822 -10.322  -5.869  1.00 56.57           C
ATOM   3337  NE2 HIS B 545      58.065 -11.121  -5.137  1.00 56.51           N
ATOM   3338  CD2 HIS B 545      56.743 -10.825  -5.373  1.00 56.23           C
ATOM   3339  C   HIS B 545      55.670 -10.490  -8.989  1.00 48.97           C
ATOM   3340  O   HIS B 545      56.257  -9.860  -9.866  1.00 47.61           O
ATOM   3341  N   THR B 546      55.628 -11.820  -8.997  1.00 46.71           N
ATOM   3342  CA  THR B 546      56.432 -12.560  -9.999  1.00 46.42           C
ATOM   3343  CB  THR B 546      56.557 -14.035  -9.626  1.00 51.90           C
ATOM   3344  OG1 THR B 546      55.253 -14.520  -9.274  1.00 55.92           O
ATOM   3345  CG2 THR B 546      57.502 -14.194  -8.463  1.00 49.39           C
ATOM   3346  C   THR B 546      55.849 -12.500 -11.416  1.00 49.84           C
ATOM   3347  O   THR B 546      56.577 -12.652 -12.424  1.00 48.79           O
ATOM   3348  N   LEU B 547      54.525 -12.408 -11.490  1.00 45.42           N
ATOM   3349  CA  LEU B 547      53.824 -12.465 -12.770  1.00 44.58           C
ATOM   3350  CB  LEU B 547      52.319 -12.401 -12.530  1.00 45.64           C
ATOM   3351  CG  LEU B 547      51.545 -13.726 -12.514  1.00 52.97           C
ATOM   3352  CD1 LEU B 547      52.267 -14.771 -11.651  1.00 54.48           C
ATOM   3353  CD2 LEU B 547      50.102 -13.524 -12.038  1.00 55.72           C
ATOM   3354  C   LEU B 547      54.207 -11.432 -13.825  1.00 45.30           C
ATOM   3355  O   LEU B 547      54.165 -11.699 -15.028  1.00 44.26           O
ATOM   3356  N   PHE B 548      54.524 -10.228 -13.374  1.00 40.59           N
ATOM   3357  CA  PHE B 548      54.736  -9.131 -14.288  1.00 40.38           C
ATOM   3358  CB  PHE B 548      53.882  -7.940 -13.858  1.00 41.42           C
ATOM   3359  CG  PHE B 548      52.424  -8.287 -13.678  1.00 42.40           C
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ATOM   3360  CD1 PHE B 548      51.869  -8.459 -12.405  1.00 45.22           C
ATOM   3361  CE1 PHE B 548      50.527  -8.791 -12.259  1.00 45.73           C
ATOM   3362  CZ  PHE B 548      49.748  -9.017 -13.378  1.00 43.79           C
ATOM   3363  CE2 PHE B 548      50.283  -8.856 -14.639  1.00 45.14           C
ATOM   3364  CD2 PHE B 548      51.614  -8.492 -14.785  1.00 42.76           C
ATOM   3365  C   PHE B 548      56.167  -8.732 -14.588  1.00 46.52           C
ATOM   3366  O   PHE B 548      57.031  -8.783 -13.721  1.00 48.58           O
ATOM   3367  N   THR B 549      56.403  -8.345 -15.839  1.00 42.42           N
ATOM   3368  CA  THR B 549      57.724  -7.934 -16.285  1.00 42.93           C
ATOM   3369  CB  THR B 549      57.855  -7.915 -17.810  1.00 51.99           C
ATOM   3370  OG1 THR B 549      57.072  -6.833 -18.333  1.00 55.19           O
ATOM   3371  CG2 THR B 549      57.385  -9.243 -18.419  1.00 47.39           C
ATOM   3372  C   THR B 549      58.063  -6.568 -15.735  1.00 48.74           C
ATOM   3373  O   THR B 549      57.214  -5.857 -15.196  1.00 47.43           O
ATOM   3374  N   ASP B 550      59.323  -6.197 -15.909  1.00 46.65           N
ATOM   3375  CA  ASP B 550      59.832  -4.941 -15.389  1.00 46.83           C
ATOM   3376  CB  ASP B 550      61.357  -4.960 -15.430  1.00 49.60           C
ATOM   3377  CG  ASP B 550      61.929  -6.336 -14.996  1.00 61.37           C
ATOM   3378  OD1 ASP B 550      62.216  -6.520 -13.774  1.00 61.08           O
ATOM   3379  OD2 ASP B 550      62.058  -7.238 -15.873  1.00 63.95           O
ATOM   3380  C   ASP B 550      59.221  -3.724 -16.075  1.00 48.69           C
ATOM   3381  O   ASP B 550      58.801  -2.775 -15.404  1.00 49.76           O
ATOM   3382  N   LEU B 551      59.096  -3.796 -17.396  1.00 44.07           N
ATOM   3383  CA  LEU B 551      58.455  -2.744 -18.168  1.00 43.66           C
ATOM   3384  CB  LEU B 551      58.661  -3.014 -19.665  1.00 43.72           C
ATOM   3385  CG  LEU B 551      60.006  -2.636 -20.287  1.00 48.83           C
ATOM   3386  CD1 LEU B 551      59.953  -2.760 -21.801  1.00 48.76           C
ATOM   3387  CD2 LEU B 551      60.431  -1.235 -19.871  1.00 54.20           C
ATOM   3388  C   LEU B 551      56.938  -2.661 -17.872  1.00 46.81           C
ATOM   3389  O   LEU B 551      56.347  -1.604 -18.014  1.00 46.26           O
ATOM   3390  N   GLU B 552      56.305  -3.792 -17.549  1.00 42.26           N
ATOM   3391  CA  GLU B 552      54.870  -3.822 -17.283  1.00 41.24           C
ATOM   3392  CB  GLU B 552      54.360  -5.269 -17.176  1.00 42.08           C
ATOM   3393  CG  GLU B 552      54.030  -5.910 -18.508  1.00 50.30           C
ATOM   3394  CD  GLU B 552      53.734  -7.406 -18.390  1.00 59.07           C
ATOM   3395  OE1 GLU B 552      53.110  -7.965 -19.315  1.00 50.56           O
ATOM   3396  OE2 GLU B 552      54.133  -8.019 -17.381  1.00 49.32           O
ATOM   3397  C   GLU B 552      54.564  -3.074 -15.995  1.00 44.26           C
ATOM   3398  O   GLU B 552      53.643  -2.266 -15.939  1.00 44.45           O
ATOM   3399  N   ARG B 553      55.332  -3.357 -14.950  1.00 40.37           N
ATOM   3400  CA  ARG B 553      55.143  -2.680 -13.666  1.00 41.21           C
ATOM   3401  CB  ARG B 553      56.156  -3.184 -12.623  1.00 41.20           C
ATOM   3402  CG  ARG B 553      55.823  -4.562 -12.054  1.00 45.86           C
ATOM   3403  CD  ARG B 553      56.823  -5.004 -10.982  1.00 52.19           C
ATOM   3404  NE  ARG B 553      58.132  -5.296 -11.566  1.00 56.81           N
ATOM   3405  CZ  ARG B 553      58.642  -6.519 -11.711  1.00 67.06           C
ATOM   3406  NH1 ARG B 553      59.833  -6.679 -12.282  1.00 58.51           N
ATOM   3407  NH2 ARG B 553      57.976  -7.581 -11.267  1.00 54.82           N
ATOM   3408  C   ARG B 553      55.245  -1.161 -13.837  1.00 47.11           C
ATOM   3409  O   ARG B 553      54.394  -0.425 -13.346  1.00 47.83           O
ATOM   3410  N   LYS B 554      56.251  -0.708 -14.584  1.00 44.17           N
ATOM   3411  CA  LYS B 554      56.432   0.723 -14.841  1.00 44.24           C
ATOM   3412  CB  LYS B 554      57.693   0.952 -15.690  1.00 47.32           C
ATOM   3413  CG  LYS B 554      59.020   0.670 -14.975  1.00 53.07           C
ATOM   3414  CD  LYS B 554      60.193   1.258 -15.765  1.00 48.32           C
ATOM   3415  CE  LYS B 554      61.397   0.327 -15.761  1.00 51.72           C
ATOM   3416  NZ  LYS B 554      62.659   1.081 -16.103  1.00 58.35           N
ATOM   3417  C   LYS B 554      55.243   1.286 -15.611  1.00 44.75           C
ATOM   3418  O   LYS B 554      54.678   2.326 -15.237  1.00 45.52           O
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ATOM   3419  N   GLY B 555      54.922   0.626 -16.726  1.00 37.02           N
ATOM   3420  CA  GLY B 555      53.863   1.040 -17.640  1.00 34.78           C
ATOM   3421  C   GLY B 555      52.455   1.104 -17.073  1.00 36.25           C
ATOM   3422  O   GLY B 555      51.668   1.988 -17.442  1.00 36.10           O
ATOM   3423  N   LEU B 556      52.134   0.156 -16.196  1.00 31.67           N
ATOM   3424  CA  LEU B 556      50.813   0.063 -15.602  1.00 30.42           C
ATOM   3425  CB  LEU B 556      50.563  -1.348 -15.080  1.00 30.38           C
ATOM   3426  CG  LEU B 556      50.417  -2.399 -16.166  1.00 34.66           C
ATOM   3427  CD1 LEU B 556      50.211  -3.741 -15.521  1.00 35.03           C
ATOM   3428  CD2 LEU B 556      49.260  -2.043 -17.118  1.00 36.69           C
ATOM   3429  C   LEU B 556      50.483   1.125 -14.562  1.00 32.28           C
ATOM   3430  O   LEU B 556      49.347   1.604 -14.494  1.00 32.08           O
ATOM   3431  N   LEU B 557      51.455   1.481 -13.731  1.00 29.08           N
ATOM   3432  CA  LEU B 557      51.218   2.522 -12.737  1.00 29.93           C
ATOM   3433  CB  LEU B 557      52.354   2.563 -11.719  1.00 31.96           C
ATOM   3434  CG  LEU B 557      52.362   1.378 -10.747  1.00 39.19           C
ATOM   3435  CD1 LEU B 557      53.711   1.311 -10.019  1.00 41.50           C
ATOM   3436  CD2 LEU B 557      51.180   1.424  -9.774  1.00 37.32           C
ATOM   3437  C   LEU B 557      51.066   3.873 -13.420  1.00 29.50           C
ATOM   3438  O   LEU B 557      50.224   4.664 -13.026  1.00 30.85           O
ATOM   3439  N   ILE B 558      51.845   4.096 -14.477  1.00 25.59           N
ATOM   3440  CA  ILE B 558      51.780   5.337 -15.261  1.00 26.37           C
ATOM   3441  CB  ILE B 558      53.002   5.498 -16.211  1.00 29.35           C
ATOM   3442  CG1 ILE B 558      54.326   5.616 -15.427  1.00 31.73           C
ATOM   3443  CD1 ILE B 558      54.424   6.852 -14.471  1.00 36.84           C
ATOM   3444  CG2 ILE B 558      52.790   6.631 -17.161  1.00 29.31           C
ATOM   3445  C   ILE B 558      50.477   5.334 -16.076  1.00 29.98           C
ATOM   3446  O   ILE B 558      49.809   6.355 -16.189  1.00 29.80           O
ATOM   3447  N   ALA B 559      50.102   4.177 -16.620  1.00 25.00           N
ATOM   3448  CA  ALA B 559      48.839   4.074 -17.373  1.00 23.60           C
ATOM   3449  CB  ALA B 559      48.623   2.660 -17.882  1.00 23.82           C
ATOM   3450  C   ALA B 559      47.671   4.490 -16.471  1.00 26.39           C
ATOM   3451  O   ALA B 559      46.799   5.260 -16.884  1.00 22.78           O
ATOM   3452  N   CYS B 560      47.670   3.981 -15.241  1.00 25.93           N
ATOM   3453  CA  CYS B 560      46.596   4.258 -14.289  1.00 26.86           C
ATOM   3454  CB  CYS B 560      46.712   3.364 -13.067  1.00 28.26           C
ATOM   3455  SG  CYS B 560      46.304   1.607 -13.419  1.00 32.82           S
ATOM   3456  C   CYS B 560      46.494   5.721 -13.883  1.00 28.29           C
ATOM   3457  O   CYS B 560      45.403   6.276 -13.778  1.00 25.38           O
ATOM   3458  N   LEU B 561      47.642   6.353 -13.683  1.00 27.68           N
ATOM   3459  CA  LEU B 561      47.675   7.755 -13.306  1.00 26.51           C
ATOM   3460  CB  LEU B 561      49.111   8.183 -12.944  1.00 26.29           C
ATOM   3461  CG  LEU B 561      49.244   9.490 -12.128  1.00 27.23           C
ATOM   3462  CD1 LEU B 561      48.665   9.324 -10.731  1.00 25.08           C
ATOM   3463  CD2 LEU B 561      50.661   9.934 -12.085  1.00 25.42           C
ATOM   3464  C   LEU B 561      47.148   8.624 -14.435  1.00 26.11           C
ATOM   3465  O   LEU B 561      46.495   9.622 -14.193  1.00 24.72           O
ATOM   3466  N   CYS B 562      47.452   8.237 -15.670  1.00 22.77           N
ATOM   3467  CA  CYS B 562      47.073   8.993 -16.864  1.00 23.35           C
ATOM   3468  CB  CYS B 562      48.189   8.873 -17.890  1.00 24.98           C
ATOM   3469  SG  CYS B 562      49.785   9.516 -17.281  1.00 29.58           S
ATOM   3470  C   CYS B 562      45.766   8.602 -17.546  1.00 24.10           C
ATOM   3471  O   CYS B 562      45.328   9.253 -18.487  1.00 22.72           O
ATOM   3472  N   HIS B 563      45.160   7.509 -17.107  1.00 23.16           N
ATOM   3473  CA  HIS B 563      43.979   6.926 -17.785  1.00 21.99           C
ATOM   3474  CB  HIS B 563      43.592   5.564 -17.150  1.00 21.14           C
ATOM   3475  CG  HIS B 563      42.533   5.679 -16.107  1.00 22.33           C
ATOM   3476  ND1 HIS B 563      42.783   6.153 -14.837  1.00 22.36           N
ATOM   3477  CE1 HIS B 563      41.650   6.233 -14.168  1.00 21.31           C
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ATOM   3478  NE2 HIS B 563      40.673   5.853 -14.971  1.00 21.81           N
ATOM   3479  CD2 HIS B 563      41.200   5.502 -16.188  1.00 21.99           C
ATOM   3480  C   HIS B 563      42.743   7.773 -18.038  1.00 24.79           C
ATOM   3481  O   HIS B 563      41.981   7.472 -18.956  1.00 24.36           O
ATOM   3482  N   ASP B 564      42.555   8.850 -17.282  1.00 20.55           N
ATOM   3483  CA  ASP B 564      41.389   9.688 -17.513  1.00 20.00           C
ATOM   3484  CB  ASP B 564      40.492   9.641 -16.301  1.00 20.71           C
ATOM   3485  CG  ASP B 564      39.419   8.604 -16.428  1.00 23.63           C
ATOM   3486  OD1 ASP B 564      39.063   8.259 -17.556  1.00 25.63           O
ATOM   3487  OD2 ASP B 564      38.912   8.159 -15.403  1.00 30.10           O
ATOM   3488  C   ASP B 564      41.781  11.141 -17.800  1.00 26.36           C
ATOM   3489  O   ASP B 564      40.992  12.051 -17.526  1.00 25.35           O
ATOM   3490  N   LEU B 565      43.026  11.340 -18.252  1.00 23.79           N
ATOM   3491  CA  LEU B 565      43.564  12.673 -18.490  1.00 23.90           C
ATOM   3492  CB  LEU B 565      44.945  12.597 -19.179  1.00 24.28           C
ATOM   3493  CG  LEU B 565      46.166  12.668 -18.258  1.00 29.88           C
ATOM   3494  CD1 LEU B 565      47.459  12.332 -19.011  1.00 28.83           C
ATOM   3495  CD2 LEU B 565      46.294  14.066 -17.551  1.00 31.02           C
ATOM   3496  C   LEU B 565      42.609  13.548 -19.303  1.00 27.84           C
ATOM   3497  O   LEU B 565      42.100  13.147 -20.363  1.00 27.11           O
ATOM   3498  N   ASP B 566      42.366  14.739 -18.775  1.00 23.96           N
ATOM   3499  CA  ASP B 566      41.531  15.722 -19.430  1.00 24.12           C
ATOM   3500  CB  ASP B 566      42.156  16.152 -20.763  1.00 25.45           C
ATOM   3501  CG  ASP B 566      41.483  17.387 -21.350  1.00 37.27           C
ATOM   3502  OD1 ASP B 566      41.145  18.335 -20.602  1.00 38.75           O
ATOM   3503  OD2 ASP B 566      41.293  17.420 -22.573  1.00 40.63           O
ATOM   3504  C   ASP B 566      40.080  15.295 -19.617  1.00 28.42           C
ATOM   3505  O   ASP B 566      39.432  15.747 -20.556  1.00 25.50           O
ATOM   3506  N   HIS B 567      39.578  14.452 -18.713  1.00 26.56           N
ATOM   3507  CA  HIS B 567      38.185  14.040 -18.718  1.00 26.50           C
ATOM   3508  CB  HIS B 567      37.961  12.949 -17.652  1.00 27.11           C
ATOM   3509  CG  HIS B 567      36.792  12.053 -17.941  1.00 30.38           C
ATOM   3510  ND1 HIS B 567      35.482  12.472 -17.817  1.00 32.25           N
ATOM   3511  CE1 HIS B 567      34.675  11.473 -18.131  1.00 31.07           C
ATOM   3512  NE2 HIS B 567      35.414  10.431 -18.479  1.00 30.95           N
ATOM   3513  CD2 HIS B 567      36.741  10.767 -18.366  1.00 30.90           C
ATOM   3514  C   HIS B 567      37.300  15.255 -18.379  1.00 31.15           C
ATOM   3515  O   HIS B 567      37.590  15.969 -17.425  1.00 30.36           O
ATOM   3516  N   ARG B 568      36.221  15.464 -19.143  1.00 27.88           N
ATOM   3517  CA  ARG B 568      35.321  16.613 -18.940  1.00 28.34           C
ATOM   3518  CB  ARG B 568      34.827  17.170 -20.289  1.00 27.35           C
ATOM   3519  CG  ARG B 568      35.915  17.590 -21.266  1.00 39.70           C
ATOM   3520  CD  ARG B 568      36.569  18.884 -20.783  1.00 52.69           C
ATOM   3521  NE  ARG B 568      36.535  19.947 -21.799  1.00 52.28           N
ATOM   3522  CZ  ARG B 568      35.922  21.126 -21.654  1.00 58.73           C
ATOM   3523  NH1 ARG B 568      35.231  21.402 -20.547  1.00 52.99           N
ATOM   3524  NH2 ARG B 568      35.986  22.030 -22.630  1.00 46.84           N
ATOM   3525  C   ARG B 568      34.098  16.273 -18.095  1.00 34.09           C
ATOM   3526  O   ARG B 568      33.277  17.135 -17.833  1.00 34.12           O
ATOM   3527  N   GLY B 569      33.935  14.995 -17.766  1.00 31.32           N
ATOM   3528  CA  GLY B 569      32.806  14.491 -16.997  1.00 30.84           C
ATOM   3529  C   GLY B 569      31.695  13.943 -17.879  1.00 33.72           C
ATOM   3530  O   GLY B 569      30.585  13.735 -17.413  1.00 35.93           O
ATOM   3531  N   PHE B 570      31.995  13.712 -19.160  1.00 26.65           N
ATOM   3532  CA  PHE B 570      30.990  13.220 -20.101  1.00 25.94           C
ATOM   3533  CB  PHE B 570      30.685  14.273 -21.180  1.00 26.93           C
ATOM   3534  CG  PHE B 570      30.197  15.571 -20.622  1.00 27.82           C
ATOM   3535  CD1 PHE B 570      28.971  15.642 -19.964  1.00 29.78           C
ATOM   3536  CE1 PHE B 570      28.531  16.831 -19.423  1.00 30.34           C
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ATOM   3537  CZ  PHE B 570      29.306  17.961 -19.520  1.00 29.80           C
ATOM   3538  CE2 PHE B 570      30.529  17.909 -20.172  1.00 31.87           C
ATOM   3539  CD2 PHE B 570      30.968  16.710 -20.726  1.00 28.85           C
ATOM   3540  C   PHE B 570      31.380  11.920 -20.776  1.00 29.11           C
ATOM   3541  O   PHE B 570      32.553  11.711 -21.098  1.00 28.33           O
ATOM   3542  N   SER B 571      30.371  11.092 -21.054  1.00 25.45           N
ATOM   3543  CA  SER B 571      30.583   9.803 -21.701  1.00 25.16           C
ATOM   3544  CB  SER B 571      29.367   8.899 -21.510  1.00 27.48           C
ATOM   3545  OG  SER B 571      28.248   9.388 -22.242  1.00 41.94           O
ATOM   3546  C   SER B 571      30.876   9.959 -23.179  1.00 28.09           C
ATOM   3547  O   SER B 571      30.632  11.017 -23.757  1.00 26.63           O
ATOM   3548  N   ASN B 572      31.326   8.864 -23.787  1.00 25.71           N
ATOM   3549  CA  ASN B 572      31.579   8.785 -25.224  1.00 25.70           C
ATOM   3550  CB  ASN B 572      32.205   7.407 -25.565  1.00 26.93           C
ATOM   3551  CG  ASN B 572      33.664   7.348 -25.222  1.00 38.19           C
ATOM   3552  OD1 ASN B 572      34.304   8.389 -25.083  1.00 32.42           O
ATOM   3553  ND2 ASN B 572      34.205   6.137 -25.066  1.00 21.04           N
ATOM   3554  C   ASN B 572      30.272   8.957 -25.988  1.00 29.93           C
ATOM   3555  O   ASN B 572      30.264   9.561 -27.071  1.00 28.70           O
ATOM   3556  N   SER B 573      29.168   8.437 -25.431  1.00 28.74           N
ATOM   3557  CA  SER B 573      27.852   8.581 -26.105  1.00 28.61           C
ATOM   3558  CB  SER B 573      26.765   7.786 -25.387  1.00 33.45           C
ATOM   3559  OG  SER B 573      27.310   6.549 -24.923  1.00 57.39           O
ATOM   3560  C   SER B 573      27.451  10.039 -26.161  1.00 28.77           C
ATOM   3561  O   SER B 573      26.904  10.494 -27.136  1.00 27.97           O
ATOM   3562  N   TYR B 574      27.726  10.771 -25.095  1.00 25.94           N
ATOM   3563  CA  TYR B 574      27.375  12.182 -25.069  1.00 26.53           C
ATOM   3564  CB  TYR B 574      27.467  12.810 -23.646  1.00 26.96           C
ATOM   3565  CG  TYR B 574      27.176  14.297 -23.674  1.00 27.59           C
ATOM   3566  CD1 TYR B 574      25.867  14.768 -23.876  1.00 27.28           C
ATOM   3567  CE1 TYR B 574      25.601  16.111 -24.004  1.00 23.35           C
ATOM   3568  CZ  TYR B 574      26.647  17.012 -23.982  1.00 33.62           C
ATOM   3569  OH  TYR B 574      26.406  18.347 -24.115  1.00 30.84           O
ATOM   3570  CE2 TYR B 574      27.958  16.574 -23.820  1.00 30.36           C
ATOM   3571  CD2 TYR B 574      28.217  15.221 -23.700  1.00 28.77           C
ATOM   3572  C   TYR B 574      28.148  12.995 -26.101  1.00 31.58           C
ATOM   3573  O   TYR B 574      27.557  13.796 -26.814  1.00 33.45           O
ATOM   3574  N   LEU B 575      29.459  12.786 -26.167  1.00 28.34           N
ATOM   3575  CA  LEU B 575      30.321  13.458 -27.146  1.00 28.41           C
ATOM   3576  CB  LEU B 575      31.771  12.959 -27.030  1.00 28.90           C
ATOM   3577  CG  LEU B 575      32.703  13.282 -25.845  1.00 34.63           C
ATOM   3578  CD1 LEU B 575      34.035  13.772 -26.351  1.00 34.27           C
ATOM   3579  CD2 LEU B 575      32.145  14.244 -24.859  1.00 35.82           C
ATOM   3580  C   LEU B 575      29.825  13.160 -28.564  1.00 32.52           C
ATOM   3581  O   LEU B 575      29.855  14.018 -29.434  1.00 31.63           O
ATOM   3582  N   GLN B 576      29.378  11.925 -28.781  1.00 30.74           N
ATOM   3583  CA  GLN B 576      28.829  11.481 -30.063  1.00 30.40           C
ATOM   3584  CB  GLN B 576      28.551   9.976 -29.999  1.00 31.16           C
ATOM   3585  CG  GLN B 576      28.290   9.305 -31.374  1.00 50.64           C
ATOM   3586  CD  GLN B 576      27.559   7.942 -31.255  1.00 64.64           C
ATOM   3587  OE1 GLN B 576      27.379   7.233 -32.264  1.00 58.11           O
ATOM   3588  NE2 GLN B 576      27.165   7.561 -30.014  1.00 50.96           N
ATOM   3589  C   GLN B 576      27.530  12.256 -30.386  1.00 36.63           C
ATOM   3590  O   GLN B 576      27.400  12.871 -31.454  1.00 38.35           O
ATOM   3591  N   LYS B 577      26.583  12.255 -29.450  1.00 31.90           N
ATOM   3592  CA  LYS B 577      25.327  12.950 -29.671  1.00 31.64           C
ATOM   3593  CB  LYS B 577      24.320  12.603 -28.576  1.00 34.35           C
ATOM   3594  CG  LYS B 577      23.797  11.183 -28.738  1.00 40.93           C
ATOM   3595  CD  LYS B 577      23.243  10.625 -27.445  1.00 46.71           C
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ATOM   3596  CE  LYS B 577      22.737   9.188 -27.666  1.00 46.07           C
ATOM   3597  NZ  LYS B 577      22.605   8.448 -26.368  1.00 55.15           N
ATOM   3598  C   LYS B 577      25.527  14.459 -29.807  1.00 35.91           C
ATOM   3599  O   LYS B 577      24.820  15.118 -30.596  1.00 35.59           O
ATOM   3600  N   PHE B 578      26.518  14.991 -29.083  1.00 28.48           N
ATOM   3601  CA  PHE B 578      26.822  16.411 -29.143  1.00 27.06           C
ATOM   3602  CB  PHE B 578      27.655  16.824 -27.932  1.00 27.81           C
ATOM   3603  CG  PHE B 578      27.967  18.291 -27.890  1.00 28.57           C
ATOM   3604  CD1 PHE B 578      27.108  19.185 -27.250  1.00 30.90           C
ATOM   3605  CE1 PHE B 578      27.408  20.526 -27.178  1.00 30.84           C
ATOM   3606  CZ  PHE B 578      28.544  21.000 -27.759  1.00 30.59           C
ATOM   3607  CE2 PHE B 578      29.421  20.114 -28.413  1.00 32.14           C
ATOM   3608  CD2 PHE B 578      29.118  18.776 -28.473  1.00 28.84           C
ATOM   3609  C   PHE B 578      27.538  16.824 -30.428  1.00 32.37           C
ATOM   3610  O   PHE B 578      27.583  18.019 -30.784  1.00 29.00           O
ATOM   3611  N   ASP B 579      28.129  15.845 -31.109  1.00 32.87           N
ATOM   3612  CA  ASP B 579      28.933  16.116 -32.307  1.00 32.82           C
ATOM   3613  CB  ASP B 579      28.143  16.847 -33.407  1.00 34.76           C
ATOM   3614  CG  ASP B 579      28.701  16.580 -34.820  1.00 46.84           C
ATOM   3615  OD1 ASP B 579      29.742  15.895 -34.968  1.00 48.24           O
ATOM   3616  OD2 ASP B 579      28.105  17.080 -35.794  1.00 49.72           O
ATOM   3617  C   ASP B 579      30.192  16.885 -31.900  1.00 35.96           C
ATOM   3618  O   ASP B 579      30.555  17.872 -32.502  1.00 37.98           O
ATOM   3619  N   HIS B 580      30.858  16.413 -30.853  1.00 30.91           N
ATOM   3620  CA  HIS B 580      32.102  17.018 -30.377  1.00 30.21           C
ATOM   3621  CB  HIS B 580      32.431  16.463 -28.991  1.00 30.67           C
ATOM   3622  CG  HIS B 580      33.514  17.213 -28.274  1.00 34.00           C
ATOM   3623  ND1 HIS B 580      34.857  16.959 -28.471  1.00 35.12           N
ATOM   3624  CE1 HIS B 580      35.573  17.810 -27.758  1.00 34.83           C
ATOM   3625  NE2 HIS B 580      34.745  18.606 -27.104  1.00 35.62           N
ATOM   3626  CD2 HIS B 580      33.452  18.252 -27.406  1.00 35.95           C
ATOM   3627  C   HIS B 580      33.238  16.674 -31.362  1.00 35.41           C
ATOM   3628  O   HIS B 580      33.286  15.580 -31.886  1.00 33.61           O
ATOM   3629  N   PRO B 581      34.183  17.606 -31.598  1.00 34.72           N
ATOM   3630  CA  PRO B 581      35.332  17.363 -32.494  1.00 34.68           C
ATOM   3631  CB  PRO B 581      36.222  18.593 -32.258  1.00 35.88           C
ATOM   3632  CG  PRO B 581      35.262  19.675 -31.916  1.00 39.42           C
ATOM   3633  CD  PRO B 581      34.187  18.984 -31.070  1.00 35.54           C
ATOM   3634  C   PRO B 581      36.132  16.078 -32.176  1.00 37.22           C
ATOM   3635  O   PRO B 581      36.691  15.455 -33.074  1.00 38.89           O
ATOM   3636  N   LEU B 582      36.186  15.683 -30.905  1.00 30.77           N
ATOM   3637  CA  LEU B 582      36.892  14.460 -30.525  1.00 30.15           C
ATOM   3638  CB  LEU B 582      37.022  14.350 -28.999  1.00 29.53           C
ATOM   3639  CG  LEU B 582      38.012  15.293 -28.343  1.00 33.17           C
ATOM   3640  CD1 LEU B 582      37.891  15.140 -26.852  1.00 33.66           C
ATOM   3641  CD2 LEU B 582      39.420  15.011 -28.819  1.00 36.36           C
ATOM   3642  C   LEU B 582      36.180  13.218 -31.066  1.00 36.61           C
ATOM   3643  O   LEU B 582      36.811  12.202 -31.279  1.00 39.14           O
ATOM   3644  N   ALA B 583      34.870  13.303 -31.285  1.00 33.00           N
ATOM   3645  CA  ALA B 583      34.103  12.175 -31.829  1.00 34.83           C
ATOM   3646  CB  ALA B 583      32.571  12.378 -31.619  1.00 35.67           C
ATOM   3647  C   ALA B 583      34.411  11.952 -33.307  1.00 39.34           C
ATOM   3648  O   ALA B 583      34.274  10.842 -33.809  1.00 39.26           O
ATOM   3649  N   ALA B 584      34.855  13.006 -33.989  1.00 37.53           N
ATOM   3650  CA  ALA B 584      35.201  12.911 -35.406  1.00 38.25           C
ATOM   3651  CB  ALA B 584      34.974  14.237 -36.099  1.00 39.20           C
ATOM   3652  C   ALA B 584      36.660  12.495 -35.549  1.00 43.65           C
ATOM   3653  O   ALA B 584      37.081  11.958 -36.579  1.00 46.64           O
ATOM   3654  N   LEU B 585      37.426  12.728 -34.494  1.00 38.66           N
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ATOM   3655  CA  LEU B 585      38.825  12.355 -34.451  1.00 37.98           C
ATOM   3656  CB  LEU B 585      39.518  13.143 -33.341  1.00 38.40           C
ATOM   3657  CG  LEU B 585      41.028  13.315 -33.444  1.00 44.86           C
ATOM   3658  CD1 LEU B 585      41.408  13.530 -34.937  1.00 46.94           C
ATOM   3659  CD2 LEU B 585      41.511  14.475 -32.577  1.00 43.67           C
ATOM   3660  C   LEU B 585      38.900  10.859 -34.166  1.00 41.90           C
ATOM   3661  O   LEU B 585      39.641  10.136 -34.840  1.00 42.71           O
ATOM   3662  N   TYR B 586      38.102  10.396 -33.195  1.00 36.84           N
ATOM   3663  CA  TYR B 586      38.057   8.976 -32.813  1.00 36.74           C
ATOM   3664  CB  TYR B 586      38.702   8.767 -31.438  1.00 38.31           C
ATOM   3665  CG  TYR B 586      39.955   9.589 -31.174  1.00 39.02           C
ATOM   3666  CD1 TYR B 586      39.927  10.650 -30.272  1.00 40.19           C
ATOM   3667  CE1 TYR B 586      41.086  11.392 -29.990  1.00 39.67           C
ATOM   3668  CZ  TYR B 586      42.282  11.032 -30.576  1.00 47.13           C
ATOM   3669  OH  TYR B 586      43.413  11.760 -30.287  1.00 48.44           O
ATOM   3670  CE2 TYR B 586      42.341   9.971 -31.485  1.00 40.53           C
ATOM   3671  CD2 TYR B 586      41.191   9.238 -31.753  1.00 39.49           C
ATOM   3672  C   TYR B 586      36.615   8.504 -32.730  1.00 40.04           C
ATOM   3673  O   TYR B 586      35.886   8.881 -31.809  1.00 40.63           O
ATOM   3674  N   SER B 587      36.215   7.640 -33.654  1.00 38.09           N
ATOM   3675  CA  SER B 587      34.839   7.146 -33.672  1.00 39.43           C
ATOM   3676  CB  SER B 587      34.513   6.468 -35.012  1.00 43.74           C
ATOM   3677  OG  SER B 587      35.690   5.910 -35.578  1.00 52.46           O
ATOM   3678  C   SER B 587      34.517   6.217 -32.505  1.00 43.93           C
ATOM   3679  O   SER B 587      33.416   6.293 -31.942  1.00 46.32           O
ATOM   3680  N   THR B 588      35.480   5.361 -32.144  1.00 36.98           N
ATOM   3681  CA  THR B 588      35.320   4.436 -31.020  1.00 34.61           C
ATOM   3682  CB  THR B 588      35.576   2.975 -31.444  1.00 44.34           C
ATOM   3683  OG1 THR B 588      36.972   2.822 -31.756  1.00 43.51           O
ATOM   3684  CG2 THR B 588      34.709   2.604 -32.655  1.00 39.38           C
ATOM   3685  C   THR B 588      36.281   4.788 -29.895  1.00 32.74           C
ATOM   3686  O   THR B 588      37.376   5.295 -30.144  1.00 31.40           O
ATOM   3687  N   SER B 589      35.867   4.473 -28.669  1.00 28.15           N
ATOM   3688  CA  SER B 589      36.647   4.735 -27.465  1.00 27.76           C
ATOM   3689  CB  SER B 589      37.768   3.705 -27.328  1.00 30.56           C
ATOM   3690  OG  SER B 589      37.235   2.380 -27.356  1.00 36.35           O
ATOM   3691  C   SER B 589      37.179   6.167 -27.539  1.00 30.01           C
ATOM   3692  O   SER B 589      38.349   6.438 -27.379  1.00 28.86           O
ATOM   3693  N   THR B 590      36.277   7.072 -27.869  1.00 28.00           N
ATOM   3694  CA  THR B 590      36.588   8.480 -28.085  1.00 26.64           C
ATOM   3695  CB  THR B 590      35.298   9.302 -28.358  1.00 32.09           C
ATOM   3696  OG1 THR B 590      34.567   8.682 -29.430  1.00 30.76           O
ATOM   3697  CG2 THR B 590      35.626  10.763 -28.721  1.00 23.02           C
ATOM   3698  C   THR B 590      37.443   9.088 -26.991  1.00 26.88           C
ATOM   3699  O   THR B 590      38.566   9.565 -27.271  1.00 23.29           O
ATOM   3700  N   MET B 591      36.925   9.085 -25.758  1.00 25.13           N
ATOM   3701  CA  MET B 591      37.655   9.681 -24.660  1.00 25.59           C
ATOM   3702  CB  MET B 591      36.806   9.756 -23.389  1.00 28.92           C
ATOM   3703  CG  MET B 591      35.738  10.882 -23.396  1.00 34.27           C
ATOM   3704  SD  MET B 591      36.379  12.557 -23.875  1.00 39.75           S
ATOM   3705  CE  MET B 591      37.572  12.878 -22.575  1.00 37.41           C
ATOM   3706  C   MET B 591      38.957   8.967 -24.391  1.00 28.93           C
ATOM   3707  O   MET B 591      39.977   9.622 -24.201  1.00 29.97           O
ATOM   3708  N   GLU B 592      38.916   7.630 -24.338  1.00 24.96           N
ATOM   3709  CA  GLU B 592      40.113   6.827 -24.048  1.00 23.40           C
ATOM   3710  CB  GLU B 592      39.782   5.312 -23.934  1.00 24.14           C
ATOM   3711  CG  GLU B 592      38.810   4.956 -22.810  1.00 26.85           C
ATOM   3712  CD  GLU B 592      37.351   5.376 -23.113  1.00 37.41           C
ATOM   3713  OE1 GLU B 592      37.022   5.576 -24.290  1.00 22.02           O
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ATOM   3714  OE2 GLU B 592      36.554   5.539 -22.168  1.00 36.88           O
ATOM   3715  C   GLU B 592      41.255   7.086 -25.047  1.00 25.39           C
ATOM   3716  O   GLU B 592      42.409   7.159 -24.675  1.00 23.47           O
ATOM   3717  N   GLN B 593      40.942   7.291 -26.315  1.00 23.36           N
ATOM   3718  CA  GLN B 593      42.020   7.589 -27.278  1.00 24.43           C
ATOM   3719  CB  GLN B 593      41.519   7.469 -28.730  1.00 26.12           C
ATOM   3720  CG  GLN B 593      41.197   6.024 -29.099  1.00 35.22           C
ATOM   3721  CD  GLN B 593      41.231   5.801 -30.582  1.00 44.40           C
ATOM   3722  OE1 GLN B 593      42.283   5.908 -31.201  1.00 45.81           O
ATOM   3723  NE2 GLN B 593      40.056   5.606 -31.182  1.00 37.57           N
ATOM   3724  C   GLN B 593      42.572   8.989 -27.009  1.00 26.21           C
ATOM   3725  O   GLN B 593      43.749   9.266 -27.193  1.00 24.42           O
ATOM   3726  N   HIS B 594      41.697   9.859 -26.537  1.00 24.14           N
ATOM   3727  CA  HIS B 594      42.091  11.204 -26.175  1.00 23.98           C
ATOM   3728  CB  HIS B 594      40.849  12.083 -25.925  1.00 24.80           C
ATOM   3729  CG  HIS B 594      41.191  13.473 -25.494  1.00 28.66           C
ATOM   3730  ND1 HIS B 594      41.963  14.325 -26.264  1.00 30.02           N
ATOM   3731  CE1 HIS B 594      42.091  15.480 -25.639  1.00 29.41           C
ATOM   3732  NE2 HIS B 594      41.482  15.389 -24.470  1.00 30.15           N
ATOM   3733  CD2 HIS B 594      40.913  14.144 -24.351  1.00 30.36           C
ATOM   3734  C   HIS B 594      42.977  11.174 -24.905  1.00 26.35           C
ATOM   3735  O   HIS B 594      43.963  11.904 -24.807  1.00 23.92           O
ATOM   3736  N   HIS B 595      42.645  10.316 -23.943  1.00 22.95           N
ATOM   3737  CA  HIS B 595      43.475  10.209 -22.739  1.00 21.90           C
ATOM   3738  CB  HIS B 595      42.872   9.240 -21.710  1.00 22.91           C
ATOM   3739  CG  HIS B 595      41.483   9.585 -21.280  1.00 25.98           C
ATOM   3740  ND1 HIS B 595      41.092  10.877 -21.027  1.00 27.36           N
ATOM   3741  CE1 HIS B 595      39.828  10.879 -20.646  1.00 27.62           C
ATOM   3742  NE2 HIS B 595      39.380   9.636 -20.661  1.00 27.96           N
ATOM   3743  CD2 HIS B 595      40.398   8.807 -21.049  1.00 28.30           C
ATOM   3744  C   HIS B 595      44.903   9.768 -23.093  1.00 26.50           C
ATOM   3745  O   HIS B 595      45.883  10.309 -22.547  1.00 25.56           O
ATOM   3746  N   PHE B 596      45.036   8.806 -24.013  1.00 25.55           N
ATOM   3747  CA  PHE B 596      46.363   8.331 -24.431  1.00 24.47           C
ATOM   3748  CB  PHE B 596      46.285   7.040 -25.285  1.00 25.25           C
ATOM   3749  CG  PHE B 596      47.627   6.573 -25.782  1.00 25.55           C
ATOM   3750  CD1 PHE B 596      48.573   6.057 -24.901  1.00 29.07           C
ATOM   3751  CE1 PHE B 596      49.853   5.671 -25.369  1.00 30.57           C
ATOM   3752  CZ  PHE B 596      50.175   5.819 -26.712  1.00 27.79           C
ATOM   3753  CE2 PHE B 596      49.243   6.338 -27.589  1.00 28.73           C
ATOM   3754  CD2 PHE B 596      47.976   6.727 -27.113  1.00 26.40           C
ATOM   3755  C   PHE B 596      47.169   9.419 -25.159  1.00 27.53           C
ATOM   3756  O   PHE B 596      48.355   9.612 -24.901  1.00 27.45           O
ATOM   3757  N   SER B 597      46.505  10.126 -26.060  1.00 26.40           N
ATOM   3758  CA  SER B 597      47.107  11.233 -26.784  1.00 26.38           C
ATOM   3759  CB  SER B 597      46.072  11.814 -27.738  1.00 30.70           C
ATOM   3760  OG  SER B 597      46.654  12.857 -28.502  1.00 53.37           O
ATOM   3761  C   SER B 597      47.610  12.334 -25.819  1.00 30.27           C
ATOM   3762  O   SER B 597      48.671  12.917 -26.011  1.00 29.88           O
ATOM   3763  N   GLN B 598      46.841  12.617 -24.776  1.00 25.94           N
ATOM   3764  CA  GLN B 598      47.243  13.596 -23.751  1.00 24.90           C
ATOM   3765  CB  GLN B 598      46.104  13.782 -22.734  1.00 25.79           C
ATOM   3766  CG  GLN B 598      44.929  14.546 -23.307  1.00 40.61           C
ATOM   3767  CD  GLN B 598      45.245  16.031 -23.437  1.00 48.79           C
ATOM   3768  OE1 GLN B 598      45.422  16.735 -22.436  1.00 44.10           O
ATOM   3769  NE2 GLN B 598      45.355  16.500 -24.662  1.00 37.60           N
ATOM   3770  C   GLN B 598      48.486  13.101 -23.014  1.00 29.85           C
ATOM   3771  O   GLN B 598      49.366  13.877 -22.687  1.00 30.85           O
ATOM   3772  N   THR B 599      48.533  11.796 -22.749  1.00 27.41           N
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ATOM   3773  CA  THR B 599      49.645  11.146 -22.043  1.00 27.72           C
ATOM   3774  CB  THR B 599      49.327   9.641 -21.822  1.00 31.93           C
ATOM   3775  OG1 THR B 599      48.127   9.523 -21.034  1.00 25.79           O
ATOM   3776  CG2 THR B 599      50.501   8.924 -21.135  1.00 25.59           C
ATOM   3777  C   THR B 599      50.929  11.303 -22.869  1.00 33.65           C
ATOM   3778  O   THR B 599      52.004  11.631 -22.346  1.00 31.72           O
ATOM   3779  N   VAL B 600      50.814  11.009 -24.155  1.00 32.66           N
ATOM   3780  CA  VAL B 600      51.957  11.105 -25.055  1.00 33.61           C
ATOM   3781  CB  VAL B 600      51.634  10.534 -26.481  1.00 36.82           C
ATOM   3782  CG1 VAL B 600      52.719  10.957 -27.470  1.00 36.35           C
ATOM   3783  CG2 VAL B 600      51.526   9.024 -26.432  1.00 36.43           C
ATOM   3784  C   VAL B 600      52.461  12.552 -25.132  1.00 37.25           C
ATOM   3785  O   VAL B 600      53.663  12.808 -25.086  1.00 38.89           O
ATOM   3786  N   SER B 601      51.540  13.500 -25.224  1.00 32.40           N
ATOM   3787  CA  SER B 601      51.922  14.908 -25.279  1.00 33.31           C
ATOM   3788  CB  SER B 601      50.695  15.796 -25.489  1.00 39.34           C
ATOM   3789  OG  SER B 601      50.169  15.563 -26.795  1.00 54.99           O
ATOM   3790  C   SER B 601      52.702  15.350 -24.046  1.00 39.02           C
ATOM   3791  O   SER B 601      53.646  16.132 -24.171  1.00 41.65           O
ATOM   3792  N   ILE B 602      52.314  14.848 -22.869  1.00 34.51           N
ATOM   3793  CA  ILE B 602      53.018  15.157 -21.615  1.00 33.35           C
ATOM   3794  CB  ILE B 602      52.195  14.789 -20.367  1.00 34.91           C
ATOM   3795  CG1 ILE B 602      50.946  15.665 -20.262  1.00 35.22           C
ATOM   3796  CD1 ILE B 602      50.007  15.245 -19.137  1.00 35.77           C
ATOM   3797  CG2 ILE B 602      53.040  14.904 -19.103  1.00 33.21           C
ATOM   3798  C   ILE B 602      54.420  14.526 -21.582  1.00 39.49           C
ATOM   3799  O   ILE B 602      55.374  15.154 -21.137  1.00 41.85           O
ATOM   3800  N   LEU B 603      54.549  13.284 -22.045  1.00 35.88           N
ATOM   3801  CA  LEU B 603      55.861  12.608 -22.051  1.00 35.56           C
ATOM   3802  CB  LEU B 603      55.718  11.150 -22.498  1.00 35.05           C
ATOM   3803  CG  LEU B 603      55.192  10.202 -21.425  1.00 40.09           C
ATOM   3804  CD1 LEU B 603      54.573   8.961 -22.073  1.00 40.79           C
ATOM   3805  CD2 LEU B 603      56.305   9.844 -20.445  1.00 39.73           C
ATOM   3806  C   LEU B 603      56.855  13.316 -22.982  1.00 42.46           C
ATOM   3807  O   LEU B 603      58.073  13.142 -22.876  1.00 44.32           O
ATOM   3808  N   GLN B 604      56.311  14.087 -23.917  1.00 38.86           N
ATOM   3809  CA  GLN B 604      57.114  14.781 -24.905  1.00 38.25           C
ATOM   3810  CB  GLN B 604      56.487  14.652 -26.297  1.00 38.53           C
ATOM   3811  CG  GLN B 604      56.518  13.220 -26.781  1.00 42.16           C
ATOM   3812  CD  GLN B 604      55.925  13.035 -28.163  1.00 54.91           C
ATOM   3813  OE1 GLN B 604      55.907  11.916 -28.694  1.00 51.82           O
ATOM   3814  NE2 GLN B 604      55.442  14.124 -28.756  1.00 46.31           N
ATOM   3815  C   GLN B 604      57.447  16.224 -24.530  1.00 42.70           C
ATOM   3816  O   GLN B 604      58.147  16.916 -25.256  1.00 44.54           O
ATOM   3817  N   LEU B 605      56.981  16.653 -23.366  1.00 39.10           N
ATOM   3818  CA  LEU B 605      57.311  17.978 -22.852  1.00 39.25           C
ATOM   3819  CB  LEU B 605      56.413  18.317 -21.654  1.00 39.47           C
ATOM   3820  CG  LEU B 605      55.183  19.211 -21.845  1.00 45.37           C
ATOM   3821  CD1 LEU B 605      54.496  18.994 -23.173  1.00 46.92           C
ATOM   3822  CD2 LEU B 605      54.192  18.988 -20.705  1.00 46.09           C
ATOM   3823  C   LEU B 605      58.769  17.880 -22.392  1.00 44.10           C
ATOM   3824  O   LEU B 605      59.218  16.809 -21.947  1.00 43.76           O
ATOM   3825  N   GLU B 606      59.516  18.976 -22.513  1.00 42.07           N
ATOM   3826  CA  GLU B 606      60.935  18.964 -22.137  1.00 41.97           C
ATOM   3827  CB  GLU B 606      61.687  20.200 -22.690  1.00 43.54           C
ATOM   3828  CG  GLU B 606      62.549  19.868 -23.975  1.00 51.22           C
ATOM   3829  CD  GLU B 606      62.476  20.947 -25.078  1.00 67.19           C
ATOM   3830  OE1 GLU B 606      62.946  22.101 -24.832  1.00 66.30           O
ATOM   3831  OE2 GLU B 606      62.024  20.629 -26.217  1.00 56.24           O
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ATOM   3832  C   GLU B 606      61.158  18.725 -20.643  1.00 43.49           C
ATOM   3833  O   GLU B 606      60.504  19.334 -19.807  1.00 44.31           O
ATOM   3834  N   GLY B 607      62.013  17.759 -20.325  1.00 38.43           N
ATOM   3835  CA  GLY B 607      62.296  17.355 -18.962  1.00 37.53           C
ATOM   3836  C   GLY B 607      61.289  16.362 -18.404  1.00 41.75           C
ATOM   3837  O   GLY B 607      61.366  15.983 -17.233  1.00 40.95           O
ATOM   3838  N   HIS B 608      60.348  15.933 -19.245  1.00 40.44           N
ATOM   3839  CA  HIS B 608      59.276  15.023 -18.810  1.00 40.71           C
ATOM   3840  CB  HIS B 608      57.929  15.515 -19.302  1.00 41.12           C
ATOM   3841  CG  HIS B 608      57.403  16.693 -18.545  1.00 43.44           C
ATOM   3842  ND1 HIS B 608      57.979  17.945 -18.605  1.00 44.46           N
ATOM   3843  CE1 HIS B 608      57.272  18.785 -17.869  1.00 42.97           C
ATOM   3844  NE2 HIS B 608      56.256  18.125 -17.346  1.00 43.08           N
ATOM   3845  CD2 HIS B 608      56.307  16.819 -17.765  1.00 43.67           C
ATOM   3846  C   HIS B 608      59.396  13.564 -19.181  1.00 45.00           C
ATOM   3847  O   HIS B 608      58.625  12.751 -18.677  1.00 45.94           O
ATOM   3848  N   ASN B 609      60.268  13.232 -20.133  1.00 40.93           N
ATOM   3849  CA  ASN B 609      60.369  11.845 -20.542  1.00 39.68           C
ATOM   3850  CB  ASN B 609      60.935  11.646 -21.935  1.00 41.42           C
ATOM   3851  CG  ASN B 609      60.353  10.382 -22.615  1.00 54.45           C
ATOM   3852  OD1 ASN B 609      60.611   9.264 -22.157  1.00 40.94           O
ATOM   3853  ND2 ASN B 609      59.488  10.571 -23.639  1.00 39.41           N
ATOM   3854  C   ASN B 609      61.002  10.926 -19.539  1.00 41.48           C
ATOM   3855  O   ASN B 609      62.210  10.673 -19.584  1.00 41.67           O
ATOM   3856  N   ILE B 610      60.145  10.393 -18.670  1.00 36.91           N
ATOM   3857  CA  ILE B 610      60.516   9.468 -17.603  1.00 35.90           C
ATOM   3858  CB  ILE B 610      59.327   9.257 -16.660  1.00 37.70           C
ATOM   3859  CG1 ILE B 610      58.133   8.676 -17.440  1.00 36.84           C
ATOM   3860  CD1 ILE B 610      57.021   8.195 -16.530  1.00 42.31           C
ATOM   3861  CG2 ILE B 610      58.981  10.572 -15.953  1.00 36.85           C
ATOM   3862  C   ILE B 610      61.059   8.113 -18.065  1.00 39.17           C
ATOM   3863  O   ILE B 610      61.470   7.309 -17.238  1.00 39.38           O
ATOM   3864  N   PHE B 611      60.993   7.828 -19.362  1.00 35.37           N
ATOM   3865  CA  PHE B 611      61.467   6.538 -19.878  1.00 35.59           C
ATOM   3866  CB  PHE B 611      60.390   5.866 -20.768  1.00 35.93           C
ATOM   3867  CG  PHE B 611      59.095   5.560 -20.056  1.00 35.80           C
ATOM   3868  CD1 PHE B 611      57.902   6.145 -20.471  1.00 37.02           C
ATOM   3869  CE1 PHE B 611      56.705   5.859 -19.818  1.00 37.84           C
ATOM   3870  CZ  PHE B 611      56.695   4.996 -18.747  1.00 37.69           C
ATOM   3871  CE2 PHE B 611      57.878   4.392 -18.331  1.00 40.17           C
ATOM   3872  CD2 PHE B 611      59.070   4.678 -18.992  1.00 36.73           C
ATOM   3873  C   PHE B 611      62.717   6.746 -20.729  1.00 43.22           C
ATOM   3874  O   PHE B 611      63.000   5.952 -21.623  1.00 44.59           O
ATOM   3875  N   SER B 612      63.420   7.852 -20.504  1.00 41.97           N
ATOM   3876  CA  SER B 612      64.576   8.189 -21.350  1.00 42.38           C
ATOM   3877  CB  SER B 612      65.027   9.643 -21.160  1.00 45.48           C
ATOM   3878  OG  SER B 612      65.618   9.806 -19.884  1.00 58.80           O
ATOM   3879  C   SER B 612      65.761   7.203 -21.430  1.00 43.54           C
ATOM   3880  O   SER B 612      66.500   7.197 -22.425  1.00 41.20           O
ATOM   3881  N   THR B 613      65.915   6.372 -20.403  1.00 40.87           N
ATOM   3882  CA  THR B 613      66.979   5.375 -20.385  1.00 41.55           C
ATOM   3883  CB  THR B 613      67.459   5.041 -18.975  1.00 50.35           C
ATOM   3884  OG1 THR B 613      66.507   4.200 -18.317  1.00 54.55           O
ATOM   3885  CG2 THR B 613      67.717   6.285 -18.162  1.00 49.54           C
ATOM   3886  C   THR B 613      66.621   4.089 -21.117  1.00 48.84           C
ATOM   3887  O   THR B 613      67.490   3.230 -21.279  1.00 51.19           O
ATOM   3888  N   LEU B 614      65.362   3.939 -21.537  1.00 43.31           N
ATOM   3889  CA  LEU B 614      64.944   2.740 -22.260  1.00 42.40           C
ATOM   3890  CB  LEU B 614      63.402   2.650 -22.272  1.00 42.19           C
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ATOM   3891  CG  LEU B 614      62.638   1.859 -21.196  1.00 46.59           C
ATOM   3892  CD1 LEU B 614      63.131   2.183 -19.810  1.00 47.05           C
ATOM   3893  CD2 LEU B 614      61.130   2.111 -21.300  1.00 46.11           C
ATOM   3894  C   LEU B 614      65.438   2.871 -23.706  1.00 46.07           C
ATOM   3895  O   LEU B 614      65.604   3.978 -24.206  1.00 46.10           O
ATOM   3896  N   SER B 615      65.590   1.744 -24.397  1.00 42.37           N
ATOM   3897  CA  SER B 615      65.975   1.733 -25.811  1.00 40.98           C
ATOM   3898  CB  SER B 615      66.432   0.327 -26.201  1.00 42.17           C
ATOM   3899  OG  SER B 615      65.415  -0.628 -25.974  1.00 51.49           O
ATOM   3900  C   SER B 615      64.748   2.122 -26.653  1.00 45.80           C
ATOM   3901  O   SER B 615      63.641   2.228 -26.128  1.00 46.76           O
ATOM   3902  N   SER B 616      64.940   2.333 -27.951  1.00 42.91           N
ATOM   3903  CA  SER B 616      63.828   2.654 -28.852  1.00 42.89           C
ATOM   3904  CB  SER B 616      64.327   2.832 -30.295  1.00 45.26           C
ATOM   3905  OG  SER B 616      64.635   4.181 -30.563  1.00 56.97           O
ATOM   3906  C   SER B 616      62.803   1.510 -28.821  1.00 46.23           C
ATOM   3907  O   SER B 616      61.605   1.754 -28.889  1.00 44.27           O
ATOM   3908  N   SER B 617      63.297   0.272 -28.722  1.00 43.89           N
ATOM   3909  CA  SER B 617      62.454  -0.923 -28.688  1.00 43.14           C
ATOM   3910  CB  SER B 617      63.314  -2.194 -28.695  1.00 45.22           C
ATOM   3911  OG  SER B 617      63.953  -2.346 -29.947  1.00 59.25           O
ATOM   3912  C   SER B 617      61.603  -0.932 -27.442  1.00 45.78           C
ATOM   3913  O   SER B 617      60.394  -1.099 -27.532  1.00 45.08           O
ATOM   3914  N   GLU B 618      62.259  -0.820 -26.285  1.00 41.71           N
ATOM   3915  CA  GLU B 618      61.576  -0.855 -25.000  1.00 41.74           C
ATOM   3916  CB  GLU B 618      62.578  -0.814 -23.847  1.00 43.09           C
ATOM   3917  CG  GLU B 618      63.322  -2.098 -23.675  1.00 52.54           C
ATOM   3918  CD  GLU B 618      64.294  -2.037 -22.509  1.00 65.31           C
ATOM   3919  OE1 GLU B 618      65.319  -1.305 -22.629  1.00 64.77           O
ATOM   3920  OE2 GLU B 618      64.019  -2.700 -21.472  1.00 62.10           O
ATOM   3921  C   GLU B 618      60.620   0.317 -24.875  1.00 43.67           C
ATOM   3922  O   GLU B 618      59.516   0.169 -24.363  1.00 47.03           O
ATOM   3923  N   TYR B 619      61.052   1.485 -25.329  1.00 36.46           N
ATOM   3924  CA  TYR B 619      60.209   2.666 -25.246  1.00 36.71           C
ATOM   3925  CB  TYR B 619      60.934   3.909 -25.793  1.00 37.73           C
ATOM   3926  CG  TYR B 619      60.150   5.189 -25.633  1.00 38.52           C
ATOM   3927  CD1 TYR B 619      60.318   5.992 -24.510  1.00 40.48           C
ATOM   3928  CE1 TYR B 619      59.563   7.149 -24.336  1.00 41.26           C
ATOM   3929  CZ  TYR B 619      58.617   7.493 -25.285  1.00 48.88           C
ATOM   3930  OH  TYR B 619      57.860   8.639 -25.127  1.00 47.38           O
ATOM   3931  CE2 TYR B 619      58.421   6.694 -26.393  1.00 39.73           C
ATOM   3932  CD2 TYR B 619      59.179   5.552 -26.559  1.00 39.01           C
ATOM   3933  C   TYR B 619      58.903   2.449 -26.003  1.00 40.80           C
ATOM   3934  O   TYR B 619      57.835   2.806 -25.514  1.00 41.05           O
ATOM   3935  N   GLU B 620      58.998   1.846 -27.183  1.00 36.97           N
ATOM   3936  CA  GLU B 620      57.828   1.606 -28.007  1.00 36.72           C
ATOM   3937  CB  GLU B 620      58.243   1.187 -29.413  1.00 37.88           C
ATOM   3938  CG  GLU B 620      57.040   0.832 -30.278  1.00 48.89           C
ATOM   3939  CD  GLU B 620      57.371   0.846 -31.767  1.00 58.75           C
ATOM   3940  OE1 GLU B 620      58.128   1.754 -32.202  1.00 47.67           O
ATOM   3941  OE2 GLU B 620      56.856  -0.048 -32.490  1.00 55.55           O
ATOM   3942  C   GLU B 620      56.948   0.526 -27.368  1.00 38.63           C
ATOM   3943  O   GLU B 620      55.720   0.534 -27.507  1.00 36.97           O
ATOM   3944  N   GLN B 621      57.602  -0.385 -26.655  1.00 32.82           N
ATOM   3945  CA  GLN B 621      56.930  -1.470 -25.989  1.00 32.52           C
ATOM   3946  CB  GLN B 621      57.955  -2.495 -25.538  1.00 33.61           C
ATOM   3947  CG  GLN B 621      57.359  -3.837 -25.236  1.00 47.03           C
ATOM   3948  CD  GLN B 621      58.417  -4.837 -24.806  1.00 57.87           C
ATOM   3949  OE1 GLN B 621      58.174  -5.674 -23.922  1.00 56.25           O
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ATOM   3950  NE2 GLN B 621      59.609  -4.753 -25.426  1.00 36.15           N
ATOM   3951  C   GLN B 621      56.159  -0.942 -24.780  1.00 36.62           C
ATOM   3952  O   GLN B 621      54.968  -1.234 -24.631  1.00 35.76           O
ATOM   3953  N   VAL B 622      56.826  -0.142 -23.943  1.00 32.99           N
ATOM   3954  CA  VAL B 622      56.175   0.419 -22.759  1.00 33.04           C
ATOM   3955  CB  VAL B 622      57.171   1.087 -21.772  1.00 39.21           C
ATOM   3956  CG1 VAL B 622      57.749   2.382 -22.360  1.00 40.28           C
ATOM   3957  CG2 VAL B 622      56.482   1.404 -20.446  1.00 39.70           C
ATOM   3958  C   VAL B 622      54.992   1.323 -23.176  1.00 32.10           C
ATOM   3959  O   VAL B 622      53.918   1.303 -22.577  1.00 31.25           O
ATOM   3960  N   LEU B 623      55.165   2.049 -24.265  1.00 29.03           N
ATOM   3961  CA  LEU B 623      54.105   2.890 -24.778  1.00 30.54           C
ATOM   3962  CB  LEU B 623      54.625   3.889 -25.832  1.00 31.06           C
ATOM   3963  CG  LEU B 623      55.048   5.291 -25.322  1.00 35.77           C
ATOM   3964  CD1 LEU B 623      53.870   6.233 -25.133  1.00 34.16           C
ATOM   3965  CD2 LEU B 623      55.880   5.203 -24.015  1.00 38.06           C
ATOM   3966  C   LEU B 623      52.936   2.086 -25.332  1.00 35.80           C
ATOM   3967  O   LEU B 623      51.798   2.577 -25.350  1.00 35.95           O
ATOM   3968  N   GLU B 624      53.192   0.853 -25.778  1.00 31.79           N
ATOM   3969  CA AGLU B 624      52.110   0.008 -26.304  0.50 31.50           C
ATOM   3970  CA BGLU B 624      52.110   0.006 -26.300  0.50 31.41           C
ATOM   3971  CB AGLU B 624      52.654  -1.100 -27.219  0.50 32.73           C
ATOM   3972  CB BGLU B 624      52.658  -1.110 -27.197  0.50 32.56           C
ATOM   3973  CG AGLU B 624      51.581  -1.838 -27.993  0.50 37.57           C
ATOM   3974  CG BGLU B 624      52.719  -0.735 -28.650  0.50 35.47           C
ATOM   3975  CD AGLU B 624      51.071  -1.050 -29.189  0.50 45.31           C
ATOM   3976  CD BGLU B 624      51.375  -0.246 -29.172  0.50 44.69           C
ATOM   3977  OE1AGLU B 624      51.407   0.149 -29.308  0.50 39.83           O
ATOM   3978  OE1BGLU B 624      50.355  -0.925 -28.917  0.50 42.42           O
ATOM   3979  OE2AGLU B 624      50.327  -1.629 -30.008  0.50 43.53           O
ATOM   3980  OE2BGLU B 624      51.329   0.830 -29.808  0.50 40.31           O
ATOM   3981  C   GLU B 624      51.343  -0.585 -25.122  1.00 34.24           C
ATOM   3982  O   GLU B 624      50.141  -0.754 -25.160  1.00 35.11           O
ATOM   3983  N   ILE B 625      52.057  -0.861 -24.051  1.00 28.79           N
ATOM   3984  CA  ILE B 625      51.425  -1.379 -22.860  1.00 28.98           C
ATOM   3985  CB  ILE B 625      52.481  -1.669 -21.762  1.00 31.26           C
ATOM   3986  CG1 ILE B 625      53.326  -2.890 -22.163  1.00 33.65           C
ATOM   3987  CD1 ILE B 625      54.599  -3.109 -21.260  1.00 35.81           C
ATOM   3988  CG2 ILE B 625      51.806  -1.913 -20.427  1.00 27.84           C
ATOM   3989  C   ILE B 625      50.443  -0.317 -22.379  1.00 32.31           C
ATOM   3990  O   ILE B 625      49.290  -0.604 -22.076  1.00 30.39           O
ATOM   3991  N   ILE B 626      50.943   0.917 -22.271  1.00 29.23           N
ATOM   3992  CA  ILE B 626      50.132   2.060 -21.825  1.00 26.70           C
ATOM   3993  CB  ILE B 626      50.994   3.317 -21.619  1.00 27.53           C
ATOM   3994  CG1 ILE B 626      52.007   3.063 -20.482  1.00 26.38           C
ATOM   3995  CD1 ILE B 626      53.200   4.036 -20.486  1.00 29.64           C
ATOM   3996  CG2 ILE B 626      50.117   4.549 -21.271  1.00 27.73           C
ATOM   3997  C   ILE B 626      48.914   2.314 -22.737  1.00 26.66           C
ATOM   3998  O   ILE B 626      47.805   2.540 -22.274  1.00 28.70           O
ATOM   3999  N   ARG B 627      49.122   2.244 -24.039  1.00 22.28           N
ATOM   4000  CA  ARG B 627      48.046   2.501 -24.982  1.00 22.90           C
ATOM   4001  CB  ARG B 627      48.563   2.511 -26.420  1.00 19.05           C
ATOM   4002  CG  ARG B 627      47.500   2.930 -27.442  1.00 34.16           C
ATOM   4003  CD  ARG B 627      47.917   2.658 -28.910  1.00 35.78           C
ATOM   4004  NE  ARG B 627      48.079   1.215 -29.190  1.00 44.17           N
ATOM   4005  CZ  ARG B 627      47.074   0.355 -29.367  1.00 45.82           C
ATOM   4006  NH1 ARG B 627      47.336  -0.900 -29.646  1.00 39.03           N
ATOM   4007  NH2 ARG B 627      45.814   0.752 -29.303  1.00 40.20           N
ATOM   4008  C   ARG B 627      46.909   1.485 -24.805  1.00 30.45           C
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ATOM   4009  O   ARG B 627      45.743   1.871 -24.581  1.00 29.72           O
ATOM   4010  N   LYS B 628      47.255   0.195 -24.859  1.00 26.94           N
ATOM   4011  CA  LYS B 628      46.261  -0.852 -24.686  1.00 25.94           C
ATOM   4012  CB  LYS B 628      46.863  -2.224 -24.927  1.00 26.39           C
ATOM   4013  CG  LYS B 628      47.406  -2.433 -26.345  1.00 23.50           C
ATOM   4014  CD  LYS B 628      48.254  -3.709 -26.357  1.00 32.02           C
ATOM   4015  CE  LYS B 628      48.616  -4.130 -27.777  1.00 36.64           C
ATOM   4016  NZ  LYS B 628      49.841  -4.983 -27.790  1.00 39.76           N
ATOM   4017  C   LYS B 628      45.624  -0.797 -23.321  1.00 29.94           C
ATOM   4018  O   LYS B 628      44.446  -1.090 -23.191  1.00 29.45           O
ATOM   4019  N   ALA B 629      46.412  -0.456 -22.297  1.00 24.47           N
ATOM   4020  CA  ALA B 629      45.861  -0.358 -20.943  1.00 23.48           C
ATOM   4021  CB  ALA B 629      46.964  -0.133 -19.872  1.00 23.26           C
ATOM   4022  C   ALA B 629      44.811   0.740 -20.836  1.00 26.66           C
ATOM   4023  O   ALA B 629      43.763   0.528 -20.273  1.00 25.48           O
ATOM   4024  N   ILE B 630      45.118   1.915 -21.364  1.00 25.87           N
ATOM   4025  CA  ILE B 630      44.207   3.063 -21.311  1.00 24.49           C
ATOM   4026  CB  ILE B 630      44.933   4.390 -21.712  1.00 25.83           C
ATOM   4027  CG1 ILE B 630      45.941   4.765 -20.594  1.00 25.21           C
ATOM   4028  CD1 ILE B 630      46.716   6.083 -20.849  1.00 29.17           C
ATOM   4029  CG2 ILE B 630      43.894   5.538 -21.925  1.00 24.89           C
ATOM   4030  C   ILE B 630      42.964   2.773 -22.151  1.00 26.17           C
ATOM   4031  O   ILE B 630      41.827   3.030 -21.709  1.00 24.12           O
ATOM   4032  N   ILE B 631      43.169   2.170 -23.326  1.00 22.63           N
ATOM   4033  CA  ILE B 631      42.042   1.840 -24.204  1.00 23.34           C
ATOM   4034  CB  ILE B 631      42.484   1.306 -25.569  1.00 26.93           C
ATOM   4035  CG1 ILE B 631      43.232   2.380 -26.383  1.00 29.64           C
ATOM   4036  CD1 ILE B 631      42.487   3.723 -26.521  1.00 31.74           C
ATOM   4037  CG2 ILE B 631      41.270   0.803 -26.388  1.00 26.17           C
ATOM   4038  C   ILE B 631      41.100   0.855 -23.517  1.00 27.99           C
ATOM   4039  O   ILE B 631      39.876   0.940 -23.679  1.00 27.97           O
ATOM   4040  N   ALA B 632      41.682  -0.071 -22.753  1.00 24.56           N
ATOM   4041  CA  ALA B 632      40.922  -1.082 -22.007  1.00 25.22           C
ATOM   4042  CB  ALA B 632      41.897  -2.079 -21.294  1.00 25.85           C
ATOM   4043  C   ALA B 632      39.937  -0.483 -20.989  1.00 29.60           C
ATOM   4044  O   ALA B 632      38.981  -1.144 -20.572  1.00 29.98           O
ATOM   4045  N   THR B 633      40.224   0.732 -20.522  1.00 25.37           N
ATOM   4046  CA  THR B 633      39.343   1.391 -19.570  1.00 24.04           C
ATOM   4047  CB  THR B 633      40.017   2.536 -18.783  1.00 27.22           C
ATOM   4048  OG1 THR B 633      40.389   3.586 -19.680  1.00 26.03           O
ATOM   4049  CG2 THR B 633      41.206   2.057 -18.001  1.00 19.04           C
ATOM   4050  C   THR B 633      37.986   1.804 -20.158  1.00 26.17           C
ATOM   4051  O   THR B 633      37.108   2.253 -19.437  1.00 28.26           O
ATOM   4052  N   ASP B 634      37.814   1.627 -21.463  1.00 21.64           N
ATOM   4053  CA  ASP B 634      36.515   1.850 -22.128  1.00 20.62           C
ATOM   4054  CB  ASP B 634      36.723   1.939 -23.650  1.00 21.91           C
ATOM   4055  CG  ASP B 634      35.419   2.139 -24.432  1.00 29.43           C
ATOM   4056  OD1 ASP B 634      34.340   2.325 -23.817  1.00 33.45           O
ATOM   4057  OD2 ASP B 634      35.479   2.096 -25.684  1.00 35.50           O
ATOM   4058  C   ASP B 634      35.646   0.633 -21.766  1.00 25.57           C
ATOM   4059  O   ASP B 634      35.929  -0.499 -22.198  1.00 22.72           O
ATOM   4060  N   LEU B 635      34.655   0.842 -20.897  1.00 24.41           N
ATOM   4061  CA  LEU B 635      33.827  -0.263 -20.429  1.00 25.87           C
ATOM   4062  CB  LEU B 635      32.861   0.191 -19.332  1.00 26.09           C
ATOM   4063  CG  LEU B 635      32.323  -0.905 -18.386  1.00 31.09           C
ATOM   4064  CD1 LEU B 635      33.382  -1.430 -17.428  1.00 30.26           C
ATOM   4065  CD2 LEU B 635      31.123  -0.400 -17.607  1.00 34.18           C
ATOM   4066  C   LEU B 635      33.102  -1.055 -21.529  1.00 33.85           C
ATOM   4067  O   LEU B 635      32.843  -2.230 -21.376  1.00 35.83           O
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ATOM   4068  N   ALA B 636      32.861  -0.418 -22.665  1.00 31.27           N
ATOM   4069  CA  ALA B 636      32.228  -1.079 -23.789  1.00 30.43           C
ATOM   4070  CB  ALA B 636      32.004  -0.087 -24.940  1.00 29.89           C
ATOM   4071  C   ALA B 636      33.078  -2.262 -24.241  1.00 36.08           C
ATOM   4072  O   ALA B 636      32.547  -3.262 -24.712  1.00 38.26           O
ATOM   4073  N   LEU B 637      34.397  -2.164 -24.069  1.00 31.29           N
ATOM   4074  CA  LEU B 637      35.308  -3.246 -24.511  1.00 29.99           C
ATOM   4075  CB  LEU B 637      36.694  -2.681 -24.857  1.00 30.02           C
ATOM   4076  CG  LEU B 637      36.771  -1.631 -25.975  1.00 33.35           C
ATOM   4077  CD1 LEU B 637      38.221  -1.132 -26.177  1.00 31.66           C
ATOM   4078  CD2 LEU B 637      36.221  -2.216 -27.286  1.00 32.17           C
ATOM   4079  C   LEU B 637      35.470  -4.332 -23.443  1.00 30.45           C
ATOM   4080  O   LEU B 637      35.943  -5.408 -23.723  1.00 29.53           O
ATOM   4081  N   TYR B 638      35.085  -4.024 -22.216  1.00 25.71           N
ATOM   4082  CA  TYR B 638      35.256  -4.942 -21.108  1.00 25.43           C
ATOM   4083  CB  TYR B 638      34.856  -4.277 -19.785  1.00 23.98           C
ATOM   4084  CG  TYR B 638      34.297  -5.257 -18.762  1.00 26.78           C
ATOM   4085  CD1 TYR B 638      35.148  -6.092 -18.016  1.00 28.92           C
ATOM   4086  CE1 TYR B 638      34.632  -6.977 -17.065  1.00 29.85           C
ATOM   4087  CZ  TYR B 638      33.270  -7.035 -16.869  1.00 35.22           C
ATOM   4088  OH  TYR B 638      32.781  -7.910 -15.962  1.00 39.17           O
ATOM   4089  CE2 TYR B 638      32.412  -6.224 -17.589  1.00 27.54           C
ATOM   4090  CD2 TYR B 638      32.923  -5.332 -18.509  1.00 26.87           C
ATOM   4091  C   TYR B 638      34.467  -6.252 -21.292  1.00 31.12           C
ATOM   4092  O   TYR B 638      34.992  -7.357 -21.046  1.00 29.42           O
ATOM   4093  N   PHE B 639      33.189  -6.112 -21.646  1.00 28.73           N
ATOM   4094  CA  PHE B 639      32.266  -7.263 -21.759  1.00 28.45           C
ATOM   4095  CB  PHE B 639      30.851  -6.822 -22.191  1.00 29.71           C
ATOM   4096  CG  PHE B 639      30.242  -5.769 -21.282  1.00 31.34           C
ATOM   4097  CD1 PHE B 639      29.650  -6.123 -20.074  1.00 34.58           C
ATOM   4098  CE1 PHE B 639      29.101  -5.138 -19.227  1.00 35.75           C
ATOM   4099  CZ  PHE B 639      29.159  -3.791 -19.601  1.00 34.10           C
ATOM   4100  CE2 PHE B 639      29.761  -3.432 -20.789  1.00 35.24           C
ATOM   4101  CD2 PHE B 639      30.290  -4.413 -21.626  1.00 33.00           C
ATOM   4102  C   PHE B 639      32.800  -8.411 -22.607  1.00 32.85           C
ATOM   4103  O   PHE B 639      32.784  -9.562 -22.171  1.00 33.65           O
ATOM   4104  N   GLY B 640      33.311  -8.075 -23.789  1.00 29.42           N
ATOM   4105  CA  GLY B 640      33.910  -9.028 -24.698  1.00 30.54           C
ATOM   4106  C   GLY B 640      35.246  -9.552 -24.171  1.00 39.89           C
ATOM   4107  O   GLY B 640      35.607 -10.715 -24.396  1.00 42.42           O
ATOM   4108  N   ASN B 641      35.995  -8.705 -23.467  1.00 34.69           N
ATOM   4109  CA  ASN B 641      37.288  -9.127 -22.943  1.00 33.55           C
ATOM   4110  CB  ASN B 641      38.140  -7.920 -22.491  1.00 32.72           C
ATOM   4111  CG  ASN B 641      39.571  -8.292 -22.240  1.00 30.33           C
ATOM   4112  OD1 ASN B 641      40.266  -8.792 -23.128  1.00 30.15           O
ATOM   4113  ND2 ASN B 641      40.015  -8.087 -21.030  1.00 24.93           N
ATOM   4114  C   ASN B 641      37.141 -10.143 -21.817  1.00 34.26           C
ATOM   4115  O   ASN B 641      37.784 -11.186 -21.840  1.00 32.50           O
ATOM   4116  N   ARG B 642      36.274  -9.840 -20.851  1.00 30.56           N
ATOM   4117  CA  ARG B 642      35.992 -10.763 -19.760  1.00 30.61           C
ATOM   4118  CB  ARG B 642      35.005 -10.165 -18.769  1.00 29.76           C
ATOM   4119  CG  ARG B 642      34.959 -10.954 -17.457  1.00 36.61           C
ATOM   4120  CD  ARG B 642      33.607 -10.948 -16.819  1.00 43.87           C
ATOM   4121  NE  ARG B 642      32.580 -11.438 -17.724  1.00 48.95           N
ATOM   4122  CZ  ARG B 642      32.192 -12.707 -17.804  1.00 62.88           C
ATOM   4123  NH1 ARG B 642      31.229 -13.043 -18.668  1.00 47.43           N
ATOM   4124  NH2 ARG B 642      32.758 -13.631 -17.018  1.00 48.21           N
ATOM   4125  C   ARG B 642      35.439 -12.116 -20.257  1.00 36.52           C
ATOM   4126  O   ARG B 642      35.857 -13.179 -19.788  1.00 35.08           O
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ATOM   4127  N   LYS B 643      34.499 -12.076 -21.198  1.00 35.98           N
ATOM   4128  CA ALYS B 643      33.912 -13.303 -21.725  0.50 36.56           C
ATOM   4129  CA BLYS B 643      33.913 -13.305 -21.741  0.50 36.48           C
ATOM   4130  CB ALYS B 643      32.739 -13.002 -22.667  0.50 38.62           C
ATOM   4131  CB BLYS B 643      32.794 -13.013 -22.746  0.50 38.34           C
ATOM   4132  CG ALYS B 643      31.438 -12.615 -21.933  0.50 42.40           C
ATOM   4133  CG BLYS B 643      32.075 -14.275 -23.226  0.50 39.39           C
ATOM   4134  CD ALYS B 643      30.326 -12.164 -22.914  0.50 45.61           C
ATOM   4135  CD BLYS B 643      30.882 -13.962 -24.131  0.50 43.24           C
ATOM   4136  CE ALYS B 643      29.384 -11.114 -22.284  0.50 41.31           C
ATOM   4137  CE BLYS B 643      30.278 -15.250 -24.686  0.50 41.00           C
ATOM   4138  NZ ALYS B 643      28.895 -10.105 -23.274  0.50 43.24           N
ATOM   4139  NZ BLYS B 643      29.417 -15.042 -25.879  0.50 41.98           N
ATOM   4140  C   LYS B 643      34.974 -14.180 -22.392  1.00 40.34           C
ATOM   4141  O   LYS B 643      35.015 -15.381 -22.185  1.00 41.30           O
ATOM   4142  N   GLN B 644      35.863 -13.566 -23.154  1.00 36.15           N
ATOM   4143  CA  GLN B 644      36.939 -14.312 -23.796  1.00 36.93           C
ATOM   4144  CB  GLN B 644      37.672 -13.453 -24.833  1.00 38.60           C
ATOM   4145  CG  GLN B 644      36.936 -13.306 -26.146  1.00 44.40           C
ATOM   4146  CD  GLN B 644      37.106 -14.524 -27.055  1.00 61.15           C
ATOM   4147  OE1 GLN B 644      37.141 -14.397 -28.287  1.00 65.22           O
ATOM   4148  NE2 GLN B 644      37.227 -15.704 -26.453  1.00 49.49           N
ATOM   4149  C   GLN B 644      37.943 -14.894 -22.795  1.00 42.14           C
ATOM   4150  O   GLN B 644      38.470 -15.982 -23.013  1.00 44.99           O
ATOM   4151  N   LEU B 645      38.195 -14.177 -21.700  1.00 37.71           N
ATOM   4152  CA  LEU B 645      39.114 -14.634 -20.643  1.00 37.85           C
ATOM   4153  CB  LEU B 645      39.528 -13.448 -19.729  1.00 37.73           C
ATOM   4154  CG  LEU B 645      40.635 -12.531 -20.254  1.00 41.10           C
ATOM   4155  CD1 LEU B 645      40.845 -11.370 -19.316  1.00 38.81           C
ATOM   4156  CD2 LEU B 645      41.929 -13.324 -20.445  1.00 44.07           C
ATOM   4157  C   LEU B 645      38.493 -15.736 -19.780  1.00 42.09           C
ATOM   4158  O   LEU B 645      39.194 -16.627 -19.301  1.00 40.20           O
ATOM   4159  N   GLU B 646      37.190 -15.617 -19.521  1.00 41.48           N
ATOM   4160  CA  GLU B 646      36.452 -16.605 -18.734  1.00 42.16           C
ATOM   4161  CB  GLU B 646      35.019 -16.115 -18.503  1.00 43.41           C
ATOM   4162  CG  GLU B 646      34.147 -17.027 -17.625  1.00 52.03           C
ATOM   4163  CD  GLU B 646      34.598 -17.087 -16.170  1.00 64.04           C
ATOM   4164  OE1 GLU B 646      35.436 -16.249 -15.737  1.00 55.06           O
ATOM   4165  OE2 GLU B 646      34.095 -17.979 -15.439  1.00 62.50           O
ATOM   4166  C   GLU B 646      36.461 -17.938 -19.523  1.00 47.26           C
ATOM   4167  O   GLU B 646      36.661 -19.006 -18.965  1.00 47.20           O
ATOM   4168  N   GLU B 647      36.319 -17.844 -20.838  1.00 44.06           N
ATOM   4169  CA  GLU B 647      36.316 -19.019 -21.701  1.00 44.52           C
ATOM   4170  CB  GLU B 647      35.917 -18.648 -23.134  1.00 45.02           C
ATOM   4171  CG  GLU B 647      34.591 -19.258 -23.561  1.00 52.44           C
ATOM   4172  CD  GLU B 647      33.789 -18.365 -24.483  1.00 56.69           C
ATOM   4173  OE1 GLU B 647      32.916 -17.627 -23.983  1.00 52.70           O
ATOM   4174  OE2 GLU B 647      34.004 -18.424 -25.710  1.00 56.55           O
ATOM   4175  C   GLU B 647      37.670 -19.724 -21.710  1.00 51.60           C
ATOM   4176  O   GLU B 647      37.745 -20.962 -21.562  1.00 51.02           O
ATOM   4177  N   MET B 648      38.727 -18.933 -21.920  1.00 49.08           N
ATOM   4178  CA  MET B 648      40.098 -19.433 -21.924  1.00 48.41           C
ATOM   4179  CB  MET B 648      41.055 -18.290 -22.186  1.00 51.17           C
ATOM   4180  CG  MET B 648      41.083 -17.820 -23.609  1.00 55.77           C
ATOM   4181  SD  MET B 648      42.069 -16.284 -23.764  1.00 60.48           S
ATOM   4182  CE  MET B 648      41.933 -16.001 -25.551  1.00 57.38           C
ATOM   4183  C   MET B 648      40.469 -20.067 -20.588  1.00 50.77           C
ATOM   4184  O   MET B 648      41.121 -21.091 -20.561  1.00 51.70           O
ATOM   4185  N   TYR B 649      40.071 -19.440 -19.483  1.00 45.95           N
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ATOM   4186  CA  TYR B 649      40.380 -19.955 -18.146  1.00 45.50           C
ATOM   4187  CB  TYR B 649      39.863 -19.008 -17.060  1.00 45.01           C
ATOM   4188  CG  TYR B 649      39.836 -19.601 -15.654  1.00 45.66           C
ATOM   4189  CD1 TYR B 649      41.006 -19.748 -14.911  1.00 47.03           C
ATOM   4190  CE1 TYR B 649      40.979 -20.295 -13.629  1.00 47.14           C
ATOM   4191  CZ  TYR B 649      39.765 -20.661 -13.062  1.00 56.34           C
ATOM   4192  OH  TYR B 649      39.715 -21.179 -11.770  1.00 52.31           O
ATOM   4193  CE2 TYR B 649      38.592 -20.503 -13.782  1.00 46.45           C
ATOM   4194  CD2 TYR B 649      38.633 -19.970 -15.053  1.00 45.85           C
ATOM   4195  C   TYR B 649      39.796 -21.346 -17.919  1.00 52.78           C
ATOM   4196  O   TYR B 649      40.514 -22.279 -17.555  1.00 53.57           O
ATOM   4197  N   GLN B 650      38.482 -21.464 -18.102  1.00 49.86           N
ATOM   4198  CA  GLN B 650      37.774 -22.715 -17.873  1.00 49.30           C
ATOM   4199  CB  GLN B 650      36.302 -22.474 -17.558  1.00 49.48           C
ATOM   4200  CG  GLN B 650      35.999 -22.556 -16.059  1.00 45.59           C
ATOM   4201  CD  GLN B 650      35.222 -21.354 -15.554  1.00 55.35           C
ATOM   4202  OE1 GLN B 650      34.928 -20.450 -16.317  1.00 57.47           O
ATOM   4203  NE2 GLN B 650      34.899 -21.335 -14.260  1.00 50.84           N
ATOM   4204  C   GLN B 650      38.052 -23.880 -18.836  1.00 54.81           C
ATOM   4205  O   GLN B 650      37.868 -25.040 -18.468  1.00 57.25           O
ATOM   4206  N   THR B 651      38.546 -23.573 -20.036  1.00 51.08           N
ATOM   4207  CA  THR B 651      38.938 -24.604 -20.980  1.00 50.30           C
ATOM   4208  CB  THR B 651      38.716 -24.195 -22.434  1.00 59.31           C
ATOM   4209  OG1 THR B 651      39.631 -23.151 -22.786  1.00 63.46           O
ATOM   4210  CG2 THR B 651      37.282 -23.764 -22.673  1.00 57.31           C
ATOM   4211  C   THR B 651      40.410 -24.901 -20.749  1.00 54.73           C
ATOM   4212  O   THR B 651      41.010 -25.732 -21.439  1.00 56.31           O
ATOM   4213  N   GLY B 652      41.001 -24.201 -19.785  1.00 50.40           N
ATOM   4214  CA  GLY B 652      42.396 -24.369 -19.400  1.00 49.18           C
ATOM   4215  C   GLY B 652      43.406 -23.950 -20.455  1.00 51.61           C
ATOM   4216  O   GLY B 652      44.582 -24.300 -20.381  1.00 51.31           O
ATOM   4217  N   SER B 653      42.949 -23.175 -21.431  1.00 47.47           N
ATOM   4218  CA  SER B 653      43.804 -22.713 -22.510  1.00 46.40           C
ATOM   4219  CB  SER B 653      43.016 -22.702 -23.825  1.00 48.87           C
ATOM   4220  OG  SER B 653      42.052 -21.660 -23.855  1.00 57.47           O
ATOM   4221  C   SER B 653      44.486 -21.350 -22.280  1.00 50.17           C
ATOM   4222  O   SER B 653      45.211 -20.850 -23.157  1.00 49.97           O
ATOM   4223  N   LEU B 654      44.258 -20.752 -21.112  1.00 46.78           N
ATOM   4224  CA  LEU B 654      44.842 -19.447 -20.789  1.00 46.60           C
ATOM   4225  CB  LEU B 654      44.105 -18.792 -19.612  1.00 46.47           C
ATOM   4226  CG  LEU B 654      44.573 -17.430 -19.086  1.00 50.06           C
ATOM   4227  CD1 LEU B 654      44.415 -16.335 -20.103  1.00 47.92           C
ATOM   4228  CD2 LEU B 654      43.831 -17.094 -17.793  1.00 54.53           C
ATOM   4229  C   LEU B 654      46.341 -19.579 -20.514  1.00 50.46           C
ATOM   4230  O   LEU B 654      46.771 -20.297 -19.616  1.00 49.69           O
ATOM   4231  N   ASN B 655      47.129 -18.912 -21.345  1.00 48.08           N
ATOM   4232  CA  ASN B 655      48.588 -18.997 -21.287  1.00 47.64           C
ATOM   4233  CB  ASN B 655      49.080 -19.698 -22.551  1.00 43.02           C
ATOM   4234  CG  ASN B 655      50.580 -19.816 -22.612  1.00 56.28           C
ATOM   4235  OD1 ASN B 655      51.242 -19.969 -21.599  1.00 52.66           O
ATOM   4236  ND2 ASN B 655      51.125 -19.760 -23.818  1.00 49.31           N
ATOM   4237  C   ASN B 655      49.248 -17.623 -21.201  1.00 51.59           C
ATOM   4238  O   ASN B 655      49.389 -16.925 -22.213  1.00 51.96           O
ATOM   4239  N   LEU B 656      49.685 -17.261 -19.999  1.00 48.54           N
ATOM   4240  CA  LEU B 656      50.316 -15.967 -19.766  1.00 49.04           C
ATOM   4241  CB  LEU B 656      50.447 -15.667 -18.269  1.00 49.09           C
ATOM   4242  CG  LEU B 656      49.125 -15.570 -17.501  1.00 53.08           C
ATOM   4243  CD1 LEU B 656      49.376 -15.638 -15.999  1.00 52.77           C
ATOM   4244  CD2 LEU B 656      48.387 -14.307 -17.870  1.00 54.13           C
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ATOM   4245  C   LEU B 656      51.631 -15.729 -20.508  1.00 53.97           C
ATOM   4246  O   LEU B 656      52.132 -14.605 -20.560  1.00 56.23           O
ATOM   4247  N   ASN B 657      52.170 -16.769 -21.125  1.00 48.58           N
ATOM   4248  CA  ASN B 657      53.379 -16.607 -21.918  1.00 47.22           C
ATOM   4249  CB  ASN B 657      54.219 -17.902 -21.958  1.00 46.32           C
ATOM   4250  CG  ASN B 657      54.550 -18.441 -20.555  1.00 65.95           C
ATOM   4251  OD1 ASN B 657      55.019 -17.692 -19.679  1.00 55.84           O
ATOM   4252  ND2 ASN B 657      54.279 -19.741 -20.329  1.00 54.80           N
ATOM   4253  C   ASN B 657      52.943 -16.160 -23.314  1.00 50.35           C
ATOM   4254  O   ASN B 657      53.768 -15.744 -24.126  1.00 50.52           O
ATOM   4255  N   ASN B 658      51.635 -16.224 -23.578  1.00 46.57           N
ATOM   4256  CA  ASN B 658      51.072 -15.762 -24.858  1.00 45.32           C
ATOM   4257  CB  ASN B 658      49.782 -16.531 -25.202  1.00 41.59           C
ATOM   4258  CG  ASN B 658      49.201 -16.146 -26.577  1.00 55.03           C
ATOM   4259  OD1 ASN B 658      49.489 -15.075 -27.128  1.00 43.82           O
ATOM   4260  ND2 ASN B 658      48.375 -17.026 -27.125  1.00 50.43           N
ATOM   4261  C   ASN B 658      50.760 -14.258 -24.694  1.00 48.11           C
ATOM   4262  O   ASN B 658      49.977 -13.867 -23.828  1.00 48.31           O
ATOM   4263  N   GLN B 659      51.415 -13.424 -25.492  1.00 43.88           N
ATOM   4264  CA  GLN B 659      51.272 -11.970 -25.394  1.00 42.94           C
ATOM   4265  CB  GLN B 659      52.184 -11.278 -26.415  1.00 42.69           C
ATOM   4266  CG  GLN B 659      52.178  -9.760 -26.345  1.00 46.36           C
ATOM   4267  CD  GLN B 659      52.652  -9.214 -25.000  1.00 58.76           C
ATOM   4268  OE1 GLN B 659      53.765  -9.505 -24.551  1.00 53.69           O
ATOM   4269  NE2 GLN B 659      51.809  -8.402 -24.359  1.00 45.16           N
ATOM   4270  C   GLN B 659      49.816 -11.491 -25.515  1.00 47.92           C
ATOM   4271  O   GLN B 659      49.367 -10.631 -24.753  1.00 46.71           O
ATOM   4272  N   SER B 660      49.095 -12.069 -26.472  1.00 44.06           N
ATOM   4273  CA  SER B 660      47.702 -11.758 -26.717  1.00 42.39           C
ATOM   4274  CB  SER B 660      47.182 -12.605 -27.879  1.00 45.71           C
ATOM   4275  OG  SER B 660      45.829 -12.319 -28.135  1.00 62.37           O
ATOM   4276  C   SER B 660      46.874 -12.024 -25.475  1.00 43.20           C
ATOM   4277  O   SER B 660      45.974 -11.250 -25.157  1.00 45.24           O
ATOM   4278  N   HIS B 661      47.202 -13.094 -24.756  1.00 37.64           N
ATOM   4279  CA  HIS B 661      46.502 -13.435 -23.520  1.00 37.66           C
ATOM   4280  CB  HIS B 661      46.807 -14.880 -23.082  1.00 40.31           C
ATOM   4281  CG  HIS B 661      46.224 -15.934 -23.980  1.00 45.45           C
ATOM   4282  ND1 HIS B 661      45.925 -17.204 -23.533  1.00 48.35           N
ATOM   4283  CE1 HIS B 661      45.419 -17.908 -24.530  1.00 48.40           C
ATOM   4284  NE2 HIS B 661      45.390 -17.144 -25.610  1.00 48.46           N
ATOM   4285  CD2 HIS B 661      45.894 -15.907 -25.295  1.00 47.96           C
ATOM   4286  C   HIS B 661      46.866 -12.460 -22.400  1.00 39.07           C
ATOM   4287  O   HIS B 661      46.033 -12.146 -21.549  1.00 38.98           O
ATOM   4288  N   ARG B 662      48.125 -12.023 -22.367  1.00 35.38           N
ATOM   4289  CA  ARG B 662      48.610 -11.083 -21.337  1.00 34.45           C
ATOM   4290  CB  ARG B 662      50.128 -10.839 -21.465  1.00 34.30           C
ATOM   4291  CG  ARG B 662      50.988 -11.976 -21.014  1.00 46.68           C
ATOM   4292  CD  ARG B 662      52.483 -11.620 -21.078  1.00 46.85           C
ATOM   4293  NE  ARG B 662      52.980 -10.923 -19.889  1.00 33.61           N
ATOM   4294  CZ  ARG B 662      53.057 -11.458 -18.668  1.00 50.12           C
ATOM   4295  NH1 ARG B 662      52.681 -12.708 -18.455  1.00 40.31           N
ATOM   4296  NH2 ARG B 662      53.520 -10.742 -17.654  1.00 42.81           N
ATOM   4297  C   ARG B 662      47.902  -9.744 -21.504  1.00 34.72           C
ATOM   4298  O   ARG B 662      47.522  -9.120 -20.532  1.00 36.51           O
ATOM   4299  N   ASP B 663      47.741  -9.319 -22.753  1.00 29.75           N
ATOM   4300  CA  ASP B 663      47.022  -8.086 -23.072  1.00 30.65           C
ATOM   4301  CB  ASP B 663      46.977  -7.873 -24.594  1.00 32.10           C
ATOM   4302  CG  ASP B 663      48.335  -7.484 -25.174  1.00 40.28           C
ATOM   4303  OD1 ASP B 663      49.307  -7.308 -24.408  1.00 39.89           O
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ATOM   4304  OD2 ASP B 663      48.432  -7.293 -26.399  1.00 49.74           O
ATOM   4305  C   ASP B 663      45.593  -8.123 -22.502  1.00 35.80           C
ATOM   4306  O   ASP B 663      45.128  -7.123 -21.973  1.00 34.00           O
ATOM   4307  N   ARG B 664      44.936  -9.290 -22.571  1.00 32.11           N
ATOM   4308  CA  ARG B 664      43.571  -9.454 -22.076  1.00 30.41           C
ATOM   4309  CB  ARG B 664      42.975 -10.803 -22.540  1.00 30.17           C
ATOM   4310  CG  ARG B 664      42.644 -10.862 -24.027  1.00 35.85           C
ATOM   4311  CD  ARG B 664      41.676 -12.012 -24.357  1.00 32.46           C
ATOM   4312  NE  ARG B 664      41.294 -11.977 -25.777  1.00 37.88           N
ATOM   4313  CZ  ARG B 664      40.328 -11.208 -26.274  1.00 47.39           C
ATOM   4314  NH1 ARG B 664      39.609 -10.400 -25.483  1.00 37.00           N
ATOM   4315  NH2 ARG B 664      40.086 -11.249 -27.571  1.00 37.01           N
ATOM   4316  C   ARG B 664      43.500  -9.366 -20.572  1.00 30.75           C
ATOM   4317  O   ARG B 664      42.622  -8.693 -20.024  1.00 27.56           O
ATOM   4318  N   VAL B 665      44.435 -10.046 -19.910  1.00 28.91           N
ATOM   4319  CA  VAL B 665      44.510 -10.055 -18.440  1.00 28.34           C
ATOM   4320  CB  VAL B 665      45.582 -11.065 -17.937  1.00 32.05           C
ATOM   4321  CG1 VAL B 665      45.836 -10.872 -16.456  1.00 32.21           C
ATOM   4322  CG2 VAL B 665      45.133 -12.510 -18.207  1.00 31.41           C
ATOM   4323  C   VAL B 665      44.806  -8.623 -17.948  1.00 29.60           C
ATOM   4324  O   VAL B 665      44.210  -8.151 -16.977  1.00 29.20           O
ATOM   4325  N   ILE B 666      45.705  -7.930 -18.645  1.00 25.85           N
ATOM   4326  CA  ILE B 666      46.021  -6.557 -18.290  1.00 28.63           C
ATOM   4327  CB  ILE B 666      47.271  -6.003 -19.060  1.00 32.00           C
ATOM   4328  CG1 ILE B 666      48.556  -6.619 -18.471  1.00 31.67           C
ATOM   4329  CD1 ILE B 666      49.770  -6.453 -19.336  1.00 31.68           C
ATOM   4330  CG2 ILE B 666      47.312  -4.491 -18.933  1.00 33.69           C
ATOM   4331  C   ILE B 666      44.790  -5.667 -18.458  1.00 33.87           C
ATOM   4332  O   ILE B 666      44.473  -4.859 -17.572  1.00 34.40           O
ATOM   4333  N   GLY B 667      44.067  -5.868 -19.561  1.00 28.49           N
ATOM   4334  CA  GLY B 667      42.829  -5.157 -19.810  1.00 26.64           C
ATOM   4335  C   GLY B 667      41.840  -5.345 -18.677  1.00 30.44           C
ATOM   4336  O   GLY B 667      41.238  -4.385 -18.211  1.00 32.49           O
ATOM   4337  N   LEU B 668      41.719  -6.572 -18.175  1.00 27.84           N
ATOM   4338  CA  LEU B 668      40.792  -6.857 -17.085  1.00 26.56           C
ATOM   4339  CB  LEU B 668      40.557  -8.374 -16.906  1.00 26.73           C
ATOM   4340  CG  LEU B 668      39.460  -8.754 -15.889  1.00 29.80           C
ATOM   4341  CD1 LEU B 668      38.095  -8.259 -16.346  1.00 29.35           C
ATOM   4342  CD2 LEU B 668      39.428 -10.239 -15.640  1.00 27.65           C
ATOM   4343  C   LEU B 668      41.304  -6.226 -15.807  1.00 27.03           C
ATOM   4344  O   LEU B 668      40.533  -5.714 -14.983  1.00 25.44           O
ATOM   4345  N   MET B 669      42.621  -6.237 -15.642  1.00 24.69           N
ATOM   4346  CA  MET B 669      43.206  -5.587 -14.473  1.00 23.30           C
ATOM   4347  CB  MET B 669      44.724  -5.791 -14.452  1.00 25.58           C
ATOM   4348  CG  MET B 669      45.150  -7.196 -14.005  1.00 29.08           C
ATOM   4349  SD  MET B 669      46.814  -7.552 -14.482  1.00 32.82           S
ATOM   4350  CE  MET B 669      47.705  -6.257 -13.493  1.00 28.84           C
ATOM   4351  C   MET B 669      42.846  -4.103 -14.471  1.00 24.27           C
ATOM   4352  O   MET B 669      42.521  -3.564 -13.441  1.00 23.87           O
ATOM   4353  N   MET B 670      42.874  -3.453 -15.636  1.00 21.83           N
ATOM   4354  CA  MET B 670      42.504  -2.023 -15.740  1.00 21.82           C
ATOM   4355  CB  MET B 670      42.818  -1.475 -17.145  1.00 23.37           C
ATOM   4356  CG  MET B 670      44.337  -1.506 -17.455  1.00 27.14           C
ATOM   4357  SD  MET B 670      45.357  -0.391 -16.340  1.00 31.28           S
ATOM   4358  CE  MET B 670      44.617   1.221 -16.809  1.00 27.59           C
ATOM   4359  C   MET B 670      41.021  -1.754 -15.390  1.00 27.58           C
ATOM   4360  O   MET B 670      40.710  -0.829 -14.622  1.00 27.86           O
ATOM   4361  N   THR B 671      40.114  -2.582 -15.917  1.00 23.45           N
ATOM   4362  CA  THR B 671      38.700  -2.467 -15.580  1.00 22.18           C
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ATOM   4363  CB  THR B 671      37.887  -3.586 -16.268  1.00 26.15           C
ATOM   4364  OG1 THR B 671      38.123  -3.573 -17.678  1.00 24.96           O
ATOM   4365  CG2 THR B 671      36.402  -3.434 -15.991  1.00 27.64           C
ATOM   4366  C   THR B 671      38.547  -2.575 -14.063  1.00 26.13           C
ATOM   4367  O   THR B 671      37.796  -1.796 -13.451  1.00 24.64           O
ATOM   4368  N   ALA B 672      39.191  -3.592 -13.476  1.00 22.75           N
ATOM   4369  CA  ALA B 672      39.121  -3.822 -12.034  1.00 23.79           C
ATOM   4370  CB  ALA B 672      39.975  -5.061 -11.648  1.00 24.87           C
ATOM   4371  C   ALA B 672      39.573  -2.617 -11.194  1.00 27.18           C
ATOM   4372  O   ALA B 672      38.950  -2.265 -10.189  1.00 24.96           O
ATOM   4373  N   CYS B 673      40.698  -2.022 -11.572  1.00 26.69           N
ATOM   4374  CA  CYS B 673      41.200  -0.842 -10.861  1.00 27.12           C
ATOM   4375  CB  CYS B 673      42.621  -0.503 -11.342  1.00 28.16           C
ATOM   4376  SG  CYS B 673      43.755  -1.796 -10.911  1.00 31.76           S
ATOM   4377  C   CYS B 673      40.285   0.357 -11.079  1.00 24.45           C
ATOM   4378  O   CYS B 673      39.955   1.099 -10.137  1.00 23.52           O
ATOM   4379  N   ASP B 674      39.871   0.527 -12.327  1.00 18.73           N
ATOM   4380  CA  ASP B 674      38.969   1.608 -12.686  1.00 19.58           C
ATOM   4381  CB  ASP B 674      38.736   1.626 -14.199  1.00 22.15           C
ATOM   4382  CG  ASP B 674      38.272   3.000 -14.700  1.00 29.04           C
ATOM   4383  OD1 ASP B 674      38.430   4.016 -13.964  1.00 30.69           O
ATOM   4384  OD2 ASP B 674      37.693   3.045 -15.792  1.00 29.20           O
ATOM   4385  C   ASP B 674      37.629   1.584 -11.934  1.00 26.06           C
ATOM   4386  O   ASP B 674      37.116   2.624 -11.563  1.00 24.69           O
ATOM   4387  N   LEU B 675      37.123   0.390 -11.639  1.00 25.12           N
ATOM   4388  CA  LEU B 675      35.838   0.203 -10.968  1.00 25.88           C
ATOM   4389  CB  LEU B 675      35.166  -1.070 -11.508  1.00 27.44           C
ATOM   4390  CG  LEU B 675      34.570  -0.970 -12.934  1.00 34.48           C
ATOM   4391  CD1 LEU B 675      33.724  -2.192 -13.236  1.00 35.67           C
ATOM   4392  CD2 LEU B 675      33.719   0.269 -13.050  1.00 39.77           C
ATOM   4393  C   LEU B 675      35.960   0.096  -9.454  1.00 27.15           C
ATOM   4394  O   LEU B 675      34.970  -0.109  -8.750  1.00 23.43           O
ATOM   4395  N   CYS B 676      37.184   0.220  -8.962  1.00 27.00           N
ATOM   4396  CA  CYS B 676      37.470   0.005  -7.543  1.00 29.04           C
ATOM   4397  CB  CYS B 676      38.978   0.001  -7.275  1.00 30.66           C
ATOM   4398  SG  CYS B 676      39.698   1.682  -7.088  1.00 35.10           S
ATOM   4399  C   CYS B 676      36.687   0.742  -6.452  1.00 30.72           C
ATOM   4400  O   CYS B 676      36.785   0.383  -5.296  1.00 29.77           O
ATOM   4401  N   SER B 677      35.879   1.733  -6.813  1.00 29.03           N
ATOM   4402  CA  SER B 677      35.102   2.422  -5.794  1.00 29.59           C
ATOM   4403  CB  SER B 677      34.377   3.644  -6.370  1.00 31.55           C
ATOM   4404  OG  SER B 677      33.419   3.265  -7.336  1.00 43.88           O
ATOM   4405  C   SER B 677      34.101   1.458  -5.149  1.00 35.18           C
ATOM   4406  O   SER B 677      33.661   1.647  -3.994  1.00 36.49           O
ATOM   4407  N   VAL B 678      33.763   0.410  -5.897  1.00 30.66           N
ATOM   4408  CA  VAL B 678      32.815  -0.618  -5.426  1.00 29.81           C
ATOM   4409  CB  VAL B 678      32.099  -1.318  -6.609  1.00 33.23           C
ATOM   4410  CG1 VAL B 678      31.552  -0.280  -7.594  1.00 32.68           C
ATOM   4411  CG2 VAL B 678      33.070  -2.304  -7.321  1.00 32.87           C
ATOM   4412  C   VAL B 678      33.503  -1.667  -4.565  1.00 32.66           C
ATOM   4413  O   VAL B 678      32.837  -2.576  -4.083  1.00 32.97           O
ATOM   4414  N   THR B 679      34.832  -1.556  -4.413  1.00 27.95           N
ATOM   4415  CA  THR B 679      35.614  -2.524  -3.631  1.00 27.66           C
ATOM   4416  CB  THR B 679      36.756  -3.179  -4.431  1.00 28.76           C
ATOM   4417  OG1 THR B 679      37.791  -2.214  -4.624  1.00 32.11           O
ATOM   4418  CG2 THR B 679      36.273  -3.669  -5.776  1.00 27.29           C
ATOM   4419  C   THR B 679      36.188  -1.908  -2.349  1.00 31.54           C
ATOM   4420  O   THR B 679      37.111  -2.454  -1.750  1.00 31.99           O
ATOM   4421  N   LYS B 680      35.630  -0.781  -1.930  1.00 26.89           N
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ATOM   4422  CA  LYS B 680      36.055  -0.130  -0.708  1.00 26.26           C
ATOM   4423  CB  LYS B 680      36.003   1.412  -0.847  1.00 26.90           C
ATOM   4424  CG  LYS B 680      36.823   1.985  -1.982  1.00 26.20           C
ATOM   4425  CD  LYS B 680      38.268   1.560  -1.850  1.00 31.29           C
ATOM   4426  CE  LYS B 680      39.096   2.072  -3.036  1.00 29.90           C
ATOM   4427  NZ  LYS B 680      40.501   1.698  -2.915  1.00 33.91           N
ATOM   4428  C   LYS B 680      35.091  -0.541   0.372  1.00 30.96           C
ATOM   4429  O   LYS B 680      34.081  -1.160   0.095  1.00 32.65           O
ATOM   4430  N   LEU B 681      35.387  -0.144   1.600  1.00 28.02           N
ATOM   4431  CA  LEU B 681      34.500  -0.401   2.721  1.00 28.31           C
ATOM   4432  CB  LEU B 681      35.200   0.018   4.040  1.00 28.88           C
ATOM   4433  CG  LEU B 681      36.472  -0.793   4.376  1.00 33.10           C
ATOM   4434  CD1 LEU B 681      36.956  -0.470   5.805  1.00 32.32           C
ATOM   4435  CD2 LEU B 681      36.268  -2.306   4.181  1.00 31.96           C
ATOM   4436  C   LEU B 681      33.268   0.466   2.485  1.00 31.30           C
ATOM   4437  O   LEU B 681      33.363   1.570   1.933  1.00 30.80           O
ATOM   4438  N   TRP B 682      32.116  -0.032   2.912  1.00 27.52           N
ATOM   4439  CA  TRP B 682      30.840   0.632   2.712  1.00 28.94           C
ATOM   4440  CB  TRP B 682      29.747  -0.085   3.522  1.00 29.40           C
ATOM   4441  CG  TRP B 682      28.392   0.560   3.429  1.00 30.13           C
ATOM   4442  CD1 TRP B 682      27.703   1.131   4.447  1.00 34.07           C
ATOM   4443  NE1 TRP B 682      26.495   1.602   3.988  1.00 33.49           N
ATOM   4444  CE2 TRP B 682      26.409   1.400   2.637  1.00 34.58           C
ATOM   4445  CD2 TRP B 682      27.574   0.726   2.245  1.00 31.20           C
ATOM   4446  CE3 TRP B 682      27.752   0.431   0.897  1.00 32.72           C
ATOM   4447  CZ3 TRP B 682      26.751   0.784  -0.001  1.00 34.48           C
ATOM   4448  CH2 TRP B 682      25.581   1.422   0.433  1.00 35.29           C
ATOM   4449  CZ2 TRP B 682      25.399   1.736   1.745  1.00 34.43           C
ATOM   4450  C   TRP B 682      30.748   2.163   2.836  1.00 34.46           C
ATOM   4451  O   TRP B 682      30.175   2.832   1.965  1.00 34.94           O
ATOM   4452  N   PRO B 683      31.269   2.732   3.937  1.00 31.94           N
ATOM   4453  CA  PRO B 683      31.173   4.192   4.128  1.00 31.51           C
ATOM   4454  CB  PRO B 683      31.945   4.421   5.440  1.00 32.41           C
ATOM   4455  CG  PRO B 683      31.777   3.140   6.175  1.00 35.18           C
ATOM   4456  CD  PRO B 683      31.833   2.064   5.126  1.00 31.68           C
ATOM   4457  C   PRO B 683      31.844   4.971   2.990  1.00 33.26           C
ATOM   4458  O   PRO B 683      31.347   6.013   2.573  1.00 33.94           O
ATOM   4459  N   VAL B 684      32.978   4.467   2.505  1.00 29.56           N
ATOM   4460  CA  VAL B 684      33.688   5.098   1.383  1.00 28.69           C
ATOM   4461  CB  VAL B 684      35.110   4.526   1.221  1.00 30.96           C
ATOM   4462  CG1 VAL B 684      35.791   5.115  -0.006  1.00 30.64           C
ATOM   4463  CG2 VAL B 684      35.928   4.766   2.465  1.00 30.91           C
ATOM   4464  C   VAL B 684      32.880   4.914   0.082  1.00 32.12           C
ATOM   4465  O   VAL B 684      32.682   5.843  -0.696  1.00 30.85           O
ATOM   4466  N   THR B 685      32.420   3.690  -0.139  1.00 30.30           N
ATOM   4467  CA  THR B 685      31.676   3.329  -1.350  1.00 29.88           C
ATOM   4468  CB  THR B 685      31.367   1.815  -1.347  1.00 33.51           C
ATOM   4469  OG1 THR B 685      32.592   1.120  -1.554  1.00 32.54           O
ATOM   4470  CG2 THR B 685      30.366   1.434  -2.450  1.00 28.58           C
ATOM   4471  C   THR B 685      30.407   4.172  -1.500  1.00 32.83           C
ATOM   4472  O   THR B 685      30.099   4.662  -2.584  1.00 31.76           O
ATOM   4473  N   LYS B 686      29.693   4.343  -0.391  1.00 28.99           N
ATOM   4474  CA  LYS B 686      28.452   5.113  -0.359  1.00 28.48           C
ATOM   4475  CB  LYS B 686      27.657   4.777   0.908  1.00 29.68           C
ATOM   4476  CG  LYS B 686      26.825   5.867   1.508  1.00 43.99           C
ATOM   4477  CD  LYS B 686      26.877   5.797   3.058  1.00 49.88           C
ATOM   4478  CE  LYS B 686      26.486   7.157   3.741  1.00 55.56           C
ATOM   4479  NZ  LYS B 686      27.620   8.146   3.946  1.00 44.36           N
ATOM   4480  C   LYS B 686      28.677   6.605  -0.595  1.00 34.39           C
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ATOM   4481  O   LYS B 686      27.952   7.220  -1.387  1.00 37.10           O
ATOM   4482  N   LEU B 687      29.753   7.159  -0.029  1.00 30.12           N
ATOM   4483  CA  LEU B 687      30.091   8.576  -0.257  1.00 29.06           C
ATOM   4484  CB  LEU B 687      31.127   9.096   0.767  1.00 29.08           C
ATOM   4485  CG  LEU B 687      30.549   9.409   2.178  1.00 32.71           C
ATOM   4486  CD1 LEU B 687      31.656   9.353   3.217  1.00 32.43           C
ATOM   4487  CD2 LEU B 687      29.866  10.763   2.218  1.00 33.37           C
ATOM   4488  C   LEU B 687      30.599   8.797  -1.690  1.00 31.62           C
ATOM   4489  O   LEU B 687      30.253   9.780  -2.321  1.00 31.65           O
ATOM   4490  N   THR B 688      31.401   7.866  -2.203  1.00 29.28           N
ATOM   4491  CA  THR B 688      31.902   7.961  -3.575  1.00 30.53           C
ATOM   4492  CB  THR B 688      32.897   6.833  -3.914  1.00 33.98           C
ATOM   4493  OG1 THR B 688      34.010   6.889  -3.017  1.00 38.70           O
ATOM   4494  CG2 THR B 688      33.391   6.991  -5.332  1.00 33.35           C
ATOM   4495  C   THR B 688      30.735   7.925  -4.581  1.00 35.76           C
ATOM   4496  O   THR B 688      30.831   8.524  -5.660  1.00 34.07           O
ATOM   4497  N   ALA B 689      29.660   7.205  -4.240  1.00 32.44           N
ATOM   4498  CA  ALA B 689      28.500   7.090  -5.132  1.00 32.76           C
ATOM   4499  CB  ALA B 689      27.468   6.084  -4.592  1.00 33.61           C
ATOM   4500  C   ALA B 689      27.853   8.441  -5.442  1.00 34.70           C
ATOM   4501  O   ALA B 689      27.408   8.671  -6.563  1.00 34.50           O
ATOM   4502  N   ASN B 690      27.851   9.339  -4.462  1.00 30.57           N
ATOM   4503  CA  ASN B 690      27.374  10.712  -4.632  1.00 30.38           C
ATOM   4504  CB  ASN B 690      27.677  11.518  -3.346  1.00 30.23           C
ATOM   4505  CG  ASN B 690      26.630  11.347  -2.289  1.00 55.65           C
ATOM   4506  OD1 ASN B 690      25.740  10.489  -2.407  1.00 57.93           O
ATOM   4507  ND2 ASN B 690      26.745  12.137  -1.214  1.00 48.73           N
ATOM   4508  C   ASN B 690      28.160  11.407  -5.735  1.00 34.23           C
ATOM   4509  O   ASN B 690      27.609  12.105  -6.562  1.00 36.26           O
ATOM   4510  N   ASP B 691      29.480  11.302  -5.667  1.00 30.90           N
ATOM   4511  CA  ASP B 691      30.365  11.926  -6.669  1.00 30.03           C
ATOM   4512  CB  ASP B 691      31.849  11.681  -6.323  1.00 31.59           C
ATOM   4513  CG  ASP B 691      32.277  12.392  -5.051  1.00 39.86           C
ATOM   4514  OD1 ASP B 691      31.561  13.298  -4.589  1.00 43.36           O
ATOM   4515  OD2 ASP B 691      33.311  12.012  -4.481  1.00 50.25           O
ATOM   4516  C   ASP B 691      30.091  11.402  -8.075  1.00 30.28           C
ATOM   4517  O   ASP B 691      29.989  12.173  -9.029  1.00 26.22           O
ATOM   4518  N   ILE B 692      29.990  10.083  -8.188  1.00 27.22           N
ATOM   4519  CA  ILE B 692      29.711   9.427  -9.467  1.00 27.78           C
ATOM   4520  CB  ILE B 692      29.693   7.881  -9.312  1.00 31.18           C
ATOM   4521  CG1 ILE B 692      31.119   7.359  -8.997  1.00 31.34           C
ATOM   4522  CD1 ILE B 692      31.181   5.917  -8.454  1.00 29.14           C
ATOM   4523  CG2 ILE B 692      29.146   7.243 -10.557  1.00 32.74           C
ATOM   4524  C   ILE B 692      28.394   9.926 -10.082  1.00 28.44           C
ATOM   4525  O   ILE B 692      28.336  10.244 -11.259  1.00 23.21           O
ATOM   4526  N   TYR B 693      27.347   9.992  -9.262  1.00 26.93           N
ATOM   4527  CA  TYR B 693      26.035  10.457  -9.701  1.00 27.13           C
ATOM   4528  CB  TYR B 693      24.901   9.988  -8.757  1.00 28.05           C
ATOM   4529  CG  TYR B 693      24.476   8.561  -9.019  1.00 30.42           C
ATOM   4530  CD1 TYR B 693      23.625   8.243 -10.071  1.00 31.81           C
ATOM   4531  CE1 TYR B 693      23.269   6.932 -10.341  1.00 32.35           C
ATOM   4532  CZ  TYR B 693      23.805   5.916  -9.577  1.00 40.17           C
ATOM   4533  OH  TYR B 693      23.476   4.615  -9.833  1.00 40.98           O
ATOM   4534  CE2 TYR B 693      24.684   6.203  -8.556  1.00 34.30           C
ATOM   4535  CD2 TYR B 693      25.014   7.520  -8.284  1.00 32.66           C
ATOM   4536  C   TYR B 693      25.966  11.947  -9.955  1.00 32.33           C
ATOM   4537  O   TYR B 693      25.216  12.383 -10.821  1.00 33.95           O
ATOM   4538  N   ALA B 694      26.790  12.723  -9.252  1.00 29.67           N
ATOM   4539  CA  ALA B 694      26.851  14.163  -9.483  1.00 29.18           C
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ATOM   4540  CB  ALA B 694      27.848  14.839  -8.553  1.00 29.87           C
ATOM   4541  C   ALA B 694      27.255  14.372 -10.945  1.00 30.55           C
ATOM   4542  O   ALA B 694      26.685  15.244 -11.626  1.00 26.49           O
ATOM   4543  N   GLU B 695      28.203  13.557 -11.433  1.00 29.55           N
ATOM   4544  CA  GLU B 695      28.603  13.608 -12.849  1.00 30.26           C
ATOM   4545  CB  GLU B 695      29.893  12.804 -13.118  1.00 32.03           C
ATOM   4546  CG  GLU B 695      31.140  13.599 -12.813  1.00 39.98           C
ATOM   4547  CD  GLU B 695      32.416  13.045 -13.416  1.00 34.75           C
ATOM   4548  OE1 GLU B 695      32.392  12.261 -14.391  1.00 37.81           O
ATOM   4549  OE2 GLU B 695      33.473  13.467 -12.944  1.00 39.85           O
ATOM   4550  C   GLU B 695      27.503  13.071 -13.770  1.00 31.02           C
ATOM   4551  O   GLU B 695      27.222  13.687 -14.788  1.00 29.23           O
ATOM   4552  N   PHE B 696      26.957  11.886 -13.455  1.00 28.43           N
ATOM   4553  CA  PHE B 696      25.911  11.247 -14.296  1.00 28.39           C
ATOM   4554  CB  PHE B 696      25.358   9.958 -13.669  1.00 30.71           C
ATOM   4555  CG  PHE B 696      26.293   8.781 -13.721  1.00 33.67           C
ATOM   4556  CD1 PHE B 696      27.339   8.726 -14.634  1.00 36.60           C
ATOM   4557  CE1 PHE B 696      28.202   7.619 -14.666  1.00 36.71           C
ATOM   4558  CZ  PHE B 696      28.006   6.558 -13.807  1.00 35.85           C
ATOM   4559  CE2 PHE B 696      26.942   6.591 -12.884  1.00 38.42           C
ATOM   4560  CD2 PHE B 696      26.101   7.702 -12.854  1.00 36.42           C
ATOM   4561  C   PHE B 696      24.724  12.194 -14.485  1.00 29.62           C
ATOM   4562  O   PHE B 696      24.187  12.283 -15.596  1.00 28.98           O
ATOM   4563  N   TRP B 697      24.263  12.815 -13.388  1.00 24.70           N
ATOM   4564  CA  TRP B 697      23.123  13.734 -13.444  1.00 25.42           C
ATOM   4565  CB  TRP B 697      22.672  14.164 -12.048  1.00 25.70           C
ATOM   4566  CG  TRP B 697      22.107  13.053 -11.228  1.00 29.72           C
ATOM   4567  CD1 TRP B 697      21.504  11.887 -11.681  1.00 31.45           C
ATOM   4568  NE1 TRP B 697      21.206  11.072 -10.605  1.00 31.83           N
ATOM   4569  CE2 TRP B 697      21.598  11.696  -9.449  1.00 33.80           C
ATOM   4570  CD2 TRP B 697      22.169  12.941  -9.801  1.00 29.58           C
ATOM   4571  CE3 TRP B 697      22.688  13.759  -8.793  1.00 33.26           C
ATOM   4572  CZ3 TRP B 697      22.559  13.369  -7.483  1.00 35.76           C
ATOM   4573  CH2 TRP B 697      21.935  12.145  -7.153  1.00 36.86           C
ATOM   4574  CZ2 TRP B 697      21.457  11.293  -8.131  1.00 34.87           C
ATOM   4575  C   TRP B 697      23.401  14.975 -14.309  1.00 27.94           C
ATOM   4576  O   TRP B 697      22.541  15.383 -15.114  1.00 28.17           O
ATOM   4577  N   ALA B 698      24.612  15.529 -14.183  1.00 22.77           N
ATOM   4578  CA  ALA B 698      25.009  16.669 -15.011  1.00 22.32           C
ATOM   4579  CB  ALA B 698      26.347  17.245 -14.571  1.00 21.83           C
ATOM   4580  C   ALA B 698      25.016  16.289 -16.492  1.00 28.74           C
ATOM   4581  O   ALA B 698      24.596  17.070 -17.339  1.00 30.07           O
ATOM   4582  N   GLU B 699      25.480  15.080 -16.803  1.00 25.25           N
ATOM   4583  CA  GLU B 699      25.447  14.577 -18.189  1.00 23.15           C
ATOM   4584  CB  GLU B 699      26.222  13.265 -18.375  1.00 23.57           C
ATOM   4585  CG  GLU B 699      25.985  12.674 -19.773  1.00 27.31           C
ATOM   4586  CD  GLU B 699      26.965  11.601 -20.168  1.00 37.28           C
ATOM   4587  OE1 GLU B 699      28.126  11.633 -19.700  1.00 30.05           O
ATOM   4588  OE2 GLU B 699      26.598  10.753 -21.020  1.00 36.53           O
ATOM   4589  C   GLU B 699      23.999  14.399 -18.653  1.00 27.89           C
ATOM   4590  O   GLU B 699      23.649  14.779 -19.774  1.00 30.16           O
ATOM   4591  N   GLY B 700      23.150  13.843 -17.792  1.00 23.86           N
ATOM   4592  CA  GLY B 700      21.720  13.724 -18.090  1.00 24.66           C
ATOM   4593  C   GLY B 700      21.060  15.081 -18.373  1.00 31.40           C
ATOM   4594  O   GLY B 700      20.235  15.175 -19.277  1.00 33.97           O
ATOM   4595  N   ASP B 701      21.448  16.127 -17.628  1.00 26.95           N
ATOM   4596  CA  ASP B 701      20.919  17.475 -17.820  1.00 25.01           C
ATOM   4597  CB  ASP B 701      21.532  18.464 -16.818  1.00 26.71           C
ATOM   4598  CG  ASP B 701      20.970  18.318 -15.405  1.00 35.40           C
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ATOM   4599  OD1 ASP B 701      20.013  17.532 -15.212  1.00 35.52           O
ATOM   4600  OD2 ASP B 701      21.517  18.974 -14.482  1.00 40.25           O
ATOM   4601  C   ASP B 701      21.326  17.928 -19.223  1.00 28.50           C
ATOM   4602  O   ASP B 701      20.534  18.581 -19.921  1.00 26.39           O
ATOM   4603  N   GLU B 702      22.579  17.650 -19.605  1.00 25.85           N
ATOM   4604  CA  GLU B 702      23.067  18.031 -20.936  1.00 25.67           C
ATOM   4605  CB  GLU B 702      24.594  17.926 -21.048  1.00 26.21           C
ATOM   4606  CG  GLU B 702      25.349  18.964 -20.208  1.00 31.56           C
ATOM   4607  CD  GLU B 702      25.075  20.421 -20.610  1.00 38.78           C
ATOM   4608  OE1 GLU B 702      24.861  20.722 -21.809  1.00 35.66           O
ATOM   4609  OE2 GLU B 702      25.155  21.290 -19.730  1.00 40.58           O
ATOM   4610  C   GLU B 702      22.387  17.272 -22.067  1.00 30.20           C
ATOM   4611  O   GLU B 702      22.189  17.825 -23.129  1.00 32.81           O
ATOM   4612  N   MET B 703      22.029  16.013 -21.837  1.00 27.41           N
ATOM   4613  CA  MET B 703      21.298  15.223 -22.840  1.00 26.86           C
ATOM   4614  CB  MET B 703      21.070  13.795 -22.330  1.00 29.30           C
ATOM   4615  CG  MET B 703      22.302  12.911 -22.362  1.00 34.55           C
ATOM   4616  SD  MET B 703      22.888  12.563 -24.040  1.00 40.67           S
ATOM   4617  CE  MET B 703      21.650  11.305 -24.536  1.00 39.43           C
ATOM   4618  C   MET B 703      19.928  15.904 -23.053  1.00 28.66           C
ATOM   4619  O   MET B 703      19.494  16.094 -24.166  1.00 27.69           O
ATOM   4620  N   LYS B 704      19.262  16.275 -21.961  1.00 25.89           N
ATOM   4621  CA  LYS B 704      17.951  16.938 -22.020  1.00 25.86           C
ATOM   4622  CB  LYS B 704      17.400  17.232 -20.605  1.00 25.73           C
ATOM   4623  CG  LYS B 704      17.003  15.986 -19.852  1.00 29.32           C
ATOM   4624  CD  LYS B 704      16.661  16.282 -18.395  1.00 33.94           C
ATOM   4625  CE  LYS B 704      16.302  14.992 -17.622  1.00 31.86           C
ATOM   4626  NZ  LYS B 704      15.966  15.246 -16.154  1.00 35.33           N
ATOM   4627  C   LYS B 704      18.047  18.209 -22.843  1.00 31.28           C
ATOM   4628  O   LYS B 704      17.145  18.515 -23.613  1.00 30.01           O
ATOM   4629  N   LYS B 705      19.177  18.913 -22.723  1.00 30.70           N
ATOM   4630  CA  LYS B 705      19.399  20.149 -23.490  1.00 29.96           C
ATOM   4631  CB  LYS B 705      20.596  20.935 -22.970  1.00 29.13           C
ATOM   4632  CG  LYS B 705      20.391  21.509 -21.599  1.00 33.87           C
ATOM   4633  CD  LYS B 705      21.555  22.409 -21.224  1.00 32.09           C
ATOM   4634  CE  LYS B 705      21.644  22.599 -19.720  1.00 35.29           C
ATOM   4635  NZ  LYS B 705      22.668  23.631 -19.421  1.00 37.34           N
ATOM   4636  C   LYS B 705      19.552  19.880 -24.988  1.00 35.45           C
ATOM   4637  O   LYS B 705      19.298  20.772 -25.817  1.00 35.53           O
ATOM   4638  N   LEU B 706      19.968  18.662 -25.346  1.00 32.54           N
ATOM   4639  CA  LEU B 706      20.052  18.277 -26.769  1.00 32.84           C
ATOM   4640  CB  LEU B 706      21.139  17.201 -26.990  1.00 32.59           C
ATOM   4641  CG  LEU B 706      22.602  17.603 -26.736  1.00 34.40           C
ATOM   4642  CD1 LEU B 706      23.558  16.411 -26.970  1.00 31.55           C
ATOM   4643  CD2 LEU B 706      22.976  18.802 -27.648  1.00 35.57           C
ATOM   4644  C   LEU B 706      18.690  17.726 -27.225  1.00 37.84           C
ATOM   4645  O   LEU B 706      18.502  17.402 -28.387  1.00 40.60           O
ATOM   4646  N   GLY B 707      17.751  17.592 -26.298  1.00 35.28           N
ATOM   4647  CA  GLY B 707      16.423  17.090 -26.615  1.00 37.00           C
ATOM   4648  C   GLY B 707      16.362  15.581 -26.624  1.00 43.46           C
ATOM   4649  O   GLY B 707      15.566  14.987 -27.343  1.00 45.00           O
ATOM   4650  N   ILE B 708      17.239  14.960 -25.842  1.00 38.99           N
ATOM   4651  CA  ILE B 708      17.298  13.501 -25.772  1.00 39.00           C
ATOM   4652  CB  ILE B 708      18.691  12.940 -26.163  1.00 41.35           C
ATOM   4653  CG1 ILE B 708      19.034  13.264 -27.622  1.00 40.85           C
ATOM   4654  CD1 ILE B 708      20.504  13.150 -27.926  1.00 42.42           C
ATOM   4655  CG2 ILE B 708      18.753  11.425 -25.895  1.00 42.33           C
ATOM   4656  C   ILE B 708      16.972  13.128 -24.347  1.00 43.99           C
ATOM   4657  O   ILE B 708      17.438  13.766 -23.417  1.00 45.61           O
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ATOM   4658  N   GLN B 709      16.168  12.095 -24.175  1.00 41.94           N
ATOM   4659  CA  GLN B 709      15.824  11.656 -22.847  1.00 43.46           C
ATOM   4660  CB  GLN B 709      14.535  10.828 -22.848  1.00 45.82           C
ATOM   4661  CG  GLN B 709      13.349  11.538 -22.155  1.00 52.03           C
ATOM   4662  CD  GLN B 709      13.428  11.484 -20.636  1.00 60.49           C
ATOM   4663  OE1 GLN B 709      13.353  12.512 -19.965  1.00 57.32           O
ATOM   4664  NE2 GLN B 709      13.538  10.281 -20.090  1.00 54.30           N
ATOM   4665  C   GLN B 709      16.987  10.822 -22.334  1.00 46.34           C
ATOM   4666  O   GLN B 709      17.383   9.832 -22.948  1.00 46.77           O
ATOM   4667  N   PRO B 710      17.595  11.242 -21.227  1.00 41.44           N
ATOM   4668  CA  PRO B 710      18.720  10.409 -20.787  1.00 41.40           C
ATOM   4669  CB  PRO B 710      19.333  11.238 -19.662  1.00 42.41           C
ATOM   4670  CG  PRO B 710      18.194  12.045 -19.128  1.00 45.17           C
ATOM   4671  CD  PRO B 710      17.303  12.343 -20.297  1.00 41.08           C
ATOM   4672  C   PRO B 710      18.229   9.064 -20.221  1.00 44.65           C
ATOM   4673  O   PRO B 710      17.045   8.908 -19.886  1.00 43.09           O
ATOM   4674  N   ILE B 711      19.151   8.120 -20.063  1.00 41.77           N
ATOM   4675  CA  ILE B 711      18.833   6.848 -19.434  1.00 41.53           C
ATOM   4676  CB  ILE B 711      19.973   5.837 -19.612  1.00 44.04           C
ATOM   4677  CG1 ILE B 711      21.191   6.219 -18.766  1.00 44.79           C
ATOM   4678  CD1 ILE B 711      22.337   5.192 -18.863  1.00 48.39           C
ATOM   4679  CG2 ILE B 711      20.340   5.694 -21.078  1.00 43.76           C
ATOM   4680  C   ILE B 711      18.583   7.188 -17.956  1.00 46.68           C
ATOM   4681  O   ILE B 711      19.056   8.215 -17.455  1.00 47.01           O
ATOM   4682  N   PRO B 712      17.790   6.367 -17.256  1.00 42.24           N
ATOM   4683  CA  PRO B 712      17.409   6.664 -15.865  1.00 41.85           C
ATOM   4684  CB  PRO B 712      16.632   5.408 -15.421  1.00 43.59           C
ATOM   4685  CG  PRO B 712      16.263   4.691 -16.702  1.00 47.67           C
ATOM   4686  CD  PRO B 712      17.299   5.057 -17.723  1.00 43.11           C
ATOM   4687  C   PRO B 712      18.565   6.940 -14.907  1.00 45.30           C
ATOM   4688  O   PRO B 712      18.444   7.748 -13.982  1.00 45.33           O
ATOM   4689  N   MET B 713      19.666   6.229 -15.099  1.00 41.98           N
ATOM   4690  CA  MET B 713      20.839   6.389 -14.248  1.00 41.21           C
ATOM   4691  CB  MET B 713      21.937   5.449 -14.752  1.00 44.58           C
ATOM   4692  CG  MET B 713      23.043   5.170 -13.757  1.00 49.89           C
ATOM   4693  SD  MET B 713      24.479   4.333 -14.538  1.00 55.55           S
ATOM   4694  CE  MET B 713      24.888   3.132 -13.210  1.00 53.36           C
ATOM   4695  C   MET B 713      21.357   7.835 -14.263  1.00 37.58           C
ATOM   4696  O   MET B 713      21.933   8.323 -13.290  1.00 36.00           O
ATOM   4697  N   MET B 714      21.157   8.506 -15.387  1.00 33.05           N
ATOM   4698  CA  MET B 714      21.647   9.872 -15.582  1.00 34.62           C
ATOM   4699  CB  MET B 714      22.222  10.045 -16.980  1.00 37.92           C
ATOM   4700  CG  MET B 714      23.401   9.113 -17.240  1.00 44.91           C
ATOM   4701  SD  MET B 714      24.394   9.699 -18.579  1.00 52.63           S
ATOM   4702  CE  MET B 714      23.139   9.849 -19.884  1.00 52.57           C
ATOM   4703  C   MET B 714      20.606  10.947 -15.344  1.00 38.50           C
ATOM   4704  O   MET B 714      20.890  12.126 -15.466  1.00 37.77           O
ATOM   4705  N   ASP B 715      19.391  10.526 -15.024  1.00 35.95           N
ATOM   4706  CA  ASP B 715      18.282  11.444 -14.817  1.00 34.87           C
ATOM   4707  CB  ASP B 715      17.018  10.805 -15.371  1.00 35.75           C
ATOM   4708  CG  ASP B 715      15.872  11.776 -15.474  1.00 42.57           C
ATOM   4709  OD1 ASP B 715      15.966  12.882 -14.872  1.00 40.15           O
ATOM   4710  OD2 ASP B 715      14.858  11.396 -16.109  1.00 50.90           O
ATOM   4711  C   ASP B 715      18.123  11.776 -13.344  1.00 38.12           C
ATOM   4712  O   ASP B 715      17.813  10.904 -12.530  1.00 37.68           O
ATOM   4713  N   ARG B 716      18.400  13.025 -12.988  1.00 36.43           N
ATOM   4714  CA  ARG B 716      18.277  13.436 -11.600  1.00 37.56           C
ATOM   4715  CB  ARG B 716      19.031  14.732 -11.298  1.00 36.40           C
ATOM   4716  CG  ARG B 716      18.393  15.989 -11.788  1.00 43.30           C
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ATOM   4717  CD  ARG B 716      19.095  17.189 -11.133  1.00 43.80           C
ATOM   4718  NE  ARG B 716      20.329  17.554 -11.831  1.00 41.38           N
ATOM   4719  CZ  ARG B 716      21.557  17.468 -11.314  1.00 54.75           C
ATOM   4720  NH1 ARG B 716      21.747  17.007 -10.081  1.00 41.38           N
ATOM   4721  NH2 ARG B 716      22.614  17.847 -12.032  1.00 37.77           N
ATOM   4722  C   ARG B 716      16.840  13.426 -11.065  1.00 44.62           C
ATOM   4723  O   ARG B 716      16.622  13.415  -9.854  1.00 47.82           O
ATOM   4724  N   ASP B 717      15.868  13.333 -11.967  1.00 40.74           N
ATOM   4725  CA  ASP B 717      14.475  13.232 -11.555  1.00 41.50           C
ATOM   4726  CB  ASP B 717      13.545  13.536 -12.729  1.00 43.17           C
ATOM   4727  CG  ASP B 717      13.548  14.996 -13.119  1.00 50.75           C
ATOM   4728  OD1 ASP B 717      14.031  15.843 -12.340  1.00 51.64           O
ATOM   4729  OD2 ASP B 717      13.064  15.294 -14.222  1.00 55.89           O
ATOM   4730  C   ASP B 717      14.203  11.796 -11.079  1.00 48.02           C
ATOM   4731  O   ASP B 717      13.169  11.522 -10.502  1.00 49.65           O
ATOM   4732  N   LYS B 718      15.119  10.877 -11.365  1.00 44.15           N
ATOM   4733  CA  LYS B 718      14.945   9.482 -10.990  1.00 43.26           C
ATOM   4734  CB  LYS B 718      14.963   8.591 -12.230  1.00 44.45           C
ATOM   4735  CG  LYS B 718      14.032   9.121 -13.308  1.00 48.93           C
ATOM   4736  CD  LYS B 718      13.773   8.120 -14.403  1.00 52.33           C
ATOM   4737  CE  LYS B 718      12.908   8.732 -15.506  1.00 54.47           C
ATOM   4738  NZ  LYS B 718      13.340   8.218 -16.857  1.00 62.44           N
ATOM   4739  C   LYS B 718      15.927   9.019  -9.930  1.00 48.03           C
ATOM   4740  O   LYS B 718      16.437   7.910  -9.973  1.00 49.02           O
ATOM   4741  N   LYS B 719      16.170   9.894  -8.964  1.00 45.16           N
ATOM   4742  CA  LYS B 719      17.095   9.640  -7.857  1.00 45.19           C
ATOM   4743  CB  LYS B 719      17.203  10.890  -6.973  1.00 46.51           C
ATOM   4744  CG  LYS B 719      18.478  11.704  -7.172  1.00 55.15           C
ATOM   4745  CD  LYS B 719      18.602  12.806  -6.111  1.00 54.05           C
ATOM   4746  CE  LYS B 719      18.314  14.167  -6.707  1.00 54.01           C
ATOM   4747  NZ  LYS B 719      19.542  15.022  -6.799  1.00 59.30           N
ATOM   4748  C   LYS B 719      16.628   8.445  -7.011  1.00 51.81           C
ATOM   4749  O   LYS B 719      17.448   7.675  -6.492  1.00 51.65           O
ATOM   4750  N   ASP B 720      15.308   8.288  -6.891  1.00 49.06           N
ATOM   4751  CA  ASP B 720      14.708   7.190  -6.122  1.00 48.32           C
ATOM   4752  CB  ASP B 720      13.182   7.291  -6.209  1.00 49.54           C
ATOM   4753  CG  ASP B 720      12.704   7.601  -7.635  1.00 60.88           C
ATOM   4754  OD1 ASP B 720      12.990   8.725  -8.138  1.00 62.09           O
ATOM   4755  OD2 ASP B 720      12.040   6.732  -8.250  1.00 66.05           O
ATOM   4756  C   ASP B 720      15.148   5.834  -6.686  1.00 52.65           C
ATOM   4757  O   ASP B 720      15.131   4.823  -5.989  1.00 55.86           O
ATOM   4758  N   GLU B 721      15.528   5.819  -7.958  1.00 45.28           N
ATOM   4759  CA  GLU B 721      15.908   4.589  -8.664  1.00 43.90           C
ATOM   4760  CB  GLU B 721      15.634   4.803 -10.159  1.00 45.25           C
ATOM   4761  CG  GLU B 721      14.713   3.799 -10.831  1.00 54.12           C
ATOM   4762  CD  GLU B 721      13.849   4.433 -11.927  1.00 62.42           C
ATOM   4763  OE1 GLU B 721      14.022   4.096 -13.125  1.00 54.06           O
ATOM   4764  OE2 GLU B 721      13.010   5.295 -11.585  1.00 61.40           O
ATOM   4765  C   GLU B 721      17.377   4.126  -8.512  1.00 44.08           C
ATOM   4766  O   GLU B 721      17.780   3.135  -9.105  1.00 42.53           O
ATOM   4767  N   VAL B 722      18.175   4.869  -7.760  1.00 40.68           N
ATOM   4768  CA  VAL B 722      19.597   4.590  -7.611  1.00 40.72           C
ATOM   4769  CB  VAL B 722      20.337   5.750  -6.903  1.00 44.20           C
ATOM   4770  CG1 VAL B 722      21.700   5.294  -6.390  1.00 43.43           C
ATOM   4771  CG2 VAL B 722      20.468   6.950  -7.860  1.00 44.21           C
ATOM   4772  C   VAL B 722      19.972   3.236  -7.021  1.00 45.69           C
ATOM   4773  O   VAL B 722      20.820   2.522  -7.568  1.00 44.98           O
ATOM   4774  N   PRO B 723      19.380   2.884  -5.875  1.00 42.48           N
ATOM   4775  CA  PRO B 723      19.702   1.611  -5.229  1.00 42.38           C
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ATOM   4776  CB  PRO B 723      18.719   1.571  -4.065  1.00 43.82           C
ATOM   4777  CG  PRO B 723      18.460   2.998  -3.742  1.00 47.28           C
ATOM   4778  CD  PRO B 723      18.422   3.678  -5.084  1.00 43.20           C
ATOM   4779  C   PRO B 723      19.502   0.411  -6.165  1.00 45.55           C
ATOM   4780  O   PRO B 723      20.354  -0.495  -6.227  1.00 43.28           O
ATOM   4781  N   GLN B 724      18.392   0.420  -6.908  1.00 41.52           N
ATOM   4782  CA  GLN B 724      18.074  -0.656  -7.844  1.00 40.23           C
ATOM   4783  CB  GLN B 724      16.658  -0.476  -8.378  1.00 40.84           C
ATOM   4784  CG  GLN B 724      15.811  -1.719  -8.348  1.00 53.92           C
ATOM   4785  CD  GLN B 724      16.545  -2.955  -8.848  1.00 63.16           C
ATOM   4786  OE1 GLN B 724      16.685  -3.954  -8.119  1.00 53.50           O
ATOM   4787  NE2 GLN B 724      17.022  -2.897 -10.096  1.00 58.45           N
ATOM   4788  C   GLN B 724      19.073  -0.624  -9.013  1.00 44.16           C
ATOM   4789  O   GLN B 724      19.461  -1.670  -9.545  1.00 42.76           O
ATOM   4790  N   GLY B 725      19.473   0.585  -9.416  1.00 40.28           N
ATOM   4791  CA  GLY B 725      20.440   0.779 -10.483  1.00 39.26           C
ATOM   4792  C   GLY B 725      21.814   0.282 -10.073  1.00 40.30           C
ATOM   4793  O   GLY B 725      22.545  -0.280 -10.872  1.00 38.85           O
ATOM   4794  N   GLN B 726      22.154   0.469  -8.806  1.00 37.41           N
ATOM   4795  CA  GLN B 726      23.426  -0.008  -8.272  1.00 37.09           C
ATOM   4796  CB  GLN B 726      23.697   0.631  -6.905  1.00 38.07           C
ATOM   4797  CG  GLN B 726      24.126   2.092  -7.008  1.00 38.17           C
ATOM   4798  CD  GLN B 726      25.509   2.227  -7.635  1.00 48.84           C
ATOM   4799  OE1 GLN B 726      26.472   1.652  -7.134  1.00 42.15           O
ATOM   4800  NE2 GLN B 726      25.595   2.909  -8.784  1.00 36.10           N
ATOM   4801  C   GLN B 726      23.484  -1.542  -8.213  1.00 42.12           C
ATOM   4802  O   GLN B 726      24.471  -2.149  -8.655  1.00 40.67           O
ATOM   4803  N   LEU B 727      22.400  -2.169  -7.743  1.00 41.21           N
ATOM   4804  CA  LEU B 727      22.291  -3.643  -7.714  1.00 40.94           C
ATOM   4805  CB  LEU B 727      20.900  -4.069  -7.257  1.00 41.92           C
ATOM   4806  CG  LEU B 727      20.743  -4.869  -5.958  1.00 47.24           C
ATOM   4807  CD1 LEU B 727      19.310  -5.428  -5.852  1.00 47.40           C
ATOM   4808  CD2 LEU B 727      21.722  -5.994  -5.933  1.00 45.60           C
ATOM   4809  C   LEU B 727      22.519  -4.227  -9.115  1.00 38.98           C
ATOM   4810  O   LEU B 727      23.238  -5.218  -9.265  1.00 37.44           O
ATOM   4811  N   GLY B 728      21.913  -3.603 -10.129  1.00 32.58           N
ATOM   4812  CA  GLY B 728      22.037  -4.052 -11.513  1.00 32.03           C
ATOM   4813  C   GLY B 728      23.454  -3.974 -12.055  1.00 37.51           C
ATOM   4814  O   GLY B 728      23.903  -4.822 -12.826  1.00 37.89           O
ATOM   4815  N   PHE B 729      24.165  -2.937 -11.636  1.00 34.31           N
ATOM   4816  CA  PHE B 729      25.541  -2.729 -12.046  1.00 32.78           C
ATOM   4817  CB  PHE B 729      25.992  -1.301 -11.659  1.00 33.59           C
ATOM   4818  CG  PHE B 729      27.405  -0.993 -12.051  1.00 34.23           C
ATOM   4819  CD1 PHE B 729      27.720  -0.707 -13.376  1.00 37.20           C
ATOM   4820  CE1 PHE B 729      29.010  -0.448 -13.755  1.00 39.33           C
ATOM   4821  CZ  PHE B 729      30.034  -0.501 -12.805  1.00 39.54           C
ATOM   4822  CE2 PHE B 729      29.734  -0.824 -11.495  1.00 40.48           C
ATOM   4823  CD2 PHE B 729      28.423  -1.077 -11.125  1.00 36.59           C
ATOM   4824  C   PHE B 729      26.452  -3.787 -11.403  1.00 35.89           C
ATOM   4825  O   PHE B 729      27.257  -4.410 -12.086  1.00 40.07           O
ATOM   4826  N   TYR B 730      26.293  -4.019 -10.102  1.00 30.11           N
ATOM   4827  CA  TYR B 730      27.088  -5.021  -9.406  1.00 30.50           C
ATOM   4828  CB  TYR B 730      26.739  -5.057  -7.908  1.00 31.85           C
ATOM   4829  CG  TYR B 730      27.441  -4.000  -7.077  1.00 32.56           C
ATOM   4830  CD1 TYR B 730      27.160  -2.646  -7.261  1.00 34.27           C
ATOM   4831  CE1 TYR B 730      27.791  -1.661  -6.488  1.00 33.06           C
ATOM   4832  CZ  TYR B 730      28.726  -2.033  -5.533  1.00 35.28           C
ATOM   4833  OH  TYR B 730      29.308  -1.047  -4.772  1.00 31.99           O
ATOM   4834  CE2 TYR B 730      29.032  -3.368  -5.325  1.00 32.27           C
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ATOM   4835  CD2 TYR B 730      28.389  -4.351  -6.100  1.00 32.28           C
ATOM   4836  C   TYR B 730      26.921  -6.408 -10.027  1.00 36.72           C
ATOM   4837  O   TYR B 730      27.910  -7.056 -10.385  1.00 38.44           O
ATOM   4838  N   ASN B 731      25.667  -6.818 -10.229  1.00 33.45           N
ATOM   4839  CA  ASN B 731      25.340  -8.113 -10.840  1.00 32.99           C
ATOM   4840  CB  ASN B 731      23.812  -8.385 -10.777  1.00 33.15           C
ATOM   4841  CG  ASN B 731      23.337  -8.719  -9.391  1.00 43.18           C
ATOM   4842  OD1 ASN B 731      24.002  -9.433  -8.656  1.00 42.81           O
ATOM   4843  ND2 ASN B 731      22.200  -8.175  -9.014  1.00 39.44           N
ATOM   4844  C   ASN B 731      25.794  -8.266 -12.284  1.00 35.12           C
ATOM   4845  O   ASN B 731      26.218  -9.341 -12.694  1.00 36.87           O
ATOM   4846  N   ALA B 732      25.661  -7.206 -13.069  1.00 30.64           N
ATOM   4847  CA  ALA B 732      25.988  -7.268 -14.501  1.00 29.99           C
ATOM   4848  CB  ALA B 732      25.070  -6.298 -15.298  1.00 30.29           C
ATOM   4849  C   ALA B 732      27.440  -6.992 -14.850  1.00 33.49           C
ATOM   4850  O   ALA B 732      27.953  -7.478 -15.865  1.00 32.33           O
ATOM   4851  N   VAL B 733      28.079  -6.141 -14.055  1.00 32.28           N
ATOM   4852  CA  VAL B 733      29.452  -5.716 -14.354  1.00 31.31           C
ATOM   4853  CB  VAL B 733      29.492  -4.200 -14.612  1.00 33.27           C
ATOM   4854  CG1 VAL B 733      30.921  -3.759 -14.911  1.00 32.84           C
ATOM   4855  CG2 VAL B 733      28.537  -3.827 -15.749  1.00 32.17           C
ATOM   4856  C   VAL B 733      30.472  -6.050 -13.277  1.00 34.47           C
ATOM   4857  O   VAL B 733      31.441  -6.764 -13.536  1.00 34.69           O
ATOM   4858  N   ALA B 734      30.281  -5.462 -12.095  1.00 28.41           N
ATOM   4859  CA  ALA B 734      31.240  -5.605 -11.007  1.00 28.16           C
ATOM   4860  CB  ALA B 734      30.870  -4.713  -9.814  1.00 28.30           C
ATOM   4861  C   ALA B 734      31.545  -7.033 -10.569  1.00 32.17           C
ATOM   4862  O   ALA B 734      32.694  -7.464 -10.642  1.00 31.57           O
ATOM   4863  N   ILE B 735      30.534  -7.744 -10.072  1.00 30.95           N
ATOM   4864  CA  ILE B 735      30.743  -9.106  -9.584  1.00 31.23           C
ATOM   4865  CB  ILE B 735      29.467  -9.717  -8.930  1.00 34.84           C
ATOM   4866  CG1 ILE B 735      29.119  -8.966  -7.629  1.00 34.80           C
ATOM   4867  CD1 ILE B 735      30.177  -9.077  -6.559  1.00 39.73           C
ATOM   4868  CG2 ILE B 735      29.689 -11.195  -8.622  1.00 36.65           C
ATOM   4869  C   ILE B 735      31.409 -10.016 -10.606  1.00 31.42           C
ATOM   4870  O   ILE B 735      32.406 -10.662 -10.296  1.00 30.76           O
ATOM   4871  N   PRO B 736      30.914 -10.017 -11.859  1.00 27.97           N
ATOM   4872  CA  PRO B 736      31.557 -10.853 -12.890  1.00 27.51           C
ATOM   4873  CB  PRO B 736      30.715 -10.575 -14.149  1.00 28.67           C
ATOM   4874  CG  PRO B 736      29.383 -10.097 -13.644  1.00 32.80           C
ATOM   4875  CD  PRO B 736      29.631  -9.431 -12.315  1.00 29.00           C
ATOM   4876  C   PRO B 736      33.011 -10.433 -13.124  1.00 33.62           C
ATOM   4877  O   PRO B 736      33.896 -11.263 -13.393  1.00 32.29           O
ATOM   4878  N   CYS B 737      33.268  -9.130 -13.039  1.00 31.72           N
ATOM   4879  CA  CYS B 737      34.642  -8.611 -13.234  1.00 29.23           C
ATOM   4880  CB  CYS B 737      34.667  -7.068 -13.136  1.00 28.09           C
ATOM   4881  SG  CYS B 737      36.373  -6.373 -13.264  1.00 31.41           S
ATOM   4882  C   CYS B 737      35.619  -9.176 -12.184  1.00 28.61           C
ATOM   4883  O   CYS B 737      36.655  -9.729 -12.510  1.00 25.63           O
ATOM   4884  N   TYR B 738      35.295  -8.963 -10.918  1.00 27.62           N
ATOM   4885  CA  TYR B 738      36.149  -9.395  -9.808  1.00 28.07           C
ATOM   4886  CB  TYR B 738      35.773  -8.650  -8.534  1.00 28.14           C
ATOM   4887  CG  TYR B 738      36.056  -7.144  -8.625  1.00 29.09           C
ATOM   4888  CD1 TYR B 738      37.365  -6.657  -8.712  1.00 31.13           C
ATOM   4889  CE1 TYR B 738      37.613  -5.295  -8.860  1.00 30.99           C
ATOM   4890  CZ  TYR B 738      36.565  -4.428  -8.943  1.00 32.15           C
ATOM   4891  OH  TYR B 738      36.824  -3.083  -9.097  1.00 31.06           O
ATOM   4892  CE2 TYR B 738      35.261  -4.893  -8.894  1.00 28.43           C
ATOM   4893  CD2 TYR B 738      35.012  -6.225  -8.743  1.00 28.13           C
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ATOM   4894  C   TYR B 738      36.206 -10.920  -9.622  1.00 34.82           C
ATOM   4895  O   TYR B 738      37.193 -11.466  -9.119  1.00 32.93           O
ATOM   4896  N   THR B 739      35.172 -11.609 -10.101  1.00 34.39           N
ATOM   4897  CA  THR B 739      35.134 -13.078 -10.041  1.00 33.93           C
ATOM   4898  CB  THR B 739      33.708 -13.639 -10.407  1.00 37.60           C
ATOM   4899  OG1 THR B 739      32.734 -13.101  -9.499  1.00 29.91           O
ATOM   4900  CG2 THR B 739      33.700 -15.159 -10.272  1.00 38.48           C
ATOM   4901  C   THR B 739      36.179 -13.622 -10.998  1.00 34.74           C
ATOM   4902  O   THR B 739      37.022 -14.406 -10.621  1.00 36.10           O
ATOM   4903  N   THR B 740      36.123 -13.188 -12.250  1.00 29.35           N
ATOM   4904  CA  THR B 740      37.107 -13.618 -13.243  1.00 30.10           C
ATOM   4905  CB  THR B 740      36.775 -13.079 -14.640  1.00 35.70           C
ATOM   4906  OG1 THR B 740      35.429 -13.409 -14.963  1.00 37.14           O
ATOM   4907  CG2 THR B 740      37.704 -13.646 -15.684  1.00 33.16           C
ATOM   4908  C   THR B 740      38.536 -13.205 -12.845  1.00 41.16           C
ATOM   4909  O   THR B 740      39.494 -13.920 -13.144  1.00 44.28           O
ATOM   4910  N   LEU B 741      38.690 -12.015 -12.258  1.00 36.22           N
ATOM   4911  CA  LEU B 741      40.016 -11.548 -11.847  1.00 33.57           C
ATOM   4912  CB  LEU B 741      39.949 -10.125 -11.267  1.00 32.41           C
ATOM   4913  CG  LEU B 741      41.317  -9.438 -11.080  1.00 35.29           C
ATOM   4914  CD1 LEU B 741      42.007  -9.221 -12.407  1.00 34.30           C
ATOM   4915  CD2 LEU B 741      41.224  -8.143 -10.300  1.00 39.65           C
ATOM   4916  C   LEU B 741      40.597 -12.511 -10.787  1.00 34.80           C
ATOM   4917  O   LEU B 741      41.767 -12.859 -10.830  1.00 32.79           O
ATOM   4918  N   THR B 742      39.763 -12.906  -9.833  1.00 35.47           N
ATOM   4919  CA  THR B 742      40.171 -13.810  -8.756  1.00 38.07           C
ATOM   4920  CB  THR B 742      39.124 -13.899  -7.634  1.00 47.36           C
ATOM   4921  OG1 THR B 742      38.834 -12.577  -7.137  1.00 48.96           O
ATOM   4922  CG2 THR B 742      39.681 -14.754  -6.494  1.00 46.02           C
ATOM   4923  C   THR B 742      40.524 -15.193  -9.277  1.00 44.50           C
ATOM   4924  O   THR B 742      41.406 -15.849  -8.743  1.00 45.34           O
ATOM   4925  N   GLN B 743      39.833 -15.621 -10.328  1.00 40.75           N
ATOM   4926  CA  GLN B 743      40.095 -16.913 -10.937  1.00 39.65           C
ATOM   4927  CB  GLN B 743      39.033 -17.259 -11.987  1.00 39.24           C
ATOM   4928  CG  GLN B 743      37.698 -17.589 -11.360  1.00 42.66           C
ATOM   4929  CD  GLN B 743      36.567 -17.695 -12.363  1.00 48.99           C
ATOM   4930  OE1 GLN B 743      35.498 -18.204 -12.031  1.00 55.98           O
ATOM   4931  NE2 GLN B 743      36.792 -17.229 -13.591  1.00 33.66           N
ATOM   4932  C   GLN B 743      41.471 -16.884 -11.581  1.00 46.40           C
ATOM   4933  O   GLN B 743      42.210 -17.864 -11.524  1.00 51.10           O
ATOM   4934  N   ILE B 744      41.793 -15.789 -12.259  1.00 39.75           N
ATOM   4935  CA  ILE B 744      43.079 -15.671 -12.940  1.00 38.28           C
ATOM   4936  CB  ILE B 744      43.007 -14.677 -14.118  1.00 40.30           C
ATOM   4937  CG1 ILE B 744      41.920 -15.102 -15.107  1.00 40.87           C
ATOM   4938  CD1 ILE B 744      41.781 -14.155 -16.307  1.00 44.42           C
ATOM   4939  CG2 ILE B 744      44.373 -14.538 -14.785  1.00 37.58           C
ATOM   4940  C   ILE B 744      44.182 -15.263 -11.962  1.00 40.63           C
ATOM   4941  O   ILE B 744      45.324 -15.681 -12.104  1.00 40.03           O
ATOM   4942  N   LEU B 745      43.833 -14.399 -11.007  1.00 38.42           N
ATOM   4943  CA  LEU B 745      44.764 -13.890  -9.995  1.00 38.22           C
ATOM   4944  CB  LEU B 745      45.083 -12.411 -10.256  1.00 38.11           C
ATOM   4945  CG  LEU B 745      45.665 -12.059 -11.642  1.00 42.15           C
ATOM   4946  CD1 LEU B 745      45.829 -10.553 -11.814  1.00 41.14           C
ATOM   4947  CD2 LEU B 745      47.012 -12.749 -11.824  1.00 45.38           C
ATOM   4948  C   LEU B 745      44.171 -14.043  -8.604  1.00 43.00           C
ATOM   4949  O   LEU B 745      43.603 -13.095  -8.047  1.00 43.45           O
ATOM   4950  N   PRO B 746      44.315 -15.241  -8.008  1.00 37.99           N
ATOM   4951  CA  PRO B 746      43.782 -15.579  -6.681  1.00 36.03           C
ATOM   4952  CB  PRO B 746      44.390 -16.961  -6.399  1.00 37.29           C
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ATOM   4953  CG  PRO B 746      44.531 -17.548  -7.751  1.00 41.24           C
ATOM   4954  CD  PRO B 746      44.921 -16.414  -8.666  1.00 37.92           C
ATOM   4955  C   PRO B 746      44.027 -14.593  -5.552  1.00 36.77           C
ATOM   4956  O   PRO B 746      43.157 -14.402  -4.693  1.00 35.25           O
ATOM   4957  N   PRO B 747      45.222 -13.971  -5.506  1.00 35.24           N
ATOM   4958  CA  PRO B 747      45.473 -12.992  -4.423  1.00 35.99           C
ATOM   4959  CB  PRO B 747      46.954 -12.628  -4.602  1.00 37.44           C
ATOM   4960  CG  PRO B 747      47.534 -13.796  -5.334  1.00 41.15           C
ATOM   4961  CD  PRO B 747      46.444 -14.264  -6.272  1.00 36.26           C
ATOM   4962  C   PRO B 747      44.595 -11.708  -4.518  1.00 41.24           C
ATOM   4963  O   PRO B 747      44.524 -10.932  -3.555  1.00 41.94           O
ATOM   4964  N   THR B 748      43.883 -11.525  -5.640  1.00 37.19           N
ATOM   4965  CA  THR B 748      42.962 -10.380  -5.797  1.00 37.02           C
ATOM   4966  CB  THR B 748      42.783  -9.954  -7.261  1.00 40.85           C
ATOM   4967  OG1 THR B 748      42.119 -10.997  -7.986  1.00 44.45           O
ATOM   4968  CG2 THR B 748      44.133  -9.622  -7.916  1.00 31.66           C
ATOM   4969  C   THR B 748      41.600 -10.611  -5.128  1.00 42.49           C
ATOM   4970  O   THR B 748      40.713  -9.756  -5.202  1.00 44.03           O
ATOM   4971  N   GLU B 749      41.449 -11.762  -4.469  1.00 37.63           N
ATOM   4972  CA  GLU B 749      40.212 -12.138  -3.774  1.00 37.01           C
ATOM   4973  CB  GLU B 749      40.477 -13.369  -2.875  1.00 38.43           C
ATOM   4974  CG  GLU B 749      39.357 -13.689  -1.876  1.00 44.07           C
ATOM   4975  CD  GLU B 749      38.204 -14.426  -2.531  1.00 61.53           C
ATOM   4976  OE1 GLU B 749      38.457 -15.147  -3.535  1.00 61.49           O
ATOM   4977  OE2 GLU B 749      37.043 -14.273  -2.059  1.00 58.66           O
ATOM   4978  C   GLU B 749      39.542 -11.037  -2.949  1.00 39.63           C
ATOM   4979  O   GLU B 749      38.314 -10.948  -2.910  1.00 39.95           O
ATOM   4980  N   PRO B 750      40.332 -10.245  -2.200  1.00 37.29           N
ATOM   4981  CA  PRO B 750      39.718  -9.215  -1.343  1.00 36.48           C
ATOM   4982  CB  PRO B 750      40.937  -8.544  -0.670  1.00 37.98           C
ATOM   4983  CG  PRO B 750      41.991  -9.585  -0.702  1.00 42.30           C
ATOM   4984  CD  PRO B 750      41.800 -10.269  -2.038  1.00 38.83           C
ATOM   4985  C   PRO B 750      38.899  -8.179  -2.118  1.00 36.87           C
ATOM   4986  O   PRO B 750      38.011  -7.554  -1.564  1.00 38.24           O
ATOM   4987  N   LEU B 751      39.196  -8.011  -3.402  1.00 32.13           N
ATOM   4988  CA  LEU B 751      38.430  -7.078  -4.250  1.00 31.18           C
ATOM   4989  CB  LEU B 751      39.113  -6.889  -5.613  1.00 30.17           C
ATOM   4990  CG  LEU B 751      40.389  -6.047  -5.658  1.00 32.06           C
ATOM   4991  CD1 LEU B 751      40.962  -6.153  -7.048  1.00 32.91           C
ATOM   4992  CD2 LEU B 751      40.143  -4.576  -5.260  1.00 26.94           C
ATOM   4993  C   LEU B 751      37.032  -7.667  -4.438  1.00 34.47           C
ATOM   4994  O   LEU B 751      36.029  -6.969  -4.281  1.00 34.75           O
ATOM   4995  N   LEU B 752      36.978  -8.968  -4.719  1.00 31.25           N
ATOM   4996  CA  LEU B 752      35.701  -9.678  -4.872  1.00 31.96           C
ATOM   4997  CB  LEU B 752      35.910 -11.122  -5.358  1.00 32.61           C
ATOM   4998  CG  LEU B 752      34.626 -11.950  -5.532  1.00 36.86           C
ATOM   4999  CD1 LEU B 752      33.651 -11.262  -6.472  1.00 36.52           C
ATOM   5000  CD2 LEU B 752      34.963 -13.331  -6.049  1.00 39.19           C
ATOM   5001  C   LEU B 752      34.915  -9.698  -3.569  1.00 34.83           C
ATOM   5002  O   LEU B 752      33.722  -9.446  -3.564  1.00 35.32           O
ATOM   5003  N   LYS B 753      35.587  -9.996  -2.463  1.00 34.70           N
ATOM   5004  CA  LYS B 753      34.922 -10.029  -1.155  1.00 35.28           C
ATOM   5005  CB  LYS B 753      35.903 -10.424  -0.046  1.00 38.13           C
ATOM   5006  CG  LYS B 753      35.262 -10.518   1.359  1.00 43.69           C
ATOM   5007  CD  LYS B 753      36.259 -11.108   2.365  1.00 49.44           C
ATOM   5008  CE  LYS B 753      35.570 -11.472   3.683  1.00 52.24           C
ATOM   5009  NZ  LYS B 753      34.900 -12.842   3.660  1.00 57.19           N
ATOM   5010  C   LYS B 753      34.289  -8.677  -0.821  1.00 38.64           C
ATOM   5011  O   LYS B 753      33.128  -8.605  -0.415  1.00 40.28           O
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ATOM   5012  N   ALA B 754      35.065  -7.609  -0.992  1.00 32.05           N
ATOM   5013  CA  ALA B 754      34.587  -6.260  -0.717  1.00 31.82           C
ATOM   5014  CB  ALA B 754      35.727  -5.255  -0.864  1.00 32.36           C
ATOM   5015  C   ALA B 754      33.404  -5.893  -1.615  1.00 35.17           C
ATOM   5016  O   ALA B 754      32.423  -5.266  -1.167  1.00 34.14           O
ATOM   5017  N   CYS B 755      33.488  -6.336  -2.865  1.00 32.03           N
ATOM   5018  CA  CYS B 755      32.428  -6.103  -3.830  1.00 33.55           C
ATOM   5019  CB  CYS B 755      32.881  -6.571  -5.212  1.00 34.14           C
ATOM   5020  SG  CYS B 755      31.769  -6.079  -6.534  1.00 38.32           S
ATOM   5021  C   CYS B 755      31.111  -6.800  -3.429  1.00 39.38           C
ATOM   5022  O   CYS B 755      30.023  -6.224  -3.566  1.00 38.10           O
ATOM   5023  N   ARG B 756      31.215  -8.038  -2.940  1.00 36.37           N
ATOM   5024  CA AARG B 756      30.040  -8.789  -2.498  0.50 35.50           C
ATOM   5025  CA BARG B 756      30.047  -8.800  -2.490  0.50 35.46           C
ATOM   5026  CB AARG B 756      30.409 -10.236  -2.186  0.50 34.29           C
ATOM   5027  CB BARG B 756      30.451 -10.220  -2.117  0.50 34.20           C
ATOM   5028  CG AARG B 756      30.692 -11.075  -3.433  0.50 40.64           C
ATOM   5029  CG BARG B 756      30.685 -11.152  -3.303  0.50 40.79           C
ATOM   5030  CD AARG B 756      30.645 -12.579  -3.147  0.50 42.24           C
ATOM   5031  CD BARG B 756      30.699 -12.619  -2.849  0.50 40.40           C
ATOM   5032  NE AARG B 756      30.973 -13.363  -4.344  0.50 42.80           N
ATOM   5033  NE BARG B 756      31.079 -13.524  -3.935  0.50 41.61           N
ATOM   5034  CZ AARG B 756      30.121 -13.604  -5.342  0.50 49.37           C
ATOM   5035  CZ BARG B 756      32.177 -14.268  -3.948  0.50 46.12           C
ATOM   5036  NH1AARG B 756      28.881 -13.131  -5.305  0.50 38.25           N
ATOM   5037  NH1BARG B 756      33.024 -14.218  -2.929  0.50 38.19           N
ATOM   5038  NH2AARG B 756      30.510 -14.309  -6.392  0.50 40.97           N
ATOM   5039  NH2BARG B 756      32.416 -15.067  -4.978  0.50 31.91           N
ATOM   5040  C   ARG B 756      29.433  -8.130  -1.269  1.00 36.78           C
ATOM   5041  O   ARG B 756      28.227  -8.034  -1.147  1.00 37.20           O
ATOM   5042  N   ASP B 757      30.281  -7.630  -0.383  1.00 31.36           N
ATOM   5043  CA  ASP B 757      29.801  -6.934   0.818  1.00 32.30           C
ATOM   5044  CB  ASP B 757      30.979  -6.530   1.716  1.00 34.85           C
ATOM   5045  CG  ASP B 757      31.594  -7.716   2.461  1.00 47.79           C
ATOM   5046  OD1 ASP B 757      30.983  -8.817   2.458  1.00 49.75           O
ATOM   5047  OD2 ASP B 757      32.684  -7.536   3.067  1.00 48.89           O
ATOM   5048  C   ASP B 757      28.989  -5.690   0.469  1.00 37.96           C
ATOM   5049  O   ASP B 757      27.996  -5.405   1.123  1.00 41.70           O
ATOM   5050  N   ASN B 758      29.430  -4.941  -0.542  1.00 32.63           N
ATOM   5051  CA  ASN B 758      28.747  -3.715  -0.949  1.00 31.70           C
ATOM   5052  CB  ASN B 758      29.665  -2.796  -1.818  1.00 32.56           C
ATOM   5053  CG  ASN B 758      30.729  -2.100  -1.002  1.00 37.50           C
ATOM   5054  OD1 ASN B 758      30.468  -1.610   0.096  1.00 38.65           O
ATOM   5055  ND2 ASN B 758      31.932  -2.045  -1.534  1.00 20.26           N
ATOM   5056  C   ASN B 758      27.434  -4.016  -1.659  1.00 30.37           C
ATOM   5057  O   ASN B 758      26.490  -3.267  -1.508  1.00 29.61           O
ATOM   5058  N   LEU B 759      27.397  -5.099  -2.432  1.00 29.10           N
ATOM   5059  CA  LEU B 759      26.178  -5.551  -3.111  1.00 31.54           C
ATOM   5060  CB  LEU B 759      26.458  -6.836  -3.899  1.00 32.69           C
ATOM   5061  CG  LEU B 759      25.257  -7.634  -4.452  1.00 38.91           C
ATOM   5062  CD1 LEU B 759      24.462  -6.770  -5.397  1.00 39.54           C
ATOM   5063  CD2 LEU B 759      25.741  -8.861  -5.176  1.00 40.11           C
ATOM   5064  C   LEU B 759      25.129  -5.855  -2.032  1.00 38.72           C
ATOM   5065  O   LEU B 759      23.963  -5.520  -2.168  1.00 40.12           O
ATOM   5066  N   SER B 760      25.576  -6.464  -0.941  1.00 36.91           N
ATOM   5067  CA  SER B 760      24.709  -6.794   0.181  1.00 37.07           C
ATOM   5068  CB  SER B 760      25.492  -7.627   1.205  1.00 38.56           C
ATOM   5069  OG  SER B 760      24.786  -7.685   2.426  1.00 57.67           O
ATOM   5070  C   SER B 760      24.160  -5.521   0.834  1.00 41.34           C
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ATOM   5071  O   SER B 760      22.990  -5.466   1.218  1.00 39.85           O
ATOM   5072  N   GLN B 761      25.008  -4.496   0.958  1.00 37.57           N
ATOM   5073  CA  GLN B 761      24.587  -3.217   1.552  1.00 36.49           C
ATOM   5074  CB  GLN B 761      25.796  -2.318   1.826  1.00 37.24           C
ATOM   5075  CG  GLN B 761      26.710  -2.841   2.916  1.00 38.47           C
ATOM   5076  CD  GLN B 761      26.111  -2.671   4.276  1.00 48.44           C
ATOM   5077  OE1 GLN B 761      25.678  -1.584   4.646  1.00 52.12           O
ATOM   5078  NE2 GLN B 761      25.988  -3.765   4.996  1.00 50.05           N
ATOM   5079  C   GLN B 761      23.550  -2.489   0.708  1.00 40.55           C
ATOM   5080  O   GLN B 761      22.638  -1.868   1.233  1.00 41.16           O
ATOM   5081  N   TRP B 762      23.673  -2.593  -0.611  1.00 38.72           N
ATOM   5082  CA  TRP B 762      22.708  -1.959  -1.512  1.00 38.35           C
ATOM   5083  CB  TRP B 762      23.242  -1.938  -2.957  1.00 35.35           C
ATOM   5084  CG  TRP B 762      24.209  -0.803  -3.208  1.00 40.13           C
ATOM   5085  CD1 TRP B 762      25.532  -0.918  -3.535  1.00 37.45           C
ATOM   5086  NE1 TRP B 762      26.092   0.328  -3.671  1.00 38.95           N
ATOM   5087  CE2 TRP B 762      25.135   1.282  -3.427  1.00 40.11           C
ATOM   5088  CD2 TRP B 762      23.935   0.608  -3.129  1.00 33.95           C
ATOM   5089  CE3 TRP B 762      22.786   1.363  -2.870  1.00 37.84           C
ATOM   5090  CZ3 TRP B 762      22.877   2.754  -2.893  1.00 38.58           C
ATOM   5091  CH2 TRP B 762      24.084   3.395  -3.182  1.00 39.69           C
ATOM   5092  CZ2 TRP B 762      25.225   2.683  -3.453  1.00 39.38           C
ATOM   5093  C   TRP B 762      21.357  -2.687  -1.432  1.00 41.78           C
ATOM   5094  O   TRP B 762      20.292  -2.066  -1.586  1.00 39.98           O
ATOM   5095  N   GLU B 763      21.410  -4.002  -1.189  1.00 38.91           N
ATOM   5096  CA  GLU B 763      20.186  -4.798  -1.013  1.00 39.38           C
ATOM   5097  CB  GLU B 763      20.507  -6.298  -0.989  1.00 40.11           C
ATOM   5098  CG  GLU B 763      20.814  -6.864  -2.390  1.00 43.61           C
ATOM   5099  CD  GLU B 763      21.479  -8.246  -2.351  1.00 60.21           C
ATOM   5100  OE1 GLU B 763      22.142  -8.575  -1.330  1.00 52.10           O
ATOM   5101  OE2 GLU B 763      21.351  -9.005  -3.356  1.00 55.92           O
ATOM   5102  C   GLU B 763      19.474  -4.330   0.267  1.00 44.82           C
ATOM   5103  O   GLU B 763      18.254  -4.134   0.248  1.00 47.28           O
ATOM   5104  N   LYS B 764      20.244  -4.015   1.319  1.00 40.08           N
ATOM   5105  CA  LYS B 764      19.672  -3.473   2.566  1.00 39.95           C
ATOM   5106  CB  LYS B 764      20.723  -3.300   3.674  1.00 41.42           C
ATOM   5107  CG  LYS B 764      21.309  -4.596   4.204  1.00 45.11           C
ATOM   5108  CD  LYS B 764      21.924  -4.457   5.584  1.00 44.01           C
ATOM   5109  CE  LYS B 764      22.430  -5.855   6.055  1.00 60.44           C
ATOM   5110  NZ  LYS B 764      23.012  -5.897   7.464  1.00 59.78           N
ATOM   5111  C   LYS B 764      18.990  -2.139   2.297  1.00 47.36           C
ATOM   5112  O   LYS B 764      17.885  -1.900   2.774  1.00 47.01           O
ATOM   5113  N   VAL B 765      19.661  -1.270   1.536  1.00 46.88           N
ATOM   5114  CA  VAL B 765      19.108   0.037   1.155  1.00 45.29           C
ATOM   5115  CB  VAL B 765      20.099   0.827   0.260  1.00 47.55           C
ATOM   5116  CG1 VAL B 765      19.402   2.030  -0.403  1.00 46.26           C
ATOM   5117  CG2 VAL B 765      21.312   1.271   1.072  1.00 47.46           C
ATOM   5118  C   VAL B 765      17.751  -0.135   0.437  1.00 46.88           C
ATOM   5119  O   VAL B 765      16.784   0.565   0.721  1.00 44.30           O
ATOM   5120  N   ILE B 766      17.707  -1.070  -0.505  1.00 45.58           N
ATOM   5121  CA  ILE B 766      16.506  -1.339  -1.282  1.00 46.90           C
ATOM   5122  CB  ILE B 766      16.773  -2.356  -2.401  1.00 49.21           C
ATOM   5123  CG1 ILE B 766      17.633  -1.718  -3.497  1.00 48.57           C
ATOM   5124  CD1 ILE B 766      18.326  -2.737  -4.372  1.00 49.87           C
ATOM   5125  CG2 ILE B 766      15.472  -2.867  -2.982  1.00 50.09           C
ATOM   5126  C   ILE B 766      15.308  -1.748  -0.423  1.00 53.99           C
ATOM   5127  O   ILE B 766      14.168  -1.442  -0.770  1.00 55.02           O
ATOM   5128  N   ARG B 767      15.580  -2.450   0.678  1.00 50.80           N
ATOM   5129  CA  ARG B 767      14.554  -2.865   1.625  1.00 50.62           C
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ATOM   5130  CB  ARG B 767      15.018  -4.097   2.402  1.00 49.56           C
ATOM   5131  CG  ARG B 767      14.736  -5.371   1.643  1.00 54.55           C
ATOM   5132  CD  ARG B 767      15.780  -6.416   1.879  1.00 50.07           C
ATOM   5133  NE  ARG B 767      16.478  -6.227   3.140  1.00 57.79           N
ATOM   5134  CZ  ARG B 767      17.647  -6.797   3.435  1.00 67.51           C
ATOM   5135  NH1 ARG B 767      18.233  -6.583   4.612  1.00 53.11           N
ATOM   5136  NH2 ARG B 767      18.243  -7.582   2.548  1.00 54.40           N
ATOM   5137  C   ARG B 767      14.329  -1.686   2.562  1.00 57.10           C
ATOM   5138  O   ARG B 767      13.248  -1.093   2.600  1.00 58.69           O
ATOM   5139  N   GLY B 768      15.390  -1.269   3.238  1.00 53.80           N
ATOM   5140  CA  GLY B 768      15.303  -0.093   4.073  1.00 53.12           C
ATOM   5141  C   GLY B 768      15.805  -0.287   5.478  1.00 56.73           C
ATOM   5142  O   GLY B 768      15.453   0.483   6.382  1.00 58.71           O
ATOM   5143  N   GLU B 769      16.655  -1.291   5.654  1.00 52.19           N
ATOM   5144  CA  GLU B 769      17.183  -1.614   6.964  1.00 54.61           C
ATOM   5145  CB  GLU B 769      16.978  -3.099   7.226  1.00 55.59           C
ATOM   5146  CG  GLU B 769      18.121  -3.965   6.740  1.00 60.40           C
ATOM   5147  CD  GLU B 769      18.488  -5.052   7.747  1.00 71.05           C
ATOM   5148  OE1 GLU B 769      18.590  -4.726   8.965  1.00 66.57           O
ATOM   5149  OE2 GLU B 769      18.637  -6.233   7.320  1.00 64.25           O
ATOM   5150  C   GLU B 769      18.648  -1.222   7.159  1.00 64.06           C
ATOM   5151  O   GLU B 769      18.985  -0.042   7.195  1.00 54.16           O
TER    5152       GLU B 769
ATOM   5153  N   GLY C 458      51.559  58.431   5.702  1.00 58.55           N
ATOM   5154  CA  GLY C 458      50.535  59.148   6.450  1.00 58.21           C
ATOM   5155  C   GLY C 458      49.663  59.988   5.536  1.00 62.90           C
ATOM   5156  O   GLY C 458      48.542  60.365   5.895  1.00 63.08           O
ATOM   5157  N   LEU C 459      50.188  60.272   4.346  1.00 59.27           N
ATOM   5158  CA  LEU C 459      49.494  61.085   3.350  1.00 58.10           C
ATOM   5159  CB  LEU C 459      50.484  61.416   2.212  1.00 58.31           C
ATOM   5160  CG  LEU C 459      50.000  61.933   0.848  1.00 62.58           C
ATOM   5161  CD1 LEU C 459      49.829  63.443   0.892  1.00 62.61           C
ATOM   5162  CD2 LEU C 459      51.011  61.543  -0.234  1.00 64.44           C
ATOM   5163  C   LEU C 459      48.262  60.354   2.806  1.00 58.11           C
ATOM   5164  O   LEU C 459      47.185  60.928   2.681  1.00 57.09           O
ATOM   5165  N   MET C 460      48.448  59.081   2.480  1.00 55.10           N
ATOM   5166  CA  MET C 460      47.385  58.240   1.940  1.00 55.81           C
ATOM   5167  CB  MET C 460      47.975  57.136   1.049  1.00 58.51           C
ATOM   5168  CG  MET C 460      48.109  57.509  -0.419  1.00 63.56           C
ATOM   5169  SD  MET C 460      49.110  56.290  -1.309  1.00 69.36           S
ATOM   5170  CE  MET C 460      50.702  56.432  -0.372  1.00 67.09           C
ATOM   5171  C   MET C 460      46.593  57.587   3.070  1.00 60.22           C
ATOM   5172  O   MET C 460      47.062  56.646   3.712  1.00 60.67           O
ATOM   5173  N   GLN C 461      45.378  58.069   3.290  1.00 55.40           N
ATOM   5174  CA  GLN C 461      44.531  57.496   4.315  1.00 54.65           C
ATOM   5175  CB  GLN C 461      44.264  58.482   5.447  1.00 55.44           C
ATOM   5176  CG  GLN C 461      45.396  58.512   6.464  1.00 58.25           C
ATOM   5177  CD  GLN C 461      45.092  59.423   7.616  1.00 69.40           C
ATOM   5178  OE1 GLN C 461      44.029  59.317   8.249  1.00 64.03           O
ATOM   5179  NE2 GLN C 461      45.999  60.359   7.877  1.00 59.12           N
ATOM   5180  C   GLN C 461      43.236  56.963   3.732  1.00 57.65           C
ATOM   5181  O   GLN C 461      42.686  57.509   2.776  1.00 58.81           O
ATOM   5182  N   PHE C 462      42.786  55.846   4.283  1.00 51.76           N
ATOM   5183  CA  PHE C 462      41.606  55.179   3.776  1.00 50.20           C
ATOM   5184  CB  PHE C 462      41.710  53.687   4.059  1.00 51.72           C
ATOM   5185  CG  PHE C 462      42.714  52.973   3.191  1.00 53.37           C
ATOM   5186  CD1 PHE C 462      44.068  53.247   3.294  1.00 55.88           C
ATOM   5187  CE1 PHE C 462      44.982  52.581   2.496  1.00 57.18           C
ATOM   5188  CZ  PHE C 462      44.551  51.632   1.594  1.00 57.34           C
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ATOM   5189  CE2 PHE C 462      43.208  51.346   1.485  1.00 59.24           C
ATOM   5190  CD2 PHE C 462      42.298  52.010   2.279  1.00 55.78           C
ATOM   5191  C   PHE C 462      40.329  55.749   4.357  1.00 51.11           C
ATOM   5192  O   PHE C 462      40.272  56.117   5.533  1.00 51.08           O
ATOM   5193  N   THR C 463      39.303  55.827   3.521  1.00 46.90           N
ATOM   5194  CA  THR C 463      37.985  56.276   3.954  1.00 46.71           C
ATOM   5195  CB  THR C 463      37.571  57.631   3.309  1.00 55.96           C
ATOM   5196  OG1 THR C 463      38.581  58.614   3.568  1.00 62.50           O
ATOM   5197  CG2 THR C 463      36.248  58.139   3.904  1.00 52.76           C
ATOM   5198  C   THR C 463      37.046  55.166   3.515  1.00 50.60           C
ATOM   5199  O   THR C 463      37.316  54.469   2.552  1.00 54.92           O
ATOM   5200  N   LEU C 464      35.953  54.990   4.233  1.00 43.98           N
ATOM   5201  CA  LEU C 464      34.977  53.981   3.877  1.00 44.02           C
ATOM   5202  CB  LEU C 464      34.669  53.064   5.067  1.00 43.93           C
ATOM   5203  CG  LEU C 464      35.786  52.177   5.606  1.00 48.33           C
ATOM   5204  CD1 LEU C 464      36.329  51.247   4.521  1.00 48.41           C
ATOM   5205  CD2 LEU C 464      35.316  51.386   6.798  1.00 50.54           C
ATOM   5206  C   LEU C 464      33.701  54.702   3.486  1.00 49.58           C
ATOM   5207  O   LEU C 464      33.496  55.859   3.863  1.00 49.72           O
ATOM   5208  N   PRO C 465      32.806  54.013   2.754  1.00 45.74           N
ATOM   5209  CA  PRO C 465      31.512  54.618   2.426  1.00 44.39           C
ATOM   5210  CB  PRO C 465      30.779  53.485   1.700  1.00 45.59           C
ATOM   5211  CG  PRO C 465      31.877  52.751   0.994  1.00 49.97           C
ATOM   5212  CD  PRO C 465      33.093  52.833   1.915  1.00 46.79           C
ATOM   5213  C   PRO C 465      30.843  54.909   3.759  1.00 46.28           C
ATOM   5214  O   PRO C 465      31.098  54.217   4.742  1.00 45.57           O
ATOM   5215  N   VAL C 466      29.979  55.915   3.786  1.00 42.54           N
ATOM   5216  CA  VAL C 466      29.277  56.316   5.005  1.00 42.44           C
ATOM   5217  CB  VAL C 466      28.284  57.470   4.760  1.00 47.42           C
ATOM   5218  CG1 VAL C 466      27.577  57.830   6.036  1.00 47.95           C
ATOM   5219  CG2 VAL C 466      29.020  58.677   4.174  1.00 47.34           C
ATOM   5220  C   VAL C 466      28.683  55.224   5.876  1.00 43.09           C
ATOM   5221  O   VAL C 466      28.895  55.235   7.091  1.00 41.96           O
ATOM   5222  N   ARG C 467      27.917  54.307   5.282  1.00 38.34           N
ATOM   5223  CA  ARG C 467      27.310  53.229   6.066  1.00 37.30           C
ATOM   5224  CB  ARG C 467      26.351  52.358   5.238  1.00 34.80           C
ATOM   5225  CG  ARG C 467      25.729  51.234   6.077  1.00 43.48           C
ATOM   5226  CD  ARG C 467      24.961  50.176   5.284  1.00 42.48           C
ATOM   5227  NE  ARG C 467      25.829  49.286   4.506  1.00 40.82           N
ATOM   5228  CZ  ARG C 467      26.544  48.281   5.012  1.00 51.62           C
ATOM   5229  NH1 ARG C 467      26.546  48.029   6.309  1.00 45.78           N
ATOM   5230  NH2 ARG C 467      27.292  47.534   4.221  1.00 34.11           N
ATOM   5231  C   ARG C 467      28.360  52.356   6.763  1.00 41.65           C
ATOM   5232  O   ARG C 467      28.167  51.972   7.917  1.00 42.96           O
ATOM   5233  N   LEU C 468      29.446  52.034   6.051  1.00 35.73           N
ATOM   5234  CA  LEU C 468      30.515  51.206   6.594  1.00 35.21           C
ATOM   5235  CB  LEU C 468      31.453  50.738   5.478  1.00 35.38           C
ATOM   5236  CG  LEU C 468      30.951  49.596   4.569  1.00 40.70           C
ATOM   5237  CD1 LEU C 468      29.893  50.082   3.598  1.00 40.94           C
ATOM   5238  CD2 LEU C 468      32.113  48.958   3.820  1.00 42.05           C
ATOM   5239  C   LEU C 468      31.299  51.935   7.693  1.00 41.54           C
ATOM   5240  O   LEU C 468      31.576  51.360   8.733  1.00 41.03           O
ATOM   5241  N   CYS C 469      31.639  53.200   7.444  1.00 40.55           N
ATOM   5242  CA ACYS C 469      32.399  54.014   8.392  0.50 41.94           C
ATOM   5243  CA BCYS C 469      32.390  54.023   8.383  0.50 39.33           C
ATOM   5244  CB ACYS C 469      32.400  55.473   7.931  0.50 43.33           C
ATOM   5245  CB BCYS C 469      32.352  55.469   7.888  0.50 38.44           C
ATOM   5246  SG ACYS C 469      33.959  56.080   7.214  0.50 47.69           S
ATOM   5247  SG BCYS C 469      32.889  56.725   9.080  0.50 41.52           S
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ATOM   5248  C   CYS C 469      31.732  53.937   9.757  1.00 42.59           C
ATOM   5249  O   CYS C 469      32.393  53.852  10.798  1.00 41.08           O
ATOM   5250  N   ARG C 470      30.412  53.980   9.722  1.00 37.02           N
ATOM   5251  CA  ARG C 470      29.534  53.982  10.867  1.00 37.05           C
ATOM   5252  CB  ARG C 470      28.207  54.473  10.325  1.00 39.59           C
ATOM   5253  CG  ARG C 470      27.115  54.640  11.291  1.00 48.07           C
ATOM   5254  CD  ARG C 470      26.455  55.980  10.964  1.00 57.80           C
ATOM   5255  NE  ARG C 470      25.286  56.243  11.807  1.00 64.90           N
ATOM   5256  CZ  ARG C 470      25.327  56.371  13.135  1.00 72.00           C
ATOM   5257  NH1 ARG C 470      26.489  56.249  13.793  1.00 54.18           N
ATOM   5258  NH2 ARG C 470      24.198  56.611  13.805  1.00 58.89           N
ATOM   5259  C   ARG C 470      29.328  52.614  11.531  1.00 41.67           C
ATOM   5260  O   ARG C 470      29.537  52.442  12.751  1.00 39.95           O
ATOM   5261  N   GLU C 471      28.916  51.647  10.713  1.00 37.57           N
ATOM   5262  CA  GLU C 471      28.696  50.276  11.139  1.00 36.53           C
ATOM   5263  CB  GLU C 471      28.143  49.489   9.952  1.00 38.31           C
ATOM   5264  CG  GLU C 471      26.806  48.845  10.186  1.00 51.72           C
ATOM   5265  CD  GLU C 471      25.672  49.828   9.963  1.00 65.27           C
ATOM   5266  OE1 GLU C 471      24.696  49.487   9.244  1.00 67.06           O
ATOM   5267  OE2 GLU C 471      25.778  50.953  10.501  1.00 60.72           O
ATOM   5268  C   GLU C 471      29.962  49.574  11.661  1.00 37.73           C
ATOM   5269  O   GLU C 471      29.879  48.738  12.577  1.00 39.37           O
ATOM   5270  N   ILE C 472      31.119  49.890  11.075  1.00 32.23           N
ATOM   5271  CA  ILE C 472      32.393  49.233  11.460  1.00 31.84           C
ATOM   5272  CB  ILE C 472      33.569  49.644  10.537  1.00 34.24           C
ATOM   5273  CG1 ILE C 472      34.701  48.599  10.609  1.00 34.49           C
ATOM   5274  CD1 ILE C 472      35.672  48.684   9.448  1.00 34.48           C
ATOM   5275  CG2 ILE C 472      34.081  51.026  10.903  1.00 30.65           C
ATOM   5276  C   ILE C 472      32.790  49.379  12.921  1.00 33.33           C
ATOM   5277  O   ILE C 472      33.585  48.590  13.443  1.00 28.80           O
ATOM   5278  N   GLU C 473      32.261  50.409  13.574  1.00 32.22           N
ATOM   5279  CA  GLU C 473      32.587  50.643  14.983  1.00 33.18           C
ATOM   5280  CB  GLU C 473      32.374  52.122  15.358  1.00 34.39           C
ATOM   5281  CG  GLU C 473      33.301  53.111  14.627  1.00 38.80           C
ATOM   5282  CD  GLU C 473      34.764  52.762  14.783  1.00 45.05           C
ATOM   5283  OE1 GLU C 473      35.198  52.435  15.914  1.00 47.45           O
ATOM   5284  OE2 GLU C 473      35.478  52.791  13.768  1.00 36.13           O
ATOM   5285  C   GLU C 473      31.752  49.737  15.907  1.00 38.66           C
ATOM   5286  O   GLU C 473      32.059  49.605  17.091  1.00 39.88           O
ATOM   5287  N   LEU C 474      30.715  49.104  15.351  1.00 32.66           N
ATOM   5288  CA  LEU C 474      29.839  48.210  16.111  1.00 31.09           C
ATOM   5289  CB  LEU C 474      28.426  48.244  15.537  1.00 31.96           C
ATOM   5290  CG  LEU C 474      27.739  49.630  15.513  1.00 38.99           C
ATOM   5291  CD1 LEU C 474      26.449  49.594  14.707  1.00 40.00           C
ATOM   5292  CD2 LEU C 474      27.472  50.128  16.925  1.00 39.16           C
ATOM   5293  C   LEU C 474      30.350  46.771  16.099  1.00 30.67           C
ATOM   5294  O   LEU C 474      30.795  46.254  15.070  1.00 29.72           O
ATOM   5295  N   PHE C 475      30.282  46.119  17.251  1.00 27.50           N
ATOM   5296  CA  PHE C 475      30.765  44.749  17.377  1.00 28.46           C
ATOM   5297  CB  PHE C 475      30.603  44.235  18.815  1.00 29.89           C
ATOM   5298  CG  PHE C 475      31.627  44.786  19.790  1.00 31.33           C
ATOM   5299  CD1 PHE C 475      32.863  44.145  19.979  1.00 33.84           C
ATOM   5300  CE1 PHE C 475      33.803  44.638  20.877  1.00 35.66           C
ATOM   5301  CZ  PHE C 475      33.505  45.786  21.650  1.00 35.44           C
ATOM   5302  CE2 PHE C 475      32.258  46.423  21.495  1.00 37.38           C
ATOM   5303  CD2 PHE C 475      31.343  45.931  20.542  1.00 34.37           C
ATOM   5304  C   PHE C 475      30.103  43.788  16.380  1.00 34.40           C
ATOM   5305  O   PHE C 475      30.747  42.861  15.866  1.00 33.10           O
ATOM   5306  N   HIS C 476      28.829  44.029  16.087  1.00 31.76           N
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ATOM   5307  CA  HIS C 476      28.080  43.165  15.169  1.00 31.56           C
ATOM   5308  CB  HIS C 476      26.587  43.109  15.563  1.00 32.48           C
ATOM   5309  CG  HIS C 476      25.868  44.407  15.390  1.00 36.46           C
ATOM   5310  ND1 HIS C 476      25.694  45.303  16.423  1.00 39.72           N
ATOM   5311  CE1 HIS C 476      25.056  46.368  15.976  1.00 39.05           C
ATOM   5312  NE2 HIS C 476      24.827  46.202  14.686  1.00 38.69           N
ATOM   5313  CD2 HIS C 476      25.318  44.980  14.298  1.00 38.15           C
ATOM   5314  C   HIS C 476      28.243  43.399  13.652  1.00 32.91           C
ATOM   5315  O   HIS C 476      27.557  42.768  12.827  1.00 31.79           O
ATOM   5316  N   PHE C 477      29.132  44.306  13.276  1.00 29.14           N
ATOM   5317  CA  PHE C 477      29.414  44.556  11.843  1.00 28.90           C
ATOM   5318  CB  PHE C 477      30.690  45.398  11.738  1.00 30.11           C
ATOM   5319  CG  PHE C 477      31.027  45.841  10.338  1.00 31.56           C
ATOM   5320  CD1 PHE C 477      30.108  46.567   9.579  1.00 34.68           C
ATOM   5321  CE1 PHE C 477      30.433  47.010   8.306  1.00 36.08           C
ATOM   5322  CZ  PHE C 477      31.705  46.761   7.781  1.00 35.79           C
ATOM   5323  CE2 PHE C 477      32.633  46.049   8.541  1.00 36.75           C
ATOM   5324  CD2 PHE C 477      32.290  45.593   9.803  1.00 33.31           C
ATOM   5325  C   PHE C 477      29.658  43.229  11.062  1.00 33.45           C
ATOM   5326  O   PHE C 477      30.305  42.293  11.572  1.00 32.10           O
ATOM   5327  N   ASP C 478      29.175  43.186   9.819  1.00 29.88           N
ATOM   5328  CA  ASP C 478      29.393  42.079   8.886  1.00 28.85           C
ATOM   5329  CB  ASP C 478      28.045  41.533   8.370  1.00 30.26           C
ATOM   5330  CG  ASP C 478      28.220  40.417   7.296  1.00 40.59           C
ATOM   5331  OD1 ASP C 478      28.435  39.222   7.665  1.00 37.61           O
ATOM   5332  OD2 ASP C 478      28.154  40.749   6.076  1.00 39.36           O
ATOM   5333  C   ASP C 478      30.194  42.713   7.738  1.00 30.75           C
ATOM   5334  O   ASP C 478      29.821  43.777   7.254  1.00 30.81           O
ATOM   5335  N   ILE C 479      31.319  42.109   7.345  1.00 27.34           N
ATOM   5336  CA  ILE C 479      32.186  42.721   6.317  1.00 26.93           C
ATOM   5337  CB  ILE C 479      33.650  42.199   6.367  1.00 29.36           C
ATOM   5338  CG1 ILE C 479      33.708  40.695   6.071  1.00 28.72           C
ATOM   5339  CD1 ILE C 479      35.157  40.137   6.025  1.00 26.05           C
ATOM   5340  CG2 ILE C 479      34.323  42.554   7.758  1.00 29.16           C
ATOM   5341  C   ILE C 479      31.638  42.787   4.876  1.00 29.11           C
ATOM   5342  O   ILE C 479      32.200  43.459   4.022  1.00 26.53           O
ATOM   5343  N   GLY C 480      30.537  42.100   4.608  1.00 27.82           N
ATOM   5344  CA  GLY C 480      29.942  42.104   3.288  1.00 28.61           C
ATOM   5345  C   GLY C 480      30.524  41.055   2.350  1.00 33.07           C
ATOM   5346  O   GLY C 480      31.554  40.441   2.629  1.00 31.32           O
ATOM   5347  N   PRO C 481      29.876  40.864   1.184  1.00 29.90           N
ATOM   5348  CA  PRO C 481      30.270  39.844   0.201  1.00 29.46           C
ATOM   5349  CB  PRO C 481      28.946  39.512  -0.487  1.00 30.61           C
ATOM   5350  CG  PRO C 481      28.213  40.862  -0.495  1.00 34.88           C
ATOM   5351  CD  PRO C 481      28.706  41.644   0.734  1.00 30.96           C
ATOM   5352  C   PRO C 481      31.321  40.278  -0.834  1.00 33.21           C
ATOM   5353  O   PRO C 481      31.771  39.458  -1.634  1.00 33.89           O
ATOM   5354  N   PHE C 482      31.735  41.543  -0.806  1.00 27.63           N
ATOM   5355  CA  PHE C 482      32.729  42.020  -1.757  1.00 26.56           C
ATOM   5356  CB  PHE C 482      32.472  43.500  -2.061  1.00 27.82           C
ATOM   5357  CG  PHE C 482      31.050  43.791  -2.498  1.00 27.64           C
ATOM   5358  CD1 PHE C 482      30.104  44.304  -1.591  1.00 28.94           C
ATOM   5359  CE1 PHE C 482      28.797  44.592  -2.006  1.00 29.64           C
ATOM   5360  CZ  PHE C 482      28.420  44.337  -3.332  1.00 28.87           C
ATOM   5361  CE2 PHE C 482      29.364  43.823  -4.240  1.00 30.22           C
ATOM   5362  CD2 PHE C 482      30.657  43.546  -3.812  1.00 27.85           C
ATOM   5363  C   PHE C 482      34.141  41.799  -1.268  1.00 30.79           C
ATOM   5364  O   PHE C 482      34.652  42.585  -0.498  1.00 31.10           O
ATOM   5365  N   GLU C 483      34.761  40.707  -1.709  1.00 30.49           N
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ATOM   5366  CA  GLU C 483      36.124  40.341  -1.270  1.00 32.49           C
ATOM   5367  CB  GLU C 483      36.620  39.047  -1.920  1.00 34.14           C
ATOM   5368  CG  GLU C 483      35.542  37.996  -2.165  1.00 52.11           C
ATOM   5369  CD  GLU C 483      36.128  36.564  -2.312  1.00 63.85           C
ATOM   5370  OE1 GLU C 483      37.305  36.427  -2.760  1.00 59.18           O
ATOM   5371  OE2 GLU C 483      35.402  35.590  -1.977  1.00 56.41           O
ATOM   5372  C   GLU C 483      37.195  41.412  -1.474  1.00 37.27           C
ATOM   5373  O   GLU C 483      38.106  41.577  -0.648  1.00 37.67           O
ATOM   5374  N   ASN C 484      37.105  42.112  -2.596  1.00 32.49           N
ATOM   5375  CA AASN C 484      38.098  43.120  -2.933  0.50 31.92           C
ATOM   5376  CA BASN C 484      38.084  43.129  -2.948  0.50 31.97           C
ATOM   5377  CB AASN C 484      38.042  43.456  -4.422  0.50 30.98           C
ATOM   5378  CB BASN C 484      37.993  43.504  -4.434  0.50 31.15           C
ATOM   5379  CG AASN C 484      38.282  42.238  -5.294  0.50 41.16           C
ATOM   5380  CG BASN C 484      36.674  44.144  -4.808  0.50 44.85           C
ATOM   5381  OD1AASN C 484      37.570  42.014  -6.270  0.50 40.75           O
ATOM   5382  OD1BASN C 484      35.811  44.365  -3.960  0.50 35.74           O
ATOM   5383  ND2AASN C 484      39.284  41.433  -4.933  0.50 29.95           N
ATOM   5384  ND2BASN C 484      36.500  44.424  -6.107  0.50 37.63           N
ATOM   5385  C   ASN C 484      38.063  44.361  -2.062  1.00 35.91           C
ATOM   5386  O   ASN C 484      38.964  45.194  -2.124  1.00 36.39           O
ATOM   5387  N   MET C 485      37.056  44.457  -1.203  1.00 33.25           N
ATOM   5388  CA  MET C 485      36.987  45.579  -0.273  1.00 33.35           C
ATOM   5389  CB  MET C 485      35.527  45.959  -0.044  1.00 36.71           C
ATOM   5390  CG  MET C 485      34.935  46.727  -1.215  1.00 42.63           C
ATOM   5391  SD  MET C 485      33.358  47.396  -0.750  1.00 49.22           S
ATOM   5392  CE  MET C 485      33.925  48.786   0.361  1.00 47.04           C
ATOM   5393  C   MET C 485      37.623  45.232   1.067  1.00 32.47           C
ATOM   5394  O   MET C 485      37.847  46.106   1.894  1.00 32.57           O
ATOM   5395  N   TRP C 486      37.827  43.939   1.313  1.00 27.30           N
ATOM   5396  CA  TRP C 486      38.339  43.474   2.617  1.00 27.85           C
ATOM   5397  CB  TRP C 486      38.223  41.953   2.789  1.00 25.85           C
ATOM   5398  CG  TRP C 486      36.828  41.426   2.645  1.00 29.18           C
ATOM   5399  CD1 TRP C 486      35.654  42.131   2.752  1.00 28.56           C
ATOM   5400  NE1 TRP C 486      34.584  41.288   2.556  1.00 28.54           N
ATOM   5401  CE2 TRP C 486      35.051  40.027   2.284  1.00 29.59           C
ATOM   5402  CD2 TRP C 486      36.460  40.078   2.334  1.00 25.51           C
ATOM   5403  CE3 TRP C 486      37.186  38.905   2.121  1.00 28.09           C
ATOM   5404  CZ3 TRP C 486      36.491  37.724   1.870  1.00 28.23           C
ATOM   5405  CH2 TRP C 486      35.088  37.707   1.824  1.00 29.00           C
ATOM   5406  CZ2 TRP C 486      34.354  38.854   2.004  1.00 28.33           C
ATOM   5407  C   TRP C 486      39.733  43.941   2.993  1.00 32.09           C
ATOM   5408  O   TRP C 486      39.989  44.247   4.149  1.00 31.40           O
ATOM   5409  N   PRO C 487      40.643  44.030   2.010  1.00 29.29           N
ATOM   5410  CA  PRO C 487      41.998  44.505   2.311  1.00 28.86           C
ATOM   5411  CB  PRO C 487      42.682  44.467   0.924  1.00 29.65           C
ATOM   5412  CG  PRO C 487      42.013  43.351   0.238  1.00 31.73           C
ATOM   5413  CD  PRO C 487      40.561  43.456   0.653  1.00 28.66           C
ATOM   5414  C   PRO C 487      41.950  45.953   2.830  1.00 33.20           C
ATOM   5415  O   PRO C 487      42.606  46.294   3.819  1.00 34.41           O
ATOM   5416  N   GLY C 488      41.188  46.801   2.141  1.00 29.60           N
ATOM   5417  CA  GLY C 488      41.049  48.208   2.486  1.00 29.41           C
ATOM   5418  C   GLY C 488      40.365  48.386   3.827  1.00 32.59           C
ATOM   5419  O   GLY C 488      40.704  49.292   4.606  1.00 32.90           O
ATOM   5420  N   ILE C 489      39.415  47.496   4.115  1.00 30.07           N
ATOM   5421  CA  ILE C 489      38.709  47.514   5.418  1.00 29.52           C
ATOM   5422  CB  ILE C 489      37.516  46.527   5.425  1.00 32.10           C
ATOM   5423  CG1 ILE C 489      36.379  47.116   4.568  1.00 32.58           C
ATOM   5424  CD1 ILE C 489      35.287  46.097   4.217  1.00 36.68           C
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ATOM	5425	CG2	ILE	C	489	37.060	46.206	6.833	1.00	30.65	C
ATOM	5426	C	ILE	C	489	39.715	47.229	6.537	1.00	28.15	C
ATOM	5427	O	ILE	C	489	39.709	47.880	7.594	1.00	25.40	O
ATOM	5428	N	PHE	C	490	40.595	46.267	6.273	1.00	26.11	N
ATOM	5429	CA	PHE	C	490	41.657	45.896	7.218	1.00	26.42	C
ATOM	5430	CB	PHE	C	490	42.378	44.638	6.758	1.00	27.44	C
ATOM	5431	CG	PHE	C	490	43.381	44.122	7.761	1.00	28.91	C
ATOM	5432	CD1	PHE	C	490	42.958	43.502	8.937	1.00	29.42	C
ATOM	5433	CE1	PHE	C	490	43.863	43.012	9.837	1.00	29.38	C
ATOM	5434	CZ	PHE	C	490	45.222	43.185	9.624	1.00	30.22	C
ATOM	5435	CE2	PHE	C	490	45.669	43.830	8.481	1.00	32.69	C
ATOM	5436	CD2	PHE	C	490	44.750	44.278	7.546	1.00	30.67	C
ATOM	5437	C	PHE	C	490	42.657	47.065	7.410	1.00	30.25	C
ATOM	5438	O	PHE	C	490	42.988	47.425	8.524	1.00	28.72	O
ATOM	5439	N	VAL	C	491	43.102	47.679	6.315	1.00	29.76	N
ATOM	5440	CA	VAL	C	491	44.019	48.818	6.411	1.00	29.56	C
ATOM	5441	CB	VAL	C	491	44.506	49.314	5.030	1.00	33.52	C
ATOM	5442	CG1	VAL	C	491	45.486	50.500	5.216	1.00	34.40	C
ATOM	5443	CG2	VAL	C	491	45.170	48.185	4.242	1.00	32.28	C
ATOM	5444	C	VAL	C	491	43.380	49.963	7.211	1.00	30.84	C
ATOM	5445	O	VAL	C	491	44.024	50.579	8.052	1.00	31.15	O
ATOM	5446	N	TYR	C	492	42.106	50.233	6.955	1.00	27.07	N
ATOM	5447	CA	TYR	C	492	41.375	51.289	7.666	1.00	27.89	C
ATOM	5448	CB	TYR	C	492	39.933	51.368	7.139	1.00	29.22	C
ATOM	5449	CG	TYR	C	492	39.041	52.343	7.868	1.00	31.63	C
ATOM	5450	CD1	TYR	C	492	38.971	53.686	7.483	1.00	33.68	C
ATOM	5451	CE1	TYR	C	492	38.092	54.569	8.107	1.00	32.99	C
ATOM	5452	CZ	TYR	C	492	37.289	54.128	9.150	1.00	36.08	C
ATOM	5453	OH	TYR	C	492	36.466	54.993	9.826	1.00	27.96	O
ATOM	5454	CE2	TYR	C	492	37.341	52.815	9.558	1.00	32.81	C
ATOM	5455	CD2	TYR	C	492	38.226	51.923	8.914	1.00	32.42	C
ATOM	5456	C	TYR	C	492	41.381	51.030	9.184	1.00	33.96	C
ATOM	5457	O	TYR	C	492	41.601	51.942	9.992	1.00	34.13	O
ATOM	5458	N	MET	C	493	41.171	49.772	9.571	1.00	30.51	N
ATOM	5459	CA	MET	C	493	41.165	49.399	10.986	1.00	27.77	C
ATOM	5460	CB	MET	C	493	40.640	47.973	11.188	1.00	28.77	C
ATOM	5461	CG	MET	C	493	39.134	47.849	10.872	1.00	31.33	C
ATOM	5462	SD	MET	C	493	38.430	46.237	11.201	1.00	33.91	S
ATOM	5463	CE	MET	C	493	39.448	45.158	10.222	1.00	30.07	C
ATOM	5464	C	MET	C	493	42.540	49.558	11.598	1.00	31.37	C
ATOM	5465	O	MET	C	493	42.659	50.063	12.710	1.00	27.96	O
ATOM	5466	N	VAL	C	494	43.579	49.130	10.881	1.00	32.03	N
ATOM	5467	CA	VAL	C	494	44.959	49.279	11.376	1.00	32.22	C
ATOM	5468	CB	VAL	C	494	45.990	48.613	10.449	1.00	35.44	C
ATOM	5469	CG1	VAL	C	494	47.398	48.980	10.908	1.00	36.44	C
ATOM	5470	CG2	VAL	C	494	45.808	47.112	10.418	1.00	34.20	C
ATOM	5471	C	VAL	C	494	45.325	50.771	11.567	1.00	36.99	C
ATOM	5472	O	VAL	C	494	45.846	51.159	12.611	1.00	35.28	O
ATOM	5473	N	HIS	C	495	45.075	51.594	10.549	1.00	35.96	N
ATOM	5474	CA	HIS	C	495	45.375	53.027	10.638	1.00	37.80	C
ATOM	5475	CB	HIS	C	495	44.979	53.758	9.352	1.00	39.40	C
ATOM	5476	CG	HIS	C	495	45.958	53.574	8.231	1.00	44.47	C
ATOM	5477	ND1	HIS	C	495	47.222	53.054	8.422	1.00	47.46	N
ATOM	5478	CE1	HIS	C	495	47.856	52.996	7.265	1.00	47.66	C
ATOM	5479	NE2	HIS	C	495	47.049	53.461	6.329	1.00	48.17	N
ATOM	5480	CD2	HIS	C	495	45.858	53.834	6.907	1.00	47.64	C
ATOM	5481	C	HIS	C	495	44.669	53.664	11.849	1.00	43.42	C
ATOM	5482	O	HIS	C	495	45.249	54.485	12.573	1.00	42.92	O
ATOM	5483	N	ARG	C	496	43.425	53.257	12.084	1.00	40.32	N

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ATOM   5484  CA  ARG C 496      42.647  53.804  13.191  1.00 40.24           C
ATOM   5485  CB  ARG C 496      41.169  53.538  12.941  1.00 37.90           C
ATOM   5486  CG  ARG C 496      40.484  54.553  12.115  1.00 42.88           C
ATOM   5487  CD  ARG C 496      38.989  54.385  12.254  1.00 46.96           C
ATOM   5488  NE  ARG C 496      38.333  55.670  12.456  1.00 52.54           N
ATOM   5489  CZ  ARG C 496      37.725  56.028  13.571  1.00 57.96           C
ATOM   5490  NH1 ARG C 496      37.681  55.192  14.588  1.00 55.68           N
ATOM   5491  NH2 ARG C 496      37.164  57.221  13.659  1.00 54.49           N
ATOM   5492  C   ARG C 496      42.997  53.198  14.544  1.00 45.05           C
ATOM   5493  O   ARG C 496      42.700  53.778  15.582  1.00 45.20           O
ATOM   5494  N   SER C 497      43.546  51.990  14.513  1.00 43.01           N
ATOM   5495  CA  SER C 497      43.836  51.213  15.709  1.00 43.03           C
ATOM   5496  CB  SER C 497      43.532  49.738  15.455  1.00 41.13           C
ATOM   5497  OG  SER C 497      42.803  49.231  16.537  1.00 52.35           O
ATOM   5498  C   SER C 497      45.231  51.384  16.308  1.00 52.32           C
ATOM   5499  O   SER C 497      45.419  51.214  17.522  1.00 53.70           O
ATOM   5500  N   CYS C 498      46.209  51.691  15.461  1.00 51.72           N
ATOM   5501  CA  CYS C 498      47.562  51.963  15.939  1.00 53.77           C
ATOM   5502  CB  CYS C 498      48.477  50.743  15.853  1.00 55.69           C
ATOM   5503  SG  CYS C 498      47.986  49.610  14.625  1.00 60.25           S
ATOM   5504  C   CYS C 498      48.198  53.159  15.277  1.00 56.76           C
ATOM   5505  O   CYS C 498      49.090  53.772  15.862  1.00 59.02           O
ATOM   5506  N   GLY C 499      47.739  53.506  14.075  1.00 50.80           N
ATOM   5507  CA  GLY C 499      48.270  54.675  13.392  1.00 49.69           C
ATOM   5508  C   GLY C 499      48.702  54.499  11.952  1.00 53.17           C
ATOM   5509  O   GLY C 499      49.052  53.397  11.517  1.00 51.82           O
ATOM   5510  N   THR C 500      48.699  55.610  11.214  1.00 50.94           N
ATOM   5511  CA  THR C 500      49.099  55.619   9.808  1.00 50.19           C
ATOM   5512  CB  THR C 500      48.761  56.972   9.145  1.00 57.20           C
ATOM   5513  OG1 THR C 500      49.396  58.040   9.868  1.00 56.92           O
ATOM   5514  CG2 THR C 500      47.258  57.197   9.103  1.00 51.68           C
ATOM   5515  C   THR C 500      50.580  55.333   9.637  1.00 53.02           C
ATOM   5516  O   THR C 500      51.021  54.916   8.573  1.00 53.94           O
ATOM   5517  N   SER C 501      51.351  55.608  10.677  1.00 51.17           N
ATOM   5518  CA  SER C 501      52.805  55.481  10.610  1.00 52.89           C
ATOM   5519  CB  SER C 501      53.443  56.502  11.548  1.00 56.73           C
ATOM   5520  OG  SER C 501      53.202  56.133  12.908  1.00 67.27           O
ATOM   5521  C   SER C 501      53.395  54.116  10.933  1.00 59.95           C
ATOM   5522  O   SER C 501      54.495  53.773  10.472  1.00 62.63           O
ATOM   5523  N   CYS C 502      52.699  53.370  11.781  1.00 55.98           N
ATOM   5524  CA  CYS C 502      53.237  52.117  12.282  1.00 57.30           C
ATOM   5525  CB  CYS C 502      52.598  51.712  13.603  1.00 60.12           C
ATOM   5526  SG  CYS C 502      51.172  50.650  13.479  1.00 65.32           S
ATOM   5527  C   CYS C 502      53.513  50.942  11.334  1.00 56.11           C
ATOM   5528  O   CYS C 502      54.159  49.963  11.735  1.00 56.67           O
ATOM   5529  N   PHE C 503      53.117  51.086  10.068  1.00 48.98           N
ATOM   5530  CA  PHE C 503      53.463  50.123   9.023  1.00 47.95           C
ATOM   5531  CB  PHE C 503      52.345  49.088   8.747  1.00 49.11           C
ATOM   5532  CG  PHE C 503      52.168  48.056   9.826  1.00 49.48           C
ATOM   5533  CD1 PHE C 503      50.965  47.962  10.502  1.00 52.67           C
ATOM   5534  CE1 PHE C 503      50.792  47.023  11.511  1.00 53.23           C
ATOM   5535  CZ  PHE C 503      51.825  46.174  11.852  1.00 49.47           C
ATOM   5536  CE2 PHE C 503      53.015  46.242  11.169  1.00 50.91           C
ATOM   5537  CD2 PHE C 503      53.186  47.176  10.156  1.00 48.75           C
ATOM   5538  C   PHE C 503      53.698  50.904   7.744  1.00 51.08           C
ATOM   5539  O   PHE C 503      53.052  51.912   7.513  1.00 52.11           O
ATOM   5540  N   GLU C 504      54.608  50.420   6.906  1.00 47.49           N
ATOM   5541  CA  GLU C 504      54.840  51.014   5.594  1.00 46.75           C
ATOM   5542  CB  GLU C 504      56.244  50.652   5.071  1.00 47.93           C
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ATOM   5543  CG  GLU C 504      56.818  51.637   4.052  1.00 55.61           C
ATOM   5544  CD  GLU C 504      56.598  51.199   2.599  1.00 70.42           C
ATOM   5545  OE1 GLU C 504      57.301  50.247   2.146  1.00 65.80           O
ATOM   5546  OE2 GLU C 504      55.746  51.832   1.901  1.00 62.81           O
ATOM   5547  C   GLU C 504      53.754  50.391   4.696  1.00 48.38           C
ATOM   5548  O   GLU C 504      53.653  49.162   4.593  1.00 48.24           O
ATOM   5549  N   LEU C 505      52.910  51.237   4.108  1.00 44.50           N
ATOM   5550  CA  LEU C 505      51.803  50.785   3.260  1.00 44.52           C
ATOM   5551  CB  LEU C 505      50.991  51.964   2.729  1.00 44.60           C
ATOM   5552  CG  LEU C 505      49.606  51.651   2.143  1.00 49.89           C
ATOM   5553  CD1 LEU C 505      48.673  51.100   3.204  1.00 49.11           C
ATOM   5554  CD2 LEU C 505      48.998  52.879   1.496  1.00 53.86           C
ATOM   5555  C   LEU C 505      52.105  49.762   2.172  1.00 50.48           C
ATOM   5556  O   LEU C 505      51.400  48.763   2.068  1.00 52.42           O
ATOM   5557  N   GLU C 506      53.130  50.012   1.359  1.00 46.84           N
ATOM   5558  CA  GLU C 506      53.511  49.077   0.306  1.00 45.95           C
ATOM   5559  CB  GLU C 506      54.852  49.495  -0.335  1.00 47.06           C
ATOM   5560  CG  GLU C 506      54.753  50.423  -1.536  1.00 56.65           C
ATOM   5561  CD  GLU C 506      56.114  50.681  -2.214  1.00 64.94           C
ATOM   5562  OE1 GLU C 506      56.969  49.755  -2.208  1.00 64.43           O
ATOM   5563  OE2 GLU C 506      56.319  51.802  -2.765  1.00 59.84           O
ATOM   5564  C   GLU C 506      53.707  47.707   0.953  1.00 47.91           C
ATOM   5565  O   GLU C 506      53.229  46.698   0.446  1.00 47.72           O
ATOM   5566  N   LYS C 507      54.481  47.680   2.037  1.00 43.68           N
ATOM   5567  CA  LYS C 507      54.811  46.436   2.740  1.00 43.00           C
ATOM   5568  CB  LYS C 507      55.820  46.693   3.856  1.00 45.16           C
ATOM   5569  CG  LYS C 507      57.266  46.803   3.377  1.00 50.07           C
ATOM   5570  CD  LYS C 507      58.239  46.557   4.524  1.00 50.14           C
ATOM   5571  CE  LYS C 507      59.659  46.384   4.004  1.00 55.58           C
ATOM   5572  NZ  LYS C 507      60.663  46.482   5.104  1.00 63.43           N
ATOM   5573  C   LYS C 507      53.565  45.792   3.330  1.00 45.88           C
ATOM   5574  O   LYS C 507      53.392  44.577   3.232  1.00 45.83           O
ATOM   5575  N   LEU C 508      52.709  46.608   3.956  1.00 40.17           N
ATOM   5576  CA  LEU C 508      51.473  46.108   4.542  1.00 38.18           C
ATOM   5577  CB  LEU C 508      50.698  47.238   5.216  1.00 37.07           C
ATOM   5578  CG  LEU C 508      49.416  46.850   5.966  1.00 40.97           C
ATOM   5579  CD1 LEU C 508      49.657  45.762   6.999  1.00 40.67           C
ATOM   5580  CD2 LEU C 508      48.769  48.070   6.628  1.00 42.43           C
ATOM   5581  C   LEU C 508      50.618  45.439   3.457  1.00 42.63           C
ATOM   5582  O   LEU C 508      50.139  44.316   3.620  1.00 40.87           O
ATOM   5583  N   CYS C 509      50.452  46.130   2.336  1.00 41.84           N
ATOM   5584  CA  CYS C 509      49.644  45.615   1.245  1.00 44.82           C
ATOM   5585  CB  CYS C 509      49.361  46.685   0.197  1.00 49.39           C
ATOM   5586  SG  CYS C 509      48.309  48.091   0.897  1.00 55.52           S
ATOM   5587  C   CYS C 509      50.110  44.309   0.638  1.00 41.65           C
ATOM   5588  O   CYS C 509      49.282  43.424   0.343  1.00 41.61           O
ATOM   5589  N   ARG C 510      51.419  44.151   0.468  1.00 34.81           N
ATOM   5590  CA  ARG C 510      51.874  42.893  -0.075  1.00 35.29           C
ATOM   5591  CB  ARG C 510      53.177  42.990  -0.900  1.00 41.10           C
ATOM   5592  CG  ARG C 510      54.419  43.277  -0.112  1.00 46.86           C
ATOM   5593  CD  ARG C 510      55.653  43.000  -0.983  1.00 54.49           C
ATOM   5594  NE  ARG C 510      55.745  43.905  -2.128  1.00 52.86           N
ATOM   5595  CZ  ARG C 510      56.319  45.109  -2.089  1.00 65.77           C
ATOM   5596  NH1 ARG C 510      56.355  45.871  -3.190  1.00 58.48           N
ATOM   5597  NH2 ARG C 510      56.862  45.556  -0.950  1.00 49.45           N
ATOM   5598  C   ARG C 510      51.847  41.759   0.937  1.00 35.31           C
ATOM   5599  O   ARG C 510      51.683  40.590   0.565  1.00 34.17           O
ATOM   5600  N   PHE C 511      51.924  42.120   2.216  1.00 30.83           N
ATOM   5601  CA  PHE C 511      51.799  41.138   3.304  1.00 30.16           C
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ATOM   5602  CB  PHE C 511      52.090  41.784   4.656  1.00 31.06           C
ATOM   5603  CG  PHE C 511      51.922  40.845   5.824  1.00 32.28           C
ATOM   5604  CD1 PHE C 511      52.934  39.938   6.160  1.00 34.60           C
ATOM   5605  CE1 PHE C 511      52.784  39.051   7.212  1.00 35.55           C
ATOM   5606  CZ  PHE C 511      51.620  39.065   7.971  1.00 34.79           C
ATOM   5607  CE2 PHE C 511      50.602  39.965   7.668  1.00 35.68           C
ATOM   5608  CD2 PHE C 511      50.762  40.863   6.596  1.00 33.12           C
ATOM   5609  C   PHE C 511      50.365  40.587   3.296  1.00 32.48           C
ATOM   5610  O   PHE C 511      50.157  39.376   3.292  1.00 31.87           O
ATOM   5611  N   ILE C 512      49.393  41.499   3.207  1.00 31.21           N
ATOM   5612  CA  ILE C 512      47.950  41.173   3.178  1.00 30.98           C
ATOM   5613  CB  ILE C 512      47.090  42.451   3.150  1.00 33.93           C
ATOM   5614  CG1 ILE C 512      47.156  43.183   4.479  1.00 33.51           C
ATOM   5615  CD1 ILE C 512      46.597  44.616   4.378  1.00 36.59           C
ATOM   5616  CG2 ILE C 512      45.644  42.147   2.762  1.00 37.15           C
ATOM   5617  C   ILE C 512      47.597  40.266   2.001  1.00 33.60           C
ATOM   5618  O   ILE C 512      46.857  39.288   2.148  1.00 30.70           O
ATOM   5619  N   MET C 513      48.132  40.593   0.828  1.00 32.67           N
ATOM   5620  CA  MET C 513      47.855  39.809  -0.362  1.00 32.50           C
ATOM   5621  CB  MET C 513      48.229  40.575  -1.637  1.00 36.17           C
ATOM   5622  CG  MET C 513      47.433  41.858  -1.835  1.00 42.59           C
ATOM   5623  SD  MET C 513      45.609  41.703  -1.549  1.00 50.05           S
ATOM   5624  CE  MET C 513      45.101  41.165  -3.250  1.00 48.97           C
ATOM   5625  C   MET C 513      48.483  38.418  -0.301  1.00 31.34           C
ATOM   5626  O   MET C 513      47.905  37.441  -0.781  1.00 28.88           O
ATOM   5627  N   SER C 514      49.636  38.317   0.348  1.00 28.82           N
ATOM   5628  CA  SER C 514      50.289  37.019   0.503  1.00 28.82           C
ATOM   5629  CB  SER C 514      51.751  37.183   0.909  1.00 32.88           C
ATOM   5630  OG  SER C 514      52.461  37.751  -0.170  1.00 45.28           O
ATOM   5631  C   SER C 514      49.522  36.181   1.529  1.00 29.60           C
ATOM   5632  O   SER C 514      49.397  34.982   1.386  1.00 29.00           O
ATOM   5633  N   VAL C 515      48.981  36.835   2.549  1.00 27.76           N
ATOM   5634  CA  VAL C 515      48.153  36.134   3.545  1.00 27.26           C
ATOM   5635  CB  VAL C 515      47.854  37.023   4.800  1.00 29.78           C
ATOM   5636  CG1 VAL C 515      46.811  36.349   5.675  1.00 28.52           C
ATOM   5637  CG2 VAL C 515      49.155  37.268   5.579  1.00 29.76           C
ATOM   5638  C   VAL C 515      46.868  35.638   2.880  1.00 26.90           C
ATOM   5639  O   VAL C 515      46.515  34.487   3.027  1.00 27.22           O
ATOM   5640  N   LYS C 516      46.218  36.500   2.098  1.00 22.65           N
ATOM   5641  CA  LYS C 516      45.022  36.110   1.342  1.00 23.21           C
ATOM   5642  CB  LYS C 516      44.555  37.266   0.461  1.00 26.05           C
ATOM   5643  CG  LYS C 516      43.520  36.886  -0.595  1.00 35.88           C
ATOM   5644  CD  LYS C 516      42.969  38.116  -1.276  1.00 37.65           C
ATOM   5645  CE  LYS C 516      42.052  37.764  -2.460  1.00 39.69           C
ATOM   5646  NZ  LYS C 516      40.801  37.082  -2.012  1.00 50.33           N
ATOM   5647  C   LYS C 516      45.280  34.872   0.492  1.00 30.71           C
ATOM   5648  O   LYS C 516      44.529  33.887   0.546  1.00 32.52           O
ATOM   5649  N   LYS C 517      46.362  34.919  -0.277  1.00 30.28           N
ATOM   5650  CA  LYS C 517      46.770  33.818  -1.165  1.00 30.67           C
ATOM   5651  CB  LYS C 517      48.101  34.189  -1.831  1.00 34.73           C
ATOM   5652  CG  LYS C 517      48.873  33.024  -2.503  1.00 44.82           C
ATOM   5653  CD  LYS C 517      48.368  32.765  -3.935  1.00 53.35           C
ATOM   5654  CE  LYS C 517      47.550  31.440  -4.018  1.00 53.30           C
ATOM   5655  NZ  LYS C 517      47.450  30.924  -5.442  1.00 54.76           N
ATOM   5656  C   LYS C 517      46.924  32.488  -0.407  1.00 33.56           C
ATOM   5657  O   LYS C 517      46.721  31.410  -0.977  1.00 34.47           O
ATOM   5658  N   ASN C 518      47.277  32.570   0.879  1.00 26.95           N
ATOM   5659  CA  ASN C 518      47.510  31.369   1.677  1.00 25.05           C
ATOM   5660  CB  ASN C 518      48.809  31.475   2.469  1.00 22.52           C
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ATOM   5661  CG  ASN C 518      50.047  31.461   1.551  1.00 41.61           C
ATOM   5662  OD1 ASN C 518      50.438  30.416   1.057  1.00 42.42           O
ATOM   5663  ND2 ASN C 518      50.664  32.615   1.346  1.00 33.42           N
ATOM   5664  C   ASN C 518      46.343  30.842   2.495  1.00 28.87           C
ATOM   5665  O   ASN C 518      46.492  29.918   3.271  1.00 28.69           O
ATOM   5666  N   TYR C 519      45.173  31.440   2.300  1.00 26.47           N
ATOM   5667  CA  TYR C 519      43.933  30.941   2.874  1.00 25.97           C
ATOM   5668  CB  TYR C 519      43.005  32.080   3.314  1.00 25.91           C
ATOM   5669  CG  TYR C 519      43.198  32.449   4.774  1.00 27.31           C
ATOM   5670  CD1 TYR C 519      44.057  33.486   5.139  1.00 28.04           C
ATOM   5671  CE1 TYR C 519      44.277  33.802   6.473  1.00 31.49           C
ATOM   5672  CZ  TYR C 519      43.605  33.101   7.459  1.00 33.24           C
ATOM   5673  OH  TYR C 519      43.769  33.451   8.778  1.00 21.90           O
ATOM   5674  CE2 TYR C 519      42.733  32.076   7.122  1.00 29.38           C
ATOM   5675  CD2 TYR C 519      42.558  31.735   5.784  1.00 28.36           C
ATOM   5676  C   TYR C 519      43.318  30.126   1.735  1.00 32.74           C
ATOM   5677  O   TYR C 519      43.498  30.443   0.566  1.00 33.38           O
ATOM   5678  N   ARG C 520      42.637  29.051   2.077  1.00 30.19           N
ATOM   5679  CA AARG C 520      42.051  28.187   1.071  0.50 30.32           C
ATOM   5680  CB AARG C 520      42.305  26.753   1.450  0.50 31.39           C
ATOM   5681  CG AARG C 520      43.737  26.441   1.624  0.50 37.39           C
ATOM   5682  CD AARG C 520      43.821  25.017   2.040  0.50 41.19           C
ATOM   5683  NE AARG C 520      45.158  24.511   1.840  0.50 44.87           N
ATOM   5684  CZ AARG C 520      45.579  23.909   0.733  0.50 59.13           C
ATOM   5685  NH1AARG C 520      44.742  23.718  -0.286  0.50 46.02           N
ATOM   5686  NH2AARG C 520      46.844  23.485   0.654  0.50 45.44           N
ATOM   5687  C   ARG C 520      40.562  28.372   0.897  1.00 33.25           C
ATOM   5688  O   ARG C 520      39.895  29.008   1.720  1.00 29.61           O
ATOM   5689  CA BARG C 520      42.062  28.172   1.081  0.50 30.30           C
ATOM   5690  CB BARG C 520      42.384  26.736   1.464  0.50 31.25           C
ATOM   5691  CG BARG C 520      43.877  26.517   1.653  0.50 36.91           C
ATOM   5692  CD BARG C 520      44.154  25.161   2.247  0.50 40.74           C
ATOM   5693  NE BARG C 520      44.354  24.176   1.193  0.50 41.83           N
ATOM   5694  CZ BARG C 520      45.543  23.841   0.691  0.50 58.77           C
ATOM   5695  NH1BARG C 520      46.665  24.368   1.196  0.50 44.54           N
ATOM   5696  NH2BARG C 520      45.612  22.952  -0.302  0.50 45.98           N
ATOM   5697  N   ARG C 521      40.044  27.796  -0.174  1.00 32.93           N
ATOM   5698  CA  ARG C 521      38.625  27.906  -0.463  1.00 33.90           C
ATOM   5699  CB  ARG C 521      38.348  27.862  -1.970  1.00 34.88           C
ATOM   5700  CG  ARG C 521      39.056  28.972  -2.750  1.00 42.13           C
ATOM   5701  CD  ARG C 521      38.374  29.185  -4.114  1.00 52.36           C
ATOM   5702  NE  ARG C 521      39.212  29.949  -5.051  1.00 57.39           N
ATOM   5703  CZ  ARG C 521      40.262  29.445  -5.705  1.00 66.29           C
ATOM   5704  NH1 ARG C 521      40.633  28.167  -5.533  1.00 57.71           N
ATOM   5705  NH2 ARG C 521      40.950  30.223  -6.530  1.00 56.33           N
ATOM   5706  C   ARG C 521      37.879  26.811   0.269  1.00 38.70           C
ATOM   5707  O   ARG C 521      37.603  25.753  -0.286  1.00 39.32           O
ATOM   5708  N   VAL C 522      37.628  27.063   1.548  1.00 33.88           N
ATOM   5709  CA  VAL C 522      36.889  26.167   2.413  1.00 32.33           C
ATOM   5710  CB  VAL C 522      37.715  25.728   3.635  1.00 35.99           C
ATOM   5711  CG1 VAL C 522      38.879  24.849   3.188  1.00 36.41           C
ATOM   5712  CG2 VAL C 522      38.203  26.924   4.429  1.00 34.93           C
ATOM   5713  C   VAL C 522      35.661  26.991   2.818  1.00 34.39           C
ATOM   5714  O   VAL C 522      35.640  28.208   2.633  1.00 33.69           O
ATOM   5715  N   PRO C 523      34.594  26.326   3.272  1.00 28.10           N
ATOM   5716  CA  PRO C 523      33.343  27.040   3.555  1.00 27.89           C
ATOM   5717  CB  PRO C 523      32.344  25.905   3.886  1.00 29.03           C
ATOM   5718  CG  PRO C 523      32.948  24.674   3.336  1.00 32.29           C
ATOM   5719  CD  PRO C 523      34.444  24.862   3.382  1.00 28.18           C
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ATOM   5720  C   PRO C 523      33.403  28.050   4.709  1.00 31.47           C
ATOM   5721  O   PRO C 523      32.777  29.103   4.657  1.00 32.36           O
ATOM   5722  N   TYR C 524      34.130  27.715   5.764  1.00 26.12           N
ATOM   5723  CA  TYR C 524      34.176  28.586   6.930  1.00 25.08           C
ATOM   5724  CB  TYR C 524      33.588  27.892   8.172  1.00 26.85           C
ATOM   5725  CG  TYR C 524      33.546  28.812   9.370  1.00 29.43           C
ATOM   5726  CD1 TYR C 524      32.827  30.004   9.329  1.00 30.89           C
ATOM   5727  CE1 TYR C 524      32.822  30.877  10.412  1.00 31.38           C
ATOM   5728  CZ  TYR C 524      33.602  30.593  11.510  1.00 38.85           C
ATOM   5729  OH  TYR C 524      33.579  31.419  12.569  1.00 46.05           O
ATOM   5730  CE2 TYR C 524      34.367  29.458  11.566  1.00 31.89           C
ATOM   5731  CD2 TYR C 524      34.344  28.571  10.474  1.00 30.83           C
ATOM   5732  C   TYR C 524      35.522  29.199   7.262  1.00 25.84           C
ATOM   5733  O   TYR C 524      35.625  30.417   7.431  1.00 24.74           O
ATOM   5734  N   HIS C 525      36.524  28.345   7.447  1.00 24.18           N
ATOM   5735  CA  HIS C 525      37.880  28.804   7.819  1.00 24.88           C
ATOM   5736  CB  HIS C 525      38.661  27.696   8.509  1.00 25.60           C
ATOM   5737  CG  HIS C 525      38.101  27.321   9.845  1.00 28.60           C
ATOM   5738  ND1 HIS C 525      37.358  26.178  10.036  1.00 30.39           N
ATOM   5739  CE1 HIS C 525      37.001  26.093  11.305  1.00 30.06           C
ATOM   5740  NE2 HIS C 525      37.450  27.165  11.938  1.00 30.56           N
ATOM   5741  CD2 HIS C 525      38.162  27.939  11.052  1.00 30.82           C
ATOM   5742  C   HIS C 525      38.649  29.379   6.631  1.00 27.06           C
ATOM   5743  O   HIS C 525      39.713  28.900   6.254  1.00 26.24           O
ATOM   5744  N   ASN C 526      38.080  30.441   6.074  1.00 22.97           N
ATOM   5745  CA  ASN C 526      38.593  31.097   4.889  1.00 21.80           C
ATOM   5746  CB  ASN C 526      37.510  31.006   3.811  1.00 16.90           C
ATOM   5747  CG  ASN C 526      36.159  31.526   4.295  1.00 32.82           C
ATOM   5748  OD1 ASN C 526      36.087  32.541   4.958  1.00 30.34           O
ATOM   5749  ND2 ASN C 526      35.092  30.793   4.001  1.00 28.61           N
ATOM   5750  C   ASN C 526      39.009  32.562   5.125  1.00 26.13           C
ATOM   5751  O   ASN C 526      39.023  33.043   6.266  1.00 26.62           O
ATOM   5752  N   TRP C 527      39.367  33.252   4.042  1.00 22.74           N
ATOM   5753  CA  TRP C 527      39.818  34.641   4.101  1.00 22.87           C
ATOM   5754  CB  TRP C 527      40.082  35.097   2.656  1.00 22.87           C
ATOM   5755  CG  TRP C 527      40.524  36.504   2.485  1.00 24.05           C
ATOM   5756  CD1 TRP C 527      40.074  37.403   1.541  1.00 26.32           C
ATOM   5757  NE1 TRP C 527      40.778  38.582   1.649  1.00 25.18           N
ATOM   5758  CE2 TRP C 527      41.702  38.460   2.654  1.00 26.46           C
ATOM   5759  CD2 TRP C 527      41.583  37.162   3.193  1.00 23.16           C
ATOM   5760  CE3 TRP C 527      42.440  36.779   4.235  1.00 25.02           C
ATOM   5761  CZ3 TRP C 527      43.378  37.676   4.681  1.00 26.58           C
ATOM   5762  CH2 TRP C 527      43.477  38.958   4.125  1.00 27.53           C
ATOM   5763  CZ2 TRP C 527      42.626  39.381   3.133  1.00 26.66           C
ATOM   5764  C   TRP C 527      38.784  35.566   4.784  1.00 26.22           C
ATOM   5765  O   TRP C 527      39.136  36.506   5.528  1.00 24.42           O
ATOM   5766  N   LYS C 528      37.507  35.307   4.518  1.00 24.41           N
ATOM   5767  CA  LYS C 528      36.418  36.095   5.109  1.00 23.56           C
ATOM   5768  CB  LYS C 528      35.056  35.668   4.532  1.00 22.66           C
ATOM   5769  CG  LYS C 528      33.915  36.625   4.849  1.00 25.70           C
ATOM   5770  CD  LYS C 528      32.677  36.352   3.973  1.00 23.38           C
ATOM   5771  CE  LYS C 528      31.554  37.357   4.289  1.00 37.14           C
ATOM   5772  NZ  LYS C 528      30.262  37.074   3.554  1.00 43.47           N
ATOM   5773  C   LYS C 528      36.414  35.979   6.630  1.00 25.19           C
ATOM   5774  O   LYS C 528      36.203  36.959   7.333  1.00 27.09           O
ATOM   5775  N   HIS C 529      36.676  34.778   7.133  1.00 21.58           N
ATOM   5776  CA  HIS C 529      36.690  34.532   8.577  1.00 21.09           C
ATOM   5777  CB  HIS C 529      36.792  33.015   8.841  1.00 21.68           C
ATOM   5778  CG  HIS C 529      37.202  32.661  10.250  1.00 24.72           C
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ATOM   5779  ND1 HIS C 529      36.343  32.767  11.326  1.00 25.46           N
ATOM   5780  CE1 HIS C 529      36.940  32.309  12.414  1.00 25.40           C
ATOM   5781  NE2 HIS C 529      38.162  31.928  12.091  1.00 25.97           N
ATOM   5782  CD2 HIS C 529      38.346  32.121  10.741  1.00 26.45           C
ATOM   5783  C   HIS C 529      37.894  35.277   9.219  1.00 24.45           C
ATOM   5784  O   HIS C 529      37.781  35.906  10.268  1.00 23.91           O
ATOM   5785  N   ALA C 530      39.029  35.239   8.537  1.00 20.99           N
ATOM   5786  CA  ALA C 530      40.238  35.926   8.982  1.00 21.38           C
ATOM   5787  CB  ALA C 530      41.406  35.687   7.965  1.00 21.59           C
ATOM   5788  C   ALA C 530      40.011  37.434   9.190  1.00 23.22           C
ATOM   5789  O   ALA C 530      40.418  37.999  10.200  1.00 21.34           O
ATOM   5790  N   VAL C 531      39.351  38.074   8.235  1.00 20.62           N
ATOM   5791  CA  VAL C 531      39.060  39.508   8.323  1.00 21.36           C
ATOM   5792  CB  VAL C 531      38.684  40.127   6.944  1.00 26.48           C
ATOM   5793  CG1 VAL C 531      38.369  41.608   7.109  1.00 26.64           C
ATOM   5794  CG2 VAL C 531      39.832  39.927   5.930  1.00 26.86           C
ATOM   5795  C   VAL C 531      37.977  39.805   9.369  1.00 24.48           C
ATOM   5796  O   VAL C 531      38.053  40.805  10.072  1.00 22.48           O
ATOM   5797  N   THR C 532      36.966  38.936   9.452  1.00 22.66           N
ATOM   5798  CA  THR C 532      35.897  39.059  10.459  1.00 21.62           C
ATOM   5799  CB  THR C 532      34.832  37.969  10.255  1.00 26.51           C
ATOM   5800  OG1 THR C 532      34.253  38.131   8.968  1.00 26.26           O
ATOM   5801  CG2 THR C 532      33.749  38.029  11.325  1.00 20.02           C
ATOM   5802  C   THR C 532      36.482  38.968  11.875  1.00 24.64           C
ATOM   5803  O   THR C 532      36.061  39.685  12.799  1.00 24.76           O
ATOM   5804  N   VAL C 533      37.445  38.071  12.051  1.00 21.53           N
ATOM   5805  CA  VAL C 533      38.098  37.946  13.351  1.00 22.12           C
ATOM   5806  CB  VAL C 533      38.906  36.637  13.480  1.00 23.32           C
ATOM   5807  CG1 VAL C 533      39.622  36.594  14.790  1.00 23.37           C
ATOM   5808  CG2 VAL C 533      37.978  35.447  13.341  1.00 21.45           C
ATOM   5809  C   VAL C 533      38.931  39.193  13.693  1.00 28.91           C
ATOM   5810  O   VAL C 533      38.877  39.692  14.823  1.00 25.87           O
ATOM   5811  N   ALA C 534      39.655  39.719  12.704  1.00 24.36           N
ATOM   5812  CA  ALA C 534      40.430  40.949  12.884  1.00 22.62           C
ATOM   5813  CB  ALA C 534      41.212  41.307  11.586  1.00 22.87           C
ATOM   5814  C   ALA C 534      39.498  42.086  13.241  1.00 25.93           C
ATOM   5815  O   ALA C 534      39.827  42.935  14.061  1.00 26.67           O
ATOM   5816  N   HIS C 535      38.329  42.141  12.606  1.00 21.95           N
ATOM   5817  CA  HIS C 535      37.391  43.220  12.914  1.00 20.63           C
ATOM   5818  CB  HIS C 535      36.181  43.274  11.983  1.00 20.94           C
ATOM   5819  CG  HIS C 535      35.068  44.121  12.536  1.00 24.19           C
ATOM   5820  ND1 HIS C 535      34.050  43.604  13.310  1.00 25.79           N
ATOM   5821  CE1 HIS C 535      33.303  44.591  13.776  1.00 25.39           C
ATOM   5822  NE2 HIS C 535      33.834  45.734  13.378  1.00 25.87           N
ATOM   5823  CD2 HIS C 535      34.943  45.469  12.615  1.00 25.81           C
ATOM   5824  C   HIS C 535      36.895  43.151  14.359  1.00 28.35           C
ATOM   5825  O   HIS C 535      36.744  44.166  15.020  1.00 31.71           O
ATOM   5826  N   CYS C 536      36.649  41.950  14.867  1.00 25.43           N
ATOM   5827  CA  CYS C 536      36.215  41.836  16.265  1.00 24.67           C
ATOM   5828  CB  CYS C 536      35.786  40.415  16.613  1.00 25.02           C
ATOM   5829  SG  CYS C 536      35.024  40.290  18.244  1.00 29.66           S
ATOM   5830  C   CYS C 536      37.337  42.352  17.176  1.00 26.21           C
ATOM   5831  O   CYS C 536      37.109  43.145  18.093  1.00 27.04           O
ATOM   5832  N   MET C 537      38.565  41.973  16.860  1.00 22.27           N
ATOM   5833  CA  MET C 537      39.709  42.479  17.605  1.00 21.95           C
ATOM   5834  CB  MET C 537      41.010  41.878  17.077  1.00 22.69           C
ATOM   5835  CG  MET C 537      42.253  42.268  17.889  1.00 25.22           C
ATOM   5836  SD  MET C 537      42.134  41.907  19.672  1.00 29.52           S
ATOM   5837  CE  MET C 537      42.594  40.102  19.669  1.00 26.10           C
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ATOM   5838  C   MET C 537      39.753  44.029  17.543  1.00 28.79           C
ATOM   5839  O   MET C 537      39.976  44.692  18.569  1.00 28.97           O
ATOM   5840  N   TYR C 538      39.511  44.595  16.354  1.00 24.64           N
ATOM   5841  CA  TYR C 538      39.502  46.054  16.172  1.00 23.96           C
ATOM   5842  CB  TYR C 538      39.113  46.408  14.732  1.00 23.42           C
ATOM   5843  CG  TYR C 538      38.769  47.869  14.520  1.00 23.22           C
ATOM   5844  CD1 TYR C 538      39.779  48.837  14.391  1.00 23.84           C
ATOM   5845  CE1 TYR C 538      39.468  50.177  14.172  1.00 26.05           C
ATOM   5846  CZ  TYR C 538      38.131  50.549  14.045  1.00 34.05           C
ATOM   5847  OH  TYR C 538      37.799  51.856  13.795  1.00 39.59           O
ATOM   5848  CE2 TYR C 538      37.122  49.622  14.125  1.00 24.70           C
ATOM   5849  CD2 TYR C 538      37.439  48.272  14.347  1.00 24.14           C
ATOM   5850  C   TYR C 538      38.482  46.711  17.149  1.00 28.74           C
ATOM   5851  O   TYR C 538      38.794  47.685  17.832  1.00 30.17           O
ATOM   5852  N   ALA C 539      37.272  46.160  17.198  1.00 21.97           N
ATOM   5853  CA  ALA C 539      36.237  46.664  18.069  1.00 22.26           C
ATOM   5854  CB  ALA C 539      34.928  45.920  17.815  1.00 22.74           C
ATOM   5855  C   ALA C 539      36.639  46.606  19.558  1.00 29.07           C
ATOM   5856  O   ALA C 539      36.399  47.554  20.301  1.00 30.79           O
ATOM   5857  N   ILE C 540      37.262  45.509  19.978  1.00 26.00           N
ATOM   5858  CA  ILE C 540      37.719  45.373  21.359  1.00 26.10           C
ATOM   5859  CB  ILE C 540      38.254  43.962  21.651  1.00 27.75           C
ATOM   5860  CG1 ILE C 540      37.136  42.928  21.602  1.00 27.87           C
ATOM   5861  CD1 ILE C 540      37.646  41.496  21.754  1.00 23.90           C
ATOM   5862  CG2 ILE C 540      38.949  43.902  23.042  1.00 27.31           C
ATOM   5863  C   ILE C 540      38.794  46.437  21.661  1.00 31.66           C
ATOM   5864  O   ILE C 540      38.700  47.176  22.639  1.00 30.98           O
ATOM   5865  N   LEU C 541      39.833  46.483  20.838  1.00 29.81           N
ATOM   5866  CA  LEU C 541      40.905  47.470  21.000  1.00 29.12           C
ATOM   5867  CB  LEU C 541      41.932  47.347  19.875  1.00 28.87           C
ATOM   5868  CG  LEU C 541      42.796  46.083  19.852  1.00 33.66           C
ATOM   5869  CD1 LEU C 541      43.619  46.063  18.627  1.00 31.95           C
ATOM   5870  CD2 LEU C 541      43.674  45.936  21.120  1.00 37.77           C
ATOM   5871  C   LEU C 541      40.383  48.901  21.061  1.00 33.14           C
ATOM   5872  O   LEU C 541      40.835  49.667  21.885  1.00 35.50           O
ATOM   5873  N   GLN C 542      39.466  49.268  20.165  1.00 29.45           N
ATOM   5874  CA  GLN C 542      38.930  50.649  20.084  1.00 28.80           C
ATOM   5875  CB  GLN C 542      38.103  50.863  18.808  1.00 28.52           C
ATOM   5876  CG  GLN C 542      38.933  50.838  17.525  1.00 33.66           C
ATOM   5877  CD  GLN C 542      39.995  51.934  17.462  1.00 48.86           C
ATOM   5878  OE1 GLN C 542      39.812  52.955  16.788  1.00 47.68           O
ATOM   5879  NE2 GLN C 542      41.128  51.707  18.136  1.00 37.10           N
ATOM   5880  C   GLN C 542      38.092  51.060  21.285  1.00 37.93           C
ATOM   5881  O   GLN C 542      38.018  52.241  21.616  1.00 40.32           O
ATOM   5882  N   ASN C 543      37.447  50.085  21.919  1.00 34.97           N
ATOM   5883  CA  ASN C 543      36.622  50.334  23.094  1.00 34.05           C
ATOM   5884  CB  ASN C 543      35.374  49.444  23.058  1.00 28.60           C
ATOM   5885  CG  ASN C 543      34.376  49.895  22.023  1.00 48.56           C
ATOM   5886  OD1 ASN C 543      33.662  50.888  22.212  1.00 43.27           O
ATOM   5887  ND2 ASN C 543      34.365  49.209  20.886  1.00 38.03           N
ATOM   5888  C   ASN C 543      37.393  50.113  24.410  1.00 37.06           C
ATOM   5889  O   ASN C 543      36.828  50.254  25.471  1.00 37.62           O
ATOM   5890  N   ASN C 544      38.682  49.787  24.326  1.00 33.18           N
ATOM   5891  CA  ASN C 544      39.536  49.537  25.503  1.00 33.20           C
ATOM   5892  CB  ASN C 544      39.688  48.024  25.767  1.00 31.29           C
ATOM   5893  CG  ASN C 544      38.372  47.368  26.176  1.00 47.62           C
ATOM   5894  OD1 ASN C 544      38.065  47.261  27.363  1.00 42.23           O
ATOM   5895  ND2 ASN C 544      37.574  46.967  25.190  1.00 36.58           N
ATOM   5896  C   ASN C 544      40.888  50.107  25.178  1.00 37.03           C
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ATOM   5897  O   ASN C 544      41.915  49.513  25.415  1.00 36.83           O
ATOM   5898  N   HIS C 545      40.859  51.248  24.532  1.00 37.29           N
ATOM   5899  CA  HIS C 545      42.059  51.839  24.001  1.00 39.75           C
ATOM   5900  CB  HIS C 545      41.709  52.906  22.986  1.00 42.11           C
ATOM   5901  CG  HIS C 545      41.557  54.263  23.578  1.00 47.65           C
ATOM   5902  ND1 HIS C 545      40.476  54.618  24.354  1.00 50.76           N
ATOM   5903  CE1 HIS C 545      40.615  55.873  24.745  1.00 50.56           C
ATOM   5904  NE2 HIS C 545      41.749  56.340  24.253  1.00 50.79           N
ATOM   5905  CD2 HIS C 545      42.357  55.355  23.513  1.00 50.55           C
ATOM   5906  C   HIS C 545      43.244  52.254  24.886  1.00 45.96           C
ATOM   5907  O   HIS C 545      44.392  52.308  24.404  1.00 48.99           O
ATOM   5908  N   THR C 546      43.006  52.472  26.172  1.00 40.33           N
ATOM   5909  CA  THR C 546      44.085  52.890  27.064  1.00 39.71           C
ATOM   5910  CB  THR C 546      43.521  53.711  28.226  1.00 46.66           C
ATOM   5911  OG1 THR C 546      42.446  52.988  28.843  1.00 48.90           O
ATOM   5912  CG2 THR C 546      43.026  55.042  27.743  1.00 44.71           C
ATOM   5913  C   THR C 546      44.817  51.682  27.630  1.00 43.45           C
ATOM   5914  O   THR C 546      45.807  51.804  28.346  1.00 42.42           O
ATOM   5915  N   LEU C 547      44.277  50.507  27.357  1.00 40.20           N
ATOM   5916  CA  LEU C 547      44.775  49.276  27.957  1.00 40.23           C
ATOM   5917  CB  LEU C 547      43.591  48.337  28.115  1.00 41.33           C
ATOM   5918  CG  LEU C 547      43.213  47.849  29.493  1.00 48.60           C
ATOM   5919  CD1 LEU C 547      42.824  49.010  30.455  1.00 49.32           C
ATOM   5920  CD2 LEU C 547      42.081  46.841  29.358  1.00 51.78           C
ATOM   5921  C   LEU C 547      45.942  48.507  27.289  1.00 40.66           C
ATOM   5922  O   LEU C 547      46.573  47.659  27.916  1.00 39.63           O
ATOM   5923  N   PHE C 548      46.207  48.782  26.019  1.00 36.02           N
ATOM   5924  CA  PHE C 548      47.238  48.051  25.300  1.00 36.52           C
ATOM   5925  CB  PHE C 548      46.601  47.298  24.135  1.00 37.56           C
ATOM   5926  CG  PHE C 548      45.458  46.426  24.554  1.00 38.93           C
ATOM   5927  CD1 PHE C 548      44.150  46.869  24.438  1.00 43.19           C
ATOM   5928  CE1 PHE C 548      43.100  46.082  24.884  1.00 44.71           C
ATOM   5929  CZ  PHE C 548      43.369  44.852  25.463  1.00 43.38           C
ATOM   5930  CE2 PHE C 548      44.676  44.417  25.597  1.00 44.15           C
ATOM   5931  CD2 PHE C 548      45.700  45.202  25.161  1.00 40.57           C
ATOM   5932  C   PHE C 548      48.428  48.872  24.815  1.00 43.54           C
ATOM   5933  O   PHE C 548      48.301  50.061  24.525  1.00 45.53           O
ATOM   5934  N   THR C 549      49.572  48.203  24.688  1.00 41.02           N
ATOM   5935  CA  THR C 549      50.809  48.822  24.206  1.00 41.15           C
ATOM   5936  CB  THR C 549      52.029  47.976  24.601  1.00 48.35           C
ATOM   5937  OG1 THR C 549      51.980  46.722  23.925  1.00 46.28           O
ATOM   5938  CG2 THR C 549      52.046  47.712  26.113  1.00 44.76           C
ATOM   5939  C   THR C 549      50.759  49.012  22.686  1.00 45.29           C
ATOM   5940  O   THR C 549      49.807  48.579  22.026  1.00 44.13           O
ATOM   5941  N   ASP C 550      51.786  49.657  22.138  1.00 42.18           N
ATOM   5942  CA AASP C 550      51.874  49.896  20.703  0.50 41.70           C
ATOM   5943  CA BASP C 550      51.866  49.888  20.700  0.50 41.63           C
ATOM   5944  CB AASP C 550      53.024  50.872  20.387  0.50 43.02           C
ATOM   5945  CB BASP C 550      52.995  50.871  20.358  0.50 42.82           C
ATOM   5946  CG AASP C 550      52.751  52.291  20.882  0.50 49.29           C
ATOM   5947  CG BASP C 550      53.065  51.181  18.866  0.50 47.17           C
ATOM   5948  OD1AASP C 550      52.689  53.222  20.039  0.50 49.25           O
ATOM   5949  OD1BASP C 550      52.005  51.492  18.272  0.50 46.73           O
ATOM   5950  OD2AASP C 550      52.622  52.478  22.117  0.50 50.40           O
ATOM   5951  OD2BASP C 550      54.176  51.112  18.293  0.50 51.03           O
ATOM   5952  C   ASP C 550      52.117  48.550  20.011  1.00 44.46           C
ATOM   5953  O   ASP C 550      51.476  48.225  19.012  1.00 44.48           O
ATOM   5954  N   LEU C 551      53.028  47.770  20.584  1.00 39.64           N
ATOM   5955  CA  LEU C 551      53.384  46.456  20.084  1.00 39.64           C
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ATOM   5956  CB  LEU C 551      54.537  45.870  20.916  1.00 40.03           C
ATOM   5957  CG  LEU C 551      55.953  46.335  20.601  1.00 46.20           C
ATOM   5958  CD1 LEU C 551      56.960  45.488  21.355  1.00 47.31           C
ATOM   5959  CD2 LEU C 551      56.239  46.280  19.119  1.00 49.92           C
ATOM   5960  C   LEU C 551      52.186  45.491  20.100  1.00 43.15           C
ATOM   5961  O   LEU C 551      52.023  44.680  19.194  1.00 42.05           O
ATOM   5962  N   GLU C 552      51.366  45.560  21.144  1.00 40.04           N
ATOM   5963  CA  GLU C 552      50.183  44.694  21.233  1.00 39.50           C
ATOM   5964  CB  GLU C 552      49.539  44.749  22.625  1.00 40.49           C
ATOM   5965  CG  GLU C 552      50.230  43.886  23.644  1.00 40.94           C
ATOM   5966  CD  GLU C 552      49.973  44.329  25.082  1.00 50.45           C
ATOM   5967  OE1 GLU C 552      50.329  43.558  26.001  1.00 43.29           O
ATOM   5968  OE2 GLU C 552      49.425  45.439  25.297  1.00 41.08           O
ATOM   5969  C   GLU C 552      49.160  45.061  20.165  1.00 38.98           C
ATOM   5970  O   GLU C 552      48.575  44.197  19.540  1.00 36.37           O
ATOM   5971  N   ARG C 553      48.957  46.351  19.962  1.00 37.40           N
ATOM   5972  CA AARG C 553      48.013  46.828  18.960  0.50 38.46           C
ATOM   5973  CA BARG C 553      48.008  46.805  18.962  0.50 38.48           C
ATOM   5974  CB AARG C 553      47.896  48.355  19.012  0.50 39.03           C
ATOM   5975  CB BARG C 553      47.798  48.316  19.050  0.50 39.18           C
ATOM   5976  CG AARG C 553      47.070  48.868  20.206  0.50 45.67           C
ATOM   5977  CG BARG C 553      46.973  48.716  20.286  0.50 45.42           C
ATOM   5978  CD AARG C 553      46.813  50.373  20.116  0.50 47.18           C
ATOM   5979  CD BARG C 553      46.639  50.201  20.314  0.50 47.00           C
ATOM   5980  NE AARG C 553      47.680  51.131  21.015  0.50 47.94           N
ATOM   5981  NE BARG C 553      47.844  51.022  20.320  0.50 47.26           N
ATOM   5982  CZ AARG C 553      48.705  51.886  20.620  0.50 58.65           C
ATOM   5983  CZ BARG C 553      48.226  51.795  21.333  0.50 57.79           C
ATOM   5984  NH1AARG C 553      49.010  51.997  19.329  0.50 44.06           N
ATOM   5985  NH1BARG C 553      47.496  51.864  22.440  0.50 44.47           N
ATOM   5986  NH2AARG C 553      49.431  52.532  21.525  0.50 49.33           N
ATOM   5987  NH2BARG C 553      49.344  52.500  21.237  0.50 49.42           N
ATOM   5988  C   ARG C 553      48.388  46.338  17.558  1.00 45.17           C
ATOM   5989  O   ARG C 553      47.548  45.755  16.854  1.00 44.95           O
ATOM   5990  N   LYS C 554      49.669  46.500  17.197  1.00 43.02           N
ATOM   5991  CA  LYS C 554      50.194  46.048  15.912  1.00 42.29           C
ATOM   5992  CB  LYS C 554      51.703  46.311  15.853  1.00 44.21           C
ATOM   5993  CG  LYS C 554      52.134  47.763  15.721  1.00 49.18           C
ATOM   5994  CD  LYS C 554      53.598  47.844  15.310  1.00 52.75           C
ATOM   5995  CE  LYS C 554      54.210  49.210  15.681  1.00 54.12           C
ATOM   5996  NZ  LYS C 554      55.284  49.590  14.700  1.00 58.63           N
ATOM   5997  C   LYS C 554      50.008  44.535  15.785  1.00 44.25           C
ATOM   5998  O   LYS C 554      49.392  44.036  14.848  1.00 46.46           O
ATOM   5999  N   GLY C 555      50.591  43.804  16.723  1.00 37.76           N
ATOM   6000  CA  GLY C 555      50.577  42.345  16.725  1.00 36.42           C
ATOM   6001  C   GLY C 555      49.258  41.584  16.737  1.00 37.45           C
ATOM   6002  O   GLY C 555      49.151  40.496  16.157  1.00 37.86           O
ATOM   6003  N   LEU C 556      48.279  42.107  17.470  1.00 32.34           N
ATOM   6004  CA  LEU C 556      46.985  41.445  17.598  1.00 31.12           C
ATOM   6005  CB  LEU C 556      46.179  42.013  18.779  1.00 30.75           C
ATOM   6006  CG  LEU C 556      46.818  41.705  20.155  1.00 35.29           C
ATOM   6007  CD1 LEU C 556      46.040  42.355  21.277  1.00 34.87           C
ATOM   6008  CD2 LEU C 556      46.965  40.215  20.382  1.00 37.15           C
ATOM   6009  C   LEU C 556      46.161  41.411  16.310  1.00 32.99           C
ATOM   6010  O   LEU C 556      45.579  40.397  15.968  1.00 32.11           O
ATOM   6011  N   LEU C 557      46.110  42.531  15.607  1.00 30.45           N
ATOM   6012  CA  LEU C 557      45.369  42.605  14.363  1.00 31.97           C
ATOM   6013  CB  LEU C 557      45.284  44.050  13.851  1.00 33.78           C
ATOM   6014  CG  LEU C 557      44.394  44.950  14.714  1.00 40.70           C
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ATOM   6015  CD1 LEU C 557      44.637  46.429  14.348  1.00 43.28           C
ATOM   6016  CD2 LEU C 557      42.919  44.570  14.595  1.00 37.06           C
ATOM   6017  C   LEU C 557      45.992  41.714  13.317  1.00 29.75           C
ATOM   6018  O   LEU C 557      45.270  41.094  12.540  1.00 29.32           O
ATOM   6019  N   ILE C 558      47.326  41.675  13.298  1.00 24.98           N
ATOM   6020  CA  ILE C 558      48.067  40.812  12.392  1.00 25.87           C
ATOM   6021  CB  ILE C 558      49.598  41.119  12.396  1.00 29.36           C
ATOM   6022  CG1 ILE C 558      49.886  42.486  11.769  1.00 31.81           C
ATOM   6023  CD1 ILE C 558      49.412  42.616  10.296  1.00 39.66           C
ATOM   6024  CG2 ILE C 558      50.385  40.050  11.643  1.00 29.67           C
ATOM   6025  C   ILE C 558      47.796  39.365  12.799  1.00 29.74           C
ATOM   6026  O   ILE C 558      47.498  38.513  11.956  1.00 31.38           O
ATOM   6027  N   ALA C 559      47.884  39.092  14.097  1.00 24.91           N
ATOM   6028  CA  ALA C 559      47.653  37.742  14.600  1.00 24.44           C
ATOM   6029  CB  ALA C 559      47.822  37.698  16.102  1.00 25.28           C
ATOM   6030  C   ALA C 559      46.267  37.228  14.182  1.00 26.76           C
ATOM   6031  O   ALA C 559      46.125  36.098  13.753  1.00 26.38           O
ATOM   6032  N   CYS C 560      45.249  38.073  14.288  1.00 24.22           N
ATOM   6033  CA  CYS C 560      43.881  37.687  13.892  1.00 24.44           C
ATOM   6034  CB  CYS C 560      42.876  38.765  14.309  1.00 24.86           C
ATOM   6035  SG  CYS C 560      42.597  38.867  16.106  1.00 29.39           S
ATOM   6036  C   CYS C 560      43.769  37.447  12.387  1.00 26.82           C
ATOM   6037  O   CYS C 560      43.072  36.521  11.939  1.00 25.17           O
ATOM   6038  N   LEU C 561      44.420  38.294  11.595  1.00 23.51           N
ATOM   6039  CA  LEU C 561      44.376  38.078  10.140  1.00 24.34           C
ATOM   6040  CB  LEU C 561      45.139  39.186   9.413  1.00 25.03           C
ATOM   6041  CG  LEU C 561      44.808  39.327   7.916  1.00 30.71           C
ATOM   6042  CD1 LEU C 561      43.359  39.916   7.752  1.00 31.49           C
ATOM   6043  CD2 LEU C 561      45.838  40.206   7.223  1.00 30.91           C
ATOM   6044  C   LEU C 561      45.025  36.739   9.781  1.00 28.25           C
ATOM   6045  O   LEU C 561      44.595  36.056   8.859  1.00 31.19           O
ATOM   6046  N   CYS C 562      46.069  36.375  10.518  1.00 23.03           N
ATOM   6047  CA  CYS C 562      46.863  35.189  10.202  1.00 23.47           C
ATOM   6048  CB  CYS C 562      48.339  35.493  10.480  1.00 24.36           C
ATOM   6049  SG  CYS C 562      49.063  36.704   9.373  1.00 29.10           S
ATOM   6050  C   CYS C 562      46.526  33.911  10.947  1.00 26.13           C
ATOM   6051  O   CYS C 562      47.201  32.894  10.741  1.00 26.93           O
ATOM   6052  N   HIS C 563      45.597  33.985  11.900  1.00 21.32           N
ATOM   6053  CA  HIS C 563      45.331  32.860  12.805  1.00 20.72           C
ATOM   6054  CB  HIS C 563      44.435  33.292  13.966  1.00 21.04           C
ATOM   6055  CG  HIS C 563      42.980  33.171  13.656  1.00 22.93           C
ATOM   6056  ND1 HIS C 563      42.319  34.078  12.860  1.00 23.37           N
ATOM   6057  CE1 HIS C 563      41.067  33.695  12.699  1.00 22.34           C
ATOM   6058  NE2 HIS C 563      40.900  32.558  13.344  1.00 23.22           N
ATOM   6059  CD2 HIS C 563      42.079  32.213  13.960  1.00 23.52           C
ATOM   6060  C   HIS C 563      44.860  31.540  12.259  1.00 24.14           C
ATOM   6061  O   HIS C 563      44.999  30.535  12.960  1.00 26.16           O
ATOM   6062  N   ASP C 564      44.290  31.536  11.048  1.00 19.68           N
ATOM   6063  CA  ASP C 564      43.854  30.282  10.433  1.00 20.32           C
ATOM   6064  CB  ASP C 564      42.336  30.259  10.263  1.00 21.81           C
ATOM   6065  CG  ASP C 564      41.618  29.720  11.485  1.00 23.79           C
ATOM   6066  OD1 ASP C 564      42.211  28.926  12.246  1.00 21.13           O
ATOM   6067  OD2 ASP C 564      40.431  30.031  11.639  1.00 26.51           O
ATOM   6068  C   ASP C 564      44.526  30.003   9.084  1.00 25.24           C
ATOM   6069  O   ASP C 564      43.962  29.306   8.251  1.00 22.64           O
ATOM   6070  N   LEU C 565      45.698  30.592   8.875  1.00 25.30           N
ATOM   6071  CA  LEU C 565      46.464  30.445   7.639  1.00 26.57           C
ATOM   6072  CB  LEU C 565      47.858  31.091   7.801  1.00 26.93           C
ATOM   6073  CG  LEU C 565      47.960  32.533   7.280  1.00 30.54           C
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ATOM   6074  CD1 LEU C 565      49.277  33.198   7.756  1.00 29.74           C
ATOM   6075  CD2 LEU C 565      47.824  32.591   5.763  1.00 28.21           C
ATOM   6076  C   LEU C 565      46.615  29.003   7.183  1.00 28.67           C
ATOM   6077  O   LEU C 565      47.103  28.162   7.933  1.00 27.53           O
ATOM   6078  N   ASP C 566      46.205  28.724   5.944  1.00 24.21           N
ATOM   6079  CA  ASP C 566      46.329  27.382   5.385  1.00 24.09           C
ATOM   6080  CB  ASP C 566      47.792  26.934   5.372  1.00 25.15           C
ATOM   6081  CG  ASP C 566      48.035  25.743   4.420  1.00 35.60           C
ATOM   6082  OD1 ASP C 566      47.414  25.702   3.334  1.00 35.34           O
ATOM   6083  OD2 ASP C 566      48.787  24.819   4.794  1.00 38.99           O
ATOM   6084  C   ASP C 566      45.441  26.294   6.009  1.00 29.47           C
ATOM   6085  O   ASP C 566      45.762  25.108   5.946  1.00 28.60           O
ATOM   6086  N   HIS C 567      44.338  26.705   6.625  1.00 26.67           N
ATOM   6087  CA  HIS C 567      43.379  25.780   7.204  1.00 25.10           C
ATOM   6088  CB  HIS C 567      42.283  26.575   7.922  1.00 24.77           C
ATOM   6089  CG  HIS C 567      41.672  25.843   9.074  1.00 28.27           C
ATOM   6090  ND1 HIS C 567      40.900  24.712   8.909  1.00 30.02           N
ATOM   6091  CE1 HIS C 567      40.500  24.282  10.091  1.00 29.32           C
ATOM   6092  NE2 HIS C 567      40.980  25.095  11.014  1.00 29.57           N
ATOM   6093  CD2 HIS C 567      41.715  26.080  10.405  1.00 29.82           C
ATOM   6094  C   HIS C 567      42.727  24.952   6.081  1.00 31.12           C
ATOM   6095  O   HIS C 567      42.280  25.516   5.078  1.00 32.54           O
ATOM   6096  N   ARG C 568      42.614  23.632   6.271  1.00 25.80           N
ATOM   6097  CA  ARG C 568      42.005  22.772   5.241  1.00 26.12           C
ATOM   6098  CB  ARG C 568      42.884  21.552   4.965  1.00 27.26           C
ATOM   6099  CG  ARG C 568      44.100  21.872   4.071  1.00 36.02           C
ATOM   6100  CD  ARG C 568      45.095  20.732   4.115  1.00 44.49           C
ATOM   6101  NE  ARG C 568      46.082  20.763   3.026  1.00 47.23           N
ATOM   6102  CZ  ARG C 568      45.844  20.333   1.781  1.00 57.20           C
ATOM   6103  NH1 ARG C 568      44.629  19.859   1.442  1.00 43.75           N
ATOM   6104  NH2 ARG C 568      46.820  20.378   0.871  1.00 44.62           N
ATOM   6105  C   ARG C 568      40.591  22.339   5.589  1.00 32.27           C
ATOM   6106  O   ARG C 568      40.009  21.524   4.902  1.00 32.26           O
ATOM   6107  N   GLY C 569      40.054  22.867   6.688  1.00 29.26           N
ATOM   6108  CA  GLY C 569      38.704  22.534   7.123  1.00 28.89           C
ATOM   6109  C   GLY C 569      38.644  21.346   8.055  1.00 32.91           C
ATOM   6110  O   GLY C 569      37.576  20.782   8.273  1.00 35.15           O
ATOM   6111  N   PHE C 570      39.793  20.967   8.605  1.00 27.49           N
ATOM   6112  CA  PHE C 570      39.855  19.824   9.513  1.00 27.53           C
ATOM   6113  CB  PHE C 570      40.668  18.678   8.916  1.00 29.03           C
ATOM   6114  CG  PHE C 570      40.154  18.200   7.588  1.00 29.92           C
ATOM   6115  CD1 PHE C 570      38.904  17.624   7.493  1.00 32.98           C
ATOM   6116  CE1 PHE C 570      38.403  17.194   6.266  1.00 34.98           C
ATOM   6117  CZ  PHE C 570      39.167  17.340   5.114  1.00 34.78           C
ATOM   6118  CE2 PHE C 570      40.448  17.892   5.192  1.00 35.73           C
ATOM   6119  CD2 PHE C 570      40.933  18.329   6.430  1.00 31.70           C
ATOM   6120  C   PHE C 570      40.407  20.184  10.873  1.00 32.29           C
ATOM   6121  O   PHE C 570      41.358  20.942  10.982  1.00 34.07           O
ATOM   6122  N   SER C 571      39.815  19.597  11.904  1.00 29.09           N
ATOM   6123  CA  SER C 571      40.233  19.803  13.285  1.00 29.40           C
ATOM   6124  CB  SER C 571      39.121  19.282  14.217  1.00 32.02           C
ATOM   6125  OG  SER C 571      39.029  17.856  14.155  1.00 38.74           O
ATOM   6126  C   SER C 571      41.533  19.060  13.573  1.00 32.38           C
ATOM   6127  O   SER C 571      41.949  18.191  12.812  1.00 33.30           O
ATOM   6128  N   ASN C 572      42.129  19.365  14.721  1.00 29.43           N
ATOM   6129  CA  ASN C 572      43.343  18.702  15.205  1.00 29.01           C
ATOM   6130  CB  ASN C 572      43.827  19.353  16.519  1.00 25.70           C
ATOM   6131  CG  ASN C 572      44.411  20.737  16.316  1.00 39.81           C
ATOM   6132  OD1 ASN C 572      44.902  21.073  15.243  1.00 33.37           O
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ATOM   6133  ND2 ASN C 572      44.360  21.551  17.361  1.00 28.23           N
ATOM   6134  C   ASN C 572      43.066  17.215  15.454  1.00 33.24           C
ATOM   6135  O   ASN C 572      43.952  16.389  15.280  1.00 34.28           O
ATOM   6136  N   SER C 573      41.841  16.892  15.877  1.00 30.67           N
ATOM   6137  CA ASER C 573      41.436  15.502  16.137  0.50 30.52           C
ATOM   6138  CA BSER C 573      41.437  15.504  16.140  0.50 30.39           C
ATOM   6139  CB ASER C 573      39.990  15.455  16.641  0.50 33.29           C
ATOM   6140  CB BSER C 573      39.996  15.467  16.669  0.50 32.58           C
ATOM   6141  OG ASER C 573      39.896  15.938  17.960  0.50 44.68           O
ATOM   6142  OG BSER C 573      39.532  14.136  16.807  0.50 39.63           O
ATOM   6143  C   SER C 573      41.524  14.663  14.865  1.00 33.96           C
ATOM   6144  O   SER C 573      42.080  13.559  14.867  1.00 35.27           O
ATOM   6145  N   TYR C 574      40.953  15.180  13.777  1.00 30.21           N
ATOM   6146  CA  TYR C 574      40.990  14.453  12.514  1.00 30.56           C
ATOM   6147  CB  TYR C 574      40.149  15.116  11.416  1.00 32.15           C
ATOM   6148  CG  TYR C 574      40.312  14.408  10.083  1.00 34.04           C
ATOM   6149  CD1 TYR C 574      39.762  13.117   9.873  1.00 35.10           C
ATOM   6150  CE1 TYR C 574      39.925  12.452   8.660  1.00 34.77           C
ATOM   6151  CZ  TYR C 574      40.667  13.048   7.658  1.00 39.61           C
ATOM   6152  OH  TYR C 574      40.832  12.401   6.484  1.00 40.24           O
ATOM   6153  CE2 TYR C 574      41.240  14.302   7.837  1.00 35.69           C
ATOM   6154  CD2 TYR C 574      41.083  14.968   9.070  1.00 34.53           C
ATOM   6155  C   TYR C 574      42.422  14.259  12.032  1.00 32.21           C
ATOM   6156  O   TYR C 574      42.786  13.161  11.611  1.00 30.62           O
ATOM   6157  N   LEU C 575      43.237  15.309  12.144  1.00 29.75           N
ATOM   6158  CA  LEU C 575      44.621  15.213  11.703  1.00 31.48           C
ATOM   6159  CB  LEU C 575      45.354  16.532  11.906  1.00 32.84           C
ATOM   6160  CG  LEU C 575      44.996  17.811  11.132  1.00 39.52           C
ATOM   6161  CD1 LEU C 575      46.250  18.672  10.951  1.00 39.70           C
ATOM   6162  CD2 LEU C 575      44.340  17.530   9.816  1.00 39.81           C
ATOM   6163  C   LEU C 575      45.360  14.130  12.495  1.00 36.18           C
ATOM   6164  O   LEU C 575      46.261  13.491  11.981  1.00 35.43           O
ATOM   6165  N   GLN C 576      45.021  13.984  13.771  1.00 33.37           N
ATOM   6166  CA  GLN C 576      45.687  13.005  14.598  1.00 34.37           C
ATOM   6167  CB  GLN C 576      45.462  13.295  16.084  1.00 36.18           C
ATOM   6168  CG  GLN C 576      46.593  12.696  16.929  1.00 52.73           C
ATOM   6169  CD  GLN C 576      46.174  12.332  18.337  1.00 65.39           C
ATOM   6170  OE1 GLN C 576      46.948  12.526  19.310  1.00 60.19           O
ATOM   6171  NE2 GLN C 576      44.950  11.772  18.464  1.00 52.07           N
ATOM   6172  C   GLN C 576      45.236  11.596  14.258  1.00 38.92           C
ATOM   6173  O   GLN C 576      46.046  10.676  14.160  1.00 38.98           O
ATOM   6174  N   LYS C 577      43.932  11.448  14.045  1.00 36.45           N
ATOM   6175  CA  LYS C 577      43.357  10.166  13.649  1.00 35.48           C
ATOM   6176  CB  LYS C 577      41.845  10.155  13.848  1.00 36.29           C
ATOM   6177  CG  LYS C 577      41.452  10.077  15.312  1.00 34.54           C
ATOM   6178  CD  LYS C 577      40.071  10.638  15.535  1.00 47.03           C
ATOM   6179  CE  LYS C 577      39.691  10.596  17.036  1.00 49.33           C
ATOM   6180  NZ  LYS C 577      38.496  11.461  17.337  1.00 59.66           N
ATOM   6181  C   LYS C 577      43.756   9.772  12.228  1.00 38.61           C
ATOM   6182  O   LYS C 577      43.963   8.592  11.946  1.00 40.05           O
ATOM   6183  N   PHE C 578      43.954  10.768  11.366  1.00 33.10           N
ATOM   6184  CA  PHE C 578      44.428  10.514  10.006  1.00 32.86           C
ATOM   6185  CB  PHE C 578      44.187  11.751   9.099  1.00 34.02           C
ATOM   6186  CG  PHE C 578      44.680  11.573   7.689  1.00 34.21           C
ATOM   6187  CD1 PHE C 578      43.855  11.015   6.719  1.00 34.12           C
ATOM   6188  CE1 PHE C 578      44.318  10.817   5.425  1.00 34.82           C
ATOM   6189  CZ  PHE C 578      45.610  11.145   5.090  1.00 34.70           C
ATOM   6190  CE2 PHE C 578      46.463  11.677   6.042  1.00 38.03           C
ATOM   6191  CD2 PHE C 578      45.986  11.912   7.342  1.00 36.07           C
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ATOM   6192  C   PHE C 578      45.924  10.188  10.029  1.00 35.94           C
ATOM   6193  O   PHE C 578      46.443   9.525   9.124  1.00 35.80           O
ATOM   6194  N   ASP C 579      46.615  10.672  11.060  1.00 32.58           N
ATOM   6195  CA  ASP C 579      48.068  10.478  11.193  1.00 32.72           C
ATOM   6196  CB  ASP C 579      48.456   9.002  11.036  1.00 35.13           C
ATOM   6197  CG  ASP C 579      49.836   8.666  11.646  1.00 47.41           C
ATOM   6198  OD1 ASP C 579      50.562   9.599  12.081  1.00 47.91           O
ATOM   6199  OD2 ASP C 579      50.200   7.458  11.663  1.00 48.08           O
ATOM   6200  C   ASP C 579      48.778  11.362  10.169  1.00 37.27           C
ATOM   6201  O   ASP C 579      49.680  10.929   9.464  1.00 38.25           O
ATOM   6202  N   HIS C 580      48.340  12.617  10.083  1.00 34.51           N
ATOM   6203  CA  HIS C 580      48.919  13.596   9.159  1.00 33.23           C
ATOM   6204  CB  HIS C 580      48.034  14.855   9.134  1.00 33.35           C
ATOM   6205  CG  HIS C 580      48.339  15.778   8.003  1.00 36.06           C
ATOM   6206  ND1 HIS C 580      49.345  16.713   8.068  1.00 37.50           N
ATOM   6207  CE1 HIS C 580      49.416  17.359   6.919  1.00 37.32           C
ATOM   6208  NE2 HIS C 580      48.504  16.861   6.103  1.00 37.89           N
ATOM   6209  CD2 HIS C 580      47.817  15.869   6.757  1.00 37.99           C
ATOM   6210  C   HIS C 580      50.306  14.004   9.630  1.00 38.42           C
ATOM   6211  O   HIS C 580      50.516  14.226  10.819  1.00 40.56           O
ATOM   6212  N   PRO C 581      51.238  14.214   8.693  1.00 35.09           N
ATOM   6213  CA  PRO C 581      52.595  14.667   9.024  1.00 35.86           C
ATOM   6214  CB  PRO C 581      53.097  15.217   7.673  1.00 37.25           C
ATOM   6215  CG  PRO C 581      52.456  14.313   6.683  1.00 40.76           C
ATOM   6216  CD  PRO C 581      51.106  13.914   7.255  1.00 36.23           C
ATOM   6217  C   PRO C 581      52.634  15.778  10.092  1.00 39.48           C
ATOM   6218  O   PRO C 581      53.444  15.726  11.029  1.00 40.43           O
ATOM   6219  N   LEU C 582      51.781  16.793   9.918  1.00 34.12           N
ATOM   6220  CA  LEU C 582      51.711  17.918  10.855  1.00 34.00           C
ATOM   6221  CB  LEU C 582      50.596  18.892  10.446  1.00 34.28           C
ATOM   6222  CG  LEU C 582      50.769  19.679   9.139  1.00 38.15           C
ATOM   6223  CD1 LEU C 582      49.489  20.446   8.802  1.00 36.24           C
ATOM   6224  CD2 LEU C 582      51.980  20.617   9.212  1.00 39.77           C
ATOM   6225  C   LEU C 582      51.503  17.451  12.295  1.00 37.00           C
ATOM   6226  O   LEU C 582      52.020  18.063  13.219  1.00 37.04           O
ATOM   6227  N   ALA C 583      50.770  16.352  12.476  1.00 34.57           N
ATOM   6228  CA  ALA C 583      50.499  15.794  13.810  1.00 35.32           C
ATOM   6229  CB  ALA C 583      49.412  14.725  13.740  1.00 35.79           C
ATOM   6230  C   ALA C 583      51.758  15.223  14.453  1.00 43.67           C
ATOM   6231  O   ALA C 583      51.896  15.230  15.678  1.00 45.66           O
ATOM   6232  N   ALA C 584      52.677  14.722  13.631  1.00 41.19           N
ATOM   6233  CA  ALA C 584      53.956  14.208  14.126  1.00 40.36           C
ATOM   6234  CB  ALA C 584      54.631  13.340  13.049  1.00 40.72           C
ATOM   6235  C   ALA C 584      54.847  15.408  14.475  1.00 42.23           C
ATOM   6236  O   ALA C 584      55.593  15.397  15.443  1.00 43.78           O
ATOM   6237  N   LEU C 585      54.760  16.453  13.668  1.00 37.29           N
ATOM   6238  CA  LEU C 585      55.557  17.677  13.877  1.00 37.69           C
ATOM   6239  CB  LEU C 585      55.387  18.585  12.667  1.00 38.14           C
ATOM   6240  CG  LEU C 585      56.282  19.788  12.458  1.00 45.05           C
ATOM   6241  CD1 LEU C 585      57.730  19.361  12.547  1.00 48.45           C
ATOM   6242  CD2 LEU C 585      56.009  20.385  11.085  1.00 46.40           C
ATOM   6243  C   LEU C 585      55.147  18.442  15.160  1.00 42.76           C
ATOM   6244  O   LEU C 585      55.986  18.854  15.965  1.00 42.65           O
ATOM   6245  N   TYR C 586      53.841  18.614  15.344  1.00 39.67           N
ATOM   6246  CA  TYR C 586      53.273  19.275  16.529  1.00 39.44           C
ATOM   6247  CB  TYR C 586      52.606  20.599  16.146  1.00 40.64           C
ATOM   6248  CG  TYR C 586      53.351  21.424  15.116  1.00 39.81           C
ATOM   6249  CD1 TYR C 586      52.843  21.573  13.822  1.00 40.73           C
ATOM   6250  CE1 TYR C 586      53.513  22.350  12.868  1.00 41.40           C
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ATOM   6251  CZ  TYR C 586      54.688  22.992  13.225  1.00 50.40           C
ATOM   6252  OH  TYR C 586      55.362  23.751  12.296  1.00 54.19           O
ATOM   6253  CE2 TYR C 586      55.189  22.889  14.516  1.00 40.72           C
ATOM   6254  CD2 TYR C 586      54.525  22.106  15.454  1.00 39.91           C
ATOM   6255  C   TYR C 586      52.215  18.350  17.137  1.00 41.57           C
ATOM   6256  O   TYR C 586      51.094  18.225  16.604  1.00 38.09           O
ATOM   6257  N   SER C 587      52.561  17.704  18.248  1.00 39.13           N
ATOM   6258  CA ASER C 587      51.641  16.791  18.915  0.50 39.28           C
ATOM   6259  CA BSER C 587      51.630  16.794  18.903  0.50 39.16           C
ATOM   6260  CB ASER C 587      52.366  15.987  20.014  0.50 43.23           C
ATOM   6261  CB BSER C 587      52.323  15.950  19.984  0.50 42.70           C
ATOM   6262  OG ASER C 587      53.352  16.775  20.674  0.50 47.57           O
ATOM   6263  OG BSER C 587      51.405  15.044  20.572  0.50 44.18           O
ATOM   6264  C   SER C 587      50.424  17.517  19.489  1.00 43.06           C
ATOM   6265  O   SER C 587      49.311  16.953  19.541  1.00 42.76           O
ATOM   6266  N   THR C 588      50.621  18.766  19.923  1.00 39.14           N
ATOM   6267  CA  THR C 588      49.489  19.562  20.478  1.00 37.13           C
ATOM   6268  CB  THR C 588      49.666  19.922  21.967  1.00 44.50           C
ATOM   6269  OG1 THR C 588      50.782  20.816  22.115  1.00 47.31           O
ATOM   6270  CG2 THR C 588      49.841  18.691  22.815  1.00 43.17           C
ATOM   6271  C   THR C 588      49.279  20.852  19.690  1.00 35.00           C
ATOM   6272  O   THR C 588      50.209  21.366  19.087  1.00 34.81           O
ATOM   6273  N   SER C 589      48.061  21.382  19.755  1.00 27.82           N
ATOM   6274  CA  SER C 589      47.695  22.595  19.037  1.00 27.49           C
ATOM   6275  CB  SER C 589      48.260  23.828  19.751  1.00 30.05           C
ATOM   6276  OG  SER C 589      47.801  23.888  21.081  1.00 35.05           O
ATOM   6277  C   SER C 589      48.258  22.490  17.614  1.00 30.00           C
ATOM   6278  O   SER C 589      48.886  23.406  17.085  1.00 29.97           O
ATOM   6279  N   THR C 590      48.100  21.309  17.045  1.00 26.27           N
ATOM   6280  CA  THR C 590      48.650  20.988  15.729  1.00 26.00           C
ATOM   6281  CB  THR C 590      48.161  19.595  15.263  1.00 35.71           C
ATOM   6282  OG1 THR C 590      48.369  18.647  16.327  1.00 35.18           O
ATOM   6283  CG2 THR C 590      48.894  19.164  14.001  1.00 31.40           C
ATOM   6284  C   THR C 590      48.439  22.061  14.668  1.00 28.33           C
ATOM   6285  O   THR C 590      49.410  22.625  14.134  1.00 23.86           O
ATOM   6286  N   MET C 591      47.174  22.363  14.375  1.00 27.44           N
ATOM   6287  CA  MET C 591      46.894  23.312  13.321  1.00 27.76           C
ATOM   6288  CB  MET C 591      45.404  23.345  12.996  1.00 30.34           C
ATOM   6289  CG  MET C 591      44.934  22.292  11.978  1.00 34.72           C
ATOM   6290  SD  MET C 591      46.061  22.069  10.552  1.00 38.76           S
ATOM   6291  CE  MET C 591      45.742  23.646   9.623  1.00 33.73           C
ATOM   6292  C   MET C 591      47.411  24.700  13.651  1.00 29.28           C
ATOM   6293  O   MET C 591      47.925  25.392  12.773  1.00 28.77           O
ATOM   6294  N   GLU C 592      47.279  25.091  14.921  1.00 24.76           N
ATOM   6295  CA  GLU C 592      47.675  26.436  15.376  1.00 23.49           C
ATOM   6296  CB  GLU C 592      47.146  26.706  16.785  1.00 23.78           C
ATOM   6297  CG  GLU C 592      45.597  26.718  16.854  1.00 26.28           C
ATOM   6298  CD  GLU C 592      44.953  25.323  16.864  1.00 33.87           C
ATOM   6299  OE1 GLU C 592      45.629  24.326  17.165  1.00 27.79           O
ATOM   6300  OE2 GLU C 592      43.734  25.232  16.628  1.00 34.63           O
ATOM   6301  C   GLU C 592      49.183  26.668  15.265  1.00 26.15           C
ATOM   6302  O   GLU C 592      49.644  27.729  14.872  1.00 25.49           O
ATOM   6303  N   GLN C 593      49.956  25.647  15.589  1.00 23.59           N
ATOM   6304  CA  GLN C 593      51.401  25.733  15.434  1.00 23.72           C
ATOM   6305  CB  GLN C 593      52.070  24.513  16.063  1.00 24.68           C
ATOM   6306  CG  GLN C 593      51.987  24.533  17.597  1.00 31.16           C
ATOM   6307  CD  GLN C 593      53.064  23.710  18.243  1.00 51.52           C
ATOM   6308  OE1 GLN C 593      54.251  24.018  18.116  1.00 53.70           O
ATOM   6309  NE2 GLN C 593      52.664  22.632  18.919  1.00 40.98           N
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ATOM   6310  C   GLN C 593      51.725  25.846  13.932  1.00 28.69           C
ATOM   6311  O   GLN C 593      52.636  26.574  13.541  1.00 29.01           O
ATOM   6312  N   HIS C 594      50.917  25.200  13.094  1.00 26.89           N
ATOM   6313  CA  HIS C 594      51.091  25.327  11.647  1.00 28.22           C
ATOM   6314  CB  HIS C 594      50.229  24.318  10.872  1.00 29.46           C
ATOM   6315  CG  HIS C 594      50.422  24.374   9.385  1.00 33.84           C
ATOM   6316  ND1 HIS C 594      51.663  24.244   8.795  1.00 36.03           N
ATOM   6317  CE1 HIS C 594      51.531  24.314   7.482  1.00 35.11           C
ATOM   6318  NE2 HIS C 594      50.256  24.529   7.202  1.00 35.21           N
ATOM   6319  CD2 HIS C 594      49.539  24.566   8.373  1.00 35.15           C
ATOM   6320  C   HIS C 594      50.753  26.770  11.226  1.00 31.99           C
ATOM   6321  O   HIS C 594      51.477  27.370  10.433  1.00 33.28           O
ATOM   6322  N   HIS C 595      49.659  27.325  11.759  1.00 26.40           N
ATOM   6323  CA  HIS C 595      49.258  28.699  11.403  1.00 24.16           C
ATOM   6324  CB  HIS C 595      47.919  29.120  12.051  1.00 24.12           C
ATOM   6325  CG  HIS C 595      46.780  28.174  11.779  1.00 26.04           C
ATOM   6326  ND1 HIS C 595      46.460  27.731  10.511  1.00 27.15           N
ATOM   6327  CE1 HIS C 595      45.430  26.904  10.581  1.00 25.48           C
ATOM   6328  NE2 HIS C 595      45.050  26.819  11.845  1.00 25.29           N
ATOM   6329  CD2 HIS C 595      45.864  27.621  12.611  1.00 25.41           C
ATOM   6330  C   HIS C 595      50.348  29.709  11.700  1.00 25.30           C
ATOM   6331  O   HIS C 595      50.675  30.570  10.860  1.00 24.41           O
ATOM   6332  N   PHE C 596      50.966  29.591  12.872  1.00 23.74           N
ATOM   6333  CA  PHE C 596      52.054  30.510  13.229  1.00 24.28           C
ATOM   6334  CB  PHE C 596      52.461  30.332  14.697  1.00 26.69           C
ATOM   6335  CG  PHE C 596      53.633  31.186  15.096  1.00 29.15           C
ATOM   6336  CD1 PHE C 596      53.526  32.564  15.107  1.00 31.10           C
ATOM   6337  CE1 PHE C 596      54.604  33.343  15.450  1.00 32.37           C
ATOM   6338  CZ  PHE C 596      55.808  32.751  15.752  1.00 31.76           C
ATOM   6339  CE2 PHE C 596      55.940  31.392  15.719  1.00 33.81           C
ATOM   6340  CD2 PHE C 596      54.868  30.612  15.391  1.00 32.24           C
ATOM   6341  C   PHE C 596      53.291  30.310  12.340  1.00 28.79           C
ATOM   6342  O   PHE C 596      53.958  31.252  11.946  1.00 29.49           O
ATOM   6343  N   SER C 597      53.574  29.065  12.006  1.00 29.65           N
ATOM   6344  CA  SER C 597      54.699  28.755  11.133  1.00 31.56           C
ATOM   6345  CB  SER C 597      54.887  27.241  11.051  1.00 36.57           C
ATOM   6346  OG  SER C 597      55.568  26.920   9.869  1.00 55.03           O
ATOM   6347  C   SER C 597      54.488  29.352   9.728  1.00 36.19           C
ATOM   6348  O   SER C 597      55.436  29.806   9.101  1.00 38.57           O
ATOM   6349  N   GLN C 598      53.245  29.377   9.253  1.00 30.80           N
ATOM   6350  CA  GLN C 598      52.917  29.976   7.936  1.00 30.60           C
ATOM   6351  CB  GLN C 598      51.466  29.628   7.539  1.00 32.32           C
ATOM   6352  CG  GLN C 598      51.238  28.175   7.193  1.00 39.25           C
ATOM   6353  CD  GLN C 598      51.808  27.840   5.827  1.00 53.21           C
ATOM   6354  OE1 GLN C 598      51.269  28.282   4.808  1.00 47.13           O
ATOM   6355  NE2 GLN C 598      52.919  27.094   5.794  1.00 39.41           N
ATOM   6356  C   GLN C 598      53.062  31.500   8.008  1.00 31.19           C
ATOM   6357  O   GLN C 598      53.508  32.123   7.074  1.00 30.15           O
ATOM   6358  N   THR C 599      52.699  32.078   9.151  1.00 29.66           N
ATOM   6359  CA  THR C 599      52.815  33.511   9.390  1.00 29.98           C
ATOM   6360  CB  THR C 599      52.247  33.883  10.770  1.00 35.24           C
ATOM   6361  OG1 THR C 599      50.904  33.408  10.871  1.00 38.37           O
ATOM   6362  CG2 THR C 599      52.281  35.370  10.976  1.00 27.69           C
ATOM   6363  C   THR C 599      54.273  33.924   9.323  1.00 33.42           C
ATOM   6364  O   THR C 599      54.612  34.937   8.721  1.00 32.15           O
ATOM   6365  N   VAL C 600      55.125  33.168  10.004  1.00 32.26           N
ATOM   6366  CA  VAL C 600      56.564  33.451  10.016  1.00 31.98           C
ATOM   6367  CB  VAL C 600      57.325  32.543  11.036  1.00 35.87           C
ATOM   6368  CG1 VAL C 600      58.831  32.669  10.840  1.00 34.70           C
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ATOM   6369  CG2 VAL C 600      56.955  32.952  12.464  1.00 36.24           C
ATOM   6370  C   VAL C 600      57.147  33.328   8.593  1.00 32.75           C
ATOM   6371  O   VAL C 600      57.953  34.155   8.195  1.00 31.17           O
ATOM   6372  N   SER C 601      56.706  32.321   7.834  1.00 31.22           N
ATOM   6373  CA  SER C 601      57.142  32.141   6.438  1.00 32.84           C
ATOM   6374  CB  SER C 601      56.375  30.999   5.765  1.00 36.00           C
ATOM   6375  OG  SER C 601      56.825  29.758   6.234  1.00 51.42           O
ATOM   6376  C   SER C 601      56.890  33.415   5.620  1.00 39.59           C
ATOM   6377  O   SER C 601      57.802  33.902   4.937  1.00 41.14           O
ATOM   6378  N   ILE C 602      55.645  33.907   5.657  1.00 34.74           N
ATOM   6379  CA  ILE C 602      55.229  35.113   4.926  1.00 33.30           C
ATOM   6380  CB  ILE C 602      53.708  35.391   5.098  1.00 34.70           C
ATOM   6381  CG1 ILE C 602      52.890  34.310   4.379  1.00 34.76           C
ATOM   6382  CD1 ILE C 602      51.451  34.287   4.789  1.00 44.58           C
ATOM   6383  CG2 ILE C 602      53.361  36.779   4.614  1.00 31.96           C
ATOM   6384  C   ILE C 602      56.041  36.346   5.309  1.00 37.73           C
ATOM   6385  O   ILE C 602      56.473  37.122   4.451  1.00 37.89           O
ATOM   6386  N   LEU C 603      56.267  36.510   6.604  1.00 35.70           N
ATOM   6387  CA  LEU C 603      57.061  37.625   7.111  1.00 36.69           C
ATOM   6388  CB  LEU C 603      57.053  37.629   8.643  1.00 36.70           C
ATOM   6389  CG  LEU C 603      55.854  38.342   9.269  1.00 42.03           C
ATOM   6390  CD1 LEU C 603      55.782  38.063  10.769  1.00 43.15           C
ATOM   6391  CD2 LEU C 603      55.907  39.833   8.996  1.00 42.81           C
ATOM   6392  C   LEU C 603      58.516  37.558   6.595  1.00 42.15           C
ATOM   6393  O   LEU C 603      59.200  38.573   6.560  1.00 43.47           O
ATOM   6394  N   GLN C 604      58.975  36.362   6.224  1.00 39.01           N
ATOM   6395  CA  GLN C 604      60.338  36.165   5.733  1.00 40.19           C
ATOM   6396  CB  GLN C 604      60.932  34.869   6.281  1.00 41.13           C
ATOM   6397  CG  GLN C 604      61.272  34.925   7.768  1.00 49.74           C
ATOM   6398  CD  GLN C 604      61.771  33.590   8.297  1.00 57.81           C
ATOM   6399  OE1 GLN C 604      61.955  33.414   9.502  1.00 53.21           O
ATOM   6400  NE2 GLN C 604      61.973  32.634   7.394  1.00 54.51           N
ATOM   6401  C   GLN C 604      60.453  36.199   4.198  1.00 49.19           C
ATOM   6402  O   GLN C 604      61.510  35.880   3.631  1.00 52.26           O
ATOM   6403  N   LEU C 605      59.366  36.568   3.523  1.00 45.14           N
ATOM   6404  CA  LEU C 605      59.391  36.709   2.069  1.00 43.61           C
ATOM   6405  CB  LEU C 605      57.970  36.655   1.496  1.00 42.75           C
ATOM   6406  CG  LEU C 605      57.434  35.340   0.916  1.00 46.41           C
ATOM   6407  CD1 LEU C 605      58.083  34.124   1.524  1.00 47.65           C
ATOM   6408  CD2 LEU C 605      55.932  35.290   1.045  1.00 45.50           C
ATOM   6409  C   LEU C 605      59.979  38.103   1.831  1.00 47.73           C
ATOM   6410  O   LEU C 605      59.842  38.998   2.689  1.00 46.05           O
ATOM   6411  N   GLU C 606      60.644  38.288   0.690  1.00 44.08           N
ATOM   6412  CA  GLU C 606      61.237  39.575   0.384  1.00 42.73           C
ATOM   6413  CB  GLU C 606      62.212  39.476  -0.803  1.00 44.16           C
ATOM   6414  CG  GLU C 606      63.693  39.548  -0.348  1.00 55.05           C
ATOM   6415  CD  GLU C 606      64.693  39.080  -1.409  1.00 68.51           C
ATOM   6416  OE1 GLU C 606      64.571  39.507  -2.595  1.00 67.15           O
ATOM   6417  OE2 GLU C 606      65.622  38.310  -1.038  1.00 58.46           O
ATOM   6418  C   GLU C 606      60.154  40.621   0.175  1.00 43.83           C
ATOM   6419  O   GLU C 606      59.149  40.361  -0.481  1.00 42.45           O
ATOM   6420  N   GLY C 607      60.350  41.785   0.791  1.00 40.59           N
ATOM   6421  CA  GLY C 607      59.425  42.896   0.714  1.00 41.21           C
ATOM   6422  C   GLY C 607      58.219  42.757   1.645  1.00 46.21           C
ATOM   6423  O   GLY C 607      57.338  43.632   1.679  1.00 45.25           O
ATOM   6424  N   HIS C 608      58.193  41.678   2.427  1.00 42.48           N
ATOM   6425  CA  HIS C 608      57.060  41.390   3.301  1.00 42.34           C
ATOM   6426  CB  HIS C 608      56.607  39.940   3.132  1.00 43.19           C
ATOM   6427  CG  HIS C 608      55.960  39.652   1.809  1.00 46.94           C
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ATOM   6428  ND1 HIS C 608      56.559  39.937   0.599  1.00 49.04           N
ATOM   6429  CE1 HIS C 608      55.764  39.548  -0.383  1.00 48.54           C
ATOM   6430  NE2 HIS C 608      54.676  39.019   0.146  1.00 48.90           N
ATOM   6431  CD2 HIS C 608      54.777  39.062   1.514  1.00 48.96           C
ATOM   6432  C   HIS C 608      57.235  41.682   4.783  1.00 47.24           C
ATOM   6433  O   HIS C 608      56.287  41.534   5.546  1.00 48.16           O
ATOM   6434  N   ASN C 609      58.433  42.042   5.221  1.00 43.40           N
ATOM   6435  CA  ASN C 609      58.610  42.284   6.637  1.00 43.02           C
ATOM   6436  CB  ASN C 609      60.009  41.968   7.154  1.00 43.42           C
ATOM   6437  CG  ASN C 609      60.000  41.619   8.661  1.00 59.36           C
ATOM   6438  OD1 ASN C 609      59.557  42.425   9.492  1.00 46.26           O
ATOM   6439  ND2 ASN C 609      60.382  40.378   8.996  1.00 50.27           N
ATOM   6440  C   ASN C 609      58.115  43.624   7.126  1.00 46.94           C
ATOM   6441  O   ASN C 609      58.866  44.613   7.169  1.00 48.40           O
ATOM   6442  N   ILE C 610      56.852  43.615   7.542  1.00 40.15           N
ATOM   6443  CA  ILE C 610      56.160  44.778   8.043  1.00 39.56           C
ATOM   6444  CB  ILE C 610      54.622  44.504   8.126  1.00 41.86           C
ATOM   6445  CG1 ILE C 610      54.358  43.341   9.095  1.00 41.65           C
ATOM   6446  CD1 ILE C 610      52.909  43.220   9.520  1.00 46.07           C
ATOM   6447  CG2 ILE C 610      54.053  44.204   6.744  1.00 40.72           C
ATOM   6448  C   ILE C 610      56.691  45.274   9.394  1.00 44.01           C
ATOM   6449  O   ILE C 610      56.248  46.330   9.883  1.00 45.86           O
ATOM   6450  N   PHE C 611      57.607  44.519  10.007  1.00 38.51           N
ATOM   6451  CA  PHE C 611      58.187  44.914  11.299  1.00 39.18           C
ATOM   6452  CB  PHE C 611      58.072  43.779  12.334  1.00 40.34           C
ATOM   6453  CG  PHE C 611      56.659  43.323  12.603  1.00 40.85           C
ATOM   6454  CD1 PHE C 611      56.286  42.008  12.353  1.00 42.64           C
ATOM   6455  CE1 PHE C 611      54.998  41.591  12.589  1.00 43.33           C
ATOM   6456  CZ  PHE C 611      54.060  42.483  13.080  1.00 41.36           C
ATOM   6457  CE2 PHE C 611      54.411  43.785  13.334  1.00 42.98           C
ATOM   6458  CD2 PHE C 611      55.713  44.198  13.111  1.00 40.88           C
ATOM   6459  C   PHE C 611      59.669  45.282  11.159  1.00 45.85           C
ATOM   6460  O   PHE C 611      60.387  45.363  12.159  1.00 46.40           O
ATOM   6461  N   SER C 612      60.123  45.471   9.920  1.00 43.80           N
ATOM   6462  CA  SER C 612      61.536  45.755   9.614  1.00 43.39           C
ATOM   6463  CB  SER C 612      61.724  46.062   8.122  1.00 44.07           C
ATOM   6464  OG  SER C 612      61.224  47.349   7.793  1.00 54.14           O
ATOM   6465  C   SER C 612      62.209  46.838  10.460  1.00 49.57           C
ATOM   6466  O   SER C 612      63.397  46.729  10.769  1.00 51.40           O
ATOM   6467  N   THR C 613      61.448  47.876  10.810  1.00 45.48           N
ATOM   6468  CA  THR C 613      61.957  48.999  11.570  1.00 45.93           C
ATOM   6469  CB  THR C 613      61.229  50.284  11.211  1.00 54.87           C
ATOM   6470  OG1 THR C 613      60.129  50.471  12.110  1.00 60.14           O
ATOM   6471  CG2 THR C 613      60.714  50.228   9.775  1.00 57.55           C
ATOM   6472  C   THR C 613      62.000  48.838  13.089  1.00 54.35           C
ATOM   6473  O   THR C 613      62.242  49.824  13.810  1.00 56.96           O
ATOM   6474  N   LEU C 614      61.750  47.627  13.587  1.00 49.25           N
ATOM   6475  CA  LEU C 614      61.773  47.377  15.034  1.00 47.51           C
ATOM   6476  CB  LEU C 614      60.699  46.334  15.421  1.00 46.99           C
ATOM   6477  CG  LEU C 614      59.239  46.725  15.678  1.00 50.88           C
ATOM   6478  CD1 LEU C 614      58.630  47.450  14.472  1.00 51.16           C
ATOM   6479  CD2 LEU C 614      58.419  45.480  15.999  1.00 52.24           C
ATOM   6480  C   LEU C 614      63.134  46.794  15.357  1.00 51.41           C
ATOM   6481  O   LEU C 614      63.751  46.144  14.502  1.00 53.87           O
ATOM   6482  N   SER C 615      63.587  46.968  16.595  1.00 47.08           N
ATOM   6483  CA  SER C 615      64.868  46.385  17.026  1.00 46.49           C
ATOM   6484  CB  SER C 615      65.252  46.947  18.389  1.00 49.44           C
ATOM   6485  OG  SER C 615      64.433  46.397  19.404  1.00 55.87           O
ATOM   6486  C   SER C 615      64.684  44.873  17.149  1.00 49.86           C
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ATOM   6487  O   SER C 615      63.557  44.406  17.230  1.00 49.52           O
ATOM   6488  N   SER C 616      65.777  44.114  17.181  1.00 46.52           N
ATOM   6489  CA  SER C 616      65.674  42.664  17.295  1.00 46.63           C
ATOM   6490  CB  SER C 616      67.058  41.991  17.286  1.00 49.84           C
ATOM   6491  OG  SER C 616      67.402  41.562  15.958  1.00 62.63           O
ATOM   6492  C   SER C 616      64.876  42.266  18.528  1.00 50.62           C
ATOM   6493  O   SER C 616      64.211  41.228  18.541  1.00 52.26           O
ATOM   6494  N   SER C 617      64.923  43.124  19.542  1.00 45.22           N
ATOM   6495  CA  SER C 617      64.217  42.895  20.789  1.00 44.14           C
ATOM   6496  CB  SER C 617      64.662  43.914  21.845  1.00 45.09           C
ATOM   6497  OG  SER C 617      65.609  43.343  22.710  1.00 52.18           O
ATOM   6498  C   SER C 617      62.709  43.035  20.592  1.00 45.54           C
ATOM   6499  O   SER C 617      61.954  42.116  20.927  1.00 43.49           O
ATOM   6500  N   GLU C 618      62.297  44.215  20.119  1.00 39.82           N
ATOM   6501  CA  GLU C 618      60.897  44.517  19.888  1.00 40.02           C
ATOM   6502  CB  GLU C 618      60.727  45.936  19.354  1.00 41.05           C
ATOM   6503  CG  GLU C 618      61.068  47.033  20.359  1.00 49.35           C
ATOM   6504  CD  GLU C 618      60.880  48.442  19.764  1.00 65.96           C
ATOM   6505  OE1 GLU C 618      61.662  48.832  18.842  1.00 60.15           O
ATOM   6506  OE2 GLU C 618      59.908  49.128  20.180  1.00 63.13           O
ATOM   6507  C   GLU C 618      60.299  43.518  18.896  1.00 45.25           C
ATOM   6508  O   GLU C 618      59.163  43.066  19.060  1.00 46.42           O
ATOM   6509  N   TYR C 619      61.074  43.178  17.872  1.00 40.51           N
ATOM   6510  CA  TYR C 619      60.642  42.235  16.853  1.00 39.75           C
ATOM   6511  CB  TYR C 619      61.731  42.053  15.779  1.00 40.01           C
ATOM   6512  CG  TYR C 619      61.329  41.114  14.658  1.00 41.24           C
ATOM   6513  CD1 TYR C 619      60.778  41.606  13.463  1.00 42.57           C
ATOM   6514  CE1 TYR C 619      60.395  40.750  12.454  1.00 41.35           C
ATOM   6515  CZ  TYR C 619      60.533  39.390  12.627  1.00 46.81           C
ATOM   6516  OH  TYR C 619      60.145  38.529  11.630  1.00 46.84           O
ATOM   6517  CE2 TYR C 619      61.056  38.879  13.805  1.00 41.82           C
ATOM   6518  CD2 TYR C 619      61.446  39.733  14.809  1.00 41.18           C
ATOM   6519  C   TYR C 619      60.300  40.895  17.496  1.00 42.80           C
ATOM   6520  O   TYR C 619      59.216  40.353  17.303  1.00 42.52           O
ATOM   6521  N   GLU C 620      61.244  40.366  18.262  1.00 38.80           N
ATOM   6522  CA  GLU C 620      61.056  39.090  18.944  1.00 37.93           C
ATOM   6523  CB  GLU C 620      62.324  38.720  19.721  1.00 38.63           C
ATOM   6524  CG  GLU C 620      62.448  37.237  19.982  1.00 49.95           C
ATOM   6525  CD  GLU C 620      63.810  36.822  20.562  1.00 57.45           C
ATOM   6526  OE1 GLU C 620      64.835  36.989  19.864  1.00 58.85           O
ATOM   6527  OE2 GLU C 620      63.849  36.316  21.704  1.00 51.72           O
ATOM   6528  C   GLU C 620      59.841  39.176  19.892  1.00 39.92           C
ATOM   6529  O   GLU C 620      59.057  38.241  20.035  1.00 37.40           O
ATOM   6530  N   GLN C 621      59.659  40.351  20.472  1.00 35.41           N
ATOM   6531  CA  GLN C 621      58.543  40.605  21.358  1.00 34.98           C
ATOM   6532  CB  GLN C 621      58.704  42.005  21.955  1.00 36.28           C
ATOM   6533  CG  GLN C 621      58.018  42.164  23.274  1.00 48.40           C
ATOM   6534  CD  GLN C 621      58.327  43.496  23.933  1.00 57.17           C
ATOM   6535  OE1 GLN C 621      57.436  44.149  24.469  1.00 57.72           O
ATOM   6536  NE2 GLN C 621      59.583  43.921  23.862  1.00 42.08           N
ATOM   6537  C   GLN C 621      57.185  40.515  20.618  1.00 35.50           C
ATOM   6538  O   GLN C 621      56.298  39.810  21.066  1.00 33.06           O
ATOM   6539  N   VAL C 622      57.034  41.254  19.515  1.00 31.34           N
ATOM   6540  CA  VAL C 622      55.783  41.274  18.749  1.00 32.14           C
ATOM   6541  CB  VAL C 622      55.747  42.362  17.640  1.00 37.30           C
ATOM   6542  CG1 VAL C 622      56.628  41.969  16.458  1.00 38.08           C
ATOM   6543  CG2 VAL C 622      54.330  42.553  17.135  1.00 37.67           C
ATOM   6544  C   VAL C 622      55.461  39.889  18.202  1.00 34.99           C
ATOM   6545  O   VAL C 622      54.305  39.477  18.165  1.00 33.10           O
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ATOM   6546  N   LEU C 623      56.500  39.158  17.822  1.00 33.01           N
ATOM   6547  CA  LEU C 623      56.336  37.818  17.277  1.00 33.45           C
ATOM   6548  CB  LEU C 623      57.646  37.319  16.638  1.00 33.66           C
ATOM   6549  CG  LEU C 623      57.747  37.349  15.109  1.00 37.96           C
ATOM   6550  CD1 LEU C 623      57.422  38.740  14.541  1.00 36.80           C
ATOM   6551  CD2 LEU C 623      56.841  36.324  14.504  1.00 40.27           C
ATOM   6552  C   LEU C 623      55.896  36.850  18.358  1.00 35.79           C
ATOM   6553  O   LEU C 623      55.200  35.873  18.090  1.00 35.69           O
ATOM   6554  N   GLU C 624      56.316  37.115  19.590  1.00 32.15           N
ATOM   6555  CA  GLU C 624      55.936  36.271  20.733  1.00 31.18           C
ATOM   6556  CB  GLU C 624      56.855  36.574  21.931  1.00 33.19           C
ATOM   6557  CG  GLU C 624      56.789  35.545  23.036  1.00 40.52           C
ATOM   6558  CD  GLU C 624      57.243  34.176  22.587  1.00 51.26           C
ATOM   6559  OE1 GLU C 624      57.828  34.077  21.494  1.00 49.15           O
ATOM   6560  OE2 GLU C 624      56.982  33.187  23.317  1.00 51.01           O
ATOM   6561  C   GLU C 624      54.450  36.564  21.093  1.00 31.68           C
ATOM   6562  O   GLU C 624      53.699  35.696  21.477  1.00 31.04           O
ATOM   6563  N   ILE C 625      54.039  37.806  20.912  1.00 28.87           N
ATOM   6564  CA  ILE C 625      52.668  38.211  21.132  1.00 28.89           C
ATOM   6565  CB  ILE C 625      52.507  39.733  20.941  1.00 31.35           C
ATOM   6566  CG1 ILE C 625      53.156  40.483  22.110  1.00 31.64           C
ATOM   6567  CD1 ILE C 625      53.121  41.997  21.974  1.00 33.11           C
ATOM   6568  CG2 ILE C 625      51.008  40.098  20.779  1.00 31.89           C
ATOM   6569  C   ILE C 625      51.797  37.475  20.120  1.00 29.45           C
ATOM   6570  O   ILE C 625      50.737  36.984  20.473  1.00 25.55           O
ATOM   6571  N   ILE C 626      52.264  37.411  18.870  1.00 27.30           N
ATOM   6572  CA  ILE C 626      51.556  36.748  17.766  1.00 26.75           C
ATOM   6573  CB  ILE C 626      52.196  37.091  16.386  1.00 28.49           C
ATOM   6574  CG1 ILE C 626      51.998  38.566  16.071  1.00 28.37           C
ATOM   6575  CD1 ILE C 626      52.881  39.075  14.869  1.00 31.47           C
ATOM   6576  CG2 ILE C 626      51.581  36.254  15.284  1.00 28.35           C
ATOM   6577  C   ILE C 626      51.485  35.243  17.973  1.00 30.24           C
ATOM   6578  O   ILE C 626      50.435  34.626  17.739  1.00 29.33           O
ATOM   6579  N   ARG C 627      52.613  34.645  18.362  1.00 26.47           N
ATOM   6580  CA  ARG C 627      52.640  33.216  18.591  1.00 25.87           C
ATOM   6581  CB  ARG C 627      54.041  32.731  19.037  1.00 23.25           C
ATOM   6582  CG  ARG C 627      54.174  31.208  19.020  1.00 29.65           C
ATOM   6583  CD  ARG C 627      55.509  30.703  19.608  1.00 29.37           C
ATOM   6584  NE  ARG C 627      55.685  31.150  20.985  1.00 39.33           N
ATOM   6585  CZ  ARG C 627      55.069  30.599  22.026  1.00 46.56           C
ATOM   6586  NH1 ARG C 627      55.256  31.092  23.244  1.00 31.47           N
ATOM   6587  NH2 ARG C 627      54.241  29.575  21.846  1.00 43.87           N
ATOM   6588  C   ARG C 627      51.594  32.832  19.628  1.00 29.29           C
ATOM   6589  O   ARG C 627      50.723  32.020  19.353  1.00 27.47           O
ATOM   6590  N   LYS C 628      51.694  33.416  20.822  1.00 27.32           N
ATOM   6591  CA  LYS C 628      50.761  33.102  21.924  1.00 26.75           C
ATOM   6592  CB  LYS C 628      51.114  33.904  23.194  1.00 27.66           C
ATOM   6593  CG  LYS C 628      52.405  33.485  23.878  1.00 28.67           C
ATOM   6594  CD  LYS C 628      52.778  34.543  24.955  1.00 37.20           C
ATOM   6595  CE  LYS C 628      54.143  34.278  25.614  1.00 36.18           C
ATOM   6596  NZ  LYS C 628      54.631  35.545  26.289  1.00 44.51           N
ATOM   6597  C   LYS C 628      49.315  33.369  21.543  1.00 29.10           C
ATOM   6598  O   LYS C 628      48.433  32.593  21.894  1.00 27.72           O
ATOM   6599  N   ALA C 629      49.082  34.460  20.815  1.00 25.33           N
ATOM   6600  CA  ALA C 629      47.729  34.813  20.377  1.00 23.52           C
ATOM   6601  CB  ALA C 629      47.726  36.188  19.694  1.00 23.40           C
ATOM   6602  C   ALA C 629      47.118  33.735  19.451  1.00 23.89           C
ATOM   6603  O   ALA C 629      45.965  33.319  19.643  1.00 20.64           O
ATOM   6604  N   ILE C 630      47.908  33.278  18.478  1.00 22.36           N
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ATOM   6605  CA  ILE C 630      47.473  32.239  17.532  1.00 22.65           C
ATOM   6606  CB  ILE C 630      48.408  32.113  16.278  1.00 24.88           C
ATOM   6607  CG1 ILE C 630      48.349  33.394  15.419  1.00 25.58           C
ATOM   6608  CD1 ILE C 630      49.442  33.452  14.301  1.00 32.56           C
ATOM   6609  CG2 ILE C 630      48.044  30.875  15.463  1.00 20.90           C
ATOM   6610  C   ILE C 630      47.283  30.881  18.207  1.00 26.44           C
ATOM   6611  O   ILE C 630      46.297  30.186  17.926  1.00 25.63           O
ATOM   6612  N   ILE C 631      48.200  30.515  19.105  1.00 25.21           N
ATOM   6613  CA  ILE C 631      48.097  29.244  19.830  1.00 26.75           C
ATOM   6614  CB  ILE C 631      49.365  28.953  20.683  1.00 30.90           C
ATOM   6615  CG1 ILE C 631      50.604  28.818  19.784  1.00 31.98           C
ATOM   6616  CD1 ILE C 631      50.537  27.672  18.778  1.00 29.94           C
ATOM   6617  CG2 ILE C 631      49.162  27.665  21.518  1.00 31.51           C
ATOM   6618  C   ILE C 631      46.849  29.237  20.712  1.00 30.91           C
ATOM   6619  O   ILE C 631      46.218  28.189  20.895  1.00 30.86           O
ATOM   6620  N   ALA C 632      46.518  30.419  21.247  1.00 26.21           N
ATOM   6621  CA  ALA C 632      45.338  30.618  22.078  1.00 25.16           C
ATOM   6622  CB  ALA C 632      45.268  32.081  22.591  1.00 25.34           C
ATOM   6623  C   ALA C 632      44.048  30.246  21.324  1.00 28.50           C
ATOM   6624  O   ALA C 632      43.068  29.840  21.946  1.00 29.81           O
ATOM   6625  N   THR C 633      44.037  30.410  19.995  1.00 24.53           N
ATOM   6626  CA  THR C 633      42.864  30.042  19.197  1.00 23.47           C
ATOM   6627  CB  THR C 633      42.858  30.638  17.789  1.00 29.07           C
ATOM   6628  OG1 THR C 633      43.880  30.023  17.013  1.00 26.04           O
ATOM   6629  CG2 THR C 633      43.100  32.140  17.838  1.00 30.00           C
ATOM   6630  C   THR C 633      42.582  28.522  19.195  1.00 26.01           C
ATOM   6631  O   THR C 633      41.643  28.045  18.554  1.00 24.07           O
ATOM   6632  N   ASP C 634      43.410  27.755  19.893  1.00 24.74           N
ATOM   6633  CA  ASP C 634      43.155  26.313  20.042  1.00 24.68           C
ATOM   6634  CB  ASP C 634      44.435  25.554  20.432  1.00 24.56           C
ATOM   6635  CG  ASP C 634      44.186  24.060  20.682  1.00 35.17           C
ATOM   6636  OD1 ASP C 634      43.071  23.563  20.376  1.00 36.60           O
ATOM   6637  OD2 ASP C 634      45.110  23.376  21.178  1.00 36.97           O
ATOM   6638  C   ASP C 634      42.119  26.220  21.176  1.00 30.98           C
ATOM   6639  O   ASP C 634      42.435  26.477  22.337  1.00 29.75           O
ATOM   6640  N   LEU C 635      40.868  25.940  20.818  1.00 29.68           N
ATOM   6641  CA  LEU C 635      39.776  25.883  21.789  1.00 30.02           C
ATOM   6642  CB  LEU C 635      38.454  25.574  21.085  1.00 30.34           C
ATOM   6643  CG  LEU C 635      37.200  25.961  21.882  1.00 34.88           C
ATOM   6644  CD1 LEU C 635      36.999  27.504  21.921  1.00 33.96           C
ATOM   6645  CD2 LEU C 635      35.951  25.256  21.342  1.00 36.79           C
ATOM   6646  C   LEU C 635      40.027  24.931  22.953  1.00 33.32           C
ATOM   6647  O   LEU C 635      39.483  25.131  24.025  1.00 32.55           O
ATOM   6648  N   ALA C 636      40.863  23.912  22.744  1.00 29.82           N
ATOM   6649  CA  ALA C 636      41.194  22.946  23.800  1.00 28.54           C
ATOM   6650  CB  ALA C 636      41.998  21.758  23.217  1.00 28.18           C
ATOM   6651  C   ALA C 636      41.968  23.615  24.936  1.00 33.16           C
ATOM   6652  O   ALA C 636      42.003  23.108  26.053  1.00 33.36           O
ATOM   6653  N   LEU C 637      42.577  24.762  24.641  1.00 30.63           N
ATOM   6654  CA  LEU C 637      43.356  25.504  25.623  1.00 29.90           C
ATOM   6655  CB  LEU C 637      44.533  26.213  24.947  1.00 30.14           C
ATOM   6656  CG  LEU C 637      45.688  25.379  24.372  1.00 34.40           C
ATOM   6657  CD1 LEU C 637      46.752  26.319  23.811  1.00 32.90           C
ATOM   6658  CD2 LEU C 637      46.305  24.485  25.485  1.00 34.80           C
ATOM   6659  C   LEU C 637      42.482  26.548  26.301  1.00 31.08           C
ATOM   6660  O   LEU C 637      42.786  27.009  27.409  1.00 28.36           O
ATOM   6661  N   TYR C 638      41.400  26.924  25.622  1.00 27.67           N
ATOM   6662  CA  TYR C 638      40.503  27.958  26.136  1.00 27.57           C
ATOM   6663  CB  TYR C 638      39.383  28.244  25.142  1.00 28.10           C
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ATOM   6664  CG  TYR C 638      38.087  28.690  25.809  1.00 30.14           C
ATOM   6665  CD1 TYR C 638      37.916  30.014  26.230  1.00 32.39           C
ATOM   6666  CE1 TYR C 638      36.751  30.426  26.838  1.00 33.71           C
ATOM   6667  CZ  TYR C 638      35.736  29.516  27.052  1.00 36.33           C
ATOM   6668  OH  TYR C 638      34.571  29.924  27.658  1.00 36.83           O
ATOM   6669  CE2 TYR C 638      35.866  28.202  26.616  1.00 30.05           C
ATOM   6670  CD2 TYR C 638      37.043  27.790  26.035  1.00 29.73           C
ATOM   6671  C   TYR C 638      39.911  27.610  27.521  1.00 31.92           C
ATOM   6672  O   TYR C 638      39.801  28.467  28.402  1.00 29.83           O
ATOM   6673  N   PHE C 639      39.487  26.361  27.684  1.00 30.49           N
ATOM   6674  CA  PHE C 639      38.854  25.928  28.934  1.00 31.90           C
ATOM   6675  CB  PHE C 639      38.385  24.468  28.854  1.00 33.62           C
ATOM   6676  CG  PHE C 639      37.422  24.214  27.712  1.00 34.40           C
ATOM   6677  CD1 PHE C 639      36.075  24.596  27.822  1.00 36.33           C
ATOM   6678  CE1 PHE C 639      35.187  24.388  26.781  1.00 36.70           C
ATOM   6679  CZ  PHE C 639      35.639  23.804  25.595  1.00 35.12           C
ATOM   6680  CE2 PHE C 639      36.970  23.451  25.466  1.00 36.51           C
ATOM   6681  CD2 PHE C 639      37.860  23.663  26.514  1.00 34.14           C
ATOM   6682  C   PHE C 639      39.673  26.222  30.184  1.00 36.69           C
ATOM   6683  O   PHE C 639      39.198  26.927  31.080  1.00 37.83           O
ATOM   6684  N   GLY C 640      40.903  25.714  30.221  1.00 32.51           N
ATOM   6685  CA  GLY C 640      41.802  25.965  31.326  1.00 31.23           C
ATOM   6686  C   GLY C 640      42.164  27.442  31.461  1.00 33.43           C
ATOM   6687  O   GLY C 640      42.278  27.968  32.580  1.00 32.54           O
ATOM   6688  N   ASN C 641      42.370  28.124  30.336  1.00 29.30           N
ATOM   6689  CA  ASN C 641      42.699  29.550  30.384  1.00 28.93           C
ATOM   6690  CB  ASN C 641      43.032  30.106  28.992  1.00 25.77           C
ATOM   6691  CG  ASN C 641      43.509  31.564  29.030  1.00 35.55           C
ATOM   6692  OD1 ASN C 641      44.413  31.910  29.776  1.00 33.34           O
ATOM   6693  ND2 ASN C 641      42.889  32.415  28.232  1.00 25.51           N
ATOM   6694  C   ASN C 641      41.567  30.360  31.043  1.00 33.04           C
ATOM   6695  O   ASN C 641      41.824  31.172  31.914  1.00 33.33           O
ATOM   6696  N   ARG C 642      40.331  30.158  30.596  1.00 29.04           N
ATOM   6697  CA  ARG C 642      39.194  30.883  31.157  1.00 28.91           C
ATOM   6698  CB  ARG C 642      37.904  30.583  30.408  1.00 23.34           C
ATOM   6699  CG  ARG C 642      36.796  31.574  30.721  1.00 32.33           C
ATOM   6700  CD  ARG C 642      35.425  30.935  30.641  1.00 34.01           C
ATOM   6701  NE  ARG C 642      35.329  29.837  31.591  1.00 42.23           N
ATOM   6702  CZ  ARG C 642      34.972  29.974  32.864  1.00 55.25           C
ATOM   6703  NH1 ARG C 642      34.954  28.904  33.658  1.00 37.11           N
ATOM   6704  NH2 ARG C 642      34.637  31.175  33.339  1.00 36.72           N
ATOM   6705  C   ARG C 642      38.988  30.601  32.662  1.00 35.10           C
ATOM   6706  O   ARG C 642      38.646  31.507  33.447  1.00 33.67           O
ATOM   6707  N   LYS C 643      39.177  29.344  33.042  1.00 32.87           N
ATOM   6708  CA ALYS C 643      39.039  28.940  34.440  0.50 33.58           C
ATOM   6709  CA BLYS C 643      39.036  28.926  34.429  0.50 33.52           C
ATOM   6710  CB ALYS C 643      39.259  27.433  34.597  0.50 35.00           C
ATOM   6711  CB BLYS C 643      39.235  27.406  34.500  0.50 34.76           C
ATOM   6712  CG ALYS C 643      38.069  26.581  34.194  0.50 42.86           C
ATOM   6713  CG BLYS C 643      39.497  26.805  35.865  0.50 36.35           C
ATOM   6714  CD ALYS C 643      38.454  25.101  34.088  0.50 42.85           C
ATOM   6715  CD BLYS C 643      40.216  25.445  35.703  0.50 44.88           C
ATOM   6716  CE ALYS C 643      37.441  24.321  33.247  0.50 42.23           C
ATOM   6717  CE BLYS C 643      41.612  25.603  35.034  0.50 41.02           C
ATOM   6718  NZ ALYS C 643      38.099  23.223  32.479  0.50 39.92           N
ATOM   6719  NZ BLYS C 643      42.107  24.353  34.391  0.50 37.69           N
ATOM   6720  C   LYS C 643      40.066  29.680  35.296  1.00 38.76           C
ATOM   6721  O   LYS C 643      39.737  30.213  36.364  1.00 38.86           O
ATOM   6722  N   GLN C 644      41.302  29.744  34.816  1.00 33.29           N
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ATOM   6723  CA  GLN C 644      42.356  30.454  35.527  1.00 33.37           C
ATOM   6724  CB  GLN C 644      43.708  30.318  34.800  1.00 34.90           C
ATOM   6725  CG  GLN C 644      44.371  28.979  34.959  1.00 41.06           C
ATOM   6726  CD  GLN C 644      44.779  28.727  36.388  1.00 59.30           C
ATOM   6727  OE1 GLN C 644      44.605  27.620  36.914  1.00 61.56           O
ATOM   6728  NE2 GLN C 644      45.338  29.752  37.031  1.00 55.70           N
ATOM   6729  C   GLN C 644      42.012  31.926  35.640  1.00 36.85           C
ATOM   6730  O   GLN C 644      42.159  32.517  36.703  1.00 38.73           O
ATOM   6731  N   LEU C 645      41.599  32.520  34.524  1.00 31.54           N
ATOM   6732  CA  LEU C 645      41.294  33.933  34.463  1.00 31.94           C
ATOM   6733  CB  LEU C 645      40.943  34.358  33.041  1.00 32.15           C
ATOM   6734  CG  LEU C 645      42.098  34.801  32.183  1.00 38.50           C
ATOM   6735  CD1 LEU C 645      41.640  34.998  30.728  1.00 37.97           C
ATOM   6736  CD2 LEU C 645      42.702  36.100  32.743  1.00 41.14           C
ATOM   6737  C   LEU C 645      40.151  34.297  35.390  1.00 36.58           C
ATOM   6738  O   LEU C 645      40.204  35.307  36.091  1.00 35.40           O
ATOM   6739  N   GLU C 646      39.107  33.475  35.368  1.00 34.23           N
ATOM   6740  CA  GLU C 646      37.928  33.694  36.212  1.00 34.03           C
ATOM   6741  CB  GLU C 646      36.906  32.605  35.937  1.00 34.98           C
ATOM   6742  CG  GLU C 646      35.546  32.797  36.608  1.00 46.43           C
ATOM   6743  CD  GLU C 646      34.892  34.107  36.254  1.00 57.89           C
ATOM   6744  OE1 GLU C 646      34.936  34.515  35.065  1.00 50.79           O
ATOM   6745  OE2 GLU C 646      34.302  34.721  37.172  1.00 56.15           O
ATOM   6746  C   GLU C 646      38.331  33.703  37.700  1.00 38.92           C
ATOM   6747  O   GLU C 646      37.953  34.601  38.459  1.00 41.02           O
ATOM   6748  N   GLU C 647      39.149  32.732  38.088  1.00 34.04           N
ATOM   6749  CA  GLU C 647      39.664  32.619  39.453  1.00 35.43           C
ATOM   6750  CB  GLU C 647      40.592  31.396  39.530  1.00 36.70           C
ATOM   6751  CG  GLU C 647      40.851  30.872  40.917  1.00 47.42           C
ATOM   6752  CD  GLU C 647      41.406  29.435  40.902  1.00 61.47           C
ATOM   6753  OE1 GLU C 647      41.701  28.905  39.790  1.00 63.09           O
ATOM   6754  OE2 GLU C 647      41.518  28.826  42.005  1.00 62.08           O
ATOM   6755  C   GLU C 647      40.427  33.898  39.862  1.00 40.82           C
ATOM   6756  O   GLU C 647      40.161  34.487  40.908  1.00 40.57           O
ATOM   6757  N   MET C 648      41.376  34.320  39.025  1.00 37.90           N
ATOM   6758  CA  MET C 648      42.155  35.530  39.274  1.00 37.10           C
ATOM   6759  CB  MET C 648      43.139  35.792  38.131  1.00 39.95           C
ATOM   6760  CG  MET C 648      44.336  34.861  38.114  1.00 45.34           C
ATOM   6761  SD  MET C 648      45.170  34.916  36.479  1.00 50.32           S
ATOM   6762  CE  MET C 648      46.309  33.571  36.673  1.00 48.25           C
ATOM   6763  C   MET C 648      41.255  36.755  39.422  1.00 36.91           C
ATOM   6764  O   MET C 648      41.482  37.607  40.278  1.00 35.64           O
ATOM   6765  N   TYR C 649      40.296  36.894  38.514  1.00 32.49           N
ATOM   6766  CA  TYR C 649      39.382  38.038  38.559  1.00 32.64           C
ATOM   6767  CB  TYR C 649      38.391  37.994  37.402  1.00 32.68           C
ATOM   6768  CG  TYR C 649      37.266  39.008  37.548  1.00 33.93           C
ATOM   6769  CD1 TYR C 649      37.463  40.349  37.231  1.00 34.87           C
ATOM   6770  CE1 TYR C 649      36.436  41.273  37.354  1.00 34.62           C
ATOM   6771  CZ  TYR C 649      35.201  40.871  37.832  1.00 39.64           C
ATOM   6772  OH  TYR C 649      34.190  41.789  37.944  1.00 38.56           O
ATOM   6773  CE2 TYR C 649      34.965  39.557  38.155  1.00 34.84           C
ATOM   6774  CD2 TYR C 649      36.007  38.626  38.024  1.00 34.87           C
ATOM   6775  C   TYR C 649      38.586  38.076  39.891  1.00 37.15           C
ATOM   6776  O   TYR C 649      38.516  39.112  40.546  1.00 35.37           O
ATOM   6777  N   GLN C 650      37.965  36.946  40.241  1.00 35.23           N
ATOM   6778  CA  GLN C 650      37.149  36.830  41.446  1.00 35.79           C
ATOM   6779  CB  GLN C 650      36.385  35.501  41.477  1.00 36.76           C
ATOM   6780  CG  GLN C 650      35.361  35.290  40.364  1.00 38.06           C
ATOM   6781  CD  GLN C 650      34.137  36.211  40.473  1.00 51.56           C
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ATOM   6782  OE1 GLN C 650      33.987  36.983  41.427  1.00 44.21           O
ATOM   6783  NE2 GLN C 650      33.274  36.154  39.462  1.00 40.84           N
ATOM   6784  C   GLN C 650      37.905  37.046  42.771  1.00 40.12           C
ATOM   6785  O   GLN C 650      37.349  37.606  43.703  1.00 42.00           O
ATOM   6786  N   THR C 651      39.146  36.577  42.856  1.00 34.90           N
ATOM   6787  CA  THR C 651      39.950  36.733  44.057  1.00 35.05           C
ATOM   6788  CB  THR C 651      41.002  35.604  44.201  1.00 43.94           C
ATOM   6789  OG1 THR C 651      42.059  35.808  43.264  1.00 54.37           O
ATOM   6790  CG2 THR C 651      40.371  34.251  43.945  1.00 37.42           C
ATOM   6791  C   THR C 651      40.596  38.112  44.120  1.00 40.94           C
ATOM   6792  O   THR C 651      41.105  38.519  45.151  1.00 41.44           O
ATOM   6793  N   GLY C 652      40.584  38.827  43.002  1.00 38.10           N
ATOM   6794  CA  GLY C 652      41.151  40.159  42.925  1.00 37.89           C
ATOM   6795  C   GLY C 652      42.644  40.169  42.632  1.00 43.47           C
ATOM   6796  O   GLY C 652      43.274  41.216  42.689  1.00 45.10           O
ATOM   6797  N   SER C 653      43.214  39.008  42.324  1.00 40.33           N
ATOM   6798  CA  SER C 653      44.644  38.919  42.016  1.00 40.22           C
ATOM   6799  CB  SER C 653      45.199  37.535  42.374  1.00 42.26           C
ATOM   6800  OG  SER C 653      44.525  36.504  41.686  1.00 48.94           O
ATOM   6801  C   SER C 653      45.003  39.277  40.557  1.00 44.97           C
ATOM   6802  O   SER C 653      46.191  39.432  40.242  1.00 48.53           O
ATOM   6803  N   LEU C 654      43.992  39.419  39.692  1.00 37.78           N
ATOM   6804  CA  LEU C 654      44.223  39.786  38.298  1.00 36.41           C
ATOM   6805  CB  LEU C 654      42.935  39.776  37.482  1.00 36.21           C
ATOM   6806  CG  LEU C 654      43.069  40.001  35.959  1.00 40.97           C
ATOM   6807  CD1 LEU C 654      43.927  38.943  35.284  1.00 39.86           C
ATOM   6808  CD2 LEU C 654      41.708  40.077  35.306  1.00 44.06           C
ATOM   6809  C   LEU C 654      44.940  41.134  38.177  1.00 39.40           C
ATOM   6810  O   LEU C 654      44.441  42.157  38.622  1.00 38.84           O
ATOM   6811  N   ASN C 655      46.105  41.114  37.542  1.00 36.38           N
ATOM   6812  CA  ASN C 655      46.947  42.292  37.423  1.00 37.14           C
ATOM   6813  CB  ASN C 655      48.106  42.119  38.426  1.00 37.55           C
ATOM   6814  CG  ASN C 655      49.087  43.278  38.422  1.00 54.62           C
ATOM   6815  OD1 ASN C 655      48.786  44.372  37.942  1.00 53.59           O
ATOM   6816  ND2 ASN C 655      50.275  43.034  38.953  1.00 42.20           N
ATOM   6817  C   ASN C 655      47.485  42.435  35.990  1.00 41.42           C
ATOM   6818  O   ASN C 655      48.328  41.675  35.553  1.00 40.29           O
ATOM   6819  N   LEU C 656      47.009  43.439  35.273  1.00 42.32           N
ATOM   6820  CA  LEU C 656      47.452  43.683  33.899  1.00 44.23           C
ATOM   6821  CB  LEU C 656      46.514  44.674  33.195  1.00 45.18           C
ATOM   6822  CG  LEU C 656      45.051  44.242  32.994  1.00 51.06           C
ATOM   6823  CD1 LEU C 656      44.279  45.411  32.363  1.00 52.47           C
ATOM   6824  CD2 LEU C 656      44.967  43.012  32.084  1.00 52.03           C
ATOM   6825  C   LEU C 656      48.907  44.128  33.737  1.00 49.14           C
ATOM   6826  O   LEU C 656      49.389  44.235  32.612  1.00 50.39           O
ATOM   6827  N   ASN C 657      49.609  44.376  34.842  1.00 45.00           N
ATOM   6828  CA  ASN C 657      51.024  44.750  34.771  1.00 44.39           C
ATOM   6829  CB  ASN C 657      51.433  45.723  35.901  1.00 43.47           C
ATOM   6830  CG  ASN C 657      50.769  47.082  35.775  1.00 60.88           C
ATOM   6831  OD1 ASN C 657      50.619  47.629  34.668  1.00 53.74           O
ATOM   6832  ND2 ASN C 657      50.317  47.613  36.910  1.00 50.30           N
ATOM   6833  C   ASN C 657      51.868  43.481  34.839  1.00 48.93           C
ATOM   6834  O   ASN C 657      53.082  43.520  34.612  1.00 53.61           O
ATOM   6835  N   ASN C 658      51.226  42.357  35.160  1.00 39.95           N
ATOM   6836  CA  ASN C 658      51.917  41.071  35.210  1.00 38.15           C
ATOM   6837  CB  ASN C 658      51.241  40.178  36.241  1.00 35.07           C
ATOM   6838  CG  ASN C 658      51.930  38.844  36.399  1.00 52.57           C
ATOM   6839  OD1 ASN C 658      52.375  38.250  35.424  1.00 49.89           O
ATOM   6840  ND2 ASN C 658      51.989  38.345  37.632  1.00 45.24           N
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ATOM   6841  C   ASN C 658      51.783  40.452  33.809  1.00 42.72           C
ATOM   6842  O   ASN C 658      50.659  40.192  33.356  1.00 44.58           O
ATOM   6843  N   GLN C 659      52.909  40.288  33.106  1.00 37.01           N
ATOM   6844  CA  GLN C 659      52.916  39.804  31.716  1.00 35.25           C
ATOM   6845  CB  GLN C 659      54.338  39.699  31.188  1.00 35.26           C
ATOM   6846  CG  GLN C 659      54.438  39.352  29.717  1.00 34.76           C
ATOM   6847  CD  GLN C 659      53.788  40.381  28.821  1.00 46.89           C
ATOM   6848  OE1 GLN C 659      54.035  41.568  28.960  1.00 42.07           O
ATOM   6849  NE2 GLN C 659      52.912  39.928  27.917  1.00 39.39           N
ATOM   6850  C   GLN C 659      52.171  38.494  31.501  1.00 38.61           C
ATOM   6851  O   GLN C 659      51.461  38.310  30.519  1.00 40.18           O
ATOM   6852  N   SER C 660      52.353  37.585  32.438  1.00 34.84           N
ATOM   6853  CA  SER C 660      51.693  36.292  32.421  1.00 34.24           C
ATOM   6854  CB  SER C 660      52.299  35.399  33.525  1.00 38.70           C
ATOM   6855  OG  SER C 660      51.351  34.945  34.442  1.00 51.86           O
ATOM   6856  C   SER C 660      50.154  36.418  32.519  1.00 36.28           C
ATOM   6857  O   SER C 660      49.416  35.629  31.928  1.00 36.96           O
ATOM   6858  N   HIS C 661      49.662  37.449  33.198  1.00 31.34           N
ATOM   6859  CA  HIS C 661      48.211  37.706  33.265  1.00 30.49           C
ATOM   6860  CB  HIS C 661      47.854  38.660  34.423  1.00 31.05           C
ATOM   6861  CG  HIS C 661      48.069  38.061  35.779  1.00 34.97           C
ATOM   6862  ND1 HIS C 661      47.450  38.542  36.912  1.00 37.21           N
ATOM   6863  CE1 HIS C 661      47.807  37.807  37.951  1.00 37.98           C
ATOM   6864  NE2 HIS C 661      48.619  36.851  37.529  1.00 38.52           N
ATOM   6865  CD2 HIS C 661      48.794  36.986  36.175  1.00 38.23           C
ATOM   6866  C   HIS C 661      47.770  38.359  31.962  1.00 34.86           C
ATOM   6867  O   HIS C 661      46.690  38.067  31.446  1.00 37.54           O
ATOM   6868  N   ARG C 662      48.591  39.262  31.442  1.00 31.12           N
ATOM   6869  CA  ARG C 662      48.272  39.931  30.181  1.00 31.87           C
ATOM   6870  CB  ARG C 662      49.401  40.894  29.768  1.00 33.75           C
ATOM   6871  CG  ARG C 662      49.443  42.167  30.565  1.00 38.21           C
ATOM   6872  CD  ARG C 662      50.439  43.148  29.966  1.00 34.58           C
ATOM   6873  NE  ARG C 662      49.843  43.918  28.883  1.00 39.13           N
ATOM   6874  CZ  ARG C 662      48.986  44.916  29.066  1.00 51.32           C
ATOM   6875  NH1 ARG C 662      48.623  45.252  30.298  1.00 29.71           N
ATOM   6876  NH2 ARG C 662      48.494  45.580  28.023  1.00 37.58           N
ATOM   6877  C   ARG C 662      48.110  38.877  29.096  1.00 31.60           C
ATOM   6878  O   ARG C 662      47.233  38.975  28.282  1.00 32.61           O
ATOM   6879  N   ASP C 663      48.990  37.885  29.102  1.00 26.85           N
ATOM   6880  CA  ASP C 663      48.970  36.792  28.122  1.00 27.17           C
ATOM   6881  CB  ASP C 663      50.108  35.810  28.422  1.00 28.07           C
ATOM   6882  CG  ASP C 663      51.481  36.370  28.048  1.00 43.75           C
ATOM   6883  OD1 ASP C 663      51.545  37.492  27.476  1.00 44.32           O
ATOM   6884  OD2 ASP C 663      52.498  35.663  28.281  1.00 48.44           O
ATOM   6885  C   ASP C 663      47.624  36.032  28.155  1.00 30.83           C
ATOM   6886  O   ASP C 663      47.041  35.698  27.115  1.00 28.81           O
ATOM   6887  N   ARG C 664      47.152  35.748  29.362  1.00 27.42           N
ATOM   6888  CA  ARG C 664      45.890  35.039  29.558  1.00 27.17           C
ATOM   6889  CB  ARG C 664      45.654  34.750  31.049  1.00 27.17           C
ATOM   6890  CG  ARG C 664      46.614  33.725  31.661  1.00 31.06           C
ATOM   6891  CD  ARG C 664      45.956  33.044  32.864  1.00 30.37           C
ATOM   6892  NE  ARG C 664      46.776  31.957  33.391  1.00 27.47           N
ATOM   6893  CZ  ARG C 664      46.773  30.709  32.924  1.00 50.03           C
ATOM   6894  NH1 ARG C 664      45.999  30.379  31.888  1.00 36.42           N
ATOM   6895  NH2 ARG C 664      47.561  29.789  33.487  1.00 39.56           N
ATOM   6896  C   ARG C 664      44.740  35.864  29.027  1.00 31.48           C
ATOM   6897  O   ARG C 664      43.890  35.326  28.325  1.00 30.20           O
ATOM   6898  N   VAL C 665      44.722  37.162  29.361  1.00 27.52           N
ATOM   6899  CA  VAL C 665      43.671  38.073  28.881  1.00 25.49           C
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ATOM   6900  CB  VAL C 665      43.837  39.501  29.468  1.00 26.74           C
ATOM   6901  CG1 VAL C 665      42.786  40.427  28.868  1.00 24.68           C
ATOM   6902  CG2 VAL C 665      43.719  39.452  31.017  1.00 27.28           C
ATOM   6903  C   VAL C 665      43.647  38.152  27.350  1.00 29.99           C
ATOM   6904  O   VAL C 665      42.579  38.129  26.723  1.00 29.24           O
ATOM   6905  N   ILE C 666      44.828  38.275  26.748  1.00 27.24           N
ATOM   6906  CA  ILE C 666      44.917  38.355  25.291  1.00 26.78           C
ATOM   6907  CB  ILE C 666      46.365  38.676  24.833  1.00 28.83           C
ATOM   6908  CG1 ILE C 666      46.711  40.137  25.188  1.00 28.95           C
ATOM   6909  CD1 ILE C 666      48.152  40.510  24.937  1.00 30.76           C
ATOM   6910  CG2 ILE C 666      46.498  38.425  23.340  1.00 27.50           C
ATOM   6911  C   ILE C 666      44.422  37.038  24.702  1.00 31.08           C
ATOM   6912  O   ILE C 666      43.759  37.012  23.663  1.00 32.44           O
ATOM   6913  N   GLY C 667      44.698  35.940  25.401  1.00 25.79           N
ATOM   6914  CA  GLY C 667      44.258  34.627  24.940  1.00 24.87           C
ATOM   6915  C   GLY C 667      42.750  34.529  24.904  1.00 27.13           C
ATOM   6916  O   GLY C 667      42.186  33.956  23.987  1.00 26.85           O
ATOM   6917  N   LEU C 668      42.093  35.142  25.886  1.00 22.72           N
ATOM   6918  CA  LEU C 668      40.635  35.113  25.955  1.00 23.03           C
ATOM   6919  CB  LEU C 668      40.171  35.508  27.373  1.00 23.18           C
ATOM   6920  CG  LEU C 668      38.647  35.525  27.590  1.00 29.05           C
ATOM   6921  CD1 LEU C 668      38.085  34.092  27.564  1.00 26.98           C
ATOM   6922  CD2 LEU C 668      38.354  36.169  28.958  1.00 35.90           C
ATOM   6923  C   LEU C 668      40.003  36.023  24.881  1.00 27.05           C
ATOM   6924  O   LEU C 668      38.949  35.701  24.294  1.00 24.96           O
ATOM   6925  N   MET C 669      40.661  37.153  24.628  1.00 25.72           N
ATOM   6926  CA  MET C 669      40.263  38.074  23.545  1.00 25.28           C
ATOM   6927  CB  MET C 669      41.249  39.257  23.496  1.00 27.48           C
ATOM   6928  CG  MET C 669      41.020  40.269  24.641  1.00 31.31           C
ATOM   6929  SD  MET C 669      42.384  41.421  24.903  1.00 34.40           S
ATOM   6930  CE  MET C 669      42.531  42.212  23.178  1.00 30.81           C
ATOM   6931  C   MET C 669      40.303  37.310  22.217  1.00 25.42           C
ATOM   6932  O   MET C 669      39.376  37.354  21.442  1.00 25.07           O
ATOM   6933  N   MET C 670      41.376  36.563  21.989  1.00 21.00           N
ATOM   6934  CA  MET C 670      41.514  35.779  20.756  1.00 19.85           C
ATOM   6935  CB  MET C 670      42.887  35.065  20.701  1.00 21.48           C
ATOM   6936  CG  MET C 670      44.077  36.001  20.541  1.00 24.18           C
ATOM   6937  SD  MET C 670      43.990  36.936  19.016  1.00 29.37           S
ATOM   6938  CE  MET C 670      44.001  35.612  17.710  1.00 25.03           C
ATOM   6939  C   MET C 670      40.377  34.758  20.627  1.00 24.97           C
ATOM   6940  O   MET C 670      39.742  34.657  19.573  1.00 23.88           O
ATOM   6941  N   THR C 671      40.052  34.062  21.721  1.00 24.00           N
ATOM   6942  CA  THR C 671      38.973  33.085  21.675  1.00 23.19           C
ATOM   6943  CB  THR C 671      38.774  32.373  23.035  1.00 26.17           C
ATOM   6944  OG1 THR C 671      39.974  31.712  23.446  1.00 31.43           O
ATOM   6945  CG2 THR C 671      37.640  31.367  22.945  1.00 21.16           C
ATOM   6946  C   THR C 671      37.686  33.845  21.301  1.00 27.44           C
ATOM   6947  O   THR C 671      36.875  33.390  20.514  1.00 25.97           O
ATOM   6948  N   ALA C 672      37.483  34.987  21.941  1.00 24.63           N
ATOM   6949  CA  ALA C 672      36.273  35.784  21.765  1.00 23.64           C
ATOM   6950  CB  ALA C 672      36.290  37.003  22.740  1.00 23.53           C
ATOM   6951  C   ALA C 672      36.093  36.243  20.323  1.00 27.14           C
ATOM   6952  O   ALA C 672      34.982  36.180  19.765  1.00 25.17           O
ATOM   6953  N   CYS C 673      37.183  36.716  19.727  1.00 25.94           N
ATOM   6954  CA  CYS C 673      37.164  37.167  18.322  1.00 25.76           C
ATOM   6955  CB  CYS C 673      38.492  37.869  17.982  1.00 25.80           C
ATOM   6956  SG  CYS C 673      38.675  39.369  18.890  1.00 29.85           S
ATOM   6957  C   CYS C 673      36.948  35.980  17.383  1.00 26.71           C
ATOM   6958  O   CYS C 673      36.200  36.068  16.397  1.00 25.01           O
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ATOM   6959  N   ASP C 674      37.606  34.871  17.704  1.00 20.93           N
ATOM   6960  CA  ASP C 674      37.453  33.657  16.904  1.00 21.01           C
ATOM   6961  CB  ASP C 674      38.386  32.585  17.425  1.00 22.18           C
ATOM   6962  CG  ASP C 674      38.737  31.564  16.363  1.00 27.21           C
ATOM   6963  OD1 ASP C 674      38.479  31.850  15.190  1.00 30.32           O
ATOM   6964  OD2 ASP C 674      39.304  30.514  16.704  1.00 24.86           O
ATOM   6965  C   ASP C 674      36.015  33.105  16.878  1.00 26.43           C
ATOM   6966  O   ASP C 674      35.537  32.626  15.845  1.00 22.44           O
ATOM   6967  N   LEU C 675      35.303  33.230  17.998  1.00 25.48           N
ATOM   6968  CA  LEU C 675      33.938  32.716  18.079  1.00 26.77           C
ATOM   6969  CB  LEU C 675      33.660  32.249  19.499  1.00 28.34           C
ATOM   6970  CG  LEU C 675      34.574  31.179  20.117  1.00 34.98           C
ATOM   6971  CD1 LEU C 675      34.001  30.785  21.473  1.00 34.46           C
ATOM   6972  CD2 LEU C 675      34.668  29.951  19.204  1.00 41.02           C
ATOM   6973  C   LEU C 675      32.906  33.762  17.700  1.00 29.00           C
ATOM   6974  O   LEU C 675      31.711  33.562  17.850  1.00 30.05           O
ATOM   6975  N   CYS C 676      33.364  34.902  17.223  1.00 26.42           N
ATOM   6976  CA  CYS C 676      32.454  36.021  16.984  1.00 28.18           C
ATOM   6977  CB  CYS C 676      33.207  37.321  16.679  1.00 29.56           C
ATOM   6978  SG  CYS C 676      33.655  37.459  14.946  1.00 34.05           S
ATOM   6979  C   CYS C 676      31.251  35.834  16.073  1.00 31.52           C
ATOM   6980  O   CYS C 676      30.336  36.680  16.068  1.00 30.08           O
ATOM   6981  N   SER C 677      31.214  34.732  15.323  1.00 28.09           N
ATOM   6982  CA  SER C 677      30.036  34.485  14.482  1.00 28.46           C
ATOM   6983  CB  SER C 677      30.207  33.207  13.658  1.00 31.38           C
ATOM   6984  OG  SER C 677      30.245  32.084  14.499  1.00 46.10           O
ATOM   6985  C   SER C 677      28.771  34.391  15.349  1.00 33.59           C
ATOM   6986  O   SER C 677      27.659  34.727  14.894  1.00 35.27           O
ATOM   6987  N   VAL C 678      28.956  33.962  16.604  1.00 29.26           N
ATOM   6988  CA  VAL C 678      27.844  33.814  17.555  1.00 29.22           C
ATOM   6989  CB  VAL C 678      28.172  32.800  18.688  1.00 31.99           C
ATOM   6990  CG1 VAL C 678      28.633  31.462  18.110  1.00 31.82           C
ATOM   6991  CG2 VAL C 678      29.217  33.373  19.681  1.00 30.96           C
ATOM   6992  C   VAL C 678      27.388  35.144  18.170  1.00 35.52           C
ATOM   6993  O   VAL C 678      26.451  35.148  18.975  1.00 36.89           O
ATOM   6994  N   THR C 679      28.051  36.246  17.791  1.00 30.01           N
ATOM   6995  CA  THR C 679      27.765  37.566  18.342  1.00 28.95           C
ATOM   6996  CB  THR C 679      28.986  38.160  19.018  1.00 34.15           C
ATOM   6997  OG1 THR C 679      29.924  38.556  18.014  1.00 35.12           O
ATOM   6998  CG2 THR C 679      29.623  37.126  19.932  1.00 33.25           C
ATOM   6999  C   THR C 679      27.191  38.538  17.320  1.00 32.88           C
ATOM   7000  O   THR C 679      27.060  39.737  17.589  1.00 32.53           O
ATOM   7001  N   LYS C 680      26.881  38.029  16.133  1.00 28.64           N
ATOM   7002  CA  LYS C 680      26.327  38.852  15.089  1.00 27.75           C
ATOM   7003  CB  LYS C 680      26.670  38.237  13.718  1.00 31.25           C
ATOM   7004  CG  LYS C 680      28.174  38.109  13.453  1.00 25.86           C
ATOM   7005  CD  LYS C 680      28.867  39.462  13.522  1.00 26.00           C
ATOM   7006  CE  LYS C 680      30.396  39.276  13.488  1.00 26.15           C
ATOM   7007  NZ  LYS C 680      31.096  40.557  13.724  1.00 26.34           N
ATOM   7008  C   LYS C 680      24.821  38.904  15.254  1.00 28.66           C
ATOM   7009  O   LYS C 680      24.267  38.233  16.096  1.00 25.75           O
ATOM   7010  N   LEU C 681      24.151  39.689  14.427  1.00 28.09           N
ATOM   7011  CA  LEU C 681      22.695  39.728  14.463  1.00 28.01           C
ATOM   7012  CB  LEU C 681      22.174  40.915  13.643  1.00 27.53           C
ATOM   7013  CG  LEU C 681      22.614  42.301  14.100  1.00 31.15           C
ATOM   7014  CD1 LEU C 681      21.869  43.347  13.306  1.00 31.87           C
ATOM   7015  CD2 LEU C 681      22.377  42.490  15.607  1.00 34.74           C
ATOM   7016  C   LEU C 681      22.206  38.389  13.906  1.00 33.37           C
ATOM   7017  O   LEU C 681      22.883  37.750  13.082  1.00 32.20           O
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ATOM   7018  N   TRP C 682      21.057  37.940  14.400  1.00 31.33           N
ATOM   7019  CA  TRP C 682      20.502  36.631  14.053  1.00 31.70           C
ATOM   7020  CB  TRP C 682      19.078  36.480  14.620  1.00 30.66           C
ATOM   7021  CG  TRP C 682      18.440  35.195  14.249  1.00 31.82           C
ATOM   7022  CD1 TRP C 682      17.329  35.030  13.465  1.00 33.41           C
ATOM   7023  NE1 TRP C 682      17.021  33.694  13.354  1.00 32.66           N
ATOM   7024  CE2 TRP C 682      17.943  32.963  14.062  1.00 34.11           C
ATOM   7025  CD2 TRP C 682      18.881  33.872  14.606  1.00 30.43           C
ATOM   7026  CE3 TRP C 682      19.948  33.371  15.375  1.00 32.56           C
ATOM   7027  CZ3 TRP C 682      20.063  32.005  15.543  1.00 33.79           C
ATOM   7028  CH2 TRP C 682      19.110  31.117  14.969  1.00 34.57           C
ATOM   7029  CZ2 TRP C 682      18.041  31.579  14.250  1.00 33.53           C
ATOM   7030  C   TRP C 682      20.565  36.162  12.587  1.00 34.04           C
ATOM   7031  O   TRP C 682      20.980  35.030  12.289  1.00 32.88           O
ATOM   7032  N   PRO C 683      20.120  37.007  11.662  1.00 29.79           N
ATOM   7033  CA  PRO C 683      20.196  36.585  10.265  1.00 30.16           C
ATOM   7034  CB  PRO C 683      19.700  37.816   9.498  1.00 31.39           C
ATOM   7035  CG  PRO C 683      18.836  38.545  10.479  1.00 34.18           C
ATOM   7036  CD  PRO C 683      19.477  38.317  11.817  1.00 30.17           C
ATOM   7037  C   PRO C 683      21.632  36.210   9.841  1.00 34.03           C
ATOM   7038  O   PRO C 683      21.833  35.271   9.062  1.00 31.71           O
ATOM   7039  N   VAL C 684      22.627  36.947  10.333  1.00 30.35           N
ATOM   7040  CA  VAL C 684      24.018  36.639   9.983  1.00 27.93           C
ATOM   7041  CB  VAL C 684      24.960  37.830  10.351  1.00 30.09           C
ATOM   7042  CG1 VAL C 684      26.431  37.432  10.182  1.00 28.16           C
ATOM   7043  CG2 VAL C 684      24.625  39.059   9.513  1.00 30.03           C
ATOM   7044  C   VAL C 684      24.477  35.342  10.654  1.00 28.08           C
ATOM   7045  O   VAL C 684      25.067  34.473  10.030  1.00 26.82           O
ATOM   7046  N   THR C 685      24.187  35.225  11.942  1.00 25.94           N
ATOM   7047  CA  THR C 685      24.543  34.065  12.755  1.00 27.01           C
ATOM   7048  CB  THR C 685      24.085  34.272  14.216  1.00 34.20           C
ATOM   7049  OG1 THR C 685      24.875  35.312  14.796  1.00 41.58           O
ATOM   7050  CG2 THR C 685      24.257  32.999  15.035  1.00 29.95           C
ATOM   7051  C   THR C 685      23.954  32.786  12.176  1.00 33.80           C
ATOM   7052  O   THR C 685      24.614  31.740  12.119  1.00 34.25           O
ATOM   7053  N   LYS C 686      22.697  32.888  11.764  1.00 31.20           N
ATOM   7054  CA  LYS C 686      21.964  31.774  11.202  1.00 30.86           C
ATOM   7055  CB  LYS C 686      20.510  32.191  11.033  1.00 33.29           C
ATOM   7056  CG  LYS C 686      19.539  31.076  10.717  1.00 39.22           C
ATOM   7057  CD  LYS C 686      18.249  31.671  10.161  1.00 44.65           C
ATOM   7058  CE  LYS C 686      17.184  30.586   9.964  1.00 49.04           C
ATOM   7059  NZ  LYS C 686      16.124  30.987   8.960  1.00 52.77           N
ATOM   7060  C   LYS C 686      22.584  31.333   9.871  1.00 34.87           C
ATOM   7061  O   LYS C 686      22.824  30.147   9.649  1.00 35.64           O
ATOM   7062  N   LEU C 687      22.905  32.293   9.010  1.00 30.71           N
ATOM   7063  CA  LEU C 687      23.539  31.981   7.722  1.00 29.99           C
ATOM   7064  CB  LEU C 687      23.493  33.205   6.793  1.00 30.09           C
ATOM   7065  CG  LEU C 687      22.127  33.437   6.106  1.00 34.64           C
ATOM   7066  CD1 LEU C 687      22.000  34.850   5.541  1.00 33.64           C
ATOM   7067  CD2 LEU C 687      21.842  32.383   5.032  1.00 35.01           C
ATOM   7068  C   LEU C 687      24.968  31.452   7.899  1.00 34.38           C
ATOM   7069  O   LEU C 687      25.359  30.456   7.294  1.00 36.14           O
ATOM   7070  N   THR C 688      25.739  32.077   8.779  1.00 31.68           N
ATOM   7071  CA  THR C 688      27.102  31.615   9.042  1.00 32.03           C
ATOM   7072  CB  THR C 688      27.866  32.532  10.044  1.00 33.12           C
ATOM   7073  OG1 THR C 688      27.982  33.856   9.523  1.00 34.76           O
ATOM   7074  CG2 THR C 688      29.237  32.004  10.290  1.00 36.24           C
ATOM   7075  C   THR C 688      27.119  30.172   9.549  1.00 37.55           C
ATOM   7076  O   THR C 688      28.106  29.454   9.357  1.00 37.49           O
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ATOM	7077	N	ALA	C	689	26.090	29.795	10.305	1.00	33.82	N
ATOM	7078	CA	ALA	C	689	26.019	28.445	10.880	1.00	32.48	C
ATOM	7079	CB	ALA	C	689	24.798	28.293	11.778	1.00	32.20	C
ATOM	7080	C	ALA	C	689	26.041	27.359	9.797	1.00	36.83	C
ATOM	7081	O	ALA	C	689	26.599	26.268	10.001	1.00	37.24	O
ATOM	7082	N	ASN	C	690	25.470	27.672	8.638	1.00	34.33	N
ATOM	7083	CA	ASN	C	690	25.487	26.761	7.493	1.00	34.68	C
ATOM	7084	CB	ASN	C	690	24.773	27.432	6.303	1.00	37.65	C
ATOM	7085	CG	ASN	C	690	23.299	27.314	6.387	1.00	55.32	C
ATOM	7086	OD1	ASN	C	690	22.755	26.978	7.440	1.00	60.60	O
ATOM	7087	ND2	ASN	C	690	22.626	27.588	5.288	1.00	45.14	N
ATOM	7088	C	ASN	C	690	26.924	26.469	7.035	1.00	34.12	C
ATOM	7089	O	ASN	C	690	27.264	25.326	6.692	1.00	31.38	O
ATOM	7090	N	ASP	C	691	27.718	27.535	6.933	1.00	30.60	N
ATOM	7091	CA	ASP	C	691	29.104	27.428	6.467	1.00	31.15	C
ATOM	7092	CB	ASP	C	691	29.734	28.812	6.257	1.00	34.00	C
ATOM	7093	CG	ASP	C	691	29.024	29.612	5.192	1.00	44.29	C
ATOM	7094	OD1	ASP	C	691	28.391	28.982	4.303	1.00	45.88	O
ATOM	7095	OD2	ASP	C	691	29.103	30.864	5.243	1.00	49.91	O
ATOM	7096	C	ASP	C	691	29.921	26.625	7.437	1.00	32.76	C
ATOM	7097	O	ASP	C	691	30.789	25.860	7.039	1.00	32.23	O
ATOM	7098	N	ILE	C	692	29.613	26.792	8.720	1.00	30.04	N
ATOM	7099	CA	ILE	C	692	30.314	26.076	9.798	1.00	28.25	C
ATOM	7100	CB	ILE	C	692	29.930	26.659	11.192	1.00	30.17	C
ATOM	7101	CG1	ILE	C	692	30.427	28.108	11.326	1.00	29.46	C
ATOM	7102	CD1	ILE	C	692	29.882	28.842	12.582	1.00	36.86	C
ATOM	7103	CG2	ILE	C	692	30.436	25.776	12.304	1.00	29.80	C
ATOM	7104	C	ILE	C	692	30.030	24.578	9.724	1.00	30.05	C
ATOM	7105	O	ILE	C	692	30.929	23.726	9.848	1.00	26.76	O
ATOM	7106	N	TYR	C	693	28.758	24.251	9.544	1.00	31.39	N
ATOM	7107	CA	TYR	C	693	28.324	22.844	9.463	1.00	31.86	C
ATOM	7108	CB	TYR	C	693	26.819	22.709	9.774	1.00	32.07	C
ATOM	7109	CG	TYR	C	693	26.556	22.645	11.253	1.00	34.32	C
ATOM	7110	CD1	TYR	C	693	26.714	21.446	11.951	1.00	37.33	C
ATOM	7111	CE1	TYR	C	693	26.495	21.376	13.333	1.00	40.79	C
ATOM	7112	CZ	TYR	C	693	26.137	22.513	14.030	1.00	42.32	C
ATOM	7113	OH	TYR	C	693	25.938	22.433	15.392	1.00	41.31	O
ATOM	7114	CE2	TYR	C	693	26.016	23.720	13.370	1.00	36.05	C
ATOM	7115	CD2	TYR	C	693	26.209	23.785	11.979	1.00	35.13	C
ATOM	7116	C	TYR	C	693	28.721	22.157	8.151	1.00	36.77	C
ATOM	7117	O	TYR	C	693	29.039	20.977	8.144	1.00	39.18	O
ATOM	7118	N	ALA	C	694	28.799	22.912	7.062	1.00	31.70	N
ATOM	7119	CA	ALA	C	694	29.268	22.341	5.801	1.00	30.61	C
ATOM	7120	CB	ALA	C	694	29.311	23.409	4.681	1.00	30.69	C
ATOM	7121	C	ALA	C	694	30.668	21.792	6.066	1.00	35.41	C
ATOM	7122	O	ALA	C	694	30.995	20.691	5.615	1.00	36.95	O
ATOM	7123	N	GLU	C	695	31.483	22.536	6.821	1.00	29.51	N
ATOM	7124	CA	GLU	C	695	32.817	22.039	7.194	1.00	29.55	C
ATOM	7125	CB	GLU	C	695	33.693	23.140	7.808	1.00	30.98	C
ATOM	7126	CG	GLU	C	695	34.623	23.790	6.809	1.00	43.31	C
ATOM	7127	CD	GLU	C	695	35.611	24.775	7.436	1.00	47.20	C
ATOM	7128	OE1	GLU	C	695	36.154	24.494	8.532	1.00	44.85	O
ATOM	7129	OE2	GLU	C	695	35.927	25.784	6.768	1.00	40.44	O
ATOM	7130	C	GLU	C	695	32.765	20.842	8.153	1.00	34.14	C
ATOM	7131	O	GLU	C	695	33.454	19.849	7.939	1.00	35.20	O
ATOM	7132	N	PHE	C	696	31.949	20.934	9.205	1.00	31.08	N
ATOM	7133	CA	PHE	C	696	31.819	19.836	10.172	1.00	30.50	C
ATOM	7134	CB	PHE	C	696	30.772	20.168	11.250	1.00	32.35	C
ATOM	7135	CG	PHE	C	696	31.231	21.170	12.268	1.00	33.66	C

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ATOM   7136  CD1 PHE C 696      32.585  21.453  12.434  1.00 35.62           C
ATOM   7137  CE1 PHE C 696      33.003  22.420  13.378  1.00 35.80           C
ATOM   7138  CZ  PHE C 696      32.051  23.087  14.158  1.00 34.05           C
ATOM   7139  CE2 PHE C 696      30.687  22.807  13.985  1.00 36.04           C
ATOM   7140  CD2 PHE C 696      30.289  21.854  13.058  1.00 34.46           C
ATOM   7141  C   PHE C 696      31.388  18.544   9.475  1.00 32.75           C
ATOM   7142  O   PHE C 696      31.949  17.482   9.747  1.00 35.85           O
ATOM   7143  N   TRP C 697      30.367  18.634   8.615  1.00 26.22           N
ATOM   7144  CA  TRP C 697      29.824  17.465   7.918  1.00 28.05           C
ATOM   7145  CB  TRP C 697      28.525  17.794   7.169  1.00 27.90           C
ATOM   7146  CG  TRP C 697      27.419  18.178   8.081  1.00 32.02           C
ATOM   7147  CD1 TRP C 697      27.227  17.767   9.371  1.00 33.26           C
ATOM   7148  NE1 TRP C 697      26.082  18.327   9.874  1.00 33.57           N
ATOM   7149  CE2 TRP C 697      25.533  19.142   8.918  1.00 34.27           C
ATOM   7150  CD2 TRP C 697      26.344  19.051   7.771  1.00 30.45           C
ATOM   7151  CE3 TRP C 697      26.000  19.798   6.635  1.00 33.91           C
ATOM   7152  CZ3 TRP C 697      24.841  20.574   6.668  1.00 34.89           C
ATOM   7153  CH2 TRP C 697      24.041  20.625   7.824  1.00 35.40           C
ATOM   7154  CZ2 TRP C 697      24.370  19.923   8.957  1.00 33.35           C
ATOM   7155  C   TRP C 697      30.836  16.798   6.988  1.00 33.17           C
ATOM   7156  O   TRP C 697      30.874  15.572   6.928  1.00 33.22           O
ATOM   7157  N   ALA C 698      31.675  17.601   6.320  1.00 28.36           N
ATOM   7158  CA  ALA C 698      32.745  17.074   5.481  1.00 27.18           C
ATOM   7159  CB  ALA C 698      33.419  18.204   4.703  1.00 27.85           C
ATOM   7160  C   ALA C 698      33.779  16.358   6.347  1.00 31.17           C
ATOM   7161  O   ALA C 698      34.329  15.339   5.942  1.00 32.58           O
ATOM   7162  N   GLU C 699      34.111  16.921   7.507  1.00 27.07           N
ATOM   7163  CA  GLU C 699      35.084  16.248   8.383  1.00 27.51           C
ATOM   7164  CB  GLU C 699      35.524  17.134   9.572  1.00 28.57           C
ATOM   7165  CG  GLU C 699      36.514  16.421  10.479  1.00 34.90           C
ATOM   7166  CD  GLU C 699      37.002  17.294  11.631  1.00 47.80           C
ATOM   7167  OE1 GLU C 699      37.141  18.517  11.411  1.00 44.48           O
ATOM   7168  OE2 GLU C 699      37.232  16.763  12.751  1.00 33.12           O
ATOM   7169  C   GLU C 699      34.512  14.911   8.889  1.00 31.16           C
ATOM   7170  O   GLU C 699      35.224  13.917   8.985  1.00 31.46           O
ATOM   7171  N   GLY C 700      33.210  14.896   9.166  1.00 29.11           N
ATOM   7172  CA  GLY C 700      32.501  13.695   9.577  1.00 29.90           C
ATOM   7173  C   GLY C 700      32.552  12.641   8.489  1.00 35.36           C
ATOM   7174  O   GLY C 700      32.817  11.467   8.772  1.00 38.33           O
ATOM   7175  N   ASP C 701      32.363  13.067   7.239  1.00 29.48           N
ATOM   7176  CA  ASP C 701      32.436  12.151   6.107  1.00 28.09           C
ATOM   7177  CB  ASP C 701      32.203  12.896   4.797  1.00 29.48           C
ATOM   7178  CG  ASP C 701      30.741  13.270   4.577  1.00 39.04           C
ATOM   7179  OD1 ASP C 701      29.888  12.830   5.375  1.00 38.12           O
ATOM   7180  OD2 ASP C 701      30.462  14.043   3.623  1.00 45.49           O
ATOM   7181  C   ASP C 701      33.815  11.515   6.054  1.00 32.47           C
ATOM   7182  O   ASP C 701      33.939  10.310   5.833  1.00 34.26           O
ATOM   7183  N   GLU C 702      34.857  12.333   6.233  1.00 28.08           N
ATOM   7184  CA  GLU C 702      36.249  11.836   6.216  1.00 26.89           C
ATOM   7185  CB  GLU C 702      37.275  12.991   6.203  1.00 27.05           C
ATOM   7186  CG  GLU C 702      37.271  13.829   4.912  1.00 35.15           C
ATOM   7187  CD  GLU C 702      37.553  13.015   3.646  1.00 40.35           C
ATOM   7188  OE1 GLU C 702      38.364  12.062   3.679  1.00 42.06           O
ATOM   7189  OE2 GLU C 702      36.965  13.336   2.605  1.00 39.19           O
ATOM   7190  C   GLU C 702      36.520  10.892   7.405  1.00 32.00           C
ATOM   7191  O   GLU C 702      37.273   9.935   7.274  1.00 31.33           O
ATOM   7192  N   MET C 703      35.891  11.156   8.546  1.00 30.58           N
ATOM   7193  CA  MET C 703      36.046  10.302   9.733  1.00 32.18           C
ATOM   7194  CB  MET C 703      35.283  10.900  10.934  1.00 34.81           C
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ATOM   7195  CG  MET C 703      36.002  12.028  11.658  1.00 39.86           C
ATOM   7196  SD  MET C 703      37.483  11.447  12.500  1.00 45.81           S
ATOM   7197  CE  MET C 703      36.688  10.625  13.974  1.00 44.44           C
ATOM   7198  C   MET C 703      35.419   8.951   9.378  1.00 37.57           C
ATOM   7199  O   MET C 703      35.997   7.907   9.637  1.00 36.57           O
ATOM   7200  N   LYS C 704      34.237   8.988   8.767  1.00 35.04           N
ATOM   7201  CA  LYS C 704      33.556   7.763   8.354  1.00 35.37           C
ATOM   7202  CB  LYS C 704      32.234   8.097   7.642  1.00 37.46           C
ATOM   7203  CG  LYS C 704      31.102   8.479   8.574  1.00 37.62           C
ATOM   7204  CD  LYS C 704      29.895   9.033   7.803  1.00 40.79           C
ATOM   7205  CE  LYS C 704      28.764   9.436   8.777  1.00 40.24           C
ATOM   7206  NZ  LYS C 704      27.508   9.904   8.094  1.00 38.16           N
ATOM   7207  C   LYS C 704      34.473   6.948   7.433  1.00 39.09           C
ATOM   7208  O   LYS C 704      34.527   5.720   7.536  1.00 39.63           O
ATOM   7209  N   LYS C 705      35.227   7.641   6.573  1.00 34.64           N
ATOM   7210  CA  LYS C 705      36.161   6.982   5.654  1.00 34.16           C
ATOM   7211  CB  LYS C 705      36.594   7.925   4.538  1.00 35.43           C
ATOM   7212  CG  LYS C 705      35.454   8.374   3.605  1.00 36.60           C
ATOM   7213  CD  LYS C 705      36.072   9.158   2.466  1.00 37.91           C
ATOM   7214  CE  LYS C 705      35.084  10.024   1.781  1.00 34.53           C
ATOM   7215  NZ  LYS C 705      35.789  10.845   0.777  1.00 43.11           N
ATOM   7216  C   LYS C 705      37.387   6.382   6.330  1.00 40.54           C
ATOM   7217  O   LYS C 705      38.044   5.509   5.759  1.00 41.12           O
ATOM   7218  N   LEU C 706      37.713   6.858   7.533  1.00 38.77           N
ATOM   7219  CA  LEU C 706      38.853   6.317   8.282  1.00 39.88           C
ATOM   7220  CB  LEU C 706      39.419   7.343   9.279  1.00 39.73           C
ATOM   7221  CG  LEU C 706      40.433   8.379   8.803  1.00 42.46           C
ATOM   7222  CD1 LEU C 706      40.830   9.266   9.975  1.00 39.19           C
ATOM   7223  CD2 LEU C 706      41.638   7.735   8.144  1.00 43.54           C
ATOM   7224  C   LEU C 706      38.346   5.106   9.059  1.00 46.72           C
ATOM   7225  O   LEU C 706      39.138   4.340   9.606  1.00 47.36           O
ATOM   7226  N   GLY C 707      37.020   4.959   9.134  1.00 45.00           N
ATOM   7227  CA  GLY C 707      36.389   3.851   9.842  1.00 45.34           C
ATOM   7228  C   GLY C 707      35.980   4.186  11.266  1.00 51.43           C
ATOM   7229  O   GLY C 707      35.804   3.291  12.089  1.00 52.93           O
ATOM   7230  N   ILE C 708      35.813   5.480  11.544  1.00 47.31           N
ATOM   7231  CA  ILE C 708      35.413   5.966  12.860  1.00 46.40           C
ATOM   7232  CB  ILE C 708      36.484   6.931  13.434  1.00 48.18           C
ATOM   7233  CG1 ILE C 708      37.864   6.265  13.457  1.00 47.48           C
ATOM   7234  CD1 ILE C 708      39.014   7.247  13.538  1.00 53.14           C
ATOM   7235  CG2 ILE C 708      36.094   7.420  14.816  1.00 47.07           C
ATOM   7236  C   ILE C 708      34.100   6.713  12.743  1.00 50.72           C
ATOM   7237  O   ILE C 708      33.963   7.596  11.900  1.00 50.65           O
ATOM   7238  N   GLN C 709      33.147   6.417  13.619  1.00 49.26           N
ATOM   7239  CA  GLN C 709      31.884   7.159  13.588  1.00 49.84           C
ATOM   7240  CB  GLN C 709      30.808   6.517  14.477  1.00 50.59           C
ATOM   7241  CG  GLN C 709      29.653   5.851  13.706  1.00 59.06           C
ATOM   7242  CD  GLN C 709      28.815   6.824  12.867  1.00 68.35           C
ATOM   7243  OE1 GLN C 709      28.558   6.587  11.668  1.00 58.09           O
ATOM   7244  NE2 GLN C 709      28.321   7.881  13.513  1.00 59.62           N
ATOM   7245  C   GLN C 709      32.237   8.519  14.151  1.00 55.96           C
ATOM   7246  O   GLN C 709      32.942   8.612  15.159  1.00 57.69           O
ATOM   7247  N   PRO C 710      31.773   9.591  13.502  1.00 51.58           N
ATOM   7248  CA  PRO C 710      32.083  10.930  14.025  1.00 50.68           C
ATOM   7249  CB  PRO C 710      31.727  11.842  12.850  1.00 51.77           C
ATOM   7250  CG  PRO C 710      30.613  11.119  12.157  1.00 55.12           C
ATOM   7251  CD  PRO C 710      30.963   9.644  12.272  1.00 51.69           C
ATOM   7252  C   PRO C 710      31.174  11.281  15.210  1.00 51.92           C
ATOM   7253  O   PRO C 710      30.165  10.610  15.446  1.00 49.44           O
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ATOM	7254	N	ILE	C	711	31.494	12.371	15.903	1.00	50.07	N
ATOM	7255	CA	ILE	C	711	30.621	12.872	16.955	1.00	50.92	C
ATOM	7256	CB	ILE	C	711	31.352	13.886	17.882	1.00	54.01	C
ATOM	7257	CG1	ILE	C	711	31.652	15.200	17.167	1.00	53.88	C
ATOM	7258	CD1	ILE	C	711	32.449	16.166	18.031	1.00	55.18	C
ATOM	7259	CG2	ILE	C	711	32.635	13.277	18.434	1.00	54.94	C
ATOM	7260	C	ILE	C	711	29.417	13.478	16.213	1.00	54.79	C
ATOM	7261	O	ILE	C	711	29.545	13.957	15.074	1.00	54.07	O
ATOM	7262	N	PRO	C	712	28.215	13.356	16.791	1.00	51.74	N
ATOM	7263	CA	PRO	C	712	26.974	13.788	16.124	1.00	50.71	C
ATOM	7264	CB	PRO	C	712	25.932	13.763	17.256	1.00	52.15	C
ATOM	7265	CG	PRO	C	712	26.476	12.743	18.218	1.00	56.35	C
ATOM	7266	CD	PRO	C	712	27.973	12.914	18.178	1.00	52.71	C
ATOM	7267	C	PRO	C	712	27.014	15.146	15.450	1.00	52.09	C
ATOM	7268	O	PRO	C	712	26.377	15.357	14.413	1.00	51.19	O
ATOM	7269	N	MET	C	713	27.750	16.071	16.054	1.00	47.96	N
ATOM	7270	CA	MET	C	713	27.864	17.423	15.531	1.00	47.35	C
ATOM	7271	CB	MET	C	713	28.784	18.241	16.438	1.00	50.38	C
ATOM	7272	CG	MET	C	713	28.805	19.722	16.148	1.00	56.02	C
ATOM	7273	SD	MET	C	713	29.998	20.582	17.212	1.00	62.06	S
ATOM	7274	CE	MET	C	713	29.070	22.128	17.589	1.00	59.48	C
ATOM	7275	C	MET	C	713	28.413	17.400	14.102	1.00	47.57	C
ATOM	7276	O	MET	C	713	28.068	18.244	13.284	1.00	45.37	O
ATOM	7277	N	MET	C	714	29.274	16.424	13.826	1.00	44.89	N
ATOM	7278	CA	MET	C	714	29.908	16.285	12.520	1.00	45.22	C
ATOM	7279	CB	MET	C	714	31.389	15.987	12.692	1.00	47.95	C
ATOM	7280	CG	MET	C	714	32.047	16.891	13.721	1.00	53.60	C
ATOM	7281	SD	MET	C	714	33.813	17.014	13.548	1.00	60.02	S
ATOM	7282	CE	MET	C	714	34.330	15.342	13.720	1.00	58.03	C
ATOM	7283	C	MET	C	714	29.260	15.263	11.594	1.00	48.33	C
ATOM	7284	O	MET	C	714	29.769	15.008	10.512	1.00	47.54	O
ATOM	7285	N	ASP	C	715	28.147	14.673	12.022	1.00	45.04	N
ATOM	7286	CA	ASP	C	715	27.449	13.667	11.214	1.00	43.99	C
ATOM	7287	CB	ASP	C	715	26.958	12.502	12.083	1.00	44.33	C
ATOM	7288	CG	ASP	C	715	26.471	11.309	11.254	1.00	48.69	C
ATOM	7289	OD1	ASP	C	715	26.327	11.424	9.999	1.00	45.89	O
ATOM	7290	OD2	ASP	C	715	26.217	10.257	11.869	1.00	51.25	O
ATOM	7291	C	ASP	C	715	26.293	14.306	10.463	1.00	48.47	C
ATOM	7292	O	ASP	C	715	25.374	14.853	11.073	1.00	49.15	O
ATOM	7293	N	ARG	C	716	26.364	14.286	9.137	1.00	45.87	N
ATOM	7294	CA	ARG	C	716	25.319	14.908	8.332	1.00	46.05	C
ATOM	7295	CB	ARG	C	716	25.805	15.237	6.920	1.00	43.43	C
ATOM	7296	CG	ARG	C	716	25.946	14.062	6.007	1.00	50.53	C
ATOM	7297	CD	ARG	C	716	26.075	14.552	4.557	1.00	49.33	C
ATOM	7298	NE	ARG	C	716	27.426	15.018	4.272	1.00	49.61	N
ATOM	7299	CZ	ARG	C	716	27.748	16.265	3.954	1.00	54.02	C
ATOM	7300	NH1	ARG	C	716	26.801	17.186	3.872	1.00	48.52	N
ATOM	7301	NH2	ARG	C	716	29.021	16.585	3.717	1.00	36.39	N
ATOM	7302	C	ARG	C	716	23.970	14.187	8.355	1.00	50.62	C
ATOM	7303	O	ARG	C	716	22.949	14.765	7.991	1.00	52.40	O
ATOM	7304	N	ASP	C	717	23.958	12.963	8.881	1.00	46.74	N
ATOM	7305	CA	ASP	C	717	22.709	12.207	9.032	1.00	46.60	C
ATOM	7306	CB	ASP	C	717	22.973	10.704	9.089	1.00	47.45	C
ATOM	7307	CG	ASP	C	717	23.621	10.168	7.820	1.00	56.97	C
ATOM	7308	OD1	ASP	C	717	23.328	10.691	6.721	1.00	58.20	O
ATOM	7309	OD2	ASP	C	717	24.434	9.223	7.928	1.00	63.42	O
ATOM	7310	C	ASP	C	717	21.999	12.631	10.326	1.00	52.90	C
ATOM	7311	O	ASP	C	717	20.855	12.263	10.550	1.00	54.85	O
ATOM	7312	N	LYS	C	718	22.685	13.390	11.179	1.00	48.10	N

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ATOM   7313  CA  LYS C 718      22.094  13.861  12.429  1.00 46.56           C
ATOM   7314  CB  LYS C 718      22.943  13.425  13.623  1.00 46.00           C
ATOM   7315  CG  LYS C 718      23.218  11.931  13.638  1.00 45.48           C
ATOM   7316  CD  LYS C 718      24.056  11.506  14.833  1.00 51.97           C
ATOM   7317  CE  LYS C 718      24.269   9.990  14.849  1.00 52.96           C
ATOM   7318  NZ  LYS C 718      24.969   9.544  16.106  1.00 57.96           N
ATOM   7319  C   LYS C 718      21.881  15.381  12.392  1.00 52.42           C
ATOM   7320  O   LYS C 718      22.133  16.080  13.372  1.00 56.00           O
ATOM   7321  N   LYS C 719      21.412  15.868  11.246  1.00 46.71           N
ATOM   7322  CA  LYS C 719      21.146  17.285  11.005  1.00 46.91           C
ATOM   7323  CB  LYS C 719      20.764  17.488   9.528  1.00 48.23           C
ATOM   7324  CG  LYS C 719      21.603  18.505   8.803  1.00 54.57           C
ATOM   7325  CD  LYS C 719      21.079  18.767   7.386  1.00 52.32           C
ATOM   7326  CE  LYS C 719      21.638  17.767   6.399  1.00 53.48           C
ATOM   7327  NZ  LYS C 719      23.025  18.102   5.968  1.00 60.64           N
ATOM   7328  C   LYS C 719      20.057  17.860  11.924  1.00 53.37           C
ATOM   7329  O   LYS C 719      20.154  18.994  12.401  1.00 54.56           O
ATOM   7330  N   ASP C 720      19.031  17.050  12.164  1.00 49.18           N
ATOM   7331  CA  ASP C 720      17.912  17.369  13.057  1.00 48.63           C
ATOM   7332  CB  ASP C 720      17.069  16.097  13.235  1.00 49.36           C
ATOM   7333  CG  ASP C 720      17.940  14.812  13.266  1.00 60.34           C
ATOM   7334  OD1 ASP C 720      18.407  14.356  12.174  1.00 60.20           O
ATOM   7335  OD2 ASP C 720      18.142  14.241  14.375  1.00 61.96           O
ATOM   7336  C   ASP C 720      18.426  17.804  14.442  1.00 54.94           C
ATOM   7337  O   ASP C 720      17.732  18.492  15.186  1.00 58.00           O
ATOM   7338  N   GLU C 721      19.617  17.334  14.802  1.00 48.86           N
ATOM   7339  CA  GLU C 721      20.219  17.566  16.116  1.00 47.61           C
ATOM   7340  CB  GLU C 721      21.222  16.439  16.371  1.00 48.70           C
ATOM   7341  CG  GLU C 721      21.095  15.724  17.684  1.00 58.84           C
ATOM   7342  CD  GLU C 721      21.629  14.289  17.614  1.00 66.66           C
ATOM   7343  OE1 GLU C 721      22.636  13.987  18.311  1.00 62.36           O
ATOM   7344  OE2 GLU C 721      21.048  13.476  16.843  1.00 59.29           O
ATOM   7345  C   GLU C 721      20.950  18.916  16.278  1.00 49.21           C
ATOM   7346  O   GLU C 721      21.416  19.253  17.370  1.00 49.60           O
ATOM   7347  N   VAL C 722      21.092  19.649  15.179  1.00 44.56           N
ATOM   7348  CA  VAL C 722      21.825  20.910  15.170  1.00 44.58           C
ATOM   7349  CB  VAL C 722      21.928  21.506  13.751  1.00 47.79           C
ATOM   7350  CG1 VAL C 722      22.406  22.953  13.790  1.00 47.64           C
ATOM   7351  CG2 VAL C 722      22.843  20.641  12.890  1.00 47.48           C
ATOM   7352  C   VAL C 722      21.456  21.951  16.242  1.00 49.51           C
ATOM   7353  O   VAL C 722      22.327  22.452  16.961  1.00 48.27           O
ATOM   7354  N   PRO C 723      20.164  22.281  16.362  1.00 45.73           N
ATOM   7355  CA  PRO C 723      19.736  23.286  17.342  1.00 45.88           C
ATOM   7356  CB  PRO C 723      18.218  23.337  17.151  1.00 47.44           C
ATOM   7357  CG  PRO C 723      18.024  22.926  15.730  1.00 50.30           C
ATOM   7358  CD  PRO C 723      19.053  21.840  15.507  1.00 45.77           C
ATOM   7359  C   PRO C 723      20.103  22.940  18.782  1.00 47.64           C
ATOM   7360  O   PRO C 723      20.475  23.834  19.558  1.00 46.25           O
ATOM   7361  N   GLN C 724      20.004  21.660  19.138  1.00 43.62           N
ATOM   7362  CA  GLN C 724      20.375  21.235  20.483  1.00 43.63           C
ATOM   7363  CB  GLN C 724      19.948  19.791  20.761  1.00 44.75           C
ATOM   7364  CG  GLN C 724      19.425  19.603  22.168  1.00 49.61           C
ATOM   7365  CD  GLN C 724      18.033  20.177  22.320  1.00 64.22           C
ATOM   7366  OE1 GLN C 724      17.161  19.943  21.473  1.00 65.26           O
ATOM   7367  NE2 GLN C 724      17.826  20.978  23.364  1.00 50.55           N
ATOM   7368  C   GLN C 724      21.896  21.337  20.613  1.00 47.97           C
ATOM   7369  O   GLN C 724      22.408  21.678  21.679  1.00 49.79           O
ATOM   7370  N   GLY C 725      22.607  21.006  19.534  1.00 41.22           N
ATOM   7371  CA  GLY C 725      24.053  21.063  19.501  1.00 39.38           C
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ATOM   7372  C   GLY C 725      24.500  22.489  19.733  1.00 40.13           C
ATOM   7373  O   GLY C 725      25.434  22.732  20.487  1.00 40.53           O
ATOM   7374  N   GLN C 726      23.808  23.433  19.103  1.00 35.24           N
ATOM   7375  CA  GLN C 726      24.101  24.851  19.268  1.00 35.69           C
ATOM   7376  CB  GLN C 726      23.280  25.691  18.288  1.00 37.11           C
ATOM   7377  CG  GLN C 726      23.775  25.638  16.842  1.00 39.89           C
ATOM   7378  CD  GLN C 726      25.162  26.220  16.694  1.00 50.93           C
ATOM   7379  OE1 GLN C 726      25.378  27.404  16.939  1.00 47.95           O
ATOM   7380  NE2 GLN C 726      26.123  25.376  16.358  1.00 46.24           N
ATOM   7381  C   GLN C 726      23.849  25.310  20.708  1.00 41.09           C
ATOM   7382  O   GLN C 726      24.689  26.012  21.284  1.00 41.37           O
ATOM   7383  N   LEU C 727      22.726  24.886  21.301  1.00 40.03           N
ATOM   7384  CA  LEU C 727      22.432  25.243  22.698  1.00 42.06           C
ATOM   7385  CB  LEU C 727      21.128  24.586  23.193  1.00 43.91           C
ATOM   7386  CG  LEU C 727      19.804  25.316  22.989  1.00 49.93           C
ATOM   7387  CD1 LEU C 727      18.794  24.836  24.034  1.00 50.15           C
ATOM   7388  CD2 LEU C 727      19.997  26.831  23.072  1.00 53.49           C
ATOM   7389  C   LEU C 727      23.570  24.790  23.612  1.00 41.92           C
ATOM   7390  O   LEU C 727      24.016  25.535  24.475  1.00 43.82           O
ATOM   7391  N   GLY C 728      24.009  23.550  23.442  1.00 34.98           N
ATOM   7392  CA  GLY C 728      25.094  23.015  24.237  1.00 35.06           C
ATOM   7393  C   GLY C 728      26.376  23.825  24.071  1.00 40.64           C
ATOM   7394  O   GLY C 728      27.153  23.976  25.010  1.00 41.83           O
ATOM   7395  N   PHE C 729      26.604  24.350  22.869  1.00 35.22           N
ATOM   7396  CA  PHE C 729      27.820  25.122  22.603  1.00 33.22           C
ATOM   7397  CB  PHE C 729      28.029  25.281  21.084  1.00 34.31           C
ATOM   7398  CG  PHE C 729      29.269  26.047  20.723  1.00 35.45           C
ATOM   7399  CD1 PHE C 729      30.530  25.472  20.877  1.00 35.87           C
ATOM   7400  CE1 PHE C 729      31.663  26.189  20.578  1.00 36.73           C
ATOM   7401  CZ  PHE C 729      31.569  27.499  20.124  1.00 35.50           C
ATOM   7402  CE2 PHE C 729      30.342  28.097  20.000  1.00 38.52           C
ATOM   7403  CD2 PHE C 729      29.187  27.379  20.307  1.00 37.38           C
ATOM   7404  C   PHE C 729      27.786  26.503  23.297  1.00 33.26           C
ATOM   7405  O   PHE C 729      28.760  26.916  23.925  1.00 32.15           O
ATOM   7406  N   TYR C 730      26.667  27.213  23.151  1.00 28.78           N
ATOM   7407  CA  TYR C 730      26.511  28.539  23.736  1.00 29.18           C
ATOM   7408  CB  TYR C 730      25.140  29.115  23.363  1.00 29.76           C
ATOM   7409  CG  TYR C 730      25.092  29.790  22.008  1.00 30.81           C
ATOM   7410  CD1 TYR C 730      25.227  29.051  20.833  1.00 31.91           C
ATOM   7411  CE1 TYR C 730      25.124  29.659  19.594  1.00 32.66           C
ATOM   7412  CZ  TYR C 730      24.931  31.021  19.514  1.00 36.23           C
ATOM   7413  OH  TYR C 730      24.849  31.625  18.282  1.00 28.27           O
ATOM   7414  CE2 TYR C 730      24.794  31.785  20.678  1.00 32.25           C
ATOM   7415  CD2 TYR C 730      24.898  31.173  21.905  1.00 31.31           C
ATOM   7416  C   TYR C 730      26.623  28.458  25.258  1.00 36.51           C
ATOM   7417  O   TYR C 730      27.322  29.261  25.899  1.00 37.48           O
ATOM   7418  N   ASN C 731      25.924  27.480  25.827  1.00 33.89           N
ATOM   7419  CA  ASN C 731      25.919  27.264  27.270  1.00 33.78           C
ATOM   7420  CB  ASN C 731      24.847  26.223  27.667  1.00 30.78           C
ATOM   7421  CG  ASN C 731      23.446  26.801  27.665  1.00 45.38           C
ATOM   7422  OD1 ASN C 731      23.250  28.008  27.899  1.00 46.12           O
ATOM   7423  ND2 ASN C 731      22.462  25.954  27.350  1.00 33.13           N
ATOM   7424  C   ASN C 731      27.262  26.819  27.798  1.00 37.84           C
ATOM   7425  O   ASN C 731      27.677  27.245  28.857  1.00 39.53           O
ATOM   7426  N   ALA C 732      27.927  25.929  27.075  1.00 33.66           N
ATOM   7427  CA  ALA C 732      29.198  25.345  27.542  1.00 32.80           C
ATOM   7428  CB  ALA C 732      29.320  23.897  27.056  1.00 33.27           C
ATOM   7429  C   ALA C 732      30.465  26.132  27.148  1.00 35.14           C
ATOM   7430  O   ALA C 732      31.487  26.063  27.828  1.00 31.88           O
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ATOM   7431  N   VAL C 733      30.402  26.856  26.034  1.00 32.38           N
ATOM   7432  CA  VAL C 733      31.584  27.563  25.531  1.00 31.53           C
ATOM   7433  CB  VAL C 733      32.020  26.983  24.129  1.00 34.53           C
ATOM   7434  CG1 VAL C 733      33.282  27.669  23.609  1.00 33.96           C
ATOM   7435  CG2 VAL C 733      32.199  25.463  24.184  1.00 34.18           C
ATOM   7436  C   VAL C 733      31.401  29.079  25.414  1.00 33.11           C
ATOM   7437  O   VAL C 733      32.141  29.849  26.025  1.00 35.46           O
ATOM   7438  N   ALA C 734      30.500  29.490  24.523  1.00 25.98           N
ATOM   7439  CA  ALA C 734      30.320  30.898  24.198  1.00 25.01           C
ATOM   7440  CB  ALA C 734      29.326  31.062  23.046  1.00 24.31           C
ATOM   7441  C   ALA C 734      29.975  31.847  25.348  1.00 32.97           C
ATOM   7442  O   ALA C 734      30.673  32.857  25.550  1.00 32.25           O
ATOM   7443  N   ILE C 735      28.855  31.578  26.026  1.00 32.62           N
ATOM   7444  CA  ILE C 735      28.393  32.444  27.110  1.00 32.10           C
ATOM   7445  CB  ILE C 735      27.037  31.978  27.693  1.00 35.42           C
ATOM   7446  CG1 ILE C 735      25.938  32.040  26.617  1.00 35.54           C
ATOM   7447  CD1 ILE C 735      25.442  33.439  26.311  1.00 41.30           C
ATOM   7448  CG2 ILE C 735      26.660  32.864  28.907  1.00 35.04           C
ATOM   7449  C   ILE C 735      29.454  32.655  28.190  1.00 30.88           C
ATOM   7450  O   ILE C 735      29.765  33.786  28.533  1.00 29.39           O
ATOM   7451  N   PRO C 736      30.072  31.571  28.690  1.00 27.33           N
ATOM   7452  CA  PRO C 736      31.109  31.765  29.715  1.00 27.56           C
ATOM   7453  CB  PRO C 736      31.601  30.349  30.013  1.00 28.26           C
ATOM   7454  CG  PRO C 736      30.545  29.448  29.534  1.00 31.94           C
ATOM   7455  CD  PRO C 736      29.704  30.158  28.520  1.00 28.14           C
ATOM   7456  C   PRO C 736      32.274  32.602  29.182  1.00 33.02           C
ATOM   7457  O   PRO C 736      32.883  33.367  29.923  1.00 32.50           O
ATOM   7458  N   CYS C 737      32.596  32.434  27.899  1.00 30.86           N
ATOM   7459  CA  CYS C 737      33.711  33.171  27.294  1.00 29.57           C
ATOM   7460  CB  CYS C 737      33.945  32.703  25.848  1.00 29.73           C
ATOM   7461  SG  CYS C 737      35.058  33.791  24.937  1.00 33.41           S
ATOM   7462  C   CYS C 737      33.424  34.683  27.312  1.00 28.77           C
ATOM   7463  O   CYS C 737      34.206  35.476  27.822  1.00 28.44           O
ATOM   7464  N   TYR C 738      32.285  35.070  26.758  1.00 23.47           N
ATOM   7465  CA  TYR C 738      31.912  36.474  26.720  1.00 23.97           C
ATOM   7466  CB  TYR C 738      30.783  36.695  25.687  1.00 26.18           C
ATOM   7467  CG  TYR C 738      31.240  36.395  24.241  1.00 29.30           C
ATOM   7468  CD1 TYR C 738      32.202  37.202  23.586  1.00 30.10           C
ATOM   7469  CE1 TYR C 738      32.653  36.898  22.298  1.00 29.31           C
ATOM   7470  CZ  TYR C 738      32.142  35.770  21.648  1.00 34.93           C
ATOM   7471  OH  TYR C 738      32.589  35.443  20.379  1.00 31.62           O
ATOM   7472  CE2 TYR C 738      31.205  34.943  22.290  1.00 32.16           C
ATOM   7473  CD2 TYR C 738      30.751  35.277  23.567  1.00 30.97           C
ATOM   7474  C   TYR C 738      31.561  37.036  28.115  1.00 28.22           C
ATOM   7475  O   TYR C 738      31.661  38.230  28.355  1.00 29.07           O
ATOM   7476  N   THR C 739      31.189  36.154  29.033  1.00 27.39           N
ATOM   7477  CA  THR C 739      30.862  36.537  30.417  1.00 28.61           C
ATOM   7478  CB  THR C 739      30.177  35.374  31.159  1.00 32.87           C
ATOM   7479  OG1 THR C 739      28.868  35.161  30.613  1.00 30.71           O
ATOM   7480  CG2 THR C 739      30.073  35.681  32.656  1.00 31.83           C
ATOM   7481  C   THR C 739      32.131  36.968  31.144  1.00 32.92           C
ATOM   7482  O   THR C 739      32.184  38.053  31.708  1.00 33.02           O
ATOM   7483  N   THR C 740      33.150  36.106  31.098  1.00 30.88           N
ATOM   7484  CA  THR C 740      34.458  36.391  31.673  1.00 31.21           C
ATOM   7485  CB  THR C 740      35.378  35.165  31.594  1.00 34.64           C
ATOM   7486  OG1 THR C 740      34.755  34.057  32.249  1.00 33.96           O
ATOM   7487  CG2 THR C 740      36.728  35.446  32.253  1.00 29.08           C
ATOM   7488  C   THR C 740      35.082  37.610  30.978  1.00 37.40           C
ATOM   7489  O   THR C 740      35.698  38.446  31.630  1.00 39.00           O
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ATOM   7490  N   LEU C 741      34.950  37.694  29.652  1.00 32.02           N
ATOM   7491  CA  LEU C 741      35.522  38.819  28.915  1.00 30.31           C
ATOM   7492  CB  LEU C 741      35.340  38.651  27.400  1.00 29.65           C
ATOM   7493  CG  LEU C 741      36.124  39.666  26.554  1.00 34.02           C
ATOM   7494  CD1 LEU C 741      37.634  39.424  26.664  1.00 34.70           C
ATOM   7495  CD2 LEU C 741      35.667  39.641  25.078  1.00 35.77           C
ATOM   7496  C   LEU C 741      34.936  40.157  29.350  1.00 33.77           C
ATOM   7497  O   LEU C 741      35.660  41.161  29.456  1.00 34.92           O
ATOM   7498  N   THR C 742      33.622  40.173  29.556  1.00 29.52           N
ATOM   7499  CA  THR C 742      32.931  41.380  30.000  1.00 30.30           C
ATOM   7500  CB  THR C 742      31.414  41.205  29.922  1.00 39.37           C
ATOM   7501  OG1 THR C 742      31.055  41.029  28.556  1.00 44.79           O
ATOM   7502  CG2 THR C 742      30.720  42.442  30.465  1.00 39.97           C
ATOM   7503  C   THR C 742      33.334  41.771  31.426  1.00 33.24           C
ATOM   7504  O   THR C 742      33.337  42.932  31.770  1.00 33.38           O
ATOM   7505  N   GLN C 743      33.647  40.781  32.246  1.00 31.57           N
ATOM   7506  CA  GLN C 743      34.077  41.025  33.618  1.00 33.20           C
ATOM   7507  CB  GLN C 743      34.187  39.716  34.399  1.00 34.64           C
ATOM   7508  CG  GLN C 743      32.833  39.155  34.764  1.00 29.74           C
ATOM   7509  CD  GLN C 743      32.913  37.782  35.365  1.00 45.05           C
ATOM   7510  OE1 GLN C 743      32.032  37.385  36.106  1.00 52.59           O
ATOM   7511  NE2 GLN C 743      33.971  37.050  35.057  1.00 43.49           N
ATOM   7512  C   GLN C 743      35.414  41.719  33.611  1.00 37.34           C
ATOM   7513  O   GLN C 743      35.582  42.735  34.297  1.00 37.62           O
ATOM   7514  N   ILE C 744      36.340  41.195  32.807  1.00 32.05           N
ATOM   7515  CA  ILE C 744      37.659  41.779  32.687  1.00 31.10           C
ATOM   7516  CB  ILE C 744      38.669  40.761  32.127  1.00 34.23           C
ATOM   7517  CG1 ILE C 744      38.742  39.548  33.071  1.00 34.92           C
ATOM   7518  CD1 ILE C 744      39.468  38.351  32.492  1.00 39.68           C
ATOM   7519  CG2 ILE C 744      40.035  41.431  31.918  1.00 34.91           C
ATOM   7520  C   ILE C 744      37.630  43.051  31.870  1.00 34.66           C
ATOM   7521  O   ILE C 744      38.298  44.025  32.206  1.00 36.29           O
ATOM   7522  N   LEU C 745      36.833  43.055  30.802  1.00 32.42           N
ATOM   7523  CA  LEU C 745      36.737  44.210  29.905  1.00 31.29           C
ATOM   7524  CB  LEU C 745      37.405  43.873  28.553  1.00 31.95           C
ATOM   7525  CG  LEU C 745      38.906  43.548  28.600  1.00 36.87           C
ATOM   7526  CD1 LEU C 745      39.398  43.059  27.227  1.00 37.93           C
ATOM   7527  CD2 LEU C 745      39.667  44.798  29.003  1.00 36.70           C
ATOM   7528  C   LEU C 745      35.287  44.600  29.674  1.00 34.61           C
ATOM   7529  O   LEU C 745      34.673  44.187  28.683  1.00 33.10           O
ATOM   7530  N   PRO C 746      34.728  45.441  30.562  1.00 33.17           N
ATOM   7531  CA  PRO C 746      33.322  45.869  30.538  1.00 32.73           C
ATOM   7532  CB  PRO C 746      33.240  46.874  31.696  1.00 34.20           C
ATOM   7533  CG  PRO C 746      34.317  46.414  32.659  1.00 37.67           C
ATOM   7534  CD  PRO C 746      35.435  45.937  31.760  1.00 34.54           C
ATOM   7535  C   PRO C 746      32.798  46.471  29.234  1.00 36.00           C
ATOM   7536  O   PRO C 746      31.626  46.285  28.876  1.00 34.20           O
ATOM   7537  N   PRO C 747      33.646  47.221  28.515  1.00 33.88           N
ATOM   7538  CA  PRO C 747      33.124  47.753  27.244  1.00 33.97           C
ATOM   7539  CB  PRO C 747      34.249  48.698  26.758  1.00 35.77           C
ATOM   7540  CG  PRO C 747      34.996  49.072  28.033  1.00 39.17           C
ATOM   7541  CD  PRO C 747      34.955  47.806  28.873  1.00 34.73           C
ATOM   7542  C   PRO C 747      32.839  46.668  26.188  1.00 35.69           C
ATOM   7543  O   PRO C 747      32.268  46.972  25.148  1.00 33.51           O
ATOM   7544  N   THR C 748      33.214  45.411  26.455  1.00 34.23           N
ATOM   7545  CA  THR C 748      32.970  44.318  25.486  1.00 34.39           C
ATOM   7546  CB  THR C 748      34.004  43.196  25.555  1.00 31.39           C
ATOM   7547  OG1 THR C 748      33.769  42.428  26.727  1.00 35.09           O
ATOM   7548  CG2 THR C 748      35.425  43.703  25.534  1.00 25.98           C
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ATOM   7549  C   THR C 748      31.595  43.711  25.685  1.00 41.19           C
ATOM   7550  O   THR C 748      31.310  42.626  25.190  1.00 40.56           O
ATOM   7551  N   GLU C 749      30.766  44.392  26.474  1.00 38.13           N
ATOM   7552  CA  GLU C 749      29.426  43.907  26.855  1.00 35.56           C
ATOM   7553  CB  GLU C 749      28.772  44.918  27.827  1.00 36.36           C
ATOM   7554  CG  GLU C 749      27.288  44.780  28.006  1.00 41.76           C
ATOM   7555  CD  GLU C 749      26.917  43.605  28.895  1.00 55.49           C
ATOM   7556  OE1 GLU C 749      27.469  43.492  30.014  1.00 55.52           O
ATOM   7557  OE2 GLU C 749      26.053  42.788  28.475  1.00 59.30           O
ATOM   7558  C   GLU C 749      28.498  43.580  25.694  1.00 35.29           C
ATOM   7559  O   GLU C 749      27.699  42.629  25.767  1.00 33.77           O
ATOM   7560  N   PRO C 750      28.566  44.373  24.606  1.00 31.50           N
ATOM   7561  CA  PRO C 750      27.672  44.097  23.464  1.00 31.08           C
ATOM   7562  CB  PRO C 750      28.053  45.185  22.443  1.00 32.43           C
ATOM   7563  CG  PRO C 750      28.592  46.307  23.291  1.00 35.17           C
ATOM   7564  CD  PRO C 750      29.271  45.662  24.464  1.00 31.03           C
ATOM   7565  C   PRO C 750      27.890  42.688  22.868  1.00 32.93           C
ATOM   7566  O   PRO C 750      26.962  42.075  22.370  1.00 33.93           O
ATOM   7567  N   LEU C 751      29.102  42.150  22.986  1.00 28.49           N
ATOM   7568  CA  LEU C 751      29.364  40.789  22.504  1.00 27.59           C
ATOM   7569  CB  LEU C 751      30.852  40.413  22.570  1.00 26.64           C
ATOM   7570  CG  LEU C 751      31.809  41.146  21.621  1.00 29.78           C
ATOM   7571  CD1 LEU C 751      33.255  40.845  21.948  1.00 27.98           C
ATOM   7572  CD2 LEU C 751      31.489  40.852  20.129  1.00 25.86           C
ATOM   7573  C   LEU C 751      28.530  39.782  23.278  1.00 31.79           C
ATOM   7574  O   LEU C 751      27.913  38.892  22.683  1.00 28.62           O
ATOM   7575  N   LEU C 752      28.519  39.926  24.607  1.00 33.22           N
ATOM   7576  CA  LEU C 752      27.770  39.033  25.503  1.00 32.77           C
ATOM   7577  CB  LEU C 752      28.095  39.354  26.982  1.00 33.19           C
ATOM   7578  CG  LEU C 752      27.382  38.514  28.056  1.00 35.92           C
ATOM   7579  CD1 LEU C 752      27.585  37.003  27.816  1.00 33.86           C
ATOM   7580  CD2 LEU C 752      27.957  38.893  29.433  1.00 38.09           C
ATOM   7581  C   LEU C 752      26.278  39.177  25.258  1.00 32.91           C
ATOM   7582  O   LEU C 752      25.544  38.185  25.181  1.00 32.09           O
ATOM   7583  N   LYS C 753      25.844  40.427  25.129  1.00 30.10           N
ATOM   7584  CA  LYS C 753      24.442  40.757  24.861  1.00 30.81           C
ATOM   7585  CB  LYS C 753      24.306  42.281  24.686  1.00 32.72           C
ATOM   7586  CG  LYS C 753      22.886  42.858  24.727  1.00 45.65           C
ATOM   7587  CD  LYS C 753      22.949  44.408  24.512  1.00 51.59           C
ATOM   7588  CE  LYS C 753      21.881  45.176  25.320  1.00 53.36           C
ATOM   7589  NZ  LYS C 753      22.291  45.521  26.753  1.00 58.61           N
ATOM   7590  C   LYS C 753      23.963  40.048  23.585  1.00 37.37           C
ATOM   7591  O   LYS C 753      22.909  39.408  23.576  1.00 38.85           O
ATOM   7592  N   ALA C 754      24.738  40.164  22.508  1.00 33.38           N
ATOM   7593  CA  ALA C 754      24.352  39.576  21.220  1.00 32.89           C
ATOM   7594  CB  ALA C 754      25.285  40.071  20.115  1.00 33.88           C
ATOM   7595  C   ALA C 754      24.334  38.053  21.277  1.00 33.83           C
ATOM   7596  O   ALA C 754      23.467  37.405  20.696  1.00 31.95           O
ATOM   7597  N   CYS C 755      25.294  37.497  21.999  1.00 30.28           N
ATOM   7598  CA  CYS C 755      25.417  36.061  22.163  1.00 29.03           C
ATOM   7599  CB  CYS C 755      26.698  35.749  22.944  1.00 28.24           C
ATOM   7600  SG  CYS C 755      27.003  34.005  23.217  1.00 32.35           S
ATOM   7601  C   CYS C 755      24.171  35.514  22.878  1.00 35.99           C
ATOM   7602  O   CYS C 755      23.574  34.508  22.446  1.00 36.09           O
ATOM   7603  N   ARG C 756      23.759  36.187  23.954  1.00 33.97           N
ATOM   7604  CA AARG C 756      22.551  35.802  24.690  0.50 33.58           C
ATOM   7605  CA BARG C 756      22.551  35.799  24.688  0.50 33.55           C
ATOM   7606  CB AARG C 756      22.337  36.721  25.903  0.50 33.57           C
ATOM   7607  CB BARG C 756      22.332  36.718  25.896  0.50 33.47           C
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ATOM   7608  CG AARG C 756      23.283  36.469  27.076  0.50 40.21           C
ATOM   7609  CG BARG C 756      23.156  36.367  27.126  0.50 39.59           C
ATOM   7610  CD AARG C 756      22.835  37.235  28.336  0.50 40.37           C
ATOM   7611  CD BARG C 756      23.063  37.475  28.199  0.50 40.16           C
ATOM   7612  NE AARG C 756      23.876  37.290  29.369  0.50 38.81           N
ATOM   7613  NE BARG C 756      23.869  37.156  29.382  0.50 37.92           N
ATOM   7614  CZ AARG C 756      24.226  36.269  30.151  0.50 47.96           C
ATOM   7615  CZ BARG C 756      24.370  38.059  30.222  0.50 45.58           C
ATOM   7616 NH1AARG C 756      23.621  35.092  30.033  0.50 30.69           N
ATOM   7617 NH1BARG C 756      24.145  39.351  30.028  0.50 35.14           N
ATOM   7618 NH2AARG C 756      25.187  36.425  31.062  0.50 42.05           N
ATOM   7619 NH2BARG C 756      25.106  37.675  31.256  0.50 33.52           N
ATOM   7620  C   ARG C 756      21.337  35.893  23.765  1.00 36.84           C
ATOM   7621  O   ARG C 756      20.433  35.047  23.806  1.00 36.53           O
ATOM   7622  N   ASP C 757      21.315  36.910  22.913  1.00 34.97           N
ATOM   7623  CA  ASP C 757      20.205  37.049  21.974  1.00 35.53           C
ATOM   7624  CB  ASP C 757      20.310  38.342  21.169  1.00 37.32           C
ATOM   7625  CG  ASP C 757      20.065  39.570  22.014  1.00 47.98           C
ATOM   7626  OD1 ASP C 757      19.506  39.421  23.127  1.00 49.45           O
ATOM   7627  OD2 ASP C 757      20.475  40.677  21.583  1.00 50.60           O
ATOM   7628  C   ASP C 757      20.105  35.856  21.018  1.00 40.06           C
ATOM   7629  O   ASP C 757      19.019  35.427  20.663  1.00 39.88           O
ATOM   7630  N   ASN C 758      21.249  35.348  20.576  1.00 37.56           N
ATOM   7631  CA  ASN C 758      21.285  34.221  19.623  1.00 35.76           C
ATOM   7632  CB  ASN C 758      22.661  34.128  18.916  1.00 30.40           C
ATOM   7633  CG  ASN C 758      22.836  35.168  17.834  1.00 40.27           C
ATOM   7634  OD1 ASN C 758      21.899  35.473  17.107  1.00 34.36           O
ATOM   7635  ND2 ASN C 758      24.052  35.709  17.709  1.00 24.95           N
ATOM   7636  C   ASN C 758      20.922  32.902  20.310  1.00 35.73           C
ATOM   7637  O   ASN C 758      20.346  32.030  19.690  1.00 33.42           O
ATOM   7638  N   LEU C 759      21.245  32.780  21.599  1.00 34.04           N
ATOM   7639  CA  LEU C 759      20.911  31.592  22.392  1.00 34.90           C
ATOM   7640  CB  LEU C 759      21.516  31.708  23.804  1.00 35.25           C
ATOM   7641  CG  LEU C 759      21.059  30.670  24.847  1.00 40.61           C
ATOM   7642  CD1 LEU C 759      21.374  29.261  24.377  1.00 40.38           C
ATOM   7643  CD2 LEU C 759      21.737  30.929  26.187  1.00 46.40           C
ATOM   7644  C   LEU C 759      19.381  31.509  22.488  1.00 40.20           C
ATOM   7645  O   LEU C 759      18.786  30.434  22.352  1.00 39.03           O
ATOM   7646  N   SER C 760      18.758  32.670  22.678  1.00 38.58           N
ATOM   7647  CA  SER C 760      17.303  32.786  22.726  1.00 39.33           C
ATOM   7648  CB  SER C 760      16.896  34.221  23.159  1.00 44.05           C
ATOM   7649  OG  SER C 760      15.796  34.698  22.395  1.00 53.85           O
ATOM   7650  C   SER C 760      16.692  32.433  21.355  1.00 41.12           C
ATOM   7651  O   SER C 760      15.639  31.828  21.281  1.00 41.39           O
ATOM   7652  N   GLN C 761      17.370  32.794  20.270  1.00 38.22           N
ATOM   7653  CA  GLN C 761      16.893  32.467  18.922  1.00 38.31           C
ATOM   7654  CB  GLN C 761      17.705  33.197  17.842  1.00 39.39           C
ATOM   7655  CG  GLN C 761      17.517  34.686  17.831  1.00 44.36           C
ATOM   7656  CD  GLN C 761      16.162  35.095  17.291  1.00 59.91           C
ATOM   7657  OE1 GLN C 761      15.397  34.265  16.808  1.00 54.87           O
ATOM   7658  NE2 GLN C 761      15.868  36.392  17.353  1.00 52.32           N
ATOM   7659  C   GLN C 761      16.950  30.955  18.685  1.00 42.47           C
ATOM   7660  O   GLN C 761      16.053  30.384  18.074  1.00 43.39           O
ATOM   7661  N   TRP C 762      18.010  30.311  19.161  1.00 39.80           N
ATOM   7662  CA  TRP C 762      18.157  28.867  19.002  1.00 41.00           C
ATOM   7663  CB  TRP C 762      19.584  28.412  19.353  1.00 39.86           C
ATOM   7664  CG  TRP C 762      20.575  28.707  18.270  1.00 43.48           C
ATOM   7665  CD1 TRP C 762      21.566  29.652  18.298  1.00 43.83           C
ATOM   7666  NE1 TRP C 762      22.241  29.660  17.109  1.00 44.08           N
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ATOM   7667  CE2 TRP C 762      21.688  28.726  16.273  1.00 45.14           C
ATOM   7668  CD2 TRP C 762      20.630  28.110  16.966  1.00 40.57           C
ATOM   7669  CE3 TRP C 762      19.887  27.114  16.320  1.00 43.14           C
ATOM   7670  CZ3 TRP C 762      20.234  26.768  15.025  1.00 44.01           C
ATOM   7671  CH2 TRP C 762      21.292  27.410  14.359  1.00 44.87           C
ATOM   7672  CZ2 TRP C 762      22.021  28.390  14.965  1.00 44.49           C
ATOM   7673  C   TRP C 762      17.126  28.139  19.862  1.00 45.16           C
ATOM   7674  O   TRP C 762      16.639  27.085  19.485  1.00 44.24           O
ATOM   7675  N   GLU C 763      16.802  28.717  21.019  1.00 42.68           N
ATOM   7676  CA  GLU C 763      15.799  28.145  21.920  1.00 43.17           C
ATOM   7677  CB  GLU C 763      15.765  28.891  23.282  1.00 44.17           C
ATOM   7678  CG  GLU C 763      16.727  28.307  24.319  1.00 49.92           C
ATOM   7679  CD  GLU C 763      17.086  29.271  25.439  1.00 60.66           C
ATOM   7680  OE1 GLU C 763      16.593  30.417  25.415  1.00 63.28           O
ATOM   7681  OE2 GLU C 763      17.851  28.881  26.358  1.00 55.13           O
ATOM   7682  C   GLU C 763      14.441  28.193  21.217  1.00 48.71           C
ATOM   7683  O   GLU C 763      13.644  27.271  21.352  1.00 49.00           O
ATOM   7684  N   LYS C 764      14.207  29.255  20.443  1.00 46.20           N
ATOM   7685  CA ALYS C 764      12.953  29.411  19.704  0.50 46.06           C
ATOM   7686  CA BLYS C 764      12.961  29.421  19.702  0.50 46.09           C
ATOM   7687  CB ALYS C 764      12.832  30.815  19.104  0.50 46.91           C
ATOM   7688  CB BLYS C 764      12.886  30.835  19.114  0.50 46.99           C
ATOM   7689  CG ALYS C 764      12.495  31.909  20.094  0.50 49.38           C
ATOM   7690  CG BLYS C 764      11.670  31.101  18.249  0.50 49.71           C
ATOM   7691  CD ALYS C 764      12.380  33.262  19.401  0.50 52.05           C
ATOM   7692  CD BLYS C 764      11.631  32.554  17.780  0.50 51.43           C
ATOM   7693  CE ALYS C 764      12.235  34.390  20.418  0.50 52.36           C
ATOM   7694  CE BLYS C 764      10.407  32.822  16.918  0.50 51.30           C
ATOM   7695  NZ ALYS C 764      11.838  35.680  19.769  0.50 55.95           N
ATOM   7696  NZ BLYS C 764      10.374  34.228  16.432  0.50 54.64           N
ATOM   7697  C   LYS C 764      12.885  28.376  18.588  1.00 52.09           C
ATOM   7698  O   LYS C 764      11.830  27.787  18.342  1.00 53.42           O
ATOM   7699  N   VAL C 765      14.015  28.147  17.921  1.00 48.33           N
ATOM   7700  CA  VAL C 765      14.083  27.165  16.846  1.00 48.15           C
ATOM   7701  CB  VAL C 765      15.465  27.201  16.125  1.00 52.24           C
ATOM   7702  CG1 VAL C 765      15.672  25.940  15.283  1.00 51.98           C
ATOM   7703  CG2 VAL C 765      15.603  28.452  15.282  1.00 52.29           C
ATOM   7704  C   VAL C 765      13.791  25.760  17.389  1.00 51.42           C
ATOM   7705  O   VAL C 765      13.096  24.974  16.756  1.00 52.27           O
ATOM   7706  N   ILE C 766      14.341  25.458  18.560  1.00 47.77           N
ATOM   7707  CA  ILE C 766      14.173  24.162  19.207  1.00 48.53           C
ATOM   7708  CB  ILE C 766      14.990  24.091  20.533  1.00 51.12           C
ATOM   7709  CG1 ILE C 766      16.386  23.522  20.260  1.00 51.35           C
ATOM   7710  CD1 ILE C 766      17.348  23.801  21.379  1.00 54.14           C
ATOM   7711  CG2 ILE C 766      14.254  23.252  21.580  1.00 50.43           C
ATOM   7712  C   ILE C 766      12.689  23.867  19.488  1.00 54.29           C
ATOM   7713  O   ILE C 766      12.261  22.708  19.513  1.00 54.89           O
ATOM   7714  N   ARG C 767      11.926  24.930  19.727  1.00 50.30           N
ATOM   7715  CA  ARG C 767      10.506  24.831  20.007  1.00 49.35           C
ATOM   7716  CB  ARG C 767      10.081  25.924  20.974  1.00 44.15           C
ATOM   7717  CG  ARG C 767      10.739  25.853  22.305  1.00 46.46           C
ATOM   7718  CD  ARG C 767      10.056  26.830  23.245  1.00 56.84           C
ATOM   7719  NE  ARG C 767       9.777  28.118  22.597  1.00 60.11           N
ATOM   7720  CZ  ARG C 767      10.453  29.241  22.840  1.00 68.07           C
ATOM   7721  NH1 ARG C 767      11.461  29.232  23.716  1.00 52.03           N
ATOM   7722  NH2 ARG C 767      10.122  30.372  22.211  1.00 52.31           N
ATOM   7723  C   ARG C 767       9.622  24.966  18.777  1.00 55.43           C
ATOM   7724  O   ARG C 767       8.419  25.148  18.916  1.00 57.47           O
ATOM   7725  N   GLY C 768      10.185  24.967  17.578  1.00 51.07           N
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ATOM   7726  CA  GLY C 768       9.327  25.077  16.408  1.00 50.66           C
ATOM   7727  C   GLY C 768       8.859  26.457  15.935  1.00 54.56           C
ATOM   7728  O   GLY C 768       7.953  26.527  15.086  1.00 56.08           O
ATOM   7729  N   GLU C 769       9.483  27.542  16.407  1.00 49.03           N
ATOM   7730  CA  GLU C 769       9.103  28.891  15.949  1.00 43.03           C
ATOM   7731  CB  GLU C 769       8.679  29.744  17.130  1.00 43.63           C
ATOM   7732  CG  GLU C 769       8.742  29.013  18.443  1.00 43.33           C
ATOM   7733  CD  GLU C 769       8.327  29.908  19.589  1.00 58.50           C
ATOM   7734  OE1 GLU C 769       9.101  30.849  19.922  1.00 55.26           O
ATOM   7735  OE2 GLU C 769       7.215  29.682  20.139  1.00 61.98           O
ATOM   7736  C   GLU C 769      10.209  29.634  15.164  1.00 59.23           C
ATOM   7737  O   GLU C 769      10.716  29.160  14.134  1.00 58.19           O
TER    7738      GLU C 769
ATOM   7739  N   LEU D 459      70.748  -5.185  43.174  1.00 51.97           N
ATOM   7740  CA  LEU D 459      69.851  -6.206  42.601  1.00 51.28           C
ATOM   7741  CB  LEU D 459      68.563  -5.594  42.020  1.00 50.67           C
ATOM   7742  CG  LEU D 459      67.437  -6.622  42.083  1.00 53.40           C
ATOM   7743  CD1 LEU D 459      67.333  -7.143  43.535  1.00 52.15           C
ATOM   7744  CD2 LEU D 459      66.100  -6.080  41.575  1.00 51.94           C
ATOM   7745  C   LEU D 459      70.505  -7.104  41.568  1.00 55.17           C
ATOM   7746  O   LEU D 459      71.378  -6.691  40.811  1.00 54.67           O
ATOM   7747  N   MET D 460      70.002  -8.326  41.529  1.00 54.10           N
ATOM   7748  CA  MET D 460      70.484  -9.378  40.654  1.00 55.55           C
ATOM   7749  CB  MET D 460      70.119 -10.720  41.285  1.00 58.56           C
ATOM   7750  CG  MET D 460      70.969 -11.852  40.835  1.00 64.05           C
ATOM   7751  SD  MET D 460      72.356 -12.027  41.944  1.00 70.52           S
ATOM   7752  CE  MET D 460      71.639 -13.130  43.204  1.00 67.58           C
ATOM   7753  C   MET D 460      69.879  -9.327  39.244  1.00 60.34           C
ATOM   7754  O   MET D 460      68.954 -10.079  38.922  1.00 61.71           O
ATOM   7755  N   GLN D 461      70.416  -8.465  38.395  1.00 56.19           N
ATOM   7756  CA  GLN D 461      69.894  -8.335  37.043  1.00 56.08           C
ATOM   7757  CB  GLN D 461      69.903  -6.870  36.616  1.00 56.82           C
ATOM   7758  CG  GLN D 461      68.702  -6.078  37.130  1.00 58.92           C
ATOM   7759  CD  GLN D 461      68.092  -5.191  36.055  1.00 72.87           C
ATOM   7760  OE1 GLN D 461      68.805  -4.597  35.235  1.00 66.23           O
ATOM   7761  NE2 GLN D 461      66.767  -5.089  36.058  1.00 66.19           N
ATOM   7762  C   GLN D 461      70.615  -9.195  36.007  1.00 61.20           C
ATOM   7763  O   GLN D 461      71.822  -9.445  36.109  1.00 62.55           O
ATOM   7764  N   PHE D 462      69.878  -9.620  34.986  1.00 56.55           N
ATOM   7765  CA  PHE D 462      70.473 -10.412  33.914  1.00 55.68           C
ATOM   7766  CB  PHE D 462      69.500 -11.491  33.432  1.00 57.45           C
ATOM   7767  CG  PHE D 462      69.366 -12.655  34.375  1.00 58.96           C
ATOM   7768  CD1 PHE D 462      68.681 -12.516  35.577  1.00 61.37           C
ATOM   7769  CE1 PHE D 462      68.562 -13.578  36.452  1.00 62.51           C
ATOM   7770  CZ  PHE D 462      69.112 -14.805  36.125  1.00 62.18           C
ATOM   7771  CE2 PHE D 462      69.801 -14.957  34.931  1.00 64.12           C
ATOM   7772  CD2 PHE D 462      69.928 -13.886  34.063  1.00 61.06           C
ATOM   7773  C   PHE D 462      70.808  -9.502  32.747  1.00 57.76           C
ATOM   7774  O   PHE D 462      70.109  -8.514  32.494  1.00 58.92           O
ATOM   7775  N   THR D 463      71.890  -9.833  32.048  1.00 53.49           N
ATOM   7776  CA  THR D 463      72.286  -9.138  30.821  1.00 53.24           C
ATOM   7777  CB  THR D 463      73.308  -8.000  31.031  1.00 62.45           C
ATOM   7778  OG1 THR D 463      74.242  -8.365  32.058  1.00 61.44           O
ATOM   7779  CG2 THR D 463      72.592  -6.675  31.370  1.00 59.60           C
ATOM   7780  C   THR D 463      72.826 -10.160  29.845  1.00 56.70           C
ATOM   7781  O   THR D 463      73.425 -11.153  30.232  1.00 59.56           O
ATOM   7782  N   LEU D 464      72.596  -9.916  28.570  1.00 51.15           N
ATOM   7783  CA  LEU D 464      73.048 -10.814  27.528  1.00 50.14           C
ATOM   7784  CB  LEU D 464      71.947 -10.962  26.477  1.00 49.60           C
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ATOM   7785  CG  LEU D 464      70.500 -11.149  26.923  1.00 52.08           C
ATOM   7786  CD1 LEU D 464      70.340 -12.452  27.688  1.00 50.81           C
ATOM   7787  CD2 LEU D 464      69.541 -11.079  25.743  1.00 52.67           C
ATOM   7788  C   LEU D 464      74.293 -10.238  26.862  1.00 54.22           C
ATOM   7789  O   LEU D 464      74.587  -9.058  27.006  1.00 54.88           O
ATOM   7790  N   PRO D 465      75.015 -11.063  26.088  1.00 49.68           N
ATOM   7791  CA  PRO D 465      76.173 -10.560  25.347  1.00 49.40           C
ATOM   7792  CB  PRO D 465      76.662 -11.800  24.598  1.00 50.73           C
ATOM   7793  CG  PRO D 465      76.298 -12.923  25.506  1.00 54.33           C
ATOM   7794  CD  PRO D 465      74.969 -12.534  26.106  1.00 50.15           C
ATOM   7795  C   PRO D 465      75.664  -9.512  24.350  1.00 52.42           C
ATOM   7796  O   PRO D 465      74.506  -9.576  23.911  1.00 50.70           O
ATOM   7797  N   VAL D 466      76.522  -8.549  24.014  1.00 50.14           N
ATOM   7798  CA  VAL D 466      76.157  -7.444  23.125  1.00 50.03           C
ATOM   7799  CB  VAL D 466      77.380  -6.646  22.616  1.00 52.87           C
ATOM   7800  CG1 VAL D 466      76.917  -5.466  21.761  1.00 51.58           C
ATOM   7801  CG2 VAL D 466      78.232  -6.185  23.793  1.00 52.79           C
ATOM   7802  C   VAL D 466      75.203  -7.773  21.997  1.00 53.60           C
ATOM   7803  O   VAL D 466      74.136  -7.168  21.904  1.00 54.33           O
ATOM   7804  N   ARG D 467      75.586  -8.725  21.146  1.00 48.66           N
ATOM   7805  CA  ARG D 467      74.746  -9.087  20.015  1.00 47.74           C
ATOM   7806  CB  ARG D 467      75.376 -10.187  19.150  1.00 45.08           C
ATOM   7807  CG  ARG D 467      74.604 -10.427  17.845  1.00 48.72           C
ATOM   7808  CD  ARG D 467      75.047 -11.687  17.088  1.00 51.44           C
ATOM   7809  NE  ARG D 467      74.775 -12.920  17.840  1.00 53.72           N
ATOM   7810  CZ  ARG D 467      73.586 -13.520  17.939  1.00 55.97           C
ATOM   7811  NH1 ARG D 467      72.510 -13.008  17.361  1.00 44.40           N
ATOM   7812  NH2 ARG D 467      73.469 -14.639  18.637  1.00 39.09           N
ATOM   7813  C   ARG D 467      73.312  -9.452  20.409  1.00 50.90           C
ATOM   7814  O   ARG D 467      72.351  -8.970  19.795  1.00 50.74           O
ATOM   7815  N   LEU D 468      73.181 -10.318  21.413  1.00 46.35           N
ATOM   7816  CA  LEU D 468      71.877 -10.781  21.858  1.00 46.01           C
ATOM   7817  CB  LEU D 468      72.032 -11.934  22.851  1.00 45.67           C
ATOM   7818  CG  LEU D 468      72.478 -13.263  22.219  1.00 49.67           C
ATOM   7819  CD1 LEU D 468      73.971 -13.250  21.953  1.00 49.98           C
ATOM   7820  CD2 LEU D 468      72.124 -14.419  23.134  1.00 50.88           C
ATOM   7821  C   LEU D 468      71.028  -9.647  22.437  1.00 52.50           C
ATOM   7822  O   LEU D 468      69.842  -9.527  22.116  1.00 53.44           O
ATOM   7823  N   CYS D 469      71.657  -8.794  23.242  1.00 50.85           N
ATOM   7824  CA  CYS D 469      71.010  -7.621  23.817  1.00 53.38           C
ATOM   7825  CB  CYS D 469      72.075  -6.748  24.469  1.00 57.09           C
ATOM   7826  SG  CYS D 469      71.871  -6.537  26.257  1.00 62.58           S
ATOM   7827  C   CYS D 469      70.386  -6.795  22.709  1.00 51.68           C
ATOM   7828  O   CYS D 469      69.287  -6.268  22.835  1.00 49.43           O
ATOM   7829  N   ARG D 470      71.132  -6.653  21.625  1.00 49.10           N
ATOM   7830  CA  ARG D 470      70.689  -5.865  20.483  1.00 49.40           C
ATOM   7831  CB  ARG D 470      71.910  -5.511  19.622  1.00 49.50           C
ATOM   7832  CG  ARG D 470      71.589  -4.874  18.272  1.00 55.58           C
ATOM   7833  CD  ARG D 470      72.657  -3.826  17.924  1.00 61.48           C
ATOM   7834  NE  ARG D 470      72.587  -3.392  16.524  1.00 62.22           N
ATOM   7835  CZ  ARG D 470      72.969  -2.188  16.092  1.00 74.24           C
ATOM   7836  NH1 ARG D 470      73.435  -1.281  16.969  1.00 59.38           N
ATOM   7837  NH2 ARG D 470      72.891  -1.893  14.784  1.00 59.02           N
ATOM   7838  C   ARG D 470      69.655  -6.594  19.628  1.00 52.03           C
ATOM   7839  O   ARG D 470      68.640  -6.026  19.224  1.00 53.17           O
ATOM   7840  N   GLU D 471      69.955  -7.850  19.328  1.00 46.69           N
ATOM   7841  CA  GLU D 471      69.136  -8.673  18.438  1.00 46.00           C
ATOM   7842  CB  GLU D 471      69.958  -9.873  17.986  1.00 47.35           C
ATOM   7843  CG  GLU D 471      69.939 -10.103  16.485  1.00 57.37           C
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ATOM   7844  CD  GLU D 471      71.304  -9.870  15.855  1.00 64.52           C
ATOM   7845  OE1 GLU D 471      71.835 -10.800  15.203  1.00 59.31           O
ATOM   7846  OE2 GLU D 471      71.859  -8.763  16.047  1.00 61.53           O
ATOM   7847  C   GLU D 471      67.788  -9.147  19.008  1.00 46.68           C
ATOM   7848  O   GLU D 471      66.817  -9.341  18.254  1.00 44.48           O
ATOM   7849  N   ILE D 472      67.756  -9.357  20.325  1.00 42.74           N
ATOM   7850  CA  ILE D 472      66.568  -9.835  21.020  1.00 42.47           C
ATOM   7851  CB  ILE D 472      66.881 -10.107  22.502  1.00 44.68           C
ATOM   7852  CG1 ILE D 472      65.752 -10.928  23.145  1.00 44.19           C
ATOM   7853  CD1 ILE D 472      66.098 -11.474  24.511  1.00 43.05           C
ATOM   7854  CG2 ILE D 472      67.138  -8.798  23.248  1.00 44.45           C
ATOM   7855  C   ILE D 472      65.375  -8.888  20.856  1.00 45.95           C
ATOM   7856  O   ILE D 472      64.213  -9.306  20.902  1.00 44.29           O
ATOM   7857  N   GLU D 473      65.673  -7.608  20.645  1.00 42.57           N
ATOM   7858  CA  GLU D 473      64.637  -6.586  20.496  1.00 41.08           C
ATOM   7859  CB  GLU D 473      65.195  -5.186  20.798  1.00 41.32           C
ATOM   7860  CG  GLU D 473      65.836  -5.051  22.196  1.00 43.33           C
ATOM   7861  CD  GLU D 473      64.866  -5.388  23.325  1.00 50.66           C
ATOM   7862  OE1 GLU D 473      63.665  -5.033  23.234  1.00 45.18           O
ATOM   7863  OE2 GLU D 473      65.300  -6.023  24.303  1.00 48.11           O
ATOM   7864  C   GLU D 473      63.958  -6.640  19.136  1.00 45.56           C
ATOM   7865  O   GLU D 473      62.893  -6.061  18.952  1.00 47.83           O
ATOM   7866  N   LEU D 474      64.558  -7.369  18.195  1.00 41.96           N
ATOM   7867  CA  LEU D 474      63.975  -7.542  16.853  1.00 41.99           C
ATOM   7868  CB  LEU D 474      65.077  -7.751  15.805  1.00 42.29           C
ATOM   7869  CG  LEU D 474      66.416  -7.002  15.942  1.00 47.16           C
ATOM   7870  CD1 LEU D 474      67.314  -7.364  14.768  1.00 46.74           C
ATOM   7871  CD2 LEU D 474      66.214  -5.480  16.018  1.00 48.94           C
ATOM   7872  C   LEU D 474      63.013  -8.750  16.813  1.00 44.82           C
ATOM   7873  O   LEU D 474      63.281  -9.806  17.390  1.00 46.31           O
ATOM   7874  N   PHE D 475      61.916  -8.608  16.088  1.00 38.97           N
ATOM   7875  CA  PHE D 475      60.933  -9.679  15.974  1.00 38.93           C
ATOM   7876  CB  PHE D 475      59.742  -9.232  15.091  1.00 40.76           C
ATOM   7877  CG  PHE D 475      58.736  -8.369  15.806  1.00 42.06           C
ATOM   7878  CD1 PHE D 475      57.704  -8.943  16.546  1.00 44.34           C
ATOM   7879  CE1 PHE D 475      56.792  -8.158  17.213  1.00 44.96           C
ATOM   7880  CZ  PHE D 475      56.896  -6.782  17.148  1.00 44.86           C
ATOM   7881  CE2 PHE D 475      57.901  -6.196  16.398  1.00 46.40           C
ATOM   7882  CD2 PHE D 475      58.818  -6.986  15.739  1.00 43.40           C
ATOM   7883  C   PHE D 475      61.526 -10.985  15.414  1.00 42.27           C
ATOM   7884  O   PHE D 475      61.100 -12.063  15.807  1.00 40.20           O
ATOM   7885  N   HIS D 476      62.464 -10.887  14.468  1.00 40.23           N
ATOM   7886  CA  HIS D 476      63.036 -12.085  13.828  1.00 40.37           C
ATOM   7887  CB  HIS D 476      63.422 -11.807  12.374  1.00 41.87           C
ATOM   7888  CG  HIS D 476      64.498 -10.775  12.223  1.00 46.07           C
ATOM   7889  ND1 HIS D 476      64.231  -9.453  11.928  1.00 48.36           N
ATOM   7890  CE1 HIS D 476      65.362  -8.772  11.906  1.00 48.04           C
ATOM   7891  NE2 HIS D 476      66.356  -9.605  12.160  1.00 48.31           N
ATOM   7892  CD2 HIS D 476      65.843 -10.863  12.365  1.00 48.28           C
ATOM   7893  C   HIS D 476      64.196 -12.788  14.566  1.00 41.78           C
ATOM   7894  O   HIS D 476      64.770 -13.772  14.076  1.00 41.71           O
ATOM   7895  N   PHE D 477      64.522 -12.291  15.749  1.00 37.11           N
ATOM   7896  CA  PHE D 477      65.566 -12.891  16.575  1.00 37.35           C
ATOM   7897  CB  PHE D 477      65.525 -12.262  17.971  1.00 39.00           C
ATOM   7898  CG  PHE D 477      66.550 -12.814  18.925  1.00 39.93           C
ATOM   7899  CD1 PHE D 477      67.910 -12.653  18.671  1.00 42.15           C
ATOM   7900  CE1 PHE D 477      68.879 -13.131  19.571  1.00 42.22           C
ATOM   7901  CZ  PHE D 477      68.479 -13.758  20.752  1.00 40.25           C
ATOM   7902  CE2 PHE D 477      67.115 -13.944  21.009  1.00 42.55           C
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ATOM   7903  CD2 PHE D 477      66.157 -13.453  20.102  1.00 40.27           C
ATOM   7904  C   PHE D 477      65.419 -14.425  16.686  1.00 40.61           C
ATOM   7905  O   PHE D 477      64.311 -14.975  16.736  1.00 39.31           O
ATOM   7906  N   ASP D 478      66.556 -15.108  16.744  1.00 37.96           N
ATOM   7907  CA  ASP D 478      66.598 -16.570  16.921  1.00 37.06           C
ATOM   7908  CB  ASP D 478      67.309 -17.240  15.739  1.00 38.45           C
ATOM   7909  CG  ASP D 478      67.419 -18.764  15.894  1.00 44.51           C
ATOM   7910  OD1 ASP D 478      66.499 -19.475  15.410  1.00 43.45           O
ATOM   7911  OD2 ASP D 478      68.451 -19.245  16.435  1.00 40.57           O
ATOM   7912  C   ASP D 478      67.367 -16.816  18.224  1.00 38.67           C
ATOM   7913  O   ASP D 478      68.438 -16.247  18.418  1.00 37.46           O
ATOM   7914  N   ILE D 479      66.790 -17.614  19.124  1.00 36.16           N
ATOM   7915  CA  ILE D 479      67.380 -17.876  20.436  1.00 36.40           C
ATOM   7916  CB  ILE D 479      66.334 -18.420  21.448  1.00 39.13           C
ATOM   7917  CG1 ILE D 479      65.872 -19.833  21.046  1.00 39.37           C
ATOM   7918  CD1 ILE D 479      64.778 -20.395  21.945  1.00 37.71           C
ATOM   7919  CG2 ILE D 479      65.131 -17.467  21.540  1.00 37.56           C
ATOM   7920  C   ILE D 479      68.683 -18.678  20.465  1.00 38.58           C
ATOM   7921  O   ILE D 479      69.323 -18.770  21.516  1.00 38.83           O
ATOM   7922  N   GLY D 480      69.076 -19.264  19.334  1.00 33.46           N
ATOM   7923  CA  GLY D 480      70.311 -20.029  19.281  1.00 33.48           C
ATOM   7924  C   GLY D 480      70.241 -21.499  19.696  1.00 38.78           C
ATOM   7925  O   GLY D 480      69.223 -21.983  20.161  1.00 37.04           O
ATOM   7926  N   PRO D 481      71.352 -22.235  19.525  1.00 37.30           N
ATOM   7927  CA  PRO D 481      71.397 -23.679  19.803  1.00 37.46           C
ATOM   7928  CB  PRO D 481      72.417 -24.175  18.771  1.00 38.40           C
ATOM   7929  CG  PRO D 481      73.395 -23.034  18.682  1.00 40.90           C
ATOM   7930  CD  PRO D 481      72.636 -21.751  18.978  1.00 36.98           C
ATOM   7931  C   PRO D 481      71.858 -24.056  21.223  1.00 39.74           C
ATOM   7932  O   PRO D 481      71.899 -25.226  21.563  1.00 39.34           O
ATOM   7933  N   PHE D 482      72.245 -23.064  22.021  1.00 35.28           N
ATOM   7934  CA  PHE D 482      72.696 -23.308  23.385  1.00 34.35           C
ATOM   7935  CB  PHE D 482      73.740 -22.257  23.778  1.00 35.47           C
ATOM   7936  CG  PHE D 482      74.907 -22.183  22.830  1.00 36.88           C
ATOM   7937  CD1 PHE D 482      74.934 -21.226  21.822  1.00 40.61           C
ATOM   7938  CE1 PHE D 482      75.993 -21.156  20.922  1.00 42.16           C
ATOM   7939  CZ  PHE D 482      77.047 -22.073  21.018  1.00 41.64           C
ATOM   7940  CE2 PHE D 482      77.020 -23.052  22.006  1.00 42.25           C
ATOM   7941  CD2 PHE D 482      75.940 -23.112  22.897  1.00 38.26           C
ATOM   7942  C   PHE D 482      71.518 -23.324  24.374  1.00 39.30           C
ATOM   7943  O   PHE D 482      71.108 -22.278  24.885  1.00 39.84           O
ATOM   7944  N   GLU D 483      70.951 -24.511  24.594  1.00 35.57           N
ATOM   7945  CA  GLU D 483      69.805 -24.707  25.489  1.00 36.72           C
ATOM   7946  CB  GLU D 483      69.506 -26.215  25.685  1.00 38.65           C
ATOM   7947  CG  GLU D 483      69.442 -27.018  24.375  1.00 54.49           C
ATOM   7948  CD  GLU D 483      68.531 -28.263  24.447  1.00 67.47           C
ATOM   7949  OE1 GLU D 483      67.821 -28.474  25.479  1.00 60.44           O
ATOM   7950  OE2 GLU D 483      68.505 -29.013  23.430  1.00 66.39           O
ATOM   7951  C   GLU D 483      69.991 -24.068  26.867  1.00 39.87           C
ATOM   7952  O   GLU D 483      69.068 -23.495  27.428  1.00 39.25           O
ATOM   7953  N   ASN D 484      71.190 -24.209  27.417  1.00 37.29           N
ATOM   7954  CA AASN D 484      71.478 -23.700  28.751  0.50 37.15           C
ATOM   7955  CA BASN D 484      71.518 -23.696  28.742  0.50 37.14           C
ATOM   7956  CB AASN D 484      72.817 -24.243  29.258  0.50 36.79           C
ATOM   7957  CB BASN D 484      72.932 -24.139  29.136  0.50 36.66           C
ATOM   7958  CG AASN D 484      72.791 -25.750  29.483  0.50 50.42           C
ATOM   7959  CG BASN D 484      73.980 -23.680  28.146  0.50 47.03           C
ATOM   7960  OD1AASN D 484      73.839 -26.386  29.595  0.50 44.47           O
ATOM   7961  OD1BASN D 484      73.847 -23.899  26.947  0.50 44.49           O
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ATOM   7962  ND2AASN D 484      71.588 -26.323  29.581  0.50 40.68           N
ATOM   7963  ND2BASN D 484      75.008 -23.010  28.639  0.50 41.23           N
ATOM   7964  C    ASN D 484      71.392 -22.173  28.882  1.00 41.27           C
ATOM   7965  O    ASN D 484      71.407 -21.632  29.986  1.00 41.82           O
ATOM   7966  N    MET D 485      71.261 -21.472  27.767  1.00 37.41           N
ATOM   7967  CA   MET D 485      71.135 -20.016  27.827  1.00 36.75           C
ATOM   7968  CB   MET D 485      71.889 -19.363  26.676  1.00 39.57           C
ATOM   7969  CG   MET D 485      73.389 -19.411  26.806  1.00 45.29           C
ATOM   7970  SD   MET D 485      74.176 -18.514  25.467  1.00 51.20           S
ATOM   7971  CE   MET D 485      73.876 -16.792  25.999  1.00 48.32           C
ATOM   7972  C    MET D 485      69.684 -19.562  27.770  1.00 37.79           C
ATOM   7973  O    MET D 485      69.384 -18.401  28.044  1.00 36.91           O
ATOM   7974  N    TRP D 486      68.797 -20.461  27.349  1.00 32.82           N
ATOM   7975  CA   TRP D 486      67.396 -20.111  27.159  1.00 32.72           C
ATOM   7976  CB   TRP D 486      66.619 -21.216  26.436  1.00 31.36           C
ATOM   7977  CG   TRP D 486      67.186 -21.612  25.084  1.00 35.50           C
ATOM   7978  CD1  TRP D 486      68.047 -20.886  24.285  1.00 34.70           C
ATOM   7979  NE1  TRP D 486      68.336 -21.604  23.128  1.00 35.25           N
ATOM   7980  CE2  TRP D 486      67.683 -22.811  23.182  1.00 36.03           C
ATOM   7981  CD2  TRP D 486      66.937 -22.841  24.391  1.00 31.21           C
ATOM   7982  CE3  TRP D 486      66.162 -23.969  24.675  1.00 34.05           C
ATOM   7983  CZ3  TRP D 486      66.175 -25.022  23.780  1.00 34.19           C
ATOM   7984  CH2  TRP D 486      66.935 -24.972  22.592  1.00 34.74           C
ATOM   7985  CZ2  TRP D 486      67.676 -23.876  22.268  1.00 34.43           C
ATOM   7986  C    TRP D 486      66.652 -19.635  28.386  1.00 37.36           C
ATOM   7987  O    TRP D 486      65.863 -18.694  28.298  1.00 37.23           O
ATOM   7988  N    PRO D 487      66.885 -20.279  29.549  1.00 34.35           N
ATOM   7989  CA   PRO D 487      66.187 -19.829  30.762  1.00 33.51           C
ATOM   7990  CB   PRO D 487      66.679 -20.795  31.842  1.00 34.19           C
ATOM   7991  CG   PRO D 487      67.161 -21.989  31.084  1.00 38.68           C
ATOM   7992  CD   PRO D 487      67.716 -21.468  29.802  1.00 35.36           C
ATOM   7993  C    PRO D 487      66.566 -18.396  31.113  1.00 38.93           C
ATOM   7994  O    PRO D 487      65.701 -17.597  31.436  1.00 40.51           O
ATOM   7995  N    GLY D 488      67.861 -18.084  31.053  1.00 37.19           N
ATOM   7996  CA   GLY D 488      68.412 -16.761  31.341  1.00 36.44           C
ATOM   7997  C    GLY D 488      67.898 -15.736  30.358  1.00 39.36           C
ATOM   7998  O    GLY D 488      67.676 -14.581  30.691  1.00 39.97           O
ATOM   7999  N    ILE D 489      67.677 -16.177  29.128  1.00 36.50           N
ATOM   8000  CA   ILE D 489      67.094 -15.309  28.098  1.00 34.96           C
ATOM   8001  CB   ILE D 489      67.233 -15.942  26.699  1.00 36.93           C
ATOM   8002  CG1  ILE D 489      68.703 -15.901  26.229  1.00 36.15           C
ATOM   8003  CD1  ILE D 489      68.968 -16.696  24.947  1.00 38.69           C
ATOM   8004  CG2  ILE D 489      66.290 -15.285  25.711  1.00 36.44           C
ATOM   8005  C    ILE D 489      65.619 -15.047  28.437  1.00 35.02           C
ATOM   8006  O    ILE D 489      65.104 -13.954  28.204  1.00 33.74           O
ATOM   8007  N    PHE D 490      64.934 -16.056  28.976  1.00 31.53           N
ATOM   8008  CA   PHE D 490      63.532 -15.881  29.353  1.00 32.01           C
ATOM   8009  CB   PHE D 490      62.867 -17.206  29.722  1.00 33.71           C
ATOM   8010  CG   PHE D 490      61.402 -17.075  30.066  1.00 34.49           C
ATOM   8011  CD1  PHE D 490      60.436 -16.941  29.058  1.00 35.27           C
ATOM   8012  CE1  PHE D 490      59.093 -16.803  29.363  1.00 36.09           C
ATOM   8013  CZ   PHE D 490      58.685 -16.852  30.686  1.00 36.24           C
ATOM   8014  CE2  PHE D 490      59.627 -16.995  31.702  1.00 38.83           C
ATOM   8015  CD2  PHE D 490      60.984 -17.117  31.392  1.00 36.16           C
ATOM   8016  C    PHE D 490      63.400 -14.897  30.517  1.00 36.83           C
ATOM   8017  O    PHE D 490      62.542 -14.001  30.489  1.00 35.47           O
ATOM   8018  N    VAL D 491      64.260 -15.054  31.524  1.00 34.33           N
ATOM   8019  CA   VAL D 491      64.251 -14.160  32.680  1.00 34.64           C
ATOM   8020  CB   VAL D 491      65.248 -14.634  33.758  1.00 38.93           C
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ATOM   8021  CG1 VAL D 491      65.331 -13.587  34.893  1.00 38.77           C
ATOM   8022  CG2 VAL D 491      64.836 -16.000  34.282  1.00 38.97           C
ATOM   8023  C   VAL D 491      64.567 -12.709  32.274  1.00 38.10           C
ATOM   8024  O   VAL D 491      63.964 -11.767  32.786  1.00 36.60           O
ATOM   8025  N   TYR D 492      65.533 -12.535  31.375  1.00 34.89           N
ATOM   8026  CA  TYR D 492      65.902 -11.207  30.897  1.00 35.91           C
ATOM   8027  CB  TYR D 492      66.999 -11.306  29.823  1.00 37.57           C
ATOM   8028  CG  TYR D 492      67.343  -9.987  29.161  1.00 40.17           C
ATOM   8029  CD1 TYR D 492      68.285  -9.124  29.730  1.00 42.08           C
ATOM   8030  CE1 TYR D 492      68.629  -7.925  29.115  1.00 42.25           C
ATOM   8031  CZ  TYR D 492      68.044  -7.580  27.903  1.00 48.07           C
ATOM   8032  OH  TYR D 492      68.355  -6.381  27.303  1.00 47.16           O
ATOM   8033  CE2 TYR D 492      67.126  -8.418  27.303  1.00 42.44           C
ATOM   8034  CD2 TYR D 492      66.772  -9.621  27.932  1.00 41.65           C
ATOM   8035  C   TYR D 492      64.665 -10.544  30.297  1.00 41.73           C
ATOM   8036  O   TYR D 492      64.417  -9.350  30.501  1.00 43.72           O
ATOM   8037  N   MET D 493      63.891 -11.326  29.546  1.00 37.10           N
ATOM   8038  CA  MET D 493      62.664 -10.819  28.917  1.00 35.26           C
ATOM   8039  CB  MET D 493      62.139 -11.816  27.869  1.00 36.22           C
ATOM   8040  CG  MET D 493      63.083 -11.955  26.680  1.00 37.53           C
ATOM   8041  SD  MET D 493      62.418 -12.850  25.233  1.00 39.32           S
ATOM   8042  CE  MET D 493      62.252 -14.536  25.916  1.00 35.04           C
ATOM   8043  C   MET D 493      61.589 -10.485  29.948  1.00 37.92           C
ATOM   8044  O   MET D 493      60.945  -9.451  29.856  1.00 35.66           O
ATOM   8045  N   VAL D 494      61.415 -11.357  30.933  1.00 36.02           N
ATOM   8046  CA  VAL D 494      60.462 -11.107  31.998  1.00 37.42           C
ATOM   8047  CB  VAL D 494      60.325 -12.327  32.949  1.00 40.69           C
ATOM   8048  CG1 VAL D 494      59.649 -11.907  34.250  1.00 40.93           C
ATOM   8049  CG2 VAL D 494      59.546 -13.455  32.255  1.00 40.15           C
ATOM   8050  C   VAL D 494      60.831  -9.830  32.771  1.00 44.03           C
ATOM   8051  O   VAL D 494      59.952  -9.029  33.119  1.00 44.03           O
ATOM   8052  N   HIS D 495      62.123  -9.641  33.038  1.00 42.23           N
ATOM   8053  CA  HIS D 495      62.561  -8.475  33.794  1.00 43.89           C
ATOM   8054  CB  HIS D 495      64.026  -8.579  34.191  1.00 45.70           C
ATOM   8055  CG  HIS D 495      64.268  -9.491  35.360  1.00 49.77           C
ATOM   8056  ND1 HIS D 495      65.527  -9.919  35.719  1.00 51.52           N
ATOM   8057  CE1 HIS D 495      65.436 -10.724  36.763  1.00 50.60           C
ATOM   8058  NE2 HIS D 495      64.161 -10.849  37.084  1.00 50.77           N
ATOM   8059  CD2 HIS D 495      63.408 -10.093  36.219  1.00 51.02           C
ATOM   8060  C   HIS D 495      62.288  -7.173  33.068  1.00 48.88           C
ATOM   8061  O   HIS D 495      61.778  -6.221  33.650  1.00 49.83           O
ATOM   8062  N   ARG D 496      62.605  -7.147  31.783  1.00 46.35           N
ATOM   8063  CA  ARG D 496      62.396  -5.966  30.970  1.00 46.52           C
ATOM   8064  CB  ARG D 496      63.214  -6.087  29.688  1.00 44.72           C
ATOM   8065  CG  ARG D 496      64.646  -5.633  29.824  1.00 51.95           C
ATOM   8066  CD  ARG D 496      65.350  -5.535  28.459  1.00 54.40           C
ATOM   8067  NE  ARG D 496      65.884  -4.193  28.216  1.00 51.45           N
ATOM   8068  CZ  ARG D 496      65.430  -3.387  27.270  1.00 62.17           C
ATOM   8069  NH1 ARG D 496      64.444  -3.781  26.476  1.00 57.32           N
ATOM   8070  NH2 ARG D 496      65.958  -2.190  27.118  1.00 58.28           N
ATOM   8071  C   ARG D 496      60.930  -5.776  30.606  1.00 51.97           C
ATOM   8072  O   ARG D 496      60.484  -4.665  30.328  1.00 52.80           O
ATOM   8073  N   SER D 497      60.196  -6.878  30.562  1.00 48.60           N
ATOM   8074  CA  SER D 497      58.812  -6.874  30.092  1.00 49.01           C
ATOM   8075  CB  SER D 497      58.461  -8.267  29.570  1.00 49.15           C
ATOM   8076  OG  SER D 497      57.275  -8.249  28.839  1.00 57.98           O
ATOM   8077  C   SER D 497      57.750  -6.357  31.081  1.00 57.70           C
ATOM   8078  O   SER D 497      56.807  -5.662  30.681  1.00 56.31           O
ATOM   8079  N   CYS D 498      57.895  -6.722  32.354  1.00 58.09           N
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ATOM   8080  CA  CYS D 498      56.973  -6.259  33.376  1.00 60.13           C
ATOM   8081  CB  CYS D 498      55.852  -7.266  33.643  1.00 62.81           C
ATOM   8082  SG  CYS D 498      56.403  -8.989  33.720  1.00 67.73           S
ATOM   8083  C   CYS D 498      57.637  -5.800  34.658  1.00 60.19           C
ATOM   8084  O   CYS D 498      57.010  -5.085  35.445  1.00 61.75           O
ATOM   8085  N   GLY D 499      58.912  -6.147  34.848  1.00 53.94           N
ATOM   8086  CA  GLY D 499      59.631  -5.683  36.026  1.00 52.99           C
ATOM   8087  C   GLY D 499      60.603  -6.631  36.710  1.00 57.52           C
ATOM   8088  O   GLY D 499      60.423  -7.851  36.695  1.00 58.67           O
ATOM   8089  N   THR D 500      61.621  -6.057  37.348  1.00 53.76           N
ATOM   8090  CA  THR D 500      62.627  -6.832  38.069  1.00 54.23           C
ATOM   8091  CB  THR D 500      63.887  -5.939  38.353  1.00 62.97           C
ATOM   8092  OG1 THR D 500      65.070  -6.752  38.435  1.00 62.61           O
ATOM   8093  CG2 THR D 500      63.719  -5.134  39.664  1.00 55.84           C
ATOM   8094  C   THR D 500      62.019  -7.356  39.379  1.00 60.19           C
ATOM   8095  O   THR D 500      62.563  -8.258  40.032  1.00 62.00           O
ATOM   8096  N   SER D 501      60.866  -6.794  39.728  1.00 56.02           N
ATOM   8097  CA  SER D 501      60.185  -7.046  40.995  1.00 56.07           C
ATOM   8098  CB  SER D 501      59.687  -5.704  41.514  1.00 59.52           C
ATOM   8099  OG  SER D 501      58.890  -5.040  40.520  1.00 68.65           O
ATOM   8100  C   SER D 501      58.978  -7.982  40.979  1.00 61.22           C
ATOM   8101  O   SER D 501      58.578  -8.519  42.020  1.00 61.80           O
ATOM   8102  N   CYS D 502      58.361  -8.126  39.816  1.00 57.02           N
ATOM   8103  CA ACYS D 502      57.164  -8.936  39.715  0.70 58.16           C
ATOM   8104  CA BCYS D 502      57.166  -8.957  39.637  0.30 55.91           C
ATOM   8105  CB ACYS D 502      56.439  -8.717  38.386  0.70 59.69           C
ATOM   8106  CB BCYS D 502      56.747  -8.956  38.164  0.30 55.46           C
ATOM   8107  SG ACYS D 502      56.821  -9.893  37.085  0.70 64.02           S
ATOM   8108  SG BCYS D 502      56.596  -7.308  37.424  0.30 58.76           S
ATOM   8109  C   CYS D 502      57.245 -10.405  40.136  1.00 59.39           C
ATOM   8110  O   CYS D 502      56.268 -10.953  40.666  1.00 59.50           O
ATOM   8111  N   PHE D 503      58.392 -11.041  39.930  1.00 52.95           N
ATOM   8112  CA  PHE D 503      58.556 -12.428  40.347  1.00 51.69           C
ATOM   8113  CB  PHE D 503      58.744 -13.365  39.138  1.00 52.85           C
ATOM   8114  CG  PHE D 503      57.538 -13.474  38.240  1.00 53.92           C
ATOM   8115  CD1 PHE D 503      57.635 -13.180  36.885  1.00 56.94           C
ATOM   8116  CE1 PHE D 503      56.523 -13.285  36.047  1.00 58.30           C
ATOM   8117  CZ  PHE D 503      55.306 -13.682  36.559  1.00 57.17           C
ATOM   8118  CE2 PHE D 503      55.201 -13.987  37.909  1.00 59.24           C
ATOM   8119  CD2 PHE D 503      56.316 -13.887  38.741  1.00 55.95           C
ATOM   8120  C   PHE D 503      59.766 -12.573  41.263  1.00 55.57           C
ATOM   8121  O   PHE D 503      60.788 -11.908  41.084  1.00 55.42           O
ATOM   8122  N   GLU D 504      59.641 -13.470  42.235  1.00 52.00           N
ATOM   8123  CA  GLU D 504      60.732 -13.809  43.127  1.00 50.86           C
ATOM   8124  CB  GLU D 504      60.196 -14.520  44.378  1.00 52.02           C
ATOM   8125  CG  GLU D 504      61.120 -14.427  45.593  1.00 58.37           C
ATOM   8126  CD  GLU D 504      62.013 -15.649  45.735  1.00 72.79           C
ATOM   8127  OE1 GLU D 504      61.478 -16.758  46.033  1.00 69.00           O
ATOM   8128  OE2 GLU D 504      63.255 -15.498  45.552  1.00 69.35           O
ATOM   8129  C   GLU D 504      61.618 -14.747  42.301  1.00 51.75           C
ATOM   8130  O   GLU D 504      61.171 -15.801  41.842  1.00 50.20           O
ATOM   8131  N   LEU D 505      62.843 -14.307  42.034  1.00 48.42           N
ATOM   8132  CA  LEU D 505      63.784 -15.065  41.203  1.00 48.52           C
ATOM   8133  CB  LEU D 505      65.169 -14.409  41.187  1.00 48.49           C
ATOM   8134  CG  LEU D 505      66.151 -14.836  40.098  1.00 52.95           C
ATOM   8135  CD1 LEU D 505      65.521 -14.682  38.724  1.00 54.09           C
ATOM   8136  CD2 LEU D 505      67.450 -14.042  40.187  1.00 53.30           C
ATOM   8137  C   LEU D 505      63.897 -16.559  41.475  1.00 52.29           C
ATOM   8138  O   LEU D 505      63.954 -17.346  40.532  1.00 52.07           O
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ATOM   8139  N   GLU D 506      63.961 -16.934  42.754  1.00 47.80           N
ATOM   8140  CA  GLU D 506      64.089 -18.337  43.149  1.00 46.82           C
ATOM   8141  CB  GLU D 506      64.340 -18.484  44.662  1.00 48.17           C
ATOM   8142  CG  GLU D 506      65.669 -17.876  45.128  1.00 61.07           C
ATOM   8143  CD  GLU D 506      65.879 -17.961  46.649  1.00 71.54           C
ATOM   8144  OE1 GLU D 506      65.258 -18.859  47.292  1.00 66.69           O
ATOM   8145  OE2 GLU D 506      66.662 -17.129  47.195  1.00 60.47           O
ATOM   8146  C   GLU D 506      62.915 -19.207  42.706  1.00 47.89           C
ATOM   8147  O   GLU D 506      63.114 -20.325  42.250  1.00 46.97           O
ATOM   8148  N   LYS D 507      61.697 -18.700  42.871  1.00 44.42           N
ATOM   8149  CA  LYS D 507      60.496 -19.435  42.476  1.00 43.49           C
ATOM   8150  CB  LYS D 507      59.246 -18.785  43.057  1.00 44.59           C
ATOM   8151  CG  LYS D 507      59.044 -18.967  44.546  1.00 50.79           C
ATOM   8152  CD  LYS D 507      57.735 -18.341  44.969  1.00 52.81           C
ATOM   8153  CE  LYS D 507      57.371 -18.677  46.398  1.00 55.76           C
ATOM   8154  NZ  LYS D 507      55.872 -18.632  46.571  1.00 59.61           N
ATOM   8155  C   LYS D 507      60.362 -19.467  40.943  1.00 46.57           C
ATOM   8156  O   LYS D 507      59.844 -20.447  40.379  1.00 45.29           O
ATOM   8157  N   LEU D 508      60.779 -18.371  40.299  1.00 41.92           N
ATOM   8158  CA  LEU D 508      60.692 -18.230  38.854  1.00 41.75           C
ATOM   8159  CB  LEU D 508      61.019 -16.792  38.415  1.00 41.81           C
ATOM   8160  CG  LEU D 508      61.005 -16.494  36.912  1.00 46.72           C
ATOM   8161  CD1 LEU D 508      59.647 -16.830  36.307  1.00 47.20           C
ATOM   8162  CD2 LEU D 508      61.389 -15.054  36.617  1.00 50.28           C
ATOM   8163  C   LEU D 508      61.629 -19.209  38.184  1.00 46.20           C
ATOM   8164  O   LEU D 508      61.246 -19.912  37.247  1.00 44.54           O
ATOM   8165  N   CYS D 509      62.859 -19.267  38.682  1.00 46.44           N
ATOM   8166  CA  CYS D 509      63.855 -20.183  38.143  1.00 48.35           C
ATOM   8167  CB  CYS D 509      65.231 -19.932  38.749  1.00 51.68           C
ATOM   8168  SG  CYS D 509      66.090 -18.485  38.006  1.00 56.93           S
ATOM   8169  C   CYS D 509      63.440 -21.630  38.320  1.00 45.38           C
ATOM   8170  O   CYS D 509      63.564 -22.425  37.396  1.00 44.77           O
ATOM   8171  N   ARG D 510      62.900 -21.974  39.484  1.00 39.87           N
ATOM   8172  CA  ARG D 510      62.441 -23.343  39.647  1.00 39.53           C
ATOM   8173  CB  ARG D 510      62.399 -23.828  41.109  1.00 42.52           C
ATOM   8174  CG  ARG D 510      61.295 -23.304  41.948  1.00 44.66           C
ATOM   8175  CD  ARG D 510      61.059 -24.242  43.137  1.00 53.30           C
ATOM   8176  NE  ARG D 510      62.156 -24.238  44.104  1.00 44.62           N
ATOM   8177  CZ  ARG D 510      62.316 -23.312  45.052  1.00 64.75           C
ATOM   8178  NH1 ARG D 510      63.355 -23.397  45.879  1.00 52.54           N
ATOM   8179  NH2 ARG D 510      61.449 -22.295  45.174  1.00 49.66           N
ATOM   8180  C   ARG D 510      61.193 -23.680  38.835  1.00 38.68           C
ATOM   8181  O   ARG D 510      61.077 -24.781  38.321  1.00 38.74           O
ATOM   8182  N   PHE D 511      60.315 -22.702  38.645  1.00 32.78           N
ATOM   8183  CA  PHE D 511      59.141 -22.901  37.790  1.00 33.48           C
ATOM   8184  CB  PHE D 511      58.247 -21.640  37.791  1.00 35.58           C
ATOM   8185  CG  PHE D 511      57.069 -21.734  36.854  1.00 37.28           C
ATOM   8186  CD1 PHE D 511      55.909 -22.413  37.240  1.00 39.83           C
ATOM   8187  CE1 PHE D 511      54.814 -22.503  36.397  1.00 39.71           C
ATOM   8188  CZ  PHE D 511      54.868 -21.930  35.148  1.00 38.03           C
ATOM   8189  CE2 PHE D 511      55.997 -21.233  34.751  1.00 40.07           C
ATOM   8190  CD2 PHE D 511      57.100 -21.131  35.600  1.00 37.72           C
ATOM   8191  C   PHE D 511      59.601 -23.203  36.336  1.00 33.26           C
ATOM   8192  O   PHE D 511      59.147 -24.146  35.704  1.00 31.39           O
ATOM   8193  N   ILE D 512      60.545 -22.407  35.848  1.00 31.61           N
ATOM   8194  CA  ILE D 512      61.122 -22.554  34.493  1.00 32.56           C
ATOM   8195  CB  ILE D 512      62.196 -21.466  34.231  1.00 35.27           C
ATOM   8196  CG1 ILE D 512      61.531 -20.102  34.039  1.00 34.50           C
ATOM   8197  CD1 ILE D 512      62.569 -18.974  33.938  1.00 44.83           C
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ATOM   8198  CG2 ILE D 512      63.038 -21.842  33.031  1.00 38.17           C
ATOM   8199  C   ILE D 512      61.744 -23.948  34.272  1.00 34.47           C
ATOM   8200  O   ILE D 512      61.542 -24.582  33.224  1.00 30.09           O
ATOM   8201  N   MET D 513      62.490 -24.420  35.270  1.00 32.45           N
ATOM   8202  CA  MET D 513      63.128 -25.723  35.174  1.00 33.51           C
ATOM   8203  CB  MET D 513      64.222 -25.892  36.233  1.00 37.19           C
ATOM   8204  CG  MET D 513      65.348 -24.857  36.130  1.00 43.24           C
ATOM   8205  SD  MET D 513      66.042 -24.710  34.411  1.00 50.17           S
ATOM   8206  CE  MET D 513      66.687 -26.409  34.177  1.00 47.53           C
ATOM   8207  C   MET D 513      62.128 -26.865  35.185  1.00 36.56           C
ATOM   8208  O   MET D 513      62.321 -27.881  34.511  1.00 37.81           O
ATOM   8209  N   SER D 514      61.022 -26.675  35.892  1.00 33.30           N
ATOM   8210  CA  SER D 514      59.952 -27.681  35.914  1.00 32.22           C
ATOM   8211  CB  SER D 514      59.024 -27.454  37.110  1.00 32.69           C
ATOM   8212  OG  SER D 514      59.600 -27.948  38.303  1.00 40.77           O
ATOM   8213  C   SER D 514      59.160 -27.671  34.588  1.00 33.70           C
ATOM   8214  O   SER D 514      58.736 -28.706  34.088  1.00 31.91           O
ATOM   8215  N   VAL D 515      58.998 -26.487  34.009  1.00 32.11           N
ATOM   8216  CA  VAL D 515      58.342 -26.352  32.688  1.00 30.65           C
ATOM   8217  CB  VAL D 515      58.147 -24.861  32.279  1.00 31.89           C
ATOM   8218  CG1 VAL D 515      57.632 -24.765  30.838  1.00 30.92           C
ATOM   8219  CG2 VAL D 515      57.191 -24.182  33.254  1.00 31.19           C
ATOM   8220  C   VAL D 515      59.183 -27.086  31.645  1.00 32.70           C
ATOM   8221  O   VAL D 515      58.662 -27.894  30.889  1.00 31.21           O
ATOM   8222  N   LYS D 516      60.484 -26.797  31.631  1.00 29.42           N
ATOM   8223  CA  LYS D 516      61.428 -27.435  30.721  1.00 30.53           C
ATOM   8224  CB  LYS D 516      62.866 -27.007  31.070  1.00 34.12           C
ATOM   8225  CG  LYS D 516      63.941 -27.758  30.272  1.00 38.47           C
ATOM   8226  CD  LYS D 516      65.350 -27.310  30.690  1.00 40.80           C
ATOM   8227  CE  LYS D 516      66.439 -28.190  30.026  1.00 41.47           C
ATOM   8228  NZ  LYS D 516      66.810 -27.736  28.664  1.00 49.50           N
ATOM   8229  C   LYS D 516      61.324 -28.956  30.802  1.00 36.18           C
ATOM   8230  O   LYS D 516      61.206 -29.663  29.793  1.00 34.82           O
ATOM   8231  N   LYS D 517      61.381 -29.441  32.033  1.00 36.17           N
ATOM   8232  CA  LYS D 517      61.314 -30.863  32.341  1.00 36.37           C
ATOM   8233  CB  LYS D 517      61.421 -31.043  33.870  1.00 39.85           C
ATOM   8234  CG  LYS D 517      60.984 -32.412  34.399  1.00 49.81           C
ATOM   8235  CD  LYS D 517      62.194 -33.337  34.598  1.00 55.30           C
ATOM   8236  CE  LYS D 517      62.420 -34.237  33.362  1.00 57.65           C
ATOM   8237  NZ  LYS D 517      63.374 -35.380  33.681  1.00 61.29           N
ATOM   8238  C   LYS D 517      60.040 -31.523  31.791  1.00 37.92           C
ATOM   8239  O   LYS D 517      60.045 -32.704  31.419  1.00 37.68           O
ATOM   8240  N   ASN D 518      58.961 -30.745  31.702  1.00 33.17           N
ATOM   8241  CA  ASN D 518      57.680 -31.251  31.194  1.00 31.74           C
ATOM   8242  CB  ASN D 518      56.500 -30.839  32.065  1.00 27.20           C
ATOM   8243  CG  ASN D 518      56.515 -31.538  33.445  1.00 47.28           C
ATOM   8244  OD1 ASN D 518      56.167 -32.712  33.556  1.00 38.69           O
ATOM   8245  ND2 ASN D 518      56.902 -30.810  34.488  1.00 36.05           N
ATOM   8246  C   ASN D 518      57.423 -31.059  29.696  1.00 38.96           C
ATOM   8247  O   ASN D 518      56.352 -31.397  29.185  1.00 36.84           O
ATOM   8248  N   TYR D 519      58.440 -30.577  28.978  1.00 35.97           N
ATOM   8249  CA  TYR D 519      58.381 -30.565  27.519  1.00 34.38           C
ATOM   8250  CB  TYR D 519      59.049 -29.331  26.896  1.00 32.68           C
ATOM   8251  CG  TYR D 519      58.109 -28.166  26.715  1.00 32.65           C
ATOM   8252  CD1 TYR D 519      57.989 -27.187  27.702  1.00 35.21           C
ATOM   8253  CE1 TYR D 519      57.116 -26.118  27.547  1.00 35.73           C
ATOM   8254  CZ  TYR D 519      56.327 -26.060  26.421  1.00 36.84           C
ATOM   8255  OH  TYR D 519      55.461 -25.020  26.258  1.00 34.64           O
ATOM   8256  CE2 TYR D 519      56.394 -27.047  25.461  1.00 30.27           C
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ATOM   8257  CD2 TYR D 519      57.277 -28.085  25.605  1.00 30.96           C
ATOM   8258  C   TYR D 519      59.128 -31.841  27.133  1.00 42.04           C
ATOM   8259  O   TYR D 519      60.060 -32.268  27.808  1.00 44.78           O
ATOM   8260  N   ARG D 520      58.685 -32.458  26.051  1.00 38.70           N
ATOM   8261  CA AARG D 520      59.265 -33.704  25.566  0.50 38.05           C
ATOM   8262  CA BARG D 520      59.270 -33.697  25.571  0.50 38.08           C
ATOM   8263  CB AARG D 520      58.162 -34.648  25.080  0.50 36.57           C
ATOM   8264  CB BARG D 520      58.153 -34.645  25.139  0.50 36.70           C
ATOM   8265  CG AARG D 520      57.113 -35.021  26.133  0.50 42.86           C
ATOM   8266  CG BARG D 520      56.976 -34.644  26.119  0.50 42.73           C
ATOM   8267  CD AARG D 520      56.025 -35.881  25.484  0.50 47.25           C
ATOM   8268  CD BARG D 520      55.995 -35.760  25.809  0.50 47.83           C
ATOM   8269  NE AARG D 520      55.130 -36.541  26.442  0.50 48.08           N
ATOM   8270  NE BARG D 520      56.617 -37.076  25.989  0.50 48.18           N
ATOM   8271  CZ AARG D 520      55.364 -37.729  27.003  0.50 59.33           C
ATOM   8272  CZ BARG D 520      56.078 -38.078  26.677  0.50 57.73           C
ATOM   8273  NH1AARG D 520      56.491 -38.393  26.739  0.50 43.80           N
ATOM   8274  NH1BARG D 520      54.878 -37.948  27.238  0.50 51.48           N
ATOM   8275  NH2AARG D 520      54.471 -38.245  27.847  0.50 48.51           N
ATOM   8276  NH2BARG D 520      56.740 -39.215  26.794  0.50 45.08           N
ATOM   8277  C   ARG D 520      60.253 -33.466  24.433  1.00 41.21           C
ATOM   8278  O   ARG D 520      60.333 -32.368  23.867  1.00 39.95           O
ATOM   8279  N   ARG D 521      61.006 -34.505  24.103  1.00 39.72           N
ATOM   8280  CA  ARG D 521      62.006 -34.423  23.044  1.00 40.35           C
ATOM   8281  CB  ARG D 521      63.215 -35.317  23.368  1.00 39.22           C
ATOM   8282  CG  ARG D 521      63.839 -35.008  24.726  1.00 50.55           C
ATOM   8283  CD  ARG D 521      65.286 -35.515  24.803  1.00 58.43           C
ATOM   8284  NE  ARG D 521      65.865 -35.355  26.139  1.00 57.01           N
ATOM   8285  CZ  ARG D 521      65.569 -36.137  27.180  1.00 69.25           C
ATOM   8286  NH1 ARG D 521      64.679 -37.143  27.056  1.00 59.24           N
ATOM   8287  NH2 ARG D 521      66.155 -35.896  28.349  1.00 54.36           N
ATOM   8288  C   ARG D 521      61.409 -34.764  21.688  1.00 46.08           C
ATOM   8289  O   ARG D 521      61.713 -35.807  21.100  1.00 48.51           O
ATOM   8290  N   VAL D 522      60.525 -33.888  21.217  1.00 40.74           N
ATOM   8291  CA  VAL D 522      59.886 -34.036  19.913  1.00 39.05           C
ATOM   8292  CB  VAL D 522      58.366 -33.783  19.998  1.00 41.75           C
ATOM   8293  CG1 VAL D 522      57.680 -34.923  20.762  1.00 41.45           C
ATOM   8294  CG2 VAL D 522      58.099 -32.446  20.665  1.00 40.86           C
ATOM   8295  C   VAL D 522      60.578 -33.068  18.943  1.00 40.48           C
ATOM   8296  O   VAL D 522      61.216 -32.096  19.352  1.00 37.70           O
ATOM   8297  N   PRO D 523      60.521 -33.360  17.646  1.00 38.23           N
ATOM   8298  CA  PRO D 523      61.241 -32.514  16.680  1.00 38.66           C
ATOM   8299  CB  PRO D 523      60.876 -33.127  15.331  1.00 39.76           C
ATOM   8300  CG  PRO D 523      60.463 -34.514  15.640  1.00 42.61           C
ATOM   8301  CD  PRO D 523      59.803 -34.458  16.989  1.00 38.51           C
ATOM   8302  C   PRO D 523      60.878 -31.019  16.693  1.00 43.05           C
ATOM   8303  O   PRO D 523      61.737 -30.150  16.506  1.00 45.15           O
ATOM   8304  N   TYR D 524      59.604 -30.714  16.896  1.00 37.29           N
ATOM   8305  CA  TYR D 524      59.164 -29.324  16.856  1.00 34.92           C
ATOM   8306  CB  TYR D 524      58.268 -29.084  15.633  1.00 35.24           C
ATOM   8307  CG  TYR D 524      57.899 -27.636  15.467  1.00 35.82           C
ATOM   8308  CD1 TYR D 524      58.885 -26.671  15.318  1.00 35.45           C
ATOM   8309  CE1 TYR D 524      58.569 -25.319  15.271  1.00 36.50           C
ATOM   8310  CZ  TYR D 524      57.259 -24.922  15.400  1.00 46.82           C
ATOM   8311  OH  TYR D 524      56.945 -23.601  15.340  1.00 53.33           O
ATOM   8312  CE2 TYR D 524      56.251 -25.851  15.594  1.00 40.93           C
ATOM   8313  CD2 TYR D 524      56.580 -27.212  15.644  1.00 38.69           C
ATOM   8314  C   TYR D 524      58.519 -28.743  18.114  1.00 34.44           C
ATOM   8315  O   TYR D 524      58.871 -27.637  18.529  1.00 30.40           O
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ATOM   8316  N   HIS D 525      57.524 -29.443  18.657  1.00 33.80           N
ATOM   8317  CA  HIS D 525      56.766 -28.953  19.806  1.00 34.25           C
ATOM   8318  CB  HIS D 525      55.366 -29.570  19.816  1.00 36.80           C
ATOM   8319  CG  HIS D 525      54.477 -29.071  18.708  1.00 41.13           C
ATOM   8320  ND1 HIS D 525      54.234 -29.800  17.563  1.00 43.07           N
ATOM   8321  CE1 HIS D 525      53.417 -29.126  16.773  1.00 42.78           C
ATOM   8322  NE2 HIS D 525      53.119 -27.982  17.362  1.00 43.44           N
ATOM   8323  CD2 HIS D 525      53.787 -27.912  18.565  1.00 43.73           C
ATOM   8324  C   HIS D 525      57.509 -29.173  21.116  1.00 33.78           C
ATOM   8325  O   HIS D 525      57.042 -29.846  22.026  1.00 32.08           O
ATOM   8326  N   ASN D 526      58.676 -28.551  21.197  1.00 30.29           N
ATOM   8327  CA  ASN D 526      59.613 -28.743  22.287  1.00 29.96           C
ATOM   8328  CB  ASN D 526      60.870 -29.409  21.714  1.00 30.71           C
ATOM   8329  CG  ASN D 526      61.479 -28.618  20.548  1.00 42.27           C
ATOM   8330  OD1 ASN D 526      61.639 -27.416  20.644  1.00 31.19           O
ATOM   8331  ND2 ASN D 526      61.860 -29.306  19.465  1.00 31.22           N
ATOM   8332  C   ASN D 526      59.971 -27.465  23.067  1.00 33.26           C
ATOM   8333  O   ASN D 526      59.365 -26.401  22.886  1.00 32.08           O
ATOM   8334  N   TRP D 527      60.896 -27.603  24.010  1.00 30.37           N
ATOM   8335  CA  TRP D 527      61.301 -26.489  24.876  1.00 30.13           C
ATOM   8336  CB  TRP D 527      62.427 -26.983  25.814  1.00 28.05           C
ATOM   8337  CG  TRP D 527      63.008 -25.975  26.722  1.00 31.42           C
ATOM   8338  CD1 TRP D 527      64.324 -25.778  26.957  1.00 30.56           C
ATOM   8339  NE1 TRP D 527      64.496 -24.781  27.906  1.00 31.27           N
ATOM   8340  CE2 TRP D 527      63.267 -24.373  28.348  1.00 31.90           C
ATOM   8341  CD2 TRP D 527      62.299 -25.120  27.642  1.00 27.32           C
ATOM   8342  CE3 TRP D 527      60.946 -24.898  27.916  1.00 30.77           C
ATOM   8343  CZ3 TRP D 527      60.612 -23.994  28.909  1.00 31.89           C
ATOM   8344  CH2 TRP D 527      61.600 -23.253  29.574  1.00 32.72           C
ATOM   8345  CZ2 TRP D 527      62.933 -23.420  29.291  1.00 31.00           C
ATOM   8346  C   TRP D 527      61.750 -25.251  24.051  1.00 32.93           C
ATOM   8347  O   TRP D 527      61.465 -24.109  24.423  1.00 31.56           O
ATOM   8348  N   LYS D 528      62.432 -25.494  22.928  1.00 29.61           N
ATOM   8349  CA  LYS D 528      62.878 -24.409  22.053  1.00 28.43           C
ATOM   8350  CB  LYS D 528      63.777 -24.950  20.952  1.00 29.45           C
ATOM   8351  CG  LYS D 528      64.464 -23.848  20.134  1.00 36.68           C
ATOM   8352  CD  LYS D 528      65.517 -24.435  19.192  1.00 33.51           C
ATOM   8353  CE  LYS D 528      66.310 -23.313  18.537  1.00 41.03           C
ATOM   8354  NZ  LYS D 528      67.459 -23.815  17.756  1.00 44.45           N
ATOM   8355  C   LYS D 528      61.700 -23.604  21.462  1.00 31.60           C
ATOM   8356  O   LYS D 528      61.757 -22.371  21.394  1.00 32.60           O
ATOM   8357  N   HIS D 529      60.644 -24.302  21.046  1.00 27.97           N
ATOM   8358  CA  HIS D 529      59.456 -23.660  20.509  1.00 28.66           C
ATOM   8359  CB  HIS D 529      58.467 -24.725  20.055  1.00 30.20           C
ATOM   8360  CG  HIS D 529      57.096 -24.198  19.733  1.00 34.23           C
ATOM   8361  ND1 HIS D 529      56.854 -23.315  18.703  1.00 35.98           N
ATOM   8362  CE1 HIS D 529      55.554 -23.098  18.598  1.00 36.02           C
ATOM   8363  NE2 HIS D 529      54.943 -23.779  19.550  1.00 36.74           N
ATOM   8364  CD2 HIS D 529      55.884 -24.484  20.266  1.00 37.16           C
ATOM   8365  C   HIS D 529      58.821 -22.778  21.603  1.00 33.40           C
ATOM   8366  O   HIS D 529      58.468 -21.630  21.356  1.00 34.12           O
ATOM   8367  N   ALA D 530      58.707 -23.315  22.816  1.00 29.39           N
ATOM   8368  CA  ALA D 530      58.136 -22.575  23.960  1.00 29.28           C
ATOM   8369  CB  ALA D 530      58.220 -23.421  25.248  1.00 29.25           C
ATOM   8370  C   ALA D 530      58.819 -21.200  24.172  1.00 30.97           C
ATOM   8371  O   ALA D 530      58.145 -20.172  24.234  1.00 29.88           O
ATOM   8372  N   VAL D 531      60.149 -21.207  24.263  1.00 27.10           N
ATOM   8373  CA  VAL D 531      60.947 -19.989  24.459  1.00 27.96           C
ATOM   8374  CB  VAL D 531      62.409 -20.332  24.870  1.00 32.10           C
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ATOM   8375  CG1 VAL D 531      63.216 -19.073  25.114  1.00 32.38           C
ATOM   8376  CG2 VAL D 531      62.422 -21.230  26.112  1.00 32.14           C
ATOM   8377  C   VAL D 531      60.899 -19.042  23.255  1.00 31.68           C
ATOM   8378  O   VAL D 531      60.908 -17.812  23.398  1.00 30.90           O
ATOM   8379  N   THR D 532      60.806 -19.623  22.066  1.00 29.38           N
ATOM   8380  CA  THR D 532      60.713 -18.847  20.810  1.00 28.37           C
ATOM   8381  CB  THR D 532      60.860 -19.788  19.588  1.00 31.16           C
ATOM   8382  OG1 THR D 532      62.115 -20.471  19.682  1.00 34.12           O
ATOM   8383  CG2 THR D 532      60.791 -18.991  18.278  1.00 26.95           C
ATOM   8384  C   THR D 532      59.361 -18.124  20.764  1.00 29.94           C
ATOM   8385  O   THR D 532      59.287 -16.949  20.425  1.00 30.77           O
ATOM   8386  N   VAL D 533      58.294 -18.832  21.122  1.00 25.89           N
ATOM   8387  CA  VAL D 533      56.953 -18.244  21.171  1.00 25.93           C
ATOM   8388  CB  VAL D 533      55.887 -19.304  21.375  1.00 28.64           C
ATOM   8389  CG1 VAL D 533      54.578 -18.696  21.842  1.00 28.17           C
ATOM   8390  CG2 VAL D 533      55.700 -20.114  20.097  1.00 28.42           C
ATOM   8391  C   VAL D 533      56.889 -17.150  22.250  1.00 32.51           C
ATOM   8392  O   VAL D 533      56.266 -16.106  22.036  1.00 33.80           O
ATOM   8393  N   ALA D 534      57.533 -17.385  23.398  1.00 25.66           N
ATOM   8394  CA  ALA D 534      57.578 -16.365  24.450  1.00 24.76           C
ATOM   8395  CB  ALA D 534      58.230 -16.933  25.745  1.00 24.78           C
ATOM   8396  C   ALA D 534      58.358 -15.149  23.968  1.00 30.19           C
ATOM   8397  O   ALA D 534      58.018 -14.036  24.308  1.00 31.32           O
ATOM   8398  N   HIS D 535      59.414 -15.360  23.184  1.00 29.39           N
ATOM   8399  CA  HIS D 535      60.163 -14.224  22.667  1.00 29.88           C
ATOM   8400  CB  HIS D 535      61.452 -14.625  21.943  1.00 30.87           C
ATOM   8401  CG  HIS D 535      62.054 -13.488  21.170  1.00 34.43           C
ATOM   8402  ND1 HIS D 535      61.737 -13.241  19.849  1.00 36.06           N
ATOM   8403  CE1 HIS D 535      62.307 -12.113  19.466  1.00 35.31           C
ATOM   8404  NE2 HIS D 535      62.937 -11.589  20.505  1.00 35.33           N
ATOM   8405  CD2 HIS D 535      62.788 -12.423  21.584  1.00 35.07           C
ATOM   8406  C   HIS D 535      59.312 -13.332  21.743  1.00 34.58           C
ATOM   8407  O   HIS D 535      59.408 -12.102  21.781  1.00 33.18           O
ATOM   8408  N   CYS D 536      58.474 -13.951  20.915  1.00 33.57           N
ATOM   8409  CA  CYS D 536      57.624 -13.185  20.008  1.00 33.48           C
ATOM   8410  CB  CYS D 536      56.817 -14.099  19.100  1.00 33.23           C
ATOM   8411  SG  CYS D 536      56.131 -13.252  17.651  1.00 36.66           S
ATOM   8412  C   CYS D 536      56.687 -12.305  20.826  1.00 38.99           C
ATOM   8413  O   CYS D 536      56.517 -11.123  20.519  1.00 37.99           O
ATOM   8414  N   MET D 537      56.130 -12.880  21.895  1.00 34.52           N
ATOM   8415  CA  MET D 537      55.236 -12.160  22.787  1.00 32.41           C
ATOM   8416  CB  MET D 537      54.695 -13.093  23.881  1.00 33.06           C
ATOM   8417  CG  MET D 537      53.748 -12.394  24.848  1.00 35.19           C
ATOM   8418  SD  MET D 537      52.261 -11.717  24.032  1.00 38.34           S
ATOM   8419  CE  MET D 537      51.356 -13.247  23.542  1.00 33.92           C
ATOM   8420  C   MET D 537      56.020 -11.020  23.429  1.00 38.36           C
ATOM   8421  O   MET D 537      55.495  -9.901  23.605  1.00 38.34           O
ATOM   8422  N   TYR D 538      57.277 -11.305  23.781  1.00 35.84           N
ATOM   8423  CA  TYR D 538      58.145 -10.280  24.361  1.00 35.68           C
ATOM   8424  CB  TYR D 538      59.512 -10.856  24.728  1.00 35.32           C
ATOM   8425  CG  TYR D 538      60.541  -9.780  25.052  1.00 34.07           C
ATOM   8426  CD1 TYR D 538      60.504  -9.105  26.276  1.00 35.77           C
ATOM   8427  CE1 TYR D 538      61.434  -8.143  26.593  1.00 36.97           C
ATOM   8428  CZ  TYR D 538      62.430  -7.834  25.672  1.00 45.07           C
ATOM   8429  OH  TYR D 538      63.366  -6.874  25.982  1.00 40.08           O
ATOM   8430  CE2 TYR D 538      62.498  -8.501  24.448  1.00 34.47           C
ATOM   8431  CD2 TYR D 538      61.560  -9.466  24.150  1.00 33.44           C
ATOM   8432  C   TYR D 538      58.310  -9.104  23.370  1.00 40.56           C
ATOM   8433  O   TYR D 538      58.164  -7.942  23.736  1.00 41.35           O
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ATOM   8434  N   ALA D 539      58.582  -9.421  22.109  1.00 37.04           N
ATOM   8435  CA  ALA D 539      58.693  -8.390  21.075  1.00 37.04           C
ATOM   8436  CB  ALA D 539      59.069  -9.004  19.748  1.00 37.47           C
ATOM   8437  C   ALA D 539      57.389  -7.579  20.947  1.00 41.18           C
ATOM   8438  O   ALA D 539      57.418  -6.366  20.822  1.00 42.47           O
ATOM   8439  N   ILE D 540      56.246  -8.257  20.990  1.00 38.04           N
ATOM   8440  CA  ILE D 540      54.946  -7.592  20.887  1.00 37.28           C
ATOM   8441  CB  ILE D 540      53.789  -8.602  20.735  1.00 38.42           C
ATOM   8442  CG1 ILE D 540      53.867  -9.332  19.400  1.00 37.14           C
ATOM   8443  CD1 ILE D 540      52.830 -10.430  19.264  1.00 39.08           C
ATOM   8444  CG2 ILE D 540      52.441  -7.891  20.884  1.00 39.18           C
ATOM   8445  C   ILE D 540      54.702  -6.648  22.077  1.00 42.06           C
ATOM   8446  O   ILE D 540      54.280  -5.497  21.908  1.00 42.13           O
ATOM   8447  N   LEU D 541      54.937  -7.150  23.284  1.00 38.83           N
ATOM   8448  CA  LEU D 541      54.713  -6.348  24.479  1.00 38.93           C
ATOM   8449  CB  LEU D 541      54.866  -7.205  25.729  1.00 39.27           C
ATOM   8450  CG  LEU D 541      53.806  -8.292  25.893  1.00 43.08           C
ATOM   8451  CD1 LEU D 541      54.159  -9.196  27.075  1.00 42.57           C
ATOM   8452  CD2 LEU D 541      52.428  -7.670  26.068  1.00 43.72           C
ATOM   8453  C   LEU D 541      55.598  -5.101  24.553  1.00 42.54           C
ATOM   8454  O   LEU D 541      55.136  -4.040  24.937  1.00 45.29           O
ATOM   8455  N   GLN D 542      56.867  -5.226  24.191  1.00 37.93           N
ATOM   8456  CA  GLN D 542      57.784  -4.087  24.263  1.00 38.94           C
ATOM   8457  CB  GLN D 542      59.228  -4.541  24.000  1.00 40.22           C
ATOM   8458  CG  GLN D 542      59.819  -5.438  25.092  1.00 46.49           C
ATOM   8459  CD  GLN D 542      59.931  -4.735  26.426  1.00 52.66           C
ATOM   8460  OE1 GLN D 542      60.934  -4.080  26.713  1.00 50.81           O
ATOM   8461  NE2 GLN D 542      58.902  -4.867  27.249  1.00 40.24           N
ATOM   8462  C   GLN D 542      57.436  -2.966  23.282  1.00 44.65           C
ATOM   8463  O   GLN D 542      57.714  -1.804  23.540  1.00 45.43           O
ATOM   8464  N   ASN D 543      56.883  -3.341  22.133  1.00 42.27           N
ATOM   8465  CA  ASN D 543      56.538  -2.393  21.083  1.00 42.12           C
ATOM   8466  CB  ASN D 543      56.844  -2.991  19.702  1.00 38.65           C
ATOM   8467  CG  ASN D 543      58.334  -3.196  19.482  1.00 55.08           C
ATOM   8468  OD1 ASN D 543      59.030  -2.299  19.022  1.00 58.67           O
ATOM   8469  ND2 ASN D 543      58.836  -4.355  19.869  1.00 45.34           N
ATOM   8470  C   ASN D 543      55.098  -1.877  21.171  1.00 48.28           C
ATOM   8471  O   ASN D 543      54.687  -1.022  20.391  1.00 50.93           O
ATOM   8472  N   ASN D 544      54.353  -2.366  22.156  1.00 44.08           N
ATOM   8473  CA  ASN D 544      52.976  -1.932  22.399  1.00 43.53           C
ATOM   8474  CB  ASN D 544      51.989  -2.955  21.861  1.00 36.85           C
ATOM   8475  CG  ASN D 544      52.038  -3.063  20.354  1.00 55.66           C
ATOM   8476  OD1 ASN D 544      51.407  -2.272  19.650  1.00 50.96           O
ATOM   8477  ND2 ASN D 544      52.827  -4.014  19.845  1.00 39.45           N
ATOM   8478  C   ASN D 544      52.812  -1.830  23.910  1.00 50.00           C
ATOM   8479  O   ASN D 544      51.788  -2.222  24.471  1.00 51.62           O
ATOM   8480  N   HIS D 545      53.849  -1.322  24.562  1.00 46.63           N
ATOM   8481  CA  HIS D 545      53.912  -1.291  26.009  1.00 48.30           C
ATOM   8482  CB  HIS D 545      55.347  -1.044  26.463  1.00 50.65           C
ATOM   8483  CG  HIS D 545      55.626   0.383  26.792  1.00 56.17           C
ATOM   8484  ND1 HIS D 545      55.486   0.884  28.069  1.00 59.50           N
ATOM   8485  CE1 HIS D 545      55.736   2.182  28.054  1.00 59.53           C
ATOM   8486  NE2 HIS D 545      55.995   2.545  26.809  1.00 59.63           N
ATOM   8487  CD2 HIS D 545      55.918   1.440  25.997  1.00 59.20           C
ATOM   8488  C   HIS D 545      52.905  -0.477  26.822  1.00 53.76           C
ATOM   8489  O   HIS D 545      52.701  -0.741  28.012  1.00 55.21           O
ATOM   8490  N   THR D 546      52.268   0.498  26.189  1.00 50.21           N
ATOM   8491  CA  THR D 546      51.294   1.320  26.883  1.00 50.06           C
ATOM   8492  CB  THR D 546      51.234   2.744  26.294  1.00 55.22           C
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ATOM   8493  OG1 THR D 546      50.607   2.692  25.005  1.00 57.09           O
ATOM   8494  CG2 THR D 546      52.613   3.351  26.170  1.00 52.79           C
ATOM   8495  C   THR D 546      49.907   0.693  26.795  1.00 54.51           C
ATOM   8496  O   THR D 546      48.933   1.241  27.327  1.00 56.00           O
ATOM   8497  N   LEU D 547      49.803  -0.422  26.078  1.00 49.39           N
ATOM   8498  CA  LEU D 547      48.505  -1.057  25.833  1.00 49.12           C
ATOM   8499  CB  LEU D 547      48.436  -1.554  24.385  1.00 49.93           C
ATOM   8500  CG  LEU D 547      47.967  -0.597  23.283  1.00 56.05           C
ATOM   8501  CD1 LEU D 547      48.388   0.835  23.572  1.00 57.33           C
ATOM   8502  CD2 LEU D 547      48.455  -1.037  21.890  1.00 58.01           C
ATOM   8503  C   LEU D 547      48.043  -2.177  26.775  1.00 51.22           C
ATOM   8504  O   LEU D 547      46.853  -2.530  26.793  1.00 50.86           O
ATOM   8505  N   PHE D 548      48.970  -2.743  27.543  1.00 46.81           N
ATOM   8506  CA  PHE D 548      48.637  -3.863  28.421  1.00 47.37           C
ATOM   8507  CB  PHE D 548      49.450  -5.102  28.031  1.00 49.05           C
ATOM   8508  CG  PHE D 548      49.236  -5.526  26.608  1.00 50.65           C
ATOM   8509  CD1 PHE D 548      50.125  -5.138  25.606  1.00 51.96           C
ATOM   8510  CE1 PHE D 548      49.905  -5.490  24.306  1.00 51.65           C
ATOM   8511  CZ  PHE D 548      48.777  -6.186  23.966  1.00 52.13           C
ATOM   8512  CE2 PHE D 548      47.860  -6.551  24.932  1.00 54.56           C
ATOM   8513  CD2 PHE D 548      48.085  -6.213  26.246  1.00 52.15           C
ATOM   8514  C   PHE D 548      48.728  -3.632  29.919  1.00 51.34           C
ATOM   8515  O   PHE D 548      49.581  -2.903  30.381  1.00 53.38           O
ATOM   8516  N   THR D 549      47.874  -4.318  30.674  1.00 47.95           N
ATOM   8517  CA  THR D 549      47.869  -4.219  32.135  1.00 48.06           C
ATOM   8518  CB  THR D 549      46.563  -4.747  32.714  1.00 56.32           C
ATOM   8519  OG1 THR D 549      46.531  -6.170  32.557  1.00 57.49           O
ATOM   8520  CG2 THR D 549      45.353  -4.122  32.000  1.00 52.92           C
ATOM   8521  C   THR D 549      49.029  -4.989  32.742  1.00 52.22           C
ATOM   8522  O   THR D 549      49.621  -5.843  32.095  1.00 51.93           O
ATOM   8523  N   ASP D 550      49.306  -4.722  34.013  1.00 50.53           N
ATOM   8524  CA  ASP D 550      50.374  -5.399  34.751  1.00 50.73           C
ATOM   8525  CB  ASP D 550      50.486  -4.845  36.183  1.00 53.10           C
ATOM   8526  CG  ASP D 550      51.036  -3.401  36.224  1.00 69.07           C
ATOM   8527  OD1 ASP D 550      52.242  -3.220  36.560  1.00 70.22           O
ATOM   8528  OD2 ASP D 550      50.250  -2.442  35.973  1.00 72.80           O
ATOM   8529  C   ASP D 550      50.185  -6.915  34.795  1.00 52.95           C
ATOM   8530  O   ASP D 550      51.141  -7.658  34.660  1.00 56.01           O
ATOM   8531  N   LEU D 551      48.951  -7.362  34.993  1.00 47.63           N
ATOM   8532  CA  LEU D 551      48.632  -8.791  35.068  1.00 47.50           C
ATOM   8533  CB  LEU D 551      47.189  -8.996  35.553  1.00 47.71           C
ATOM   8534  CG  LEU D 551      46.839  -8.741  37.012  1.00 53.00           C
ATOM   8535  CD1 LEU D 551      45.426  -9.223  37.270  1.00 53.48           C
ATOM   8536  CD2 LEU D 551      47.828  -9.439  37.950  1.00 57.01           C
ATOM   8537  C   LEU D 551      48.792  -9.478  33.705  1.00 51.00           C
ATOM   8538  O   LEU D 551      49.244 -10.610  33.622  1.00 50.70           O
ATOM   8539  N   GLU D 552      48.383  -8.792  32.641  1.00 46.46           N
ATOM   8540  CA  GLU D 552      48.493  -9.336  31.293  1.00 45.16           C
ATOM   8541  CB  GLU D 552      47.824  -8.419  30.272  1.00 45.53           C
ATOM   8542  CG  GLU D 552      46.317  -8.436  30.352  1.00 50.76           C
ATOM   8543  CD  GLU D 552      45.663  -7.290  29.588  1.00 58.54           C
ATOM   8544  OE1 GLU D 552      44.454  -7.410  29.268  1.00 49.73           O
ATOM   8545  OE2 GLU D 552      46.351  -6.278  29.311  1.00 55.60           O
ATOM   8546  C   GLU D 552      49.948  -9.551  30.933  1.00 49.44           C
ATOM   8547  O   GLU D 552      50.311 -10.580  30.379  1.00 51.33           O
ATOM   8548  N   ARG D 553      50.791  -8.593  31.280  1.00 45.16           N
ATOM   8549  CA  ARG D 553      52.202  -8.728  30.984  1.00 45.60           C
ATOM   8550  CB  ARG D 553      52.968  -7.429  31.295  1.00 45.26           C
ATOM   8551  CG  ARG D 553      52.905  -6.400  30.154  1.00 48.44           C
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ATOM   8552  CD  ARG D 553      53.785  -5.176  30.432  1.00 55.11           C
ATOM   8553  NE  ARG D 553      53.020  -4.069  31.001  1.00 56.42           N
ATOM   8554  CZ  ARG D 553      52.932  -3.806  32.300  1.00 67.03           C
ATOM   8555  NH1 ARG D 553      53.584  -4.562  33.177  1.00 60.85           N
ATOM   8556  NH2 ARG D 553      52.187  -2.791  32.720  1.00 58.32           N
ATOM   8557  C   ARG D 553      52.784  -9.953  31.693  1.00 51.97           C
ATOM   8558  O   ARG D 553      53.420 -10.799  31.053  1.00 51.54           O
ATOM   8559  N   LYS D 554      52.485 -10.092  32.988  1.00 49.40           N
ATOM   8560  CA  LYS D 554      52.958 -11.247  33.766  1.00 48.52           C
ATOM   8561  CB  LYS D 554      52.431 -11.192  35.212  1.00 50.29           C
ATOM   8562  CG  LYS D 554      53.061 -10.138  36.116  1.00 51.69           C
ATOM   8563  CD  LYS D 554      52.461 -10.219  37.520  1.00 51.48           C
ATOM   8564  CE  LYS D 554      52.609  -8.898  38.267  1.00 54.37           C
ATOM   8565  NZ  LYS D 554      52.553  -9.064  39.757  1.00 53.45           N
ATOM   8566  C   LYS D 554      52.444 -12.546  33.148  1.00 49.91           C
ATOM   8567  O   LYS D 554      53.225 -13.455  32.852  1.00 52.25           O
ATOM   8568  N   GLY D 555      51.122 -12.633  32.985  1.00 40.95           N
ATOM   8569  CA  GLY D 555      50.456 -13.823  32.478  1.00 38.91           C
ATOM   8570  C   GLY D 555      50.759 -14.317  31.069  1.00 40.70           C
ATOM   8571  O   GLY D 555      50.763 -15.517  30.814  1.00 39.83           O
ATOM   8572  N   LEU D 556      50.958 -13.392  30.143  1.00 37.93           N
ATOM   8573  CA  LEU D 556      51.175 -13.733  28.751  1.00 37.22           C
ATOM   8574  CB  LEU D 556      50.914 -12.516  27.856  1.00 38.07           C
ATOM   8575  CG  LEU D 556      49.439 -12.090  27.705  1.00 43.42           C
ATOM   8576  CD1 LEU D 556      49.348 -10.826  26.859  1.00 43.77           C
ATOM   8577  CD2 LEU D 556      48.605 -13.212  27.074  1.00 46.58           C
ATOM   8578  C   LEU D 556      52.507 -14.413  28.431  1.00 37.86           C
ATOM   8579  O   LEU D 556      52.544 -15.376  27.658  1.00 37.91           O
ATOM   8580  N   LEU D 557      53.587 -13.946  29.048  1.00 34.30           N
ATOM   8581  CA  LEU D 557      54.889 -14.567  28.848  1.00 35.78           C
ATOM   8582  CB  LEU D 557      55.992 -13.752  29.527  1.00 37.32           C
ATOM   8583  CG  LEU D 557      56.464 -12.481  28.810  1.00 44.44           C
ATOM   8584  CD1 LEU D 557      57.214 -11.556  29.767  1.00 46.32           C
ATOM   8585  CD2 LEU D 557      57.329 -12.836  27.636  1.00 46.07           C
ATOM   8586  C   LEU D 557      54.852 -15.978  29.429  1.00 38.84           C
ATOM   8587  O   LEU D 557      55.323 -16.950  28.805  1.00 36.78           O
ATOM   8588  N   ILE D 558      54.265 -16.102  30.616  1.00 36.13           N
ATOM   8589  CA  ILE D 558      54.113 -17.420  31.241  1.00 35.55           C
ATOM   8590  CB  ILE D 558      53.588 -17.315  32.703  1.00 37.85           C
ATOM   8591  CG1 ILE D 558      54.605 -16.555  33.580  1.00 37.79           C
ATOM   8592  CD1 ILE D 558      56.001 -17.245  33.710  1.00 38.62           C
ATOM   8593  CG2 ILE D 558      53.320 -18.700  33.287  1.00 38.70           C
ATOM   8594  C   ILE D 558      53.226 -18.311  30.349  1.00 35.39           C
ATOM   8595  O   ILE D 558      53.576 -19.454  30.039  1.00 33.65           O
ATOM   8596  N   ALA D 559      52.109 -17.758  29.888  1.00 30.10           N
ATOM   8597  CA  ALA D 559      51.207 -18.521  29.022  1.00 29.56           C
ATOM   8598  CB  ALA D 559      50.056 -17.648  28.533  1.00 30.19           C
ATOM   8599  C   ALA D 559      51.981 -19.066  27.835  1.00 32.22           C
ATOM   8600  O   ALA D 559      51.846 -20.251  27.481  1.00 29.25           O
ATOM   8601  N   CYS D 560      52.806 -18.207  27.229  1.00 31.87           N
ATOM   8602  CA  CYS D 560      53.611 -18.612  26.057  1.00 32.61           C
ATOM   8603  CB  CYS D 560      54.330 -17.412  25.425  1.00 33.41           C
ATOM   8604  SG  CYS D 560      53.198 -16.269  24.613  1.00 37.54           S
ATOM   8605  C   CYS D 560      54.610 -19.718  26.377  1.00 34.20           C
ATOM   8606  O   CYS D 560      54.811 -20.640  25.596  1.00 33.78           O
ATOM   8607  N   LEU D 561      55.230 -19.634  27.544  1.00 30.33           N
ATOM   8608  CA  LEU D 561      56.202 -20.654  27.948  1.00 30.63           C
ATOM   8609  CB  LEU D 561      56.886 -20.255  29.262  1.00 30.63           C
ATOM   8610  CG  LEU D 561      58.224 -20.920  29.522  1.00 33.77           C
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ATOM   8611  CD1 LEU D 561      59.200 -20.526  28.441  1.00 32.68           C
ATOM   8612  CD2 LEU D 561      58.744 -20.596  30.906  1.00 36.02           C
ATOM   8613  C   LEU D 561      55.548 -22.022  28.118  1.00 34.54           C
ATOM   8614  O   LEU D 561      56.141 -23.047  27.807  1.00 33.74           O
ATOM   8615  N   CYS D 562      54.315 -22.024  28.614  1.00 30.79           N
ATOM   8616  CA  CYS D 562      53.612 -23.263  28.936  1.00 29.50           C
ATOM   8617  CB  CYS D 562      52.864 -23.056  30.256  1.00 30.04           C
ATOM   8618  SG  CYS D 562      53.918 -22.588  31.652  1.00 34.01           S
ATOM   8619  C   CYS D 562      52.614 -23.761  27.909  1.00 30.55           C
ATOM   8620  O   CYS D 562      51.990 -24.791  28.115  1.00 27.54           O
ATOM   8621  N   HIS D 563      52.389 -22.986  26.852  1.00 29.33           N
ATOM   8622  CA  HIS D 563      51.319 -23.284  25.882  1.00 28.19           C
ATOM   8623  CB  HIS D 563      51.186 -22.163  24.845  1.00 27.77           C
ATOM   8624  CG  HIS D 563      52.077 -22.343  23.654  1.00 29.23           C
ATOM   8625  ND1 HIS D 563      53.405 -21.968  23.651  1.00 29.03           N
ATOM   8626  CE1 HIS D 563      53.953 -22.318  22.500  1.00 28.11           C
ATOM   8627  NE2 HIS D 563      53.034 -22.917  21.761  1.00 28.64           N
ATOM   8628  CD2 HIS D 563      51.855 -22.955  22.466  1.00 29.61           C
ATOM   8629  C   HIS D 563      51.295 -24.633  25.194  1.00 32.12           C
ATOM   8630  O   HIS D 563      50.244 -25.054  24.732  1.00 32.78           O
ATOM   8631  N   ASP D 564      52.437 -25.311  25.126  1.00 27.79           N
ATOM   8632  CA  ASP D 564      52.502 -26.645  24.527  1.00 26.62           C
ATOM   8633  CB  ASP D 564      53.427 -26.608  23.322  1.00 27.86           C
ATOM   8634  CG  ASP D 564      52.693 -26.334  22.014  1.00 32.15           C
ATOM   8635  OD1 ASP D 564      51.494 -26.622  21.888  1.00 33.84           O
ATOM   8636  OD2 ASP D 564      53.361 -25.924  21.067  1.00 40.16           O
ATOM   8637  C   ASP D 564      53.028 -27.722  25.497  1.00 31.02           C
ATOM   8638  O   ASP D 564      53.577 -28.739  25.051  1.00 29.78           O
ATOM   8639  N   LEU D 565      52.895 -27.489  26.805  1.00 29.03           N
ATOM   8640  CA  LEU D 565      53.398 -28.436  27.824  1.00 30.29           C
ATOM   8641  CB  LEU D 565      52.974 -27.980  29.226  1.00 31.15           C
ATOM   8642  CG  LEU D 565      54.001 -27.146  29.982  1.00 37.14           C
ATOM   8643  CD1 LEU D 565      53.323 -26.440  31.158  1.00 37.39           C
ATOM   8644  CD2 LEU D 565      55.187 -28.005  30.445  1.00 36.11           C
ATOM   8645  C   LEU D 565      52.969 -29.903  27.607  1.00 35.06           C
ATOM   8646  O   LEU D 565      51.785 -30.203  27.458  1.00 34.56           O
ATOM   8647  N   ASP D 566      53.948 -30.807  27.637  1.00 31.58           N
ATOM   8648  CA  ASP D 566      53.708 -32.241  27.480  1.00 30.56           C
ATOM   8649  CB  ASP D 566      52.836 -32.777  28.625  1.00 31.90           C
ATOM   8650  CG  ASP D 566      52.857 -34.296  28.710  1.00 37.76           C
ATOM   8651  OD1 ASP D 566      53.931 -34.900  28.498  1.00 38.03           O
ATOM   8652  OD2 ASP D 566      51.787 -34.892  28.936  1.00 42.69           O
ATOM   8653  C   ASP D 566      53.141 -32.626  26.112  1.00 33.69           C
ATOM   8654  O   ASP D 566      52.428 -33.601  25.972  1.00 32.30           O
ATOM   8655  N   HIS D 567      53.524 -31.881  25.087  1.00 32.76           N
ATOM   8656  CA  HIS D 567      53.085 -32.152  23.730  1.00 32.90           C
ATOM   8657  CB  HIS D 567      53.391 -30.921  22.845  1.00 33.39           C
ATOM   8658  CG  HIS D 567      52.560 -30.835  21.600  1.00 36.91           C
ATOM   8659  ND1 HIS D 567      52.667 -31.738  20.563  1.00 38.61           N
ATOM   8660  CE1 HIS D 567      51.835 -31.394  19.595  1.00 37.57           C
ATOM   8661  NE2 HIS D 567      51.182 -30.309  19.973  1.00 38.03           N
ATOM   8662  CD2 HIS D 567      51.626 -29.930  21.214  1.00 38.74           C
ATOM   8663  C   HIS D 567      53.844 -33.391  23.243  1.00 38.60           C
ATOM   8664  O   HIS D 567      55.044 -33.509  23.489  1.00 38.11           O
ATOM   8665  N   ARG D 568      53.156 -34.320  22.571  1.00 36.20           N
ATOM   8666  CA AARG D 568      53.792 -35.533  22.045  0.50 36.50           C
ATOM   8667  CA BARG D 568      53.848 -35.506  22.053  0.50 36.48           C
ATOM   8668  CB AARG D 568      52.935 -36.757  22.345  0.50 37.07           C
ATOM   8669  CB BARG D 568      53.189 -36.817  22.496  0.50 36.92           C
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ATOM   8670  CG AARG D 568      52.014 -36.579  23.531  0.50 47.26           C
ATOM   8671  CG BARG D 568      51.859 -36.655  23.215  0.50 47.49           C
ATOM   8672  CD AARG D 568      52.564 -37.276  24.756  0.50 48.20           C
ATOM   8673  CD BARG D 568      51.983 -37.004  24.694  0.50 49.15           C
ATOM   8674  NE AARG D 568      51.715 -37.030  25.926  0.50 48.51           N
ATOM   8675  NE BARG D 568      52.569 -38.331  24.895  0.50 51.64           N
ATOM   8676  CZ AARG D 568      51.386 -37.954  26.826  0.50 58.50           C
ATOM   8677  CZ BARG D 568      52.319 -39.114  25.945  0.50 60.72           C
ATOM   8678 NH1AARG D 568      51.849 -39.199  26.713  0.50 52.59           N
ATOM   8679 NH1BARG D 568      52.917 -40.298  26.036  0.50 41.62           N
ATOM   8680 NH2AARG D 568      50.604 -37.625  27.846  0.50 41.94           N
ATOM   8681 NH2BARG D 568      51.470 -38.714  26.897  0.50 52.77           N
ATOM   8682  C    ARG D 568      54.052 -35.471  20.539  1.00 41.15           C
ATOM   8683  O    ARG D 568      54.559 -36.423  19.955  1.00 42.12           O
ATOM   8684  N    GLY D 569      53.662 -34.367  19.904  1.00 37.28           N
ATOM   8685  CA   GLY D 569      53.834 -34.211  18.466  1.00 37.12           C
ATOM   8686  C    GLY D 569      52.610 -34.614  17.662  1.00 40.15           C
ATOM   8687  O    GLY D 569      52.661 -34.678  16.442  1.00 40.16           O
ATOM   8688  N    PHE D 570      51.504 -34.869  18.351  1.00 36.50           N
ATOM   8689  CA   PHE D 570      50.273 -35.275  17.684  1.00 35.13           C
ATOM   8690  CB   PHE D 570      49.806 -36.651  18.194  1.00 35.86           C
ATOM   8691  CG   PHE D 570      50.833 -37.725  18.056  1.00 36.39           C
ATOM   8692  CD1  PHE D 570      51.234 -38.158  16.797  1.00 40.49           C
ATOM   8693  CE1  PHE D 570      52.198 -39.163  16.654  1.00 41.04           C
ATOM   8694  CZ   PHE D 570      52.763 -39.731  17.788  1.00 38.92           C
ATOM   8695  CE2  PHE D 570      52.333 -39.327  19.052  1.00 39.71           C
ATOM   8696  CD2  PHE D 570      51.391 -38.320  19.176  1.00 36.54           C
ATOM   8697  C    PHE D 570      49.144 -34.247  17.819  1.00 35.59           C
ATOM   8698  O    PHE D 570      48.885 -33.713  18.897  1.00 30.77           O
ATOM   8699  N    SER D 571      48.434 -34.047  16.715  1.00 35.54           N
ATOM   8700  CA   SER D 571      47.304 -33.132  16.638  1.00 35.32           C
ATOM   8701  CB   SER D 571      46.952 -32.873  15.176  1.00 36.94           C
ATOM   8702  OG   SER D 571      46.343 -34.015  14.594  1.00 47.59           O
ATOM   8703  C    SER D 571      46.076 -33.704  17.352  1.00 39.27           C
ATOM   8704  O    SER D 571      45.970 -34.911  17.579  1.00 40.65           O
ATOM   8705  N    ASN D 572      45.141 -32.817  17.669  1.00 35.06           N
ATOM   8706  CA   ASN D 572      43.885 -33.169  18.308  1.00 34.86           C
ATOM   8707  CB   ASN D 572      43.039 -31.906  18.508  1.00 30.65           C
ATOM   8708  CG   ASN D 572      43.598 -31.002  19.571  1.00 47.46           C
ATOM   8709  OD1  ASN D 572      44.260 -31.466  20.491  1.00 42.34           O
ATOM   8710  ND2  ASN D 572      43.328 -29.701  19.458  1.00 31.71           N
ATOM   8711  C    ASN D 572      43.117 -34.196  17.472  1.00 39.82           C
ATOM   8712  O    ASN D 572      42.448 -35.063  18.029  1.00 41.01           O
ATOM   8713  N    SER D 573      43.215 -34.090  16.142  1.00 36.46           N
ATOM   8714  CA   SER D 573      42.543 -35.020  15.228  1.00 36.77           C
ATOM   8715  CB   SER D 573      42.831 -34.649  13.767  1.00 39.55           C
ATOM   8716  OG   SER D 573      42.297 -33.380  13.448  1.00 61.09           O
ATOM   8717  C    SER D 573      43.044 -36.445  15.447  1.00 42.28           C
ATOM   8718  O    SER D 573      42.255 -37.400  15.469  1.00 42.26           O
ATOM   8719  N    TYR D 574      44.367 -36.594  15.523  1.00 38.42           N
ATOM   8720  CA   TYR D 574      44.946 -37.914  15.712  1.00 37.26           C
ATOM   8721  CB   TYR D 574      46.474 -37.891  15.587  1.00 37.83           C
ATOM   8722  CG   TYR D 574      47.111 -39.233  15.894  1.00 38.43           C
ATOM   8723  CD1  TYR D 574      47.017 -40.300  14.992  1.00 40.41           C
ATOM   8724  CE1  TYR D 574      47.520 -41.549  15.305  1.00 39.25           C
ATOM   8725  CZ   TYR D 574      48.131 -41.738  16.523  1.00 42.40           C
ATOM   8726  OH   TYR D 574      48.679 -42.944  16.831  1.00 43.01           O
ATOM   8727  CE2  TYR D 574      48.225 -40.709  17.426  1.00 38.91           C
ATOM   8728  CD2  TYR D 574      47.713 -39.467  17.115  1.00 38.09           C
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ATOM   8729  C   TYR D 574      44.492 -38.536  17.027  1.00 37.78           C
ATOM   8730  O   TYR D 574      44.143 -39.724  17.066  1.00 37.09           O
ATOM   8731  N   LEU D 575      44.466 -37.732  18.089  1.00 33.98           N
ATOM   8732  CA  LEU D 575      44.055 -38.239  19.406  1.00 34.91           C
ATOM   8733  CB  LEU D 575      44.171 -37.150  20.490  1.00 35.36           C
ATOM   8734  CG  LEU D 575      45.536 -36.574  20.904  1.00 41.58           C
ATOM   8735  CD1 LEU D 575      45.537 -36.112  22.363  1.00 41.54           C
ATOM   8736  CD2 LEU D 575      46.672 -37.539  20.658  1.00 44.30           C
ATOM   8737  C   LEU D 575      42.611 -38.774  19.358  1.00 41.80           C
ATOM   8738  O   LEU D 575      42.299 -39.807  19.967  1.00 41.22           O
ATOM   8739  N   GLN D 576      41.734 -38.057  18.650  1.00 39.76           N
ATOM   8740  CA  GLN D 576      40.332 -38.459  18.532  1.00 40.02           C
ATOM   8741  CB  GLN D 576      39.504 -37.357  17.853  1.00 41.36           C
ATOM   8742  CG  GLN D 576      37.984 -37.451  18.142  1.00 50.86           C
ATOM   8743  CD  GLN D 576      37.124 -36.585  17.198  1.00 67.37           C
ATOM   8744  OE1 GLN D 576      35.879 -36.619  17.263  1.00 62.92           O
ATOM   8745  NE2 GLN D 576      37.788 -35.799  16.324  1.00 53.36           N
ATOM   8746  C   GLN D 576      40.204 -39.781  17.775  1.00 43.87           C
ATOM   8747  O   GLN D 576      39.481 -40.682  18.193  1.00 44.96           O
ATOM   8748  N   LYS D 577      40.935 -39.891  16.672  1.00 39.64           N
ATOM   8749  CA  LYS D 577      40.928 -41.083  15.834  1.00 39.41           C
ATOM   8750  CB  LYS D 577      41.499 -40.756  14.460  1.00 41.08           C
ATOM   8751  CG  LYS D 577      40.519 -39.935  13.630  1.00 47.12           C
ATOM   8752  CD  LYS D 577      41.214 -39.073  12.598  1.00 52.68           C
ATOM   8753  CE  LYS D 577      40.182 -38.173  11.882  1.00 58.92           C
ATOM   8754  NZ  LYS D 577      40.775 -36.898  11.279  1.00 60.12           N
ATOM   8755  C   LYS D 577      41.622 -42.288  16.470  1.00 45.46           C
ATOM   8756  O   LYS D 577      41.213 -43.438  16.259  1.00 47.70           O
ATOM   8757  N   PHE D 578      42.627 -42.020  17.298  1.00 40.82           N
ATOM   8758  CA  PHE D 578      43.305 -43.074  18.038  1.00 39.27           C
ATOM   8759  CB  PHE D 578      44.648 -42.560  18.582  1.00 39.35           C
ATOM   8760  CG  PHE D 578      45.423 -43.591  19.352  1.00 39.30           C
ATOM   8761  CD1 PHE D 578      46.301 -44.453  18.690  1.00 40.85           C
ATOM   8762  CE1 PHE D 578      47.008 -45.412  19.382  1.00 41.70           C
ATOM   8763  CZ  PHE D 578      46.824 -45.542  20.762  1.00 41.05           C
ATOM   8764  CE2 PHE D 578      45.951 -44.692  21.433  1.00 42.70           C
ATOM   8765  CD2 PHE D 578      45.260 -43.721  20.727  1.00 39.78           C
ATOM   8766  C   PHE D 578      42.389 -43.470  19.211  1.00 43.13           C
ATOM   8767  O   PHE D 578      42.504 -44.572  19.759  1.00 40.72           O
ATOM   8768  N   ASP D 579      41.494 -42.553  19.588  1.00 40.80           N
ATOM   8769  CA  ASP D 579      40.611 -42.741  20.742  1.00 40.48           C
ATOM   8770  CB  ASP D 579      39.867 -44.084  20.645  1.00 42.78           C
ATOM   8771  CG  ASP D 579      38.615 -44.141  21.535  1.00 50.86           C
ATOM   8772  OD1 ASP D 579      38.286 -43.116  22.193  1.00 49.81           O
ATOM   8773  OD2 ASP D 579      37.984 -45.226  21.594  1.00 53.82           O
ATOM   8774  C   ASP D 579      41.434 -42.645  22.035  1.00 42.22           C
ATOM   8775  O   ASP D 579      41.330 -43.477  22.924  1.00 39.76           O
ATOM   8776  N   HIS D 580      42.273 -41.616  22.113  1.00 41.23           N
ATOM   8777  CA  HIS D 580      43.105 -41.363  23.295  1.00 40.84           C
ATOM   8778  CB  HIS D 580      44.189 -40.326  22.978  1.00 41.21           C
ATOM   8779  CG  HIS D 580      45.272 -40.245  24.014  1.00 44.19           C
ATOM   8780  ND1 HIS D 580      45.153 -39.492  25.165  1.00 45.25           N
ATOM   8781  CE1 HIS D 580      46.257 -39.611  25.882  1.00 44.33           C
ATOM   8782  NE2 HIS D 580      47.084 -40.419  25.242  1.00 44.91           N
ATOM   8783  CD2 HIS D 580      46.494 -40.827  24.070  1.00 45.72           C
ATOM   8784  C   HIS D 580      42.256 -40.870  24.468  1.00 44.45           C
ATOM   8785  O   HIS D 580      41.316 -40.101  24.277  1.00 44.23           O
ATOM   8786  N   PRO D 581      42.607 -41.278  25.703  1.00 42.62           N
ATOM   8787  CA  PRO D 581      41.892 -40.871  26.917  1.00 42.47           C
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ATOM   8788  CB  PRO D 581      42.793 -41.411  28.030  1.00 43.28           C
ATOM   8789  CG  PRO D 581      43.335 -42.647  27.465  1.00 45.97           C
ATOM   8790  CD  PRO D 581      43.553 -42.375  25.984  1.00 42.54           C
ATOM   8791  C   PRO D 581      41.743 -39.355  27.042  1.00 46.52           C
ATOM   8792  O   PRO D 581      40.746 -38.870  27.595  1.00 48.33           O
ATOM   8793  N   LEU D 582      42.727 -38.603  26.545  1.00 41.05           N
ATOM   8794  CA  LEU D 582      42.640 -37.138  26.586  1.00 40.40           C
ATOM   8795  CB  LEU D 582      43.923 -36.500  26.047  1.00 40.21           C
ATOM   8796  CG  LEU D 582      45.146 -36.510  26.975  1.00 44.40           C
ATOM   8797  CD1 LEU D 582      46.370 -36.003  26.262  1.00 44.56           C
ATOM   8798  CD2 LEU D 582      44.908 -35.706  28.234  1.00 46.01           C
ATOM   8799  C   LEU D 582      41.423 -36.656  25.795  1.00 45.84           C
ATOM   8800  O   LEU D 582      40.771 -35.699  26.187  1.00 47.57           O
ATOM   8801  N   ALA D 583      41.102 -37.353  24.702  1.00 42.79           N
ATOM   8802  CA  ALA D 583      39.941 -37.010  23.872  1.00 43.50           C
ATOM   8803  CB  ALA D 583      39.965 -37.774  22.541  1.00 43.94           C
ATOM   8804  C   ALA D 583      38.617 -37.250  24.604  1.00 48.35           C
ATOM   8805  O   ALA D 583      37.617 -36.579  24.346  1.00 49.00           O
ATOM   8806  N   ALA D 584      38.624 -38.211  25.520  1.00 44.71           N
ATOM   8807  CA  ALA D 584      37.454 -38.521  26.334  1.00 43.98           C
ATOM   8808  CB  ALA D 584      37.640 -39.876  27.021  1.00 43.95           C
ATOM   8809  C   ALA D 584      37.314 -37.425  27.388  1.00 49.61           C
ATOM   8810  O   ALA D 584      36.206 -37.008  27.746  1.00 52.02           O
ATOM   8811  N   LEU D 585      38.451 -37.002  27.928  1.00 45.15           N
ATOM   8812  CA  LEU D 585      38.482 -35.988  28.985  1.00 44.66           C
ATOM   8813  CB  LEU D 585      39.879 -35.943  29.598  1.00 44.73           C
ATOM   8814  CG  LEU D 585      40.124 -35.173  30.883  1.00 48.57           C
ATOM   8815  CD1 LEU D 585      39.170 -35.700  31.955  1.00 49.63           C
ATOM   8816  CD2 LEU D 585      41.587 -35.337  31.319  1.00 45.75           C
ATOM   8817  C   LEU D 585      38.078 -34.612  28.471  1.00 48.38           C
ATOM   8818  O   LEU D 585      37.285 -33.913  29.108  1.00 50.22           O
ATOM   8819  N   TYR D 586      38.607 -34.242  27.306  1.00 44.24           N
ATOM   8820  CA  TYR D 586      38.308 -32.946  26.667  1.00 43.88           C
ATOM   8821  CB  TYR D 586      39.547 -32.045  26.659  1.00 44.26           C
ATOM   8822  CG  TYR D 586      40.357 -32.020  27.946  1.00 45.35           C
ATOM   8823  CD1 TYR D 586      41.639 -32.577  27.991  1.00 45.30           C
ATOM   8824  CE1 TYR D 586      42.426 -32.498  29.143  1.00 44.86           C
ATOM   8825  CZ  TYR D 586      41.943 -31.817  30.252  1.00 55.00           C
ATOM   8826  OH  TYR D 586      42.707 -31.742  31.391  1.00 47.93           O
ATOM   8827  CE2 TYR D 586      40.679 -31.213  30.223  1.00 49.06           C
ATOM   8828  CD2 TYR D 586      39.903 -31.305  29.064  1.00 47.20           C
ATOM   8829  C   TYR D 586      37.890 -33.175  25.218  1.00 47.35           C
ATOM   8830  O   TYR D 586      38.720 -33.528  24.369  1.00 47.33           O
ATOM   8831  N   SER D 587      36.626 -32.915  24.920  1.00 43.41           N
ATOM   8832  CA  SER D 587      36.114 -33.106  23.565  1.00 43.63           C
ATOM   8833  CB  SER D 587      34.579 -33.061  23.571  1.00 46.77           C
ATOM   8834  OG  SER D 587      34.106 -32.252  24.642  1.00 57.86           O
ATOM   8835  C   SER D 587      36.658 -32.052  22.590  1.00 49.06           C
ATOM   8836  O   SER D 587      37.002 -32.366  21.450  1.00 49.74           O
ATOM   8837  N   THR D 588      36.758 -30.815  23.065  1.00 44.96           N
ATOM   8838  CA  THR D 588      37.228 -29.686  22.261  1.00 43.43           C
ATOM   8839  CB  THR D 588      36.189 -28.534  22.361  1.00 50.06           C
ATOM   8840  OG1 THR D 588      35.001 -28.924  21.657  1.00 55.37           O
ATOM   8841  CG2 THR D 588      36.729 -27.259  21.760  1.00 49.01           C
ATOM   8842  C   THR D 588      38.622 -29.221  22.712  1.00 42.13           C
ATOM   8843  O   THR D 588      38.918 -29.284  23.897  1.00 41.10           O
ATOM   8844  N   SER D 589      39.442 -28.741  21.768  1.00 37.35           N
ATOM   8845  CA  SER D 589      40.800 -28.248  22.045  1.00 35.81           C
ATOM   8846  CB  SER D 589      40.738 -26.838  22.628  1.00 40.71           C
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ATOM   8847  OG  SER D 589      40.001 -25.976  21.780  1.00 52.25           O
ATOM   8848  C   SER D 589      41.485 -29.205  23.021  1.00 34.72           C
ATOM   8849  O   SER D 589      41.878 -28.836  24.134  1.00 32.67           O
ATOM   8850  N   THR D 590      41.519 -30.465  22.610  1.00 32.81           N
ATOM   8851  CA  THR D 590      42.017 -31.554  23.437  1.00 33.33           C
ATOM   8852  CB  THR D 590      41.935 -32.905  22.686  1.00 40.40           C
ATOM   8853  OG1 THR D 590      40.578 -33.117  22.290  1.00 39.58           O
ATOM   8854  CG2 THR D 590      42.375 -34.071  23.585  1.00 37.19           C
ATOM   8855  C   THR D 590      43.378 -31.302  24.075  1.00 35.77           C
ATOM   8856  O   THR D 590      43.502 -31.243  25.294  1.00 33.87           O
ATOM   8857  N   MET D 591      44.391 -31.149  23.237  1.00 33.69           N
ATOM   8858  CA  MET D 591      45.733 -30.940  23.726  1.00 34.21           C
ATOM   8859  CB  MET D 591      46.732 -30.951  22.562  1.00 36.87           C
ATOM   8860  CG  MET D 591      47.057 -32.348  22.046  1.00 41.66           C
ATOM   8861  SD  MET D 591      47.697 -33.481  23.353  1.00 46.93           S
ATOM   8862  CE  MET D 591      49.278 -32.737  23.624  1.00 45.31           C
ATOM   8863  C   MET D 591      45.859 -29.640  24.498  1.00 35.64           C
ATOM   8864  O   MET D 591      46.588 -29.568  25.503  1.00 31.46           O
ATOM   8865  N   GLU D 592      45.155 -28.613  24.019  1.00 34.97           N
ATOM   8866  CA  GLU D 592      45.220 -27.276  24.629  1.00 35.56           C
ATOM   8867  CB  GLU D 592      44.520 -26.236  23.741  1.00 36.81           C
ATOM   8868  CG  GLU D 592      45.244 -25.996  22.419  1.00 38.65           C
ATOM   8869  CD  GLU D 592      45.003 -27.099  21.386  1.00 41.08           C
ATOM   8870  OE1 GLU D 592      44.016 -27.820  21.508  1.00 39.17           O
ATOM   8871  OE2 GLU D 592      45.789 -27.245  20.432  1.00 34.33           O
ATOM   8872  C   GLU D 592      44.722 -27.234  26.081  1.00 37.79           C
ATOM   8873  O   GLU D 592      45.299 -26.559  26.925  1.00 37.34           O
ATOM   8874  N   GLN D 593      43.665 -27.988  26.369  1.00 35.59           N
ATOM   8875  CA  GLN D 593      43.147 -28.058  27.736  1.00 35.15           C
ATOM   8876  CB  GLN D 593      41.759 -28.704  27.755  1.00 36.34           C
ATOM   8877  CG  GLN D 593      40.676 -27.795  27.205  1.00 43.19           C
ATOM   8878  CD  GLN D 593      39.291 -28.180  27.679  1.00 50.88           C
ATOM   8879  OE1 GLN D 593      38.962 -28.039  28.860  1.00 46.33           O
ATOM   8880  NE2 GLN D 593      38.488 -28.725  26.768  1.00 42.70           N
ATOM   8881  C   GLN D 593      44.144 -28.878  28.568  1.00 36.96           C
ATOM   8882  O   GLN D 593      44.343 -28.601  29.743  1.00 38.39           O
ATOM   8883  N   HIS D 594      44.812 -29.847  27.939  1.00 32.77           N
ATOM   8884  CA  HIS D 594      45.841 -30.632  28.630  1.00 33.51           C
ATOM   8885  CB  HIS D 594      46.356 -31.792  27.760  1.00 35.22           C
ATOM   8886  CG  HIS D 594      47.334 -32.685  28.471  1.00 38.90           C
ATOM   8887  ND1 HIS D 594      47.055 -33.264  29.692  1.00 40.32           N
ATOM   8888  CE1 HIS D 594      48.090 -33.989  30.077  1.00 39.40           C
ATOM   8889  NE2 HIS D 594      49.025 -33.913  29.145  1.00 39.61           N
ATOM   8890  CD2 HIS D 594      48.584 -33.091  28.137  1.00 39.93           C
ATOM   8891  C   HIS D 594      47.016 -29.716  28.972  1.00 36.47           C
ATOM   8892  O   HIS D 594      47.509 -29.740  30.091  1.00 36.36           O
ATOM   8893  N   HIS D 595      47.441 -28.884  28.015  1.00 32.24           N
ATOM   8894  CA  HIS D 595      48.533 -27.943  28.268  1.00 30.82           C
ATOM   8895  CB  HIS D 595      48.814 -27.057  27.041  1.00 30.93           C
ATOM   8896  CG  HIS D 595      49.203 -27.825  25.815  1.00 33.66           C
ATOM   8897  ND1 HIS D 595      50.051 -28.913  25.853  1.00 34.99           N
ATOM   8898  CE1 HIS D 595      50.178 -29.417  24.639  1.00 33.70           C
ATOM   8899  NE2 HIS D 595      49.486 -28.661  23.803  1.00 34.14           N
ATOM   8900  CD2 HIS D 595      48.847 -27.671  24.516  1.00 34.59           C
ATOM   8901  C   HIS D 595      48.241 -27.058  29.493  1.00 33.86           C
ATOM   8902  O   HIS D 595      49.135 -26.791  30.312  1.00 34.20           O
ATOM   8903  N   PHE D 596      47.017 -26.543  29.585  1.00 30.05           N
ATOM   8904  CA  PHE D 596      46.660 -25.658  30.708  1.00 30.45           C
ATOM   8905  CB  PHE D 596      45.297 -24.965  30.488  1.00 31.96           C
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ATOM   8906  CG  PHE D 596      44.852 -24.111  31.651  1.00 33.07           C
ATOM   8907  CD1 PHE D 596      45.535 -22.942  31.974  1.00 35.07           C
ATOM   8908  CE1 PHE D 596      45.134 -22.159  33.051  1.00 36.81           C
ATOM   8909  CZ  PHE D 596      44.047 -22.560  33.847  1.00 36.51           C
ATOM   8910  CE2 PHE D 596      43.379 -23.735  33.552  1.00 37.58           C
ATOM   8911  CD2 PHE D 596      43.785 -24.508  32.462  1.00 34.95           C
ATOM   8912  C   PHE D 596      46.657 -26.418  32.028  1.00 34.17           C
ATOM   8913  O   PHE D 596      47.110 -25.910  33.044  1.00 32.97           O
ATOM   8914  N   SER D 597      46.161 -27.650  31.980  1.00 34.30           N
ATOM   8915  CA  SER D 597      46.070 -28.522  33.152  1.00 35.17           C
ATOM   8916  CB  SER D 597      45.402 -29.841  32.760  1.00 39.01           C
ATOM   8917  OG  SER D 597      45.302 -30.677  33.889  1.00 52.30           O
ATOM   8918  C   SER D 597      47.467 -28.798  33.706  1.00 38.72           C
ATOM   8919  O   SER D 597      47.676 -28.824  34.923  1.00 37.81           O
ATOM   8920  N   GLN D 598      48.420 -28.973  32.789  1.00 36.02           N
ATOM   8921  CA  GLN D 598      49.816 -29.220  33.128  1.00 35.00           C
ATOM   8922  CB  GLN D 598      50.591 -29.604  31.868  1.00 35.24           C
ATOM   8923  CG  GLN D 598      50.200 -30.943  31.326  1.00 38.94           C
ATOM   8924  CD  GLN D 598      50.832 -32.079  32.114  1.00 53.86           C
ATOM   8925  OE1 GLN D 598      52.058 -32.171  32.188  1.00 51.16           O
ATOM   8926  NE2 GLN D 598      50.003 -32.933  32.728  1.00 45.65           N
ATOM   8927  C   GLN D 598      50.421 -27.983  33.768  1.00 38.58           C
ATOM   8928  O   GLN D 598      51.238 -28.085  34.679  1.00 40.14           O
ATOM   8929  N   THR D 599      50.020 -26.819  33.261  1.00 35.43           N
ATOM   8930  CA  THR D 599      50.479 -25.518  33.767  1.00 34.49           C
ATOM   8931  CB  THR D 599      49.888 -24.360  32.905  1.00 38.32           C
ATOM   8932  OG1 THR D 599      50.256 -24.551  31.532  1.00 33.99           O
ATOM   8933  CG2 THR D 599      50.389 -23.001  33.374  1.00 37.08           C
ATOM   8934  C   THR D 599      50.061 -25.374  35.235  1.00 36.07           C
ATOM   8935  O   THR D 599      50.855 -24.942  36.083  1.00 33.53           O
ATOM   8936  N   VAL D 600      48.795 -25.696  35.502  1.00 33.63           N
ATOM   8937  CA  VAL D 600      48.219 -25.621  36.845  1.00 34.57           C
ATOM   8938  CB  VAL D 600      46.693 -25.964  36.812  1.00 39.20           C
ATOM   8939  CG1 VAL D 600      46.144 -26.207  38.214  1.00 38.70           C
ATOM   8940  CG2 VAL D 600      45.902 -24.873  36.074  1.00 39.20           C
ATOM   8941  C   VAL D 600      48.971 -26.569  37.788  1.00 38.31           C
ATOM   8942  O   VAL D 600      49.442 -26.173  38.847  1.00 36.68           O
ATOM   8943  N   SER D 601      49.130 -27.812  37.357  1.00 36.90           N
ATOM   8944  CA  SER D 601      49.871 -28.803  38.133  1.00 37.86           C
ATOM   8945  CB  SER D 601      50.110 -30.066  37.303  1.00 42.06           C
ATOM   8946  OG  SER D 601      48.922 -30.819  37.207  1.00 59.27           O
ATOM   8947  C   SER D 601      51.213 -28.273  38.600  1.00 42.89           C
ATOM   8948  O   SER D 601      51.561 -28.448  39.767  1.00 44.58           O
ATOM   8949  N   ILE D 602      51.969 -27.654  37.688  1.00 37.65           N
ATOM   8950  CA  ILE D 602      53.291 -27.113  38.020  1.00 37.03           C
ATOM   8951  CB  ILE D 602      54.102 -26.743  36.777  1.00 38.91           C
ATOM   8952  CG1 ILE D 602      54.315 -27.980  35.896  1.00 39.64           C
ATOM   8953  CD1 ILE D 602      54.974 -27.665  34.563  1.00 44.18           C
ATOM   8954  CG2 ILE D 602      55.435 -26.100  37.169  1.00 38.12           C
ATOM   8955  C   ILE D 602      53.238 -25.966  39.019  1.00 43.96           C
ATOM   8956  O   ILE D 602      54.059 -25.874  39.933  1.00 45.05           O
ATOM   8957  N   LEU D 603      52.275 -25.073  38.839  1.00 42.43           N
ATOM   8958  CA  LEU D 603      52.143 -23.931  39.743  1.00 42.93           C
ATOM   8959  CB  LEU D 603      51.051 -22.980  39.254  1.00 43.01           C
ATOM   8960  CG  LEU D 603      51.408 -22.009  38.127  1.00 46.17           C
ATOM   8961  CD1 LEU D 603      50.095 -21.475  37.525  1.00 44.65           C
ATOM   8962  CD2 LEU D 603      52.288 -20.866  38.674  1.00 47.92           C
ATOM   8963  C   LEU D 603      51.799 -24.404  41.145  1.00 46.30           C
ATOM   8964  O   LEU D 603      52.096 -23.724  42.122  1.00 47.22           O
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ATOM   8965  N   GLN D 604      51.139 -25.557  41.225  1.00 43.15           N
ATOM   8966  CA  GLN D 604      50.724 -26.107  42.511  1.00 44.91           C
ATOM   8967  CB  GLN D 604      49.361 -26.817  42.390  1.00 46.25           C
ATOM   8968  CG  GLN D 604      48.260 -25.836  42.000  1.00 49.70           C
ATOM   8969  CD  GLN D 604      46.884 -26.456  41.913  1.00 59.60           C
ATOM   8970  OE1 GLN D 604      45.897 -25.742  41.755  1.00 55.51           O
ATOM   8971  NE2 GLN D 604      46.806 -27.787  42.019  1.00 51.34           N
ATOM   8972  C   GLN D 604      51.795 -26.953  43.234  1.00 49.56           C
ATOM   8973  O   GLN D 604      51.576 -27.409  44.355  1.00 51.93           O
ATOM   8974  N   LEU D 605      52.961 -27.098  42.597  1.00 43.60           N
ATOM   8975  CA  LEU D 605      54.104 -27.790  43.172  1.00 42.81           C
ATOM   8976  CB  LEU D 605      55.182 -28.009  42.104  1.00 42.77           C
ATOM   8977  CG  LEU D 605      55.359 -29.376  41.431  1.00 47.73           C
ATOM   8978  CD1 LEU D 605      54.057 -30.143  41.332  1.00 48.08           C
ATOM   8979  CD2 LEU D 605      55.988 -29.177  40.054  1.00 48.91           C
ATOM   8980  C   LEU D 605      54.666 -26.864  44.241  1.00 47.06           C
ATOM   8981  O   LEU D 605      54.546 -25.630  44.135  1.00 45.58           O
ATOM   8982  N   GLU D 606      55.298 -27.453  45.253  1.00 45.68           N
ATOM   8983  CA  GLU D 606      55.866 -26.670  46.352  1.00 45.66           C
ATOM   8984  CB  GLU D 606      56.220 -27.563  47.546  1.00 47.07           C
ATOM   8985  CG  GLU D 606      55.373 -27.212  48.791  1.00 59.85           C
ATOM   8986  CD  GLU D 606      55.263 -28.345  49.816  1.00 68.44           C
ATOM   8987  OE1 GLU D 606      56.210 -29.178  49.910  1.00 67.55           O
ATOM   8988  OE2 GLU D 606      54.249 -28.359  50.572  1.00 66.21           O
ATOM   8989  C   GLU D 606      57.018 -25.764  45.925  1.00 47.19           C
ATOM   8990  O   GLU D 606      57.918 -26.198  45.194  1.00 46.36           O
ATOM   8991  N   GLY D 607      56.928 -24.488  46.307  1.00 42.80           N
ATOM   8992  CA  GLY D 607      57.911 -23.477  45.962  1.00 42.54           C
ATOM   8993  C   GLY D 607      57.825 -22.990  44.524  1.00 46.07           C
ATOM   8994  O   GLY D 607      58.674 -22.215  44.093  1.00 45.81           O
ATOM   8995  N   HIS D 608      56.797 -23.431  43.793  1.00 42.49           N
ATOM   8996  CA  HIS D 608      56.623 -23.066  42.371  1.00 42.17           C
ATOM   8997  CB  HIS D 608      56.184 -24.276  41.550  1.00 42.08           C
ATOM   8998  CG  HIS D 608      57.285 -25.234  41.233  1.00 44.87           C
ATOM   8999  ND1 HIS D 608      57.844 -26.069  42.177  1.00 46.17           N
ATOM   9000  CE1 HIS D 608      58.758 -26.829  41.600  1.00 45.55           C
ATOM   9001  NE2 HIS D 608      58.796 -26.530  40.314  1.00 46.08           N
ATOM   9002  CD2 HIS D 608      57.872 -25.548  40.056  1.00 46.44           C
ATOM   9003  C   HIS D 608      55.622 -21.939  42.086  1.00 48.37           C
ATOM   9004  O   HIS D 608      55.503 -21.506  40.932  1.00 49.32           O
ATOM   9005  N   ASN D 609      54.831 -21.541  43.083  1.00 44.37           N
ATOM   9006  CA  ASN D 609      53.837 -20.509  42.832  1.00 44.77           C
ATOM   9007  CB  ASN D 609      52.662 -20.561  43.788  1.00 45.85           C
ATOM   9008  CG  ASN D 609      51.408 -19.902  43.188  1.00 62.41           C
ATOM   9009  OD1 ASN D 609      51.020 -18.809  43.578  1.00 60.27           O
ATOM   9010  ND2 ASN D 609      50.809 -20.556  42.200  1.00 54.65           N
ATOM   9011  C   ASN D 609      54.368 -19.088  42.672  1.00 48.65           C
ATOM   9012  O   ASN D 609      54.476 -18.330  43.641  1.00 47.03           O
ATOM   9013  N   ILE D 610      54.681 -18.750  41.425  1.00 45.13           N
ATOM   9014  CA  ILE D 610      55.205 -17.455  41.069  1.00 44.11           C
ATOM   9015  CB  ILE D 610      55.786 -17.477  39.646  1.00 46.57           C
ATOM   9016  CG1 ILE D 610      54.703 -17.882  38.636  1.00 46.59           C
ATOM   9017  CD1 ILE D 610      55.160 -17.791  37.187  1.00 49.19           C
ATOM   9018  CG2 ILE D 610      56.994 -18.423  39.571  1.00 46.76           C
ATOM   9019  C   ILE D 610      54.192 -16.331  41.248  1.00 46.30           C
ATOM   9020  O   ILE D 610      54.558 -15.158  41.136  1.00 48.00           O
ATOM   9021  N   PHE D 611      52.926 -16.677  41.497  1.00 40.52           N
ATOM   9022  CA  PHE D 611      51.875 -15.665  41.698  1.00 40.24           C
ATOM   9023  CB  PHE D 611      50.657 -15.939  40.798  1.00 41.17           C
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ATOM   9024  CG  PHE D 611      50.977 -15.989  39.325  1.00 42.93           C
ATOM   9025  CD1 PHE D 611      50.676 -17.116  38.578  1.00 46.42           C
ATOM   9026  CE1 PHE D 611      50.968 -17.168  37.233  1.00 47.68           C
ATOM   9027  CZ  PHE D 611      51.573 -16.088  36.614  1.00 47.32           C
ATOM   9028  CE2 PHE D 611      51.873 -14.961  37.347  1.00 49.34           C
ATOM   9029  CD2 PHE D 611      51.565 -14.912  38.691  1.00 45.39           C
ATOM   9030  C   PHE D 611      51.417 -15.629  43.156  1.00 47.44           C
ATOM   9031  O   PHE D 611      50.329 -15.149  43.469  1.00 47.84           O
ATOM   9032  N   SER D 612      52.250 -16.158  44.043  1.00 47.07           N
ATOM   9033  CA  SER D 612      51.928 -16.236  45.471  1.00 47.82           C
ATOM   9034  CB  SER D 612      53.075 -16.912  46.228  1.00 50.77           C
ATOM   9035  OG  SER D 612      54.209 -16.052  46.229  1.00 59.42           O
ATOM   9036  C   SER D 612      51.610 -14.888  46.127  1.00 51.68           C
ATOM   9037  O   SER D 612      50.870 -14.845  47.108  1.00 53.38           O
ATOM   9038  N   THR D 613      52.229 -13.815  45.632  1.00 46.37           N
ATOM   9039  CA  THR D 613      52.052 -12.480  46.196  1.00 46.69           C
ATOM   9040  CB  THR D 613      53.238 -11.550  45.893  1.00 56.73           C
ATOM   9041  OG1 THR D 613      52.889 -10.655  44.825  1.00 58.30           O
ATOM   9042  CG2 THR D 613      54.493 -12.332  45.516  1.00 57.56           C
ATOM   9043  C   THR D 613      50.756 -11.783  45.772  1.00 55.50           C
ATOM   9044  O   THR D 613      50.452 -10.678  46.257  1.00 58.02           O
ATOM   9045  N   LEU D 614      50.028 -12.382  44.834  1.00 50.97           N
ATOM   9046  CA  LEU D 614      48.800 -11.785  44.341  1.00 50.24           C
ATOM   9047  CB  LEU D 614      48.538 -12.228  42.893  1.00 50.03           C
ATOM   9048  CG  LEU D 614      49.260 -11.540  41.733  1.00 55.07           C
ATOM   9049  CD1 LEU D 614      50.722 -11.283  42.083  1.00 56.44           C
ATOM   9050  CD2 LEU D 614      49.153 -12.412  40.482  1.00 54.94           C
ATOM   9051  C   LEU D 614      47.607 -12.214  45.196  1.00 54.94           C
ATOM   9052  O   LEU D 614      47.559 -13.345  45.702  1.00 55.31           O
ATOM   9053  N   SER D 615      46.608 -11.338  45.278  1.00 50.26           N
ATOM   9054  CA  SER D 615      45.373 -11.634  45.985  1.00 49.05           C
ATOM   9055  CB  SER D 615      44.438 -10.422  45.917  1.00 50.02           C
ATOM   9056  OG  SER D 615      44.068 -10.129  44.578  1.00 55.13           O
ATOM   9057  C   SER D 615      44.696 -12.821  45.318  1.00 55.35           C
ATOM   9058  O   SER D 615      45.075 -13.235  44.223  1.00 56.45           O
ATOM   9059  N   SER D 616      43.649 -13.329  45.958  1.00 52.22           N
ATOM   9060  CA  SER D 616      42.858 -14.421  45.404  1.00 51.34           C
ATOM   9061  CB  SER D 616      41.760 -14.814  46.403  1.00 53.53           C
ATOM   9062  OG  SER D 616      42.039 -16.049  47.021  1.00 64.61           O
ATOM   9063  C   SER D 616      42.188 -13.952  44.107  1.00 55.73           C
ATOM   9064  O   SER D 616      42.029 -14.733  43.162  1.00 55.68           O
ATOM   9065  N   SER D 617      41.763 -12.688  44.080  1.00 52.58           N
ATOM   9066  CA  SER D 617      41.075 -12.130  42.913  1.00 51.55           C
ATOM   9067  CB  SER D 617      40.404 -10.797  43.261  1.00 52.85           C
ATOM   9068  OG  SER D 617      39.089 -11.034  43.723  1.00 59.47           O
ATOM   9069  C   SER D 617      41.990 -11.954  41.702  1.00 53.35           C
ATOM   9070  O   SER D 617      41.615 -12.318  40.574  1.00 52.36           O
ATOM   9071  N   GLU D 618      43.148 -11.336  41.940  1.00 47.99           N
ATOM   9072  CA  GLU D 618      44.134 -11.092  40.902  1.00 46.70           C
ATOM   9073  CB  GLU D 618      45.330 -10.341  41.459  1.00 47.05           C
ATOM   9074  CG  GLU D 618      45.092  -8.917  41.771  1.00 52.27           C
ATOM   9075  CD  GLU D 618      46.241  -8.338  42.587  1.00 69.60           C
ATOM   9076  OE1 GLU D 618      46.434  -8.789  43.760  1.00 57.93           O
ATOM   9077  OE2 GLU D 618      46.985  -7.478  42.037  1.00 66.68           O
ATOM   9078  C   GLU D 618      44.642 -12.429  40.416  1.00 50.13           C
ATOM   9079  O   GLU D 618      44.822 -12.626  39.220  1.00 49.95           O
ATOM   9080  N   TYR D 619      44.929 -13.317  41.364  1.00 46.17           N
ATOM   9081  CA  TYR D 619      45.470 -14.628  41.043  1.00 45.76           C
ATOM   9082  CB  TYR D 619      45.674 -15.464  42.310  1.00 46.29           C
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ATOM   9083  CG  TYR D 619      46.165 -16.861  42.022  1.00 46.40           C
ATOM   9084  CD1 TYR D 619      47.524 -17.148  42.009  1.00 48.48           C
ATOM   9085  CE1 TYR D 619      47.991 -18.414  41.716  1.00 49.69           C
ATOM   9086  CZ  TYR D 619      47.098 -19.406  41.389  1.00 53.20           C
ATOM   9087  OH  TYR D 619      47.576 -20.643  41.068  1.00 48.89           O
ATOM   9088  CE2 TYR D 619      45.738 -19.150  41.372  1.00 47.40           C
ATOM   9089  CD2 TYR D 619      45.281 -17.872  41.682  1.00 46.55           C
ATOM   9090  C   TYR D 619      44.537 -15.350  40.096  1.00 49.25           C
ATOM   9091  O   TYR D 619      44.935 -15.908  39.075  1.00 48.12           O
ATOM   9092  N   GLU D 620      43.269 -15.329  40.452  1.00 47.34           N
ATOM   9093  CA  GLU D 620      42.236 -15.975  39.655  1.00 46.37           C
ATOM   9094  CB  GLU D 620      40.908 -15.945  40.407  1.00 47.29           C
ATOM   9095  CG  GLU D 620      39.967 -17.007  39.925  1.00 55.25           C
ATOM   9096  CD  GLU D 620      38.770 -17.180  40.835  1.00 64.31           C
ATOM   9097  OE1 GLU D 620      38.732 -16.507  41.906  1.00 60.73           O
ATOM   9098  OE2 GLU D 620      37.875 -17.975  40.454  1.00 54.86           O
ATOM   9099  C   GLU D 620      42.083 -15.302  38.281  1.00 47.48           C
ATOM   9100  O   GLU D 620      41.671 -15.926  37.307  1.00 47.52           O
ATOM   9101  N   GLN D 621      42.445 -14.029  38.222  1.00 41.70           N
ATOM   9102  CA  GLN D 621      42.372 -13.249  36.999  1.00 41.24           C
ATOM   9103  CB  GLN D 621      42.448 -11.759  37.337  1.00 42.30           C
ATOM   9104  CG  GLN D 621      41.599 -10.883  36.448  1.00 54.98           C
ATOM   9105  CD  GLN D 621      41.561  -9.440  36.923  1.00 63.96           C
ATOM   9106  OE1 GLN D 621      41.805  -8.500  36.146  1.00 63.78           O
ATOM   9107  NE2 GLN D 621      41.264  -9.254  38.204  1.00 47.85           N
ATOM   9108  C   GLN D 621      43.525 -13.619  36.051  1.00 43.07           C
ATOM   9109  O   GLN D 621      43.324 -13.819  34.853  1.00 40.26           O
ATOM   9110  N   VAL D 622      44.731 -13.706  36.600  1.00 40.14           N
ATOM   9111  CA  VAL D 622      45.907 -14.033  35.804  1.00 40.95           C
ATOM   9112  CB  VAL D 622      47.222 -13.787  36.582  1.00 46.04           C
ATOM   9113  CG1 VAL D 622      47.449 -14.897  37.616  1.00 47.80           C
ATOM   9114  CG2 VAL D 622      48.392 -13.719  35.631  1.00 45.31           C
ATOM   9115  C   VAL D 622      45.800 -15.451  35.239  1.00 43.19           C
ATOM   9116  O   VAL D 622      46.183 -15.720  34.096  1.00 42.71           O
ATOM   9117  N   LEU D 623      45.225 -16.343  36.035  1.00 38.64           N
ATOM   9118  CA  LEU D 623      45.039 -17.730  35.641  1.00 38.68           C
ATOM   9119  CB  LEU D 623      44.608 -18.580  36.852  1.00 39.06           C
ATOM   9120  CG  LEU D 623      45.663 -19.476  37.527  1.00 43.48           C
ATOM   9121  CD1 LEU D 623      46.118 -20.533  36.543  1.00 44.85           C
ATOM   9122  CD2 LEU D 623      46.866 -18.692  38.012  1.00 42.72           C
ATOM   9123  C   LEU D 623      44.000 -17.826  34.544  1.00 43.62           C
ATOM   9124  O   LEU D 623      44.026 -18.750  33.717  1.00 44.52           O
ATOM   9125  N   GLU D 624      43.089 -16.855  34.538  1.00 40.49           N
ATOM   9126  CA  GLU D 624      42.045 -16.763  33.512  1.00 40.09           C
ATOM   9127  CB  GLU D 624      40.924 -15.827  33.981  1.00 41.86           C
ATOM   9128  CG  GLU D 624      39.591 -16.171  33.382  1.00 51.99           C
ATOM   9129  CD  GLU D 624      39.204 -17.613  33.637  1.00 55.87           C
ATOM   9130  OE1 GLU D 624      39.323 -18.060  34.796  1.00 56.70           O
ATOM   9131  OE2 GLU D 624      38.786 -18.301  32.684  1.00 52.25           O
ATOM   9132  C   GLU D 624      42.633 -16.260  32.182  1.00 39.07           C
ATOM   9133  O   GLU D 624      42.311 -16.758  31.125  1.00 38.84           O
ATOM   9134  N   ILE D 625      43.538 -15.295  32.270  1.00 34.55           N
ATOM   9135  CA  ILE D 625      44.267 -14.761  31.112  1.00 35.30           C
ATOM   9136  CB  ILE D 625      45.247 -13.643  31.557  1.00 38.45           C
ATOM   9137  CG1 ILE D 625      44.481 -12.368  31.939  1.00 39.68           C
ATOM   9138  CD1 ILE D 625      45.319 -11.348  32.700  1.00 40.51           C
ATOM   9139  CG2 ILE D 625      46.277 -13.346  30.479  1.00 39.97           C
ATOM   9140  C   ILE D 625      45.051 -15.927  30.487  1.00 40.05           C
ATOM   9141  O   ILE D 625      45.021 -16.142  29.282  1.00 40.52           O
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ATOM   9142  N   ILE D 626      45.746 -16.682  31.333  1.00 35.95           N
ATOM   9143  CA  ILE D 626      46.575 -17.809  30.907  1.00 34.88           C
ATOM   9144  CB  ILE D 626      47.415 -18.377  32.086  1.00 36.86           C
ATOM   9145  CG1 ILE D 626      48.499 -17.377  32.494  1.00 35.60           C
ATOM   9146  CD1 ILE D 626      49.096 -17.628  33.874  1.00 35.37           C
ATOM   9147  CG2 ILE D 626      48.007 -19.732  31.727  1.00 38.14           C
ATOM   9148  C   ILE D 626      45.784 -18.884  30.197  1.00 37.86           C
ATOM   9149  O   ILE D 626      46.157 -19.328  29.094  1.00 37.78           O
ATOM   9150  N   ARG D 627      44.682 -19.283  30.825  1.00 33.11           N
ATOM   9151  CA  ARG D 627      43.811 -20.312  30.283  1.00 31.64           C
ATOM   9152  CB  ARG D 627      42.633 -20.572  31.237  1.00 28.39           C
ATOM   9153  CG  ARG D 627      41.815 -21.807  30.854  1.00 36.92           C
ATOM   9154  CD  ARG D 627      40.512 -21.882  31.662  1.00 39.20           C
ATOM   9155  NE  ARG D 627      39.643 -20.725  31.414  1.00 45.94           N
ATOM   9156  CZ  ARG D 627      38.893 -20.569  30.319  1.00 55.28           C
ATOM   9157  NH1 ARG D 627      38.132 -19.486  30.178  1.00 40.15           N
ATOM   9158  NH2 ARG D 627      38.888 -21.497  29.361  1.00 40.88           N
ATOM   9159  C   ARG D 627      43.298 -19.912  28.908  1.00 35.36           C
ATOM   9160  O   ARG D 627      43.399 -20.665  27.951  1.00 36.54           O
ATOM   9161  N   LYS D 628      42.753 -18.712  28.812  1.00 33.92           N
ATOM   9162  CA  LYS D 628      42.227 -18.212  27.551  1.00 33.41           C
ATOM   9163  CB  LYS D 628      41.628 -16.825  27.757  1.00 36.19           C
ATOM   9164  CG  LYS D 628      40.219 -16.851  28.370  1.00 41.12           C
ATOM   9165  CD  LYS D 628      39.795 -15.442  28.807  1.00 43.97           C
ATOM   9166  CE  LYS D 628      38.447 -15.498  29.527  1.00 45.53           C
ATOM   9167  NZ  LYS D 628      38.108 -14.176  30.123  1.00 55.73           N
ATOM   9168  C   LYS D 628      43.315 -18.164  26.512  1.00 34.66           C
ATOM   9169  O   LYS D 628      43.098 -18.560  25.375  1.00 35.30           O
ATOM   9170  N   ALA D 629      44.485 -17.658  26.904  1.00 31.23           N
ATOM   9171  CA  ALA D 629      45.638 -17.578  25.998  1.00 30.70           C
ATOM   9172  CB  ALA D 629      46.828 -16.908  26.687  1.00 30.73           C
ATOM   9173  C   ALA D 629      46.055 -18.946  25.433  1.00 35.15           C
ATOM   9174  O   ALA D 629      46.279 -19.084  24.236  1.00 36.09           O
ATOM   9175  N   ILE D 630      46.176 -19.950  26.303  1.00 31.69           N
ATOM   9176  CA  ILE D 630      46.624 -21.297  25.897  1.00 30.54           C
ATOM   9177  CB  ILE D 630      46.929 -22.206  27.139  1.00 33.18           C
ATOM   9178  CG1 ILE D 630      48.219 -21.743  27.824  1.00 33.86           C
ATOM   9179  CD1 ILE D 630      48.462 -22.390  29.207  1.00 40.42           C
ATOM   9180  CG2 ILE D 630      46.969 -23.641  26.734  1.00 32.45           C
ATOM   9181  C   ILE D 630      45.610 -21.944  24.982  1.00 29.38           C
ATOM   9182  O   ILE D 630      45.968 -22.518  23.947  1.00 27.05           O
ATOM   9183  N   ILE D 631      44.343 -21.833  25.362  1.00 28.24           N
ATOM   9184  CA  ILE D 631      43.257 -22.359  24.552  1.00 30.09           C
ATOM   9185  CB  ILE D 631      41.886 -22.195  25.250  1.00 34.26           C
ATOM   9186  CG1 ILE D 631      41.854 -22.990  26.572  1.00 36.14           C
ATOM   9187  CD1 ILE D 631      42.114 -24.486  26.416  1.00 33.61           C
ATOM   9188  CG2 ILE D 631      40.755 -22.673  24.320  1.00 33.98           C
ATOM   9189  C   ILE D 631      43.253 -21.722  23.159  1.00 32.74           C
ATOM   9190  O   ILE D 631      42.961 -22.391  22.169  1.00 33.31           O
ATOM   9191  N   ALA D 632      43.567 -20.429  23.096  1.00 28.39           N
ATOM   9192  CA  ALA D 632      43.580 -19.690  21.821  1.00 29.59           C
ATOM   9193  CB  ALA D 632      43.823 -18.200  22.063  1.00 30.34           C
ATOM   9194  C   ALA D 632      44.574 -20.240  20.790  1.00 36.55           C
ATOM   9195  O   ALA D 632      44.397 -20.041  19.568  1.00 39.32           O
ATOM   9196  N   THR D 633      45.605 -20.943  21.272  1.00 33.06           N
ATOM   9197  CA  THR D 633      46.573 -21.595  20.385  1.00 33.04           C
ATOM   9198  CB  THR D 633      47.885 -21.962  21.096  1.00 37.09           C
ATOM   9199  OG1 THR D 633      47.641 -23.004  22.052  1.00 35.34           O
ATOM   9200  CG2 THR D 633      48.484 -20.752  21.764  1.00 31.52           C
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ATOM   9201  C   THR D 633      45.999 -22.799  19.597  1.00 36.46           C
ATOM   9202  O   THR D 633      46.694 -23.402  18.768  1.00 36.11           O
ATOM   9203  N   ASP D 634      44.732 -23.132  19.828  1.00 32.94           N
ATOM   9204  CA  ASP D 634      44.079 -24.196  19.056  1.00 32.58           C
ATOM   9205  CB  ASP D 634      42.786 -24.700  19.747  1.00 33.06           C
ATOM   9206  CG  ASP D 634      42.083 -25.763  18.934  1.00 41.04           C
ATOM   9207  OD1 ASP D 634      42.602 -26.106  17.841  1.00 43.30           O
ATOM   9208  OD2 ASP D 634      41.038 -26.285  19.377  1.00 48.17           O
ATOM   9209  C   ASP D 634      43.711 -23.486  17.753  1.00 39.02           C
ATOM   9210  O   ASP D 634      42.841 -22.611  17.737  1.00 38.92           O
ATOM   9211  N   LEU D 635      44.454 -23.789  16.696  1.00 37.19           N
ATOM   9212  CA  LEU D 635      44.271 -23.148  15.413  1.00 37.57           C
ATOM   9213  CB  LEU D 635      45.285 -23.672  14.380  1.00 37.59           C
ATOM   9214  CG  LEU D 635      45.581 -22.733  13.206  1.00 40.76           C
ATOM   9215  CD1 LEU D 635      46.328 -21.480  13.685  1.00 39.47           C
ATOM   9216  CD2 LEU D 635      46.362 -23.468  12.110  1.00 43.11           C
ATOM   9217  C   LEU D 635      42.857 -23.238  14.892  1.00 42.57           C
ATOM   9218  O   LEU D 635      42.385 -22.318  14.244  1.00 44.47           O
ATOM   9219  N   ALA D 636      42.167 -24.323  15.219  1.00 37.82           N
ATOM   9220  CA  ALA D 636      40.793 -24.503  14.782  1.00 37.55           C
ATOM   9221  CB  ALA D 636      40.241 -25.817  15.313  1.00 37.24           C
ATOM   9222  C   ALA D 636      39.919 -23.308  15.226  1.00 45.82           C
ATOM   9223  O   ALA D 636      38.915 -22.985  14.587  1.00 47.65           O
ATOM   9224  N   LEU D 637      40.303 -22.659  16.324  1.00 40.75           N
ATOM   9225  CA  LEU D 637      39.531 -21.537  16.888  1.00 38.14           C
ATOM   9226  CB  LEU D 637      39.745 -21.474  18.421  1.00 37.42           C
ATOM   9227  CG  LEU D 637      39.219 -22.652  19.239  1.00 40.59           C
ATOM   9228  CD1 LEU D 637      39.546 -22.482  20.691  1.00 40.63           C
ATOM   9229  CD2 LEU D 637      37.726 -22.814  19.048  1.00 41.66           C
ATOM   9230  C   LEU D 637      39.963 -20.189  16.281  1.00 41.31           C
ATOM   9231  O   LEU D 637      39.210 -19.216  16.311  1.00 41.01           O
ATOM   9232  N   TYR D 638      41.187 -20.144  15.761  1.00 37.57           N
ATOM   9233  CA  TYR D 638      41.746 -18.929  15.192  1.00 37.07           C
ATOM   9234  CB  TYR D 638      43.180 -19.176  14.724  1.00 37.08           C
ATOM   9235  CG  TYR D 638      43.597 -18.333  13.519  1.00 39.37           C
ATOM   9236  CD1 TYR D 638      43.995 -16.988  13.667  1.00 41.18           C
ATOM   9237  CE1 TYR D 638      44.371 -16.224  12.564  1.00 41.05           C
ATOM   9238  CZ  TYR D 638      44.359 -16.797  11.310  1.00 47.39           C
ATOM   9239  OH  TYR D 638      44.759 -16.072  10.221  1.00 51.70           O
ATOM   9240  CE2 TYR D 638      43.965 -18.112  11.132  1.00 40.77           C
ATOM   9241  CD2 TYR D 638      43.584 -18.875  12.233  1.00 39.51           C
ATOM   9242  C   TYR D 638      40.923 -18.297  14.063  1.00 41.25           C
ATOM   9243  O   TYR D 638      40.784 -17.071  13.982  1.00 40.52           O
ATOM   9244  N   PHE D 639      40.452 -19.140  13.151  1.00 39.51           N
ATOM   9245  CA  PHE D 639      39.712 -18.669  11.967  1.00 40.33           C
ATOM   9246  CB  PHE D 639      39.265 -19.847  11.108  1.00 42.07           C
ATOM   9247  CG  PHE D 639      40.402 -20.687  10.624  1.00 43.37           C
ATOM   9248  CD1 PHE D 639      41.250 -20.211   9.632  1.00 46.24           C
ATOM   9249  CE1 PHE D 639      42.341 -20.976   9.203  1.00 47.66           C
ATOM   9250  CZ  PHE D 639      42.594 -22.223   9.792  1.00 46.55           C
ATOM   9251  CE2 PHE D 639      41.763 -22.687  10.806  1.00 47.80           C
ATOM   9252  CD2 PHE D 639      40.683 -21.918  11.223  1.00 44.76           C
ATOM   9253  C   PHE D 639      38.550 -17.740  12.292  1.00 44.57           C
ATOM   9254  O   PHE D 639      38.544 -16.567  11.889  1.00 45.38           O
ATOM   9255  N   GLY D 640      37.613 -18.249  13.083  1.00 40.77           N
ATOM   9256  CA  GLY D 640      36.494 -17.460  13.547  1.00 41.37           C
ATOM   9257  C   GLY D 640      36.932 -16.216  14.306  1.00 47.35           C
ATOM   9258  O   GLY D 640      36.312 -15.173  14.156  1.00 49.34           O
ATOM   9259  N   ASN D 641      37.966 -16.329  15.143  1.00 43.32           N
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ATOM   9260  CA  ASN D 641      38.444 -15.187  15.930  1.00 42.28           C
ATOM   9261  CB  ASN D 641      39.495 -15.612  16.969  1.00 40.03           C
ATOM   9262  CG  ASN D 641      39.836 -14.500  17.943  1.00 48.58           C
ATOM   9263  OD1 ASN D 641      38.958 -13.975  18.619  1.00 44.98           O
ATOM   9264  ND2 ASN D 641      41.122 -14.153  18.041  1.00 36.99           N
ATOM   9265  C   ASN D 641      39.008 -14.073  15.053  1.00 43.09           C
ATOM   9266  O   ASN D 641      38.838 -12.904  15.352  1.00 42.20           O
ATOM   9267  N   ARG D 642      39.708 -14.447  13.991  1.00 40.55           N
ATOM   9268  CA  ARG D 642      40.281 -13.455  13.087  1.00 41.35           C
ATOM   9269  CB  ARG D 642      41.282 -14.090  12.112  1.00 38.07           C
ATOM   9270  CG  ARG D 642      42.232 -13.082  11.474  1.00 42.93           C
ATOM   9271  CD  ARG D 642      42.626 -13.471  10.057  1.00 46.71           C
ATOM   9272  NE  ARG D 642      41.476 -13.778   9.212  1.00 48.97           N
ATOM   9273  CZ  ARG D 642      40.682 -12.869   8.645  1.00 59.56           C
ATOM   9274  NH1 ARG D 642      39.666 -13.264   7.880  1.00 48.00           N
ATOM   9275  NH2 ARG D 642      40.901 -11.573   8.830  1.00 42.43           N
ATOM   9276  C   ARG D 642      39.190 -12.698  12.298  1.00 48.15           C
ATOM   9277  O   ARG D 642      39.277 -11.483  12.147  1.00 46.67           O
ATOM   9278  N   LYS D 643      38.186 -13.432  11.807  1.00 47.52           N
ATOM   9279  CA  LYS D 643      37.072 -12.869  11.049  1.00 47.76           C
ATOM   9280  CB  LYS D 643      36.102 -13.973  10.636  1.00 49.23           C
ATOM   9281  CG  LYS D 643      36.586 -14.884   9.540  1.00 55.32           C
ATOM   9282  CD  LYS D 643      35.565 -16.020   9.318  1.00 60.04           C
ATOM   9283  CE  LYS D 643      36.214 -17.243   8.662  1.00 63.48           C
ATOM   9284  NZ  LYS D 643      35.339 -18.472   8.725  1.00 68.03           N
ATOM   9285  C   LYS D 643      36.310 -11.862  11.903  1.00 52.48           C
ATOM   9286  O   LYS D 643      35.923 -10.796  11.414  1.00 52.53           O
ATOM   9287  N   GLN D 644      36.088 -12.216  13.169  1.00 48.39           N
ATOM   9288  CA  GLN D 644      35.409 -11.337  14.123  1.00 48.03           C
ATOM   9289  CB  GLN D 644      35.284 -12.031  15.485  1.00 48.74           C
ATOM   9290  CG  GLN D 644      34.137 -12.992  15.616  1.00 55.33           C
ATOM   9291  CD  GLN D 644      32.793 -12.323  15.425  1.00 68.22           C
ATOM   9292  OE1 GLN D 644      31.924 -12.847  14.722  1.00 63.61           O
ATOM   9293  NE2 GLN D 644      32.610 -11.156  16.051  1.00 62.18           N
ATOM   9294  C   GLN D 644      36.206 -10.045  14.303  1.00 53.00           C
ATOM   9295  O   GLN D 644      35.651  -8.960  14.235  1.00 55.70           O
ATOM   9296  N   LEU D 645      37.510 -10.166  14.542  1.00 49.02           N
ATOM   9297  CA  LEU D 645      38.362  -8.990  14.728  1.00 49.86           C
ATOM   9298  CB  LEU D 645      39.763  -9.403  15.182  1.00 50.22           C
ATOM   9299  CG  LEU D 645      39.902  -9.865  16.629  1.00 54.96           C
ATOM   9300  CD1 LEU D 645      41.250 -10.547  16.824  1.00 54.12           C
ATOM   9301  CD2 LEU D 645      39.732  -8.699  17.585  1.00 57.76           C
ATOM   9302  C   LEU D 645      38.451  -8.138  13.452  1.00 54.16           C
ATOM   9303  O   LEU D 645      38.490  -6.911  13.509  1.00 53.83           O
ATOM   9304  N   GLU D 646      38.501  -8.809  12.307  1.00 51.36           N
ATOM   9305  CA  GLU D 646      38.567  -8.139  11.019  1.00 52.00           C
ATOM   9306  CB  GLU D 646      38.643  -9.170   9.891  1.00 53.06           C
ATOM   9307  CG  GLU D 646      38.772  -8.594   8.478  1.00 59.93           C
ATOM   9308  CD  GLU D 646      40.054  -7.791   8.273  1.00 77.25           C
ATOM   9309  OE1 GLU D 646      41.026  -7.955   9.062  1.00 73.43           O
ATOM   9310  OE2 GLU D 646      40.100  -6.988   7.308  1.00 75.31           O
ATOM   9311  C   GLU D 646      37.345  -7.239  10.849  1.00 57.93           C
ATOM   9312  O   GLU D 646      37.477  -6.069  10.489  1.00 57.30           O
ATOM   9313  N   GLU D 647      36.164  -7.796  11.120  1.00 55.29           N
ATOM   9314  CA AGLU D 647      34.888  -7.082  11.025  0.50 55.23           C
ATOM   9315  CA BGLU D 647      34.932  -7.031  10.985  0.50 55.31           C
ATOM   9316  CB AGLU D 647      33.737  -8.056  11.329  0.50 56.09           C
ATOM   9317  CB BGLU D 647      33.696  -7.935  11.011  0.50 56.23           C
ATOM   9318  CG AGLU D 647      32.420  -7.769  10.593  0.50 62.87           C
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ATOM   9319  CG BGLU D 647      32.357  -7.212  10.760  0.50 62.99           C
ATOM   9320  CD AGLU D 647      31.339  -8.830  10.834  0.50 67.29           C
ATOM   9321  CD BGLU D 647      32.244  -6.549   9.383  0.50 66.33           C
ATOM   9322  OE1AGLU D 647      31.671  -9.956  11.267  0.50 60.61           O
ATOM   9323  OE1BGLU D 647      31.194  -5.916   9.123  0.50 59.46           O
ATOM   9324  OE2AGLU D 647      30.153  -8.543  10.563  0.50 61.14           O
ATOM   9325  OE2BGLU D 647      33.190  -6.651   8.566  0.50 58.14           O
ATOM   9326  C   GLU D 647      34.854  -5.904  12.015  1.00 60.67           C
ATOM   9327  O   GLU D 647      34.574  -4.753  11.648  1.00 62.00           O
ATOM   9328  N   MET D 648      35.158  -6.203  13.278  1.00 56.86           N
ATOM   9329  CA  MET D 648      35.149  -5.195  14.344  1.00 56.33           C
ATOM   9330  CB  MET D 648      35.524  -5.825  15.689  1.00 58.61           C
ATOM   9331  CG  MET D 648      34.511  -6.782  16.283  1.00 62.72           C
ATOM   9332  SD  MET D 648      35.196  -7.598  17.749  1.00 67.74           S
ATOM   9333  CE  MET D 648      33.990  -8.957  17.981  1.00 65.37           C
ATOM   9334  C   MET D 648      36.081  -4.006  14.086  1.00 60.96           C
ATOM   9335  O   MET D 648      35.726  -2.861  14.357  1.00 61.38           O
ATOM   9336  N   TYR D 649      37.303  -4.287  13.641  1.00 57.40           N
ATOM   9337  CA  TYR D 649      38.275  -3.233  13.376  1.00 57.34           C
ATOM   9338  CB  TYR D 649      39.680  -3.803  13.161  1.00 59.01           C
ATOM   9339  CG  TYR D 649      40.518  -2.936  12.255  1.00 62.30           C
ATOM   9340  CD1 TYR D 649      41.192  -1.820  12.752  1.00 64.27           C
ATOM   9341  CE1 TYR D 649      41.926  -0.968  11.894  1.00 64.27           C
ATOM   9342  CZ  TYR D 649      41.962  -1.240  10.536  1.00 71.93           C
ATOM   9343  OH  TYR D 649      42.702  -0.442   9.667  1.00 72.18           O
ATOM   9344  CE2 TYR D 649      41.274  -2.336  10.029  1.00 64.94           C
ATOM   9345  CD2 TYR D 649      40.555  -3.167  10.878  1.00 63.83           C
ATOM   9346  C   TYR D 649      37.889  -2.364  12.175  1.00 60.50           C
ATOM   9347  O   TYR D 649      38.065  -1.147  12.199  1.00 60.02           O
ATOM   9348  N   GLN D 650      37.385  -3.001  11.122  1.00 56.93           N
ATOM   9349  CA  GLN D 650      36.951  -2.297   9.918  1.00 57.10           C
ATOM   9350  CB  GLN D 650      36.630  -3.291   8.804  1.00 57.64           C
ATOM   9351  CG  GLN D 650      37.865  -3.899   8.145  1.00 55.75           C
ATOM   9352  CD  GLN D 650      37.515  -4.832   6.987  1.00 65.11           C
ATOM   9353  OE1 GLN D 650      36.351  -5.192   6.778  1.00 60.01           O
ATOM   9354  NE2 GLN D 650      38.525  -5.232   6.235  1.00 52.72           N
ATOM   9355  C   GLN D 650      35.732  -1.408  10.181  1.00 63.06           C
ATOM   9356  O   GLN D 650      35.721  -0.245   9.769  1.00 64.52           O
ATOM   9357  N   THR D 651      34.719  -1.961  10.855  1.00 58.30           N
ATOM   9358  CA  THR D 651      33.501  -1.229  11.164  1.00 57.71           C
ATOM   9359  CB  THR D 651      32.310  -2.168  11.426  1.00 63.08           C
ATOM   9360  OG1 THR D 651      32.517  -2.894  12.646  1.00 60.80           O
ATOM   9361  CG2 THR D 651      32.124  -3.140  10.263  1.00 59.90           C
ATOM   9362  C   THR D 651      33.670  -0.228  12.297  1.00 63.26           C
ATOM   9363  O   THR D 651      32.693   0.430  12.702  1.00 65.17           O
ATOM   9364  N   GLY D 652      34.888  -0.139  12.842  1.00 58.43           N
ATOM   9365  CA  GLY D 652      35.200   0.783  13.938  1.00 57.26           C
ATOM   9366  C   GLY D 652      34.693   0.450  15.341  1.00 59.84           C
ATOM   9367  O   GLY D 652      34.936   1.211  16.280  1.00 60.17           O
ATOM   9368  N   SER D 653      34.019  -0.690  15.490  1.00 56.03           N
ATOM   9369  CA  SER D 653      33.486  -1.116  16.788  1.00 55.69           C
ATOM   9370  CB  SER D 653      32.348  -2.111  16.590  1.00 57.45           C
ATOM   9371  OG  SER D 653      32.786  -3.219  15.837  1.00 67.30           O
ATOM   9372  C   SER D 653      34.509  -1.702  17.780  1.00 60.68           C
ATOM   9373  O   SER D 653      34.207  -1.831  18.972  1.00 62.71           O
ATOM   9374  N   LEU D 654      35.691  -2.085  17.297  1.00 55.92           N
ATOM   9375  CA  LEU D 654      36.710  -2.655  18.176  1.00 55.49           C
ATOM   9376  CB  LEU D 654      37.984  -3.010  17.404  1.00 55.14           C
ATOM   9377  CG  LEU D 654      39.072  -3.709  18.232  1.00 58.29           C
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ATOM   9378  CD1 LEU D 654      38.687  -5.133  18.580  1.00 57.06           C
ATOM   9379  CD2 LEU D 654      40.402  -3.668  17.514  1.00 60.31           C
ATOM   9380  C   LEU D 654      37.020  -1.694  19.312  1.00 60.64           C
ATOM   9381  O   LEU D 654      37.356  -0.527  19.074  1.00 61.88           O
ATOM   9382  N   ASN D 655      36.885  -2.194  20.540  1.00 56.62           N
ATOM   9383  CA  ASN D 655      37.042  -1.383  21.748  1.00 55.59           C
ATOM   9384  CB  ASN D 655      35.639  -1.049  22.263  1.00 51.52           C
ATOM   9385  CG  ASN D 655      35.638  -0.432  23.628  1.00 64.77           C
ATOM   9386  OD1 ASN D 655      36.652   0.087  24.090  1.00 57.33           O
ATOM   9387  ND2 ASN D 655      34.479  -0.467  24.286  1.00 58.16           N
ATOM   9388  C   ASN D 655      37.870  -2.106  22.826  1.00 57.17           C
ATOM   9389  O   ASN D 655      37.376  -2.989  23.520  1.00 56.11           O
ATOM   9390  N   LEU D 656      39.132  -1.711  22.960  1.00 54.19           N
ATOM   9391  CA  LEU D 656      40.046  -2.313  23.936  1.00 54.28           C
ATOM   9392  CB  LEU D 656      41.472  -1.789  23.742  1.00 54.33           C
ATOM   9393  CG  LEU D 656      42.213  -2.345  22.525  1.00 59.35           C
ATOM   9394  CD1 LEU D 656      43.633  -1.772  22.444  1.00 59.52           C
ATOM   9395  CD2 LEU D 656      42.237  -3.871  22.541  1.00 60.38           C
ATOM   9396  C   LEU D 656      39.625  -2.202  25.404  1.00 58.48           C
ATOM   9397  O   LEU D 656      40.156  -2.903  26.246  1.00 58.18           O
ATOM   9398  N   ASN D 657      38.676  -1.323  25.708  1.00 56.65           N
ATOM   9399  CA  ASN D 657      38.195  -1.176  27.085  1.00 56.42           C
ATOM   9400  CB  ASN D 657      37.641   0.237  27.343  1.00 55.53           C
ATOM   9401  CG  ASN D 657      38.651   1.321  27.052  1.00 70.53           C
ATOM   9402  OD1 ASN D 657      39.653   1.461  27.765  1.00 64.45           O
ATOM   9403  ND2 ASN D 657      38.409   2.086  25.984  1.00 58.44           N
ATOM   9404  C   ASN D 657      37.109  -2.217  27.362  1.00 58.62           C
ATOM   9405  O   ASN D 657      36.528  -2.244  28.450  1.00 58.82           O
ATOM   9406  N   ASN D 658      36.838  -3.060  26.365  1.00 53.17           N
ATOM   9407  CA  ASN D 658      35.834  -4.110  26.488  1.00 52.00           C
ATOM   9408  CB  ASN D 658      34.966  -4.122  25.235  1.00 45.65           C
ATOM   9409  CG  ASN D 658      33.779  -5.049  25.358  1.00 66.85           C
ATOM   9410  OD1 ASN D 658      33.757  -5.961  26.188  1.00 64.96           O
ATOM   9411  ND2 ASN D 658      32.779  -4.824  24.521  1.00 60.56           N
ATOM   9412  C   ASN D 658      36.547  -5.468  26.657  1.00 57.03           C
ATOM   9413  O   ASN D 658      37.188  -5.965  25.718  1.00 57.09           O
ATOM   9414  N   GLN D 659      36.471  -6.039  27.860  1.00 52.36           N
ATOM   9415  CA  GLN D 659      37.153  -7.296  28.168  1.00 51.20           C
ATOM   9416  CB  GLN D 659      36.748  -7.827  29.548  1.00 51.86           C
ATOM   9417  CG  GLN D 659      37.642  -8.960  30.050  1.00 51.92           C
ATOM   9418  CD  GLN D 659      39.101  -8.563  30.135  1.00 58.86           C
ATOM   9419  OE1 GLN D 659      39.444  -7.530  30.709  1.00 51.51           O
ATOM   9420  NE2 GLN D 659      39.969  -9.371  29.534  1.00 51.38           N
ATOM   9421  C   GLN D 659      37.006  -8.385  27.108  1.00 53.56           C
ATOM   9422  O   GLN D 659      37.968  -9.083  26.796  1.00 54.19           O
ATOM   9423  N   SER D 660      35.801  -8.519  26.569  1.00 48.34           N
ATOM   9424  CA  SER D 660      35.506  -9.522  25.566  1.00 47.58           C
ATOM   9425  CB  SER D 660      34.014  -9.532  25.269  1.00 51.02           C
ATOM   9426  OG  SER D 660      33.705 -10.551  24.340  1.00 63.13           O
ATOM   9427  C   SER D 660      36.307  -9.285  24.289  1.00 51.90           C
ATOM   9428  O   SER D 660      36.704 -10.233  23.608  1.00 52.53           O
ATOM   9429  N   HIS D 661      36.559  -8.013  23.985  1.00 48.09           N
ATOM   9430  CA  HIS D 661      37.327  -7.634  22.819  1.00 47.35           C
ATOM   9431  CB  HIS D 661      37.084  -6.161  22.459  1.00 48.70           C
ATOM   9432  CG  HIS D 661      35.754  -5.902  21.822  1.00 52.77           C
ATOM   9433  ND1 HIS D 661      35.447  -4.711  21.196  1.00 54.78           N
ATOM   9434  CE1 HIS D 661      34.213  -4.771  20.733  1.00 54.27           C
ATOM   9435  NE2 HIS D 661      33.708  -5.955  21.037  1.00 54.59           N
ATOM   9436  CD2 HIS D 661      34.652  -6.681  21.717  1.00 54.74           C
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ATOM   9437  C   HIS D 661      38.800  -7.872  23.084  1.00 48.67           C
ATOM   9438  O   HIS D 661      39.546  -8.262  22.190  1.00 48.08           O
ATOM   9439  N   ARG D 662      39.219  -7.594  24.312  1.00 44.99           N
ATOM   9440  CA  ARG D 662      40.605  -7.786  24.719  1.00 43.74           C
ATOM   9441  CB  ARG D 662      40.801  -7.313  26.153  1.00 42.76           C
ATOM   9442  CG  ARG D 662      40.997  -5.825  26.263  1.00 50.37           C
ATOM   9443  CD  ARG D 662      41.311  -5.407  27.688  1.00 46.36           C
ATOM   9444  NE  ARG D 662      42.741  -5.320  27.918  1.00 45.35           N
ATOM   9445  CZ  ARG D 662      43.532  -4.386  27.397  1.00 61.50           C
ATOM   9446  NH1 ARG D 662      43.022  -3.458  26.585  1.00 50.01           N
ATOM   9447  NH2 ARG D 662      44.840  -4.398  27.667  1.00 42.13           N
ATOM   9448  C   ARG D 662      41.008  -9.254  24.594  1.00 44.95           C
ATOM   9449  O   ARG D 662      42.069  -9.558  24.081  1.00 47.16           O
ATOM   9450  N   ASP D 663      40.147 -10.151  25.058  1.00 38.36           N
ATOM   9451  CA  ASP D 663      40.387 -11.584  24.975  1.00 38.48           C
ATOM   9452  CB  ASP D 663      39.187 -12.369  25.539  1.00 40.15           C
ATOM   9453  CG  ASP D 663      39.026 -12.204  27.064  1.00 51.22           C
ATOM   9454  OD1 ASP D 663      39.982 -11.695  27.710  1.00 48.30           O
ATOM   9455  OD2 ASP D 663      37.962 -12.615  27.608  1.00 54.67           O
ATOM   9456  C   ASP D 663      40.653 -11.991  23.522  1.00 43.14           C
ATOM   9457  O   ASP D 663      41.584 -12.765  23.232  1.00 42.58           O
ATOM   9458  N   ARG D 664      39.839 -11.465  22.609  1.00 38.53           N
ATOM   9459  CA  ARG D 664      39.997 -11.748  21.186  1.00 37.55           C
ATOM   9460  CB  ARG D 664      38.865 -11.083  20.387  1.00 39.81           C
ATOM   9461  CG  ARG D 664      37.502 -11.759  20.541  1.00 44.51           C
ATOM   9462  CD  ARG D 664      36.535 -11.290  19.464  1.00 41.25           C
ATOM   9463  NE  ARG D 664      35.255 -11.987  19.544  1.00 40.90           N
ATOM   9464  CZ  ARG D 664      35.042 -13.227  19.104  1.00 51.38           C
ATOM   9465  NH1 ARG D 664      36.024 -13.946  18.561  1.00 42.55           N
ATOM   9466  NH2 ARG D 664      33.841 -13.769  19.219  1.00 45.45           N
ATOM   9467  C   ARG D 664      41.350 -11.254  20.669  1.00 39.65           C
ATOM   9468  O   ARG D 664      42.005 -11.924  19.893  1.00 39.51           O
ATOM   9469  N   VAL D 665      41.745 -10.053  21.076  1.00 37.25           N
ATOM   9470  CA  VAL D 665      43.010  -9.486  20.635  1.00 37.48           C
ATOM   9471  CB  VAL D 665      43.152  -7.968  21.013  1.00 41.56           C
ATOM   9472  CG1 VAL D 665      44.529  -7.462  20.648  1.00 40.93           C
ATOM   9473  CG2 VAL D 665      42.082  -7.132  20.296  1.00 41.76           C
ATOM   9474  C   VAL D 665      44.162 -10.336  21.167  1.00 38.75           C
ATOM   9475  O   VAL D 665      45.117 -10.629  20.446  1.00 36.66           O
ATOM   9476  N   ILE D 666      44.051 -10.750  22.426  1.00 35.45           N
ATOM   9477  CA  ILE D 666      45.050 -11.629  23.026  1.00 34.89           C
ATOM   9478  CB  ILE D 666      44.846 -11.799  24.556  1.00 37.13           C
ATOM   9479  CG1 ILE D 666      45.097 -10.472  25.275  1.00 35.80           C
ATOM   9480  CD1 ILE D 666      44.600 -10.485  26.723  1.00 40.34           C
ATOM   9481  CG2 ILE D 666      45.754 -12.909  25.089  1.00 36.87           C
ATOM   9482  C   ILE D 666      45.083 -12.971  22.313  1.00 35.84           C
ATOM   9483  O   ILE D 666      46.151 -13.510  22.022  1.00 38.79           O
ATOM   9484  N   GLY D 667      43.907 -13.498  22.005  1.00 30.32           N
ATOM   9485  CA  GLY D 667      43.793 -14.735  21.255  1.00 30.58           C
ATOM   9486  C   GLY D 667      44.572 -14.715  19.954  1.00 37.76           C
ATOM   9487  O   GLY D 667      45.211 -15.699  19.586  1.00 40.76           O
ATOM   9488  N   LEU D 668      44.524 -13.587  19.253  1.00 34.10           N
ATOM   9489  CA  LEU D 668      45.229 -13.424  17.983  1.00 33.82           C
ATOM   9490  CB  LEU D 668      44.640 -12.224  17.194  1.00 34.27           C
ATOM   9491  CG  LEU D 668      45.110 -12.017  15.742  1.00 39.24           C
ATOM   9492  CD1 LEU D 668      44.727 -13.206  14.865  1.00 38.37           C
ATOM   9493  CD2 LEU D 668      44.527 -10.709  15.157  1.00 44.58           C
ATOM   9494  C   LEU D 668      46.739 -13.262  18.186  1.00 36.58           C
ATOM   9495  O   LEU D 668      47.527 -13.789  17.407  1.00 34.79           O
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ATOM   9496  N   MET D 669      47.136 -12.539  19.239  1.00 34.62           N
ATOM   9497  CA  MET D 669      48.560 -12.380  19.588  1.00 33.31           C
ATOM   9498  CB  MET D 669      48.705 -11.513  20.861  1.00 35.27           C
ATOM   9499  CG  MET D 669      48.376 -10.029  20.627  1.00 38.91           C
ATOM   9500  SD  MET D 669      48.033  -9.055  22.118  1.00 42.58           S
ATOM   9501  CE  MET D 669      49.578  -9.399  23.057  1.00 39.53           C
ATOM   9502  C   MET D 669      49.191 -13.765  19.816  1.00 33.98           C
ATOM   9503  O   MET D 669      50.320 -14.019  19.399  1.00 31.64           O
ATOM   9504  N   MET D 670      48.455 -14.644  20.506  1.00 31.54           N
ATOM   9505  CA  MET D 670      48.905 -16.022  20.777  1.00 29.94           C
ATOM   9506  CB  MET D 670      47.896 -16.753  21.679  1.00 31.73           C
ATOM   9507  CG  MET D 670      47.865 -16.231  23.145  1.00 35.56           C
ATOM   9508  SD  MET D 670      49.479 -16.280  23.951  1.00 40.97           S
ATOM   9509  CE  MET D 670      49.756 -18.108  23.972  1.00 38.30           C
ATOM   9510  C   MET D 670      49.100 -16.783  19.449  1.00 33.67           C
ATOM   9511  O   MET D 670      50.138 -17.395  19.226  1.00 33.00           O
ATOM   9512  N   THR D 671      48.118 -16.718  18.549  1.00 30.77           N
ATOM   9513  CA  THR D 671      48.247 -17.379  17.238  1.00 29.87           C
ATOM   9514  CB  THR D 671      46.982 -17.142  16.350  1.00 38.80           C
ATOM   9515  OG1 THR D 671      45.802 -17.562  17.046  1.00 31.23           O
ATOM   9516  CG2 THR D 671      47.092 -17.879  15.016  1.00 33.71           C
ATOM   9517  C   THR D 671      49.498 -16.875  16.519  1.00 31.86           C
ATOM   9518  O   THR D 671      50.299 -17.640  16.035  1.00 30.35           O
ATOM   9519  N   ALA D 672      49.617 -15.559  16.433  1.00 30.94           N
ATOM   9520  CA  ALA D 672      50.747 -14.878  15.800  1.00 30.91           C
ATOM   9521  CB  ALA D 672      50.600 -13.339  15.974  1.00 31.22           C
ATOM   9522  C   ALA D 672      52.093 -15.348  16.360  1.00 34.45           C
ATOM   9523  O   ALA D 672      53.029 -15.649  15.614  1.00 34.07           O
ATOM   9524  N   CYS D 673      52.196 -15.387  17.681  1.00 31.92           N
ATOM   9525  CA  CYS D 673      53.415 -15.854  18.351  1.00 31.08           C
ATOM   9526  CB  CYS D 673      53.250 -15.679  19.861  1.00 31.57           C
ATOM   9527  SG  CYS D 673      53.427 -13.944  20.370  1.00 35.89           S
ATOM   9528  C   CYS D 673      53.678 -17.331  18.058  1.00 32.73           C
ATOM   9529  O   CYS D 673      54.818 -17.756  17.811  1.00 29.38           O
ATOM   9530  N   ASP D 674      52.605 -18.109  18.148  1.00 31.08           N
ATOM   9531  CA  ASP D 674      52.647 -19.540  17.918  1.00 30.25           C
ATOM   9532  CB  ASP D 674      51.291 -20.162  18.224  1.00 30.70           C
ATOM   9533  CG  ASP D 674      51.388 -21.659  18.482  1.00 35.27           C
ATOM   9534  OD1 ASP D 674      52.497 -22.115  18.805  1.00 35.27           O
ATOM   9535  OD2 ASP D 674      50.373 -22.362  18.337  1.00 39.66           O
ATOM   9536  C   ASP D 674      53.118 -19.910  16.511  1.00 34.87           C
ATOM   9537  O   ASP D 674      53.801 -20.911  16.335  1.00 32.63           O
ATOM   9538  N   LEU D 675      52.777 -19.087  15.519  1.00 34.56           N
ATOM   9539  CA  LEU D 675      53.147 -19.369  14.118  1.00 34.95           C
ATOM   9540  CB  LEU D 675      52.009 -18.923  13.194  1.00 35.49           C
ATOM   9541  CG  LEU D 675      50.615 -19.499  13.471  1.00 40.33           C
ATOM   9542  CD1 LEU D 675      49.600 -18.920  12.489  1.00 39.49           C
ATOM   9543  CD2 LEU D 675      50.635 -20.996  13.392  1.00 44.57           C
ATOM   9544  C   LEU D 675      54.412 -18.633  13.686  1.00 37.70           C
ATOM   9545  O   LEU D 675      54.751 -18.611  12.504  1.00 37.41           O
ATOM   9546  N   CYS D 676      55.065 -17.983  14.641  1.00 35.35           N
ATOM   9547  CA  CYS D 676      56.214 -17.148  14.362  1.00 37.20           C
ATOM   9548  CB  CYS D 676      56.634 -16.345  15.589  1.00 38.89           C
ATOM   9549  SG  CYS D 676      57.758 -17.254  16.658  1.00 43.51           S
ATOM   9550  C   CYS D 676      57.410 -17.705  13.603  1.00 40.27           C
ATOM   9551  O   CYS D 676      58.301 -16.932  13.163  1.00 40.87           O
ATOM   9552  N   SER D 677      57.422 -19.020  13.403  1.00 34.73           N
ATOM   9553  CA  SER D 677      58.495 -19.618  12.611  1.00 34.81           C
ATOM   9554  CB  SER D 677      58.400 -21.170  12.601  1.00 38.33           C
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ATOM   9555  OG  SER D 677      57.158 -21.642  12.073  1.00 45.71           O
ATOM   9556  C   SER D 677      58.429 -19.036  11.177  1.00 37.32           C
ATOM   9557  O   SER D 677      59.454 -18.876  10.537  1.00 38.16           O
ATOM   9558  N   VAL D 678      57.223 -18.701  10.702  1.00 33.97           N
ATOM   9559  CA  VAL D 678      57.027 -18.090   9.365  1.00 34.60           C
ATOM   9560  CB  VAL D 678      55.575 -18.258   8.857  1.00 38.38           C
ATOM   9561  CG1 VAL D 678      55.182 -19.758   8.832  1.00 38.77           C
ATOM   9562  CG2 VAL D 678      54.612 -17.427   9.691  1.00 37.51           C
ATOM   9563  C   VAL D 678      57.447 -16.605   9.267  1.00 38.08           C
ATOM   9564  O   VAL D 678      57.382 -15.996   8.188  1.00 36.93           O
ATOM   9565  N   THR D 679      57.882 -16.033  10.391  1.00 34.46           N
ATOM   9566  CA  THR D 679      58.263 -14.621  10.462  1.00 33.64           C
ATOM   9567  CB  THR D 679      57.466 -13.881  11.556  1.00 39.32           C
ATOM   9568  OG1 THR D 679      57.872 -14.363  12.841  1.00 38.67           O
ATOM   9569  CG2 THR D 679      55.951 -14.069  11.369  1.00 30.97           C
ATOM   9570  C   THR D 679      59.751 -14.391  10.708  1.00 38.68           C
ATOM   9571  O   THR D 679      60.166 -13.255  10.983  1.00 41.33           O
ATOM   9572  N   LYS D 680      60.538 -15.463  10.666  1.00 32.81           N
ATOM   9573  CA  LYS D 680      61.975 -15.371  10.851  1.00 33.18           C
ATOM   9574  CB  LYS D 680      62.513 -16.684  11.449  1.00 36.09           C
ATOM   9575  CG  LYS D 680      61.931 -17.037  12.833  1.00 31.51           C
ATOM   9576  CD  LYS D 680      62.190 -15.928  13.828  1.00 34.49           C
ATOM   9577  CE  LYS D 680      61.411 -16.148  15.126  1.00 32.11           C
ATOM   9578  NZ  LYS D 680      61.642 -15.020  16.054  1.00 35.40           N
ATOM   9579  C   LYS D 680      62.619 -15.141   9.475  1.00 38.19           C
ATOM   9580  O   LYS D 680      61.932 -15.170   8.454  1.00 38.67           O
ATOM   9581  N   LEU D 681      63.927 -14.901   9.449  1.00 35.33           N
ATOM   9582  CA  LEU D 681      64.625 -14.727   8.172  1.00 35.62           C
ATOM   9583  CB  LEU D 681      66.048 -14.161   8.379  1.00 35.89           C
ATOM   9584  CG  LEU D 681      66.081 -12.745   9.012  1.00 40.21           C
ATOM   9585  CD1 LEU D 681      67.496 -12.229   9.046  1.00 38.96           C
ATOM   9586  CD2 LEU D 681      65.173 -11.768   8.260  1.00 41.88           C
ATOM   9587  C   LEU D 681      64.645 -16.071   7.458  1.00 38.74           C
ATOM   9588  O   LEU D 681      64.624 -17.131   8.087  1.00 37.98           O
ATOM   9589  N   TRP D 682      64.604 -16.016   6.138  1.00 36.12           N
ATOM   9590  CA  TRP D 682      64.505 -17.210   5.321  1.00 37.11           C
ATOM   9591  CB  TRP D 682      64.669 -16.884   3.827  1.00 35.73           C
ATOM   9592  CG  TRP D 682      64.627 -18.104   2.946  1.00 38.51           C
ATOM   9593  CD1 TRP D 682      65.652 -18.616   2.223  1.00 38.90           C
ATOM   9594  NE1 TRP D 682      65.225 -19.714   1.516  1.00 39.59           N
ATOM   9595  CE2 TRP D 682      63.916 -19.967   1.832  1.00 40.39           C
ATOM   9596  CD2 TRP D 682      63.510 -18.975   2.740  1.00 35.43           C
ATOM   9597  CE3 TRP D 682      62.213 -19.022   3.249  1.00 38.08           C
ATOM   9598  CZ3 TRP D 682      61.368 -20.034   2.821  1.00 39.21           C
ATOM   9599  CH2 TRP D 682      61.799 -21.002   1.909  1.00 40.06           C
ATOM   9600  CZ2 TRP D 682      63.069 -20.995   1.411  1.00 39.45           C
ATOM   9601  C   TRP D 682      65.290 -18.461   5.743  1.00 41.37           C
ATOM   9602  O   TRP D 682      64.737 -19.552   5.798  1.00 41.13           O
ATOM   9603  N   PRO D 683      66.587 -18.315   6.021  1.00 39.05           N
ATOM   9604  CA  PRO D 683      67.363 -19.497   6.414  1.00 38.51           C
ATOM   9605  CB  PRO D 683      68.763 -18.920   6.668  1.00 39.52           C
ATOM   9606  CG  PRO D 683      68.816 -17.671   5.834  1.00 42.87           C
ATOM   9607  CD  PRO D 683      67.424 -17.102   5.922  1.00 39.43           C
ATOM   9608  C   PRO D 683      66.806 -20.167   7.687  1.00 41.71           C
ATOM   9609  O   PRO D 683      66.776 -21.400   7.778  1.00 39.48           O
ATOM   9610  N   VAL D 684      66.338 -19.361   8.649  1.00 38.97           N
ATOM   9611  CA  VAL D 684      65.726 -19.902   9.870  1.00 36.44           C
ATOM   9612  CB  VAL D 684      65.545 -18.812  10.932  1.00 38.40           C
ATOM   9613  CG1 VAL D 684      64.700 -19.331  12.099  1.00 36.84           C
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ATOM   9614  CG2 VAL D 684      66.925 -18.332  11.441  1.00 38.13           C
ATOM   9615  C   VAL D 684      64.391 -20.564   9.556  1.00 38.64           C
ATOM   9616  O   VAL D 684      64.113 -21.688   9.991  1.00 39.90           O
ATOM   9617  N   THR D 685      63.570 -19.860   8.783  1.00 34.16           N
ATOM   9618  CA  THR D 685      62.238 -20.321   8.405  1.00 33.87           C
ATOM   9619  CB  THR D 685      61.492 -19.229   7.616  1.00 40.36           C
ATOM   9620  OG1 THR D 685      61.100 -18.191   8.515  1.00 38.11           O
ATOM   9621  CG2 THR D 685      60.261 -19.787   6.903  1.00 36.44           C
ATOM   9622  C   THR D 685      62.285 -21.638   7.642  1.00 39.84           C
ATOM   9623  O   THR D 685      61.456 -22.534   7.861  1.00 39.56           O
ATOM   9624  N   LYS D 686      63.255 -21.749   6.738  1.00 37.46           N
ATOM   9625  CA  LYS D 686      63.392 -22.955   5.930  1.00 37.12           C
ATOM   9626  CB  LYS D 686      64.161 -22.629   4.649  1.00 39.84           C
ATOM   9627  CG  LYS D 686      65.260 -23.579   4.285  1.00 47.10           C
ATOM   9628  CD  LYS D 686      65.550 -23.477   2.793  1.00 48.04           C
ATOM   9629  CE  LYS D 686      66.926 -22.859   2.535  1.00 52.29           C
ATOM   9630  NZ  LYS D 686      67.451 -23.318   1.200  1.00 56.67           N
ATOM   9631  C   LYS D 686      63.960 -24.162   6.719  1.00 38.78           C
ATOM   9632  O   LYS D 686      63.491 -25.282   6.582  1.00 38.17           O
ATOM   9633  N   LEU D 687      64.880 -23.903   7.634  1.00 36.60           N
ATOM   9634  CA  LEU D 687      65.398 -24.950   8.517  1.00 36.82           C
ATOM   9635  CB  LEU D 687      66.658 -24.468   9.249  1.00 37.33           C
ATOM   9636  CG  LEU D 687      67.964 -24.587   8.432  1.00 40.81           C
ATOM   9637  CD1 LEU D 687      69.020 -23.612   8.906  1.00 39.10           C
ATOM   9638  CD2 LEU D 687      68.488 -25.996   8.507  1.00 43.18           C
ATOM   9639  C   LEU D 687      64.329 -25.448   9.517  1.00 38.87           C
ATOM   9640  O   LEU D 687      64.227 -26.645   9.759  1.00 37.13           O
ATOM   9641  N   THR D 688      63.518 -24.532  10.058  1.00 37.15           N
ATOM   9642  CA  THR D 688      62.437 -24.873  10.995  1.00 36.77           C
ATOM   9643  CB  THR D 688      61.810 -23.608  11.623  1.00 41.19           C
ATOM   9644  OG1 THR D 688      62.837 -22.827  12.262  1.00 40.77           O
ATOM   9645  CG2 THR D 688      60.743 -23.990  12.663  1.00 37.50           C
ATOM   9646  C   THR D 688      61.358 -25.740  10.345  1.00 42.08           C
ATOM   9647  O   THR D 688      60.669 -26.520  11.022  1.00 40.25           O
ATOM   9648  N   ALA D 689      61.181 -25.557   9.039  1.00 39.32           N
ATOM   9649  CA  ALA D 689      60.194 -26.313   8.290  1.00 38.90           C
ATOM   9650  CB  ALA D 689      60.140 -25.819   6.841  1.00 39.40           C
ATOM   9651  C   ALA D 689      60.471 -27.816   8.345  1.00 42.16           C
ATOM   9652  O   ALA D 689      59.540 -28.620   8.355  1.00 43.77           O
ATOM   9653  N   ASN D 690      61.747 -28.190   8.383  1.00 39.55           N
ATOM   9654  CA AASN D 690      62.145 -29.596   8.467  0.70 40.10           C
ATOM   9655  CA BASN D 690      62.147 -29.598   8.463  0.30 39.44           C
ATOM   9656  CB AASN D 690      63.673 -29.727   8.394  0.70 41.73           C
ATOM   9657  CB BASN D 690      63.676 -29.727   8.320  0.30 39.51           C
ATOM   9658  CG AASN D 690      64.232 -29.329   7.057  0.70 53.61           C
ATOM   9659  CG BASN D 690      64.137 -31.170   8.126  0.30 49.62           C
ATOM   9660  OD1AASN D 690      63.529 -29.337   6.036  0.70 52.01           O
ATOM   9661  OD1BASN D 690      63.351 -32.047   7.774  0.30 41.34           O
ATOM   9662  ND2AASN D 690      65.516 -28.987   7.045  0.70 43.68           N
ATOM   9663  ND2BASN D 690      65.424 -31.413   8.347  0.30 40.96           N
ATOM   9664  C   ASN D 690      61.691 -30.223   9.783  1.00 42.76           C
ATOM   9665  O   ASN D 690      61.310 -31.392   9.834  1.00 43.29           O
ATOM   9666  N   ASP D 691      61.775 -29.446  10.854  1.00 37.43           N
ATOM   9667  CA  ASP D 691      61.356 -29.909  12.171  1.00 36.19           C
ATOM   9668  CB  ASP D 691      61.788 -28.900  13.242  1.00 37.33           C
ATOM   9669  CG  ASP D 691      63.297 -28.788  13.361  1.00 49.92           C
ATOM   9670  OD1 ASP D 691      63.985 -29.824  13.165  1.00 50.62           O
ATOM   9671  OD2 ASP D 691      63.797 -27.664  13.634  1.00 54.08           O
ATOM   9672  C   ASP D 691      59.833 -30.074  12.196  1.00 39.04           C
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ATOM   9673  O   ASP D 691      59.302 -31.083  12.647  1.00 37.39           O
ATOM   9674  N   ILE D 692      59.140 -29.071  11.679  1.00 37.39           N
ATOM   9675  CA  ILE D 692      57.688 -29.067  11.642  1.00 37.79           C
ATOM   9676  CB  ILE D 692      57.150 -27.739  10.997  1.00 39.86           C
ATOM   9677  CG1 ILE D 692      57.466 -26.530  11.889  1.00 39.02           C
ATOM   9678  CD1 ILE D 692      56.944 -25.232  11.343  1.00 44.30           C
ATOM   9679  CG2 ILE D 692      55.672 -27.842  10.672  1.00 38.82           C
ATOM   9680  C   ILE D 692      57.197 -30.298  10.886  1.00 42.85           C
ATOM   9681  O   ILE D 692      56.311 -31.016  11.358  1.00 42.68           O
ATOM   9682  N   TYR D 693      57.787 -30.535   9.715  1.00 39.11           N
ATOM   9683  CA  TYR D 693      57.400 -31.663   8.866  1.00 39.02           C
ATOM   9684  CB  TYR D 693      57.832 -31.440   7.394  1.00 40.15           C
ATOM   9685  CG  TYR D 693      56.836 -30.605   6.610  1.00 42.58           C
ATOM   9686  CD1 TYR D 693      55.688 -31.171   6.086  1.00 45.13           C
ATOM   9687  CE1 TYR D 693      54.762 -30.415   5.380  1.00 47.56           C
ATOM   9688  CZ  TYR D 693      54.982 -29.069   5.209  1.00 54.52           C
ATOM   9689  OH  TYR D 693      54.071 -28.304   4.532  1.00 59.38           O
ATOM   9690  CE2 TYR D 693      56.124 -28.487   5.700  1.00 45.71           C
ATOM   9691  CD2 TYR D 693      57.049 -29.258   6.393  1.00 44.01           C
ATOM   9692  C   TYR D 693      57.844 -33.021   9.408  1.00 42.12           C
ATOM   9693  O   TYR D 693      57.181 -34.034   9.181  1.00 39.74           O
ATOM   9694  N   ALA D 694      58.934 -33.030  10.169  1.00 41.25           N
ATOM   9695  CA  ALA D 694      59.386 -34.249  10.834  1.00 41.96           C
ATOM   9696  CB  ALA D 694      60.613 -33.967  11.678  1.00 43.16           C
ATOM   9697  C   ALA D 694      58.247 -34.772  11.714  1.00 44.05           C
ATOM   9698  O   ALA D 694      57.974 -35.973  11.735  1.00 44.76           O
ATOM   9699  N   GLU D 695      57.554 -33.864  12.404  1.00 38.87           N
ATOM   9700  CA  GLU D 695      56.397 -34.244  13.229  1.00 37.83           C
ATOM   9701  CB  GLU D 695      56.009 -33.117  14.199  1.00 38.36           C
ATOM   9702  CG  GLU D 695      57.006 -32.886  15.305  1.00 42.64           C
ATOM   9703  CD  GLU D 695      56.420 -32.136  16.484  1.00 51.25           C
ATOM   9704  OE1 GLU D 695      55.191 -31.876  16.476  1.00 37.02           O
ATOM   9705  OE2 GLU D 695      57.198 -31.810  17.416  1.00 42.96           O
ATOM   9706  C   GLU D 695      55.177 -34.618  12.369  1.00 42.46           C
ATOM   9707  O   GLU D 695      54.531 -35.632  12.610  1.00 43.38           O
ATOM   9708  N   PHE D 696      54.868 -33.795  11.368  1.00 38.76           N
ATOM   9709  CA  PHE D 696      53.698 -34.033  10.507  1.00 37.66           C
ATOM   9710  CB  PHE D 696      53.633 -33.002   9.356  1.00 38.78           C
ATOM   9711  CG  PHE D 696      53.153 -31.626   9.765  1.00 40.43           C
ATOM   9712  CD1 PHE D 696      52.358 -31.432  10.890  1.00 42.92           C
ATOM   9713  CE1 PHE D 696      51.914 -30.157  11.244  1.00 44.06           C
ATOM   9714  CZ  PHE D 696      52.252 -29.048  10.454  1.00 44.76           C
ATOM   9715  CE2 PHE D 696      53.013 -29.229   9.310  1.00 46.69           C
ATOM   9716  CD2 PHE D 696      53.455 -30.521   8.966  1.00 43.78           C
ATOM   9717  C   PHE D 696      53.750 -35.444   9.931  1.00 41.17           C
ATOM   9718  O   PHE D 696      52.751 -36.158   9.938  1.00 41.63           O
ATOM   9719  N   TRP D 697      54.909 -35.823   9.394  1.00 38.96           N
ATOM   9720  CA  TRP D 697      55.091 -37.145   8.778  1.00 40.21           C
ATOM   9721  CB  TRP D 697      56.422 -37.215   8.035  1.00 39.39           C
ATOM   9722  CG  TRP D 697      56.502 -36.234   6.900  1.00 43.24           C
ATOM   9723  CD1 TRP D 697      55.467 -35.778   6.129  1.00 43.46           C
ATOM   9724  NE1 TRP D 697      55.935 -34.891   5.204  1.00 44.22           N
ATOM   9725  CE2 TRP D 697      57.292 -34.747   5.356  1.00 45.43           C
ATOM   9726  CD2 TRP D 697      57.685 -35.590   6.415  1.00 40.62           C
ATOM   9727  CE3 TRP D 697      59.042 -35.658   6.766  1.00 43.25           C
ATOM   9728  CZ3 TRP D 697      59.955 -34.880   6.060  1.00 44.06           C
ATOM   9729  CH2 TRP D 697      59.530 -34.054   5.003  1.00 44.97           C
ATOM   9730  CZ2 TRP D 697      58.204 -33.973   4.638  1.00 44.34           C
ATOM   9731  C   TRP D 697      54.996 -38.304   9.775  1.00 44.74           C
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ATOM   9732  O   TRP D 697      54.476 -39.372   9.446  1.00 44.28           O
ATOM   9733  N   ALA D 698      55.517 -38.096  10.983  1.00 40.94           N
ATOM   9734  CA  ALA D 698      55.406 -39.107  12.021  1.00 39.85           C
ATOM   9735  CB  ALA D 698      56.172 -38.689  13.284  1.00 39.97           C
ATOM   9736  C   ALA D 698      53.918 -39.330  12.326  1.00 41.66           C
ATOM   9737  O   ALA D 698      53.472 -40.481  12.439  1.00 40.97           O
ATOM   9738  N   GLU D 699      53.147 -38.241  12.414  1.00 37.93           N
ATOM   9739  CA  GLU D 699      51.694 -38.358  12.641  1.00 37.36           C
ATOM   9740  CB  GLU D 699      51.027 -37.002  12.910  1.00 37.92           C
ATOM   9741  CG  GLU D 699      49.506 -37.115  12.965  1.00 39.55           C
ATOM   9742  CD  GLU D 699      48.825 -35.885  13.551  1.00 47.02           C
ATOM   9743  OE1 GLU D 699      49.401 -35.264  14.463  1.00 46.04           O
ATOM   9744  OE2 GLU D 699      47.685 -35.556  13.137  1.00 39.39           O
ATOM   9745  C   GLU D 699      51.025 -39.047  11.446  1.00 40.70           C
ATOM   9746  O   GLU D 699      50.123 -39.841  11.613  1.00 42.16           O
ATOM   9747  N   GLY D 700      51.474 -38.728  10.237  1.00 38.20           N
ATOM   9748  CA  GLY D 700      50.945 -39.325   9.018  1.00 37.98           C
ATOM   9749  C   GLY D 700      51.177 -40.828   9.032  1.00 41.08           C
ATOM   9750  O   GLY D 700      50.307 -41.602   8.651  1.00 40.51           O
ATOM   9751  N   ASP D 701      52.355 -41.236   9.503  1.00 37.17           N
ATOM   9752  CA  ASP D 701      52.711 -42.656   9.608  1.00 36.79           C
ATOM   9753  CB  ASP D 701      54.140 -42.811  10.124  1.00 38.36           C
ATOM   9754  CG  ASP D 701      55.179 -42.447   9.092  1.00 45.90           C
ATOM   9755  OD1 ASP D 701      54.813 -42.131   7.933  1.00 45.67           O
ATOM   9756  OD2 ASP D 701      56.375 -42.479   9.448  1.00 50.57           O
ATOM   9757  C   ASP D 701      51.780 -43.341  10.597  1.00 40.00           C
ATOM   9758  O   ASP D 701      51.360 -44.484  10.370  1.00 37.26           O
ATOM   9759  N   GLU D 702      51.505 -42.650  11.708  1.00 37.03           N
ATOM   9760  CA  GLU D 702      50.618 -43.180  12.738  1.00 36.85           C
ATOM   9761  CB  GLU D 702      50.726 -42.375  14.052  1.00 37.54           C
ATOM   9762  CG  GLU D 702      52.078 -42.479  14.719  1.00 45.57           C
ATOM   9763  CD  GLU D 702      52.462 -43.925  15.057  1.00 48.28           C
ATOM   9764  OE1 GLU D 702      51.564 -44.729  15.404  1.00 50.02           O
ATOM   9765  OE2 GLU D 702      53.661 -44.248  15.006  1.00 36.79           O
ATOM   9766  C   GLU D 702      49.168 -43.259  12.256  1.00 42.00           C
ATOM   9767  O   GLU D 702      48.411 -44.110  12.709  1.00 43.63           O
ATOM   9768  N   MET D 703      48.783 -42.355  11.365  1.00 40.20           N
ATOM   9769  CA  MET D 703      47.431 -42.361  10.810  1.00 41.27           C
ATOM   9770  CB  MET D 703      47.177 -41.109   9.941  1.00 44.03           C
ATOM   9771  CG  MET D 703      46.871 -39.829  10.699  1.00 48.30           C
ATOM   9772  SD  MET D 703      45.294 -39.830  11.587  1.00 54.25           S
ATOM   9773  CE  MET D 703      44.123 -39.751  10.199  1.00 52.69           C
ATOM   9774  C   MET D 703      47.305 -43.612   9.954  1.00 43.42           C
ATOM   9775  O   MET D 703      46.326 -44.339  10.043  1.00 43.14           O
ATOM   9776  N   LYS D 704      48.327 -43.863   9.146  1.00 40.26           N
ATOM   9777  CA  LYS D 704      48.372 -45.039   8.274  1.00 40.43           C
ATOM   9778  CB  LYS D 704      49.651 -45.032   7.428  1.00 41.43           C
ATOM   9779  CG  LYS D 704      49.657 -43.990   6.326  1.00 46.00           C
ATOM   9780  CD  LYS D 704      51.023 -43.932   5.640  1.00 47.20           C
ATOM   9781  CE  LYS D 704      51.176 -42.642   4.835  1.00 42.98           C
ATOM   9782  NZ  LYS D 704      52.427 -42.623   4.035  1.00 47.36           N
ATOM   9783  C   LYS D 704      48.276 -46.349   9.059  1.00 47.05           C
ATOM   9784  O   LYS D 704      47.713 -47.334   8.570  1.00 46.99           O
ATOM   9785  N   LYS D 705      48.849 -46.348  10.265  1.00 43.94           N
ATOM   9786  CA  LYS D 705      48.831 -47.500  11.145  1.00 42.62           C
ATOM   9787  CB  LYS D 705      49.817 -47.306  12.289  1.00 42.43           C
ATOM   9788  CG  LYS D 705      51.258 -47.372  11.877  1.00 45.12           C
ATOM   9789  CD  LYS D 705      52.172 -47.484  13.082  1.00 46.18           C
ATOM   9790  CE  LYS D 705      53.614 -47.292  12.679  1.00 40.97           C
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ATOM   9791  NZ  LYS D 705      54.427 -46.899  13.869  1.00 47.41           N
ATOM   9792  C   LYS D 705      47.433 -47.711  11.703  1.00 48.97           C
ATOM   9793  O   LYS D 705      47.101 -48.817  12.128  1.00 48.37           O
ATOM   9794  N   LEU D 706      46.616 -46.652  11.700  1.00 47.57           N
ATOM   9795  CA  LEU D 706      45.227 -46.743  12.184  1.00 47.72           C
ATOM   9796  CB  LEU D 706      44.729 -45.395  12.729  1.00 47.45           C
ATOM   9797  CG  LEU D 706      45.165 -44.961  14.132  1.00 51.03           C
ATOM   9798  CD1 LEU D 706      44.572 -43.588  14.439  1.00 50.62           C
ATOM   9799  CD2 LEU D 706      44.738 -45.982  15.188  1.00 51.14           C
ATOM   9800  C   LEU D 706      44.300 -47.211  11.069  1.00 52.01           C
ATOM   9801  O   LEU D 706      43.174 -47.597  11.314  1.00 54.72           O
ATOM   9802  N   GLY D 707      44.775 -47.148   9.837  1.00 48.47           N
ATOM   9803  CA  GLY D 707      43.996 -47.565   8.683  1.00 50.05           C
ATOM   9804  C   GLY D 707      43.408 -46.387   7.920  1.00 57.37           C
ATOM   9805  O   GLY D 707      42.641 -46.568   6.979  1.00 57.60           O
ATOM   9806  N   ILE D 708      43.767 -45.178   8.351  1.00 54.16           N
ATOM   9807  CA  ILE D 708      43.292 -43.944   7.746  1.00 52.90           C
ATOM   9808  CB  ILE D 708      42.890 -42.939   8.825  1.00 54.53           C
ATOM   9809  CG1 ILE D 708      41.735 -43.474   9.673  1.00 53.78           C
ATOM   9810  CD1 ILE D 708      41.561 -42.733  10.980  1.00 55.73           C
ATOM   9811  CG2 ILE D 708      42.525 -41.611   8.195  1.00 56.36           C
ATOM   9812  C   ILE D 708      44.376 -43.330   6.853  1.00 57.69           C
ATOM   9813  O   ILE D 708      45.540 -43.234   7.248  1.00 58.12           O
ATOM   9814  N   GLN D 709      43.990 -42.886   5.661  1.00 53.79           N
ATOM   9815  CA  GLN D 709      44.930 -42.225   4.762  1.00 53.84           C
ATOM   9816  CB  GLN D 709      44.440 -42.285   3.309  1.00 54.60           C
ATOM   9817  CG  GLN D 709      45.438 -42.922   2.329  1.00 60.76           C
ATOM   9818  CD  GLN D 709      46.663 -42.040   2.066  1.00 69.83           C
ATOM   9819  OE1 GLN D 709      47.794 -42.532   1.982  1.00 64.98           O
ATOM   9820  NE2 GLN D 709      46.434 -40.738   1.903  1.00 60.65           N
ATOM   9821  C   GLN D 709      45.008 -40.777   5.226  1.00 59.80           C
ATOM   9822  O   GLN D 709      44.001 -40.074   5.252  1.00 60.56           O
ATOM   9823  N   PRO D 710      46.196 -40.334   5.664  1.00 57.53           N
ATOM   9824  CA  PRO D 710      46.330 -38.967   6.189  1.00 56.70           C
ATOM   9825  CB  PRO D 710      47.747 -38.956   6.762  1.00 57.75           C
ATOM   9826  CG  PRO D 710      48.494 -39.925   5.904  1.00 62.16           C
ATOM   9827  CD  PRO D 710      47.501 -41.023   5.578  1.00 58.81           C
ATOM   9828  C   PRO D 710      46.214 -37.894   5.106  1.00 59.59           C
ATOM   9829  O   PRO D 710      46.277 -38.205   3.912  1.00 58.93           O
ATOM   9830  N   ILE D 711      46.073 -36.635   5.528  1.00 55.16           N
ATOM   9831  CA  ILE D 711      46.014 -35.526   4.582  1.00 54.82           C
ATOM   9832  CB  ILE D 711      45.609 -34.185   5.260  1.00 57.19           C
ATOM   9833  CG1 ILE D 711      46.713 -33.694   6.211  1.00 57.06           C
ATOM   9834  CD1 ILE D 711      46.317 -32.486   7.049  1.00 59.72           C
ATOM   9835  CG2 ILE D 711      44.251 -34.311   5.956  1.00 57.94           C
ATOM   9836  C   ILE D 711      47.407 -35.444   3.973  1.00 58.89           C
ATOM   9837  O   ILE D 711      48.397 -35.790   4.630  1.00 58.35           O
ATOM   9838  N   PRO D 712      47.506 -35.017   2.702  1.00 54.79           N
ATOM   9839  CA  PRO D 712      48.783 -34.940   1.971  1.00 54.13           C
ATOM   9840  CB  PRO D 712      48.429 -34.123   0.718  1.00 55.79           C
ATOM   9841  CG  PRO D 712      46.967 -34.346   0.530  1.00 59.72           C
ATOM   9842  CD  PRO D 712      46.371 -34.532   1.897  1.00 55.43           C
ATOM   9843  C   PRO D 712      49.939 -34.283   2.735  1.00 55.24           C
ATOM   9844  O   PRO D 712      51.099 -34.680   2.590  1.00 53.24           O
ATOM   9845  N   MET D 713      49.615 -33.263   3.524  1.00 53.09           N
ATOM   9846  CA  MET D 713      50.607 -32.515   4.302  1.00 53.71           C
ATOM   9847  CB  MET D 713      49.884 -31.437   5.107  1.00 56.87           C
ATOM   9848  CG  MET D 713      50.796 -30.524   5.866  1.00 62.16           C
ATOM   9849  SD  MET D 713      49.887 -29.261   6.750  1.00 68.08           S
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ATOM   9850  CE  MET D 713      50.872 -27.791   6.295  1.00 65.18           C
ATOM   9851  C   MET D 713      51.423 -33.401   5.266  1.00 55.87           C
ATOM   9852  O   MET D 713      52.618 -33.173   5.479  1.00 54.24           O
ATOM   9853  N   MET D 714      50.751 -34.400   5.838  1.00 52.73           N
ATOM   9854  CA  MET D 714      51.348 -35.335   6.785  1.00 52.34           C
ATOM   9855  CB  MET D 714      50.330 -35.651   7.884  1.00 54.74           C
ATOM   9856  CG  MET D 714      49.782 -34.426   8.592  1.00 58.52           C
ATOM   9857  SD  MET D 714      48.880 -34.880  10.077  1.00 63.68           S
ATOM   9858  CE  MET D 714      47.646 -36.063   9.407  1.00 61.71           C
ATOM   9859  C   MET D 714      51.840 -36.643   6.142  1.00 54.61           C
ATOM   9860  O   MET D 714      52.233 -37.580   6.839  1.00 51.82           O
ATOM   9861  N   ASP D 715      51.801 -36.712   4.815  1.00 51.49           N
ATOM   9862  CA  ASP D 715      52.229 -37.913   4.123  1.00 50.85           C
ATOM   9863  CB  ASP D 715      51.301 -38.219   2.938  1.00 51.45           C
ATOM   9864  CG  ASP D 715      51.508 -39.630   2.372  1.00 54.73           C
ATOM   9865  OD1 ASP D 715      52.640 -40.177   2.478  1.00 50.30           O
ATOM   9866  OD2 ASP D 715      50.527 -40.188   1.812  1.00 62.22           O
ATOM   9867  C   ASP D 715      53.646 -37.730   3.634  1.00 56.27           C
ATOM   9868  O   ASP D 715      53.906 -36.833   2.834  1.00 57.48           O
ATOM   9869  N   ARG D 716      54.557 -38.579   4.107  1.00 52.25           N
ATOM   9870  CA  ARG D 716      55.948 -38.495   3.699  1.00 51.83           C
ATOM   9871  CB  ARG D 716      56.907 -39.065   4.763  1.00 50.19           C
ATOM   9872  CG  ARG D 716      57.031 -40.565   4.794  1.00 55.78           C
ATOM   9873  CD  ARG D 716      58.136 -40.992   5.758  1.00 51.16           C
ATOM   9874  NE  ARG D 716      57.755 -40.805   7.156  1.00 48.98           N
ATOM   9875  CZ  ARG D 716      58.454 -40.098   8.040  1.00 57.66           C
ATOM   9876  NH1 ARG D 716      59.585 -39.508   7.689  1.00 47.63           N
ATOM   9877  NH2 ARG D 716      58.019 -39.971   9.281  1.00 44.75           N
ATOM   9878  C   ARG D 716      56.209 -39.043   2.305  1.00 56.32           C
ATOM   9879  O   ARG D 716      57.250 -38.769   1.712  1.00 57.58           O
ATOM   9880  N   ASP D 717      55.238 -39.760   1.751  1.00 53.20           N
ATOM   9881  CA  ASP D 717      55.366 -40.247   0.374  1.00 53.19           C
ATOM   9882  CB  ASP D 717      54.444 -41.445   0.109  1.00 54.30           C
ATOM   9883  CG  ASP D 717      54.867 -42.696   0.861  1.00 63.32           C
ATOM   9884  OD1 ASP D 717      56.098 -42.944   0.986  1.00 63.23           O
ATOM   9885  OD2 ASP D 717      53.959 -43.428   1.331  1.00 66.76           O
ATOM   9886  C   ASP D 717      55.005 -39.099  -0.589  1.00 59.76           C
ATOM   9887  O   ASP D 717      55.394 -39.118  -1.756  1.00 61.10           O
ATOM   9888  N   LYS D 718      54.263 -38.104  -0.092  1.00 56.16           N
ATOM   9889  CA  LYS D 718      53.861 -36.943  -0.896  1.00 54.94           C
ATOM   9890  CB  LYS D 718      52.373 -36.625  -0.683  1.00 55.38           C
ATOM   9891  CG  LYS D 718      51.435 -37.746  -1.123  1.00 58.02           C
ATOM   9892  CD  LYS D 718      49.961 -37.340  -1.058  1.00 60.96           C
ATOM   9893  CE  LYS D 718      49.033 -38.540  -1.332  1.00 60.85           C
ATOM   9894  NZ  LYS D 718      47.576 -38.172  -1.260  1.00 61.19           N
ATOM   9895  C   LYS D 718      54.745 -35.742  -0.532  1.00 57.85           C
ATOM   9896  O   LYS D 718      54.279 -34.612  -0.446  1.00 58.23           O
ATOM   9897  N   LYS D 719      56.025 -36.025  -0.314  1.00 54.66           N
ATOM   9898  CA  LYS D 719      57.034 -35.046   0.108  1.00 54.75           C
ATOM   9899  CB  LYS D 719      58.362 -35.760   0.363  1.00 55.94           C
ATOM   9900  CG  LYS D 719      59.184 -35.149   1.470  1.00 61.28           C
ATOM   9901  CD  LYS D 719      60.505 -35.915   1.663  1.00 64.51           C
ATOM   9902  CE  LYS D 719      60.294 -37.243   2.383  1.00 59.75           C
ATOM   9903  NZ  LYS D 719      60.471 -37.114   3.848  1.00 64.16           N
ATOM   9904  C   LYS D 719      57.230 -33.889  -0.872  1.00 61.03           C
ATOM   9905  O   LYS D 719      57.376 -32.724  -0.489  1.00 61.48           O
ATOM   9906  N   ASP D 720      57.224 -34.247  -2.147  1.00 58.01           N
ATOM   9907  CA  ASP D 720      57.307 -33.321  -3.274  1.00 57.61           C
ATOM   9908  CB  ASP D 720      56.862 -34.111  -4.508  1.00 59.20           C
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ATOM   9909  CG  ASP D 720      55.841 -35.229  -4.149  1.00 69.27           C
ATOM   9910  OD1 ASP D 720      56.272 -36.290  -3.615  1.00 71.31           O
ATOM   9911  OD2 ASP D 720      54.618 -35.055  -4.402  1.00 72.33           O
ATOM   9912  C   ASP D 720      56.322 -32.149  -3.111  1.00 61.06           C
ATOM   9913  O   ASP D 720      56.575 -31.037  -3.561  1.00 62.30           O
ATOM   9914  N   GLU D 721      55.145 -32.442  -2.572  1.00 55.50           N
ATOM   9915  CA  GLU D 721      54.051 -31.476  -2.457  1.00 54.92           C
ATOM   9916  CB  GLU D 721      52.778 -32.245  -2.105  1.00 55.91           C
ATOM   9917  CG  GLU D 721      51.588 -32.032  -3.027  1.00 64.39           C
ATOM   9918  CD  GLU D 721      50.659 -33.251  -3.064  1.00 71.51           C
ATOM   9919  OE1 GLU D 721      49.459 -33.117  -2.704  1.00 63.69           O
ATOM   9920  OE2 GLU D 721      51.141 -34.347  -3.446  1.00 65.68           O
ATOM   9921  C   GLU D 721      54.235 -30.362  -1.422  1.00 60.35           C
ATOM   9922  O   GLU D 721      53.346 -29.506  -1.272  1.00 61.77           O
ATOM   9923  N   VAL D 722      55.355 -30.392  -0.697  1.00 56.29           N
ATOM   9924  CA  VAL D 722      55.601 -29.456   0.403  1.00 55.33           C
ATOM   9925  CB  VAL D 722      56.879 -29.809   1.210  1.00 57.52           C
ATOM   9926  CG1 VAL D 722      57.300 -28.647   2.090  1.00 57.23           C
ATOM   9927  CG2 VAL D 722      56.652 -31.073   2.038  1.00 56.74           C
ATOM   9928  C   VAL D 722      55.465 -27.966   0.114  1.00 58.08           C
ATOM   9929  O   VAL D 722      54.737 -27.256   0.809  1.00 57.92           O
ATOM   9930  N   PRO D 723      56.189 -27.469  -0.893  1.00 53.87           N
ATOM   9931  CA  PRO D 723      56.167 -26.042  -1.236  1.00 53.55           C
ATOM   9932  CB  PRO D 723      57.102 -25.970  -2.443  1.00 55.10           C
ATOM   9933  CG  PRO D 723      58.036 -27.122  -2.257  1.00 57.72           C
ATOM   9934  CD  PRO D 723      57.170 -28.214  -1.697  1.00 53.89           C
ATOM   9935  C   PRO D 723      54.770 -25.495  -1.571  1.00 54.34           C
ATOM   9936  O   PRO D 723      54.442 -24.378  -1.203  1.00 53.17           O
ATOM   9937  N   GLN D 724      53.948 -26.300  -2.238  1.00 50.59           N
ATOM   9938  CA  GLN D 724      52.584 -25.911  -2.583  1.00 49.99           C
ATOM   9939  CB  GLN D 724      51.977 -26.903  -3.580  1.00 50.71           C
ATOM   9940  CG  GLN D 724      51.003 -26.270  -4.564  1.00 58.66           C
ATOM   9941  CD  GLN D 724      51.712 -25.412  -5.594  1.00 70.93           C
ATOM   9942  OE1 GLN D 724      52.676 -25.853  -6.245  1.00 66.80           O
ATOM   9943  NE2 GLN D 724      51.261 -24.168  -5.729  1.00 60.86           N
ATOM   9944  C   GLN D 724      51.724 -25.854  -1.324  1.00 54.60           C
ATOM   9945  O   GLN D 724      50.820 -25.018  -1.207  1.00 56.67           O
ATOM   9946  N   GLY D 725      51.998 -26.756  -0.387  1.00 49.12           N
ATOM   9947  CA  GLY D 725      51.286 -26.807   0.877  1.00 47.89           C
ATOM   9948  C   GLY D 725      51.673 -25.632   1.748  1.00 48.60           C
ATOM   9949  O   GLY D 725      50.864 -25.144   2.515  1.00 49.42           O
ATOM   9950  N   GLN D 726      52.912 -25.176   1.613  1.00 43.55           N
ATOM   9951  CA  GLN D 726      53.392 -24.021   2.360  1.00 44.60           C
ATOM   9952  CB  GLN D 726      54.920 -23.892   2.251  1.00 45.95           C
ATOM   9953  CG  GLN D 726      55.682 -24.707   3.276  1.00 52.62           C
ATOM   9954  CD  GLN D 726      55.385 -24.279   4.702  1.00 58.71           C
ATOM   9955  OE1 GLN D 726      55.934 -23.276   5.201  1.00 47.74           O
ATOM   9956  NE2 GLN D 726      54.506 -25.036   5.374  1.00 48.50           N
ATOM   9957  C   GLN D 726      52.729 -22.769   1.801  1.00 50.04           C
ATOM   9958  O   GLN D 726      52.231 -21.926   2.552  1.00 49.69           O
ATOM   9959  N   LEU D 727      52.705 -22.668   0.474  1.00 48.14           N
ATOM   9960  CA  LEU D 727      52.069 -21.536  -0.195  1.00 48.45           C
ATOM   9961  CB  LEU D 727      52.068 -21.741  -1.720  1.00 49.58           C
ATOM   9962  CG  LEU D 727      53.104 -20.898  -2.494  1.00 55.18           C
ATOM   9963  CD1 LEU D 727      53.448 -21.549  -3.841  1.00 55.27           C
ATOM   9964  CD2 LEU D 727      52.600 -19.460  -2.691  1.00 57.80           C
ATOM   9965  C   LEU D 727      50.643 -21.431   0.299  1.00 49.62           C
ATOM   9966  O   LEU D 727      50.185 -20.351   0.658  1.00 49.55           O
ATOM   9967  N   GLY D 728      49.940 -22.562   0.331  1.00 45.55           N
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ATOM   9968  CA  GLY D 728      48.565 -22.600   0.822  1.00 44.77           C
ATOM   9969  C   GLY D 728      48.431 -22.100   2.250  1.00 47.52           C
ATOM   9970  O   GLY D 728      47.541 -21.310   2.547  1.00 48.52           O
ATOM   9971  N   PHE D 729      49.308 -22.577   3.137  1.00 43.06           N
ATOM   9972  CA  PHE D 729      49.289 -22.180   4.547  1.00 42.25           C
ATOM   9973  CB  PHE D 729      50.366 -22.947   5.341  1.00 44.00           C
ATOM   9974  CG  PHE D 729      50.364 -22.647   6.818  1.00 44.59           C
ATOM   9975  CD1 PHE D 729      49.386 -23.183   7.652  1.00 46.29           C
ATOM   9976  CE1 PHE D 729      49.372 -22.893   9.005  1.00 47.19           C
ATOM   9977  CZ  PHE D 729      50.334 -22.054   9.540  1.00 47.57           C
ATOM   9978  CE2 PHE D 729      51.310 -21.499   8.714  1.00 49.32           C
ATOM   9979  CD2 PHE D 729      51.320 -21.796   7.364  1.00 46.02           C
ATOM   9980  C   PHE D 729      49.469 -20.663   4.737  1.00 44.01           C
ATOM   9981  O   PHE D 729      48.727 -20.033   5.488  1.00 42.94           O
ATOM   9982  N   TYR D 730      50.448 -20.083   4.046  1.00 41.21           N
ATOM   9983  CA  TYR D 730      50.692 -18.643   4.123  1.00 41.22           C
ATOM   9984  CB  TYR D 730      51.885 -18.259   3.269  1.00 41.69           C
ATOM   9985  CG  TYR D 730      53.222 -18.480   3.940  1.00 41.91           C
ATOM   9986  CD1 TYR D 730      53.713 -19.763   4.141  1.00 43.28           C
ATOM   9987  CE1 TYR D 730      54.935 -19.972   4.755  1.00 43.25           C
ATOM   9988  CZ  TYR D 730      55.681 -18.902   5.182  1.00 45.29           C
ATOM   9989  OH  TYR D 730      56.894 -19.142   5.763  1.00 39.28           O
ATOM   9990  CE2 TYR D 730      55.228 -17.611   4.994  1.00 43.16           C
ATOM   9991  CD2 TYR D 730      54.001 -17.407   4.364  1.00 42.56           C
ATOM   9992  C   TYR D 730      49.468 -17.858   3.655  1.00 45.99           C
ATOM   9993  O   TYR D 730      48.980 -16.969   4.360  1.00 46.04           O
ATOM   9994  N   ASN D 731      48.949 -18.233   2.486  1.00 42.68           N
ATOM   9995  CA  ASN D 731      47.775 -17.593   1.913  1.00 42.22           C
ATOM   9996  CB  ASN D 731      47.485 -18.163   0.508  1.00 42.83           C
ATOM   9997  CG  ASN D 731      48.535 -17.748  -0.540  1.00 53.72           C
ATOM   9998  OD1 ASN D 731      49.046 -16.619  -0.535  1.00 46.06           O
ATOM   9999  ND2 ASN D 731      48.843 -18.665  -1.450  1.00 40.91           N
ATOM  10000  C   ASN D 731      46.544 -17.750   2.801  1.00 45.06           C
ATOM  10001  O   ASN D 731      45.802 -16.806   3.033  1.00 45.21           O
ATOM  10002  N   ALA D 732      46.306 -18.970   3.255  1.00 41.14           N
ATOM  10003  CA  ALA D 732      45.137 -19.274   4.070  1.00 41.57           C
ATOM  10004  CB  ALA D 732      44.714 -20.743   3.862  1.00 42.16           C
ATOM  10005  C   ALA D 732      45.231 -18.951   5.574  1.00 45.76           C
ATOM  10006  O   ALA D 732      44.211 -18.637   6.196  1.00 47.36           O
ATOM  10007  N   VAL D 733      46.420 -19.093   6.163  1.00 40.54           N
ATOM  10008  CA  VAL D 733      46.579 -18.904   7.609  1.00 39.74           C
ATOM  10009  CB  VAL D 733      47.121 -20.191   8.298  1.00 43.78           C
ATOM  10010  CG1 VAL D 733      46.950 -20.097   9.827  1.00 44.19           C
ATOM  10011  CG2 VAL D 733      46.457 -21.460   7.757  1.00 43.19           C
ATOM  10012  C   VAL D 733      47.430 -17.714   8.046  1.00 41.08           C
ATOM  10013  O   VAL D 733      46.944 -16.803   8.739  1.00 38.19           O
ATOM  10014  N   ALA D 734      48.723 -17.801   7.726  1.00 37.47           N
ATOM  10015  CA  ALA D 734      49.709 -16.840   8.178  1.00 37.48           C
ATOM  10016  CB  ALA D 734      51.123 -17.336   7.894  1.00 37.62           C
ATOM  10017  C   ALA D 734      49.523 -15.393   7.732  1.00 44.19           C
ATOM  10018  O   ALA D 734      49.486 -14.490   8.568  1.00 44.39           O
ATOM  10019  N   ILE D 735      49.456 -15.168   6.423  1.00 41.81           N
ATOM  10020  CA  ILE D 735      49.272 -13.815   5.904  1.00 40.51           C
ATOM  10021  CB  ILE D 735      49.242 -13.785   4.340  1.00 42.22           C
ATOM  10022  CG1 ILE D 735      50.569 -14.303   3.780  1.00 41.70           C
ATOM  10023  CD1 ILE D 735      51.763 -13.415   4.057  1.00 46.07           C
ATOM  10024  CG2 ILE D 735      48.965 -12.367   3.854  1.00 41.92           C
ATOM  10025  C   ILE D 735      48.050 -13.127   6.521  1.00 40.99           C
ATOM  10026  O   ILE D 735      48.147 -12.010   7.007  1.00 41.14           O
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ATOM  10027  N   PRO D 736      46.890 -13.797   6.533  1.00 37.47           N
ATOM  10028  CA  PRO D 736      45.715 -13.143   7.135  1.00 37.17           C
ATOM  10029  CB  PRO D 736      44.608 -14.186   6.969  1.00 37.83           C
ATOM  10030  CG  PRO D 736      45.002 -14.965   5.769  1.00 41.90           C
ATOM  10031  CD  PRO D 736      46.529 -15.025   5.802  1.00 38.36           C
ATOM  10032  C   PRO D 736      45.948 -12.846   8.616  1.00 43.68           C
ATOM  10033  O   PRO D 736      45.525 -11.798   9.141  1.00 45.49           O
ATOM  10034  N   CYS D 737      46.635 -13.769   9.288  1.00 39.05           N
ATOM  10035  CA  CYS D 737      46.924 -13.620  10.710  1.00 37.67           C
ATOM  10036  CB  CYS D 737      47.778 -14.795  11.207  1.00 37.58           C
ATOM  10037  SG  CYS D 737      48.317 -14.573  12.944  1.00 41.52           S
ATOM  10038  C   CYS D 737      47.627 -12.295  11.017  1.00 39.28           C
ATOM  10039  O   CYS D 737      47.143 -11.491  11.810  1.00 38.08           O
ATOM  10040  N   TYR D 738      48.785 -12.105  10.390  1.00 35.96           N
ATOM  10041  CA  TYR D 738      49.616 -10.925  10.573  1.00 36.36           C
ATOM  10042  CB  TYR D 738      51.051 -11.222  10.116  1.00 38.35           C
ATOM  10043  CG  TYR D 738      51.706 -12.355  10.891  1.00 39.43           C
ATOM  10044  CD1 TYR D 738      51.955 -12.249  12.270  1.00 39.59           C
ATOM  10045  CE1 TYR D 738      52.533 -13.287  12.966  1.00 38.25           C
ATOM  10046  CZ  TYR D 738      52.841 -14.470  12.302  1.00 44.31           C
ATOM  10047  OH  TYR D 738      53.379 -15.550  12.982  1.00 36.45           O
ATOM  10048  CE2 TYR D 738      52.570 -14.605  10.950  1.00 41.26           C
ATOM  10049  CD2 TYR D 738      52.012 -13.559  10.257  1.00 40.34           C
ATOM  10050  C   TYR D 738      49.092  -9.635   9.929  1.00 39.94           C
ATOM  10051  O   TYR D 738      49.464  -8.528  10.345  1.00 39.12           O
ATOM  10052  N   THR D 739      48.233  -9.773   8.922  1.00 37.89           N
ATOM  10053  CA  THR D 739      47.594  -8.604   8.312  1.00 38.99           C
ATOM  10054  CB  THR D 739      46.754  -9.004   7.038  1.00 44.52           C
ATOM  10055  OG1 THR D 739      47.619  -9.555   6.028  1.00 42.29           O
ATOM  10056  CG2 THR D 739      46.009  -7.805   6.476  1.00 36.18           C
ATOM  10057  C   THR D 739      46.689  -7.971   9.382  1.00 43.49           C
ATOM  10058  O   THR D 739      46.814  -6.795   9.706  1.00 43.43           O
ATOM  10059  N   THR D 740      45.795  -8.782   9.940  1.00 41.27           N
ATOM  10060  CA  THR D 740      44.873  -8.329  10.978  1.00 40.65           C
ATOM  10061  CB  THR D 740      43.881  -9.451  11.362  1.00 43.33           C
ATOM  10062  OG1 THR D 740      43.247  -9.943  10.183  1.00 40.59           O
ATOM  10063  CG2 THR D 740      42.846  -8.945  12.334  1.00 39.35           C
ATOM  10064  C   THR D 740      45.586  -7.833  12.221  1.00 43.64           C
ATOM  10065  O   THR D 740      45.123  -6.908  12.868  1.00 44.36           O
ATOM  10066  N   LEU D 741      46.655  -8.516  12.615  1.00 39.23           N
ATOM  10067  CA  LEU D 741      47.347  -8.133  13.840  1.00 38.39           C
ATOM  10068  CB  LEU D 741      48.361  -9.209  14.266  1.00 37.70           C
ATOM  10069  CG  LEU D 741      49.027  -8.989  15.639  1.00 42.64           C
ATOM  10070  CD1 LEU D 741      48.043  -9.254  16.800  1.00 42.43           C
ATOM  10071  CD2 LEU D 741      50.264  -9.857  15.783  1.00 48.32           C
ATOM  10072  C   LEU D 741      48.034  -6.779  13.600  1.00 44.42           C
ATOM  10073  O   LEU D 741      48.127  -5.935  14.505  1.00 43.43           O
ATOM  10074  N   THR D 742      48.523  -6.597  12.375  1.00 40.89           N
ATOM  10075  CA  THR D 742      49.171  -5.365  11.972  1.00 40.29           C
ATOM  10076  CB  THR D 742      49.803  -5.528  10.561  1.00 51.55           C
ATOM  10077  OG1 THR D 742      51.075  -6.199  10.672  1.00 44.48           O
ATOM  10078  CG2 THR D 742      49.986  -4.150   9.889  1.00 48.49           C
ATOM  10079  C   THR D 742      48.118  -4.255  11.993  1.00 43.09           C
ATOM  10080  O   THR D 742      48.409  -3.139  12.383  1.00 42.84           O
ATOM  10081  N   GLN D 743      46.885  -4.561  11.590  1.00 40.20           N
ATOM  10082  CA AGLN D 743      45.794  -3.577  11.608  0.70 40.43           C
ATOM  10083  CA BGLN D 743      45.839  -3.545  11.605  0.30 40.49           C
ATOM  10084  CB AGLN D 743      44.450  -4.221  11.162  0.70 41.13           C
ATOM  10085  CB BGLN D 743      44.513  -4.085  11.043  0.30 41.45           C
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ATOM  10086  CG AGLN D 743      44.277  -4.440   9.644  0.70 42.41           C
ATOM  10087  CG BGLN D 743      44.480  -4.344   9.533  0.30 42.57           C
ATOM  10088  CD AGLN D 743      42.933  -5.113   9.259  0.70 57.91           C
ATOM  10089  CD BGLN D 743      45.439  -3.470   8.740  0.30 50.27           C
ATOM  10090  OE1AGLN D 743      42.562  -5.145   8.086  0.70 51.69           O
ATOM  10091  OE1BGLN D 743      45.219  -2.269   8.575  0.30 42.06           O
ATOM  10092  NE2AGLN D 743      42.214  -5.647  10.251  0.70 52.10           N
ATOM  10093  NE2BGLN D 743      46.488  -4.082   8.208  0.30 41.39           N
ATOM  10094  C    GLN D 743      45.640  -3.033  13.032  1.00 45.13           C
ATOM  10095  O    GLN D 743      45.659  -1.838  13.270  1.00 46.26           O
ATOM  10096  N    ILE D 744      45.442  -3.950  13.972  1.00 42.15           N
ATOM  10097  CA   ILE D 744      45.209  -3.630  15.378  1.00 41.60           C
ATOM  10098  CB   ILE D 744      44.567  -4.798  16.119  1.00 44.14           C
ATOM  10099  CG1  ILE D 744      43.321  -5.261  15.368  1.00 44.37           C
ATOM  10100  CD1  ILE D 744      42.761  -6.579  15.892  1.00 51.29           C
ATOM  10101  CG2  ILE D 744      44.237  -4.406  17.549  1.00 44.50           C
ATOM  10102  C    ILE D 744      46.382  -3.053  16.155  1.00 45.59           C
ATOM  10103  O    ILE D 744      46.203  -2.117  16.930  1.00 48.15           O
ATOM  10104  N    LEU D 745      47.563  -3.638  15.986  1.00 41.31           N
ATOM  10105  CA   LEU D 745      48.756  -3.196  16.691  1.00 41.88           C
ATOM  10106  CB   LEU D 745      49.235  -4.280  17.671  1.00 42.64           C
ATOM  10107  CG   LEU D 745      48.233  -4.791  18.713  1.00 47.56           C
ATOM  10108  CD1  LEU D 745      48.849  -5.949  19.512  1.00 48.46           C
ATOM  10109  CD2  LEU D 745      47.831  -3.669  19.641  1.00 49.44           C
ATOM  10110  C    LEU D 745      49.847  -2.901  15.672  1.00 45.43           C
ATOM  10111  O    LEU D 745      50.740  -3.713  15.461  1.00 44.40           O
ATOM  10112  N    PRO D 746      49.795  -1.714  15.044  1.00 42.11           N
ATOM  10113  CA   PRO D 746      50.724  -1.273  13.993  1.00 40.98           C
ATOM  10114  CB   PRO D 746      50.524   0.250  13.962  1.00 42.45           C
ATOM  10115  CG   PRO D 746      49.079   0.442  14.380  1.00 46.37           C
ATOM  10116  CD   PRO D 746      48.687  -0.753  15.249  1.00 42.85           C
ATOM  10117  C    PRO D 746      52.207  -1.636  14.177  1.00 41.60           C
ATOM  10118  O    PRO D 746      52.871  -2.047  13.229  1.00 38.36           O
ATOM  10119  N    PRO D 747      52.748  -1.493  15.395  1.00 40.56           N
ATOM  10120  CA   PRO D 747      54.179  -1.824  15.547  1.00 40.37           C
ATOM  10121  CB   PRO D 747      54.505  -1.365  16.979  1.00 42.21           C
ATOM  10122  CG   PRO D 747      53.379  -0.444  17.369  1.00 45.66           C
ATOM  10123  CD   PRO D 747      52.164  -0.984  16.650  1.00 41.59           C
ATOM  10124  C    PRO D 747      54.581  -3.301  15.339  1.00 41.49           C
ATOM  10125  O    PRO D 747      55.766  -3.628  15.385  1.00 41.87           O
ATOM  10126  N    THR D 748      53.607  -4.177  15.095  1.00 37.09           N
ATOM  10127  CA   THR D 748      53.883  -5.596  14.845  1.00 38.15           C
ATOM  10128  CB   THR D 748      52.735  -6.506  15.366  1.00 44.43           C
ATOM  10129  OG1  THR D 748      51.546  -6.261  14.609  1.00 47.02           O
ATOM  10130  CG2  THR D 748      52.458  -6.267  16.868  1.00 40.64           C
ATOM  10131  C    THR D 748      54.159  -5.881  13.352  1.00 42.86           C
ATOM  10132  O    THR D 748      54.514  -6.992  12.977  1.00 40.28           O
ATOM  10133  N    GLU D 749      53.998  -4.851  12.522  1.00 40.04           N
ATOM  10134  CA AGLU D 749      54.214  -4.928  11.064  0.60 39.92           C
ATOM  10135  CA BGLU D 749      54.186  -4.957  11.082  0.40 39.89           C
ATOM  10136  CB AGLU D 749      54.292  -3.517  10.445  0.60 40.88           C
ATOM  10137  CB BGLU D 749      54.015  -3.578  10.414  0.40 40.94           C
ATOM  10138  CG AGLU D 749      53.529  -3.365   9.132  0.60 45.51           C
ATOM  10139  CG BGLU D 749      55.207  -3.058   9.664  0.40 45.98           C
ATOM  10140  CD AGLU D 749      54.391  -3.612   7.892  0.60 61.12           C
ATOM  10141  CD BGLU D 749      55.217  -3.527   8.224  0.40 56.20           C
ATOM  10142  OE1AGLU D 749      53.822  -3.629   6.758  0.60 56.41           O
ATOM  10143  OE1BGLU D 749      56.308  -3.532   7.605  0.40 46.80           O
ATOM  10144  OE2AGLU D 749      55.638  -3.766   8.034  0.60 56.06           O
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ATOM  10145  OE2BGLU D 749      54.134  -3.920   7.722  0.40 53.40           O
ATOM  10146  C   GLU D 749      55.435  -5.726  10.610  1.00 43.36           C
ATOM  10147  O   GLU D 749      55.392  -6.426   9.597  1.00 42.85           O
ATOM  10148  N   PRO D 750      56.551  -5.622  11.346  1.00 40.30           N
ATOM  10149  CA  PRO D 750      57.746  -6.377  10.941  1.00 40.04           C
ATOM  10150  CB  PRO D 750      58.727  -6.090  12.072  1.00 41.46           C
ATOM  10151  CG  PRO D 750      58.364  -4.724  12.490  1.00 45.15           C
ATOM  10152  CD  PRO D 750      56.861  -4.662  12.416  1.00 41.25           C
ATOM  10153  C   PRO D 750      57.488  -7.895  10.796  1.00 42.70           C
ATOM  10154  O   PRO D 750      58.146  -8.573  10.013  1.00 43.39           O
ATOM  10155  N   LEU D 751      56.522  -8.420  11.546  1.00 37.41           N
ATOM  10156  CA  LEU D 751      56.160  -9.831  11.440  1.00 36.81           C
ATOM  10157  CB  LEU D 751      55.187 -10.223  12.566  1.00 36.74           C
ATOM  10158  CG  LEU D 751      55.707 -10.244  14.006  1.00 40.37           C
ATOM  10159  CD1 LEU D 751      54.580 -10.408  14.988  1.00 40.14           C
ATOM  10160  CD2 LEU D 751      56.743 -11.365  14.161  1.00 41.89           C
ATOM  10161  C   LEU D 751      55.492 -10.079  10.071  1.00 40.46           C
ATOM  10162  O   LEU D 751      55.749 -11.098   9.409  1.00 38.49           O
ATOM  10163  N   LEU D 752      54.620  -9.152   9.668  1.00 39.24           N
ATOM  10164  CA  LEU D 752      53.918  -9.247   8.381  1.00 40.10           C
ATOM  10165  CB  LEU D 752      52.817  -8.184   8.267  1.00 40.00           C
ATOM  10166  CG  LEU D 752      52.086  -8.102   6.917  1.00 43.91           C
ATOM  10167  CD1 LEU D 752      51.306  -9.383   6.615  1.00 41.99           C
ATOM  10168  CD2 LEU D 752      51.156  -6.892   6.894  1.00 46.36           C
ATOM  10169  C   LEU D 752      54.906  -9.140   7.216  1.00 43.35           C
ATOM  10170  O   LEU D 752      54.861  -9.932   6.268  1.00 42.81           O
ATOM  10171  N   LYS D 753      55.811  -8.175   7.321  1.00 40.58           N
ATOM  10172  CA  LYS D 753      56.866  -7.990   6.324  1.00 41.42           C
ATOM  10173  CB  LYS D 753      57.812  -6.855   6.744  1.00 43.67           C
ATOM  10174  CG  LYS D 753      58.881  -6.569   5.704  1.00 47.91           C
ATOM  10175  CD  LYS D 753      59.996  -5.707   6.276  1.00 53.40           C
ATOM  10176  CE  LYS D 753      61.083  -5.471   5.219  1.00 51.35           C
ATOM  10177  NZ  LYS D 753      62.118  -6.557   5.232  1.00 50.73           N
ATOM  10178  C   LYS D 753      57.690  -9.276   6.126  1.00 45.24           C
ATOM  10179  O   LYS D 753      57.885  -9.726   4.991  1.00 45.32           O
ATOM  10180  N   ALA D 754      58.163  -9.859   7.237  1.00 40.46           N
ATOM  10181  CA  ALA D 754      58.954 -11.103   7.206  1.00 38.92           C
ATOM  10182  CB  ALA D 754      59.457 -11.446   8.584  1.00 39.72           C
ATOM  10183  C   ALA D 754      58.159 -12.277   6.619  1.00 39.47           C
ATOM  10184  O   ALA D 754      58.704 -13.103   5.875  1.00 37.83           O
ATOM  10185  N   CYS D 755      56.867 -12.321   6.939  1.00 35.93           N
ATOM  10186  CA  CYS D 755      55.975 -13.349   6.425  1.00 36.61           C
ATOM  10187  CB  CYS D 755      54.622 -13.244   7.112  1.00 37.19           C
ATOM  10188  SG  CYS D 755      53.538 -14.605   6.773  1.00 41.44           S
ATOM  10189  C   CYS D 755      55.798 -13.285   4.894  1.00 42.02           C
ATOM  10190  O   CYS D 755      55.831 -14.311   4.207  1.00 40.21           O
ATOM  10191  N   ARG D 756      55.629 -12.076   4.365  1.00 40.57           N
ATOM  10192  CA AARG D 756      55.477 -11.885   2.927  0.50 40.18           C
ATOM  10193  CA BARG D 756      55.465 -11.878   2.926  0.50 40.16           C
ATOM  10194  CB AARG D 756      55.094 -10.440   2.616  0.50 38.80           C
ATOM  10195  CB BARG D 756      55.095 -10.420   2.617  0.50 38.76           C
ATOM  10196  CG AARG D 756      53.623 -10.191   2.759  0.50 44.71           C
ATOM  10197  CG BARG D 756      53.627 -10.056   2.800  0.50 44.73           C
ATOM  10198  CD AARG D 756      53.220  -8.834   2.241  0.50 47.37           C
ATOM  10199  CD BARG D 756      53.351  -8.652   2.246  0.50 46.47           C
ATOM  10200  NE AARG D 756      51.850  -8.545   2.643  0.50 46.50           N
ATOM  10201  NE BARG D 756      52.102  -8.075   2.748  0.50 48.20           N
ATOM  10202  CZ AARG D 756      50.786  -9.189   2.182  0.50 52.47           C
ATOM  10203  CZ BARG D 756      52.022  -6.959   3.474  0.50 53.17           C
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ATOM  10204  NH1AARG D 756      50.933 -10.147   1.276  0.50 37.70           N
ATOM  10205  NH1BARG D 756      53.124  -6.290   3.815  0.50 36.64           N
ATOM  10206  NH2AARG D 756      49.577  -8.860   2.619  0.50 43.85           N
ATOM  10207  NH2BARG D 756      50.835  -6.516   3.868  0.50 35.06           N
ATOM  10208  C    ARG D 756      56.771 -12.233   2.220  1.00 43.26           C
ATOM  10209  O    ARG D 756      56.761 -12.811   1.129  1.00 44.87           O
ATOM  10210  N    ASP D 757      57.892 -11.900   2.851  1.00 37.04           N
ATOM  10211  CA   ASP D 757      59.184 -12.226   2.266  1.00 38.30           C
ATOM  10212  CB   ASP D 757      60.326 -11.699   3.133  1.00 40.19           C
ATOM  10213  CG   ASP D 757      60.486 -10.191   3.055  1.00 52.29           C
ATOM  10214  OD1  ASP D 757      59.713  -9.535   2.315  1.00 54.04           O
ATOM  10215  OD2  ASP D 757      61.398  -9.656   3.747  1.00 57.98           O
ATOM  10216  C    ASP D 757      59.321 -13.759   2.125  1.00 47.27           C
ATOM  10217  O    ASP D 757      59.825 -14.253   1.101  1.00 48.98           O
ATOM  10218  N    ASN D 758      58.871 -14.499   3.148  1.00 43.26           N
ATOM  10219  CA   ASN D 758      58.963 -15.964   3.152  1.00 41.29           C
ATOM  10220  CB   ASN D 758      58.722 -16.545   4.563  1.00 37.77           C
ATOM  10221  CG   ASN D 758      59.907 -16.344   5.497  1.00 49.38           C
ATOM  10222  OD1  ASN D 758      61.058 -16.283   5.063  1.00 46.71           O
ATOM  10223  ND2  ASN D 758      59.627 -16.242   6.790  1.00 39.80           N
ATOM  10224  C    ASN D 758      58.017 -16.590   2.133  1.00 42.35           C
ATOM  10225  O    ASN D 758      58.352 -17.589   1.514  1.00 42.86           O
ATOM  10226  N    LEU D 759      56.835 -16.001   1.966  1.00 39.61           N
ATOM  10227  CA   LEU D 759      55.859 -16.473   0.972  1.00 41.04           C
ATOM  10228  CB   LEU D 759      54.615 -15.583   0.978  1.00 41.55           C
ATOM  10229  CG   LEU D 759      53.598 -15.703  -0.168  1.00 46.58           C
ATOM  10230  CD1  LEU D 759      53.112 -17.128  -0.395  1.00 46.19           C
ATOM  10231  CD2  LEU D 759      52.413 -14.804   0.120  1.00 49.42           C
ATOM  10232  C    LEU D 759      56.530 -16.382  -0.397  1.00 46.31           C
ATOM  10233  O    LEU D 759      56.473 -17.306  -1.198  1.00 46.43           O
ATOM  10234  N    SER D 760      57.222 -15.271  -0.615  1.00 44.12           N
ATOM  10235  CA   SER D 760      57.944 -15.007  -1.861  1.00 44.53           C
ATOM  10236  CB   SER D 760      58.451 -13.548  -1.896  1.00 46.79           C
ATOM  10237  OG   SER D 760      59.787 -13.482  -2.359  1.00 60.99           O
ATOM  10238  C    SER D 760      59.086 -16.011  -2.076  1.00 47.25           C
ATOM  10239  O    SER D 760      59.384 -16.381  -3.206  1.00 46.00           O
ATOM  10240  N    GLN D 761      59.682 -16.482  -0.983  1.00 42.87           N
ATOM  10241  CA   GLN D 761      60.751 -17.474  -1.062  1.00 42.16           C
ATOM  10242  CB   GLN D 761      61.536 -17.525   0.238  1.00 42.86           C
ATOM  10243  CG   GLN D 761      62.433 -16.330   0.479  1.00 46.44           C
ATOM  10244  CD   GLN D 761      63.526 -16.211  -0.578  1.00 63.00           C
ATOM  10245  OE1  GLN D 761      64.425 -17.061  -0.667  1.00 59.42           O
ATOM  10246  NE2  GLN D 761      63.452 -15.153  -1.388  1.00 52.65           N
ATOM  10247  C    GLN D 761      60.174 -18.857  -1.400  1.00 47.49           C
ATOM  10248  O    GLN D 761      60.791 -19.628  -2.150  1.00 46.77           O
ATOM  10249  N    TRP D 762      58.984 -19.162  -0.879  1.00 45.99           N
ATOM  10250  CA   TRP D 762      58.351 -20.441  -1.190  1.00 47.18           C
ATOM  10251  CB   TRP D 762      57.167 -20.739  -0.259  1.00 45.53           C
ATOM  10252  CG   TRP D 762      57.588 -21.254   1.110  1.00 50.12           C
ATOM  10253  CD1  TRP D 762      57.461 -20.601   2.304  1.00 48.80           C
ATOM  10254  NE1  TRP D 762      58.026 -21.347   3.314  1.00 49.50           N
ATOM  10255  CE2  TRP D 762      58.537 -22.501   2.784  1.00 50.61           C
ATOM  10256  CD2  TRP D 762      58.284 -22.480   1.398  1.00 45.71           C
ATOM  10257  CE3  TRP D 762      58.719 -23.552   0.619  1.00 49.13           C
ATOM  10258  CZ3  TRP D 762      59.369 -24.601   1.241  1.00 49.93           C
ATOM  10259  CH2  TRP D 762      59.590 -24.600   2.626  1.00 50.81           C
ATOM  10260  CZ2  TRP D 762      59.190 -23.557   3.407  1.00 49.79           C
ATOM  10261  C    TRP D 762      57.940 -20.453  -2.676  1.00 51.83           C
ATOM  10262  O    TRP D 762      58.129 -21.460  -3.374  1.00 51.32           O
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ATOM  10263  N   GLU D 763      57.442 -19.308  -3.157  1.00 47.94           N
ATOM  10264  CA  GLU D 763      57.067 -19.130  -4.560  1.00 46.91           C
ATOM  10265  CB  GLU D 763      56.463 -17.729  -4.782  1.00 47.66           C
ATOM  10266  CG  GLU D 763      55.031 -17.598  -4.235  1.00 54.48           C
ATOM  10267  CD  GLU D 763      54.496 -16.164  -4.185  1.00 65.02           C
ATOM  10268  OE1 GLU D 763      55.277 -15.222  -3.905  1.00 57.10           O
ATOM  10269  OE2 GLU D 763      53.263 -15.988  -4.353  1.00 59.67           O
ATOM  10270  C   GLU D 763      58.304 -19.370  -5.444  1.00 50.99           C
ATOM  10271  O   GLU D 763      58.193 -19.978  -6.505  1.00 52.08           O
ATOM  10272  N   LYS D 764      59.488 -18.964  -4.980  1.00 47.91           N
ATOM  10273  CA  LYS D 764      60.722 -19.203  -5.745  1.00 48.82           C
ATOM  10274  CB  LYS D 764      61.891 -18.410  -5.170  1.00 50.36           C
ATOM  10275  CG  LYS D 764      61.834 -16.942  -5.452  1.00 59.27           C
ATOM  10276  CD  LYS D 764      63.086 -16.239  -4.968  1.00 58.61           C
ATOM  10277  CE  LYS D 764      62.918 -14.733  -5.130  1.00 61.84           C
ATOM  10278  NZ  LYS D 764      63.791 -13.969  -4.181  1.00 67.34           N
ATOM  10279  C   LYS D 764      61.102 -20.692  -5.780  1.00 57.89           C
ATOM  10280  O   LYS D 764      61.656 -21.178  -6.778  1.00 60.08           O
ATOM  10281  N   VAL D 765      60.848 -21.402  -4.677  1.00 54.32           N
ATOM  10282  CA  VAL D 765      61.161 -22.825  -4.594  1.00 53.19           C
ATOM  10283  CB  VAL D 765      60.979 -23.382  -3.143  1.00 56.27           C
ATOM  10284  CG1 VAL D 765      61.337 -24.856  -3.089  1.00 55.58           C
ATOM  10285  CG2 VAL D 765      61.830 -22.598  -2.148  1.00 56.21           C
ATOM  10286  C   VAL D 765      60.324 -23.615  -5.600  1.00 55.29           C
ATOM  10287  O   VAL D 765      60.797 -24.594  -6.183  1.00 53.83           O
ATOM  10288  N   ILE D 766      59.076 -23.185  -5.769  1.00 53.48           N
ATOM  10289  CA  ILE D 766      58.121 -23.830  -6.657  1.00 54.44           C
ATOM  10290  CB  ILE D 766      56.752 -23.133  -6.597  1.00 57.35           C
ATOM  10291  CG1 ILE D 766      56.194 -23.237  -5.182  1.00 57.47           C
ATOM  10292  CD1 ILE D 766      54.829 -23.885  -5.120  1.00 63.12           C
ATOM  10293  CG2 ILE D 766      55.806 -23.737  -7.624  1.00 58.83           C
ATOM  10294  C   ILE D 766      58.614 -23.908  -8.103  1.00 59.28           C
ATOM  10295  O   ILE D 766      58.084 -24.693  -8.898  1.00 60.58           O
ATOM  10296  N   ARG D 767      59.631 -23.107  -8.432  1.00 54.65           N
ATOM  10297  CA AARG D 767      60.228 -23.139  -9.771  0.60 54.35           C
ATOM  10298  CB AARG D 767      59.456 -22.244 -10.735  0.60 53.21           C
ATOM  10299  CG AARG D 767      58.835 -21.041 -10.093  0.60 60.20           C
ATOM  10300  CD AARG D 767      59.796 -19.868 -10.021  0.60 59.73           C
ATOM  10301  NE AARG D 767      59.153 -18.739  -9.350  0.60 64.57           N
ATOM  10302  CZ AARG D 767      59.775 -17.625  -8.976  0.60 72.81           C
ATOM  10303  NH1AARG D 767      59.097 -16.666  -8.356  0.60 57.62           N
ATOM  10304  NH2AARG D 767      61.073 -17.472  -9.217  0.60 60.55           N
ATOM  10305  C   ARG D 767      61.690 -22.763  -9.828  1.00 60.62           C
ATOM  10306  O   ARG D 767      62.101 -21.987 -10.698  1.00 63.27           O
ATOM  10307  CA BARG D 767      60.193 -23.078  -9.776  0.40 54.35           C
ATOM  10308  CB BARG D 767      59.464 -22.015 -10.623  0.40 53.07           C
ATOM  10309  CG BARG D 767      58.783 -20.891  -9.834  0.40 59.57           C
ATOM  10310  CD BARG D 767      59.285 -19.512 -10.246  0.40 60.51           C
ATOM  10311  NE BARG D 767      58.793 -18.450  -9.363  0.40 63.19           N
ATOM  10312  CZ BARG D 767      57.512 -18.119  -9.216  0.40 71.39           C
ATOM  10313  NH1BARG D 767      57.176 -17.137  -8.390  0.40 57.60           N
ATOM  10314  NH2BARG D 767      56.571 -18.769  -9.889  0.40 59.51           N
ATOM  10315  N   GLY D 768      62.494 -23.346  -8.947  1.00 57.36           N
ATOM  10316  CA  GLY D 768      63.912 -23.012  -8.956  1.00 57.78           C
ATOM  10317  C   GLY D 768      64.103 -21.484  -9.083  1.00 63.96           C
ATOM  10318  O   GLY D 768      65.068 -20.879  -8.568  1.00 54.97           O
TER   10319      GLY D 768
HETATM10320 ZN    ZN I   1      38.624   6.040 -14.730  1.00 32.30          ZN+2
HETATM10321 ZN    ZN I   2      39.410  30.895  13.451  1.00 32.30          ZN+2
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HETATM10322 ZN    ZN I   3      23.213  39.982 -18.911  1.00 34.38          ZN+2
HETATM10323 ZN    ZN I   4      52.932 -24.034  19.863  1.00 38.63          ZN+2
HETATM10324 MG    MG I   5      41.766  27.889  14.117  1.00 26.62          MG+2
HETATM10325 MG    MG I   6      23.697  43.048 -16.491  1.00 30.77          MG+2
HETATM10326 MG    MG I   7      37.735   6.699 -18.468  1.00 31.26          MG+2
HETATM10327 MG    MG I   8      49.795 -26.265  20.694  1.00 39.06          MG+2
ATOM      1  OW0 HOH W   1      36.904   4.995 -19.633  1.00 22.17           O
ATOM      2  OW0 HOH W   2      35.873   7.204 -17.599  1.00 23.18           O
ATOM      3  OW0 HOH W   3      42.098  28.518   4.900  1.00 23.29           O
ATOM      4  OW0 HOH W   4      45.515  12.690   1.721  1.00 23.40           O
ATOM      5  OW0 HOH W   5      39.965  31.744   1.593  1.00 23.61           O
ATOM      6  OW0 HOH W   6      38.742  -5.300 -19.652  1.00 23.94           O
ATOM      7  OW0 HOH W   7      41.751  27.029  16.188  1.00 23.97           O
ATOM      8  OW0 HOH W   8      24.370  44.415 -17.850  1.00 24.21           O
ATOM      9  OW0 HOH W   9      37.349   7.914 -20.124  1.00 24.82           O
ATOM     10  OW0 HOH W  10      30.880  37.859 -13.878  1.00 24.84           O
ATOM     11  OW0 HOH W  11      30.245  23.753 -25.585  1.00 25.02           O
ATOM     12  OW0 HOH W  12      21.914  44.455 -16.413  1.00 25.03           O
ATOM     13  OW0 HOH W  13      39.966  26.705  13.707  1.00 25.06           O
ATOM     14  OW0 HOH W  14      49.742  37.278  23.043  1.00 25.28           O
ATOM     15  OW0 HOH W  15      48.595  -3.387 -21.747  1.00 25.38           O
ATOM     16  OW0 HOH W  16      39.588  15.349 -15.465  1.00 25.41           O
ATOM     17  OW0 HOH W  17      33.550  40.900  13.445  1.00 25.53           O
ATOM     18  OW0 HOH W  18      32.263  43.578   1.389  1.00 26.14           O
ATOM     19  OW0 HOH W  19      39.125  29.322  19.221  1.00 26.28           O
ATOM     20  OW0 HOH W  20      24.217  19.665 -24.044  1.00 26.59           O
ATOM     21  OW0 HOH W  21      24.465  44.210 -14.893  1.00 26.69           O
ATOM     22  OW0 HOH W  22      40.391  29.467  14.458  1.00 27.02           O
ATOM     23  OW0 HOH W  23      48.381  35.437  24.684  1.00 27.08           O
ATOM     24  OW0 HOH W  24      24.959  23.523 -21.947  1.00 27.08           O
ATOM     25  OW0 HOH W  25      41.161  17.018 -10.798  1.00 27.10           O
ATOM     26  OW0 HOH W  26      31.959  38.617  40.824  1.00 27.11           O
ATOM     27  OW0 HOH W  27      40.610  15.675  -7.046  1.00 27.28           O
ATOM     28  OW0 HOH W  28      32.607  33.310 -15.499  1.00 27.64           O
ATOM     29  OW0 HOH W  29      43.301  29.677  24.915  1.00 28.01           O
ATOM     30  OW0 HOH W  30      43.496  28.927  14.562  1.00 28.10           O
ATOM     31  OW0 HOH W  31      19.499  14.700 -15.109  1.00 28.22           O
ATOM     32  OW0 HOH W  32      61.804 -30.398  24.854  1.00 28.33           O
ATOM     33  OW0 HOH W  33      32.997  -5.902 -25.562  1.00 28.35           O
ATOM     34  OW0 HOH W  34      22.735  42.005 -15.119  1.00 28.38           O
ATOM     35  OW0 HOH W  35      18.227  43.529 -19.460  1.00 28.45           O
ATOM     36  OW0 HOH W  36      25.305  42.092   2.974  1.00 28.54           O
ATOM     37  OW0 HOH W  37      36.992  -1.413 -18.779  1.00 28.72           O
ATOM     38  OW0 HOH W  38      34.507  13.917 -20.922  1.00 29.04           O
ATOM     39  OW0 HOH W  39      35.158  33.478 -16.690  1.00 29.24           O
ATOM     40  OW0 HOH W  40      37.951   5.621 -16.876  1.00 29.37           O
ATOM     41  OW0 HOH W  41      28.979  15.335 -16.210  1.00 29.41           O
ATOM     42  OW0 HOH W  42      39.432   6.049 -19.314  1.00 29.74           O
ATOM     43  OW0 HOH W  43      23.659  21.667 -25.619  1.00 29.77           O
ATOM     44  OW0 HOH W  44      56.754 -31.402  24.360  1.00 29.93           O
ATOM     45  OW0 HOH W  45      16.747  49.792 -22.285  1.00 30.01           O
ATOM     46  OW0 HOH W  46      40.403  29.466  21.803  1.00 30.02           O
ATOM     47  OW0 HOH W  47      29.088  13.533   8.057  1.00 30.07           O
ATOM     48  OW0 HOH W  48      15.261  48.234 -23.845  1.00 30.14           O
ATOM     49  OW0 HOH W  49      38.650  -3.978 -21.956  1.00 30.24           O
ATOM     50  OW0 HOH W  50      40.356  40.395  -0.601  1.00 30.43           O
ATOM     51  OW0 HOH W  51      41.494  31.463  25.537  1.00 30.57           O
ATOM     52  OW0 HOH W  52      25.507  41.230  12.418  1.00 30.75           O
ATOM     53  OW0 HOH W  53      54.933  27.017  14.956  1.00 30.78           O
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ATOM     54  OW0 HOH W  54      31.964   6.390 -22.147  1.00 30.81           O
ATOM     55  OW0 HOH W  55      39.117  10.798   1.333  1.00 30.85           O
ATOM     56  OW0 HOH W  56      42.735  21.827   8.568  1.00 30.90           O
ATOM     57  OW0 HOH W  57      40.721   8.392   4.284  1.00 30.92           O
ATOM     58  OW0 HOH W  58      36.877  -6.159 -26.058  1.00 30.93           O
ATOM     59  OW0 HOH W  59      25.046  31.323 -17.219  1.00 31.00           O
ATOM     60  OW0 HOH W  60      17.300  25.469 -26.548  1.00 31.12           O
ATOM     61  OW0 HOH W  61      23.698  51.276 -29.503  1.00 31.13           O
ATOM     62  OW0 HOH W  62      71.486 -20.231  22.576  1.00 31.14           O
ATOM     63  OW0 HOH W  63      22.675  41.896 -17.988  1.00 31.28           O
ATOM     64  OW0 HOH W  64      39.207  10.211   5.654  1.00 31.32           O
ATOM     65  OW0 HOH W  65      36.457   0.870 -17.152  1.00 31.37           O
ATOM     66  OW0 HOH W  66      28.382   1.423  -5.248  1.00 31.53           O
ATOM     67  OW0 HOH W  67      29.262   6.112 -23.382  1.00 31.67           O
ATOM     68  OW0 HOH W  68      40.760  21.360  16.538  1.00 31.68           O
ATOM     69  OW0 HOH W  69      48.283  16.570  -5.522  1.00 31.70           O
ATOM     70  OW0 HOH W  70      43.637   7.780   4.256  1.00 31.91           O
ATOM     71  OW0 HOH W  71      48.713  18.353   3.757  0.60 32.24           O
ATOM     72  OW0 HOH W  72      23.934  36.810  -5.808  1.00 32.27           O
ATOM     73  OW0 HOH W  73      33.988  32.456   6.704  1.00 32.31           O
ATOM     74  OW0 HOH W  74      34.695  37.613  43.665  1.00 32.46           O
ATOM     75  OW0 HOH W  75      51.783  41.418  25.728  1.00 32.87           O
ATOM     76  OW0 HOH W  76      48.866 -28.108  21.093  1.00 32.93           O
ATOM     77  OW0 HOH W  77      18.904  44.723 -15.318  1.00 33.12           O
ATOM     78  OW0 HOH W  78      40.288  47.174  -0.596  1.00 33.29           O
ATOM     79  OW0 HOH W  79      48.757  31.021  23.943  1.00 33.29           O
ATOM     80  OW0 HOH W  80      25.224  29.927  16.165  1.00 33.47           O
ATOM     81  OW0 HOH W  81      35.960  29.525 -22.684  1.00 33.48           O
ATOM     82  OW0 HOH W  82      34.636  -6.022 -27.585  1.00 33.48           O
ATOM     83  OW0 HOH W  83      45.875  29.806  25.741  1.00 33.52           O
ATOM     84  OW0 HOH W  84      42.187 -18.627  18.482  1.00 33.54           O
ATOM     85  OW0 HOH W  85      64.382 -28.323  22.644  1.00 33.59           O
ATOM     86  OW0 HOH W  86      34.653  54.201  11.502  1.00 33.59           O
ATOM     87  OW0 HOH W  87      50.995 -24.689  19.924  1.00 33.83           O
ATOM     88  OW0 HOH W  88      14.161  30.891 -29.387  1.00 33.83           O
ATOM     89  OW0 HOH W  89      37.059  10.874  -7.554  1.00 33.89           O
ATOM     90  OW0 HOH W  90      23.687  29.055 -24.880  1.00 34.00           O
ATOM     91  OW0 HOH W  91      41.302   6.786  -2.649  1.00 34.04           O
ATOM     92  OW0 HOH W  92      30.960  30.140 -17.120  1.00 34.26           O
ATOM     93  OW0 HOH W  93      48.010 -25.724  19.496  1.00 34.26           O
ATOM     94  OW0 HOH W  94      18.842  35.413 -20.341  1.00 34.35           O
ATOM     95  OW0 HOH W  95      21.418  28.536 -23.486  1.00 34.47           O
ATOM     96  OW0 HOH W  96      29.976  19.310   3.528  1.00 34.53           O
ATOM     97  OW0 HOH W  97      39.699  41.648  39.958  1.00 34.53           O
ATOM     98  OW0 HOH W  98      21.141  51.868 -27.853  1.00 34.54           O
ATOM     99  OW0 HOH W  99      27.454  55.910 -32.495  1.00 34.64           O
ATOM    100  OW0 HOH W 100      49.074 -25.227  22.241  1.00 34.67           O
ATOM    101  OW0 HOH W 101      17.382  34.512   0.297  1.00 34.83           O
ATOM    102  OW0 HOH W 102      46.207  -4.531 -22.395  1.00 34.93           O
ATOM    103  OW0 HOH W 103      17.218  45.844 -20.766  1.00 34.93           O
ATOM    104  OW0 HOH W 104      42.961  26.293  13.458  1.00 34.98           O
ATOM    105  OW0 HOH W 105      37.773   1.647   2.128  1.00 35.08           O
ATOM    106  OW0 HOH W 106      20.116  45.714 -11.346  1.00 35.36           O
ATOM    107  OW0 HOH W 107      23.039  30.013 -27.078  1.00 35.59           O
ATOM    108  OW0 HOH W 108      21.606  32.307 -27.324  1.00 35.77           O
ATOM    109  OW0 HOH W 109      35.459   2.911   6.183  1.00 35.85           O
ATOM    110  OW0 HOH W 110      54.331  -3.803 -25.480  1.00 36.00           O
ATOM    111  OW0 HOH W 111      36.092  20.016   6.661  1.00 36.01           O
ATOM    112  OW0 HOH W 112      12.013  30.990 -17.289  1.00 36.05           O
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ATOM    113  OW0 HOH W 113      63.904 -19.382  15.635  1.00 36.06           O
ATOM    114  OW0 HOH W 114      48.684 -44.974  15.086  1.00 36.08           O
ATOM    115  OW0 HOH W 115      50.471 -34.503  20.967  1.00 36.26           O
ATOM    116  OW0 HOH W 116      31.933  39.766   8.973  1.00 36.31           O
ATOM    117  OW0 HOH W 117      29.954  38.655  10.002  1.00 36.34           O
ATOM    118  OW0 HOH W 118      33.881  33.729   1.638  1.00 36.39           O
ATOM    119  OW0 HOH W 119      14.840  30.673 -17.534  1.00 36.40           O
ATOM    120  OW0 HOH W 120      42.303  23.878  28.758  1.00 36.54           O
ATOM    121  OW0 HOH W 121      45.894 -20.116  17.046  1.00 36.54           O
ATOM    122  OW0 HOH W 122      14.285  54.307 -20.774  1.00 36.64           O
ATOM    123  OW0 HOH W 123      36.572  33.939   1.717  1.00 36.75           O
ATOM    124  OW0 HOH W 124      16.060  20.777 -25.362  1.00 36.84           O
ATOM    125  OW0 HOH W 125      35.803  29.628   0.460  1.00 36.89           O
ATOM    126  OW0 HOH W 126      61.156 -26.356  17.969  1.00 36.96           O
ATOM    127  OW0 HOH W 127      20.237  37.541  17.766  1.00 36.98           O
ATOM    128  OW0 HOH W 128      13.640  29.324 -31.827  1.00 37.05           O
ATOM    129  OW0 HOH W 129      50.492  -5.322 -22.930  1.00 37.10           O
ATOM    130  OW0 HOH W 130      23.665  53.121 -31.501  1.00 37.14           O
ATOM    131  OW0 HOH W 131      26.110  28.075 -39.481  1.00 37.18           O
ATOM    132  OW0 HOH W 132      29.922  -3.210 -25.312  1.00 37.23           O
ATOM    133  OW0 HOH W 133      38.781   5.742  -1.941  1.00 37.26           O
ATOM    134  OW0 HOH W 134      48.072 -21.654  17.030  1.00 37.34           O
ATOM    135  OW0 HOH W 135      34.613   1.226   8.065  1.00 37.35           O
ATOM    136  OW0 HOH W 136      28.091  47.021  19.260  1.00 37.38           O
ATOM    137  OW0 HOH W 137      20.932  41.038  10.133  1.00 37.48           O
ATOM    138  OW0 HOH W 138      33.240  34.629   8.485  1.00 37.54           O
ATOM    139  OW0 HOH W 139      28.790  37.153   6.381  1.00 37.75           O
ATOM    140  OW0 HOH W 140      38.903  -4.267  -1.382  1.00 37.76           O
ATOM    141  OW0 HOH W 141      17.522  32.796 -27.987  1.00 37.84           O
ATOM    142  OW0 HOH W 142      10.604  27.427 -26.014  1.00 37.86           O
ATOM    143  OW0 HOH W 143      25.204  17.431 -11.072  1.00 37.91           O
ATOM    144  OW0 HOH W 144      55.829  39.580  23.904  1.00 37.94           O
ATOM    145  OW0 HOH W 145      37.717   3.009   4.837  1.00 37.97           O
ATOM    146  OW0 HOH W 146      33.768   3.605 -19.650  1.00 38.00           O
ATOM    147  OW0 HOH W 147      60.636 -15.491  18.473  1.00 38.07           O
ATOM    148  OW0 HOH W 148      52.748  -6.887 -21.773  1.00 38.17           O
ATOM    149  OW0 HOH W 149      36.741   5.696  -3.640  1.00 38.18           O
ATOM    150  OW0 HOH W 150      42.472 -14.806  25.087  1.00 38.19           O
ATOM    151  OW0 HOH W 151      53.537 -40.093   6.504  1.00 38.23           O
ATOM    152  OW0 HOH W 152      41.843  33.206  -0.057  1.00 38.24           O
ATOM    153  OW0 HOH W 153      26.836  42.608   5.249  1.00 38.25           O
ATOM    154  OW0 HOH W 154      18.007  46.540  -9.012  1.00 38.26           O
ATOM    155  OW0 HOH W 155      51.515  38.633  24.894  1.00 38.27           O
ATOM    156  OW0 HOH W 156      15.544  20.180 -18.117  1.00 38.31           O
ATOM    157  OW0 HOH W 157      22.552  30.738  -3.604  1.00 38.36           O
ATOM    158  OW0 HOH W 158      50.599 -27.141  18.999  1.00 38.38           O
ATOM    159  OW0 HOH W 159       8.837  30.770 -36.114  1.00 38.38           O
ATOM    160  OW0 HOH W 160      54.623  41.946  25.099  1.00 38.48           O
ATOM    161  OW0 HOH W 161      29.708  39.794  32.649  1.00 38.49           O
ATOM    162  OW0 HOH W 162      37.202  17.884  -8.515  1.00 38.55           O
ATOM    163  OW0 HOH W 163      28.118  45.077   5.702  1.00 38.57           O
ATOM    164  OW0 HOH W 164      40.009  18.779  17.456  1.00 38.76           O
ATOM    165  OW0 HOH W 165      23.946  53.022 -34.315  1.00 38.86           O
ATOM    166  OW0 HOH W 166      31.052   6.524 -19.677  1.00 39.02           O
ATOM    167  OW0 HOH W 167      44.974  26.572  28.650  1.00 39.03           O
ATOM    168  OW0 HOH W 168      53.927  37.840  24.693  1.00 39.04           O
ATOM    169  OW0 HOH W 169      32.110  30.674 -14.905  1.00 39.05           O
ATOM    170  OW0 HOH W 170      67.109 -24.673  28.928  1.00 39.08           O
ATOM    171  OW0 HOH W 171      65.560 -14.953  11.750  1.00 39.13           O
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ATOM    172  OW0 HOH W 172      43.000  -2.628 -24.991  1.00 39.21           O
ATOM    173  OW0 HOH W 173      31.810  40.317  25.806  1.00 39.21           O
ATOM    174  OW0 HOH W 174      54.300 -36.435  15.293  1.00 39.22           O
ATOM    175  OW0 HOH W 175      26.971 -11.630 -10.948  1.00 39.25           O
ATOM    176  OW0 HOH W 176      39.944  24.371  13.510  1.00 39.34           O
ATOM    177  OW0 HOH W 177      43.932 -14.334  27.639  1.00 39.45           O
ATOM    178  OW0 HOH W 178      34.209  51.216 -12.680  1.00 39.46           O
ATOM    179  OW0 HOH W 179      37.358   9.247  -0.832  1.00 39.48           O
ATOM    180  OW0 HOH W 180      42.399   2.048  -4.605  1.00 39.68           O
ATOM    181  OW0 HOH W 181      39.288  -9.516  -7.628  1.00 39.72           O
ATOM    182  OW0 HOH W 182      20.809  38.729  -7.607  1.00 39.74           O
ATOM    183  OW0 HOH W 183      43.905  18.473 -11.119  1.00 39.76           O
ATOM    184  OW0 HOH W 184      27.184  42.640  -9.079  1.00 39.95           O
ATOM    185  OW0 HOH W 185      69.264 -21.929  16.622  1.00 40.08           O
ATOM    186  OW0 HOH W 186      53.232  14.816  -1.963  1.00 40.17           O
ATOM    187  OW0 HOH W 187      35.278 -10.605 -27.923  1.00 40.18           O
ATOM    188  OW0 HOH W 188      23.130  25.874 -21.039  1.00 40.26           O
ATOM    189  OW0 HOH W 189      39.931  17.911  -8.590  1.00 40.28           O
ATOM    190  OW0 HOH W 190      43.458 -16.294  17.626  1.00 40.38           O
ATOM    191  OW0 HOH W 191      41.196 -12.270  33.556  1.00 40.43           O
ATOM    192  OW0 HOH W 192      36.085   3.415  -9.508  1.00 40.43           O
ATOM    193  OW0 HOH W 193      43.251  20.814  19.847  1.00 40.48           O
ATOM    194  OW0 HOH W 194      45.219   8.302 -29.104  1.00 40.48           O
ATOM    195  OW0 HOH W 195      49.896  13.088 -28.541  1.00 40.51           O
ATOM    196  OW0 HOH W 196      22.503  38.810  18.300  1.00 40.56           O
ATOM    197  OW0 HOH W 197      26.812  30.750  13.868  1.00 40.77           O
ATOM    198  OW0 HOH W 198      36.364  20.758 -25.696  1.00 40.94           O
ATOM    199  OW0 HOH W 199      70.512 -19.439  31.574  1.00 41.01           O
ATOM    200  OW0 HOH W 200      24.694  22.632 -28.182  1.00 41.13           O
ATOM    201  OW0 HOH W 201      59.978  35.596  19.136  1.00 41.17           O
ATOM    202  OW0 HOH W 202      46.265  -7.920 -27.908  1.00 41.27           O
ATOM    203  OW0 HOH W 203      11.121  29.586 -32.135  1.00 41.29           O
ATOM    204  OW0 HOH W 204      33.227  32.790  14.543  1.00 41.38           O
ATOM    205  OW0 HOH W 205      31.204  40.452  16.568  1.00 41.42           O
ATOM    206  OW0 HOH W 206      17.807  52.294 -22.920  1.00 41.46           O
ATOM    207  OW0 HOH W 207      38.946  15.504  -5.076  1.00 41.47           O
ATOM    208  OW0 HOH W 208      39.923  24.999  18.142  1.00 41.50           O
ATOM    209  OW0 HOH W 209      37.437  27.447 -29.141  1.00 41.62           O
ATOM    210  OW0 HOH W 210      30.513   3.695  -5.074  1.00 41.78           O
ATOM    211  OW0 HOH W 211      28.257  39.213   3.619  1.00 41.78           O
ATOM    212  OW0 HOH W 212      26.378  28.148 -13.194  1.00 41.92           O
ATOM    213  OW0 HOH W 213      33.060  -3.634   1.330  1.00 42.16           O
ATOM    214  OW0 HOH W 214      31.519   8.424 -17.971  1.00 42.18           O
ATOM    215  OW0 HOH W 215      55.705  19.766 -14.045  1.00 42.25           O
ATOM    216  OW0 HOH W 216      35.628  44.280  38.457  1.00 42.37           O
ATOM    217  OW0 HOH W 217      23.871  31.234 -20.012  1.00 42.37           O
ATOM    218  OW0 HOH W 218      24.560  33.106   0.554  1.00 42.44           O
ATOM    219  OW0 HOH W 219      23.636  20.697 -15.108  1.00 42.49           O
ATOM    220  OW0 HOH W 220      38.069  29.013  14.012  1.00 42.49           O
ATOM    221  OW0 HOH W 221      37.580  31.706   0.064  1.00 42.49           O
ATOM    222  OW0 HOH W 222      34.999  10.205  -5.280  1.00 42.64           O
ATOM    223  OW0 HOH W 223      41.327  22.905   0.302  1.00 42.65           O
ATOM    224  OW0 HOH W 224      40.288  -4.095 -23.913  1.00 42.77           O
ATOM    225  OW0 HOH W 225      43.711 -31.274  14.718  1.00 42.79           O
ATOM    226  OW0 HOH W 226      45.424 -29.913  16.844  1.00 42.84           O
ATOM    227  OW0 HOH W 227       1.918  40.097 -21.572  1.00 42.90           O
ATOM    228  OW0 HOH W 228      11.822  52.544 -17.785  1.00 43.04           O
ATOM    229  OW0 HOH W 229      47.261 -50.134   8.714  1.00 43.10           O
ATOM    230  OW0 HOH W 230      54.948 -43.352   5.123  1.00 43.14           O
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ATOM    231  OW0 HOH W 231      48.801  33.003  25.783  1.00 43.19           O
ATOM    232  OW0 HOH W 232      21.047  32.750 -38.299  1.00 43.33           O
ATOM    233  OW0 HOH W 233      60.482 -10.282  37.805  1.00 43.34           O
ATOM    234  OW0 HOH W 234      18.030  22.848 -26.842  1.00 43.41           O
ATOM    235  OW0 HOH W 235      33.899   8.233 -19.235  1.00 43.52           O
ATOM    236  OW0 HOH W 236      32.488  14.892   2.022  1.00 43.60           O
ATOM    237  OW0 HOH W 237      70.936 -17.914  16.378  1.00 43.64           O
ATOM    238  OW0 HOH W 238      31.224  36.550   1.224  1.00 43.71           O
ATOM    239  OW0 HOH W 239      39.532  -5.281 -26.458  1.00 43.74           O
ATOM    240  OW0 HOH W 240      28.011  54.478  -2.053  1.00 43.75           O
ATOM    241  OW0 HOH W 241      32.774  56.906 -27.610  1.00 43.79           O
ATOM    242  OW0 HOH W 242      55.909 -34.378  30.021  1.00 43.82           O
ATOM    243  OW0 HOH W 243      24.457  26.059 -17.923  1.00 43.88           O
ATOM    244  OW0 HOH W 244      21.388  53.204 -23.910  1.00 43.88           O
ATOM    245  OW0 HOH W 245      46.937 -25.877  16.662  1.00 43.97           O
ATOM    246  OW0 HOH W 246      38.313  43.665  39.551  1.00 43.98           O
ATOM    247  OW0 HOH W 247      38.568  18.509 -24.244  1.00 43.98           O
ATOM    248  OW0 HOH W 248      42.282 -11.987  28.843  1.00 43.98           O
ATOM    249  OW0 HOH W 249      34.059   4.486 -22.039  1.00 44.01           O
ATOM    250  OW0 HOH W 250      44.766   3.054 -30.119  1.00 44.16           O
ATOM    251  OW0 HOH W 251      50.238  18.632  -5.317  1.00 44.25           O
ATOM    252  OW0 HOH W 252      36.443  31.174  40.261  1.00 44.26           O
ATOM    253  OW0 HOH W 253      37.885   6.352  -7.686  1.00 44.26           O
ATOM    254  OW0 HOH W 254      54.800 -21.296  46.328  1.00 44.27           O
ATOM    255  OW0 HOH W 255      13.460  55.111 -18.521  1.00 44.30           O
ATOM    256  OW0 HOH W 256      67.601  -5.837  24.880  1.00 44.37           O
ATOM    257  OW0 HOH W 257      32.507   3.566 -25.293  1.00 44.37           O
ATOM    258  OW0 HOH W 258      30.558  30.105 -12.959  1.00 44.38           O
ATOM    259  OW0 HOH W 259      58.006  33.744  18.652  1.00 44.41           O
ATOM    260  OW0 HOH W 260      37.762 -25.027  23.030  1.00 44.44           O
ATOM    261  OW0 HOH W 261      41.866  23.527  17.738  1.00 44.45           O
ATOM    262  OW0 HOH W 262      44.504 -11.756  49.138  1.00 44.50           O
ATOM    263  OW0 HOH W 263      43.470 -22.000 -17.052  1.00 44.52           O
ATOM    264  OW0 HOH W 264      38.725  28.861 -23.421  1.00 44.54           O
ATOM    265  OW0 HOH W 265      60.957  -7.800   9.085  1.00 44.59           O
ATOM    266  OW0 HOH W 266      33.807  34.254  11.087  1.00 44.73           O
ATOM    267  OW0 HOH W 267      27.998  58.484 -32.153  1.00 44.83           O
ATOM    268  OW0 HOH W 268      61.920  -8.808  12.104  1.00 44.92           O
ATOM    269  OW0 HOH W 269      59.014 -22.601   8.654  1.00 44.94           O
ATOM    270  OW0 HOH W 270      61.432 -13.302   6.323  1.00 45.07           O
ATOM    271  OW0 HOH W 271      27.966  41.936  19.163  1.00 45.10           O
ATOM    272  OW0 HOH W 272      35.887  31.056 -17.392  1.00 45.14           O
ATOM    273  OW0 HOH W 273      28.357  24.846 -18.962  1.00 45.18           O
ATOM    274  OW0 HOH W 274      40.342 -18.766  24.355  1.00 45.33           O
ATOM    275  OW0 HOH W 275      43.113  19.604 -18.925  1.00 45.34           O
ATOM    276  OW0 HOH W 276      56.051  48.447   7.782  1.00 45.41           O
ATOM    277  OW0 HOH W 277      12.435  32.185  -4.152  1.00 45.42           O
ATOM    278  OW0 HOH W 278      28.638  11.361 -16.975  1.00 45.48           O
ATOM    279  OW0 HOH W 279      44.431  -4.699 -24.560  1.00 45.58           O
ATOM    280  OW0 HOH W 280      37.740  52.620 -17.996  1.00 45.60           O
ATOM    281  OW0 HOH W 281      18.942  34.108  25.959  1.00 45.67           O
ATOM    282  OW0 HOH W 282      29.483  -4.232   4.498  1.00 45.68           O
ATOM    283  OW0 HOH W 283       5.523  41.646 -37.128  1.00 45.70           O
ATOM    284  OW0 HOH W 284      26.257  28.733 -16.242  1.00 45.75           O
ATOM    285  OW0 HOH W 285      26.832  44.512  18.900  1.00 45.76           O
ATOM    286  OW0 HOH W 286      38.468   8.476  -6.227  1.00 45.80           O
ATOM    287  OW0 HOH W 287      39.046  14.573  -1.096  1.00 45.82           O
ATOM    288  OW0 HOH W 288      37.431  -8.800 -26.857  1.00 45.83           O
ATOM    289  OW0 HOH W 289      68.554   2.705 -28.098  1.00 45.94           O
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ATOM    290  OW0 HOH W 290      21.080  39.424 -16.927  1.00 45.98           O
ATOM    291  OW0 HOH W 291      61.276 -23.302  17.625  1.00 46.06           O
ATOM    292  OW0 HOH W 292      29.025  29.925  -9.142  1.00 46.11           O
ATOM    293  OW0 HOH W 293      22.121  30.374   2.400  1.00 46.16           O
ATOM    294  OW0 HOH W 294      29.106  27.861 -16.840  1.00 46.18           O
ATOM    295  OW0 HOH W 295      21.232  55.501 -17.236  1.00 46.20           O
ATOM    296  OW0 HOH W 296      44.401  38.075 -23.660  1.00 46.28           O
ATOM    297  OW0 HOH W 297      20.658  20.810 -12.653  1.00 46.32           O
ATOM    298  OW0 HOH W 298      20.438  53.666 -26.243  1.00 46.43           O
ATOM    299  OW0 HOH W 299      17.522  52.301 -25.585  1.00 46.45           O
ATOM    300  OW0 HOH W 300      20.117  29.814 -21.368  1.00 46.58           O
ATOM    301  OW0 HOH W 301      42.955  21.042 -12.643  1.00 46.65           O
ATOM    302  OW0 HOH W 302      34.557  50.584  17.853  1.00 46.66           O
ATOM    303  OW0 HOH W 303      27.788  27.865  -9.792  1.00 46.69           O
ATOM    304  OW0 HOH W 304       9.196  60.390 -36.805  1.00 46.71           O
ATOM    305  OW0 HOH W 305      38.369 -24.192  12.380  1.00 46.73           O
ATOM    306  OW0 HOH W 306      43.028  14.247 -28.627  1.00 46.89           O
ATOM    307  OW0 HOH W 307      28.472  53.795  14.742  1.00 46.93           O
ATOM    308  OW0 HOH W 308      40.639   5.660   5.223  1.00 46.97           O
ATOM    309  OW0 HOH W 309      55.661  40.530  34.343  1.00 47.01           O
ATOM    310  OW0 HOH W 310      43.435  50.881  19.738  1.00 47.03           O
ATOM    311  OW0 HOH W 311      59.103 -22.159  16.789  1.00 47.10           O
ATOM    312  OW0 HOH W 312      64.589   6.040 -18.231  1.00 47.11           O
ATOM    313  OW0 HOH W 313      38.596  53.160  24.397  1.00 47.12           O
ATOM    314  OW0 HOH W 314      48.749 -29.683  18.538  1.00 47.19           O
ATOM    315  OW0 HOH W 315      54.057  45.272  24.828  1.00 47.34           O
ATOM    316  OW0 HOH W 316      40.338 -18.268  20.829  1.00 47.39           O
ATOM    317  OW0 HOH W 317      21.120  23.505 -29.189  1.00 47.46           O
ATOM    318  OW0 HOH W 318      39.898  52.028  27.986  1.00 47.47           O
ATOM    319  OW0 HOH W 319      55.015 -45.872   4.668  1.00 47.49           O
ATOM    320  OW0 HOH W 320      42.860  -6.127   1.348  1.00 47.57           O
ATOM    321  OW0 HOH W 321      15.388  19.488 -15.699  1.00 47.59           O
ATOM    322  OW0 HOH W 322      64.184 -30.999  23.378  1.00 47.61           O
ATOM    323  OW0 HOH W 323      52.195 -25.226  17.529  1.00 47.62           O
ATOM    324  OW0 HOH W 324      -0.790  34.099 -17.955  1.00 47.69           O
ATOM    325  OW0 HOH W 325      58.120  28.791   9.421  1.00 47.70           O
ATOM    326  OW0 HOH W 326      21.558  21.610 -27.484  1.00 47.72           O
ATOM    327  OW0 HOH W 327      30.698  -3.127   2.353  1.00 47.72           O
ATOM    328  OW0 HOH W 328      50.424 -12.927  -3.127  1.00 47.92           O
ATOM    329  OW0 HOH W 329      19.120  34.521   7.750  1.00 47.94           O
ATOM    330  OW0 HOH W 330      57.985  38.559  24.793  1.00 47.99           O
ATOM    331  OW0 HOH W 331      38.884  22.227 -14.400  1.00 48.00           O
ATOM    332  OW0 HOH W 332      17.372  38.235  18.156  1.00 48.02           O
ATOM    333  OW0 HOH W 333      40.110  -5.256   0.895  1.00 48.08           O
ATOM    334  OW0 HOH W 334      63.485 -32.434  20.918  1.00 48.10           O
ATOM    335  OW0 HOH W 335      62.541 -30.104  27.426  1.00 48.12           O
ATOM    336  OW0 HOH W 336      37.145 -20.775  14.005  1.00 48.12           O
ATOM    337  OW0 HOH W 337      37.040  40.478 -12.438  1.00 48.21           O
ATOM    338  OW0 HOH W 338      46.757 -27.224  13.998  1.00 48.23           O
ATOM    339  OW0 HOH W 339      40.872 -18.613  37.400  1.00 48.29           O
ATOM    340  OW0 HOH W 340      22.298  42.911 -12.898  1.00 48.34           O
ATOM    341  OW0 HOH W 341      36.571  13.289  -5.610  1.00 48.38           O
ATOM    342  OW0 HOH W 342      37.518  29.620  38.219  1.00 48.38           O
ATOM    343  OW0 HOH W 343      42.396   3.793   4.627  1.00 48.42           O
ATOM    344  OW0 HOH W 344      20.844  23.344 -13.089  1.00 48.43           O
ATOM    345  OW0 HOH W 345      34.297  15.586  -5.961  1.00 48.44           O
ATOM    346  OW0 HOH W 346      54.609   2.465 -29.207  1.00 48.46           O
ATOM    347  OW0 HOH W 347      35.632   5.354 -14.332  1.00 48.48           O
ATOM    348  OW0 HOH W 348      10.672  22.818 -25.599  1.00 48.49           O
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ATOM    349  OW0 HOH W 349      26.890  27.157 -43.854  1.00 48.60           O
ATOM    350  OW0 HOH W 350      34.090  -5.301   3.301  1.00 48.63           O
ATOM    351  OW0 HOH W 351      39.929 -11.967   1.150  1.00 48.63           O
ATOM    352  OW0 HOH W 352       9.036  25.670 -24.392  1.00 48.66           O
ATOM    353  OW0 HOH W 353      21.342  41.157  18.991  1.00 48.69           O
ATOM    354  OW0 HOH W 354      23.811  42.985  10.191  1.00 48.76           O
ATOM    355  OW0 HOH W 355      24.579  10.404 -23.125  1.00 48.77           O
ATOM    356  OW0 HOH W 356      32.760  32.727  39.498  1.00 48.79           O
ATOM    357  OW0 HOH W 357      54.212  17.760 -26.091  1.00 48.84           O
ATOM    358  OW0 HOH W 358       9.758  26.321 -28.347  1.00 48.86           O
ATOM    359  OW0 HOH W 359      20.033  36.329 -11.299  1.00 48.86           O
ATOM    360  OW0 HOH W 360      29.704  35.995  10.805  1.00 48.88           O
ATOM    361  OW0 HOH W 361      50.701   4.593 -30.750  1.00 48.90           O
ATOM    362  OW0 HOH W 362      41.685 -28.625  17.167  1.00 48.90           O
ATOM    363  OW0 HOH W 363      48.752  33.024  34.941  1.00 48.91           O
ATOM    364  OW0 HOH W 364      41.511  41.335  -2.692  1.00 48.94           O
ATOM    365  OW0 HOH W 365      37.879  43.047 -13.600  1.00 48.99           O
ATOM    366  OW0 HOH W 366      18.776  49.660 -12.189  1.00 49.01           O
ATOM    367  OW0 HOH W 367      48.747  10.842  14.964  1.00 49.09           O
ATOM    368  OW0 HOH W 368      42.154  19.142   2.074  1.00 49.11           O
ATOM    369  OW0 HOH W 369      40.216 -16.219  24.207  1.00 49.18           O
ATOM    370  OW0 HOH W 370      47.169  28.163  27.354  1.00 49.20           O
ATOM    371  OW0 HOH W 371      68.487 -14.522  11.911  1.00 49.23           O
ATOM    372  OW0 HOH W 372      20.286  46.535 -13.830  1.00 49.34           O
ATOM    373  OW0 HOH W 373      46.707  37.850  -3.072  1.00 49.37           O
ATOM    374  OW0 HOH W 374      68.785 -25.561  31.119  1.00 49.41           O
ATOM    375  OW0 HOH W 375      53.511   0.133   3.116  1.00 49.41           O
ATOM    376  OW0 HOH W 376      32.071  14.854 -34.204  1.00 49.42           O
ATOM    377  OW0 HOH W 377      42.616 -50.487   7.617  1.00 49.46           O
ATOM    378  OW0 HOH W 378      30.321  -9.023 -17.389  1.00 49.47           O
ATOM    379  OW0 HOH W 379       9.729  23.610 -28.547  1.00 49.48           O
ATOM    380  OW0 HOH W 380      63.169   8.616 -15.654  1.00 49.49           O
ATOM    381  OW0 HOH W 381      44.538  -9.717 -26.939  1.00 49.57           O
ATOM    382  OW0 HOH W 382      38.382  21.973  15.776  1.00 49.67           O
ATOM    383  OW0 HOH W 383      54.159  23.576   9.574  1.00 49.67           O
ATOM    384  OW0 HOH W 384      17.947  32.714   3.729  1.00 49.78           O
ATOM    385  OW0 HOH W 385      17.185  17.725 -14.986  1.00 49.80           O
ATOM    386  OW0 HOH W 386      68.477 -26.118  18.778  1.00 49.86           O
ATOM    387  OW0 HOH W 387      50.300  33.210  30.820  1.00 49.86           O
ATOM    388  OW0 HOH W 388      45.332  45.499  36.498  1.00 49.89           O
ATOM    389  OW0 HOH W 389      38.687   0.970 -29.770  1.00 49.90           O
ATOM    390  OW0 HOH W 390      29.531  34.141   4.219  1.00 49.98           O
ATOM    391  OW0 HOH W 391      20.212  16.915 -30.480  1.00 50.05           O
ATOM    392  OW0 HOH W 392      30.558   9.513 -13.000  1.00 50.15           O
ATOM    393  OW0 HOH W 393      66.621 -19.517  35.526  1.00 50.16           O
ATOM    394  OW0 HOH W 394      64.409 -27.283  17.815  1.00 50.21           O
ATOM    395  OW0 HOH W 395      31.397  30.078   2.365  1.00 50.24           O
ATOM    396  OW0 HOH W 396      70.760 -27.192  20.369  1.00 50.27           O
ATOM    397  OW0 HOH W 397      18.335  34.630 -43.214  1.00 50.30           O
ATOM    398  OW0 HOH W 398      35.305  34.935  -9.314  1.00 50.30           O
ATOM    399  OW0 HOH W 399      40.033 -16.307   9.353  1.00 50.33           O
ATOM    400  OW0 HOH W 400      33.572  31.161   0.597  1.00 50.33           O
ATOM    401  OW0 HOH W 401      60.873 -36.735  25.890  1.00 50.37           O
ATOM    402  OW0 HOH W 402      30.996  53.893 -17.559  1.00 50.40           O
ATOM    403  OW0 HOH W 403      54.971  -5.972 -23.883  1.00 50.49           O
ATOM    404  OW0 HOH W 404      61.908 -20.640  14.471  1.00 50.50           O
ATOM    405  OW0 HOH W 405      59.884 -10.551  12.222  1.00 50.55           O
ATOM    406  OW0 HOH W 406      41.752  44.697  -3.007  1.00 50.59           O
ATOM    407  OW0 HOH W 407      51.879   3.204 -28.481  1.00 50.60           O
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ATOM    408  OW0 HOH W 408      15.126  42.031  -2.117  1.00 50.66           O
ATOM    409  OW0 HOH W 409      56.014  -4.501  28.137  1.00 50.68           O
ATOM    410  OW0 HOH W 410      36.926  17.137  -6.063  1.00 50.71           O
ATOM    411  OW0 HOH W 411      63.300  13.817 -21.120  1.00 50.72           O
ATOM    412  OW0 HOH W 412      60.429  14.888 -23.551  1.00 50.81           O
ATOM    413  OW0 HOH W 413      51.843  40.211  -2.154  1.00 50.84           O
ATOM    414  OW0 HOH W 414      36.271 -13.903  25.817  1.00 50.86           O
ATOM    415  OW0 HOH W 415      58.519  48.214  11.102  1.00 50.87           O
ATOM    416  OW0 HOH W 416      43.893  50.021  21.824  1.00 50.88           O
ATOM    417  OW0 HOH W 417      33.675 -11.900 -26.808  1.00 50.96           O
ATOM    418  OW0 HOH W 418      58.495  21.838 -22.814  1.00 51.00           O
ATOM    419  OW0 HOH W 419      28.839  14.065   1.439  1.00 51.09           O
ATOM    420  OW0 HOH W 420      43.869  49.134 -19.506  1.00 51.17           O
ATOM    421  OW0 HOH W 421      50.780  29.497  24.512  1.00 51.18           O
ATOM    422  OW0 HOH W 422      -2.145  31.388 -15.267  1.00 51.23           O
ATOM    423  OW0 HOH W 423      45.083  20.697   7.244  1.00 51.31           O
ATOM    424  OW0 HOH W 424      54.619 -34.001   3.569  1.00 51.37           O
ATOM    425  OW0 HOH W 425      42.728  -9.700  30.164  1.00 51.38           O
ATOM    426  OW0 HOH W 426      22.806  29.092 -16.913  1.00 51.38           O
ATOM    427  OW0 HOH W 427      74.093 -26.914  22.142  1.00 51.39           O
ATOM    428  OW0 HOH W 428      37.031   4.681  -5.903  1.00 51.40           O
ATOM    429  OW0 HOH W 429      61.461  35.775  16.759  1.00 51.43           O
ATOM    430  OW0 HOH W 430      43.517  30.515  -1.979  1.00 51.44           O
ATOM    431  OW0 HOH W 431      62.203  -6.767  13.983  1.00 51.50           O
ATOM    432  OW0 HOH W 432      30.762  35.503   7.742  1.00 51.53           O
ATOM    433  OW0 HOH W 433      28.480  -0.839 -23.584  1.00 51.55           O
ATOM    434  OW0 HOH W 434      66.325 -22.225  15.365  1.00 51.58           O
ATOM    435  OW0 HOH W 435      49.872  51.906   9.807  1.00 51.60           O
ATOM    436  OW0 HOH W 436      21.621  49.154   4.300  1.00 51.63           O
ATOM    437  OW0 HOH W 437      41.894  58.720 -37.976  1.00 51.66           O
ATOM    438  OW0 HOH W 438      57.145  20.572 -25.793  1.00 51.72           O
ATOM    439  OW0 HOH W 439      11.016  38.821 -30.914  1.00 51.74           O
ATOM    440  OW0 HOH W 440      54.307  20.468  20.100  1.00 51.76           O
ATOM    441  OW0 HOH W 441      30.616  55.867  -1.237  1.00 51.83           O
ATOM    442  OW0 HOH W 442      45.129 -27.307  17.914  1.00 51.84           O
ATOM    443  OW0 HOH W 443      37.505  13.794  14.038  1.00 51.85           O
ATOM    444  OW0 HOH W 444      44.250  -7.133  33.424  1.00 51.96           O
ATOM    445  OW0 HOH W 445      52.190 -14.142  -6.133  1.00 52.04           O
ATOM    446  OW0 HOH W 446      36.144  27.021  31.318  1.00 52.07           O
ATOM    447  OW0 HOH W 447      16.198  39.478 -15.197  1.00 52.09           O
ATOM    448  OW0 HOH W 448      32.345  32.752   3.673  1.00 52.13           O
ATOM    449  OW0 HOH W 449      55.637  -5.283  -7.155  1.00 52.13           O
ATOM    450  OW0 HOH W 450      52.798 -23.720  15.804  1.00 52.21           O
ATOM    451  OW0 HOH W 451      12.875  35.857 -13.497  1.00 52.25           O
ATOM    452  OW0 HOH W 452      56.515 -45.759  12.274  1.00 52.27           O
ATOM    453  OW0 HOH W 453      42.243  26.166  -1.871  1.00 52.28           O
ATOM    454  OW0 HOH W 454      12.770  55.750 -22.948  1.00 52.30           O
ATOM    455  OW0 HOH W 455      40.801 -18.452  -7.389  1.00 52.35           O
ATOM    456  OW0 HOH W 456      63.548 -34.681  18.047  1.00 52.46           O
ATOM    457  OW0 HOH W 457      33.714  24.516  10.802  1.00 52.52           O
ATOM    458  OW0 HOH W 458      38.949   0.837   8.559  1.00 52.61           O
ATOM    459  OW0 HOH W 459      26.892  33.488   5.159  1.00 52.62           O
ATOM    460  OW0 HOH W 460      -0.396  25.468 -20.407  1.00 52.67           O
ATOM    461  OW0 HOH W 461      60.931  43.553   4.581  1.00 52.72           O
ATOM    462  OW0 HOH W 462      64.874   3.053  -0.591  1.00 52.77           O
ATOM    463  OW0 HOH W 463      30.583  49.198  24.621  1.00 52.83           O
ATOM    464  OW0 HOH W 464      61.799   5.271  -9.369  1.00 53.04           O
ATOM    465  OW0 HOH W 465      46.432 -22.973  39.948  1.00 53.12           O
ATOM    466  OW0 HOH W 466      33.920  13.336  15.336  1.00 53.20           O
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ATOM    467  OW0 HOH W 467      31.607  39.501  -4.273  1.00 53.25           O
ATOM    468  OW0 HOH W 468      58.874 -14.924  -5.635  1.00 53.27           O
ATOM    469  OW0 HOH W 469      13.849  19.588 -26.354  1.00 53.31           O
ATOM    470  OW0 HOH W 470      16.717  37.300 -16.316  1.00 53.39           O
ATOM    471  OW0 HOH W 471      33.039   3.637 -27.845  1.00 53.40           O
ATOM    472  OW0 HOH W 472       2.105  39.356 -28.144  1.00 53.43           O
ATOM    473  OW0 HOH W 473      62.220  -1.865  -4.788  1.00 53.47           O
ATOM    474  OW0 HOH W 474      37.557  34.875  -0.357  1.00 53.48           O
ATOM    475  OW0 HOH W 475      45.681 -11.073  -0.990  1.00 53.49           O
ATOM    476  OW0 HOH W 476       4.073  29.419  -7.207  1.00 53.52           O
ATOM    477  OW0 HOH W 477      44.897  -5.605 -26.847  1.00 53.59           O
ATOM    478  OW0 HOH W 478      29.207  12.462 -33.951  1.00 53.61           O
ATOM    479  OW0 HOH W 479      26.005 -11.315  -8.666  1.00 53.70           O
ATOM    480  OW0 HOH W 480      56.700 -42.786  12.393  1.00 53.87           O
ATOM    481  OW0 HOH W 481      25.886  35.529  -0.512  1.00 53.90           O
ATOM    482  OW0 HOH W 482      39.361  46.553  32.131  1.00 53.92           O
ATOM    483  OW0 HOH W 483      39.584  27.878 -25.939  1.00 53.96           O
ATOM    484  OW0 HOH W 484      28.982  56.900   0.626  1.00 53.97           O
ATOM    485  OW0 HOH W 485      36.979  -9.605  44.619  1.00 53.99           O
ATOM    486  OW0 HOH W 486      47.313  27.511   1.517  1.00 53.99           O
ATOM    487  OW0 HOH W 487      46.177  47.250 -30.127  1.00 54.02           O
ATOM    488  OW0 HOH W 488      29.925  15.537  -5.760  1.00 54.10           O
ATOM    489  OW0 HOH W 489      62.482 -10.691   6.289  1.00 54.11           O
ATOM    490  OW0 HOH W 490      16.602  54.471 -22.113  1.00 54.14           O
ATOM    491  OW0 HOH W 491      26.564  28.854  30.444  1.00 54.22           O
ATOM    492  OW0 HOH W 492      44.631   5.526 -30.109  1.00 54.26           O
ATOM    493  OW0 HOH W 493      53.301   8.481  12.153  1.00 54.36           O
ATOM    494  OW0 HOH W 494      38.757 -13.058  34.760  1.00 54.38           O
ATOM    495  OW0 HOH W 495      46.857  47.468  30.809  1.00 54.43           O
ATOM    496  OW0 HOH W 496      14.077  19.300 -28.973  1.00 54.47           O
ATOM    497  OW0 HOH W 497      58.743  21.312 -19.370  1.00 54.47           O
ATOM    498  OW0 HOH W 498      37.688 -18.367  20.239  1.00 54.48           O
ATOM    499  OW0 HOH W 499      14.627  16.658 -23.449  1.00 54.51           O
ATOM    500  OW0 HOH W 500      26.745 -10.214  -1.863  1.00 54.55           O
ATOM    501  OW0 HOH W 501      37.902   8.712  -3.513  1.00 54.60           O
ATOM    502  OW0 HOH W 502      50.748  39.957  39.923  1.00 54.70           O
ATOM    503  OW0 HOH W 503      21.234  46.213  11.313  1.00 54.71           O
ATOM    504  OW0 HOH W 504      20.074  39.630  25.762  1.00 54.75           O
ATOM    505  OW0 HOH W 505      59.872   3.702   3.043  1.00 54.75           O
ATOM    506  OW0 HOH W 506      40.124 -25.448  11.020  1.00 54.85           O
ATOM    507  OW0 HOH W 507      65.620 -28.098  19.869  1.00 54.88           O
ATOM    508  OW0 HOH W 508      36.470  33.641 -13.978  1.00 54.89           O
ATOM    509  OW0 HOH W 509      32.935  31.662 -39.704  1.00 54.90           O
ATOM    510  OW0 HOH W 510      43.301  33.483  -3.209  1.00 54.94           O
ATOM    511  OW0 HOH W 511      44.579  19.889  -1.382  1.00 54.95           O
ATOM    512  OW0 HOH W 512      32.142  27.400   0.141  1.00 54.99           O
ATOM    513  OW0 HOH W 513      31.004 -10.132 -20.312  1.00 55.02           O
ATOM    514  OW0 HOH W 514      19.801   3.119 -16.678  1.00 55.05           O
ATOM    515  OW0 HOH W 515      11.990  52.914 -40.922  1.00 55.10           O
ATOM    516  OW0 HOH W 516      26.977  53.047 -37.851  1.00 55.14           O
ATOM    517  OW0 HOH W 517      44.649  25.812  33.456  1.00 55.18           O
ATOM    518  OW0 HOH W 518      45.274  27.391  31.381  1.00 55.22           O
ATOM    519  OW0 HOH W 519      34.770  15.008   2.983  1.00 55.26           O
ATOM    520  OW0 HOH W 520      26.497   9.357   1.507  1.00 55.44           O
ATOM    521  OW0 HOH W 521      39.357 -29.090  18.616  1.00 55.50           O
ATOM    522  OW0 HOH W 522      11.816  50.850 -14.088  1.00 55.54           O
ATOM    523  OW0 HOH W 523      24.419  46.143  22.447  1.00 55.60           O
ATOM    524  OW0 HOH W 524      44.215  18.951  -8.488  1.00 55.60           O
ATOM    525  OW0 HOH W 525      33.239  12.774   0.609  1.00 55.61           O
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ATOM    526  OW0 HOH W 526      41.745  -9.739  33.140  1.00 55.67           O
ATOM    527  OW0 HOH W 527      59.422 -30.781  38.765  1.00 55.79           O
ATOM    528  OW0 HOH W 528      52.273 -25.536   8.420  1.00 55.83           O
ATOM    529  OW0 HOH W 529      22.271  15.384 -30.751  1.00 55.85           O
ATOM    530  OW0 HOH W 530      25.182  55.667 -31.012  1.00 56.05           O
ATOM    531  OW0 HOH W 531      16.733  35.638   8.712  1.00 56.10           O
ATOM    532  OW0 HOH W 532      66.647  10.039  -8.742  1.00 56.23           O
ATOM    533  OW0 HOH W 533       4.682  20.863 -11.032  1.00 56.35           O
ATOM    534  OW0 HOH W 534      50.129   0.349 -32.651  1.00 56.41           O
ATOM    535  OW0 HOH W 535      53.680 -13.206  42.936  1.00 56.46           O
ATOM    536  OW0 HOH W 536      28.034  -9.258 -20.514  1.00 56.50           O
ATOM    537  OW0 HOH W 537      34.508   9.127  -1.319  1.00 56.52           O
ATOM    538  OW0 HOH W 538      30.143  41.612  34.316  1.00 56.60           O
ATOM    539  OW0 HOH W 539      64.553 -29.084  34.168  1.00 56.80           O
ATOM    540  OW0 HOH W 540      21.677  48.082   6.700  1.00 56.83           O
ATOM    541  OW0 HOH W 541      54.735  31.380   2.727  1.00 56.84           O
ATOM    542  OW0 HOH W 542      49.352  45.386  -2.449  1.00 56.84           O
ATOM    543  OW0 HOH W 543      32.092   4.773   9.810  1.00 56.89           O
ATOM    544  OW0 HOH W 544      31.066  10.422 -16.541  1.00 56.91           O
ATOM    545  OW0 HOH W 545      37.473  22.945  18.367  1.00 56.96           O
ATOM    546  OW0 HOH W 546       2.949  26.764  -8.156  1.00 56.97           O
ATOM    547  OW0 HOH W 547      44.129  -0.938  29.391  1.00 57.08           O
ATOM    548  OW0 HOH W 548      28.704 -15.058  -2.276  1.00 57.16           O
ATOM    549  OW0 HOH W 549      55.101  37.602  34.360  1.00 57.17           O
ATOM    550  OW0 HOH W 550      24.631  27.504 -42.330  1.00 57.28           O
ATOM    551  OW0 HOH W 551      51.258 -33.441  13.883  1.00 57.28           O
ATOM    552  OW0 HOH W 552      54.400  26.503   7.422  1.00 57.28           O
ATOM    553  OW0 HOH W 553      38.237 -14.192  36.935  1.00 57.30           O
ATOM    554  OW0 HOH W 554      47.798 -32.481  33.717  1.00 57.37           O
ATOM    555  OW0 HOH W 555      61.074  39.649   4.953  1.00 57.44           O
ATOM    556  OW0 HOH W 556      22.621  24.881  10.266  1.00 57.47           O
ATOM    557  OW0 HOH W 557      38.155  32.897  -2.524  1.00 57.48           O
ATOM    558  OW0 HOH W 558      18.321  37.984 -43.496  1.00 57.50           O
ATOM    559  OW0 HOH W 559      49.344 -19.414 -17.454  1.00 57.52           O
ATOM    560  OW0 HOH W 560      48.725  31.539  29.235  1.00 57.53           O
ATOM    561  OW0 HOH W 561      21.702  32.877 -20.286  1.00 57.53           O
ATOM    562  OW0 HOH W 562      22.530  16.070 -34.775  1.00 57.76           O
ATOM    563  OW0 HOH W 563      55.898 -37.471  17.352  1.00 57.82           O
ATOM    564  OW0 HOH W 564      21.606  26.912   9.473  1.00 57.82           O
ATOM    565  OW0 HOH W 565      29.365  21.993  23.231  1.00 57.92           O
ATOM    566  OW0 HOH W 566      65.480  44.013  10.512  1.00 58.00           O
ATOM    567  OW0 HOH W 567      35.404  -8.272   7.186  1.00 58.07           O
ATOM    568  OW0 HOH W 568      16.831  10.628  -2.531  1.00 58.07           O
ATOM    569  OW0 HOH W 569      36.689 -19.040  17.308  1.00 58.13           O
ATOM    570  OW0 HOH W 570      14.039  26.995  -9.273  1.00 58.19           O
ATOM    571  OW0 HOH W 571      28.945  24.954  17.315  1.00 58.23           O
ATOM    572  OW0 HOH W 572      56.350  22.629  18.289  1.00 58.28           O
ATOM    573  OW0 HOH W 573      24.595  55.586   3.885  1.00 58.36           O
ATOM    574  OW0 HOH W 574       9.917  40.257 -12.162  1.00 58.37           O
ATOM    575  OW0 HOH W 575      58.255  38.500  -2.298  1.00 58.38           O
ATOM    576  OW0 HOH W 576      32.265  27.303  31.783  1.00 58.40           O
ATOM    577  OW0 HOH W 577      58.379 -34.983  29.611  1.00 58.43           O
ATOM    578  OW0 HOH W 578      36.277  12.223  -2.055  1.00 58.53           O
ATOM    579  OW0 HOH W 579      41.167  53.379 -33.911  1.00 58.53           O
ATOM    580  OW0 HOH W 580      37.316  36.063 -10.736  1.00 58.58           O
ATOM    581  OW0 HOH W 581      45.556  21.809 -11.081  1.00 58.67           O
ATOM    582  OW0 HOH W 582      31.278   3.213 -14.994  1.00 58.68           O
ATOM    583  OW0 HOH W 583      48.987  47.106  -5.152  1.00 58.68           O
ATOM    584  OW0 HOH W 584      18.061  27.085  -0.546  1.00 58.70           O
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ATOM    585  OW0 HOH W 585      73.626  -6.642  16.122  1.00 58.84           O
ATOM    586  OW0 HOH W 586      46.225 -13.993   2.345  1.00 58.90           O
ATOM    587  OW0 HOH W 587      24.844  30.166   4.175  1.00 58.91           O
ATOM    588  OW0 HOH W 588      54.811 -34.159  35.809  1.00 58.92           O
ATOM    589  OW0 HOH W 589      34.940  36.111 -46.127  1.00 58.98           O
ATOM    590  OW0 HOH W 590      62.813   4.827 -16.956  1.00 59.01           O
ATOM    591  OW0 HOH W 591      45.372  46.858   0.124  1.00 59.02           O
ATOM    592  OW0 HOH W 592      15.700  27.110   5.350  1.00 59.11           O
ATOM    593  OW0 HOH W 593      47.971 -38.835  29.323  1.00 59.14           O
ATOM    594  OW0 HOH W 594      35.359 -33.131  27.708  1.00 59.22           O
ATOM    595  OW0 HOH W 595      53.259 -14.335 -27.466  1.00 59.22           O
ATOM    596  OW0 HOH W 596      26.193  55.099 -34.717  1.00 59.38           O
ATOM    597  OW0 HOH W 597      51.786  -4.627 -29.416  1.00 59.43           O
ATOM    598  OW0 HOH W 598      32.994  20.240 -14.143  1.00 59.44           O
ATOM    599  OW0 HOH W 599      21.369  50.600 -42.578  1.00 59.71           O
ATOM    600  OW0 HOH W 600      46.040 -16.480  45.950  1.00 59.71           O
ATOM    601  OW0 HOH W 601      53.484  21.444 -13.770  1.00 59.74           O
ATOM    602  OW0 HOH W 602      31.802  58.988   6.811  1.00 59.75           O
ATOM    603  OW0 HOH W 603      46.422  16.302  16.019  1.00 59.83           O
ATOM    604  OW0 HOH W 604      23.021   9.628  -4.521  1.00 59.84           O
ATOM    605  OW0 HOH W 605       6.048  21.306 -17.440  1.00 59.85           O
ATOM    606  OW0 HOH W 606      36.268  14.601  -0.433  1.00 59.90           O
ATOM    607  OW0 HOH W 607       2.892  17.588 -15.862  1.00 59.95           O
ATOM    608  OW0 HOH W 608      30.342  17.437 -15.928  1.00 59.97           O
ATOM    609  OW0 HOH W 609      33.537  56.685  12.931  1.00 59.98           O
ATOM    610  OW0 HOH W 610      35.280  52.317  26.360  1.00 60.09           O
ATOM    611  OW0 HOH W 611      48.382 -15.787  45.137  1.00 60.15           O
ATOM    612  OW0 HOH W 612      30.625  32.572   6.699  1.00 60.16           O
ATOM    613  OW0 HOH W 613      53.621 -12.839  -3.270  1.00 60.19           O
ATOM    614  OW0 HOH W 614       6.383  48.653 -20.529  1.00 60.21           O
ATOM    615  OW0 HOH W 615      70.106 -23.312  32.805  1.00 60.27           O
ATOM    616  OW0 HOH W 616      15.529  32.771   7.352  1.00 60.36           O
ATOM    617  OW0 HOH W 617      66.626 -13.893   4.720  1.00 60.37           O
ATOM    618  OW0 HOH W 618      22.538  40.482  28.074  1.00 60.46           O
ATOM    619  OW0 HOH W 619      63.937   6.518 -25.112  1.00 60.52           O
ATOM    620  OW0 HOH W 620      66.032 -25.454  15.535  1.00 60.59           O
ATOM    621  OW0 HOH W 621      67.167  -5.247  46.414  1.00 60.63           O
ATOM    622  OW0 HOH W 622      16.758  40.403   8.047  1.00 60.70           O
ATOM    623  OW0 HOH W 623      14.294  28.155  10.140  1.00 60.83           O
ATOM    624  OW0 HOH W 624      45.900  15.636 -26.938  1.00 60.83           O
ATOM    625  OW0 HOH W 625      60.721  -3.417 -12.030  1.00 60.88           O
ATOM    626  OW0 HOH W 626      31.819  49.938  29.814  1.00 60.90           O
ATOM    627  OW0 HOH W 627      52.472  32.998  29.396  1.00 60.92           O
ATOM    628  OW0 HOH W 628      45.450  23.068  32.069  1.00 60.95           O
ATOM    629  OW0 HOH W 629      45.560 -16.284  48.824  1.00 61.02           O
ATOM    630  OW0 HOH W 630      54.755  61.447   4.410  1.00 61.06           O
ATOM    631  OW0 HOH W 631      32.150   3.726 -12.169  1.00 61.14           O
ATOM    632  OW0 HOH W 632       9.026  34.340  -6.883  1.00 61.22           O
ATOM    633  OW0 HOH W 633      44.522  27.423  -2.273  1.00 61.22           O
ATOM    634  OW0 HOH W 634      29.015  40.100 -43.557  1.00 61.32           O
ATOM    635  OW0 HOH W 635      68.868 -27.662  16.117  1.00 61.44           O
ATOM    636  OW0 HOH W 636      39.460  32.553 -30.748  1.00 61.46           O
ATOM    637  OW0 HOH W 637      55.559 -49.369  12.833  1.00 61.52           O
ATOM    638  OW0 HOH W 638      31.586   6.761 -13.460  1.00 61.64           O
ATOM    639  OW0 HOH W 639      53.768   0.196   8.643  1.00 61.71           O
ATOM    640  OW0 HOH W 640      22.061  51.349   6.970  1.00 61.74           O
ATOM    641  OW0 HOH W 641       2.694  31.107  -4.557  1.00 61.75           O
ATOM    642  OW0 HOH W 642      38.037   0.266  15.372  1.00 61.83           O
ATOM    643  OW0 HOH W 643      49.222  12.773  16.891  1.00 61.97           O
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ATOM    644  OW0 HOH W 644      17.482  55.852 -26.136  1.00 61.98           O
ATOM    645  OW0 HOH W 645      16.741  22.538 -33.022  1.00 61.99           O
ATOM    646  OW0 HOH W 646      35.064   3.756 -16.571  1.00 62.01           O
ATOM    647  OW0 HOH W 647      46.832 -21.529 -25.116  1.00 62.03           O
ATOM    648  OW0 HOH W 648      50.509  52.505   6.687  1.00 62.05           O
ATOM    649  OW0 HOH W 649      30.099  12.722  -0.894  1.00 62.14           O
ATOM    650  OW0 HOH W 650      33.084  62.833 -38.670  1.00 62.24           O
ATOM    651  OW0 HOH W 651      43.384 -13.769 -27.392  1.00 62.33           O
ATOM    652  OW0 HOH W 652      16.821  20.811   8.869  1.00 62.35           O
ATOM    653  OW0 HOH W 653      74.437  -4.507  24.622  1.00 62.35           O
ATOM    654  OW0 HOH W 654      56.445 -13.539 -16.137  1.00 62.45           O
ATOM    655  OW0 HOH W 655       2.651  52.776 -40.195  1.00 62.48           O
ATOM    656  OW0 HOH W 656      44.678  35.918  -3.871  1.00 62.61           O
ATOM    657  OW0 HOH W 657      27.845  10.272  14.435  1.00 62.68           O
ATOM    658  OW0 HOH W 658      15.565   1.397  -6.510  1.00 62.70           O
ATOM    659  OW0 HOH W 659      39.640   1.786   5.824  1.00 62.73           O
ATOM    660  OW0 HOH W 660      39.660   0.610  21.309  1.00 62.76           O
ATOM    661  OW0 HOH W 661      34.857  48.350  -7.478  1.00 62.77           O
ATOM    662  OW0 HOH W 662      53.504  -4.209  27.342  1.00 62.84           O
ATOM    663  OW0 HOH W 663      52.977 -24.083  12.264  1.00 63.13           O
ATOM    664  OW0 HOH W 664      24.927  58.103   2.018  1.00 63.16           O
ATOM    665  OW0 HOH W 665      -4.379  30.162 -17.007  1.00 63.17           O
ATOM    666  OW0 HOH W 666      36.315   3.824  16.151  1.00 63.21           O
ATOM    667  OW0 HOH W 667      40.833 -13.410  31.010  1.00 63.26           O
ATOM    668  OW0 HOH W 668      48.687  41.688 -33.450  1.00 63.56           O
ATOM    669  OW0 HOH W 669       7.665  57.339 -40.222  1.00 63.60           O
ATOM    670  OW0 HOH W 670      21.017  59.713 -31.015  1.00 63.67           O
ATOM    671  OW0 HOH W 671      49.752 -25.820  46.009  1.00 63.75           O
ATOM    672  OW0 HOH W 672      14.783  12.419  -7.721  1.00 63.77           O
ATOM    673  OW0 HOH W 673      22.756  17.698 -37.435  1.00 63.78           O
ATOM    674  OW0 HOH W 674      21.818  26.239 -17.605  1.00 63.79           O
ATOM    675  OW0 HOH W 675      61.962   8.891 -26.755  1.00 63.88           O
ATOM    676  OW0 HOH W 676      45.187 -31.528  12.617  1.00 63.92           O
ATOM    677  OW0 HOH W 677      16.225  26.058   7.322  1.00 64.10           O
ATOM    678  OW0 HOH W 678      29.346  57.817   8.749  1.00 64.15           O
ATOM    679  OW0 HOH W 679      46.697  48.437  -6.490  1.00 64.16           O
ATOM    680  OW0 HOH W 680      45.261  35.471 -46.582  1.00 64.23           O
ATOM    681  OW0 HOH W 681      69.948  42.372  16.277  1.00 64.24           O
ATOM    682  OW0 HOH W 682      67.145 -11.992  44.978  1.00 64.25           O
ATOM    683  OW0 HOH W 683      33.916 -18.384  -9.358  1.00 64.39           O
ATOM    684  OW0 HOH W 684      50.944 -13.796 -29.633  1.00 64.62           O
ATOM    685  OW0 HOH W 685      53.564   1.324 -31.892  1.00 64.69           O
ATOM    686  OW0 HOH W 686      35.368  10.010 -37.600  1.00 64.70           O
ATOM    687  OW0 HOH W 687      70.575  12.726  -3.071  1.00 64.84           O
ATOM    688  OW0 HOH W 688      20.353  11.115  -2.124  1.00 64.95           O
ATOM    689  OW0 HOH W 689      60.794 -30.066   4.257  1.00 65.03           O
ATOM    690  OW0 HOH W 690      40.913  56.730  16.022  1.00 65.06           O
ATOM    691  OW0 HOH W 691       9.681  27.095 -31.039  1.00 65.11           O
ATOM    692  OW0 HOH W 692      25.876  45.955  25.634  1.00 65.12           O
ATOM    693  OW0 HOH W 693      50.286  20.778 -10.931  1.00 65.33           O
ATOM    694  OW0 HOH W 694      13.750  25.841 -11.837  1.00 65.38           O
ATOM    695  OW0 HOH W 695      48.719  21.814   4.821  1.00 65.51           O
ATOM    696  OW0 HOH W 696      -1.664  21.096 -16.886  1.00 65.71           O
ATOM    697  OW0 HOH W 697      19.008  22.357   8.068  1.00 65.72           O
ATOM    698  OW0 HOH W 698      19.471  42.440  24.978  1.00 65.73           O
ATOM    699  OW0 HOH W 699      -2.770  27.625 -15.233  1.00 65.81           O
ATOM    700  OW0 HOH W 700      46.286  -0.238  29.813  1.00 65.83           O
ATOM    701  OW0 HOH W 701      52.228 -17.239 -28.215  1.00 65.88           O
ATOM    702  OW0 HOH W 702      59.589  -9.864  -9.175  1.00 65.90           O
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ATOM    703  OW0 HOH W 703      58.394  -7.269  -8.270  1.00 65.96           O
ATOM    704  OW0 HOH W 704      35.750  11.213  17.332  1.00 66.22           O
ATOM    705  OW0 HOH W 705      52.300  58.975   3.371  1.00 66.27           O
ATOM    706  OW0 HOH W 706      27.483   2.748 -11.217  1.00 66.45           O
ATOM    707  OW0 HOH W 707      61.781  50.717  16.999  1.00 66.64           O
ATOM    708  OW0 HOH W 708      45.951 -20.979  -0.161  1.00 66.67           O
ATOM    709  OW0 HOH W 709      56.053 -13.561  -5.169  1.00 66.74           O
ATOM    710  OW0 HOH W 710      63.558   5.824 -27.439  1.00 66.89           O
ATOM    711  OW0 HOH W 711       6.923  40.275 -12.146  1.00 66.93           O
ATOM    712  OW0 HOH W 712       8.353  20.072 -16.701  1.00 67.02           O
ATOM    713  OW0 HOH W 713      39.972  49.714  -7.843  1.00 67.21           O
ATOM    714  OW0 HOH W 714      43.229  48.678  -6.899  1.00 67.25           O
ATOM    715  OW0 HOH W 715      14.124  32.179  13.021  1.00 67.64           O
ATOM    716  OW0 HOH W 716      14.744  55.186 -15.116  1.00 67.70           O
ATOM    717  OW0 HOH W 717      68.374 -11.142  49.214  1.00 67.82           O
ATOM    718  OW0 HOH W 718      65.802 -10.165  49.533  1.00 68.00           O
ATOM    719  OW0 HOH W 719      41.107 -47.151  13.098  1.00 68.05           O
ATOM    720  OW0 HOH W 720      24.565   7.944  -3.171  1.00 68.10           O
ATOM    721  OW0 HOH W 721      46.954  51.740  -6.563  1.00 68.15           O
ATOM    722  OW0 HOH W 722      68.213 -13.896  46.337  1.00 68.18           O
ATOM    723  OW0 HOH W 723      31.467   8.967 -29.927  1.00 68.22           O
ATOM    724  OW0 HOH W 724      25.873  58.721   9.112  1.00 68.60           O
ATOM    725  OW0 HOH W 725      48.666  49.757  -4.480  1.00 68.65           O
ATOM    726  OW0 HOH W 726      22.190  36.992 -43.488  1.00 68.84           O
ATOM    727  OW0 HOH W 727      46.635  49.452 -19.952  1.00 68.92           O
ATOM    728  OW0 HOH W 728      23.145  49.465 -44.236  1.00 69.12           O
ATOM    729  OW0 HOH W 729      27.191  39.161  33.304  1.00 69.39           O
ATOM    730  OW0 HOH W 730      12.054  55.990 -14.287  1.00 69.75           O
ATOM    731  OW0 HOH W 731      17.336  14.683 -30.562  1.00 69.84           O
ATOM    732  OW0 HOH W 732      14.938  12.418 -28.329  1.00 69.85           O
END
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Fig. 2

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CRYST1  136.963  136.963  237.361  90.00  90.00 120.00 H 3
ATOM      1  N   LEU A 459      76.293  14.296  44.893  1.00 67.94           N
ATOM      2  CA  LEU A 459      75.433  13.295  45.517  1.00 67.61           C
ATOM      3  CB  LEU A 459      74.542  13.938  46.581  1.00 67.72           C
ATOM      4  CG  LEU A 459      75.239  14.417  47.857  1.00 72.57           C
ATOM      5  CD1 LEU A 459      74.216  14.770  48.929  1.00 72.74           C
ATOM      6  CD2 LEU A 459      76.216  13.368  48.366  1.00 75.01           C
ATOM      7  C   LEU A 459      74.575  12.572  44.483  1.00 70.53           C
ATOM      8  O   LEU A 459      73.609  11.893  44.833  1.00 70.09           O
ATOM      9  N   MET A 460      74.933  12.722  43.212  1.00 66.29           N
ATOM     10  CA  MET A 460      74.196  12.085  42.126  1.00 65.69           C
ATOM     11  CB  MET A 460      73.915  13.085  41.007  1.00 68.12           C
ATOM     12  CG  MET A 460      72.448  13.421  40.839  1.00 71.95           C
ATOM     13  SD  MET A 460      72.165  14.605  39.515  1.00 76.42           S
ATOM     14  CE  MET A 460      73.796  15.368  39.375  1.00 73.16           C
ATOM     15  C   MET A 460      74.953  10.885  41.571  1.00 68.25           C
ATOM     16  O   MET A 460      75.552  10.956  40.495  1.00 67.88           O
ATOM     17  N   GLN A 461      74.916   9.784  42.314  1.00 63.32           N
ATOM     18  CA  GLN A 461      75.597   8.561  41.915  1.00 62.38           C
ATOM     19  CB  GLN A 461      75.695   7.597  43.101  1.00 63.85           C
ATOM     20  CG  GLN A 461      77.106   7.404  43.629  1.00 81.63           C
ATOM     21  CD  GLN A 461      78.158   7.937  42.676  1.00102.04           C
ATOM     22  OE1 GLN A 461      78.885   7.171  42.043  1.00 97.90           O
ATOM     23  NE2 GLN A 461      78.236   9.258  42.560  1.00 93.96           N
ATOM     24  C   GLN A 461      74.892   7.876  40.749  1.00 64.02           C
ATOM     25  O   GLN A 461      73.664   7.778  40.722  1.00 63.75           O
ATOM     26  N   PHE A 462      75.678   7.400  39.789  1.00 58.40           N
ATOM     27  CA  PHE A 462      75.136   6.689  38.640  1.00 56.96           C
ATOM     28  CB  PHE A 462      76.057   6.854  37.432  1.00 58.71           C
ATOM     29  CG  PHE A 462      75.531   7.801  36.395  1.00 60.39           C
ATOM     30  CD1 PHE A 462      76.039   9.084  36.291  1.00 63.56           C
ATOM     31  CE1 PHE A 462      75.557   9.962  35.338  1.00 64.47           C
ATOM     32  CZ  PHE A 462      74.555   9.563  34.476  1.00 63.72           C
ATOM     33  CE2 PHE A 462      74.038   8.283  34.569  1.00 65.69           C
ATOM     34  CD2 PHE A 462      74.526   7.410  35.526  1.00 62.81           C
ATOM     35  C   PHE A 462      75.019   5.215  39.001  1.00 58.05           C
ATOM     36  O   PHE A 462      75.963   4.623  39.526  1.00 57.63           O
ATOM     37  N   THR A 463      73.855   4.628  38.741  1.00 52.58           N
ATOM     38  CA  THR A 463      73.636   3.217  39.045  1.00 51.33           C
ATOM     39  CB  THR A 463      72.700   3.025  40.263  1.00 59.12           C
ATOM     40  OG1 THR A 463      71.347   3.311  39.886  1.00 58.40           O
ATOM     41  CG2 THR A 463      73.112   3.945  41.408  1.00 57.68           C
ATOM     42  C   THR A 463      73.129   2.463  37.824  1.00 52.05           C
ATOM     43  O   THR A 463      72.329   2.984  37.051  1.00 51.47           O
ATOM     44  N   LEU A 464      73.609   1.237  37.649  1.00 46.49           N
ATOM     45  CA  LEU A 464      73.186   0.407  36.531  1.00 45.19           C
ATOM     46  CB  LEU A 464      74.396  -0.228  35.842  1.00 45.07           C
ATOM     47  CG  LEU A 464      75.603   0.655  35.531  1.00 49.43           C
ATOM     48  CD1 LEU A 464      75.432   1.333  34.184  1.00 49.26           C
ATOM     49  CD2 LEU A 464      76.863  -0.189  35.543  1.00 52.04           C
ATOM     50  C   LEU A 464      72.275  -0.696  37.047  1.00 47.18           C
ATOM     51  O   LEU A 464      72.139  -0.890  38.256  1.00 46.17           O
ATOM     52  N   PRO A 465      71.659  -1.455  36.128  1.00 42.89           N
ATOM     53  CA  PRO A 465      70.803  -2.579  36.499  1.00 42.37           C
ATOM     54  CB  PRO A 465      70.242  -3.031  35.153  1.00 44.22           C
ATOM     55  CG  PRO A 465      70.169  -1.768  34.340  1.00 48.59           C
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ATOM     56  CD  PRO A 465      71.187  -0.794  34.899  1.00 44.24           C
ATOM     57  C   PRO A 465      71.655  -3.683  37.109  1.00 44.87           C
ATOM     58  O   PRO A 465      72.839  -3.809  36.788  1.00 44.88           O
ATOM     59  N   VAL A 466      71.050  -4.466  37.994  1.00 39.75           N
ATOM     60  CA  VAL A 466      71.735  -5.555  38.684  1.00 38.48           C
ATOM     61  CB  VAL A 466      70.746  -6.472  39.419  1.00 42.02           C
ATOM     62  CG1 VAL A 466      71.470  -7.677  39.994  1.00 41.70           C
ATOM     63  CG2 VAL A 466      70.028  -5.705  40.512  1.00 41.74           C
ATOM     64  C   VAL A 466      72.723  -6.357  37.841  1.00 40.90           C
ATOM     65  O   VAL A 466      73.889  -6.485  38.210  1.00 40.80           O
ATOM     66  N   ARG A 467      72.260  -6.919  36.730  1.00 36.48           N
ATOM     67  CA  ARG A 467      73.132  -7.729  35.885  1.00 35.87           C
ATOM     68  CB  ARG A 467      72.381  -8.306  34.684  1.00 34.08           C
ATOM     69  CG  ARG A 467      73.252  -9.215  33.828  1.00 39.14           C
ATOM     70  CD  ARG A 467      72.559  -9.631  32.545  1.00 41.60           C
ATOM     71  NE  ARG A 467      72.472  -8.542  31.576  1.00 42.43           N
ATOM     72  CZ  ARG A 467      73.512  -8.020  30.929  1.00 48.38           C
ATOM     73  NH1 ARG A 467      74.743  -8.470  31.152  1.00 23.56           N
ATOM     74  NH2 ARG A 467      73.321  -7.040  30.056  1.00 34.80           N
ATOM     75  C   ARG A 467      74.370  -6.978  35.412  1.00 40.37           C
ATOM     76  O   ARG A 467      75.492  -7.457  35.568  1.00 40.19           O
ATOM     77  N   LEU A 468      74.160  -5.806  34.821  1.00 37.56           N
ATOM     78  CA  LEU A 468      75.265  -5.000  34.321  1.00 37.85           C
ATOM     79  CB  LEU A 468      74.744  -3.779  33.560  1.00 37.79           C
ATOM     80  CG  LEU A 468      74.059  -4.091  32.228  1.00 42.21           C
ATOM     81  CD1 LEU A 468      72.715  -4.757  32.458  1.00 42.37           C
ATOM     82  CD2 LEU A 468      73.906  -2.838  31.384  1.00 44.69           C
ATOM     83  C   LEU A 468      76.187  -4.565  35.452  1.00 43.08           C
ATOM     84  O   LEU A 468      77.405  -4.551  35.298  1.00 42.56           O
ATOM     85  N   CYS A 469      75.598  -4.228  36.593  1.00 40.88           N
ATOM     86  CA  CYS A 469      76.365  -3.791  37.751  1.00 40.96           C
ATOM     87  CB  CYS A 469      75.427  -3.312  38.860  1.00 42.18           C
ATOM     88  SG  CYS A 469      76.049  -3.606  40.530  1.00 46.75           S
ATOM     89  C   CYS A 469      77.280  -4.901  38.260  1.00 42.28           C
ATOM     90  O   CYS A 469      78.423  -4.648  38.640  1.00 42.17           O
ATOM     91  N   ARG A 470      76.780  -6.132  38.262  1.00 36.34           N
ATOM     92  CA  ARG A 470      77.583  -7.263  38.703  1.00 34.99           C
ATOM     93  CB  ARG A 470      76.700  -8.475  39.010  1.00 35.71           C
ATOM     94  CG  ARG A 470      75.536  -8.223  39.955  1.00 48.16           C
ATOM     95  CD  ARG A 470      74.489  -9.316  39.785  1.00 60.79           C
ATOM     96  NE  ARG A 470      73.598  -9.441  40.934  1.00 72.98           N
ATOM     97  CZ  ARG A 470      72.705 -10.417  41.079  1.00 89.49           C
ATOM     98  NH1 ARG A 470      72.586 -11.355  40.147  1.00 77.95           N
ATOM     99  NH2 ARG A 470      71.930 -10.458  42.155  1.00 76.18           N
ATOM    100  C   ARG A 470      78.555  -7.639  37.595  1.00 35.91           C
ATOM    101  O   ARG A 470      79.759  -7.750  37.816  1.00 35.02           O
ATOM    102  N   GLU A 471      78.006  -7.839  36.402  1.00 31.11           N
ATOM    103  CA  GLU A 471      78.767  -8.246  35.225  1.00 30.08           C
ATOM    104  CB  GLU A 471      77.811  -8.574  34.073  1.00 31.65           C
ATOM    105  CG  GLU A 471      77.783 -10.047  33.685  1.00 45.29           C
ATOM    106  CD  GLU A 471      76.381 -10.640  33.672  1.00 69.17           C
ATOM    107  OE1 GLU A 471      75.814 -10.806  32.570  1.00 59.68           O
ATOM    108  OE2 GLU A 471      75.867 -10.991  34.758  1.00 65.01           O
ATOM    109  C   GLU A 471      79.824  -7.238  34.767  1.00 31.15           C
ATOM    110  O   GLU A 471      80.846  -7.620  34.192  1.00 30.60           O
ATOM    111  N   ILE A 472      79.573  -5.953  35.002  1.00 25.31           N
ATOM    112  CA  ILE A 472      80.509  -4.908  34.592  1.00 24.11           C
ATOM    113  CB  ILE A 472      79.956  -3.499  34.881  1.00 26.75           C
ATOM    114  CG1 ILE A 472      80.852  -2.439  34.239  1.00 26.68           C
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ATOM    115  CD1 ILE A 472      80.095  -1.348  33.528  1.00 29.89           C
ATOM    116  CG2 ILE A 472      79.888  -3.261  36.379  1.00 27.82           C
ATOM    117  C   ILE A 472      81.874  -5.087  35.245  1.00 26.25           C
ATOM    118  O   ILE A 472      82.887  -4.637  34.717  1.00 24.76           O
ATOM    119  N   GLU A 473      81.892  -5.727  36.408  1.00 23.18           N
ATOM    120  CA  GLU A 473      83.135  -5.915  37.152  1.00 23.36           C
ATOM    121  CB  GLU A 473      82.843  -6.245  38.617  1.00 24.90           C
ATOM    122  CG  GLU A 473      82.196  -5.103  39.397  1.00 35.08           C
ATOM    123  CD  GLU A 473      82.857  -3.757  39.135  1.00 54.29           C
ATOM    124  OE1 GLU A 473      84.093  -3.724  38.943  1.00 51.57           O
ATOM    125  OE2 GLU A 473      82.144  -2.729  39.144  1.00 44.64           O
ATOM    126  C   GLU A 473      84.056  -6.968  36.544  1.00 27.65           C
ATOM    127  O   GLU A 473      85.228  -7.060  36.917  1.00 27.36           O
ATOM    128  N   LEU A 474      83.526  -7.745  35.602  1.00 24.35           N
ATOM    129  CA  LEU A 474      84.287  -8.806  34.947  1.00 24.05           C
ATOM    130  CB  LEU A 474      83.406 -10.033  34.704  1.00 24.11           C
ATOM    131  CG  LEU A 474      82.388 -10.382  35.788  1.00 28.41           C
ATOM    132  CD1 LEU A 474      81.431 -11.444  35.276  1.00 28.42           C
ATOM    133  CD2 LEU A 474      83.086 -10.849  37.049  1.00 29.96           C
ATOM    134  C   LEU A 474      84.939  -8.378  33.635  1.00 28.40           C
ATOM    135  O   LEU A 474      84.423  -7.524  32.916  1.00 27.52           O
ATOM    136  N   PHE A 475      86.059  -9.021  33.320  1.00 25.88           N
ATOM    137  CA  PHE A 475      86.833  -8.744  32.117  1.00 25.84           C
ATOM    138  CB  PHE A 475      88.113  -9.588  32.123  1.00 27.59           C
ATOM    139  CG  PHE A 475      89.207  -9.032  32.990  1.00 29.30           C
ATOM    140  CD1 PHE A 475      89.870  -7.870  32.632  1.00 32.41           C
ATOM    141  CE1 PHE A 475      90.886  -7.363  33.422  1.00 33.48           C
ATOM    142  CZ  PHE A 475      91.258  -8.023  34.575  1.00 32.67           C
ATOM    143  CE2 PHE A 475      90.609  -9.187  34.940  1.00 34.39           C
ATOM    144  CD2 PHE A 475      89.601  -9.693  34.143  1.00 31.42           C
ATOM    145  C   PHE A 475      86.078  -8.991  30.814  1.00 30.82           C
ATOM    146  O   PHE A 475      86.231  -8.241  29.847  1.00 31.43           O
ATOM    147  N   HIS A 476      85.295 -10.063  30.774  1.00 27.65           N
ATOM    148  CA  HIS A 476      84.572 -10.429  29.560  1.00 27.16           C
ATOM    149  CB  HIS A 476      84.423 -11.947  29.472  1.00 27.75           C
ATOM    150  CG  HIS A 476      83.519 -12.519  30.516  1.00 31.49           C
ATOM    151  ND1 HIS A 476      83.974 -12.922  31.753  1.00 33.25           N
ATOM    152  CE1 HIS A 476      82.957 -13.367  32.470  1.00 32.82           C
ATOM    153  NE2 HIS A 476      81.858 -13.265  31.743  1.00 33.19           N
ATOM    154  CD2 HIS A 476      82.181 -12.728  30.521  1.00 33.39           C
ATOM    155  C   HIS A 476      83.207  -9.757  29.427  1.00 30.69           C
ATOM    156  O   HIS A 476      82.281 -10.321  28.847  1.00 30.75           O
ATOM    157  N   PHE A 477      83.091  -8.542  29.944  1.00 26.13           N
ATOM    158  CA  PHE A 477      81.839  -7.808  29.871  1.00 25.18           C
ATOM    159  CB  PHE A 477      81.830  -6.666  30.893  1.00 26.95           C
ATOM    160  CG  PHE A 477      80.575  -5.829  30.860  1.00 28.62           C
ATOM    161  CD1 PHE A 477      79.335  -6.402  31.081  1.00 31.33           C
ATOM    162  CE1 PHE A 477      78.186  -5.633  31.053  1.00 32.10           C
ATOM    163  CZ  PHE A 477      78.268  -4.283  30.795  1.00 30.77           C
ATOM    164  CE2 PHE A 477      79.500  -3.698  30.576  1.00 33.00           C
ATOM    165  CD2 PHE A 477      80.643  -4.467  30.614  1.00 30.60           C
ATOM    166  C   PHE A 477      81.580  -7.261  28.473  1.00 27.84           C
ATOM    167  O   PHE A 477      82.482  -6.721  27.828  1.00 27.86           O
ATOM    168  N   ASP A 478      80.343  -7.416  28.008  1.00 23.36           N
ATOM    169  CA  ASP A 478      79.912  -6.876  26.716  1.00 22.40           C
ATOM    170  CB  ASP A 478      79.160  -7.932  25.897  1.00 24.22           C
ATOM    171  CG  ASP A 478      78.558  -7.362  24.611  1.00 36.20           C
ATOM    172  OD1 ASP A 478      79.308  -7.171  23.625  1.00 36.80           O
ATOM    173  OD2 ASP A 478      77.334  -7.097  24.592  1.00 42.05           O
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ATOM    174  C   ASP A 478      78.976  -5.728  27.057  1.00 24.67           C
ATOM    175  O   ASP A 478      78.092  -5.878  27.903  1.00 24.63           O
ATOM    176  N   ILE A 479      79.185  -4.581  26.423  1.00 19.88           N
ATOM    177  CA  ILE A 479      78.394  -3.387  26.713  1.00 19.52           C
ATOM    178  CB  ILE A 479      79.121  -2.098  26.272  1.00 21.90           C
ATOM    179  CG1 ILE A 479      79.489  -2.175  24.786  1.00 22.15           C
ATOM    180  CD1 ILE A 479      80.169  -0.924  24.240  1.00 24.57           C
ATOM    181  CG2 ILE A 479      80.362  -1.874  27.134  1.00 21.78           C
ATOM    182  C   ILE A 479      76.932  -3.425  26.262  1.00 24.34           C
ATOM    183  O   ILE A 479      76.067  -2.851  26.921  1.00 24.40           O
ATOM    184  N   GLY A 480      76.655  -4.087  25.144  1.00 21.11           N
ATOM    185  CA  GLY A 480      75.295  -4.188  24.651  1.00 21.40           C
ATOM    186  C   GLY A 480      75.057  -3.435  23.360  1.00 27.28           C
ATOM    187  O   GLY A 480      75.945  -2.743  22.852  1.00 27.64           O
ATOM    188  N   PRO A 481      73.837  -3.548  22.813  1.00 23.83           N
ATOM    189  CA  PRO A 481      73.412  -2.923  21.559  1.00 23.73           C
ATOM    190  CB  PRO A 481      72.387  -3.920  21.017  1.00 25.30           C
ATOM    191  CG  PRO A 481      71.788  -4.511  22.228  1.00 29.71           C
ATOM    192  CD  PRO A 481      72.877  -4.568  23.269  1.00 25.28           C
ATOM    193  C   PRO A 481      72.755  -1.556  21.745  1.00 27.26           C
ATOM    194  O   PRO A 481      72.458  -0.869  20.768  1.00 27.41           O
ATOM    195  N   PHE A 482      72.535  -1.161  22.994  1.00 22.82           N
ATOM    196  CA  PHE A 482      71.885   0.113  23.282  1.00 21.86           C
ATOM    197  CB  PHE A 482      71.068   0.019  24.568  1.00 22.88           C
ATOM    198  CG  PHE A 482      70.088  -1.120  24.584  1.00 23.53           C
ATOM    199  CD1 PHE A 482      70.374  -2.284  25.274  1.00 25.70           C
ATOM    200  CE1 PHE A 482      69.476  -3.335  25.296  1.00 26.19           C
ATOM    201  CZ  PHE A 482      68.272  -3.231  24.631  1.00 25.80           C
ATOM    202  CE2 PHE A 482      67.963  -2.070  23.942  1.00 28.03           C
ATOM    203  CD2 PHE A 482      68.871  -1.022  23.921  1.00 25.63           C
ATOM    204  C   PHE A 482      72.874   1.266  23.362  1.00 27.42           C
ATOM    205  O   PHE A 482      73.342   1.623  24.440  1.00 27.00           O
ATOM    206  N   GLU A 483      73.174   1.847  22.207  1.00 26.16           N
ATOM    207  CA  GLU A 483      74.117   2.958  22.098  1.00 27.12           C
ATOM    208  CB  GLU A 483      74.115   3.505  20.668  1.00 28.57           C
ATOM    209  CG  GLU A 483      75.164   4.577  20.402  1.00 41.96           C
ATOM    210  CD  GLU A 483      75.605   4.617  18.945  1.00 63.76           C
ATOM    211  OE1 GLU A 483      74.803   5.071  18.101  1.00 70.92           O
ATOM    212  OE2 GLU A 483      76.748   4.201  18.643  1.00 49.34           O
ATOM    213  C   GLU A 483      73.899   4.097  23.102  1.00 33.31           C
ATOM    214  O   GLU A 483      74.857   4.731  23.543  1.00 33.83           O
ATOM    215  N   ASN A 484      72.645   4.360  23.455  1.00 30.62           N
ATOM    216  CA  ASN A 484      72.318   5.449  24.380  1.00 30.64           C
ATOM    217  CB  ASN A 484      70.836   5.817  24.270  1.00 33.24           C
ATOM    218  CG  ASN A 484      70.366   5.919  22.831  1.00 63.51           C
ATOM    219  OD1 ASN A 484      69.251   6.366  22.560  1.00 57.61           O
ATOM    220  ND2 ASN A 484      71.214   5.499  21.898  1.00 57.64           N
ATOM    221  C   ASN A 484      72.694   5.189  25.841  1.00 34.19           C
ATOM    222  O   ASN A 484      72.758   6.119  26.650  1.00 34.58           O
ATOM    223  N   MET A 485      72.941   3.926  26.172  1.00 29.19           N
ATOM    224  CA  MET A 485      73.312   3.525  27.526  1.00 27.89           C
ATOM    225  CB  MET A 485      72.855   2.090  27.775  1.00 30.59           C
ATOM    226  CG  MET A 485      71.458   1.957  28.352  1.00 34.79           C
ATOM    227  SD  MET A 485      71.198   0.293  29.000  1.00 39.49           S
ATOM    228  CE  MET A 485      71.570   0.553  30.720  1.00 36.04           C
ATOM    229  C   MET A 485      74.821   3.605  27.776  1.00 28.09           C
ATOM    230  O   MET A 485      75.264   3.658  28.920  1.00 26.96           O
ATOM    231  N   TRP A 486      75.606   3.578  26.703  1.00 22.78           N
ATOM    232  CA  TRP A 486      77.061   3.588  26.812  1.00 21.73           C
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ATOM    233  CB  TRP A 486      77.712   3.470  25.433  1.00 19.64           C
ATOM    234  CG  TRP A 486      77.298   2.231  24.712  1.00 19.93           C
ATOM    235  CD1 TRP A 486      76.677   1.144  25.251  1.00 22.38           C
ATOM    236  NE1 TRP A 486      76.426   0.209  24.278  1.00 21.75           N
ATOM    237  CE2 TRP A 486      76.890   0.683  23.079  1.00 23.09           C
ATOM    238  CD2 TRP A 486      77.446   1.955  23.315  1.00 19.58           C
ATOM    239  CE3 TRP A 486      77.977   2.667  22.237  1.00 20.67           C
ATOM    240  CZ3 TRP A 486      77.948   2.089  20.981  1.00 22.32           C
ATOM    241  CH2 TRP A 486      77.386   0.823  20.778  1.00 22.90           C
ATOM    242  CZ2 TRP A 486      76.847   0.109  21.812  1.00 22.72           C
ATOM    243  C   TRP A 486      77.638   4.754  27.599  1.00 26.58           C
ATOM    244  O   TRP A 486      78.437   4.559  28.519  1.00 26.14           O
ATOM    245  N   PRO A 487      77.244   5.987  27.246  1.00 24.13           N
ATOM    246  CA  PRO A 487      77.747   7.173  27.947  1.00 23.83           C
ATOM    247  CB  PRO A 487      76.848   8.287  27.413  1.00 25.53           C
ATOM    248  CG  PRO A 487      76.504   7.846  26.030  1.00 29.46           C
ATOM    249  CD  PRO A 487      76.420   6.346  26.074  1.00 25.31           C
ATOM    250  C   PRO A 487      77.601   7.042  29.464  1.00 28.84           C
ATOM    251  O   PRO A 487      78.523   7.366  30.217  1.00 28.02           O
ATOM    252  N   GLY A 488      76.449   6.540  29.903  1.00 26.24           N
ATOM    253  CA  GLY A 488      76.162   6.344  31.313  1.00 26.39           C
ATOM    254  C   GLY A 488      77.007   5.246  31.930  1.00 30.40           C
ATOM    255  O   GLY A 488      77.363   5.308  33.107  1.00 30.20           O
ATOM    256  N   ILE A 489      77.319   4.230  31.131  1.00 27.27           N
ATOM    257  CA  ILE A 489      78.159   3.125  31.571  1.00 26.57           C
ATOM    258  CB  ILE A 489      78.152   1.979  30.540  1.00 29.59           C
ATOM    259  CG1 ILE A 489      76.970   1.042  30.795  1.00 30.09           C
ATOM    260  CD1 ILE A 489      76.297   0.545  29.542  1.00 36.67           C
ATOM    261  CG2 ILE A 489      79.458   1.205  30.585  1.00 29.82           C
ATOM    262  C   ILE A 489      79.572   3.648  31.807  1.00 30.73           C
ATOM    263  O   ILE A 489      80.242   3.261  32.763  1.00 30.67           O
ATOM    264  N   PHE A 490      80.011   4.556  30.942  1.00 27.40           N
ATOM    265  CA  PHE A 490      81.336   5.145  31.066  1.00 27.28           C
ATOM    266  CB  PHE A 490      81.684   5.963  29.824  1.00 29.22           C
ATOM    267  CG  PHE A 490      83.101   6.459  29.810  1.00 30.77           C
ATOM    268  CD1 PHE A 490      84.133   5.632  29.401  1.00 33.02           C
ATOM    269  CE1 PHE A 490      85.441   6.083  29.398  1.00 34.02           C
ATOM    270  CZ  PHE A 490      85.730   7.368  29.813  1.00 33.40           C
ATOM    271  CE2 PHE A 490      84.708   8.203  30.225  1.00 35.62           C
ATOM    272  CD2 PHE A 490      83.402   7.746  30.225  1.00 33.11           C
ATOM    273  C   PHE A 490      81.440   6.017  32.309  1.00 31.99           C
ATOM    274  O   PHE A 490      82.422   5.949  33.047  1.00 31.69           O
ATOM    275  N   VAL A 491      80.429   6.845  32.543  1.00 28.96           N
ATOM    276  CA  VAL A 491      80.445   7.703  33.719  1.00 28.75           C
ATOM    277  CB  VAL A 491      79.238   8.639  33.762  1.00 32.74           C
ATOM    278  CG1 VAL A 491      79.069   9.211  35.161  1.00 32.54           C
ATOM    279  CG2 VAL A 491      79.407   9.754  32.744  1.00 32.49           C
ATOM    280  C   VAL A 491      80.518   6.822  34.955  1.00 32.33           C
ATOM    281  O   VAL A 491      81.247   7.116  35.901  1.00 32.59           O
ATOM    282  N   TYR A 492      79.772   5.723  34.924  1.00 27.54           N
ATOM    283  CA  TYR A 492      79.777   4.771  36.019  1.00 26.29           C
ATOM    284  CB  TYR A 492      78.920   3.552  35.671  1.00 26.93           C
ATOM    285  CG  TYR A 492      78.848   2.531  36.778  1.00 28.50           C
ATOM    286  CD1 TYR A 492      77.898   2.635  37.786  1.00 30.36           C
ATOM    287  CE1 TYR A 492      77.837   1.707  38.813  1.00 30.78           C
ATOM    288  CZ  TYR A 492      78.734   0.661  38.840  1.00 35.61           C
ATOM    289  OH  TYR A 492      78.684  -0.270  39.857  1.00 33.34           O
ATOM    290  CE2 TYR A 492      79.690   0.542  37.852  1.00 30.31           C
ATOM    291  CD2 TYR A 492      79.741   1.470  36.829  1.00 29.48           C
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ATOM    292  C   TYR A 492      81.211   4.332  36.276  1.00 29.25           C
ATOM    293  O   TYR A 492      81.730   4.490  37.377  1.00 28.66           O
ATOM    294  N   MET A 493      81.849   3.780  35.247  1.00 25.87           N
ATOM    295  CA  MET A 493      83.224   3.313  35.362  1.00 25.44           C
ATOM    296  CB  MET A 493      83.743   2.807  34.015  1.00 27.08           C
ATOM    297  CG  MET A 493      83.008   1.590  33.473  1.00 29.53           C
ATOM    298  SD  MET A 493      83.704   0.961  31.920  1.00 32.55           S
ATOM    299  CE  MET A 493      83.625   2.419  30.858  1.00 28.88           C
ATOM    300  C   MET A 493      84.146   4.394  35.919  1.00 32.97           C
ATOM    301  O   MET A 493      84.945   4.131  36.818  1.00 33.44           O
ATOM    302  N   VAL A 494      84.024   5.610  35.396  1.00 31.05           N
ATOM    303  CA  VAL A 494      84.865   6.723  35.833  1.00 31.44           C
ATOM    304  CB  VAL A 494      84.683   7.956  34.940  1.00 34.62           C
ATOM    305  CG1 VAL A 494      85.460   9.130  35.501  1.00 34.27           C
ATOM    306  CG2 VAL A 494      85.126   7.644  33.526  1.00 34.33           C
ATOM    307  C   VAL A 494      84.716   7.071  37.314  1.00 38.25           C
ATOM    308  O   VAL A 494      85.711   7.230  38.022  1.00 37.86           O
ATOM    309  N   HIS A 495      83.475   7.202  37.774  1.00 36.74           N
ATOM    310  CA  HIS A 495      83.209   7.523  39.171  1.00 37.51           C
ATOM    311  CB  HIS A 495      81.702   7.624  39.419  1.00 38.59           C
ATOM    312  CG  HIS A 495      81.104   8.933  39.007  1.00 42.35           C
ATOM    313  ND1 HIS A 495      79.743   9.155  38.991  1.00 44.37           N
ATOM    314  CE1 HIS A 495      79.505  10.388  38.581  1.00 43.93           C
ATOM    315  NE2 HIS A 495      80.662  10.972  38.324  1.00 44.28           N
ATOM    316  CD2 HIS A 495      81.678  10.084  38.584  1.00 44.32           C
ATOM    317  C   HIS A 495      83.797   6.452  40.083  1.00 42.39           C
ATOM    318  O   HIS A 495      84.460   6.759  41.071  1.00 42.19           O
ATOM    319  N   ARG A 496      83.534   5.194  39.750  1.00 39.72           N
ATOM    320  CA  ARG A 496      84.011   4.063  40.537  1.00 39.95           C
ATOM    321  CB  ARG A 496      83.348   2.776  40.046  1.00 39.54           C
ATOM    322  CG  ARG A 496      82.210   2.281  40.915  1.00 48.24           C
ATOM    323  CD  ARG A 496      81.793   0.877  40.505  1.00 56.35           C
ATOM    324  NE  ARG A 496      81.657  -0.018  41.651  1.00 62.05           N
ATOM    325  CZ  ARG A 496      82.650  -0.742  42.157  1.00 76.29           C
ATOM    326  NH1 ARG A 496      83.863  -0.679  41.625  1.00 64.98           N
ATOM    327  NH2 ARG A 496      82.432  -1.530  43.199  1.00 62.64           N
ATOM    328  C   ARG A 496      85.526   3.895  40.475  1.00 46.22           C
ATOM    329  O   ARG A 496      86.142   3.378  41.409  1.00 45.67           O
ATOM    330  N   SER A 497      86.116   4.305  39.355  1.00 44.58           N
ATOM    331  CA  SER A 497      87.550   4.156  39.132  1.00 45.19           C
ATOM    332  CB  SER A 497      87.863   4.149  37.636  1.00 48.00           C
ATOM    333  OG  SER A 497      88.164   2.838  37.187  1.00 55.03           O
ATOM    334  C   SER A 497      88.442   5.164  39.857  1.00 52.24           C
ATOM    335  O   SER A 497      89.486   4.793  40.401  1.00 52.03           O
ATOM    336  N   CYS A 498      88.055   6.438  39.847  1.00 50.78           N
ATOM    337  CA  CYS A 498      88.859   7.468  40.504  1.00 51.66           C
ATOM    338  CB  CYS A 498      89.615   8.312  39.476  1.00 52.14           C
ATOM    339  SG  CYS A 498      88.592   8.908  38.119  1.00 56.14           S
ATOM    340  C   CYS A 498      88.086   8.366  41.469  1.00 56.91           C
ATOM    341  O   CYS A 498      88.686   9.146  42.212  1.00 57.09           O
ATOM    342  N   GLY A 499      86.761   8.261  41.460  1.00 53.68           N
ATOM    343  CA  GLY A 499      85.935   9.052  42.353  1.00 53.63           C
ATOM    344  C   GLY A 499      84.909   9.934  41.668  1.00 57.63           C
ATOM    345  O   GLY A 499      85.071  10.330  40.513  1.00 57.20           O
ATOM    346  N   THR A 500      83.850  10.250  42.402  1.00 54.26           N
ATOM    347  CA  THR A 500      82.777  11.099  41.900  1.00 54.33           C
ATOM    348  CB  THR A 500      81.554  11.038  42.843  1.00 63.21           C
ATOM    349  OG1 THR A 500      81.934  11.485  44.152  1.00 62.70           O
ATOM    350  CG2 THR A 500      81.021   9.615  42.939  1.00 62.12           C
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ATOM    351  C   THR A 500      83.258  12.542  41.750  1.00 58.36           C
ATOM    352  O   THR A 500      82.775  13.288  40.894  1.00 57.82           O
ATOM    353  N   SER A 501      84.201  12.925  42.605  1.00 55.13           N
ATOM    354  CA  SER A 501      84.737  14.283  42.640  1.00 54.99           C
ATOM    355  CB  SER A 501      85.470  14.519  43.965  1.00 58.24           C
ATOM    356  OG  SER A 501      86.261  13.397  44.322  1.00 65.43           O
ATOM    357  C   SER A 501      85.649  14.666  41.473  1.00 59.10           C
ATOM    358  O   SER A 501      85.629  15.812  41.017  1.00 59.10           O
ATOM    359  N   CYS A 502      86.470  13.715  41.030  1.00 55.06           N
ATOM    360  CA  CYS A 502      87.441  13.923  39.954  1.00 54.51           C
ATOM    361  CB  CYS A 502      87.890  12.582  39.366  1.00 55.12           C
ATOM    362  SG  CYS A 502      86.724  11.842  38.190  1.00 59.22           S
ATOM    363  C   CYS A 502      87.046  14.898  38.838  1.00 56.31           C
ATOM    364  O   CYS A 502      87.776  15.849  38.549  1.00 55.98           O
ATOM    365  N   PHE A 503      85.902  14.653  38.207  1.00 50.95           N
ATOM    366  CA  PHE A 503      85.437  15.501  37.115  1.00 49.94           C
ATOM    367  CB  PHE A 503      85.258  14.677  35.834  1.00 51.37           C
ATOM    368  CG  PHE A 503      86.533  14.100  35.294  1.00 52.54           C
ATOM    369  CD1 PHE A 503      86.701  12.728  35.202  1.00 55.12           C
ATOM    370  CE1 PHE A 503      87.868  12.192  34.699  1.00 55.95           C
ATOM    371  CZ  PHE A 503      88.878  13.026  34.266  1.00 55.04           C
ATOM    372  CE2 PHE A 503      88.719  14.395  34.341  1.00 57.00           C
ATOM    373  CD2 PHE A 503      87.550  14.926  34.846  1.00 54.44           C
ATOM    374  C   PHE A 503      84.110  16.170  37.441  1.00 52.93           C
ATOM    375  O   PHE A 503      83.432  15.801  38.400  1.00 52.36           O
ATOM    376  N   GLU A 504      83.733  17.133  36.605  1.00 49.13           N
ATOM    377  CA  GLU A 504      82.459  17.829  36.736  1.00 48.56           C
ATOM    378  CB  GLU A 504      82.627  19.326  36.457  1.00 50.11           C
ATOM    379  CG  GLU A 504      81.534  20.202  37.058  1.00 62.18           C
ATOM    380  CD  GLU A 504      80.601  20.784  36.009  1.00 85.38           C
ATOM    381  OE1 GLU A 504      81.037  21.673  35.246  1.00 81.61           O
ATOM    382  OE2 GLU A 504      79.426  20.360  35.955  1.00 79.83           O
ATOM    383  C   GLU A 504      81.519  17.209  35.712  1.00 50.95           C
ATOM    384  O   GLU A 504      81.832  17.161  34.523  1.00 50.45           O
ATOM    385  N   LEU A 505      80.388  16.700  36.189  1.00 46.57           N
ATOM    386  CA  LEU A 505      79.413  16.037  35.333  1.00 45.70           C
ATOM    387  CB  LEU A 505      78.115  15.776  36.091  1.00 45.76           C
ATOM    388  CG  LEU A 505      77.638  14.324  36.054  1.00 50.51           C
ATOM    389  CD1 LEU A 505      78.681  13.401  36.661  1.00 50.75           C
ATOM    390  CD2 LEU A 505      76.301  14.168  36.759  1.00 52.74           C
ATOM    391  C   LEU A 505      79.128  16.736  34.010  1.00 48.39           C
ATOM    392  O   LEU A 505      79.441  16.205  32.947  1.00 48.30           O
ATOM    393  N   GLU A 506      78.502  17.907  34.077  1.00 43.99           N
ATOM    394  CA  GLU A 506      78.146  18.669  32.878  1.00 43.25           C
ATOM    395  CB  GLU A 506      77.686  20.082  33.249  1.00 44.71           C
ATOM    396  CG  GLU A 506      77.525  21.014  32.052  1.00 57.31           C
ATOM    397  CD  GLU A 506      77.471  22.479  32.449  1.00 82.74           C
ATOM    398  OE1 GLU A 506      76.357  22.979  32.721  1.00 80.48           O
ATOM    399  OE2 GLU A 506      78.540  23.130  32.480  1.00 76.93           O
ATOM    400  C   GLU A 506      79.265  18.738  31.838  1.00 45.02           C
ATOM    401  O   GLU A 506      79.048  18.456  30.657  1.00 44.40           O
ATOM    402  N   LYS A 507      80.455  19.130  32.283  1.00 40.31           N
ATOM    403  CA  LYS A 507      81.615  19.228  31.405  1.00 39.50           C
ATOM    404  CB  LYS A 507      82.804  19.823  32.162  1.00 41.75           C
ATOM    405  CG  LYS A 507      82.758  21.336  32.303  1.00 53.81           C
ATOM    406  CD  LYS A 507      84.145  21.910  32.532  1.00 61.25           C
ATOM    407  CE  LYS A 507      84.105  23.076  33.503  1.00 69.92           C
ATOM    408  NZ  LYS A 507      85.398  23.812  33.527  1.00 78.97           N
ATOM    409  C   LYS A 507      81.976  17.845  30.873  1.00 42.21           C
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ATOM    410  O   LYS A 507      82.220  17.671  29.678  1.00 42.21           O
ATOM    411  N   LEU A 508      81.988  16.863  31.768  1.00 37.02           N
ATOM    412  CA  LEU A 508      82.304  15.488  31.401  1.00 36.55           C
ATOM    413  CB  LEU A 508      82.289  14.583  32.637  1.00 36.54           C
ATOM    414  CG  LEU A 508      82.715  13.132  32.398  1.00 41.50           C
ATOM    415  CD1 LEU A 508      84.110  13.069  31.795  1.00 41.67           C
ATOM    416  CD2 LEU A 508      82.637  12.299  33.669  1.00 43.64           C
ATOM    417  C   LEU A 508      81.329  14.958  30.355  1.00 39.78           C
ATOM    418  O   LEU A 508      81.742  14.437  29.320  1.00 39.77           O
ATOM    419  N   CYS A 509      80.034  15.080  30.631  1.00 35.28           N
ATOM    420  CA  CYS A 509      79.021  14.609  29.693  1.00 34.84           C
ATOM    421  CB  CYS A 509      77.609  14.826  30.251  1.00 35.66           C
ATOM    422  SG  CYS A 509      77.164  13.727  31.642  1.00 40.03           S
ATOM    423  C   CYS A 509      79.198  15.310  28.344  1.00 36.03           C
ATOM    424  O   CYS A 509      79.181  14.675  27.289  1.00 35.74           O
ATOM    425  N   ARG A 510      79.406  16.617  28.384  1.00 30.54           N
ATOM    426  CA  ARG A 510      79.618  17.383  27.164  1.00 29.68           C
ATOM    427  CB  ARG A 510      79.843  18.855  27.500  1.00 29.05           C
ATOM    428  CG  ARG A 510      80.180  19.708  26.297  1.00 38.49           C
ATOM    429  CD  ARG A 510      79.696  21.127  26.495  1.00 46.06           C
ATOM    430  NE  ARG A 510      80.015  21.654  27.820  1.00 50.01           N
ATOM    431  CZ  ARG A 510      79.131  22.247  28.613  1.00 64.85           C
ATOM    432  NH1 ARG A 510      79.500  22.713  29.799  1.00 49.85           N
ATOM    433  NH2 ARG A 510      77.872  22.364  28.223  1.00 54.93           N
ATOM    434  C   ARG A 510      80.808  16.834  26.375  1.00 32.29           C
ATOM    435  O   ARG A 510      80.734  16.659  25.156  1.00 31.84           O
ATOM    436  N   PHE A 511      81.903  16.565  27.079  1.00 27.70           N
ATOM    437  CA  PHE A 511      83.114  16.023  26.465  1.00 27.21           C
ATOM    438  CB  PHE A 511      84.214  15.889  27.522  1.00 29.08           C
ATOM    439  CG  PHE A 511      85.459  15.218  27.021  1.00 30.63           C
ATOM    440  CD1 PHE A 511      86.454  15.954  26.399  1.00 33.48           C
ATOM    441  CE1 PHE A 511      87.596  15.341  25.934  1.00 34.09           C
ATOM    442  CZ  PHE A 511      87.761  13.980  26.092  1.00 33.03           C
ATOM    443  CE2 PHE A 511      86.784  13.235  26.717  1.00 35.12           C
ATOM    444  CD2 PHE A 511      85.640  13.852  27.179  1.00 32.68           C
ATOM    445  C   PHE A 511      82.841  14.670  25.804  1.00 29.98           C
ATOM    446  O   PHE A 511      83.175  14.449  24.640  1.00 30.03           O
ATOM    447  N   ILE A 512      82.203  13.778  26.552  1.00 25.29           N
ATOM    448  CA  ILE A 512      81.846  12.453  26.056  1.00 24.72           C
ATOM    449  CB  ILE A 512      81.043  11.669  27.115  1.00 27.72           C
ATOM    450  CG1 ILE A 512      81.955  11.187  28.242  1.00 27.71           C
ATOM    451  CD1 ILE A 512      81.199  10.561  29.402  1.00 31.17           C
ATOM    452  CG2 ILE A 512      80.290  10.510  26.476  1.00 28.42           C
ATOM    453  C   ILE A 512      81.053  12.510  24.753  1.00 28.63           C
ATOM    454  O   ILE A 512      81.248  11.688  23.857  1.00 27.59           O
ATOM    455  N   MET A 513      80.120  13.451  24.672  1.00 26.11           N
ATOM    456  CA  MET A 513      79.254  13.573  23.502  1.00 26.31           C
ATOM    457  CB  MET A 513      77.965  14.312  23.862  1.00 29.33           C
ATOM    458  CG  MET A 513      77.194  13.659  24.998  1.00 33.66           C
ATOM    459  SD  MET A 513      76.586  11.999  24.575  1.00 38.35           S
ATOM    460  CE  MET A 513      75.226  12.399  23.476  1.00 35.14           C
ATOM    461  C   MET A 513      79.912  14.172  22.258  1.00 28.71           C
ATOM    462  O   MET A 513      79.488  13.900  21.137  1.00 28.16           O
ATOM    463  N   SER A 514      80.950  14.980  22.452  1.00 25.23           N
ATOM    464  CA  SER A 514      81.675  15.563  21.326  1.00 24.65           C
ATOM    465  CB  SER A 514      82.505  16.760  21.786  1.00 28.80           C
ATOM    466  OG  SER A 514      81.757  17.576  22.667  1.00 39.25           O
ATOM    467  C   SER A 514      82.584  14.482  20.754  1.00 27.54           C
ATOM    468  O   SER A 514      82.779  14.390  19.544  1.00 26.21           O
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ATOM    469  N   VAL A 515      83.117  13.653  21.646  1.00 23.91           N
ATOM    470  CA  VAL A 515      83.978  12.544  21.267  1.00 23.53           C
ATOM    471  CB  VAL A 515      84.556  11.858  22.517  1.00 27.40           C
ATOM    472  CG1 VAL A 515      84.919  10.414  22.217  1.00 27.13           C
ATOM    473  CG2 VAL A 515      85.750  12.630  23.042  1.00 27.26           C
ATOM    474  C   VAL A 515      83.164  11.562  20.428  1.00 27.41           C
ATOM    475  O   VAL A 515      83.519  11.248  19.291  1.00 26.42           O
ATOM    476  N   LYS A 516      82.047  11.112  20.988  1.00 24.54           N
ATOM    477  CA  LYS A 516      81.159  10.190  20.293  1.00 24.74           C
ATOM    478  CB  LYS A 516      79.876   9.976  21.099  1.00 26.68           C
ATOM    479  CG  LYS A 516      78.652   9.647  20.250  1.00 33.04           C
ATOM    480  CD  LYS A 516      77.405   9.532  21.111  1.00 38.41           C
ATOM    481  CE  LYS A 516      76.374   8.618  20.467  1.00 47.17           C
ATOM    482  NZ  LYS A 516      75.286   8.245  21.426  1.00 53.91           N
ATOM    483  C   LYS A 516      80.811  10.710  18.905  1.00 30.83           C
ATOM    484  O   LYS A 516      80.714   9.943  17.943  1.00 31.86           O
ATOM    485  N   LYS A 517      80.616  12.019  18.805  1.00 27.25           N
ATOM    486  CA  LYS A 517      80.259  12.640  17.537  1.00 27.21           C
ATOM    487  CB  LYS A 517      79.705  14.043  17.768  1.00 30.00           C
ATOM    488  CG  LYS A 517      80.172  15.060  16.743  1.00 43.85           C
ATOM    489  CD  LYS A 517      79.681  16.458  17.088  1.00 53.74           C
ATOM    490  CE  LYS A 517      78.663  16.951  16.071  1.00 65.79           C
ATOM    491  NZ  LYS A 517      79.303  17.383  14.798  1.00 76.54           N
ATOM    492  C   LYS A 517      81.428  12.699  16.557  1.00 31.61           C
ATOM    493  O   LYS A 517      81.225  12.762  15.345  1.00 32.25           O
ATOM    494  N   ASN A 518      82.649  12.719  17.084  1.00 27.43           N
ATOM    495  CA  ASN A 518      83.835  12.799  16.237  1.00 26.84           C
ATOM    496  CB  ASN A 518      84.937  13.607  16.909  1.00 26.52           C
ATOM    497  CG  ASN A 518      84.798  15.094  16.649  1.00 46.39           C
ATOM    498  OD1 ASN A 518      85.434  15.643  15.747  1.00 43.48           O
ATOM    499  ND2 ASN A 518      83.913  15.742  17.397  1.00 34.55           N
ATOM    500  C   ASN A 518      84.344  11.449  15.746  1.00 30.77           C
ATOM    501  O   ASN A 518      85.335  11.363  15.013  1.00 31.13           O
ATOM    502  N   TYR A 519      83.642  10.393  16.137  1.00 26.14           N
ATOM    503  CA  TYR A 519      83.973   9.055  15.681  1.00 24.87           C
ATOM    504  CB  TYR A 519      83.580   8.008  16.726  1.00 24.42           C
ATOM    505  CG  TYR A 519      84.715   7.602  17.637  1.00 24.06           C
ATOM    506  CD1 TYR A 519      84.871   8.187  18.884  1.00 25.66           C
ATOM    507  CE1 TYR A 519      85.911   7.820  19.725  1.00 25.93           C
ATOM    508  CZ  TYR A 519      86.811   6.852  19.321  1.00 28.74           C
ATOM    509  OH  TYR A 519      87.848   6.485  20.157  1.00 24.08           O
ATOM    510  CE2 TYR A 519      86.674   6.255  18.084  1.00 24.40           C
ATOM    511  CD2 TYR A 519      85.629   6.629  17.252  1.00 24.18           C
ATOM    512  C   TYR A 519      83.154   8.868  14.420  1.00 30.19           C
ATOM    513  O   TYR A 519      82.174   9.579  14.207  1.00 30.28           O
ATOM    514  N   ARG A 520      83.569   7.945  13.563  1.00 27.61           N
ATOM    515  CA  ARG A 520      82.851   7.718  12.322  1.00 27.77           C
ATOM    516  CB  ARG A 520      83.820   7.710  11.142  1.00 28.06           C
ATOM    517  CG  ARG A 520      84.661   8.969  11.037  1.00 37.38           C
ATOM    518  CD  ARG A 520      85.583   8.905   9.838  1.00 50.63           C
ATOM    519  NE  ARG A 520      85.976  10.235   9.387  1.00 64.78           N
ATOM    520  CZ  ARG A 520      85.294  10.954   8.504  1.00 81.22           C
ATOM    521  NH1 ARG A 520      84.177  10.473   7.975  1.00 67.57           N
ATOM    522  NH2 ARG A 520      85.730  12.154   8.149  1.00 69.47           N
ATOM    523  C   ARG A 520      82.050   6.426  12.374  1.00 32.88           C
ATOM    524  O   ARG A 520      82.148   5.655  13.332  1.00 32.66           O
ATOM    525  N   ARG A 521      81.248   6.199  11.343  1.00 29.83           N
ATOM    526  CA  ARG A 521      80.431   5.001  11.279  1.00 30.20           C
ATOM    527  CB  ARG A 521      79.057   5.314  10.682  1.00 33.10           C
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ATOM    528  CG  ARG A 521      78.186   6.173  11.588  1.00 50.19           C
ATOM    529  CD  ARG A 521      76.747   6.222  11.105  1.00 67.35           C
ATOM    530  NE  ARG A 521      75.959   7.196  11.856  1.00 83.01           N
ATOM    531  CZ  ARG A 521      75.826   8.474  11.514  1.00101.64           C
ATOM    532  NH1 ARG A 521      76.425   8.938  10.424  1.00 91.58           N
ATOM    533  NH2 ARG A 521      75.090   9.289  12.260  1.00 89.93           N
ATOM    534  C   ARG A 521      81.141   3.921  10.475  1.00 32.94           C
ATOM    535  O   ARG A 521      80.667   3.504   9.419  1.00 32.23           O
ATOM    536  N   VAL A 522      82.297   3.495  10.975  1.00 28.72           N
ATOM    537  CA  VAL A 522      83.074   2.453  10.324  1.00 28.31           C
ATOM    538  CB  VAL A 522      84.588   2.657  10.527  1.00 31.73           C
ATOM    539  CG1 VAL A 522      85.037   3.969   9.921  1.00 31.23           C
ATOM    540  CG2 VAL A 522      84.931   2.602  11.994  1.00 31.57           C
ATOM    541  C   VAL A 522      82.598   1.104  10.856  1.00 32.55           C
ATOM    542  O   VAL A 522      81.855   1.042  11.841  1.00 32.33           O
ATOM    543  N   PRO A 523      83.006   0.006  10.201  1.00 29.00           N
ATOM    544  CA  PRO A 523      82.566  -1.340  10.591  1.00 28.70           C
ATOM    545  CB  PRO A 523      83.176  -2.237   9.510  1.00 30.37           C
ATOM    546  CG  PRO A 523      83.330  -1.354   8.328  1.00 34.91           C
ATOM    547  CD  PRO A 523      83.645   0.017   8.872  1.00 30.45           C
ATOM    548  C   PRO A 523      83.032  -1.792  11.969  1.00 32.86           C
ATOM    549  O   PRO A 523      82.296  -2.472  12.681  1.00 32.92           O
ATOM    550  N   TYR A 524      84.262  -1.442  12.335  1.00 28.11           N
ATOM    551  CA  TYR A 524      84.815  -1.876  13.610  1.00 26.73           C
ATOM    552  CB  TYR A 524      85.892  -2.932  13.372  1.00 27.98           C
ATOM    553  CG  TYR A 524      86.603  -3.379  14.623  1.00 29.84           C
ATOM    554  CD1 TYR A 524      85.966  -4.190  15.555  1.00 31.65           C
ATOM    555  CE1 TYR A 524      86.620  -4.610  16.697  1.00 32.17           C
ATOM    556  CZ  TYR A 524      87.927  -4.223  16.915  1.00 37.51           C
ATOM    557  OH  TYR A 524      88.581  -4.640  18.050  1.00 37.83           O
ATOM    558  CE2 TYR A 524      88.582  -3.422  16.004  1.00 31.19           C
ATOM    559  CD2 TYR A 524      87.921  -3.007  14.865  1.00 30.45           C
ATOM    560  C   TYR A 524      85.351  -0.757  14.505  1.00 27.88           C
ATOM    561  O   TYR A 524      85.064  -0.729  15.702  1.00 26.64           O
ATOM    562  N   HIS A 525      86.141   0.148  13.929  1.00 23.42           N
ATOM    563  CA  HIS A 525      86.736   1.254  14.681  1.00 23.21           C
ATOM    564  CB  HIS A 525      88.008   1.754  13.996  1.00 24.05           C
ATOM    565  CG  HIS A 525      89.157   0.802  14.106  1.00 27.59           C
ATOM    566  ND1 HIS A 525      89.497  -0.074  13.098  1.00 29.41           N
ATOM    567  CE1 HIS A 525      90.531  -0.802  13.480  1.00 28.87           C
ATOM    568  NE2 HIS A 525      90.869  -0.436  14.703  1.00 29.15           N
ATOM    569  CD2 HIS A 525      90.021   0.562  15.120  1.00 29.38           C
ATOM    570  C   HIS A 525      85.758   2.398  14.894  1.00 25.60           C
ATOM    571  O   HIS A 525      85.955   3.501  14.397  1.00 25.61           O
ATOM    572  N   ASN A 526      84.724   2.126  15.678  1.00 21.25           N
ATOM    573  CA  ASN A 526      83.673   3.091  15.953  1.00 20.44           C
ATOM    574  CB  ASN A 526      82.352   2.571  15.375  1.00 20.12           C
ATOM    575  CG  ASN A 526      82.136   1.096  15.663  1.00 35.43           C
ATOM    576  OD1 ASN A 526      81.985   0.694  16.813  1.00 27.90           O
ATOM    577  ND2 ASN A 526      82.149   0.281  14.621  1.00 30.50           N
ATOM    578  C   ASN A 526      83.507   3.374  17.446  1.00 23.12           C
ATOM    579  O   ASN A 526      84.356   3.016  18.262  1.00 23.33           O
ATOM    580  N   TRP A 527      82.394   4.020  17.779  1.00 18.71           N
ATOM    581  CA  TRP A 527      82.041   4.401  19.141  1.00 18.14           C
ATOM    582  CB  TRP A 527      80.743   5.225  19.092  1.00 17.07           C
ATOM    583  CG  TRP A 527      80.239   5.724  20.406  1.00 17.84           C
ATOM    584  CD1 TRP A 527      78.978   5.573  20.908  1.00 20.83           C
ATOM    585  NE1 TRP A 527      78.889   6.163  22.148  1.00 20.45           N
ATOM    586  CE2 TRP A 527      80.095   6.737  22.451  1.00 21.76           C
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ATOM    587  CD2 TRP A 527      80.964   6.499  21.364  1.00 17.67           C
ATOM    588  CE3 TRP A 527      82.272   6.989  21.424  1.00 19.03           C
ATOM    589  CZ3 TRP A 527      82.665   7.685  22.543  1.00 20.69           C
ATOM    590  CH2 TRP A 527      81.777   7.915  23.606  1.00 21.63           C
ATOM    591  CZ2 TRP A 527      80.497   7.432  23.587  1.00 21.08           C
ATOM    592  C   TRP A 527      81.908   3.172  20.056  1.00 22.23           C
ATOM    593  O   TRP A 527      82.338   3.193  21.214  1.00 21.81           O
ATOM    594  N   LYS A 528      81.366   2.081  19.529  1.00 18.85           N
ATOM    595  CA  LYS A 528      81.257   0.878  20.340  1.00 19.47           C
ATOM    596  CB  LYS A 528      80.474  -0.222  19.625  1.00 21.49           C
ATOM    597  CG  LYS A 528      79.886  -1.248  20.586  1.00 35.08           C
ATOM    598  CD  LYS A 528      79.129  -2.350  19.869  1.00 42.88           C
ATOM    599  CE  LYS A 528      78.665  -3.420  20.853  1.00 55.12           C
ATOM    600  NZ  LYS A 528      77.575  -4.268  20.295  1.00 63.48           N
ATOM    601  C   LYS A 528      82.648   0.388  20.748  1.00 24.84           C
ATOM    602  O   LYS A 528      82.884   0.067  21.911  1.00 25.31           O
ATOM    603  N   HIS A 529      83.575   0.363  19.798  1.00 21.46           N
ATOM    604  CA  HIS A 529      84.937  -0.080  20.078  1.00 21.78           C
ATOM    605  CB  HIS A 529      85.784  -0.009  18.805  1.00 23.00           C
ATOM    606  CG  HIS A 529      87.234  -0.297  19.029  1.00 27.02           C
ATOM    607  ND1 HIS A 529      87.677  -1.430  19.679  1.00 29.23           N
ATOM    608  CE1 HIS A 529      88.997  -1.418  19.729  1.00 28.75           C
ATOM    609  NE2 HIS A 529      89.425  -0.318  19.137  1.00 29.11           N
ATOM    610  CD2 HIS A 529      88.343   0.401  18.690  1.00 29.10           C
ATOM    611  C   HIS A 529      85.568   0.769  21.178  1.00 24.71           C
ATOM    612  O   HIS A 529      86.121   0.251  22.150  1.00 24.05           O
ATOM    613  N   ALA A 530      85.492   2.080  21.000  1.00 20.93           N
ATOM    614  CA  ALA A 530      86.033   3.028  21.958  1.00 20.69           C
ATOM    615  CB  ALA A 530      85.614   4.443  21.582  1.00 21.30           C
ATOM    616  C   ALA A 530      85.596   2.700  23.381  1.00 25.38           C
ATOM    617  O   ALA A 530      86.424   2.627  24.291  1.00 25.99           O
ATOM    618  N   VAL A 531      84.295   2.492  23.557  1.00 21.11           N
ATOM    619  CA  VAL A 531      83.699   2.192  24.861  1.00 20.22           C
ATOM    620  CB  VAL A 531      82.158   2.336  24.796  1.00 23.18           C
ATOM    621  CG1 VAL A 531      81.524   2.161  26.176  1.00 22.57           C
ATOM    622  CG2 VAL A 531      81.784   3.675  24.185  1.00 22.60           C
ATOM    623  C   VAL A 531      84.109   0.822  25.401  1.00 24.21           C
ATOM    624  O   VAL A 531      84.336   0.655  26.602  1.00 22.85           O
ATOM    625  N   THR A 532      84.191  -0.158  24.506  1.00 22.02           N
ATOM    626  CA  THR A 532      84.589  -1.513  24.874  1.00 22.04           C
ATOM    627  CB  THR A 532      84.447  -2.477  23.678  1.00 30.22           C
ATOM    628  OG1 THR A 532      83.079  -2.517  23.261  1.00 30.99           O
ATOM    629  CG2 THR A 532      84.891  -3.880  24.063  1.00 28.04           C
ATOM    630  C   THR A 532      86.011  -1.534  25.442  1.00 26.45           C
ATOM    631  O   THR A 532      86.300  -2.278  26.383  1.00 26.77           O
ATOM    632  N   VAL A 533      86.893  -0.723  24.857  1.00 21.89           N
ATOM    633  CA  VAL A 533      88.286  -0.632  25.301  1.00 21.00           C
ATOM    634  CB  VAL A 533      89.202  -0.047  24.208  1.00 24.17           C
ATOM    635  CG1 VAL A 533      90.599   0.209  24.763  1.00 23.88           C
ATOM    636  CG2 VAL A 533      89.269  -0.990  23.013  1.00 23.65           C
ATOM    637  C   VAL A 533      88.404   0.136  26.616  1.00 24.85           C
ATOM    638  O   VAL A 533      89.153  -0.266  27.512  1.00 25.34           O
ATOM    639  N   ALA A 534      87.644   1.220  26.746  1.00 19.50           N
ATOM    640  CA  ALA A 534      87.645   1.982  27.988  1.00 18.67           C
ATOM    641  CB  ALA A 534      86.726   3.178  27.882  1.00 19.25           C
ATOM    642  C   ALA A 534      87.209   1.074  29.137  1.00 22.80           C
ATOM    643  O   ALA A 534      87.693   1.202  30.262  1.00 23.05           O
ATOM    644  N   HIS A 535      86.295   0.150  28.864  1.00 19.00           N
ATOM    645  CA  HIS A 535      85.841  -0.753  29.921  1.00 18.19           C
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ATOM    646  CB  HIS A 535      84.586  -1.524  29.546  1.00 18.26           C
ATOM    647  CG  HIS A 535      84.353  -2.723  30.421  1.00 20.85           C
ATOM    648  ND1 HIS A 535      84.887  -3.963  30.143  1.00 21.94           N
ATOM    649  CE1 HIS A 535      84.564  -4.807  31.109  1.00 21.22           C
ATOM    650  NE2 HIS A 535      83.875  -4.149  32.024  1.00 21.63           N
ATOM    651  CD2 HIS A 535      83.741  -2.840  31.624  1.00 22.12           C
ATOM    652  C   HIS A 535      86.918  -1.747  30.313  1.00 24.43           C
ATOM    653  O   HIS A 535      87.073  -2.076  31.486  1.00 24.58           O
ATOM    654  N   CYS A 536      87.632  -2.265  29.324  1.00 22.93           N
ATOM    655  CA  CYS A 536      88.704  -3.201  29.604  1.00 24.38           C
ATOM    656  CB  CYS A 536      89.355  -3.668  28.312  1.00 25.46           C
ATOM    657  SG  CYS A 536      90.592  -4.925  28.600  1.00 29.81           S
ATOM    658  C   CYS A 536      89.749  -2.529  30.488  1.00 29.78           C
ATOM    659  O   CYS A 536      90.305  -3.145  31.394  1.00 29.69           O
ATOM    660  N   MET A 537      90.026  -1.261  30.208  1.00 27.41           N
ATOM    661  CA  MET A 537      90.988  -0.516  31.003  1.00 27.75           C
ATOM    662  CB  MET A 537      91.203   0.884  30.413  1.00 30.42           C
ATOM    663  CG  MET A 537      92.145   1.781  31.213  1.00 34.47           C
ATOM    664  SD  MET A 537      93.874   1.225  31.243  1.00 38.78           S
ATOM    665  CE  MET A 537      94.110   0.667  29.547  1.00 35.61           C
ATOM    666  C   MET A 537      90.425  -0.421  32.417  1.00 31.14           C
ATOM    667  O   MET A 537      91.152  -0.560  33.399  1.00 30.47           O
ATOM    668  N   TYR A 538      89.112  -0.227  32.504  1.00 27.79           N
ATOM    669  CA  TYR A 538      88.422  -0.138  33.787  1.00 27.46           C
ATOM    670  CB  TYR A 538      86.928   0.100  33.570  1.00 28.24           C
ATOM    671  CG  TYR A 538      86.087  -0.038  34.820  1.00 29.34           C
ATOM    672  CD1 TYR A 538      86.151   0.912  35.831  1.00 31.22           C
ATOM    673  CE1 TYR A 538      85.375   0.797  36.974  1.00 30.50           C
ATOM    674  CZ  TYR A 538      84.514  -0.272  37.108  1.00 35.30           C
ATOM    675  OH  TYR A 538      83.738  -0.385  38.242  1.00 32.08           O
ATOM    676  CE2 TYR A 538      84.432  -1.230  36.117  1.00 30.04           C
ATOM    677  CD2 TYR A 538      85.210  -1.105  34.978  1.00 29.62           C
ATOM    678  C   TYR A 538      88.636  -1.418  34.583  1.00 31.54           C
ATOM    679  O   TYR A 538      89.068  -1.381  35.735  1.00 31.62           O
ATOM    680  N   ALA A 539      88.354  -2.551  33.951  1.00 27.33           N
ATOM    681  CA  ALA A 539      88.526  -3.847  34.593  1.00 26.78           C
ATOM    682  CB  ALA A 539      88.111  -4.971  33.650  1.00 27.59           C
ATOM    683  C   ALA A 539      89.960  -4.055  35.084  1.00 28.96           C
ATOM    684  O   ALA A 539      90.173  -4.591  36.167  1.00 27.93           O
ATOM    685  N   ILE A 540      90.939  -3.643  34.286  1.00 25.44           N
ATOM    686  CA  ILE A 540      92.342  -3.789  34.679  1.00 25.27           C
ATOM    687  CB  ILE A 540      93.298  -3.394  33.543  1.00 27.96           C
ATOM    688  CG1 ILE A 540      93.342  -4.479  32.473  1.00 27.86           C
ATOM    689  CD1 ILE A 540      94.019  -4.037  31.205  1.00 32.39           C
ATOM    690  CG2 ILE A 540      94.699  -3.167  34.096  1.00 29.00           C
ATOM    691  C   ILE A 540      92.619  -2.918  35.889  1.00 30.65           C
ATOM    692  O   ILE A 540      93.198  -3.358  36.879  1.00 30.19           O
ATOM    693  N   LEU A 541      92.235  -1.655  35.774  1.00 29.11           N
ATOM    694  CA  LEU A 541      92.426  -0.696  36.845  1.00 29.62           C
ATOM    695  CB  LEU A 541      91.763   0.632  36.477  1.00 29.40           C
ATOM    696  CG  LEU A 541      92.558   1.518  35.516  1.00 33.49           C
ATOM    697  CD1 LEU A 541      91.966   2.918  35.462  1.00 33.20           C
ATOM    698  CD2 LEU A 541      94.017   1.566  35.939  1.00 34.91           C
ATOM    699  C   LEU A 541      91.875  -1.216  38.172  1.00 36.39           C
ATOM    700  O   LEU A 541      92.597  -1.282  39.162  1.00 36.72           O
ATOM    701  N   GLN A 542      90.597  -1.585  38.189  1.00 34.58           N
ATOM    702  CA  GLN A 542      89.945  -2.060  39.412  1.00 35.02           C
ATOM    703  CB  GLN A 542      88.449  -2.309  39.182  1.00 36.20           C
ATOM    704  CG  GLN A 542      87.646  -1.049  38.869  1.00 47.37           C
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ATOM    705  CD  GLN A 542      87.430  -0.164  40.087  1.00 58.52           C
ATOM    706  OE1 GLN A 542      86.509  -0.385  40.875  1.00 53.37           O
ATOM    707  NE2 GLN A 542      88.279   0.846  40.243  1.00 45.71           N
ATOM    708  C   GLN A 542      90.598  -3.282  40.052  1.00 40.85           C
ATOM    709  O   GLN A 542      90.527  -3.464  41.268  1.00 40.87           O
ATOM    710  N   ASN A 543      91.229  -4.120  39.236  1.00 38.43           N
ATOM    711  CA  ASN A 543      91.892  -5.320  39.738  1.00 38.79           C
ATOM    712  CB  ASN A 543      91.844  -6.444  38.698  1.00 39.18           C
ATOM    713  CG  ASN A 543      90.493  -7.142  38.659  1.00 59.91           C
ATOM    714  OD1 ASN A 543      90.238  -8.066  39.431  1.00 55.85           O
ATOM    715  ND2 ASN A 543      89.610  -6.677  37.782  1.00 49.74           N
ATOM    716  C   ASN A 543      93.328  -5.046  40.198  1.00 44.53           C
ATOM    717  O   ASN A 543      93.981  -5.914  40.777  1.00 44.96           O
ATOM    718  N   ASN A 544      93.806  -3.831  39.949  1.00 41.70           N
ATOM    719  CA  ASN A 544      95.149  -3.418  40.357  1.00 41.91           C
ATOM    720  CB  ASN A 544      96.068  -3.282  39.140  1.00 39.73           C
ATOM    721  CG  ASN A 544      96.252  -4.591  38.401  1.00 52.33           C
ATOM    722  OD1 ASN A 544      96.798  -5.547  38.943  1.00 43.42           O
ATOM    723  ND2 ASN A 544      95.780  -4.643  37.163  1.00 44.52           N
ATOM    724  C   ASN A 544      95.015  -2.077  41.070  1.00 48.02           C
ATOM    725  O   ASN A 544      95.753  -1.131  40.799  1.00 47.52           O
ATOM    726  N   HIS A 545      94.042  -2.016  41.971  1.00 46.87           N
ATOM    727  CA  HIS A 545      93.704  -0.816  42.729  1.00 47.97           C
ATOM    728  CB  HIS A 545      92.817  -1.193  43.922  1.00 49.24           C
ATOM    729  CG  HIS A 545      92.494  -0.048  44.832  1.00 53.20           C
ATOM    730  ND1 HIS A 545      92.621  -0.128  46.202  1.00 55.26           N
ATOM    731  CE1 HIS A 545      92.258   1.021  46.745  1.00 54.82           C
ATOM    732  NE2 HIS A 545      91.895   1.842  45.776  1.00 55.19           N
ATOM    733  CD2 HIS A 545      92.029   1.197  44.569  1.00 55.31           C
ATOM    734  C   HIS A 545      94.870   0.059  43.187  1.00 53.36           C
ATOM    735  O   HIS A 545      94.891   1.265  42.930  1.00 53.44           O
ATOM    736  N   THR A 546      95.825  -0.542  43.888  1.00 50.43           N
ATOM    737  CA  THR A 546      96.949   0.201  44.450  1.00 50.38           C
ATOM    738  CB  THR A 546      97.438  -0.451  45.756  1.00 59.29           C
ATOM    739  OG1 THR A 546      96.314  -0.942  46.499  1.00 57.57           O
ATOM    740  CG2 THR A 546      98.210   0.557  46.598  1.00 58.79           C
ATOM    741  C   THR A 546      98.126   0.471  43.514  1.00 54.10           C
ATOM    742  O   THR A 546      99.119   1.065  43.928  1.00 53.56           O
ATOM    743  N   LEU A 547      98.031   0.033  42.265  1.00 50.76           N
ATOM    744  CA  LEU A 547      99.143   0.202  41.339  1.00 50.72           C
ATOM    745  CB  LEU A 547      99.199  -0.951  40.339  1.00 50.89           C
ATOM    746  CG  LEU A 547     100.348  -0.847  39.337  1.00 56.05           C
ATOM    747  CD1 LEU A 547     101.684  -0.938  40.057  1.00 56.46           C
ATOM    748  CD2 LEU A 547     100.230  -1.925  38.275  1.00 58.91           C
ATOM    749  C   LEU A 547      99.272   1.539  40.609  1.00 54.33           C
ATOM    750  O   LEU A 547     100.346   1.858  40.097  1.00 53.95           O
ATOM    751  N   PHE A 548      98.192   2.310  40.534  1.00 50.48           N
ATOM    752  CA  PHE A 548      98.240   3.565  39.791  1.00 50.04           C
ATOM    753  CB  PHE A 548      97.404   3.464  38.515  1.00 51.69           C
ATOM    754  CG  PHE A 548      97.644   2.200  37.742  1.00 53.06           C
ATOM    755  CD1 PHE A 548      97.055   1.010  38.137  1.00 56.12           C
ATOM    756  CE1 PHE A 548      97.293  -0.161  37.445  1.00 56.94           C
ATOM    757  CZ  PHE A 548      98.136  -0.156  36.353  1.00 56.09           C
ATOM    758  CE2 PHE A 548      98.738   1.020  35.955  1.00 57.97           C
ATOM    759  CD2 PHE A 548      98.496   2.189  36.651  1.00 55.10           C
ATOM    760  C   PHE A 548      97.930   4.845  40.553  1.00 54.03           C
ATOM    761  O   PHE A 548      97.171   4.847  41.523  1.00 53.68           O
ATOM    762  N   THR A 549      98.535   5.935  40.092  1.00 50.69           N
ATOM    763  CA  THR A 549      98.339   7.254  40.682  1.00 50.39           C
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ATOM	764	CB	THR	A	549	99.428	8.235	40.212	1.00	58.73	C
ATOM	765	OG1	THR	A	549	99.307	8.444	38.799	1.00	58.27	O
ATOM	766	CG2	THR	A	549	100.813	7.674	40.516	1.00	58.23	C
ATOM	767	C	THR	A	549	96.952	7.775	40.326	1.00	53.53	C
ATOM	768	O	THR	A	549	96.281	7.227	39.454	1.00	52.55	O
ATOM	769	N	ASP	A	550	96.530	8.838	41.002	1.00	50.48	N
ATOM	770	CA	ASP	A	550	95.222	9.435	40.749	1.00	50.36	C
ATOM	771	CB	ASP	A	550	94.864	10.441	41.849	1.00	52.43	C
ATOM	772	CG	ASP	A	550	95.818	10.383	43.031	1.00	64.54	C
ATOM	773	OD1	ASP	A	550	95.355	10.112	44.160	1.00	65.34	O
ATOM	774	OD2	ASP	A	550	97.029	10.627	42.835	1.00	71.53	O
ATOM	775	C	ASP	A	550	95.177	10.120	39.386	1.00	53.38	C
ATOM	776	O	ASP	A	550	94.100	10.383	38.849	1.00	53.60	O
ATOM	777	N	LEU	A	551	96.349	10.416	38.836	1.00	48.27	N
ATOM	778	CA	LEU	A	551	96.438	11.077	37.539	1.00	47.19	C
ATOM	779	CB	LEU	A	551	97.747	11.863	37.422	1.00	47.20	C
ATOM	780	CG	LEU	A	551	97.660	13.326	37.857	1.00	51.92	C
ATOM	781	CD1	LEU	A	551	98.429	14.227	36.902	1.00	52.15	C
ATOM	782	CD2	LEU	A	551	96.205	13.757	37.956	1.00	54.33	C
ATOM	783	C	LEU	A	551	96.315	10.076	36.396	1.00	48.50	C
ATOM	784	O	LEU	A	551	95.593	10.310	35.425	1.00	47.71	O
ATOM	785	N	GLU	A	552	97.021	8.958	36.521	1.00	43.61	N
ATOM	786	CA	GLU	A	552	96.982	7.914	35.505	1.00	42.81	C
ATOM	787	CB	GLU	A	552	97.928	6.772	35.878	1.00	44.17	C
ATOM	788	CG	GLU	A	552	99.373	7.203	36.073	1.00	54.93	C
ATOM	789	CD	GLU	A	552	100.173	6.216	36.907	1.00	74.93	C
ATOM	790	OE1	GLU	A	552	101.307	5.878	36.504	1.00	69.44	O
ATOM	791	OE2	GLU	A	552	99.674	5.786	37.969	1.00	66.70	O
ATOM	792	C	GLU	A	552	95.561	7.384	35.333	1.00	45.63	C
ATOM	793	O	GLU	A	552	95.094	7.177	34.210	1.00	45.14	O
ATOM	794	N	ARG	A	553	94.875	7.164	36.449	1.00	41.18	N
ATOM	795	CA	ARG	A	553	93.508	6.659	36.406	1.00	40.78	C
ATOM	796	CB	ARG	A	553	92.948	6.497	37.821	1.00	41.40	C
ATOM	797	CG	ARG	A	553	93.548	5.331	38.590	1.00	53.04	C
ATOM	798	CD	ARG	A	553	92.675	4.930	39.768	1.00	66.80	C
ATOM	799	NE	ARG	A	553	93.338	5.165	41.047	1.00	78.66	N
ATOM	800	CZ	ARG	A	553	93.162	6.253	41.793	1.00	95.17	C
ATOM	801	NH1	ARG	A	553	92.342	7.213	41.387	1.00	82.82	N
ATOM	802	NH2	ARG	A	553	93.807	6.380	42.945	1.00	83.41	N
ATOM	803	C	ARG	A	553	92.631	7.600	35.591	1.00	44.14	C
ATOM	804	O	ARG	A	553	91.914	7.170	34.687	1.00	43.77	O
ATOM	805	N	LYS	A	554	92.721	8.889	35.900	1.00	40.25	N
ATOM	806	CA	LYS	A	554	91.962	9.915	35.198	1.00	39.70	C
ATOM	807	CB	LYS	A	554	92.335	11.297	35.742	1.00	42.25	C
ATOM	808	CG	LYS	A	554	91.611	11.705	37.011	1.00	53.45	C
ATOM	809	CD	LYS	A	554	91.867	13.173	37.313	1.00	62.42	C
ATOM	810	CE	LYS	A	554	91.344	13.567	38.682	1.00	73.17	C
ATOM	811	NZ	LYS	A	554	90.959	15.008	38.728	1.00	83.48	N
ATOM	812	C	LYS	A	554	92.245	9.892	33.699	1.00	42.62	C
ATOM	813	O	LYS	A	554	91.325	9.916	32.884	1.00	42.65	O
ATOM	814	N	GLY	A	555	93.526	9.881	33.342	1.00	37.63	N
ATOM	815	CA	GLY	A	555	93.945	9.919	31.954	1.00	36.55	C
ATOM	816	C	GLY	A	555	93.760	8.654	31.138	1.00	38.69	C
ATOM	817	O	GLY	A	555	93.613	8.721	29.917	1.00	38.53	O
ATOM	818	N	LEU	A	556	93.791	7.498	31.792	1.00	33.40	N
ATOM	819	CA	LEU	A	556	93.684	6.229	31.079	1.00	32.44	C
ATOM	820	CB	LEU	A	556	94.253	5.074	31.899	1.00	32.51	C
ATOM	821	CG	LEU	A	556	95.780	5.112	31.962	1.00	36.94	C
ATOM	822	CD1	LEU	A	556	96.323	4.019	32.862	1.00	37.12	C

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ATOM    823  CD2 LEU A 556      96.379   5.019  30.567  1.00 39.58           C
ATOM    824  C   LEU A 556      92.336   5.889  30.452  1.00 34.04           C
ATOM    825  O   LEU A 556      92.288   5.407  29.323  1.00 32.82           O
ATOM    826  N   LEU A 557      91.246   6.139  31.172  1.00 30.17           N
ATOM    827  CA  LEU A 557      89.913   5.879  30.629  1.00 29.90           C
ATOM    828  CB  LEU A 557      88.852   5.989  31.726  1.00 30.16           C
ATOM    829  CG  LEU A 557      88.879   4.907  32.806  1.00 34.98           C
ATOM    830  CD1 LEU A 557      89.252   5.523  34.151  1.00 35.16           C
ATOM    831  CD2 LEU A 557      87.536   4.196  32.890  1.00 36.67           C
ATOM    832  C   LEU A 557      89.645   6.909  29.537  1.00 32.48           C
ATOM    833  O   LEU A 557      89.139   6.586  28.461  1.00 32.81           O
ATOM    834  N   ILE A 558      90.027   8.150  29.816  1.00 27.30           N
ATOM    835  CA  ILE A 558      89.882   9.231  28.854  1.00 26.06           C
ATOM    836  CB  ILE A 558      90.441  10.547  29.425  1.00 28.99           C
ATOM    837  CG1 ILE A 558      89.603  11.007  30.621  1.00 29.23           C
ATOM    838  CD1 ILE A 558      88.184  11.388  30.258  1.00 31.52           C
ATOM    839  CG2 ILE A 558      90.487  11.623  28.350  1.00 29.42           C
ATOM    840  C   ILE A 558      90.620   8.839  27.580  1.00 27.66           C
ATOM    841  O   ILE A 558      90.099   8.979  26.477  1.00 26.37           O
ATOM    842  N   ALA A 559      91.831   8.319  27.748  1.00 23.87           N
ATOM    843  CA  ALA A 559      92.665   7.916  26.621  1.00 23.72           C
ATOM    844  CB  ALA A 559      94.084   7.594  27.088  1.00 24.50           C
ATOM    845  C   ALA A 559      92.093   6.770  25.794  1.00 28.43           C
ATOM    846  O   ALA A 559      92.210   6.765  24.569  1.00 29.72           O
ATOM    847  N   CYS A 560      91.492   5.789  26.456  1.00 23.68           N
ATOM    848  CA  CYS A 560      90.919   4.650  25.750  1.00 22.85           C
ATOM    849  CB  CYS A 560      90.559   3.536  26.731  1.00 23.51           C
ATOM    850  SG  CYS A 560      91.954   2.975  27.721  1.00 27.72           S
ATOM    851  C   CYS A 560      89.694   5.071  24.954  1.00 25.02           C
ATOM    852  O   CYS A 560      89.434   4.551  23.872  1.00 24.44           O
ATOM    853  N   LEU A 561      88.943   6.025  25.490  1.00 20.58           N
ATOM    854  CA  LEU A 561      87.758   6.512  24.808  1.00 20.33           C
ATOM    855  CB  LEU A 561      86.930   7.380  25.749  1.00 20.44           C
ATOM    856  CG  LEU A 561      85.512   7.702  25.284  1.00 25.00           C
ATOM    857  CD1 LEU A 561      84.631   6.454  25.351  1.00 25.31           C
ATOM    858  CD2 LEU A 561      84.944   8.815  26.146  1.00 26.98           C
ATOM    859  C   LEU A 561      88.114   7.294  23.544  1.00 24.33           C
ATOM    860  O   LEU A 561      87.340   7.325  22.586  1.00 24.39           O
ATOM    861  N   CYS A 562      89.290   7.913  23.538  1.00 20.49           N
ATOM    862  CA  CYS A 562      89.732   8.720  22.400  1.00 20.31           C
ATOM    863  CB  CYS A 562      90.323  10.033  22.901  1.00 21.38           C
ATOM    864  SG  CYS A 562      89.168  11.076  23.801  1.00 25.81           S
ATOM    865  C   CYS A 562      90.752   8.037  21.494  1.00 22.76           C
ATOM    866  O   CYS A 562      91.000   8.487  20.371  1.00 22.17           O
ATOM    867  N   HIS A 563      91.375   6.981  22.005  1.00 18.50           N
ATOM    868  CA  HIS A 563      92.430   6.273  21.296  1.00 17.40           C
ATOM    869  CB  HIS A 563      92.793   4.974  22.012  1.00 17.30           C
ATOM    870  CG  HIS A 563      91.998   3.790  21.556  1.00 20.04           C
ATOM    871  ND1 HIS A 563      90.693   3.573  21.946  1.00 21.27           N
ATOM    872  CE1 HIS A 563      90.246   2.467  21.377  1.00 20.89           C
ATOM    873  NE2 HIS A 563      91.217   1.955  20.640  1.00 21.02           N
ATOM    874  CD2 HIS A 563      92.325   2.760  20.741  1.00 21.07           C
ATOM    875  C   HIS A 563      92.209   6.048  19.805  1.00 22.08           C
ATOM    876  O   HIS A 563      93.169   5.831  19.064  1.00 22.52           O
ATOM    877  N   ASP A 564      90.961   6.135  19.354  1.00 18.30           N
ATOM    878  CA  ASP A 564      90.668   5.934  17.936  1.00 17.83           C
ATOM    879  CB  ASP A 564      90.050   4.565  17.692  1.00 19.50           C
ATOM    880  CG  ASP A 564      91.073   3.549  17.278  1.00 28.87           C
ATOM    881  OD1 ASP A 564      92.227   3.962  17.045  1.00 29.44           O
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ATOM	882	OD2	ASP	A	564	90.740	2.348	17.202	1.00	34.48	O
ATOM	883	C	ASP	A	564	89.835	7.023	17.272	1.00	21.80	C
ATOM	884	O	ASP	A	564	89.266	6.814	16.198	1.00	20.70	O
ATOM	885	N	LEU	A	565	89.790	8.185	17.911	1.00	19.58	N
ATOM	886	CA	LEU	A	565	89.047	9.336	17.415	1.00	19.85	C
ATOM	887	CB	LEU	A	565	89.473	10.593	18.177	1.00	19.78	C
ATOM	888	CG	LEU	A	565	88.590	11.076	19.329	1.00	23.84	C
ATOM	889	CD1	LEU	A	565	89.230	12.288	19.995	1.00	24.11	C
ATOM	890	CD2	LEU	A	565	87.202	11.419	18.826	1.00	24.64	C
ATOM	891	C	LEU	A	565	89.242	9.553	15.917	1.00	24.46	C
ATOM	892	O	LEU	A	565	90.347	9.419	15.392	1.00	24.37	O
ATOM	893	N	ASP	A	566	88.150	9.868	15.232	1.00	21.60	N
ATOM	894	CA	ASP	A	566	88.182	10.137	13.797	1.00	21.43	C
ATOM	895	CB	ASP	A	566	88.756	11.531	13.522	1.00	23.05	C
ATOM	896	CG	ASP	A	566	88.512	11.995	12.091	1.00	33.54	C
ATOM	897	OD1	ASP	A	566	87.401	11.756	11.570	1.00	34.23	O
ATOM	898	OD2	ASP	A	566	89.435	12.585	11.483	1.00	37.13	O
ATOM	899	C	ASP	A	566	88.903	9.090	12.951	1.00	25.37	C
ATOM	900	O	ASP	A	566	89.581	9.431	11.986	1.00	24.98	O
ATOM	901	N	HIS	A	567	88.734	7.818	13.286	1.00	22.80	N
ATOM	902	CA	HIS	A	567	89.347	6.757	12.497	1.00	23.25	C
ATOM	903	CB	HIS	A	567	89.388	5.448	13.283	1.00	23.85	C
ATOM	904	CG	HIS	A	567	90.407	4.477	12.779	1.00	26.94	C
ATOM	905	ND1	HIS	A	567	90.226	3.738	11.629	1.00	28.73	N
ATOM	906	CE1	HIS	A	567	91.288	2.980	11.425	1.00	27.86	C
ATOM	907	NE2	HIS	A	567	92.155	3.209	12.394	1.00	28.10	N
ATOM	908	CD2	HIS	A	567	91.627	4.138	13.255	1.00	28.32	C
ATOM	909	C	HIS	A	567	88.492	6.578	11.249	1.00	28.93	C
ATOM	910	O	HIS	A	567	87.265	6.561	11.338	1.00	28.17	O
ATOM	911	N	ARG	A	568	89.138	6.461	10.093	1.00	26.66	N
ATOM	912	CA	ARG	A	568	88.429	6.328	8.825	1.00	26.95	C
ATOM	913	CB	ARG	A	568	89.117	7.157	7.739	1.00	27.59	C
ATOM	914	CG	ARG	A	568	89.920	8.335	8.281	1.00	38.71	C
ATOM	915	CD	ARG	A	568	89.268	9.678	7.974	1.00	50.37	C
ATOM	916	NE	ARG	A	568	90.051	10.789	8.517	1.00	61.98	N
ATOM	917	CZ	ARG	A	568	90.546	11.788	7.791	1.00	80.13	C
ATOM	918	NH1	ARG	A	568	90.335	11.835	6.483	1.00	73.14	N
ATOM	919	NH2	ARG	A	568	91.252	12.747	8.375	1.00	65.34	N
ATOM	920	C	ARG	A	568	88.244	4.883	8.373	1.00	32.30	C
ATOM	921	O	ARG	A	568	87.533	4.616	7.398	1.00	31.55	O
ATOM	922	N	GLY	A	569	88.864	3.951	9.094	1.00	30.49	N
ATOM	923	CA	GLY	A	569	88.764	2.535	8.786	1.00	30.59	C
ATOM	924	C	GLY	A	569	89.933	2.024	7.967	1.00	34.98	C
ATOM	925	O	GLY	A	569	89.884	0.923	7.415	1.00	34.17	O
ATOM	926	N	PHE	A	570	90.990	2.828	7.892	1.00	32.21	N
ATOM	927	CA	PHE	A	570	92.177	2.463	7.124	1.00	31.75	C
ATOM	928	CB	PHE	A	570	92.401	3.454	5.982	1.00	33.98	C
ATOM	929	CG	PHE	A	570	91.335	3.413	4.931	1.00	36.17	C
ATOM	930	CD1	PHE	A	570	91.085	2.248	4.226	1.00	39.69	C
ATOM	931	CE1	PHE	A	570	90.099	2.204	3.262	1.00	40.70	C
ATOM	932	CZ	PHE	A	570	89.353	3.332	2.988	1.00	40.02	C
ATOM	933	CE2	PHE	A	570	89.590	4.501	3.686	1.00	42.02	C
ATOM	934	CD2	PHE	A	570	90.576	4.537	4.651	1.00	38.98	C
ATOM	935	C	PHE	A	570	93.439	2.360	7.973	1.00	32.36	C
ATOM	936	O	PHE	A	570	93.667	3.168	8.875	1.00	31.54	O
ATOM	937	N	SER	A	571	94.270	1.375	7.652	1.00	26.82	N
ATOM	938	CA	SER	A	571	95.532	1.172	8.355	1.00	25.32	C
ATOM	939	CB	SER	A	571	96.102	-0.211	8.038	1.00	26.90	C
ATOM	940	OG	SER	A	571	96.713	-0.219	6.762	1.00	33.02	O

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ATOM    941  C   SER A 571      96.529   2.252   7.944  1.00 27.98           C
ATOM    942  O   SER A 571      96.376   2.884   6.896  1.00 27.83           O
ATOM    943  N   ASN A 572      97.546   2.457   8.775  1.00 23.82           N
ATOM    944  CA  ASN A 572      98.569   3.465   8.510  1.00 23.89           C
ATOM    945  CB  ASN A 572      99.592   3.497   9.649  1.00 21.36           C
ATOM    946  CG  ASN A 572      99.123   4.327  10.821  1.00 34.72           C
ATOM    947  OD1 ASN A 572      98.200   5.130  10.694  1.00 32.34           O
ATOM    948  ND2 ASN A 572      99.739   4.122  11.975  1.00 21.28           N
ATOM    949  C   ASN A 572      99.267   3.203   7.182  1.00 29.08           C
ATOM    950  O   ASN A 572      99.690   4.134   6.497  1.00 28.74           O
ATOM    951  N   SER A 573      99.391   1.925   6.838  1.00 26.84           N
ATOM    952  CA  SER A 573     100.054   1.496   5.611  1.00 27.38           C
ATOM    953  CB  SER A 573     100.148  -0.031   5.570  1.00 31.49           C
ATOM    954  OG  SER A 573     100.003  -0.584   6.870  1.00 42.23           O
ATOM    955  C   SER A 573      99.353   2.008   4.360  1.00 32.10           C
ATOM    956  O   SER A 573     100.007   2.465   3.423  1.00 32.66           O
ATOM    957  N   TYR A 574      98.026   1.918   4.341  1.00 27.96           N
ATOM    958  CA  TYR A 574      97.254   2.386   3.196  1.00 27.83           C
ATOM    959  CB  TYR A 574      95.768   2.032   3.354  1.00 28.97           C
ATOM    960  CG  TYR A 574      94.898   2.618   2.261  1.00 30.66           C
ATOM    961  CD1 TYR A 574      94.909   2.088   0.975  1.00 32.62           C
ATOM    962  CE1 TYR A 574      94.151   2.652  -0.037  1.00 32.59           C
ATOM    963  CZ  TYR A 574      93.376   3.756   0.233  1.00 37.46           C
ATOM    964  OH  TYR A 574      92.612   4.322  -0.758  1.00 36.95           O
ATOM    965  CE2 TYR A 574      93.361   4.307   1.495  1.00 31.91           C
ATOM    966  CD2 TYR A 574      94.122   3.742   2.497  1.00 31.16           C
ATOM    967  C   TYR A 574      97.439   3.896   3.008  1.00 32.16           C
ATOM    968  O   TYR A 574      97.547   4.384   1.885  1.00 32.16           O
ATOM    969  N   LEU A 575      97.490   4.630   4.113  1.00 29.04           N
ATOM    970  CA  LEU A 575      97.672   6.076   4.065  1.00 29.17           C
ATOM    971  CB  LEU A 575      97.703   6.647   5.480  1.00 29.27           C
ATOM    972  CG  LEU A 575      96.386   7.207   6.016  1.00 33.84           C
ATOM    973  CD1 LEU A 575      95.318   6.121   6.092  1.00 33.99           C
ATOM    974  CD2 LEU A 575      96.627   7.832   7.384  1.00 36.63           C
ATOM    975  C   LEU A 575      98.967   6.418   3.342  1.00 33.81           C
ATOM    976  O   LEU A 575      99.040   7.389   2.589  1.00 33.28           O
ATOM    977  N   GLN A 576      99.986   5.599   3.573  1.00 31.37           N
ATOM    978  CA  GLN A 576     101.285   5.790   2.950  1.00 31.50           C
ATOM    979  CB  GLN A 576     102.325   4.890   3.613  1.00 33.20           C
ATOM    980  CG  GLN A 576     103.026   5.553   4.786  1.00 57.63           C
ATOM    981  CD  GLN A 576     102.938   4.744   6.062  1.00 83.69           C
ATOM    982  OE1 GLN A 576     103.180   3.537   6.066  1.00 80.20           O
ATOM    983  NE2 GLN A 576     102.628   5.417   7.165  1.00 77.33           N
ATOM    984  C   GLN A 576     101.244   5.541   1.450  1.00 35.61           C
ATOM    985  O   GLN A 576     101.717   6.359   0.665  1.00 36.04           O
ATOM    986  N   LYS A 577     100.666   4.413   1.055  1.00 31.34           N
ATOM    987  CA  LYS A 577     100.564   4.062  -0.357  1.00 30.51           C
ATOM    988  CB  LYS A 577     100.192   2.591  -0.525  1.00 32.67           C
ATOM    989  CG  LYS A 577     101.302   1.631  -0.116  1.00 48.98           C
ATOM    990  CD  LYS A 577     100.728   0.305   0.366  1.00 59.41           C
ATOM    991  CE  LYS A 577     101.836  -0.682   0.707  1.00 70.52           C
ATOM    992  NZ  LYS A 577     101.296  -2.018   1.092  1.00 79.04           N
ATOM    993  C   LYS A 577      99.592   4.959  -1.120  1.00 33.69           C
ATOM    994  O   LYS A 577      99.713   5.130  -2.332  1.00 32.78           O
ATOM    995  N   PHE A 578      98.621   5.525  -0.413  1.00 30.10           N
ATOM    996  CA  PHE A 578      97.665   6.422  -1.047  1.00 29.66           C
ATOM    997  CB  PHE A 578      96.342   6.458  -0.280  1.00 30.82           C
ATOM    998  CG  PHE A 578      95.345   7.415  -0.859  1.00 31.88           C
ATOM    999  CD1 PHE A 578      94.406   6.985  -1.780  1.00 34.64           C
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ATOM	1000	CE1	PHE	A	578	93.510	7.872	-2.338	1.00	35.63	C
ATOM	1001	CZ	PHE	A	578	93.561	9.207	-2.000	1.00	34.54	C
ATOM	1002	CE2	PHE	A	578	94.508	9.655	-1.104	1.00	36.39	C
ATOM	1003	CD2	PHE	A	578	95.398	8.763	-0.543	1.00	33.75	C
ATOM	1004	C	PHE	A	578	98.263	7.820	-1.115	1.00	34.76	C
ATOM	1005	O	PHE	A	578	97.892	8.627	-1.971	1.00	34.03	O
ATOM	1006	N	ASP	A	579	99.190	8.089	-0.199	1.00	32.80	N
ATOM	1007	CA	ASP	A	579	99.860	9.380	-0.115	1.00	32.85	C
ATOM	1008	CB	ASP	A	579	100.346	9.821	-1.499	1.00	34.93	C
ATOM	1009	CG	ASP	A	579	101.363	10.950	-1.435	1.00	47.32	C
ATOM	1010	OD1	ASP	A	579	101.676	11.412	-0.316	1.00	48.41	O
ATOM	1011	OD2	ASP	A	579	101.835	11.388	-2.509	1.00	53.90	O
ATOM	1012	C	ASP	A	579	98.917	10.415	0.490	1.00	36.59	C
ATOM	1013	O	ASP	A	579	98.763	11.518	-0.035	1.00	36.26	O
ATOM	1014	N	HIS	A	580	98.285	10.046	1.599	1.00	33.08	N
ATOM	1015	CA	HIS	A	580	97.364	10.941	2.284	1.00	32.36	C
ATOM	1016	CB	HIS	A	580	96.543	10.165	3.315	1.00	32.56	C
ATOM	1017	CG	HIS	A	580	95.352	10.914	3.826	1.00	35.43	C
ATOM	1018	ND1	HIS	A	580	95.435	11.833	4.849	1.00	36.97	N
ATOM	1019	CE1	HIS	A	580	94.236	12.339	5.081	1.00	36.18	C
ATOM	1020	NE2	HIS	A	580	93.380	11.778	4.247	1.00	36.46	N
ATOM	1021	CD2	HIS	A	580	94.053	10.883	3.451	1.00	36.75	C
ATOM	1022	C	HIS	A	580	98.145	12.072	2.958	1.00	36.70	C
ATOM	1023	O	HIS	A	580	99.319	11.916	3.289	1.00	36.63	O
ATOM	1024	N	PRO	A	581	97.507	13.240	3.133	1.00	33.20	N
ATOM	1025	CA	PRO	A	581	98.157	14.386	3.771	1.00	32.96	C
ATOM	1026	CB	PRO	A	581	97.029	15.415	3.833	1.00	34.77	C
ATOM	1027	CG	PRO	A	581	96.188	15.110	2.608	1.00	39.20	C
ATOM	1028	CD	PRO	A	581	96.488	13.682	2.166	1.00	34.68	C
ATOM	1029	C	PRO	A	581	98.676	14.070	5.169	1.00	36.14	C
ATOM	1030	O	PRO	A	581	99.748	14.530	5.559	1.00	35.92	O
ATOM	1031	N	LEU	A	582	97.917	13.275	5.916	1.00	32.62	N
ATOM	1032	CA	LEU	A	582	98.312	12.890	7.265	1.00	32.05	C
ATOM	1033	CB	LEU	A	582	97.210	12.066	7.935	1.00	31.86	C
ATOM	1034	CG	LEU	A	582	96.001	12.878	8.409	1.00	35.95	C
ATOM	1035	CD1	LEU	A	582	94.876	11.980	8.899	1.00	35.66	C
ATOM	1036	CD2	LEU	A	582	96.408	13.862	9.488	1.00	37.94	C
ATOM	1037	C	LEU	A	582	99.635	12.128	7.257	1.00	36.37	C
ATOM	1038	O	LEU	A	582	100.428	12.229	8.192	1.00	36.03	O
ATOM	1039	N	ALA	A	583	99.878	11.381	6.184	1.00	33.35	N
ATOM	1040	CA	ALA	A	583	101.114	10.617	6.048	1.00	33.45	C
ATOM	1041	CB	ALA	A	583	101.025	9.678	4.854	1.00	34.20	C
ATOM	1042	C	ALA	A	583	102.312	11.556	5.901	1.00	37.88	C
ATOM	1043	O	ALA	A	583	103.455	11.170	6.149	1.00	36.75	O
ATOM	1044	N	ALA	A	584	102.039	12.790	5.489	1.00	35.19	N
ATOM	1045	CA	ALA	A	584	103.085	13.787	5.320	1.00	35.72	C
ATOM	1046	CB	ALA	A	584	102.724	14.745	4.189	1.00	36.54	C
ATOM	1047	C	ALA	A	584	103.280	14.551	6.626	1.00	40.80	C
ATOM	1048	O	ALA	A	584	104.387	14.969	6.957	1.00	40.79	O
ATOM	1049	N	LEU	A	585	102.186	14.723	7.360	1.00	37.84	N
ATOM	1050	CA	LEU	A	585	102.193	15.431	8.635	1.00	37.90	C
ATOM	1051	CB	LEU	A	585	100.766	15.867	8.981	1.00	37.97	C
ATOM	1052	CG	LEU	A	585	100.477	16.586	10.299	1.00	43.10	C
ATOM	1053	CD1	LEU	A	585	101.407	17.775	10.496	1.00	43.55	C
ATOM	1054	CD2	LEU	A	585	99.024	17.033	10.321	1.00	45.19	C
ATOM	1055	C	LEU	A	585	102.797	14.580	9.765	1.00	42.39	C
ATOM	1056	O	LEU	A	585	103.414	15.114	10.687	1.00	42.60	O
ATOM	1057	N	TYR	A	586	102.620	13.260	9.684	1.00	38.19	N
ATOM	1058	CA	TYR	A	586	103.164	12.329	10.681	1.00	37.57	C

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ATOM   1059  CB  TYR A 586     102.062  11.797  11.612  1.00 38.63           C
ATOM   1060  CG  TYR A 586     101.117  12.840  12.178  1.00 40.01           C
ATOM   1061  CD1 TYR A 586      99.791  12.896  11.765  1.00 41.74           C
ATOM   1062  CE1 TYR A 586      98.912  13.828  12.296  1.00 42.47           C
ATOM   1063  CZ  TYR A 586      99.350  14.703  13.269  1.00 48.43           C
ATOM   1064  OH  TYR A 586      98.479  15.632  13.794  1.00 49.67           O
ATOM   1065  CE2 TYR A 586     100.656  14.652  13.715  1.00 41.53           C
ATOM   1066  CD2 TYR A 586     101.529  13.716  13.177  1.00 40.70           C
ATOM   1067  C   TYR A 586     103.825  11.142   9.976  1.00 41.00           C
ATOM   1068  O   TYR A 586     103.174  10.430   9.213  1.00 40.38           O
ATOM   1069  N   SER A 587     105.106  10.913  10.253  1.00 37.53           N
ATOM   1070  CA  SER A 587     105.841   9.813   9.623  1.00 37.13           C
ATOM   1071  CB  SER A 587     107.352  10.039   9.725  1.00 40.79           C
ATOM   1072  OG  SER A 587     107.657  11.423   9.763  1.00 49.91           O
ATOM   1073  C   SER A 587     105.475   8.431  10.164  1.00 39.85           C
ATOM   1074  O   SER A 587     105.170   7.518   9.397  1.00 40.14           O
ATOM   1075  N   THR A 588     105.529   8.275  11.482  1.00 34.85           N
ATOM   1076  CA  THR A 588     105.208   6.999  12.113  1.00 34.14           C
ATOM   1077  CB  THR A 588     106.420   6.417  12.863  1.00 40.28           C
ATOM   1078  OG1 THR A 588     106.891   7.372  13.820  1.00 39.20           O
ATOM   1079  CG2 THR A 588     107.544   6.086  11.889  1.00 38.22           C
ATOM   1080  C   THR A 588     103.989   7.111  13.026  1.00 37.45           C
ATOM   1081  O   THR A 588     103.809   8.115  13.722  1.00 37.14           O
ATOM   1082  N   SER A 589     103.160   6.070  13.029  1.00 32.87           N
ATOM   1083  CA  SER A 589     101.949   6.062  13.843  1.00 31.76           C
ATOM   1084  CB  SER A 589     102.291   6.273  15.321  1.00 34.89           C
ATOM   1085  OG  SER A 589     103.220   5.304  15.778  1.00 42.95           O
ATOM   1086  C   SER A 589     101.056   7.189  13.346  1.00 33.75           C
ATOM   1087  O   SER A 589     100.583   8.014  14.124  1.00 33.26           O
ATOM   1088  N   THR A 590     100.864   7.225  12.031  1.00 28.93           N
ATOM   1089  CA  THR A 590     100.066   8.250  11.374  1.00 27.96           C
ATOM   1090  CB  THR A 590      99.947   7.971   9.867  1.00 32.82           C
ATOM   1091  OG1 THR A 590     101.240   7.636   9.351  1.00 31.45           O
ATOM   1092  CG2 THR A 590      99.412   9.193   9.130  1.00 30.12           C
ATOM   1093  C   THR A 590      98.703   8.486  12.019  1.00 31.08           C
ATOM   1094  O   THR A 590      98.431   9.576  12.525  1.00 31.26           O
ATOM   1095  N   MET A 591      97.837   7.478  11.975  1.00 26.18           N
ATOM   1096  CA  MET A 591      96.507   7.614  12.552  1.00 25.43           C
ATOM   1097  CB  MET A 591      95.671   6.361  12.294  1.00 27.79           C
ATOM   1098  CG  MET A 591      95.101   6.268  10.890  1.00 31.51           C
ATOM   1099  SD  MET A 591      94.108   7.711  10.442  1.00 36.16           S
ATOM   1100  CE  MET A 591      92.451   7.160  10.888  1.00 32.79           C
ATOM   1101  C   MET A 591      96.599   7.879  14.040  1.00 28.82           C
ATOM   1102  O   MET A 591      95.800   8.623  14.600  1.00 28.31           O
ATOM   1103  N   GLU A 592      97.588   7.271  14.678  1.00 25.92           N
ATOM   1104  CA  GLU A 592      97.756   7.409  16.118  1.00 26.02           C
ATOM   1105  CB  GLU A 592      98.804   6.424  16.634  1.00 27.23           C
ATOM   1106  CG  GLU A 592      98.264   5.002  16.796  1.00 34.28           C
ATOM   1107  CD  GLU A 592      98.105   4.270  15.471  1.00 46.57           C
ATOM   1108  OE1 GLU A 592      98.872   4.562  14.533  1.00 20.35           O
ATOM   1109  OE2 GLU A 592      97.241   3.371  15.377  1.00 42.70           O
ATOM   1110  C   GLU A 592      98.039   8.837  16.573  1.00 29.85           C
ATOM   1111  O   GLU A 592      97.479   9.303  17.564  1.00 30.43           O
ATOM   1112  N   GLN A 593      98.887   9.544  15.837  1.00 25.47           N
ATOM   1113  CA  GLN A 593      99.193  10.925  16.182  1.00 24.61           C
ATOM   1114  CB  GLN A 593     100.435  11.405  15.432  1.00 25.90           C
ATOM   1115  CG  GLN A 593     101.676  10.572  15.719  1.00 37.22           C
ATOM   1116  CD  GLN A 593     102.960  11.278  15.334  1.00 52.75           C
ATOM   1117  OE1 GLN A 593     103.206  12.411  15.746  1.00 45.64           O
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ATOM   1118  NE2 GLN A 593     103.782  10.615  14.526  1.00 47.95           N
ATOM   1119  C   GLN A 593      97.983  11.791  15.858  1.00 27.04           C
ATOM   1120  O   GLN A 593      97.713  12.785  16.531  1.00 26.93           O
ATOM   1121  N   HIS A 594      97.232  11.387  14.841  1.00 23.05           N
ATOM   1122  CA  HIS A 594      96.020  12.105  14.472  1.00 22.43           C
ATOM   1123  CB  HIS A 594      95.420  11.507  13.202  1.00 24.03           C
ATOM   1124  CG  HIS A 594      94.214  12.239  12.699  1.00 27.86           C
ATOM   1125  ND1 HIS A 594      94.149  13.614  12.640  1.00 29.91           N
ATOM   1126  CE1 HIS A 594      92.977  13.977  12.149  1.00 29.48           C
ATOM   1127  NE2 HIS A 594      92.285  12.886  11.876  1.00 29.90           N
ATOM   1128  CD2 HIS A 594      93.037  11.784  12.209  1.00 29.94           C
ATOM   1129  C   HIS A 594      95.044  11.976  15.634  1.00 22.72           C
ATOM   1130  O   HIS A 594      94.540  12.968  16.141  1.00 22.25           O
ATOM   1131  N   HIS A 595      94.842  10.746  16.095  1.00 17.06           N
ATOM   1132  CA  HIS A 595      93.955  10.472  17.221  1.00 15.76           C
ATOM   1133  CB  HIS A 595      94.056   9.004  17.633  1.00 14.95           C
ATOM   1134  CG  HIS A 595      93.690   8.045  16.544  1.00 17.32           C
ATOM   1135  ND1 HIS A 595      92.620   8.251  15.702  1.00 18.15           N
ATOM   1136  CE1 HIS A 595      92.546   7.255  14.838  1.00 17.15           C
ATOM   1137  NE2 HIS A 595      93.514   6.398  15.105  1.00 17.73           N
ATOM   1138  CD2 HIS A 595      94.255   6.877  16.157  1.00 18.16           C
ATOM   1139  C   HIS A 595      94.229  11.362  18.427  1.00 22.38           C
ATOM   1140  O   HIS A 595      93.299  11.879  19.045  1.00 22.71           O
ATOM   1141  N   PHE A 596      95.499  11.507  18.797  1.00 21.16           N
ATOM   1142  CA  PHE A 596      95.841  12.346  19.948  1.00 22.14           C
ATOM   1143  CB  PHE A 596      97.319  12.218  20.329  1.00 23.70           C
ATOM   1144  CG  PHE A 596      97.746  13.191  21.394  1.00 25.50           C
ATOM   1145  CD1 PHE A 596      97.254  13.083  22.688  1.00 28.23           C
ATOM   1146  CE1 PHE A 596      97.621  13.994  23.667  1.00 28.82           C
ATOM   1147  CZ  PHE A 596      98.470  15.042  23.352  1.00 28.00           C
ATOM   1148  CE2 PHE A 596      98.947  15.173  22.065  1.00 29.88           C
ATOM   1149  CD2 PHE A 596      98.573  14.260  21.088  1.00 27.27           C
ATOM   1150  C   PHE A 596      95.511  13.801  19.638  1.00 29.22           C
ATOM   1151  O   PHE A 596      95.009  14.532  20.495  1.00 29.88           O
ATOM   1152  N   SER A 597      95.798  14.205  18.404  1.00 27.29           N
ATOM   1153  CA  SER A 597      95.535  15.561  17.932  1.00 28.07           C
ATOM   1154  CB  SER A 597      96.029  15.715  16.490  1.00 32.44           C
ATOM   1155  OG  SER A 597      96.408  17.051  16.218  1.00 43.64           O
ATOM   1156  C   SER A 597      94.045  15.892  18.008  1.00 33.00           C
ATOM   1157  O   SER A 597      93.664  17.002  18.378  1.00 33.50           O
ATOM   1158  N   GLN A 598      93.206  14.925  17.655  1.00 29.06           N
ATOM   1159  CA  GLN A 598      91.761  15.115  17.708  1.00 28.56           C
ATOM   1160  CB  GLN A 598      91.047  13.926  17.062  1.00 29.72           C
ATOM   1161  CG  GLN A 598      91.084  13.922  15.548  1.00 42.09           C
ATOM   1162  CD  GLN A 598      90.162  14.961  14.943  1.00 59.63           C
ATOM   1163  OE1 GLN A 598      88.940  14.817  14.974  1.00 54.08           O
ATOM   1164  NE2 GLN A 598      90.745  16.015  14.385  1.00 54.43           N
ATOM   1165  C   GLN A 598      91.311  15.268  19.161  1.00 32.26           C
ATOM   1166  O   GLN A 598      90.356  15.984  19.461  1.00 31.92           O
ATOM   1167  N   THR A 599      92.011  14.585  20.058  1.00 28.82           N
ATOM   1168  CA  THR A 599      91.703  14.638  21.484  1.00 28.60           C
ATOM   1169  CB  THR A 599      92.511  13.578  22.257  1.00 28.63           C
ATOM   1170  OG1 THR A 599      92.514  12.351  21.517  1.00 20.99           O
ATOM   1171  CG2 THR A 599      91.911  13.332  23.629  1.00 26.60           C
ATOM   1172  C   THR A 599      91.972  16.042  22.012  1.00 34.08           C
ATOM   1173  O   THR A 599      91.099  16.671  22.605  1.00 34.20           O
ATOM   1174  N   VAL A 600      93.182  16.534  21.775  1.00 31.30           N
ATOM   1175  CA  VAL A 600      93.557  17.870  22.211  1.00 31.31           C
ATOM   1176  CB  VAL A 600      94.971  18.226  21.737  1.00 35.55           C
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ATOM	1177	CG1	VAL	A	600	95.299	19.677	22.073	1.00 35.24	C
ATOM	1178	CG2	VAL	A	600	95.987	17.277	22.348	1.00 35.37	C
ATOM	1179	C	VAL	A	600	92.541	18.900	21.720	1.00 35.17	C
ATOM	1180	O	VAL	A	600	92.188	19.833	22.441	1.00 35.35	O
ATOM	1181	N	SER	A	601	92.080	18.726	20.488	1.00 31.18	N
ATOM	1182	CA	SER	A	601	91.115	19.639	19.891	1.00 31.07	C
ATOM	1183	CB	SER	A	601	90.856	19.271	18.430	1.00 34.54	C
ATOM	1184	OG	SER	A	601	91.641	20.072	17.568	1.00 42.57	O
ATOM	1185	C	SER	A	601	89.803	19.691	20.660	1.00 35.53	C
ATOM	1186	O	SER	A	601	89.305	20.771	20.975	1.00 35.81	O
ATOM	1187	N	ILE	A	602	89.232	18.526	20.946	1.00 32.21	N
ATOM	1188	CA	ILE	A	602	87.976	18.460	21.679	1.00 31.70	C
ATOM	1189	CB	ILE	A	602	87.454	17.016	21.765	1.00 34.73	C
ATOM	1190	CG1	ILE	A	602	86.880	16.576	20.417	1.00 35.42	C
ATOM	1191	CD1	ILE	A	602	87.008	15.093	20.151	1.00 43.17	C
ATOM	1192	CG2	ILE	A	602	86.413	16.890	22.862	1.00 35.25	C
ATOM	1193	C	ILE	A	602	88.150	19.073	23.065	1.00 35.79	C
ATOM	1194	O	ILE	A	602	87.276	19.788	23.556	1.00 34.99	O
ATOM	1195	N	LEU	A	603	89.295	18.799	23.681	1.00 33.32	N
ATOM	1196	CA	LEU	A	603	89.602	19.306	25.015	1.00 33.50	C
ATOM	1197	CB	LEU	A	603	90.903	18.691	25.534	1.00 33.44	C
ATOM	1198	CG	LEU	A	603	90.759	17.460	26.430	1.00 37.97	C
ATOM	1199	CD1	LEU	A	603	92.111	17.063	27.008	1.00 37.97	C
ATOM	1200	CD2	LEU	A	603	89.755	17.723	27.540	1.00 40.49	C
ATOM	1201	C	LEU	A	603	89.687	20.830	25.075	1.00 39.20	C
ATOM	1202	O	LEU	A	603	89.474	21.429	26.130	1.00 39.33	O
ATOM	1203	N	GLN	A	604	90.006	21.454	23.946	1.00 36.70	N
ATOM	1204	CA	GLN	A	604	90.134	22.908	23.889	1.00 36.68	C
ATOM	1205	CB	GLN	A	604	91.278	23.318	22.958	1.00 37.87	C
ATOM	1206	CG	GLN	A	604	92.582	23.618	23.689	1.00 49.32	C
ATOM	1207	CD	GLN	A	604	93.811	23.141	22.931	1.00 66.06	C
ATOM	1208	OE1	GLN	A	604	94.804	22.726	23.534	1.00 60.83	O
ATOM	1209	NE2	GLN	A	604	93.758	23.219	21.605	1.00 55.24	N
ATOM	1210	C	GLN	A	604	88.831	23.615	23.504	1.00 41.13	C
ATOM	1211	O	GLN	A	604	88.769	24.846	23.472	1.00 40.73	O
ATOM	1212	N	LEU	A	605	87.791	22.834	23.221	1.00 37.48	N
ATOM	1213	CA	LEU	A	605	86.490	23.399	22.878	1.00 37.11	C
ATOM	1214	CB	LEU	A	605	85.514	22.299	22.458	1.00 37.02	C
ATOM	1215	CG	LEU	A	605	85.826	21.565	21.152	1.00 41.47	C
ATOM	1216	CD1	LEU	A	605	84.814	20.460	20.888	1.00 41.05	C
ATOM	1217	CD2	LEU	A	605	85.878	22.542	19.992	1.00 44.24	C
ATOM	1218	C	LEU	A	605	85.937	24.134	24.090	1.00 41.55	C
ATOM	1219	O	LEU	A	605	86.338	23.870	25.225	1.00 41.07	O
ATOM	1220	N	GLU	A	606	85.013	25.055	23.845	1.00 38.67	N
ATOM	1221	CA	GLU	A	606	84.404	25.832	24.917	1.00 38.61	C
ATOM	1222	CB	GLU	A	606	83.464	26.890	24.333	1.00 40.27	C
ATOM	1223	CG	GLU	A	606	84.031	28.306	24.327	1.00 54.49	C
ATOM	1224	CD	GLU	A	606	83.251	29.243	23.414	1.00 81.91	C
ATOM	1225	OE1	GLU	A	606	82.065	28.956	23.141	1.00 80.49	O
ATOM	1226	OE2	GLU	A	606	83.824	30.259	22.962	1.00 76.52	O
ATOM	1227	C	GLU	A	606	83.640	24.939	25.894	1.00 41.29	C
ATOM	1228	O	GLU	A	606	82.628	24.340	25.534	1.00 41.04	O
ATOM	1229	N	GLY	A	607	84.124	24.859	27.131	1.00 36.77	N
ATOM	1230	CA	GLY	A	607	83.487	24.071	28.172	1.00 36.28	C
ATOM	1231	C	GLY	A	607	83.764	22.577	28.152	1.00 39.50	C
ATOM	1232	O	GLY	A	607	83.045	21.806	28.794	1.00 39.52	O
ATOM	1233	N	HIS	A	608	84.808	22.163	27.437	1.00 34.79	N
ATOM	1234	CA	HIS	A	608	85.149	20.745	27.349	1.00 34.33	C
ATOM	1235	CB	HIS	A	608	85.330	20.310	25.894	1.00 34.58	C

ATOM	1236	CG	HIS	A	608	84.074	20.365	25.084	1.00	37.78	C
ATOM	1237	ND1	HIS	A	608	83.156	21.386	25.202	1.00	39.39	N
ATOM	1238	CE1	HIS	A	608	82.160	21.179	24.359	1.00	38.80	C
ATOM	1239	NE2	HIS	A	608	82.403	20.065	23.693	1.00	39.03	N
ATOM	1240	CD2	HIS	A	608	83.593	19.535	24.129	1.00	39.19	C
ATOM	1241	C	HIS	A	608	86.381	20.352	28.152	1.00	39.53	C
ATOM	1242	O	HIS	A	608	86.750	19.179	28.181	1.00	39.23	O
ATOM	1243	N	ASN	A	609	87.031	21.321	28.788	1.00	37.16	N
ATOM	1244	CA	ASN	A	609	88.220	21.002	29.570	1.00	37.19	C
ATOM	1245	CB	ASN	A	609	89.143	22.205	29.750	1.00	38.90	C
ATOM	1246	CG	ASN	A	609	90.601	21.795	29.883	1.00	61.06	C
ATOM	1247	OD1	ASN	A	609	90.947	20.955	30.717	1.00	53.47	O
ATOM	1248	ND2	ASN	A	609	91.448	22.328	29.011	1.00	53.67	N
ATOM	1249	C	ASN	A	609	87.886	20.362	30.907	1.00	40.65	C
ATOM	1250	O	ASN	A	609	87.660	21.046	31.904	1.00	40.21	O
ATOM	1251	N	ILE	A	610	87.874	19.033	30.904	1.00	36.67	N
ATOM	1252	CA	ILE	A	610	87.558	18.230	32.074	1.00	35.65	C
ATOM	1253	CB	ILE	A	610	87.209	16.787	31.652	1.00	38.06	C
ATOM	1254	CG1	ILE	A	610	88.262	16.257	30.672	1.00	37.72	C
ATOM	1255	CD1	ILE	A	610	88.243	14.754	30.496	1.00	35.31	C
ATOM	1256	CG2	ILE	A	610	85.835	16.743	31.002	1.00	38.08	C
ATOM	1257	C	ILE	A	610	88.702	18.247	33.084	1.00	39.04	C
ATOM	1258	O	ILE	A	610	88.587	17.689	34.175	1.00	38.37	O
ATOM	1259	N	PHE	A	611	89.808	18.885	32.714	1.00	35.62	N
ATOM	1260	CA	PHE	A	611	90.973	18.965	33.594	1.00	35.47	C
ATOM	1261	CB	PHE	A	611	92.236	18.512	32.855	1.00	36.94	C
ATOM	1262	CG	PHE	A	611	92.181	17.089	32.368	1.00	38.01	C
ATOM	1263	CD1	PHE	A	611	92.407	16.789	31.035	1.00	40.62	C
ATOM	1264	CE1	PHE	A	611	92.367	15.482	30.589	1.00	41.38	C
ATOM	1265	CZ	PHE	A	611	92.098	14.459	31.473	1.00	40.14	C
ATOM	1266	CE2	PHE	A	611	91.870	14.745	32.803	1.00	42.10	C
ATOM	1267	CD2	PHE	A	611	91.915	16.052	33.245	1.00	39.64	C
ATOM	1268	C	PHE	A	611	91.183	20.367	34.156	1.00	40.29	C
ATOM	1269	O	PHE	A	611	92.276	20.703	34.604	1.00	39.82	O
ATOM	1270	N	SER	A	612	90.135	21.182	34.132	1.00	38.10	N
ATOM	1271	CA	SER	A	612	90.220	22.561	34.614	1.00	38.50	C
ATOM	1272	CB	SER	A	612	88.869	23.264	34.480	1.00	42.23	C
ATOM	1273	OG	SER	A	612	87.811	22.323	34.409	1.00	52.93	O
ATOM	1274	C	SER	A	612	90.771	22.733	36.038	1.00	43.33	C
ATOM	1275	O	SER	A	612	91.462	23.711	36.324	1.00	42.80	O
ATOM	1276	N	THR	A	613	90.451	21.799	36.929	1.00	40.57	N
ATOM	1277	CA	THR	A	613	90.905	21.876	38.317	1.00	40.49	C
ATOM	1278	CB	THR	A	613	89.934	21.152	39.270	1.00	51.43	C
ATOM	1279	OG1	THR	A	613	90.154	19.736	39.196	1.00	53.38	O
ATOM	1280	CG2	THR	A	613	88.492	21.463	38.898	1.00	50.19	C
ATOM	1281	C	THR	A	613	92.324	21.343	38.490	1.00	43.97	C
ATOM	1282	O	THR	A	613	92.705	20.905	39.576	1.00	43.32	O
ATOM	1283	N	LEU	A	614	93.099	21.371	37.412	1.00	40.32	N
ATOM	1284	CA	LEU	A	614	94.469	20.876	37.451	1.00	39.87	C
ATOM	1285	CB	LEU	A	614	94.665	19.765	36.416	1.00	39.82	C
ATOM	1286	CG	LEU	A	614	94.598	18.313	36.896	1.00	44.23	C
ATOM	1287	CD1	LEU	A	614	93.217	18.003	37.461	1.00	44.53	C
ATOM	1288	CD2	LEU	A	614	94.936	17.369	35.753	1.00	45.99	C
ATOM	1289	C	LEU	A	614	95.475	21.989	37.202	1.00	43.18	C
ATOM	1290	O	LEU	A	614	95.282	22.836	36.328	1.00	42.79	O
ATOM	1291	N	SER	A	615	96.558	21.974	37.970	1.00	39.21	N
ATOM	1292	CA	SER	A	615	97.620	22.951	37.803	1.00	38.62	C
ATOM	1293	CB	SER	A	615	98.710	22.729	38.856	1.00	41.65	C
ATOM	1294	OG	SER	A	615	99.671	21.788	38.409	1.00	48.96	O

ATOM	1295	C	SER	A	615	98.208	22.767	36.409	1.00	42.50	C
ATOM	1296	O	SER	A	615	97.928	21.774	35.735	1.00	41.61	O
ATOM	1297	N	SER	A	616	99.011	23.729	35.972	1.00	39.41	N
ATOM	1298	CA	SER	A	616	99.651	23.634	34.667	1.00	39.29	C
ATOM	1299	CB	SER	A	616	100.478	24.895	34.394	1.00	42.83	C
ATOM	1300	OG	SER	A	616	99.788	25.787	33.536	1.00	51.97	O
ATOM	1301	C	SER	A	616	100.558	22.406	34.678	1.00	43.19	C
ATOM	1302	O	SER	A	616	100.733	21.731	33.664	1.00	42.74	O
ATOM	1303	N	SER	A	617	101.119	22.122	35.849	1.00	40.00	N
ATOM	1304	CA	SER	A	617	102.012	20.985	36.039	1.00	39.79	C
ATOM	1305	CB	SER	A	617	102.656	21.045	37.427	1.00	43.71	C
ATOM	1306	OG	SER	A	617	104.064	20.922	37.342	1.00	53.26	O
ATOM	1307	C	SER	A	617	101.257	19.674	35.889	1.00	42.29	C
ATOM	1308	O	SER	A	617	101.616	18.829	35.068	1.00	41.92	O
ATOM	1309	N	GLU	A	618	100.219	19.511	36.703	1.00	37.87	N
ATOM	1310	CA	GLU	A	618	99.387	18.315	36.685	1.00	37.18	C
ATOM	1311	CB	GLU	A	618	98.223	18.480	37.662	1.00	38.72	C
ATOM	1312	CG	GLU	A	618	98.586	18.363	39.129	1.00	51.75	C
ATOM	1313	CD	GLU	A	618	97.366	18.479	40.028	1.00	75.32	C
ATOM	1314	OE1	GLU	A	618	96.619	19.473	39.894	1.00	72.33	O
ATOM	1315	OE2	GLU	A	618	97.136	17.562	40.846	1.00	70.36	O
ATOM	1316	C	GLU	A	618	98.808	18.102	35.295	1.00	39.27	C
ATOM	1317	O	GLU	A	618	98.776	16.983	34.783	1.00	38.47	O
ATOM	1318	N	TYR	A	619	98.312	19.190	34.715	1.00	34.67	N
ATOM	1319	CA	TYR	A	619	97.684	19.163	33.404	1.00	34.03	C
ATOM	1320	CB	TYR	A	619	97.142	20.549	33.048	1.00	34.92	C
ATOM	1321	CG	TYR	A	619	96.375	20.586	31.748	1.00	36.32	C
ATOM	1322	CD1	TYR	A	619	95.003	20.367	31.721	1.00	38.29	C
ATOM	1323	CE1	TYR	A	619	94.299	20.387	30.533	1.00	38.86	C
ATOM	1324	CZ	TYR	A	619	94.967	20.623	29.349	1.00	45.32	C
ATOM	1325	OH	TYR	A	619	94.269	20.643	28.162	1.00	46.34	O
ATOM	1326	CE2	TYR	A	619	96.332	20.832	29.349	1.00	37.84	C
ATOM	1327	CD2	TYR	A	619	97.027	20.811	30.543	1.00	36.99	C
ATOM	1328	C	TYR	A	619	98.596	18.647	32.297	1.00	37.92	C
ATOM	1329	O	TYR	A	619	98.194	17.802	31.497	1.00	38.10	O
ATOM	1330	N	GLU	A	620	99.813	19.175	32.237	1.00	33.82	N
ATOM	1331	CA	GLU	A	620	100.774	18.761	31.224	1.00	33.12	C
ATOM	1332	CB	GLU	A	620	102.031	19.629	31.301	1.00	34.59	C
ATOM	1333	CG	GLU	A	620	102.731	19.834	29.967	1.00	46.47	C
ATOM	1334	CD	GLU	A	620	103.746	20.961	30.009	1.00	71.13	C
ATOM	1335	OE1	GLU	A	620	103.587	21.870	30.852	1.00	69.00	O
ATOM	1336	OE2	GLU	A	620	104.702	20.935	29.203	1.00	64.31	O
ATOM	1337	C	GLU	A	620	101.133	17.296	31.446	1.00	35.73	C
ATOM	1338	O	GLU	A	620	101.430	16.560	30.503	1.00	35.14	O
ATOM	1339	N	GLN	A	621	101.093	16.889	32.709	1.00	31.06	N
ATOM	1340	CA	GLN	A	621	101.381	15.520	33.107	1.00	30.54	C
ATOM	1341	CB	GLN	A	621	101.342	15.425	34.630	1.00	31.88	C
ATOM	1342	CG	GLN	A	621	102.417	14.554	35.235	1.00	48.71	C
ATOM	1343	CD	GLN	A	621	102.543	14.763	36.729	1.00	65.66	C
ATOM	1344	OE1	GLN	A	621	102.403	13.825	37.515	1.00	61.76	O
ATOM	1345	NE2	GLN	A	621	102.783	16.007	37.133	1.00	54.56	N
ATOM	1346	C	GLN	A	621	100.330	14.580	32.524	1.00	33.78	C
ATOM	1347	O	GLN	A	621	100.659	13.567	31.905	1.00	33.36	O
ATOM	1348	N	VAL	A	622	99.063	14.925	32.739	1.00	29.74	N
ATOM	1349	CA	VAL	A	622	97.942	14.123	32.256	1.00	29.32	C
ATOM	1350	CB	VAL	A	622	96.589	14.685	32.750	1.00	32.97	C
ATOM	1351	CG1	VAL	A	622	95.995	15.625	31.715	1.00	32.80	C
ATOM	1352	CG2	VAL	A	622	95.616	13.553	33.074	1.00	32.75	C
ATOM	1353	C	VAL	A	622	97.962	13.959	30.738	1.00	32.63	C

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ATOM   1354  O   VAL A 622      97.767  12.857  30.223  1.00 31.82           O
ATOM   1355  N   LEU A 623      98.202  15.055  30.025  1.00 29.39           N
ATOM   1356  CA  LEU A 623      98.238  15.027  28.565  1.00 29.28           C
ATOM   1357  CB  LEU A 623      98.315  16.446  28.006  1.00 29.44           C
ATOM   1358  CG  LEU A 623      97.004  17.224  27.862  1.00 34.21           C
ATOM   1359  CD1 LEU A 623      97.168  18.254  26.761  1.00 35.04           C
ATOM   1360  CD2 LEU A 623      95.830  16.299  27.569  1.00 35.62           C
ATOM   1361  C   LEU A 623      99.380  14.180  28.006  1.00 33.69           C
ATOM   1362  O   LEU A 623      99.295  13.672  26.886  1.00 33.58           O
ATOM   1363  N   GLU A 624     100.451  14.036  28.783  1.00 29.73           N
ATOM   1364  CA  GLU A 624     101.596  13.237  28.353  1.00 29.04           C
ATOM   1365  CB  GLU A 624     102.843  13.578  29.175  1.00 30.74           C
ATOM   1366  CG  GLU A 624     104.154  13.167  28.517  1.00 43.72           C
ATOM   1367  CD  GLU A 624     104.414  13.889  27.204  1.00 67.97           C
ATOM   1368  OE1 GLU A 624     103.435  14.266  26.527  1.00 61.98           O
ATOM   1369  OE2 GLU A 624     105.599  14.069  26.844  1.00 64.63           O
ATOM   1370  C   GLU A 624     101.269  11.754  28.475  1.00 30.33           C
ATOM   1371  O   GLU A 624     101.711  10.936  27.668  1.00 29.07           O
ATOM   1372  N   ILE A 625     100.484  11.416  29.491  1.00 25.86           N
ATOM   1373  CA  ILE A 625     100.059  10.041  29.692  1.00 25.61           C
ATOM   1374  CB  ILE A 625      99.258   9.900  30.991  1.00 28.70           C
ATOM   1375  CG1 ILE A 625     100.141  10.180  32.206  1.00 28.84           C
ATOM   1376  CD1 ILE A 625      99.370  10.655  33.410  1.00 35.59           C
ATOM   1377  CG2 ILE A 625      98.608   8.521  31.062  1.00 30.05           C
ATOM   1378  C   ILE A 625      99.179   9.663  28.511  1.00 29.23           C
ATOM   1379  O   ILE A 625      99.349   8.613  27.895  1.00 29.57           O
ATOM   1380  N   ILE A 626      98.229  10.542  28.215  1.00 25.08           N
ATOM   1381  CA  ILE A 626      97.273  10.349  27.134  1.00 24.13           C
ATOM   1382  CB  ILE A 626      96.239  11.491  27.121  1.00 26.87           C
ATOM   1383  CG1 ILE A 626      95.731  11.746  28.540  1.00 26.74           C
ATOM   1384  CD1 ILE A 626      94.393  12.452  28.589  1.00 31.68           C
ATOM   1385  CG2 ILE A 626      95.074  11.163  26.205  1.00 27.79           C
ATOM   1386  C   ILE A 626      97.977  10.202  25.794  1.00 27.63           C
ATOM   1387  O   ILE A 626      97.696   9.275  25.038  1.00 27.90           O
ATOM   1388  N   ARG A 627      98.903  11.111  25.509  1.00 23.13           N
ATOM   1389  CA  ARG A 627      99.660  11.056  24.268  1.00 22.41           C
ATOM   1390  CB  ARG A 627     100.714  12.167  24.234  1.00 21.76           C
ATOM   1391  CG  ARG A 627     101.253  12.458  22.841  1.00 27.64           C
ATOM   1392  CD  ARG A 627     102.370  13.483  22.879  1.00 33.53           C
ATOM   1393  NE  ARG A 627     103.413  13.110  23.833  1.00 42.62           N
ATOM   1394  CZ  ARG A 627     104.337  12.180  23.607  1.00 52.47           C
ATOM   1395  NH1 ARG A 627     105.241  11.900  24.536  1.00 40.54           N
ATOM   1396  NH2 ARG A 627     104.362  11.532  22.451  1.00 35.17           N
ATOM   1397  C   ARG A 627     100.345   9.708  24.121  1.00 25.96           C
ATOM   1398  O   ARG A 627     100.141   9.005  23.136  1.00 26.45           O
ATOM   1399  N   LYS A 628     101.176   9.364  25.100  1.00 21.59           N
ATOM   1400  CA  LYS A 628     101.909   8.105  25.084  1.00 21.64           C
ATOM   1401  CB  LYS A 628     102.824   7.997  26.306  1.00 24.35           C
ATOM   1402  CG  LYS A 628     104.045   8.905  26.242  1.00 34.77           C
ATOM   1403  CD  LYS A 628     104.807   8.885  27.559  1.00 43.54           C
ATOM   1404  CE  LYS A 628     105.814  10.018  27.647  1.00 49.54           C
ATOM   1405  NZ  LYS A 628     106.290  10.220  29.047  1.00 56.95           N
ATOM   1406  C   LYS A 628     100.963   6.917  25.021  1.00 25.20           C
ATOM   1407  O   LYS A 628     101.201   5.956  24.286  1.00 24.82           O
ATOM   1408  N   ALA A 629      99.875   7.013  25.773  1.00 21.58           N
ATOM   1409  CA  ALA A 629      98.854   5.976  25.809  1.00 21.52           C
ATOM   1410  CB  ALA A 629      97.772   6.350  26.808  1.00 22.18           C
ATOM   1411  C   ALA A 629      98.244   5.719  24.426  1.00 26.49           C
ATOM   1412  O   ALA A 629      98.138   4.570  23.992  1.00 26.24           O
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ATOM   1413  N   ILE A 630      97.854   6.784  23.730  1.00 23.01           N
ATOM   1414  CA  ILE A 630      97.263   6.632  22.403  1.00 22.17           C
ATOM   1415  CB  ILE A 630      96.582   7.923  21.909  1.00 24.53           C
ATOM   1416  CG1 ILE A 630      95.240   8.121  22.620  1.00 23.82           C
ATOM   1417  CD1 ILE A 630      94.597   9.478  22.382  1.00 19.83           C
ATOM   1418  CG2 ILE A 630      96.368   7.864  20.396  1.00 24.98           C
ATOM   1419  C   ILE A 630      98.288   6.127  21.404  1.00 26.54           C
ATOM   1420  O   ILE A 630      98.003   5.233  20.610  1.00 27.02           O
ATOM   1421  N   ILE A 631      99.483   6.707  21.442  1.00 22.95           N
ATOM   1422  CA  ILE A 631     100.557   6.310  20.539  1.00 22.68           C
ATOM   1423  CB  ILE A 631     101.822   7.169  20.755  1.00 25.80           C
ATOM   1424  CG1 ILE A 631     101.528   8.628  20.419  1.00 26.02           C
ATOM   1425  CD1 ILE A 631     100.992   8.820  19.019  1.00 28.60           C
ATOM   1426  CG2 ILE A 631     102.965   6.662  19.894  1.00 25.75           C
ATOM   1427  C   ILE A 631     100.874   4.823  20.666  1.00 25.61           C
ATOM   1428  O   ILE A 631     101.288   4.181  19.695  1.00 24.43           O
ATOM   1429  N   ALA A 632     100.681   4.284  21.867  1.00 22.65           N
ATOM   1430  CA  ALA A 632     100.956   2.873  22.132  1.00 23.05           C
ATOM   1431  CB  ALA A 632     101.119   2.627  23.623  1.00 23.69           C
ATOM   1432  C   ALA A 632      99.921   1.913  21.532  1.00 28.17           C
ATOM   1433  O   ALA A 632     100.143   0.697  21.501  1.00 27.57           O
ATOM   1434  N   THR A 633      98.800   2.456  21.054  1.00 24.73           N
ATOM   1435  CA  THR A 633      97.769   1.630  20.434  1.00 24.13           C
ATOM   1436  CB  THR A 633      96.369   2.283  20.466  1.00 27.04           C
ATOM   1437  OG1 THR A 633      96.445   3.627  19.978  1.00 27.39           O
ATOM   1438  CG2 THR A 633      95.811   2.286  21.873  1.00 22.42           C
ATOM   1439  C   THR A 633      98.204   1.271  19.017  1.00 28.69           C
ATOM   1440  O   THR A 633      97.454   0.660  18.254  1.00 27.94           O
ATOM   1441  N   ASP A 634      99.429   1.660  18.679  1.00 26.31           N
ATOM   1442  CA  ASP A 634     100.013   1.339  17.382  1.00 26.60           C
ATOM   1443  CB  ASP A 634     101.043   2.396  16.984  1.00 28.26           C
ATOM   1444  CG  ASP A 634     101.543   2.214  15.570  1.00 39.09           C
ATOM   1445  OD1 ASP A 634     101.106   1.248  14.912  1.00 40.51           O
ATOM   1446  OD2 ASP A 634     102.368   3.035  15.115  1.00 44.33           O
ATOM   1447  C   ASP A 634     100.685  -0.026  17.504  1.00 31.09           C
ATOM   1448  O   ASP A 634     101.693  -0.174  18.199  1.00 30.64           O
ATOM   1449  N   LEU A 635     100.093  -1.027  16.859  1.00 28.40           N
ATOM   1450  CA  LEU A 635     100.589  -2.399  16.913  1.00 28.08           C
ATOM   1451  CB  LEU A 635      99.620  -3.349  16.211  1.00 28.16           C
ATOM   1452  CG  LEU A 635      99.376  -4.673  16.937  1.00 32.40           C
ATOM   1453  CD1 LEU A 635      99.146  -4.434  18.417  1.00 31.88           C
ATOM   1454  CD2 LEU A 635      98.208  -5.434  16.319  1.00 34.74           C
ATOM   1455  C   LEU A 635     102.001  -2.594  16.377  1.00 31.51           C
ATOM   1456  O   LEU A 635     102.664  -3.579  16.704  1.00 30.95           O
ATOM   1457  N   ALA A 636     102.456  -1.673  15.536  1.00 27.65           N
ATOM   1458  CA  ALA A 636     103.807  -1.763  14.995  1.00 27.31           C
ATOM   1459  CB  ALA A 636     104.033  -0.679  13.949  1.00 27.94           C
ATOM   1460  C   ALA A 636     104.789  -1.593  16.150  1.00 30.66           C
ATOM   1461  O   ALA A 636     105.896  -2.143  16.137  1.00 30.20           O
ATOM   1462  N   LEU A 637     104.352  -0.846  17.160  1.00 26.81           N
ATOM   1463  CA  LEU A 637     105.163  -0.543  18.335  1.00 26.33           C
ATOM   1464  CB  LEU A 637     104.721   0.788  18.937  1.00 25.98           C
ATOM   1465  CG  LEU A 637     104.951   2.039  18.084  1.00 30.03           C
ATOM   1466  CD1 LEU A 637     104.793   3.291  18.931  1.00 29.68           C
ATOM   1467  CD2 LEU A 637     106.322   1.998  17.431  1.00 31.84           C
ATOM   1468  C   LEU A 637     105.140  -1.615  19.421  1.00 31.80           C
ATOM   1469  O   LEU A 637     106.132  -1.813  20.122  1.00 32.11           O
ATOM   1470  N   TYR A 638     103.992  -2.266  19.591  1.00 28.52           N
ATOM   1471  CA  TYR A 638     103.820  -3.277  20.633  1.00 28.37           C
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ATOM   1472  CB  TYR A 638     102.432  -3.925  20.536  1.00 29.34           C
ATOM   1473  CG  TYR A 638     102.424  -5.389  20.924  1.00 30.68           C
ATOM   1474  CD1 TYR A 638     102.331  -5.775  22.255  1.00 32.32           C
ATOM   1475  CE1 TYR A 638     102.347  -7.113  22.617  1.00 32.78           C
ATOM   1476  CZ  TYR A 638     102.481  -8.081  21.645  1.00 38.83           C
ATOM   1477  OH  TYR A 638     102.511  -9.410  21.998  1.00 39.34           O
ATOM   1478  CE2 TYR A 638     102.586  -7.723  20.319  1.00 32.56           C
ATOM   1479  CD2 TYR A 638     102.563  -6.382  19.964  1.00 31.52           C
ATOM   1480  C   TYR A 638     104.904  -4.358  20.648  1.00 32.62           C
ATOM   1481  O   TYR A 638     105.328  -4.812  21.711  1.00 32.04           O
ATOM   1482  N   PHE A 639     105.339  -4.777  19.466  1.00 30.03           N
ATOM   1483  CA  PHE A 639     106.338  -5.836  19.346  1.00 29.97           C
ATOM   1484  CB  PHE A 639     106.628  -6.143  17.878  1.00 31.66           C
ATOM   1485  CG  PHE A 639     105.413  -6.583  17.112  1.00 33.17           C
ATOM   1486  CD1 PHE A 639     104.759  -7.756  17.451  1.00 36.09           C
ATOM   1487  CE1 PHE A 639     103.620  -8.154  16.775  1.00 37.14           C
ATOM   1488  CZ  PHE A 639     103.107  -7.363  15.761  1.00 36.51           C
ATOM   1489  CE2 PHE A 639     103.737  -6.182  15.428  1.00 38.44           C
ATOM   1490  CD2 PHE A 639     104.877  -5.788  16.112  1.00 35.60           C
ATOM   1491  C   PHE A 639     107.618  -5.628  20.145  1.00 33.71           C
ATOM   1492  O   PHE A 639     107.981  -6.468  20.972  1.00 33.30           O
ATOM   1493  N   GLY A 640     108.306  -4.520  19.899  1.00 29.94           N
ATOM   1494  CA  GLY A 640     109.536  -4.220  20.608  1.00 29.85           C
ATOM   1495  C   GLY A 640     109.269  -3.907  22.066  1.00 34.29           C
ATOM   1496  O   GLY A 640     110.057  -4.257  22.942  1.00 35.44           O
ATOM   1497  N   ASN A 641     108.137  -3.264  22.328  1.00 29.76           N
ATOM   1498  CA  ASN A 641     107.764  -2.889  23.688  1.00 29.53           C
ATOM   1499  CB  ASN A 641     106.478  -2.068  23.701  1.00 27.15           C
ATOM   1500  CG  ASN A 641     106.158  -1.528  25.077  1.00 37.98           C
ATOM   1501  OD1 ASN A 641     106.993  -0.869  25.698  1.00 31.59           O
ATOM   1502  ND2 ASN A 641     104.981  -1.868  25.594  1.00 24.64           N
ATOM   1503  C   ASN A 641     107.651  -4.047  24.681  1.00 33.93           C
ATOM   1504  O   ASN A 641     108.140  -3.948  25.804  1.00 33.54           O
ATOM   1505  N   ARG A 642     106.973  -5.121  24.289  1.00 30.48           N
ATOM   1506  CA  ARG A 642     106.791  -6.262  25.181  1.00 30.34           C
ATOM   1507  CB  ARG A 642     105.478  -6.992  24.907  1.00 29.98           C
ATOM   1508  CG  ARG A 642     105.477  -7.832  23.642  1.00 36.96           C
ATOM   1509  CD  ARG A 642     105.244  -9.301  23.964  1.00 40.13           C
ATOM   1510  NE  ARG A 642     106.211 -10.153  23.277  1.00 42.70           N
ATOM   1511  CZ  ARG A 642     106.849 -11.173  23.841  1.00 51.30           C
ATOM   1512  NH1 ARG A 642     107.717 -11.883  23.136  1.00 35.95           N
ATOM   1513  NH2 ARG A 642     106.617 -11.489  25.108  1.00 34.28           N
ATOM   1514  C   ARG A 642     107.983  -7.205  25.140  1.00 35.72           C
ATOM   1515  O   ARG A 642     108.152  -8.044  26.024  1.00 35.46           O
ATOM   1516  N   LYS A 643     108.823  -7.036  24.124  1.00 33.26           N
ATOM   1517  CA  LYS A 643     110.050  -7.801  24.006  1.00 33.39           C
ATOM   1518  CB  LYS A 643     110.713  -7.503  22.656  1.00 35.79           C
ATOM   1519  CG  LYS A 643     111.080  -8.739  21.830  1.00 48.52           C
ATOM   1520  CD  LYS A 643     111.266  -8.380  20.363  1.00 56.82           C
ATOM   1521  CE  LYS A 643     110.232  -9.059  19.482  1.00 64.66           C
ATOM   1522  NZ  LYS A 643     110.719 -10.367  18.950  1.00 72.87           N
ATOM   1523  C   LYS A 643     110.925  -7.262  25.128  1.00 38.33           C
ATOM   1524  O   LYS A 643     111.516  -8.015  25.898  1.00 38.48           O
ATOM   1525  N   GLN A 644     110.966  -5.938  25.220  1.00 35.07           N
ATOM   1526  CA  GLN A 644     111.737  -5.232  26.240  1.00 34.93           C
ATOM   1527  CB  GLN A 644     111.723  -3.725  25.963  1.00 36.30           C
ATOM   1528  CG  GLN A 644     112.583  -3.299  24.786  1.00 57.73           C
ATOM   1529  CD  GLN A 644     114.029  -3.080  25.177  1.00 82.06           C
ATOM   1530  OE1 GLN A 644     114.805  -2.498  24.420  1.00 79.36           O
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ATOM   1531  NE2 GLN A 644     114.400  -3.546  26.367  1.00 73.73           N
ATOM   1532  C   GLN A 644     111.166  -5.483  27.627  1.00 38.73           C
ATOM   1533  O   GLN A 644     111.907  -5.661  28.592  1.00 38.59           O
ATOM   1534  N   LEU A 645     109.841  -5.454  27.725  1.00 35.28           N
ATOM   1535  CA  LEU A 645     109.154  -5.664  28.994  1.00 34.89           C
ATOM   1536  CB  LEU A 645     107.647  -5.456  28.820  1.00 34.74           C
ATOM   1537  CG  LEU A 645     107.128  -4.023  28.967  1.00 38.89           C
ATOM   1538  CD1 LEU A 645     105.649  -3.941  28.609  1.00 38.90           C
ATOM   1539  CD2 LEU A 645     107.362  -3.516  30.373  1.00 40.49           C
ATOM   1540  C   LEU A 645     109.438  -7.062  29.538  1.00 38.89           C
ATOM   1541  O   LEU A 645     109.659  -7.241  30.737  1.00 37.82           O
ATOM   1542  N   GLU A 646     109.450  -8.043  28.642  1.00 36.46           N
ATOM   1543  CA  GLU A 646     109.702  -9.432  29.007  1.00 37.29           C
ATOM   1544  CB  GLU A 646     109.378 -10.346  27.829  1.00 38.73           C
ATOM   1545  CG  GLU A 646     109.687 -11.812  28.078  1.00 50.72           C
ATOM   1546  CD  GLU A 646     109.960 -12.576  26.792  1.00 74.95           C
ATOM   1547  OE1 GLU A 646     110.755 -12.091  25.958  1.00 72.75           O
ATOM   1548  OE2 GLU A 646     109.379 -13.667  26.615  1.00 68.76           O
ATOM   1549  C   GLU A 646     111.141  -9.658  29.479  1.00 43.75           C
ATOM   1550  O   GLU A 646     111.374 -10.347  30.475  1.00 43.25           O
ATOM   1551  N   GLU A 647     112.099  -9.085  28.755  1.00 41.98           N
ATOM   1552  CA  GLU A 647     113.508  -9.195  29.117  1.00 42.57           C
ATOM   1553  CB  GLU A 647     114.372  -8.404  28.135  1.00 44.10           C
ATOM   1554  CG  GLU A 647     114.417  -8.954  26.723  1.00 56.08           C
ATOM   1555  CD  GLU A 647     115.233  -8.077  25.796  1.00 78.22           C
ATOM   1556  OE1 GLU A 647     115.451  -6.897  26.140  1.00 77.61           O
ATOM   1557  OE2 GLU A 647     115.677  -8.574  24.739  1.00 70.71           O
ATOM   1558  C   GLU A 647     113.699  -8.595  30.503  1.00 47.96           C
ATOM   1559  O   GLU A 647     114.344  -9.184  31.366  1.00 47.42           O
ATOM   1560  N   MET A 648     113.160  -7.392  30.686  1.00 45.99           N
ATOM   1561  CA  MET A 648     113.258  -6.673  31.953  1.00 46.43           C
ATOM   1562  CB  MET A 648     112.483  -5.355  31.872  1.00 48.97           C
ATOM   1563  CG  MET A 648     113.217  -4.225  31.162  1.00 53.03           C
ATOM   1564  SD  MET A 648     112.232  -2.703  31.119  1.00 57.72           S
ATOM   1565  CE  MET A 648     113.376  -1.565  30.306  1.00 54.33           C
ATOM   1566  C   MET A 648     112.685  -7.510  33.088  1.00 51.03           C
ATOM   1567  O   MET A 648     113.219  -7.526  34.196  1.00 50.06           O
ATOM   1568  N   TYR A 649     111.575  -8.182  32.806  1.00 48.96           N
ATOM   1569  CA  TYR A 649     110.893  -9.000  33.799  1.00 49.37           C
ATOM   1570  CB  TYR A 649     109.522  -9.442  33.276  1.00 50.37           C
ATOM   1571  CG  TYR A 649     108.916 -10.592  34.047  1.00 51.65           C
ATOM   1572  CD1 TYR A 649     108.206 -10.368  35.218  1.00 53.46           C
ATOM   1573  CE1 TYR A 649     107.654 -11.416  35.931  1.00 54.28           C
ATOM   1574  CZ  TYR A 649     107.814 -12.710  35.478  1.00 61.08           C
ATOM   1575  OH  TYR A 649     107.266 -13.753  36.189  1.00 62.75           O
ATOM   1576  CE2 TYR A 649     108.518 -12.960  34.320  1.00 53.10           C
ATOM   1577  CD2 TYR A 649     109.065 -11.904  33.611  1.00 52.27           C
ATOM   1578  C   TYR A 649     111.707 -10.217  34.230  1.00 55.08           C
ATOM   1579  O   TYR A 649     111.771 -10.538  35.418  1.00 54.79           O
ATOM   1580  N   GLN A 650     112.312 -10.895  33.258  1.00 52.65           N
ATOM   1581  CA  GLN A 650     113.095 -12.101  33.520  1.00 52.84           C
ATOM   1582  CB  GLN A 650     113.328 -12.886  32.228  1.00 54.27           C
ATOM   1583  CG  GLN A 650     112.163 -13.781  31.830  1.00 72.39           C
ATOM   1584  CD  GLN A 650     111.737 -13.580  30.387  1.00 92.06           C
ATOM   1585  OE1 GLN A 650     112.546 -13.208  29.535  1.00 87.24           O
ATOM   1586  NE2 GLN A 650     110.460 -13.818  30.108  1.00 84.09           N
ATOM   1587  C   GLN A 650     114.422 -11.835  34.224  1.00 57.37           C
ATOM   1588  O   GLN A 650     114.921 -12.687  34.961  1.00 56.93           O
ATOM   1589  N   THR A 651     114.999 -10.663  33.984  1.00 54.38           N
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ATOM   1590  CA  THR A 651     116.263 -10.302  34.614  1.00 54.37           C
ATOM   1591  CB  THR A 651     117.119  -9.396  33.705  1.00 61.86           C
ATOM   1592  OG1 THR A 651     116.410  -8.182  33.431  1.00 61.41           O
ATOM   1593  CG2 THR A 651     117.438 -10.102  32.394  1.00 59.96           C
ATOM   1594  C   THR A 651     116.010  -9.663  35.978  1.00 58.88           C
ATOM   1595  O   THR A 651     116.945  -9.378  36.725  1.00 58.71           O
ATOM   1596  N   GLY A 652     114.736  -9.451  36.298  1.00 55.50           N
ATOM   1597  CA  GLY A 652     114.330  -8.862  37.563  1.00 55.26           C
ATOM   1598  C   GLY A 652     114.658  -7.387  37.679  1.00 58.97           C
ATOM   1599  O   GLY A 652     114.752  -6.848  38.783  1.00 58.31           O
ATOM   1600  N   SER A 653     114.817  -6.728  36.535  1.00 55.83           N
ATOM   1601  CA  SER A 653     115.159  -5.309  36.499  1.00 55.77           C
ATOM   1602  CB  SER A 653     115.982  -4.988  35.248  1.00 59.29           C
ATOM   1603  OG  SER A 653     115.402  -5.555  34.085  1.00 67.79           O
ATOM   1604  C   SER A 653     113.949  -4.378  36.592  1.00 59.89           C
ATOM   1605  O   SER A 653     114.046  -3.278  37.139  1.00 59.53           O
ATOM   1606  N   LEU A 654     112.815  -4.815  36.052  1.00 56.42           N
ATOM   1607  CA  LEU A 654     111.601  -4.003  36.065  1.00 55.99           C
ATOM   1608  CB  LEU A 654     110.408  -4.774  35.499  1.00 56.06           C
ATOM   1609  CG  LEU A 654     109.212  -3.869  35.198  1.00 60.63           C
ATOM   1610  CD1 LEU A 654     109.281  -3.321  33.777  1.00 60.68           C
ATOM   1611  CD2 LEU A 654     107.893  -4.571  35.457  1.00 63.04           C
ATOM   1612  C   LEU A 654     111.249  -3.415  37.432  1.00 59.08           C
ATOM   1613  O   LEU A 654     110.950  -4.141  38.381  1.00 58.72           O
ATOM   1614  N   ASN A 655     111.263  -2.088  37.509  1.00 54.77           N
ATOM   1615  CA  ASN A 655     110.927  -1.372  38.732  1.00 54.15           C
ATOM   1616  CB  ASN A 655     112.166  -0.688  39.305  1.00 54.40           C
ATOM   1617  CG  ASN A 655     111.833   0.581  40.054  1.00 76.44           C
ATOM   1618  OD1 ASN A 655     111.047   0.568  41.002  1.00 67.59           O
ATOM   1619  ND2 ASN A 655     112.421   1.692  39.624  1.00 69.97           N
ATOM   1620  C   ASN A 655     109.850  -0.340  38.406  1.00 57.37           C
ATOM   1621  O   ASN A 655     110.071   0.569  37.604  1.00 57.22           O
ATOM   1622  N   LEU A 656     108.677  -0.509  39.008  1.00 53.03           N
ATOM   1623  CA  LEU A 656     107.532   0.358  38.746  1.00 52.45           C
ATOM   1624  CB  LEU A 656     106.270  -0.216  39.386  1.00 52.49           C
ATOM   1625  CG  LEU A 656     105.864  -1.609  38.898  1.00 57.11           C
ATOM   1626  CD1 LEU A 656     105.635  -2.553  40.072  1.00 57.38           C
ATOM   1627  CD2 LEU A 656     104.627  -1.527  38.021  1.00 58.95           C
ATOM   1628  C   LEU A 656     107.696   1.829  39.118  1.00 55.55           C
ATOM   1629  O   LEU A 656     106.868   2.660  38.745  1.00 55.52           O
ATOM   1630  N   ASN A 657     108.752   2.154  39.855  1.00 51.21           N
ATOM   1631  CA  ASN A 657     108.997   3.538  40.249  1.00 50.61           C
ATOM   1632  CB  ASN A 657     109.763   3.591  41.568  1.00 52.75           C
ATOM   1633  CG  ASN A 657     109.011   2.922  42.699  1.00 79.34           C
ATOM   1634  OD1 ASN A 657     107.824   3.183  42.907  1.00 73.45           O
ATOM   1635  ND2 ASN A 657     109.685   2.026  43.413  1.00 72.55           N
ATOM   1636  C   ASN A 657     109.758   4.278  39.154  1.00 52.61           C
ATOM   1637  O   ASN A 657     109.855   5.506  39.163  1.00 52.11           O
ATOM   1638  N   ASN A 658     110.289   3.513  38.205  1.00 47.49           N
ATOM   1639  CA  ASN A 658     111.018   4.070  37.075  1.00 46.56           C
ATOM   1640  CB  ASN A 658     111.974   3.016  36.502  1.00 47.19           C
ATOM   1641  CG  ASN A 658     113.011   3.608  35.562  1.00 65.31           C
ATOM   1642  OD1 ASN A 658     112.680   4.358  34.645  1.00 57.95           O
ATOM   1643  ND2 ASN A 658     114.267   3.224  35.752  1.00 56.48           N
ATOM   1644  C   ASN A 658     109.995   4.481  36.020  1.00 49.00           C
ATOM   1645  O   ASN A 658     109.320   3.631  35.435  1.00 48.68           O
ATOM   1646  N   GLN A 659     109.862   5.786  35.802  1.00 44.38           N
ATOM   1647  CA  GLN A 659     108.908   6.304  34.830  1.00 43.33           C
ATOM   1648  CB  GLN A 659     109.095   7.805  34.632  1.00 44.41           C
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ATOM   1649  CG  GLN A 659     107.986   8.446  33.819  1.00 52.77           C
ATOM   1650  CD  GLN A 659     106.613   8.145  34.385  1.00 65.19           C
ATOM   1651  OE1 GLN A 659     106.377   8.303  35.581  1.00 60.62           O
ATOM   1652  NE2 GLN A 659     105.708   7.682  33.531  1.00 54.50           N
ATOM   1653  C   GLN A 659     108.995   5.583  33.489  1.00 45.64           C
ATOM   1654  O   GLN A 659     107.980   5.179  32.929  1.00 45.23           O
ATOM   1655  N   SER A 660     110.211   5.414  32.985  1.00 41.46           N
ATOM   1656  CA  SER A 660     110.418   4.733  31.711  1.00 40.81           C
ATOM   1657  CB  SER A 660     111.914   4.575  31.423  1.00 43.81           C
ATOM   1658  OG  SER A 660     112.143   4.065  30.120  1.00 51.49           O
ATOM   1659  C   SER A 660     109.724   3.371  31.707  1.00 43.83           C
ATOM   1660  O   SER A 660     109.161   2.951  30.694  1.00 43.28           O
ATOM   1661  N   HIS A 661     109.753   2.701  32.855  1.00 40.00           N
ATOM   1662  CA  HIS A 661     109.130   1.392  33.002  1.00 39.80           C
ATOM   1663  CB  HIS A 661     109.686   0.667  34.228  1.00 41.09           C
ATOM   1664  CG  HIS A 661     111.144   0.342  34.119  1.00 44.96           C
ATOM   1665  ND1 HIS A 661     111.748  -0.650  34.863  1.00 46.89           N
ATOM   1666  CE1 HIS A 661     113.029  -0.717  34.547  1.00 46.39           C
ATOM   1667  NE2 HIS A 661     113.279   0.193  33.623  1.00 46.76           N
ATOM   1668  CD2 HIS A 661     112.117   0.868  33.336  1.00 47.00           C
ATOM   1669  C   HIS A 661     107.602   1.465  33.028  1.00 41.68           C
ATOM   1670  O   HIS A 661     106.930   0.679  32.363  1.00 41.01           O
ATOM   1671  N   ARG A 662     107.050   2.428  33.761  1.00 36.73           N
ATOM   1672  CA  ARG A 662     105.600   2.592  33.785  1.00 35.97           C
ATOM   1673  CB  ARG A 662     105.199   3.764  34.677  1.00 35.11           C
ATOM   1674  CG  ARG A 662     105.740   3.695  36.085  1.00 41.48           C
ATOM   1675  CD  ARG A 662     105.251   4.881  36.896  1.00 45.63           C
ATOM   1676  NE  ARG A 662     103.863   4.721  37.318  1.00 48.67           N
ATOM   1677  CZ  ARG A 662     103.459   3.852  38.239  1.00 57.54           C
ATOM   1678  NH1 ARG A 662     104.337   3.055  38.829  1.00 41.54           N
ATOM   1679  NH2 ARG A 662     102.179   3.778  38.570  1.00 44.54           N
ATOM   1680  C   ARG A 662     105.131   2.860  32.359  1.00 39.12           C
ATOM   1681  O   ARG A 662     104.153   2.276  31.895  1.00 38.60           O
ATOM   1682  N   ASP A 663     105.846   3.744  31.669  1.00 35.23           N
ATOM   1683  CA  ASP A 663     105.527   4.086  30.286  1.00 34.84           C
ATOM   1684  CB  ASP A 663     106.642   4.948  29.677  1.00 36.77           C
ATOM   1685  CG  ASP A 663     106.557   6.408  30.097  1.00 47.33           C
ATOM   1686  OD1 ASP A 663     105.586   6.774  30.793  1.00 48.58           O
ATOM   1687  OD2 ASP A 663     107.464   7.192  29.727  1.00 51.77           O
ATOM   1688  C   ASP A 663     105.385   2.811  29.468  1.00 37.29           C
ATOM   1689  O   ASP A 663     104.467   2.672  28.659  1.00 36.90           O
ATOM   1690  N   ARG A 664     106.312   1.884  29.683  1.00 32.92           N
ATOM   1691  CA  ARG A 664     106.299   0.613  28.977  1.00 32.30           C
ATOM   1692  CB  ARG A 664     107.587  -0.160  29.254  1.00 32.87           C
ATOM   1693  CG  ARG A 664     108.825   0.464  28.640  1.00 41.72           C
ATOM   1694  CD  ARG A 664     109.700  -0.593  27.984  1.00 46.09           C
ATOM   1695  NE  ARG A 664     110.887  -0.011  27.367  1.00 49.18           N
ATOM   1696  CZ  ARG A 664     111.084   0.069  26.055  1.00 63.29           C
ATOM   1697  NH1 ARG A 664     110.174  -0.402  25.212  1.00 52.01           N
ATOM   1698  NH2 ARG A 664     112.195   0.618  25.585  1.00 50.27           N
ATOM   1699  C   ARG A 664     105.090  -0.222  29.387  1.00 34.26           C
ATOM   1700  O   ARG A 664     104.389  -0.770  28.535  1.00 33.84           O
ATOM   1701  N   VAL A 665     104.858  -0.319  30.694  1.00 29.14           N
ATOM   1702  CA  VAL A 665     103.734  -1.086  31.222  1.00 28.06           C
ATOM   1703  CB  VAL A 665     103.747  -1.149  32.769  1.00 31.36           C
ATOM   1704  CG1 VAL A 665     102.561  -1.956  33.280  1.00 30.88           C
ATOM   1705  CG2 VAL A 665     105.053  -1.749  33.275  1.00 31.01           C
ATOM   1706  C   VAL A 665     102.418  -0.524  30.705  1.00 31.63           C
ATOM   1707  O   VAL A 665     101.635  -1.238  30.082  1.00 31.78           O
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ATOM   1708  N   ILE A 666     102.185   0.760  30.954  1.00 27.44           N
ATOM   1709  CA  ILE A 666     100.957   1.404  30.504  1.00 26.82           C
ATOM   1710  CB  ILE A 666     100.939   2.902  30.834  1.00 29.64           C
ATOM   1711  CG1 ILE A 666     100.754   3.112  32.338  1.00 29.99           C
ATOM   1712  CD1 ILE A 666     101.019   4.530  32.795  1.00 40.07           C
ATOM   1713  CG2 ILE A 666      99.828   3.590  30.061  1.00 29.93           C
ATOM   1714  C   ILE A 666     100.689   1.151  29.024  1.00 30.41           C
ATOM   1715  O   ILE A 666      99.541   0.996  28.616  1.00 30.61           O
ATOM   1716  N   GLY A 667     101.750   1.085  28.228  1.00 26.51           N
ATOM   1717  CA  GLY A 667     101.628   0.830  26.804  1.00 26.14           C
ATOM   1718  C   GLY A 667     101.196  -0.595  26.512  1.00 31.15           C
ATOM   1719  O   GLY A 667     100.606  -0.877  25.464  1.00 31.55           O
ATOM   1720  N   LEU A 668     101.488  -1.506  27.438  1.00 27.30           N
ATOM   1721  CA  LEU A 668     101.104  -2.901  27.257  1.00 26.59           C
ATOM   1722  CB  LEU A 668     101.970  -3.845  28.090  1.00 26.48           C
ATOM   1723  CG  LEU A 668     101.870  -5.289  27.590  1.00 30.62           C
ATOM   1724  CD1 LEU A 668     102.019  -5.339  26.077  1.00 30.29           C
ATOM   1725  CD2 LEU A 668     102.888  -6.194  28.267  1.00 33.10           C
ATOM   1726  C   LEU A 668      99.632  -3.097  27.586  1.00 29.58           C
ATOM   1727  O   LEU A 668      98.953  -3.908  26.961  1.00 28.89           O
ATOM   1728  N   MET A 669      99.146  -2.336  28.561  1.00 26.13           N
ATOM   1729  CA  MET A 669      97.744  -2.389  28.946  1.00 25.87           C
ATOM   1730  CB  MET A 669      97.512  -1.589  30.225  1.00 28.38           C
ATOM   1731  CG  MET A 669      98.188  -2.178  31.448  1.00 32.22           C
ATOM   1732  SD  MET A 669      98.674  -0.924  32.634  1.00 36.90           S
ATOM   1733  CE  MET A 669      97.148  -0.012  32.819  1.00 33.91           C
ATOM   1734  C   MET A 669      96.899  -1.830  27.814  1.00 29.51           C
ATOM   1735  O   MET A 669      95.812  -2.332  27.538  1.00 29.50           O
ATOM   1736  N   MET A 670      97.425  -0.811  27.137  1.00 25.67           N
ATOM   1737  CA  MET A 670      96.730  -0.198  26.006  1.00 24.64           C
ATOM   1738  CB  MET A 670      97.496   1.020  25.491  1.00 26.90           C
ATOM   1739  CG  MET A 670      97.423   2.227  26.409  1.00 30.53           C
ATOM   1740  SD  MET A 670      95.739   2.819  26.694  1.00 34.75           S
ATOM   1741  CE  MET A 670      95.077   2.809  25.003  1.00 31.13           C
ATOM   1742  C   MET A 670      96.543  -1.212  24.885  1.00 26.61           C
ATOM   1743  O   MET A 670      95.486  -1.272  24.256  1.00 25.56           O
ATOM   1744  N   THR A 671      97.569  -2.024  24.653  1.00 22.36           N
ATOM   1745  CA  THR A 671      97.498  -3.069  23.637  1.00 21.48           C
ATOM   1746  CB  THR A 671      98.889  -3.706  23.375  1.00 27.85           C
ATOM   1747  OG1 THR A 671      99.882  -2.676  23.261  1.00 28.99           O
ATOM   1748  CG2 THR A 671      98.873  -4.530  22.088  1.00 23.93           C
ATOM   1749  C   THR A 671      96.490  -4.114  24.115  1.00 25.33           C
ATOM   1750  O   THR A 671      95.561  -4.476  23.397  1.00 24.98           O
ATOM   1751  N   ALA A 672      96.669  -4.578  25.347  1.00 22.08           N
ATOM   1752  CA  ALA A 672      95.772  -5.570  25.929  1.00 21.96           C
ATOM   1753  CB  ALA A 672      96.130  -5.824  27.388  1.00 22.35           C
ATOM   1754  C   ALA A 672      94.307  -5.142  25.802  1.00 26.64           C
ATOM   1755  O   ALA A 672      93.450  -5.945  25.437  1.00 26.89           O
ATOM   1756  N   CYS A 673      94.022  -3.878  26.102  1.00 23.50           N
ATOM   1757  CA  CYS A 673      92.659  -3.360  26.009  1.00 23.35           C
ATOM   1758  CB  CYS A 673      92.564  -1.996  26.689  1.00 23.91           C
ATOM   1759  SG  CYS A 673      92.773  -2.038  28.483  1.00 27.99           S
ATOM   1760  C   CYS A 673      92.210  -3.248  24.556  1.00 27.46           C
ATOM   1761  O   CYS A 673      91.133  -3.708  24.192  1.00 26.23           O
ATOM   1762  N   ASP A 674      93.041  -2.632  23.724  1.00 25.63           N
ATOM   1763  CA  ASP A 674      92.716  -2.476  22.310  1.00 26.35           C
ATOM   1764  CB  ASP A 674      93.847  -1.734  21.584  1.00 28.40           C
ATOM   1765  CG  ASP A 674      93.414  -1.172  20.242  1.00 39.21           C
ATOM   1766  OD1 ASP A 674      92.310  -0.588  20.163  1.00 39.69           O
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ATOM   1767  OD2 ASP A 674      94.194  -1.281  19.273  1.00 45.03           O
ATOM   1768  C   ASP A 674      92.427  -3.813  21.614  1.00 31.68           C
ATOM   1769  O   ASP A 674      91.769  -3.843  20.572  1.00 31.45           O
ATOM   1770  N   LEU A 675      92.932  -4.909  22.177  1.00 28.82           N
ATOM   1771  CA  LEU A 675      92.738  -6.231  21.584  1.00 29.05           C
ATOM   1772  CB  LEU A 675      94.068  -6.979  21.493  1.00 29.27           C
ATOM   1773  CG  LEU A 675      95.067  -6.446  20.471  1.00 33.87           C
ATOM   1774  CD1 LEU A 675      96.269  -7.366  20.345  1.00 34.17           C
ATOM   1775  CD2 LEU A 675      94.392  -6.254  19.124  1.00 35.98           C
ATOM   1776  C   LEU A 675      91.711  -7.087  22.330  1.00 32.54           C
ATOM   1777  O   LEU A 675      91.395  -8.196  21.903  1.00 32.12           O
ATOM   1778  N   CYS A 676      91.188  -6.557  23.430  1.00 29.45           N
ATOM   1779  CA  CYS A 676      90.226  -7.258  24.278  1.00 29.89           C
ATOM   1780  CB  CYS A 676      89.575  -6.285  25.274  1.00 30.66           C
ATOM   1781  SG  CYS A 676      88.374  -5.140  24.540  1.00 34.86           S
ATOM   1782  C   CYS A 676      89.152  -8.121  23.606  1.00 33.50           C
ATOM   1783  O   CYS A 676      88.575  -8.995  24.247  1.00 32.81           O
ATOM   1784  N   SER A 677      88.865  -7.873  22.335  1.00 29.98           N
ATOM   1785  CA  SER A 677      87.848  -8.657  21.639  1.00 29.90           C
ATOM   1786  CB  SER A 677      87.592  -8.103  20.241  1.00 33.58           C
ATOM   1787  OG  SER A 677      88.709  -8.335  19.398  1.00 43.63           O
ATOM   1788  C   SER A 677      88.219 -10.138  21.581  1.00 33.42           C
ATOM   1789  O   SER A 677      87.350 -11.007  21.475  1.00 33.49           O
ATOM   1790  N   VAL A 678      89.518 -10.417  21.659  1.00 28.94           N
ATOM   1791  CA  VAL A 678      90.013 -11.789  21.633  1.00 27.78           C
ATOM   1792  CB  VAL A 678      91.457 -11.866  21.087  1.00 31.55           C
ATOM   1793  CG1 VAL A 678      91.575 -11.114  19.771  1.00 31.31           C
ATOM   1794  CG2 VAL A 678      92.452 -11.327  22.109  1.00 31.31           C
ATOM   1795  C   VAL A 678      89.904 -12.400  23.027  1.00 29.09           C
ATOM   1796  O   VAL A 678      90.167 -13.586  23.221  1.00 27.49           O
ATOM   1797  N   THR A 679      89.485 -11.578  23.986  1.00 24.67           N
ATOM   1798  CA  THR A 679      89.349 -12.003  25.372  1.00 24.36           C
ATOM   1799  CB  THR A 679      90.195 -11.120  26.320  1.00 27.74           C
ATOM   1800  OG1 THR A 679      89.559  -9.846  26.490  1.00 27.05           O
ATOM   1801  CG2 THR A 679      91.589 -10.911  25.763  1.00 22.58           C
ATOM   1802  C   THR A 679      87.898 -12.089  25.848  1.00 29.79           C
ATOM   1803  O   THR A 679      87.645 -12.251  27.042  1.00 30.03           O
ATOM   1804  N   LYS A 680      86.948 -11.973  24.925  1.00 26.00           N
ATOM   1805  CA  LYS A 680      85.532 -12.069  25.276  1.00 25.33           C
ATOM   1806  CB  LYS A 680      84.680 -11.248  24.305  1.00 26.13           C
ATOM   1807  CG  LYS A 680      84.876  -9.749  24.405  1.00 24.75           C
ATOM   1808  CD  LYS A 680      85.066  -9.310  25.838  1.00 19.93           C
ATOM   1809  CE  LYS A 680      84.598  -7.874  26.034  1.00 23.28           C
ATOM   1810  NZ  LYS A 680      85.579  -7.096  26.829  1.00 21.59           N
ATOM   1811  C   LYS A 680      85.120 -13.535  25.200  1.00 29.87           C
ATOM   1812  O   LYS A 680      85.964 -14.405  25.012  1.00 29.01           O
ATOM   1813  N   LEU A 681      83.824 -13.805  25.327  1.00 27.54           N
ATOM   1814  CA  LEU A 681      83.318 -15.172  25.219  1.00 27.41           C
ATOM   1815  CB  LEU A 681      82.011 -15.334  26.001  1.00 27.79           C
ATOM   1816  CG  LEU A 681      82.148 -15.066  27.500  1.00 32.72           C
ATOM   1817  CD1 LEU A 681      80.867 -15.384  28.248  1.00 32.70           C
ATOM   1818  CD2 LEU A 681      83.321 -15.854  28.063  1.00 35.64           C
ATOM   1819  C   LEU A 681      83.106 -15.485  23.741  1.00 30.41           C
ATOM   1820  O   LEU A 681      82.702 -14.612  22.974  1.00 30.54           O
ATOM   1821  N   TRP A 682      83.407 -16.721  23.348  1.00 25.72           N
ATOM   1822  CA  TRP A 682      83.326 -17.162  21.953  1.00 24.60           C
ATOM   1823  CB  TRP A 682      83.265 -18.686  21.861  1.00 22.45           C
ATOM   1824  CG  TRP A 682      83.269 -19.192  20.455  1.00 22.89           C
ATOM   1825  CD1 TRP A 682      82.341 -20.009  19.876  1.00 25.66           C
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ATOM   1826  NE1 TRP A 682      82.674 -20.245  18.563  1.00 25.01           N
ATOM   1827  CE2 TRP A 682      83.835 -19.580  18.271  1.00 26.07           C
ATOM   1828  CD2 TRP A 682      84.234 -18.894  19.435  1.00 22.47           C
ATOM   1829  CE3 TRP A 682      85.411 -18.137  19.403  1.00 23.50           C
ATOM   1830  CZ3 TRP A 682      86.131 -18.073  18.219  1.00 24.75           C
ATOM   1831  CH2 TRP A 682      85.706 -18.762  17.077  1.00 25.26           C
ATOM   1832  CZ2 TRP A 682      84.562 -19.518  17.083  1.00 25.37           C
ATOM   1833  C   TRP A 682      82.297 -16.512  21.016  1.00 29.17           C
ATOM   1834  O   TRP A 682      82.643 -16.056  19.922  1.00 28.73           O
ATOM   1835  N   PRO A 683      81.016 -16.489  21.417  1.00 26.15           N
ATOM   1836  CA  PRO A 683      80.002 -15.894  20.534  1.00 25.59           C
ATOM   1837  CB  PRO A 683      78.722 -15.972  21.368  1.00 27.61           C
ATOM   1838  CG  PRO A 683      78.969 -17.094  22.334  1.00 32.32           C
ATOM   1839  CD  PRO A 683      80.427 -16.992  22.670  1.00 27.86           C
ATOM   1840  C   PRO A 683      80.315 -14.441  20.206  1.00 28.25           C
ATOM   1841  O   PRO A 683      80.089 -13.979  19.084  1.00 27.11           O
ATOM   1842  N   VAL A 684      80.812 -13.720  21.205  1.00 24.55           N
ATOM   1843  CA  VAL A 684      81.157 -12.314  21.050  1.00 24.31           C
ATOM   1844  CB  VAL A 684      81.295 -11.625  22.416  1.00 28.21           C
ATOM   1845  CG1 VAL A 684      81.413 -10.126  22.243  1.00 27.87           C
ATOM   1846  CG2 VAL A 684      80.117 -11.983  23.307  1.00 27.95           C
ATOM   1847  C   VAL A 684      82.426 -12.166  20.227  1.00 28.41           C
ATOM   1848  O   VAL A 684      82.579 -11.212  19.470  1.00 29.27           O
ATOM   1849  N   THR A 685      83.343 -13.114  20.385  1.00 23.90           N
ATOM   1850  CA  THR A 685      84.584 -13.088  19.631  1.00 23.11           C
ATOM   1851  CB  THR A 685      85.618 -14.049  20.231  1.00 30.41           C
ATOM   1852  OG1 THR A 685      85.977 -13.595  21.543  1.00 27.90           O
ATOM   1853  CG2 THR A 685      86.858 -14.107  19.356  1.00 28.89           C
ATOM   1854  C   THR A 685      84.276 -13.419  18.176  1.00 26.75           C
ATOM   1855  O   THR A 685      84.746 -12.744  17.256  1.00 27.00           O
ATOM   1856  N   LYS A 686      83.464 -14.453  17.985  1.00 22.18           N
ATOM   1857  CA  LYS A 686      83.040 -14.889  16.661  1.00 21.74           C
ATOM   1858  CB  LYS A 686      82.001 -16.005  16.815  1.00 23.36           C
ATOM   1859  CG  LYS A 686      81.993 -17.047  15.711  1.00 25.46           C
ATOM   1860  CD  LYS A 686      80.733 -17.895  15.811  1.00 33.99           C
ATOM   1861  CE  LYS A 686      80.632 -18.904  14.678  1.00 45.50           C
ATOM   1862  NZ  LYS A 686      79.397 -19.734  14.778  1.00 54.20           N
ATOM   1863  C   LYS A 686      82.435 -13.711  15.894  1.00 26.72           C
ATOM   1864  O   LYS A 686      82.942 -13.306  14.847  1.00 27.48           O
ATOM   1865  N   LEU A 687      81.370 -13.139  16.446  1.00 23.23           N
ATOM   1866  CA  LEU A 687      80.683 -12.004  15.831  1.00 22.67           C
ATOM   1867  CB  LEU A 687      79.440 -11.641  16.640  1.00 22.42           C
ATOM   1868  CG  LEU A 687      78.298 -12.660  16.606  1.00 25.81           C
ATOM   1869  CD1 LEU A 687      77.274 -12.381  17.701  1.00 25.71           C
ATOM   1870  CD2 LEU A 687      77.643 -12.660  15.237  1.00 26.24           C
ATOM   1871  C   LEU A 687      81.556 -10.765  15.638  1.00 27.56           C
ATOM   1872  O   LEU A 687      81.449 -10.080  14.624  1.00 26.72           O
ATOM   1873  N   THR A 688      82.401 -10.457  16.616  1.00 25.54           N
ATOM   1874  CA  THR A 688      83.260  -9.274  16.520  1.00 25.60           C
ATOM   1875  CB  THR A 688      83.906  -8.904  17.866  1.00 35.64           C
ATOM   1876  OG1 THR A 688      82.900  -8.402  18.752  1.00 37.53           O
ATOM   1877  CG2 THR A 688      84.965  -7.829  17.669  1.00 35.03           C
ATOM   1878  C   THR A 688      84.289  -9.367  15.399  1.00 29.43           C
ATOM   1879  O   THR A 688      84.609  -8.363  14.757  1.00 28.38           O
ATOM   1880  N   ALA A 689      84.808 -10.570  15.165  1.00 26.54           N
ATOM   1881  CA  ALA A 689      85.788 -10.781  14.104  1.00 26.62           C
ATOM   1882  CB  ALA A 689      86.267 -12.226  14.096  1.00 27.39           C
ATOM   1883  C   ALA A 689      85.176 -10.409  12.761  1.00 30.89           C
ATOM   1884  O   ALA A 689      85.858  -9.904  11.873  1.00 30.17           O
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ATOM   1885  N   ASN A 690      83.876 -10.650  12.629  1.00 28.50           N
ATOM   1886  CA  ASN A 690      83.144 -10.317  11.414  1.00 28.75           C
ATOM   1887  CB  ASN A 690      81.646 -10.560  11.630  1.00 31.88           C
ATOM   1888  CG  ASN A 690      81.129 -11.757  10.863  1.00 58.49           C
ATOM   1889  OD1 ASN A 690      81.843 -12.343  10.047  1.00 58.24           O
ATOM   1890  ND2 ASN A 690      79.881 -12.133  11.126  1.00 49.41           N
ATOM   1891  C   ASN A 690      83.355  -8.846  11.052  1.00 32.61           C
ATOM   1892  O   ASN A 690      83.530  -8.499   9.884  1.00 32.85           O
ATOM   1893  N   ASP A 691      83.301  -7.984  12.059  1.00 27.91           N
ATOM   1894  CA  ASP A 691      83.459  -6.550  11.852  1.00 27.37           C
ATOM   1895  CB  ASP A 691      82.930  -5.776  13.057  1.00 29.66           C
ATOM   1896  CG  ASP A 691      81.428  -5.931  13.232  1.00 44.92           C
ATOM   1897  OD1 ASP A 691      80.704  -5.924  12.206  1.00 46.42           O
ATOM   1898  OD2 ASP A 691      80.976  -6.085  14.390  1.00 51.09           O
ATOM   1899  C   ASP A 691      84.898  -6.157  11.557  1.00 29.29           C
ATOM   1900  O   ASP A 691      85.153  -5.295  10.718  1.00 28.07           O
ATOM   1901  N   ILE A 692      85.836  -6.793  12.250  1.00 25.20           N
ATOM   1902  CA  ILE A 692      87.251  -6.523  12.026  1.00 25.06           C
ATOM   1903  CB  ILE A 692      88.139  -7.372  12.963  1.00 28.02           C
ATOM   1904  CG1 ILE A 692      87.981  -6.928  14.415  1.00 27.87           C
ATOM   1905  CD1 ILE A 692      88.654  -7.862  15.397  1.00 29.70           C
ATOM   1906  CG2 ILE A 692      89.598  -7.292  12.546  1.00 28.97           C
ATOM   1907  C   ILE A 692      87.591  -6.820  10.570  1.00 28.42           C
ATOM   1908  O   ILE A 692      88.295  -6.054   9.910  1.00 27.03           O
ATOM   1909  N   TYR A 693      87.099  -7.951  10.079  1.00 26.07           N
ATOM   1910  CA  TYR A 693      87.386  -8.370   8.711  1.00 26.03           C
ATOM   1911  CB  TYR A 693      87.177  -9.869   8.542  1.00 27.30           C
ATOM   1912  CG  TYR A 693      88.411 -10.661   8.886  1.00 29.27           C
ATOM   1913  CD1 TYR A 693      89.378 -10.921   7.928  1.00 31.27           C
ATOM   1914  CE1 TYR A 693      90.521 -11.628   8.244  1.00 31.87           C
ATOM   1915  CZ  TYR A 693      90.724 -12.059   9.539  1.00 37.16           C
ATOM   1916  OH  TYR A 693      91.869 -12.756   9.859  1.00 35.92           O
ATOM   1917  CE2 TYR A 693      89.784 -11.801  10.513  1.00 30.85           C
ATOM   1918  CD2 TYR A 693      88.643 -11.092  10.187  1.00 30.11           C
ATOM   1919  C   TYR A 693      86.664  -7.584   7.630  1.00 29.98           C
ATOM   1920  O   TYR A 693      87.159  -7.468   6.510  1.00 29.48           O
ATOM   1921  N   ALA A 694      85.493  -7.050   7.964  1.00 27.34           N
ATOM   1922  CA  ALA A 694      84.731  -6.246   7.015  1.00 27.33           C
ATOM   1923  CB  ALA A 694      83.401  -5.827   7.622  1.00 28.10           C
ATOM   1924  C   ALA A 694      85.571  -5.024   6.662  1.00 31.69           C
ATOM   1925  O   ALA A 694      85.697  -4.657   5.492  1.00 32.18           O
ATOM   1926  N   GLU A 695      86.188  -4.428   7.676  1.00 27.61           N
ATOM   1927  CA  GLU A 695      87.054  -3.272   7.469  1.00 27.40           C
ATOM   1928  CB  GLU A 695      87.480  -2.669   8.809  1.00 28.71           C
ATOM   1929  CG  GLU A 695      86.975  -1.256   9.043  1.00 38.35           C
ATOM   1930  CD  GLU A 695      87.449  -0.681  10.364  1.00 54.48           C
ATOM   1931  OE1 GLU A 695      88.677  -0.546  10.548  1.00 43.60           O
ATOM   1932  OE2 GLU A 695      86.595  -0.354  11.214  1.00 46.14           O
ATOM   1933  C   GLU A 695      88.285  -3.643   6.636  1.00 30.20           C
ATOM   1934  O   GLU A 695      88.634  -2.935   5.693  1.00 30.20           O
ATOM   1935  N   PHE A 696      88.918  -4.766   6.980  1.00 25.50           N
ATOM   1936  CA  PHE A 696      90.107  -5.260   6.278  1.00 24.75           C
ATOM   1937  CB  PHE A 696      90.562  -6.610   6.850  1.00 25.91           C
ATOM   1938  CG  PHE A 696      91.258  -6.507   8.179  1.00 26.79           C
ATOM   1939  CD1 PHE A 696      91.741  -5.291   8.630  1.00 29.32           C
ATOM   1940  CE1 PHE A 696      92.392  -5.194   9.853  1.00 30.16           C
ATOM   1941  CZ  PHE A 696      92.550  -6.313  10.643  1.00 29.33           C
ATOM   1942  CE2 PHE A 696      92.078  -7.537  10.204  1.00 31.24           C
ATOM   1943  CD2 PHE A 696      91.433  -7.630   8.977  1.00 28.58           C
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ATOM   1944  C   PHE A 696      89.862  -5.423   4.789  1.00 28.89           C
ATOM   1945  O   PHE A 696      90.629  -4.922   3.971  1.00 27.64           O
ATOM   1946  N   TRP A 697      88.812  -6.164   4.449  1.00 27.22           N
ATOM   1947  CA  TRP A 697      88.467  -6.416   3.057  1.00 28.05           C
ATOM   1948  CB  TRP A 697      87.270  -7.356   2.968  1.00 27.27           C
ATOM   1949  CG  TRP A 697      87.540  -8.701   3.555  1.00 28.45           C
ATOM   1950  CD1 TRP A 697      88.744  -9.339   3.630  1.00 31.43           C
ATOM   1951  NE1 TRP A 697      88.591 -10.567   4.226  1.00 31.00           N
ATOM   1952  CE2 TRP A 697      87.273 -10.735   4.556  1.00 32.38           C
ATOM   1953  CD2 TRP A 697      86.581  -9.579   4.145  1.00 28.41           C
ATOM   1954  CE3 TRP A 697      85.204  -9.499   4.367  1.00 29.92           C
ATOM   1955  CZ3 TRP A 697      84.572 -10.556   4.990  1.00 31.65           C
ATOM   1956  CH2 TRP A 697      85.287 -11.694   5.387  1.00 32.32           C
ATOM   1957  CZ2 TRP A 697      86.633 -11.801   5.179  1.00 31.87           C
ATOM   1958  C   TRP A 697      88.186  -5.121   2.304  1.00 32.97           C
ATOM   1959  O   TRP A 697      88.574  -4.969   1.143  1.00 32.90           O
ATOM   1960  N   ALA A 698      87.526  -4.184   2.975  1.00 29.74           N
ATOM   1961  CA  ALA A 698      87.237  -2.887   2.376  1.00 29.65           C
ATOM   1962  CB  ALA A 698      86.504  -2.001   3.372  1.00 30.59           C
ATOM   1963  C   ALA A 698      88.543  -2.227   1.953  1.00 32.66           C
ATOM   1964  O   ALA A 698      88.644  -1.657   0.865  1.00 31.77           O
ATOM   1965  N   GLU A 699      89.541  -2.309   2.829  1.00 29.09           N
ATOM   1966  CA  GLU A 699      90.852  -1.730   2.563  1.00 29.01           C
ATOM   1967  CB  GLU A 699      91.733  -1.822   3.811  1.00 30.37           C
ATOM   1968  CG  GLU A 699      93.084  -1.145   3.681  1.00 40.73           C
ATOM   1969  CD  GLU A 699      93.738  -0.908   5.029  1.00 62.05           C
ATOM   1970  OE1 GLU A 699      93.002  -0.785   6.033  1.00 57.19           O
ATOM   1971  OE2 GLU A 699      94.986  -0.860   5.089  1.00 57.01           O
ATOM   1972  C   GLU A 699      91.510  -2.453   1.393  1.00 32.90           C
ATOM   1973  O   GLU A 699      92.113  -1.828   0.522  1.00 32.88           O
ATOM   1974  N   GLY A 700      91.382  -3.774   1.371  1.00 29.24           N
ATOM   1975  CA  GLY A 700      91.945  -4.570   0.299  1.00 28.71           C
ATOM   1976  C   GLY A 700      91.327  -4.150  -1.017  1.00 31.73           C
ATOM   1977  O   GLY A 700      91.943  -4.269  -2.071  1.00 30.62           O
ATOM   1978  N   ASP A 701      90.093  -3.661  -0.948  1.00 29.06           N
ATOM   1979  CA  ASP A 701      89.380  -3.194  -2.130  1.00 29.10           C
ATOM   1980  CB  ASP A 701      87.905  -2.932  -1.797  1.00 31.17           C
ATOM   1981  CG  ASP A 701      87.010  -4.135  -2.078  1.00 44.08           C
ATOM   1982  OD1 ASP A 701      87.502  -5.283  -2.016  1.00 44.61           O
ATOM   1983  OD2 ASP A 701      85.803  -3.929  -2.340  1.00 50.55           O
ATOM   1984  C   ASP A 701      90.043  -1.902  -2.595  1.00 33.04           C
ATOM   1985  O   ASP A 701      90.310  -1.717  -3.781  1.00 32.54           O
ATOM   1986  N   GLU A 702      90.327  -1.023  -1.640  1.00 29.95           N
ATOM   1987  CA  GLU A 702      90.981   0.247  -1.929  1.00 30.09           C
ATOM   1988  CB  GLU A 702      90.911   1.173  -0.714  1.00 31.46           C
ATOM   1989  CG  GLU A 702      89.530   1.780  -0.491  1.00 40.54           C
ATOM   1990  CD  GLU A 702      89.000   2.506  -1.718  1.00 60.59           C
ATOM   1991  OE1 GLU A 702      89.787   3.206  -2.388  1.00 56.28           O
ATOM   1992  OE2 GLU A 702      87.792   2.384  -2.010  1.00 53.51           O
ATOM   1993  C   GLU A 702      92.425   0.042  -2.373  1.00 34.69           C
ATOM   1994  O   GLU A 702      92.968   0.845  -3.129  1.00 34.33           O
ATOM   1995  N   MET A 703      93.035  -1.046  -1.912  1.00 32.16           N
ATOM   1996  CA  MET A 703      94.402  -1.380  -2.292  1.00 32.54           C
ATOM   1997  CB  MET A 703      94.906  -2.581  -1.486  1.00 35.36           C
ATOM   1998  CG  MET A 703      95.380  -2.252  -0.076  1.00 39.86           C
ATOM   1999  SD  MET A 703      96.981  -1.414  -0.051  1.00 45.33           S
ATOM   2000  CE  MET A 703      97.403  -1.538   1.721  1.00 42.21           C
ATOM   2001  C   MET A 703      94.420  -1.729  -3.774  1.00 36.41           C
ATOM   2002  O   MET A 703      95.256  -1.236  -4.532  1.00 36.72           O
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ATOM   2003  N   LYS A 704      93.478  -2.577  -4.177  1.00 31.75           N
ATOM   2004  CA  LYS A 704      93.356  -3.007  -5.564  1.00 30.83           C
ATOM   2005  CB  LYS A 704      92.258  -4.063  -5.696  1.00 32.79           C
ATOM   2006  CG  LYS A 704      92.596  -5.405  -5.073  1.00 41.69           C
ATOM   2007  CD  LYS A 704      91.362  -6.296  -5.019  1.00 47.28           C
ATOM   2008  CE  LYS A 704      91.500  -7.384  -3.968  1.00 54.27           C
ATOM   2009  NZ  LYS A 704      90.298  -8.262  -3.927  1.00 64.37           N
ATOM   2010  C   LYS A 704      93.046  -1.832  -6.485  1.00 33.79           C
ATOM   2011  O   LYS A 704      93.456  -1.816  -7.645  1.00 33.07           O
ATOM   2012  N   LYS A 705      92.296  -0.863  -5.972  1.00 29.71           N
ATOM   2013  CA  LYS A 705      91.954   0.322  -6.749  1.00 28.81           C
ATOM   2014  CB  LYS A 705      90.886   1.148  -6.027  1.00 30.60           C
ATOM   2015  CG  LYS A 705      89.472   0.601  -6.160  1.00 38.81           C
ATOM   2016  CD  LYS A 705      88.471   1.505  -5.467  1.00 48.52           C
ATOM   2017  CE  LYS A 705      87.059   1.265  -5.974  1.00 60.97           C
ATOM   2018  NZ  LYS A 705      86.163   2.426  -5.680  1.00 71.08           N
ATOM   2019  C   LYS A 705      93.214   1.161  -6.948  1.00 32.83           C
ATOM   2020  O   LYS A 705      93.235   2.085  -7.760  1.00 32.23           O
ATOM   2021  N   LEU A 706      94.261   0.820  -6.200  1.00 29.81           N
ATOM   2022  CA  LEU A 706      95.541   1.525  -6.262  1.00 29.55           C
ATOM   2023  CB  LEU A 706      96.120   1.696  -4.857  1.00 29.07           C
ATOM   2024  CG  LEU A 706      95.759   2.959  -4.073  1.00 32.89           C
ATOM   2025  CD1 LEU A 706      96.681   3.102  -2.871  1.00 32.32           C
ATOM   2026  CD2 LEU A 706      95.822   4.196  -4.962  1.00 34.20           C
ATOM   2027  C   LEU A 706      96.545   0.767  -7.123  1.00 36.34           C
ATOM   2028  O   LEU A 706      97.661   1.238  -7.346  1.00 36.94           O
ATOM   2029  N   GLY A 707      96.152  -0.414  -7.591  1.00 34.06           N
ATOM   2030  CA  GLY A 707      97.001  -1.243  -8.424  1.00 34.64           C
ATOM   2031  C   GLY A 707      97.911  -2.117  -7.589  1.00 40.70           C
ATOM   2032  O   GLY A 707      98.884  -2.682  -8.086  1.00 40.58           O
ATOM   2033  N   ILE A 708      97.589  -2.224  -6.306  1.00 38.62           N
ATOM   2034  CA  ILE A 708      98.381  -3.027  -5.387  1.00 38.81           C
ATOM   2035  CB  ILE A 708      98.836  -2.193  -4.169  1.00 41.76           C
ATOM   2036  CG1 ILE A 708      99.894  -1.167  -4.572  1.00 41.95           C
ATOM   2037  CD1 ILE A 708      99.973   0.025  -3.649  1.00 46.55           C
ATOM   2038  CG2 ILE A 708      99.351  -3.100  -3.062  1.00 42.31           C
ATOM   2039  C   ILE A 708      97.590  -4.233  -4.912  1.00 43.78           C
ATOM   2040  O   ILE A 708      96.496  -4.090  -4.365  1.00 43.77           O
ATOM   2041  N   GLN A 709      98.149  -5.422  -5.091  1.00 40.70           N
ATOM   2042  CA  GLN A 709      97.493  -6.618  -4.592  1.00 40.34           C
ATOM   2043  CB  GLN A 709      98.159  -7.879  -5.144  1.00 41.84           C
ATOM   2044  CG  GLN A 709      97.170  -8.915  -5.667  1.00 59.26           C
ATOM   2045  CD  GLN A 709      96.056  -9.206  -4.684  1.00 78.10           C
ATOM   2046  OE1 GLN A 709      94.889  -8.912  -4.947  1.00 73.50           O
ATOM   2047  NE2 GLN A 709      96.408  -9.793  -3.548  1.00 69.72           N
ATOM   2048  C   GLN A 709      97.645  -6.564  -3.073  1.00 43.57           C
ATOM   2049  O   GLN A 709      98.744  -6.342  -2.556  1.00 43.10           O
ATOM   2050  N   PRO A 710      96.538  -6.732  -2.338  1.00 39.96           N
ATOM   2051  CA  PRO A 710      96.648  -6.657  -0.880  1.00 39.89           C
ATOM   2052  CB  PRO A 710      95.237  -6.249  -0.460  1.00 41.61           C
ATOM   2053  CG  PRO A 710      94.358  -6.862  -1.491  1.00 45.68           C
ATOM   2054  CD  PRO A 710      95.136  -6.813  -2.782  1.00 41.18           C
ATOM   2055  C   PRO A 710      97.009  -7.988  -0.224  1.00 43.98           C
ATOM   2056  O   PRO A 710      96.827  -9.059  -0.810  1.00 43.84           O
ATOM   2057  N   ILE A 711      97.499  -7.911   1.010  1.00 40.13           N
ATOM   2058  CA  ILE A 711      97.830  -9.108   1.768  1.00 39.85           C
ATOM   2059  CB  ILE A 711      98.461  -8.760   3.132  1.00 42.66           C
ATOM   2060  CG1 ILE A 711      97.439  -8.058   4.031  1.00 42.77           C
ATOM   2061  CD1 ILE A 711      97.793  -8.082   5.499  1.00 46.97           C
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ATOM   2062  CG2 ILE A 711      99.692  -7.889   2.940  1.00 43.22           C
ATOM   2063  C   ILE A 711      96.552  -9.930   1.934  1.00 43.93           C
ATOM   2064  O   ILE A 711      95.469  -9.376   2.146  1.00 43.64           O
ATOM   2065  N   PRO A 712      96.659 -11.262   1.800  1.00 39.97           N
ATOM   2066  CA  PRO A 712      95.548 -12.213   1.899  1.00 39.38           C
ATOM   2067  CB  PRO A 712      96.261 -13.534   2.184  1.00 41.27           C
ATOM   2068  CG  PRO A 712      97.597 -13.392   1.485  1.00 46.04           C
ATOM   2069  CD  PRO A 712      97.892 -11.913   1.323  1.00 41.58           C
ATOM   2070  C   PRO A 712      94.549 -11.884   3.015  1.00 41.44           C
ATOM   2071  O   PRO A 712      93.352 -12.154   2.887  1.00 40.62           O
ATOM   2072  N   MET A 713      95.043 -11.300   4.102  1.00 36.46           N
ATOM   2073  CA  MET A 713      94.190 -10.946   5.232  1.00 35.60           C
ATOM   2074  CB  MET A 713      95.039 -10.541   6.438  1.00 37.57           C
ATOM   2075  CG  MET A 713      94.290  -9.749   7.495  1.00 40.55           C
ATOM   2076  SD  MET A 713      95.395  -8.949   8.682  1.00 43.93           S
ATOM   2077  CE  MET A 713      95.525  -7.311   7.959  1.00 40.45           C
ATOM   2078  C   MET A 713      93.177  -9.847   4.891  1.00 39.78           C
ATOM   2079  O   MET A 713      92.159  -9.704   5.569  1.00 39.65           O
ATOM   2080  N   MET A 714      93.448  -9.083   3.837  1.00 35.83           N
ATOM   2081  CA  MET A 714      92.545  -8.012   3.425  1.00 35.55           C
ATOM   2082  CB  MET A 714      93.305  -6.689   3.303  1.00 37.79           C
ATOM   2083  CG  MET A 714      93.955  -6.220   4.590  1.00 41.41           C
ATOM   2084  SD  MET A 714      94.766  -4.627   4.394  1.00 45.81           S
ATOM   2085  CE  MET A 714      95.254  -4.294   6.086  1.00 42.38           C
ATOM   2086  C   MET A 714      91.838  -8.325   2.103  1.00 40.01           C
ATOM   2087  O   MET A 714      91.088  -7.502   1.578  1.00 39.85           O
ATOM   2088  N   ASP A 715      92.095  -9.512   1.565  1.00 36.56           N
ATOM   2089  CA  ASP A 715      91.503  -9.940   0.300  1.00 36.48           C
ATOM   2090  CB  ASP A 715      92.501 -10.834  -0.444  1.00 38.06           C
ATOM   2091  CG  ASP A 715      92.218 -10.925  -1.929  1.00 46.25           C
ATOM   2092  OD1 ASP A 715      91.135 -10.487  -2.366  1.00 46.72           O
ATOM   2093  OD2 ASP A 715      93.077 -11.463  -2.658  1.00 52.15           O
ATOM   2094  C   ASP A 715      90.205 -10.709   0.557  1.00 40.91           C
ATOM   2095  O   ASP A 715      90.234 -11.825   1.077  1.00 40.92           O
ATOM   2096  N   ARG A 716      89.065 -10.118   0.207  1.00 37.05           N
ATOM   2097  CA  ARG A 716      87.798 -10.797   0.439  1.00 36.54           C
ATOM   2098  CB  ARG A 716      86.593  -9.849   0.428  1.00 34.64           C
ATOM   2099  CG  ARG A 716      86.336  -9.100  -0.865  1.00 36.67           C
ATOM   2100  CD  ARG A 716      84.973  -8.408  -0.805  1.00 35.04           C
ATOM   2101  NE  ARG A 716      85.066  -7.001  -0.412  1.00 36.38           N
ATOM   2102  CZ  ARG A 716      84.548  -6.493   0.705  1.00 44.98           C
ATOM   2103  NH1 ARG A 716      83.906  -7.276   1.564  1.00 28.27           N
ATOM   2104  NH2 ARG A 716      84.676  -5.197   0.968  1.00 25.74           N
ATOM   2105  C   ARG A 716      87.599 -12.034  -0.427  1.00 41.47           C
ATOM   2106  O   ARG A 716      86.679 -12.823  -0.200  1.00 41.58           O
ATOM   2107  N   ASP A 717      88.512 -12.237  -1.373  1.00 38.11           N
ATOM   2108  CA  ASP A 717      88.475 -13.412  -2.238  1.00 37.83           C
ATOM   2109  CB  ASP A 717      89.126 -13.107  -3.591  1.00 39.76           C
ATOM   2110  CG  ASP A 717      88.476 -11.930  -4.302  1.00 50.29           C
ATOM   2111  OD1 ASP A 717      87.280 -12.029  -4.664  1.00 49.96           O
ATOM   2112  OD2 ASP A 717      89.170 -10.911  -4.516  1.00 56.52           O
ATOM   2113  C   ASP A 717      89.215 -14.561  -1.545  1.00 41.29           C
ATOM   2114  O   ASP A 717      89.191 -15.703  -2.011  1.00 40.94           O
ATOM   2115  N   LYS A 718      89.872 -14.246  -0.431  1.00 36.97           N
ATOM   2116  CA  LYS A 718      90.614 -15.240   0.337  1.00 36.33           C
ATOM   2117  CB  LYS A 718      92.075 -14.814   0.505  1.00 38.42           C
ATOM   2118  CG  LYS A 718      92.869 -14.790  -0.792  1.00 50.64           C
ATOM   2119  CD  LYS A 718      94.288 -14.288  -0.579  1.00 59.88           C
ATOM   2120  CE  LYS A 718      95.127 -14.460  -1.837  1.00 70.56           C
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ATOM   2121  NZ  LYS A 718      96.406 -13.697  -1.775  1.00 79.62           N
ATOM   2122  C   LYS A 718      89.959 -15.451   1.699  1.00 39.60           C
ATOM   2123  O   LYS A 718      90.624 -15.804   2.672  1.00 38.41           O
ATOM   2124  N   LYS A 719      88.650 -15.219   1.749  1.00 36.60           N
ATOM   2125  CA  LYS A 719      87.858 -15.383   2.965  1.00 36.56           C
ATOM   2126  CB  LYS A 719      86.367 -15.303   2.620  1.00 38.58           C
ATOM   2127  CG  LYS A 719      85.652 -14.088   3.172  1.00 48.30           C
ATOM   2128  CD  LYS A 719      84.307 -13.884   2.488  1.00 55.38           C
ATOM   2129  CE  LYS A 719      84.298 -12.617   1.643  1.00 61.41           C
ATOM   2130  NZ  LYS A 719      83.040 -11.836   1.810  1.00 65.23           N
ATOM   2131  C   LYS A 719      88.136 -16.739   3.603  1.00 41.73           C
ATOM   2132  O   LYS A 719      88.047 -16.904   4.821  1.00 41.49           O
ATOM   2133  N   ASP A 720      88.445 -17.712   2.754  1.00 38.73           N
ATOM   2134  CA  ASP A 720      88.711 -19.082   3.172  1.00 38.73           C
ATOM   2135  CB  ASP A 720      88.922 -19.961   1.932  1.00 40.86           C
ATOM   2136  CG  ASP A 720      89.322 -19.150   0.698  1.00 53.94           C
ATOM   2137  OD1 ASP A 720      88.431 -18.547   0.053  1.00 54.38           O
ATOM   2138  OD2 ASP A 720      90.532 -19.111   0.375  1.00 60.10           O
ATOM   2139  C   ASP A 720      89.901 -19.221   4.124  1.00 42.40           C
ATOM   2140  O   ASP A 720      89.962 -20.158   4.920  1.00 42.02           O
ATOM   2141  N   GLU A 721      90.846 -18.292   4.027  1.00 38.82           N
ATOM   2142  CA  GLU A 721      92.057 -18.308   4.845  1.00 38.63           C
ATOM   2143  CB  GLU A 721      93.163 -17.530   4.127  1.00 40.23           C
ATOM   2144  CG  GLU A 721      94.168 -18.386   3.389  1.00 52.27           C
ATOM   2145  CD  GLU A 721      94.969 -17.584   2.388  1.00 75.10           C
ATOM   2146  OE1 GLU A 721      96.022 -17.031   2.771  1.00 72.50           O
ATOM   2147  OE2 GLU A 721      94.529 -17.484   1.224  1.00 69.76           O
ATOM   2148  C   GLU A 721      91.867 -17.690   6.229  1.00 41.67           C
ATOM   2149  O   GLU A 721      92.825 -17.569   6.995  1.00 41.59           O
ATOM   2150  N   VAL A 722      90.643 -17.272   6.534  1.00 36.87           N
ATOM   2151  CA  VAL A 722      90.354 -16.594   7.797  1.00 35.89           C
ATOM   2152  CB  VAL A 722      88.922 -16.034   7.844  1.00 39.34           C
ATOM   2153  CG1 VAL A 722      88.524 -15.722   9.278  1.00 39.04           C
ATOM   2154  CG2 VAL A 722      88.818 -14.789   6.979  1.00 39.04           C
ATOM   2155  C   VAL A 722      90.753 -17.298   9.095  1.00 37.98           C
ATOM   2156  O   VAL A 722      91.549 -16.773   9.873  1.00 37.19           O
ATOM   2157  N   PRO A 723      90.173 -18.477   9.364  1.00 33.90           N
ATOM   2158  CA  PRO A 723      90.462 -19.204  10.609  1.00 33.49           C
ATOM   2159  CB  PRO A 723      89.707 -20.530  10.431  1.00 35.26           C
ATOM   2160  CG  PRO A 723      88.677 -20.256   9.381  1.00 39.57           C
ATOM   2161  CD  PRO A 723      89.309 -19.254   8.459  1.00 35.29           C
ATOM   2162  C   PRO A 723      91.950 -19.462  10.825  1.00 36.32           C
ATOM   2163  O   PRO A 723      92.444 -19.413  11.952  1.00 35.73           O
ATOM   2164  N   GLN A 724      92.659 -19.735   9.738  1.00 32.66           N
ATOM   2165  CA  GLN A 724      94.093 -20.003   9.798  1.00 32.09           C
ATOM   2166  CB  GLN A 724      94.593 -20.482   8.433  1.00 33.59           C
ATOM   2167  CG  GLN A 724      95.956 -21.142   8.474  1.00 49.83           C
ATOM   2168  CD  GLN A 724      96.049 -22.208   9.543  1.00 65.85           C
ATOM   2169  OE1 GLN A 724      95.594 -23.335   9.351  1.00 60.41           O
ATOM   2170  NE2 GLN A 724      96.634 -21.855  10.682  1.00 57.42           N
ATOM   2171  C   GLN A 724      94.857 -18.754  10.223  1.00 34.36           C
ATOM   2172  O   GLN A 724      95.797 -18.828  11.018  1.00 33.31           O
ATOM   2173  N   GLY A 725      94.434 -17.606   9.694  1.00 30.27           N
ATOM   2174  CA  GLY A 725      95.029 -16.315   9.989  1.00 29.09           C
ATOM   2175  C   GLY A 725      94.798 -15.883  11.423  1.00 32.22           C
ATOM   2176  O   GLY A 725      95.611 -15.158  11.995  1.00 32.19           O
ATOM   2177  N   GLN A 726      93.686 -16.324  12.006  1.00 27.71           N
ATOM   2178  CA  GLN A 726      93.371 -16.008  13.399  1.00 26.73           C
ATOM   2179  CB  GLN A 726      91.946 -16.451  13.742  1.00 27.42           C
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ATOM   2180  CG  GLN A 726      90.865 -15.554  13.173  1.00 25.74           C
ATOM   2181  CD  GLN A 726      91.055 -14.107  13.564  1.00 39.59           C
ATOM   2182  OE1 GLN A 726      90.988 -13.755  14.743  1.00 29.15           O
ATOM   2183  NE2 GLN A 726      91.322 -13.260  12.576  1.00 37.67           N
ATOM   2184  C   GLN A 726      94.366 -16.737  14.294  1.00 31.36           C
ATOM   2185  O   GLN A 726      94.960 -16.140  15.197  1.00 30.83           O
ATOM   2186  N   LEU A 727      94.558 -18.027  14.020  1.00 28.98           N
ATOM   2187  CA  LEU A 727      95.510 -18.846  14.764  1.00 28.91           C
ATOM   2188  CB  LEU A 727      95.686 -20.201  14.081  1.00 29.14           C
ATOM   2189  CG  LEU A 727      95.382 -21.440  14.926  1.00 34.34           C
ATOM   2190  CD1 LEU A 727      93.977 -21.325  15.502  1.00 34.46           C
ATOM   2191  CD2 LEU A 727      95.522 -22.697  14.078  1.00 37.47           C
ATOM   2192  C   LEU A 727      96.851 -18.128  14.795  1.00 32.10           C
ATOM   2193  O   LEU A 727      97.448 -17.950  15.858  1.00 32.86           O
ATOM   2194  N   GLY A 728      97.318 -17.706  13.624  1.00 26.67           N
ATOM   2195  CA  GLY A 728      98.580 -16.999  13.530  1.00 25.80           C
ATOM   2196  C   GLY A 728      98.609 -15.799  14.451  1.00 28.86           C
ATOM   2197  O   GLY A 728      99.615 -15.532  15.115  1.00 28.92           O
ATOM   2198  N   PHE A 729      97.484 -15.089  14.502  1.00 24.37           N
ATOM   2199  CA  PHE A 729      97.348 -13.890  15.316  1.00 23.24           C
ATOM   2200  CB  PHE A 729      96.072 -13.130  14.955  1.00 24.34           C
ATOM   2201  CG  PHE A 729      95.997 -11.773  15.583  1.00 24.41           C
ATOM   2202  CD1 PHE A 729      96.660 -10.697  15.016  1.00 26.27           C
ATOM   2203  CE1 PHE A 729      96.620  -9.449  15.613  1.00 26.54           C
ATOM   2204  CZ  PHE A 729      95.940  -9.277  16.802  1.00 24.90           C
ATOM   2205  CE2 PHE A 729      95.293 -10.344  17.385  1.00 27.16           C
ATOM   2206  CD2 PHE A 729      95.328 -11.588  16.781  1.00 25.24           C
ATOM   2207  C   PHE A 729      97.397 -14.129  16.820  1.00 27.60           C
ATOM   2208  O   PHE A 729      98.058 -13.390  17.550  1.00 26.90           O
ATOM   2209  N   TYR A 730      96.668 -15.135  17.291  1.00 24.59           N
ATOM   2210  CA  TYR A 730      96.676 -15.444  18.716  1.00 24.42           C
ATOM   2211  CB  TYR A 730      95.656 -16.540  19.041  1.00 25.72           C
ATOM   2212  CG  TYR A 730      94.236 -16.034  19.135  1.00 28.28           C
ATOM   2213  CD1 TYR A 730      93.532 -15.670  17.997  1.00 30.48           C
ATOM   2214  CE1 TYR A 730      92.233 -15.203  18.081  1.00 31.42           C
ATOM   2215  CZ  TYR A 730      91.630 -15.085  19.312  1.00 37.66           C
ATOM   2216  OH  TYR A 730      90.342 -14.610  19.402  1.00 39.26           O
ATOM   2217  CE2 TYR A 730      92.312 -15.432  20.457  1.00 30.05           C
ATOM   2218  CD2 TYR A 730      93.606 -15.901  20.364  1.00 29.14           C
ATOM   2219  C   TYR A 730      98.079 -15.902  19.104  1.00 27.00           C
ATOM   2220  O   TYR A 730      98.609 -15.511  20.148  1.00 26.09           O
ATOM   2221  N   ASN A 731      98.678 -16.724  18.246  1.00 22.96           N
ATOM   2222  CA  ASN A 731     100.025 -17.244  18.481  1.00 22.98           C
ATOM   2223  CB  ASN A 731     100.376 -18.310  17.441  1.00 24.22           C
ATOM   2224  CG  ASN A 731      99.674 -19.625  17.698  1.00 42.25           C
ATOM   2225  OD1 ASN A 731      99.373 -19.969  18.843  1.00 30.29           O
ATOM   2226  ND2 ASN A 731      99.400 -20.368  16.630  1.00 36.00           N
ATOM   2227  C   ASN A 731     101.081 -16.146  18.449  1.00 27.14           C
ATOM   2228  O   ASN A 731     101.879 -16.012  19.374  1.00 26.95           O
ATOM   2229  N   ALA A 732     101.088 -15.369  17.371  1.00 23.87           N
ATOM   2230  CA  ALA A 732     102.064 -14.299  17.210  1.00 23.94           C
ATOM   2231  CB  ALA A 732     102.232 -13.955  15.742  1.00 24.71           C
ATOM   2232  C   ALA A 732     101.807 -13.033  18.041  1.00 27.63           C
ATOM   2233  O   ALA A 732     102.750 -12.417  18.536  1.00 26.66           O
ATOM   2234  N   VAL A 733     100.545 -12.638  18.194  1.00 24.71           N
ATOM   2235  CA  VAL A 733     100.240 -11.403  18.921  1.00 24.53           C
ATOM   2236  CB  VAL A 733      99.519 -10.377  18.018  1.00 28.10           C
ATOM   2237  CG1 VAL A 733      99.221  -9.095  18.791  1.00 27.64           C
ATOM   2238  CG2 VAL A 733     100.346 -10.074  16.781  1.00 27.86           C
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ATOM   2239  C   VAL A 733      99.539 -11.536  20.268  1.00 29.44           C
ATOM   2240  O   VAL A 733     100.131 -11.285  21.317  1.00 29.39           O
ATOM   2241  N   ALA A 734      98.252 -11.857  20.219  1.00 26.42           N
ATOM   2242  CA  ALA A 734      97.410 -11.954  21.407  1.00 26.22           C
ATOM   2243  CB  ALA A 734      96.030 -12.493  21.034  1.00 27.13           C
ATOM   2244  C   ALA A 734      97.988 -12.733  22.583  1.00 29.35           C
ATOM   2245  O   ALA A 734      98.050 -12.223  23.704  1.00 29.16           O
ATOM   2246  N   ILE A 735      98.353 -13.986  22.344  1.00 25.12           N
ATOM   2247  CA  ILE A 735      98.872 -14.833  23.406  1.00 24.88           C
ATOM   2248  CB  ILE A 735      99.066 -16.276  22.938  1.00 27.89           C
ATOM   2249  CG1 ILE A 735      97.708 -16.928  22.673  1.00 27.98           C
ATOM   2250  CD1 ILE A 735      97.103 -17.582  23.885  1.00 29.93           C
ATOM   2251  CG2 ILE A 735      99.849 -17.069  23.976  1.00 29.19           C
ATOM   2252  C   ILE A 735     100.116 -14.266  24.082  1.00 28.94           C
ATOM   2253  O   ILE A 735     100.143 -14.082  25.301  1.00 28.22           O
ATOM   2254  N   PRO A 736     101.161 -13.969  23.294  1.00 26.06           N
ATOM   2255  CA  PRO A 736     102.378 -13.410  23.896  1.00 26.14           C
ATOM   2256  CB  PRO A 736     103.248 -13.076  22.680  1.00 27.70           C
ATOM   2257  CG  PRO A 736     102.795 -14.013  21.621  1.00 32.10           C
ATOM   2258  CD  PRO A 736     101.325 -14.239  21.855  1.00 27.70           C
ATOM   2259  C   PRO A 736     102.089 -12.142  24.700  1.00 30.69           C
ATOM   2260  O   PRO A 736     102.761 -11.858  25.692  1.00 30.02           O
ATOM   2261  N   CYS A 737     101.083 -11.389  24.265  1.00 28.53           N
ATOM   2262  CA  CYS A 737     100.707 -10.127  24.901  1.00 28.80           C
ATOM   2263  CB  CYS A 737      99.803  -9.314  23.964  1.00 29.82           C
ATOM   2264  SG  CYS A 737      98.983  -7.870  24.707  1.00 34.03           S
ATOM   2265  C   CYS A 737     100.058 -10.283  26.276  1.00 31.30           C
ATOM   2266  O   CYS A 737     100.424  -9.588  27.225  1.00 30.37           O
ATOM   2267  N   TYR A 738      99.089 -11.184  26.382  1.00 27.64           N
ATOM   2268  CA  TYR A 738      98.401 -11.395  27.651  1.00 27.27           C
ATOM   2269  CB  TYR A 738      97.023 -12.025  27.434  1.00 28.28           C
ATOM   2270  CG  TYR A 738      96.062 -11.070  26.767  1.00 29.39           C
ATOM   2271  CD1 TYR A 738      95.591  -9.950  27.444  1.00 31.24           C
ATOM   2272  CE1 TYR A 738      94.766  -9.038  26.823  1.00 31.97           C
ATOM   2273  CZ  TYR A 738      94.429  -9.217  25.502  1.00 37.77           C
ATOM   2274  OH  TYR A 738      93.603  -8.313  24.882  1.00 38.89           O
ATOM   2275  CE2 TYR A 738      94.914 -10.298  24.798  1.00 30.73           C
ATOM   2276  CD2 TYR A 738      95.735 -11.208  25.428  1.00 29.98           C
ATOM   2277  C   TYR A 738      99.244 -12.169  28.660  1.00 31.40           C
ATOM   2278  O   TYR A 738      99.111 -11.982  29.869  1.00 31.29           O
ATOM   2279  N   THR A 739     100.147 -13.001  28.159  1.00 28.09           N
ATOM   2280  CA  THR A 739     101.054 -13.745  29.024  1.00 27.92           C
ATOM   2281  CB  THR A 739     101.936 -14.693  28.203  1.00 35.12           C
ATOM   2282  OG1 THR A 739     101.141 -15.764  27.681  1.00 34.51           O
ATOM   2283  CG2 THR A 739     103.047 -15.260  29.064  1.00 33.40           C
ATOM   2284  C   THR A 739     101.929 -12.741  29.762  1.00 31.56           C
ATOM   2285  O   THR A 739     101.915 -12.651  30.991  1.00 31.04           O
ATOM   2286  N   THR A 740     102.682 -11.976  28.985  1.00 28.33           N
ATOM   2287  CA  THR A 740     103.586 -10.969  29.518  1.00 28.79           C
ATOM   2288  CB  THR A 740     104.254 -10.191  28.372  1.00 37.77           C
ATOM   2289  OG1 THR A 740     105.055 -11.084  27.585  1.00 37.46           O
ATOM   2290  CG2 THR A 740     105.118  -9.070  28.917  1.00 37.41           C
ATOM   2291  C   THR A 740     102.899 -10.022  30.501  1.00 32.90           C
ATOM   2292  O   THR A 740     103.445  -9.696  31.555  1.00 33.31           O
ATOM   2293  N   LEU A 741     101.709  -9.565  30.134  1.00 28.31           N
ATOM   2294  CA  LEU A 741     100.946  -8.633  30.955  1.00 27.82           C
ATOM   2295  CB  LEU A 741      99.741  -8.116  30.168  1.00 27.78           C
ATOM   2296  CG  LEU A 741      98.646  -7.378  30.933  1.00 32.30           C
ATOM   2297  CD1 LEU A 741      99.145  -6.011  31.376  1.00 32.33           C
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ATOM   2298  CD2 LEU A 741      97.418  -7.243  30.051  1.00 34.91           C
ATOM   2299  C   LEU A 741     100.490  -9.268  32.264  1.00 31.78           C
ATOM   2300  O   LEU A 741     100.255  -8.575  33.253  1.00 31.73           O
ATOM   2301  N   THR A 742     100.352 -10.587  32.263  1.00 28.45           N
ATOM   2302  CA  THR A 742      99.946 -11.307  33.466  1.00 28.87           C
ATOM   2303  CB  THR A 742      99.283 -12.649  33.129  1.00 37.90           C
ATOM   2304  OG1 THR A 742      98.241 -12.436  32.167  1.00 38.18           O
ATOM   2305  CG2 THR A 742      98.691 -13.273  34.380  1.00 36.38           C
ATOM   2306  C   THR A 742     101.148 -11.485  34.391  1.00 34.31           C
ATOM   2307  O   THR A 742     101.026 -11.383  35.611  1.00 34.48           O
ATOM   2308  N   GLN A 743     102.315 -11.722  33.799  1.00 31.48           N
ATOM   2309  CA  GLN A 743     103.543 -11.874  34.568  1.00 31.68           C
ATOM   2310  CB  GLN A 743     104.721 -12.180  33.637  1.00 33.27           C
ATOM   2311  CG  GLN A 743     104.559 -13.447  32.805  1.00 51.03           C
ATOM   2312  CD  GLN A 743     105.695 -13.646  31.810  1.00 70.98           C
ATOM   2313  OE1 GLN A 743     106.004 -14.773  31.419  1.00 65.88           O
ATOM   2314  NE2 GLN A 743     106.319 -12.547  31.393  1.00 62.99           N
ATOM   2315  C   GLN A 743     103.810 -10.579  35.335  1.00 35.79           C
ATOM   2316  O   GLN A 743     104.296 -10.596  36.463  1.00 35.45           O
ATOM   2317  N   ILE A 744     103.475  -9.457  34.708  1.00 32.38           N
ATOM   2318  CA  ILE A 744     103.658  -8.146  35.316  1.00 32.18           C
ATOM   2319  CB  ILE A 744     103.836  -7.056  34.246  1.00 34.98           C
ATOM   2320  CG1 ILE A 744     104.890  -7.478  33.228  1.00 35.38           C
ATOM   2321  CD1 ILE A 744     105.310  -6.358  32.306  1.00 45.52           C
ATOM   2322  CG2 ILE A 744     104.213  -5.733  34.885  1.00 35.02           C
ATOM   2323  C   ILE A 744     102.497  -7.809  36.245  1.00 37.22           C
ATOM   2324  O   ILE A 744     102.704  -7.336  37.365  1.00 37.20           O
ATOM   2325  N   LEU A 745     101.276  -8.025  35.761  1.00 33.99           N
ATOM   2326  CA  LEU A 745     100.068  -7.752  36.545  1.00 33.92           C
ATOM   2327  CB  LEU A 745      99.211  -6.688  35.857  1.00 33.57           C
ATOM   2328  CG  LEU A 745      99.766  -5.261  35.829  1.00 37.47           C
ATOM   2329  CD1 LEU A 745      98.713  -4.284  35.341  1.00 37.32           C
ATOM   2330  CD2 LEU A 745     100.282  -4.857  37.199  1.00 38.76           C
ATOM   2331  C   LEU A 745      99.259  -9.030  36.702  1.00 40.00           C
ATOM   2332  O   LEU A 745      98.301  -9.264  35.959  1.00 40.21           O
ATOM   2333  N   PRO A 746      99.635  -9.879  37.672  1.00 37.44           N
ATOM   2334  CA  PRO A 746      98.988 -11.170  37.939  1.00 37.17           C
ATOM   2335  CB  PRO A 746      99.535 -11.556  39.317  1.00 38.96           C
ATOM   2336  CG  PRO A 746     100.828 -10.809  39.438  1.00 43.37           C
ATOM   2337  CD  PRO A 746     100.605  -9.517  38.724  1.00 39.06           C
ATOM   2338  C   PRO A 746      97.457 -11.111  37.961  1.00 40.97           C
ATOM   2339  O   PRO A 746      96.787 -12.018  37.470  1.00 40.43           O
ATOM   2340  N   PRO A 747      96.886 -10.047  38.549  1.00 37.24           N
ATOM   2341  CA  PRO A 747      95.422  -9.927  38.633  1.00 36.83           C
ATOM   2342  CB  PRO A 747      95.219  -8.691  39.515  1.00 38.42           C
ATOM   2343  CG  PRO A 747      96.450  -8.627  40.353  1.00 42.88           C
ATOM   2344  CD  PRO A 747      97.574  -9.147  39.494  1.00 38.55           C
ATOM   2345  C   PRO A 747      94.734  -9.735  37.278  1.00 40.07           C
ATOM   2346  O   PRO A 747      93.565  -9.353  37.223  1.00 39.98           O
ATOM   2347  N   THR A 748      95.456 -10.014  36.195  1.00 35.35           N
ATOM   2348  CA  THR A 748      94.917  -9.877  34.839  1.00 34.57           C
ATOM   2349  CB  THR A 748      95.753  -8.878  34.009  1.00 40.69           C
ATOM   2350  OG1 THR A 748      97.124  -9.294  33.994  1.00 38.20           O
ATOM   2351  CG2 THR A 748      95.663  -7.480  34.607  1.00 39.59           C
ATOM   2352  C   THR A 748      94.852 -11.240  34.147  1.00 37.62           C
ATOM   2353  O   THR A 748      94.603 -11.338  32.945  1.00 37.49           O
ATOM   2354  N   GLU A 749      95.088 -12.287  34.926  1.00 33.56           N
ATOM   2355  CA  GLU A 749      95.095 -13.658  34.428  1.00 32.97           C
ATOM   2356  CB  GLU A 749      95.323 -14.628  35.589  1.00 34.66           C
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ATOM   2357  CG  GLU A 749      94.683 -15.995  35.398  1.00 48.30           C
ATOM   2358  CD  GLU A 749      95.483 -16.886  34.465  1.00 74.66           C
ATOM   2359  OE1 GLU A 749      96.629 -16.519  34.129  1.00 72.46           O
ATOM   2360  OE2 GLU A 749      94.968 -17.956  34.072  1.00 69.60           O
ATOM   2361  C   GLU A 749      93.858 -14.071  33.623  1.00 34.51           C
ATOM   2362  O   GLU A 749      93.967 -14.804  32.638  1.00 34.15           O
ATOM   2363  N   PRO A 750      92.662 -13.629  34.051  1.00 29.21           N
ATOM   2364  CA  PRO A 750      91.423 -13.977  33.342  1.00 28.45           C
ATOM   2365  CB  PRO A 750      90.382 -13.089  34.020  1.00 30.12           C
ATOM   2366  CG  PRO A 750      90.888 -12.937  35.415  1.00 34.50           C
ATOM   2367  CD  PRO A 750      92.392 -12.995  35.354  1.00 30.01           C
ATOM   2368  C   PRO A 750      91.484 -13.666  31.846  1.00 32.08           C
ATOM   2369  O   PRO A 750      90.884 -14.371  31.031  1.00 32.98           O
ATOM   2370  N   LEU A 751      92.199 -12.601  31.495  1.00 26.75           N
ATOM   2371  CA  LEU A 751      92.350 -12.190  30.101  1.00 25.72           C
ATOM   2372  CB  LEU A 751      93.086 -10.850  30.013  1.00 24.96           C
ATOM   2373  CG  LEU A 751      92.399  -9.647  30.661  1.00 28.65           C
ATOM   2374  CD1 LEU A 751      93.279  -8.405  30.568  1.00 28.63           C
ATOM   2375  CD2 LEU A 751      91.047  -9.398  30.021  1.00 29.40           C
ATOM   2376  C   LEU A 751      93.094 -13.239  29.285  1.00 30.65           C
ATOM   2377  O   LEU A 751      92.687 -13.575  28.171  1.00 30.84           O
ATOM   2378  N   LEU A 752      94.195 -13.739  29.841  1.00 27.68           N
ATOM   2379  CA  LEU A 752      95.016 -14.750  29.175  1.00 27.02           C
ATOM   2380  CB  LEU A 752      96.323 -14.974  29.941  1.00 26.75           C
ATOM   2381  CG  LEU A 752      97.031 -16.297  29.636  1.00 30.96           C
ATOM   2382  CD1 LEU A 752      97.684 -16.262  28.262  1.00 30.88           C
ATOM   2383  CD2 LEU A 752      98.042 -16.654  30.710  1.00 32.90           C
ATOM   2384  C   LEU A 752      94.251 -16.061  29.067  1.00 30.61           C
ATOM   2385  O   LEU A 752      94.322 -16.764  28.056  1.00 30.35           O
ATOM   2386  N   LYS A 753      93.520 -16.382  30.125  1.00 27.14           N
ATOM   2387  CA  LYS A 753      92.710 -17.591  30.170  1.00 27.15           C
ATOM   2388  CB  LYS A 753      92.009 -17.672  31.529  1.00 30.03           C
ATOM   2389  CG  LYS A 753      91.129 -18.891  31.727  1.00 46.50           C
ATOM   2390  CD  LYS A 753      90.552 -18.900  33.135  1.00 57.88           C
ATOM   2391  CE  LYS A 753      89.648 -20.098  33.360  1.00 69.87           C
ATOM   2392  NZ  LYS A 753      88.975 -20.036  34.685  1.00 78.98           N
ATOM   2393  C   LYS A 753      91.673 -17.558  29.043  1.00 31.36           C
ATOM   2394  O   LYS A 753      91.579 -18.489  28.237  1.00 31.07           O
ATOM   2395  N   ALA A 754      90.914 -16.466  28.980  1.00 28.15           N
ATOM   2396  CA  ALA A 754      89.879 -16.292  27.961  1.00 27.85           C
ATOM   2397  CB  ALA A 754      89.078 -15.022  28.228  1.00 28.46           C
ATOM   2398  C   ALA A 754      90.462 -16.270  26.553  1.00 31.81           C
ATOM   2399  O   ALA A 754      89.795 -16.640  25.589  1.00 31.70           O
ATOM   2400  N   CYS A 755      91.711 -15.833  26.445  1.00 28.48           N
ATOM   2401  CA  CYS A 755      92.396 -15.767  25.162  1.00 28.41           C
ATOM   2402  CB  CYS A 755      93.680 -14.951  25.292  1.00 29.00           C
ATOM   2403  SG  CYS A 755      94.416 -14.509  23.712  1.00 33.14           S
ATOM   2404  C   CYS A 755      92.732 -17.163  24.651  1.00 31.98           C
ATOM   2405  O   CYS A 755      92.492 -17.484  23.489  1.00 31.72           O
ATOM   2406  N   ARG A 756      93.312 -17.986  25.519  1.00 28.35           N
ATOM   2407  CA  ARG A 756      93.671 -19.354  25.149  1.00 27.92           C
ATOM   2408  CB  ARG A 756      94.374 -20.054  26.316  1.00 27.95           C
ATOM   2409  CG  ARG A 756      95.724 -19.453  26.685  1.00 39.10           C
ATOM   2410  CD  ARG A 756      96.388 -20.238  27.810  1.00 49.17           C
ATOM   2411  NE  ARG A 756      97.790 -19.865  27.999  1.00 55.88           N
ATOM   2412  CZ  ARG A 756      98.738 -20.014  27.078  1.00 67.58           C
ATOM   2413  NH1 ARG A 756      98.441 -20.520  25.887  1.00 51.94           N
ATOM   2414  NH2 ARG A 756      99.985 -19.651  27.345  1.00 55.07           N
ATOM   2415  C   ARG A 756      92.417 -20.132  24.747  1.00 30.58           C
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ATOM   2416  O   ARG A 756      92.432 -20.911  23.791  1.00 30.48           O
ATOM   2417  N   ASP A 757      91.329 -19.894  25.474  1.00 25.81           N
ATOM   2418  CA  ASP A 757      90.048 -20.545  25.209  1.00 24.92           C
ATOM   2419  CB  ASP A 757      88.992 -20.072  26.212  1.00 27.19           C
ATOM   2420  CG  ASP A 757      89.223 -20.623  27.610  1.00 41.94           C
ATOM   2421  OD1 ASP A 757      90.272 -21.272  27.832  1.00 44.40           O
ATOM   2422  OD2 ASP A 757      88.354 -20.410  28.485  1.00 48.48           O
ATOM   2423  C   ASP A 757      89.551 -20.272  23.796  1.00 26.07           C
ATOM   2424  O   ASP A 757      89.017 -21.163  23.133  1.00 23.88           O
ATOM   2425  N   ASN A 758      89.705 -19.028  23.349  1.00 22.30           N
ATOM   2426  CA  ASN A 758      89.274 -18.644  22.014  1.00 21.72           C
ATOM   2427  CB  ASN A 758      89.141 -17.127  21.901  1.00 21.70           C
ATOM   2428  CG  ASN A 758      87.776 -16.637  22.325  1.00 37.14           C
ATOM   2429  OD1 ASN A 758      86.776 -17.342  22.160  1.00 25.13           O
ATOM   2430  ND2 ASN A 758      87.728 -15.445  22.914  1.00 25.56           N
ATOM   2431  C   ASN A 758      90.215 -19.203  20.958  1.00 25.67           C
ATOM   2432  O   ASN A 758      89.787 -19.555  19.863  1.00 25.57           O
ATOM   2433  N   LEU A 759      91.492 -19.325  21.304  1.00 23.05           N
ATOM   2434  CA  LEU A 759      92.469 -19.913  20.398  1.00 22.67           C
ATOM   2435  CB  LEU A 759      93.862 -19.924  21.038  1.00 22.81           C
ATOM   2436  CG  LEU A 759      94.983 -20.459  20.139  1.00 27.11           C
ATOM   2437  CD1 LEU A 759      94.727 -20.038  18.697  1.00 27.23           C
ATOM   2438  CD2 LEU A 759      96.352 -19.983  20.592  1.00 28.46           C
ATOM   2439  C   LEU A 759      92.039 -21.345  20.124  1.00 27.30           C
ATOM   2440  O   LEU A 759      92.079 -21.812  18.989  1.00 27.07           O
ATOM   2441  N   SER A 760      91.634 -22.038  21.183  1.00 24.33           N
ATOM   2442  CA  SER A 760      91.186 -23.419  21.077  1.00 24.49           C
ATOM   2443  CB  SER A 760      90.967 -24.011  22.471  1.00 28.59           C
ATOM   2444  OG  SER A 760      90.103 -25.132  22.415  1.00 39.89           O
ATOM   2445  C   SER A 760      89.900 -23.485  20.257  1.00 28.35           C
ATOM   2446  O   SER A 760      89.666 -24.440  19.513  1.00 27.29           O
ATOM   2447  N   GLN A 761      89.077 -22.451  20.392  1.00 24.84           N
ATOM   2448  CA  GLN A 761      87.825 -22.361  19.657  1.00 24.77           C
ATOM   2449  CB  GLN A 761      87.021 -21.151  20.135  1.00 25.96           C
ATOM   2450  CG  GLN A 761      85.547 -21.436  20.352  1.00 37.62           C
ATOM   2451  CD  GLN A 761      85.313 -22.711  21.137  1.00 48.19           C
ATOM   2452  OE1 GLN A 761      84.546 -23.573  20.723  1.00 40.61           O
ATOM   2453  NE2 GLN A 761      85.984 -22.840  22.268  1.00 41.88           N
ATOM   2454  C   GLN A 761      88.077 -22.274  18.154  1.00 29.50           C
ATOM   2455  O   GLN A 761      87.414 -22.944  17.366  1.00 29.06           O
ATOM   2456  N   TRP A 762      89.054 -21.460  17.771  1.00 26.46           N
ATOM   2457  CA  TRP A 762      89.407 -21.285  16.362  1.00 26.40           C
ATOM   2458  CB  TRP A 762      90.356 -20.098  16.192  1.00 24.62           C
ATOM   2459  CG  TRP A 762      89.648 -18.780  16.165  1.00 25.28           C
ATOM   2460  CD1 TRP A 762      89.646 -17.823  17.144  1.00 28.21           C
ATOM   2461  NE1 TRP A 762      88.886 -16.744  16.753  1.00 27.32           N
ATOM   2462  CE2 TRP A 762      88.383 -16.988  15.502  1.00 28.79           C
ATOM   2463  CD2 TRP A 762      88.840 -18.264  15.101  1.00 24.88           C
ATOM   2464  CE3 TRP A 762      88.464 -18.751  13.846  1.00 25.81           C
ATOM   2465  CZ3 TRP A 762      87.645 -17.971  13.047  1.00 27.24           C
ATOM   2466  CH2 TRP A 762      87.203 -16.710  13.475  1.00 27.89           C
ATOM   2467  CZ2 TRP A 762      87.557 -16.205  14.696  1.00 27.94           C
ATOM   2468  C   TRP A 762      90.024 -22.544  15.744  1.00 31.59           C
ATOM   2469  O   TRP A 762      89.901 -22.789  14.537  1.00 31.23           O
ATOM   2470  N   GLU A 763      90.697 -23.338  16.573  1.00 28.64           N
ATOM   2471  CA  GLU A 763      91.304 -24.576  16.102  1.00 28.76           C
ATOM   2472  CB  GLU A 763      92.302 -25.122  17.122  1.00 30.19           C
ATOM   2473  CG  GLU A 763      93.739 -24.715  16.842  1.00 40.35           C
ATOM   2474  CD  GLU A 763      94.596 -24.698  18.092  1.00 59.54           C
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ATOM   2475  OE1 GLU A 763      94.048 -24.930  19.192  1.00 50.73           O
ATOM   2476  OE2 GLU A 763      95.818 -24.454  17.974  1.00 52.33           O
ATOM   2477  C   GLU A 763      90.216 -25.592  15.801  1.00 33.63           C
ATOM   2478  O   GLU A 763      90.374 -26.443  14.930  1.00 33.51           O
ATOM   2479  N   LYS A 764      89.098 -25.479  16.512  1.00 30.58           N
ATOM   2480  CA  LYS A 764      87.958 -26.351  16.284  1.00 30.63           C
ATOM   2481  CB  LYS A 764      86.956 -26.237  17.434  1.00 32.31           C
ATOM   2482  CG  LYS A 764      87.530 -26.606  18.792  1.00 39.96           C
ATOM   2483  CD  LYS A 764      86.431 -26.797  19.826  1.00 43.52           C
ATOM   2484  CE  LYS A 764      87.014 -27.045  21.209  1.00 47.88           C
ATOM   2485  NZ  LYS A 764      86.365 -28.199  21.891  1.00 53.42           N
ATOM   2486  C   LYS A 764      87.287 -25.973  14.966  1.00 36.91           C
ATOM   2487  O   LYS A 764      86.569 -26.775  14.374  1.00 36.99           O
ATOM   2488  N   VAL A 765      87.528 -24.747  14.511  1.00 35.21           N
ATOM   2489  CA  VAL A 765      86.950 -24.269  13.256  1.00 35.39           C
ATOM   2490  CB  VAL A 765      86.936 -22.726  13.184  1.00 39.50           C
ATOM   2491  CG1 VAL A 765      86.348 -22.257  11.862  1.00 39.38           C
ATOM   2492  CG2 VAL A 765      86.158 -22.140  14.354  1.00 39.38           C
ATOM   2493  C   VAL A 765      87.697 -24.868  12.071  1.00 39.49           C
ATOM   2494  O   VAL A 765      87.086 -25.331  11.109  1.00 39.12           O
ATOM   2495  N   ILE A 766      89.024 -24.863  12.152  1.00 36.28           N
ATOM   2496  CA  ILE A 766      89.854 -25.420  11.091  1.00 36.14           C
ATOM   2497  CB  ILE A 766      91.347 -25.105  11.314  1.00 39.04           C
ATOM   2498  CG1 ILE A 766      91.624 -23.614  11.096  1.00 38.85           C
ATOM   2499  CD1 ILE A 766      92.522 -23.000  12.150  1.00 41.88           C
ATOM   2500  CG2 ILE A 766      92.213 -25.949  10.379  1.00 39.66           C
ATOM   2501  C   ILE A 766      89.622 -26.925  10.985  1.00 40.63           C
ATOM   2502  O   ILE A 766      89.522 -27.477   9.887  1.00 40.12           O
ATOM   2503  N   ARG A 767      89.517 -27.575  12.140  1.00 37.88           N
ATOM   2504  CA  ARG A 767      89.322 -29.018  12.216  1.00 37.93           C
ATOM   2505  CB  ARG A 767      89.796 -29.542  13.574  1.00 37.50           C
ATOM   2506  CG  ARG A 767      91.249 -29.213  13.895  1.00 45.70           C
ATOM   2507  CD  ARG A 767      91.680 -29.865  15.197  1.00 56.53           C
ATOM   2508  NE  ARG A 767      90.679 -29.684  16.243  1.00 69.20           N
ATOM   2509  CZ  ARG A 767      90.946 -29.227  17.462  1.00 84.16           C
ATOM   2510  NH1 ARG A 767      92.190 -28.910  17.795  1.00 71.42           N
ATOM   2511  NH2 ARG A 767      89.968 -29.089  18.349  1.00 69.03           N
ATOM   2512  C   ARG A 767      87.882 -29.448  11.971  1.00 43.37           C
ATOM   2513  O   ARG A 767      87.412 -30.419  12.566  1.00 43.58           O
ATOM   2514  N   GLY A 768      87.187 -28.734  11.089  1.00 40.04           N
ATOM   2515  CA  GLY A 768      85.808 -29.038  10.753  1.00 63.94           C
ATOM   2516  C   GLY A 768      84.838 -28.679  11.862  1.00 83.03           C
ATOM   2517  O   GLY A 768      85.165 -28.783  13.044  1.00 40.59           O
TER    2518      GLY A 768
ATOM   2519  N   LEU B 459      38.048  24.431   0.275  1.00 57.48           N
ATOM   2520  CA  LEU B 459      39.039  24.065   1.279  1.00 57.29           C
ATOM   2521  CB  LEU B 459      38.508  22.954   2.191  1.00 57.42           C
ATOM   2522  CG  LEU B 459      39.156  22.815   3.574  1.00 61.98           C
ATOM   2523  CD1 LEU B 459      39.976  24.045   3.929  1.00 62.00           C
ATOM   2524  CD2 LEU B 459      38.115  22.529   4.647  1.00 64.27           C
ATOM   2525  C   LEU B 459      40.362  23.650   0.635  1.00 60.86           C
ATOM   2526  O   LEU B 459      40.670  24.056  -0.485  1.00 60.16           O
ATOM   2527  N   MET B 460      41.142  22.847   1.354  1.00 57.45           N
ATOM   2528  CA  MET B 460      42.452  22.410   0.877  1.00 57.16           C
ATOM   2529  CB  MET B 460      43.542  22.992   1.773  1.00 59.65           C
ATOM   2530  CG  MET B 460      44.885  23.163   1.101  1.00 63.52           C
ATOM   2531  SD  MET B 460      45.697  24.666   1.682  1.00 67.98           S
ATOM   2532  CE  MET B 460      44.366  25.424   2.673  1.00 64.64           C
ATOM   2533  C   MET B 460      42.598  20.893   0.852  1.00 60.18           C
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ATOM   2534  O   MET B 460      43.466  20.338   1.527  1.00 59.91           O
ATOM   2535  N   GLN B 461      41.762  20.228   0.064  1.00 55.73           N
ATOM   2536  CA  GLN B 461      41.813  18.774  -0.040  1.00 54.96           C
ATOM   2537  CB  GLN B 461      40.669  18.265  -0.921  1.00 56.32           C
ATOM   2538  CG  GLN B 461      40.946  18.361  -2.414  1.00 72.20           C
ATOM   2539  CD  GLN B 461      39.926  17.611  -3.250  1.00 92.41           C
ATOM   2540  OE1 GLN B 461      39.002  16.996  -2.717  1.00 88.41           O
ATOM   2541  NE2 GLN B 461      40.089  17.661  -4.569  1.00 84.66           N
ATOM   2542  C   GLN B 461      43.157  18.305  -0.597  1.00 57.20           C
ATOM   2543  O   GLN B 461      43.706  18.915  -1.514  1.00 56.79           O
ATOM   2544  N   PHE B 462      43.687  17.224  -0.034  1.00 52.24           N
ATOM   2545  CA  PHE B 462      44.954  16.673  -0.495  1.00 50.98           C
ATOM   2546  CB  PHE B 462      45.641  15.898   0.628  1.00 52.65           C
ATOM   2547  CG  PHE B 462      46.537  16.743   1.482  1.00 54.10           C
ATOM   2548  CD1 PHE B 462      46.078  17.932   2.022  1.00 57.25           C
ATOM   2549  CE1 PHE B 462      46.902  18.718   2.803  1.00 58.21           C
ATOM   2550  CZ  PHE B 462      48.202  18.319   3.050  1.00 57.31           C
ATOM   2551  CE2 PHE B 462      48.672  17.137   2.514  1.00 59.11           C
ATOM   2552  CD2 PHE B 462      47.841  16.356   1.734  1.00 56.18           C
ATOM   2553  C   PHE B 462      44.685  15.755  -1.679  1.00 52.85           C
ATOM   2554  O   PHE B 462      43.686  15.037  -1.697  1.00 52.84           O
ATOM   2555  N   THR B 463      45.561  15.794  -2.676  1.00 47.38           N
ATOM   2556  CA  THR B 463      45.381  14.973  -3.867  1.00 46.47           C
ATOM   2557  CB  THR B 463      44.955  15.822  -5.078  1.00 55.40           C
ATOM   2558  OG1 THR B 463      43.805  16.609  -4.735  1.00 56.25           O
ATOM   2559  CG2 THR B 463      44.627  14.932  -6.269  1.00 53.41           C
ATOM   2560  C   THR B 463      46.614  14.137  -4.179  1.00 48.28           C
ATOM   2561  O   THR B 463      47.746  14.586  -4.001  1.00 47.77           O
ATOM   2562  N   LEU B 464      46.381  12.917  -4.651  1.00 43.13           N
ATOM   2563  CA  LEU B 464      47.459  12.001  -4.986  1.00 42.43           C
ATOM   2564  CB  LEU B 464      47.260  10.671  -4.250  1.00 42.56           C
ATOM   2565  CG  LEU B 464      47.240  10.676  -2.722  1.00 47.36           C
ATOM   2566  CD1 LEU B 464      48.437  11.432  -2.173  1.00 47.60           C
ATOM   2567  CD2 LEU B 464      47.225   9.246  -2.204  1.00 49.67           C
ATOM   2568  C   LEU B 464      47.470  11.727  -6.483  1.00 45.12           C
ATOM   2569  O   LEU B 464      46.458  11.904  -7.167  1.00 45.19           O
ATOM   2570  N   PRO B 465      48.613  11.257  -7.006  1.00 39.95           N
ATOM   2571  CA  PRO B 465      48.693  10.900  -8.425  1.00 39.00           C
ATOM   2572  CB  PRO B 465      50.114  10.344  -8.556  1.00 40.78           C
ATOM   2573  CG  PRO B 465      50.879  11.023  -7.479  1.00 45.19           C
ATOM   2574  CD  PRO B 465      49.919  11.139  -6.335  1.00 41.02           C
ATOM   2575  C   PRO B 465      47.673   9.800  -8.717  1.00 40.31           C
ATOM   2576  O   PRO B 465      47.249   9.089  -7.808  1.00 39.08           O
ATOM   2577  N   VAL B 466      47.276   9.674  -9.978  1.00 36.23           N
ATOM   2578  CA  VAL B 466      46.279   8.687 -10.387  1.00 35.78           C
ATOM   2579  CB  VAL B 466      46.165   8.596 -11.921  1.00 39.65           C
ATOM   2580  CG1 VAL B 466      45.493   7.292 -12.337  1.00 39.41           C
ATOM   2581  CG2 VAL B 466      45.407   9.796 -12.466  1.00 39.38           C
ATOM   2582  C   VAL B 466      46.441   7.304  -9.756  1.00 39.14           C
ATOM   2583  O   VAL B 466      45.589   6.864  -8.984  1.00 38.96           O
ATOM   2584  N   ARG B 467      47.524   6.617 -10.105  1.00 34.96           N
ATOM   2585  CA  ARG B 467      47.774   5.265  -9.612  1.00 34.24           C
ATOM   2586  CB  ARG B 467      49.098   4.727 -10.145  1.00 33.98           C
ATOM   2587  CG  ARG B 467      49.420   3.329  -9.651  1.00 40.05           C
ATOM   2588  CD  ARG B 467      50.866   2.977  -9.914  1.00 43.93           C
ATOM   2589  NE  ARG B 467      51.769   3.603  -8.952  1.00 44.95           N
ATOM   2590  CZ  ARG B 467      51.830   3.282  -7.663  1.00 49.71           C
ATOM   2591  NH1 ARG B 467      51.028   2.347  -7.171  1.00 29.77           N
ATOM   2592  NH2 ARG B 467      52.695   3.895  -6.865  1.00 32.47           N
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ATOM   2593  C   ARG B 467      47.710   5.096  -8.099  1.00 37.72           C
ATOM   2594  O   ARG B 467      47.276   4.057  -7.603  1.00 37.47           O
ATOM   2595  N   LEU B 468      48.160   6.098  -7.359  1.00 34.06           N
ATOM   2596  CA  LEU B 468      48.137   5.997  -5.908  1.00 34.09           C
ATOM   2597  CB  LEU B 468      49.038   7.053  -5.274  1.00 33.81           C
ATOM   2598  CG  LEU B 468      50.515   6.662  -5.209  1.00 38.40           C
ATOM   2599  CD1 LEU B 468      51.230   6.963  -6.521  1.00 38.56           C
ATOM   2600  CD2 LEU B 468      51.197   7.365  -4.052  1.00 40.63           C
ATOM   2601  C   LEU B 468      46.708   6.094  -5.383  1.00 40.09           C
ATOM   2602  O   LEU B 468      46.263   5.247  -4.611  1.00 39.94           O
ATOM   2603  N   CYS B 469      45.981   7.111  -5.836  1.00 38.06           N
ATOM   2604  CA  CYS B 469      44.591   7.305  -5.432  1.00 38.49           C
ATOM   2605  CB  CYS B 469      43.953   8.428  -6.259  1.00 39.48           C
ATOM   2606  SG  CYS B 469      43.974  10.062  -5.484  1.00 43.72           S
ATOM   2607  C   CYS B 469      43.775   6.022  -5.603  1.00 40.57           C
ATOM   2608  O   CYS B 469      43.012   5.634  -4.720  1.00 39.89           O
ATOM   2609  N   ARG B 470      43.938   5.373  -6.750  1.00 36.52           N
ATOM   2610  CA  ARG B 470      43.199   4.152  -7.059  1.00 36.28           C
ATOM   2611  CB  ARG B 470      43.226   3.879  -8.563  1.00 37.11           C
ATOM   2612  CG  ARG B 470      44.571   3.397  -9.077  1.00 48.87           C
ATOM   2613  CD  ARG B 470      44.419   2.122  -9.892  1.00 58.80           C
ATOM   2614  NE  ARG B 470      45.331   2.088 -11.032  1.00 68.68           N
ATOM   2615  CZ  ARG B 470      45.990   1.004 -11.428  1.00 85.09           C
ATOM   2616  NH1 ARG B 470      45.839  -0.139 -10.772  1.00 73.41           N
ATOM   2617  NH2 ARG B 470      46.799   1.062 -12.479  1.00 73.10           N
ATOM   2618  C   ARG B 470      43.677   2.917  -6.299  1.00 39.14           C
ATOM   2619  O   ARG B 470      42.882   2.045  -5.958  1.00 39.06           O
ATOM   2620  N   GLU B 471      44.977   2.831  -6.055  1.00 34.90           N
ATOM   2621  CA  GLU B 471      45.531   1.681  -5.353  1.00 34.49           C
ATOM   2622  CB  GLU B 471      46.989   1.459  -5.760  1.00 35.96           C
ATOM   2623  CG  GLU B 471      47.243   0.141  -6.472  1.00 48.21           C
ATOM   2624  CD  GLU B 471      47.865   0.323  -7.847  1.00 76.02           C
ATOM   2625  OE1 GLU B 471      49.106   0.225  -7.959  1.00 72.70           O
ATOM   2626  OE2 GLU B 471      47.113   0.544  -8.820  1.00 74.74           O
ATOM   2627  C   GLU B 471      45.418   1.831  -3.839  1.00 37.16           C
ATOM   2628  O   GLU B 471      45.215   0.853  -3.123  1.00 36.34           O
ATOM   2629  N   ILE B 472      45.543   3.063  -3.359  1.00 33.74           N
ATOM   2630  CA  ILE B 472      45.476   3.339  -1.928  1.00 33.46           C
ATOM   2631  CB  ILE B 472      45.625   4.844  -1.622  1.00 36.34           C
ATOM   2632  CG1 ILE B 472      45.963   5.055  -0.146  1.00 36.42           C
ATOM   2633  CD1 ILE B 472      46.594   6.394   0.148  1.00 41.98           C
ATOM   2634  CG2 ILE B 472      44.358   5.597  -1.995  1.00 37.21           C
ATOM   2635  C   ILE B 472      44.245   2.740  -1.257  1.00 37.93           C
ATOM   2636  O   ILE B 472      44.260   2.449  -0.061  1.00 37.57           O
ATOM   2637  N   GLU B 473      43.179   2.562  -2.028  1.00 35.15           N
ATOM   2638  CA  GLU B 473      41.947   1.993  -1.492  1.00 35.18           C
ATOM   2639  CB  GLU B 473      40.754   2.367  -2.374  1.00 36.67           C
ATOM   2640  CG  GLU B 473      40.574   3.864  -2.577  1.00 47.06           C
ATOM   2641  CD  GLU B 473      40.348   4.618  -1.277  1.00 64.65           C
ATOM   2642  OE1 GLU B 473      39.349   4.336  -0.581  1.00 51.22           O
ATOM   2643  OE2 GLU B 473      41.153   5.522  -0.969  1.00 59.67           O
ATOM   2644  C   GLU B 473      42.060   0.478  -1.385  1.00 38.51           C
ATOM   2645  O   GLU B 473      41.266  -0.170  -0.704  1.00 38.80           O
ATOM   2646  N   LEU B 474      43.062  -0.075  -2.058  1.00 33.77           N
ATOM   2647  CA  LEU B 474      43.289  -1.514  -2.073  1.00 32.79           C
ATOM   2648  CB  LEU B 474      44.035  -1.912  -3.343  1.00 32.74           C
ATOM   2649  CG  LEU B 474      43.295  -1.605  -4.645  1.00 37.18           C
ATOM   2650  CD1 LEU B 474      44.038  -2.186  -5.845  1.00 37.13           C
ATOM   2651  CD2 LEU B 474      41.875  -2.139  -4.575  1.00 39.18           C
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ATOM   2652  C   LEU B 474      44.046  -2.004  -0.844  1.00 35.49           C
ATOM   2653  O   LEU B 474      45.154  -1.548  -0.558  1.00 35.72           O
ATOM   2654  N   PHE B 475      43.447  -2.957  -0.138  1.00 30.14           N
ATOM   2655  CA  PHE B 475      44.041  -3.528   1.062  1.00 29.51           C
ATOM   2656  CB  PHE B 475      43.257  -4.769   1.496  1.00 31.11           C
ATOM   2657  CG  PHE B 475      42.057  -4.466   2.348  1.00 32.52           C
ATOM   2658  CD1 PHE B 475      42.200  -4.204   3.699  1.00 35.69           C
ATOM   2659  CE1 PHE B 475      41.098  -3.942   4.492  1.00 36.56           C
ATOM   2660  CZ  PHE B 475      39.831  -3.945   3.936  1.00 35.83           C
ATOM   2661  CE2 PHE B 475      39.674  -4.213   2.588  1.00 37.68           C
ATOM   2662  CD2 PHE B 475      40.783  -4.471   1.802  1.00 34.81           C
ATOM   2663  C   PHE B 475      45.514  -3.898   0.894  1.00 33.36           C
ATOM   2664  O   PHE B 475      46.301  -3.769   1.831  1.00 33.88           O
ATOM   2665  N   HIS B 476      45.876  -4.379  -0.292  1.00 28.88           N
ATOM   2666  CA  HIS B 476      47.241  -4.831  -0.561  1.00 28.63           C
ATOM   2667  CB  HIS B 476      47.220  -6.013  -1.534  1.00 29.10           C
ATOM   2668  CG  HIS B 476      46.655  -5.676  -2.880  1.00 32.25           C
ATOM   2669  ND1 HIS B 476      45.335  -5.896  -3.209  1.00 34.05           N
ATOM   2670  CE1 HIS B 476      45.123  -5.509  -4.454  1.00 33.51           C
ATOM   2671  NE2 HIS B 476      46.258  -5.044  -4.945  1.00 33.84           N
ATOM   2672  CD2 HIS B 476      47.232  -5.137  -3.980  1.00 33.98           C
ATOM   2673  C   HIS B 476      48.188  -3.759  -1.091  1.00 32.14           C
ATOM   2674  O   HIS B 476      49.256  -4.078  -1.619  1.00 31.80           O
ATOM   2675  N   PHE B 477      47.797  -2.499  -0.938  1.00 28.39           N
ATOM   2676  CA  PHE B 477      48.580  -1.359  -1.421  1.00 27.95           C
ATOM   2677  CB  PHE B 477      47.731  -0.086  -1.350  1.00 29.56           C
ATOM   2678  CG  PHE B 477      48.508   1.184  -1.564  1.00 30.87           C
ATOM   2679  CD1 PHE B 477      48.975   1.525  -2.823  1.00 33.87           C
ATOM   2680  CE1 PHE B 477      49.679   2.699  -3.024  1.00 34.73           C
ATOM   2681  CZ  PHE B 477      49.903   3.555  -1.966  1.00 33.81           C
ATOM   2682  CE2 PHE B 477      49.442   3.228  -0.705  1.00 35.48           C
ATOM   2683  CD2 PHE B 477      48.745   2.051  -0.512  1.00 32.69           C
ATOM   2684  C   PHE B 477      49.923  -1.136  -0.716  1.00 31.71           C
ATOM   2685  O   PHE B 477      49.992  -1.063   0.512  1.00 31.09           O
ATOM   2686  N   ASP B 478      50.979  -0.996  -1.516  1.00 28.40           N
ATOM   2687  CA  ASP B 478      52.333  -0.733  -1.022  1.00 28.19           C
ATOM   2688  CB  ASP B 478      53.354  -1.557  -1.820  1.00 29.99           C
ATOM   2689  CG  ASP B 478      54.794  -1.110  -1.587  1.00 37.87           C
ATOM   2690  OD1 ASP B 478      55.385  -1.509  -0.558  1.00 37.04           O
ATOM   2691  OD2 ASP B 478      55.351  -0.409  -2.464  1.00 43.63           O
ATOM   2692  C   ASP B 478      52.618   0.762  -1.183  1.00 32.66           C
ATOM   2693  O   ASP B 478      52.374   1.332  -2.247  1.00 33.01           O
ATOM   2694  N   ILE B 479      53.101   1.392  -0.115  1.00 28.67           N
ATOM   2695  CA  ILE B 479      53.355   2.832  -0.098  1.00 28.15           C
ATOM   2696  CB  ILE B 479      53.393   3.394   1.343  1.00 30.91           C
ATOM   2697  CG1 ILE B 479      54.620   2.868   2.094  1.00 30.87           C
ATOM   2698  CD1 ILE B 479      54.784   3.431   3.492  1.00 37.46           C
ATOM   2699  CG2 ILE B 479      52.104   3.053   2.089  1.00 31.39           C
ATOM   2700  C   ILE B 479      54.514   3.368  -0.952  1.00 32.43           C
ATOM   2701  O   ILE B 479      54.631   4.579  -1.134  1.00 31.95           O
ATOM   2702  N   GLY B 480      55.371   2.490  -1.464  1.00 29.59           N
ATOM   2703  CA  GLY B 480      56.480   2.919  -2.303  1.00 29.68           C
ATOM   2704  C   GLY B 480      57.749   3.302  -1.558  1.00 33.97           C
ATOM   2705  O   GLY B 480      57.771   3.346  -0.330  1.00 33.66           O
ATOM   2706  N   PRO B 481      58.827   3.608  -2.302  1.00 30.90           N
ATOM   2707  CA  PRO B 481      60.164   3.960  -1.795  1.00 30.42           C
ATOM   2708  CB  PRO B 481      61.095   3.470  -2.910  1.00 32.01           C
ATOM   2709  CG  PRO B 481      60.253   3.492  -4.139  1.00 36.32           C
ATOM   2710  CD  PRO B 481      58.880   3.095  -3.682  1.00 31.97           C
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ATOM   2711  C   PRO B 481      60.427   5.443  -1.508  1.00 33.47           C
ATOM   2712  O   PRO B 481      61.515   5.797  -1.061  1.00 33.39           O
ATOM   2713  N   PHE B 482      59.451   6.310  -1.755  1.00 29.24           N
ATOM   2714  CA  PHE B 482      59.657   7.739  -1.515  1.00 28.40           C
ATOM   2715  CB  PHE B 482      59.106   8.574  -2.670  1.00 29.59           C
ATOM   2716  CG  PHE B 482      59.575   8.110  -4.025  1.00 30.48           C
ATOM   2717  CD1 PHE B 482      58.859   7.156  -4.731  1.00 32.57           C
ATOM   2718  CE1 PHE B 482      59.290   6.719  -5.968  1.00 33.24           C
ATOM   2719  CZ  PHE B 482      60.448   7.234  -6.517  1.00 32.85           C
ATOM   2720  CE2 PHE B 482      61.175   8.186  -5.825  1.00 34.84           C
ATOM   2721  CD2 PHE B 482      60.741   8.615  -4.583  1.00 32.30           C
ATOM   2722  C   PHE B 482      59.166   8.250  -0.159  1.00 32.09           C
ATOM   2723  O   PHE B 482      57.998   8.594   0.004  1.00 31.73           O
ATOM   2724  N   GLU B 483      60.084   8.315   0.801  1.00 28.16           N
ATOM   2725  CA  GLU B 483      59.786   8.759   2.161  1.00 28.17           C
ATOM   2726  CB  GLU B 483      61.071   8.808   2.995  1.00 29.47           C
ATOM   2727  CG  GLU B 483      62.031   7.666   2.754  1.00 42.76           C
ATOM   2728  CD  GLU B 483      62.732   7.237   4.029  1.00 71.07           C
ATOM   2729  OE1 GLU B 483      62.647   7.979   5.033  1.00 71.47           O
ATOM   2730  OE2 GLU B 483      63.354   6.153   4.031  1.00 67.47           O
ATOM   2731  C   GLU B 483      59.102  10.120   2.258  1.00 32.72           C
ATOM   2732  O   GLU B 483      58.333  10.373   3.187  1.00 31.72           O
ATOM   2733  N   ASN B 484      59.448  11.019   1.344  1.00 30.47           N
ATOM   2734  CA  ASN B 484      58.905  12.372   1.353  1.00 30.91           C
ATOM   2735  CB  ASN B 484      59.760  13.289   0.470  1.00 34.07           C
ATOM   2736  CG  ASN B 484      61.202  13.374   0.945  1.00 65.77           C
ATOM   2737  OD1 ASN B 484      62.109  13.661   0.165  1.00 63.43           O
ATOM   2738  ND2 ASN B 484      61.416  13.127   2.235  1.00 59.58           N
ATOM   2739  C   ASN B 484      57.444  12.405   0.924  1.00 34.33           C
ATOM   2740  O   ASN B 484      56.769  13.424   1.052  1.00 34.45           O
ATOM   2741  N   MET B 485      56.955  11.270   0.445  1.00 30.15           N
ATOM   2742  CA  MET B 485      55.576  11.148  -0.003  1.00 29.16           C
ATOM   2743  CB  MET B 485      55.530  10.241  -1.221  1.00 31.54           C
ATOM   2744  CG  MET B 485      56.092  10.865  -2.471  1.00 35.55           C
ATOM   2745  SD  MET B 485      55.461   9.991  -3.897  1.00 40.26           S
ATOM   2746  CE  MET B 485      53.758  10.583  -3.924  1.00 36.72           C
ATOM   2747  C   MET B 485      54.705  10.539   1.077  1.00 31.71           C
ATOM   2748  O   MET B 485      53.487  10.691   1.063  1.00 32.56           O
ATOM   2749  N   TRP B 486      55.333   9.810   1.993  1.00 26.37           N
ATOM   2750  CA  TRP B 486      54.602   9.132   3.056  1.00 24.92           C
ATOM   2751  CB  TRP B 486      55.552   8.326   3.942  1.00 22.73           C
ATOM   2752  CG  TRP B 486      56.241   7.212   3.216  1.00 23.17           C
ATOM   2753  CD1 TRP B 486      55.905   6.697   1.999  1.00 25.87           C
ATOM   2754  NE1 TRP B 486      56.781   5.704   1.646  1.00 25.28           N
ATOM   2755  CE2 TRP B 486      57.718   5.565   2.638  1.00 26.61           C
ATOM   2756  CD2 TRP B 486      57.402   6.495   3.648  1.00 23.03           C
ATOM   2757  CE3 TRP B 486      58.210   6.553   4.786  1.00 24.36           C
ATOM   2758  CZ3 TRP B 486      59.289   5.692   4.879  1.00 26.00           C
ATOM   2759  CH2 TRP B 486      59.571   4.771   3.858  1.00 26.55           C
ATOM   2760  CZ2 TRP B 486      58.802   4.700   2.730  1.00 25.86           C
ATOM   2761  C   TRP B 486      53.703  10.039   3.895  1.00 27.85           C
ATOM   2762  O   TRP B 486      52.543   9.717   4.139  1.00 27.50           O
ATOM   2763  N   PRO B 487      54.236  11.177   4.364  1.00 24.32           N
ATOM   2764  CA  PRO B 487      53.468  12.108   5.200  1.00 23.98           C
ATOM   2765  CB  PRO B 487      54.465  13.237   5.457  1.00 25.62           C
ATOM   2766  CG  PRO B 487      55.790  12.582   5.399  1.00 29.70           C
ATOM   2767  CD  PRO B 487      55.675  11.497   4.362  1.00 25.42           C
ATOM   2768  C   PRO B 487      52.225  12.646   4.495  1.00 28.92           C
ATOM   2769  O   PRO B 487      51.148  12.742   5.090  1.00 29.05           O
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ATOM   2770  N   GLY B 488      52.373  12.994   3.224  1.00 25.56           N
ATOM   2771  CA  GLY B 488      51.256  13.479   2.438  1.00 25.19           C
ATOM   2772  C   GLY B 488      50.220  12.380   2.314  1.00 28.83           C
ATOM   2773  O   GLY B 488      49.019  12.637   2.352  1.00 27.86           O
ATOM   2774  N   ILE B 489      50.698  11.145   2.176  1.00 25.74           N
ATOM   2775  CA  ILE B 489      49.822   9.983   2.066  1.00 24.93           C
ATOM   2776  CB  ILE B 489      50.629   8.699   1.826  1.00 27.97           C
ATOM   2777  CG1 ILE B 489      50.906   8.506   0.339  1.00 28.35           C
ATOM   2778  CD1 ILE B 489      52.025   7.518   0.061  1.00 37.68           C
ATOM   2779  CG2 ILE B 489      49.898   7.497   2.405  1.00 29.15           C
ATOM   2780  C   ILE B 489      48.989   9.838   3.326  1.00 28.04           C
ATOM   2781  O   ILE B 489      47.812   9.486   3.266  1.00 28.52           O
ATOM   2782  N   PHE B 490      49.618  10.091   4.469  1.00 23.36           N
ATOM   2783  CA  PHE B 490      48.950   9.987   5.760  1.00 22.58           C
ATOM   2784  CB  PHE B 490      49.959  10.106   6.908  1.00 23.40           C
ATOM   2785  CG  PHE B 490      49.376   9.788   8.259  1.00 23.70           C
ATOM   2786  CD1 PHE B 490      49.082   8.480   8.610  1.00 25.41           C
ATOM   2787  CE1 PHE B 490      48.532   8.181   9.851  1.00 25.82           C
ATOM   2788  CZ  PHE B 490      48.253   9.198  10.750  1.00 24.78           C
ATOM   2789  CE2 PHE B 490      48.536  10.509  10.408  1.00 27.22           C
ATOM   2790  CD2 PHE B 490      49.092  10.798   9.165  1.00 24.93           C
ATOM   2791  C   PHE B 490      47.843  11.024   5.929  1.00 28.75           C
ATOM   2792  O   PHE B 490      46.757  10.703   6.416  1.00 29.23           O
ATOM   2793  N   VAL B 491      48.126  12.272   5.558  1.00 25.13           N
ATOM   2794  CA  VAL B 491      47.135  13.339   5.690  1.00 24.25           C
ATOM   2795  CB  VAL B 491      47.737  14.745   5.492  1.00 27.60           C
ATOM   2796  CG1 VAL B 491      46.647  15.801   5.635  1.00 27.36           C
ATOM   2797  CG2 VAL B 491      48.850  15.001   6.499  1.00 27.29           C
ATOM   2798  C   VAL B 491      45.963  13.090   4.755  1.00 27.86           C
ATOM   2799  O   VAL B 491      44.811  13.349   5.103  1.00 26.98           O
ATOM   2800  N   TYR B 492      46.262  12.572   3.571  1.00 25.29           N
ATOM   2801  CA  TYR B 492      45.225  12.228   2.616  1.00 25.91           C
ATOM   2802  CB  TYR B 492      45.845  11.683   1.333  1.00 27.91           C
ATOM   2803  CG  TYR B 492      44.838  11.147   0.342  1.00 31.57           C
ATOM   2804  CD1 TYR B 492      44.517  11.862  -0.803  1.00 34.01           C
ATOM   2805  CE1 TYR B 492      43.601  11.375  -1.720  1.00 35.29           C
ATOM   2806  CZ  TYR B 492      43.000  10.152  -1.505  1.00 41.66           C
ATOM   2807  OH  TYR B 492      42.088   9.672  -2.421  1.00 43.59           O
ATOM   2808  CE2 TYR B 492      43.308   9.414  -0.380  1.00 33.51           C
ATOM   2809  CD2 TYR B 492      44.222   9.913   0.538  1.00 32.65           C
ATOM   2810  C   TYR B 492      44.352  11.157   3.263  1.00 30.29           C
ATOM   2811  O   TYR B 492      43.139  11.138   3.081  1.00 30.44           O
ATOM   2812  N   MET B 493      44.970  10.278   4.044  1.00 26.41           N
ATOM   2813  CA  MET B 493      44.217   9.228   4.721  1.00 25.94           C
ATOM   2814  CB  MET B 493      45.139   8.101   5.180  1.00 27.67           C
ATOM   2815  CG  MET B 493      45.610   7.195   4.045  1.00 30.21           C
ATOM   2816  SD  MET B 493      46.483   5.731   4.624  1.00 33.20           S
ATOM   2817  CE  MET B 493      47.908   6.462   5.448  1.00 29.54           C
ATOM   2818  C   MET B 493      43.410   9.783   5.889  1.00 31.26           C
ATOM   2819  O   MET B 493      42.280   9.363   6.131  1.00 31.54           O
ATOM   2820  N   VAL B 494      43.985  10.738   6.605  1.00 28.37           N
ATOM   2821  CA  VAL B 494      43.289  11.350   7.721  1.00 28.71           C
ATOM   2822  CB  VAL B 494      44.232  12.217   8.562  1.00 32.28           C
ATOM   2823  CG1 VAL B 494      43.437  13.036   9.573  1.00 32.15           C
ATOM   2824  CG2 VAL B 494      45.256  11.355   9.260  1.00 31.89           C
ATOM   2825  C   VAL B 494      42.101  12.162   7.210  1.00 34.67           C
ATOM   2826  O   VAL B 494      41.020  12.124   7.792  1.00 34.54           O
ATOM   2827  N   HIS B 495      42.310  12.895   6.121  1.00 32.49           N
ATOM   2828  CA  HIS B 495      41.265  13.727   5.537  1.00 33.24           C
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ATOM   2829  CB  HIS B 495      41.827  14.579   4.398  1.00 34.13           C
ATOM   2830  CG  HIS B 495      42.547  15.808   4.853  1.00 37.72           C
ATOM   2831  ND1 HIS B 495      42.579  16.210   6.175  1.00 39.73           N
ATOM   2832  CE1 HIS B 495      43.290  17.316   6.281  1.00 38.97           C
ATOM   2833  NE2 HIS B 495      43.719  17.653   5.075  1.00 39.16           N
ATOM   2834  CD2 HIS B 495      43.264  16.729   4.168  1.00 39.31           C
ATOM   2835  C   HIS B 495      40.085  12.901   5.032  1.00 39.12           C
ATOM   2836  O   HIS B 495      38.932  13.192   5.353  1.00 38.88           O
ATOM   2837  N   ARG B 496      40.375  11.878   4.234  1.00 37.07           N
ATOM   2838  CA  ARG B 496      39.334  11.018   3.678  1.00 37.82           C
ATOM   2839  CB  ARG B 496      39.912  10.123   2.580  1.00 38.59           C
ATOM   2840  CG  ARG B 496      39.555  10.556   1.167  1.00 51.73           C
ATOM   2841  CD  ARG B 496      39.995   9.509   0.153  1.00 66.78           C
ATOM   2842  NE  ARG B 496      38.945   9.196  -0.813  1.00 79.88           N
ATOM   2843  CZ  ARG B 496      37.959   8.329  -0.594  1.00 97.23           C
ATOM   2844  NH1 ARG B 496      37.884   7.684   0.563  1.00 86.29           N
ATOM   2845  NH2 ARG B 496      37.047   8.108  -1.531  1.00 85.00           N
ATOM   2846  C   ARG B 496      38.657  10.161   4.745  1.00 43.86           C
ATOM   2847  O   ARG B 496      37.480   9.816   4.626  1.00 43.84           O
ATOM   2848  N   SER B 497      39.405   9.818   5.788  1.00 41.82           N
ATOM   2849  CA  SER B 497      38.884   8.984   6.863  1.00 42.25           C
ATOM   2850  CB  SER B 497      40.024   8.307   7.621  1.00 45.75           C
ATOM   2851  OG  SER B 497      39.963   6.903   7.459  1.00 55.83           O
ATOM   2852  C   SER B 497      37.957   9.704   7.839  1.00 47.79           C
ATOM   2853  O   SER B 497      36.844   9.245   8.088  1.00 47.27           O
ATOM   2854  N   CYS B 498      38.424  10.807   8.418  1.00 46.20           N
ATOM   2855  CA  CYS B 498      37.621  11.543   9.394  1.00 47.16           C
ATOM   2856  CB  CYS B 498      38.335  11.627  10.746  1.00 47.80           C
ATOM   2857  SG  CYS B 498      40.110  11.301  10.683  1.00 51.82           S
ATOM   2858  C   CYS B 498      37.189  12.931   8.930  1.00 52.23           C
ATOM   2859  O   CYS B 498      36.255  13.514   9.483  1.00 51.94           O
ATOM   2860  N   GLY B 499      37.872  13.463   7.921  1.00 49.38           N
ATOM   2861  CA  GLY B 499      37.536  14.768   7.381  1.00 49.34           C
ATOM   2862  C   GLY B 499      38.587  15.851   7.553  1.00 53.36           C
ATOM   2863  O   GLY B 499      39.503  15.735   8.370  1.00 52.69           O
ATOM   2864  N   THR B 500      38.433  16.922   6.780  1.00 50.18           N
ATOM   2865  CA  THR B 500      39.339  18.067   6.824  1.00 50.20           C
ATOM   2866  CB  THR B 500      39.139  18.958   5.578  1.00 57.09           C
ATOM   2867  OG1 THR B 500      39.582  18.260   4.408  1.00 55.99           O
ATOM   2868  CG2 THR B 500      39.912  20.263   5.716  1.00 55.83           C
ATOM   2869  C   THR B 500      39.130  18.889   8.097  1.00 54.25           C
ATOM   2870  O   THR B 500      39.966  19.720   8.460  1.00 53.69           O
ATOM   2871  N   SER B 501      38.000  18.658   8.757  1.00 50.80           N
ATOM   2872  CA  SER B 501      37.618  19.399   9.955  1.00 50.54           C
ATOM   2873  CB  SER B 501      36.091  19.432  10.076  1.00 54.32           C
ATOM   2874  OG  SER B 501      35.562  18.127  10.270  1.00 63.28           O
ATOM   2875  C   SER B 501      38.222  18.902  11.270  1.00 53.54           C
ATOM   2876  O   SER B 501      38.317  19.659  12.239  1.00 53.05           O
ATOM   2877  N   CYS B 502      38.594  17.628  11.319  1.00 49.55           N
ATOM   2878  CA  CYS B 502      39.124  17.040  12.547  1.00 49.19           C
ATOM   2879  CB  CYS B 502      39.128  15.509  12.470  1.00 49.94           C
ATOM   2880  SG  CYS B 502      40.102  14.819  11.110  1.00 54.14           S
ATOM   2881  C   CYS B 502      40.474  17.572  13.039  1.00 50.61           C
ATOM   2882  O   CYS B 502      40.663  17.767  14.239  1.00 49.94           O
ATOM   2883  N   PHE B 503      41.413  17.792  12.123  1.00 45.59           N
ATOM   2884  CA  PHE B 503      42.745  18.258  12.508  1.00 44.69           C
ATOM   2885  CB  PHE B 503      43.804  17.209  12.161  1.00 46.08           C
ATOM   2886  CG  PHE B 503      43.736  15.970  13.004  1.00 47.20           C
ATOM   2887  CD1 PHE B 503      43.703  14.718  12.414  1.00 50.23           C
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ATOM   2888  CE1 PHE B 503      43.645  13.576  13.186  1.00 51.17           C
ATOM   2889  CZ  PHE B 503      43.628  13.678  14.561  1.00 50.10           C
ATOM   2890  CE2 PHE B 503      43.668  14.920  15.159  1.00 51.81           C
ATOM   2891  CD2 PHE B 503      43.723  16.056  14.384  1.00 48.97           C
ATOM   2892  C   PHE B 503      43.151  19.587  11.881  1.00 48.50           C
ATOM   2893  O   PHE B 503      42.638  19.981  10.833  1.00 48.33           O
ATOM   2894  N   GLU B 504      44.114  20.248  12.517  1.00 44.55           N
ATOM   2895  CA  GLU B 504      44.655  21.503  12.016  1.00 44.05           C
ATOM   2896  CB  GLU B 504      44.978  22.448  13.176  1.00 45.51           C
ATOM   2897  CG  GLU B 504      44.728  23.914  12.867  1.00 57.56           C
ATOM   2898  CD  GLU B 504      45.926  24.585  12.224  1.00 82.29           C
ATOM   2899  OE1 GLU B 504      46.943  24.777  12.923  1.00 81.28           O
ATOM   2900  OE2 GLU B 504      45.852  24.917  11.020  1.00 77.53           O
ATOM   2901  C   GLU B 504      45.921  21.176  11.232  1.00 46.75           C
ATOM   2902  O   GLU B 504      46.936  20.788  11.810  1.00 46.31           O
ATOM   2903  N   LEU B 505      45.831  21.293   9.911  1.00 42.34           N
ATOM   2904  CA  LEU B 505      46.933  20.980   9.004  1.00 41.76           C
ATOM   2905  CB  LEU B 505      46.677  21.608   7.632  1.00 41.79           C
ATOM   2906  CG  LEU B 505      47.466  21.064   6.441  1.00 46.35           C
ATOM   2907  CD1 LEU B 505      47.213  19.573   6.246  1.00 46.59           C
ATOM   2908  CD2 LEU B 505      47.099  21.836   5.187  1.00 48.62           C
ATOM   2909  C   LEU B 505      48.334  21.343   9.501  1.00 44.94           C
ATOM   2910  O   LEU B 505      49.287  20.597   9.282  1.00 44.90           O
ATOM   2911  N   GLU B 506      48.459  22.488  10.162  1.00 40.86           N
ATOM   2912  CA  GLU B 506      49.752  22.948  10.664  1.00 40.18           C
ATOM   2913  CB  GLU B 506      49.684  24.422  11.069  1.00 41.67           C
ATOM   2914  CG  GLU B 506      50.787  24.826  12.042  1.00 54.43           C
ATOM   2915  CD  GLU B 506      50.511  26.146  12.741  1.00 82.36           C
ATOM   2916  OE1 GLU B 506      49.558  26.210  13.548  1.00 71.61           O
ATOM   2917  OE2 GLU B 506      51.273  27.110  12.508  1.00 84.46           O
ATOM   2918  C   GLU B 506      50.274  22.129  11.840  1.00 41.59           C
ATOM   2919  O   GLU B 506      51.467  21.833  11.916  1.00 40.85           O
ATOM   2920  N   LYS B 507      49.387  21.823  12.782  1.00 36.71           N
ATOM   2921  CA  LYS B 507      49.744  21.053  13.966  1.00 35.58           C
ATOM   2922  CB  LYS B 507      48.651  21.181  15.036  1.00 37.31           C
ATOM   2923  CG  LYS B 507      48.990  22.133  16.169  1.00 44.28           C
ATOM   2924  CD  LYS B 507      47.745  22.845  16.678  1.00 51.90           C
ATOM   2925  CE  LYS B 507      47.978  23.453  18.054  1.00 59.61           C
ATOM   2926  NZ  LYS B 507      46.851  23.183  18.986  1.00 66.23           N
ATOM   2927  C   LYS B 507      49.953  19.586  13.609  1.00 37.82           C
ATOM   2928  O   LYS B 507      50.875  18.940  14.109  1.00 37.65           O
ATOM   2929  N   LEU B 508      49.084  19.062  12.752  1.00 32.90           N
ATOM   2930  CA  LEU B 508      49.167  17.664  12.338  1.00 32.04           C
ATOM   2931  CB  LEU B 508      48.043  17.325  11.357  1.00 31.74           C
ATOM   2932  CG  LEU B 508      47.883  15.858  10.931  1.00 36.16           C
ATOM   2933  CD1 LEU B 508      48.230  14.900  12.059  1.00 35.77           C
ATOM   2934  CD2 LEU B 508      46.465  15.616  10.430  1.00 38.29           C
ATOM   2935  C   LEU B 508      50.506  17.384  11.682  1.00 36.21           C
ATOM   2936  O   LEU B 508      51.147  16.368  11.953  1.00 35.41           O
ATOM   2937  N   CYS B 509      50.917  18.293  10.805  1.00 33.35           N
ATOM   2938  CA  CYS B 509      52.164  18.149  10.068  1.00 33.28           C
ATOM   2939  CB  CYS B 509      52.230  19.158   8.925  1.00 34.30           C
ATOM   2940  SG  CYS B 509      51.033  18.838   7.599  1.00 38.91           S
ATOM   2941  C   CYS B 509      53.422  18.213  10.922  1.00 34.39           C
ATOM   2942  O   CYS B 509      54.444  17.634  10.557  1.00 34.00           O
ATOM   2943  N   ARG B 510      53.353  18.907  12.054  1.00 28.69           N
ATOM   2944  CA  ARG B 510      54.513  19.010  12.934  1.00 27.76           C
ATOM   2945  CB  ARG B 510      54.619  20.399  13.572  1.00 26.39           C
ATOM   2946  CG  ARG B 510      53.834  20.576  14.853  1.00 36.00           C
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ATOM   2947  CD  ARG B 510      54.208  21.887  15.539  1.00 42.77           C
ATOM   2948  NE  ARG B 510      54.050  23.043  14.658  1.00 46.84           N
ATOM   2949  CZ  ARG B 510      53.023  23.888  14.701  1.00 58.00           C
ATOM   2950  NH1 ARG B 510      52.971  24.908  13.856  1.00 43.44           N
ATOM   2951  NH2 ARG B 510      52.044  23.715  15.583  1.00 42.48           N
ATOM   2952  C   ARG B 510      54.538  17.889  13.971  1.00 31.35           C
ATOM   2953  O   ARG B 510      55.601  17.498  14.452  1.00 30.77           O
ATOM   2954  N   PHE B 511      53.361  17.346  14.275  1.00 27.69           N
ATOM   2955  CA  PHE B 511      53.245  16.206  15.178  1.00 26.50           C
ATOM   2956  CB  PHE B 511      51.768  15.956  15.528  1.00 27.73           C
ATOM   2957  CG  PHE B 511      51.506  14.601  16.117  1.00 28.56           C
ATOM   2958  CD1 PHE B 511      51.860  14.323  17.425  1.00 31.18           C
ATOM   2959  CE1 PHE B 511      51.655  13.069  17.964  1.00 32.07           C
ATOM   2960  CZ  PHE B 511      51.093  12.070  17.195  1.00 31.20           C
ATOM   2961  CE2 PHE B 511      50.742  12.329  15.884  1.00 33.27           C
ATOM   2962  CD2 PHE B 511      50.949  13.589  15.350  1.00 30.41           C
ATOM   2963  C   PHE B 511      53.817  15.019  14.398  1.00 28.86           C
ATOM   2964  O   PHE B 511      54.643  14.257  14.898  1.00 28.15           O
ATOM   2965  N   ILE B 512      53.414  14.922  13.138  1.00 24.84           N
ATOM   2966  CA  ILE B 512      53.891  13.883  12.230  1.00 24.49           C
ATOM   2967  CB  ILE B 512      53.269  14.065  10.832  1.00 27.14           C
ATOM   2968  CG1 ILE B 512      51.763  13.817  10.875  1.00 26.77           C
ATOM   2969  CD1 ILE B 512      51.081  13.946   9.526  1.00 30.24           C
ATOM   2970  CG2 ILE B 512      53.951  13.166   9.817  1.00 28.15           C
ATOM   2971  C   ILE B 512      55.422  13.881  12.128  1.00 30.59           C
ATOM   2972  O   ILE B 512      56.068  12.843  12.299  1.00 30.82           O
ATOM   2973  N   MET B 513      55.988  15.044  11.813  1.00 27.49           N
ATOM   2974  CA  MET B 513      57.432  15.197  11.654  1.00 27.87           C
ATOM   2975  CB  MET B 513      57.777  16.648  11.313  1.00 30.99           C
ATOM   2976  CG  MET B 513      57.487  17.035   9.873  1.00 35.72           C
ATOM   2977  SD  MET B 513      57.487  15.621   8.753  1.00 41.27           S
ATOM   2978  CE  MET B 513      59.234  15.565   8.260  1.00 38.37           C
ATOM   2979  C   MET B 513      58.178  14.769  12.904  1.00 30.03           C
ATOM   2980  O   MET B 513      59.216  14.114  12.828  1.00 29.54           O
ATOM   2981  N   SER B 514      57.644  15.152  14.056  1.00 26.33           N
ATOM   2982  CA  SER B 514      58.238  14.785  15.333  1.00 26.03           C
ATOM   2983  CB  SER B 514      57.555  15.547  16.466  1.00 30.07           C
ATOM   2984  OG  SER B 514      58.109  16.843  16.608  1.00 40.65           O
ATOM   2985  C   SER B 514      58.137  13.275  15.569  1.00 28.31           C
ATOM   2986  O   SER B 514      58.984  12.684  16.241  1.00 28.07           O
ATOM   2987  N   VAL B 515      57.093  12.659  15.020  1.00 23.01           N
ATOM   2988  CA  VAL B 515      56.896  11.221  15.161  1.00 22.55           C
ATOM   2989  CB  VAL B 515      55.449  10.794  14.811  1.00 25.54           C
ATOM   2990  CG1 VAL B 515      55.385   9.285  14.565  1.00 25.44           C
ATOM   2991  CG2 VAL B 515      54.489  11.193  15.911  1.00 25.00           C
ATOM   2992  C   VAL B 515      57.902  10.469  14.298  1.00 27.12           C
ATOM   2993  O   VAL B 515      58.496   9.490  14.735  1.00 27.95           O
ATOM   2994  N   LYS B 516      58.088  10.932  13.068  1.00 23.34           N
ATOM   2995  CA  LYS B 516      59.018  10.289  12.144  1.00 22.70           C
ATOM   2996  CB  LYS B 516      58.972  10.983  10.786  1.00 23.67           C
ATOM   2997  CG  LYS B 516      60.338  11.174  10.155  1.00 19.30           C
ATOM   2998  CD  LYS B 516      60.223  11.871   8.811  1.00 24.41           C
ATOM   2999  CE  LYS B 516      61.570  11.963   8.114  1.00 35.09           C
ATOM   3000  NZ  LYS B 516      61.725  10.919   7.060  1.00 44.24           N
ATOM   3001  C   LYS B 516      60.437  10.363  12.679  1.00 28.51           C
ATOM   3002  O   LYS B 516      61.244   9.446  12.498  1.00 28.55           O
ATOM   3003  N   LYS B 517      60.742  11.489  13.307  1.00 25.45           N
ATOM   3004  CA  LYS B 517      62.062  11.726  13.857  1.00 25.64           C
ATOM   3005  CB  LYS B 517      62.213  13.207  14.218  1.00 28.34           C
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ATOM	3006	CG	LYS	B	517	63.021	13.483	15.466	1.00	48.23	C
ATOM	3007	CD	LYS	B	517	62.879	14.936	15.892	1.00	59.18	C
ATOM	3008	CE	LYS	B	517	64.235	15.557	16.184	1.00	72.34	C
ATOM	3009	NZ	LYS	B	517	64.148	16.618	17.225	1.00	83.87	N
ATOM	3010	C	LYS	B	517	62.345	10.823	15.056	1.00	29.97	C
ATOM	3011	O	LYS	B	517	63.494	10.477	15.325	1.00	30.07	O
ATOM	3012	N	ASN	B	518	61.292	10.408	15.752	1.00	27.02	N
ATOM	3013	CA	ASN	B	518	61.453	9.558	16.927	1.00	26.63	C
ATOM	3014	CB	ASN	B	518	60.467	9.949	18.023	1.00	27.96	C
ATOM	3015	CG	ASN	B	518	60.850	11.251	18.707	1.00	52.85	C
ATOM	3016	OD1	ASN	B	518	61.628	11.260	19.662	1.00	45.64	O
ATOM	3017	ND2	ASN	B	518	60.333	12.363	18.195	1.00	47.57	N
ATOM	3018	C	ASN	B	518	61.445	8.056	16.637	1.00	30.06	C
ATOM	3019	O	ASN	B	518	61.455	7.231	17.550	1.00	30.15	O
ATOM	3020	N	TYR	B	519	61.469	7.715	15.354	1.00	25.60	N
ATOM	3021	CA	TYR	B	519	61.557	6.333	14.917	1.00	24.53	C
ATOM	3022	CB	TYR	B	519	60.672	6.097	13.694	1.00	24.31	C
ATOM	3023	CG	TYR	B	519	59.295	5.556	14.017	1.00	24.41	C
ATOM	3024	CD1	TYR	B	519	58.215	6.410	14.196	1.00	25.59	C
ATOM	3025	CE1	TYR	B	519	56.955	5.919	14.478	1.00	26.39	C
ATOM	3026	CZ	TYR	B	519	56.759	4.558	14.577	1.00	31.06	C
ATOM	3027	OH	TYR	B	519	55.505	4.065	14.862	1.00	28.57	O
ATOM	3028	CE2	TYR	B	519	57.816	3.689	14.395	1.00	25.82	C
ATOM	3029	CD2	TYR	B	519	59.075	4.192	14.125	1.00	25.06	C
ATOM	3030	C	TYR	B	519	63.025	6.116	14.558	1.00	30.62	C
ATOM	3031	O	TYR	B	519	63.715	7.055	14.157	1.00	30.61	O
ATOM	3032	N	ARG	B	520	63.514	4.895	14.738	1.00	28.04	N
ATOM	3033	CA	ARG	B	520	64.915	4.607	14.464	1.00	28.10	C
ATOM	3034	CB	ARG	B	520	65.487	3.670	15.524	1.00	27.93	C
ATOM	3035	CG	ARG	B	520	65.104	4.047	16.939	1.00	36.11	C
ATOM	3036	CD	ARG	B	520	66.314	4.027	17.838	1.00	48.80	C
ATOM	3037	NE	ARG	B	520	66.001	4.520	19.173	1.00	64.08	N
ATOM	3038	CZ	ARG	B	520	66.827	5.258	19.905	1.00	78.08	C
ATOM	3039	NH1	ARG	B	520	68.019	5.594	19.427	1.00	66.44	N
ATOM	3040	NH2	ARG	B	520	66.462	5.659	21.115	1.00	61.50	N
ATOM	3041	C	ARG	B	520	65.158	4.024	13.086	1.00	33.06	C
ATOM	3042	O	ARG	B	520	64.225	3.774	12.319	1.00	32.47	O
ATOM	3043	N	ARG	B	521	66.432	3.798	12.792	1.00	31.15	N
ATOM	3044	CA	ARG	B	521	66.845	3.223	11.526	1.00	31.35	C
ATOM	3045	CB	ARG	B	521	68.145	3.874	11.051	1.00	32.94	C
ATOM	3046	CG	ARG	B	521	68.116	5.389	11.109	1.00	48.08	C
ATOM	3047	CD	ARG	B	521	69.371	5.998	10.505	1.00	61.81	C
ATOM	3048	NE	ARG	B	521	69.090	7.279	9.861	1.00	73.06	N
ATOM	3049	CZ	ARG	B	521	69.046	8.444	10.500	1.00	89.75	C
ATOM	3050	NH1	ARG	B	521	69.277	8.500	11.806	1.00	78.27	N
ATOM	3051	NH2	ARG	B	521	68.776	9.556	9.830	1.00	77.22	N
ATOM	3052	C	ARG	B	521	67.028	1.720	11.690	1.00	34.79	C
ATOM	3053	O	ARG	B	521	68.113	1.187	11.451	1.00	34.83	O
ATOM	3054	N	VAL	B	522	65.967	1.052	12.131	1.00	30.31	N
ATOM	3055	CA	VAL	B	522	65.990	-0.389	12.300	1.00	29.19	C
ATOM	3056	CB	VAL	B	522	65.114	-0.835	13.490	1.00	32.52	C
ATOM	3057	CG1	VAL	B	522	65.687	-0.309	14.796	1.00	32.25	C
ATOM	3058	CG2	VAL	B	522	63.682	-0.369	13.313	1.00	32.22	C
ATOM	3059	C	VAL	B	522	65.550	-0.992	10.968	1.00	32.52	C
ATOM	3060	O	VAL	B	522	65.011	-0.289	10.112	1.00	32.41	O
ATOM	3061	N	PRO	B	523	65.818	-2.288	10.749	1.00	28.28	N
ATOM	3062	CA	PRO	B	523	65.428	-2.795	9.427	1.00	27.45	C
ATOM	3063	CB	PRO	B	523	66.172	-4.135	9.320	1.00	29.43	C
ATOM	3064	CG	PRO	B	523	67.123	-4.178	10.488	1.00	34.13	C

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ATOM   3065  CD  PRO B 523      66.529  -3.306  11.539  1.00 29.71           C
ATOM   3066  C   PRO B 523      63.931  -3.003   9.216  1.00 29.21           C
ATOM   3067  O   PRO B 523      63.456  -3.002   8.082  1.00 28.44           O
ATOM   3068  N   TYR B 524      63.185  -3.198  10.297  1.00 25.06           N
ATOM   3069  CA  TYR B 524      61.755  -3.449  10.168  1.00 24.17           C
ATOM   3070  CB  TYR B 524      61.425  -4.905  10.509  1.00 25.42           C
ATOM   3071  CG  TYR B 524      59.971  -5.239  10.297  1.00 27.31           C
ATOM   3072  CD1 TYR B 524      59.406  -5.174   9.030  1.00 29.38           C
ATOM   3073  CE1 TYR B 524      58.063  -5.441   8.831  1.00 29.67           C
ATOM   3074  CZ  TYR B 524      57.260  -5.751   9.912  1.00 36.61           C
ATOM   3075  OH  TYR B 524      55.921  -6.007   9.718  1.00 37.12           O
ATOM   3076  CE2 TYR B 524      57.791  -5.794  11.185  1.00 29.05           C
ATOM   3077  CD2 TYR B 524      59.140  -5.530  11.373  1.00 28.08           C
ATOM   3078  C   TYR B 524      60.821  -2.495  10.916  1.00 25.87           C
ATOM   3079  O   TYR B 524      59.903  -1.930  10.324  1.00 24.77           O
ATOM   3080  N   HIS B 525      61.025  -2.348  12.221  1.00 21.94           N
ATOM   3081  CA  HIS B 525      60.162  -1.489  13.031  1.00 21.76           C
ATOM   3082  CB  HIS B 525      60.171  -1.929  14.494  1.00 22.52           C
ATOM   3083  CG  HIS B 525      59.532  -3.264  14.722  1.00 26.22           C
ATOM   3084  ND1 HIS B 525      60.257  -4.434  14.790  1.00 27.97           N
ATOM   3085  CE1 HIS B 525      59.435  -5.448  15.000  1.00 27.41           C
ATOM   3086  NE2 HIS B 525      58.202  -4.978  15.066  1.00 27.74           N
ATOM   3087  CD2 HIS B 525      58.234  -3.616  14.887  1.00 28.04           C
ATOM   3088  C   HIS B 525      60.552  -0.027  12.896  1.00 24.94           C
ATOM   3089  O   HIS B 525      60.885   0.637  13.876  1.00 24.24           O
ATOM   3090  N   ASN B 526      60.502   0.457  11.661  1.00 21.41           N
ATOM   3091  CA  ASN B 526      60.874   1.823  11.339  1.00 21.13           C
ATOM   3092  CB  ASN B 526      61.974   1.826  10.272  1.00 19.42           C
ATOM   3093  CG  ASN B 526      61.682   0.870   9.140  1.00 39.55           C
ATOM   3094  OD1 ASN B 526      60.554   0.796   8.653  1.00 37.90           O
ATOM   3095  ND2 ASN B 526      62.698   0.133   8.707  1.00 29.17           N
ATOM   3096  C   ASN B 526      59.683   2.668  10.888  1.00 25.11           C
ATOM   3097  O   ASN B 526      58.530   2.361  11.200  1.00 25.23           O
ATOM   3098  N   TRP B 527      59.980   3.746  10.169  1.00 20.89           N
ATOM   3099  CA  TRP B 527      58.974   4.695   9.703  1.00 20.25           C
ATOM   3100  CB  TRP B 527      59.663   6.025   9.364  1.00 19.58           C
ATOM   3101  CG  TRP B 527      58.774   7.142   8.876  1.00 20.97           C
ATOM   3102  CD1 TRP B 527      58.921   7.850   7.717  1.00 23.82           C
ATOM   3103  NE1 TRP B 527      57.960   8.827   7.633  1.00 23.38           N
ATOM   3104  CE2 TRP B 527      57.186   8.786   8.761  1.00 25.03           C
ATOM   3105  CD2 TRP B 527      57.682   7.752   9.579  1.00 21.01           C
ATOM   3106  CE3 TRP B 527      57.046   7.493  10.797  1.00 22.38           C
ATOM   3107  CZ3 TRP B 527      55.966   8.273  11.159  1.00 23.79           C
ATOM   3108  CH2 TRP B 527      55.499   9.296  10.329  1.00 24.46           C
ATOM   3109  CZ2 TRP B 527      56.089   9.565   9.127  1.00 24.69           C
ATOM   3110  C   TRP B 527      58.113   4.174   8.546  1.00 22.41           C
ATOM   3111  O   TRP B 527      56.942   4.525   8.434  1.00 22.67           O
ATOM   3112  N   LYS B 528      58.675   3.319   7.698  1.00 17.83           N
ATOM   3113  CA  LYS B 528      57.899   2.771   6.588  1.00 16.96           C
ATOM   3114  CB  LYS B 528      58.799   1.974   5.632  1.00 18.82           C
ATOM   3115  CG  LYS B 528      58.342   2.014   4.174  1.00 18.88           C
ATOM   3116  CD  LYS B 528      58.910   0.857   3.354  1.00 26.88           C
ATOM   3117  CE  LYS B 528      58.137   0.660   2.052  1.00 32.51           C
ATOM   3118  NZ  LYS B 528      59.031   0.559   0.863  1.00 39.37           N
ATOM   3119  C   LYS B 528      56.797   1.871   7.141  1.00 20.31           C
ATOM   3120  O   LYS B 528      55.682   1.832   6.622  1.00 20.43           O
ATOM   3121  N   HIS B 529      57.128   1.166   8.215  1.00 16.69           N
ATOM   3122  CA  HIS B 529      56.223   0.239   8.884  1.00 16.86           C
ATOM   3123  CB  HIS B 529      57.031  -0.627   9.862  1.00 17.84           C
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ATOM   3124  CG  HIS B 529      56.192  -1.491  10.750  1.00 21.40           C
ATOM   3125  ND1 HIS B 529      55.255  -2.376  10.260  1.00 23.39           N
ATOM   3126  CE1 HIS B 529      54.671  -2.997  11.269  1.00 22.80           C
ATOM   3127  NE2 HIS B 529      55.193  -2.544  12.395  1.00 23.16           N
ATOM   3128  CD2 HIS B 529      56.149  -1.605  12.097  1.00 23.13           C
ATOM   3129  C   HIS B 529      55.074   0.960   9.601  1.00 21.46           C
ATOM   3130  O   HIS B 529      53.927   0.502   9.587  1.00 22.36           O
ATOM   3131  N   ALA B 530      55.386   2.098  10.210  1.00 17.05           N
ATOM   3132  CA  ALA B 530      54.394   2.904  10.911  1.00 15.99           C
ATOM   3133  CB  ALA B 530      55.061   4.115  11.529  1.00 16.63           C
ATOM   3134  C   ALA B 530      53.265   3.335   9.975  1.00 19.36           C
ATOM   3135  O   ALA B 530      52.092   3.055  10.230  1.00 20.31           O
ATOM   3136  N   VAL B 531      53.624   4.010   8.889  1.00 14.60           N
ATOM   3137  CA  VAL B 531      52.663   4.480   7.888  1.00 13.81           C
ATOM   3138  CB  VAL B 531      53.371   5.334   6.796  1.00 16.34           C
ATOM   3139  CG1 VAL B 531      52.358   6.125   5.958  1.00 15.62           C
ATOM   3140  CG2 VAL B 531      54.396   6.264   7.427  1.00 15.55           C
ATOM   3141  C   VAL B 531      51.903   3.310   7.261  1.00 20.85           C
ATOM   3142  O   VAL B 531      50.683   3.373   7.054  1.00 21.83           O
ATOM   3143  N   THR B 532      52.636   2.246   6.954  1.00 17.29           N
ATOM   3144  CA  THR B 532      52.069   1.042   6.361  1.00 17.03           C
ATOM   3145  CB  THR B 532      53.163   0.000   6.088  1.00 25.41           C
ATOM   3146  OG1 THR B 532      54.050   0.498   5.081  1.00 26.72           O
ATOM   3147  CG2 THR B 532      52.546  -1.314   5.614  1.00 21.64           C
ATOM   3148  C   THR B 532      50.959   0.449   7.223  1.00 19.93           C
ATOM   3149  O   THR B 532      49.934   0.001   6.713  1.00 19.06           O
ATOM   3150  N   VAL B 533      51.184   0.411   8.529  1.00 16.72           N
ATOM   3151  CA  VAL B 533      50.183  -0.115   9.446  1.00 15.77           C
ATOM   3152  CB  VAL B 533      50.754  -0.260  10.872  1.00 18.62           C
ATOM   3153  CG1 VAL B 533      49.688  -0.782  11.826  1.00 17.85           C
ATOM   3154  CG2 VAL B 533      51.947  -1.203  10.854  1.00 18.20           C
ATOM   3155  C   VAL B 533      48.988   0.824   9.409  1.00 20.57           C
ATOM   3156  O   VAL B 533      47.842   0.387   9.347  1.00 20.79           O
ATOM   3157  N   ALA B 534      49.272   2.121   9.386  1.00 17.52           N
ATOM   3158  CA  ALA B 534      48.230   3.139   9.330  1.00 17.20           C
ATOM   3159  CB  ALA B 534      48.839   4.515   9.382  1.00 17.82           C
ATOM   3160  C   ALA B 534      47.372   2.987   8.082  1.00 22.45           C
ATOM   3161  O   ALA B 534      46.163   3.183   8.130  1.00 21.71           O
ATOM   3162  N   HIS B 535      47.992   2.639   6.959  1.00 20.80           N
ATOM   3163  CA  HIS B 535      47.224   2.476   5.738  1.00 21.23           C
ATOM   3164  CB  HIS B 535      48.108   2.234   4.520  1.00 22.38           C
ATOM   3165  CG  HIS B 535      47.341   1.751   3.327  1.00 26.18           C
ATOM   3166  ND1 HIS B 535      47.083   0.415   3.102  1.00 28.02           N
ATOM   3167  CE1 HIS B 535      46.354   0.289   2.006  1.00 27.41           C
ATOM   3168  NE2 HIS B 535      46.092   1.497   1.539  1.00 27.74           N
ATOM   3169  CD2 HIS B 535      46.689   2.429   2.354  1.00 28.00           C
ATOM   3170  C   HIS B 535      46.250   1.322   5.869  1.00 26.09           C
ATOM   3171  O   HIS B 535      45.221   1.290   5.196  1.00 25.32           O
ATOM   3172  N   CYS B 536      46.598   0.351   6.705  1.00 23.26           N
ATOM   3173  CA  CYS B 536      45.743  -0.806   6.897  1.00 22.73           C
ATOM   3174  CB  CYS B 536      46.527  -1.969   7.500  1.00 23.18           C
ATOM   3175  SG  CYS B 536      45.685  -3.566   7.336  1.00 27.03           S
ATOM   3176  C   CYS B 536      44.568  -0.431   7.784  1.00 25.52           C
ATOM   3177  O   CYS B 536      43.446  -0.879   7.566  1.00 24.42           O
ATOM   3178  N   MET B 537      44.837   0.407   8.779  1.00 22.25           N
ATOM   3179  CA  MET B 537      43.803   0.899   9.677  1.00 21.88           C
ATOM   3180  CB  MET B 537      44.434   1.808  10.739  1.00 23.69           C
ATOM   3181  CG  MET B 537      43.579   2.056  11.978  1.00 26.50           C
ATOM   3182  SD  MET B 537      42.256   0.848  12.203  1.00 29.88           S
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ATOM   3183  CE  MET B 537      42.751   0.068  13.768  1.00 26.45           C
ATOM   3184  C   MET B 537      42.800   1.698   8.848  1.00 28.45           C
ATOM   3185  O   MET B 537      41.589   1.597   9.046  1.00 29.23           O
ATOM   3186  N   TYR B 538      43.326   2.472   7.904  1.00 25.00           N
ATOM   3187  CA  TYR B 538      42.526   3.326   7.028  1.00 24.28           C
ATOM   3188  CB  TYR B 538      43.448   4.293   6.264  1.00 24.87           C
ATOM   3189  CG  TYR B 538      42.813   4.978   5.078  1.00 25.40           C
ATOM   3190  CD1 TYR B 538      41.973   6.068   5.251  1.00 27.03           C
ATOM   3191  CE1 TYR B 538      41.375   6.691   4.171  1.00 27.03           C
ATOM   3192  CZ  TYR B 538      41.626   6.235   2.898  1.00 33.94           C
ATOM   3193  OH  TYR B 538      41.026   6.861   1.831  1.00 36.28           O
ATOM   3194  CE2 TYR B 538      42.464   5.156   2.693  1.00 26.48           C
ATOM   3195  CD2 TYR B 538      43.055   4.535   3.781  1.00 25.90           C
ATOM   3196  C   TYR B 538      41.653   2.512   6.069  1.00 27.95           C
ATOM   3197  O   TYR B 538      40.493   2.855   5.820  1.00 27.03           O
ATOM   3198  N   ALA B 539      42.201   1.422   5.549  1.00 24.27           N
ATOM   3199  CA  ALA B 539      41.449   0.556   4.648  1.00 23.84           C
ATOM   3200  CB  ALA B 539      42.366  -0.493   4.041  1.00 24.69           C
ATOM   3201  C   ALA B 539      40.273  -0.104   5.381  1.00 26.86           C
ATOM   3202  O   ALA B 539      39.184  -0.263   4.821  1.00 26.61           O
ATOM   3203  N   ILE B 540      40.492  -0.465   6.642  1.00 22.51           N
ATOM   3204  CA  ILE B 540      39.454  -1.092   7.453  1.00 22.15           C
ATOM   3205  CB  ILE B 540      40.035  -1.718   8.734  1.00 24.62           C
ATOM   3206  CG1 ILE B 540      40.975  -2.871   8.384  1.00 23.78           C
ATOM   3207  CD1 ILE B 540      41.871  -3.296   9.534  1.00 21.56           C
ATOM   3208  CG2 ILE B 540      38.918  -2.214   9.640  1.00 25.79           C
ATOM   3209  C   ILE B 540      38.359  -0.091   7.788  1.00 27.90           C
ATOM   3210  O   ILE B 540      37.179  -0.323   7.509  1.00 27.65           O
ATOM   3211  N   LEU B 541      38.758   1.021   8.397  1.00 25.46           N
ATOM   3212  CA  LEU B 541      37.826   2.080   8.769  1.00 25.71           C
ATOM   3213  CB  LEU B 541      38.584   3.265   9.367  1.00 25.98           C
ATOM   3214  CG  LEU B 541      39.440   2.986  10.600  1.00 30.94           C
ATOM   3215  CD1 LEU B 541      40.277   4.210  10.948  1.00 30.97           C
ATOM   3216  CD2 LEU B 541      38.560   2.586  11.768  1.00 34.51           C
ATOM   3217  C   LEU B 541      37.013   2.560   7.570  1.00 29.95           C
ATOM   3218  O   LEU B 541      35.908   3.073   7.726  1.00 29.33           O
ATOM   3219  N   GLN B 542      37.569   2.405   6.373  1.00 27.31           N
ATOM   3220  CA  GLN B 542      36.892   2.851   5.159  1.00 27.56           C
ATOM   3221  CB  GLN B 542      37.901   3.113   4.039  1.00 28.69           C
ATOM   3222  CG  GLN B 542      38.681   4.417   4.187  1.00 37.77           C
ATOM   3223  CD  GLN B 542      37.892   5.628   3.726  1.00 46.35           C
ATOM   3224  OE1 GLN B 542      37.738   5.858   2.530  1.00 41.37           O
ATOM   3225  NE2 GLN B 542      37.385   6.406   4.677  1.00 32.88           N
ATOM   3226  C   GLN B 542      35.796   1.898   4.677  1.00 33.40           C
ATOM   3227  O   GLN B 542      34.915   2.291   3.910  1.00 34.32           O
ATOM   3228  N   ASN B 543      35.853   0.647   5.120  1.00 30.17           N
ATOM   3229  CA  ASN B 543      34.862  -0.343   4.715  1.00 30.30           C
ATOM   3230  CB  ASN B 543      35.535  -1.573   4.113  1.00 30.48           C
ATOM   3231  CG  ASN B 543      36.213  -1.267   2.794  1.00 50.81           C
ATOM   3232  OD1 ASN B 543      35.847  -1.811   1.753  1.00 48.96           O
ATOM   3233  ND2 ASN B 543      37.157  -0.337   2.821  1.00 40.20           N
ATOM   3234  C   ASN B 543      33.914  -0.710   5.847  1.00 35.04           C
ATOM   3235  O   ASN B 543      32.989  -1.503   5.669  1.00 34.62           O
ATOM   3236  N   ASN B 544      34.133  -0.089   6.999  1.00 32.65           N
ATOM   3237  CA  ASN B 544      33.297  -0.280   8.175  1.00 33.20           C
ATOM   3238  CB  ASN B 544      33.991  -1.202   9.181  1.00 33.60           C
ATOM   3239  CG  ASN B 544      34.250  -2.588   8.622  1.00 54.48           C
ATOM   3240  OD1 ASN B 544      33.370  -3.449   8.633  1.00 51.45           O
ATOM   3241  ND2 ASN B 544      35.463  -2.812   8.132  1.00 44.89           N
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ATOM   3242  C   ASN B 544      33.123   1.108   8.771  1.00 40.00           C
ATOM   3243  O   ASN B 544      33.234   1.306   9.983  1.00 39.82           O
ATOM   3244  N   HIS B 545      32.879   2.071   7.889  1.00 38.92           N
ATOM   3245  CA  HIS B 545      32.760   3.473   8.265  1.00 40.05           C
ATOM   3246  CB  HIS B 545      32.784   4.371   7.027  1.00 41.55           C
ATOM   3247  CG  HIS B 545      31.454   4.520   6.358  1.00 45.92           C
ATOM   3248  ND1 HIS B 545      30.695   5.668   6.460  1.00 48.26           N
ATOM   3249  CE1 HIS B 545      29.578   5.517   5.771  1.00 47.79           C
ATOM   3250  NE2 HIS B 545      29.587   4.316   5.220  1.00 48.14           N
ATOM   3251  CD2 HIS B 545      30.750   3.673   5.571  1.00 48.25           C
ATOM   3252  C   HIS B 545      31.621   3.849   9.212  1.00 44.42           C
ATOM   3253  O   HIS B 545      31.718   4.838   9.936  1.00 44.16           O
ATOM   3254  N   THR B 546      30.553   3.060   9.225  1.00 41.19           N
ATOM   3255  CA  THR B 546      29.423   3.347  10.104  1.00 40.92           C
ATOM   3256  CB  THR B 546      28.102   2.814   9.524  1.00 48.27           C
ATOM   3257  OG1 THR B 546      27.797   3.510   8.309  1.00 47.43           O
ATOM   3258  CG2 THR B 546      26.968   3.023  10.518  1.00 46.29           C
ATOM   3259  C   THR B 546      29.642   2.828  11.523  1.00 44.75           C
ATOM   3260  O   THR B 546      29.074   3.352  12.482  1.00 44.47           O
ATOM   3261  N   LEU B 547      30.462   1.791  11.646  1.00 40.90           N
ATOM   3262  CA  LEU B 547      30.730   1.160  12.934  1.00 40.20           C
ATOM   3263  CB  LEU B 547      31.574  -0.099  12.734  1.00 40.44           C
ATOM   3264  CG  LEU B 547      30.842  -1.434  12.856  1.00 45.50           C
ATOM   3265  CD1 LEU B 547      29.621  -1.451  11.945  1.00 45.69           C
ATOM   3266  CD2 LEU B 547      31.785  -2.580  12.525  1.00 48.16           C
ATOM   3267  C   LEU B 547      31.409   2.047  13.965  1.00 41.93           C
ATOM   3268  O   LEU B 547      30.997   2.096  15.122  1.00 41.35           O
ATOM   3269  N   PHE B 548      32.485   2.704  13.555  1.00 36.82           N
ATOM   3270  CA  PHE B 548      33.289   3.487  14.478  1.00 35.73           C
ATOM   3271  CB  PHE B 548      34.768   3.352  14.136  1.00 36.90           C
ATOM   3272  CG  PHE B 548      35.177   1.943  13.840  1.00 37.61           C
ATOM   3273  CD1 PHE B 548      35.156   1.461  12.545  1.00 40.13           C
ATOM   3274  CE1 PHE B 548      35.492   0.149  12.274  1.00 40.78           C
ATOM   3275  CZ  PHE B 548      35.824  -0.702  13.306  1.00 40.03           C
ATOM   3276  CE2 PHE B 548      35.821  -0.238  14.608  1.00 42.02           C
ATOM   3277  CD2 PHE B 548      35.490   1.075  14.869  1.00 39.24           C
ATOM   3278  C   PHE B 548      32.904   4.931  14.730  1.00 39.69           C
ATOM   3279  O   PHE B 548      32.577   5.681  13.808  1.00 39.75           O
ATOM   3280  N   THR B 549      32.991   5.315  15.998  1.00 35.90           N
ATOM   3281  CA  THR B 549      32.692   6.671  16.422  1.00 35.95           C
ATOM   3282  CB  THR B 549      32.760   6.816  17.961  1.00 39.56           C
ATOM   3283  OG1 THR B 549      34.112   7.058  18.375  1.00 33.61           O
ATOM   3284  CG2 THR B 549      32.243   5.549  18.641  1.00 37.10           C
ATOM   3285  C   THR B 549      33.637   7.627  15.714  1.00 42.00           C
ATOM   3286  O   THR B 549      34.466   7.212  14.905  1.00 42.43           O
ATOM   3287  N   ASP B 550      33.497   8.910  16.006  1.00 39.54           N
ATOM   3288  CA  ASP B 550      34.317   9.926  15.361  1.00 39.76           C
ATOM   3289  CB  ASP B 550      33.524  11.227  15.254  1.00 41.81           C
ATOM   3290  CG  ASP B 550      32.021  10.980  15.089  1.00 54.22           C
ATOM   3291  OD1 ASP B 550      31.539  10.948  13.932  1.00 54.60           O
ATOM   3292  OD2 ASP B 550      31.332  10.761  16.115  1.00 60.34           O
ATOM   3293  C   ASP B 550      35.645  10.128  16.089  1.00 43.41           C
ATOM   3294  O   ASP B 550      36.681  10.368  15.462  1.00 43.05           O
ATOM   3295  N   LEU B 551      35.609   9.989  17.411  1.00 39.30           N
ATOM   3296  CA  LEU B 551      36.804  10.099  18.233  1.00 38.70           C
ATOM   3297  CB  LEU B 551      36.413  10.109  19.713  1.00 38.84           C
ATOM   3298  CG  LEU B 551      36.356  11.456  20.435  1.00 43.70           C
ATOM   3299  CD1 LEU B 551      36.639  11.266  21.918  1.00 44.01           C
ATOM   3300  CD2 LEU B 551      37.337  12.444  19.822  1.00 46.22           C
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ATOM   3301  C   LEU B 551      37.684   8.883  17.952  1.00 41.75           C
ATOM   3302  O   LEU B 551      38.908   8.987  17.876  1.00 41.53           O
ATOM   3303  N   GLU B 552      37.039   7.732  17.791  1.00 37.59           N
ATOM   3304  CA  GLU B 552      37.727   6.473  17.526  1.00 36.84           C
ATOM   3305  CB  GLU B 552      36.720   5.321  17.452  1.00 38.02           C
ATOM   3306  CG  GLU B 552      36.289   4.782  18.807  1.00 47.30           C
ATOM   3307  CD  GLU B 552      35.272   3.653  18.703  1.00 66.14           C
ATOM   3308  OE1 GLU B 552      34.854   3.129  19.759  1.00 60.08           O
ATOM   3309  OE2 GLU B 552      34.894   3.288  17.568  1.00 57.99           O
ATOM   3310  C   GLU B 552      38.550   6.508  16.243  1.00 40.82           C
ATOM   3311  O   GLU B 552      39.631   5.922  16.174  1.00 40.59           O
ATOM   3312  N   ARG B 553      38.018   7.154  15.214  1.00 37.37           N
ATOM   3313  CA  ARG B 553      38.713   7.231  13.936  1.00 37.28           C
ATOM   3314  CB  ARG B 553      37.787   7.787  12.852  1.00 37.78           C
ATOM   3315  CG  ARG B 553      36.909   6.741  12.189  1.00 46.69           C
ATOM   3316  CD  ARG B 553      36.210   7.306  10.965  1.00 55.94           C
ATOM   3317  NE  ARG B 553      35.168   8.268  11.317  1.00 64.78           N
ATOM   3318  CZ  ARG B 553      33.869   7.990  11.331  1.00 79.18           C
ATOM   3319  NH1 ARG B 553      32.991   8.928  11.659  1.00 66.10           N
ATOM   3320  NH2 ARG B 553      33.446   6.773  11.017  1.00 66.32           N
ATOM   3321  C   ARG B 553      39.976   8.080  14.041  1.00 41.27           C
ATOM   3322  O   ARG B 553      40.954   7.849  13.330  1.00 41.31           O
ATOM   3323  N   LYS B 554      39.952   9.063  14.937  1.00 37.23           N
ATOM   3324  CA  LYS B 554      41.096   9.944  15.130  1.00 36.20           C
ATOM   3325  CB  LYS B 554      40.676  11.219  15.869  1.00 38.78           C
ATOM   3326  CG  LYS B 554      39.889  12.202  15.019  1.00 52.36           C
ATOM   3327  CD  LYS B 554      39.755  13.546  15.713  1.00 62.69           C
ATOM   3328  CE  LYS B 554      38.297  13.903  15.952  1.00 74.65           C
ATOM   3329  NZ  LYS B 554      38.159  15.194  16.680  1.00 84.64           N
ATOM   3330  C   LYS B 554      42.219   9.248  15.891  1.00 37.62           C
ATOM   3331  O   LYS B 554      43.377   9.288  15.475  1.00 36.77           O
ATOM   3332  N   GLY B 555      41.877   8.622  17.013  1.00 32.42           N
ATOM   3333  CA  GLY B 555      42.853   7.938  17.839  1.00 31.30           C
ATOM   3334  C   GLY B 555      43.449   6.714  17.171  1.00 33.54           C
ATOM   3335  O   GLY B 555      44.598   6.351  17.430  1.00 33.32           O
ATOM   3336  N   LEU B 556      42.662   6.076  16.308  1.00 28.21           N
ATOM   3337  CA  LEU B 556      43.074   4.852  15.627  1.00 26.89           C
ATOM   3338  CB  LEU B 556      41.857   4.082  15.116  1.00 26.49           C
ATOM   3339  CG  LEU B 556      41.045   3.436  16.238  1.00 30.11           C
ATOM   3340  CD1 LEU B 556      40.022   2.467  15.686  1.00 29.89           C
ATOM   3341  CD2 LEU B 556      41.976   2.745  17.227  1.00 31.48           C
ATOM   3342  C   LEU B 556      44.112   5.039  14.528  1.00 30.29           C
ATOM   3343  O   LEU B 556      45.036   4.241  14.399  1.00 30.16           O
ATOM   3344  N   LEU B 557      43.962   6.088  13.729  1.00 26.69           N
ATOM   3345  CA  LEU B 557      44.934   6.351  12.678  1.00 25.99           C
ATOM   3346  CB  LEU B 557      44.370   7.320  11.641  1.00 26.18           C
ATOM   3347  CG  LEU B 557      43.333   6.735  10.683  1.00 31.28           C
ATOM   3348  CD1 LEU B 557      42.691   7.842   9.858  1.00 31.72           C
ATOM   3349  CD2 LEU B 557      43.954   5.681   9.783  1.00 33.77           C
ATOM   3350  C   LEU B 557      46.176   6.938  13.334  1.00 28.46           C
ATOM   3351  O   LEU B 557      47.293   6.707  12.881  1.00 27.90           O
ATOM   3352  N   ILE B 558      45.961   7.682  14.417  1.00 23.71           N
ATOM   3353  CA  ILE B 558      47.044   8.291  15.180  1.00 22.74           C
ATOM   3354  CB  ILE B 558      46.496   9.318  16.203  1.00 25.26           C
ATOM   3355  CG1 ILE B 558      45.969  10.562  15.485  1.00 24.97           C
ATOM   3356  CD1 ILE B 558      47.030  11.337  14.732  1.00 30.69           C
ATOM   3357  CG2 ILE B 558      47.561   9.694  17.218  1.00 25.69           C
ATOM   3358  C   ILE B 558      47.816   7.181  15.877  1.00 27.51           C
ATOM   3359  O   ILE B 558      49.023   7.037  15.690  1.00 27.58           O
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ATOM   3360  N   ALA B 559      47.100   6.370  16.649  1.00 24.38           N
ATOM   3361  CA  ALA B 559      47.707   5.258  17.373  1.00 24.07           C
ATOM   3362  CB  ALA B 559      46.641   4.455  18.116  1.00 24.84           C
ATOM   3363  C   ALA B 559      48.553   4.344  16.485  1.00 26.62           C
ATOM   3364  O   ALA B 559      49.610   3.873  16.902  1.00 25.61           O
ATOM   3365  N   CYS B 560      48.098   4.106  15.259  1.00 23.14           N
ATOM   3366  CA  CYS B 560      48.821   3.233  14.332  1.00 23.03           C
ATOM   3367  CB  CYS B 560      47.964   2.923  13.107  1.00 23.79           C
ATOM   3368  SG  CYS B 560      46.726   1.628  13.368  1.00 27.92           S
ATOM   3369  C   CYS B 560      50.155   3.820  13.891  1.00 26.15           C
ATOM   3370  O   CYS B 560      51.111   3.092  13.609  1.00 25.64           O
ATOM   3371  N   LEU B 561      50.208   5.143  13.824  1.00 21.55           N
ATOM   3372  CA  LEU B 561      51.408   5.841  13.393  1.00 21.10           C
ATOM   3373  CB  LEU B 561      51.031   7.215  12.842  1.00 21.02           C
ATOM   3374  CG  LEU B 561      52.122   8.087  12.227  1.00 24.91           C
ATOM   3375  CD1 LEU B 561      52.366   7.682  10.791  1.00 24.97           C
ATOM   3376  CD2 LEU B 561      51.689   9.545  12.307  1.00 26.45           C
ATOM   3377  C   LEU B 561      52.411   5.983  14.530  1.00 24.97           C
ATOM   3378  O   LEU B 561      53.580   6.253  14.297  1.00 24.26           O
ATOM   3379  N   CYS B 562      51.950   5.783  15.759  1.00 22.74           N
ATOM   3380  CA  CYS B 562      52.802   5.924  16.939  1.00 22.47           C
ATOM   3381  CB  CYS B 562      52.147   6.880  17.933  1.00 23.10           C
ATOM   3382  SG  CYS B 562      51.979   8.585  17.345  1.00 27.37           S
ATOM   3383  C   CYS B 562      53.052   4.600  17.641  1.00 25.41           C
ATOM   3384  O   CYS B 562      53.857   4.523  18.563  1.00 25.39           O
ATOM   3385  N   HIS B 563      52.337   3.569  17.206  1.00 20.94           N
ATOM   3386  CA  HIS B 563      52.394   2.247  17.814  1.00 20.04           C
ATOM   3387  CB  HIS B 563      51.434   1.279  17.117  1.00 20.61           C
ATOM   3388  CG  HIS B 563      52.062   0.499  16.006  1.00 23.52           C
ATOM   3389  ND1 HIS B 563      52.098   0.948  14.704  1.00 25.22           N
ATOM   3390  CE1 HIS B 563      52.720   0.058  13.951  1.00 24.39           C
ATOM   3391  NE2 HIS B 563      53.068  -0.962  14.714  1.00 24.72           N
ATOM   3392  CD2 HIS B 563      52.670  -0.709  16.004  1.00 25.14           C
ATOM   3393  C   HIS B 563      53.753   1.606  18.066  1.00 23.35           C
ATOM   3394  O   HIS B 563      53.898   0.843  19.019  1.00 23.45           O
ATOM   3395  N   ASP B 564      54.749   1.911  17.240  1.00 19.09           N
ATOM   3396  CA  ASP B 564      56.078   1.332  17.434  1.00 18.29           C
ATOM   3397  CB  ASP B 564      56.508   0.536  16.206  1.00 19.35           C
ATOM   3398  CG  ASP B 564      56.163  -0.932  16.318  1.00 24.36           C
ATOM   3399  OD1 ASP B 564      56.230  -1.478  17.438  1.00 21.30           O
ATOM   3400  OD2 ASP B 564      55.764  -1.524  15.293  1.00 33.55           O
ATOM   3401  C   ASP B 564      57.134   2.380  17.775  1.00 23.25           C
ATOM   3402  O   ASP B 564      58.335   2.096  17.756  1.00 22.51           O
ATOM   3403  N   LEU B 565      56.671   3.587  18.082  1.00 20.27           N
ATOM   3404  CA  LEU B 565      57.537   4.722  18.400  1.00 20.63           C
ATOM   3405  CB  LEU B 565      56.730   5.812  19.099  1.00 20.37           C
ATOM   3406  CG  LEU B 565      56.338   7.046  18.287  1.00 24.00           C
ATOM   3407  CD1 LEU B 565      55.527   7.980  19.162  1.00 23.98           C
ATOM   3408  CD2 LEU B 565      57.566   7.751  17.752  1.00 26.19           C
ATOM   3409  C   LEU B 565      58.788   4.410  19.225  1.00 26.26           C
ATOM   3410  O   LEU B 565      58.700   3.959  20.370  1.00 26.24           O
ATOM   3411  N   ASP B 566      59.949   4.711  18.652  1.00 23.29           N
ATOM   3412  CA  ASP B 566      61.225   4.517  19.333  1.00 23.35           C
ATOM   3413  CB  ASP B 566      61.217   5.214  20.698  1.00 25.09           C
ATOM   3414  CG  ASP B 566      62.611   5.342  21.305  1.00 36.37           C
ATOM   3415  OD1 ASP B 566      63.591   5.525  20.549  1.00 37.58           O
ATOM   3416  OD2 ASP B 566      62.722   5.280  22.547  1.00 41.93           O
ATOM   3417  C   ASP B 566      61.635   3.054  19.490  1.00 27.58           C
ATOM   3418  O   ASP B 566      62.413   2.715  20.381  1.00 26.63           O
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ATOM   3419  N   HIS B 567      61.114   2.185  18.633  1.00 25.48           N
ATOM   3420  CA  HIS B 567      61.490   0.778  18.695  1.00 25.81           C
ATOM   3421  CB  HIS B 567      60.716  -0.044  17.662  1.00 26.68           C
ATOM   3422  CG  HIS B 567      60.539  -1.480  18.044  1.00 30.16           C
ATOM   3423  ND1 HIS B 567      61.407  -2.468  17.635  1.00 31.82           N
ATOM   3424  CE1 HIS B 567      61.011  -3.629  18.126  1.00 31.04           C
ATOM   3425  NE2 HIS B 567      59.930  -3.426  18.855  1.00 31.34           N
ATOM   3426  CD2 HIS B 567      59.610  -2.090  18.818  1.00 31.62           C
ATOM   3427  C   HIS B 567      62.992   0.687  18.439  1.00 30.37           C
ATOM   3428  O   HIS B 567      63.530   1.395  17.587  1.00 30.90           O
ATOM   3429  N   ARG B 568      63.671  -0.171  19.188  1.00 26.39           N
ATOM   3430  CA AARG B 568      65.114  -0.336  19.058  0.50 25.85           C
ATOM   3431  CB AARG B 568      65.779  -0.381  20.433  0.50 24.80           C
ATOM   3432  CG AARG B 568      65.701   0.926  21.197  0.50 30.56           C
ATOM   3433  CD AARG B 568      66.802   1.890  20.775  0.50 33.10           C
ATOM   3434  NE AARG B 568      67.622   2.297  21.913  0.50 36.50           N
ATOM   3435  CZ AARG B 568      68.942   2.436  21.870  0.50 43.70           C
ATOM   3436  NH1AARG B 568      69.600   2.201  20.744  0.50 29.38           N
ATOM   3437  NH2AARG B 568      69.604   2.806  22.955  0.50 24.29           N
ATOM   3438  C   ARG B 568      65.481  -1.572  18.254  1.00 30.01           C
ATOM   3439  O   ARG B 568      66.630  -1.744  17.869  1.00 29.75           O
ATOM   3440  CA BARG B 568      65.108  -0.320  19.034  0.50 25.83           C
ATOM   3441  CB BARG B 568      65.806  -0.263  20.392  0.50 24.67           C
ATOM   3442  CG BARG B 568      65.746   1.123  21.043  0.50 30.36           C
ATOM   3443  CD BARG B 568      65.397   1.044  22.527  0.50 33.17           C
ATOM   3444  NE BARG B 568      64.680   2.228  22.997  0.50 36.06           N
ATOM   3445  CZ BARG B 568      65.148   3.071  23.912  0.50 46.45           C
ATOM   3446  NH1BARG B 568      66.334   2.865  24.458  0.50 34.48           N
ATOM   3447  NH2BARG B 568      64.432   4.121  24.283  0.50 28.16           N
ATOM   3448  N   GLY B 569      64.494  -2.424  17.990  1.00 27.61           N
ATOM   3449  CA  GLY B 569      64.708  -3.635  17.219  1.00 27.42           C
ATOM   3450  C   GLY B 569      64.697  -4.903  18.040  1.00 30.74           C
ATOM   3451  O   GLY B 569      64.886  -5.990  17.501  1.00 30.29           O
ATOM   3452  N   PHE B 570      64.473  -4.770  19.343  1.00 27.29           N
ATOM   3453  CA  PHE B 570      64.454  -5.933  20.218  1.00 27.20           C
ATOM   3454  CB  PHE B 570      65.557  -5.838  21.268  1.00 29.27           C
ATOM   3455  CG  PHE B 570      66.903  -5.521  20.689  1.00 31.02           C
ATOM   3456  CD1 PHE B 570      67.623  -6.489  20.004  1.00 34.25           C
ATOM   3457  CE1 PHE B 570      68.845  -6.190  19.442  1.00 34.76           C
ATOM   3458  CZ  PHE B 570      69.360  -4.915  19.553  1.00 33.52           C
ATOM   3459  CE2 PHE B 570      68.649  -3.939  20.225  1.00 35.39           C
ATOM   3460  CD2 PHE B 570      67.427  -4.243  20.784  1.00 32.69           C
ATOM   3461  C   PHE B 570      63.101  -6.198  20.867  1.00 30.37           C
ATOM   3462  O   PHE B 570      62.334  -5.277  21.145  1.00 30.25           O
ATOM   3463  N   SER B 571      62.820  -7.475  21.100  1.00 25.55           N
ATOM   3464  CA  SER B 571      61.573  -7.893  21.720  1.00 24.29           C
ATOM   3465  CB  SER B 571      61.288  -9.357  21.379  1.00 26.35           C
ATOM   3466  OG  SER B 571      62.353 -10.191  21.795  1.00 32.20           O
ATOM   3467  C   SER B 571      61.615  -7.704  23.236  1.00 26.91           C
ATOM   3468  O   SER B 571      62.689  -7.536  23.823  1.00 25.77           O
ATOM   3469  N   ASN B 572      60.442  -7.747  23.865  1.00 23.12           N
ATOM   3470  CA  ASN B 572      60.332  -7.586  25.314  1.00 23.01           C
ATOM   3471  CB  ASN B 572      58.862  -7.555  25.746  1.00 20.83           C
ATOM   3472  CG  ASN B 572      58.088  -6.444  25.085  1.00 38.05           C
ATOM   3473  OD1 ASN B 572      58.641  -5.384  24.792  1.00 30.74           O
ATOM   3474  ND2 ASN B 572      56.802  -6.676  24.842  1.00 27.50           N
ATOM   3475  C   ASN B 572      61.073  -8.682  26.078  1.00 28.02           C
ATOM   3476  O   ASN B 572      61.438  -8.496  27.241  1.00 28.22           O
ATOM   3477  N   SER B 573      61.279  -9.827  25.430  1.00 24.83           N
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ATOM	3478	CA	SER	B	573	61.982	-10.942	26.061	1.00	24.92	C
ATOM	3479	CB	SER	B	573	61.823	-12.227	25.249	1.00	28.89	C
ATOM	3480	OG	SER	B	573	60.671	-12.169	24.430	1.00	40.95	O
ATOM	3481	C	SER	B	573	63.456	-10.608	26.203	1.00	28.98	C
ATOM	3482	O	SER	B	573	64.025	-10.735	27.285	1.00	29.11	O
ATOM	3483	N	TYR	B	574	64.073	-10.168	25.110	1.00	25.36	N
ATOM	3484	CA	TYR	B	574	65.480	-9.796	25.156	1.00	25.23	C
ATOM	3485	CB	TYR	B	574	65.968	-9.293	23.798	1.00	26.11	C
ATOM	3486	CG	TYR	B	574	67.386	-8.758	23.847	1.00	27.81	C
ATOM	3487	CD1	TYR	B	574	68.476	-9.622	23.850	1.00	29.53	C
ATOM	3488	CE1	TYR	B	574	69.771	-9.142	23.927	1.00	30.46	C
ATOM	3489	CZ	TYR	B	574	69.989	-7.780	24.024	1.00	36.62	C
ATOM	3490	OH	TYR	B	574	71.274	-7.298	24.097	1.00	36.73	O
ATOM	3491	CE2	TYR	B	574	68.926	-6.902	24.050	1.00	29.57	C
ATOM	3492	CD2	TYR	B	574	67.633	-7.393	23.972	1.00	28.81	C
ATOM	3493	C	TYR	B	574	65.699	-8.718	26.211	1.00	30.81	C
ATOM	3494	O	TYR	B	574	66.612	-8.811	27.030	1.00	30.89	O
ATOM	3495	N	LEU	B	575	64.859	-7.690	26.181	1.00	28.35	N
ATOM	3496	CA	LEU	B	575	64.963	-6.580	27.117	1.00	28.40	C
ATOM	3497	CB	LEU	B	575	63.796	-5.624	26.910	1.00	28.39	C
ATOM	3498	CG	LEU	B	575	64.100	-4.284	26.243	1.00	32.89	C
ATOM	3499	CD1	LEU	B	575	64.658	-4.485	24.836	1.00	32.99	C
ATOM	3500	CD2	LEU	B	575	62.847	-3.430	26.213	1.00	35.25	C
ATOM	3501	C	LEU	B	575	64.959	-7.083	28.549	1.00	34.35	C
ATOM	3502	O	LEU	B	575	65.731	-6.618	29.383	1.00	34.56	O
ATOM	3503	N	GLN	B	576	64.078	-8.034	28.829	1.00	31.82	N
ATOM	3504	CA	GLN	B	576	63.967	-8.613	30.162	1.00	31.86	C
ATOM	3505	CB	GLN	B	576	62.691	-9.465	30.262	1.00	33.51	C
ATOM	3506	CG	GLN	B	576	62.876	-10.816	30.934	1.00	57.97	C
ATOM	3507	CD	GLN	B	576	61.793	-11.811	30.551	1.00	79.16	C
ATOM	3508	OE1	GLN	B	576	60.705	-11.814	31.126	1.00	75.35	O
ATOM	3509	NE2	GLN	B	576	62.092	-12.666	29.580	1.00	69.57	N
ATOM	3510	C	GLN	B	576	65.217	-9.422	30.526	1.00	35.44	C
ATOM	3511	O	GLN	B	576	65.735	-9.322	31.640	1.00	34.84	O
ATOM	3512	N	LYS	B	577	65.712	-10.208	29.575	1.00	31.93	N
ATOM	3513	CA	LYS	B	577	66.906	-11.014	29.806	1.00	31.34	C
ATOM	3514	CB	LYS	B	577	67.112	-12.019	28.670	1.00	33.78	C
ATOM	3515	CG	LYS	B	577	66.038	-13.089	28.597	1.00	49.60	C
ATOM	3516	CD	LYS	B	577	66.239	-14.000	27.394	1.00	60.69	C
ATOM	3517	CE	LYS	B	577	65.114	-15.024	27.279	1.00	73.91	C
ATOM	3518	NZ	LYS	B	577	65.320	-15.976	26.148	1.00	85.76	N
ATOM	3519	C	LYS	B	577	68.134	-10.128	29.953	1.00	33.84	C
ATOM	3520	O	LYS	B	577	69.048	-10.443	30.711	1.00	33.41	O
ATOM	3521	N	PHE	B	578	68.141	-9.014	29.230	1.00	29.23	N
ATOM	3522	CA	PHE	B	578	69.258	-8.076	29.260	1.00	28.45	C
ATOM	3523	CB	PHE	B	578	69.222	-7.191	28.014	1.00	29.57	C
ATOM	3524	CG	PHE	B	578	70.309	-6.153	27.969	1.00	30.13	C
ATOM	3525	CD1	PHE	B	578	71.494	-6.399	27.292	1.00	32.37	C
ATOM	3526	CE1	PHE	B	578	72.489	-5.438	27.232	1.00	32.91	C
ATOM	3527	CZ	PHE	B	578	72.307	-4.217	27.854	1.00	31.90	C
ATOM	3528	CE2	PHE	B	578	71.130	-3.959	28.530	1.00	33.88	C
ATOM	3529	CD2	PHE	B	578	70.139	-4.924	28.585	1.00	31.39	C
ATOM	3530	C	PHE	B	578	69.261	-7.202	30.508	1.00	33.73	C
ATOM	3531	O	PHE	B	578	70.299	-6.658	30.888	1.00	33.38	O
ATOM	3532	N	ASP	B	579	68.093	-7.045	31.124	1.00	31.62	N
ATOM	3533	CA	ASP	B	579	67.950	-6.202	32.314	1.00	31.85	C
ATOM	3534	CB	ASP	B	579	69.048	-6.507	33.342	1.00	34.13	C
ATOM	3535	CG	ASP	B	579	68.586	-6.300	34.777	1.00	46.31	C
ATOM	3536	OD1	ASP	B	579	67.370	-6.113	34.996	1.00	47.70	O

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ATOM   3537  OD2 ASP B 579      69.441  -6.330  35.689  1.00 52.51           O
ATOM   3538  C   ASP B 579      67.959  -4.717  31.943  1.00 35.32           C
ATOM   3539  O   ASP B 579      68.631  -3.908  32.579  1.00 35.65           O
ATOM   3540  N   HIS B 580      67.206  -4.364  30.908  1.00 30.76           N
ATOM   3541  CA  HIS B 580      67.109  -2.977  30.477  1.00 30.18           C
ATOM   3542  CB  HIS B 580      66.390  -2.910  29.128  1.00 30.69           C
ATOM   3543  CG  HIS B 580      66.612  -1.631  28.387  1.00 33.96           C
ATOM   3544  ND1 HIS B 580      65.827  -0.515  28.574  1.00 35.77           N
ATOM   3545  CE1 HIS B 580      66.253   0.458  27.789  1.00 35.14           C
ATOM   3546  NE2 HIS B 580      67.288   0.013  27.100  1.00 35.47           N
ATOM   3547  CD2 HIS B 580      67.536  -1.289  27.459  1.00 35.66           C
ATOM   3548  C   HIS B 580      66.312  -2.199  31.523  1.00 34.08           C
ATOM   3549  O   HIS B 580      65.394  -2.740  32.136  1.00 34.18           O
ATOM   3550  N   PRO B 581      66.660  -0.922  31.749  1.00 30.10           N
ATOM   3551  CA  PRO B 581      65.901  -0.128  32.727  1.00 29.62           C
ATOM   3552  CB  PRO B 581      66.496   1.273  32.571  1.00 31.24           C
ATOM   3553  CG  PRO B 581      67.890   1.035  32.113  1.00 35.68           C
ATOM   3554  CD  PRO B 581      67.866  -0.219  31.277  1.00 31.36           C
ATOM   3555  C   PRO B 581      64.410  -0.109  32.380  1.00 32.72           C
ATOM   3556  O   PRO B 581      63.558   0.016  33.259  1.00 32.96           O
ATOM   3557  N   LEU B 582      64.110  -0.241  31.090  1.00 28.24           N
ATOM   3558  CA  LEU B 582      62.732  -0.266  30.594  1.00 27.55           C
ATOM   3559  CB  LEU B 582      62.723  -0.370  29.067  1.00 26.79           C
ATOM   3560  CG  LEU B 582      62.837   0.929  28.265  1.00 29.99           C
ATOM   3561  CD1 LEU B 582      62.275   0.746  26.860  1.00 29.68           C
ATOM   3562  CD2 LEU B 582      62.130   2.062  28.980  1.00 29.99           C
ATOM   3563  C   LEU B 582      61.933  -1.431  31.186  1.00 34.16           C
ATOM   3564  O   LEU B 582      60.777  -1.265  31.568  1.00 34.14           O
ATOM   3565  N   ALA B 583      62.551  -2.608  31.247  1.00 32.69           N
ATOM   3566  CA  ALA B 583      61.904  -3.799  31.795  1.00 33.47           C
ATOM   3567  CB  ALA B 583      62.717  -5.043  31.486  1.00 34.17           C
ATOM   3568  C   ALA B 583      61.680  -3.668  33.295  1.00 39.29           C
ATOM   3569  O   ALA B 583      60.869  -4.389  33.876  1.00 39.19           O
ATOM   3570  N   ALA B 584      62.410  -2.748  33.917  1.00 37.10           N
ATOM   3571  CA  ALA B 584      62.265  -2.487  35.345  1.00 37.41           C
ATOM   3572  CB  ALA B 584      63.551  -1.916  35.905  1.00 38.24           C
ATOM   3573  C   ALA B 584      61.110  -1.509  35.557  1.00 41.89           C
ATOM   3574  O   ALA B 584      60.461  -1.506  36.604  1.00 41.52           O
ATOM   3575  N   LEU B 585      60.857  -0.691  34.540  1.00 38.78           N
ATOM   3576  CA  LEU B 585      59.775   0.282  34.567  1.00 38.50           C
ATOM   3577  CB  LEU B 585      60.020   1.360  33.509  1.00 38.56           C
ATOM   3578  CG  LEU B 585      59.279   2.683  33.693  1.00 43.46           C
ATOM   3579  CD1 LEU B 585      59.118   2.983  35.174  1.00 43.62           C
ATOM   3580  CD2 LEU B 585      60.017   3.813  32.989  1.00 45.59           C
ATOM   3581  C   LEU B 585      58.454  -0.431  34.292  1.00 42.13           C
ATOM   3582  O   LEU B 585      57.519  -0.358  35.091  1.00 42.07           O
ATOM   3583  N   TYR B 586      58.389  -1.132  33.163  1.00 37.81           N
ATOM   3584  CA  TYR B 586      57.193  -1.880  32.789  1.00 37.21           C
ATOM   3585  CB  TYR B 586      56.695  -1.456  31.404  1.00 38.08           C
ATOM   3586  CG  TYR B 586      56.819   0.026  31.123  1.00 39.22           C
ATOM   3587  CD1 TYR B 586      57.722   0.500  30.183  1.00 40.94           C
ATOM   3588  CE1 TYR B 586      57.835   1.853  29.919  1.00 41.92           C
ATOM   3589  CZ  TYR B 586      57.032   2.750  30.589  1.00 47.89           C
ATOM   3590  OH  TYR B 586      57.142   4.096  30.325  1.00 49.85           O
ATOM   3591  CE2 TYR B 586      56.118   2.305  31.520  1.00 40.63           C
ATOM   3592  CD2 TYR B 586      56.015   0.951  31.782  1.00 39.91           C
ATOM   3593  C   TYR B 586      57.486  -3.377  32.800  1.00 40.95           C
ATOM   3594  O   TYR B 586      58.207  -3.883  31.941  1.00 40.42           O
ATOM   3595  N   SER B 587      56.926  -4.079  33.779  1.00 37.71           N
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ATOM   3596  CA  SER B 587      57.135  -5.520  33.909  1.00 37.44           C
ATOM   3597  CB  SER B 587      56.615  -6.018  35.258  1.00 41.55           C
ATOM   3598  OG  SER B 587      55.756  -5.060  35.855  1.00 51.72           O
ATOM   3599  C   SER B 587      56.491  -6.304  32.767  1.00 39.72           C
ATOM   3600  O   SER B 587      56.991  -7.358  32.367  1.00 39.16           O
ATOM   3601  N   THR B 588      55.383  -5.783  32.245  1.00 34.74           N
ATOM   3602  CA  THR B 588      54.678  -6.425  31.137  1.00 33.74           C
ATOM   3603  CB  THR B 588      53.301  -6.953  31.572  1.00 43.66           C
ATOM   3604  OG1 THR B 588      52.375  -5.862  31.654  1.00 45.20           O
ATOM   3605  CG2 THR B 588      53.398  -7.644  32.927  1.00 42.06           C
ATOM   3606  C   THR B 588      54.539  -5.451  29.976  1.00 35.16           C
ATOM   3607  O   THR B 588      54.501  -4.240  30.184  1.00 34.69           O
ATOM   3608  N   SER B 589      54.458  -5.989  28.760  1.00 30.21           N
ATOM   3609  CA  SER B 589      54.336  -5.178  27.550  1.00 29.17           C
ATOM   3610  CB  SER B 589      52.910  -4.637  27.405  1.00 32.93           C
ATOM   3611  OG  SER B 589      52.028  -5.623  26.893  1.00 41.70           O
ATOM   3612  C   SER B 589      55.332  -4.022  27.583  1.00 30.90           C
ATOM   3613  O   SER B 589      55.004  -2.896  27.216  1.00 30.21           O
ATOM   3614  N   THR B 590      56.533  -4.315  28.070  1.00 26.35           N
ATOM   3615  CA  THR B 590      57.600  -3.332  28.220  1.00 26.03           C
ATOM   3616  CB  THR B 590      58.951  -4.005  28.531  1.00 31.05           C
ATOM   3617  OG1 THR B 590      58.815  -4.845  29.685  1.00 28.72           O
ATOM   3618  CG2 THR B 590      60.032  -2.959  28.777  1.00 26.89           C
ATOM   3619  C   THR B 590      57.707  -2.379  27.042  1.00 30.80           C
ATOM   3620  O   THR B 590      57.483  -1.179  27.190  1.00 30.10           O
ATOM   3621  N   MET B 591      58.027  -2.914  25.870  1.00 28.26           N
ATOM   3622  CA  MET B 591      58.149  -2.084  24.678  1.00 28.82           C
ATOM   3623  CB  MET B 591      58.496  -2.922  23.446  1.00 31.81           C
ATOM   3624  CG  MET B 591      59.985  -2.962  23.085  1.00 36.23           C
ATOM   3625  SD  MET B 591      60.926  -1.509  23.643  1.00 41.71           S
ATOM   3626  CE  MET B 591      61.085  -0.550  22.088  1.00 38.45           C
ATOM   3627  C   MET B 591      56.930  -1.210  24.404  1.00 32.35           C
ATOM   3628  O   MET B 591      57.059   0.005  24.307  1.00 32.48           O
ATOM   3629  N   GLU B 592      55.754  -1.817  24.258  1.00 27.65           N
ATOM   3630  CA  GLU B 592      54.555  -1.046  23.933  1.00 26.74           C
ATOM   3631  CB  GLU B 592      53.447  -1.873  23.277  1.00 27.99           C
ATOM   3632  CG  GLU B 592      53.274  -3.279  23.828  1.00 36.48           C
ATOM   3633  CD  GLU B 592      54.463  -4.188  23.535  1.00 42.72           C
ATOM   3634  OE1 GLU B 592      55.089  -4.653  24.506  1.00 28.73           O
ATOM   3635  OE2 GLU B 592      54.771  -4.441  22.350  1.00 34.57           O
ATOM   3636  C   GLU B 592      54.042  -0.058  24.970  1.00 29.03           C
ATOM   3637  O   GLU B 592      53.359   0.899  24.630  1.00 28.89           O
ATOM   3638  N   GLN B 593      54.410  -0.267  26.225  1.00 23.71           N
ATOM   3639  CA  GLN B 593      54.042   0.666  27.281  1.00 22.44           C
ATOM   3640  CB  GLN B 593      54.270   0.044  28.664  1.00 23.56           C
ATOM   3641  CG  GLN B 593      53.018  -0.590  29.268  1.00 30.01           C
ATOM   3642  CD  GLN B 593      53.074  -0.676  30.782  1.00 53.16           C
ATOM   3643  OE1 GLN B 593      52.885   0.320  31.481  1.00 52.25           O
ATOM   3644  NE2 GLN B 593      53.295  -1.878  31.298  1.00 42.92           N
ATOM   3645  C   GLN B 593      54.948   1.879  27.090  1.00 25.08           C
ATOM   3646  O   GLN B 593      54.565   3.017  27.373  1.00 24.24           O
ATOM   3647  N   HIS B 594      56.136   1.609  26.550  1.00 20.37           N
ATOM   3648  CA  HIS B 594      57.119   2.640  26.249  1.00 20.19           C
ATOM   3649  CB  HIS B 594      58.497   2.022  26.004  1.00 21.00           C
ATOM   3650  CG  HIS B 594      59.502   2.987  25.463  1.00 24.25           C
ATOM   3651  ND1 HIS B 594      59.923   4.098  26.165  1.00 25.89           N
ATOM   3652  CE1 HIS B 594      60.821   4.751  25.450  1.00 25.06           C
ATOM   3653  NE2 HIS B 594      60.995   4.106  24.309  1.00 25.45           N
ATOM   3654  CD2 HIS B 594      60.190   2.993  24.297  1.00 25.61           C
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ATOM   3655  C   HIS B 594      56.691   3.446  25.030  1.00 23.23           C
ATOM   3656  O   HIS B 594      56.937   4.649  24.956  1.00 23.69           O
ATOM   3657  N   HIS B 595      56.071   2.771  24.067  1.00 17.96           N
ATOM   3658  CA  HIS B 595      55.607   3.420  22.846  1.00 17.45           C
ATOM   3659  CB  HIS B 595      55.010   2.392  21.885  1.00 17.88           C
ATOM   3660  CG  HIS B 595      56.013   1.429  21.328  1.00 21.09           C
ATOM   3661  ND1 HIS B 595      57.345   1.739  21.185  1.00 22.83           N
ATOM   3662  CE1 HIS B 595      57.984   0.698  20.675  1.00 22.13           C
ATOM   3663  NE2 HIS B 595      57.107  -0.262  20.457  1.00 22.34           N
ATOM   3664  CD2 HIS B 595      55.869   0.160  20.878  1.00 22.79           C
ATOM   3665  C   HIS B 595      54.559   4.486  23.174  1.00 22.36           C
ATOM   3666  O   HIS B 595      54.626   5.609  22.677  1.00 22.25           O
ATOM   3667  N   PHE B 596      53.596   4.126  24.019  1.00 19.78           N
ATOM   3668  CA  PHE B 596      52.550   5.057  24.417  1.00 20.71           C
ATOM   3669  CB  PHE B 596      51.508   4.368  25.298  1.00 22.53           C
ATOM   3670  CG  PHE B 596      50.398   5.276  25.733  1.00 23.99           C
ATOM   3671  CD1 PHE B 596      49.589   5.893  24.797  1.00 26.57           C
ATOM   3672  CE1 PHE B 596      48.576   6.745  25.189  1.00 27.12           C
ATOM   3673  CZ  PHE B 596      48.381   7.008  26.525  1.00 26.12           C
ATOM   3674  CE2 PHE B 596      49.189   6.410  27.471  1.00 28.29           C
ATOM   3675  CD2 PHE B 596      50.192   5.550  27.073  1.00 25.98           C
ATOM   3676  C   PHE B 596      53.155   6.243  25.153  1.00 26.83           C
ATOM   3677  O   PHE B 596      52.911   7.396  24.803  1.00 27.07           O
ATOM   3678  N   SER B 597      53.961   5.950  26.167  1.00 24.71           N
ATOM   3679  CA  SER B 597      54.628   6.988  26.939  1.00 24.53           C
ATOM   3680  CB  SER B 597      55.612   6.364  27.932  1.00 29.08           C
ATOM   3681  OG  SER B 597      56.336   7.365  28.624  1.00 40.30           O
ATOM   3682  C   SER B 597      55.355   7.959  26.013  1.00 27.14           C
ATOM   3683  O   SER B 597      55.454   9.151  26.302  1.00 26.76           O
ATOM   3684  N   GLN B 598      55.852   7.440  24.895  1.00 22.75           N
ATOM   3685  CA  GLN B 598      56.561   8.253  23.910  1.00 21.72           C
ATOM   3686  CB  GLN B 598      57.344   7.360  22.943  1.00 22.90           C
ATOM   3687  CG  GLN B 598      58.658   6.853  23.501  1.00 35.16           C
ATOM   3688  CD  GLN B 598      59.591   7.981  23.891  1.00 52.64           C
ATOM   3689  OE1 GLN B 598      60.074   8.722  23.036  1.00 47.49           O
ATOM   3690  NE2 GLN B 598      59.831   8.131  25.190  1.00 43.00           N
ATOM   3691  C   GLN B 598      55.586   9.114  23.127  1.00 25.30           C
ATOM   3692  O   GLN B 598      55.904  10.234  22.746  1.00 24.29           O
ATOM   3693  N   THR B 599      54.403   8.568  22.870  1.00 23.21           N
ATOM   3694  CA  THR B 599      53.369   9.272  22.123  1.00 23.28           C
ATOM   3695  CB  THR B 599      52.219   8.320  21.763  1.00 25.93           C
ATOM   3696  OG1 THR B 599      52.690   7.314  20.858  1.00 22.48           O
ATOM   3697  CG2 THR B 599      51.071   9.088  21.126  1.00 25.38           C
ATOM   3698  C   THR B 599      52.851  10.443  22.944  1.00 29.36           C
ATOM   3699  O   THR B 599      52.620  11.534  22.423  1.00 29.06           O
ATOM   3700  N   VAL B 600      52.671  10.203  24.235  1.00 27.33           N
ATOM   3701  CA  VAL B 600      52.161  11.219  25.139  1.00 27.80           C
ATOM   3702  CB  VAL B 600      51.739  10.603  26.466  1.00 31.59           C
ATOM   3703  CG1 VAL B 600      51.583  11.683  27.522  1.00 31.47           C
ATOM   3704  CG2 VAL B 600      50.455   9.817  26.283  1.00 31.36           C
ATOM   3705  C   VAL B 600      53.117  12.387  25.338  1.00 33.66           C
ATOM   3706  O   VAL B 600      52.690  13.499  25.638  1.00 34.18           O
ATOM   3707  N   SER B 601      54.410  12.137  25.168  1.00 30.90           N
ATOM   3708  CA ASER B 601      55.422  13.177  25.330  0.50 30.80           C
ATOM   3709  CB ASER B 601      56.808  12.555  25.511  0.50 34.32           C
ATOM   3710  OG ASER B 601      56.867  11.764  26.684  0.50 42.88           O
ATOM   3711  C   SER B 601      55.435  14.122  24.134  1.00 34.51           C
ATOM   3712  O   SER B 601      55.590  15.330  24.291  1.00 34.41           O
ATOM   3713  CA BSER B 601      55.413  13.182  25.333  0.50 30.72           C
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ATOM	3714	CB	BSER	B	601	56.802	12.578	25.557	0.50	33.98	C
ATOM	3715	OG	BSER	B	601	57.264	11.898	24.402	0.50	41.44	O
ATOM	3716	N	ILE	B	602	55.269	13.557	22.942	1.00	30.76	N
ATOM	3717	CA	ILE	B	602	55.267	14.330	21.705	1.00	30.57	C
ATOM	3718	CB	ILE	B	602	55.340	13.403	20.474	1.00	33.38	C
ATOM	3719	CG1	ILE	B	602	56.784	12.977	20.214	1.00	33.56	C
ATOM	3720	CD1	ILE	B	602	56.912	11.621	19.563	1.00	40.32	C
ATOM	3721	CG2	ILE	B	602	54.751	14.079	19.258	1.00	33.61	C
ATOM	3722	C	ILE	B	602	54.063	15.262	21.620	1.00	35.87	C
ATOM	3723	O	ILE	B	602	54.165	16.380	21.119	1.00	36.07	O
ATOM	3724	N	LEU	B	603	52.920	14.790	22.101	1.00	32.92	N
ATOM	3725	CA	LEU	B	603	51.692	15.575	22.076	1.00	32.50	C
ATOM	3726	CB	LEU	B	603	50.483	14.695	22.397	1.00	32.35	C
ATOM	3727	CG	LEU	B	603	49.957	13.861	21.233	1.00	36.86	C
ATOM	3728	CD1	LEU	B	603	49.747	12.419	21.672	1.00	37.26	C
ATOM	3729	CD2	LEU	B	603	48.677	14.458	20.682	1.00	38.92	C
ATOM	3730	C	LEU	B	603	51.739	16.751	23.043	1.00	36.24	C
ATOM	3731	O	LEU	B	603	50.916	17.661	22.963	1.00	35.82	O
ATOM	3732	N	GLN	B	604	52.699	16.725	23.962	1.00	32.99	N
ATOM	3733	CA	GLN	B	604	52.828	17.786	24.951	1.00	32.64	C
ATOM	3734	CB	GLN	B	604	53.058	17.206	26.344	1.00	33.75	C
ATOM	3735	CG	GLN	B	604	51.820	16.520	26.905	1.00	46.94	C
ATOM	3736	CD	GLN	B	604	52.073	15.832	28.230	1.00	64.53	C
ATOM	3737	OE1	GLN	B	604	51.178	15.201	28.795	1.00	62.05	O
ATOM	3738	NE2	GLN	B	604	53.294	15.952	28.737	1.00	53.01	N
ATOM	3739	C	GLN	B	604	53.879	18.820	24.571	1.00	37.49	C
ATOM	3740	O	GLN	B	604	53.961	19.895	25.173	1.00	37.32	O
ATOM	3741	N	LEU	B	605	54.652	18.507	23.537	1.00	34.85	N
ATOM	3742	CA	LEU	B	605	55.633	19.443	23.010	1.00	34.91	C
ATOM	3743	CB	LEU	B	605	56.428	18.794	21.875	1.00	34.93	C
ATOM	3744	CG	LEU	B	605	57.711	18.043	22.236	1.00	39.56	C
ATOM	3745	CD1	LEU	B	605	57.503	17.176	23.467	1.00	39.97	C
ATOM	3746	CD2	LEU	B	605	58.182	17.202	21.061	1.00	41.56	C
ATOM	3747	C	LEU	B	605	54.807	20.595	22.451	1.00	40.45	C
ATOM	3748	O	LEU	B	605	53.785	20.368	21.799	1.00	40.21	O
ATOM	3749	N	GLU	B	606	55.224	21.826	22.728	1.00	37.90	N
ATOM	3750	CA	GLU	B	606	54.485	22.994	22.259	1.00	37.82	C
ATOM	3751	CB	GLU	B	606	55.233	24.286	22.591	1.00	39.49	C
ATOM	3752	CG	GLU	B	606	54.517	25.166	23.610	1.00	53.80	C
ATOM	3753	CD	GLU	B	606	55.203	25.162	24.964	1.00	80.79	C
ATOM	3754	OE1	GLU	B	606	56.451	25.217	24.995	1.00	78.85	O
ATOM	3755	OE2	GLU	B	606	54.499	25.096	25.996	1.00	75.13	O
ATOM	3756	C	GLU	B	606	54.140	22.938	20.771	1.00	40.37	C
ATOM	3757	O	GLU	B	606	54.975	22.580	19.943	1.00	39.53	O
ATOM	3758	N	GLY	B	607	52.901	23.294	20.443	1.00	36.61	N
ATOM	3759	CA	GLY	B	607	52.416	23.297	19.074	1.00	35.97	C
ATOM	3760	C	GLY	B	607	52.176	21.918	18.484	1.00	38.80	C
ATOM	3761	O	GLY	B	607	52.048	21.774	17.270	1.00	38.47	O
ATOM	3762	N	HIS	B	608	52.089	20.901	19.335	1.00	34.36	N
ATOM	3763	CA	HIS	B	608	51.886	19.538	18.851	1.00	33.36	C
ATOM	3764	CB	HIS	B	608	52.999	18.615	19.349	1.00	33.69	C
ATOM	3765	CG	HIS	B	608	54.295	18.779	18.618	1.00	36.83	C
ATOM	3766	ND1	HIS	B	608	55.010	19.957	18.629	1.00	38.41	N
ATOM	3767	CE1	HIS	B	608	56.107	19.810	17.908	1.00	37.63	C
ATOM	3768	NE2	HIS	B	608	56.131	18.577	17.434	1.00	37.89	N
ATOM	3769	CD2	HIS	B	608	55.009	17.912	17.865	1.00	38.05	C
ATOM	3770	C	HIS	B	608	50.531	18.929	19.197	1.00	36.39	C
ATOM	3771	O	HIS	B	608	50.143	17.913	18.619	1.00	35.43	O
ATOM	3772	N	ASN	B	609	49.819	19.523	20.150	1.00	32.63	N

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ATOM   3773  CA  ASN B 609      48.531  18.970  20.555  1.00 32.35           C
ATOM   3774  CB  ASN B 609      48.029  19.564  21.870  1.00 33.36           C
ATOM   3775  CG  ASN B 609      47.214  18.568  22.677  1.00 60.64           C
ATOM   3776  OD1 ASN B 609      46.033  18.351  22.404  1.00 57.60           O
ATOM   3777  ND2 ASN B 609      47.861  17.911  23.635  1.00 52.85           N
ATOM   3778  C   ASN B 609      47.462  19.027  19.476  1.00 35.52           C
ATOM   3779  O   ASN B 609      46.667  19.966  19.414  1.00 35.49           O
ATOM   3780  N   ILE B 610      47.441  17.993  18.642  1.00 30.94           N
ATOM   3781  CA  ILE B 610      46.481  17.877  17.554  1.00 30.18           C
ATOM   3782  CB  ILE B 610      46.928  16.795  16.557  1.00 32.71           C
ATOM   3783  CG1 ILE B 610      46.932  15.422  17.236  1.00 32.70           C
ATOM   3784  CD1 ILE B 610      47.468  14.310  16.357  1.00 36.23           C
ATOM   3785  CG2 ILE B 610      48.314  17.122  15.996  1.00 32.18           C
ATOM   3786  C   ILE B 610      45.055  17.617  18.053  1.00 35.34           C
ATOM   3787  O   ILE B 610      44.123  17.494  17.252  1.00 35.37           O
ATOM   3788  N   PHE B 611      44.892  17.524  19.372  1.00 32.07           N
ATOM   3789  CA  PHE B 611      43.585  17.277  19.989  1.00 31.85           C
ATOM   3790  CB  PHE B 611      43.628  16.018  20.869  1.00 33.01           C
ATOM   3791  CG  PHE B 611      44.017  14.761  20.139  1.00 33.42           C
ATOM   3792  CD1 PHE B 611      45.108  14.016  20.556  1.00 35.26           C
ATOM   3793  CE1 PHE B 611      45.455  12.840  19.909  1.00 35.57           C
ATOM   3794  CZ  PHE B 611      44.703  12.394  18.844  1.00 34.54           C
ATOM   3795  CE2 PHE B 611      43.602  13.117  18.429  1.00 36.67           C
ATOM   3796  CD2 PHE B 611      43.256  14.288  19.083  1.00 34.55           C
ATOM   3797  C   PHE B 611      43.173  18.453  20.874  1.00 37.86           C
ATOM   3798  O   PHE B 611      42.488  18.264  21.881  1.00 37.77           O
ATOM   3799  N   SER B 612      43.607  19.658  20.515  1.00 35.54           N
ATOM   3800  CA  SER B 612      43.321  20.849  21.314  1.00 35.97           C
ATOM   3801  CB  SER B 612      44.302  21.978  20.988  1.00 40.13           C
ATOM   3802  OG  SER B 612      44.055  22.518  19.700  1.00 50.56           O
ATOM   3803  C   SER B 612      41.877  21.357  21.286  1.00 40.01           C
ATOM   3804  O   SER B 612      41.497  22.188  22.110  1.00 39.00           O
ATOM   3805  N   THR B 613      41.075  20.860  20.348  1.00 37.47           N
ATOM   3806  CA  THR B 613      39.675  21.278  20.253  1.00 37.63           C
ATOM   3807  CB  THR B 613      39.175  21.288  18.792  1.00 48.50           C
ATOM   3808  OG1 THR B 613      38.536  20.040  18.488  1.00 50.56           O
ATOM   3809  CG2 THR B 613      40.333  21.510  17.835  1.00 47.83           C
ATOM   3810  C   THR B 613      38.785  20.410  21.137  1.00 41.33           C
ATOM   3811  O   THR B 613      37.655  20.783  21.458  1.00 41.09           O
ATOM   3812  N   LEU B 614      39.307  19.252  21.526  1.00 37.43           N
ATOM   3813  CA  LEU B 614      38.575  18.316  22.366  1.00 37.00           C
ATOM   3814  CB  LEU B 614      39.300  16.967  22.415  1.00 36.75           C
ATOM   3815  CG  LEU B 614      38.960  15.925  21.349  1.00 40.83           C
ATOM   3816  CD1 LEU B 614      38.819  16.576  19.978  1.00 40.81           C
ATOM   3817  CD2 LEU B 614      40.023  14.836  21.327  1.00 42.25           C
ATOM   3818  C   LEU B 614      38.397  18.834  23.788  1.00 40.93           C
ATOM   3819  O   LEU B 614      39.271  19.509  24.332  1.00 40.82           O
ATOM   3820  N   SER B 615      37.270  18.482  24.395  1.00 37.17           N
ATOM   3821  CA  SER B 615      37.004  18.843  25.778  1.00 36.66           C
ATOM   3822  CB  SER B 615      35.543  18.544  26.127  1.00 40.06           C
ATOM   3823  OG  SER B 615      35.174  17.233  25.723  1.00 49.71           O
ATOM   3824  C   SER B 615      37.930  17.983  26.636  1.00 40.35           C
ATOM   3825  O   SER B 615      38.566  17.055  26.134  1.00 39.92           O
ATOM   3826  N   SER B 616      38.023  18.295  27.922  1.00 36.93           N
ATOM   3827  CA  SER B 616      38.862  17.511  28.818  1.00 36.70           C
ATOM   3828  CB  SER B 616      38.816  18.089  30.235  1.00 40.77           C
ATOM   3829  OG  SER B 616      40.049  18.693  30.578  1.00 50.69           O
ATOM   3830  C   SER B 616      38.344  16.075  28.823  1.00 39.96           C
ATOM   3831  O   SER B 616      39.115  15.121  28.946  1.00 39.71           O
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ATOM   3832  N   SER B 617      37.030  15.935  28.664  1.00 35.60           N
ATOM   3833  CA  SER B 617      36.379  14.630  28.635  1.00 34.73           C
ATOM   3834  CB  SER B 617      34.858  14.787  28.594  1.00 38.41           C
ATOM   3835  OG  SER B 617      34.351  15.177  29.858  1.00 50.21           O
ATOM   3836  C   SER B 617      36.833  13.813  27.433  1.00 36.82           C
ATOM   3837  O   SER B 617      37.344  12.706  27.587  1.00 36.46           O
ATOM   3838  N   GLU B 618      36.627  14.361  26.239  1.00 32.18           N
ATOM   3839  CA  GLU B 618      37.001  13.681  25.005  1.00 31.94           C
ATOM   3840  CB  GLU B 618      36.565  14.500  23.793  1.00 33.38           C
ATOM   3841  CG  GLU B 618      35.094  14.845  23.776  1.00 46.29           C
ATOM   3842  CD  GLU B 618      34.675  15.502  22.477  1.00 72.64           C
ATOM   3843  OE1 GLU B 618      34.614  16.749  22.435  1.00 70.29           O
ATOM   3844  OE2 GLU B 618      34.430  14.773  21.492  1.00 69.19           O
ATOM   3845  C   GLU B 618      38.496  13.412  24.921  1.00 35.51           C
ATOM   3846  O   GLU B 618      38.916  12.331  24.504  1.00 36.33           O
ATOM   3847  N   TYR B 619      39.297  14.405  25.291  1.00 30.58           N
ATOM   3848  CA  TYR B 619      40.747  14.269  25.239  1.00 30.07           C
ATOM   3849  CB  TYR B 619      41.435  15.498  25.839  1.00 31.40           C
ATOM   3850  CG  TYR B 619      42.932  15.493  25.632  1.00 33.67           C
ATOM   3851  CD1 TYR B 619      43.488  15.951  24.446  1.00 35.79           C
ATOM   3852  CE1 TYR B 619      44.854  15.918  24.236  1.00 36.78           C
ATOM   3853  CZ  TYR B 619      45.684  15.413  25.215  1.00 44.09           C
ATOM   3854  OH  TYR B 619      47.046  15.379  25.006  1.00 46.80           O
ATOM   3855  CE2 TYR B 619      45.156  14.941  26.399  1.00 35.52           C
ATOM   3856  CD2 TYR B 619      43.786  14.972  26.597  1.00 34.59           C
ATOM   3857  C   TYR B 619      41.213  13.013  25.960  1.00 32.21           C
ATOM   3858  O   TYR B 619      42.066  12.279  25.468  1.00 31.64           O
ATOM   3859  N   GLU B 620      40.640  12.778  27.133  1.00 28.15           N
ATOM   3860  CA  GLU B 620      40.983  11.629  27.953  1.00 27.71           C
ATOM   3861  CB  GLU B 620      40.531  11.876  29.391  1.00 29.30           C
ATOM   3862  CG  GLU B 620      40.415  10.621  30.233  1.00 42.80           C
ATOM   3863  CD  GLU B 620      40.401  10.932  31.714  1.00 69.06           C
ATOM   3864  OE1 GLU B 620      40.630  12.108  32.068  1.00 62.27           O
ATOM   3865  OE2 GLU B 620      40.159  10.007  32.520  1.00 65.82           O
ATOM   3866  C   GLU B 620      40.365  10.341  27.418  1.00 30.39           C
ATOM   3867  O   GLU B 620      40.765   9.246  27.806  1.00 29.45           O
ATOM   3868  N   GLN B 621      39.378  10.484  26.536  1.00 26.63           N
ATOM   3869  CA  GLN B 621      38.697   9.347  25.929  1.00 26.43           C
ATOM   3870  CB  GLN B 621      37.393   9.817  25.290  1.00 27.52           C
ATOM   3871  CG  GLN B 621      36.146   9.088  25.722  1.00 38.67           C
ATOM   3872  CD  GLN B 621      34.908   9.696  25.088  1.00 53.36           C
ATOM   3873  OE1 GLN B 621      34.509   9.308  23.991  1.00 49.04           O
ATOM   3874  NE2 GLN B 621      34.352  10.716  25.733  1.00 38.92           N
ATOM   3875  C   GLN B 621      39.593   8.817  24.825  1.00 31.08           C
ATOM   3876  O   GLN B 621      39.974   7.646  24.820  1.00 30.76           O
ATOM   3877  N   VAL B 622      39.917   9.711  23.894  1.00 28.23           N
ATOM   3878  CA  VAL B 622      40.758   9.400  22.746  1.00 28.55           C
ATOM   3879  CB  VAL B 622      40.908  10.630  21.837  1.00 32.49           C
ATOM   3880  CG1 VAL B 622      41.552  11.771  22.610  1.00 32.49           C
ATOM   3881  CG2 VAL B 622      41.728  10.290  20.606  1.00 32.43           C
ATOM   3882  C   VAL B 622      42.125   8.853  23.145  1.00 33.45           C
ATOM   3883  O   VAL B 622      42.703   8.036  22.429  1.00 33.62           O
ATOM   3884  N   LEU B 623      42.647   9.325  24.275  1.00 30.60           N
ATOM   3885  CA  LEU B 623      43.949   8.881  24.755  1.00 30.95           C
ATOM   3886  CB  LEU B 623      44.514   9.855  25.784  1.00 31.44           C
ATOM   3887  CG  LEU B 623      45.485  10.887  25.204  1.00 37.23           C
ATOM   3888  CD1 LEU B 623      44.779  11.738  24.152  1.00 37.87           C
ATOM   3889  CD2 LEU B 623      46.050  11.762  26.313  1.00 40.60           C
ATOM   3890  C   LEU B 623      43.870   7.478  25.330  1.00 35.09           C
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ATOM   3891  O   LEU B 623      44.865   6.754  25.364  1.00 35.18           O
ATOM   3892  N   GLU B 624      42.676   7.096  25.769  1.00 30.91           N
ATOM   3893  CA  GLU B 624      42.460   5.761  26.295  1.00 30.41           C
ATOM   3894  CB  GLU B 624      41.232   5.727  27.207  1.00 31.89           C
ATOM   3895  CG  GLU B 624      41.539   6.092  28.652  1.00 42.74           C
ATOM   3896  CD  GLU B 624      42.569   5.165  29.276  1.00 65.65           C
ATOM   3897  OE1 GLU B 624      43.681   5.042  28.716  1.00 65.08           O
ATOM   3898  OE2 GLU B 624      42.273   4.567  30.333  1.00 56.30           O
ATOM   3899  C   GLU B 624      42.316   4.784  25.138  1.00 32.24           C
ATOM   3900  O   GLU B 624      42.717   3.624  25.240  1.00 32.95           O
ATOM   3901  N   ILE B 625      41.758   5.263  24.032  1.00 25.86           N
ATOM   3902  CA  ILE B 625      41.612   4.435  22.843  1.00 24.50           C
ATOM   3903  CB  ILE B 625      40.861   5.182  21.711  1.00 27.30           C
ATOM   3904  CG1 ILE B 625      39.350   5.132  21.943  1.00 27.75           C
ATOM   3905  CD1 ILE B 625      38.599   6.336  21.389  1.00 33.77           C
ATOM   3906  CG2 ILE B 625      41.207   4.574  20.352  1.00 27.51           C
ATOM   3907  C   ILE B 625      43.026   4.093  22.391  1.00 27.41           C
ATOM   3908  O   ILE B 625      43.374   2.929  22.219  1.00 27.41           O
ATOM   3909  N   ILE B 626      43.842   5.132  22.245  1.00 22.80           N
ATOM   3910  CA  ILE B 626      45.233   5.013  21.840  1.00 21.52           C
ATOM   3911  CB  ILE B 626      45.866   6.412  21.649  1.00 24.22           C
ATOM   3912  CG1 ILE B 626      45.135   7.184  20.542  1.00 24.31           C
ATOM   3913  CD1 ILE B 626      45.627   8.605  20.349  1.00 29.15           C
ATOM   3914  CG2 ILE B 626      47.348   6.292  21.346  1.00 25.07           C
ATOM   3915  C   ILE B 626      46.040   4.158  22.815  1.00 24.36           C
ATOM   3916  O   ILE B 626      46.796   3.288  22.401  1.00 23.86           O
ATOM   3917  N   ARG B 627      45.885   4.403  24.110  1.00 20.90           N
ATOM   3918  CA  ARG B 627      46.628   3.630  25.101  1.00 20.97           C
ATOM   3919  CB  ARG B 627      46.323   4.100  26.524  1.00 19.76           C
ATOM   3920  CG  ARG B 627      47.358   3.646  27.553  1.00 24.42           C
ATOM   3921  CD  ARG B 627      46.881   3.868  28.978  1.00 28.03           C
ATOM   3922  NE  ARG B 627      45.575   3.254  29.199  1.00 34.71           N
ATOM   3923  CZ  ARG B 627      45.376   1.944  29.313  1.00 45.01           C
ATOM   3924  NH1 ARG B 627      44.151   1.475  29.507  1.00 28.22           N
ATOM   3925  NH2 ARG B 627      46.400   1.102  29.240  1.00 33.08           N
ATOM   3926  C   ARG B 627      46.360   2.132  24.965  1.00 26.41           C
ATOM   3927  O   ARG B 627      47.288   1.324  24.941  1.00 26.22           O
ATOM   3928  N   LYS B 628      45.087   1.766  24.879  1.00 23.38           N
ATOM   3929  CA  LYS B 628      44.703   0.369  24.742  1.00 22.96           C
ATOM   3930  CB  LYS B 628      43.205   0.202  25.002  1.00 25.33           C
ATOM   3931  CG  LYS B 628      42.802   0.412  26.459  1.00 32.46           C
ATOM   3932  CD  LYS B 628      41.345   0.828  26.576  1.00 36.93           C
ATOM   3933  CE  LYS B 628      40.778   0.471  27.938  1.00 44.98           C
ATOM   3934  NZ  LYS B 628      39.385   0.977  28.114  1.00 52.74           N
ATOM   3935  C   LYS B 628      45.052  -0.133  23.348  1.00 26.86           C
ATOM   3936  O   LYS B 628      45.490  -1.265  23.180  1.00 26.03           O
ATOM   3937  N   ALA B 629      44.855   0.721  22.348  1.00 23.60           N
ATOM   3938  CA  ALA B 629      45.171   0.363  20.971  1.00 23.12           C
ATOM   3939  CB  ALA B 629      44.832   1.508  20.043  1.00 23.91           C
ATOM   3940  C   ALA B 629      46.645  -0.004  20.851  1.00 27.71           C
ATOM   3941  O   ALA B 629      47.001  -0.991  20.208  1.00 27.84           O
ATOM   3942  N   ILE B 630      47.502   0.797  21.472  1.00 24.27           N
ATOM   3943  CA  ILE B 630      48.938   0.551  21.435  1.00 23.93           C
ATOM   3944  CB  ILE B 630      49.733   1.794  21.873  1.00 26.53           C
ATOM   3945  CG1 ILE B 630      49.753   2.832  20.747  1.00 26.48           C
ATOM   3946  CD1 ILE B 630      50.653   4.022  21.018  1.00 28.67           C
ATOM   3947  CG2 ILE B 630      51.146   1.401  22.272  1.00 26.99           C
ATOM   3948  C   ILE B 630      49.335  -0.680  22.252  1.00 27.76           C
ATOM   3949  O   ILE B 630      50.236  -1.423  21.866  1.00 27.97           O
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ATOM   3950  N   ILE B 631      48.683  -0.878  23.393  1.00 24.10           N
ATOM   3951  CA  ILE B 631      48.982  -2.019  24.251  1.00 23.89           C
ATOM   3952  CB  ILE B 631      48.277  -1.909  25.613  1.00 26.85           C
ATOM   3953  CG1 ILE B 631      48.873  -0.773  26.445  1.00 27.00           C
ATOM   3954  CD1 ILE B 631      50.380  -0.828  26.560  1.00 31.69           C
ATOM   3955  CG2 ILE B 631      48.377  -3.230  26.367  1.00 27.39           C
ATOM   3956  C   ILE B 631      48.595  -3.321  23.567  1.00 28.64           C
ATOM   3957  O   ILE B 631      49.122  -4.386  23.895  1.00 28.76           O
ATOM   3958  N   ALA B 632      47.647  -3.225  22.638  1.00 25.00           N
ATOM   3959  CA  ALA B 632      47.143  -4.382  21.910  1.00 24.76           C
ATOM   3960  CB  ALA B 632      45.767  -4.078  21.314  1.00 25.64           C
ATOM   3961  C   ALA B 632      48.099  -4.875  20.828  1.00 27.38           C
ATOM   3962  O   ALA B 632      47.949  -5.986  20.321  1.00 27.84           O
ATOM   3963  N   THR B 633      49.079  -4.049  20.473  1.00 22.04           N
ATOM   3964  CA  THR B 633      50.066  -4.431  19.464  1.00 20.57           C
ATOM   3965  CB  THR B 633      50.829  -3.216  18.930  1.00 23.43           C
ATOM   3966  OG1 THR B 633      51.234  -2.382  20.025  1.00 20.18           O
ATOM   3967  CG2 THR B 633      49.958  -2.426  17.973  1.00 20.20           C
ATOM   3968  C   THR B 633      51.021  -5.499  19.998  1.00 23.38           C
ATOM   3969  O   THR B 633      51.810  -6.075  19.244  1.00 21.88           O
ATOM   3970  N   ASP B 634      50.931  -5.770  21.298  1.00 20.40           N
ATOM   3971  CA  ASP B 634      51.751  -6.797  21.939  1.00 20.93           C
ATOM   3972  CB  ASP B 634      51.743  -6.593  23.458  1.00 23.07           C
ATOM   3973  CG  ASP B 634      52.605  -7.605  24.190  1.00 35.40           C
ATOM   3974  OD1 ASP B 634      53.495  -8.205  23.549  1.00 37.43           O
ATOM   3975  OD2 ASP B 634      52.408  -7.781  25.413  1.00 40.23           O
ATOM   3976  C   ASP B 634      51.188  -8.178  21.593  1.00 25.67           C
ATOM   3977  O   ASP B 634      50.205  -8.622  22.191  1.00 24.74           O
ATOM   3978  N   LEU B 635      51.802  -8.844  20.618  1.00 23.07           N
ATOM   3979  CA  LEU B 635      51.327 -10.146  20.161  1.00 23.43           C
ATOM   3980  CB  LEU B 635      52.210 -10.708  19.042  1.00 23.61           C
ATOM   3981  CG  LEU B 635      51.519 -11.758  18.169  1.00 27.96           C
ATOM   3982  CD1 LEU B 635      50.415 -11.137  17.317  1.00 27.66           C
ATOM   3983  CD2 LEU B 635      52.520 -12.511  17.303  1.00 30.28           C
ATOM   3984  C   LEU B 635      51.104 -11.190  21.251  1.00 28.13           C
ATOM   3985  O   LEU B 635      50.399 -12.169  21.036  1.00 28.52           O
ATOM   3986  N   ALA B 636      51.698 -10.983  22.421  1.00 24.75           N
ATOM   3987  CA  ALA B 636      51.519 -11.917  23.532  1.00 24.12           C
ATOM   3988  CB  ALA B 636      52.546 -11.645  24.629  1.00 24.67           C
ATOM   3989  C   ALA B 636      50.096 -11.809  24.085  1.00 27.39           C
ATOM   3990  O   ALA B 636      49.557 -12.767  24.644  1.00 26.32           O
ATOM   3991  N   LEU B 637      49.494 -10.634  23.923  1.00 24.31           N
ATOM   3992  CA  LEU B 637      48.128 -10.387  24.389  1.00 24.21           C
ATOM   3993  CB  LEU B 637      47.940  -8.898  24.689  1.00 24.20           C
ATOM   3994  CG  LEU B 637      48.621  -8.351  25.943  1.00 28.42           C
ATOM   3995  CD1 LEU B 637      48.215  -6.912  26.179  1.00 28.55           C
ATOM   3996  CD2 LEU B 637      48.287  -9.210  27.149  1.00 30.12           C
ATOM   3997  C   LEU B 637      47.090 -10.829  23.357  1.00 28.32           C
ATOM   3998  O   LEU B 637      45.911 -10.973  23.668  1.00 27.81           O
ATOM   3999  N   TYR B 638      47.536 -11.013  22.121  1.00 25.54           N
ATOM   4000  CA  TYR B 638      46.655 -11.402  21.029  1.00 25.58           C
ATOM   4001  CB  TYR B 638      47.445 -11.461  19.720  1.00 27.03           C
ATOM   4002  CG  TYR B 638      46.848 -12.373  18.670  1.00 29.29           C
ATOM   4003  CD1 TYR B 638      45.862 -11.917  17.806  1.00 31.15           C
ATOM   4004  CE1 TYR B 638      45.316 -12.749  16.833  1.00 32.54           C
ATOM   4005  CZ  TYR B 638      45.770 -14.047  16.711  1.00 39.08           C
ATOM   4006  OH  TYR B 638      45.242 -14.874  15.746  1.00 40.82           O
ATOM   4007  CE2 TYR B 638      46.759 -14.518  17.551  1.00 31.46           C
ATOM   4008  CD2 TYR B 638      47.295 -13.681  18.521  1.00 30.36           C
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ATOM   4009  C   TYR B 638      45.926 -12.725  21.270  1.00 29.29           C
ATOM   4010  O   TYR B 638      44.709 -12.804  21.122  1.00 28.98           O
ATOM   4011  N   PHE B 639      46.673 -13.762  21.631  1.00 26.28           N
ATOM   4012  CA  PHE B 639      46.097 -15.090  21.839  1.00 26.34           C
ATOM   4013  CB  PHE B 639      47.171 -16.101  22.240  1.00 27.89           C
ATOM   4014  CG  PHE B 639      48.320 -16.157  21.273  1.00 29.42           C
ATOM   4015  CD1 PHE B 639      48.197 -16.840  20.071  1.00 32.18           C
ATOM   4016  CE1 PHE B 639      49.238 -16.863  19.156  1.00 32.70           C
ATOM   4017  CZ  PHE B 639      50.402 -16.162  19.417  1.00 31.44           C
ATOM   4018  CE2 PHE B 639      50.523 -15.448  20.593  1.00 33.66           C
ATOM   4019  CD2 PHE B 639      49.481 -15.436  21.510  1.00 31.34           C
ATOM   4020  C   PHE B 639      44.866 -15.168  22.736  1.00 30.88           C
ATOM   4021  O   PHE B 639      43.907 -15.875  22.415  1.00 31.09           O
ATOM   4022  N   GLY B 640      44.885 -14.440  23.849  1.00 27.00           N
ATOM   4023  CA  GLY B 640      43.770 -14.429  24.780  1.00 26.81           C
ATOM   4024  C   GLY B 640      42.621 -13.569  24.293  1.00 32.38           C
ATOM   4025  O   GLY B 640      41.452 -13.867  24.542  1.00 33.35           O
ATOM   4026  N   ASN B 641      42.953 -12.501  23.577  1.00 28.36           N
ATOM   4027  CA  ASN B 641      41.942 -11.592  23.064  1.00 27.81           C
ATOM   4028  CB  ASN B 641      42.571 -10.278  22.598  1.00 28.20           C
ATOM   4029  CG  ASN B 641      41.547  -9.176  22.423  1.00 33.82           C
ATOM   4030  OD1 ASN B 641      40.926  -8.737  23.391  1.00 37.85           O
ATOM   4031  ND2 ASN B 641      41.333  -8.753  21.181  1.00  8.26           N
ATOM   4032  C   ASN B 641      41.080 -12.196  21.963  1.00 31.13           C
ATOM   4033  O   ASN B 641      39.856 -12.144  22.034  1.00 30.62           O
ATOM   4034  N   ARG B 642      41.711 -12.769  20.949  1.00 28.24           N
ATOM   4035  CA  ARG B 642      40.954 -13.342  19.849  1.00 28.63           C
ATOM   4036  CB  ARG B 642      41.772 -13.371  18.569  1.00 27.95           C
ATOM   4037  CG  ARG B 642      42.597 -14.598  18.413  1.00 36.43           C
ATOM   4038  CD  ARG B 642      42.104 -15.416  17.245  1.00 44.13           C
ATOM   4039  NE  ARG B 642      42.303 -16.828  17.517  1.00 51.33           N
ATOM   4040  CZ  ARG B 642      41.327 -17.705  17.700  1.00 64.49           C
ATOM   4041  NH1 ARG B 642      41.630 -18.962  17.977  1.00 55.55           N
ATOM   4042  NH2 ARG B 642      40.061 -17.333  17.598  1.00 46.10           N
ATOM   4043  C   ARG B 642      40.286 -14.684  20.141  1.00 34.01           C
ATOM   4044  O   ARG B 642      39.493 -15.173  19.337  1.00 33.88           O
ATOM   4045  N   LYS B 643      40.587 -15.268  21.297  1.00 30.67           N
ATOM   4046  CA  LYS B 643      39.931 -16.514  21.678  1.00 30.06           C
ATOM   4047  CB  LYS B 643      40.800 -17.365  22.606  1.00 31.97           C
ATOM   4048  CG  LYS B 643      40.088 -18.625  23.082  1.00 42.12           C
ATOM   4049  CD  LYS B 643      40.863 -19.377  24.151  1.00 51.17           C
ATOM   4050  CE  LYS B 643      40.069 -20.581  24.648  1.00 62.48           C
ATOM   4051  NZ  LYS B 643      40.270 -20.841  26.105  1.00 72.61           N
ATOM   4052  C   LYS B 643      38.646 -16.109  22.386  1.00 34.14           C
ATOM   4053  O   LYS B 643      37.581 -16.688  22.168  1.00 33.54           O
ATOM   4054  N   GLN B 644      38.754 -15.070  23.206  1.00 31.06           N
ATOM   4055  CA  GLN B 644      37.606 -14.530  23.913  1.00 31.07           C
ATOM   4056  CB  GLN B 644      38.055 -13.456  24.906  1.00 32.58           C
ATOM   4057  CG  GLN B 644      38.592 -14.007  26.211  1.00 49.35           C
ATOM   4058  CD  GLN B 644      37.496 -14.593  27.079  1.00 73.61           C
ATOM   4059  OE1 GLN B 644      37.698 -14.848  28.267  1.00 73.15           O
ATOM   4060  NE2 GLN B 644      36.323 -14.802  26.489  1.00 61.75           N
ATOM   4061  C   GLN B 644      36.659 -13.920  22.888  1.00 35.97           C
ATOM   4062  O   GLN B 644      35.440 -13.980  23.036  1.00 35.95           O
ATOM   4063  N   LEU B 645      37.238 -13.344  21.840  1.00 32.89           N
ATOM   4064  CA  LEU B 645      36.471 -12.727  20.764  1.00 32.62           C
ATOM   4065  CB  LEU B 645      37.403 -11.908  19.870  1.00 32.47           C
ATOM   4066  CG  LEU B 645      37.503 -10.409  20.139  1.00 36.50           C
ATOM   4067  CD1 LEU B 645      38.254  -9.740  19.007  1.00 36.18           C
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ATOM   4068  CD2 LEU B 645      36.111  -9.812  20.289  1.00 38.45           C
ATOM   4069  C   LEU B 645      35.778 -13.790  19.918  1.00 36.99           C
ATOM   4070  O   LEU B 645      34.587 -13.684  19.619  1.00 35.86           O
ATOM   4071  N   GLU B 646      36.540 -14.800  19.510  1.00 34.82           N
ATOM   4072  CA  GLU B 646      36.004 -15.883  18.693  1.00 35.40           C
ATOM   4073  CB  GLU B 646      37.112 -16.864  18.310  1.00 37.00           C
ATOM   4074  CG  GLU B 646      36.631 -18.048  17.473  1.00 50.91           C
ATOM   4075  CD  GLU B 646      36.574 -17.736  15.984  1.00 75.85           C
ATOM   4076  OE1 GLU B 646      35.987 -16.697  15.617  1.00 70.67           O
ATOM   4077  OE2 GLU B 646      37.110 -18.531  15.180  1.00 70.43           O
ATOM   4078  C   GLU B 646      34.890 -16.623  19.424  1.00 40.46           C
ATOM   4079  O   GLU B 646      34.046 -17.267  18.802  1.00 40.40           O
ATOM   4080  N   GLU B 647      34.900 -16.532  20.748  1.00 37.50           N
ATOM   4081  CA  GLU B 647      33.904 -17.203  21.569  1.00 37.40           C
ATOM   4082  CB  GLU B 647      34.411 -17.345  23.005  1.00 38.78           C
ATOM   4083  CG  GLU B 647      34.510 -18.786  23.491  1.00 49.70           C
ATOM   4084  CD  GLU B 647      35.933 -19.203  23.827  1.00 69.96           C
ATOM   4085  OE1 GLU B 647      36.567 -19.887  22.995  1.00 65.66           O
ATOM   4086  OE2 GLU B 647      36.411 -18.869  24.933  1.00 65.05           O
ATOM   4087  C   GLU B 647      32.579 -16.454  21.563  1.00 41.89           C
ATOM   4088  O   GLU B 647      31.530 -17.035  21.280  1.00 41.44           O
ATOM   4089  N   MET B 648      32.630 -15.166  21.891  1.00 38.88           N
ATOM   4090  CA  MET B 648      31.431 -14.341  21.949  1.00 38.73           C
ATOM   4091  CB  MET B 648      31.779 -12.916  22.371  1.00 41.23           C
ATOM   4092  CG  MET B 648      32.502 -12.813  23.696  1.00 45.18           C
ATOM   4093  SD  MET B 648      33.170 -11.152  23.959  1.00 49.72           S
ATOM   4094  CE  MET B 648      32.994 -10.981  25.748  1.00 46.39           C
ATOM   4095  C   MET B 648      30.687 -14.311  20.620  1.00 42.42           C
ATOM   4096  O   MET B 648      29.462 -14.192  20.590  1.00 42.37           O
ATOM   4097  N   TYR B 649      31.430 -14.393  19.523  1.00 38.37           N
ATOM   4098  CA  TYR B 649      30.828 -14.347  18.198  1.00 38.00           C
ATOM   4099  CB  TYR B 649      31.898 -14.166  17.120  1.00 39.04           C
ATOM   4100  CG  TYR B 649      31.465 -14.624  15.743  1.00 41.05           C
ATOM   4101  CD1 TYR B 649      30.633 -13.837  14.955  1.00 42.98           C
ATOM   4102  CE1 TYR B 649      30.232 -14.258  13.695  1.00 43.82           C
ATOM   4103  CZ  TYR B 649      30.672 -15.474  13.209  1.00 50.39           C
ATOM   4104  OH  TYR B 649      30.285 -15.899  11.957  1.00 52.01           O
ATOM   4105  CE2 TYR B 649      31.504 -16.268  13.971  1.00 42.83           C
ATOM   4106  CD2 TYR B 649      31.893 -15.844  15.229  1.00 41.93           C
ATOM   4107  C   TYR B 649      29.978 -15.577  17.903  1.00 41.88           C
ATOM   4108  O   TYR B 649      28.783 -15.464  17.649  1.00 41.68           O
ATOM   4109  N   GLN B 650      30.602 -16.751  17.930  1.00 38.76           N
ATOM   4110  CA  GLN B 650      29.897 -17.997  17.637  1.00 38.70           C
ATOM   4111  CB  GLN B 650      30.853 -19.187  17.627  1.00 39.39           C
ATOM   4112  CG  GLN B 650      31.075 -19.767  16.244  1.00 42.84           C
ATOM   4113  CD  GLN B 650      32.476 -19.512  15.732  1.00 63.59           C
ATOM   4114  OE1 GLN B 650      33.355 -19.097  16.487  1.00 61.82           O
ATOM   4115  NE2 GLN B 650      32.692 -19.754  14.442  1.00 53.65           N
ATOM   4116  C   GLN B 650      28.707 -18.255  18.558  1.00 44.46           C
ATOM   4117  O   GLN B 650      27.758 -18.944  18.179  1.00 44.48           O
ATOM   4118  N   THR B 651      28.756 -17.697  19.764  1.00 41.76           N
ATOM   4119  CA  THR B 651      27.655 -17.833  20.707  1.00 41.91           C
ATOM   4120  CB  THR B 651      28.151 -18.008  22.157  1.00 49.96           C
ATOM   4121  OG1 THR B 651      28.292 -16.726  22.778  1.00 49.79           O
ATOM   4122  CG2 THR B 651      29.492 -18.730  22.178  1.00 49.20           C
ATOM   4123  C   THR B 651      26.725 -16.628  20.551  1.00 46.81           C
ATOM   4124  O   THR B 651      25.873 -16.367  21.402  1.00 46.20           O
ATOM   4125  N   GLY B 652      26.906 -15.907  19.444  1.00 43.82           N
ATOM   4126  CA  GLY B 652      26.126 -14.734  19.086  1.00 43.67           C
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ATOM   4127  C   GLY B 652      25.961 -13.706  20.189  1.00 47.78           C
ATOM   4128  O   GLY B 652      25.076 -12.851  20.119  1.00 47.27           O
ATOM   4129  N   SER B 653      26.823 -13.775  21.201  1.00 44.58           N
ATOM   4130  CA  SER B 653      26.750 -12.864  22.343  1.00 44.40           C
ATOM   4131  CB  SER B 653      27.063 -13.613  23.646  1.00 47.82           C
ATOM   4132  OG  SER B 653      28.405 -13.408  24.059  1.00 55.37           O
ATOM   4133  C   SER B 653      27.622 -11.612  22.220  1.00 48.15           C
ATOM   4134  O   SER B 653      27.715 -10.818  23.160  1.00 48.08           O
ATOM   4135  N   LEU B 654      28.245 -11.430  21.060  1.00 43.87           N
ATOM   4136  CA  LEU B 654      29.109 -10.276  20.824  1.00 43.28           C
ATOM   4137  CB  LEU B 654      30.043 -10.549  19.643  1.00 43.16           C
ATOM   4138  CG  LEU B 654      30.977  -9.420  19.210  1.00 47.70           C
ATOM   4139  CD1 LEU B 654      31.952  -9.060  20.320  1.00 47.59           C
ATOM   4140  CD2 LEU B 654      31.716  -9.813  17.940  1.00 50.24           C
ATOM   4141  C   LEU B 654      28.300  -8.993  20.595  1.00 46.65           C
ATOM   4142  O   LEU B 654      27.617  -8.851  19.579  1.00 45.99           O
ATOM   4143  N   ASN B 655      28.376  -8.068  21.549  1.00 43.18           N
ATOM   4144  CA  ASN B 655      27.643  -6.805  21.466  1.00 42.98           C
ATOM   4145  CB  ASN B 655      26.719  -6.640  22.673  1.00 43.39           C
ATOM   4146  CG  ASN B 655      26.002  -5.306  22.678  1.00 65.10           C
ATOM   4147  OD1 ASN B 655      25.490  -4.859  21.652  1.00 59.77           O
ATOM   4148  ND2 ASN B 655      25.960  -4.663  23.838  1.00 57.15           N
ATOM   4149  C   ASN B 655      28.574  -5.599  21.356  1.00 46.98           C
ATOM   4150  O   ASN B 655      29.179  -5.176  22.342  1.00 46.81           O
ATOM   4151  N   LEU B 656      28.658  -5.034  20.155  1.00 43.12           N
ATOM   4152  CA  LEU B 656      29.532  -3.895  19.887  1.00 42.74           C
ATOM   4153  CB  LEU B 656      29.627  -3.625  18.385  1.00 42.81           C
ATOM   4154  CG  LEU B 656      30.599  -4.553  17.656  1.00 47.58           C
ATOM   4155  CD1 LEU B 656      30.954  -4.015  16.278  1.00 47.79           C
ATOM   4156  CD2 LEU B 656      31.852  -4.751  18.496  1.00 49.97           C
ATOM   4157  C   LEU B 656      29.211  -2.616  20.656  1.00 45.82           C
ATOM   4158  O   LEU B 656      30.055  -1.727  20.765  1.00 45.23           O
ATOM   4159  N   ASN B 657      27.997  -2.517  21.185  1.00 41.97           N
ATOM   4160  CA  ASN B 657      27.616  -1.344  21.965  1.00 41.47           C
ATOM   4161  CB  ASN B 657      26.099  -1.159  21.967  1.00 42.11           C
ATOM   4162  CG  ASN B 657      25.567  -0.710  20.615  1.00 62.83           C
ATOM   4163  OD1 ASN B 657      26.043   0.271  20.043  1.00 56.09           O
ATOM   4164  ND2 ASN B 657      24.595  -1.447  20.085  1.00 53.40           N
ATOM   4165  C   ASN B 657      28.159  -1.497  23.383  1.00 44.91           C
ATOM   4166  O   ASN B 657      28.083  -0.582  24.204  1.00 44.40           O
ATOM   4167  N   ASN B 658      28.732  -2.667  23.644  1.00 41.49           N
ATOM   4168  CA  ASN B 658      29.352  -2.967  24.928  1.00 40.91           C
ATOM   4169  CB  ASN B 658      29.218  -4.464  25.227  1.00 40.91           C
ATOM   4170  CG  ASN B 658      29.922  -4.869  26.507  1.00 61.46           C
ATOM   4171  OD1 ASN B 658      30.477  -4.032  27.216  1.00 55.97           O
ATOM   4172  ND2 ASN B 658      29.909  -6.164  26.803  1.00 52.10           N
ATOM   4173  C   ASN B 658      30.824  -2.571  24.806  1.00 43.44           C
ATOM   4174  O   ASN B 658      31.572  -3.178  24.039  1.00 43.19           O
ATOM   4175  N   GLN B 659      31.220  -1.514  25.509  1.00 38.80           N
ATOM   4176  CA  GLN B 659      32.588  -1.013  25.416  1.00 38.04           C
ATOM   4177  CB  GLN B 659      32.826   0.158  26.373  1.00 39.15           C
ATOM   4178  CG  GLN B 659      34.140   0.898  26.127  1.00 47.09           C
ATOM   4179  CD  GLN B 659      34.185   1.609  24.778  1.00 60.86           C
ATOM   4180  OE1 GLN B 659      33.320   2.428  24.465  1.00 54.48           O
ATOM   4181  NE2 GLN B 659      35.212   1.313  23.985  1.00 48.41           N
ATOM   4182  C   GLN B 659      33.650  -2.091  25.593  1.00 41.31           C
ATOM   4183  O   GLN B 659      34.607  -2.162  24.821  1.00 41.31           O
ATOM   4184  N   SER B 660      33.484  -2.927  26.611  1.00 36.68           N
ATOM   4185  CA  SER B 660      34.425  -4.008  26.857  1.00 35.72           C
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ATOM   4186  CB  SER B 660      33.931  -4.892  28.001  1.00 39.51           C
ATOM   4187  OG  SER B 660      34.126  -6.262  27.704  1.00 50.29           O
ATOM   4188  C   SER B 660      34.605  -4.833  25.582  1.00 38.01           C
ATOM   4189  O   SER B 660      35.722  -5.226  25.239  1.00 37.30           O
ATOM   4190  N   HIS B 661      33.505  -5.069  24.869  1.00 33.25           N
ATOM   4191  CA  HIS B 661      33.552  -5.822  23.620  1.00 32.58           C
ATOM   4192  CB  HIS B 661      32.141  -6.154  23.141  1.00 33.50           C
ATOM   4193  CG  HIS B 661      31.467  -7.228  23.937  1.00 37.13           C
ATOM   4194  ND1 HIS B 661      30.348  -7.895  23.488  1.00 38.86           N
ATOM   4195  CE1 HIS B 661      29.976  -8.784  24.393  1.00 38.47           C
ATOM   4196  NE2 HIS B 661      30.809  -8.710  25.417  1.00 38.83           N
ATOM   4197  CD2 HIS B 661      31.753  -7.747  25.156  1.00 39.09           C
ATOM   4198  C   HIS B 661      34.261  -5.000  22.554  1.00 34.91           C
ATOM   4199  O   HIS B 661      35.063  -5.523  21.780  1.00 34.24           O
ATOM   4200  N   ARG B 662      33.944  -3.710  22.517  1.00 30.76           N
ATOM   4201  CA  ARG B 662      34.537  -2.788  21.554  1.00 30.31           C
ATOM   4202  CB  ARG B 662      34.010  -1.369  21.783  1.00 29.52           C
ATOM   4203  CG  ARG B 662      33.101  -0.864  20.679  1.00 36.54           C
ATOM   4204  CD  ARG B 662      32.643   0.567  20.932  1.00 45.47           C
ATOM   4205  NE  ARG B 662      32.758   1.387  19.728  1.00 50.46           N
ATOM   4206  CZ  ARG B 662      32.095   1.158  18.599  1.00 56.79           C
ATOM   4207  NH1 ARG B 662      31.253   0.137  18.517  1.00 35.91           N
ATOM   4208  NH2 ARG B 662      32.272   1.950  17.550  1.00 43.62           N
ATOM   4209  C   ARG B 662      36.059  -2.797  21.652  1.00 34.00           C
ATOM   4210  O   ARG B 662      36.760  -2.871  20.639  1.00 33.89           O
ATOM   4211  N   ASP B 663      36.561  -2.719  22.880  1.00 29.81           N
ATOM   4212  CA  ASP B 663      37.996  -2.726  23.130  1.00 29.50           C
ATOM   4213  CB  ASP B 663      38.269  -2.696  24.636  1.00 31.49           C
ATOM   4214  CG  ASP B 663      37.879  -1.375  25.272  1.00 43.55           C
ATOM   4215  OD1 ASP B 663      37.682  -0.391  24.526  1.00 44.24           O
ATOM   4216  OD2 ASP B 663      37.786  -1.316  26.518  1.00 51.21           O
ATOM   4217  C   ASP B 663      38.633  -3.963  22.519  1.00 32.72           C
ATOM   4218  O   ASP B 663      39.706  -3.889  21.917  1.00 32.05           O
ATOM   4219  N   ARG B 664      37.959  -5.099  22.683  1.00 29.08           N
ATOM   4220  CA  ARG B 664      38.432  -6.371  22.156  1.00 28.59           C
ATOM   4221  CB  ARG B 664      37.515  -7.508  22.615  1.00 27.73           C
ATOM   4222  CG  ARG B 664      37.674  -7.891  24.083  1.00 32.74           C
ATOM   4223  CD  ARG B 664      37.709  -9.405  24.262  1.00 34.99           C
ATOM   4224  NE  ARG B 664      37.721  -9.807  25.669  1.00 33.78           N
ATOM   4225  CZ  ARG B 664      38.822 -10.119  26.351  1.00 44.28           C
ATOM   4226  NH1 ARG B 664      40.012 -10.073  25.762  1.00 33.41           N
ATOM   4227  NH2 ARG B 664      38.735 -10.478  27.625  1.00 26.61           N
ATOM   4228  C   ARG B 664      38.504  -6.335  20.633  1.00 32.70           C
ATOM   4229  O   ARG B 664      39.493  -6.764  20.038  1.00 32.51           O
ATOM   4230  N   VAL B 665      37.455  -5.813  20.007  1.00 28.73           N
ATOM   4231  CA  VAL B 665      37.401  -5.738  18.552  1.00 27.80           C
ATOM   4232  CB  VAL B 665      35.992  -5.411  18.052  1.00 31.72           C
ATOM   4233  CG1 VAL B 665      35.969  -5.389  16.538  1.00 31.42           C
ATOM   4234  CG2 VAL B 665      35.001  -6.433  18.587  1.00 31.65           C
ATOM   4235  C   VAL B 665      38.449  -4.788  17.982  1.00 29.76           C
ATOM   4236  O   VAL B 665      39.025  -5.051  16.924  1.00 28.74           O
ATOM   4237  N   ILE B 666      38.705  -3.690  18.685  1.00 25.01           N
ATOM   4238  CA  ILE B 666      39.713  -2.743  18.231  1.00 23.93           C
ATOM   4239  CB  ILE B 666      39.603  -1.386  18.945  1.00 26.61           C
ATOM   4240  CG1 ILE B 666      38.325  -0.659  18.517  1.00 26.67           C
ATOM   4241  CD1 ILE B 666      37.869   0.404  19.494  1.00 30.18           C
ATOM   4242  CG2 ILE B 666      40.833  -0.541  18.649  1.00 26.94           C
ATOM   4243  C   ILE B 666      41.087  -3.362  18.433  1.00 25.54           C
ATOM   4244  O   ILE B 666      41.986  -3.197  17.607  1.00 25.13           O
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ATOM   4245  N   GLY B 667      41.237  -4.085  19.538  1.00 20.53           N
ATOM   4246  CA  GLY B 667      42.479  -4.757  19.866  1.00 19.73           C
ATOM   4247  C   GLY B 667      42.870  -5.745  18.785  1.00 25.24           C
ATOM   4248  O   GLY B 667      44.057  -5.968  18.532  1.00 26.34           O
ATOM   4249  N   LEU B 668      41.871  -6.336  18.136  1.00 21.41           N
ATOM   4250  CA  LEU B 668      42.116  -7.304  17.072  1.00 20.65           C
ATOM   4251  CB  LEU B 668      40.926  -8.249  16.894  1.00 20.46           C
ATOM   4252  CG  LEU B 668      41.136  -9.297  15.799  1.00 24.61           C
ATOM   4253  CD1 LEU B 668      42.199 -10.306  16.211  1.00 24.69           C
ATOM   4254  CD2 LEU B 668      39.837  -9.996  15.436  1.00 26.56           C
ATOM   4255  C   LEU B 668      42.434  -6.612  15.758  1.00 24.77           C
ATOM   4256  O   LEU B 668      43.203  -7.126  14.948  1.00 25.14           O
ATOM   4257  N   MET B 669      41.846  -5.439  15.547  1.00 21.31           N
ATOM   4258  CA  MET B 669      42.114  -4.669  14.341  1.00 20.51           C
ATOM   4259  CB  MET B 669      41.195  -3.456  14.258  1.00 22.99           C
ATOM   4260  CG  MET B 669      39.756  -3.806  13.929  1.00 26.94           C
ATOM   4261  SD  MET B 669      38.625  -2.517  14.443  1.00 31.42           S
ATOM   4262  CE  MET B 669      39.003  -1.250  13.235  1.00 28.27           C
ATOM   4263  C   MET B 669      43.572  -4.238  14.341  1.00 23.15           C
ATOM   4264  O   MET B 669      44.266  -4.379  13.343  1.00 23.80           O
ATOM   4265  N   MET B 670      44.035  -3.739  15.481  1.00 18.61           N
ATOM   4266  CA  MET B 670      45.426  -3.326  15.646  1.00 18.25           C
ATOM   4267  CB  MET B 670      45.670  -2.856  17.080  1.00 20.89           C
ATOM   4268  CG  MET B 670      44.996  -1.533  17.416  1.00 25.04           C
ATOM   4269  SD  MET B 670      45.504  -0.207  16.297  1.00 30.42           S
ATOM   4270  CE  MET B 670      47.202   0.087  16.876  1.00 27.42           C
ATOM   4271  C   MET B 670      46.373  -4.477  15.304  1.00 20.65           C
ATOM   4272  O   MET B 670      47.312  -4.306  14.526  1.00 20.61           O
ATOM   4273  N   THR B 671      46.103  -5.657  15.859  1.00 16.07           N
ATOM   4274  CA  THR B 671      46.908  -6.847  15.563  1.00 15.28           C
ATOM   4275  CB  THR B 671      46.384  -8.101  16.316  1.00 21.63           C
ATOM   4276  OG1 THR B 671      46.376  -7.868  17.730  1.00 23.79           O
ATOM   4277  CG2 THR B 671      47.258  -9.313  16.009  1.00 20.32           C
ATOM   4278  C   THR B 671      46.892  -7.106  14.057  1.00 19.60           C
ATOM   4279  O   THR B 671      47.928  -7.375  13.444  1.00 19.35           O
ATOM   4280  N   ALA B 672      45.697  -7.063  13.476  1.00 16.02           N
ATOM   4281  CA  ALA B 672      45.516  -7.296  12.047  1.00 16.30           C
ATOM   4282  CB  ALA B 672      44.026  -7.243  11.693  1.00 17.07           C
ATOM   4283  C   ALA B 672      46.313  -6.299  11.197  1.00 21.12           C
ATOM   4284  O   ALA B 672      46.866  -6.655  10.155  1.00 22.09           O
ATOM   4285  N   CYS B 673      46.369  -5.052  11.645  1.00 17.02           N
ATOM   4286  CA  CYS B 673      47.115  -4.015  10.936  1.00 17.61           C
ATOM   4287  CB  CYS B 673      46.688  -2.625  11.412  1.00 18.46           C
ATOM   4288  SG  CYS B 673      44.971  -2.251  11.041  1.00 22.91           S
ATOM   4289  C   CYS B 673      48.613  -4.195  11.131  1.00 20.68           C
ATOM   4290  O   CYS B 673      49.398  -4.012  10.201  1.00 19.57           O
ATOM   4291  N   ASP B 674      49.000  -4.566  12.344  1.00 18.38           N
ATOM   4292  CA  ASP B 674      50.407  -4.811  12.671  1.00 18.75           C
ATOM   4293  CB  ASP B 674      50.532  -5.265  14.128  1.00 20.46           C
ATOM   4294  CG  ASP B 674      51.792  -4.735  14.814  1.00 27.97           C
ATOM   4295  OD1 ASP B 674      52.652  -4.124  14.138  1.00 26.26           O
ATOM   4296  OD2 ASP B 674      51.914  -4.940  16.044  1.00 33.66           O
ATOM   4297  C   ASP B 674      51.008  -5.881  11.752  1.00 24.15           C
ATOM   4298  O   ASP B 674      52.092  -5.695  11.209  1.00 24.54           O
ATOM   4299  N   LEU B 675      50.297  -6.992  11.570  1.00 21.11           N
ATOM   4300  CA  LEU B 675      50.794  -8.101  10.754  1.00 21.43           C
ATOM   4301  CB  LEU B 675      50.254  -9.430  11.275  1.00 21.63           C
ATOM   4302  CG  LEU B 675      50.161  -9.627  12.785  1.00 26.06           C
ATOM   4303  CD1 LEU B 675      49.416 -10.924  13.062  1.00 26.43           C
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ATOM   4304  CD2 LEU B 675      51.556  -9.669  13.388  1.00 27.52           C
ATOM   4305  C   LEU B 675      50.519  -8.023   9.257  1.00 27.00           C
ATOM   4306  O   LEU B 675      50.782  -8.978   8.531  1.00 27.32           O
ATOM   4307  N   CYS B 676      50.001  -6.894   8.797  1.00 24.69           N
ATOM   4308  CA  CYS B 676      49.639  -6.719   7.393  1.00 25.10           C
ATOM   4309  CB  CYS B 676      49.119  -5.301   7.136  1.00 25.93           C
ATOM   4310  SG  CYS B 676      50.311  -3.975   7.481  1.00 30.12           S
ATOM   4311  C   CYS B 676      50.652  -7.143   6.321  1.00 28.74           C
ATOM   4312  O   CYS B 676      50.290  -7.288   5.154  1.00 27.84           O
ATOM   4313  N   SER B 677      51.912  -7.338   6.698  1.00 25.76           N
ATOM   4314  CA  SER B 677      52.928  -7.742   5.726  1.00 25.35           C
ATOM   4315  CB  SER B 677      54.301  -7.868   6.388  1.00 28.54           C
ATOM   4316  OG  SER B 677      54.276  -8.802   7.454  1.00 38.71           O
ATOM   4317  C   SER B 677      52.541  -9.060   5.059  1.00 29.73           C
ATOM   4318  O   SER B 677      52.900  -9.315   3.905  1.00 29.85           O
ATOM   4319  N   VAL B 678      51.782  -9.877   5.788  1.00 25.70           N
ATOM   4320  CA  VAL B 678      51.325 -11.183   5.305  1.00 25.36           C
ATOM   4321  CB  VAL B 678      51.093 -12.166   6.477  1.00 28.70           C
ATOM   4322  CG1 VAL B 678      52.249 -12.099   7.465  1.00 28.40           C
ATOM   4323  CG2 VAL B 678      49.774 -11.863   7.177  1.00 28.35           C
ATOM   4324  C   VAL B 678      50.078 -11.085   4.425  1.00 28.89           C
ATOM   4325  O   VAL B 678      49.576 -12.099   3.929  1.00 27.82           O
ATOM   4326  N   THR B 679      49.585  -9.864   4.237  1.00 25.55           N
ATOM   4327  CA  THR B 679      48.393  -9.629   3.425  1.00 25.25           C
ATOM   4328  CB  THR B 679      47.228  -9.075   4.263  1.00 31.42           C
ATOM   4329  OG1 THR B 679      47.435  -7.681   4.503  1.00 31.61           O
ATOM   4330  CG2 THR B 679      47.133  -9.801   5.594  1.00 29.42           C
ATOM   4331  C   THR B 679      48.643  -8.765   2.189  1.00 29.21           C
ATOM   4332  O   THR B 679      47.733  -8.094   1.702  1.00 29.84           O
ATOM   4333  N   LYS B 680      49.871  -8.791   1.681  1.00 24.63           N
ATOM   4334  CA  LYS B 680      50.223  -8.050   0.477  1.00 24.08           C
ATOM   4335  CB  LYS B 680      51.567  -7.335   0.654  1.00 25.48           C
ATOM   4336  CG  LYS B 680      51.687  -6.532   1.919  1.00 27.72           C
ATOM   4337  CD  LYS B 680      50.473  -5.646   2.092  1.00 32.09           C
ATOM   4338  CE  LYS B 680      50.852  -4.322   2.723  1.00 30.56           C
ATOM   4339  NZ  LYS B 680      49.648  -3.593   3.173  1.00 25.18           N
ATOM   4340  C   LYS B 680      50.365  -9.061  -0.646  1.00 28.13           C
ATOM   4341  O   LYS B 680      50.237 -10.263  -0.423  1.00 27.72           O
ATOM   4342  N   LEU B 681      50.667  -8.581  -1.846  1.00 24.80           N
ATOM   4343  CA  LEU B 681      50.900  -9.491  -2.959  1.00 24.47           C
ATOM   4344  CB  LEU B 681      50.986  -8.723  -4.277  1.00 24.21           C
ATOM   4345  CG  LEU B 681      49.670  -8.099  -4.751  1.00 27.83           C
ATOM   4346  CD1 LEU B 681      49.837  -7.422  -6.103  1.00 27.69           C
ATOM   4347  CD2 LEU B 681      48.555  -9.132  -4.795  1.00 28.76           C
ATOM   4348  C   LEU B 681      52.220 -10.189  -2.649  1.00 29.31           C
ATOM   4349  O   LEU B 681      53.092  -9.603  -2.006  1.00 29.62           O
ATOM   4350  N   TRP B 682      52.344 -11.446  -3.059  1.00 25.56           N
ATOM   4351  CA  TRP B 682      53.534 -12.249  -2.782  1.00 25.49           C
ATOM   4352  CB  TRP B 682      53.523 -13.531  -3.624  1.00 24.22           C
ATOM   4353  CG  TRP B 682      54.743 -14.388  -3.444  1.00 25.16           C
ATOM   4354  CD1 TRP B 682      55.626 -14.763  -4.411  1.00 28.10           C
ATOM   4355  NE1 TRP B 682      56.616 -15.544  -3.870  1.00 27.69           N
ATOM   4356  CE2 TRP B 682      56.380 -15.699  -2.530  1.00 28.88           C
ATOM   4357  CD2 TRP B 682      55.205 -14.988  -2.225  1.00 24.92           C
ATOM   4358  CE3 TRP B 682      54.737 -14.995  -0.908  1.00 26.27           C
ATOM   4359  CZ3 TRP B 682      55.454 -15.690   0.047  1.00 27.60           C
ATOM   4360  CH2 TRP B 682      56.617 -16.389  -0.288  1.00 28.27           C
ATOM   4361  CZ2 TRP B 682      57.098 -16.405  -1.567  1.00 28.12           C
ATOM   4362  C   TRP B 682      54.880 -11.517  -2.898  1.00 29.93           C
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ATOM   4363  O   TRP B 682      55.701 -11.559  -1.981  1.00 29.72           O
ATOM   4364  N   PRO B 683      55.120 -10.842  -4.029  1.00 26.76           N
ATOM   4365  CA  PRO B 683      56.377 -10.109  -4.236  1.00 26.52           C
ATOM   4366  CB  PRO B 683      56.094  -9.288  -5.495  1.00 28.39           C
ATOM   4367  CG  PRO B 683      54.998 -10.033  -6.196  1.00 32.63           C
ATOM   4368  CD  PRO B 683      54.142 -10.564  -5.092  1.00 28.25           C
ATOM   4369  C   PRO B 683      56.682  -9.184  -3.064  1.00 30.10           C
ATOM   4370  O   PRO B 683      57.799  -9.167  -2.546  1.00 30.20           O
ATOM   4371  N   VAL B 684      55.675  -8.433  -2.630  1.00 26.21           N
ATOM   4372  CA  VAL B 684      55.832  -7.524  -1.501  1.00 25.93           C
ATOM   4373  CB  VAL B 684      54.623  -6.598  -1.355  1.00 29.60           C
ATOM   4374  CG1 VAL B 684      54.684  -5.865  -0.022  1.00 29.14           C
ATOM   4375  CG2 VAL B 684      54.558  -5.619  -2.517  1.00 29.55           C
ATOM   4376  C   VAL B 684      56.073  -8.287  -0.207  1.00 31.05           C
ATOM   4377  O   VAL B 684      56.921  -7.911   0.598  1.00 31.26           O
ATOM   4378  N   THR B 685      55.299  -9.349  -0.009  1.00 27.55           N
ATOM   4379  CA  THR B 685      55.392 -10.185   1.183  1.00 27.12           C
ATOM   4380  CB  THR B 685      54.234 -11.204   1.213  1.00 28.44           C
ATOM   4381  OG1 THR B 685      52.985 -10.503   1.214  1.00 24.68           O
ATOM   4382  CG2 THR B 685      54.316 -12.093   2.443  1.00 25.25           C
ATOM   4383  C   THR B 685      56.744 -10.889   1.278  1.00 31.34           C
ATOM   4384  O   THR B 685      57.274 -11.100   2.368  1.00 31.23           O
ATOM   4385  N   LYS B 686      57.293 -11.248   0.125  1.00 27.89           N
ATOM   4386  CA  LYS B 686      58.573 -11.944   0.051  1.00 27.76           C
ATOM   4387  CB  LYS B 686      58.791 -12.427  -1.382  1.00 30.12           C
ATOM   4388  CG  LYS B 686      59.926 -13.399  -1.581  1.00 43.99           C
ATOM   4389  CD  LYS B 686      60.020 -13.753  -3.055  1.00 55.36           C
ATOM   4390  CE  LYS B 686      61.302 -14.490  -3.394  1.00 69.98           C
ATOM   4391  NZ  LYS B 686      61.285 -14.949  -4.811  1.00 81.07           N
ATOM   4392  C   LYS B 686      59.721 -11.039   0.481  1.00 32.04           C
ATOM   4393  O   LYS B 686      60.601 -11.444   1.247  1.00 32.18           O
ATOM   4394  N   LEU B 687      59.702  -9.804  -0.010  1.00 28.22           N
ATOM   4395  CA  LEU B 687      60.738  -8.837   0.314  1.00 27.65           C
ATOM   4396  CB  LEU B 687      60.708  -7.675  -0.676  1.00 27.73           C
ATOM   4397  CG  LEU B 687      61.095  -8.074  -2.102  1.00 32.05           C
ATOM   4398  CD1 LEU B 687      60.292  -7.285  -3.126  1.00 32.04           C
ATOM   4399  CD2 LEU B 687      62.583  -7.883  -2.320  1.00 33.42           C
ATOM   4400  C   LEU B 687      60.637  -8.339   1.748  1.00 31.05           C
ATOM   4401  O   LEU B 687      61.647  -8.109   2.403  1.00 31.75           O
ATOM   4402  N   THR B 688      59.416  -8.191   2.243  1.00 26.55           N
ATOM   4403  CA  THR B 688      59.215  -7.746   3.617  1.00 25.82           C
ATOM   4404  CB  THR B 688      57.759  -7.362   3.871  1.00 29.69           C
ATOM   4405  OG1 THR B 688      57.301  -6.519   2.810  1.00 26.85           O
ATOM   4406  CG2 THR B 688      57.634  -6.626   5.197  1.00 27.66           C
ATOM   4407  C   THR B 688      59.688  -8.806   4.611  1.00 29.18           C
ATOM   4408  O   THR B 688      60.028  -8.499   5.752  1.00 28.65           O
ATOM   4409  N   ALA B 689      59.706 -10.056   4.159  1.00 25.44           N
ATOM   4410  CA  ALA B 689      60.138 -11.178   4.982  1.00 25.28           C
ATOM   4411  CB  ALA B 689      59.880 -12.487   4.249  1.00 26.06           C
ATOM   4412  C   ALA B 689      61.617 -11.052   5.331  1.00 28.83           C
ATOM   4413  O   ALA B 689      62.035 -11.378   6.441  1.00 27.91           O
ATOM   4414  N   ASN B 690      62.405 -10.578   4.373  1.00 26.35           N
ATOM   4415  CA  ASN B 690      63.840 -10.404   4.575  1.00 26.46           C
ATOM   4416  CB  ASN B 690      64.543 -10.101   3.248  1.00 29.44           C
ATOM   4417  CG  ASN B 690      64.122 -11.044   2.133  1.00 62.62           C
ATOM   4418  OD1 ASN B 690      63.967 -12.251   2.346  1.00 60.93           O
ATOM   4419  ND2 ASN B 690      63.942 -10.498   0.933  1.00 55.04           N
ATOM   4420  C   ASN B 690      64.147  -9.313   5.604  1.00 29.94           C
ATOM   4421  O   ASN B 690      65.164  -9.376   6.292  1.00 29.51           O
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ATOM   4422  N   ASP B 691      63.258  -8.329   5.718  1.00 26.01           N
ATOM   4423  CA  ASP B 691      63.429  -7.244   6.688  1.00 25.75           C
ATOM   4424  CB  ASP B 691      62.518  -6.058   6.354  1.00 28.20           C
ATOM   4425  CG  ASP B 691      62.872  -5.392   5.035  1.00 43.55           C
ATOM   4426  OD1 ASP B 691      64.077  -5.294   4.715  1.00 44.83           O
ATOM   4427  OD2 ASP B 691      61.942  -4.941   4.330  1.00 51.88           O
ATOM   4428  C   ASP B 691      63.083  -7.744   8.082  1.00 28.34           C
ATOM   4429  O   ASP B 691      63.797  -7.469   9.046  1.00 28.68           O
ATOM   4430  N   ILE B 692      61.967  -8.459   8.182  1.00 22.89           N
ATOM   4431  CA  ILE B 692      61.510  -8.999   9.456  1.00 22.47           C
ATOM   4432  CB  ILE B 692      60.147  -9.706   9.313  1.00 25.43           C
ATOM   4433  CG1 ILE B 692      59.039  -8.691   9.025  1.00 25.46           C
ATOM   4434  CD1 ILE B 692      57.654  -9.303   8.983  1.00 30.85           C
ATOM   4435  CG2 ILE B 692      59.819 -10.510  10.558  1.00 25.77           C
ATOM   4436  C   ILE B 692      62.549  -9.928  10.068  1.00 25.58           C
ATOM   4437  O   ILE B 692      62.729  -9.953  11.283  1.00 24.83           O
ATOM   4438  N   TYR B 693      63.223 -10.696   9.220  1.00 22.46           N
ATOM   4439  CA  TYR B 693      64.235 -11.638   9.681  1.00 22.55           C
ATOM   4440  CB  TYR B 693      64.346 -12.835   8.736  1.00 23.24           C
ATOM   4441  CG  TYR B 693      63.303 -13.888   9.014  1.00 24.28           C
ATOM   4442  CD1 TYR B 693      63.496 -14.836  10.012  1.00 26.36           C
ATOM   4443  CE1 TYR B 693      62.530 -15.788  10.294  1.00 26.57           C
ATOM   4444  CZ  TYR B 693      61.343 -15.783   9.594  1.00 32.42           C
ATOM   4445  OH  TYR B 693      60.375 -16.721   9.879  1.00 34.76           O
ATOM   4446  CE2 TYR B 693      61.116 -14.836   8.615  1.00 25.80           C
ATOM   4447  CD2 TYR B 693      62.092 -13.891   8.334  1.00 24.96           C
ATOM   4448  C   TYR B 693      65.593 -10.989   9.919  1.00 27.47           C
ATOM   4449  O   TYR B 693      66.378 -11.466  10.737  1.00 27.10           O
ATOM   4450  N   ALA B 694      65.853  -9.882   9.228  1.00 24.86           N
ATOM   4451  CA  ALA B 694      67.102  -9.152   9.406  1.00 24.52           C
ATOM   4452  CB  ALA B 694      67.171  -7.970   8.446  1.00 25.24           C
ATOM   4453  C   ALA B 694      67.152  -8.672  10.851  1.00 28.51           C
ATOM   4454  O   ALA B 694      68.202  -8.699  11.497  1.00 28.69           O
ATOM   4455  N   GLU B 695      65.991  -8.278  11.362  1.00 24.45           N
ATOM   4456  CA  GLU B 695      65.855  -7.827  12.740  1.00 24.04           C
ATOM   4457  CB  GLU B 695      64.530  -7.085  12.916  1.00 25.25           C
ATOM   4458  CG  GLU B 695      64.532  -5.675  12.379  1.00 33.62           C
ATOM   4459  CD  GLU B 695      63.607  -4.753  13.154  1.00 50.52           C
ATOM   4460  OE1 GLU B 695      63.167  -5.134  14.259  1.00 43.84           O
ATOM   4461  OE2 GLU B 695      63.325  -3.642  12.659  1.00 45.61           O
ATOM   4462  C   GLU B 695      65.906  -9.003  13.715  1.00 28.51           C
ATOM   4463  O   GLU B 695      66.436  -8.880  14.816  1.00 28.33           O
ATOM   4464  N   PHE B 696      65.315 -10.127  13.314  1.00 25.16           N
ATOM   4465  CA  PHE B 696      65.271 -11.335  14.139  1.00 24.44           C
ATOM   4466  CB  PHE B 696      64.471 -12.441  13.444  1.00 26.24           C
ATOM   4467  CG  PHE B 696      62.990 -12.328  13.629  1.00 28.10           C
ATOM   4468  CD1 PHE B 696      62.462 -11.578  14.667  1.00 31.38           C
ATOM   4469  CE1 PHE B 696      61.092 -11.454  14.825  1.00 31.92           C
ATOM   4470  CZ  PHE B 696      60.238 -12.092  13.950  1.00 31.00           C
ATOM   4471  CE2 PHE B 696      60.750 -12.841  12.906  1.00 32.88           C
ATOM   4472  CD2 PHE B 696      62.119 -12.962  12.752  1.00 30.31           C
ATOM   4473  C   PHE B 696      66.657 -11.876  14.410  1.00 26.80           C
ATOM   4474  O   PHE B 696      66.986 -12.215  15.544  1.00 26.00           O
ATOM   4475  N   TRP B 697      67.442 -12.023  13.347  1.00 23.10           N
ATOM   4476  CA  TRP B 697      68.789 -12.565  13.464  1.00 22.71           C
ATOM   4477  CB  TRP B 697      69.375 -12.848  12.087  1.00 21.47           C
ATOM   4478  CG  TRP B 697      68.578 -13.854  11.313  1.00 22.54           C
ATOM   4479  CD1 TRP B 697      67.900 -14.932  11.815  1.00 25.32           C
ATOM   4480  NE1 TRP B 697      67.269 -15.607  10.802  1.00 24.60           N
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ATOM   4481  CE2 TRP B 697      67.516 -14.961   9.619  1.00 26.35           C
ATOM   4482  CD2 TRP B 697      68.339 -13.853   9.904  1.00 22.66           C
ATOM   4483  CE3 TRP B 697      68.734 -13.015   8.855  1.00 24.17           C
ATOM   4484  CZ3 TRP B 697      68.309 -13.314   7.574  1.00 25.78           C
ATOM   4485  CH2 TRP B 697      67.506 -14.432   7.321  1.00 26.39           C
ATOM   4486  CZ2 TRP B 697      67.098 -15.264   8.328  1.00 25.86           C
ATOM   4487  C   TRP B 697      69.704 -11.653  14.265  1.00 27.36           C
ATOM   4488  O   TRP B 697      70.577 -12.125  15.001  1.00 27.65           O
ATOM   4489  N   ALA B 698      69.504 -10.347  14.119  1.00 23.02           N
ATOM   4490  CA  ALA B 698      70.292  -9.371  14.859  1.00 22.19           C
ATOM   4491  CB  ALA B 698      69.945  -7.961  14.413  1.00 23.03           C
ATOM   4492  C   ALA B 698      70.015  -9.548  16.349  1.00 24.33           C
ATOM   4493  O   ALA B 698      70.906  -9.385  17.177  1.00 23.07           O
ATOM   4494  N   GLU B 699      68.778  -9.910  16.684  1.00 20.80           N
ATOM   4495  CA  GLU B 699      68.413 -10.149  18.076  1.00 19.97           C
ATOM   4496  CB  GLU B 699      66.901 -10.102  18.266  1.00 20.98           C
ATOM   4497  CG  GLU B 699      66.454 -10.680  19.603  1.00 27.67           C
ATOM   4498  CD  GLU B 699      65.109 -10.151  20.052  1.00 38.86           C
ATOM   4499  OE1 GLU B 699      64.485  -9.391  19.287  1.00 32.23           O
ATOM   4500  OE2 GLU B 699      64.671 -10.504  21.166  1.00 34.91           O
ATOM   4501  C   GLU B 699      68.961 -11.498  18.546  1.00 24.16           C
ATOM   4502  O   GLU B 699      69.426 -11.637  19.678  1.00 23.58           O
ATOM   4503  N   GLY B 700      68.903 -12.499  17.677  1.00 21.17           N
ATOM   4504  CA  GLY B 700      69.451 -13.796  18.022  1.00 20.93           C
ATOM   4505  C   GLY B 700      70.919 -13.596  18.358  1.00 24.36           C
ATOM   4506  O   GLY B 700      71.440 -14.155  19.325  1.00 23.47           O
ATOM   4507  N   ASP B 701      71.574 -12.745  17.575  1.00 21.20           N
ATOM   4508  CA  ASP B 701      72.988 -12.443  17.774  1.00 21.17           C
ATOM   4509  CB  ASP B 701      73.509 -11.535  16.654  1.00 23.05           C
ATOM   4510  CG  ASP B 701      73.598 -12.249  15.304  1.00 32.04           C
ATOM   4511  OD1 ASP B 701      73.295 -13.460  15.243  1.00 34.08           O
ATOM   4512  OD2 ASP B 701      73.963 -11.594  14.303  1.00 33.73           O
ATOM   4513  C   ASP B 701      73.258 -11.819  19.146  1.00 25.34           C
ATOM   4514  O   ASP B 701      74.281 -12.102  19.775  1.00 24.44           O
ATOM   4515  N   GLU B 702      72.335 -10.990  19.624  1.00 22.29           N
ATOM   4516  CA  GLU B 702      72.510 -10.362  20.931  1.00 22.59           C
ATOM   4517  CB  GLU B 702      71.695  -9.073  21.033  1.00 23.88           C
ATOM   4518  CG  GLU B 702      72.053  -8.031  19.979  1.00 33.06           C
ATOM   4519  CD  GLU B 702      73.413  -7.383  20.214  1.00 51.66           C
ATOM   4520  OE1 GLU B 702      73.986  -7.561  21.311  1.00 42.01           O
ATOM   4521  OE2 GLU B 702      73.904  -6.683  19.301  1.00 47.58           O
ATOM   4522  C   GLU B 702      72.163 -11.335  22.058  1.00 28.04           C
ATOM   4523  O   GLU B 702      72.607 -11.177  23.202  1.00 27.78           O
ATOM   4524  N   MET B 703      71.373 -12.349  21.723  1.00 25.10           N
ATOM   4525  CA  MET B 703      71.005 -13.376  22.687  1.00 25.27           C
ATOM   4526  CB  MET B 703      69.929 -14.293  22.102  1.00 27.95           C
ATOM   4527  CG  MET B 703      68.515 -13.762  22.238  1.00 32.47           C
ATOM   4528  SD  MET B 703      68.090 -13.373  23.952  1.00 37.44           S
ATOM   4529  CE  MET B 703      67.314 -14.906  24.452  1.00 34.16           C
ATOM   4530  C   MET B 703      72.266 -14.182  22.979  1.00 28.49           C
ATOM   4531  O   MET B 703      72.594 -14.450  24.133  1.00 27.43           O
ATOM   4532  N   LYS B 704      72.984 -14.530  21.915  1.00 25.23           N
ATOM   4533  CA  LYS B 704      74.223 -15.289  22.020  1.00 25.29           C
ATOM   4534  CB  LYS B 704      74.778 -15.585  20.624  1.00 27.49           C
ATOM   4535  CG  LYS B 704      74.036 -16.700  19.902  1.00 38.57           C
ATOM   4536  CD  LYS B 704      74.223 -16.625  18.395  1.00 45.29           C
ATOM   4537  CE  LYS B 704      73.183 -17.465  17.662  1.00 48.37           C
ATOM   4538  NZ  LYS B 704      73.521 -17.635  16.223  1.00 50.49           N
ATOM   4539  C   LYS B 704      75.248 -14.532  22.855  1.00 29.48           C
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ATOM   4540  O   LYS B 704      75.927 -15.114  23.696  1.00 29.39           O
ATOM   4541  N   LYS B 705      75.330 -13.224  22.638  1.00 25.85           N
ATOM   4542  CA  LYS B 705      76.252 -12.373  23.379  1.00 25.24           C
ATOM   4543  CB  LYS B 705      76.239 -10.955  22.812  1.00 26.71           C
ATOM   4544  CG  LYS B 705      76.863 -10.839  21.424  1.00 32.82           C
ATOM   4545  CD  LYS B 705      77.397  -9.434  21.182  1.00 35.64           C
ATOM   4546  CE  LYS B 705      77.147  -8.979  19.758  1.00 40.30           C
ATOM   4547  NZ  LYS B 705      78.292  -8.179  19.239  1.00 48.76           N
ATOM   4548  C   LYS B 705      75.915 -12.349  24.869  1.00 29.66           C
ATOM   4549  O   LYS B 705      76.750 -11.975  25.695  1.00 29.06           O
ATOM   4550  N   LEU B 706      74.688 -12.749  25.199  1.00 26.50           N
ATOM   4551  CA  LEU B 706      74.222 -12.809  26.585  1.00 26.32           C
ATOM   4552  CB  LEU B 706      72.725 -12.489  26.653  1.00 26.28           C
ATOM   4553  CG  LEU B 706      72.303 -11.019  26.552  1.00 31.16           C
ATOM   4554  CD1 LEU B 706      70.792 -10.860  26.731  1.00 31.16           C
ATOM   4555  CD2 LEU B 706      73.054 -10.171  27.559  1.00 33.46           C
ATOM   4556  C   LEU B 706      74.470 -14.200  27.171  1.00 31.42           C
ATOM   4557  O   LEU B 706      74.380 -14.405  28.386  1.00 31.17           O
ATOM   4558  N   GLY B 707      74.742 -15.162  26.295  1.00 28.52           N
ATOM   4559  CA  GLY B 707      74.986 -16.535  26.692  1.00 28.21           C
ATOM   4560  C   GLY B 707      73.728 -17.373  26.622  1.00 32.41           C
ATOM   4561  O   GLY B 707      73.614 -18.404  27.284  1.00 31.64           O
ATOM   4562  N   ILE B 708      72.772 -16.927  25.816  1.00 29.27           N
ATOM   4563  CA  ILE B 708      71.516 -17.646  25.667  1.00 29.29           C
ATOM   4564  CB  ILE B 708      70.321 -16.800  26.146  1.00 32.22           C
ATOM   4565  CG1 ILE B 708      70.442 -16.487  27.638  1.00 32.21           C
ATOM   4566  CD1 ILE B 708      70.241 -15.023  27.965  1.00 37.26           C
ATOM   4567  CG2 ILE B 708      69.002 -17.499  25.822  1.00 32.55           C
ATOM   4568  C   ILE B 708      71.323 -18.045  24.218  1.00 34.10           C
ATOM   4569  O   ILE B 708      71.295 -17.189  23.335  1.00 34.05           O
ATOM   4570  N   GLN B 709      71.186 -19.342  23.972  1.00 31.01           N
ATOM   4571  CA  GLN B 709      70.961 -19.823  22.613  1.00 30.82           C
ATOM   4572  CB  GLN B 709      71.040 -21.351  22.561  1.00 32.09           C
ATOM   4573  CG  GLN B 709      72.096 -21.879  21.603  1.00 43.32           C
ATOM   4574  CD  GLN B 709      71.562 -22.079  20.196  1.00 57.18           C
ATOM   4575  OE1 GLN B 709      72.068 -21.491  19.237  1.00 50.67           O
ATOM   4576  NE2 GLN B 709      70.546 -22.926  20.063  1.00 46.32           N
ATOM   4577  C   GLN B 709      69.573 -19.368  22.178  1.00 34.66           C
ATOM   4578  O   GLN B 709      68.567 -19.847  22.698  1.00 34.91           O
ATOM   4579  N   PRO B 710      69.501 -18.422  21.228  1.00 30.49           N
ATOM   4580  CA  PRO B 710      68.165 -17.972  20.832  1.00 29.96           C
ATOM   4581  CB  PRO B 710      68.470 -16.951  19.741  1.00 31.60           C
ATOM   4582  CG  PRO B 710      69.709 -17.499  19.074  1.00 36.09           C
ATOM   4583  CD  PRO B 710      70.459 -18.317  20.112  1.00 31.77           C
ATOM   4584  C   PRO B 710      67.326 -19.105  20.244  1.00 33.05           C
ATOM   4585  O   PRO B 710      67.822 -20.208  20.003  1.00 32.93           O
ATOM   4586  N   ILE B 711      66.055 -18.815  19.990  1.00 28.54           N
ATOM   4587  CA  ILE B 711      65.165 -19.788  19.383  1.00 27.91           C
ATOM   4588  CB  ILE B 711      63.684 -19.435  19.637  1.00 30.67           C
ATOM   4589  CG1 ILE B 711      63.374 -18.030  19.106  1.00 30.38           C
ATOM   4590  CD1 ILE B 711      61.906 -17.685  19.088  1.00 31.80           C
ATOM   4591  CG2 ILE B 711      63.365 -19.547  21.130  1.00 31.15           C
ATOM   4592  C   ILE B 711      65.499 -19.807  17.897  1.00 31.58           C
ATOM   4593  O   ILE B 711      66.095 -18.862  17.379  1.00 31.70           O
ATOM   4594  N   PRO B 712      65.146 -20.896  17.200  1.00 27.39           N
ATOM   4595  CA  PRO B 712      65.433 -21.055  15.768  1.00 27.16           C
ATOM   4596  CB  PRO B 712      64.518 -22.212  15.349  1.00 28.79           C
ATOM   4597  CG  PRO B 712      64.227 -22.951  16.618  1.00 33.20           C
ATOM   4598  CD  PRO B 712      64.204 -21.913  17.698  1.00 28.79           C
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ATOM   4599  C   PRO B 712      65.108 -19.808  14.955  1.00 30.76           C
ATOM   4600  O   PRO B 712      65.875 -19.407  14.084  1.00 30.66           O
ATOM   4601  N   MET B 713      63.961 -19.205  15.250  1.00 26.87           N
ATOM   4602  CA  MET B 713      63.498 -18.006  14.557  1.00 26.21           C
ATOM   4603  CB  MET B 713      62.247 -17.472  15.260  1.00 28.16           C
ATOM   4604  CG  MET B 713      61.360 -16.585  14.404  1.00 31.36           C
ATOM   4605  SD  MET B 713      59.997 -15.887  15.357  1.00 34.88           S
ATOM   4606  CE  MET B 713      60.894 -14.964  16.600  1.00 31.23           C
ATOM   4607  C   MET B 713      64.553 -16.903  14.502  1.00 31.05           C
ATOM   4608  O   MET B 713      64.646 -16.166  13.519  1.00 30.79           O
ATOM   4609  N   MET B 714      65.334 -16.779  15.570  1.00 28.16           N
ATOM   4610  CA  MET B 714      66.338 -15.725  15.661  1.00 28.17           C
ATOM   4611  CB  MET B 714      66.201 -14.997  16.993  1.00 30.46           C
ATOM   4612  CG  MET B 714      64.796 -14.516  17.268  1.00 34.52           C
ATOM   4613  SD  MET B 714      64.705 -13.603  18.804  1.00 39.31           S
ATOM   4614  CE  MET B 714      65.414 -14.800  19.933  1.00 36.16           C
ATOM   4615  C   MET B 714      67.785 -16.167  15.449  1.00 32.63           C
ATOM   4616  O   MET B 714      68.715 -15.388  15.665  1.00 32.59           O
ATOM   4617  N   ASP B 715      67.973 -17.414  15.032  1.00 29.21           N
ATOM   4618  CA  ASP B 715      69.308 -17.948  14.777  1.00 28.73           C
ATOM   4619  CB  ASP B 715      69.385 -19.407  15.237  1.00 30.65           C
ATOM   4620  CG  ASP B 715      70.798 -19.952  15.226  1.00 40.23           C
ATOM   4621  OD1 ASP B 715      71.666 -19.368  14.542  1.00 41.09           O
ATOM   4622  OD2 ASP B 715      71.035 -20.980  15.889  1.00 47.17           O
ATOM   4623  C   ASP B 715      69.600 -17.844  13.282  1.00 31.90           C
ATOM   4624  O   ASP B 715      68.907 -18.453  12.463  1.00 31.55           O
ATOM   4625  N   ARG B 716      70.596 -17.042  12.919  1.00 28.16           N
ATOM   4626  CA  ARG B 716      70.918 -16.871  11.510  1.00 27.74           C
ATOM   4627  CB  ARG B 716      71.612 -15.535  11.239  1.00 26.84           C
ATOM   4628  CG  ARG B 716      73.119 -15.546  11.328  1.00 34.01           C
ATOM   4629  CD  ARG B 716      73.694 -14.273  10.706  1.00 36.80           C
ATOM   4630  NE  ARG B 716      73.520 -13.096  11.557  1.00 32.15           N
ATOM   4631  CZ  ARG B 716      72.867 -11.994  11.188  1.00 35.39           C
ATOM   4632  NH1 ARG B 716      72.313 -11.923   9.984  1.00 15.51           N
ATOM   4633  NH2 ARG B 716      72.766 -10.964  12.024  1.00 12.42           N
ATOM   4634  C   ARG B 716      71.645 -18.067  10.900  1.00 32.28           C
ATOM   4635  O   ARG B 716      71.844 -18.135   9.688  1.00 32.12           O
ATOM   4636  N   ASP B 717      71.970 -19.042  11.743  1.00 29.53           N
ATOM   4637  CA  ASP B 717      72.608 -20.276  11.297  1.00 29.67           C
ATOM   4638  CB  ASP B 717      73.408 -20.904  12.444  1.00 31.74           C
ATOM   4639  CG  ASP B 717      74.616 -20.075  12.848  1.00 44.42           C
ATOM   4640  OD1 ASP B 717      75.070 -19.235  12.040  1.00 46.12           O
ATOM   4641  OD2 ASP B 717      75.123 -20.280  13.972  1.00 50.07           O
ATOM   4642  C   ASP B 717      71.522 -21.265  10.863  1.00 33.49           C
ATOM   4643  O   ASP B 717      71.814 -22.409  10.509  1.00 33.23           O
ATOM   4644  N   LYS B 718      70.266 -20.829  10.929  1.00 29.41           N
ATOM   4645  CA  LYS B 718      69.143 -21.690  10.583  1.00 28.68           C
ATOM   4646  CB  LYS B 718      68.431 -22.159  11.853  1.00 30.32           C
ATOM   4647  CG  LYS B 718      69.387 -22.475  12.993  1.00 36.23           C
ATOM   4648  CD  LYS B 718      68.809 -23.491  13.958  1.00 43.79           C
ATOM   4649  CE  LYS B 718      69.387 -23.306  15.354  1.00 55.14           C
ATOM   4650  NZ  LYS B 718      68.433 -23.712  16.426  1.00 65.09           N
ATOM   4651  C   LYS B 718      68.156 -21.047   9.614  1.00 32.69           C
ATOM   4652  O   LYS B 718      66.945 -21.221   9.745  1.00 32.02           O
ATOM   4653  N   LYS B 719      68.686 -20.328   8.628  1.00 29.95           N
ATOM   4654  CA  LYS B 719      67.869 -19.670   7.614  1.00 29.70           C
ATOM   4655  CB  LYS B 719      68.749 -18.837   6.680  1.00 31.32           C
ATOM   4656  CG  LYS B 719      69.564 -17.756   7.366  1.00 40.06           C
ATOM   4657  CD  LYS B 719      70.207 -16.837   6.335  1.00 45.88           C
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ATOM   4658  CE  LYS B 719      71.649 -16.517   6.690  1.00 51.86           C
ATOM   4659  NZ  LYS B 719      71.914 -15.056   6.621  1.00 60.29           N
ATOM   4660  C   LYS B 719      67.123 -20.716   6.794  1.00 35.74           C
ATOM   4661  O   LYS B 719      66.064 -20.446   6.228  1.00 35.71           O
ATOM   4662  N   ASP B 720      67.700 -21.908   6.717  1.00 33.24           N
ATOM   4663  CA  ASP B 720      67.099 -22.999   5.964  1.00 33.49           C
ATOM   4664  CB  ASP B 720      67.945 -24.273   6.100  1.00 35.42           C
ATOM   4665  CG  ASP B 720      68.426 -24.512   7.526  1.00 47.33           C
ATOM   4666  OD1 ASP B 720      69.412 -23.865   7.944  1.00 48.78           O
ATOM   4667  OD2 ASP B 720      67.828 -25.358   8.225  1.00 53.32           O
ATOM   4668  C   ASP B 720      65.674 -23.265   6.435  1.00 37.58           C
ATOM   4669  O   ASP B 720      64.795 -23.577   5.631  1.00 38.17           O
ATOM   4670  N   GLU B 721      65.451 -23.125   7.740  1.00 33.11           N
ATOM   4671  CA  GLU B 721      64.148 -23.386   8.349  1.00 32.24           C
ATOM   4672  CB  GLU B 721      64.323 -23.778   9.814  1.00 33.57           C
ATOM   4673  CG  GLU B 721      65.323 -24.893  10.048  1.00 44.62           C
ATOM   4674  CD  GLU B 721      65.531 -25.182  11.525  1.00 67.70           C
ATOM   4675  OE1 GLU B 721      64.539 -25.138  12.285  1.00 65.00           O
ATOM   4676  OE2 GLU B 721      66.684 -25.450  11.927  1.00 62.31           O
ATOM   4677  C   GLU B 721      63.114 -22.262   8.259  1.00 34.67           C
ATOM   4678  O   GLU B 721      62.035 -22.372   8.841  1.00 34.22           O
ATOM   4679  N   VAL B 722      63.432 -21.184   7.552  1.00 30.20           N
ATOM   4680  CA  VAL B 722      62.509 -20.059   7.460  1.00 29.91           C
ATOM   4681  CB  VAL B 722      63.166 -18.804   6.863  1.00 33.81           C
ATOM   4682  CG1 VAL B 722      62.104 -17.856   6.335  1.00 33.52           C
ATOM   4683  CG2 VAL B 722      64.032 -18.106   7.913  1.00 33.58           C
ATOM   4684  C   VAL B 722      61.134 -20.356   6.844  1.00 32.81           C
ATOM   4685  O   VAL B 722      60.115 -19.858   7.321  1.00 31.57           O
ATOM   4686  N   PRO B 723      61.090 -21.176   5.781  1.00 29.39           N
ATOM   4687  CA  PRO B 723      59.787 -21.462   5.164  1.00 29.29           C
ATOM   4688  CB  PRO B 723      60.156 -22.325   3.960  1.00 30.81           C
ATOM   4689  CG  PRO B 723      61.521 -21.848   3.585  1.00 35.42           C
ATOM   4690  CD  PRO B 723      62.210 -21.501   4.879  1.00 31.01           C
ATOM   4691  C   PRO B 723      58.820 -22.198   6.088  1.00 33.41           C
ATOM   4692  O   PRO B 723      57.626 -21.900   6.110  1.00 33.41           O
ATOM   4693  N   GLN B 724      59.335 -23.154   6.855  1.00 29.58           N
ATOM   4694  CA  GLN B 724      58.498 -23.905   7.785  1.00 29.28           C
ATOM   4695  CB  GLN B 724      59.115 -25.264   8.108  1.00 30.46           C
ATOM   4696  CG  GLN B 724      58.294 -26.440   7.604  1.00 43.29           C
ATOM   4697  CD  GLN B 724      56.947 -26.552   8.294  1.00 61.01           C
ATOM   4698  OE1 GLN B 724      55.947 -26.913   7.673  1.00 52.99           O
ATOM   4699  NE2 GLN B 724      56.916 -26.243   9.586  1.00 56.99           N
ATOM   4700  C   GLN B 724      58.236 -23.106   9.060  1.00 32.52           C
ATOM   4701  O   GLN B 724      57.427 -23.504   9.901  1.00 32.32           O
ATOM   4702  N   GLY B 725      58.918 -21.972   9.189  1.00 28.23           N
ATOM   4703  CA  GLY B 725      58.729 -21.065  10.307  1.00 27.85           C
ATOM   4704  C   GLY B 725      57.600 -20.126   9.927  1.00 30.97           C
ATOM   4705  O   GLY B 725      56.774 -19.738  10.757  1.00 30.48           O
ATOM   4706  N   GLN B 726      57.560 -19.789   8.642  1.00 27.00           N
ATOM   4707  CA  GLN B 726      56.525 -18.932   8.085  1.00 26.83           C
ATOM   4708  CB  GLN B 726      56.897 -18.512   6.663  1.00 27.83           C
ATOM   4709  CG  GLN B 726      57.804 -17.302   6.597  1.00 35.37           C
ATOM   4710  CD  GLN B 726      57.283 -16.152   7.424  1.00 43.52           C
ATOM   4711  OE1 GLN B 726      56.465 -15.362   6.959  1.00 35.32           O
ATOM   4712  NE2 GLN B 726      57.743 -16.060   8.665  1.00 38.23           N
ATOM   4713  C   GLN B 726      55.200 -19.681   8.064  1.00 30.92           C
ATOM   4714  O   GLN B 726      54.147 -19.101   8.326  1.00 30.99           O
ATOM   4715  N   LEU B 727      55.259 -20.968   7.735  1.00 27.12           N
ATOM   4716  CA  LEU B 727      54.070 -21.811   7.700  1.00 26.75           C
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ATOM   4717  CB  LEU B 727      54.419 -23.191   7.133  1.00 27.24           C
ATOM   4718  CG  LEU B 727      53.312 -23.932   6.379  1.00 32.47           C
ATOM   4719  CD1 LEU B 727      52.944 -23.171   5.105  1.00 32.95           C
ATOM   4720  CD2 LEU B 727      53.728 -25.362   6.055  1.00 35.26           C
ATOM   4721  C   LEU B 727      53.527 -21.953   9.123  1.00 29.29           C
ATOM   4722  O   LEU B 727      52.315 -21.925   9.347  1.00 28.99           O
ATOM   4723  N   GLY B 728      54.432 -22.086  10.088  1.00 24.82           N
ATOM   4724  CA  GLY B 728      54.037 -22.202  11.479  1.00 23.94           C
ATOM   4725  C   GLY B 728      53.406 -20.925  12.005  1.00 26.41           C
ATOM   4726  O   GLY B 728      52.610 -20.956  12.948  1.00 26.54           O
ATOM   4727  N   PHE B 729      53.756 -19.794  11.392  1.00 20.77           N
ATOM   4728  CA  PHE B 729      53.225 -18.505  11.821  1.00 18.20           C
ATOM   4729  CB  PHE B 729      54.202 -17.369  11.504  1.00 18.97           C
ATOM   4730  CG  PHE B 729      53.767 -16.037  12.054  1.00 19.08           C
ATOM   4731  CD1 PHE B 729      54.084 -15.674  13.358  1.00 21.03           C
ATOM   4732  CE1 PHE B 729      53.667 -14.460  13.877  1.00 21.43           C
ATOM   4733  CZ  PHE B 729      52.909 -13.604  13.099  1.00 20.52           C
ATOM   4734  CE2 PHE B 729      52.567 -13.963  11.813  1.00 22.49           C
ATOM   4735  CD2 PHE B 729      52.990 -15.180  11.295  1.00 19.82           C
ATOM   4736  C   PHE B 729      51.841 -18.196  11.248  1.00 21.60           C
ATOM   4737  O   PHE B 729      50.985 -17.625  11.934  1.00 20.84           O
ATOM   4738  N   TYR B 730      51.629 -18.543   9.983  1.00 17.97           N
ATOM   4739  CA  TYR B 730      50.334 -18.313   9.346  1.00 18.01           C
ATOM   4740  CB  TYR B 730      50.420 -18.575   7.846  1.00 18.75           C
ATOM   4741  CG  TYR B 730      51.048 -17.450   7.048  1.00 20.00           C
ATOM   4742  CD1 TYR B 730      52.320 -16.979   7.351  1.00 21.82           C
ATOM   4743  CE1 TYR B 730      52.909 -15.968   6.597  1.00 21.61           C
ATOM   4744  CZ  TYR B 730      52.229 -15.431   5.525  1.00 26.37           C
ATOM   4745  OH  TYR B 730      52.809 -14.440   4.769  1.00 27.46           O
ATOM   4746  CE2 TYR B 730      50.972 -15.886   5.200  1.00 20.97           C
ATOM   4747  CD2 TYR B 730      50.390 -16.900   5.954  1.00 20.47           C
ATOM   4748  C   TYR B 730      49.277 -19.224   9.959  1.00 24.51           C
ATOM   4749  O   TYR B 730      48.133 -18.821  10.164  1.00 25.70           O
ATOM   4750  N   ASN B 731      49.671 -20.456  10.259  1.00 21.42           N
ATOM   4751  CA  ASN B 731      48.755 -21.438  10.847  1.00 21.00           C
ATOM   4752  CB  ASN B 731      49.403 -22.825  10.863  1.00 19.87           C
ATOM   4753  CG  ASN B 731      49.505 -23.445   9.485  1.00 32.48           C
ATOM   4754  OD1 ASN B 731      48.731 -23.118   8.589  1.00 24.67           O
ATOM   4755  ND2 ASN B 731      50.436 -24.385   9.325  1.00 21.08           N
ATOM   4756  C   ASN B 731      48.344 -21.080  12.272  1.00 24.84           C
ATOM   4757  O   ASN B 731      47.167 -21.159  12.626  1.00 25.26           O
ATOM   4758  N   ALA B 732      49.327 -20.711  13.089  1.00 20.92           N
ATOM   4759  CA  ALA B 732      49.106 -20.415  14.501  1.00 20.50           C
ATOM   4760  CB  ALA B 732      50.338 -20.784  15.315  1.00 21.16           C
ATOM   4761  C   ALA B 732      48.659 -19.003  14.849  1.00 24.79           C
ATOM   4762  O   ALA B 732      47.994 -18.801  15.862  1.00 25.34           O
ATOM   4763  N   VAL B 733      49.070 -18.023  14.054  1.00 20.30           N
ATOM   4764  CA  VAL B 733      48.744 -16.634  14.349  1.00 20.09           C
ATOM   4765  CB  VAL B 733      50.008 -15.836  14.729  1.00 23.90           C
ATOM   4766  CG1 VAL B 733      49.652 -14.396  15.064  1.00 23.41           C
ATOM   4767  CG2 VAL B 733      50.744 -16.509  15.879  1.00 23.64           C
ATOM   4768  C   VAL B 733      47.957 -15.917  13.255  1.00 23.35           C
ATOM   4769  O   VAL B 733      46.837 -15.459  13.483  1.00 22.37           O
ATOM   4770  N   ALA B 734      48.574 -15.777  12.087  1.00 20.18           N
ATOM   4771  CA  ALA B 734      47.971 -15.044  10.977  1.00 20.31           C
ATOM   4772  CB  ALA B 734      48.844 -15.132   9.746  1.00 20.88           C
ATOM   4773  C   ALA B 734      46.536 -15.439  10.651  1.00 26.15           C
ATOM   4774  O   ALA B 734      45.589 -14.782  11.085  1.00 25.62           O
ATOM   4775  N   ILE B 735      46.397 -16.494   9.854  1.00 23.78           N
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ATOM   4776  CA  ILE B 735      45.102 -16.999   9.403  1.00 24.10           C
ATOM   4777  CB  ILE B 735      45.232 -18.409   8.797  1.00 27.12           C
ATOM   4778  CG1 ILE B 735      45.671 -18.323   7.336  1.00 27.09           C
ATOM   4779  CD1 ILE B 735      44.541 -18.545   6.358  1.00 35.34           C
ATOM   4780  CG2 ILE B 735      43.916 -19.155   8.895  1.00 28.30           C
ATOM   4781  C   ILE B 735      43.983 -16.923  10.440  1.00 28.74           C
ATOM   4782  O   ILE B 735      42.894 -16.424  10.157  1.00 28.36           O
ATOM   4783  N   PRO B 736      44.248 -17.397  11.665  1.00 25.49           N
ATOM   4784  CA  PRO B 736      43.175 -17.316  12.658  1.00 25.48           C
ATOM   4785  CB  PRO B 736      43.803 -17.947  13.902  1.00 26.99           C
ATOM   4786  CG  PRO B 736      44.892 -18.849  13.387  1.00 30.85           C
ATOM   4787  CD  PRO B 736      45.196 -18.486  11.957  1.00 26.44           C
ATOM   4788  C   PRO B 736      42.772 -15.869  12.942  1.00 30.83           C
ATOM   4789  O   PRO B 736      41.591 -15.567  13.123  1.00 30.33           O
ATOM   4790  N   CYS B 737      43.760 -14.978  12.983  1.00 28.21           N
ATOM   4791  CA  CYS B 737      43.508 -13.563  13.236  1.00 27.73           C
ATOM   4792  CB  CYS B 737      44.815 -12.765  13.215  1.00 28.08           C
ATOM   4793  SG  CYS B 737      44.595 -10.956  13.212  1.00 31.96           S
ATOM   4794  C   CYS B 737      42.539 -12.978  12.215  1.00 29.96           C
ATOM   4795  O   CYS B 737      41.491 -12.444  12.577  1.00 27.87           O
ATOM   4796  N   TYR B 738      42.909 -13.067  10.939  1.00 26.45           N
ATOM   4797  CA  TYR B 738      42.091 -12.517   9.862  1.00 25.85           C
ATOM   4798  CB  TYR B 738      42.876 -12.464   8.548  1.00 26.37           C
ATOM   4799  CG  TYR B 738      44.052 -11.514   8.588  1.00 26.90           C
ATOM   4800  CD1 TYR B 738      43.857 -10.143   8.680  1.00 28.63           C
ATOM   4801  CE1 TYR B 738      44.927  -9.268   8.726  1.00 28.94           C
ATOM   4802  CZ  TYR B 738      46.212  -9.761   8.693  1.00 34.03           C
ATOM   4803  OH  TYR B 738      47.280  -8.894   8.755  1.00 30.69           O
ATOM   4804  CE2 TYR B 738      46.432 -11.121   8.608  1.00 28.11           C
ATOM   4805  CD2 TYR B 738      45.354 -11.987   8.558  1.00 27.36           C
ATOM   4806  C   TYR B 738      40.757 -13.238   9.688  1.00 29.81           C
ATOM   4807  O   TYR B 738      39.785 -12.649   9.220  1.00 29.42           O
ATOM   4808  N   THR B 739      40.704 -14.504  10.085  1.00 26.35           N
ATOM   4809  CA  THR B 739      39.465 -15.271   9.997  1.00 25.76           C
ATOM   4810  CB  THR B 739      39.700 -16.760  10.330  1.00 33.06           C
ATOM   4811  OG1 THR B 739      40.460 -17.376   9.284  1.00 31.75           O
ATOM   4812  CG2 THR B 739      38.375 -17.491  10.485  1.00 30.41           C
ATOM   4813  C   THR B 739      38.456 -14.652  10.957  1.00 29.59           C
ATOM   4814  O   THR B 739      37.368 -14.239  10.557  1.00 29.90           O
ATOM   4815  N   THR B 740      38.838 -14.581  12.227  1.00 25.51           N
ATOM   4816  CA  THR B 740      37.993 -13.995  13.258  1.00 25.39           C
ATOM   4817  CB  THR B 740      38.687 -14.034  14.631  1.00 29.32           C
ATOM   4818  OG1 THR B 740      39.077 -15.376  14.934  1.00 29.45           O
ATOM   4819  CG2 THR B 740      37.757 -13.529  15.710  1.00 27.61           C
ATOM   4820  C   THR B 740      37.590 -12.567  12.906  1.00 29.83           C
ATOM   4821  O   THR B 740      36.505 -12.114  13.268  1.00 29.90           O
ATOM   4822  N   LEU B 741      38.489 -11.854  12.234  1.00 26.36           N
ATOM   4823  CA  LEU B 741      38.261 -10.465  11.851  1.00 26.10           C
ATOM   4824  CB  LEU B 741      39.572  -9.814  11.399  1.00 25.85           C
ATOM   4825  CG  LEU B 741      39.508  -8.319  11.075  1.00 30.36           C
ATOM   4826  CD1 LEU B 741      38.916  -7.533  12.238  1.00 30.26           C
ATOM   4827  CD2 LEU B 741      40.873  -7.776  10.695  1.00 32.16           C
ATOM   4828  C   LEU B 741      37.213 -10.354  10.750  1.00 31.22           C
ATOM   4829  O   LEU B 741      36.383  -9.447  10.761  1.00 31.38           O
ATOM   4830  N   THR B 742      37.259 -11.283   9.801  1.00 28.16           N
ATOM   4831  CA  THR B 742      36.305 -11.301   8.698  1.00 28.12           C
ATOM   4832  CB  THR B 742      36.755 -12.249   7.569  1.00 34.99           C
ATOM   4833  OG1 THR B 742      37.965 -11.763   6.976  1.00 32.74           O
ATOM   4834  CG2 THR B 742      35.674 -12.335   6.502  1.00 34.24           C
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ATOM   4835  C   THR B 742      34.921 -11.693   9.208  1.00 32.05           C
ATOM   4836  O   THR B 742      33.905 -11.300   8.640  1.00 31.36           O
ATOM   4837  N   GLN B 743      34.884 -12.484  10.275  1.00 29.14           N
ATOM   4838  CA  GLN B 743      33.611 -12.909  10.839  1.00 29.40           C
ATOM   4839  CB  GLN B 743      33.814 -14.026  11.864  1.00 30.58           C
ATOM   4840  CG  GLN B 743      34.075 -15.385  11.252  1.00 43.95           C
ATOM   4841  CD  GLN B 743      34.780 -16.324  12.213  1.00 62.97           C
ATOM   4842  OE1 GLN B 743      35.277 -17.377  11.814  1.00 60.82           O
ATOM   4843  NE2 GLN B 743      34.825 -15.945  13.489  1.00 49.42           N
ATOM   4844  C   GLN B 743      32.942 -11.716  11.496  1.00 33.81           C
ATOM   4845  O   GLN B 743      31.728 -11.554  11.423  1.00 33.99           O
ATOM   4846  N   ILE B 744      33.750 -10.874  12.130  1.00 30.44           N
ATOM   4847  CA  ILE B 744      33.239  -9.692  12.808  1.00 30.12           C
ATOM   4848  CB  ILE B 744      34.108  -9.325  14.022  1.00 33.19           C
ATOM   4849  CG1 ILE B 744      34.269 -10.540  14.938  1.00 33.59           C
ATOM   4850  CD1 ILE B 744      35.190 -10.305  16.116  1.00 38.82           C
ATOM   4851  CG2 ILE B 744      33.494  -8.162  14.785  1.00 33.64           C
ATOM   4852  C   ILE B 744      33.062  -8.516  11.849  1.00 33.60           C
ATOM   4853  O   ILE B 744      32.118  -7.737  11.984  1.00 32.54           O
ATOM   4854  N   LEU B 745      33.968  -8.407  10.878  1.00 30.51           N
ATOM   4855  CA  LEU B 745      33.935  -7.334   9.885  1.00 30.14           C
ATOM   4856  CB  LEU B 745      35.102  -6.370  10.107  1.00 30.30           C
ATOM   4857  CG  LEU B 745      35.243  -5.637  11.443  1.00 34.89           C
ATOM   4858  CD1 LEU B 745      36.523  -4.825  11.425  1.00 35.08           C
ATOM   4859  CD2 LEU B 745      34.047  -4.737  11.701  1.00 37.77           C
ATOM   4860  C   LEU B 745      34.049  -7.916   8.482  1.00 33.90           C
ATOM   4861  O   LEU B 745      35.115  -7.877   7.871  1.00 33.19           O
ATOM   4862  N   PRO B 746      32.949  -8.466   7.955  1.00 30.66           N
ATOM   4863  CA  PRO B 746      32.843  -9.110   6.640  1.00 30.33           C
ATOM   4864  CB  PRO B 746      31.336  -9.140   6.396  1.00 31.89           C
ATOM   4865  CG  PRO B 746      30.751  -9.235   7.762  1.00 36.39           C
ATOM   4866  CD  PRO B 746      31.662  -8.456   8.672  1.00 32.24           C
ATOM   4867  C   PRO B 746      33.559  -8.395   5.489  1.00 34.14           C
ATOM   4868  O   PRO B 746      33.995  -9.034   4.530  1.00 33.14           O
ATOM   4869  N   PRO B 747      33.674  -7.059   5.561  1.00 31.62           N
ATOM   4870  CA  PRO B 747      34.329  -6.312   4.477  1.00 31.37           C
ATOM   4871  CB  PRO B 747      33.878  -4.872   4.725  1.00 33.12           C
ATOM   4872  CG  PRO B 747      32.595  -5.004   5.457  1.00 37.59           C
ATOM   4873  CD  PRO B 747      32.774  -6.199   6.346  1.00 33.29           C
ATOM   4874  C   PRO B 747      35.859  -6.398   4.492  1.00 35.11           C
ATOM   4875  O   PRO B 747      36.523  -5.912   3.572  1.00 35.13           O
ATOM   4876  N   THR B 748      36.414  -7.018   5.529  1.00 30.40           N
ATOM   4877  CA  THR B 748      37.861  -7.175   5.630  1.00 30.47           C
ATOM   4878  CB  THR B 748      38.345  -7.099   7.089  1.00 36.50           C
ATOM   4879  OG1 THR B 748      37.576  -7.993   7.901  1.00 35.77           O
ATOM   4880  CG2 THR B 748      38.207  -5.679   7.630  1.00 35.34           C
ATOM   4881  C   THR B 748      38.333  -8.466   4.961  1.00 34.87           C
ATOM   4882  O   THR B 748      39.516  -8.791   4.994  1.00 35.02           O
ATOM   4883  N   GLU B 749      37.403  -9.193   4.347  1.00 31.49           N
ATOM   4884  CA  GLU B 749      37.725 -10.467   3.708  1.00 31.07           C
ATOM   4885  CB  GLU B 749      36.489 -11.069   3.038  1.00 32.63           C
ATOM   4886  CG  GLU B 749      36.804 -12.113   1.976  1.00 44.52           C
ATOM   4887  CD  GLU B 749      36.904 -13.513   2.549  1.00 69.80           C
ATOM   4888  OE1 GLU B 749      36.148 -13.821   3.493  1.00 67.81           O
ATOM   4889  OE2 GLU B 749      37.746 -14.302   2.066  1.00 67.47           O
ATOM   4890  C   GLU B 749      38.902 -10.417   2.731  1.00 33.25           C
ATOM   4891  O   GLU B 749      39.598 -11.415   2.533  1.00 32.34           O
ATOM   4892  N   PRO B 750      39.137  -9.256   2.101  1.00 29.07           N
ATOM   4893  CA  PRO B 750      40.283  -9.262   1.187  1.00 28.32           C
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ATOM   4894  CB  PRO B 750      40.291  -7.837   0.638  1.00 30.08           C
ATOM   4895  CG  PRO B 750      38.852  -7.471   0.609  1.00 34.84           C
ATOM   4896  CD  PRO B 750      38.223  -8.135   1.817  1.00 30.48           C
ATOM   4897  C   PRO B 750      41.580  -9.563   1.926  1.00 30.05           C
ATOM   4898  O   PRO B 750      42.497 -10.147   1.359  1.00 30.43           O
ATOM   4899  N   LEU B 751      41.640  -9.183   3.200  1.00 24.20           N
ATOM   4900  CA  LEU B 751      42.809  -9.468   4.024  1.00 23.46           C
ATOM   4901  CB  LEU B 751      42.617  -8.923   5.442  1.00 22.91           C
ATOM   4902  CG  LEU B 751      42.628  -7.408   5.661  1.00 26.20           C
ATOM   4903  CD1 LEU B 751      42.648  -7.110   7.154  1.00 25.83           C
ATOM   4904  CD2 LEU B 751      43.817  -6.772   4.970  1.00 25.65           C
ATOM   4905  C   LEU B 751      42.995 -10.980   4.106  1.00 28.38           C
ATOM   4906  O   LEU B 751      44.058 -11.511   3.780  1.00 28.53           O
ATOM   4907  N   LEU B 752      41.951 -11.665   4.560  1.00 24.70           N
ATOM   4908  CA  LEU B 752      41.994 -13.114   4.720  1.00 24.90           C
ATOM   4909  CB  LEU B 752      40.665 -13.640   5.262  1.00 24.76           C
ATOM   4910  CG  LEU B 752      40.588 -15.154   5.480  1.00 29.14           C
ATOM   4911  CD1 LEU B 752      41.581 -15.609   6.526  1.00 29.14           C
ATOM   4912  CD2 LEU B 752      39.176 -15.580   5.849  1.00 30.95           C
ATOM   4913  C   LEU B 752      42.374 -13.842   3.436  1.00 29.83           C
ATOM   4914  O   LEU B 752      43.158 -14.794   3.461  1.00 29.40           O
ATOM   4915  N   LYS B 753      41.833 -13.379   2.314  1.00 27.57           N
ATOM   4916  CA  LYS B 753      42.106 -14.001   1.021  1.00 28.22           C
ATOM   4917  CB  LYS B 753      41.137 -13.485  -0.043  1.00 31.13           C
ATOM   4918  CG  LYS B 753      41.754 -13.370  -1.431  1.00 48.55           C
ATOM   4919  CD  LYS B 753      40.689 -13.199  -2.501  1.00 59.93           C
ATOM   4920  CE  LYS B 753      40.905 -14.171  -3.649  1.00 72.02           C
ATOM   4921  NZ  LYS B 753      39.645 -14.872  -4.028  1.00 82.19           N
ATOM   4922  C   LYS B 753      43.546 -13.798   0.566  1.00 33.66           C
ATOM   4923  O   LYS B 753      44.056 -14.553  -0.266  1.00 33.61           O
ATOM   4924  N   ALA B 754      44.195 -12.771   1.104  1.00 30.80           N
ATOM   4925  CA  ALA B 754      45.589 -12.484   0.773  1.00 30.76           C
ATOM   4926  CB  ALA B 754      45.897 -11.013   1.030  1.00 31.62           C
ATOM   4927  C   ALA B 754      46.498 -13.373   1.621  1.00 34.04           C
ATOM   4928  O   ALA B 754      47.523 -13.879   1.155  1.00 32.34           O
ATOM   4929  N   CYS B 755      46.100 -13.562   2.873  1.00 31.31           N
ATOM   4930  CA  CYS B 755      46.849 -14.391   3.799  1.00 31.59           C
ATOM   4931  CB  CYS B 755      46.272 -14.260   5.205  1.00 32.56           C
ATOM   4932  SG  CYS B 755      47.399 -14.801   6.502  1.00 36.96           S
ATOM   4933  C   CYS B 755      46.838 -15.853   3.362  1.00 34.65           C
ATOM   4934  O   CYS B 755      47.811 -16.576   3.576  1.00 34.72           O
ATOM   4935  N   ARG B 756      45.733 -16.285   2.762  1.00 30.02           N
ATOM   4936  CA  ARG B 756      45.605 -17.662   2.290  1.00 29.29           C
ATOM   4937  CB  ARG B 756      44.153 -17.964   1.913  1.00 29.67           C
ATOM   4938  CG  ARG B 756      43.216 -18.071   3.106  1.00 38.57           C
ATOM   4939  CD  ARG B 756      41.923 -18.772   2.734  1.00 46.12           C
ATOM   4940  NE  ARG B 756      41.049 -18.980   3.887  1.00 48.00           N
ATOM   4941  CZ  ARG B 756      39.830 -18.461   4.002  1.00 56.41           C
ATOM   4942  NH1 ARG B 756      39.344 -17.692   3.035  1.00 41.58           N
ATOM   4943  NH2 ARG B 756      39.097 -18.709   5.081  1.00 36.68           N
ATOM   4944  C   ARG B 756      46.511 -17.876   1.085  1.00 31.37           C
ATOM   4945  O   ARG B 756      47.281 -18.834   1.028  1.00 31.40           O
ATOM   4946  N   ASP B 757      46.433 -16.951   0.140  1.00 26.46           N
ATOM   4947  CA  ASP B 757      47.242 -16.999  -1.065  1.00 25.88           C
ATOM   4948  CB  ASP B 757      46.893 -15.823  -1.970  1.00 27.87           C
ATOM   4949  CG  ASP B 757      45.562 -16.005  -2.667  1.00 41.52           C
ATOM   4950  OD1 ASP B 757      45.158 -17.171  -2.881  1.00 43.33           O
ATOM   4951  OD2 ASP B 757      44.914 -14.985  -2.987  1.00 47.97           O
ATOM   4952  C   ASP B 757      48.736 -16.996  -0.765  1.00 28.79           C
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ATOM   4953  O   ASP B 757      49.519 -17.649  -1.460  1.00 28.43           O
ATOM   4954  N   ASN B 758      49.130 -16.254   0.263  1.00 24.29           N
ATOM   4955  CA  ASN B 758      50.538 -16.179   0.641  1.00 23.87           C
ATOM   4956  CB  ASN B 758      50.812 -14.932   1.484  1.00 21.72           C
ATOM   4957  CG  ASN B 758      51.113 -13.715   0.643  1.00 32.38           C
ATOM   4958  OD1 ASN B 758      51.650 -13.821  -0.460  1.00 28.35           O
ATOM   4959  ND2 ASN B 758      50.761 -12.544   1.158  1.00 20.36           N
ATOM   4960  C   ASN B 758      50.958 -17.431   1.406  1.00 28.02           C
ATOM   4961  O   ASN B 758      52.111 -17.852   1.338  1.00 28.10           O
ATOM   4962  N   LEU B 759      50.020 -18.022   2.139  1.00 24.94           N
ATOM   4963  CA  LEU B 759      50.312 -19.235   2.892  1.00 25.03           C
ATOM   4964  CB  LEU B 759      49.113 -19.647   3.747  1.00 25.11           C
ATOM   4965  CG  LEU B 759      49.127 -21.080   4.295  1.00 30.68           C
ATOM   4966  CD1 LEU B 759      50.392 -21.352   5.105  1.00 31.22           C
ATOM   4967  CD2 LEU B 759      47.892 -21.344   5.136  1.00 33.22           C
ATOM   4968  C   LEU B 759      50.640 -20.347   1.905  1.00 30.09           C
ATOM   4969  O   LEU B 759      51.481 -21.200   2.170  1.00 29.96           O
ATOM   4970  N   SER B 760      49.968 -20.319   0.760  1.00 27.73           N
ATOM   4971  CA  SER B 760      50.157 -21.328  -0.276  1.00 27.85           C
ATOM   4972  CB  SER B 760      49.038 -21.236  -1.314  1.00 32.19           C
ATOM   4973  OG  SER B 760      49.489 -20.565  -2.478  1.00 44.75           O
ATOM   4974  C   SER B 760      51.507 -21.167  -0.958  1.00 31.15           C
ATOM   4975  O   SER B 760      52.149 -22.146  -1.319  1.00 30.99           O
ATOM   4976  N   GLN B 761      51.927 -19.919  -1.134  1.00 27.66           N
ATOM   4977  CA  GLN B 761      53.204 -19.611  -1.765  1.00 26.92           C
ATOM   4978  CB  GLN B 761      53.308 -18.108  -2.035  1.00 28.12           C
ATOM   4979  CG  GLN B 761      52.418 -17.625  -3.168  1.00 36.26           C
ATOM   4980  CD  GLN B 761      52.889 -18.122  -4.518  1.00 56.80           C
ATOM   4981  OE1 GLN B 761      53.947 -17.724  -5.002  1.00 52.96           O
ATOM   4982  NE2 GLN B 761      52.129 -19.033  -5.111  1.00 51.06           N
ATOM   4983  C   GLN B 761      54.366 -20.070  -0.897  1.00 31.14           C
ATOM   4984  O   GLN B 761      55.443 -20.367  -1.404  1.00 31.15           O
ATOM   4985  N   TRP B 762      54.145 -20.123   0.412  1.00 28.65           N
ATOM   4986  CA  TRP B 762      55.177 -20.567   1.347  1.00 28.96           C
ATOM   4987  CB  TRP B 762      54.867 -20.092   2.769  1.00 27.69           C
ATOM   4988  CG  TRP B 762      55.293 -18.684   3.005  1.00 28.83           C
ATOM   4989  CD1 TRP B 762      54.491 -17.626   3.314  1.00 31.66           C
ATOM   4990  NE1 TRP B 762      55.236 -16.478   3.406  1.00 31.02           N
ATOM   4991  CE2 TRP B 762      56.546 -16.777   3.135  1.00 32.69           C
ATOM   4992  CD2 TRP B 762      56.617 -18.159   2.869  1.00 28.76           C
ATOM   4993  CE3 TRP B 762      57.859 -18.726   2.557  1.00 30.07           C
ATOM   4994  CZ3 TRP B 762      58.972 -17.906   2.527  1.00 31.61           C
ATOM   4995  CH2 TRP B 762      58.869 -16.532   2.802  1.00 32.23           C
ATOM   4996  CZ2 TRP B 762      57.667 -15.952   3.104  1.00 31.98           C
ATOM   4997  C   TRP B 762      55.277 -22.083   1.319  1.00 33.64           C
ATOM   4998  O   TRP B 762      56.235 -22.666   1.829  1.00 32.70           O
ATOM   4999  N   GLU B 763      54.273 -22.711   0.717  1.00 31.60           N
ATOM   5000  CA  GLU B 763      54.234 -24.161   0.600  1.00 31.98           C
ATOM   5001  CB  GLU B 763      52.789 -24.654   0.539  1.00 33.23           C
ATOM   5002  CG  GLU B 763      52.101 -24.674   1.893  1.00 43.25           C
ATOM   5003  CD  GLU B 763      50.587 -24.631   1.789  1.00 66.39           C
ATOM   5004  OE1 GLU B 763      50.070 -24.281   0.706  1.00 68.64           O
ATOM   5005  OE2 GLU B 763      49.913 -24.950   2.791  1.00 60.10           O
ATOM   5006  C   GLU B 763      55.010 -24.580  -0.639  1.00 38.06           C
ATOM   5007  O   GLU B 763      55.701 -25.599  -0.631  1.00 38.35           O
ATOM   5008  N   LYS B 764      54.928 -23.766  -1.688  1.00 35.29           N
ATOM   5009  CA  LYS B 764      55.663 -24.034  -2.919  1.00 35.52           C
ATOM   5010  CB  LYS B 764      55.228 -23.074  -4.030  1.00 37.54           C
ATOM   5011  CG  LYS B 764      53.723 -22.950  -4.191  1.00 48.82           C
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ATOM   5012  CD  LYS B 764      53.353 -22.332  -5.532  1.00 58.66           C
ATOM   5013  CE  LYS B 764      51.857 -22.452  -5.804  1.00 68.56           C
ATOM   5014  NZ  LYS B 764      51.517 -22.183  -7.230  1.00 76.38           N
ATOM   5015  C   LYS B 764      57.153 -23.866  -2.634  1.00 40.75           C
ATOM   5016  O   LYS B 764      58.001 -24.466  -3.298  1.00 40.26           O
ATOM   5017  N   VAL B 765      57.457 -23.048  -1.631  1.00 38.23           N
ATOM   5018  CA  VAL B 765      58.833 -22.800  -1.216  1.00 38.36           C
ATOM   5019  CB  VAL B 765      58.918 -21.564  -0.306  1.00 42.17           C
ATOM   5020  CG1 VAL B 765      60.251 -21.531   0.422  1.00 41.84           C
ATOM   5021  CG2 VAL B 765      58.697 -20.295  -1.106  1.00 41.96           C
ATOM   5022  C   VAL B 765      59.377 -24.028  -0.494  1.00 43.51           C
ATOM   5023  O   VAL B 765      60.497 -24.473  -0.753  1.00 43.06           O
ATOM   5024  N   ILE B 766      58.577 -24.559   0.426  1.00 40.93           N
ATOM   5025  CA  ILE B 766      58.954 -25.742   1.190  1.00 41.01           C
ATOM   5026  CB  ILE B 766      57.954 -26.023   2.326  1.00 44.03           C
ATOM   5027  CG1 ILE B 766      57.979 -24.896   3.360  1.00 44.28           C
ATOM   5028  CD1 ILE B 766      56.612 -24.572   3.939  1.00 50.28           C
ATOM   5029  CG2 ILE B 766      58.246 -27.368   2.974  1.00 44.70           C
ATOM   5030  C   ILE B 766      59.090 -26.944   0.263  1.00 45.70           C
ATOM   5031  O   ILE B 766      59.684 -27.960   0.631  1.00 45.56           O
ATOM   5032  N   ARG B 767      58.541 -26.822  -0.942  1.00 42.62           N
ATOM   5033  CA  ARG B 767      58.617 -27.892  -1.932  1.00 42.66           C
ATOM   5034  CB  ARG B 767      57.355 -27.924  -2.792  1.00 41.50           C
ATOM   5035  CG  ARG B 767      56.430 -29.079  -2.496  1.00 47.54           C
ATOM   5036  CD  ARG B 767      55.218 -29.031  -3.390  1.00 55.08           C
ATOM   5037  NE  ARG B 767      54.173 -28.150  -2.871  1.00 62.49           N
ATOM   5038  CZ  ARG B 767      53.581 -27.193  -3.579  1.00 73.67           C
ATOM   5039  NH1 ARG B 767      53.930 -26.985  -4.837  1.00 59.20           N
ATOM   5040  NH2 ARG B 767      52.640 -26.439  -3.031  1.00 58.42           N
ATOM   5041  C   ARG B 767      59.835 -27.687  -2.821  1.00 47.90           C
ATOM   5042  O   ARG B 767      60.639 -28.602  -3.008  1.00 48.00           O
ATOM   5043  N   GLY B 768      59.978 -26.479  -3.354  1.00 44.76           N
ATOM   5044  CA  GLY B 768      61.105 -26.149  -4.203  1.00 44.72           C
ATOM   5045  C   GLY B 768      60.662 -25.702  -5.581  1.00 49.07           C
ATOM   5046  O   GLY B 768      61.474 -25.572  -6.497  1.00 48.61           O
ATOM   5047  N   GLU B 769      59.363 -25.462  -5.721  1.00 45.63           N
ATOM   5048  CA  GLU B 769      58.791 -25.030  -6.989  1.00 71.12           C
ATOM   5049  CB  GLU B 769      57.779 -26.063  -7.484  1.00 72.49           C
ATOM   5050  CG  GLU B 769      56.356 -25.800  -7.040  1.00 83.70           C
ATOM   5051  CD  GLU B 769      55.354 -26.027  -8.155  1.00106.59           C
ATOM   5052  OE1 GLU B 769      55.779 -26.102  -9.329  1.00101.70           O
ATOM   5053  OE2 GLU B 769      54.143 -26.127  -7.859  1.00101.27           O
ATOM   5054  C   GLU B 769      58.132 -23.659  -6.869  1.00 92.81           C
ATOM   5055  O   GLU B 769      58.679 -22.749  -6.245  1.00 51.79           O
TER    5056      GLU B 769
ATOM   5057  N   GLY C 458      93.066  35.339  -5.616  1.00 53.58           N
ATOM   5058  CA  GLY C 458      93.812  34.226  -6.173  1.00 53.48           C
ATOM   5059  C   GLY C 458      95.112  33.991  -5.432  1.00 57.85           C
ATOM   5060  O   GLY C 458      96.079  33.479  -5.998  1.00 57.42           O
ATOM   5061  N   LEU C 459      95.135  34.369  -4.158  1.00 54.70           N
ATOM   5062  CA  LEU C 459      96.326  34.200  -3.330  1.00 54.49           C
ATOM   5063  CB  LEU C 459      96.307  35.186  -2.157  1.00 54.73           C
ATOM   5064  CG  LEU C 459      96.836  34.687  -0.809  1.00 59.65           C
ATOM   5065  CD1 LEU C 459      98.337  34.908  -0.698  1.00 59.67           C
ATOM   5066  CD2 LEU C 459      96.100  35.364   0.345  1.00 62.41           C
ATOM   5067  C   LEU C 459      96.458  32.764  -2.825  1.00 57.10           C
ATOM   5068  O   LEU C 459      97.552  32.198  -2.817  1.00 56.14           O
ATOM   5069  N   MET C 460      95.337  32.178  -2.414  1.00 53.37           N
ATOM   5070  CA  MET C 460      95.324  30.808  -1.917  1.00 53.11           C
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ATOM   5071  CB  MET C 460      94.144  30.591  -0.971  1.00 55.74           C
ATOM   5072  CG  MET C 460      94.296  31.236   0.389  1.00 59.90           C
ATOM   5073  SD  MET C 460      92.696  31.741   1.042  1.00 64.71           S
ATOM   5074  CE  MET C 460      92.068  32.766  -0.336  1.00 61.49           C
ATOM   5075  C   MET C 460      95.216  29.826  -3.071  1.00 55.34           C
ATOM   5076  O   MET C 460      94.268  29.879  -3.854  1.00 55.06           O
ATOM   5077  N   GLN C 461      96.182  28.920  -3.166  1.00 50.40           N
ATOM   5078  CA  GLN C 461      96.175  27.920  -4.223  1.00 49.55           C
ATOM   5079  CB  GLN C 461      97.222  28.241  -5.292  1.00 50.86           C
ATOM   5080  CG  GLN C 461      96.916  29.518  -6.072  1.00 66.35           C
ATOM   5081  CD  GLN C 461      97.388  29.463  -7.513  1.00 85.14           C
ATOM   5082  OE1 GLN C 461      97.219  28.453  -8.197  1.00 81.06           O
ATOM   5083  NE2 GLN C 461      97.968  30.559  -7.987  1.00 77.08           N
ATOM   5084  C   GLN C 461      96.353  26.512  -3.661  1.00 51.52           C
ATOM   5085  O   GLN C 461      97.189  26.277  -2.789  1.00 50.89           O
ATOM   5086  N   PHE C 462      95.532  25.589  -4.147  1.00 46.78           N
ATOM   5087  CA  PHE C 462      95.558  24.210  -3.683  1.00 45.67           C
ATOM   5088  CB  PHE C 462      94.218  23.535  -3.963  1.00 47.50           C
ATOM   5089  CG  PHE C 462      93.054  24.225  -3.322  1.00 49.08           C
ATOM   5090  CD1 PHE C 462      92.810  25.566  -3.565  1.00 52.34           C
ATOM   5091  CE1 PHE C 462      91.745  26.210  -2.968  1.00 53.53           C
ATOM   5092  CZ  PHE C 462      90.911  25.514  -2.114  1.00 52.81           C
ATOM   5093  CE2 PHE C 462      91.147  24.177  -1.860  1.00 54.59           C
ATOM   5094  CD2 PHE C 462      92.216  23.539  -2.460  1.00 51.40           C
ATOM   5095  C   PHE C 462      96.677  23.384  -4.289  1.00 46.95           C
ATOM   5096  O   PHE C 462      96.961  23.476  -5.483  1.00 46.12           O
ATOM   5097  N   THR C 463      97.289  22.555  -3.450  1.00 42.43           N
ATOM   5098  CA  THR C 463      98.349  21.651  -3.875  1.00 41.71           C
ATOM   5099  CB  THR C 463      99.670  21.926  -3.123  1.00 52.78           C
ATOM   5100  OG1 THR C 463      99.714  23.298  -2.708  1.00 54.29           O
ATOM   5101  CG2 THR C 463     100.866  21.627  -4.017  1.00 51.27           C
ATOM   5102  C   THR C 463      97.851  20.239  -3.596  1.00 43.46           C
ATOM   5103  O   THR C 463      97.001  20.041  -2.733  1.00 43.24           O
ATOM   5104  N   LEU C 464      98.361  19.266  -4.341  1.00 38.48           N
ATOM   5105  CA  LEU C 464      97.948  17.880  -4.163  1.00 37.68           C
ATOM   5106  CB  LEU C 464      97.439  17.310  -5.487  1.00 37.09           C
ATOM   5107  CG  LEU C 464      96.012  17.655  -5.910  1.00 40.92           C
ATOM   5108  CD1 LEU C 464      95.057  17.556  -4.733  1.00 40.95           C
ATOM   5109  CD2 LEU C 464      95.572  16.743  -7.043  1.00 41.76           C
ATOM   5110  C   LEU C 464      99.129  17.045  -3.698  1.00 42.73           C
ATOM   5111  O   LEU C 464     100.280  17.371  -3.993  1.00 42.84           O
ATOM   5112  N   PRO C 465      98.858  15.945  -2.975  1.00 39.49           N
ATOM   5113  CA  PRO C 465     100.005  15.114  -2.602  1.00 39.19           C
ATOM   5114  CB  PRO C 465      99.351  13.942  -1.874  1.00 40.86           C
ATOM   5115  CG  PRO C 465      98.156  14.550  -1.226  1.00 45.20           C
ATOM   5116  CD  PRO C 465      97.666  15.626  -2.167  1.00 40.81           C
ATOM   5117  C   PRO C 465     100.651  14.645  -3.902  1.00 42.64           C
ATOM   5118  O   PRO C 465      99.958  14.460  -4.901  1.00 42.24           O
ATOM   5119  N   VAL C 466     101.976  14.533  -3.908  1.00 38.58           N
ATOM   5120  CA  VAL C 466     102.716  14.154  -5.112  1.00 38.11           C
ATOM   5121  CB  VAL C 466     104.182  13.808  -4.808  1.00 41.96           C
ATOM   5122  CG1 VAL C 466     104.807  13.091  -5.994  1.00 41.64           C
ATOM   5123  CG2 VAL C 466     104.962  15.071  -4.473  1.00 41.80           C
ATOM   5124  C   VAL C 466     102.062  13.107  -6.014  1.00 40.87           C
ATOM   5125  O   VAL C 466     102.052  13.259  -7.235  1.00 40.81           O
ATOM   5126  N   ARG C 467     101.507  12.059  -5.412  1.00 36.44           N
ATOM   5127  CA  ARG C 467     100.869  10.982  -6.169  1.00 35.70           C
ATOM   5128  CB  ARG C 467     100.593   9.768  -5.280  1.00 34.37           C
ATOM   5129  CG  ARG C 467     100.114   8.548  -6.061  1.00 42.05           C
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ATOM   5130  CD  ARG C 467      99.559   7.465  -5.145  1.00 44.87           C
ATOM   5131  NE  ARG C 467      98.249   7.814  -4.603  1.00 45.81           N
ATOM   5132  CZ  ARG C 467      97.111   7.762  -5.290  1.00 57.03           C
ATOM   5133  NH1 ARG C 467      97.109   7.377  -6.557  1.00 43.02           N
ATOM   5134  NH2 ARG C 467      95.970   8.098  -4.710  1.00 44.14           N
ATOM   5135  C   ARG C 467      99.584  11.402  -6.872  1.00 39.13           C
ATOM   5136  O   ARG C 467      99.337  11.010  -8.010  1.00 38.77           O
ATOM   5137  N   LEU C 468      98.753  12.173  -6.180  1.00 35.26           N
ATOM   5138  CA  LEU C 468      97.497  12.637  -6.751  1.00 34.92           C
ATOM   5139  CB  LEU C 468      96.581  13.179  -5.653  1.00 34.71           C
ATOM   5140  CG  LEU C 468      96.059  12.132  -4.662  1.00 38.84           C
ATOM   5141  CD1 LEU C 468      97.208  11.399  -3.983  1.00 39.00           C
ATOM   5142  CD2 LEU C 468      95.132  12.759  -3.632  1.00 40.36           C
ATOM   5143  C   LEU C 468      97.754  13.701  -7.811  1.00 40.43           C
ATOM   5144  O   LEU C 468      96.993  13.835  -8.769  1.00 40.04           O
ATOM   5145  N   CYS C 469      98.836  14.451  -7.636  1.00 38.25           N
ATOM   5146  CA  CYS C 469      99.221  15.497  -8.574  1.00 38.61           C
ATOM   5147  CB  CYS C 469     100.442  16.247  -8.034  1.00 39.81           C
ATOM   5148  SG  CYS C 469     101.123  17.535  -9.110  1.00 44.32           S
ATOM   5149  C   CYS C 469      99.532  14.870  -9.932  1.00 40.55           C
ATOM   5150  O   CYS C 469      99.163  15.403 -10.980  1.00 39.52           O
ATOM   5151  N   ARG C 470     100.189  13.715  -9.896  1.00 36.34           N
ATOM   5152  CA  ARG C 470     100.555  12.976 -11.099  1.00 35.82           C
ATOM   5153  CB  ARG C 470     101.560  11.876 -10.738  1.00 36.40           C
ATOM   5154  CG  ARG C 470     102.959  12.062 -11.308  1.00 46.91           C
ATOM   5155  CD  ARG C 470     103.958  11.187 -10.567  1.00 60.10           C
ATOM   5156  NE  ARG C 470     105.221  11.873 -10.314  1.00 72.83           N
ATOM   5157  CZ  ARG C 470     106.015  11.617  -9.279  1.00 88.77           C
ATOM   5158  NH1 ARG C 470     105.672  10.691  -8.395  1.00 77.60           N
ATOM   5159  NH2 ARG C 470     107.147  12.289  -9.123  1.00 74.34           N
ATOM   5160  C   ARG C 470      99.330  12.326 -11.735  1.00 39.16           C
ATOM   5161  O   ARG C 470      98.982  12.599 -12.883  1.00 38.14           O
ATOM   5162  N   GLU C 471      98.699  11.441 -10.972  1.00 36.09           N
ATOM   5163  CA  GLU C 471      97.540  10.683 -11.425  1.00 36.02           C
ATOM   5164  CB  GLU C 471      97.057   9.748 -10.314  1.00 37.60           C
ATOM   5165  CG  GLU C 471      97.497   8.307 -10.480  1.00 51.03           C
ATOM   5166  CD  GLU C 471      98.937   8.080 -10.058  1.00 79.33           C
ATOM   5167  OE1 GLU C 471      99.196   7.108  -9.313  1.00 76.66           O
ATOM   5168  OE2 GLU C 471      99.810   8.866 -10.483  1.00 74.62           O
ATOM   5169  C   GLU C 471      96.377  11.530 -11.939  1.00 39.00           C
ATOM   5170  O   GLU C 471      95.687  11.138 -12.883  1.00 38.86           O
ATOM   5171  N   ILE C 472      96.140  12.675 -11.309  1.00 34.48           N
ATOM   5172  CA  ILE C 472      95.021  13.526 -11.701  1.00 33.66           C
ATOM   5173  CB  ILE C 472      94.869  14.759 -10.798  1.00 36.52           C
ATOM   5174  CG1 ILE C 472      93.389  15.134 -10.682  1.00 36.61           C
ATOM   5175  CD1 ILE C 472      93.139  16.401  -9.911  1.00 41.44           C
ATOM   5176  CG2 ILE C 472      95.703  15.921 -11.329  1.00 36.72           C
ATOM   5177  C   ILE C 472      94.948  13.874 -13.184  1.00 36.95           C
ATOM   5178  O   ILE C 472      93.862  14.045 -13.726  1.00 35.91           O
ATOM   5179  N   GLU C 473      96.102  13.981 -13.837  1.00 34.50           N
ATOM   5180  CA  GLU C 473      96.145  14.320 -15.260  1.00 34.36           C
ATOM   5181  CB  GLU C 473      97.517  14.887 -15.641  1.00 35.83           C
ATOM   5182  CG  GLU C 473      98.039  15.974 -14.706  1.00 46.14           C
ATOM   5183  CD  GLU C 473      97.030  17.084 -14.465  1.00 60.31           C
ATOM   5184  OE1 GLU C 473      96.280  17.433 -15.403  1.00 42.21           O
ATOM   5185  OE2 GLU C 473      96.998  17.617 -13.334  1.00 53.22           O
ATOM   5186  C   GLU C 473      95.802  13.133 -16.164  1.00 38.16           C
ATOM   5187  O   GLU C 473      95.642  13.289 -17.375  1.00 37.74           O
ATOM   5188  N   LEU C 474      95.691  11.948 -15.569  1.00 34.59           N
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ATOM   5189  CA  LEU C 474      95.383  10.734 -16.319  1.00 33.66           C
ATOM   5190  CB  LEU C 474      96.136   9.548 -15.726  1.00 33.84           C
ATOM   5191  CG  LEU C 474      97.636   9.790 -15.569  1.00 38.76           C
ATOM   5192  CD1 LEU C 474      98.202   8.889 -14.483  1.00 39.08           C
ATOM   5193  CD2 LEU C 474      98.342   9.560 -16.896  1.00 41.19           C
ATOM   5194  C   LEU C 474      93.887  10.441 -16.364  1.00 35.78           C
ATOM   5195  O   LEU C 474      93.172  10.651 -15.385  1.00 35.33           O
ATOM   5196  N   PHE C 475      93.424   9.950 -17.509  1.00 31.20           N
ATOM   5197  CA  PHE C 475      92.013   9.648 -17.706  1.00 30.62           C
ATOM   5198  CB  PHE C 475      91.759   9.209 -19.150  1.00 32.00           C
ATOM   5199  CG  PHE C 475      91.581  10.353 -20.116  1.00 33.08           C
ATOM   5200  CD1 PHE C 475      90.374  11.035 -20.194  1.00 35.66           C
ATOM   5201  CE1 PHE C 475      90.198  12.074 -21.096  1.00 36.16           C
ATOM   5202  CZ  PHE C 475      91.232  12.436 -21.941  1.00 35.24           C
ATOM   5203  CE2 PHE C 475      92.437  11.759 -21.881  1.00 37.30           C
ATOM   5204  CD2 PHE C 475      92.604  10.719 -20.975  1.00 34.80           C
ATOM   5205  C   PHE C 475      91.497   8.583 -16.742  1.00 35.74           C
ATOM   5206  O   PHE C 475      90.315   8.571 -16.398  1.00 35.62           O
ATOM   5207  N   HIS C 476      92.387   7.702 -16.296  1.00 32.65           N
ATOM   5208  CA  HIS C 476      92.005   6.621 -15.390  1.00 32.34           C
ATOM   5209  CB  HIS C 476      92.682   5.304 -15.788  1.00 33.41           C
ATOM   5210  CG  HIS C 476      94.157   5.276 -15.529  1.00 36.86           C
ATOM   5211  ND1 HIS C 476      95.090   5.516 -16.515  1.00 38.87           N
ATOM   5212  CE1 HIS C 476      96.305   5.412 -16.004  1.00 38.42           C
ATOM   5213  NE2 HIS C 476      96.193   5.106 -14.723  1.00 38.68           N
ATOM   5214  CD2 HIS C 476      94.860   5.006 -14.403  1.00 38.70           C
ATOM   5215  C   HIS C 476      92.176   6.901 -13.893  1.00 34.20           C
ATOM   5216  O   HIS C 476      92.204   5.975 -13.079  1.00 34.16           O
ATOM   5217  N   PHE C 477      92.244   8.177 -13.526  1.00 28.67           N
ATOM   5218  CA  PHE C 477      92.375   8.561 -12.121  1.00 27.26           C
ATOM   5219  CB  PHE C 477      92.569  10.073 -12.008  1.00 28.29           C
ATOM   5220  CG  PHE C 477      92.734  10.561 -10.596  1.00 29.16           C
ATOM   5221  CD1 PHE C 477      93.802  10.139  -9.824  1.00 31.68           C
ATOM   5222  CE1 PHE C 477      93.961  10.596  -8.528  1.00 32.44           C
ATOM   5223  CZ  PHE C 477      93.045  11.478  -7.991  1.00 31.48           C
ATOM   5224  CE2 PHE C 477      91.978  11.909  -8.752  1.00 33.45           C
ATOM   5225  CD2 PHE C 477      91.826  11.452 -10.046  1.00 30.94           C
ATOM   5226  C   PHE C 477      91.165   8.141 -11.277  1.00 30.57           C
ATOM   5227  O   PHE C 477      90.015   8.286 -11.704  1.00 29.76           O
ATOM   5228  N   ASP C 478      91.437   7.646 -10.070  1.00 26.95           N
ATOM   5229  CA  ASP C 478      90.398   7.261  -9.108  1.00 26.62           C
ATOM   5230  CB  ASP C 478      90.495   5.773  -8.748  1.00 28.53           C
ATOM   5231  CG  ASP C 478      89.375   5.318  -7.804  1.00 38.13           C
ATOM   5232  OD1 ASP C 478      88.259   5.036  -8.293  1.00 38.99           O
ATOM   5233  OD2 ASP C 478      89.606   5.255  -6.575  1.00 41.93           O
ATOM   5234  C   ASP C 478      90.551   8.130  -7.850  1.00 30.73           C
ATOM   5235  O   ASP C 478      91.597   8.117  -7.197  1.00 30.20           O
ATOM   5236  N   ILE C 479      89.504   8.892  -7.537  1.00 27.70           N
ATOM   5237  CA  ILE C 479      89.500   9.854  -6.432  1.00 27.50           C
ATOM   5238  CB  ILE C 479      88.257  10.773  -6.478  1.00 30.52           C
ATOM   5239  CG1 ILE C 479      86.966   9.949  -6.399  1.00 31.28           C
ATOM   5240  CD1 ILE C 479      85.700  10.793  -6.281  1.00 38.14           C
ATOM   5241  CG2 ILE C 479      88.253  11.602  -7.758  1.00 30.19           C
ATOM   5242  C   ILE C 479      89.832   9.369  -5.015  1.00 31.48           C
ATOM   5243  O   ILE C 479      90.221  10.166  -4.157  1.00 31.04           O
ATOM   5244  N   GLY C 480      89.665   8.078  -4.756  1.00 28.15           N
ATOM   5245  CA  GLY C 480      89.963   7.536  -3.444  1.00 28.16           C
ATOM   5246  C   GLY C 480      88.742   7.441  -2.554  1.00 33.22           C
ATOM   5247  O   GLY C 480      87.625   7.727  -2.980  1.00 33.21           O
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ATOM   5248  N   PRO C 481      88.938   7.039  -1.290  1.00 30.27           N
ATOM   5249  CA  PRO C 481      87.807   6.875  -0.371  1.00 30.22           C
ATOM   5250  CB  PRO C 481      88.100   5.532   0.301  1.00 31.83           C
ATOM   5251  CG  PRO C 481      89.570   5.402   0.237  1.00 36.01           C
ATOM   5252  CD  PRO C 481      89.974   6.016  -1.073  1.00 31.58           C
ATOM   5253  C   PRO C 481      87.706   7.966   0.682  1.00 34.35           C
ATOM   5254  O   PRO C 481      86.839   7.908   1.555  1.00 34.25           O
ATOM   5255  N   PHE C 482      88.584   8.959   0.599  1.00 30.51           N
ATOM   5256  CA  PHE C 482      88.579  10.044   1.573  1.00 29.90           C
ATOM   5257  CB  PHE C 482      90.003  10.519   1.859  1.00 31.25           C
ATOM   5258  CG  PHE C 482      90.934   9.413   2.272  1.00 32.10           C
ATOM   5259  CD1 PHE C 482      91.815   8.857   1.361  1.00 34.33           C
ATOM   5260  CE1 PHE C 482      92.661   7.833   1.731  1.00 34.95           C
ATOM   5261  CZ  PHE C 482      92.624   7.341   3.015  1.00 34.09           C
ATOM   5262  CE2 PHE C 482      91.741   7.877   3.932  1.00 36.33           C
ATOM   5263  CD2 PHE C 482      90.898   8.903   3.558  1.00 33.77           C
ATOM   5264  C   PHE C 482      87.673  11.194   1.158  1.00 34.39           C
ATOM   5265  O   PHE C 482      88.079  12.086   0.416  1.00 33.99           O
ATOM   5266  N   GLU C 483      86.439  11.153   1.651  1.00 31.40           N
ATOM   5267  CA  GLU C 483      85.413  12.148   1.345  1.00 31.69           C
ATOM   5268  CB  GLU C 483      84.211  11.960   2.272  1.00 33.32           C
ATOM   5269  CG  GLU C 483      83.607  10.571   2.258  1.00 48.33           C
ATOM   5270  CD  GLU C 483      82.100  10.603   2.431  1.00 79.43           C
ATOM   5271  OE1 GLU C 483      81.573  11.663   2.837  1.00 79.14           O
ATOM   5272  OE2 GLU C 483      81.443   9.576   2.151  1.00 77.12           O
ATOM   5273  C   GLU C 483      85.867  13.597   1.449  1.00 35.33           C
ATOM   5274  O   GLU C 483      85.731  14.376   0.505  1.00 34.23           O
ATOM   5275  N   ASN C 484      86.331  13.966   2.635  1.00 32.77           N
ATOM   5276  CA  ASN C 484      86.726  15.338   2.926  1.00 32.95           C
ATOM   5277  CB  ASN C 484      86.912  15.516   4.430  1.00 34.90           C
ATOM   5278  CG  ASN C 484      85.715  15.006   5.221  1.00 65.19           C
ATOM   5279  OD1 ASN C 484      85.760  13.926   5.813  1.00 60.66           O
ATOM   5280  ND2 ASN C 484      84.610  15.744   5.161  1.00 58.08           N
ATOM   5281  C   ASN C 484      87.911  15.872   2.134  1.00 36.71           C
ATOM   5282  O   ASN C 484      88.394  16.977   2.387  1.00 36.70           O
ATOM   5283  N   MET C 485      88.335  15.108   1.136  1.00 32.50           N
ATOM   5284  CA  MET C 485      89.436  15.505   0.270  1.00 31.97           C
ATOM   5285  CB  MET C 485      90.396  14.331   0.098  1.00 34.48           C
ATOM   5286  CG  MET C 485      91.518  14.284   1.111  1.00 38.50           C
ATOM   5287  SD  MET C 485      92.846  13.212   0.536  1.00 43.33           S
ATOM   5288  CE  MET C 485      93.788  14.355  -0.501  1.00 39.95           C
ATOM   5289  C   MET C 485      88.882  15.896  -1.096  1.00 34.60           C
ATOM   5290  O   MET C 485      89.548  16.560  -1.892  1.00 34.60           O
ATOM   5291  N   TRP C 486      87.660  15.456  -1.365  1.00 29.64           N
ATOM   5292  CA  TRP C 486      87.008  15.710  -2.645  1.00 28.73           C
ATOM   5293  CB  TRP C 486      85.740  14.869  -2.772  1.00 26.87           C
ATOM   5294  CG  TRP C 486      86.011  13.393  -2.742  1.00 27.46           C
ATOM   5295  CD1 TRP C 486      87.191  12.769  -3.032  1.00 30.06           C
ATOM   5296  NE1 TRP C 486      87.053  11.409  -2.903  1.00 29.35           N
ATOM   5297  CE2 TRP C 486      85.768  11.128  -2.519  1.00 30.87           C
ATOM   5298  CD2 TRP C 486      85.082  12.355  -2.407  1.00 27.10           C
ATOM   5299  CE3 TRP C 486      83.737  12.344  -2.028  1.00 28.37           C
ATOM   5300  CZ3 TRP C 486      83.130  11.127  -1.776  1.00 29.97           C
ATOM   5301  CH2 TRP C 486      83.841   9.926  -1.887  1.00 30.55           C
ATOM   5302  CZ2 TRP C 486      85.157   9.905  -2.258  1.00 30.21           C
ATOM   5303  C   TRP C 486      86.739  17.180  -2.961  1.00 32.46           C
ATOM   5304  O   TRP C 486      86.877  17.610  -4.108  1.00 32.22           O
ATOM   5305  N   PRO C 487      86.357  17.975  -1.948  1.00 28.71           N
ATOM   5306  CA  PRO C 487      86.128  19.383  -2.287  1.00 28.16           C
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ATOM   5307  CB  PRO C 487      85.663  19.980  -0.961  1.00 29.82           C
ATOM   5308  CG  PRO C 487      84.969  18.861  -0.290  1.00 34.37           C
ATOM   5309  CD  PRO C 487      85.695  17.605  -0.685  1.00 30.15           C
ATOM   5310  C   PRO C 487      87.416  20.056  -2.759  1.00 31.36           C
ATOM   5311  O   PRO C 487      87.402  20.863  -3.691  1.00 30.49           O
ATOM   5312  N   GLY C 488      88.530  19.705  -2.125  1.00 27.85           N
ATOM   5313  CA  GLY C 488      89.827  20.247  -2.489  1.00 27.77           C
ATOM   5314  C   GLY C 488      90.247  19.832  -3.887  1.00 31.00           C
ATOM   5315  O   GLY C 488      90.774  20.636  -4.655  1.00 30.75           O
ATOM   5316  N   ILE C 489      89.996  18.572  -4.226  1.00 27.07           N
ATOM   5317  CA  ILE C 489      90.341  18.057  -5.547  1.00 26.15           C
ATOM   5318  CB  ILE C 489      90.140  16.536  -5.626  1.00 28.94           C
ATOM   5319  CG1 ILE C 489      91.199  15.818  -4.785  1.00 29.43           C
ATOM   5320  CD1 ILE C 489      90.643  14.706  -3.921  1.00 35.84           C
ATOM   5321  CG2 ILE C 489      90.162  16.067  -7.067  1.00 29.03           C
ATOM   5322  C   ILE C 489      89.545  18.779  -6.622  1.00 28.83           C
ATOM   5323  O   ILE C 489      90.079  19.144  -7.665  1.00 28.80           O
ATOM   5324  N   PHE C 490      88.267  19.008  -6.353  1.00 24.72           N
ATOM   5325  CA  PHE C 490      87.407  19.704  -7.304  1.00 24.01           C
ATOM   5326  CB  PHE C 490      85.966  19.746  -6.809  1.00 25.33           C
ATOM   5327  CG  PHE C 490      85.012  20.316  -7.811  1.00 26.39           C
ATOM   5328  CD1 PHE C 490      84.744  19.642  -8.991  1.00 29.31           C
ATOM   5329  CE1 PHE C 490      83.881  20.171  -9.927  1.00 29.95           C
ATOM   5330  CZ  PHE C 490      83.285  21.394  -9.695  1.00 28.77           C
ATOM   5331  CE2 PHE C 490      83.553  22.082  -8.533  1.00 30.49           C
ATOM   5332  CD2 PHE C 490      84.423  21.551  -7.602  1.00 27.81           C
ATOM   5333  C   PHE C 490      87.901  21.119  -7.545  1.00 28.04           C
ATOM   5334  O   PHE C 490      87.905  21.598  -8.681  1.00 28.01           O
ATOM   5335  N   VAL C 491      88.295  21.785  -6.462  1.00 24.64           N
ATOM   5336  CA  VAL C 491      88.811  23.146  -6.519  1.00 24.65           C
ATOM   5337  CB  VAL C 491      89.040  23.717  -5.107  1.00 28.99           C
ATOM   5338  CG1 VAL C 491      89.494  25.165  -5.185  1.00 29.17           C
ATOM   5339  CG2 VAL C 491      87.786  23.585  -4.255  1.00 28.87           C
ATOM   5340  C   VAL C 491      90.107  23.165  -7.317  1.00 29.10           C
ATOM   5341  O   VAL C 491      90.323  24.046  -8.149  1.00 29.59           O
ATOM   5342  N   TYR C 492      90.974  22.195  -7.042  1.00 25.07           N
ATOM   5343  CA  TYR C 492      92.255  22.076  -7.729  1.00 24.61           C
ATOM   5344  CB  TYR C 492      93.013  20.839  -7.219  1.00 25.56           C
ATOM   5345  CG  TYR C 492      94.309  20.533  -7.947  1.00 27.05           C
ATOM   5346  CD1 TYR C 492      95.519  21.065  -7.514  1.00 29.04           C
ATOM   5347  CE1 TYR C 492      96.708  20.772  -8.172  1.00 29.29           C
ATOM   5348  CZ  TYR C 492      96.695  19.923  -9.261  1.00 34.74           C
ATOM   5349  OH  TYR C 492      97.864  19.633  -9.928  1.00 33.19           O
ATOM   5350  CE2 TYR C 492      95.509  19.373  -9.697  1.00 28.24           C
ATOM   5351  CD2 TYR C 492      94.330  19.670  -9.037  1.00 27.57           C
ATOM   5352  C   TYR C 492      92.047  21.995  -9.241  1.00 27.44           C
ATOM   5353  O   TYR C 492      92.788  22.603 -10.014  1.00 26.97           O
ATOM   5354  N   MET C 493      91.017  21.259  -9.650  1.00 23.47           N
ATOM   5355  CA  MET C 493      90.699  21.074 -11.065  1.00 22.53           C
ATOM   5356  CB  MET C 493      89.758  19.881 -11.255  1.00 24.03           C
ATOM   5357  CG  MET C 493      90.187  18.619 -10.525  1.00 26.40           C
ATOM   5358  SD  MET C 493      89.284  17.165 -11.101  1.00 28.81           S
ATOM   5359  CE  MET C 493      87.984  17.072  -9.869  1.00 25.39           C
ATOM   5360  C   MET C 493      90.088  22.316 -11.696  1.00 27.91           C
ATOM   5361  O   MET C 493      90.267  22.570 -12.886  1.00 27.64           O
ATOM   5362  N   VAL C 494      89.348  23.079 -10.902  1.00 26.02           N
ATOM   5363  CA  VAL C 494      88.720  24.292 -11.400  1.00 26.19           C
ATOM   5364  CB  VAL C 494      87.606  24.773 -10.465  1.00 29.94           C
ATOM   5365  CG1 VAL C 494      87.322  26.244 -10.705  1.00 29.67           C
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ATOM   5366  CG2 VAL C 494      86.351  23.943 -10.665  1.00 29.82           C
ATOM   5367  C   VAL C 494      89.759  25.382 -11.618  1.00 31.93           C
ATOM   5368  O   VAL C 494      89.662  26.169 -12.555  1.00 31.72           O
ATOM   5369  N   HIS C 495      90.758  25.420 -10.745  1.00 30.00           N
ATOM   5370  CA  HIS C 495      91.815  26.418 -10.838  1.00 30.53           C
ATOM   5371  CB  HIS C 495      92.631  26.463  -9.546  1.00 31.13           C
ATOM   5372  CG  HIS C 495      92.003  27.286  -8.465  1.00 34.38           C
ATOM   5373  ND1 HIS C 495      90.892  28.072  -8.680  1.00 36.24           N
ATOM   5374  CE1 HIS C 495      90.558  28.675  -7.552  1.00 35.57           C
ATOM   5375  NE2 HIS C 495      91.412  28.307  -6.615  1.00 35.80           N
ATOM   5376  CD2 HIS C 495      92.326  27.438  -7.159  1.00 36.01           C
ATOM   5377  C   HIS C 495      92.733  26.199 -12.039  1.00 36.69           C
ATOM   5378  O   HIS C 495      93.204  27.158 -12.647  1.00 36.79           O
ATOM   5379  N   ARG C 496      92.982  24.939 -12.382  1.00 34.42           N
ATOM   5380  CA  ARG C 496      93.843  24.611 -13.519  1.00 34.66           C
ATOM   5381  CB  ARG C 496      94.417  23.202 -13.371  1.00 34.55           C
ATOM   5382  CG  ARG C 496      95.354  23.011 -12.202  1.00 43.29           C
ATOM   5383  CD  ARG C 496      95.936  21.604 -12.210  1.00 49.26           C
ATOM   5384  NE  ARG C 496      97.365  21.609 -12.504  1.00 56.46           N
ATOM   5385  CZ  ARG C 496      97.884  21.367 -13.704  1.00 68.15           C
ATOM   5386  NH1 ARG C 496      97.093  21.090 -14.731  1.00 53.53           N
ATOM   5387  NH2 ARG C 496      99.198  21.401 -13.876  1.00 56.17           N
ATOM   5388  C   ARG C 496      93.076  24.687 -14.833  1.00 40.07           C
ATOM   5389  O   ARG C 496      93.658  24.920 -15.892  1.00 39.76           O
ATOM   5390  N   SER C 497      91.771  24.461 -14.757  1.00 38.19           N
ATOM   5391  CA  SER C 497      90.915  24.447 -15.933  1.00 38.64           C
ATOM   5392  CB  SER C 497      89.713  23.533 -15.698  1.00 40.94           C
ATOM   5393  OG  SER C 497      89.925  22.264 -16.286  1.00 47.94           O
ATOM   5394  C   SER C 497      90.446  25.819 -16.420  1.00 45.69           C
ATOM   5395  O   SER C 497      90.378  26.056 -17.628  1.00 44.87           O
ATOM   5396  N   CYS C 498      90.094  26.704 -15.490  1.00 44.84           N
ATOM   5397  CA  CYS C 498      89.594  28.031 -15.855  1.00 45.80           C
ATOM   5398  CB  CYS C 498      88.123  28.177 -15.462  1.00 46.66           C
ATOM   5399  SG  CYS C 498      87.277  26.610 -15.125  1.00 50.86           S
ATOM   5400  C   CYS C 498      90.401  29.189 -15.274  1.00 50.04           C
ATOM   5401  O   CYS C 498      90.406  30.287 -15.833  1.00 49.52           O
ATOM   5402  N   GLY C 499      91.057  28.950 -14.144  1.00 46.96           N
ATOM   5403  CA  GLY C 499      91.855  29.969 -13.489  1.00 47.01           C
ATOM   5404  C   GLY C 499      91.402  30.274 -12.074  1.00 51.94           C
ATOM   5405  O   GLY C 499      90.226  30.119 -11.730  1.00 51.58           O
ATOM   5406  N   THR C 500      92.348  30.718 -11.254  1.00 49.29           N
ATOM   5407  CA  THR C 500      92.082  31.060  -9.860  1.00 49.46           C
ATOM   5408  CB  THR C 500      93.396  31.401  -9.118  1.00 57.13           C
ATOM   5409  OG1 THR C 500      94.071  32.461  -9.807  1.00 56.99           O
ATOM   5410  CG2 THR C 500      94.316  30.185  -9.052  1.00 55.17           C
ATOM   5411  C   THR C 500      91.099  32.226  -9.751  1.00 53.78           C
ATOM   5412  O   THR C 500      90.481  32.433  -8.706  1.00 53.43           O
ATOM   5413  N   SER C 501      90.974  32.990 -10.831  1.00 50.63           N
ATOM   5414  CA  SER C 501      90.126  34.178 -10.855  1.00 50.64           C
ATOM   5415  CB  SER C 501      90.615  35.151 -11.935  1.00 53.68           C
ATOM   5416  OG  SER C 501      90.294  34.680 -13.234  1.00 61.42           O
ATOM   5417  C   SER C 501      88.623  33.937 -11.010  1.00 55.30           C
ATOM   5418  O   SER C 501      87.818  34.515 -10.279  1.00 55.17           O
ATOM   5419  N   CYS C 502      88.257  33.105 -11.979  1.00 52.28           N
ATOM   5420  CA  CYS C 502      86.859  32.836 -12.320  1.00 52.25           C
ATOM   5421  CB  CYS C 502      86.757  31.786 -13.432  1.00 53.29           C
ATOM   5422  SG  CYS C 502      86.344  30.112 -12.887  1.00 57.70           S
ATOM   5423  C   CYS C 502      85.806  32.610 -11.222  1.00 53.34           C
ATOM   5424  O   CYS C 502      84.607  32.713 -11.492  1.00 52.89           O
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ATOM   5425  N   PHE C 503      86.234  32.321  -9.995  1.00 47.81           N
ATOM   5426  CA  PHE C 503      85.288  32.091  -8.899  1.00 46.48           C
ATOM   5427  CB  PHE C 503      84.994  30.592  -8.741  1.00 48.02           C
ATOM   5428  CG  PHE C 503      84.158  30.005  -9.843  1.00 49.41           C
ATOM   5429  CD1 PHE C 503      84.566  28.849 -10.490  1.00 52.43           C
ATOM   5430  CE1 PHE C 503      83.798  28.290 -11.493  1.00 53.33           C
ATOM   5431  CZ  PHE C 503      82.604  28.879 -11.855  1.00 52.49           C
ATOM   5432  CE2 PHE C 503      82.177  30.021 -11.209  1.00 54.36           C
ATOM   5433  CD2 PHE C 503      82.948  30.575 -10.201  1.00 51.47           C
ATOM   5434  C   PHE C 503      85.811  32.601  -7.559  1.00 48.53           C
ATOM   5435  O   PHE C 503      86.956  32.340  -7.197  1.00 47.95           O
ATOM   5436  N   GLU C 504      84.950  33.266  -6.793  1.00 43.99           N
ATOM   5437  CA  GLU C 504      85.329  33.714  -5.459  1.00 43.24           C
ATOM   5438  CB  GLU C 504      84.321  34.735  -4.918  1.00 44.69           C
ATOM   5439  CG  GLU C 504      84.890  35.690  -3.870  1.00 56.81           C
ATOM   5440  CD  GLU C 504      84.274  35.498  -2.490  1.00 82.14           C
ATOM   5441  OE1 GLU C 504      83.196  36.075  -2.232  1.00 80.03           O
ATOM   5442  OE2 GLU C 504      84.873  34.779  -1.659  1.00 75.99           O
ATOM   5443  C   GLU C 504      85.325  32.456  -4.593  1.00 46.12           C
ATOM   5444  O   GLU C 504      84.300  31.784  -4.479  1.00 45.54           O
ATOM   5445  N   LEU C 505      86.483  32.110  -4.038  1.00 42.18           N
ATOM   5446  CA  LEU C 505      86.628  30.902  -3.230  1.00 41.72           C
ATOM   5447  CB  LEU C 505      87.974  30.887  -2.513  1.00 41.62           C
ATOM   5448  CG  LEU C 505      88.626  29.507  -2.494  1.00 46.14           C
ATOM   5449  CD1 LEU C 505      88.700  28.951  -3.905  1.00 46.42           C
ATOM   5450  CD2 LEU C 505      89.999  29.569  -1.863  1.00 47.99           C
ATOM   5451  C   LEU C 505      85.493  30.677  -2.237  1.00 46.33           C
ATOM   5452  O   LEU C 505      84.770  29.685  -2.330  1.00 46.63           O
ATOM   5453  N   GLU C 506      85.352  31.601  -1.293  1.00 42.32           N
ATOM   5454  CA  GLU C 506      84.302  31.549  -0.279  1.00 41.80           C
ATOM   5455  CB  GLU C 506      84.132  32.936   0.341  1.00 43.61           C
ATOM   5456  CG  GLU C 506      84.268  32.981   1.847  1.00 58.97           C
ATOM   5457  CD  GLU C 506      83.832  34.320   2.419  1.00 88.81           C
ATOM   5458  OE1 GLU C 506      82.608  34.569   2.482  1.00 87.74           O
ATOM   5459  OE2 GLU C 506      84.714  35.132   2.779  1.00 83.35           O
ATOM   5460  C   GLU C 506      82.956  31.099  -0.852  1.00 43.39           C
ATOM   5461  O   GLU C 506      82.306  30.207  -0.306  1.00 42.99           O
ATOM   5462  N   LYS C 507      82.540  31.733  -1.944  1.00 38.34           N
ATOM   5463  CA  LYS C 507      81.275  31.406  -2.596  1.00 37.85           C
ATOM   5464  CB  LYS C 507      80.969  32.420  -3.701  1.00 40.45           C
ATOM   5465  CG  LYS C 507      80.142  33.609  -3.253  1.00 53.70           C
ATOM   5466  CD  LYS C 507      79.727  34.456  -4.444  1.00 62.01           C
ATOM   5467  CE  LYS C 507      78.615  35.423  -4.074  1.00 72.93           C
ATOM   5468  NZ  LYS C 507      77.790  35.801  -5.256  1.00 82.65           N
ATOM   5469  C   LYS C 507      81.346  30.013  -3.204  1.00 41.39           C
ATOM   5470  O   LYS C 507      80.360  29.275  -3.224  1.00 41.46           O
ATOM   5471  N   LEU C 508      82.523  29.668  -3.715  1.00 36.65           N
ATOM   5472  CA  LEU C 508      82.744  28.376  -4.340  1.00 35.46           C
ATOM   5473  CB  LEU C 508      84.122  28.342  -5.000  1.00 34.91           C
ATOM   5474  CG  LEU C 508      84.439  27.100  -5.831  1.00 38.65           C
ATOM   5475  CD1 LEU C 508      83.378  26.878  -6.894  1.00 38.62           C
ATOM   5476  CD2 LEU C 508      85.810  27.225  -6.465  1.00 40.03           C
ATOM   5477  C   LEU C 508      82.636  27.254  -3.321  1.00 39.30           C
ATOM   5478  O   LEU C 508      81.941  26.265  -3.542  1.00 38.82           O
ATOM   5479  N   CYS C 509      83.334  27.411  -2.205  1.00 36.12           N
ATOM   5480  CA  CYS C 509      83.334  26.393  -1.168  1.00 36.14           C
ATOM   5481  CB  CYS C 509      84.377  26.704  -0.100  1.00 37.03           C
ATOM   5482  SG  CYS C 509      86.074  26.559  -0.704  1.00 41.42           S
ATOM   5483  C   CYS C 509      81.966  26.166  -0.547  1.00 38.77           C
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ATOM   5484  O   CYS C 509      81.634  25.045  -0.167  1.00 38.84           O
ATOM   5485  N   ARG C 510      81.166  27.221  -0.446  1.00 33.91           N
ATOM   5486  CA  ARG C 510      79.833  27.067   0.113  1.00 33.12           C
ATOM   5487  CB  ARG C 510      79.338  28.350   0.786  1.00 33.11           C
ATOM   5488  CG  ARG C 510      78.792  29.406  -0.148  1.00 44.79           C
ATOM   5489  CD  ARG C 510      78.159  30.542   0.647  1.00 55.84           C
ATOM   5490  NE  ARG C 510      78.947  30.897   1.825  1.00 66.48           N
ATOM   5491  CZ  ARG C 510      79.725  31.972   1.909  1.00 79.97           C
ATOM   5492  NH1 ARG C 510      80.407  32.215   3.021  1.00 66.68           N
ATOM   5493  NH2 ARG C 510      79.825  32.804   0.881  1.00 66.17           N
ATOM   5494  C   ARG C 510      78.846  26.509  -0.912  1.00 35.80           C
ATOM   5495  O   ARG C 510      77.850  25.885  -0.551  1.00 34.90           O
ATOM   5496  N   PHE C 511      79.153  26.681  -2.194  1.00 32.14           N
ATOM   5497  CA  PHE C 511      78.310  26.113  -3.240  1.00 31.67           C
ATOM   5498  CB  PHE C 511      78.655  26.701  -4.612  1.00 33.53           C
ATOM   5499  CG  PHE C 511      77.809  26.158  -5.732  1.00 35.32           C
ATOM   5500  CD1 PHE C 511      76.466  26.485  -5.825  1.00 38.78           C
ATOM   5501  CE1 PHE C 511      75.679  25.978  -6.849  1.00 39.77           C
ATOM   5502  CZ  PHE C 511      76.231  25.129  -7.787  1.00 38.91           C
ATOM   5503  CE2 PHE C 511      77.571  24.788  -7.703  1.00 40.69           C
ATOM   5504  CD2 PHE C 511      78.351  25.303  -6.680  1.00 37.87           C
ATOM   5505  C   PHE C 511      78.575  24.612  -3.246  1.00 34.49           C
ATOM   5506  O   PHE C 511      77.660  23.798  -3.369  1.00 33.17           O
ATOM   5507  N   ILE C 512      79.845  24.264  -3.074  1.00 31.56           N
ATOM   5508  CA  ILE C 512      80.283  22.876  -3.052  1.00 31.40           C
ATOM   5509  CB  ILE C 512      81.815  22.786  -3.028  1.00 34.40           C
ATOM   5510  CG1 ILE C 512      82.396  23.291  -4.347  1.00 34.52           C
ATOM   5511  CD1 ILE C 512      83.907  23.224  -4.411  1.00 38.35           C
ATOM   5512  CG2 ILE C 512      82.262  21.361  -2.758  1.00 35.72           C
ATOM   5513  C   ILE C 512      79.665  22.075  -1.911  1.00 35.80           C
ATOM   5514  O   ILE C 512      79.306  20.912  -2.088  1.00 35.58           O
ATOM   5515  N   MET C 513      79.539  22.692  -0.740  1.00 32.64           N
ATOM   5516  CA  MET C 513      78.976  22.005   0.421  1.00 32.64           C
ATOM   5517  CB  MET C 513      79.451  22.654   1.725  1.00 35.51           C
ATOM   5518  CG  MET C 513      80.974  22.708   1.896  1.00 40.03           C
ATOM   5519  SD  MET C 513      81.877  21.274   1.220  1.00 45.46           S
ATOM   5520  CE  MET C 513      81.957  20.183   2.666  1.00 42.11           C
ATOM   5521  C   MET C 513      77.448  21.910   0.373  1.00 34.78           C
ATOM   5522  O   MET C 513      76.849  21.001   0.960  1.00 34.38           O
ATOM   5523  N   SER C 514      76.821  22.844  -0.335  1.00 29.48           N
ATOM   5524  CA  SER C 514      75.375  22.833  -0.506  1.00 28.58           C
ATOM   5525  CB  SER C 514      74.901  24.156  -1.113  1.00 32.40           C
ATOM   5526  OG  SER C 514      75.064  25.224  -0.201  1.00 42.60           O
ATOM   5527  C   SER C 514      75.051  21.697  -1.462  1.00 30.36           C
ATOM   5528  O   SER C 514      74.100  20.943  -1.259  1.00 29.91           O
ATOM   5529  N   VAL C 515      75.863  21.588  -2.508  1.00 25.09           N
ATOM   5530  CA  VAL C 515      75.716  20.540  -3.509  1.00 24.44           C
ATOM   5531  CB  VAL C 515      76.682  20.762  -4.683  1.00 27.41           C
ATOM   5532  CG1 VAL C 515      76.592  19.616  -5.677  1.00 27.03           C
ATOM   5533  CG2 VAL C 515      76.403  22.091  -5.358  1.00 26.96           C
ATOM   5534  C   VAL C 515      75.944  19.170  -2.870  1.00 29.07           C
ATOM   5535  O   VAL C 515      75.145  18.256  -3.044  1.00 29.33           O
ATOM   5536  N   LYS C 516      77.034  19.042  -2.121  1.00 25.60           N
ATOM   5537  CA  LYS C 516      77.369  17.793  -1.451  1.00 25.04           C
ATOM   5538  CB  LYS C 516      78.600  17.978  -0.559  1.00 27.10           C
ATOM   5539  CG  LYS C 516      78.752  16.909   0.512  1.00 34.86           C
ATOM   5540  CD  LYS C 516      80.032  17.103   1.302  1.00 44.10           C
ATOM   5541  CE  LYS C 516      80.232  15.996   2.320  1.00 56.23           C
ATOM   5542  NZ  LYS C 516      80.429  14.677   1.659  1.00 65.62           N
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ATOM   5543  C   LYS C 516      76.208  17.263  -0.624  1.00 29.84           C
ATOM   5544  O   LYS C 516      75.901  16.069  -0.650  1.00 29.67           O
ATOM   5545  N   LYS C 517      75.567  18.156   0.119  1.00 26.75           N
ATOM   5546  CA  LYS C 517      74.459  17.769   0.979  1.00 26.52           C
ATOM   5547  CB  LYS C 517      74.338  18.708   2.184  1.00 29.33           C
ATOM   5548  CG  LYS C 517      73.506  19.951   1.951  1.00 48.63           C
ATOM   5549  CD  LYS C 517      73.177  20.619   3.286  1.00 60.38           C
ATOM   5550  CE  LYS C 517      72.474  21.956   3.082  1.00 74.03           C
ATOM   5551  NZ  LYS C 517      73.226  23.077   3.701  1.00 85.64           N
ATOM   5552  C   LYS C 517      73.115  17.591   0.274  1.00 29.12           C
ATOM   5553  O   LYS C 517      72.115  17.279   0.920  1.00 28.40           O
ATOM   5554  N   ASN C 518      73.092  17.772  -1.046  1.00 24.77           N
ATOM   5555  CA  ASN C 518      71.856  17.585  -1.800  1.00 23.77           C
ATOM   5556  CB  ASN C 518      71.552  18.788  -2.683  1.00 24.34           C
ATOM   5557  CG  ASN C 518      70.940  19.936  -1.897  1.00 50.11           C
ATOM   5558  OD1 ASN C 518      69.775  19.881  -1.506  1.00 44.65           O
ATOM   5559  ND2 ASN C 518      71.741  20.959  -1.617  1.00 43.48           N
ATOM   5560  C   ASN C 518      71.950  16.302  -2.599  1.00 25.37           C
ATOM   5561  O   ASN C 518      71.129  16.014  -3.470  1.00 23.81           O
ATOM   5562  N   TYR C 519      72.979  15.531  -2.271  1.00 21.25           N
ATOM   5563  CA  TYR C 519      73.201  14.226  -2.861  1.00 20.19           C
ATOM   5564  CB  TYR C 519      74.662  14.066  -3.264  1.00 20.74           C
ATOM   5565  CG  TYR C 519      74.926  14.437  -4.705  1.00 21.47           C
ATOM   5566  CD1 TYR C 519      75.422  15.688  -5.045  1.00 23.11           C
ATOM   5567  CE1 TYR C 519      75.654  16.031  -6.372  1.00 24.04           C
ATOM   5568  CZ  TYR C 519      75.407  15.110  -7.369  1.00 27.11           C
ATOM   5569  OH  TYR C 519      75.652  15.436  -8.686  1.00 24.53           O
ATOM   5570  CE2 TYR C 519      74.918  13.865  -7.052  1.00 21.69           C
ATOM   5571  CD2 TYR C 519      74.674  13.536  -5.727  1.00 21.51           C
ATOM   5572  C   TYR C 519      72.832  13.242  -1.763  1.00 23.98           C
ATOM   5573  O   TYR C 519      72.927  13.568  -0.579  1.00 22.14           O
ATOM   5574  N   ARG C 520      72.334  12.072  -2.146  1.00 21.88           N
ATOM   5575  CA  ARG C 520      71.893  11.092  -1.167  1.00 21.95           C
ATOM   5576  CB  ARG C 520      70.462  10.658  -1.465  1.00 21.57           C
ATOM   5577  CG  ARG C 520      69.490  11.817  -1.616  1.00 31.72           C
ATOM   5578  CD  ARG C 520      68.217  11.376  -2.301  1.00 44.24           C
ATOM   5579  NE  ARG C 520      67.125  12.314  -2.076  1.00 56.80           N
ATOM   5580  CZ  ARG C 520      66.398  12.361  -0.965  1.00 70.78           C
ATOM   5581  NH1 ARG C 520      66.656  11.531   0.034  1.00 54.76           N
ATOM   5582  NH2 ARG C 520      65.418  13.247  -0.847  1.00 58.92           N
ATOM   5583  C   ARG C 520      72.796   9.883  -1.051  1.00 28.18           C
ATOM   5584  O   ARG C 520      73.664   9.652  -1.897  1.00 26.97           O
ATOM   5585  N   ARG C 521      72.584   9.127   0.020  1.00 27.22           N
ATOM   5586  CA  ARG C 521      73.357   7.924   0.282  1.00 28.04           C
ATOM   5587  CB  ARG C 521      73.381   7.609   1.783  1.00 30.58           C
ATOM   5588  CG  ARG C 521      74.410   8.428   2.566  1.00 46.51           C
ATOM   5589  CD  ARG C 521      73.736   9.326   3.599  1.00 64.67           C
ATOM   5590  NE  ARG C 521      74.696   9.898   4.544  1.00 78.17           N
ATOM   5591  CZ  ARG C 521      74.425  10.894   5.382  1.00 95.56           C
ATOM   5592  NH1 ARG C 521      73.215  11.435   5.404  1.00 84.99           N
ATOM   5593  NH2 ARG C 521      75.365  11.348   6.200  1.00 82.79           N
ATOM   5594  C   ARG C 521      72.776   6.758  -0.508  1.00 31.76           C
ATOM   5595  O   ARG C 521      72.029   5.929   0.026  1.00 32.51           O
ATOM   5596  N   VAL C 522      73.103   6.728  -1.794  1.00 26.97           N
ATOM   5597  CA  VAL C 522      72.665   5.675  -2.691  1.00 26.27           C
ATOM   5598  CB  VAL C 522      71.865   6.249  -3.880  1.00 29.59           C
ATOM   5599  CG1 VAL C 522      70.519   6.768  -3.413  1.00 29.18           C
ATOM   5600  CG2 VAL C 522      72.640   7.358  -4.568  1.00 29.36           C
ATOM   5601  C   VAL C 522      73.958   4.987  -3.113  1.00 29.50           C
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ATOM	5602	O	VAL	C	522	75.047	5.525	-2.891	1.00	29.30	O
ATOM	5603	N	PRO	C	523	73.866	3.769	-3.664	1.00	25.26	N
ATOM	5604	CA	PRO	C	523	75.088	3.032	-4.002	1.00	24.91	C
ATOM	5605	CB	PRO	C	523	74.564	1.647	-4.414	1.00	26.77	C
ATOM	5606	CG	PRO	C	523	73.154	1.585	-3.898	1.00	31.09	C
ATOM	5607	CD	PRO	C	523	72.659	2.986	-3.972	1.00	26.90	C
ATOM	5608	C	PRO	C	523	75.935	3.624	-5.124	1.00	28.10	C
ATOM	5609	O	PRO	C	523	77.163	3.542	-5.087	1.00	27.09	O
ATOM	5610	N	TYR	C	524	75.280	4.195	-6.131	1.00	24.58	N
ATOM	5611	CA	TYR	C	524	75.986	4.716	-7.295	1.00	23.85	C
ATOM	5612	CB	TYR	C	524	75.608	3.913	-8.545	1.00	25.53	C
ATOM	5613	CG	TYR	C	524	76.408	4.300	-9.766	1.00	28.03	C
ATOM	5614	CD1	TYR	C	524	77.793	4.181	-9.776	1.00	30.23	C
ATOM	5615	CE1	TYR	C	524	78.536	4.562	-10.880	1.00	31.19	C
ATOM	5616	CZ	TYR	C	524	77.896	5.062	-11.995	1.00	37.88	C
ATOM	5617	OH	TYR	C	524	78.640	5.431	-13.094	1.00	39.87	O
ATOM	5618	CE2	TYR	C	524	76.522	5.200	-12.007	1.00	29.41	C
ATOM	5619	CD2	TYR	C	524	75.786	4.818	-10.896	1.00	28.59	C
ATOM	5620	C	TYR	C	524	75.847	6.218	-7.564	1.00	24.61	C
ATOM	5621	O	TYR	C	524	76.845	6.914	-7.748	1.00	23.42	O
ATOM	5622	N	HIS	C	525	74.616	6.707	-7.639	1.00	20.32	N
ATOM	5623	CA	HIS	C	525	74.382	8.122	-7.924	1.00	19.98	C
ATOM	5624	CB	HIS	C	525	73.047	8.315	-8.633	1.00	20.77	C
ATOM	5625	CG	HIS	C	525	73.011	7.704	-9.999	1.00	24.21	C
ATOM	5626	ND1	HIS	C	525	72.438	6.476	-10.253	1.00	26.20	N
ATOM	5627	CE1	HIS	C	525	72.574	6.185	-11.534	1.00	25.61	C
ATOM	5628	NE2	HIS	C	525	73.249	7.162	-12.114	1.00	25.88	N
ATOM	5629	CD2	HIS	C	525	73.545	8.118	-11.173	1.00	26.11	C
ATOM	5630	C	HIS	C	525	74.539	9.026	-6.707	1.00	23.09	C
ATOM	5631	O	HIS	C	525	73.613	9.743	-6.311	1.00	22.27	O
ATOM	5632	N	ASN	C	526	75.737	8.994	-6.131	1.00	19.11	N
ATOM	5633	CA	ASN	C	526	76.045	9.775	-4.939	1.00	19.61	C
ATOM	5634	CB	ASN	C	526	76.602	8.861	-3.848	1.00	20.43	C
ATOM	5635	CG	ASN	C	526	77.643	7.906	-4.379	1.00	39.64	C
ATOM	5636	OD1	ASN	C	526	78.421	8.257	-5.263	1.00	36.61	O
ATOM	5637	ND2	ASN	C	526	77.638	6.678	-3.875	1.00	30.69	N
ATOM	5638	C	ASN	C	526	77.029	10.912	-5.184	1.00	23.71	C
ATOM	5639	O	ASN	C	526	77.270	11.331	-6.316	1.00	23.34	O
ATOM	5640	N	TRP	C	527	77.607	11.390	-4.093	1.00	20.55	N
ATOM	5641	CA	TRP	C	527	78.558	12.486	-4.116	1.00	20.38	C
ATOM	5642	CB	TRP	C	527	78.871	12.891	-2.672	1.00	19.58	C
ATOM	5643	CG	TRP	C	527	79.817	14.031	-2.533	1.00	20.70	C
ATOM	5644	CD1	TRP	C	527	80.822	14.152	-1.618	1.00	23.66	C
ATOM	5645	NE1	TRP	C	527	81.498	15.332	-1.811	1.00	23.07	N
ATOM	5646	CE2	TRP	C	527	80.927	15.999	-2.863	1.00	24.63	C
ATOM	5647	CD2	TRP	C	527	79.869	15.205	-3.345	1.00	20.77	C
ATOM	5648	CE3	TRP	C	527	79.112	15.670	-4.427	1.00	22.02	C
ATOM	5649	CZ3	TRP	C	527	79.431	16.889	-4.977	1.00	23.48	C
ATOM	5650	CH2	TRP	C	527	80.481	17.663	-4.469	1.00	24.23	C
ATOM	5651	CZ2	TRP	C	527	81.239	17.236	-3.413	1.00	24.11	C
ATOM	5652	C	TRP	C	527	79.838	12.109	-4.850	1.00	24.22	C
ATOM	5653	O	TRP	C	527	80.439	12.936	-5.537	1.00	24.28	O
ATOM	5654	N	LYS	C	528	80.250	10.856	-4.688	1.00	20.30	N
ATOM	5655	CA	LYS	C	528	81.465	10.327	-5.302	1.00	19.83	C
ATOM	5656	CB	LYS	C	528	81.796	8.965	-4.688	1.00	21.73	C
ATOM	5657	CG	LYS	C	528	83.122	8.379	-5.122	1.00	30.06	C
ATOM	5658	CD	LYS	C	528	83.495	7.193	-4.250	1.00	37.36	C
ATOM	5659	CE	LYS	C	528	84.815	6.565	-4.682	1.00	43.26	C
ATOM	5660	NZ	LYS	C	528	85.448	5.799	-3.566	1.00	47.60	N

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ATOM   5661  C   LYS C 528      81.358  10.200  -6.820  1.00 23.80           C
ATOM   5662  O   LYS C 528      82.323  10.447  -7.547  1.00 23.69           O
ATOM   5663  N   HIS C 529      80.184   9.803  -7.294  1.00 19.90           N
ATOM   5664  CA  HIS C 529      79.953   9.655  -8.723  1.00 19.15           C
ATOM   5665  CB  HIS C 529      78.570   9.036  -8.954  1.00 19.77           C
ATOM   5666  CG  HIS C 529      78.057   9.182 -10.353  1.00 22.93           C
ATOM   5667  ND1 HIS C 529      78.659   8.577 -11.434  1.00 24.59           N
ATOM   5668  CE1 HIS C 529      77.983   8.869 -12.531  1.00 24.00           C
ATOM   5669  NE2 HIS C 529      76.948   9.619 -12.196  1.00 24.35           N
ATOM   5670  CD2 HIS C 529      76.969   9.826 -10.839  1.00 24.59           C
ATOM   5671  C   HIS C 529      80.078  11.017  -9.411  1.00 23.00           C
ATOM   5672  O   HIS C 529      80.704  11.141 -10.465  1.00 23.78           O
ATOM   5673  N   ALA C 530      79.521  12.048  -8.782  1.00 17.84           N
ATOM   5674  CA  ALA C 530      79.558  13.406  -9.326  1.00 16.60           C
ATOM   5675  CB  ALA C 530      78.636  14.328  -8.522  1.00 16.99           C
ATOM   5676  C   ALA C 530      80.973  13.990  -9.409  1.00 18.89           C
ATOM   5677  O   ALA C 530      81.306  14.709 -10.352  1.00 17.86           O
ATOM   5678  N   VAL C 531      81.802  13.690  -8.415  1.00 15.30           N
ATOM   5679  CA  VAL C 531      83.175  14.180  -8.403  1.00 15.00           C
ATOM   5680  CB  VAL C 531      83.805  14.069  -7.002  1.00 18.87           C
ATOM   5681  CG1 VAL C 531      85.129  14.818  -6.960  1.00 18.24           C
ATOM   5682  CG2 VAL C 531      82.844  14.610  -5.941  1.00 18.63           C
ATOM   5683  C   VAL C 531      84.006  13.438  -9.447  1.00 19.75           C
ATOM   5684  O   VAL C 531      84.884  14.015 -10.081  1.00 19.76           O
ATOM   5685  N   THR C 532      83.719  12.153  -9.614  1.00 16.25           N
ATOM   5686  CA  THR C 532      84.399  11.314 -10.601  1.00 16.34           C
ATOM   5687  CB  THR C 532      84.015   9.844 -10.381  1.00 23.42           C
ATOM   5688  OG1 THR C 532      84.463   9.434  -9.086  1.00 23.44           O
ATOM   5689  CG2 THR C 532      84.630   8.948 -11.446  1.00 21.46           C
ATOM   5690  C   THR C 532      84.071  11.764 -12.030  1.00 21.41           C
ATOM   5691  O   THR C 532      84.921  11.729 -12.921  1.00 21.10           O
ATOM   5692  N   VAL C 533      82.829  12.190 -12.234  1.00 19.16           N
ATOM   5693  CA  VAL C 533      82.376  12.668 -13.536  1.00 19.21           C
ATOM   5694  CB  VAL C 533      80.841  12.767 -13.588  1.00 22.66           C
ATOM   5695  CG1 VAL C 533      80.384  13.251 -14.956  1.00 22.52           C
ATOM   5696  CG2 VAL C 533      80.212  11.417 -13.255  1.00 22.44           C
ATOM   5697  C   VAL C 533      83.024  14.009 -13.856  1.00 24.75           C
ATOM   5698  O   VAL C 533      83.421  14.258 -14.990  1.00 24.70           O
ATOM   5699  N   ALA C 534      83.144  14.862 -12.845  1.00 22.22           N
ATOM   5700  CA  ALA C 534      83.776  16.168 -13.017  1.00 22.17           C
ATOM   5701  CB  ALA C 534      83.652  16.994 -11.745  1.00 22.92           C
ATOM   5702  C   ALA C 534      85.239  15.990 -13.393  1.00 26.40           C
ATOM   5703  O   ALA C 534      85.746  16.667 -14.294  1.00 25.93           O
ATOM   5704  N   HIS C 535      85.924  15.074 -12.711  1.00 23.18           N
ATOM   5705  CA  HIS C 535      87.326  14.833 -13.023  1.00 22.82           C
ATOM   5706  CB  HIS C 535      87.915  13.709 -12.182  1.00 23.33           C
ATOM   5707  CG  HIS C 535      89.164  13.131 -12.773  1.00 26.69           C
ATOM   5708  ND1 HIS C 535      89.172  11.953 -13.488  1.00 28.26           N
ATOM   5709  CE1 HIS C 535      90.392  11.726 -13.942  1.00 27.50           C
ATOM   5710  NE2 HIS C 535      91.170  12.724 -13.563  1.00 27.72           N
ATOM   5711  CD2 HIS C 535      90.422  13.626 -12.848  1.00 28.08           C
ATOM   5712  C   HIS C 535      87.484  14.472 -14.494  1.00 27.69           C
ATOM   5713  O   HIS C 535      88.369  14.986 -15.187  1.00 27.64           O
ATOM   5714  N   CYS C 536      86.638  13.562 -14.961  1.00 24.90           N
ATOM   5715  CA  CYS C 536      86.702  13.111 -16.342  1.00 25.29           C
ATOM   5716  CB  CYS C 536      85.623  12.073 -16.623  1.00 26.28           C
ATOM   5717  SG  CYS C 536      85.842  11.266 -18.204  1.00 30.55           S
ATOM   5718  C   CYS C 536      86.573  14.278 -17.302  1.00 28.41           C
ATOM   5719  O   CYS C 536      87.348  14.407 -18.249  1.00 28.66           O
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ATOM   5720  N   MET C 537      85.592  15.132 -17.048  1.00 23.82           N
ATOM   5721  CA  MET C 537      85.384  16.317 -17.867  1.00 23.24           C
ATOM   5722  CB  MET C 537      84.253  17.161 -17.276  1.00 25.14           C
ATOM   5723  CG  MET C 537      84.041  18.511 -17.951  1.00 28.08           C
ATOM   5724  SD  MET C 537      83.753  18.367 -19.728  1.00 31.69           S
ATOM   5725  CE  MET C 537      82.086  17.678 -19.770  1.00 28.53           C
ATOM   5726  C   MET C 537      86.676  17.125 -17.869  1.00 27.50           C
ATOM   5727  O   MET C 537      87.114  17.622 -18.905  1.00 27.99           O
ATOM   5728  N   TYR C 538      87.279  17.244 -16.692  1.00 23.22           N
ATOM   5729  CA  TYR C 538      88.515  17.992 -16.519  1.00 22.55           C
ATOM   5730  CB  TYR C 538      88.949  17.920 -15.058  1.00 23.00           C
ATOM   5731  CG  TYR C 538      90.389  18.292 -14.799  1.00 23.83           C
ATOM   5732  CD1 TYR C 538      90.761  19.619 -14.594  1.00 25.87           C
ATOM   5733  CE1 TYR C 538      92.078  19.956 -14.298  1.00 26.72           C
ATOM   5734  CZ  TYR C 538      93.023  18.957 -14.183  1.00 33.47           C
ATOM   5735  OH  TYR C 538      94.332  19.272 -13.894  1.00 36.59           O
ATOM   5736  CE2 TYR C 538      92.667  17.635 -14.360  1.00 24.85           C
ATOM   5737  CD2 TYR C 538      91.358  17.311 -14.655  1.00 24.06           C
ATOM   5738  C   TYR C 538      89.614  17.463 -17.439  1.00 26.87           C
ATOM   5739  O   TYR C 538      90.235  18.222 -18.185  1.00 26.67           O
ATOM   5740  N   ALA C 539      89.827  16.152 -17.403  1.00 23.02           N
ATOM   5741  CA  ALA C 539      90.821  15.512 -18.246  1.00 22.61           C
ATOM   5742  CB  ALA C 539      90.849  14.014 -17.990  1.00 23.23           C
ATOM   5743  C   ALA C 539      90.556  15.814 -19.722  1.00 27.23           C
ATOM   5744  O   ALA C 539      91.474  16.150 -20.463  1.00 27.30           O
ATOM   5745  N   ILE C 540      89.297  15.729 -20.142  1.00 23.60           N
ATOM   5746  CA  ILE C 540      88.943  16.034 -21.526  1.00 23.10           C
ATOM   5747  CB  ILE C 540      87.440  15.819 -21.787  1.00 25.64           C
ATOM   5748  CG1 ILE C 540      87.129  14.329 -21.934  1.00 24.95           C
ATOM   5749  CD1 ILE C 540      85.674  13.993 -21.710  1.00 27.35           C
ATOM   5750  CG2 ILE C 540      87.003  16.579 -23.034  1.00 26.88           C
ATOM   5751  C   ILE C 540      89.356  17.467 -21.864  1.00 28.40           C
ATOM   5752  O   ILE C 540      90.051  17.709 -22.851  1.00 27.90           O
ATOM   5753  N   LEU C 541      88.934  18.413 -21.029  1.00 26.35           N
ATOM   5754  CA  LEU C 541      89.264  19.825 -21.226  1.00 25.87           C
ATOM   5755  CB  LEU C 541      88.665  20.681 -20.106  1.00 25.82           C
ATOM   5756  CG  LEU C 541      87.142  20.676 -19.925  1.00 30.68           C
ATOM   5757  CD1 LEU C 541      86.728  21.538 -18.735  1.00 30.63           C
ATOM   5758  CD2 LEU C 541      86.443  21.141 -21.185  1.00 33.46           C
ATOM   5759  C   LEU C 541      90.772  20.051 -21.300  1.00 30.60           C
ATOM   5760  O   LEU C 541      91.262  20.746 -22.188  1.00 30.38           O
ATOM   5761  N   GLN C 542      91.505  19.469 -20.358  1.00 27.65           N
ATOM   5762  CA  GLN C 542      92.955  19.634 -20.304  1.00 27.50           C
ATOM   5763  CB  GLN C 542      93.526  19.048 -19.012  1.00 28.63           C
ATOM   5764  CG  GLN C 542      93.051  19.750 -17.749  1.00 39.49           C
ATOM   5765  CD  GLN C 542      93.442  21.214 -17.705  1.00 46.42           C
ATOM   5766  OE1 GLN C 542      94.464  21.579 -17.131  1.00 39.72           O
ATOM   5767  NE2 GLN C 542      92.618  22.061 -18.298  1.00 36.36           N
ATOM   5768  C   GLN C 542      93.708  19.093 -21.516  1.00 32.15           C
ATOM   5769  O   GLN C 542      94.816  19.538 -21.806  1.00 31.78           O
ATOM   5770  N   ASN C 543      93.117  18.134 -22.220  1.00 29.05           N
ATOM   5771  CA  ASN C 543      93.756  17.571 -23.406  1.00 28.98           C
ATOM   5772  CB  ASN C 543      93.601  16.047 -23.433  1.00 30.16           C
ATOM   5773  CG  ASN C 543      94.436  15.360 -22.377  1.00 48.21           C
ATOM   5774  OD1 ASN C 543      95.656  15.262 -22.499  1.00 44.26           O
ATOM   5775  ND2 ASN C 543      93.782  14.878 -21.331  1.00 39.87           N
ATOM   5776  C   ASN C 543      93.202  18.182 -24.695  1.00 33.26           C
ATOM   5777  O   ASN C 543      93.594  17.791 -25.790  1.00 32.45           O
ATOM   5778  N   ASN C 544      92.295  19.145 -24.555  1.00 31.29           N
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ATOM   5779  CA  ASN C 544      91.680  19.816 -25.705  1.00 31.42           C
ATOM   5780  CB  ASN C 544      90.297  19.219 -25.985  1.00 30.86           C
ATOM   5781  CG  ASN C 544      90.365  17.768 -26.432  1.00 50.21           C
ATOM   5782  OD1 ASN C 544      90.468  17.478 -27.626  1.00 44.36           O
ATOM   5783  ND2 ASN C 544      90.283  16.846 -25.476  1.00 40.44           N
ATOM   5784  C   ASN C 544      91.541  21.309 -25.411  1.00 37.57           C
ATOM   5785  O   ASN C 544      90.708  22.001 -25.995  1.00 36.91           O
ATOM   5786  N   HIS C 545      92.380  21.787 -24.499  1.00 36.50           N
ATOM   5787  CA  HIS C 545      92.377  23.172 -24.027  1.00 37.64           C
ATOM   5788  CB  HIS C 545      93.637  23.459 -23.203  1.00 38.68           C
ATOM   5789  CG  HIS C 545      94.814  23.882 -24.024  1.00 42.51           C
ATOM   5790  ND1 HIS C 545      95.473  23.026 -24.881  1.00 44.45           N
ATOM   5791  CE1 HIS C 545      96.461  23.673 -25.472  1.00 44.07           C
ATOM   5792  NE2 HIS C 545      96.467  24.918 -25.031  1.00 44.47           N
ATOM   5793  CD2 HIS C 545      95.447  25.075 -24.125  1.00 44.64           C
ATOM   5794  C   HIS C 545      92.069  24.329 -24.993  1.00 42.99           C
ATOM   5795  O   HIS C 545      91.531  25.358 -24.572  1.00 42.98           O
ATOM   5796  N   THR C 546      92.414  24.177 -26.268  1.00 40.22           N
ATOM   5797  CA  THR C 546      92.202  25.249 -27.244  1.00 40.57           C
ATOM   5798  CB  THR C 546      93.387  25.348 -28.230  1.00 49.89           C
ATOM   5799  OG1 THR C 546      93.262  24.336 -29.240  1.00 48.16           O
ATOM   5800  CG2 THR C 546      94.710  25.169 -27.500  1.00 49.20           C
ATOM   5801  C   THR C 546      90.873  25.208 -28.002  1.00 45.53           C
ATOM   5802  O   THR C 546      90.748  25.818 -29.064  1.00 45.29           O
ATOM   5803  N   LEU C 547      89.878  24.510 -27.464  1.00 42.58           N
ATOM   5804  CA  LEU C 547      88.598  24.389 -28.156  1.00 42.43           C
ATOM   5805  CB  LEU C 547      88.305  22.923 -28.472  1.00 42.56           C
ATOM   5806  CG  LEU C 547      88.638  22.457 -29.888  1.00 47.30           C
ATOM   5807  CD1 LEU C 547      90.029  22.926 -30.286  1.00 47.39           C
ATOM   5808  CD2 LEU C 547      88.536  20.944 -29.973  1.00 49.86           C
ATOM   5809  C   LEU C 547      87.394  25.002 -27.452  1.00 46.93           C
ATOM   5810  O   LEU C 547      86.314  25.092 -28.038  1.00 46.25           O
ATOM   5811  N   PHE C 548      87.560  25.407 -26.199  1.00 43.86           N
ATOM   5812  CA  PHE C 548      86.434  25.952 -25.458  1.00 43.92           C
ATOM   5813  CB  PHE C 548      86.064  25.029 -24.299  1.00 45.57           C
ATOM   5814  CG  PHE C 548      86.029  23.580 -24.682  1.00 46.87           C
ATOM   5815  CD1 PHE C 548      87.151  22.782 -24.530  1.00 49.91           C
ATOM   5816  CE1 PHE C 548      87.130  21.453 -24.909  1.00 50.69           C
ATOM   5817  CZ  PHE C 548      85.987  20.915 -25.467  1.00 49.65           C
ATOM   5818  CE2 PHE C 548      84.867  21.705 -25.638  1.00 51.51           C
ATOM   5819  CD2 PHE C 548      84.894  23.030 -25.254  1.00 48.84           C
ATOM   5820  C   PHE C 548      86.564  27.397 -25.003  1.00 48.65           C
ATOM   5821  O   PHE C 548      87.647  27.987 -25.039  1.00 48.29           O
ATOM   5822  N   THR C 549      85.431  27.966 -24.606  1.00 45.84           N
ATOM   5823  CA  THR C 549      85.369  29.342 -24.136  1.00 45.75           C
ATOM   5824  CB  THR C 549      84.043  30.011 -24.558  1.00 53.97           C
ATOM   5825  OG1 THR C 549      82.973  29.511 -23.746  1.00 55.06           O
ATOM   5826  CG2 THR C 549      83.736  29.715 -26.017  1.00 51.68           C
ATOM   5827  C   THR C 549      85.532  29.367 -22.622  1.00 49.47           C
ATOM   5828  O   THR C 549      85.578  28.318 -21.978  1.00 49.12           O
ATOM   5829  N   ASP C 550      85.620  30.566 -22.057  1.00 45.82           N
ATOM   5830  CA  ASP C 550      85.746  30.718 -20.612  1.00 45.55           C
ATOM   5831  CB  ASP C 550      85.960  32.193 -20.251  1.00 48.16           C
ATOM   5832  CG  ASP C 550      87.329  32.711 -20.668  1.00 64.99           C
ATOM   5833  OD1 ASP C 550      87.915  33.518 -19.912  1.00 66.54           O
ATOM   5834  OD2 ASP C 550      87.807  32.338 -21.763  1.00 72.96           O
ATOM   5835  C   ASP C 550      84.436  30.234 -20.000  1.00 46.76           C
ATOM   5836  O   ASP C 550      84.418  29.572 -18.959  1.00 46.14           O
ATOM   5837  N   LEU C 551      83.346  30.559 -20.688  1.00 41.31           N
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ATOM   5838  CA  LEU C 551      82.000  30.196 -20.268  1.00 40.22           C
ATOM   5839  CB  LEU C 551      80.967  30.925 -21.132  1.00 39.96           C
ATOM   5840  CG  LEU C 551      80.691  32.380 -20.753  1.00 44.12           C
ATOM   5841  CD1 LEU C 551      79.242  32.745 -21.038  1.00 44.16           C
ATOM   5842  CD2 LEU C 551      81.022  32.605 -19.290  1.00 46.05           C
ATOM   5843  C   LEU C 551      81.743  28.689 -20.293  1.00 43.14           C
ATOM   5844  O   LEU C 551      81.071  28.158 -19.410  1.00 43.05           O
ATOM   5845  N   GLU C 552      82.260  28.005 -21.309  1.00 38.36           N
ATOM   5846  CA  GLU C 552      82.073  26.564 -21.429  1.00 37.54           C
ATOM   5847  CB  GLU C 552      82.420  26.087 -22.838  1.00 38.68           C
ATOM   5848  CG  GLU C 552      81.243  26.124 -23.789  1.00 47.69           C
ATOM   5849  CD  GLU C 552      81.661  26.271 -25.239  1.00 67.25           C
ATOM   5850  OE1 GLU C 552      80.773  26.473 -26.096  1.00 61.13           O
ATOM   5851  OE2 GLU C 552      82.874  26.176 -25.525  1.00 60.72           O
ATOM   5852  C   GLU C 552      82.905  25.823 -20.393  1.00 40.47           C
ATOM   5853  O   GLU C 552      82.503  24.772 -19.894  1.00 40.02           O
ATOM   5854  N   ARG C 553      84.061  26.386 -20.064  1.00 36.28           N
ATOM   5855  CA  ARG C 553      84.934  25.794 -19.062  1.00 35.99           C
ATOM   5856  CB  ARG C 553      86.275  26.528 -19.028  1.00 36.05           C
ATOM   5857  CG  ARG C 553      87.420  25.757 -19.666  1.00 46.43           C
ATOM   5858  CD  ARG C 553      87.389  25.913 -21.180  1.00 55.97           C
ATOM   5859  NE  ARG C 553      88.704  26.237 -21.722  1.00 62.98           N
ATOM   5860  CZ  ARG C 553      89.250  27.448 -21.696  1.00 77.50           C
ATOM   5861  NH1 ARG C 553      90.446  27.648 -22.230  1.00 67.68           N
ATOM   5862  NH2 ARG C 553      88.606  28.458 -21.134  1.00 63.39           N
ATOM   5863  C   ARG C 553      84.252  25.904 -17.708  1.00 39.94           C
ATOM   5864  O   ARG C 553      84.011  24.900 -17.040  1.00 40.39           O
ATOM   5865  N   LYS C 554      83.943  27.137 -17.318  1.00 35.46           N
ATOM   5866  CA  LYS C 554      83.264  27.422 -16.058  1.00 34.54           C
ATOM   5867  CB  LYS C 554      82.735  28.863 -16.064  1.00 37.12           C
ATOM   5868  CG  LYS C 554      83.766  29.953 -15.828  1.00 48.66           C
ATOM   5869  CD  LYS C 554      83.083  31.318 -15.772  1.00 56.24           C
ATOM   5870  CE  LYS C 554      84.044  32.409 -15.322  1.00 66.78           C
ATOM   5871  NZ  LYS C 554      83.396  33.375 -14.387  1.00 76.26           N
ATOM   5872  C   LYS C 554      82.063  26.498 -15.863  1.00 36.76           C
ATOM   5873  O   LYS C 554      81.959  25.788 -14.861  1.00 36.08           O
ATOM   5874  N   GLY C 555      81.142  26.549 -16.823  1.00 32.19           N
ATOM   5875  CA  GLY C 555      79.889  25.815 -16.793  1.00 31.13           C
ATOM   5876  C   GLY C 555      79.924  24.303 -16.881  1.00 33.33           C
ATOM   5877  O   GLY C 555      79.075  23.639 -16.294  1.00 32.65           O
ATOM   5878  N   LEU C 556      80.872  23.755 -17.633  1.00 29.15           N
ATOM   5879  CA  LEU C 556      80.961  22.306 -17.802  1.00 28.94           C
ATOM   5880  CB  LEU C 556      81.929  21.936 -18.929  1.00 28.70           C
ATOM   5881  CG  LEU C 556      81.380  22.178 -20.339  1.00 32.84           C
ATOM   5882  CD1 LEU C 556      82.310  21.626 -21.411  1.00 32.96           C
ATOM   5883  CD2 LEU C 556      79.984  21.597 -20.478  1.00 34.24           C
ATOM   5884  C   LEU C 556      81.307  21.562 -16.517  1.00 33.33           C
ATOM   5885  O   LEU C 556      80.697  20.545 -16.198  1.00 33.50           O
ATOM   5886  N   LEU C 557      82.282  22.073 -15.776  1.00 30.24           N
ATOM   5887  CA  LEU C 557      82.686  21.444 -14.526  1.00 29.92           C
ATOM   5888  CB  LEU C 557      83.977  22.070 -14.006  1.00 30.10           C
ATOM   5889  CG  LEU C 557      85.189  21.792 -14.894  1.00 35.13           C
ATOM   5890  CD1 LEU C 557      85.900  23.088 -15.257  1.00 35.50           C
ATOM   5891  CD2 LEU C 557      86.133  20.806 -14.230  1.00 38.25           C
ATOM   5892  C   LEU C 557      81.586  21.544 -13.480  1.00 32.39           C
ATOM   5893  O   LEU C 557      81.364  20.613 -12.705  1.00 31.77           O
ATOM   5894  N   ILE C 558      80.901  22.683 -13.462  1.00 28.58           N
ATOM   5895  CA  ILE C 558      79.811  22.898 -12.524  1.00 28.07           C
ATOM   5896  CB  ILE C 558      79.343  24.369 -12.522  1.00 30.98           C
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ATOM   5897  CG1 ILE C 558      80.547  25.303 -12.413  1.00 31.25           C
ATOM   5898  CD1 ILE C 558      81.155  25.346 -11.025  1.00 35.55           C
ATOM   5899  CG2 ILE C 558      78.397  24.626 -11.359  1.00 31.10           C
ATOM   5900  C   ILE C 558      78.679  21.943 -12.878  1.00 31.42           C
ATOM   5901  O   ILE C 558      78.098  21.303 -12.007  1.00 30.78           O
ATOM   5902  N   ALA C 559      78.399  21.826 -14.170  1.00 28.09           N
ATOM   5903  CA  ALA C 559      77.354  20.932 -14.646  1.00 28.12           C
ATOM   5904  CB  ALA C 559      77.239  21.019 -16.156  1.00 28.87           C
ATOM   5905  C   ALA C 559      77.649  19.498 -14.223  1.00 31.95           C
ATOM   5906  O   ALA C 559      76.764  18.778 -13.762  1.00 31.97           O
ATOM   5907  N   CYS C 560      78.901  19.089 -14.389  1.00 28.32           N
ATOM   5908  CA  CYS C 560      79.324  17.735 -14.057  1.00 28.07           C
ATOM   5909  CB  CYS C 560      80.797  17.534 -14.412  1.00 28.33           C
ATOM   5910  SG  CYS C 560      81.047  16.991 -16.113  1.00 32.37           S
ATOM   5911  C   CYS C 560      79.078  17.392 -12.599  1.00 31.32           C
ATOM   5912  O   CYS C 560      78.602  16.303 -12.276  1.00 31.81           O
ATOM   5913  N   LEU C 561      79.402  18.331 -11.722  1.00 26.55           N
ATOM   5914  CA  LEU C 561      79.209  18.144 -10.296  1.00 25.99           C
ATOM   5915  CB  LEU C 561      79.894  19.268  -9.521  1.00 25.92           C
ATOM   5916  CG  LEU C 561      80.204  18.942  -8.062  1.00 30.81           C
ATOM   5917  CD1 LEU C 561      81.471  18.094  -7.947  1.00 31.31           C
ATOM   5918  CD2 LEU C 561      80.317  20.216  -7.249  1.00 32.30           C
ATOM   5919  C   LEU C 561      77.734  18.068  -9.900  1.00 28.58           C
ATOM   5920  O   LEU C 561      77.389  17.382  -8.944  1.00 29.55           O
ATOM   5921  N   CYS C 562      76.868  18.777 -10.618  1.00 22.74           N
ATOM   5922  CA  CYS C 562      75.444  18.798 -10.277  1.00 21.89           C
ATOM   5923  CB  CYS C 562      74.906  20.229 -10.334  1.00 22.23           C
ATOM   5924  SG  CYS C 562      75.872  21.441  -9.431  1.00 26.23           S
ATOM   5925  C   CYS C 562      74.551  17.911 -11.138  1.00 23.01           C
ATOM   5926  O   CYS C 562      73.333  17.927 -10.991  1.00 22.48           O
ATOM   5927  N   HIS C 563      75.143  17.171 -12.062  1.00 18.64           N
ATOM   5928  CA  HIS C 563      74.357  16.350 -12.975  1.00 17.33           C
ATOM   5929  CB  HIS C 563      75.230  15.782 -14.096  1.00 17.82           C
ATOM   5930  CG  HIS C 563      75.929  14.509 -13.732  1.00 20.49           C
ATOM   5931  ND1 HIS C 563      77.060  14.478 -12.946  1.00 22.19           N
ATOM   5932  CE1 HIS C 563      77.442  13.224 -12.780  1.00 21.78           C
ATOM   5933  NE2 HIS C 563      76.602  12.444 -13.435  1.00 22.23           N
ATOM   5934  CD2 HIS C 563      75.654  13.225 -14.050  1.00 22.34           C
ATOM   5935  C   HIS C 563      73.462  15.280 -12.354  1.00 20.08           C
ATOM   5936  O   HIS C 563      72.580  14.756 -13.024  1.00 19.96           O
ATOM   5937  N   ASP C 564      73.663  14.967 -11.078  1.00 17.05           N
ATOM   5938  CA  ASP C 564      72.838  13.949 -10.421  1.00 16.50           C
ATOM   5939  CB  ASP C 564      73.632  12.660 -10.210  1.00 17.65           C
ATOM   5940  CG  ASP C 564      73.572  11.733 -11.407  1.00 20.65           C
ATOM   5941  OD1 ASP C 564      72.627  11.856 -12.216  1.00 19.48           O
ATOM   5942  OD2 ASP C 564      74.485  10.893 -11.551  1.00 24.62           O
ATOM   5943  C   ASP C 564      72.224  14.395  -9.096  1.00 22.31           C
ATOM   5944  O   ASP C 564      71.832  13.559  -8.281  1.00 21.54           O
ATOM   5945  N   LEU C 565      72.140  15.707  -8.890  1.00 20.90           N
ATOM   5946  CA  LEU C 565      71.587  16.272  -7.656  1.00 21.75           C
ATOM   5947  CB  LEU C 565      71.473  17.798  -7.767  1.00 21.74           C
ATOM   5948  CG  LEU C 565      72.678  18.654  -7.365  1.00 26.43           C
ATOM   5949  CD1 LEU C 565      72.316  20.131  -7.384  1.00 26.59           C
ATOM   5950  CD2 LEU C 565      73.221  18.254  -6.002  1.00 28.95           C
ATOM   5951  C   LEU C 565      70.226  15.692  -7.267  1.00 26.90           C
ATOM   5952  O   LEU C 565      69.282  15.709  -8.058  1.00 26.93           O
ATOM   5953  N   ASP C 566      70.125  15.224  -6.028  1.00 23.87           N
ATOM   5954  CA  ASP C 566      68.880  14.676  -5.494  1.00 24.23           C
ATOM   5955  CB  ASP C 566      67.766  15.729  -5.509  1.00 26.16           C
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ATOM   5956  CG  ASP C 566      66.697  15.470  -4.459  1.00 38.01           C
ATOM   5957  OD1 ASP C 566      67.048  15.019  -3.348  1.00 39.91           O
ATOM   5958  OD2 ASP C 566      65.508  15.745  -4.730  1.00 43.41           O
ATOM   5959  C   ASP C 566      68.414  13.383  -6.168  1.00 28.84           C
ATOM   5960  O   ASP C 566      67.215  13.109  -6.242  1.00 28.53           O
ATOM   5961  N   HIS C 567      69.363  12.589  -6.655  1.00 25.33           N
ATOM   5962  CA  HIS C 567      69.032  11.313  -7.274  1.00 25.17           C
ATOM   5963  CB  HIS C 567      70.244  10.757  -8.024  1.00 25.46           C
ATOM   5964  CG  HIS C 567      69.887   9.817  -9.128  1.00 28.56           C
ATOM   5965  ND1 HIS C 567      69.642   8.478  -8.913  1.00 30.39           N
ATOM   5966  CE1 HIS C 567      69.347   7.898 -10.062  1.00 29.61           C
ATOM   5967  NE2 HIS C 567      69.374   8.815 -11.011  1.00 29.84           N
ATOM   5968  CD2 HIS C 567      69.709  10.024 -10.453  1.00 30.10           C
ATOM   5969  C   HIS C 567      68.601  10.346  -6.169  1.00 30.08           C
ATOM   5970  O   HIS C 567      69.129  10.397  -5.062  1.00 29.93           O
ATOM   5971  N   ARG C 568      67.624   9.489  -6.454  1.00 26.98           N
ATOM   5972  CA  ARG C 568      67.133   8.551  -5.446  1.00 26.90           C
ATOM   5973  CB  ARG C 568      65.658   8.818  -5.125  1.00 27.94           C
ATOM   5974  CG  ARG C 568      65.441   9.976  -4.154  1.00 38.57           C
ATOM   5975  CD  ARG C 568      63.997  10.441  -4.142  1.00 54.19           C
ATOM   5976  NE  ARG C 568      63.863  11.847  -4.516  1.00 69.39           N
ATOM   5977  CZ  ARG C 568      63.480  12.809  -3.683  1.00 88.46           C
ATOM   5978  NH1 ARG C 568      63.199  12.520  -2.420  1.00 77.91           N
ATOM   5979  NH2 ARG C 568      63.376  14.059  -4.113  1.00 76.11           N
ATOM   5980  C   ARG C 568      67.378   7.081  -5.773  1.00 30.91           C
ATOM   5981  O   ARG C 568      66.869   6.190  -5.081  1.00 31.01           O
ATOM   5982  N   GLY C 569      68.178   6.833  -6.807  1.00 27.05           N
ATOM   5983  CA  GLY C 569      68.517   5.485  -7.221  1.00 26.68           C
ATOM   5984  C   GLY C 569      67.535   4.849  -8.188  1.00 30.89           C
ATOM   5985  O   GLY C 569      67.614   3.648  -8.447  1.00 31.09           O
ATOM   5986  N   PHE C 570      66.622   5.647  -8.737  1.00 26.92           N
ATOM   5987  CA  PHE C 570      65.633   5.124  -9.674  1.00 26.84           C
ATOM   5988  CB  PHE C 570      64.222   5.205  -9.088  1.00 28.43           C
ATOM   5989  CG  PHE C 570      64.093   4.587  -7.726  1.00 29.61           C
ATOM   5990  CD1 PHE C 570      64.109   3.211  -7.573  1.00 32.52           C
ATOM   5991  CE1 PHE C 570      63.990   2.635  -6.323  1.00 33.27           C
ATOM   5992  CZ  PHE C 570      63.849   3.435  -5.205  1.00 32.26           C
ATOM   5993  CE2 PHE C 570      63.819   4.810  -5.342  1.00 34.12           C
ATOM   5994  CD2 PHE C 570      63.937   5.381  -6.599  1.00 31.46           C
ATOM   5995  C   PHE C 570      65.677   5.805 -11.034  1.00 31.87           C
ATOM   5996  O   PHE C 570      65.790   7.024 -11.129  1.00 31.43           O
ATOM   5997  N   SER C 571      65.576   4.999 -12.085  1.00 29.60           N
ATOM   5998  CA  SER C 571      65.575   5.508 -13.449  1.00 29.63           C
ATOM   5999  CB  SER C 571      65.638   4.345 -14.446  1.00 33.04           C
ATOM   6000  OG  SER C 571      64.501   3.501 -14.321  1.00 40.32           O
ATOM   6001  C   SER C 571      64.303   6.300 -13.699  1.00 33.53           C
ATOM   6002  O   SER C 571      63.413   6.346 -12.854  1.00 33.31           O
ATOM   6003  N   ASN C 572      64.210   6.895 -14.881  1.00 30.42           N
ATOM   6004  CA  ASN C 572      63.026   7.646 -15.266  1.00 30.20           C
ATOM   6005  CB  ASN C 572      63.296   8.437 -16.548  1.00 27.24           C
ATOM   6006  CG  ASN C 572      64.235   9.600 -16.321  1.00 40.04           C
ATOM   6007  OD1 ASN C 572      64.285  10.161 -15.228  1.00 27.84           O
ATOM   6008  ND2 ASN C 572      65.002   9.957 -17.347  1.00 27.82           N
ATOM   6009  C   ASN C 572      61.903   6.648 -15.504  1.00 35.68           C
ATOM   6010  O   ASN C 572      60.735   6.926 -15.226  1.00 35.89           O
ATOM   6011  N   SER C 573      62.280   5.477 -16.010  1.00 32.54           N
ATOM   6012  CA  SER C 573      61.340   4.403 -16.294  1.00 31.97           C
ATOM   6013  CB  SER C 573      62.097   3.142 -16.718  1.00 36.07           C
ATOM   6014  OG  SER C 573      61.220   2.208 -17.324  1.00 47.09           O
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ATOM   6015  C   SER C 573      60.471   4.110 -15.078  1.00 34.28           C
ATOM   6016  O   SER C 573      59.243   4.067 -15.172  1.00 33.89           O
ATOM   6017  N   TYR C 574      61.120   3.923 -13.934  1.00 29.54           N
ATOM   6018  CA  TYR C 574      60.423   3.620 -12.694  1.00 28.56           C
ATOM   6019  CB  TYR C 574      61.413   3.203 -11.604  1.00 29.71           C
ATOM   6020  CG  TYR C 574      60.757   2.912 -10.273  1.00 31.44           C
ATOM   6021  CD1 TYR C 574      60.143   1.690 -10.029  1.00 33.25           C
ATOM   6022  CE1 TYR C 574      59.508   1.437  -8.823  1.00 33.23           C
ATOM   6023  CZ  TYR C 574      59.496   2.407  -7.847  1.00 38.26           C
ATOM   6024  OH  TYR C 574      58.881   2.165  -6.645  1.00 39.09           O
ATOM   6025  CE2 TYR C 574      60.101   3.623  -8.061  1.00 32.58           C
ATOM   6026  CD2 TYR C 574      60.721   3.873  -9.271  1.00 32.04           C
ATOM   6027  C   TYR C 574      59.513   4.754 -12.205  1.00 31.43           C
ATOM   6028  O   TYR C 574      58.410   4.498 -11.734  1.00 30.00           O
ATOM   6029  N   LEU C 575      59.966   6.001 -12.316  1.00 28.55           N
ATOM   6030  CA  LEU C 575      59.151   7.136 -11.866  1.00 28.37           C
ATOM   6031  CB  LEU C 575      59.928   8.459 -11.923  1.00 28.25           C
ATOM   6032  CG  LEU C 575      61.392   8.530 -11.495  1.00 32.57           C
ATOM   6033  CD1 LEU C 575      62.061   9.663 -12.258  1.00 32.58           C
ATOM   6034  CD2 LEU C 575      61.519   8.749  -9.996  1.00 34.34           C
ATOM   6035  C   LEU C 575      57.877   7.269 -12.687  1.00 33.55           C
ATOM   6036  O   LEU C 575      56.851   7.732 -12.191  1.00 33.32           O
ATOM   6037  N   GLN C 576      57.954   6.880 -13.951  1.00 31.28           N
ATOM   6038  CA  GLN C 576      56.812   6.963 -14.842  1.00 31.43           C
ATOM   6039  CB  GLN C 576      57.269   6.844 -16.294  1.00 32.95           C
ATOM   6040  CG  GLN C 576      56.129   6.698 -17.287  1.00 55.39           C
ATOM   6041  CD  GLN C 576      55.970   7.924 -18.169  1.00 79.82           C
ATOM   6042  OE1 GLN C 576      56.194   7.868 -19.378  1.00 77.10           O
ATOM   6043  NE2 GLN C 576      55.556   9.036 -17.569  1.00 71.23           N
ATOM   6044  C   GLN C 576      55.791   5.881 -14.522  1.00 35.47           C
ATOM   6045  O   GLN C 576      54.585   6.112 -14.595  1.00 35.07           O
ATOM   6046  N   LYS C 577      56.283   4.697 -14.173  1.00 32.42           N
ATOM   6047  CA  LYS C 577      55.414   3.573 -13.836  1.00 32.15           C
ATOM   6048  CB  LYS C 577      56.167   2.250 -13.994  1.00 34.53           C
ATOM   6049  CG  LYS C 577      56.260   1.764 -15.434  1.00 40.51           C
ATOM   6050  CD  LYS C 577      57.675   1.342 -15.777  1.00 47.49           C
ATOM   6051  CE  LYS C 577      57.695   0.449 -17.003  1.00 55.89           C
ATOM   6052  NZ  LYS C 577      59.085   0.131 -17.432  1.00 66.81           N
ATOM   6053  C   LYS C 577      54.869   3.711 -12.417  1.00 35.54           C
ATOM   6054  O   LYS C 577      53.776   3.236 -12.100  1.00 35.76           O
ATOM   6055  N   PHE C 578      55.638   4.375 -11.567  1.00 30.75           N
ATOM   6056  CA  PHE C 578      55.232   4.590 -10.190  1.00 30.15           C
ATOM   6057  CB  PHE C 578      56.453   4.878  -9.316  1.00 31.59           C
ATOM   6058  CG  PHE C 578      56.107   5.258  -7.912  1.00 32.75           C
ATOM   6059  CD1 PHE C 578      56.010   4.291  -6.925  1.00 35.48           C
ATOM   6060  CE1 PHE C 578      55.667   4.634  -5.628  1.00 35.94           C
ATOM   6061  CZ  PHE C 578      55.413   5.953  -5.310  1.00 34.77           C
ATOM   6062  CE2 PHE C 578      55.492   6.923  -6.288  1.00 36.98           C
ATOM   6063  CD2 PHE C 578      55.837   6.575  -7.584  1.00 34.56           C
ATOM   6064  C   PHE C 578      54.261   5.758 -10.115  1.00 34.81           C
ATOM   6065  O   PHE C 578      53.518   5.899  -9.145  1.00 34.25           O
ATOM   6066  N   ASP C 579      54.284   6.597 -11.146  1.00 32.18           N
ATOM   6067  CA  ASP C 579      53.432   7.777 -11.206  1.00 32.45           C
ATOM   6068  CB  ASP C 579      51.971   7.421 -10.907  1.00 34.72           C
ATOM   6069  CG  ASP C 579      50.988   8.422 -11.506  1.00 47.97           C
ATOM   6070  OD1 ASP C 579      51.437   9.471 -12.022  1.00 49.38           O
ATOM   6071  OD2 ASP C 579      49.764   8.165 -11.454  1.00 54.56           O
ATOM   6072  C   ASP C 579      53.926   8.855 -10.243  1.00 36.16           C
ATOM   6073  O   ASP C 579      53.130   9.548  -9.604  1.00 36.78           O
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ATOM   6074  N   HIS C 580      55.244   8.994 -10.142  1.00 30.90           N
ATOM   6075  CA  HIS C 580      55.828   9.999  -9.263  1.00 29.58           C
ATOM   6076  CB  HIS C 580      57.341   9.814  -9.159  1.00 29.75           C
ATOM   6077  CG  HIS C 580      57.959  10.585  -8.038  1.00 32.59           C
ATOM   6078  ND1 HIS C 580      58.161  11.948  -8.097  1.00 34.15           N
ATOM   6079  CE1 HIS C 580      58.690  12.361  -6.959  1.00 33.23           C
ATOM   6080  NE2 HIS C 580      58.826  11.318  -6.161  1.00 33.60           N
ATOM   6081  CD2 HIS C 580      58.368  10.196  -6.809  1.00 33.87           C
ATOM   6082  C   HIS C 580      55.507  11.398  -9.777  1.00 32.50           C
ATOM   6083  O   HIS C 580      55.544  11.645 -10.977  1.00 32.73           O
ATOM   6084  N   PRO C 581      55.191  12.332  -8.868  1.00 28.03           N
ATOM   6085  CA  PRO C 581      54.841  13.724  -9.180  1.00 28.53           C
ATOM   6086  CB  PRO C 581      54.916  14.416  -7.817  1.00 29.96           C
ATOM   6087  CG  PRO C 581      54.649  13.332  -6.836  1.00 33.64           C
ATOM   6088  CD  PRO C 581      55.270  12.095  -7.417  1.00 29.16           C
ATOM   6089  C   PRO C 581      55.807  14.377 -10.171  1.00 34.57           C
ATOM   6090  O   PRO C 581      55.385  15.099 -11.078  1.00 34.81           O
ATOM   6091  N   LEU C 582      57.100  14.117 -10.001  1.00 31.50           N
ATOM   6092  CA  LEU C 582      58.107  14.658 -10.905  1.00 31.43           C
ATOM   6093  CB  LEU C 582      59.499  14.165 -10.511  1.00 31.58           C
ATOM   6094  CG  LEU C 582      60.181  14.844  -9.325  1.00 36.46           C
ATOM   6095  CD1 LEU C 582      61.340  13.986  -8.830  1.00 37.03           C
ATOM   6096  CD2 LEU C 582      60.665  16.228  -9.714  1.00 38.29           C
ATOM   6097  C   LEU C 582      57.800  14.206 -12.329  1.00 34.93           C
ATOM   6098  O   LEU C 582      58.119  14.905 -13.291  1.00 34.23           O
ATOM   6099  N   ALA C 583      57.192  13.029 -12.454  1.00 31.38           N
ATOM   6100  CA  ALA C 583      56.851  12.469 -13.762  1.00 31.57           C
ATOM   6101  CB  ALA C 583      56.416  11.019 -13.631  1.00 32.22           C
ATOM   6102  C   ALA C 583      55.785  13.287 -14.485  1.00 36.49           C
ATOM   6103  O   ALA C 583      55.727  13.301 -15.715  1.00 36.43           O
ATOM   6104  N   ALA C 584      54.948  13.974 -13.713  1.00 33.64           N
ATOM   6105  CA  ALA C 584      53.906  14.826 -14.271  1.00 33.37           C
ATOM   6106  CB  ALA C 584      52.753  14.954 -13.290  1.00 34.16           C
ATOM   6107  C   ALA C 584      54.503  16.199 -14.572  1.00 36.73           C
ATOM   6108  O   ALA C 584      54.041  16.916 -15.459  1.00 36.35           O
ATOM   6109  N   LEU C 585      55.545  16.550 -13.826  1.00 32.71           N
ATOM   6110  CA  LEU C 585      56.228  17.825 -14.002  1.00 32.38           C
ATOM   6111  CB  LEU C 585      57.157  18.078 -12.815  1.00 32.29           C
ATOM   6112  CG  LEU C 585      57.823  19.445 -12.681  1.00 36.82           C
ATOM   6113  CD1 LEU C 585      56.871  20.559 -13.088  1.00 37.42           C
ATOM   6114  CD2 LEU C 585      58.298  19.636 -11.260  1.00 38.50           C
ATOM   6115  C   LEU C 585      57.023  17.820 -15.302  1.00 36.92           C
ATOM   6116  O   LEU C 585      56.956  18.766 -16.085  1.00 36.48           O
ATOM   6117  N   TYR C 586      57.771  16.743 -15.528  1.00 34.01           N
ATOM   6118  CA  TYR C 586      58.577  16.597 -16.740  1.00 33.63           C
ATOM   6119  CB  TYR C 586      60.068  16.713 -16.417  1.00 34.15           C
ATOM   6120  CG  TYR C 586      60.400  17.759 -15.381  1.00 34.93           C
ATOM   6121  CD1 TYR C 586      60.715  17.397 -14.080  1.00 36.55           C
ATOM   6122  CE1 TYR C 586      61.015  18.350 -13.128  1.00 36.82           C
ATOM   6123  CZ  TYR C 586      61.026  19.686 -13.477  1.00 43.31           C
ATOM   6124  OH  TYR C 586      61.336  20.641 -12.531  1.00 43.46           O
ATOM   6125  CE2 TYR C 586      60.726  20.069 -14.768  1.00 36.02           C
ATOM   6126  CD2 TYR C 586      60.415  19.108 -15.709  1.00 35.40           C
ATOM   6127  C   TYR C 586      58.299  15.255 -17.417  1.00 38.56           C
ATOM   6128  O   TYR C 586      58.778  14.208 -16.971  1.00 38.34           O
ATOM   6129  N   SER C 587      57.531  15.290 -18.501  1.00 35.46           N
ATOM   6130  CA  SER C 587      57.182  14.073 -19.222  1.00 35.46           C
ATOM   6131  CB  SER C 587      56.223  14.384 -20.374  1.00 39.91           C
ATOM   6132  OG  SER C 587      55.698  13.188 -20.928  1.00 50.06           O
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ATOM   6133  C   SER C 587      58.406  13.313 -19.734  1.00 38.55           C
ATOM   6134  O   SER C 587      58.429  12.078 -19.721  1.00 38.18           O
ATOM   6135  N   THR C 588      59.410  14.054 -20.200  1.00 33.70           N
ATOM   6136  CA  THR C 588      60.642  13.454 -20.720  1.00 32.55           C
ATOM   6137  CB  THR C 588      60.837  13.784 -22.214  1.00 43.13           C
ATOM   6138  OG1 THR C 588      60.847  15.208 -22.393  1.00 46.18           O
ATOM   6139  CG2 THR C 588      59.714  13.180 -23.049  1.00 42.20           C
ATOM   6140  C   THR C 588      61.857  13.898 -19.904  1.00 32.70           C
ATOM   6141  O   THR C 588      61.837  14.961 -19.282  1.00 32.01           O
ATOM   6142  N   SER C 589      62.912  13.085 -19.919  1.00 26.45           N
ATOM   6143  CA  SER C 589      64.137  13.388 -19.184  1.00 25.17           C
ATOM   6144  CB  SER C 589      64.942  14.474 -19.898  1.00 27.59           C
ATOM   6145  OG  SER C 589      65.222  14.104 -21.237  1.00 33.35           O
ATOM   6146  C   SER C 589      63.820  13.821 -17.762  1.00 28.27           C
ATOM   6147  O   SER C 589      64.484  14.692 -17.200  1.00 28.84           O
ATOM   6148  N   THR C 590      62.791  13.199 -17.199  1.00 23.35           N
ATOM   6149  CA  THR C 590      62.309  13.490 -15.855  1.00 22.10           C
ATOM   6150  CB  THR C 590      61.386  12.376 -15.352  1.00 23.13           C
ATOM   6151  OG1 THR C 590      60.242  12.287 -16.209  1.00 20.46           O
ATOM   6152  CG2 THR C 590      60.935  12.674 -13.930  1.00 20.50           C
ATOM   6153  C   THR C 590      63.388  13.806 -14.827  1.00 24.62           C
ATOM   6154  O   THR C 590      63.414  14.895 -14.259  1.00 23.64           O
ATOM   6155  N   MET C 591      64.246  12.829 -14.558  1.00 20.83           N
ATOM   6156  CA  MET C 591      65.299  12.995 -13.560  1.00 20.53           C
ATOM   6157  CB  MET C 591      66.104  11.701 -13.416  1.00 22.98           C
ATOM   6158  CG  MET C 591      65.625  10.808 -12.282  1.00 26.97           C
ATOM   6159  SD  MET C 591      64.723  11.755 -11.015  1.00 31.79           S
ATOM   6160  CE  MET C 591      65.995  11.923  -9.736  1.00 28.39           C
ATOM   6161  C   MET C 591      66.210  14.164 -13.906  1.00 23.85           C
ATOM   6162  O   MET C 591      66.459  15.037 -13.080  1.00 23.37           O
ATOM   6163  N   GLU C 592      66.674  14.183 -15.151  1.00 21.12           N
ATOM   6164  CA  GLU C 592      67.567  15.222 -15.654  1.00 20.89           C
ATOM   6165  CB  GLU C 592      67.991  14.901 -17.084  1.00 22.10           C
ATOM   6166  CG  GLU C 592      68.859  13.641 -17.196  1.00 30.47           C
ATOM   6167  CD  GLU C 592      68.067  12.344 -17.017  1.00 45.68           C
ATOM   6168  OE1 GLU C 592      66.875  12.314 -17.387  1.00 36.27           O
ATOM   6169  OE2 GLU C 592      68.642  11.345 -16.529  1.00 37.60           O
ATOM   6170  C   GLU C 592      67.008  16.641 -15.546  1.00 25.27           C
ATOM   6171  O   GLU C 592      67.744  17.576 -15.246  1.00 25.58           O
ATOM   6172  N   GLN C 593      65.713  16.810 -15.788  1.00 21.42           N
ATOM   6173  CA  GLN C 593      65.119  18.135 -15.657  1.00 20.98           C
ATOM   6174  CB  GLN C 593      63.724  18.184 -16.281  1.00 22.37           C
ATOM   6175  CG  GLN C 593      63.749  18.268 -17.805  1.00 37.19           C
ATOM   6176  CD  GLN C 593      62.414  18.669 -18.403  1.00 59.88           C
ATOM   6177  OE1 GLN C 593      61.928  19.779 -18.183  1.00 59.67           O
ATOM   6178  NE2 GLN C 593      61.815  17.764 -19.167  1.00 48.13           N
ATOM   6179  C   GLN C 593      65.094  18.543 -14.184  1.00 23.77           C
ATOM   6180  O   GLN C 593      65.235  19.717 -13.848  1.00 23.25           O
ATOM   6181  N   HIS C 594      64.953  17.558 -13.303  1.00 19.98           N
ATOM   6182  CA  HIS C 594      64.962  17.814 -11.870  1.00 19.76           C
ATOM   6183  CB  HIS C 594      64.503  16.569 -11.112  1.00 20.98           C
ATOM   6184  CG  HIS C 594      64.486  16.736  -9.625  1.00 24.62           C
ATOM   6185  ND1 HIS C 594      63.771  17.734  -8.995  1.00 26.48           N
ATOM   6186  CE1 HIS C 594      63.939  17.633  -7.688  1.00 25.91           C
ATOM   6187  NE2 HIS C 594      64.744  16.612  -7.449  1.00 26.18           N
ATOM   6188  CD2 HIS C 594      65.096  16.031  -8.642  1.00 26.33           C
ATOM   6189  C   HIS C 594      66.371  18.230 -11.422  1.00 22.91           C
ATOM   6190  O   HIS C 594      66.537  19.192 -10.673  1.00 23.00           O
ATOM   6191  N   HIS C 595      67.382  17.510 -11.896  1.00 18.04           N
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ATOM   6192  CA  HIS C 595      68.767  17.818 -11.550  1.00 17.23           C
ATOM   6193  CB  HIS C 595      69.736  16.898 -12.302  1.00 17.38           C
ATOM   6194  CG  HIS C 595      69.563  15.446 -11.982  1.00 20.49           C
ATOM   6195  ND1 HIS C 595      69.203  14.997 -10.731  1.00 21.82           N
ATOM   6196  CE1 HIS C 595      69.124  13.678 -10.745  1.00 21.25           C
ATOM   6197  NE2 HIS C 595      69.428  13.255 -11.958  1.00 21.60           N
ATOM   6198  CD2 HIS C 595      69.701  14.341 -12.753  1.00 21.92           C
ATOM   6199  C   HIS C 595      69.090  19.282 -11.851  1.00 21.20           C
ATOM   6200  O   HIS C 595      69.722  19.967 -11.045  1.00 19.93           O
ATOM   6201  N   PHE C 596      68.634  19.768 -13.003  1.00 19.00           N
ATOM   6202  CA  PHE C 596      68.893  21.154 -13.385  1.00 19.52           C
ATOM   6203  CB  PHE C 596      68.549  21.399 -14.851  1.00 21.27           C
ATOM   6204  CG  PHE C 596      68.726  22.830 -15.278  1.00 22.79           C
ATOM   6205  CD1 PHE C 596      69.993  23.361 -15.462  1.00 25.43           C
ATOM   6206  CE1 PHE C 596      70.158  24.681 -15.845  1.00 26.18           C
ATOM   6207  CZ  PHE C 596      69.051  25.488 -16.038  1.00 24.83           C
ATOM   6208  CE2 PHE C 596      67.784  24.971 -15.850  1.00 26.68           C
ATOM   6209  CD2 PHE C 596      67.626  23.654 -15.464  1.00 24.28           C
ATOM   6210  C   PHE C 596      68.149  22.153 -12.502  1.00 24.77           C
ATOM   6211  O   PHE C 596      68.656  23.243 -12.223  1.00 24.22           O
ATOM   6212  N   SER C 597      66.943  21.780 -12.079  1.00 22.28           N
ATOM   6213  CA  SER C 597      66.124  22.640 -11.228  1.00 22.64           C
ATOM   6214  CB  SER C 597      64.666  22.172 -11.235  1.00 26.66           C
ATOM   6215  OG  SER C 597      64.217  21.860  -9.928  1.00 37.47           O
ATOM   6216  C   SER C 597      66.671  22.693  -9.802  1.00 27.19           C
ATOM   6217  O   SER C 597      66.431  23.652  -9.066  1.00 26.71           O
ATOM   6218  N   GLN C 598      67.418  21.663  -9.422  1.00 24.30           N
ATOM   6219  CA  GLN C 598      68.035  21.610  -8.101  1.00 24.35           C
ATOM   6220  CB  GLN C 598      68.420  20.170  -7.752  1.00 25.76           C
ATOM   6221  CG  GLN C 598      67.252  19.312  -7.293  1.00 37.17           C
ATOM   6222  CD  GLN C 598      66.550  19.889  -6.078  1.00 51.91           C
ATOM   6223  OE1 GLN C 598      66.995  19.699  -4.946  1.00 46.20           O
ATOM   6224  NE2 GLN C 598      65.453  20.609  -6.309  1.00 42.01           N
ATOM   6225  C   GLN C 598      69.277  22.495  -8.124  1.00 28.56           C
ATOM   6226  O   GLN C 598      69.588  23.178  -7.148  1.00 28.31           O
ATOM   6227  N   THR C 599      69.964  22.497  -9.263  1.00 25.35           N
ATOM   6228  CA  THR C 599      71.159  23.314  -9.451  1.00 25.24           C
ATOM   6229  CB  THR C 599      71.821  23.016 -10.820  1.00 32.30           C
ATOM   6230  OG1 THR C 599      72.100  21.613 -10.934  1.00 27.22           O
ATOM   6231  CG2 THR C 599      73.109  23.814 -10.987  1.00 29.05           C
ATOM   6232  C   THR C 599      70.767  24.789  -9.341  1.00 30.09           C
ATOM   6233  O   THR C 599      71.357  25.550  -8.572  1.00 30.44           O
ATOM   6234  N   VAL C 600      69.768  25.184 -10.121  1.00 25.84           N
ATOM   6235  CA  VAL C 600      69.266  26.553 -10.097  1.00 24.84           C
ATOM   6236  CB  VAL C 600      68.047  26.707 -11.015  1.00 28.31           C
ATOM   6237  CG1 VAL C 600      67.464  28.109 -10.899  1.00 28.03           C
ATOM   6238  CG2 VAL C 600      68.425  26.390 -12.449  1.00 27.82           C
ATOM   6239  C   VAL C 600      68.922  26.947  -8.668  1.00 28.33           C
ATOM   6240  O   VAL C 600      69.343  27.994  -8.187  1.00 28.38           O
ATOM   6241  N   SER C 601      68.158  26.092  -7.994  1.00 24.66           N
ATOM   6242  CA  SER C 601      67.759  26.315  -6.608  1.00 24.47           C
ATOM   6243  CB  SER C 601      67.156  25.032  -6.028  1.00 27.85           C
ATOM   6244  OG  SER C 601      65.742  25.057  -6.075  1.00 36.87           O
ATOM   6245  C   SER C 601      68.937  26.741  -5.733  1.00 29.63           C
ATOM   6246  O   SER C 601      68.870  27.749  -5.030  1.00 29.72           O
ATOM   6247  N   ILE C 602      70.001  25.943  -5.764  1.00 26.59           N
ATOM   6248  CA  ILE C 602      71.200  26.183  -4.968  1.00 26.57           C
ATOM   6249  CB  ILE C 602      72.189  25.011  -5.099  1.00 29.32           C
ATOM   6250  CG1 ILE C 602      71.565  23.726  -4.553  1.00 29.54           C
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ATOM   6251  CD1 ILE C 602      72.398  22.495  -4.799  1.00 36.43           C
ATOM   6252  CG2 ILE C 602      73.495  25.329  -4.388  1.00 29.44           C
ATOM   6253  C   ILE C 602      71.877  27.501  -5.321  1.00 32.44           C
ATOM   6254  O   ILE C 602      72.300  28.247  -4.441  1.00 32.23           O
ATOM   6255  N   LEU C 603      71.993  27.770  -6.615  1.00 29.88           N
ATOM   6256  CA  LEU C 603      72.618  28.996  -7.088  1.00 30.11           C
ATOM   6257  CB  LEU C 603      72.711  28.983  -8.613  1.00 29.99           C
ATOM   6258  CG  LEU C 603      73.924  28.268  -9.205  1.00 34.06           C
ATOM   6259  CD1 LEU C 603      73.596  27.812 -10.613  1.00 34.05           C
ATOM   6260  CD2 LEU C 603      75.134  29.187  -9.200  1.00 36.47           C
ATOM   6261  C   LEU C 603      71.859  30.239  -6.631  1.00 35.40           C
ATOM   6262  O   LEU C 603      72.396  31.343  -6.659  1.00 34.84           O
ATOM   6263  N   GLN C 604      70.606  30.052  -6.228  1.00 33.47           N
ATOM   6264  CA  GLN C 604      69.766  31.161  -5.782  1.00 33.76           C
ATOM   6265  CB  GLN C 604      68.345  31.010  -6.325  1.00 34.91           C
ATOM   6266  CG  GLN C 604      68.253  31.099  -7.841  1.00 42.64           C
ATOM   6267  CD  GLN C 604      66.836  30.901  -8.353  1.00 56.26           C
ATOM   6268  OE1 GLN C 604      66.518  31.271  -9.484  1.00 47.71           O
ATOM   6269  NE2 GLN C 604      65.982  30.298  -7.528  1.00 49.31           N
ATOM   6270  C   GLN C 604      69.727  31.244  -4.266  1.00 39.98           C
ATOM   6271  O   GLN C 604      68.849  31.889  -3.690  1.00 39.87           O
ATOM   6272  N   LEU C 605      70.668  30.563  -3.623  1.00 37.95           N
ATOM   6273  CA  LEU C 605      70.771  30.587  -2.172  1.00 38.10           C
ATOM   6274  CB  LEU C 605      71.410  29.291  -1.669  1.00 38.21           C
ATOM   6275  CG  LEU C 605      70.496  28.312  -0.927  1.00 42.87           C
ATOM   6276  CD1 LEU C 605      69.026  28.645  -1.169  1.00 43.11           C
ATOM   6277  CD2 LEU C 605      70.803  26.875  -1.327  1.00 45.27           C
ATOM   6278  C   LEU C 605      71.673  31.773  -1.839  1.00 42.67           C
ATOM   6279  O   LEU C 605      72.633  32.052  -2.565  1.00 41.81           O
ATOM   6280  N   GLU C 606      71.352  32.491  -0.767  1.00 40.04           N
ATOM   6281  CA  GLU C 606      72.139  33.660  -0.401  1.00 40.13           C
ATOM   6282  CB  GLU C 606      71.518  34.415   0.777  1.00 41.75           C
ATOM   6283  CG  GLU C 606      70.604  35.561   0.334  1.00 55.17           C
ATOM   6284  CD  GLU C 606      70.203  36.488   1.471  1.00 80.05           C
ATOM   6285  OE1 GLU C 606      71.069  36.826   2.309  1.00 73.73           O
ATOM   6286  OE2 GLU C 606      69.025  36.906   1.505  1.00 75.70           O
ATOM   6287  C   GLU C 606      73.605  33.315  -0.162  1.00 43.77           C
ATOM   6288  O   GLU C 606      73.938  32.526   0.723  1.00 43.07           O
ATOM   6289  N   GLY C 607      74.472  33.881  -0.997  1.00 40.51           N
ATOM   6290  CA  GLY C 607      75.902  33.647  -0.929  1.00 40.15           C
ATOM   6291  C   GLY C 607      76.330  32.458  -1.766  1.00 43.51           C
ATOM   6292  O   GLY C 607      77.447  31.967  -1.629  1.00 43.49           O
ATOM   6293  N   HIS C 608      75.447  31.999  -2.647  1.00 39.20           N
ATOM   6294  CA  HIS C 608      75.748  30.841  -3.479  1.00 38.50           C
ATOM   6295  CB  HIS C 608      74.691  29.751  -3.297  1.00 38.71           C
ATOM   6296  CG  HIS C 608      74.794  29.025  -1.994  1.00 41.55           C
ATOM   6297  ND1 HIS C 608      74.810  29.677  -0.780  1.00 43.02           N
ATOM   6298  CE1 HIS C 608      74.905  28.788   0.192  1.00 42.37           C
ATOM   6299  NE2 HIS C 608      74.959  27.584  -0.348  1.00 42.63           N
ATOM   6300  CD2 HIS C 608      74.890  27.704  -1.714  1.00 42.86           C
ATOM   6301  C   HIS C 608      75.924  31.152  -4.958  1.00 42.63           C
ATOM   6302  O   HIS C 608      76.399  30.308  -5.715  1.00 42.38           O
ATOM   6303  N   ASN C 609      75.530  32.348  -5.379  1.00 39.33           N
ATOM   6304  CA  ASN C 609      75.659  32.713  -6.783  1.00 38.90           C
ATOM   6305  CB  ASN C 609      74.880  33.986  -7.103  1.00 39.45           C
ATOM   6306  CG  ASN C 609      74.608  34.141  -8.588  1.00 63.23           C
ATOM   6307  OD1 ASN C 609      75.022  33.306  -9.397  1.00 57.43           O
ATOM   6308  ND2 ASN C 609      73.908  35.211  -8.956  1.00 53.94           N
ATOM   6309  C   ASN C 609      77.118  32.866  -7.182  1.00 42.50           C
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ATOM   6310  O   ASN C 609      77.712  33.931  -7.015  1.00 42.75           O
ATOM   6311  N   ILE C 610      77.692  31.792  -7.711  1.00 37.62           N
ATOM   6312  CA  ILE C 610      79.084  31.799  -8.135  1.00 36.49           C
ATOM   6313  CB  ILE C 610      79.665  30.377  -8.150  1.00 39.29           C
ATOM   6314  CG1 ILE C 610      78.640  29.391  -8.715  1.00 39.39           C
ATOM   6315  CD1 ILE C 610      79.214  28.022  -9.016  1.00 42.29           C
ATOM   6316  CG2 ILE C 610      80.066  29.960  -6.748  1.00 39.96           C
ATOM   6317  C   ILE C 610      79.251  32.495  -9.484  1.00 39.20           C
ATOM   6318  O   ILE C 610      80.362  32.611 -10.005  1.00 38.11           O
ATOM   6319  N   PHE C 611      78.142  32.966 -10.043  1.00 35.65           N
ATOM   6320  CA  PHE C 611      78.171  33.654 -11.326  1.00 35.32           C
ATOM   6321  CB  PHE C 611      77.331  32.895 -12.351  1.00 36.71           C
ATOM   6322  CG  PHE C 611      77.774  31.478 -12.567  1.00 37.73           C
ATOM   6323  CD1 PHE C 611      76.876  30.433 -12.442  1.00 40.65           C
ATOM   6324  CE1 PHE C 611      77.277  29.130 -12.651  1.00 41.43           C
ATOM   6325  CZ  PHE C 611      78.586  28.859 -12.992  1.00 40.13           C
ATOM   6326  CE2 PHE C 611      79.491  29.893 -13.126  1.00 41.89           C
ATOM   6327  CD2 PHE C 611      79.082  31.193 -12.920  1.00 39.14           C
ATOM   6328  C   PHE C 611      77.653  35.078 -11.183  1.00 40.58           C
ATOM   6329  O   PHE C 611      77.137  35.660 -12.136  1.00 40.44           O
ATOM   6330  N   SER C 612      77.784  35.628  -9.982  1.00 38.04           N
ATOM   6331  CA  SER C 612      77.315  36.979  -9.699  1.00 38.54           C
ATOM   6332  CB  SER C 612      77.474  37.300  -8.211  1.00 42.17           C
ATOM   6333  OG  SER C 612      78.842  37.387  -7.849  1.00 51.33           O
ATOM   6334  C   SER C 612      78.011  38.047 -10.548  1.00 43.82           C
ATOM   6335  O   SER C 612      77.380  39.021 -10.969  1.00 43.04           O
ATOM   6336  N   THR C 613      79.303  37.856 -10.806  1.00 41.49           N
ATOM   6337  CA  THR C 613      80.088  38.820 -11.577  1.00 41.90           C
ATOM   6338  CB  THR C 613      81.568  38.808 -11.154  1.00 51.59           C
ATOM   6339  OG1 THR C 613      82.372  38.284 -12.220  1.00 51.55           O
ATOM   6340  CG2 THR C 613      81.754  37.949  -9.911  1.00 50.96           C
ATOM   6341  C   THR C 613      79.940  38.694 -13.091  1.00 46.94           C
ATOM   6342  O   THR C 613      80.868  39.007 -13.840  1.00 47.16           O
ATOM   6343  N   LEU C 614      78.769  38.258 -13.540  1.00 43.52           N
ATOM   6344  CA  LEU C 614      78.514  38.093 -14.967  1.00 43.47           C
ATOM   6345  CB  LEU C 614      78.223  36.624 -15.285  1.00 43.57           C
ATOM   6346  CG  LEU C 614      79.405  35.676 -15.469  1.00 48.22           C
ATOM   6347  CD1 LEU C 614      80.224  35.602 -14.192  1.00 48.68           C
ATOM   6348  CD2 LEU C 614      78.906  34.296 -15.872  1.00 50.19           C
ATOM   6349  C   LEU C 614      77.322  38.929 -15.402  1.00 47.52           C
ATOM   6350  O   LEU C 614      76.376  39.127 -14.639  1.00 47.50           O
ATOM   6351  N   SER C 615      77.353  39.391 -16.646  1.00 43.91           N
ATOM   6352  CA  SER C 615      76.236  40.153 -17.185  1.00 43.57           C
ATOM   6353  CB  SER C 615      76.559  40.626 -18.607  1.00 46.92           C
ATOM   6354  OG  SER C 615      76.235  39.634 -19.567  1.00 55.00           O
ATOM   6355  C   SER C 615      75.032  39.216 -17.210  1.00 47.36           C
ATOM   6356  O   SER C 615      75.190  38.000 -17.093  1.00 46.85           O
ATOM   6357  N   SER C 616      73.831  39.769 -17.357  1.00 43.71           N
ATOM   6358  CA  SER C 616      72.633  38.939 -17.424  1.00 43.36           C
ATOM   6359  CB  SER C 616      71.372  39.806 -17.510  1.00 47.42           C
ATOM   6360  OG  SER C 616      70.871  40.118 -16.221  1.00 57.44           O
ATOM   6361  C   SER C 616      72.739  38.058 -18.666  1.00 46.50           C
ATOM   6362  O   SER C 616      72.301  36.908 -18.669  1.00 46.12           O
ATOM   6363  N   SER C 617      73.341  38.613 -19.715  1.00 42.03           N
ATOM   6364  CA  SER C 617      73.512  37.906 -20.977  1.00 41.26           C
ATOM   6365  CB  SER C 617      74.185  38.814 -22.011  1.00 44.89           C
ATOM   6366  OG  SER C 617      73.517  38.754 -23.260  1.00 53.25           O
ATOM   6367  C   SER C 617      74.336  36.640 -20.790  1.00 43.24           C
ATOM   6368  O   SER C 617      73.904  35.546 -21.158  1.00 42.37           O
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ATOM   6369  N   GLU C 618      75.527  36.803 -20.223  1.00 38.84           N
ATOM   6370  CA  GLU C 618      76.434  35.688 -19.993  1.00 38.24           C
ATOM   6371  CB  GLU C 618      77.792  36.206 -19.529  1.00 39.67           C
ATOM   6372  CG  GLU C 618      78.333  37.329 -20.397  1.00 50.67           C
ATOM   6373  CD  GLU C 618      79.681  37.836 -19.931  1.00 73.95           C
ATOM   6374  OE1 GLU C 618      79.739  38.483 -18.863  1.00 72.04           O
ATOM   6375  OE2 GLU C 618      80.681  37.598 -20.642  1.00 70.38           O
ATOM   6376  C   GLU C 618      75.868  34.680 -18.996  1.00 41.51           C
ATOM   6377  O   GLU C 618      75.930  33.471 -19.225  1.00 41.25           O
ATOM   6378  N   TYR C 619      75.311  35.181 -17.898  1.00 37.22           N
ATOM   6379  CA  TYR C 619      74.717  34.324 -16.875  1.00 36.71           C
ATOM   6380  CB  TYR C 619      74.010  35.173 -15.812  1.00 37.59           C
ATOM   6381  CG  TYR C 619      73.523  34.398 -14.602  1.00 39.33           C
ATOM   6382  CD1 TYR C 619      74.312  34.279 -13.466  1.00 41.11           C
ATOM   6383  CE1 TYR C 619      73.867  33.586 -12.353  1.00 41.55           C
ATOM   6384  CZ  TYR C 619      72.618  33.006 -12.363  1.00 47.57           C
ATOM   6385  OH  TYR C 619      72.178  32.319 -11.250  1.00 47.66           O
ATOM   6386  CE2 TYR C 619      71.809  33.116 -13.479  1.00 40.93           C
ATOM   6387  CD2 TYR C 619      72.260  33.814 -14.586  1.00 39.97           C
ATOM   6388  C   TYR C 619      73.719  33.371 -17.522  1.00 40.15           C
ATOM   6389  O   TYR C 619      73.675  32.185 -17.197  1.00 40.13           O
ATOM   6390  N   GLU C 620      72.927  33.903 -18.445  1.00 35.82           N
ATOM   6391  CA  GLU C 620      71.920  33.122 -19.151  1.00 35.34           C
ATOM   6392  CB  GLU C 620      70.999  34.053 -19.944  1.00 36.79           C
ATOM   6393  CG  GLU C 620      69.548  33.608 -19.985  1.00 50.04           C
ATOM   6394  CD  GLU C 620      68.635  34.656 -20.593  1.00 75.46           C
ATOM   6395  OE1 GLU C 620      68.763  35.844 -20.225  1.00 75.30           O
ATOM   6396  OE2 GLU C 620      67.792  34.293 -21.443  1.00 69.63           O
ATOM   6397  C   GLU C 620      72.588  32.126 -20.091  1.00 38.03           C
ATOM   6398  O   GLU C 620      72.090  31.019 -20.299  1.00 38.09           O
ATOM   6399  N   GLN C 621      73.715  32.540 -20.659  1.00 32.82           N
ATOM   6400  CA  GLN C 621      74.483  31.708 -21.577  1.00 31.90           C
ATOM   6401  CB  GLN C 621      75.677  32.505 -22.103  1.00 33.19           C
ATOM   6402  CG  GLN C 621      75.654  32.790 -23.587  1.00 47.59           C
ATOM   6403  CD  GLN C 621      76.876  33.569 -24.033  1.00 65.49           C
ATOM   6404  OE1 GLN C 621      77.668  33.095 -24.846  1.00 59.21           O
ATOM   6405  NE2 GLN C 621      77.053  34.760 -23.473  1.00 59.35           N
ATOM   6406  C   GLN C 621      74.995  30.465 -20.855  1.00 33.50           C
ATOM   6407  O   GLN C 621      74.822  29.348 -21.333  1.00 33.23           O
ATOM   6408  N   VAL C 622      75.636  30.680 -19.709  1.00 28.37           N
ATOM   6409  CA  VAL C 622      76.200  29.602 -18.900  1.00 27.61           C
ATOM   6410  CB  VAL C 622      77.043  30.162 -17.737  1.00 31.24           C
ATOM   6411  CG1 VAL C 622      76.150  30.902 -16.747  1.00 31.18           C
ATOM   6412  CG2 VAL C 622      77.796  29.045 -17.039  1.00 30.93           C
ATOM   6413  C   VAL C 622      75.149  28.621 -18.390  1.00 30.92           C
ATOM   6414  O   VAL C 622      75.353  27.407 -18.422  1.00 29.99           O
ATOM   6415  N   LEU C 623      74.030  29.151 -17.909  1.00 27.97           N
ATOM   6416  CA  LEU C 623      72.950  28.316 -17.396  1.00 27.54           C
ATOM   6417  CB  LEU C 623      71.881  29.167 -16.705  1.00 27.61           C
ATOM   6418  CG  LEU C 623      72.155  29.510 -15.239  1.00 32.27           C
ATOM   6419  CD1 LEU C 623      73.584  30.007 -15.075  1.00 32.21           C
ATOM   6420  CD2 LEU C 623      71.906  28.314 -14.343  1.00 34.62           C
ATOM   6421  C   LEU C 623      72.333  27.499 -18.523  1.00 30.12           C
ATOM   6422  O   LEU C 623      71.754  26.441 -18.289  1.00 29.41           O
ATOM   6423  N   GLU C 624      72.467  27.992 -19.748  1.00 26.42           N
ATOM   6424  CA  GLU C 624      71.940  27.287 -20.910  1.00 26.27           C
ATOM   6425  CB  GLU C 624      71.539  28.273 -22.008  1.00 27.67           C
ATOM   6426  CG  GLU C 624      70.662  27.658 -23.096  1.00 39.03           C
ATOM   6427  CD  GLU C 624      69.210  27.505 -22.674  1.00 58.88           C
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ATOM   6428  OE1 GLU C 624      68.877  27.879 -21.529  1.00 49.50           O
ATOM   6429  OE2 GLU C 624      68.399  27.013 -23.490  1.00 54.20           O
ATOM   6430  C   GLU C 624      72.983  26.295 -21.423  1.00 29.53           C
ATOM   6431  O   GLU C 624      72.694  25.429 -22.249  1.00 30.19           O
ATOM   6432  N   ILE C 625      74.201  26.426 -20.915  1.00 24.32           N
ATOM   6433  CA  ILE C 625      75.277  25.516 -21.265  1.00 23.55           C
ATOM   6434  CB  ILE C 625      76.647  26.185 -21.041  1.00 26.12           C
ATOM   6435  CG1 ILE C 625      77.161  26.810 -22.339  1.00 26.06           C
ATOM   6436  CD1 ILE C 625      78.299  27.786 -22.126  1.00 29.81           C
ATOM   6437  CG2 ILE C 625      77.649  25.197 -20.456  1.00 27.14           C
ATOM   6438  C   ILE C 625      75.096  24.339 -20.321  1.00 27.94           C
ATOM   6439  O   ILE C 625      75.167  23.172 -20.718  1.00 27.45           O
ATOM   6440  N   ILE C 626      74.822  24.679 -19.066  1.00 24.03           N
ATOM   6441  CA  ILE C 626      74.605  23.709 -18.007  1.00 23.66           C
ATOM   6442  CB  ILE C 626      74.533  24.407 -16.637  1.00 26.44           C
ATOM   6443  CG1 ILE C 626      75.779  25.267 -16.418  1.00 26.74           C
ATOM   6444  CD1 ILE C 626      75.989  25.706 -14.985  1.00 32.78           C
ATOM   6445  CG2 ILE C 626      74.348  23.386 -15.528  1.00 26.77           C
ATOM   6446  C   ILE C 626      73.357  22.872 -18.272  1.00 27.17           C
ATOM   6447  O   ILE C 626      73.429  21.649 -18.316  1.00 26.51           O
ATOM   6448  N   ARG C 627      72.217  23.537 -18.440  1.00 23.89           N
ATOM   6449  CA  ARG C 627      70.959  22.844 -18.702  1.00 23.36           C
ATOM   6450  CB  ARG C 627      69.857  23.841 -19.080  1.00 21.98           C
ATOM   6451  CG  ARG C 627      68.497  23.189 -19.328  1.00 27.75           C
ATOM   6452  CD  ARG C 627      67.461  24.192 -19.808  1.00 34.20           C
ATOM   6453  NE  ARG C 627      67.785  24.699 -21.137  1.00 42.03           N
ATOM   6454  CZ  ARG C 627      67.564  24.029 -22.264  1.00 52.07           C
ATOM   6455  NH1 ARG C 627      67.903  24.560 -23.431  1.00 31.58           N
ATOM   6456  NH2 ARG C 627      67.003  22.828 -22.225  1.00 41.06           N
ATOM   6457  C   ARG C 627      71.095  21.809 -19.809  1.00 27.49           C
ATOM   6458  O   ARG C 627      70.732  20.643 -19.639  1.00 27.66           O
ATOM   6459  N   LYS C 628      71.590  22.252 -20.957  1.00 24.17           N
ATOM   6460  CA  LYS C 628      71.738  21.385 -22.120  1.00 23.68           C
ATOM   6461  CB  LYS C 628      72.281  22.181 -23.311  1.00 26.26           C
ATOM   6462  CG  LYS C 628      71.302  23.201 -23.878  1.00 32.03           C
ATOM   6463  CD  LYS C 628      71.664  23.578 -25.307  1.00 41.42           C
ATOM   6464  CE  LYS C 628      71.066  24.921 -25.691  1.00 54.23           C
ATOM   6465  NZ  LYS C 628      71.989  25.716 -26.549  1.00 64.64           N
ATOM   6466  C   LYS C 628      72.653  20.211 -21.819  1.00 27.11           C
ATOM   6467  O   LYS C 628      72.448  19.105 -22.318  1.00 26.94           O
ATOM   6468  N   ALA C 629      73.661  20.463 -20.991  1.00 23.42           N
ATOM   6469  CA  ALA C 629      74.645  19.456 -20.630  1.00 22.65           C
ATOM   6470  CB  ALA C 629      75.887  20.109 -20.084  1.00 23.33           C
ATOM   6471  C   ALA C 629      74.108  18.411 -19.657  1.00 25.95           C
ATOM   6472  O   ALA C 629      74.445  17.233 -19.765  1.00 24.18           O
ATOM   6473  N   ILE C 630      73.281  18.844 -18.709  1.00 22.63           N
ATOM   6474  CA  ILE C 630      72.692  17.930 -17.732  1.00 22.53           C
ATOM   6475  CB  ILE C 630      72.137  18.677 -16.497  1.00 25.36           C
ATOM   6476  CG1 ILE C 630      73.271  19.051 -15.542  1.00 25.21           C
ATOM   6477  CD1 ILE C 630      72.850  19.993 -14.429  1.00 30.19           C
ATOM   6478  CG2 ILE C 630      71.100  17.836 -15.773  1.00 25.75           C
ATOM   6479  C   ILE C 630      71.619  17.102 -18.419  1.00 26.87           C
ATOM   6480  O   ILE C 630      71.481  15.907 -18.168  1.00 27.41           O
ATOM   6481  N   ILE C 631      70.887  17.740 -19.321  1.00 23.06           N
ATOM   6482  CA  ILE C 631      69.855  17.053 -20.076  1.00 22.60           C
ATOM   6483  CB  ILE C 631      69.062  18.033 -20.958  1.00 25.46           C
ATOM   6484  CG1 ILE C 631      68.152  18.919 -20.102  1.00 25.75           C
ATOM   6485  CD1 ILE C 631      67.646  18.258 -18.830  1.00 32.38           C
ATOM   6486  CG2 ILE C 631      68.252  17.280 -21.997  1.00 25.65           C
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ATOM   6487  C   ILE C 631      70.499  15.963 -20.922  1.00 27.62           C
ATOM   6488  O   ILE C 631      69.880  14.937 -21.200  1.00 26.88           O
ATOM   6489  N   ALA C 632      71.744  16.203 -21.330  1.00 24.91           N
ATOM   6490  CA  ALA C 632      72.493  15.267 -22.163  1.00 25.42           C
ATOM   6491  CB  ALA C 632      73.808  15.886 -22.597  1.00 26.25           C
ATOM   6492  C   ALA C 632      72.739  13.934 -21.464  1.00 30.36           C
ATOM   6493  O   ALA C 632      72.720  12.884 -22.101  1.00 30.37           O
ATOM   6494  N   THR C 633      72.968  13.990 -20.154  1.00 27.62           N
ATOM   6495  CA  THR C 633      73.229  12.801 -19.343  1.00 27.19           C
ATOM   6496  CB  THR C 633      73.606  13.172 -17.905  1.00 29.93           C
ATOM   6497  OG1 THR C 633      72.587  14.010 -17.352  1.00 26.12           O
ATOM   6498  CG2 THR C 633      74.942  13.901 -17.878  1.00 27.58           C
ATOM   6499  C   THR C 633      72.111  11.763 -19.373  1.00 31.70           C
ATOM   6500  O   THR C 633      72.207  10.715 -18.726  1.00 31.40           O
ATOM   6501  N   ASP C 634      71.056  12.047 -20.128  1.00 28.33           N
ATOM   6502  CA  ASP C 634      69.954  11.100 -20.265  1.00 28.24           C
ATOM   6503  CB  ASP C 634      68.644  11.822 -20.577  1.00 29.79           C
ATOM   6504  CG  ASP C 634      67.490  10.857 -20.791  1.00 38.80           C
ATOM   6505  OD1 ASP C 634      67.548   9.733 -20.245  1.00 38.97           O
ATOM   6506  OD2 ASP C 634      66.530  11.218 -21.507  1.00 43.75           O
ATOM   6507  C   ASP C 634      70.286  10.136 -21.395  1.00 32.11           C
ATOM   6508  O   ASP C 634      70.217  10.498 -22.569  1.00 31.50           O
ATOM   6509  N   LEU C 635      70.669   8.915 -21.037  1.00 29.00           N
ATOM   6510  CA  LEU C 635      71.059   7.919 -22.028  1.00 28.76           C
ATOM   6511  CB  LEU C 635      71.342   6.569 -21.369  1.00 28.94           C
ATOM   6512  CG  LEU C 635      72.435   5.770 -22.075  1.00 33.55           C
ATOM   6513  CD1 LEU C 635      73.672   6.635 -22.290  1.00 33.40           C
ATOM   6514  CD2 LEU C 635      72.779   4.502 -21.315  1.00 36.22           C
ATOM   6515  C   LEU C 635      70.099   7.755 -23.204  1.00 32.23           C
ATOM   6516  O   LEU C 635      70.525   7.452 -24.321  1.00 32.75           O
ATOM   6517  N   ALA C 636      68.807   7.939 -22.958  1.00 27.44           N
ATOM   6518  CA  ALA C 636      67.811   7.803 -24.020  1.00 27.00           C
ATOM   6519  CB  ALA C 636      66.396   7.933 -23.453  1.00 27.45           C
ATOM   6520  C   ALA C 636      68.041   8.818 -25.142  1.00 30.85           C
ATOM   6521  O   ALA C 636      67.644   8.594 -26.290  1.00 31.03           O
ATOM   6522  N   LEU C 637      68.687   9.931 -24.801  1.00 26.40           N
ATOM   6523  CA  LEU C 637      68.978  10.991 -25.760  1.00 25.75           C
ATOM   6524  CB  LEU C 637      69.143  12.323 -25.031  1.00 25.60           C
ATOM   6525  CG  LEU C 637      67.864  12.933 -24.467  1.00 29.54           C
ATOM   6526  CD1 LEU C 637      68.152  14.313 -23.887  1.00 29.49           C
ATOM   6527  CD2 LEU C 637      66.811  13.004 -25.557  1.00 30.61           C
ATOM   6528  C   LEU C 637      70.254  10.697 -26.535  1.00 29.40           C
ATOM   6529  O   LEU C 637      70.361  11.017 -27.718  1.00 29.38           O
ATOM   6530  N   TYR C 638      71.232  10.119 -25.843  1.00 25.52           N
ATOM   6531  CA  TYR C 638      72.528   9.799 -26.425  1.00 25.51           C
ATOM   6532  CB  TYR C 638      73.344   8.932 -25.457  1.00 26.65           C
ATOM   6533  CG  TYR C 638      74.363   8.039 -26.130  1.00 28.59           C
ATOM   6534  CD1 TYR C 638      75.638   8.504 -26.428  1.00 30.40           C
ATOM   6535  CE1 TYR C 638      76.566   7.693 -27.047  1.00 30.81           C
ATOM   6536  CZ  TYR C 638      76.226   6.394 -27.371  1.00 36.43           C
ATOM   6537  OH  TYR C 638      77.132   5.568 -27.993  1.00 36.21           O
ATOM   6538  CE2 TYR C 638      74.974   5.911 -27.079  1.00 30.32           C
ATOM   6539  CD2 TYR C 638      74.049   6.731 -26.469  1.00 29.39           C
ATOM   6540  C   TYR C 638      72.434   9.130 -27.796  1.00 30.63           C
ATOM   6541  O   TYR C 638      73.110   9.536 -28.739  1.00 29.65           O
ATOM   6542  N   PHE C 639      71.606   8.097 -27.901  1.00 28.62           N
ATOM   6543  CA  PHE C 639      71.463   7.360 -29.154  1.00 29.14           C
ATOM   6544  CB  PHE C 639      70.392   6.277 -29.032  1.00 30.98           C
ATOM   6545  CG  PHE C 639      70.716   5.230 -28.002  1.00 32.69           C
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ATOM   6546  CD1 PHE C 639      71.785   4.366 -28.189  1.00 36.04           C
ATOM   6547  CE1 PHE C 639      72.108   3.423 -27.234  1.00 36.78           C
ATOM   6548  CZ  PHE C 639      71.372   3.346 -26.070  1.00 35.79           C
ATOM   6549  CE2 PHE C 639      70.315   4.210 -25.865  1.00 37.53           C
ATOM   6550  CD2 PHE C 639      69.999   5.153 -26.821  1.00 34.75           C
ATOM   6551  C   PHE C 639      71.255   8.236 -30.389  1.00 33.84           C
ATOM   6552  O   PHE C 639      72.006   8.137 -31.360  1.00 32.88           O
ATOM   6553  N   GLY C 640      70.245   9.099 -30.348  1.00 31.18           N
ATOM   6554  CA  GLY C 640      69.965   9.999 -31.451  1.00 31.07           C
ATOM   6555  C   GLY C 640      71.084  11.001 -31.674  1.00 34.35           C
ATOM   6556  O   GLY C 640      71.479  11.266 -32.810  1.00 34.49           O
ATOM   6557  N   ASN C 641      71.605  11.556 -30.585  1.00 30.12           N
ATOM   6558  CA  ASN C 641      72.683  12.535 -30.666  1.00 29.60           C
ATOM   6559  CB  ASN C 641      73.013  13.093 -29.280  1.00 29.45           C
ATOM   6560  CG  ASN C 641      74.120  14.138 -29.313  1.00 41.75           C
ATOM   6561  OD1 ASN C 641      74.043  15.122 -30.053  1.00 28.91           O
ATOM   6562  ND2 ASN C 641      75.129  13.955 -28.470  1.00 31.29           N
ATOM   6563  C   ASN C 641      73.934  11.949 -31.314  1.00 33.99           C
ATOM   6564  O   ASN C 641      74.532  12.572 -32.189  1.00 33.65           O
ATOM   6565  N   ARG C 642      74.322  10.750 -30.890  1.00 31.19           N
ATOM   6566  CA  ARG C 642      75.513  10.100 -31.433  1.00 31.39           C
ATOM   6567  CB  ARG C 642      75.873   8.841 -30.641  1.00 31.55           C
ATOM   6568  CG  ARG C 642      77.341   8.445 -30.763  1.00 39.70           C
ATOM   6569  CD  ARG C 642      77.517   6.941 -30.912  1.00 47.57           C
ATOM   6570  NE  ARG C 642      76.526   6.353 -31.809  1.00 54.61           N
ATOM   6571  CZ  ARG C 642      76.745   6.079 -33.091  1.00 65.78           C
ATOM   6572  NH1 ARG C 642      75.785   5.538 -33.831  1.00 52.15           N
ATOM   6573  NH2 ARG C 642      77.923   6.348 -33.635  1.00 49.60           N
ATOM   6574  C   ARG C 642      75.418   9.792 -32.927  1.00 35.74           C
ATOM   6575  O   ARG C 642      76.408   9.911 -33.654  1.00 35.76           O
ATOM   6576  N   LYS C 643      74.232   9.404 -33.388  1.00 31.80           N
ATOM   6577  CA  LYS C 643      74.037   9.096 -34.801  1.00 31.47           C
ATOM   6578  CB  LYS C 643      72.722   8.347 -35.023  1.00 33.89           C
ATOM   6579  CG  LYS C 643      72.140   8.532 -36.415  1.00 46.15           C
ATOM   6580  CD  LYS C 643      71.224   7.376 -36.792  1.00 56.66           C
ATOM   6581  CE  LYS C 643      71.661   6.738 -38.102  1.00 67.09           C
ATOM   6582  NZ  LYS C 643      71.235   5.316 -38.209  1.00 75.15           N
ATOM   6583  C   LYS C 643      74.070  10.369 -35.647  1.00 34.47           C
ATOM   6584  O   LYS C 643      74.555  10.363 -36.778  1.00 34.22           O
ATOM   6585  N   GLN C 644      73.532  11.451 -35.097  1.00 30.33           N
ATOM   6586  CA  GLN C 644      73.528  12.738 -35.782  1.00 29.90           C
ATOM   6587  CB  GLN C 644      72.743  13.771 -34.962  1.00 31.29           C
ATOM   6588  CG  GLN C 644      71.254  13.816 -35.267  1.00 46.43           C
ATOM   6589  CD  GLN C 644      70.966  13.763 -36.750  1.00 66.73           C
ATOM   6590  OE1 GLN C 644      70.189  12.927 -37.212  1.00 63.41           O
ATOM   6591  NE2 GLN C 644      71.603  14.647 -37.509  1.00 59.23           N
ATOM   6592  C   GLN C 644      74.966  13.219 -35.932  1.00 33.29           C
ATOM   6593  O   GLN C 644      75.338  13.800 -36.953  1.00 32.57           O
ATOM   6594  N   LEU C 645      75.755  13.002 -34.883  1.00 29.60           N
ATOM   6595  CA  LEU C 645      77.146  13.437 -34.841  1.00 29.66           C
ATOM   6596  CB  LEU C 645      77.688  13.346 -33.412  1.00 29.49           C
ATOM   6597  CG  LEU C 645      77.804  14.663 -32.642  1.00 33.77           C
ATOM   6598  CD1 LEU C 645      78.497  14.459 -31.302  1.00 33.48           C
ATOM   6599  CD2 LEU C 645      78.538  15.701 -33.472  1.00 36.02           C
ATOM   6600  C   LEU C 645      78.036  12.658 -35.801  1.00 34.67           C
ATOM   6601  O   LEU C 645      78.952  13.218 -36.398  1.00 33.84           O
ATOM   6602  N   GLU C 646      77.764  11.365 -35.946  1.00 32.53           N
ATOM   6603  CA  GLU C 646      78.538  10.529 -36.859  1.00 33.10           C
ATOM   6604  CB  GLU C 646      78.144   9.059 -36.703  1.00 34.74           C
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ATOM   6605  CG  GLU C 646      79.199   8.083 -37.190  1.00 46.67           C
ATOM   6606  CD  GLU C 646      80.446   8.108 -36.335  1.00 68.06           C
ATOM   6607  OE1 GLU C 646      80.324   8.363 -35.118  1.00 64.42           O
ATOM   6608  OE2 GLU C 646      81.546   7.870 -36.877  1.00 60.19           O
ATOM   6609  C   GLU C 646      78.297  10.992 -38.293  1.00 38.08           C
ATOM   6610  O   GLU C 646      79.231  11.116 -39.085  1.00 37.62           O
ATOM   6611  N   GLU C 647      77.035  11.271 -38.609  1.00 35.60           N
ATOM   6612  CA  GLU C 647      76.649  11.752 -39.932  1.00 35.64           C
ATOM   6613  CB  GLU C 647      75.194  12.219 -39.898  1.00 37.19           C
ATOM   6614  CG  GLU C 647      74.296  11.586 -40.942  1.00 49.76           C
ATOM   6615  CD  GLU C 647      72.838  11.548 -40.503  1.00 75.58           C
ATOM   6616  OE1 GLU C 647      72.557  11.922 -39.343  1.00 74.18           O
ATOM   6617  OE2 GLU C 647      71.976  11.143 -41.315  1.00 68.30           O
ATOM   6618  C   GLU C 647      77.526  12.924 -40.364  1.00 39.55           C
ATOM   6619  O   GLU C 647      78.222  12.857 -41.376  1.00 38.71           O
ATOM   6620  N   MET C 648      77.461  14.005 -39.591  1.00 36.47           N
ATOM   6621  CA  MET C 648      78.213  15.227 -39.863  1.00 36.30           C
ATOM   6622  CB  MET C 648      77.938  16.265 -38.773  1.00 39.03           C
ATOM   6623  CG  MET C 648      76.463  16.425 -38.435  1.00 43.29           C
ATOM   6624  SD  MET C 648      76.175  17.194 -36.819  1.00 48.00           S
ATOM   6625  CE  MET C 648      74.378  17.345 -36.833  1.00 44.79           C
ATOM   6626  C   MET C 648      79.712  15.004 -39.992  1.00 38.13           C
ATOM   6627  O   MET C 648      80.364  15.602 -40.845  1.00 37.79           O
ATOM   6628  N   TYR C 649      80.268  14.172 -39.121  1.00 33.32           N
ATOM   6629  CA  TYR C 649      81.698  13.895 -39.163  1.00 32.49           C
ATOM   6630  CB  TYR C 649      82.120  13.002 -37.998  1.00 33.46           C
ATOM   6631  CG  TYR C 649      83.557  12.537 -38.092  1.00 34.78           C
ATOM   6632  CD1 TYR C 649      84.606  13.425 -37.896  1.00 36.61           C
ATOM   6633  CE1 TYR C 649      85.923  13.011 -37.985  1.00 36.76           C
ATOM   6634  CZ  TYR C 649      86.206  11.697 -38.291  1.00 43.85           C
ATOM   6635  OH  TYR C 649      87.519  11.284 -38.377  1.00 45.10           O
ATOM   6636  CE2 TYR C 649      85.180  10.795 -38.500  1.00 36.14           C
ATOM   6637  CD2 TYR C 649      83.865  11.218 -38.400  1.00 35.32           C
ATOM   6638  C   TYR C 649      82.134  13.262 -40.483  1.00 35.92           C
ATOM   6639  O   TYR C 649      83.116  13.690 -41.086  1.00 35.70           O
ATOM   6640  N   GLN C 650      81.411  12.237 -40.924  1.00 32.04           N
ATOM   6641  CA  GLN C 650      81.753  11.541 -42.161  1.00 31.78           C
ATOM   6642  CB  GLN C 650      81.019  10.203 -42.262  1.00 32.97           C
ATOM   6643  CG  GLN C 650      81.274   9.263 -41.094  1.00 36.63           C
ATOM   6644  CD  GLN C 650      82.641   8.603 -41.152  1.00 47.34           C
ATOM   6645  OE1 GLN C 650      83.458   8.903 -42.031  1.00 38.48           O
ATOM   6646  NE2 GLN C 650      82.896   7.691 -40.213  1.00 34.72           N
ATOM   6647  C   GLN C 650      81.548  12.366 -43.433  1.00 36.71           C
ATOM   6648  O   GLN C 650      82.349  12.278 -44.366  1.00 36.39           O
ATOM   6649  N   THR C 651      80.473  13.151 -43.479  1.00 33.79           N
ATOM   6650  CA  THR C 651      80.201  13.990 -44.645  1.00 33.93           C
ATOM   6651  CB  THR C 651      78.706  14.339 -44.787  1.00 41.33           C
ATOM   6652  OG1 THR C 651      78.313  15.207 -43.720  1.00 41.38           O
ATOM   6653  CG2 THR C 651      77.849  13.086 -44.763  1.00 40.84           C
ATOM   6654  C   THR C 651      81.063  15.250 -44.628  1.00 37.69           C
ATOM   6655  O   THR C 651      81.102  15.996 -45.607  1.00 37.44           O
ATOM   6656  N   GLY C 652      81.740  15.482 -43.506  1.00 34.41           N
ATOM   6657  CA  GLY C 652      82.626  16.621 -43.322  1.00 34.31           C
ATOM   6658  C   GLY C 652      81.964  17.929 -42.914  1.00 38.90           C
ATOM   6659  O   GLY C 652      82.642  18.947 -42.763  1.00 38.70           O
ATOM   6660  N   SER C 653      80.648  17.911 -42.725  1.00 36.06           N
ATOM   6661  CA  SER C 653      79.914  19.125 -42.371  1.00 36.11           C
ATOM   6662  CB  SER C 653      78.439  19.019 -42.769  1.00 38.98           C
ATOM   6663  OG  SER C 653      77.899  17.751 -42.438  1.00 46.10           O
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ATOM   6664  C   SER C 653      80.053  19.588 -40.924  1.00 41.25           C
ATOM   6665  O   SER C 653      79.587  20.673 -40.572  1.00 41.96           O
ATOM   6666  N   LEU C 654      80.701  18.781 -40.088  1.00 37.65           N
ATOM   6667  CA  LEU C 654      80.889  19.147 -38.686  1.00 37.35           C
ATOM   6668  CB  LEU C 654      81.630  18.048 -37.923  1.00 37.39           C
ATOM   6669  CG  LEU C 654      81.440  18.087 -36.405  1.00 42.20           C
ATOM   6670  CD1 LEU C 654      79.989  18.356 -36.054  1.00 42.45           C
ATOM   6671  CD2 LEU C 654      81.919  16.793 -35.762  1.00 44.68           C
ATOM   6672  C   LEU C 654      81.626  20.480 -38.563  1.00 41.14           C
ATOM   6673  O   LEU C 654      82.722  20.646 -39.101  1.00 40.96           O
ATOM   6674  N   ASN C 655      81.008  21.431 -37.868  1.00 37.47           N
ATOM   6675  CA  ASN C 655      81.584  22.762 -37.696  1.00 37.42           C
ATOM   6676  CB  ASN C 655      80.873  23.762 -38.611  1.00 37.66           C
ATOM   6677  CG  ASN C 655      81.632  25.062 -38.754  1.00 53.45           C
ATOM   6678  OD1 ASN C 655      82.646  25.281 -38.092  1.00 50.51           O
ATOM   6679  ND2 ASN C 655      81.145  25.935 -39.625  1.00 40.92           N
ATOM   6680  C   ASN C 655      81.508  23.247 -36.248  1.00 41.80           C
ATOM   6681  O   ASN C 655      80.432  23.569 -35.747  1.00 41.74           O
ATOM   6682  N   LEU C 656      82.662  23.324 -35.592  1.00 38.18           N
ATOM   6683  CA  LEU C 656      82.733  23.777 -34.207  1.00 37.68           C
ATOM   6684  CB  LEU C 656      84.142  23.559 -33.650  1.00 37.59           C
ATOM   6685  CG  LEU C 656      84.603  22.119 -33.412  1.00 41.98           C
ATOM   6686  CD1 LEU C 656      85.722  22.082 -32.375  1.00 41.96           C
ATOM   6687  CD2 LEU C 656      83.440  21.238 -32.987  1.00 43.93           C
ATOM   6688  C   LEU C 656      82.337  25.246 -34.040  1.00 41.02           C
ATOM   6689  O   LEU C 656      82.260  25.748 -32.921  1.00 40.37           O
ATOM   6690  N   ASN C 657      82.113  25.937 -35.154  1.00 37.42           N
ATOM   6691  CA  ASN C 657      81.724  27.345 -35.121  1.00 36.79           C
ATOM   6692  CB  ASN C 657      82.331  28.102 -36.303  1.00 37.98           C
ATOM   6693  CG  ASN C 657      83.847  28.143 -36.249  1.00 61.85           C
ATOM   6694  OD1 ASN C 657      84.438  28.343 -35.186  1.00 53.21           O
ATOM   6695  ND2 ASN C 657      84.485  27.941 -37.398  1.00 54.97           N
ATOM   6696  C   ASN C 657      80.205  27.472 -35.124  1.00 39.91           C
ATOM   6697  O   ASN C 657      79.655  28.505 -34.746  1.00 39.99           O
ATOM   6698  N   ASN C 658      79.537  26.405 -35.549  1.00 35.40           N
ATOM   6699  CA  ASN C 658      78.081  26.345 -35.556  1.00 34.29           C
ATOM   6700  CB  ASN C 658      77.619  25.311 -36.587  1.00 35.08           C
ATOM   6701  CG  ASN C 658      76.113  25.180 -36.653  1.00 60.46           C
ATOM   6702  OD1 ASN C 658      75.415  25.403 -35.666  1.00 57.18           O
ATOM   6703  ND2 ASN C 658      75.604  24.799 -37.818  1.00 52.08           N
ATOM   6704  C   ASN C 658      77.689  25.906 -34.144  1.00 36.01           C
ATOM   6705  O   ASN C 658      78.210  24.911 -33.639  1.00 35.26           O
ATOM   6706  N   GLN C 659      76.820  26.672 -33.490  1.00 30.78           N
ATOM   6707  CA  GLN C 659      76.431  26.367 -32.117  1.00 29.81           C
ATOM   6708  CB  GLN C 659      75.717  27.545 -31.456  1.00 31.04           C
ATOM   6709  CG  GLN C 659      75.471  27.350 -29.965  1.00 43.09           C
ATOM   6710  CD  GLN C 659      76.689  27.686 -29.120  1.00 56.24           C
ATOM   6711  OE1 GLN C 659      77.552  28.458 -29.537  1.00 51.54           O
ATOM   6712  NE2 GLN C 659      76.756  27.115 -27.919  1.00 42.67           N
ATOM   6713  C   GLN C 659      75.634  25.078 -31.937  1.00 31.74           C
ATOM   6714  O   GLN C 659      75.845  24.349 -30.970  1.00 30.06           O
ATOM   6715  N   SER C 660      74.716  24.804 -32.860  1.00 28.38           N
ATOM   6716  CA  SER C 660      73.908  23.587 -32.790  1.00 28.15           C
ATOM   6717  CB  SER C 660      72.862  23.551 -33.913  1.00 31.46           C
ATOM   6718  OG  SER C 660      73.442  23.198 -35.157  1.00 39.81           O
ATOM   6719  C   SER C 660      74.794  22.335 -32.803  1.00 31.66           C
ATOM   6720  O   SER C 660      74.443  21.306 -32.222  1.00 31.21           O
ATOM   6721  N   HIS C 661      75.961  22.449 -33.434  1.00 28.22           N
ATOM   6722  CA  HIS C 661      76.940  21.363 -33.498  1.00 27.42           C
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ATOM   6723  CB  HIS C 661      77.974  21.645 -34.591  1.00 27.72           C
ATOM   6724  CG  HIS C 661      77.452  21.469 -35.983  1.00 30.58           C
ATOM   6725  ND1 HIS C 661      78.276  21.233 -37.063  1.00 32.06           N
ATOM   6726  CE1 HIS C 661      77.544  21.138 -38.159  1.00 31.36           C
ATOM   6727  NE2 HIS C 661      76.275  21.299 -37.827  1.00 31.66           N
ATOM   6728  CD2 HIS C 661      76.191  21.510 -36.472  1.00 31.96           C
ATOM   6729  C   HIS C 661      77.665  21.271 -32.158  1.00 31.95           C
ATOM   6730  O   HIS C 661      77.757  20.197 -31.559  1.00 31.49           O
ATOM   6731  N   ARG C 662      78.191  22.407 -31.708  1.00 28.88           N
ATOM   6732  CA  ARG C 662      78.892  22.490 -30.432  1.00 28.72           C
ATOM   6733  CB  ARG C 662      79.160  23.956 -30.075  1.00 28.26           C
ATOM   6734  CG  ARG C 662      80.309  24.595 -30.828  1.00 35.85           C
ATOM   6735  CD  ARG C 662      81.034  25.617 -29.962  1.00 45.53           C
ATOM   6736  NE  ARG C 662      82.412  25.842 -30.398  1.00 52.36           N
ATOM   6737  CZ  ARG C 662      83.482  25.641 -29.636  1.00 65.49           C
ATOM   6738  NH1 ARG C 662      84.696  25.865 -30.123  1.00 55.05           N
ATOM   6739  NH2 ARG C 662      83.341  25.212 -28.389  1.00 51.50           N
ATOM   6740  C   ARG C 662      78.045  21.849 -29.338  1.00 32.59           C
ATOM   6741  O   ARG C 662      78.559  21.144 -28.472  1.00 32.96           O
ATOM   6742  N   ASP C 663      76.741  22.107 -29.381  1.00 28.36           N
ATOM   6743  CA  ASP C 663      75.813  21.560 -28.395  1.00 27.81           C
ATOM   6744  CB  ASP C 663      74.402  22.107 -28.625  1.00 29.93           C
ATOM   6745  CG  ASP C 663      74.292  23.598 -28.325  1.00 45.08           C
ATOM   6746  OD1 ASP C 663      75.056  24.098 -27.468  1.00 46.88           O
ATOM   6747  OD2 ASP C 663      73.438  24.266 -28.950  1.00 52.08           O
ATOM   6748  C   ASP C 663      75.803  20.029 -28.397  1.00 30.47           C
ATOM   6749  O   ASP C 663      75.727  19.398 -27.344  1.00 29.98           O
ATOM   6750  N   ARG C 664      75.891  19.440 -29.584  1.00 25.74           N
ATOM   6751  CA  ARG C 664      75.912  17.985 -29.722  1.00 24.99           C
ATOM   6752  CB  ARG C 664      75.744  17.586 -31.189  1.00 24.42           C
ATOM   6753  CG  ARG C 664      74.414  17.973 -31.801  1.00 30.69           C
ATOM   6754  CD  ARG C 664      74.138  17.130 -33.041  1.00 36.82           C
ATOM   6755  NE  ARG C 664      72.880  17.490 -33.687  1.00 41.18           N
ATOM   6756  CZ  ARG C 664      71.707  16.933 -33.401  1.00 53.85           C
ATOM   6757  NH1 ARG C 664      71.626  15.985 -32.473  1.00 41.04           N
ATOM   6758  NH2 ARG C 664      70.613  17.323 -34.042  1.00 37.86           N
ATOM   6759  C   ARG C 664      77.240  17.437 -29.200  1.00 27.75           C
ATOM   6760  O   ARG C 664      77.277  16.438 -28.483  1.00 27.70           O
ATOM   6761  N   VAL C 665      78.328  18.104 -29.572  1.00 22.24           N
ATOM   6762  CA  VAL C 665      79.657  17.712 -29.133  1.00 20.77           C
ATOM   6763  CB  VAL C 665      80.724  18.650 -29.702  1.00 24.41           C
ATOM   6764  CG1 VAL C 665      82.085  18.327 -29.107  1.00 24.31           C
ATOM   6765  CG2 VAL C 665      80.758  18.563 -31.222  1.00 24.07           C
ATOM   6766  C   VAL C 665      79.717  17.671 -27.614  1.00 23.47           C
ATOM   6767  O   VAL C 665      80.153  16.684 -27.027  1.00 23.21           O
ATOM   6768  N   ILE C 666      79.273  18.748 -26.975  1.00 19.06           N
ATOM   6769  CA  ILE C 666      79.290  18.821 -25.524  1.00 18.28           C
ATOM   6770  CB  ILE C 666      78.875  20.213 -25.025  1.00 21.32           C
ATOM   6771  CG1 ILE C 666      79.879  21.256 -25.517  1.00 22.13           C
ATOM   6772  CD1 ILE C 666      79.393  22.684 -25.392  1.00 31.39           C
ATOM   6773  CG2 ILE C 666      78.802  20.227 -23.511  1.00 21.78           C
ATOM   6774  C   ILE C 666      78.401  17.730 -24.951  1.00 21.58           C
ATOM   6775  O   ILE C 666      78.706  17.146 -23.911  1.00 20.54           O
ATOM   6776  N   GLY C 667      77.309  17.449 -25.653  1.00 18.52           N
ATOM   6777  CA  GLY C 667      76.370  16.418 -25.258  1.00 19.13           C
ATOM   6778  C   GLY C 667      77.027  15.057 -25.165  1.00 24.73           C
ATOM   6779  O   GLY C 667      76.745  14.292 -24.249  1.00 24.89           O
ATOM   6780  N   LEU C 668      77.906  14.760 -26.119  1.00 22.22           N
ATOM   6781  CA  LEU C 668      78.631  13.492 -26.146  1.00 22.43           C
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ATOM   6782  CB  LEU C 668      79.309  13.310 -27.507  1.00 22.49           C
ATOM   6783  CG  LEU C 668      79.808  11.921 -27.920  1.00 27.31           C
ATOM   6784  CD1 LEU C 668      78.653  10.967 -28.179  1.00 27.72           C
ATOM   6785  CD2 LEU C 668      80.688  12.031 -29.153  1.00 28.52           C
ATOM   6786  C   LEU C 668      79.669  13.445 -25.026  1.00 27.97           C
ATOM   6787  O   LEU C 668      79.871  12.409 -24.393  1.00 28.60           O
ATOM   6788  N   MET C 669      80.323  14.577 -24.787  1.00 24.68           N
ATOM   6789  CA  MET C 669      81.322  14.682 -23.731  1.00 23.91           C
ATOM   6790  CB  MET C 669      81.894  16.096 -23.683  1.00 25.94           C
ATOM   6791  CG  MET C 669      82.638  16.520 -24.932  1.00 29.29           C
ATOM   6792  SD  MET C 669      83.304  18.178 -24.741  1.00 33.01           S
ATOM   6793  CE  MET C 669      84.341  17.944 -23.287  1.00 29.78           C
ATOM   6794  C   MET C 669      80.690  14.345 -22.388  1.00 27.62           C
ATOM   6795  O   MET C 669      81.288  13.660 -21.560  1.00 28.36           O
ATOM   6796  N   MET C 670      79.481  14.850 -22.174  1.00 23.01           N
ATOM   6797  CA  MET C 670      78.747  14.607 -20.937  1.00 21.88           C
ATOM   6798  CB  MET C 670      77.438  15.393 -20.944  1.00 24.01           C
ATOM   6799  CG  MET C 670      77.635  16.883 -20.723  1.00 27.41           C
ATOM   6800  SD  MET C 670      78.660  17.226 -19.265  1.00 31.71           S
ATOM   6801  CE  MET C 670      77.504  16.862 -17.936  1.00 28.04           C
ATOM   6802  C   MET C 670      78.485  13.115 -20.785  1.00 24.69           C
ATOM   6803  O   MET C 670      78.702  12.532 -19.722  1.00 23.52           O
ATOM   6804  N   THR C 671      78.066  12.493 -21.878  1.00 21.18           N
ATOM   6805  CA  THR C 671      77.833  11.062 -21.904  1.00 20.83           C
ATOM   6806  CB  THR C 671      77.249  10.634 -23.249  1.00 26.67           C
ATOM   6807  OG1 THR C 671      76.061  11.391 -23.517  1.00 20.26           O
ATOM   6808  CG2 THR C 671      76.938   9.139 -23.244  1.00 23.79           C
ATOM   6809  C   THR C 671      79.129  10.307 -21.622  1.00 25.97           C
ATOM   6810  O   THR C 671      79.158   9.385 -20.805  1.00 25.62           O
ATOM   6811  N   ALA C 672      80.197  10.685 -22.317  1.00 23.03           N
ATOM   6812  CA  ALA C 672      81.483  10.031 -22.130  1.00 22.99           C
ATOM   6813  CB  ALA C 672      82.544  10.701 -22.985  1.00 23.77           C
ATOM   6814  C   ALA C 672      81.871  10.075 -20.658  1.00 28.34           C
ATOM   6815  O   ALA C 672      82.301   9.072 -20.087  1.00 28.69           O
ATOM   6816  N   CYS C 673      81.679  11.238 -20.042  1.00 25.49           N
ATOM   6817  CA  CYS C 673      82.003  11.447 -18.629  1.00 25.75           C
ATOM   6818  CB  CYS C 673      81.959  12.938 -18.289  1.00 26.30           C
ATOM   6819  SG  CYS C 673      83.167  13.943 -19.179  1.00 30.59           S
ATOM   6820  C   CYS C 673      81.114  10.669 -17.658  1.00 28.90           C
ATOM   6821  O   CYS C 673      81.607  10.065 -16.704  1.00 28.20           O
ATOM   6822  N   ASP C 674      79.805  10.704 -17.886  1.00 25.58           N
ATOM   6823  CA  ASP C 674      78.862   9.994 -17.022  1.00 25.66           C
ATOM   6824  CB  ASP C 674      77.419  10.346 -17.398  1.00 27.66           C
ATOM   6825  CG  ASP C 674      76.431  10.066 -16.273  1.00 38.96           C
ATOM   6826  OD1 ASP C 674      76.859   9.914 -15.106  1.00 37.88           O
ATOM   6827  OD2 ASP C 674      75.216  10.012 -16.559  1.00 46.67           O
ATOM   6828  C   ASP C 674      79.069   8.474 -17.064  1.00 30.47           C
ATOM   6829  O   ASP C 674      78.688   7.761 -16.138  1.00 29.65           O
ATOM   6830  N   LEU C 675      79.695   7.988 -18.131  1.00 27.83           N
ATOM   6831  CA  LEU C 675      79.938   6.559 -18.292  1.00 28.00           C
ATOM   6832  CB  LEU C 675      79.696   6.146 -19.748  1.00 28.03           C
ATOM   6833  CG  LEU C 675      78.259   6.150 -20.274  1.00 32.59           C
ATOM   6834  CD1 LEU C 675      78.219   5.583 -21.686  1.00 32.63           C
ATOM   6835  CD2 LEU C 675      77.356   5.346 -19.347  1.00 34.59           C
ATOM   6836  C   LEU C 675      81.349   6.145 -17.881  1.00 33.16           C
ATOM   6837  O   LEU C 675      81.636   4.962 -17.739  1.00 32.68           O
ATOM   6838  N   CYS C 676      82.232   7.122 -17.718  1.00 31.42           N
ATOM   6839  CA  CYS C 676      83.633   6.848 -17.396  1.00 31.65           C
ATOM   6840  CB  CYS C 676      84.381   8.124 -17.001  1.00 32.02           C
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ATOM   6841  SG  CYS C 676      84.126   8.667 -15.305  1.00 36.06           S
ATOM   6842  C   CYS C 676      83.984   5.679 -16.464  1.00 35.88           C
ATOM   6843  O   CYS C 676      85.148   5.289 -16.375  1.00 35.73           O
ATOM   6844  N   SER C 677      82.996   5.104 -15.787  1.00 32.45           N
ATOM   6845  CA  SER C 677      83.273   3.980 -14.889  1.00 32.05           C
ATOM   6846  CB  SER C 677      82.028   3.598 -14.078  1.00 36.98           C
ATOM   6847  OG  SER C 677      80.901   3.398 -14.916  1.00 49.20           O
ATOM   6848  C   SER C 677      83.789   2.774 -15.670  1.00 33.88           C
ATOM   6849  O   SER C 677      84.431   1.882 -15.105  1.00 34.00           O
ATOM   6850  N   VAL C 678      83.509   2.764 -16.972  1.00 28.25           N
ATOM   6851  CA  VAL C 678      83.923   1.681 -17.864  1.00 27.00           C
ATOM   6852  CB  VAL C 678      82.841   1.376 -18.919  1.00 30.74           C
ATOM   6853  CG1 VAL C 678      81.468   1.296 -18.268  1.00 30.53           C
ATOM   6854  CG2 VAL C 678      82.859   2.421 -20.025  1.00 30.60           C
ATOM   6855  C   VAL C 678      85.283   1.922 -18.520  1.00 29.05           C
ATOM   6856  O   VAL C 678      85.800   1.053 -19.234  1.00 28.71           O
ATOM   6857  N   THR C 679      85.864   3.093 -18.265  1.00 23.58           N
ATOM   6858  CA  THR C 679      87.168   3.445 -18.818  1.00 22.63           C
ATOM   6859  CB  THR C 679      87.117   4.773 -19.597  1.00 28.89           C
ATOM   6860  OG1 THR C 679      86.935   5.858 -18.680  1.00 30.27           O
ATOM   6861  CG2 THR C 679      85.958   4.761 -20.590  1.00 26.76           C
ATOM   6862  C   THR C 679      88.242   3.462 -17.732  1.00 25.52           C
ATOM   6863  O   THR C 679      89.359   3.921 -17.954  1.00 25.21           O
ATOM   6864  N   LYS C 680      87.886   2.957 -16.556  1.00 21.38           N
ATOM   6865  CA  LYS C 680      88.811   2.877 -15.435  1.00 20.47           C
ATOM   6866  CB  LYS C 680      88.029   2.714 -14.126  1.00 21.53           C
ATOM   6867  CG  LYS C 680      87.603   4.019 -13.462  1.00 24.92           C
ATOM   6868  CD  LYS C 680      88.297   5.216 -14.090  1.00 26.43           C
ATOM   6869  CE  LYS C 680      87.598   6.524 -13.731  1.00 28.58           C
ATOM   6870  NZ  LYS C 680      87.916   7.629 -14.687  1.00 30.34           N
ATOM   6871  C   LYS C 680      89.689   1.653 -15.642  1.00 24.31           C
ATOM   6872  O   LYS C 680      89.475   0.878 -16.569  1.00 23.55           O
ATOM   6873  N   LEU C 681      90.666   1.463 -14.769  1.00 21.79           N
ATOM   6874  CA  LEU C 681      91.493   0.275 -14.848  1.00 22.41           C
ATOM   6875  CB  LEU C 681      92.758   0.454 -14.010  1.00 22.65           C
ATOM   6876  CG  LEU C 681      93.727   1.495 -14.572  1.00 27.65           C
ATOM   6877  CD1 LEU C 681      95.132   1.274 -14.045  1.00 27.63           C
ATOM   6878  CD2 LEU C 681      93.708   1.445 -16.097  1.00 30.49           C
ATOM   6879  C   LEU C 681      90.609  -0.840 -14.289  1.00 27.30           C
ATOM   6880  O   LEU C 681      89.779  -0.585 -13.420  1.00 26.42           O
ATOM   6881  N   TRP C 682      90.748  -2.049 -14.830  1.00 25.41           N
ATOM   6882  CA  TRP C 682      89.916  -3.203 -14.457  1.00 25.41           C
ATOM   6883  CB  TRP C 682      90.578  -4.517 -14.875  1.00 24.22           C
ATOM   6884  CG  TRP C 682      89.758  -5.730 -14.534  1.00 25.23           C
ATOM   6885  CD1 TRP C 682      90.126  -6.772 -13.731  1.00 28.14           C
ATOM   6886  NE1 TRP C 682      89.103  -7.686 -13.639  1.00 27.51           N
ATOM   6887  CE2 TRP C 682      88.045  -7.244 -14.389  1.00 28.77           C
ATOM   6888  CD2 TRP C 682      88.419  -6.012 -14.964  1.00 24.96           C
ATOM   6889  CE3 TRP C 682      87.503  -5.345 -15.784  1.00 26.03           C
ATOM   6890  CZ3 TRP C 682      86.266  -5.920 -16.001  1.00 27.15           C
ATOM   6891  CH2 TRP C 682      85.922  -7.145 -15.417  1.00 27.73           C
ATOM   6892  CZ2 TRP C 682      86.796  -7.823 -14.612  1.00 28.12           C
ATOM   6893  C   TRP C 682      89.392  -3.315 -13.024  1.00 28.86           C
ATOM   6894  O   TRP C 682      88.192  -3.510 -12.806  1.00 29.10           O
ATOM   6895  N   PRO C 683      90.299  -3.288 -12.035  1.00 24.19           N
ATOM   6896  CA  PRO C 683      89.978  -3.439 -10.611  1.00 23.49           C
ATOM   6897  CB  PRO C 683      91.334  -3.246  -9.932  1.00 25.25           C
ATOM   6898  CG  PRO C 683      92.316  -3.698 -10.942  1.00 29.73           C
ATOM   6899  CD  PRO C 683      91.751  -3.319 -12.279  1.00 25.44           C
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ATOM   6900  C   PRO C 683      88.991  -2.397 -10.113  1.00 25.60           C
ATOM   6901  O   PRO C 683      88.200  -2.659  -9.206  1.00 25.13           O
ATOM   6902  N   VAL C 684      89.066  -1.202 -10.686  1.00 20.29           N
ATOM   6903  CA  VAL C 684      88.158  -0.123 -10.325  1.00 19.08           C
ATOM   6904  CB  VAL C 684      88.767   1.263 -10.659  1.00 22.51           C
ATOM   6905  CG1 VAL C 684      87.741   2.370 -10.415  1.00 22.17           C
ATOM   6906  CG2 VAL C 684      90.031   1.517  -9.835  1.00 22.26           C
ATOM   6907  C   VAL C 684      86.841  -0.330 -11.073  1.00 22.70           C
ATOM   6908  O   VAL C 684      85.767  -0.015 -10.565  1.00 22.17           O
ATOM   6909  N   THR C 685      86.934  -0.866 -12.286  1.00 19.38           N
ATOM   6910  CA  THR C 685      85.760  -1.116 -13.112  1.00 19.78           C
ATOM   6911  CB  THR C 685      86.159  -1.369 -14.567  1.00 26.63           C
ATOM   6912  OG1 THR C 685      86.628  -0.143 -15.138  1.00 28.27           O
ATOM   6913  CG2 THR C 685      84.974  -1.868 -15.367  1.00 25.78           C
ATOM   6914  C   THR C 685      84.908  -2.250 -12.553  1.00 25.57           C
ATOM   6915  O   THR C 685      83.678  -2.181 -12.556  1.00 26.24           O
ATOM   6916  N   LYS C 686      85.579  -3.291 -12.082  1.00 22.54           N
ATOM   6917  CA  LYS C 686      84.929  -4.448 -11.482  1.00 22.34           C
ATOM   6918  CB  LYS C 686      86.005  -5.461 -11.081  1.00 24.71           C
ATOM   6919  CG  LYS C 686      85.555  -6.907 -11.027  1.00 38.70           C
ATOM   6920  CD  LYS C 686      86.468  -7.702 -10.105  1.00 47.24           C
ATOM   6921  CE  LYS C 686      86.290  -9.200 -10.286  1.00 56.98           C
ATOM   6922  NZ  LYS C 686      87.152  -9.961  -9.339  1.00 64.17           N
ATOM   6923  C   LYS C 686      84.157  -3.983 -10.244  1.00 26.42           C
ATOM   6924  O   LYS C 686      82.936  -4.108 -10.179  1.00 26.03           O
ATOM   6925  N   LEU C 687      84.875  -3.412  -9.280  1.00 23.26           N
ATOM   6926  CA  LEU C 687      84.264  -2.907  -8.046  1.00 23.18           C
ATOM   6927  CB  LEU C 687      85.333  -2.321  -7.125  1.00 23.35           C
ATOM   6928  CG  LEU C 687      86.284  -3.340  -6.505  1.00 27.89           C
ATOM   6929  CD1 LEU C 687      87.417  -2.643  -5.777  1.00 28.29           C
ATOM   6930  CD2 LEU C 687      85.519  -4.257  -5.563  1.00 30.17           C
ATOM   6931  C   LEU C 687      83.153  -1.879  -8.260  1.00 26.81           C
ATOM   6932  O   LEU C 687      82.222  -1.793  -7.461  1.00 25.87           O
ATOM   6933  N   THR C 688      83.265  -1.078  -9.316  1.00 23.70           N
ATOM   6934  CA  THR C 688      82.255  -0.059  -9.609  1.00 23.59           C
ATOM   6935  CB  THR C 688      82.784   1.005 -10.588  1.00 29.61           C
ATOM   6936  OG1 THR C 688      84.051   1.486 -10.129  1.00 29.96           O
ATOM   6937  CG2 THR C 688      81.818   2.169 -10.676  1.00 29.83           C
ATOM   6938  C   THR C 688      80.953  -0.676 -10.118  1.00 28.88           C
ATOM   6939  O   THR C 688      79.874  -0.125  -9.912  1.00 28.63           O
ATOM   6940  N   ALA C 689      81.071  -1.815 -10.794  1.00 26.07           N
ATOM   6941  CA  ALA C 689      79.921  -2.521 -11.343  1.00 26.11           C
ATOM   6942  CB  ALA C 689      80.386  -3.681 -12.213  1.00 26.82           C
ATOM   6943  C   ALA C 689      79.029  -3.028 -10.223  1.00 31.50           C
ATOM   6944  O   ALA C 689      77.837  -3.266 -10.416  1.00 30.98           O
ATOM   6945  N   ASN C 690      79.618  -3.200  -9.047  1.00 29.59           N
ATOM   6946  CA  ASN C 690      78.877  -3.665  -7.887  1.00 29.63           C
ATOM   6947  CB  ASN C 690      79.837  -3.954  -6.731  1.00 31.56           C
ATOM   6948  CG  ASN C 690      80.254  -5.407  -6.672  1.00 59.76           C
ATOM   6949  OD1 ASN C 690      80.126  -6.144  -7.651  1.00 55.60           O
ATOM   6950  ND2 ASN C 690      80.767  -5.827  -5.522  1.00 53.18           N
ATOM   6951  C   ASN C 690      77.846  -2.626  -7.457  1.00 33.19           C
ATOM   6952  O   ASN C 690      76.669  -2.940  -7.275  1.00 33.11           O
ATOM   6953  N   ASP C 691      78.301  -1.387  -7.293  1.00 29.02           N
ATOM   6954  CA  ASP C 691      77.432  -0.293  -6.867  1.00 28.13           C
ATOM   6955  CB  ASP C 691      78.260   0.955  -6.553  1.00 30.49           C
ATOM   6956  CG  ASP C 691      79.274   0.719  -5.443  1.00 42.60           C
ATOM   6957  OD1 ASP C 691      78.865   0.274  -4.348  1.00 43.38           O
ATOM   6958  OD2 ASP C 691      80.478   0.969  -5.669  1.00 50.01           O
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ATOM   6959  C   ASP C 691      76.371   0.022  -7.910  1.00 29.39           C
ATOM   6960  O   ASP C 691      75.258   0.437  -7.578  1.00 28.45           O
ATOM   6961  N   ILE C 692      76.722  -0.190  -9.173  1.00 24.51           N
ATOM   6962  CA  ILE C 692      75.798   0.035 -10.275  1.00 23.57           C
ATOM   6963  CB  ILE C 692      76.506  -0.145 -11.632  1.00 26.49           C
ATOM   6964  CG1 ILE C 692      77.641   0.866 -11.788  1.00 26.31           C
ATOM   6965  CD1 ILE C 692      78.237   0.882 -13.178  1.00 30.13           C
ATOM   6966  CG2 ILE C 692      75.515  -0.009 -12.777  1.00 27.31           C
ATOM   6967  C   ILE C 692      74.635  -0.943 -10.155  1.00 26.21           C
ATOM   6968  O   ILE C 692      73.469  -0.559 -10.244  1.00 24.84           O
ATOM   6969  N   TYR C 693      74.968  -2.212  -9.952  1.00 22.66           N
ATOM   6970  CA  TYR C 693      73.961  -3.260  -9.855  1.00 21.83           C
ATOM   6971  CB  TYR C 693      74.580  -4.623 -10.148  1.00 22.30           C
ATOM   6972  CG  TYR C 693      74.722  -4.874 -11.627  1.00 22.46           C
ATOM   6973  CD1 TYR C 693      73.629  -5.272 -12.384  1.00 24.07           C
ATOM   6974  CE1 TYR C 693      73.731  -5.451 -13.746  1.00 24.43           C
ATOM   6975  CZ  TYR C 693      74.933  -5.212 -14.378  1.00 29.87           C
ATOM   6976  OH  TYR C 693      75.029  -5.403 -15.735  1.00 28.46           O
ATOM   6977  CE2 TYR C 693      76.029  -4.783 -13.655  1.00 23.55           C
ATOM   6978  CD2 TYR C 693      75.913  -4.600 -12.288  1.00 22.87           C
ATOM   6979  C   TYR C 693      73.199  -3.257  -8.539  1.00 26.26           C
ATOM   6980  O   TYR C 693      72.025  -3.637  -8.488  1.00 25.94           O
ATOM   6981  N   ALA C 694      73.859  -2.813  -7.477  1.00 23.10           N
ATOM   6982  CA  ALA C 694      73.206  -2.725  -6.178  1.00 22.41           C
ATOM   6983  CB  ALA C 694      74.152  -2.133  -5.146  1.00 22.76           C
ATOM   6984  C   ALA C 694      72.010  -1.817  -6.374  1.00 26.75           C
ATOM   6985  O   ALA C 694      70.939  -2.047  -5.810  1.00 27.41           O
ATOM   6986  N   GLU C 695      72.198  -0.802  -7.213  1.00 22.29           N
ATOM   6987  CA  GLU C 695      71.152   0.166  -7.517  1.00 21.94           C
ATOM   6988  CB  GLU C 695      71.766   1.478  -8.018  1.00 23.29           C
ATOM   6989  CG  GLU C 695      71.180   2.718  -7.366  1.00 34.30           C
ATOM   6990  CD  GLU C 695      71.909   3.989  -7.756  1.00 52.07           C
ATOM   6991  OE1 GLU C 695      71.996   4.279  -8.969  1.00 33.61           O
ATOM   6992  OE2 GLU C 695      72.380   4.711  -6.849  1.00 50.73           O
ATOM   6993  C   GLU C 695      70.123  -0.362  -8.517  1.00 26.23           C
ATOM   6994  O   GLU C 695      68.941  -0.041  -8.423  1.00 26.58           O
ATOM   6995  N   PHE C 696      70.572  -1.170  -9.473  1.00 22.98           N
ATOM   6996  CA  PHE C 696      69.671  -1.747 -10.473  1.00 22.57           C
ATOM   6997  CB  PHE C 696      70.465  -2.492 -11.556  1.00 24.62           C
ATOM   6998  CG  PHE C 696      71.121  -1.594 -12.574  1.00 26.79           C
ATOM   6999  CD1 PHE C 696      70.736  -0.271 -12.714  1.00 29.98           C
ATOM   7000  CE1 PHE C 696      71.354   0.554 -13.649  1.00 30.93           C
ATOM   7001  CZ  PHE C 696      72.354   0.051 -14.462  1.00 30.11           C
ATOM   7002  CE2 PHE C 696      72.742  -1.271 -14.338  1.00 32.01           C
ATOM   7003  CD2 PHE C 696      72.130  -2.085 -13.396  1.00 29.09           C
ATOM   7004  C   PHE C 696      68.726  -2.741  -9.800  1.00 25.02           C
ATOM   7005  O   PHE C 696      67.515  -2.715 -10.023  1.00 24.40           O
ATOM   7006  N   TRP C 697      69.304  -3.630  -8.997  1.00 20.26           N
ATOM   7007  CA  TRP C 697      68.552  -4.678  -8.308  1.00 19.68           C
ATOM   7008  CB  TRP C 697      69.504  -5.597  -7.549  1.00 17.37           C
ATOM   7009  CG  TRP C 697      70.416  -6.380  -8.421  1.00 17.97           C
ATOM   7010  CD1 TRP C 697      70.167  -6.826  -9.689  1.00 20.69           C
ATOM   7011  NE1 TRP C 697      71.246  -7.535 -10.161  1.00 20.16           N
ATOM   7012  CE2 TRP C 697      72.212  -7.566  -9.190  1.00 21.47           C
ATOM   7013  CD2 TRP C 697      71.722  -6.846  -8.081  1.00 17.69           C
ATOM   7014  CE3 TRP C 697      72.530  -6.720  -6.946  1.00 18.98           C
ATOM   7015  CZ3 TRP C 697      73.781  -7.309  -6.951  1.00 20.61           C
ATOM   7016  CH2 TRP C 697      74.235  -8.029  -8.066  1.00 21.20           C
ATOM   7017  CZ2 TRP C 697      73.470  -8.158  -9.196  1.00 20.86           C
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ATOM   7018  C   TRP C 697      67.499  -4.140  -7.348  1.00 25.71           C
ATOM   7019  O   TRP C 697      66.422  -4.718  -7.207  1.00 26.83           O
ATOM   7020  N   ALA C 698      67.829  -3.055  -6.660  1.00 22.70           N
ATOM   7021  CA  ALA C 698      66.908  -2.446  -5.708  1.00 21.96           C
ATOM   7022  CB  ALA C 698      67.623  -1.395  -4.887  1.00 22.48           C
ATOM   7023  C   ALA C 698      65.710  -1.843  -6.437  1.00 25.93           C
ATOM   7024  O   ALA C 698      64.589  -1.855  -5.927  1.00 26.26           O
ATOM   7025  N   GLU C 699      65.948  -1.325  -7.638  1.00 21.36           N
ATOM   7026  CA  GLU C 699      64.872  -0.752  -8.439  1.00 20.72           C
ATOM   7027  CB  GLU C 699      65.430   0.138  -9.545  1.00 21.80           C
ATOM   7028  CG  GLU C 699      64.351   0.698 -10.459  1.00 27.35           C
ATOM   7029  CD  GLU C 699      64.917   1.552 -11.572  1.00 38.35           C
ATOM   7030  OE1 GLU C 699      66.108   1.915 -11.485  1.00 34.31           O
ATOM   7031  OE2 GLU C 699      64.176   1.852 -12.535  1.00 27.44           O
ATOM   7032  C   GLU C 699      63.985  -1.836  -9.053  1.00 25.20           C
ATOM   7033  O   GLU C 699      62.804  -1.609  -9.309  1.00 24.82           O
ATOM   7034  N   GLY C 700      64.562  -3.004  -9.315  1.00 22.77           N
ATOM   7035  CA  GLY C 700      63.813  -4.117  -9.866  1.00 23.11           C
ATOM   7036  C   GLY C 700      62.909  -4.644  -8.771  1.00 28.31           C
ATOM   7037  O   GLY C 700      61.779  -5.076  -9.015  1.00 28.62           O
ATOM   7038  N   ASP C 701      63.423  -4.568  -7.547  1.00 24.91           N
ATOM   7039  CA  ASP C 701      62.717  -5.000  -6.351  1.00 24.53           C
ATOM   7040  CB  ASP C 701      63.655  -4.904  -5.140  1.00 26.37           C
ATOM   7041  CG  ASP C 701      64.458  -6.177  -4.908  1.00 37.92           C
ATOM   7042  OD1 ASP C 701      64.541  -7.023  -5.828  1.00 39.49           O
ATOM   7043  OD2 ASP C 701      65.026  -6.323  -3.804  1.00 42.72           O
ATOM   7044  C   ASP C 701      61.509  -4.093  -6.126  1.00 28.61           C
ATOM   7045  O   ASP C 701      60.480  -4.533  -5.618  1.00 28.11           O
ATOM   7046  N   GLU C 702      61.646  -2.823  -6.499  1.00 25.66           N
ATOM   7047  CA  GLU C 702      60.554  -1.862  -6.344  1.00 25.75           C
ATOM   7048  CB  GLU C 702      61.090  -0.428  -6.292  1.00 27.13           C
ATOM   7049  CG  GLU C 702      61.789  -0.081  -4.985  1.00 39.41           C
ATOM   7050  CD  GLU C 702      60.865  -0.194  -3.778  1.00 62.96           C
ATOM   7051  OE1 GLU C 702      59.639  -0.010  -3.951  1.00 60.26           O
ATOM   7052  OE2 GLU C 702      61.361  -0.455  -2.658  1.00 55.19           O
ATOM   7053  C   GLU C 702      59.548  -2.019  -7.481  1.00 29.86           C
ATOM   7054  O   GLU C 702      58.380  -1.667  -7.340  1.00 29.82           O
ATOM   7055  N   MET C 703      60.010  -2.569  -8.599  1.00 26.08           N
ATOM   7056  CA  MET C 703      59.152  -2.805  -9.747  1.00 26.52           C
ATOM   7057  CB  MET C 703      60.000  -3.020 -11.002  1.00 29.39           C
ATOM   7058  CG  MET C 703      60.677  -1.755 -11.517  1.00 33.87           C
ATOM   7059  SD  MET C 703      59.677  -0.879 -12.742  1.00 39.29           S
ATOM   7060  CE  MET C 703      59.596  -2.141 -14.047  1.00 36.42           C
ATOM   7061  C   MET C 703      58.291  -4.036  -9.476  1.00 30.24           C
ATOM   7062  O   MET C 703      57.109  -4.062  -9.803  1.00 29.42           O
ATOM   7063  N   LYS C 704      58.897  -5.053  -8.875  1.00 27.04           N
ATOM   7064  CA  LYS C 704      58.183  -6.275  -8.531  1.00 26.77           C
ATOM   7065  CB  LYS C 704      59.129  -7.264  -7.847  1.00 27.98           C
ATOM   7066  CG  LYS C 704      60.027  -8.037  -8.792  1.00 28.92           C
ATOM   7067  CD  LYS C 704      61.225  -8.602  -8.047  1.00 31.95           C
ATOM   7068  CE  LYS C 704      62.167  -9.351  -8.974  1.00 36.13           C
ATOM   7069  NZ  LYS C 704      63.382  -9.814  -8.243  1.00 42.24           N
ATOM   7070  C   LYS C 704      57.057  -5.906  -7.574  1.00 31.56           C
ATOM   7071  O   LYS C 704      55.973  -6.481  -7.618  1.00 31.42           O
ATOM   7072  N   LYS C 705      57.327  -4.933  -6.711  1.00 29.11           N
ATOM   7073  CA  LYS C 705      56.345  -4.460  -5.740  1.00 29.00           C
ATOM   7074  CB  LYS C 705      57.020  -3.574  -4.693  1.00 31.23           C
ATOM   7075  CG  LYS C 705      57.997  -4.300  -3.778  1.00 39.89           C
ATOM   7076  CD  LYS C 705      58.331  -3.436  -2.570  1.00 45.40           C
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ATOM   7077  CE  LYS C 705      59.511  -3.987  -1.799  1.00 49.63           C
ATOM   7078  NZ  LYS C 705      59.782  -3.191  -0.572  1.00 57.72           N
ATOM   7079  C   LYS C 705      55.238  -3.669  -6.430  1.00 34.80           C
ATOM   7080  O   LYS C 705      54.232  -3.321  -5.805  1.00 34.61           O
ATOM   7081  N   LEU C 706      55.442  -3.364  -7.709  1.00 32.54           N
ATOM   7082  CA  LEU C 706      54.468  -2.604  -8.491  1.00 33.10           C
ATOM   7083  CB  LEU C 706      55.184  -1.606  -9.410  1.00 33.05           C
ATOM   7084  CG  LEU C 706      55.354  -0.164  -8.929  1.00 37.42           C
ATOM   7085  CD1 LEU C 706      56.000   0.695 -10.004  1.00 37.42           C
ATOM   7086  CD2 LEU C 706      54.026   0.424  -8.500  1.00 39.52           C
ATOM   7087  C   LEU C 706      53.598  -3.525  -9.343  1.00 39.28           C
ATOM   7088  O   LEU C 706      52.644  -3.073  -9.977  1.00 39.40           O
ATOM   7089  N   GLY C 707      53.944  -4.806  -9.384  1.00 36.94           N
ATOM   7090  CA  GLY C 707      53.209  -5.763 -10.187  1.00 37.13           C
ATOM   7091  C   GLY C 707      53.769  -5.783 -11.593  1.00 42.09           C
ATOM   7092  O   GLY C 707      53.031  -5.894 -12.577  1.00 41.72           O
ATOM   7093  N   ILE C 708      55.089  -5.633 -11.676  1.00 39.26           N
ATOM   7094  CA  ILE C 708      55.811  -5.640 -12.942  1.00 38.99           C
ATOM   7095  CB  ILE C 708      56.093  -4.201 -13.443  1.00 41.65           C
ATOM   7096  CG1 ILE C 708      54.800  -3.402 -13.585  1.00 41.92           C
ATOM   7097  CD1 ILE C 708      54.979  -1.926 -13.324  1.00 46.46           C
ATOM   7098  CG2 ILE C 708      56.865  -4.224 -14.760  1.00 41.62           C
ATOM   7099  C   ILE C 708      57.129  -6.351 -12.712  1.00 44.50           C
ATOM   7100  O   ILE C 708      57.955  -5.889 -11.922  1.00 44.21           O
ATOM   7101  N   GLN C 709      57.346  -7.459 -13.408  1.00 42.28           N
ATOM   7102  CA  GLN C 709      58.615  -8.156 -13.290  1.00 42.53           C
ATOM   7103  CB  GLN C 709      58.501  -9.607 -13.758  1.00 44.00           C
ATOM   7104  CG  GLN C 709      59.845 -10.333 -13.827  1.00 61.13           C
ATOM   7105  CD  GLN C 709      60.030 -11.348 -12.709  1.00 79.83           C
ATOM   7106  OE1 GLN C 709      59.677 -11.097 -11.556  1.00 74.74           O
ATOM   7107  NE2 GLN C 709      60.575 -12.508 -13.053  1.00 71.39           N
ATOM   7108  C   GLN C 709      59.629  -7.392 -14.136  1.00 46.72           C
ATOM   7109  O   GLN C 709      59.486  -7.280 -15.357  1.00 46.98           O
ATOM   7110  N   PRO C 710      60.642  -6.809 -13.480  1.00 42.12           N
ATOM   7111  CA  PRO C 710      61.724  -5.993 -14.040  1.00 41.40           C
ATOM   7112  CB  PRO C 710      62.683  -5.844 -12.857  1.00 43.28           C
ATOM   7113  CG  PRO C 710      62.429  -7.067 -12.023  1.00 47.81           C
ATOM   7114  CD  PRO C 710      60.961  -7.305 -12.130  1.00 43.34           C
ATOM   7115  C   PRO C 710      62.452  -6.636 -15.211  1.00 43.55           C
ATOM   7116  O   PRO C 710      62.366  -7.846 -15.425  1.00 42.91           O
ATOM   7117  N   ILE C 711      63.184  -5.813 -15.956  1.00 38.73           N
ATOM   7118  CA  ILE C 711      64.002  -6.299 -17.057  1.00 37.98           C
ATOM   7119  CB  ILE C 711      64.440  -5.143 -17.975  1.00 40.85           C
ATOM   7120  CG1 ILE C 711      65.481  -4.274 -17.269  1.00 40.87           C
ATOM   7121  CD1 ILE C 711      65.937  -3.088 -18.082  1.00 45.69           C
ATOM   7122  CG2 ILE C 711      63.232  -4.299 -18.369  1.00 41.53           C
ATOM   7123  C   ILE C 711      65.197  -6.979 -16.394  1.00 41.44           C
ATOM   7124  O   ILE C 711      65.666  -6.535 -15.347  1.00 40.89           O
ATOM   7125  N   PRO C 712      65.662  -8.101 -16.962  1.00 37.83           N
ATOM   7126  CA  PRO C 712      66.750  -8.952 -16.454  1.00 37.58           C
ATOM   7127  CB  PRO C 712      67.225  -9.701 -17.701  1.00 39.26           C
ATOM   7128  CG  PRO C 712      66.045  -9.671 -18.625  1.00 43.79           C
ATOM   7129  CD  PRO C 712      65.397  -8.342 -18.389  1.00 39.31           C
ATOM   7130  C   PRO C 712      67.913  -8.228 -15.776  1.00 41.40           C
ATOM   7131  O   PRO C 712      68.453  -8.712 -14.783  1.00 40.83           O
ATOM   7132  N   MET C 713      68.321  -7.087 -16.322  1.00 38.14           N
ATOM   7133  CA  MET C 713      69.437  -6.343 -15.745  1.00 38.05           C
ATOM   7134  CB  MET C 713      69.894  -5.235 -16.689  1.00 40.47           C
ATOM   7135  CG  MET C 713      69.988  -3.871 -16.033  1.00 44.28           C
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ATOM   7136  SD  MET C 713      70.540  -2.608 -17.181  1.00 48.62           S
ATOM   7137  CE  MET C 713      69.338  -1.335 -16.862  1.00 45.36           C
ATOM   7138  C   MET C 713      69.091  -5.765 -14.376  1.00 41.59           C
ATOM   7139  O   MET C 713      69.966  -5.306 -13.640  1.00 41.11           O
ATOM   7140  N   MET C 714      67.809  -5.796 -14.035  1.00 38.23           N
ATOM   7141  CA  MET C 714      67.355  -5.269 -12.760  1.00 38.26           C
ATOM   7142  CB  MET C 714      66.259  -4.233 -12.983  1.00 40.79           C
ATOM   7143  CG  MET C 714      66.648  -3.143 -13.965  1.00 44.79           C
ATOM   7144  SD  MET C 714      65.715  -1.641 -13.676  1.00 49.62           S
ATOM   7145  CE  MET C 714      64.029  -2.224 -13.920  1.00 46.45           C
ATOM   7146  C   MET C 714      66.875  -6.369 -11.824  1.00 42.59           C
ATOM   7147  O   MET C 714      66.538  -6.108 -10.670  1.00 42.58           O
ATOM   7148  N   ASP C 715      66.857  -7.599 -12.324  1.00 39.38           N
ATOM   7149  CA  ASP C 715      66.448  -8.752 -11.525  1.00 39.13           C
ATOM   7150  CB  ASP C 715      65.796  -9.815 -12.413  1.00 41.00           C
ATOM   7151  CG  ASP C 715      64.797 -10.674 -11.659  1.00 51.09           C
ATOM   7152  OD1 ASP C 715      64.897 -10.752 -10.415  1.00 51.84           O
ATOM   7153  OD2 ASP C 715      63.921 -11.281 -12.310  1.00 56.76           O
ATOM   7154  C   ASP C 715      67.665  -9.330 -10.807  1.00 42.83           C
ATOM   7155  O   ASP C 715      68.636  -9.744 -11.443  1.00 42.23           O
ATOM   7156  N   ARG C 716      67.621  -9.332  -9.478  1.00 39.37           N
ATOM   7157  CA  ARG C 716      68.735  -9.830  -8.683  1.00 39.16           C
ATOM   7158  CB  ARG C 716      68.684  -9.271  -7.261  1.00 38.79           C
ATOM   7159  CG  ARG C 716      67.914 -10.132  -6.285  1.00 44.69           C
ATOM   7160  CD  ARG C 716      68.100  -9.640  -4.860  1.00 47.82           C
ATOM   7161  NE  ARG C 716      67.682  -8.251  -4.693  1.00 50.52           N
ATOM   7162  CZ  ARG C 716      68.509  -7.253  -4.396  1.00 58.99           C
ATOM   7163  NH1 ARG C 716      69.803  -7.491  -4.239  1.00 41.29           N
ATOM   7164  NH2 ARG C 716      68.045  -6.017  -4.257  1.00 43.47           N
ATOM   7165  C   ARG C 716      68.851 -11.353  -8.659  1.00 43.39           C
ATOM   7166  O   ARG C 716      69.852 -11.893  -8.184  1.00 43.10           O
ATOM   7167  N   ASP C 717      67.837 -12.040  -9.178  1.00 39.97           N
ATOM   7168  CA  ASP C 717      67.845 -13.500  -9.236  1.00 39.87           C
ATOM   7169  CB  ASP C 717      66.417 -14.037  -9.331  1.00 41.80           C
ATOM   7170  CG  ASP C 717      65.542 -13.579  -8.180  1.00 53.98           C
ATOM   7171  OD1 ASP C 717      66.075 -13.372  -7.069  1.00 54.85           O
ATOM   7172  OD2 ASP C 717      64.316 -13.436  -8.386  1.00 60.64           O
ATOM   7173  C   ASP C 717      68.632 -13.937 -10.467  1.00 43.51           C
ATOM   7174  O   ASP C 717      69.055 -15.089 -10.582  1.00 43.38           O
ATOM   7175  N   LYS C 718      68.819 -12.995 -11.383  1.00 39.28           N
ATOM   7176  CA  LYS C 718      69.545 -13.238 -12.616  1.00 38.53           C
ATOM   7177  CB  LYS C 718      68.701 -12.777 -13.808  1.00 40.39           C
ATOM   7178  CG  LYS C 718      67.226 -13.161 -13.674  1.00 47.66           C
ATOM   7179  CD  LYS C 718      66.360 -12.564 -14.774  1.00 54.69           C
ATOM   7180  CE  LYS C 718      65.098 -13.391 -14.988  1.00 61.93           C
ATOM   7181  NZ  LYS C 718      63.972 -12.954 -14.115  1.00 70.00           N
ATOM   7182  C   LYS C 718      70.906 -12.541 -12.573  1.00 41.64           C
ATOM   7183  O   LYS C 718      71.312 -11.878 -13.531  1.00 40.96           O
ATOM   7184  N   LYS C 719      71.600 -12.705 -11.446  1.00 37.97           N
ATOM   7185  CA  LYS C 719      72.927 -12.128 -11.240  1.00 37.69           C
ATOM   7186  CB  LYS C 719      73.353 -12.311  -9.781  1.00 39.50           C
ATOM   7187  CG  LYS C 719      73.123 -11.100  -8.892  1.00 50.24           C
ATOM   7188  CD  LYS C 719      73.889 -11.230  -7.583  1.00 57.46           C
ATOM   7189  CE  LYS C 719      72.978 -11.671  -6.449  1.00 65.18           C
ATOM   7190  NZ  LYS C 719      72.361 -10.510  -5.745  1.00 72.23           N
ATOM   7191  C   LYS C 719      73.946 -12.836 -12.130  1.00 42.84           C
ATOM   7192  O   LYS C 719      75.106 -12.426 -12.222  1.00 42.73           O
ATOM   7193  N   ASP C 720      73.510 -13.928 -12.746  1.00 39.82           N
ATOM   7194  CA  ASP C 720      74.365 -14.736 -13.604  1.00 39.97           C
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ATOM   7195  CB  ASP C 720      73.783 -16.150 -13.741  1.00 42.06           C
ATOM   7196  CG  ASP C 720      72.269 -16.181 -13.565  1.00 54.62           C
ATOM   7197  OD1 ASP C 720      71.790 -15.981 -12.426  1.00 55.83           O
ATOM   7198  OD2 ASP C 720      71.557 -16.416 -14.567  1.00 60.81           O
ATOM   7199  C   ASP C 720      74.565 -14.112 -14.982  1.00 43.52           C
ATOM   7200  O   ASP C 720      75.589 -14.330 -15.627  1.00 43.30           O
ATOM   7201  N   GLU C 721      73.582 -13.340 -15.431  1.00 39.76           N
ATOM   7202  CA  GLU C 721      73.649 -12.712 -16.743  1.00 39.43           C
ATOM   7203  CB  GLU C 721      72.245 -12.540 -17.320  1.00 40.97           C
ATOM   7204  CG  GLU C 721      71.510 -13.848 -17.552  1.00 53.97           C
ATOM   7205  CD  GLU C 721      70.062 -13.790 -17.105  1.00 80.91           C
ATOM   7206  OE1 GLU C 721      69.336 -12.878 -17.558  1.00 80.65           O
ATOM   7207  OE2 GLU C 721      69.647 -14.659 -16.308  1.00 76.65           O
ATOM   7208  C   GLU C 721      74.378 -11.373 -16.742  1.00 42.29           C
ATOM   7209  O   GLU C 721      74.341 -10.644 -17.733  1.00 42.31           O
ATOM   7210  N   VAL C 722      75.033 -11.045 -15.635  1.00 37.75           N
ATOM   7211  CA  VAL C 722      75.745  -9.776 -15.535  1.00 37.22           C
ATOM   7212  CB  VAL C 722      76.225  -9.492 -14.108  1.00 41.02           C
ATOM   7213  CG1 VAL C 722      77.068  -8.224 -14.082  1.00 40.78           C
ATOM   7214  CG2 VAL C 722      75.035  -9.368 -13.172  1.00 40.84           C
ATOM   7215  C   VAL C 722      76.868  -9.604 -16.558  1.00 40.05           C
ATOM   7216  O   VAL C 722      76.958  -8.578 -17.228  1.00 40.32           O
ATOM   7217  N   PRO C 723      77.743 -10.608 -16.689  1.00 34.95           N
ATOM   7218  CA  PRO C 723      78.824 -10.439 -17.665  1.00 34.13           C
ATOM   7219  CB  PRO C 723      79.615 -11.742 -17.535  1.00 35.90           C
ATOM   7220  CG  PRO C 723      79.331 -12.217 -16.150  1.00 40.28           C
ATOM   7221  CD  PRO C 723      77.910 -11.830 -15.883  1.00 36.14           C
ATOM   7222  C   PRO C 723      78.287 -10.285 -19.084  1.00 36.41           C
ATOM   7223  O   PRO C 723      78.826  -9.522 -19.886  1.00 35.39           O
ATOM   7224  N   GLN C 724      77.221 -11.017 -19.387  1.00 32.58           N
ATOM   7225  CA  GLN C 724      76.595 -10.964 -20.704  1.00 32.16           C
ATOM   7226  CB  GLN C 724      75.547 -12.067 -20.844  1.00 33.64           C
ATOM   7227  CG  GLN C 724      75.693 -12.888 -22.109  1.00 53.02           C
ATOM   7228  CD  GLN C 724      77.142 -13.153 -22.462  1.00 73.70           C
ATOM   7229  OE1 GLN C 724      77.843 -13.877 -21.754  1.00 69.66           O
ATOM   7230  NE2 GLN C 724      77.601 -12.563 -23.562  1.00 65.55           N
ATOM   7231  C   GLN C 724      75.950  -9.602 -20.938  1.00 34.94           C
ATOM   7232  O   GLN C 724      75.978  -9.079 -22.052  1.00 34.07           O
ATOM   7233  N   GLY C 725      75.370  -9.038 -19.879  1.00 30.79           N
ATOM   7234  CA  GLY C 725      74.719  -7.739 -19.921  1.00 29.97           C
ATOM   7235  C   GLY C 725      75.735  -6.621 -20.031  1.00 32.58           C
ATOM   7236  O   GLY C 725      75.444  -5.547 -20.561  1.00 32.02           O
ATOM   7237  N   GLN C 726      76.932  -6.877 -19.517  1.00 28.35           N
ATOM   7238  CA  GLN C 726      78.023  -5.918 -19.586  1.00 27.84           C
ATOM   7239  CB  GLN C 726      79.172  -6.359 -18.677  1.00 28.65           C
ATOM   7240  CG  GLN C 726      79.018  -5.907 -17.230  1.00 33.05           C
ATOM   7241  CD  GLN C 726      78.657  -4.442 -17.122  1.00 45.62           C
ATOM   7242  OE1 GLN C 726      79.522  -3.593 -16.913  1.00 41.50           O
ATOM   7243  NE2 GLN C 726      77.383  -4.132 -17.317  1.00 38.57           N
ATOM   7244  C   GLN C 726      78.486  -5.873 -21.033  1.00 33.15           C
ATOM   7245  O   GLN C 726      78.644  -4.797 -21.618  1.00 33.12           O
ATOM   7246  N   LEU C 727      78.654  -7.058 -21.613  1.00 30.25           N
ATOM   7247  CA  LEU C 727      79.056  -7.199 -23.008  1.00 30.30           C
ATOM   7248  CB  LEU C 727      78.927  -8.660 -23.448  1.00 30.53           C
ATOM   7249  CG  LEU C 727      80.166  -9.542 -23.325  1.00 35.48           C
ATOM   7250  CD1 LEU C 727      80.627 -10.002 -24.702  1.00 35.75           C
ATOM   7251  CD2 LEU C 727      81.273  -8.799 -22.598  1.00 37.74           C
ATOM   7252  C   LEU C 727      78.153  -6.347 -23.882  1.00 32.98           C
ATOM   7253  O   LEU C 727      78.612  -5.426 -24.555  1.00 32.89           O
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ATOM   7254  N   GLY C 728      76.865  -6.670 -23.868  1.00 28.68           N
ATOM   7255  CA  GLY C 728      75.870  -5.954 -24.644  1.00 28.13           C
ATOM   7256  C   GLY C 728      75.972  -4.452 -24.481  1.00 30.68           C
ATOM   7257  O   GLY C 728      75.840  -3.703 -25.451  1.00 30.92           O
ATOM   7258  N   PHE C 729      76.212  -4.004 -23.254  1.00 25.41           N
ATOM   7259  CA  PHE C 729      76.325  -2.577 -22.987  1.00 24.31           C
ATOM   7260  CB  PHE C 729      76.404  -2.295 -21.487  1.00 25.40           C
ATOM   7261  CG  PHE C 729      76.369  -0.832 -21.155  1.00 25.98           C
ATOM   7262  CD1 PHE C 729      75.202  -0.104 -21.323  1.00 27.83           C
ATOM   7263  CE1 PHE C 729      75.168   1.252 -21.052  1.00 28.37           C
ATOM   7264  CZ  PHE C 729      76.312   1.900 -20.642  1.00 27.64           C
ATOM   7265  CE2 PHE C 729      77.491   1.192 -20.493  1.00 29.88           C
ATOM   7266  CD2 PHE C 729      77.518  -0.165 -20.762  1.00 27.66           C
ATOM   7267  C   PHE C 729      77.519  -1.934 -23.688  1.00 28.63           C
ATOM   7268  O   PHE C 729      77.404  -0.843 -24.248  1.00 28.53           O
ATOM   7269  N   TYR C 730      78.670  -2.597 -23.624  1.00 24.65           N
ATOM   7270  CA  TYR C 730      79.893  -2.075 -24.224  1.00 24.64           C
ATOM   7271  CB  TYR C 730      81.089  -2.961 -23.861  1.00 25.60           C
ATOM   7272  CG  TYR C 730      81.665  -2.675 -22.487  1.00 27.38           C
ATOM   7273  CD1 TYR C 730      80.910  -2.880 -21.337  1.00 29.00           C
ATOM   7274  CE1 TYR C 730      81.428  -2.609 -20.085  1.00 29.34           C
ATOM   7275  CZ  TYR C 730      82.712  -2.118 -19.965  1.00 34.45           C
ATOM   7276  OH  TYR C 730      83.230  -1.855 -18.715  1.00 34.27           O
ATOM   7277  CE2 TYR C 730      83.479  -1.896 -21.088  1.00 28.53           C
ATOM   7278  CD2 TYR C 730      82.953  -2.173 -22.342  1.00 27.90           C
ATOM   7279  C   TYR C 730      79.752  -1.970 -25.733  1.00 30.68           C
ATOM   7280  O   TYR C 730      79.988  -0.916 -26.321  1.00 30.99           O
ATOM   7281  N   ASN C 731      79.353  -3.068 -26.360  1.00 28.29           N
ATOM   7282  CA  ASN C 731      79.182  -3.082 -27.804  1.00 28.05           C
ATOM   7283  CB  ASN C 731      78.838  -4.491 -28.280  1.00 28.63           C
ATOM   7284  CG  ASN C 731      79.999  -5.449 -28.131  1.00 50.20           C
ATOM   7285  OD1 ASN C 731      81.159  -5.034 -28.076  1.00 45.74           O
ATOM   7286  ND2 ASN C 731      79.695  -6.735 -28.038  1.00 41.18           N
ATOM   7287  C   ASN C 731      78.114  -2.094 -28.259  1.00 31.22           C
ATOM   7288  O   ASN C 731      78.300  -1.369 -29.237  1.00 30.99           O
ATOM   7289  N   ALA C 732      77.004  -2.054 -27.530  1.00 27.15           N
ATOM   7290  CA  ALA C 732      75.888  -1.188 -27.889  1.00 26.61           C
ATOM   7291  CB  ALA C 732      74.581  -1.811 -27.453  1.00 27.25           C
ATOM   7292  C   ALA C 732      75.963   0.268 -27.432  1.00 30.08           C
ATOM   7293  O   ALA C 732      75.319   1.132 -28.027  1.00 29.69           O
ATOM   7294  N   VAL C 733      76.724   0.544 -26.375  1.00 26.02           N
ATOM   7295  CA  VAL C 733      76.789   1.903 -25.840  1.00 25.48           C
ATOM   7296  CB  VAL C 733      75.995   2.018 -24.522  1.00 29.10           C
ATOM   7297  CG1 VAL C 733      75.886   3.468 -24.088  1.00 28.79           C
ATOM   7298  CG2 VAL C 733      74.617   1.393 -24.666  1.00 28.96           C
ATOM   7299  C   VAL C 733      78.190   2.500 -25.684  1.00 29.86           C
ATOM   7300  O   VAL C 733      78.558   3.437 -26.389  1.00 29.67           O
ATOM   7301  N   ALA C 734      78.941   1.989 -24.715  1.00 26.54           N
ATOM   7302  CA  ALA C 734      80.274   2.498 -24.406  1.00 26.19           C
ATOM   7303  CB  ALA C 734      80.909   1.679 -23.293  1.00 26.84           C
ATOM   7304  C   ALA C 734      81.224   2.621 -25.597  1.00 29.97           C
ATOM   7305  O   ALA C 734      81.780   3.691 -25.845  1.00 29.30           O
ATOM   7306  N   ILE C 735      81.419   1.521 -26.320  1.00 26.20           N
ATOM   7307  CA  ILE C 735      82.334   1.497 -27.462  1.00 25.72           C
ATOM   7308  CB  ILE C 735      82.569   0.055 -27.975  1.00 28.50           C
ATOM   7309  CG1 ILE C 735      83.258  -0.789 -26.899  1.00 28.70           C
ATOM   7310  CD1 ILE C 735      84.741  -0.546 -26.798  1.00 29.26           C
ATOM   7311  CG2 ILE C 735      83.407   0.067 -29.242  1.00 28.45           C
ATOM   7312  C   ILE C 735      81.814   2.478 -28.597  1.00 29.73           C
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ATOM   7313  O   ILE C 735      82.917   3.093 -29.165  1.00 29.28           O
ATOM   7314  N   PRO C 736      80.728   2.625 -28.954  1.00 26.61           N
ATOM   7315  CA  PRO C 736      80.388   3.556 -30.040  1.00 26.51           C
ATOM   7316  CB  PRO C 736      78.931   3.209 -30.347  1.00 28.07           C
ATOM   7317  CG  PRO C 736      78.817   1.762 -30.012  1.00 32.24           C
ATOM   7318  CD  PRO C 736      79.792   1.488 -28.887  1.00 27.90           C
ATOM   7319  C   PRO C 736      80.492   5.013 -29.594  1.00 31.28           C
ATOM   7320  O   PRO C 736      80.722   5.914 -30.403  1.00 30.59           O
ATOM   7321  N   CYS C 737      80.298   5.235 -28.301  1.00 28.60           N
ATOM   7322  CA  CYS C 737      80.367   6.571 -27.732  1.00 28.54           C
ATOM   7323  CB  CYS C 737      79.776   6.568 -26.323  1.00 29.09           C
ATOM   7324  SG  CYS C 737      80.335   7.923 -25.273  1.00 33.09           S
ATOM   7325  C   CYS C 737      81.802   7.096 -27.702  1.00 32.43           C
ATOM   7326  O   CYS C 737      82.076   8.192 -28.181  1.00 32.66           O
ATOM   7327  N   TYR C 738      82.715   6.319 -27.130  1.00 27.89           N
ATOM   7328  CA  TYR C 738      84.114   6.732 -27.057  1.00 27.36           C
ATOM   7329  CB  TYR C 738      84.882   5.882 -26.045  1.00 28.63           C
ATOM   7330  CG  TYR C 738      84.360   6.022 -24.635  1.00 30.04           C
ATOM   7331  CD1 TYR C 738      84.604   7.171 -23.896  1.00 31.63           C
ATOM   7332  CE1 TYR C 738      84.112   7.311 -22.614  1.00 32.20           C
ATOM   7333  CZ  TYR C 738      83.348   6.302 -22.063  1.00 36.89           C
ATOM   7334  OH  TYR C 738      82.855   6.428 -20.786  1.00 34.96           O
ATOM   7335  CE2 TYR C 738      83.082   5.158 -22.784  1.00 31.77           C
ATOM   7336  CD2 TYR C 738      83.575   5.030 -24.066  1.00 30.88           C
ATOM   7337  C   TYR C 738      84.793   6.693 -28.419  1.00 29.82           C
ATOM   7338  O   TYR C 738      85.819   7.337 -28.629  1.00 29.46           O
ATOM   7339  N   THR C 739      84.216   5.937 -29.345  1.00 25.99           N
ATOM   7340  CA  THR C 739      84.757   5.846 -30.696  1.00 25.60           C
ATOM   7341  CB  THR C 739      84.150   4.659 -31.464  1.00 30.11           C
ATOM   7342  OG1 THR C 739      84.862   3.464 -31.133  1.00 29.29           O
ATOM   7343  CG2 THR C 739      84.239   4.891 -32.959  1.00 27.67           C
ATOM   7344  C   THR C 739      84.446   7.161 -31.394  1.00 29.00           C
ATOM   7345  O   THR C 739      85.346   7.869 -31.852  1.00 28.25           O
ATOM   7346  N   THR C 740      83.157   7.481 -31.452  1.00 25.52           N
ATOM   7347  CA  THR C 740      82.685   8.722 -32.043  1.00 25.17           C
ATOM   7348  CB  THR C 740      81.158   8.868 -31.862  1.00 29.95           C
ATOM   7349  OG1 THR C 740      80.479   7.950 -32.726  1.00 31.16           O
ATOM   7350  CG2 THR C 740      80.707  10.283 -32.185  1.00 26.91           C
ATOM   7351  C   THR C 740      83.409   9.893 -31.395  1.00 29.76           C
ATOM   7352  O   THR C 740      83.788  10.851 -32.063  1.00 30.47           O
ATOM   7353  N   LEU C 741      83.600   9.798 -30.084  1.00 25.75           N
ATOM   7354  CA  LEU C 741      84.242  10.849 -29.309  1.00 25.37           C
ATOM   7355  CB  LEU C 741      84.039  10.593 -27.815  1.00 25.12           C
ATOM   7356  CG  LEU C 741      84.746  11.538 -26.844  1.00 29.44           C
ATOM   7357  CD1 LEU C 741      83.779  12.592 -26.329  1.00 29.34           C
ATOM   7358  CD2 LEU C 741      85.344  10.753 -25.696  1.00 31.72           C
ATOM   7359  C   LEU C 741      85.725  11.029 -29.628  1.00 31.17           C
ATOM   7360  O   LEU C 741      86.257  12.135 -29.527  1.00 31.89           O
ATOM   7361  N   THR C 742      86.393   9.944 -30.005  1.00 27.78           N
ATOM   7362  CA  THR C 742      87.809  10.005 -30.339  1.00 27.71           C
ATOM   7363  CB  THR C 742      88.515   8.659 -30.108  1.00 34.57           C
ATOM   7364  OG1 THR C 742      88.487   8.339 -28.710  1.00 36.31           O
ATOM   7365  CG2 THR C 742      89.962   8.739 -30.570  1.00 30.61           C
ATOM   7366  C   THR C 742      87.996  10.504 -31.762  1.00 33.07           C
ATOM   7367  O   THR C 742      89.065  10.991 -32.123  1.00 33.63           O
ATOM   7368  N   GLN C 743      86.945  10.386 -32.566  1.00 29.85           N
ATOM   7369  CA  GLN C 743      86.977  10.855 -33.945  1.00 29.59           C
ATOM   7370  CB  GLN C 743      85.797  10.287 -34.730  1.00 30.92           C
ATOM   7371  CG  GLN C 743      86.060   8.913 -35.313  1.00 42.37           C
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ATOM   7372  CD  GLN C 743      84.817   8.291 -35.905  1.00 53.41           C
ATOM   7373  OE1 GLN C 743      84.866   7.202 -36.474  1.00 47.06           O
ATOM   7374  NE2 GLN C 743      83.692   8.983 -35.775  1.00 44.05           N
ATOM   7375  C   GLN C 743      86.935  12.378 -33.966  1.00 33.71           C
ATOM   7376  O   GLN C 743      87.653  13.017 -34.731  1.00 34.30           O
ATOM   7377  N   ILE C 744      86.102  12.954 -33.106  1.00 29.30           N
ATOM   7378  CA  ILE C 744      85.986  14.402 -33.008  1.00 28.85           C
ATOM   7379  CB  ILE C 744      84.624  14.812 -32.413  1.00 31.82           C
ATOM   7380  CG1 ILE C 744      83.499  14.010 -33.077  1.00 32.36           C
ATOM   7381  CD1 ILE C 744      82.168  14.091 -32.352  1.00 39.35           C
ATOM   7382  CG2 ILE C 744      84.396  16.307 -32.580  1.00 31.77           C
ATOM   7383  C   ILE C 744      87.157  14.976 -32.207  1.00 33.37           C
ATOM   7384  O   ILE C 744      87.858  15.873 -32.673  1.00 33.47           O
ATOM   7385  N   LEU C 745      87.372  14.437 -31.009  1.00 30.00           N
ATOM   7386  CA  LEU C 745      88.469  14.867 -30.144  1.00 29.52           C
ATOM   7387  CB  LEU C 745      87.934  15.251 -28.763  1.00 29.64           C
ATOM   7388  CG  LEU C 745      86.764  16.238 -28.761  1.00 34.20           C
ATOM   7389  CD1 LEU C 745      85.907  16.047 -27.525  1.00 34.48           C
ATOM   7390  CD2 LEU C 745      87.271  17.671 -28.857  1.00 35.57           C
ATOM   7391  C   LEU C 745      89.493  13.744 -30.007  1.00 33.40           C
ATOM   7392  O   LEU C 745      89.405  12.910 -29.106  1.00 32.91           O
ATOM   7393  N   PRO C 746      90.480  13.708 -30.913  1.00 30.06           N
ATOM   7394  CA  PRO C 746      91.513  12.669 -30.941  1.00 29.69           C
ATOM   7395  CB  PRO C 746      92.471  13.176 -32.013  1.00 31.48           C
ATOM   7396  CG  PRO C 746      91.584  13.906 -32.970  1.00 35.75           C
ATOM   7397  CD  PRO C 746      90.464  14.502 -32.155  1.00 31.44           C
ATOM   7398  C   PRO C 746      92.249  12.444 -29.622  1.00 33.39           C
ATOM   7399  O   PRO C 746      92.662  11.326 -29.318  1.00 32.85           O
ATOM   7400  N   PRO C 747      92.433  13.508 -28.824  1.00 29.85           N
ATOM   7401  CA  PRO C 747      93.171  13.324 -27.571  1.00 29.29           C
ATOM   7402  CB  PRO C 747      93.368  14.757 -27.069  1.00 31.28           C
ATOM   7403  CG  PRO C 747      93.212  15.646 -28.294  1.00 35.70           C
ATOM   7404  CD  PRO C 747      92.728  14.808 -29.449  1.00 31.33           C
ATOM   7405  C   PRO C 747      92.452  12.477 -26.516  1.00 32.40           C
ATOM   7406  O   PRO C 747      93.015  12.193 -25.457  1.00 31.69           O
ATOM   7407  N   THR C 748      91.214  12.078 -26.800  1.00 28.75           N
ATOM   7408  CA  THR C 748      90.445  11.255 -25.866  1.00 28.38           C
ATOM   7409  CB  THR C 748      88.946  11.599 -25.901  1.00 32.96           C
ATOM   7410  OG1 THR C 748      88.382  11.168 -27.144  1.00 30.82           O
ATOM   7411  CG2 THR C 748      88.742  13.097 -25.744  1.00 31.28           C
ATOM   7412  C   THR C 748      90.683   9.777 -26.146  1.00 32.82           C
ATOM   7413  O   THR C 748      90.002   8.909 -25.602  1.00 32.08           O
ATOM   7414  N   GLU C 749      91.667   9.508 -26.997  1.00 29.98           N
ATOM   7415  CA  GLU C 749      92.032   8.149 -27.382  1.00 29.84           C
ATOM   7416  CB  GLU C 749      93.364   8.169 -28.140  1.00 31.35           C
ATOM   7417  CG  GLU C 749      93.934   6.796 -28.422  1.00 43.26           C
ATOM   7418  CD  GLU C 749      92.880   5.842 -28.940  1.00 70.66           C
ATOM   7419  OE1 GLU C 749      92.360   6.086 -30.049  1.00 68.65           O
ATOM   7420  OE2 GLU C 749      92.540   4.877 -28.220  1.00 67.63           O
ATOM   7421  C   GLU C 749      92.113   7.192 -26.192  1.00 32.98           C
ATOM   7422  O   GLU C 749      91.495   6.131 -26.189  1.00 32.21           O
ATOM   7423  N   PRO C 750      92.884   7.563 -25.164  1.00 30.08           N
ATOM   7424  CA  PRO C 750      93.087   6.765 -23.950  1.00 29.76           C
ATOM   7425  CB  PRO C 750      93.746   7.758 -22.993  1.00 31.61           C
ATOM   7426  CG  PRO C 750      94.480   8.699 -23.885  1.00 35.87           C
ATOM   7427  CD  PRO C 750      93.651   8.821 -25.139  1.00 31.58           C
ATOM   7428  C   PRO C 750      91.782   6.242 -23.359  1.00 33.99           C
ATOM   7429  O   PRO C 750      91.759   5.170 -22.758  1.00 33.89           O
ATOM   7430  N   LEU C 751      90.702   7.003 -23.534  1.00 30.41           N
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ATOM   7431  CA  LEU C 751      89.381   6.622 -23.030  1.00 29.83           C
ATOM   7432  CB  LEU C 751      88.386   7.771 -23.215  1.00 29.77           C
ATOM   7433  CG  LEU C 751      88.430   8.921 -22.209  1.00 34.02           C
ATOM   7434  CD1 LEU C 751      87.494  10.046 -22.630  1.00 33.74           C
ATOM   7435  CD2 LEU C 751      88.084   8.416 -20.816  1.00 35.53           C
ATOM   7436  C   LEU C 751      88.845   5.386 -23.745  1.00 33.93           C
ATOM   7437  O   LEU C 751      88.347   4.453 -23.109  1.00 33.89           O
ATOM   7438  N   LEU C 752      88.919   5.399 -25.073  1.00 29.55           N
ATOM   7439  CA  LEU C 752      88.426   4.287 -25.874  1.00 28.90           C
ATOM   7440  CB  LEU C 752      88.313   4.683 -27.345  1.00 28.78           C
ATOM   7441  CG  LEU C 752      87.956   3.547 -28.303  1.00 32.84           C
ATOM   7442  CD1 LEU C 752      86.542   3.059 -28.044  1.00 32.84           C
ATOM   7443  CD2 LEU C 752      88.130   3.986 -29.751  1.00 34.01           C
ATOM   7444  C   LEU C 752      89.309   3.056 -25.724  1.00 33.24           C
ATOM   7445  O   LEU C 752      88.849   1.926 -25.902  1.00 32.97           O
ATOM   7446  N   LYS C 753      90.577   3.278 -25.390  1.00 30.07           N
ATOM   7447  CA  LYS C 753      91.514   2.181 -25.199  1.00 30.02           C
ATOM   7448  CB  LYS C 753      92.958   2.670 -25.293  1.00 33.28           C
ATOM   7449  CG  LYS C 753      93.979   1.567 -25.076  1.00 51.91           C
ATOM   7450  CD  LYS C 753      95.397   2.067 -25.265  1.00 64.13           C
ATOM   7451  CE  LYS C 753      96.397   0.934 -25.106  1.00 77.13           C
ATOM   7452  NZ  LYS C 753      97.800   1.403 -25.270  1.00 86.97           N
ATOM   7453  C   LYS C 753      91.278   1.514 -23.854  1.00 33.93           C
ATOM   7454  O   LYS C 753      91.290   0.290 -23.752  1.00 33.89           O
ATOM   7455  N   ALA C 754      91.060   2.321 -22.820  1.00 30.23           N
ATOM   7456  CA  ALA C 754      90.794   1.785 -21.488  1.00 29.97           C
ATOM   7457  CB  ALA C 754      90.758   2.906 -20.463  1.00 30.84           C
ATOM   7458  C   ALA C 754      89.462   1.038 -21.514  1.00 33.47           C
ATOM   7459  O   ALA C 754      89.279   0.039 -20.823  1.00 33.08           O
ATOM   7460  N   CYS C 755      88.555   1.515 -22.356  1.00 30.26           N
ATOM   7461  CA  CYS C 755      87.238   0.915 -22.519  1.00 30.33           C
ATOM   7462  CB  CYS C 755      86.363   1.827 -23.379  1.00 30.99           C
ATOM   7463  SG  CYS C 755      84.719   1.183 -23.741  1.00 35.08           S
ATOM   7464  C   CYS C 755      87.306  -0.479 -23.141  1.00 34.26           C
ATOM   7465  O   CYS C 755      86.604  -1.393 -22.710  1.00 34.38           O
ATOM   7466  N   ARG C 756      88.151  -0.637 -24.156  1.00 30.05           N
ATOM   7467  CA AARG C 756      88.319  -1.916 -24.845  0.50 29.48           C
ATOM   7468  CA BARG C 756      88.295  -1.922 -24.837  0.50 29.39           C
ATOM   7469  CB AARG C 756      89.190  -1.726 -26.084  0.50 28.28           C
ATOM   7470  CB BARG C 756      89.106  -1.760 -26.118  0.50 27.79           C
ATOM   7471  CG AARG C 756      88.509  -0.967 -27.203  0.50 34.02           C
ATOM   7472  CG BARG C 756      88.336  -1.147 -27.274  0.50 32.21           C
ATOM   7473  CD AARG C 756      89.349  -0.990 -28.471  0.50 36.16           C
ATOM   7474  CD BARG C 756      89.297  -0.552 -28.286  0.50 33.51           C
ATOM   7475  NE AARG C 756      88.935   0.040 -29.419  0.50 39.95           N
ATOM   7476  NE BARG C 756      88.631  -0.133 -29.512  0.50 36.23           N
ATOM   7477  CZ AARG C 756      87.949  -0.106 -30.299  0.50 51.44           C
ATOM   7478  CZ BARG C 756      89.188   0.661 -30.419  0.50 45.35           C
ATOM   7479  NH1AARG C 756      87.268  -1.245 -30.351  0.50 34.47           N
ATOM   7480  NH1BARG C 756      90.416   1.119 -30.226  0.50 30.31           N
ATOM   7481  NH2AARG C 756      87.646   0.881 -31.134  0.50 40.51           N
ATOM   7482  NH2BARG C 756      88.520   1.000 -31.514  0.50 29.14           N
ATOM   7483  C   ARG C 756      88.942  -2.974 -23.942  1.00 33.60           C
ATOM   7484  O   ARG C 756      88.508  -4.128 -23.915  1.00 33.72           O
ATOM   7485  N   ASP C 757      89.989  -2.581 -23.227  1.00 29.67           N
ATOM   7486  CA  ASP C 757      90.667  -3.495 -22.321  1.00 29.32           C
ATOM   7487  CB  ASP C 757      91.720  -2.747 -21.502  1.00 31.37           C
ATOM   7488  CG  ASP C 757      92.748  -2.052 -22.365  1.00 43.92           C
ATOM   7489  OD1 ASP C 757      92.885  -2.445 -23.539  1.00 45.29           O
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ATOM   7490  OD2 ASP C 757      93.408  -1.111 -21.869  1.00 50.96           O
ATOM   7491  C   ASP C 757      89.637  -4.106 -21.382  1.00 32.00           C
ATOM   7492  O   ASP C 757      89.662  -5.301 -21.109  1.00 32.25           O
ATOM   7493  N   ASN C 758      88.725  -3.264 -20.907  1.00 26.89           N
ATOM   7494  CA  ASN C 758      87.669  -3.674 -19.991  1.00 26.20           C
ATOM   7495  CB  ASN C 758      86.960  -2.444 -19.407  1.00 22.17           C
ATOM   7496  CG  ASN C 758      87.678  -1.878 -18.198  1.00 34.72           C
ATOM   7497  OD1 ASN C 758      88.477  -2.564 -17.563  1.00 32.25           O
ATOM   7498  ND2 ASN C 758      87.388  -0.625 -17.865  1.00 23.47           N
ATOM   7499  C   ASN C 758      86.665  -4.609 -20.662  1.00 30.97           C
ATOM   7500  O   ASN C 758      86.126  -5.515 -20.032  1.00 30.47           O
ATOM   7501  N   LEU C 759      86.423  -4.395 -21.949  1.00 29.09           N
ATOM   7502  CA  LEU C 759      85.511  -5.252 -22.696  1.00 29.52           C
ATOM   7503  CB  LEU C 759      85.275  -4.688 -24.099  1.00 29.37           C
ATOM   7504  CG  LEU C 759      84.581  -5.653 -25.063  1.00 33.70           C
ATOM   7505  CD1 LEU C 759      83.269  -6.154 -24.471  1.00 33.53           C
ATOM   7506  CD2 LEU C 759      84.346  -4.984 -26.403  1.00 35.52           C
ATOM   7507  C   LEU C 759      86.103  -6.659 -22.791  1.00 35.90           C
ATOM   7508  O   LEU C 759      85.395  -7.658 -22.656  1.00 35.74           O
ATOM   7509  N   SER C 760      87.412  -6.725 -23.012  1.00 34.28           N
ATOM   7510  CA  SER C 760      88.117  -7.996 -23.111  1.00 34.94           C
ATOM   7511  CB  SER C 760      89.545  -7.776 -23.619  1.00 39.64           C
ATOM   7512  OG  SER C 760      90.496  -7.933 -22.578  1.00 51.22           O
ATOM   7513  C   SER C 760      88.141  -8.722 -21.767  1.00 39.96           C
ATOM   7514  O   SER C 760      88.175  -9.951 -21.715  1.00 40.05           O
ATOM   7515  N   GLN C 761      88.130  -7.954 -20.683  1.00 36.94           N
ATOM   7516  CA  GLN C 761      88.142  -8.520 -19.341  1.00 36.72           C
ATOM   7517  CB  GLN C 761      88.402  -7.423 -18.310  1.00 37.83           C
ATOM   7518  CG  GLN C 761      89.825  -6.896 -18.313  1.00 45.68           C
ATOM   7519  CD  GLN C 761      90.827  -7.912 -17.794  1.00 63.09           C
ATOM   7520  OE1 GLN C 761      90.454  -8.929 -17.207  1.00 57.12           O
ATOM   7521  NE2 GLN C 761      92.109  -7.637 -18.004  1.00 57.36           N
ATOM   7522  C   GLN C 761      86.816  -9.208 -19.042  1.00 42.08           C
ATOM   7523  O   GLN C 761      86.777 -10.235 -18.367  1.00 42.19           O
ATOM   7524  N   TRP C 762      85.727  -8.630 -19.542  1.00 38.89           N
ATOM   7525  CA  TRP C 762      84.397  -9.186 -19.329  1.00 38.55           C
ATOM   7526  CB  TRP C 762      83.321  -8.171 -19.712  1.00 37.63           C
ATOM   7527  CG  TRP C 762      83.084  -7.145 -18.657  1.00 38.72           C
ATOM   7528  CD1 TRP C 762      83.367  -5.810 -18.729  1.00 41.93           C
ATOM   7529  NE1 TRP C 762      83.025  -5.191 -17.553  1.00 41.30           N
ATOM   7530  CE2 TRP C 762      82.521  -6.126 -16.688  1.00 42.83           C
ATOM   7531  CD2 TRP C 762      82.548  -7.372 -17.349  1.00 38.85           C
ATOM   7532  CE3 TRP C 762      82.079  -8.506 -16.675  1.00 40.30           C
ATOM   7533  CZ3 TRP C 762      81.605  -8.359 -15.384  1.00 41.46           C
ATOM   7534  CH2 TRP C 762      81.595  -7.108 -14.753  1.00 42.42           C
ATOM   7535  CZ2 TRP C 762      82.050  -5.984 -15.386  1.00 42.11           C
ATOM   7536  C   TRP C 762      84.211 -10.471 -20.123  1.00 41.26           C
ATOM   7537  O   TRP C 762      83.525 -11.391 -19.675  1.00 41.17           O
ATOM   7538  N   GLU C 763      84.811 -10.522 -21.308  1.00 36.68           N
ATOM   7539  CA  GLU C 763      84.738 -11.710 -22.153  1.00 36.08           C
ATOM   7540  CB  GLU C 763      85.395 -11.442 -23.509  1.00 37.29           C
ATOM   7541  CG  GLU C 763      84.479 -10.769 -24.520  1.00 47.54           C
ATOM   7542  CD  GLU C 763      85.242 -10.024 -25.604  1.00 68.54           C
ATOM   7543  OE1 GLU C 763      86.456 -10.276 -25.758  1.00 65.72           O
ATOM   7544  OE2 GLU C 763      84.624  -9.195 -26.308  1.00 58.68           O
ATOM   7545  C   GLU C 763      85.455 -12.846 -21.435  1.00 39.77           C
ATOM   7546  O   GLU C 763      85.087 -14.011 -21.559  1.00 39.31           O
ATOM   7547  N   LYS C 764      86.476 -12.480 -20.668  1.00 36.67           N
ATOM   7548  CA  LYS C 764      87.252 -13.432 -19.890  1.00 36.82           C
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ATOM   7549  CB  LYS C 764      88.511 -12.748 -19.358  1.00 38.83           C
ATOM   7550  CG  LYS C 764      89.618 -13.695 -18.950  1.00 53.74           C
ATOM   7551  CD  LYS C 764      90.849 -12.931 -18.489  1.00 64.36           C
ATOM   7552  CE  LYS C 764      91.645 -13.730 -17.468  1.00 75.51           C
ATOM   7553  NZ  LYS C 764      92.937 -13.070 -17.128  1.00 85.23           N
ATOM   7554  C   LYS C 764      86.395 -13.925 -18.730  1.00 42.60           C
ATOM   7555  O   LYS C 764      86.399 -15.108 -18.393  1.00 42.13           O
ATOM   7556  N   VAL C 765      85.649 -13.005 -18.129  1.00 40.81           N
ATOM   7557  CA  VAL C 765      84.764 -13.341 -17.022  1.00 41.34           C
ATOM   7558  CB  VAL C 765      84.112 -12.080 -16.428  1.00 45.41           C
ATOM   7559  CG1 VAL C 765      82.774 -12.427 -15.787  1.00 45.20           C
ATOM   7560  CG2 VAL C 765      85.041 -11.423 -15.423  1.00 45.23           C
ATOM   7561  C   VAL C 765      83.699 -14.321 -17.502  1.00 46.75           C
ATOM   7562  O   VAL C 765      83.256 -15.192 -16.754  1.00 46.24           O
ATOM   7563  N   ILE C 766      83.287 -14.164 -18.756  1.00 44.32           N
ATOM   7564  CA  ILE C 766      82.274 -15.028 -19.349  1.00 44.48           C
ATOM   7565  CB  ILE C 766      81.639 -14.379 -20.596  1.00 47.62           C
ATOM   7566  CG1 ILE C 766      80.605 -13.332 -20.182  1.00 47.99           C
ATOM   7567  CD1 ILE C 766      80.300 -12.317 -21.257  1.00 55.45           C
ATOM   7568  CG2 ILE C 766      81.003 -15.436 -21.482  1.00 48.39           C
ATOM   7569  C   ILE C 766      82.853 -16.401 -19.673  1.00 48.68           C
ATOM   7570  O   ILE C 766      82.157 -17.412 -19.584  1.00 48.33           O
ATOM   7571  N   ARG C 767      84.131 -16.428 -20.040  1.00 45.66           N
ATOM   7572  CA  ARG C 767      84.811 -17.675 -20.385  1.00 45.58           C
ATOM   7573  CB  ARG C 767      85.960 -17.410 -21.358  1.00 44.64           C
ATOM   7574  CG  ARG C 767      85.536 -16.722 -22.642  1.00 53.41           C
ATOM   7575  CD  ARG C 767      86.693 -16.634 -23.621  1.00 64.00           C
ATOM   7576  NE  ARG C 767      87.974 -16.475 -22.938  1.00 74.87           N
ATOM   7577  CZ  ARG C 767      88.795 -15.444 -23.120  1.00 87.14           C
ATOM   7578  NH1 ARG C 767      88.471 -14.476 -23.966  1.00 71.76           N
ATOM   7579  NH2 ARG C 767      89.942 -15.383 -22.456  1.00 72.49           N
ATOM   7580  C   ARG C 767      85.325 -18.428 -19.160  1.00 50.86           C
ATOM   7581  O   ARG C 767      86.002 -19.449 -19.290  1.00 50.85           O
ATOM   7582  N   GLY C 768      85.003 -17.924 -17.973  1.00 47.85           N
ATOM   7583  CA  GLY C 768      85.410 -18.550 -16.728  1.00 47.74           C
ATOM   7584  C   GLY C 768      86.865 -18.329 -16.347  1.00 51.71           C
ATOM   7585  O   GLY C 768      87.573 -19.280 -16.014  1.00 51.48           O
ATOM   7586  N   GLU C 769      87.305 -17.073 -16.379  1.00 47.80           N
ATOM   7587  CA  GLU C 769      88.676 -16.723 -16.010  1.00 67.16           C
ATOM   7588  CB  GLU C 769      89.626 -16.877 -17.201  1.00 68.41           C
ATOM   7589  CG  GLU C 769      88.960 -17.316 -18.495  1.00 77.71           C
ATOM   7590  CD  GLU C 769      89.934 -17.366 -19.658  1.00 94.06           C
ATOM   7591  OE1 GLU C 769      90.792 -16.464 -19.757  1.00 85.97           O
ATOM   7592  OE2 GLU C 769      89.843 -18.309 -20.473  1.00 85.59           O
ATOM   7593  C   GLU C 769      88.766 -15.304 -15.455  1.00 92.35           C
ATOM   7594  O   GLU C 769      87.937 -14.885 -14.647  1.00 54.49           O
TER    7595      GLU C 769
ATOM   7596  N   LEU D 459      28.225  19.423 -43.220  1.00 60.54           N
ATOM   7597  CA  LEU D 459      27.785  18.070 -42.902  1.00 60.27           C
ATOM   7598  CB  LEU D 459      28.957  17.217 -42.412  1.00 60.30           C
ATOM   7599  CG  LEU D 459      28.708  15.707 -42.364  1.00 64.80           C
ATOM   7600  CD1 LEU D 459      28.242  15.194 -43.723  1.00 64.87           C
ATOM   7601  CD2 LEU D 459      29.954  14.965 -41.900  1.00 66.81           C
ATOM   7602  C   LEU D 459      26.685  18.086 -41.853  1.00 64.30           C
ATOM   7603  O   LEU D 459      26.496  19.081 -41.153  1.00 63.79           O
ATOM   7604  N   MET D 460      25.974  16.969 -41.741  1.00 61.22           N
ATOM   7605  CA  MET D 460      24.876  16.840 -40.789  1.00 61.05           C
ATOM   7606  CB  MET D 460      23.798  15.908 -41.342  1.00 63.57           C
ATOM   7607  CG  MET D 460      22.386  16.439 -41.187  1.00 67.54           C
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ATOM   7608  SD  MET D 460      21.710  17.065 -42.737  1.00 71.99           S
ATOM   7609  CE  MET D 460      21.591  15.549 -43.704  1.00 68.71           C
ATOM   7610  C   MET D 460      25.329  16.350 -39.417  1.00 63.77           C
ATOM   7611  O   MET D 460      25.210  15.167 -39.098  1.00 63.44           O
ATOM   7612  N   GLN D 461      25.829  17.271 -38.602  1.00 59.27           N
ATOM   7613  CA  GLN D 461      26.267  16.933 -37.256  1.00 58.51           C
ATOM   7614  CB  GLN D 461      27.465  17.796 -36.850  1.00 59.97           C
ATOM   7615  CG  GLN D 461      28.784  17.351 -37.465  1.00 79.45           C
ATOM   7616  CD  GLN D 461      29.757  16.812 -36.434  1.00102.30           C
ATOM   7617  OE1 GLN D 461      29.650  17.112 -35.244  1.00 99.14           O
ATOM   7618  NE2 GLN D 461      30.716  16.011 -36.888  1.00 94.33           N
ATOM   7619  C   GLN D 461      25.112  17.138 -36.279  1.00 60.43           C
ATOM   7620  O   GLN D 461      24.203  17.929 -36.536  1.00 59.73           O
ATOM   7621  N   PHE D 462      25.143  16.415 -35.165  1.00 55.53           N
ATOM   7622  CA  PHE D 462      24.100  16.534 -34.155  1.00 54.38           C
ATOM   7623  CB  PHE D 462      23.643  15.153 -33.689  1.00 56.24           C
ATOM   7624  CG  PHE D 462      22.802  14.426 -34.695  1.00 57.74           C
ATOM   7625  CD1 PHE D 462      23.320  14.088 -35.934  1.00 60.81           C
ATOM   7626  CE1 PHE D 462      22.545  13.426 -36.869  1.00 61.88           C
ATOM   7627  CZ  PHE D 462      21.238  13.092 -36.568  1.00 61.13           C
ATOM   7628  CE2 PHE D 462      20.711  13.424 -35.335  1.00 63.01           C
ATOM   7629  CD2 PHE D 462      21.490  14.091 -34.407  1.00 60.02           C
ATOM   7630  C   PHE D 462      24.605  17.340 -32.972  1.00 56.06           C
ATOM   7631  O   PHE D 462      25.812  17.456 -32.760  1.00 55.71           O
ATOM   7632  N   THR D 463      23.676  17.904 -32.208  1.00 51.13           N
ATOM   7633  CA  THR D 463      24.031  18.701 -31.040  1.00 50.19           C
ATOM   7634  CB  THR D 463      24.422  20.141 -31.425  1.00 58.70           C
ATOM   7635  OG1 THR D 463      23.748  20.519 -32.632  1.00 58.80           O
ATOM   7636  CG2 THR D 463      25.928  20.250 -31.622  1.00 57.45           C
ATOM   7637  C   THR D 463      22.903  18.700 -30.022  1.00 51.69           C
ATOM   7638  O   THR D 463      21.748  18.964 -30.354  1.00 51.22           O
ATOM   7639  N   LEU D 464      23.247  18.402 -28.776  1.00 46.66           N
ATOM   7640  CA  LEU D 464      22.265  18.377 -27.705  1.00 45.73           C
ATOM   7641  CB  LEU D 464      22.611  17.285 -26.688  1.00 45.71           C
ATOM   7642  CG  LEU D 464      23.446  16.117 -27.220  1.00 50.15           C
ATOM   7643  CD1 LEU D 464      22.571  15.104 -27.948  1.00 50.24           C
ATOM   7644  CD2 LEU D 464      24.233  15.448 -26.100  1.00 52.08           C
ATOM   7645  C   LEU D 464      22.230  19.738 -27.026  1.00 47.83           C
ATOM   7646  O   LEU D 464      23.119  20.564 -27.224  1.00 47.53           O
ATOM   7647  N   PRO D 465      21.185  19.998 -26.229  1.00 42.88           N
ATOM   7648  CA  PRO D 465      21.155  21.288 -25.546  1.00 42.30           C
ATOM   7649  CB  PRO D 465      19.823  21.235 -24.804  1.00 43.99           C
ATOM   7650  CG  PRO D 465      18.935  20.420 -25.716  1.00 48.24           C
ATOM   7651  CD  PRO D 465      19.826  19.516 -26.539  1.00 43.87           C
ATOM   7652  C   PRO D 465      22.324  21.399 -24.568  1.00 45.66           C
ATOM   7653  O   PRO D 465      22.855  20.386 -24.109  1.00 44.91           O
ATOM   7654  N   VAL D 466      22.720  22.633 -24.265  1.00 42.06           N
ATOM   7655  CA  VAL D 466      23.852  22.924 -23.376  1.00 41.73           C
ATOM   7656  CB  VAL D 466      23.884  24.414 -22.952  1.00 45.54           C
ATOM   7657  CG1 VAL D 466      24.831  24.624 -21.778  1.00 45.27           C
ATOM   7658  CG2 VAL D 466      24.277  25.294 -24.127  1.00 45.28           C
ATOM   7659  C   VAL D 466      24.094  21.975 -22.193  1.00 45.34           C
ATOM   7660  O   VAL D 466      25.175  21.397 -22.067  1.00 45.09           O
ATOM   7661  N   ARG D 467      23.103  21.838 -21.319  1.00 41.75           N
ATOM   7662  CA  ARG D 467      23.231  20.990 -20.136  1.00 41.52           C
ATOM   7663  CB  ARG D 467      22.035  21.189 -19.207  1.00 40.61           C
ATOM   7664  CG  ARG D 467      21.772  20.011 -18.286  1.00 46.53           C
ATOM   7665  CD  ARG D 467      20.284  19.758 -18.158  1.00 51.52           C
ATOM   7666  NE  ARG D 467      19.988  18.573 -17.361  1.00 53.69           N
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ATOM   7667  CZ  ARG D 467      19.601  17.410 -17.867  1.00 65.02           C
ATOM   7668  NH1 ARG D 467      19.337  16.393 -17.066  1.00 54.34           N
ATOM   7669  NH2 ARG D 467      19.475  17.268 -19.174  1.00 50.98           N
ATOM   7670  C   ARG D 467      23.425  19.510 -20.447  1.00 46.38           C
ATOM   7671  O   ARG D 467      24.082  18.786 -19.698  1.00 45.95           O
ATOM   7672  N   LEU D 468      22.838  19.063 -21.549  1.00 43.57           N
ATOM   7673  CA  LEU D 468      22.941  17.670 -21.951  1.00 43.58           C
ATOM   7674  CB  LEU D 468      21.803  17.313 -22.900  1.00 43.53           C
ATOM   7675  CG  LEU D 468      20.454  17.025 -22.244  1.00 48.10           C
ATOM   7676  CD1 LEU D 468      19.783  18.312 -21.795  1.00 48.15           C
ATOM   7677  CD2 LEU D 468      19.586  16.286 -23.241  1.00 50.99           C
ATOM   7678  C   LEU D 468      24.281  17.431 -22.633  1.00 48.62           C
ATOM   7679  O   LEU D 468      24.805  16.320 -22.628  1.00 48.21           O
ATOM   7680  N   CYS D 469      24.827  18.487 -23.225  1.00 46.47           N
ATOM   7681  CA  CYS D 469      26.117  18.419 -23.903  1.00 46.92           C
ATOM   7682  CB  CYS D 469      26.355  19.700 -24.706  1.00 48.14           C
ATOM   7683  SG  CYS D 469      26.357  19.485 -26.502  1.00 52.68           S
ATOM   7684  C   CYS D 469      27.216  18.269 -22.865  1.00 48.68           C
ATOM   7685  O   CYS D 469      28.173  17.522 -23.058  1.00 48.14           O
ATOM   7686  N   ARG D 470      27.064  18.996 -21.765  1.00 43.99           N
ATOM   7687  CA  ARG D 470      28.025  18.956 -20.675  1.00 43.31           C
ATOM   7688  CB  ARG D 470      27.856  20.193 -19.787  1.00 43.73           C
ATOM   7689  CG  ARG D 470      28.489  20.065 -18.409  1.00 57.02           C
ATOM   7690  CD  ARG D 470      29.187  21.358 -18.008  1.00 72.34           C
ATOM   7691  NE  ARG D 470      29.166  21.576 -16.564  1.00 87.73           N
ATOM   7692  CZ  ARG D 470      29.908  22.483 -15.935  1.00106.48           C
ATOM   7693  NH1 ARG D 470      30.736  23.258 -16.624  1.00 96.03           N
ATOM   7694  NH2 ARG D 470      29.825  22.616 -14.617  1.00 93.76           N
ATOM   7695  C   ARG D 470      27.822  17.698 -19.842  1.00 45.64           C
ATOM   7696  O   ARG D 470      28.775  16.993 -19.514  1.00 45.35           O
ATOM   7697  N   GLU D 471      26.565  17.423 -19.510  1.00 41.00           N
ATOM   7698  CA  GLU D 471      26.213  16.275 -18.683  1.00 40.14           C
ATOM   7699  CB  GLU D 471      24.785  16.417 -18.152  1.00 41.61           C
ATOM   7700  CG  GLU D 471      24.690  16.468 -16.635  1.00 53.71           C
ATOM   7701  CD  GLU D 471      23.841  17.625 -16.141  1.00 77.78           C
ATOM   7702  OE1 GLU D 471      22.949  17.392 -15.296  1.00 72.85           O
ATOM   7703  OE2 GLU D 471      24.068  18.767 -16.594  1.00 74.64           O
ATOM   7704  C   GLU D 471      26.413  14.906 -19.338  1.00 41.74           C
ATOM   7705  O   GLU D 471      26.715  13.926 -18.655  1.00 40.58           O
ATOM   7706  N   ILE D 472      26.233  14.832 -20.653  1.00 37.20           N
ATOM   7707  CA  ILE D 472      26.388  13.561 -21.355  1.00 36.39           C
ATOM   7708  CB  ILE D 472      26.096  13.694 -22.858  1.00 38.88           C
ATOM   7709  CG1 ILE D 472      25.815  12.314 -23.455  1.00 38.85           C
ATOM   7710  CD1 ILE D 472      25.035  12.353 -24.745  1.00 43.52           C
ATOM   7711  CG2 ILE D 472      27.274  14.344 -23.572  1.00 39.37           C
ATOM   7712  C   ILE D 472      27.765  12.951 -21.124  1.00 40.26           C
ATOM   7713  O   ILE D 472      27.931  11.732 -21.169  1.00 39.87           O
ATOM   7714  N   GLU D 473      28.748  13.810 -20.880  1.00 36.77           N
ATOM   7715  CA  GLU D 473      30.130  13.380 -20.693  1.00 36.47           C
ATOM   7716  CB  GLU D 473      31.090  14.528 -21.011  1.00 37.88           C
ATOM   7717  CG  GLU D 473      30.954  15.075 -22.426  1.00 48.02           C
ATOM   7718  CD  GLU D 473      31.290  14.041 -23.489  1.00 69.56           C
ATOM   7719  OE1 GLU D 473      32.137  13.161 -23.219  1.00 63.87           O
ATOM   7720  OE2 GLU D 473      30.714  14.113 -24.597  1.00 64.16           O
ATOM   7721  C   GLU D 473      30.469  12.740 -19.342  1.00 40.29           C
ATOM   7722  O   GLU D 473      31.545  12.162 -19.181  1.00 40.39           O
ATOM   7723  N   LEU D 474      29.559  12.831 -18.378  1.00 36.04           N
ATOM   7724  CA  LEU D 474      29.788  12.237 -17.062  1.00 35.25           C
ATOM   7725  CB  LEU D 474      29.246  13.144 -15.960  1.00 35.31           C
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ATOM   7726  CG  LEU D 474      29.355  14.645 -16.235  1.00 40.07           C
ATOM   7727  CD1 LEU D 474      28.313  15.413 -15.438  1.00 40.23           C
ATOM   7728  CD2 LEU D 474      30.758  15.150 -15.925  1.00 42.33           C
ATOM   7729  C   LEU D 474      29.172  10.839 -16.959  1.00 38.10           C
ATOM   7730  O   LEU D 474      28.119  10.568 -17.539  1.00 37.28           O
ATOM   7731  N   PHE D 475      29.840   9.957 -16.221  1.00 33.99           N
ATOM   7732  CA  PHE D 475      29.387   8.577 -16.050  1.00 33.67           C
ATOM   7733  CB  PHE D 475      30.381   7.788 -15.186  1.00 35.15           C
ATOM   7734  CG  PHE D 475      31.622   7.358 -15.919  1.00 36.30           C
ATOM   7735  CD1 PHE D 475      31.684   6.120 -16.541  1.00 39.18           C
ATOM   7736  CE1 PHE D 475      32.823   5.719 -17.216  1.00 39.79           C
ATOM   7737  CZ  PHE D 475      33.919   6.557 -17.277  1.00 38.90           C
ATOM   7738  CE2 PHE D 475      33.873   7.793 -16.659  1.00 40.81           C
ATOM   7739  CD2 PHE D 475      32.729   8.188 -15.985  1.00 38.08           C
ATOM   7740  C   PHE D 475      27.978   8.440 -15.468  1.00 37.90           C
ATOM   7741  O   PHE D 475      27.268   7.479 -15.764  1.00 37.91           O
ATOM   7742  N   HIS D 476      27.584   9.389 -14.625  1.00 34.54           N
ATOM   7743  CA  HIS D 476      26.294   9.333 -13.938  1.00 34.11           C
ATOM   7744  CB  HIS D 476      26.436   9.959 -12.555  1.00 35.10           C
ATOM   7745  CG  HIS D 476      26.778  11.416 -12.596  1.00 38.72           C
ATOM   7746  ND1 HIS D 476      28.071  11.881 -12.475  1.00 40.55           N
ATOM   7747  CE1 HIS D 476      28.074  13.198 -12.580  1.00 39.99           C
ATOM   7748  NE2 HIS D 476      26.833  13.603 -12.781  1.00 40.36           N
ATOM   7749  CD2 HIS D 476      26.004  12.508 -12.804  1.00 40.51           C
ATOM   7750  C   HIS D 476      25.147  10.018 -14.677  1.00 36.48           C
ATOM   7751  O   HIS D 476      24.119  10.333 -14.079  1.00 35.96           O
ATOM   7752  N   PHE D 477      25.327  10.263 -15.968  1.00 32.11           N
ATOM   7753  CA  PHE D 477      24.305  10.922 -16.772  1.00 31.33           C
ATOM   7754  CB  PHE D 477      24.883  11.301 -18.136  1.00 32.65           C
ATOM   7755  CG  PHE D 477      23.877  11.889 -19.088  1.00 33.83           C
ATOM   7756  CD1 PHE D 477      23.363  13.157 -18.879  1.00 36.72           C
ATOM   7757  CE1 PHE D 477      22.460  13.712 -19.767  1.00 37.55           C
ATOM   7758  CZ  PHE D 477      22.071  13.004 -20.889  1.00 36.53           C
ATOM   7759  CE2 PHE D 477      22.587  11.742 -21.119  1.00 38.24           C
ATOM   7760  CD2 PHE D 477      23.489  11.193 -20.224  1.00 35.60           C
ATOM   7761  C   PHE D 477      23.050  10.065 -16.954  1.00 35.58           C
ATOM   7762  O   PHE D 477      23.126   8.838 -17.066  1.00 35.41           O
ATOM   7763  N   ASP D 478      21.896  10.725 -16.979  1.00 32.43           N
ATOM   7764  CA  ASP D 478      20.614  10.061 -17.210  1.00 32.15           C
ATOM   7765  CB  ASP D 478      19.620  10.370 -16.085  1.00 33.92           C
ATOM   7766  CG  ASP D 478      18.257   9.716 -16.306  1.00 44.59           C
ATOM   7767  OD1 ASP D 478      17.968   8.689 -15.648  1.00 45.70           O
ATOM   7768  OD2 ASP D 478      17.480  10.224 -17.144  1.00 49.10           O
ATOM   7769  C   ASP D 478      20.084  10.569 -18.551  1.00 35.76           C
ATOM   7770  O   ASP D 478      20.187  11.758 -18.857  1.00 34.87           O
ATOM   7771  N   ILE D 479      19.566   9.658 -19.368  1.00 32.22           N
ATOM   7772  CA  ILE D 479      19.084  10.012 -20.697  1.00 31.90           C
ATOM   7773  CB  ILE D 479      18.999   8.784 -21.619  1.00 34.88           C
ATOM   7774  CG1 ILE D 479      18.046   7.737 -21.034  1.00 34.96           C
ATOM   7775  CD1 ILE D 479      17.902   6.492 -21.889  1.00 36.87           C
ATOM   7776  CG2 ILE D 479      20.390   8.193 -21.845  1.00 35.29           C
ATOM   7777  C   ILE D 479      17.801  10.846 -20.719  1.00 35.50           C
ATOM   7778  O   ILE D 479      17.512  11.510 -21.713  1.00 35.43           O
ATOM   7779  N   GLY D 480      17.032  10.803 -19.634  1.00 31.25           N
ATOM   7780  CA  GLY D 480      15.801  11.568 -19.535  1.00 30.66           C
ATOM   7781  C   GLY D 480      14.535  10.749 -19.710  1.00 32.86           C
ATOM   7782  O   GLY D 480      14.569   9.519 -19.716  1.00 32.47           O
ATOM   7783  N   PRO D 481      13.389  11.429 -19.864  1.00 28.15           N
ATOM   7784  CA  PRO D 481      12.107  10.730 -20.026  1.00 27.82           C
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ATOM   7785  CB  PRO D 481      11.220  11.397 -18.976  1.00 29.14           C
ATOM   7786  CG  PRO D 481      11.776  12.768 -18.838  1.00 33.40           C
ATOM   7787  CD  PRO D 481      13.258  12.645 -19.041  1.00 29.05           C
ATOM   7788  C   PRO D 481      11.502  10.923 -21.411  1.00 32.40           C
ATOM   7789  O   PRO D 481      10.390  10.471 -21.678  1.00 31.90           O
ATOM   7790  N   PHE D 482      12.244  11.589 -22.289  1.00 29.31           N
ATOM   7791  CA  PHE D 482      11.775  11.868 -23.638  1.00 28.64           C
ATOM   7792  CB  PHE D 482      12.116  13.306 -24.018  1.00 30.10           C
ATOM   7793  CG  PHE D 482      11.604  14.321 -23.039  1.00 31.19           C
ATOM   7794  CD1 PHE D 482      12.463  14.931 -22.146  1.00 34.02           C
ATOM   7795  CE1 PHE D 482      11.996  15.851 -21.229  1.00 35.17           C
ATOM   7796  CZ  PHE D 482      10.649  16.161 -21.187  1.00 34.66           C
ATOM   7797  CE2 PHE D 482       9.775  15.545 -22.063  1.00 36.37           C
ATOM   7798  CD2 PHE D 482      10.253  14.624 -22.978  1.00 33.41           C
ATOM   7799  C   PHE D 482      12.347  10.902 -24.662  1.00 32.91           C
ATOM   7800  O   PHE D 482      13.401  11.154 -25.247  1.00 32.35           O
ATOM   7801  N   GLU D 483      11.635   9.798 -24.873  1.00 29.50           N
ATOM   7802  CA  GLU D 483      12.040   8.765 -25.822  1.00 29.60           C
ATOM   7803  CB  GLU D 483      10.916   7.736 -25.996  1.00 31.07           C
ATOM   7804  CG  GLU D 483      10.218   7.341 -24.699  1.00 43.29           C
ATOM   7805  CD  GLU D 483       9.803   5.877 -24.678  1.00 69.68           C
ATOM   7806  OE1 GLU D 483       9.890   5.219 -25.737  1.00 66.65           O
ATOM   7807  OE2 GLU D 483       9.390   5.385 -23.604  1.00 64.18           O
ATOM   7808  C   GLU D 483      12.420   9.337 -27.184  1.00 34.74           C
ATOM   7809  O   GLU D 483      13.375   8.883 -27.817  1.00 34.78           O
ATOM   7810  N   ASN D 484      11.640  10.306 -27.646  1.00 32.47           N
ATOM   7811  CA  ASN D 484      11.862  10.940 -28.944  1.00 32.70           C
ATOM   7812  CB  ASN D 484      10.843  12.062 -29.158  1.00 34.74           C
ATOM   7813  CG  ASN D 484      10.681  12.944 -27.931  1.00 65.44           C
ATOM   7814  OD1 ASN D 484      10.070  12.542 -26.939  1.00 63.86           O
ATOM   7815  ND2 ASN D 484      11.230  14.154 -27.994  1.00 57.36           N
ATOM   7816  C   ASN D 484      13.276  11.492 -29.108  1.00 36.41           C
ATOM   7817  O   ASN D 484      13.697  11.821 -30.217  1.00 35.84           O
ATOM   7818  N   MET D 485      14.008  11.593 -28.005  1.00 33.54           N
ATOM   7819  CA  MET D 485      15.362  12.140 -28.039  1.00 33.42           C
ATOM   7820  CB  MET D 485      15.581  13.076 -26.852  1.00 36.18           C
ATOM   7821  CG  MET D 485      14.889  14.415 -26.983  1.00 40.59           C
ATOM   7822  SD  MET D 485      15.163  15.463 -25.542  1.00 45.77           S
ATOM   7823  CE  MET D 485      16.492  16.526 -26.144  1.00 42.64           C
ATOM   7824  C   MET D 485      16.463  11.087 -28.061  1.00 35.65           C
ATOM   7825  O   MET D 485      17.504  11.287 -28.686  1.00 35.25           O
ATOM   7826  N   TRP D 486      16.247   9.986 -27.348  1.00 30.39           N
ATOM   7827  CA  TRP D 486      17.247   8.926 -27.242  1.00 29.51           C
ATOM   7828  CB  TRP D 486      16.661   7.698 -26.556  1.00 27.92           C
ATOM   7829  CG  TRP D 486      16.022   7.992 -25.247  1.00 28.65           C
ATOM   7830  CD1 TRP D 486      16.274   9.054 -24.428  1.00 31.43           C
ATOM   7831  NE1 TRP D 486      15.483   8.982 -23.306  1.00 30.77           N
ATOM   7832  CE2 TRP D 486      14.702   7.859 -23.385  1.00 32.22           C
ATOM   7833  CD2 TRP D 486      15.016   7.211 -24.594  1.00 28.53           C
ATOM   7834  CE3 TRP D 486      14.347   6.027 -24.918  1.00 29.67           C
ATOM   7835  CZ3 TRP D 486      13.400   5.540 -24.039  1.00 31.07           C
ATOM   7836  CH2 TRP D 486      13.111   6.206 -22.844  1.00 31.66           C
ATOM   7837  CZ2 TRP D 486      13.752   7.362 -22.498  1.00 31.63           C
ATOM   7838  C   TRP D 486      17.901   8.528 -28.559  1.00 33.24           C
ATOM   7839  O   TRP D 486      19.080   8.181 -28.595  1.00 33.08           O
ATOM   7840  N   PRO D 487      17.137   8.551 -29.659  1.00 29.39           N
ATOM   7841  CA  PRO D 487      17.755   8.160 -30.930  1.00 29.09           C
ATOM   7842  CB  PRO D 487      16.566   8.109 -31.885  1.00 30.67           C
ATOM   7843  CG  PRO D 487      15.423   7.730 -31.015  1.00 35.21           C
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ATOM   7844  CD  PRO D 487      15.673   8.385 -29.685  1.00 30.89           C
ATOM   7845  C   PRO D 487      18.792   9.177 -31.410  1.00 33.28           C
ATOM   7846  O   PRO D 487      19.806   8.809 -32.009  1.00 32.11           O
ATOM   7847  N   GLY D 488      18.536  10.453 -31.142  1.00 31.05           N
ATOM   7848  CA  GLY D 488      19.443  11.522 -31.518  1.00 30.85           C
ATOM   7849  C   GLY D 488      20.631  11.538 -30.581  1.00 34.66           C
ATOM   7850  O   GLY D 488      21.740  11.913 -30.960  1.00 34.37           O
ATOM   7851  N   ILE D 489      20.393  11.101 -29.351  1.00 31.23           N
ATOM   7852  CA  ILE D 489      21.439  11.025 -28.344  1.00 30.79           C
ATOM   7853  CB  ILE D 489      20.845  10.804 -26.947  1.00 33.82           C
ATOM   7854  CG1 ILE D 489      20.309  12.121 -26.383  1.00 33.92           C
ATOM   7855  CD1 ILE D 489      19.066  11.958 -25.538  1.00 41.56           C
ATOM   7856  CG2 ILE D 489      21.881  10.187 -26.023  1.00 34.55           C
ATOM   7857  C   ILE D 489      22.418   9.912 -28.700  1.00 34.38           C
ATOM   7858  O   ILE D 489      23.621  10.033 -28.473  1.00 33.37           O
ATOM   7859  N   PHE D 490      21.900   8.824 -29.259  1.00 31.29           N
ATOM   7860  CA  PHE D 490      22.752   7.707 -29.640  1.00 31.26           C
ATOM   7861  CB  PHE D 490      21.926   6.484 -30.034  1.00 32.96           C
ATOM   7862  CG  PHE D 490      22.739   5.230 -30.161  1.00 34.40           C
ATOM   7863  CD1 PHE D 490      23.296   4.634 -29.040  1.00 37.16           C
ATOM   7864  CE1 PHE D 490      24.072   3.495 -29.153  1.00 37.76           C
ATOM   7865  CZ  PHE D 490      24.315   2.949 -30.394  1.00 37.32           C
ATOM   7866  CE2 PHE D 490      23.785   3.544 -31.524  1.00 39.54           C
ATOM   7867  CD2 PHE D 490      23.007   4.684 -31.405  1.00 36.78           C
ATOM   7868  C   PHE D 490      23.689   8.102 -30.772  1.00 35.74           C
ATOM   7869  O   PHE D 490      24.890   7.831 -30.723  1.00 35.66           O
ATOM   7870  N   VAL D 491      23.135   8.760 -31.784  1.00 32.24           N
ATOM   7871  CA  VAL D 491      23.923   9.212 -32.925  1.00 31.86           C
ATOM   7872  CB  VAL D 491      23.038   9.794 -34.041  1.00 35.12           C
ATOM   7873  CG1 VAL D 491      23.903  10.311 -35.178  1.00 34.71           C
ATOM   7874  CG2 VAL D 491      22.060   8.745 -34.548  1.00 34.68           C
ATOM   7875  C   VAL D 491      25.010  10.198 -32.507  1.00 36.66           C
ATOM   7876  O   VAL D 491      26.158  10.074 -32.930  1.00 36.87           O
ATOM   7877  N   TYR D 492      24.649  11.182 -31.690  1.00 33.27           N
ATOM   7878  CA  TYR D 492      25.623  12.161 -31.225  1.00 33.36           C
ATOM   7879  CB  TYR D 492      24.968  13.160 -30.268  1.00 34.57           C
ATOM   7880  CG  TYR D 492      25.948  14.047 -29.518  1.00 36.73           C
ATOM   7881  CD1 TYR D 492      26.142  15.373 -29.890  1.00 38.72           C
ATOM   7882  CE1 TYR D 492      27.027  16.189 -29.202  1.00 39.06           C
ATOM   7883  CZ  TYR D 492      27.723  15.686 -28.126  1.00 45.24           C
ATOM   7884  OH  TYR D 492      28.602  16.495 -27.443  1.00 47.07           O
ATOM   7885  CE2 TYR D 492      27.537  14.379 -27.724  1.00 38.31           C
ATOM   7886  CD2 TYR D 492      26.651  13.568 -28.417  1.00 37.42           C
ATOM   7887  C   TYR D 492      26.759  11.427 -30.523  1.00 38.42           C
ATOM   7888  O   TYR D 492      27.911  11.853 -30.568  1.00 38.57           O
ATOM   7889  N   MET D 493      26.424  10.317 -29.874  1.00 35.61           N
ATOM   7890  CA  MET D 493      27.415   9.517 -29.160  1.00 35.45           C
ATOM   7891  CB  MET D 493      26.725   8.544 -28.205  1.00 37.43           C
ATOM   7892  CG  MET D 493      26.135   9.211 -26.976  1.00 40.67           C
ATOM   7893  SD  MET D 493      25.790   8.042 -25.657  1.00 44.31           S
ATOM   7894  CE  MET D 493      24.496   7.051 -26.401  1.00 40.78           C
ATOM   7895  C   MET D 493      28.310   8.753 -30.130  1.00 40.54           C
ATOM   7896  O   MET D 493      29.531   8.749 -29.989  1.00 39.81           O
ATOM   7897  N   VAL D 494      27.692   8.098 -31.107  1.00 38.43           N
ATOM   7898  CA  VAL D 494      28.432   7.352 -32.115  1.00 38.52           C
ATOM   7899  CB  VAL D 494      27.477   6.677 -33.126  1.00 42.01           C
ATOM   7900  CG1 VAL D 494      28.226   6.298 -34.397  1.00 41.75           C
ATOM   7901  CG2 VAL D 494      26.809   5.455 -32.509  1.00 41.59           C
ATOM   7902  C   VAL D 494      29.398   8.291 -32.830  1.00 44.61           C
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ATOM   7903  O   VAL D 494      30.607   8.057 -32.853  1.00 44.62           O
ATOM   7904  N   HIS D 495      28.853   9.357 -33.408  1.00 42.27           N
ATOM   7905  CA  HIS D 495      29.643  10.339 -34.145  1.00 42.65           C
ATOM   7906  CB  HIS D 495      28.791  11.555 -34.512  1.00 43.80           C
ATOM   7907  CG  HIS D 495      27.951  11.354 -35.735  1.00 47.40           C
ATOM   7908  ND1 HIS D 495      27.232  12.373 -36.321  1.00 49.32           N
ATOM   7909  CE1 HIS D 495      26.590  11.904 -37.377  1.00 48.74           C
ATOM   7910  NE2 HIS D 495      26.869  10.618 -37.496  1.00 49.04           N
ATOM   7911  CD2 HIS D 495      27.717  10.249 -36.481  1.00 49.18           C
ATOM   7912  C   HIS D 495      30.900  10.781 -33.410  1.00 46.75           C
ATOM   7913  O   HIS D 495      31.975  10.866 -34.005  1.00 46.60           O
ATOM   7914  N   ARG D 496      30.762  11.076 -32.122  1.00 43.12           N
ATOM   7915  CA  ARG D 496      31.901  11.504 -31.322  1.00 42.95           C
ATOM   7916  CB  ARG D 496      31.423  12.159 -30.028  1.00 41.74           C
ATOM   7917  CG  ARG D 496      31.024  13.611 -30.170  1.00 47.90           C
ATOM   7918  CD  ARG D 496      30.741  14.227 -28.810  1.00 55.30           C
ATOM   7919  NE  ARG D 496      31.648  15.327 -28.494  1.00 61.71           N
ATOM   7920  CZ  ARG D 496      32.653  15.242 -27.628  1.00 76.27           C
ATOM   7921  NH1 ARG D 496      32.894  14.102 -26.993  1.00 61.59           N
ATOM   7922  NH2 ARG D 496      33.423  16.295 -27.399  1.00 65.20           N
ATOM   7923  C   ARG D 496      32.807  10.319 -30.993  1.00 48.23           C
ATOM   7924  O   ARG D 496      34.032  10.425 -31.039  1.00 47.82           O
ATOM   7925  N   SER D 497      32.187   9.191 -30.666  1.00 45.84           N
ATOM   7926  CA  SER D 497      32.908   7.984 -30.278  1.00 46.27           C
ATOM   7927  CB  SER D 497      31.932   6.886 -29.857  1.00 49.65           C
ATOM   7928  OG  SER D 497      32.255   6.398 -28.568  1.00 58.35           O
ATOM   7929  C   SER D 497      33.922   7.429 -31.274  1.00 52.15           C
ATOM   7930  O   SER D 497      34.994   6.974 -30.875  1.00 51.76           O
ATOM   7931  N   CYS D 498      33.582   7.421 -32.559  1.00 50.32           N
ATOM   7932  CA  CYS D 498      34.487   6.855 -33.553  1.00 50.84           C
ATOM   7933  CB  CYS D 498      34.180   5.374 -33.764  1.00 51.34           C
ATOM   7934  SG  CYS D 498      32.472   5.059 -34.246  1.00 55.33           S
ATOM   7935  C   CYS D 498      34.549   7.571 -34.900  1.00 55.48           C
ATOM   7936  O   CYS D 498      35.430   7.284 -35.709  1.00 55.24           O
ATOM   7937  N   GLY D 499      33.618   8.482 -35.162  1.00 52.42           N
ATOM   7938  CA  GLY D 499      33.647   9.197 -36.423  1.00 52.53           C
ATOM   7939  C   GLY D 499      32.310   9.650 -36.970  1.00 57.21           C
ATOM   7940  O   GLY D 499      31.299   8.957 -36.848  1.00 56.53           O
ATOM   7941  N   THR D 500      32.322  10.824 -37.594  1.00 54.77           N
ATOM   7942  CA  THR D 500      31.134  11.400 -38.210  1.00 55.28           C
ATOM   7943  CB  THR D 500      31.269  12.935 -38.329  1.00 65.15           C
ATOM   7944  OG1 THR D 500      30.023  13.563 -38.000  1.00 65.40           O
ATOM   7945  CG2 THR D 500      31.676  13.329 -39.748  1.00 64.07           C
ATOM   7946  C   THR D 500      30.958  10.769 -39.588  1.00 60.49           C
ATOM   7947  O   THR D 500      29.980  11.030 -40.292  1.00 60.22           O
ATOM   7948  N   SER D 501      31.925   9.940 -39.965  1.00 57.75           N
ATOM   7949  CA  SER D 501      31.922   9.290 -41.267  1.00 57.81           C
ATOM   7950  CB  SER D 501      33.233   9.601 -41.991  1.00 61.56           C
ATOM   7951  OG  SER D 501      34.303   9.716 -41.066  1.00 70.82           O
ATOM   7952  C   SER D 501      31.751   7.779 -41.148  1.00 62.11           C
ATOM   7953  O   SER D 501      31.388   7.107 -42.114  1.00 61.89           O
ATOM   7954  N   CYS D 502      32.033   7.251 -39.962  1.00 58.78           N
ATOM   7955  CA  CYS D 502      31.940   5.819 -39.705  1.00 58.81           C
ATOM   7956  CB  CYS D 502      32.118   5.539 -38.209  1.00 59.73           C
ATOM   7957  SG  CYS D 502      31.121   4.181 -37.553  1.00 64.04           S
ATOM   7958  C   CYS D 502      30.683   5.133 -40.260  1.00 60.90           C
ATOM   7959  O   CYS D 502      30.743   3.986 -40.704  1.00 60.38           O
ATOM   7960  N   PHE D 503      29.549   5.829 -40.242  1.00 56.08           N
ATOM   7961  CA  PHE D 503      28.301   5.250 -40.738  1.00 54.93           C
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ATOM   7962  CB  PHE D 503      27.374   4.901 -39.572  1.00 56.30           C
ATOM   7963  CG  PHE D 503      27.857   3.765 -38.723  1.00 57.47           C
ATOM   7964  CD1 PHE D 503      28.038   3.936 -37.362  1.00 60.36           C
ATOM   7965  CE1 PHE D 503      28.463   2.892 -36.567  1.00 61.23           C
ATOM   7966  CZ  PHE D 503      28.701   1.655 -37.129  1.00 60.40           C
ATOM   7967  CE2 PHE D 503      28.512   1.467 -38.485  1.00 62.30           C
ATOM   7968  CD2 PHE D 503      28.086   2.517 -39.273  1.00 59.41           C
ATOM   7969  C   PHE D 503      27.535   6.177 -41.675  1.00 58.08           C
ATOM   7970  O   PHE D 503      27.756   7.388 -41.695  1.00 57.63           O
ATOM   7971  N   GLU D 504      26.591   5.598 -42.410  1.00 54.24           N
ATOM   7972  CA  GLU D 504      25.711   6.368 -43.280  1.00 53.71           C
ATOM   7973  CB  GLU D 504      25.293   5.537 -44.496  1.00 55.19           C
ATOM   7974  CG  GLU D 504      25.149   6.339 -45.782  1.00 66.94           C
ATOM   7975  CD  GLU D 504      23.706   6.461 -46.239  1.00 90.55           C
ATOM   7976  OE1 GLU D 504      23.025   5.419 -46.356  1.00 86.40           O
ATOM   7977  OE2 GLU D 504      23.255   7.600 -46.488  1.00 85.34           O
ATOM   7978  C   GLU D 504      24.495   6.675 -42.416  1.00 55.95           C
ATOM   7979  O   GLU D 504      23.920   5.770 -41.812  1.00 55.69           O
ATOM   7980  N   LEU D 505      24.141   7.950 -42.304  1.00 50.99           N
ATOM   7981  CA  LEU D 505      23.022   8.347 -41.455  1.00 50.15           C
ATOM   7982  CB  LEU D 505      22.723   9.841 -41.595  1.00 49.95           C
ATOM   7983  CG  LEU D 505      22.430  10.570 -40.281  1.00 54.40           C
ATOM   7984  CD1 LEU D 505      23.197   9.928 -39.135  1.00 54.55           C
ATOM   7985  CD2 LEU D 505      22.757  12.051 -40.384  1.00 56.35           C
ATOM   7986  C   LEU D 505      21.758   7.519 -41.670  1.00 53.11           C
ATOM   7987  O   LEU D 505      21.253   6.892 -40.740  1.00 53.02           O
ATOM   7988  N   GLU D 506      21.251   7.522 -42.897  1.00 48.61           N
ATOM   7989  CA  GLU D 506      20.034   6.790 -43.234  1.00 47.80           C
ATOM   7990  CB  GLU D 506      19.743   6.897 -44.732  1.00 49.49           C
ATOM   7991  CG  GLU D 506      19.651   8.335 -45.235  1.00 63.02           C
ATOM   7992  CD  GLU D 506      19.826   8.441 -46.738  1.00 89.40           C
ATOM   7993  OE1 GLU D 506      19.448   7.484 -47.448  1.00 87.17           O
ATOM   7994  OE2 GLU D 506      20.339   9.479 -47.212  1.00 83.72           O
ATOM   7995  C   GLU D 506      20.039   5.330 -42.793  1.00 48.84           C
ATOM   7996  O   GLU D 506      19.113   4.875 -42.120  1.00 48.59           O
ATOM   7997  N   LYS D 507      21.066   4.591 -43.195  1.00 42.94           N
ATOM   7998  CA  LYS D 507      21.177   3.181 -42.835  1.00 41.59           C
ATOM   7999  CB  LYS D 507      22.450   2.578 -43.432  1.00 43.30           C
ATOM   8000  CG  LYS D 507      22.224   1.783 -44.707  1.00 48.91           C
ATOM   8001  CD  LYS D 507      23.540   1.505 -45.412  1.00 55.22           C
ATOM   8002  CE  LYS D 507      23.311   0.895 -46.785  1.00 62.66           C
ATOM   8003  NZ  LYS D 507      23.531  -0.579 -46.784  1.00 67.62           N
ATOM   8004  C   LYS D 507      21.179   3.007 -41.316  1.00 43.44           C
ATOM   8005  O   LYS D 507      20.544   2.095 -40.778  1.00 42.40           O
ATOM   8006  N   LEU D 508      21.896   3.897 -40.638  1.00 38.73           N
ATOM   8007  CA  LEU D 508      22.009   3.870 -39.186  1.00 37.92           C
ATOM   8008  CB  LEU D 508      23.058   4.884 -38.728  1.00 37.68           C
ATOM   8009  CG  LEU D 508      23.269   5.013 -37.221  1.00 41.68           C
ATOM   8010  CD1 LEU D 508      23.975   3.784 -36.682  1.00 41.52           C
ATOM   8011  CD2 LEU D 508      24.040   6.280 -36.880  1.00 43.19           C
ATOM   8012  C   LEU D 508      20.672   4.176 -38.527  1.00 42.00           C
ATOM   8013  O   LEU D 508      20.151   3.374 -37.751  1.00 42.09           O
ATOM   8014  N   CYS D 509      20.118   5.338 -38.849  1.00 38.34           N
ATOM   8015  CA  CYS D 509      18.841   5.759 -38.295  1.00 38.48           C
ATOM   8016  CB  CYS D 509      18.362   7.044 -38.970  1.00 39.47           C
ATOM   8017  SG  CYS D 509      19.445   8.467 -38.697  1.00 43.77           S
ATOM   8018  C   CYS D 509      17.768   4.676 -38.376  1.00 41.15           C
ATOM   8019  O   CYS D 509      17.068   4.413 -37.399  1.00 41.16           O
ATOM   8020  N   ARG D 510      17.646   4.037 -39.532  1.00 36.45           N
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ATOM   8021  CA  ARG D 510      16.641   2.997 -39.692  1.00 35.70           C
ATOM   8022  CB  ARG D 510      16.254   2.800 -41.155  1.00 36.22           C
ATOM   8023  CG  ARG D 510      17.268   2.077 -42.004  1.00 44.85           C
ATOM   8024  CD  ARG D 510      16.628   1.669 -43.322  1.00 52.35           C
ATOM   8025  NE  ARG D 510      17.410   2.084 -44.482  1.00 62.90           N
ATOM   8026  CZ  ARG D 510      16.921   2.766 -45.510  1.00 77.74           C
ATOM   8027  NH1 ARG D 510      15.650   3.133 -45.518  1.00 64.67           N
ATOM   8028  NH2 ARG D 510      17.709   3.090 -46.524  1.00 66.08           N
ATOM   8029  C   ARG D 510      17.003   1.689 -38.998  1.00 37.77           C
ATOM   8030  O   ARG D 510      16.129   0.886 -38.671  1.00 37.50           O
ATOM   8031  N   PHE D 511      18.287   1.504 -38.718  1.00 32.59           N
ATOM   8032  CA  PHE D 511      18.727   0.326 -37.986  1.00 31.54           C
ATOM   8033  CB  PHE D 511      20.245   0.168 -38.076  1.00 33.04           C
ATOM   8034  CG  PHE D 511      20.789  -0.924 -37.200  1.00 34.11           C
ATOM   8035  CD1 PHE D 511      20.758  -2.247 -37.620  1.00 36.73           C
ATOM   8036  CE1 PHE D 511      21.250  -3.255 -36.813  1.00 37.07           C
ATOM   8037  CZ  PHE D 511      21.775  -2.951 -35.577  1.00 35.79           C
ATOM   8038  CE2 PHE D 511      21.810  -1.643 -35.142  1.00 37.80           C
ATOM   8039  CD2 PHE D 511      21.318  -0.634 -35.950  1.00 35.52           C
ATOM   8040  C   PHE D 511      18.327   0.537 -36.532  1.00 33.50           C
ATOM   8041  O   PHE D 511      17.948  -0.401 -35.828  1.00 32.35           O
ATOM   8042  N   ILE D 512      18.402   1.793 -36.104  1.00 29.48           N
ATOM   8043  CA  ILE D 512      18.047   2.185 -34.745  1.00 29.43           C
ATOM   8044  CB  ILE D 512      18.552   3.617 -34.430  1.00 32.37           C
ATOM   8045  CG1 ILE D 512      20.080   3.649 -34.352  1.00 32.55           C
ATOM   8046  CD1 ILE D 512      20.644   5.048 -34.198  1.00 40.02           C
ATOM   8047  CG2 ILE D 512      17.947   4.136 -33.143  1.00 32.74           C
ATOM   8048  C   ILE D 512      16.543   2.046 -34.494  1.00 33.61           C
ATOM   8049  O   ILE D 512      16.115   1.702 -33.391  1.00 32.61           O
ATOM   8050  N   MET D 513      15.742   2.313 -35.521  1.00 30.97           N
ATOM   8051  CA  MET D 513      14.292   2.217 -35.386  1.00 30.98           C
ATOM   8052  CB  MET D 513      13.586   2.999 -36.491  1.00 33.63           C
ATOM   8053  CG  MET D 513      14.061   4.441 -36.625  1.00 37.74           C
ATOM   8054  SD  MET D 513      13.927   5.397 -35.091  1.00 42.31           S
ATOM   8055  CE  MET D 513      12.262   4.952 -34.540  1.00 38.89           C
ATOM   8056  C   MET D 513      13.831   0.766 -35.368  1.00 33.46           C
ATOM   8057  O   MET D 513      12.875   0.416 -34.675  1.00 32.20           O
ATOM   8058  N   SER D 514      14.521  -0.077 -36.127  1.00 30.11           N
ATOM   8059  CA  SER D 514      14.206  -1.499 -36.157  1.00 29.64           C
ATOM   8060  CB  SER D 514      14.966  -2.189 -37.287  1.00 33.38           C
ATOM   8061  OG  SER D 514      14.255  -2.071 -38.507  1.00 43.95           O
ATOM   8062  C   SER D 514      14.598  -2.086 -34.807  1.00 32.68           C
ATOM   8063  O   SER D 514      13.858  -2.872 -34.209  1.00 32.26           O
ATOM   8064  N   VAL D 515      15.746  -1.651 -34.306  1.00 28.28           N
ATOM   8065  CA  VAL D 515      16.214  -2.091 -33.002  1.00 28.03           C
ATOM   8066  CB  VAL D 515      17.598  -1.508 -32.688  1.00 31.56           C
ATOM   8067  CG1 VAL D 515      17.949  -1.712 -31.228  1.00 31.35           C
ATOM   8068  CG2 VAL D 515      18.644  -2.118 -33.593  1.00 31.31           C
ATOM   8069  C   VAL D 515      15.187  -1.684 -31.948  1.00 31.78           C
ATOM   8070  O   VAL D 515      14.774  -2.496 -31.125  1.00 31.37           O
ATOM   8071  N   LYS D 516      14.775  -0.420 -31.985  1.00 28.13           N
ATOM   8072  CA  LYS D 516      13.786   0.094 -31.040  1.00 28.11           C
ATOM   8073  CB  LYS D 516      13.486   1.562 -31.346  1.00 30.24           C
ATOM   8074  CG  LYS D 516      12.444   2.188 -30.432  1.00 38.66           C
ATOM   8075  CD  LYS D 516      11.985   3.531 -30.975  1.00 44.86           C
ATOM   8076  CE  LYS D 516      10.677   3.970 -30.338  1.00 51.40           C
ATOM   8077  NZ  LYS D 516      10.899   4.679 -29.048  1.00 60.92           N
ATOM   8078  C   LYS D 516      12.489  -0.711 -31.117  1.00 33.03           C
ATOM   8079  O   LYS D 516      11.886  -1.052 -30.098  1.00 32.99           O
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ATOM   8080  N   LYS D 517      12.064  -0.997 -32.340  1.00 29.76           N
ATOM   8081  CA  LYS D 517      10.836  -1.738 -32.583  1.00 29.64           C
ATOM   8082  CB  LYS D 517      10.473  -1.663 -34.066  1.00 32.43           C
ATOM   8083  CG  LYS D 517       9.128  -2.261 -34.412  1.00 53.75           C
ATOM   8084  CD  LYS D 517       8.815  -2.069 -35.888  1.00 68.56           C
ATOM   8085  CE  LYS D 517       7.477  -2.694 -36.260  1.00 82.55           C
ATOM   8086  NZ  LYS D 517       7.140  -2.464 -37.692  1.00 92.14           N
ATOM   8087  C   LYS D 517      10.924  -3.198 -32.148  1.00 33.34           C
ATOM   8088  O   LYS D 517       9.921  -3.907 -32.131  1.00 33.21           O
ATOM   8089  N   ASN D 518      12.120  -3.653 -31.802  1.00 29.51           N
ATOM   8090  CA  ASN D 518      12.293  -5.043 -31.403  1.00 29.22           C
ATOM   8091  CB  ASN D 518      13.352  -5.738 -32.256  1.00 28.56           C
ATOM   8092  CG  ASN D 518      12.915  -5.899 -33.704  1.00 49.55           C
ATOM   8093  OD1 ASN D 518      12.023  -6.690 -34.010  1.00 42.21           O
ATOM   8094  ND2 ASN D 518      13.525  -5.127 -34.598  1.00 40.58           N
ATOM   8095  C   ASN D 518      12.530  -5.234 -29.911  1.00 33.45           C
ATOM   8096  O   ASN D 518      12.858  -6.325 -29.454  1.00 34.13           O
ATOM   8097  N   TYR D 519      12.340  -4.158 -29.160  1.00 29.50           N
ATOM   8098  CA  TYR D 519      12.424  -4.190 -27.710  1.00 28.82           C
ATOM   8099  CB  TYR D 519      13.170  -2.961 -27.187  1.00 29.61           C
ATOM   8100  CG  TYR D 519      14.650  -3.182 -26.968  1.00 31.02           C
ATOM   8101  CD1 TYR D 519      15.585  -2.721 -27.887  1.00 33.13           C
ATOM   8102  CE1 TYR D 519      16.940  -2.914 -27.688  1.00 33.37           C
ATOM   8103  CZ  TYR D 519      17.375  -3.573 -26.561  1.00 39.67           C
ATOM   8104  OH  TYR D 519      18.725  -3.769 -26.368  1.00 40.90           O
ATOM   8105  CE2 TYR D 519      16.465  -4.039 -25.632  1.00 32.07           C
ATOM   8106  CD2 TYR D 519      15.113  -3.840 -25.839  1.00 31.44           C
ATOM   8107  C   TYR D 519      10.967  -4.140 -27.269  1.00 33.07           C
ATOM   8108  O   TYR D 519      10.135  -3.528 -27.940  1.00 32.87           O
ATOM   8109  N   ARG D 520      10.643  -4.802 -26.168  1.00 29.41           N
ATOM   8110  CA  ARG D 520       9.265  -4.830 -25.703  1.00 28.81           C
ATOM   8111  CB  ARG D 520       8.833  -6.262 -25.398  1.00 28.01           C
ATOM   8112  CG  ARG D 520       9.524  -7.283 -26.286  1.00 35.89           C
ATOM   8113  CD  ARG D 520       9.155  -8.696 -25.904  1.00 45.57           C
ATOM   8114  NE  ARG D 520       9.213  -9.590 -27.056  1.00 55.57           N
ATOM   8115  CZ  ARG D 520       8.159 -10.224 -27.560  1.00 67.80           C
ATOM   8116  NH1 ARG D 520       6.962 -10.062 -27.012  1.00 50.72           N
ATOM   8117  NH2 ARG D 520       8.304 -11.023 -28.608  1.00 55.24           N
ATOM   8118  C   ARG D 520       9.015  -3.911 -24.518  1.00 33.23           C
ATOM   8119  O   ARG D 520       9.935  -3.290 -23.984  1.00 33.22           O
ATOM   8120  N   ARG D 521       7.752  -3.806 -24.135  1.00 30.47           N
ATOM   8121  CA  ARG D 521       7.354  -2.945 -23.034  1.00 30.47           C
ATOM   8122  CB  ARG D 521       5.978  -2.336 -23.308  1.00 31.89           C
ATOM   8123  CG  ARG D 521       5.768  -1.967 -24.771  1.00 44.99           C
ATOM   8124  CD  ARG D 521       4.611  -1.003 -24.956  1.00 60.17           C
ATOM   8125  NE  ARG D 521       4.778  -0.172 -26.147  1.00 72.73           N
ATOM   8126  CZ  ARG D 521       4.417  -0.538 -27.374  1.00 90.09           C
ATOM   8127  NH1 ARG D 521       3.865  -1.728 -27.578  1.00 79.06           N
ATOM   8128  NH2 ARG D 521       4.605   0.286 -28.396  1.00 77.79           N
ATOM   8129  C   ARG D 521       7.367  -3.708 -21.719  1.00 33.67           C
ATOM   8130  O   ARG D 521       6.337  -4.192 -21.251  1.00 33.01           O
ATOM   8131  N   VAL D 522       8.561  -3.834 -21.151  1.00 29.57           N
ATOM   8132  CA  VAL D 522       8.753  -4.506 -19.875  1.00 28.87           C
ATOM   8133  CB  VAL D 522       9.739  -5.682 -19.994  1.00 32.60           C
ATOM   8134  CG1 VAL D 522       9.161  -6.771 -20.892  1.00 32.24           C
ATOM   8135  CG2 VAL D 522      11.084  -5.207 -20.521  1.00 32.25           C
ATOM   8136  C   VAL D 522       9.238  -3.440 -18.903  1.00 32.93           C
ATOM   8137  O   VAL D 522       9.627  -2.346 -19.321  1.00 32.81           O
ATOM   8138  N   PRO D 523       9.181  -3.720 -17.594  1.00 29.06           N
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ATOM   8139  CA  PRO D 523       9.626  -2.614 -16.740  1.00 28.98           C
ATOM   8140  CB  PRO D 523       9.342  -3.122 -15.321  1.00 30.55           C
ATOM   8141  CG  PRO D 523       8.319  -4.195 -15.491  1.00 34.61           C
ATOM   8142  CD  PRO D 523       8.630  -4.836 -16.804  1.00 30.20           C
ATOM   8143  C   PRO D 523      11.102  -2.254 -16.903  1.00 33.65           C
ATOM   8144  O   PRO D 523      11.444  -1.087 -17.108  1.00 33.54           O
ATOM   8145  N   TYR D 524      11.976  -3.251 -16.825  1.00 30.42           N
ATOM   8146  CA  TYR D 524      13.406  -2.993 -16.911  1.00 29.75           C
ATOM   8147  CB  TYR D 524      14.162  -3.763 -15.835  1.00 31.38           C
ATOM   8148  CG  TYR D 524      15.567  -3.253 -15.641  1.00 33.84           C
ATOM   8149  CD1 TYR D 524      15.797  -1.926 -15.302  1.00 35.81           C
ATOM   8150  CE1 TYR D 524      17.081  -1.441 -15.148  1.00 36.91           C
ATOM   8151  CZ  TYR D 524      18.155  -2.283 -15.345  1.00 44.85           C
ATOM   8152  OH  TYR D 524      19.435  -1.804 -15.181  1.00 48.29           O
ATOM   8153  CE2 TYR D 524      17.955  -3.603 -15.704  1.00 36.17           C
ATOM   8154  CD2 TYR D 524      16.664  -4.078 -15.857  1.00 35.05           C
ATOM   8155  C   TYR D 524      14.092  -3.157 -18.263  1.00 31.66           C
ATOM   8156  O   TYR D 524      14.618  -2.193 -18.815  1.00 31.15           O
ATOM   8157  N   HIS D 525      14.152  -4.387 -18.761  1.00 27.15           N
ATOM   8158  CA  HIS D 525      14.853  -4.661 -20.011  1.00 26.09           C
ATOM   8159  CB  HIS D 525      15.174  -6.148 -20.142  1.00 26.60           C
ATOM   8160  CG  HIS D 525      16.006  -6.685 -19.018  1.00 29.71           C
ATOM   8161  ND1 HIS D 525      15.469  -7.419 -17.982  1.00 31.25           N
ATOM   8162  CE1 HIS D 525      16.431  -7.757 -17.140  1.00 30.48           C
ATOM   8163  NE2 HIS D 525      17.572  -7.267 -17.592  1.00 30.78           N
ATOM   8164  CD2 HIS D 525      17.334  -6.592 -18.766  1.00 31.15           C
ATOM   8165  C   HIS D 525      14.136  -4.148 -21.248  1.00 28.78           C
ATOM   8166  O   HIS D 525      13.598  -4.926 -22.037  1.00 28.02           O
ATOM   8167  N   ASN D 526      14.161  -2.830 -21.425  1.00 24.72           N
ATOM   8168  CA  ASN D 526      13.501  -2.194 -22.556  1.00 23.93           C
ATOM   8169  CB  ASN D 526      12.246  -1.471 -22.082  1.00 24.69           C
ATOM   8170  CG  ASN D 526      12.519  -0.553 -20.916  1.00 40.66           C
ATOM   8171  OD1 ASN D 526      13.552   0.109 -20.862  1.00 34.45           O
ATOM   8172  ND2 ASN D 526      11.620  -0.550 -19.948  1.00 34.31           N
ATOM   8173  C   ASN D 526      14.414  -1.214 -23.287  1.00 27.38           C
ATOM   8174  O   ASN D 526      15.608  -1.109 -22.990  1.00 27.67           O
ATOM   8175  N   TRP D 527      13.832  -0.504 -24.247  1.00 22.46           N
ATOM   8176  CA  TRP D 527      14.542   0.469 -25.068  1.00 22.08           C
ATOM   8177  CB  TRP D 527      13.521   1.282 -25.874  1.00 20.72           C
ATOM   8178  CG  TRP D 527      14.114   2.262 -26.848  1.00 21.31           C
ATOM   8179  CD1 TRP D 527      13.704   3.546 -27.070  1.00 24.13           C
ATOM   8180  NE1 TRP D 527      14.492   4.136 -28.030  1.00 23.62           N
ATOM   8181  CE2 TRP D 527      15.422   3.226 -28.459  1.00 24.93           C
ATOM   8182  CD2 TRP D 527      15.209   2.031 -27.740  1.00 21.01           C
ATOM   8183  CE3 TRP D 527      16.044   0.936 -27.987  1.00 21.99           C
ATOM   8184  CZ3 TRP D 527      17.040   1.064 -28.931  1.00 23.28           C
ATOM   8185  CH2 TRP D 527      17.223   2.260 -29.635  1.00 24.23           C
ATOM   8186  CZ2 TRP D 527      16.427   3.352 -29.411  1.00 24.51           C
ATOM   8187  C   TRP D 527      15.442   1.402 -24.257  1.00 26.38           C
ATOM   8188  O   TRP D 527      16.608   1.614 -24.595  1.00 25.25           O
ATOM   8189  N   LYS D 528      14.876   1.977 -23.203  1.00 23.63           N
ATOM   8190  CA  LYS D 528      15.590   2.915 -22.346  1.00 23.01           C
ATOM   8191  CB  LYS D 528      14.642   3.474 -21.279  1.00 24.35           C
ATOM   8192  CG  LYS D 528      15.281   4.480 -20.341  1.00 33.45           C
ATOM   8193  CD  LYS D 528      14.241   5.413 -19.746  1.00 41.27           C
ATOM   8194  CE  LYS D 528      14.787   6.156 -18.533  1.00 50.85           C
ATOM   8195  NZ  LYS D 528      14.041   7.416 -18.268  1.00 58.32           N
ATOM   8196  C   LYS D 528      16.822   2.300 -21.689  1.00 27.45           C
ATOM   8197  O   LYS D 528      17.847   2.963 -21.532  1.00 27.33           O
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ATOM   8198  N   HIS D 529      16.712   1.039 -21.282  1.00 23.88           N
ATOM   8199  CA  HIS D 529      17.827   0.347 -20.651  1.00 23.28           C
ATOM   8200  CB  HIS D 529      17.363  -0.978 -20.047  1.00 23.79           C
ATOM   8201  CG  HIS D 529      18.476  -1.938 -19.770  1.00 27.23           C
ATOM   8202  ND1 HIS D 529      19.330  -1.799 -18.697  1.00 28.88           N
ATOM   8203  CE1 HIS D 529      20.207  -2.786 -18.704  1.00 28.46           C
ATOM   8204  NE2 HIS D 529      19.962  -3.555 -19.749  1.00 28.96           N
ATOM   8205  CD2 HIS D 529      18.887  -3.043 -20.435  1.00 29.20           C
ATOM   8206  C   HIS D 529      18.931   0.108 -21.677  1.00 27.97           C
ATOM   8207  O   HIS D 529      20.117   0.174 -21.360  1.00 27.78           O
ATOM   8208  N   ALA D 530      18.529  -0.152 -22.916  1.00 24.85           N
ATOM   8209  CA  ALA D 530      19.475  -0.380 -23.994  1.00 24.61           C
ATOM   8210  CB  ALA D 530      18.744  -0.790 -25.261  1.00 25.41           C
ATOM   8211  C   ALA D 530      20.304   0.874 -24.234  1.00 29.24           C
ATOM   8212  O   ALA D 530      21.530   0.818 -24.269  1.00 29.32           O
ATOM   8213  N   VAL D 531      19.624   2.011 -24.357  1.00 25.90           N
ATOM   8214  CA  VAL D 531      20.273   3.295 -24.590  1.00 25.07           C
ATOM   8215  CB  VAL D 531      19.228   4.373 -24.925  1.00 29.26           C
ATOM   8216  CG1 VAL D 531      19.903   5.676 -25.331  1.00 28.84           C
ATOM   8217  CG2 VAL D 531      18.302   3.874 -26.025  1.00 29.07           C
ATOM   8218  C   VAL D 531      21.173   3.717 -23.427  1.00 28.25           C
ATOM   8219  O   VAL D 531      22.241   4.295 -23.627  1.00 27.51           O
ATOM   8220  N   THR D 532      20.740   3.417 -22.211  1.00 24.95           N
ATOM   8221  CA  THR D 532      21.508   3.754 -21.019  1.00 24.37           C
ATOM   8222  CB  THR D 532      20.679   3.505 -19.748  1.00 29.46           C
ATOM   8223  OG1 THR D 532      19.440   4.214 -19.845  1.00 26.38           O
ATOM   8224  CG2 THR D 532      21.431   3.967 -18.517  1.00 25.88           C
ATOM   8225  C   THR D 532      22.820   2.975 -20.990  1.00 26.77           C
ATOM   8226  O   THR D 532      23.873   3.515 -20.646  1.00 26.48           O
ATOM   8227  N   VAL D 533      22.750   1.698 -21.348  1.00 22.58           N
ATOM   8228  CA  VAL D 533      23.933   0.849 -21.389  1.00 22.20           C
ATOM   8229  CB  VAL D 533      23.561  -0.615 -21.695  1.00 25.76           C
ATOM   8230  CG1 VAL D 533      24.802  -1.451 -21.869  1.00 25.34           C
ATOM   8231  CG2 VAL D 533      22.682  -1.182 -20.595  1.00 25.26           C
ATOM   8232  C   VAL D 533      24.915   1.396 -22.420  1.00 26.91           C
ATOM   8233  O   VAL D 533      26.127   1.410 -22.195  1.00 26.61           O
ATOM   8234  N   ALA D 534      24.383   1.848 -23.553  1.00 23.83           N
ATOM   8235  CA  ALA D 534      25.207   2.408 -24.621  1.00 23.83           C
ATOM   8236  CB  ALA D 534      24.374   2.658 -25.859  1.00 24.62           C
ATOM   8237  C   ALA D 534      25.906   3.690 -24.180  1.00 27.71           C
ATOM   8238  O   ALA D 534      27.008   3.993 -24.642  1.00 27.26           O
ATOM   8239  N   HIS D 535      25.267   4.451 -23.295  1.00 24.01           N
ATOM   8240  CA  HIS D 535      25.885   5.673 -22.806  1.00 24.17           C
ATOM   8241  CB  HIS D 535      24.913   6.514 -21.978  1.00 24.86           C
ATOM   8242  CG  HIS D 535      25.581   7.629 -21.237  1.00 28.09           C
ATOM   8243  ND1 HIS D 535      25.869   7.563 -19.889  1.00 29.76           N
ATOM   8244  CE1 HIS D 535      26.489   8.667 -19.519  1.00 29.07           C
ATOM   8245  NE2 HIS D 535      26.661   9.427 -20.586  1.00 29.43           N
ATOM   8246  CD2 HIS D 535      26.104   8.799 -21.673  1.00 29.75           C
ATOM   8247  C   HIS D 535      27.113   5.328 -21.968  1.00 29.75           C
ATOM   8248  O   HIS D 535      28.172   5.937 -22.122  1.00 29.83           O
ATOM   8249  N   CYS D 536      26.966   4.339 -21.092  1.00 27.36           N
ATOM   8250  CA  CYS D 536      28.062   3.892 -20.240  1.00 27.52           C
ATOM   8251  CB  CYS D 536      27.612   2.728 -19.353  1.00 27.70           C
ATOM   8252  SG  CYS D 536      28.557   2.536 -17.805  1.00 31.56           S
ATOM   8253  C   CYS D 536      29.250   3.479 -21.104  1.00 32.73           C
ATOM   8254  O   CYS D 536      30.382   3.893 -20.857  1.00 33.05           O
ATOM   8255  N   MET D 537      28.984   2.684 -22.135  1.00 29.36           N
ATOM   8256  CA  MET D 537      30.037   2.255 -23.046  1.00 29.19           C
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ATOM   8257  CB  MET D 537      29.460   1.370 -24.152  1.00 31.59           C
ATOM   8258  CG  MET D 537      30.509   0.779 -25.081  1.00 35.36           C
ATOM   8259  SD  MET D 537      31.832  -0.065 -24.186  1.00 39.96           S
ATOM   8260  CE  MET D 537      31.012  -1.590 -23.717  1.00 36.62           C
ATOM   8261  C   MET D 537      30.691   3.485 -23.663  1.00 32.87           C
ATOM   8262  O   MET D 537      31.920   3.574 -23.766  1.00 33.21           O
ATOM   8263  N   TYR D 538      29.857   4.439 -24.062  1.00 28.11           N
ATOM   8264  CA  TYR D 538      30.332   5.673 -24.671  1.00 27.76           C
ATOM   8265  CB  TYR D 538      29.150   6.583 -25.010  1.00 28.58           C
ATOM   8266  CG  TYR D 538      29.532   8.025 -25.272  1.00 29.27           C
ATOM   8267  CD1 TYR D 538      30.032   8.418 -26.509  1.00 31.04           C
ATOM   8268  CE1 TYR D 538      30.357   9.737 -26.764  1.00 30.89           C
ATOM   8269  CZ  TYR D 538      30.174  10.686 -25.779  1.00 36.39           C
ATOM   8270  OH  TYR D 538      30.498  12.000 -26.026  1.00 34.87           O
ATOM   8271  CE2 TYR D 538      29.666  10.323 -24.545  1.00 30.38           C
ATOM   8272  CD2 TYR D 538      29.346   9.002 -24.300  1.00 29.57           C
ATOM   8273  C   TYR D 538      31.273   6.406 -23.732  1.00 31.74           C
ATOM   8274  O   TYR D 538      32.360   6.825 -24.127  1.00 31.35           O
ATOM   8275  N   ALA D 539      30.836   6.578 -22.492  1.00 28.47           N
ATOM   8276  CA  ALA D 539      31.630   7.280 -21.498  1.00 28.47           C
ATOM   8277  CB  ALA D 539      30.849   7.413 -20.195  1.00 29.25           C
ATOM   8278  C   ALA D 539      32.974   6.599 -21.259  1.00 32.01           C
ATOM   8279  O   ALA D 539      33.932   7.239 -20.841  1.00 31.22           O
ATOM   8280  N   ILE D 540      33.044   5.301 -21.533  1.00 28.86           N
ATOM   8281  CA  ILE D 540      34.277   4.549 -21.332  1.00 28.63           C
ATOM   8282  CB  ILE D 540      33.992   3.054 -21.075  1.00 31.40           C
ATOM   8283  CG1 ILE D 540      33.127   2.894 -19.823  1.00 31.29           C
ATOM   8284  CD1 ILE D 540      32.721   1.464 -19.539  1.00 35.72           C
ATOM   8285  CG2 ILE D 540      35.299   2.281 -20.922  1.00 32.47           C
ATOM   8286  C   ILE D 540      35.254   4.755 -22.487  1.00 33.54           C
ATOM   8287  O   ILE D 540      36.420   5.085 -22.278  1.00 33.49           O
ATOM   8288  N   LEU D 541      34.771   4.562 -23.707  1.00 30.15           N
ATOM   8289  CA  LEU D 541      35.601   4.733 -24.888  1.00 29.96           C
ATOM   8290  CB  LEU D 541      34.836   4.302 -26.138  1.00 30.01           C
ATOM   8291  CG  LEU D 541      34.229   2.899 -26.080  1.00 34.41           C
ATOM   8292  CD1 LEU D 541      33.987   2.359 -27.477  1.00 34.64           C
ATOM   8293  CD2 LEU D 541      35.120   1.957 -25.284  1.00 35.47           C
ATOM   8294  C   LEU D 541      36.098   6.171 -25.042  1.00 34.43           C
ATOM   8295  O   LEU D 541      36.989   6.444 -25.848  1.00 34.76           O
ATOM   8296  N   GLN D 542      35.531   7.084 -24.261  1.00 29.88           N
ATOM   8297  CA  GLN D 542      35.915   8.489 -24.330  1.00 29.16           C
ATOM   8298  CB  GLN D 542      34.692   9.392 -24.165  1.00 30.39           C
ATOM   8299  CG  GLN D 542      33.700   9.291 -25.315  1.00 41.95           C
ATOM   8300  CD  GLN D 542      34.116  10.117 -26.519  1.00 54.89           C
ATOM   8301  OE1 GLN D 542      34.183  11.344 -26.449  1.00 51.11           O
ATOM   8302  NE2 GLN D 542      34.388   9.447 -27.635  1.00 41.37           N
ATOM   8303  C   GLN D 542      37.004   8.859 -23.325  1.00 32.44           C
ATOM   8304  O   GLN D 542      37.814   9.753 -23.577  1.00 31.15           O
ATOM   8305  N   ASN D 543      37.032   8.157 -22.196  1.00 29.64           N
ATOM   8306  CA  ASN D 543      38.035   8.407 -21.167  1.00 29.94           C
ATOM   8307  CB  ASN D 543      37.399   8.395 -19.776  1.00 29.52           C
ATOM   8308  CG  ASN D 543      36.287   9.417 -19.638  1.00 53.24           C
ATOM   8309  OD1 ASN D 543      36.500  10.520 -19.137  1.00 48.75           O
ATOM   8310  ND2 ASN D 543      35.099   9.065 -20.109  1.00 45.36           N
ATOM   8311  C   ASN D 543      39.172   7.392 -21.258  1.00 36.26           C
ATOM   8312  O   ASN D 543      40.119   7.428 -20.472  1.00 37.04           O
ATOM   8313  N   ASN D 544      39.073   6.505 -22.243  1.00 32.97           N
ATOM   8314  CA  ASN D 544      40.083   5.483 -22.501  1.00 33.10           C
ATOM   8315  CB  ASN D 544      39.652   4.141 -21.899  1.00 31.64           C
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ATOM   8316  CG  ASN D 544      39.642   4.157 -20.378  1.00 53.59           C
ATOM   8317  OD1 ASN D 544      40.608   3.734 -19.733  1.00 46.88           O
ATOM   8318  ND2 ASN D 544      38.548   4.646 -19.796  1.00 40.36           N
ATOM   8319  C   ASN D 544      40.170   5.346 -24.011  1.00 39.68           C
ATOM   8320  O   ASN D 544      40.303   4.246 -24.538  1.00 39.18           O
ATOM   8321  N   HIS D 545      40.052   6.477 -24.699  1.00 39.29           N
ATOM   8322  CA  HIS D 545      40.017   6.507 -26.157  1.00 40.58           C
ATOM   8323  CB  HIS D 545      39.679   7.908 -26.669  1.00 42.06           C
ATOM   8324  CG  HIS D 545      40.865   8.812 -26.776  1.00 46.15           C
ATOM   8325  ND1 HIS D 545      41.421   9.169 -27.985  1.00 48.39           N
ATOM   8326  CE1 HIS D 545      42.455   9.964 -27.775  1.00 47.95           C
ATOM   8327  NE2 HIS D 545      42.594  10.129 -26.471  1.00 48.32           N
ATOM   8328  CD2 HIS D 545      41.609   9.423 -25.824  1.00 48.44           C
ATOM   8329  C   HIS D 545      41.216   5.916 -26.894  1.00 45.49           C
ATOM   8330  O   HIS D 545      41.048   5.222 -27.897  1.00 45.54           O
ATOM   8331  N   THR D 546      42.422   6.192 -26.406  1.00 42.31           N
ATOM   8332  CA  THR D 546      43.636   5.677 -27.038  1.00 42.17           C
ATOM   8333  CB  THR D 546      44.909   6.225 -26.343  1.00 49.15           C
ATOM   8334  OG1 THR D 546      45.073   5.586 -25.069  1.00 49.19           O
ATOM   8335  CG2 THR D 546      44.812   7.732 -26.138  1.00 46.59           C
ATOM   8336  C   THR D 546      43.668   4.145 -27.071  1.00 46.28           C
ATOM   8337  O   THR D 546      44.286   3.545 -27.954  1.00 46.33           O
ATOM   8338  N   LEU D 547      43.011   3.519 -26.100  1.00 42.64           N
ATOM   8339  CA  LEU D 547      43.024   2.063 -25.956  1.00 42.14           C
ATOM   8340  CB  LEU D 547      42.670   1.669 -24.521  1.00 42.31           C
ATOM   8341  CG  LEU D 547      43.727   1.919 -23.446  1.00 47.27           C
ATOM   8342  CD1 LEU D 547      44.620   3.091 -23.835  1.00 47.84           C
ATOM   8343  CD2 LEU D 547      43.059   2.167 -22.104  1.00 49.90           C
ATOM   8344  C   LEU D 547      42.225   1.190 -26.929  1.00 44.66           C
ATOM   8345  O   LEU D 547      42.428  -0.023 -26.958  1.00 44.17           O
ATOM   8346  N   PHE D 548      41.309   1.769 -27.701  1.00 40.10           N
ATOM   8347  CA  PHE D 548      40.473   0.950 -28.581  1.00 39.27           C
ATOM   8348  CB  PHE D 548      39.004   1.036 -28.166  1.00 40.80           C
ATOM   8349  CG  PHE D 548      38.741   0.498 -26.791  1.00 42.26           C
ATOM   8350  CD1 PHE D 548      38.539   1.356 -25.720  1.00 44.94           C
ATOM   8351  CE1 PHE D 548      38.326   0.859 -24.445  1.00 45.76           C
ATOM   8352  CZ  PHE D 548      38.336  -0.506 -24.225  1.00 44.81           C
ATOM   8353  CE2 PHE D 548      38.555  -1.371 -25.278  1.00 46.84           C
ATOM   8354  CD2 PHE D 548      38.766  -0.869 -26.552  1.00 44.30           C
ATOM   8355  C   PHE D 548      40.631   1.099 -30.088  1.00 42.51           C
ATOM   8356  O   PHE D 548      40.823   2.200 -30.603  1.00 42.05           O
ATOM   8357  N   THR D 549      40.518  -0.026 -30.792  1.00 38.81           N
ATOM   8358  CA  THR D 549      40.629  -0.047 -32.249  1.00 38.61           C
ATOM   8359  CB  THR D 549      40.900  -1.464 -32.786  1.00 48.82           C
ATOM   8360  OG1 THR D 549      39.679  -2.214 -32.799  1.00 50.21           O
ATOM   8361  CG2 THR D 549      41.915  -2.178 -31.920  1.00 47.43           C
ATOM   8362  C   THR D 549      39.392   0.560 -32.905  1.00 42.23           C
ATOM   8363  O   THR D 549      38.356   0.743 -32.257  1.00 41.33           O
ATOM   8364  N   ASP D 550      39.505   0.866 -34.194  1.00 39.08           N
ATOM   8365  CA  ASP D 550      38.410   1.492 -34.929  1.00 39.21           C
ATOM   8366  CB  ASP D 550      38.914   2.101 -36.238  1.00 41.37           C
ATOM   8367  CG  ASP D 550      39.425   3.525 -36.062  1.00 54.16           C
ATOM   8368  OD1 ASP D 550      38.905   4.437 -36.743  1.00 55.09           O
ATOM   8369  OD2 ASP D 550      40.341   3.736 -35.236  1.00 61.22           O
ATOM   8370  C   ASP D 550      37.224   0.570 -35.181  1.00 42.61           C
ATOM   8371  O   ASP D 550      36.118   1.033 -35.455  1.00 42.06           O
ATOM   8372  N   LEU D 551      37.462  -0.734 -35.095  1.00 39.05           N
ATOM   8373  CA  LEU D 551      36.406  -1.718 -35.284  1.00 38.60           C
ATOM   8374  CB  LEU D 551      37.001  -3.041 -35.782  1.00 38.65           C
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ATOM   8375  CG  LEU D 551      36.462  -3.570 -37.115  1.00 43.50           C
ATOM   8376  CD1 LEU D 551      36.987  -2.721 -38.269  1.00 43.71           C
ATOM   8377  CD2 LEU D 551      36.834  -5.037 -37.303  1.00 46.52           C
ATOM   8378  C   LEU D 551      35.707  -1.934 -33.946  1.00 41.37           C
ATOM   8379  O   LEU D 551      34.480  -1.875 -33.851  1.00 41.26           O
ATOM   8380  N   GLU D 552      36.505  -2.187 -32.913  1.00 37.08           N
ATOM   8381  CA  GLU D 552      35.988  -2.415 -31.569  1.00 36.27           C
ATOM   8382  CB  GLU D 552      37.135  -2.544 -30.566  1.00 37.45           C
ATOM   8383  CG  GLU D 552      38.148  -3.626 -30.902  1.00 48.06           C
ATOM   8384  CD  GLU D 552      39.284  -3.689 -29.894  1.00 66.60           C
ATOM   8385  OE1 GLU D 552      39.816  -4.796 -29.668  1.00 59.21           O
ATOM   8386  OE2 GLU D 552      39.645  -2.632 -29.327  1.00 57.38           O
ATOM   8387  C   GLU D 552      35.069  -1.280 -31.146  1.00 39.63           C
ATOM   8388  O   GLU D 552      34.026  -1.506 -30.532  1.00 39.01           O
ATOM   8389  N   ARG D 553      35.473  -0.054 -31.459  1.00 35.91           N
ATOM   8390  CA  ARG D 553      34.696   1.120 -31.091  1.00 35.80           C
ATOM   8391  CB  ARG D 553      35.490   2.401 -31.354  1.00 35.66           C
ATOM   8392  CG  ARG D 553      35.615   3.295 -30.130  1.00 45.64           C
ATOM   8393  CD  ARG D 553      37.010   3.868 -29.993  1.00 55.62           C
ATOM   8394  NE  ARG D 553      37.332   4.785 -31.080  1.00 65.45           N
ATOM   8395  CZ  ARG D 553      38.343   4.611 -31.921  1.00 78.52           C
ATOM   8396  NH1 ARG D 553      38.568   5.489 -32.887  1.00 66.62           N
ATOM   8397  NH2 ARG D 553      39.127   3.555 -31.794  1.00 63.39           N
ATOM   8398  C   ARG D 553      33.342   1.159 -31.793  1.00 40.21           C
ATOM   8399  O   ARG D 553      32.366   1.683 -31.253  1.00 39.73           O
ATOM   8400  N   LYS D 554      33.288   0.577 -32.988  1.00 36.87           N
ATOM   8401  CA  LYS D 554      32.058   0.523 -33.774  1.00 36.48           C
ATOM   8402  CB  LYS D 554      32.373   0.160 -35.229  1.00 38.60           C
ATOM   8403  CG  LYS D 554      33.093   1.254 -36.011  1.00 47.63           C
ATOM   8404  CD  LYS D 554      33.551   0.739 -37.370  1.00 52.42           C
ATOM   8405  CE  LYS D 554      33.874   1.880 -38.327  1.00 57.41           C
ATOM   8406  NZ  LYS D 554      33.823   1.442 -39.752  1.00 65.06           N
ATOM   8407  C   LYS D 554      31.076  -0.499 -33.200  1.00 40.68           C
ATOM   8408  O   LYS D 554      29.922  -0.175 -32.917  1.00 40.90           O
ATOM   8409  N   GLY D 555      31.533  -1.740 -33.055  1.00 36.82           N
ATOM   8410  CA  GLY D 555      30.714  -2.827 -32.547  1.00 36.05           C
ATOM   8411  C   GLY D 555      30.304  -2.693 -31.091  1.00 38.84           C
ATOM   8412  O   GLY D 555      29.224  -3.137 -30.703  1.00 39.39           O
ATOM   8413  N   LEU D 556      31.166  -2.101 -30.271  1.00 32.85           N
ATOM   8414  CA  LEU D 556      30.861  -1.962 -28.852  1.00 31.42           C
ATOM   8415  CB  LEU D 556      32.065  -1.434 -28.081  1.00 31.17           C
ATOM   8416  CG  LEU D 556      33.129  -2.497 -27.804  1.00 35.80           C
ATOM   8417  CD1 LEU D 556      34.218  -1.953 -26.896  1.00 35.97           C
ATOM   8418  CD2 LEU D 556      32.503  -3.752 -27.208  1.00 37.94           C
ATOM   8419  C   LEU D 556      29.614  -1.128 -28.579  1.00 33.92           C
ATOM   8420  O   LEU D 556      28.818  -1.459 -27.699  1.00 32.19           O
ATOM   8421  N   LEU D 557      29.434  -0.063 -29.352  1.00 31.56           N
ATOM   8422  CA  LEU D 557      28.266   0.801 -29.201  1.00 32.01           C
ATOM   8423  CB  LEU D 557      28.482   2.132 -29.923  1.00 32.49           C
ATOM   8424  CG  LEU D 557      29.237   3.221 -29.157  1.00 38.09           C
ATOM   8425  CD1 LEU D 557      29.783   4.268 -30.125  1.00 38.71           C
ATOM   8426  CD2 LEU D 557      28.339   3.866 -28.114  1.00 40.94           C
ATOM   8427  C   LEU D 557      27.047   0.090 -29.772  1.00 35.69           C
ATOM   8428  O   LEU D 557      25.993   0.030 -29.138  1.00 35.86           O
ATOM   8429  N   ILE D 558      27.204  -0.466 -30.967  1.00 31.41           N
ATOM   8430  CA  ILE D 558      26.121  -1.202 -31.602  1.00 30.64           C
ATOM   8431  CB  ILE D 558      26.505  -1.674 -33.014  1.00 33.61           C
ATOM   8432  CG1 ILE D 558      26.712  -0.474 -33.942  1.00 33.57           C
ATOM   8433  CD1 ILE D 558      25.485   0.390 -34.104  1.00 37.93           C
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ATOM   8434  CG2 ILE D 558      25.427  -2.591 -33.577  1.00 34.74           C
ATOM   8435  C   ILE D 558      25.705  -2.373 -30.717  1.00 33.37           C
ATOM   8436  O   ILE D 558      24.516  -2.618 -30.523  1.00 32.63           O
ATOM   8437  N   ALA D 559      26.687  -3.079 -30.163  1.00 29.23           N
ATOM   8438  CA  ALA D 559      26.411  -4.219 -29.289  1.00 29.19           C
ATOM   8439  CB  ALA D 559      27.705  -4.899 -28.862  1.00 29.91           C
ATOM   8440  C   ALA D 559      25.613  -3.793 -28.069  1.00 33.50           C
ATOM   8441  O   ALA D 559      24.650  -4.452 -27.688  1.00 34.30           O
ATOM   8442  N   CYS D 560      26.028  -2.693 -27.452  1.00 29.86           N
ATOM   8443  CA  CYS D 560      25.352  -2.164 -26.274  1.00 29.92           C
ATOM   8444  CB  CYS D 560      26.006  -0.862 -25.830  1.00 30.68           C
ATOM   8445  SG  CYS D 560      27.665  -1.082 -25.183  1.00 35.04           S
ATOM   8446  C   CYS D 560      23.870  -1.928 -26.525  1.00 32.37           C
ATOM   8447  O   CYS D 560      23.033  -2.251 -25.687  1.00 32.10           O
ATOM   8448  N   LEU D 561      23.555  -1.358 -27.683  1.00 28.05           N
ATOM   8449  CA  LEU D 561      22.178  -1.055 -28.045  1.00 27.71           C
ATOM   8450  CB  LEU D 561      22.145  -0.058 -29.204  1.00 27.53           C
ATOM   8451  CG  LEU D 561      20.812   0.645 -29.455  1.00 31.89           C
ATOM   8452  CD1 LEU D 561      20.481   1.584 -28.308  1.00 32.32           C
ATOM   8453  CD2 LEU D 561      20.839   1.392 -30.777  1.00 32.87           C
ATOM   8454  C   LEU D 561      21.354  -2.295 -28.392  1.00 32.21           C
ATOM   8455  O   LEU D 561      20.127  -2.229 -28.467  1.00 32.53           O
ATOM   8456  N   CYS D 562      22.024  -3.424 -28.594  1.00 28.58           N
ATOM   8457  CA  CYS D 562      21.337  -4.662 -28.952  1.00 28.07           C
ATOM   8458  CB  CYS D 562      21.878  -5.203 -30.277  1.00 28.89           C
ATOM   8459  SG  CYS D 562      21.738  -4.067 -31.689  1.00 33.21           S
ATOM   8460  C   CYS D 562      21.418  -5.752 -27.880  1.00 29.76           C
ATOM   8461  O   CYS D 562      20.721  -6.759 -27.960  1.00 29.68           O
ATOM   8462  N   HIS D 563      22.283  -5.561 -26.889  1.00 24.37           N
ATOM   8463  CA  HIS D 563      22.484  -6.566 -25.844  1.00 22.96           C
ATOM   8464  CB  HIS D 563      23.476  -6.073 -24.782  1.00 23.15           C
ATOM   8465  CG  HIS D 563      22.830  -5.342 -23.646  1.00 25.92           C
ATOM   8466  ND1 HIS D 563      22.414  -4.030 -23.747  1.00 27.44           N
ATOM   8467  CE1 HIS D 563      21.869  -3.656 -22.603  1.00 26.78           C
ATOM   8468  NE2 HIS D 563      21.915  -4.677 -21.765  1.00 26.94           N
ATOM   8469  CD2 HIS D 563      22.514  -5.742 -22.392  1.00 27.06           C
ATOM   8470  C   HIS D 563      21.240  -7.176 -25.187  1.00 24.89           C
ATOM   8471  O   HIS D 563      21.354  -8.166 -24.469  1.00 23.83           O
ATOM   8472  N   ASP D 564      20.060  -6.604 -25.422  1.00 21.63           N
ATOM   8473  CA  ASP D 564      18.839  -7.139 -24.805  1.00 21.23           C
ATOM   8474  CB  ASP D 564      18.469  -6.333 -23.564  1.00 22.65           C
ATOM   8475  CG  ASP D 564      19.044  -6.919 -22.293  1.00 29.61           C
ATOM   8476  OD1 ASP D 564      19.251  -8.149 -22.239  1.00 29.80           O
ATOM   8477  OD2 ASP D 564      19.257  -6.148 -21.334  1.00 33.95           O
ATOM   8478  C   ASP D 564      17.622  -7.239 -25.731  1.00 26.38           C
ATOM   8479  O   ASP D 564      16.478  -7.238 -25.261  1.00 26.28           O
ATOM   8480  N   LEU D 565      17.870  -7.321 -27.035  1.00 22.67           N
ATOM   8481  CA  LEU D 565      16.802  -7.421 -28.031  1.00 22.74           C
ATOM   8482  CB  LEU D 565      17.396  -7.586 -29.435  1.00 22.32           C
ATOM   8483  CG  LEU D 565      17.796  -6.350 -30.242  1.00 26.28           C
ATOM   8484  CD1 LEU D 565      18.575  -6.763 -31.483  1.00 26.14           C
ATOM   8485  CD2 LEU D 565      16.565  -5.543 -30.620  1.00 27.16           C
ATOM   8486  C   LEU D 565      15.828  -8.573 -27.777  1.00 28.84           C
ATOM   8487  O   LEU D 565      16.241  -9.721 -27.583  1.00 28.67           O
ATOM   8488  N   ASP D 566      14.534  -8.263 -27.847  1.00 26.40           N
ATOM   8489  CA  ASP D 566      13.474  -9.255 -27.708  1.00 26.79           C
ATOM   8490  CB  ASP D 566      13.640 -10.372 -28.741  1.00 28.88           C
ATOM   8491  CG  ASP D 566      12.309 -10.917 -29.229  1.00 39.69           C
ATOM   8492  OD1 ASP D 566      11.277 -10.252 -28.997  1.00 39.50           O
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ATOM   8493  OD2 ASP D 566      12.294 -12.010 -29.840  1.00 46.21           O
ATOM   8494  C   ASP D 566      13.293  -9.855 -26.316  1.00 30.83           C
ATOM   8495  O   ASP D 566      12.705 -10.925 -26.175  1.00 30.72           O
ATOM   8496  N   HIS D 567      13.790  -9.162 -25.296  1.00 27.32           N
ATOM   8497  CA  HIS D 567      13.676  -9.627 -23.916  1.00 27.12           C
ATOM   8498  CB  HIS D 567      14.452  -8.691 -22.984  1.00 27.75           C
ATOM   8499  CG  HIS D 567      15.067  -9.382 -21.808  1.00 31.20           C
ATOM   8500  ND1 HIS D 567      14.377  -9.613 -20.638  1.00 33.01           N
ATOM   8501  CE1 HIS D 567      15.169 -10.219 -19.773  1.00 32.29           C
ATOM   8502  NE2 HIS D 567      16.347 -10.399 -20.343  1.00 32.53           N
ATOM   8503  CD2 HIS D 567      16.311  -9.879 -21.613  1.00 32.74           C
ATOM   8504  C   HIS D 567      12.205  -9.688 -23.499  1.00 30.59           C
ATOM   8505  O   HIS D 567      11.387  -8.908 -23.983  1.00 30.38           O
ATOM   8506  N   ARG D 568      11.863 -10.612 -22.607  1.00 26.80           N
ATOM   8507  CA  ARG D 568      10.474 -10.735 -22.169  1.00 26.77           C
ATOM   8508  CB  ARG D 568       9.866 -12.061 -22.627  1.00 26.54           C
ATOM   8509  CG  ARG D 568      10.718 -12.791 -23.654  1.00 40.87           C
ATOM   8510  CD  ARG D 568      10.495 -12.236 -25.052  1.00 53.64           C
ATOM   8511  NE  ARG D 568      10.957 -13.164 -26.080  1.00 63.28           N
ATOM   8512  CZ  ARG D 568      10.152 -13.861 -26.876  1.00 75.35           C
ATOM   8513  NH1 ARG D 568       8.837 -13.753 -26.746  1.00 62.34           N
ATOM   8514  NH2 ARG D 568      10.663 -14.670 -27.795  1.00 58.39           N
ATOM   8515  C   ARG D 568      10.290 -10.528 -20.667  1.00 30.17           C
ATOM   8516  O   ARG D 568       9.164 -10.538 -20.165  1.00 29.15           O
ATOM   8517  N   GLY D 569      11.393 -10.302 -19.961  1.00 27.10           N
ATOM   8518  CA  GLY D 569      11.355 -10.057 -18.531  1.00 27.01           C
ATOM   8519  C   GLY D 569      11.737 -11.246 -17.671  1.00 30.38           C
ATOM   8520  O   GLY D 569      11.741 -11.148 -16.444  1.00 29.36           O
ATOM   8521  N   PHE D 570      12.076 -12.363 -18.308  1.00 26.98           N
ATOM   8522  CA  PHE D 570      12.463 -13.563 -17.572  1.00 26.67           C
ATOM   8523  CB  PHE D 570      11.522 -14.724 -17.888  1.00 28.29           C
ATOM   8524  CG  PHE D 570      10.071 -14.343 -17.891  1.00 29.31           C
ATOM   8525  CD1 PHE D 570       9.373 -14.212 -16.701  1.00 32.41           C
ATOM   8526  CE1 PHE D 570       8.037 -13.853 -16.696  1.00 33.19           C
ATOM   8527  CZ  PHE D 570       7.381 -13.622 -17.892  1.00 32.04           C
ATOM   8528  CE2 PHE D 570       8.065 -13.756 -19.084  1.00 34.04           C
ATOM   8529  CD2 PHE D 570       9.406 -14.110 -19.080  1.00 31.25           C
ATOM   8530  C   PHE D 570      13.923 -13.980 -17.764  1.00 31.44           C
ATOM   8531  O   PHE D 570      14.503 -13.814 -18.838  1.00 31.34           O
ATOM   8532  N   SER D 571      14.506 -14.528 -16.703  1.00 28.13           N
ATOM   8533  CA  SER D 571      15.889 -14.989 -16.720  1.00 27.34           C
ATOM   8534  CB  SER D 571      16.384 -15.215 -15.291  1.00 29.19           C
ATOM   8535  OG  SER D 571      15.575 -16.164 -14.619  1.00 35.06           O
ATOM   8536  C   SER D 571      16.001 -16.288 -17.508  1.00 31.22           C
ATOM   8537  O   SER D 571      14.998 -16.949 -17.780  1.00 31.19           O
ATOM   8538  N   ASN D 572      17.228 -16.650 -17.869  1.00 27.23           N
ATOM   8539  CA  ASN D 572      17.478 -17.881 -18.605  1.00 27.32           C
ATOM   8540  CB  ASN D 572      18.972 -18.039 -18.900  1.00 26.47           C
ATOM   8541  CG  ASN D 572      19.506 -16.952 -19.807  1.00 42.51           C
ATOM   8542  OD1 ASN D 572      18.788 -16.420 -20.653  1.00 39.31           O
ATOM   8543  ND2 ASN D 572      20.775 -16.621 -19.639  1.00 29.10           N
ATOM   8544  C   ASN D 572      16.976 -19.082 -17.801  1.00 33.10           C
ATOM   8545  O   ASN D 572      16.587 -20.100 -18.369  1.00 33.03           O
ATOM   8546  N   SER D 573      16.983 -18.955 -16.477  1.00 30.75           N
ATOM   8547  CA  SER D 573      16.519 -20.029 -15.605  1.00 31.19           C
ATOM   8548  CB  SER D 573      16.800 -19.695 -14.139  1.00 36.18           C
ATOM   8549  OG  SER D 573      17.937 -20.397 -13.665  1.00 48.57           O
ATOM   8550  C   SER D 573      15.031 -20.301 -15.801  1.00 34.84           C
ATOM   8551  O   SER D 573      14.610 -21.456 -15.883  1.00 34.92           O
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ATOM   8552  N   TYR D 574      14.234 -19.237 -15.870  1.00 29.86           N
ATOM   8553  CA  TYR D 574      12.796 -19.397 -16.041  1.00 28.97           C
ATOM   8554  CB  TYR D 574      12.064 -18.060 -15.941  1.00 29.28           C
ATOM   8555  CG  TYR D 574      10.573 -18.201 -16.147  1.00 30.02           C
ATOM   8556  CD1 TYR D 574       9.751 -18.653 -15.123  1.00 31.70           C
ATOM   8557  CE1 TYR D 574       8.394 -18.832 -15.323  1.00 31.86           C
ATOM   8558  CZ  TYR D 574       7.853 -18.575 -16.564  1.00 37.13           C
ATOM   8559  OH  TYR D 574       6.505 -18.735 -16.773  1.00 37.38           O
ATOM   8560  CE2 TYR D 574       8.654 -18.153 -17.601  1.00 31.32           C
ATOM   8561  CD2 TYR D 574      10.003 -17.979 -17.393  1.00 30.44           C
ATOM   8562  C   TYR D 574      12.462 -20.092 -17.353  1.00 33.00           C
ATOM   8563  O   TYR D 574      11.489 -20.847 -17.440  1.00 32.23           O
ATOM   8564  N   LEU D 575      13.277 -19.835 -18.372  1.00 30.24           N
ATOM   8565  CA  LEU D 575      13.083 -20.432 -19.685  1.00 30.34           C
ATOM   8566  CB  LEU D 575      14.038 -19.795 -20.690  1.00 30.05           C
ATOM   8567  CG  LEU D 575      13.543 -18.530 -21.397  1.00 34.04           C
ATOM   8568  CD1 LEU D 575      12.991 -17.509 -20.400  1.00 33.80           C
ATOM   8569  CD2 LEU D 575      14.666 -17.931 -22.217  1.00 36.00           C
ATOM   8570  C   LEU D 575      13.310 -21.935 -19.637  1.00 36.82           C
ATOM   8571  O   LEU D 575      12.690 -22.692 -20.384  1.00 37.15           O
ATOM   8572  N   GLN D 576      14.205 -22.360 -18.753  1.00 34.29           N
ATOM   8573  CA  GLN D 576      14.531 -23.773 -18.609  1.00 34.20           C
ATOM   8574  CB  GLN D 576      15.873 -23.943 -17.899  1.00 35.83           C
ATOM   8575  CG  GLN D 576      16.262 -25.388 -17.635  1.00 55.67           C
ATOM   8576  CD  GLN D 576      17.274 -25.521 -16.516  1.00 78.19           C
ATOM   8577  OE1 GLN D 576      18.084 -26.446 -16.503  1.00 75.32           O
ATOM   8578  NE2 GLN D 576      17.239 -24.587 -15.573  1.00 69.82           N
ATOM   8579  C   GLN D 576      13.443 -24.531 -17.861  1.00 37.46           C
ATOM   8580  O   GLN D 576      12.918 -25.525 -18.359  1.00 37.39           O
ATOM   8581  N   LYS D 577      13.119 -24.066 -16.660  1.00 33.72           N
ATOM   8582  CA  LYS D 577      12.090 -24.697 -15.846  1.00 33.49           C
ATOM   8583  CB  LYS D 577      11.938 -23.963 -14.514  1.00 36.02           C
ATOM   8584  CG  LYS D 577      12.970 -24.356 -13.473  1.00 49.09           C
ATOM   8585  CD  LYS D 577      14.124 -23.370 -13.448  1.00 57.14           C
ATOM   8586  CE  LYS D 577      15.344 -23.968 -12.765  1.00 67.99           C
ATOM   8587  NZ  LYS D 577      16.137 -22.938 -12.037  1.00 77.67           N
ATOM   8588  C   LYS D 577      10.766 -24.686 -16.594  1.00 37.74           C
ATOM   8589  O   LYS D 577       9.937 -25.581 -16.432  1.00 37.46           O
ATOM   8590  N   PHE D 578      10.575 -23.666 -17.419  1.00 33.90           N
ATOM   8591  CA  PHE D 578       9.353 -23.535 -18.192  1.00 33.17           C
ATOM   8592  CB  PHE D 578       9.178 -22.095 -18.658  1.00 34.36           C
ATOM   8593  CG  PHE D 578       7.865 -21.836 -19.329  1.00 35.36           C
ATOM   8594  CD1 PHE D 578       6.758 -21.460 -18.588  1.00 38.39           C
ATOM   8595  CE1 PHE D 578       5.546 -21.218 -19.203  1.00 39.29           C
ATOM   8596  CZ  PHE D 578       5.429 -21.359 -20.570  1.00 38.32           C
ATOM   8597  CE2 PHE D 578       6.526 -21.736 -21.320  1.00 40.05           C
ATOM   8598  CD2 PHE D 578       7.734 -21.975 -20.699  1.00 37.19           C
ATOM   8599  C   PHE D 578       9.348 -24.466 -19.393  1.00 37.61           C
ATOM   8600  O   PHE D 578       8.284 -24.843 -19.886  1.00 36.56           O
ATOM   8601  N   ASP D 579      10.541 -24.812 -19.870  1.00 35.44           N
ATOM   8602  CA  ASP D 579      10.693 -25.677 -21.039  1.00 35.67           C
ATOM   8603  CB  ASP D 579       9.777 -26.905 -20.932  1.00 37.81           C
ATOM   8604  CG  ASP D 579      10.330 -28.121 -21.663  1.00 50.52           C
ATOM   8605  OD1 ASP D 579      11.206 -27.949 -22.538  1.00 51.85           O
ATOM   8606  OD2 ASP D 579       9.870 -29.248 -21.376  1.00 57.01           O
ATOM   8607  C   ASP D 579      10.378 -24.886 -22.307  1.00 39.61           C
ATOM   8608  O   ASP D 579       9.602 -25.332 -23.152  1.00 39.94           O
ATOM   8609  N   HIS D 580      10.973 -23.702 -22.427  1.00 35.57           N
ATOM   8610  CA  HIS D 580      10.756 -22.847 -23.591  1.00 34.96           C
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ATOM   8611  CB  HIS D 580      11.091 -21.389 -23.253  1.00 35.44           C
ATOM   8612  CG  HIS D 580      10.659 -20.408 -24.300  1.00 38.48           C
ATOM   8613  ND1 HIS D 580      11.443 -20.084 -25.388  1.00 40.13           N
ATOM   8614  CE1 HIS D 580      10.810 -19.201 -26.137  1.00 39.31           C
ATOM   8615  NE2 HIS D 580       9.643 -18.938 -25.576  1.00 39.57           N
ATOM   8616  CD2 HIS D 580       9.524 -19.681 -24.426  1.00 39.87           C
ATOM   8617  C   HIS D 580      11.594 -23.319 -24.782  1.00 39.35           C
ATOM   8618  O   HIS D 580      12.692 -23.852 -24.612  1.00 39.03           O
ATOM   8619  N   PRO D 581      11.073 -23.142 -26.006  1.00 36.13           N
ATOM   8620  CA  PRO D 581      11.732 -23.536 -27.254  1.00 36.09           C
ATOM   8621  CB  PRO D 581      10.770 -23.019 -28.321  1.00 37.81           C
ATOM   8622  CG  PRO D 581       9.409 -23.079 -27.661  1.00 42.02           C
ATOM   8623  CD  PRO D 581       9.608 -23.089 -26.159  1.00 37.52           C
ATOM   8624  C   PRO D 581      13.106 -22.890 -27.418  1.00 40.32           C
ATOM   8625  O   PRO D 581      13.963 -23.407 -28.139  1.00 39.71           O
ATOM   8626  N   LEU D 582      13.309 -21.759 -26.749  1.00 36.87           N
ATOM   8627  CA  LEU D 582      14.582 -21.050 -26.806  1.00 36.42           C
ATOM   8628  CB  LEU D 582      14.412 -19.603 -26.337  1.00 36.53           C
ATOM   8629  CG  LEU D 582      14.000 -18.605 -27.421  1.00 41.31           C
ATOM   8630  CD1 LEU D 582      13.566 -17.277 -26.818  1.00 41.63           C
ATOM   8631  CD2 LEU D 582      15.132 -18.404 -28.408  1.00 43.43           C
ATOM   8632  C   LEU D 582      15.631 -21.768 -25.960  1.00 40.44           C
ATOM   8633  O   LEU D 582      16.826 -21.704 -26.251  1.00 40.61           O
ATOM   8634  N   ALA D 583      15.177 -22.465 -24.922  1.00 36.37           N
ATOM   8635  CA  ALA D 583      16.076 -23.219 -24.054  1.00 36.16           C
ATOM   8636  CB  ALA D 583      15.388 -23.580 -22.756  1.00 36.76           C
ATOM   8637  C   ALA D 583      16.591 -24.475 -24.755  1.00 40.23           C
ATOM   8638  O   ALA D 583      17.654 -24.993 -24.415  1.00 40.00           O
ATOM   8639  N   ALA D 584      15.833 -24.954 -25.739  1.00 37.03           N
ATOM   8640  CA  ALA D 584      16.223 -26.130 -26.513  1.00 37.16           C
ATOM   8641  CB  ALA D 584      14.992 -26.807 -27.103  1.00 37.81           C
ATOM   8642  C   ALA D 584      17.191 -25.717 -27.621  1.00 42.18           C
ATOM   8643  O   ALA D 584      18.123 -26.450 -27.962  1.00 42.29           O
ATOM   8644  N   LEU D 585      16.961 -24.527 -28.168  1.00 38.86           N
ATOM   8645  CA  LEU D 585      17.806 -23.961 -29.211  1.00 38.53           C
ATOM   8646  CB  LEU D 585      17.163 -22.680 -29.746  1.00 38.57           C
ATOM   8647  CG  LEU D 585      17.466 -22.255 -31.183  1.00 43.18           C
ATOM   8648  CD1 LEU D 585      17.359 -23.440 -32.130  1.00 43.11           C
ATOM   8649  CD2 LEU D 585      16.524 -21.135 -31.605  1.00 45.26           C
ATOM   8650  C   LEU D 585      19.179 -23.635 -28.628  1.00 42.44           C
ATOM   8651  O   LEU D 585      20.209 -24.039 -29.168  1.00 41.75           O
ATOM   8652  N   TYR D 586      19.180 -22.907 -27.514  1.00 39.25           N
ATOM   8653  CA  TYR D 586      20.418 -22.520 -26.843  1.00 38.89           C
ATOM   8654  CB  TYR D 586      20.530 -20.997 -26.759  1.00 39.44           C
ATOM   8655  CG  TYR D 586      20.145 -20.273 -28.030  1.00 40.22           C
ATOM   8656  CD1 TYR D 586      18.999 -19.494 -28.085  1.00 41.82           C
ATOM   8657  CE1 TYR D 586      18.646 -18.820 -29.239  1.00 42.00           C
ATOM   8658  CZ  TYR D 586      19.451 -18.910 -30.353  1.00 47.95           C
ATOM   8659  OH  TYR D 586      19.105 -18.231 -31.498  1.00 47.70           O
ATOM   8660  CE2 TYR D 586      20.603 -19.670 -30.322  1.00 41.37           C
ATOM   8661  CD2 TYR D 586      20.944 -20.344 -29.164  1.00 40.67           C
ATOM   8662  C   TYR D 586      20.490 -23.110 -25.439  1.00 43.05           C
ATOM   8663  O   TYR D 586      19.747 -22.701 -24.547  1.00 42.43           O
ATOM   8664  N   SER D 587      21.396 -24.063 -25.243  1.00 39.98           N
ATOM   8665  CA  SER D 587      21.560 -24.691 -23.937  1.00 39.92           C
ATOM   8666  CB  SER D 587      22.454 -25.930 -24.045  1.00 43.88           C
ATOM   8667  OG  SER D 587      23.130 -25.962 -25.292  1.00 53.25           O
ATOM   8668  C   SER D 587      22.149 -23.693 -22.937  1.00 43.12           C
ATOM   8669  O   SER D 587      21.706 -23.607 -21.790  1.00 42.79           O
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ATOM   8670  N   THR D 588      23.143 -22.934 -23.391  1.00 38.62           N
ATOM   8671  CA  THR D 588      23.808 -21.935 -22.557  1.00 37.69           C
ATOM   8672  CB  THR D 588      25.337 -22.142 -22.558  1.00 46.14           C
ATOM   8673  OG1 THR D 588      25.845 -21.986 -23.891  1.00 45.32           O
ATOM   8674  CG2 THR D 588      25.684 -23.530 -22.045  1.00 45.47           C
ATOM   8675  C   THR D 588      23.458 -20.518 -23.013  1.00 38.95           C
ATOM   8676  O   THR D 588      23.133 -20.302 -24.184  1.00 38.47           O
ATOM   8677  N   SER D 589      23.548 -19.564 -22.084  1.00 32.92           N
ATOM   8678  CA  SER D 589      23.262 -18.155 -22.357  1.00 31.46           C
ATOM   8679  CB  SER D 589      24.495 -17.471 -22.947  1.00 34.26           C
ATOM   8680  OG  SER D 589      25.523 -17.365 -21.978  1.00 41.80           O
ATOM   8681  C   SER D 589      22.057 -17.976 -23.276  1.00 32.82           C
ATOM   8682  O   SER D 589      22.097 -17.201 -24.231  1.00 32.68           O
ATOM   8683  N   THR D 590      21.005 -18.734 -22.988  1.00 27.41           N
ATOM   8684  CA  THR D 590      19.782 -18.745 -23.784  1.00 26.48           C
ATOM   8685  CB  THR D 590      18.637 -19.457 -23.044  1.00 32.81           C
ATOM   8686  OG1 THR D 590      19.080 -20.749 -22.607  1.00 31.02           O
ATOM   8687  CG2 THR D 590      17.428 -19.612 -23.954  1.00 30.65           C
ATOM   8688  C   THR D 590      19.355 -17.384 -24.315  1.00 29.49           C
ATOM   8689  O   THR D 590      19.389 -17.142 -25.522  1.00 29.10           O
ATOM   8690  N   MET D 591      18.947 -16.500 -23.410  1.00 25.28           N
ATOM   8691  CA  MET D 591      18.500 -15.172 -23.794  1.00 25.09           C
ATOM   8692  CB  MET D 591      18.105 -14.360 -22.557  1.00 27.46           C
ATOM   8693  CG  MET D 591      16.656 -14.534 -22.143  1.00 31.08           C
ATOM   8694  SD  MET D 591      15.546 -14.702 -23.567  1.00 35.68           S
ATOM   8695  CE  MET D 591      15.554 -13.014 -24.232  1.00 32.69           C
ATOM   8696  C   MET D 591      19.580 -14.447 -24.590  1.00 28.72           C
ATOM   8697  O   MET D 591      19.338 -13.978 -25.701  1.00 27.89           O
ATOM   8698  N   GLU D 592      20.779 -14.388 -24.020  1.00 25.66           N
ATOM   8699  CA  GLU D 592      21.911 -13.718 -24.651  1.00 25.28           C
ATOM   8700  CB  GLU D 592      23.160 -13.851 -23.773  1.00 26.62           C
ATOM   8701  CG  GLU D 592      23.040 -13.148 -22.418  1.00 33.87           C
ATOM   8702  CD  GLU D 592      22.121 -13.875 -21.451  1.00 49.76           C
ATOM   8703  OE1 GLU D 592      21.875 -15.080 -21.660  1.00 44.24           O
ATOM   8704  OE2 GLU D 592      21.644 -13.244 -20.482  1.00 42.88           O
ATOM   8705  C   GLU D 592      22.174 -14.204 -26.081  1.00 29.15           C
ATOM   8706  O   GLU D 592      22.444 -13.407 -26.980  1.00 28.97           O
ATOM   8707  N   GLN D 593      22.077 -15.510 -26.295  1.00 25.20           N
ATOM   8708  CA  GLN D 593      22.276 -16.070 -27.627  1.00 24.80           C
ATOM   8709  CB  GLN D 593      22.333 -17.594 -27.554  1.00 26.10           C
ATOM   8710  CG  GLN D 593      23.543 -18.134 -26.810  1.00 40.07           C
ATOM   8711  CD  GLN D 593      23.974 -19.492 -27.327  1.00 53.84           C
ATOM   8712  OE1 GLN D 593      24.331 -19.637 -28.496  1.00 53.29           O
ATOM   8713  NE2 GLN D 593      23.903 -20.502 -26.469  1.00 35.62           N
ATOM   8714  C   GLN D 593      21.115 -15.623 -28.517  1.00 27.77           C
ATOM   8715  O   GLN D 593      21.285 -15.364 -29.709  1.00 26.37           O
ATOM   8716  N   HIS D 594      19.935 -15.512 -27.916  1.00 24.40           N
ATOM   8717  CA  HIS D 594      18.757 -15.056 -28.638  1.00 24.09           C
ATOM   8718  CB  HIS D 594      17.515 -15.198 -27.763  1.00 24.92           C
ATOM   8719  CG  HIS D 594      16.267 -14.682 -28.406  1.00 28.22           C
ATOM   8720  ND1 HIS D 594      15.853 -15.090 -29.656  1.00 29.83           N
ATOM   8721  CE1 HIS D 594      14.726 -14.473 -29.964  1.00 29.18           C
ATOM   8722  NE2 HIS D 594      14.401 -13.674 -28.963  1.00 29.47           N
ATOM   8723  CD2 HIS D 594      15.350 -13.784 -27.977  1.00 29.74           C
ATOM   8724  C   HIS D 594      18.928 -13.597 -29.053  1.00 26.83           C
ATOM   8725  O   HIS D 594      18.627 -13.227 -30.183  1.00 26.55           O
ATOM   8726  N   HIS D 595      19.422 -12.776 -28.132  1.00 22.86           N
ATOM   8727  CA  HIS D 595      19.652 -11.360 -28.403  1.00 22.60           C
ATOM   8728  CB  HIS D 595      20.288 -10.675 -27.190  1.00 22.79           C
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ATOM   8729  CG  HIS D 595      19.417 -10.658 -25.974  1.00 25.82           C
ATOM   8730  ND1 HIS D 595      18.042 -10.608 -26.042  1.00 27.27           N
ATOM   8731  CE1 HIS D 595      17.542 -10.600 -24.819  1.00 26.48           C
ATOM   8732  NE2 HIS D 595      18.544 -10.643 -23.958  1.00 26.70           N
ATOM   8733  CD2 HIS D 595      19.727 -10.683 -24.655  1.00 27.17           C
ATOM   8734  C   HIS D 595      20.562 -11.170 -29.617  1.00 28.81           C
ATOM   8735  O   HIS D 595      20.323 -10.291 -30.453  1.00 28.87           O
ATOM   8736  N   PHE D 596      21.623 -11.971 -29.697  1.00 25.97           N
ATOM   8737  CA  PHE D 596      22.578 -11.846 -30.793  1.00 25.92           C
ATOM   8738  CB  PHE D 596      23.810 -12.732 -30.588  1.00 27.29           C
ATOM   8739  CG  PHE D 596      24.769 -12.691 -31.749  1.00 28.09           C
ATOM   8740  CD1 PHE D 596      25.381 -11.500 -32.111  1.00 30.55           C
ATOM   8741  CE1 PHE D 596      26.233 -11.441 -33.201  1.00 31.32           C
ATOM   8742  CZ  PHE D 596      26.459 -12.576 -33.961  1.00 30.32           C
ATOM   8743  CE2 PHE D 596      25.833 -13.761 -33.626  1.00 32.17           C
ATOM   8744  CD2 PHE D 596      24.989 -13.813 -32.530  1.00 29.67           C
ATOM   8745  C   PHE D 596      21.977 -12.115 -32.162  1.00 31.07           C
ATOM   8746  O   PHE D 596      22.181 -11.342 -33.096  1.00 30.26           O
ATOM   8747  N   SER D 597      21.272 -13.236 -32.285  1.00 29.77           N
ATOM   8748  CA  SER D 597      20.652 -13.627 -33.548  1.00 30.21           C
ATOM   8749  CB  SER D 597      20.018 -15.020 -33.434  1.00 35.18           C
ATOM   8750  OG  SER D 597      18.602 -14.959 -33.502  1.00 47.30           O
ATOM   8751  C   SER D 597      19.641 -12.590 -34.036  1.00 33.82           C
ATOM   8752  O   SER D 597      19.436 -12.431 -35.239  1.00 33.83           O
ATOM   8753  N   GLN D 598      19.039 -11.862 -33.100  1.00 29.55           N
ATOM   8754  CA  GLN D 598      18.084 -10.811 -33.448  1.00 28.57           C
ATOM   8755  CB  GLN D 598      17.340 -10.328 -32.202  1.00 29.82           C
ATOM   8756  CG  GLN D 598      16.436 -11.372 -31.586  1.00 35.72           C
ATOM   8757  CD  GLN D 598      15.194 -11.624 -32.419  1.00 54.93           C
ATOM   8758  OE1 GLN D 598      14.275 -10.807 -32.444  1.00 51.94           O
ATOM   8759  NE2 GLN D 598      15.170 -12.751 -33.118  1.00 46.83           N
ATOM   8760  C   GLN D 598      18.844  -9.656 -34.081  1.00 30.44           C
ATOM   8761  O   GLN D 598      18.338  -8.970 -34.965  1.00 30.64           O
ATOM   8762  N   THR D 599      20.074  -9.459 -33.616  1.00 24.72           N
ATOM   8763  CA  THR D 599      20.956  -8.419 -34.127  1.00 23.03           C
ATOM   8764  CB  THR D 599      22.259  -8.376 -33.308  1.00 22.38           C
ATOM   8765  OG1 THR D 599      21.943  -8.330 -31.914  1.00 11.99           O
ATOM   8766  CG2 THR D 599      23.102  -7.173 -33.689  1.00 20.26           C
ATOM   8767  C   THR D 599      21.274  -8.756 -35.571  1.00 27.59           C
ATOM   8768  O   THR D 599      21.303  -7.885 -36.436  1.00 28.28           O
ATOM   8769  N   VAL D 600      21.543 -10.035 -35.807  1.00 23.85           N
ATOM   8770  CA  VAL D 600      21.879 -10.537 -37.131  1.00 23.75           C
ATOM   8771  CB  VAL D 600      22.311 -12.018 -37.061  1.00 27.36           C
ATOM   8772  CG1 VAL D 600      22.296 -12.655 -38.443  1.00 27.15           C
ATOM   8773  CG2 VAL D 600      23.690 -12.138 -36.428  1.00 27.11           C
ATOM   8774  C   VAL D 600      20.704 -10.334 -38.085  1.00 28.47           C
ATOM   8775  O   VAL D 600      20.861  -9.770 -39.167  1.00 28.33           O
ATOM   8776  N   SER D 601      19.523 -10.779 -37.672  1.00 25.31           N
ATOM   8777  CA  SER D 601      18.325 -10.626 -38.489  1.00 25.55           C
ATOM   8778  CB  SER D 601      17.089 -11.090 -37.716  1.00 28.46           C
ATOM   8779  OG  SER D 601      17.007 -12.502 -37.697  1.00 34.40           O
ATOM   8780  C   SER D 601      18.147  -9.177 -38.921  1.00 31.39           C
ATOM   8781  O   SER D 601      17.937  -8.893 -40.098  1.00 31.68           O
ATOM   8782  N   ILE D 602      18.231  -8.264 -37.960  1.00 28.94           N
ATOM   8783  CA  ILE D 602      18.067  -6.843 -38.234  1.00 28.85           C
ATOM   8784  CB  ILE D 602      18.156  -6.014 -36.946  1.00 31.80           C
ATOM   8785  CG1 ILE D 602      17.131  -6.512 -35.923  1.00 31.80           C
ATOM   8786  CD1 ILE D 602      16.661  -5.448 -34.958  1.00 38.71           C
ATOM   8787  CG2 ILE D 602      17.972  -4.534 -37.253  1.00 32.79           C
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ATOM   8788  C   ILE D 602      19.059  -6.336 -39.269  1.00 34.09           C
ATOM   8789  O   ILE D 602      18.714  -5.527 -40.129  1.00 34.19           O
ATOM   8790  N   LEU D 603      20.299  -6.797 -39.168  1.00 31.30           N
ATOM   8791  CA  LEU D 603      21.349  -6.362 -40.080  1.00 31.47           C
ATOM   8792  CB  LEU D 603      22.725  -6.652 -39.489  1.00 31.66           C
ATOM   8793  CG  LEU D 603      23.308  -5.531 -38.628  1.00 36.65           C
ATOM   8794  CD1 LEU D 603      24.298  -6.097 -37.627  1.00 36.91           C
ATOM   8795  CD2 LEU D 603      23.966  -4.471 -39.501  1.00 39.15           C
ATOM   8796  C   LEU D 603      21.227  -6.957 -41.480  1.00 36.14           C
ATOM   8797  O   LEU D 603      21.886  -6.498 -42.413  1.00 35.82           O
ATOM   8798  N   GLN D 604      20.381  -7.976 -41.622  1.00 33.04           N
ATOM   8799  CA  GLN D 604      20.167  -8.624 -42.916  1.00 32.64           C
ATOM   8800  CB  GLN D 604      20.184 -10.147 -42.780  1.00 34.32           C
ATOM   8801  CG  GLN D 604      21.593 -10.730 -42.705  1.00 53.23           C
ATOM   8802  CD  GLN D 604      21.635 -12.085 -42.032  1.00 73.92           C
ATOM   8803  OE1 GLN D 604      22.654 -12.478 -41.464  1.00 70.13           O
ATOM   8804  NE2 GLN D 604      20.526 -12.814 -42.101  1.00 66.20           N
ATOM   8805  C   GLN D 604      18.895  -8.127 -43.609  1.00 35.30           C
ATOM   8806  O   GLN D 604      18.487  -8.647 -44.652  1.00 34.61           O
ATOM   8807  N   LEU D 605      18.287  -7.099 -43.026  1.00 31.08           N
ATOM   8808  CA  LEU D 605      17.115  -6.460 -43.605  1.00 30.79           C
ATOM   8809  CB  LEU D 605      16.404  -5.613 -42.545  1.00 30.48           C
ATOM   8810  CG  LEU D 605      15.102  -6.121 -41.920  1.00 34.71           C
ATOM   8811  CD1 LEU D 605      14.972  -7.625 -42.026  1.00 34.60           C
ATOM   8812  CD2 LEU D 605      14.996  -5.671 -40.466  1.00 36.61           C
ATOM   8813  C   LEU D 605      17.663  -5.547 -44.699  1.00 36.72           C
ATOM   8814  O   LEU D 605      18.868  -5.288 -44.744  1.00 35.92           O
ATOM   8815  N   GLU D 606      16.793  -5.063 -45.580  1.00 35.13           N
ATOM   8816  CA  GLU D 606      17.235  -4.179 -46.654  1.00 35.87           C
ATOM   8817  CB  GLU D 606      16.222  -4.145 -47.798  1.00 37.66           C
ATOM   8818  CG  GLU D 606      16.804  -4.555 -49.146  1.00 52.45           C
ATOM   8819  CD  GLU D 606      15.986  -5.634 -49.836  1.00 80.90           C
ATOM   8820  OE1 GLU D 606      14.955  -5.293 -50.455  1.00 80.32           O
ATOM   8821  OE2 GLU D 606      16.367  -6.823 -49.750  1.00 75.09           O
ATOM   8822  C   GLU D 606      17.523  -2.771 -46.147  1.00 39.59           C
ATOM   8823  O   GLU D 606      16.736  -2.196 -45.391  1.00 38.86           O
ATOM   8824  N   GLY D 607      18.666  -2.229 -46.556  1.00 36.35           N
ATOM   8825  CA  GLY D 607      19.102  -0.909 -46.143  1.00 36.22           C
ATOM   8826  C   GLY D 607      19.439  -0.853 -44.663  1.00 39.72           C
ATOM   8827  O   GLY D 607      19.441   0.221 -44.064  1.00 38.93           O
ATOM   8828  N   HIS D 608      19.727  -2.012 -44.074  1.00 36.37           N
ATOM   8829  CA  HIS D 608      20.037  -2.084 -42.649  1.00 36.25           C
ATOM   8830  CB  HIS D 608      19.128  -3.091 -41.941  1.00 36.83           C
ATOM   8831  CG  HIS D 608      17.826  -2.513 -41.482  1.00 39.85           C
ATOM   8832  ND1 HIS D 608      16.788  -2.240 -42.346  1.00 41.65           N
ATOM   8833  CE1 HIS D 608      15.769  -1.745 -41.665  1.00 40.96           C
ATOM   8834  NE2 HIS D 608      16.106  -1.696 -40.389  1.00 41.19           N
ATOM   8835  CD2 HIS D 608      17.387  -2.171 -40.248  1.00 41.49           C
ATOM   8836  C   HIS D 608      21.496  -2.384 -42.327  1.00 40.82           C
ATOM   8837  O   HIS D 608      21.917  -2.239 -41.182  1.00 40.62           O
ATOM   8838  N   ASN D 609      22.270  -2.808 -43.320  1.00 37.99           N
ATOM   8839  CA  ASN D 609      23.676  -3.107 -43.066  1.00 37.96           C
ATOM   8840  CB  ASN D 609      24.277  -4.047 -44.109  1.00 38.78           C
ATOM   8841  CG  ASN D 609      25.530  -4.743 -43.597  1.00 51.06           C
ATOM   8842  OD1 ASN D 609      26.479  -4.982 -44.346  1.00 42.68           O
ATOM   8843  ND2 ASN D 609      25.561  -5.011 -42.297  1.00 39.94           N
ATOM   8844  C   ASN D 609      24.542  -1.870 -42.887  1.00 42.24           C
ATOM   8845  O   ASN D 609      24.967  -1.239 -43.855  1.00 42.25           O
ATOM   8846  N   ILE D 610      24.810  -1.543 -41.630  1.00 38.78           N
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ATOM   8847  CA  ILE D 610      25.621  -0.394 -41.279  1.00 38.31           C
ATOM   8848  CB  ILE D 610      25.351   0.018 -39.827  1.00 41.19           C
ATOM   8849  CG1 ILE D 610      25.268  -1.228 -38.943  1.00 41.47           C
ATOM   8850  CD1 ILE D 610      25.199  -0.925 -37.462  1.00 46.72           C
ATOM   8851  CG2 ILE D 610      24.053   0.809 -39.736  1.00 41.26           C
ATOM   8852  C   ILE D 610      27.099  -0.701 -41.510  1.00 43.11           C
ATOM   8853  O   ILE D 610      27.950   0.183 -41.406  1.00 43.22           O
ATOM   8854  N   PHE D 611      27.400  -1.959 -41.823  1.00 39.19           N
ATOM   8855  CA  PHE D 611      28.778  -2.373 -42.074  1.00 38.73           C
ATOM   8856  CB  PHE D 611      29.176  -3.537 -41.159  1.00 39.89           C
ATOM   8857  CG  PHE D 611      28.919  -3.285 -39.697  1.00 40.70           C
ATOM   8858  CD1 PHE D 611      28.081  -4.120 -38.974  1.00 42.98           C
ATOM   8859  CE1 PHE D 611      27.845  -3.894 -37.626  1.00 43.68           C
ATOM   8860  CZ  PHE D 611      28.458  -2.835 -36.985  1.00 42.72           C
ATOM   8861  CE2 PHE D 611      29.302  -2.001 -37.691  1.00 44.98           C
ATOM   8862  CD2 PHE D 611      29.530  -2.227 -39.041  1.00 42.50           C
ATOM   8863  C   PHE D 611      28.977  -2.771 -43.535  1.00 44.31           C
ATOM   8864  O   PHE D 611      29.772  -3.661 -43.841  1.00 44.12           O
ATOM   8865  N   SER D 612      28.254  -2.113 -44.435  1.00 42.11           N
ATOM   8866  CA  SER D 612      28.351  -2.422 -45.858  1.00 42.57           C
ATOM   8867  CB  SER D 612      27.189  -1.793 -46.633  1.00 46.27           C
ATOM   8868  OG  SER D 612      26.439  -0.910 -45.817  1.00 55.53           O
ATOM   8869  C   SER D 612      29.692  -2.008 -46.465  1.00 48.06           C
ATOM   8870  O   SER D 612      30.104  -2.539 -47.496  1.00 47.69           O
ATOM   8871  N   THR D 613      30.372  -1.066 -45.821  1.00 45.62           N
ATOM   8872  CA  THR D 613      31.660  -0.586 -46.309  1.00 45.77           C
ATOM   8873  CB  THR D 613      31.764   0.942 -46.197  1.00 55.69           C
ATOM   8874  OG1 THR D 613      32.766   1.290 -45.231  1.00 55.55           O
ATOM   8875  CG2 THR D 613      30.425   1.533 -45.780  1.00 55.65           C
ATOM   8876  C   THR D 613      32.838  -1.286 -45.630  1.00 49.80           C
ATOM   8877  O   THR D 613      33.909  -0.700 -45.454  1.00 49.84           O
ATOM   8878  N   LEU D 614      32.629  -2.543 -45.255  1.00 45.77           N
ATOM   8879  CA  LEU D 614      33.667  -3.332 -44.606  1.00 45.22           C
ATOM   8880  CB  LEU D 614      33.291  -3.621 -43.150  1.00 45.19           C
ATOM   8881  CG  LEU D 614      33.605  -2.538 -42.113  1.00 49.80           C
ATOM   8882  CD1 LEU D 614      32.936  -1.224 -42.477  1.00 49.95           C
ATOM   8883  CD2 LEU D 614      33.170  -2.991 -40.726  1.00 52.17           C
ATOM   8884  C   LEU D 614      33.864  -4.640 -45.364  1.00 48.50           C
ATOM   8885  O   LEU D 614      32.903  -5.236 -45.854  1.00 47.77           O
ATOM   8886  N   SER D 615      35.113  -5.077 -45.469  1.00 44.75           N
ATOM   8887  CA  SER D 615      35.424  -6.318 -46.168  1.00 44.40           C
ATOM   8888  CB  SER D 615      36.938  -6.506 -46.287  1.00 48.14           C
ATOM   8889  OG  SER D 615      37.553  -6.525 -45.011  1.00 58.38           O
ATOM   8890  C   SER D 615      34.802  -7.503 -45.439  1.00 47.78           C
ATOM   8891  O   SER D 615      34.270  -7.356 -44.340  1.00 47.22           O
ATOM   8892  N   SER D 616      34.863  -8.674 -46.064  1.00 44.16           N
ATOM   8893  CA  SER D 616      34.321  -9.888 -45.468  1.00 43.88           C
ATOM   8894  CB  SER D 616      34.355 -11.038 -46.478  1.00 47.98           C
ATOM   8895  OG  SER D 616      33.386 -10.855 -47.497  1.00 57.63           O
ATOM   8896  C   SER D 616      35.133 -10.251 -44.229  1.00 47.20           C
ATOM   8897  O   SER D 616      34.612 -10.841 -43.283  1.00 46.97           O
ATOM   8898  N   SER D 617      36.411  -9.886 -44.243  1.00 43.10           N
ATOM   8899  CA  SER D 617      37.302 -10.144 -43.118  1.00 42.62           C
ATOM   8900  CB  SER D 617      38.759  -9.910 -43.527  1.00 46.43           C
ATOM   8901  OG  SER D 617      39.553 -11.057 -43.275  1.00 56.39           O
ATOM   8902  C   SER D 617      36.937  -9.228 -41.953  1.00 44.78           C
ATOM   8903  O   SER D 617      36.754  -9.686 -40.825  1.00 44.19           O
ATOM   8904  N   GLU D 618      36.835  -7.932 -42.244  1.00 40.18           N
ATOM   8905  CA  GLU D 618      36.481  -6.928 -41.243  1.00 39.48           C
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ATOM   8906  CB  GLU D 618      36.540  -5.529 -41.859  1.00 40.97           C
ATOM   8907  CG  GLU D 618      37.936  -4.955 -42.011  1.00 53.07           C
ATOM   8908  CD  GLU D 618      37.950  -3.689 -42.856  1.00 78.08           C
ATOM   8909  OE1 GLU D 618      37.573  -3.763 -44.047  1.00 74.18           O
ATOM   8910  OE2 GLU D 618      38.312  -2.617 -42.323  1.00 73.57           O
ATOM   8911  C   GLU D 618      35.072  -7.182 -40.719  1.00 41.54           C
ATOM   8912  O   GLU D 618      34.858  -7.322 -39.515  1.00 40.86           O
ATOM   8913  N   TYR D 619      34.112  -7.228 -41.636  1.00 37.15           N
ATOM   8914  CA  TYR D 619      32.717  -7.459 -41.286  1.00 36.54           C
ATOM   8915  CB  TYR D 619      31.875  -7.611 -42.553  1.00 37.68           C
ATOM   8916  CG  TYR D 619      30.415  -7.900 -42.288  1.00 39.48           C
ATOM   8917  CD1 TYR D 619      29.450  -6.914 -42.452  1.00 41.45           C
ATOM   8918  CE1 TYR D 619      28.110  -7.176 -42.210  1.00 42.12           C
ATOM   8919  CZ  TYR D 619      27.724  -8.437 -41.794  1.00 48.31           C
ATOM   8920  OH  TYR D 619      26.394  -8.706 -41.549  1.00 48.82           O
ATOM   8921  CE2 TYR D 619      28.666  -9.431 -41.624  1.00 41.11           C
ATOM   8922  CD2 TYR D 619      30.002  -9.159 -41.871  1.00 40.27           C
ATOM   8923  C   TYR D 619      32.571  -8.695 -40.401  1.00 39.84           C
ATOM   8924  O   TYR D 619      31.710  -8.746 -39.522  1.00 39.50           O
ATOM   8925  N   GLU D 620      33.426  -9.685 -40.633  1.00 35.58           N
ATOM   8926  CA  GLU D 620      33.400 -10.912 -39.849  1.00 35.21           C
ATOM   8927  CB  GLU D 620      34.043 -12.063 -40.624  1.00 36.52           C
ATOM   8928  CG  GLU D 620      33.125 -13.256 -40.803  1.00 46.93           C
ATOM   8929  CD  GLU D 620      33.879 -14.519 -41.159  1.00 68.18           C
ATOM   8930  OE1 GLU D 620      34.600 -14.509 -42.180  1.00 67.08           O
ATOM   8931  OE2 GLU D 620      33.762 -15.515 -40.411  1.00 58.64           O
ATOM   8932  C   GLU D 620      34.080 -10.726 -38.492  1.00 38.14           C
ATOM   8933  O   GLU D 620      33.840 -11.486 -37.553  1.00 38.20           O
ATOM   8934  N   GLN D 621      34.918  -9.702 -38.394  1.00 33.46           N
ATOM   8935  CA  GLN D 621      35.604  -9.389 -37.149  1.00 32.57           C
ATOM   8936  CB  GLN D 621      36.827  -8.515 -37.431  1.00 33.99           C
ATOM   8937  CG  GLN D 621      38.158  -9.165 -37.090  1.00 51.15           C
ATOM   8938  CD  GLN D 621      39.337  -8.265 -37.405  1.00 71.33           C
ATOM   8939  OE1 GLN D 621      40.050  -7.817 -36.506  1.00 68.59           O
ATOM   8940  NE2 GLN D 621      39.542  -7.985 -38.688  1.00 61.68           N
ATOM   8941  C   GLN D 621      34.635  -8.637 -36.241  1.00 35.39           C
ATOM   8942  O   GLN D 621      34.542  -8.916 -35.046  1.00 35.44           O
ATOM   8943  N   VAL D 622      33.905  -7.692 -36.826  1.00 30.90           N
ATOM   8944  CA  VAL D 622      32.943  -6.876 -36.089  1.00 30.45           C
ATOM   8945  CB  VAL D 622      32.392  -5.736 -36.962  1.00 34.45           C
ATOM   8946  CG1 VAL D 622      30.948  -6.035 -37.367  1.00 34.35           C
ATOM   8947  CG2 VAL D 622      32.487  -4.406 -36.228  1.00 34.20           C
ATOM   8948  C   VAL D 622      31.809  -7.701 -35.489  1.00 33.52           C
ATOM   8949  O   VAL D 622      31.377  -7.454 -34.364  1.00 32.95           O
ATOM   8950  N   LEU D 623      31.326  -8.682 -36.242  1.00 30.11           N
ATOM   8951  CA  LEU D 623      30.240  -9.523 -35.768  1.00 29.79           C
ATOM   8952  CB  LEU D 623      29.580 -10.265 -36.924  1.00 29.79           C
ATOM   8953  CG  LEU D 623      28.235  -9.695 -37.368  1.00 34.27           C
ATOM   8954  CD1 LEU D 623      28.365  -8.224 -37.734  1.00 34.15           C
ATOM   8955  CD2 LEU D 623      27.747 -10.512 -38.553  1.00 36.98           C
ATOM   8956  C   LEU D 623      30.678 -10.489 -34.676  1.00 34.91           C
ATOM   8957  O   LEU D 623      29.839 -11.056 -33.973  1.00 34.79           O
ATOM   8958  N   GLU D 624      31.990 -10.659 -34.524  1.00 31.71           N
ATOM   8959  CA  GLU D 624      32.529 -11.531 -33.487  1.00 31.49           C
ATOM   8960  CB  GLU D 624      33.841 -12.180 -33.937  1.00 33.13           C
ATOM   8961  CG  GLU D 624      34.076 -13.570 -33.354  1.00 45.74           C
ATOM   8962  CD  GLU D 624      32.846 -14.455 -33.433  1.00 66.87           C
ATOM   8963  OE1 GLU D 624      32.816 -15.363 -34.292  1.00 57.70           O
ATOM   8964  OE2 GLU D 624      31.907 -14.237 -32.639  1.00 61.16           O
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ATOM   8965  C   GLU D 624      32.743 -10.729 -32.206  1.00 34.10           C
ATOM   8966  O   GLU D 624      32.673 -11.266 -31.101  1.00 33.50           O
ATOM   8967  N   ILE D 625      33.017  -9.439 -32.362  1.00 30.34           N
ATOM   8968  CA  ILE D 625      33.190  -8.566 -31.213  1.00 29.67           C
ATOM   8969  CB  ILE D 625      33.754  -7.198 -31.627  1.00 32.50           C
ATOM   8970  CG1 ILE D 625      35.133  -7.361 -32.263  1.00 32.75           C
ATOM   8971  CD1 ILE D 625      35.648  -6.099 -32.917  1.00 35.99           C
ATOM   8972  CG2 ILE D 625      33.800  -6.258 -30.424  1.00 33.19           C
ATOM   8973  C   ILE D 625      31.812  -8.407 -30.588  1.00 32.61           C
ATOM   8974  O   ILE D 625      31.653  -8.493 -29.373  1.00 32.40           O
ATOM   8975  N   ILE D 626      30.814  -8.187 -31.442  1.00 28.12           N
ATOM   8976  CA  ILE D 626      29.432  -8.010 -31.006  1.00 26.69           C
ATOM   8977  CB  ILE D 626      28.531  -7.546 -32.168  1.00 29.49           C
ATOM   8978  CG1 ILE D 626      28.934  -6.147 -32.636  1.00 29.61           C
ATOM   8979  CD1 ILE D 626      28.461  -5.813 -34.028  1.00 32.61           C
ATOM   8980  CG2 ILE D 626      27.069  -7.565 -31.749  1.00 30.18           C
ATOM   8981  C   ILE D 626      28.916  -9.307 -30.407  1.00 30.01           C
ATOM   8982  O   ILE D 626      28.200  -9.296 -29.405  1.00 29.83           O
ATOM   8983  N   ARG D 627      29.284 -10.426 -31.023  1.00 25.51           N
ATOM   8984  CA  ARG D 627      28.848 -11.727 -30.539  1.00 25.33           C
ATOM   8985  CB  ARG D 627      29.249 -12.831 -31.515  1.00 25.18           C
ATOM   8986  CG  ARG D 627      28.453 -14.114 -31.356  1.00 33.81           C
ATOM   8987  CD  ARG D 627      29.292 -15.322 -31.713  1.00 41.40           C
ATOM   8988  NE  ARG D 627      29.528 -16.169 -30.550  1.00 51.10           N
ATOM   8989  CZ  ARG D 627      30.728 -16.480 -30.072  1.00 63.09           C
ATOM   8990  NH1 ARG D 627      31.824 -16.035 -30.666  1.00 51.00           N
ATOM   8991  NH2 ARG D 627      30.831 -17.246 -28.997  1.00 49.04           N
ATOM   8992  C   ARG D 627      29.423 -12.006 -29.163  1.00 29.89           C
ATOM   8993  O   ARG D 627      28.691 -12.305 -28.223  1.00 30.36           O
ATOM   8994  N   LYS D 628      30.741 -11.903 -29.050  1.00 26.24           N
ATOM   8995  CA  LYS D 628      31.416 -12.131 -27.780  1.00 25.83           C
ATOM   8996  CB  LYS D 628      32.930 -11.966 -27.948  1.00 28.14           C
ATOM   8997  CG  LYS D 628      33.611 -13.103 -28.703  1.00 38.84           C
ATOM   8998  CD  LYS D 628      34.972 -12.675 -29.236  1.00 46.92           C
ATOM   8999  CE  LYS D 628      35.776 -13.874 -29.727  1.00 56.97           C
ATOM   9000  NZ  LYS D 628      36.907 -13.462 -30.611  1.00 64.45           N
ATOM   9001  C   LYS D 628      30.899 -11.139 -26.741  1.00 29.74           C
ATOM   9002  O   LYS D 628      30.582 -11.514 -25.614  1.00 29.84           O
ATOM   9003  N   ALA D 629      30.829  -9.870 -27.132  1.00 26.16           N
ATOM   9004  CA  ALA D 629      30.356  -8.800 -26.254  1.00 26.02           C
ATOM   9005  CB  ALA D 629      30.442  -7.456 -26.963  1.00 26.79           C
ATOM   9006  C   ALA D 629      28.939  -9.031 -25.720  1.00 29.60           C
ATOM   9007  O   ALA D 629      28.668  -8.785 -24.547  1.00 29.44           O
ATOM   9008  N   ILE D 630      28.023  -9.460 -26.584  1.00 25.37           N
ATOM   9009  CA  ILE D 630      26.652  -9.691 -26.145  1.00 24.82           C
ATOM   9010  CB  ILE D 630      25.665  -9.814 -27.323  1.00 27.63           C
ATOM   9011  CG1 ILE D 630      25.529  -8.468 -28.044  1.00 27.23           C
ATOM   9012  CD1 ILE D 630      24.467  -8.450 -29.124  1.00 30.08           C
ATOM   9013  CG2 ILE D 630      24.301 -10.282 -26.817  1.00 27.72           C
ATOM   9014  C   ILE D 630      26.577 -10.889 -25.208  1.00 28.42           C
ATOM   9015  O   ILE D 630      25.912 -10.834 -24.180  1.00 27.57           O
ATOM   9016  N   ILE D 631      27.281 -11.964 -25.554  1.00 25.84           N
ATOM   9017  CA  ILE D 631      27.297 -13.161 -24.717  1.00 26.01           C
ATOM   9018  CB  ILE D 631      28.127 -14.290 -25.357  1.00 28.76           C
ATOM   9019  CG1 ILE D 631      27.432 -14.821 -26.613  1.00 28.81           C
ATOM   9020  CD1 ILE D 631      25.941 -14.572 -26.650  1.00 28.68           C
ATOM   9021  CG2 ILE D 631      28.340 -15.413 -24.370  1.00 28.99           C
ATOM   9022  C   ILE D 631      27.811 -12.834 -23.318  1.00 32.21           C
ATOM   9023  O   ILE D 631      27.393 -13.447 -22.338  1.00 32.16           O
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ATOM   9024  N   ALA D 632      28.713 -11.860 -23.237  1.00 30.42           N
ATOM   9025  CA  ALA D 632      29.311 -11.449 -21.969  1.00 30.91           C
ATOM   9026  CB  ALA D 632      30.534 -10.572 -22.214  1.00 31.61           C
ATOM   9027  C   ALA D 632      28.346 -10.775 -20.988  1.00 36.77           C
ATOM   9028  O   ALA D 632      28.651 -10.656 -19.796  1.00 36.95           O
ATOM   9029  N   THR D 633      27.188 -10.342 -21.483  1.00 34.01           N
ATOM   9030  CA  THR D 633      26.180  -9.703 -20.638  1.00 33.86           C
ATOM   9031  CB  THR D 633      25.147  -8.901 -21.458  1.00 38.77           C
ATOM   9032  OG1 THR D 633      24.756  -9.652 -22.615  1.00 37.64           O
ATOM   9033  CG2 THR D 633      25.725  -7.556 -21.885  1.00 35.28           C
ATOM   9034  C   THR D 633      25.503 -10.727 -19.728  1.00 37.90           C
ATOM   9035  O   THR D 633      24.717 -10.370 -18.849  1.00 37.69           O
ATOM   9036  N   ASP D 634      25.826 -11.999 -19.943  1.00 34.08           N
ATOM   9037  CA  ASP D 634      25.301 -13.094 -19.128  1.00 33.58           C
ATOM   9038  CB  ASP D 634      25.533 -14.430 -19.844  1.00 35.37           C
ATOM   9039  CG  ASP D 634      24.943 -15.610 -19.095  1.00 45.74           C
ATOM   9040  OD1 ASP D 634      24.491 -15.425 -17.944  1.00 46.45           O
ATOM   9041  OD2 ASP D 634      24.934 -16.728 -19.658  1.00 51.46           O
ATOM   9042  C   ASP D 634      26.040 -13.086 -17.788  1.00 36.60           C
ATOM   9043  O   ASP D 634      27.226 -13.411 -17.723  1.00 36.33           O
ATOM   9044  N   LEU D 635      25.345 -12.686 -16.729  1.00 32.25           N
ATOM   9045  CA  LEU D 635      25.957 -12.586 -15.408  1.00 31.45           C
ATOM   9046  CB  LEU D 635      24.971 -12.033 -14.381  1.00 31.12           C
ATOM   9047  CG  LEU D 635      25.594 -11.062 -13.380  1.00 35.02           C
ATOM   9048  CD1 LEU D 635      26.271  -9.915 -14.116  1.00 34.83           C
ATOM   9049  CD2 LEU D 635      24.556 -10.546 -12.394  1.00 36.85           C
ATOM   9050  C   LEU D 635      26.633 -13.842 -14.874  1.00 35.55           C
ATOM   9051  O   LEU D 635      27.604 -13.752 -14.120  1.00 35.45           O
ATOM   9052  N   ALA D 636      26.121 -15.011 -15.241  1.00 31.80           N
ATOM   9053  CA  ALA D 636      26.699 -16.261 -14.754  1.00 31.71           C
ATOM   9054  CB  ALA D 636      25.820 -17.441 -15.127  1.00 32.26           C
ATOM   9055  C   ALA D 636      28.131 -16.480 -15.244  1.00 36.29           C
ATOM   9056  O   ALA D 636      28.891 -17.240 -14.642  1.00 36.72           O
ATOM   9057  N   LEU D 637      28.484 -15.820 -16.343  1.00 32.30           N
ATOM   9058  CA  LEU D 637      29.812 -15.943 -16.936  1.00 31.86           C
ATOM   9059  CB  LEU D 637      29.728 -15.791 -18.463  1.00 31.83           C
ATOM   9060  CG  LEU D 637      28.857 -16.739 -19.294  1.00 36.31           C
ATOM   9061  CD1 LEU D 637      28.656 -16.193 -20.707  1.00 36.46           C
ATOM   9062  CD2 LEU D 637      29.468 -18.126 -19.345  1.00 38.33           C
ATOM   9063  C   LEU D 637      30.753 -14.873 -16.392  1.00 36.00           C
ATOM   9064  O   LEU D 637      31.967 -14.949 -16.577  1.00 36.01           O
ATOM   9065  N   TYR D 638      30.179 -13.856 -15.757  1.00 31.91           N
ATOM   9066  CA  TYR D 638      30.953 -12.739 -15.237  1.00 30.90           C
ATOM   9067  CB  TYR D 638      30.026 -11.600 -14.806  1.00 31.04           C
ATOM   9068  CG  TYR D 638      30.544 -10.824 -13.622  1.00 31.45           C
ATOM   9069  CD1 TYR D 638      31.499  -9.827 -13.784  1.00 33.24           C
ATOM   9070  CE1 TYR D 638      31.990  -9.126 -12.698  1.00 33.03           C
ATOM   9071  CZ  TYR D 638      31.538  -9.429 -11.433  1.00 39.35           C
ATOM   9072  OH  TYR D 638      32.023  -8.732 -10.350  1.00 39.82           O
ATOM   9073  CE2 TYR D 638      30.600 -10.425 -11.247  1.00 32.23           C
ATOM   9074  CD2 TYR D 638      30.112 -11.115 -12.336  1.00 31.59           C
ATOM   9075  C   TYR D 638      31.894 -13.109 -14.095  1.00 34.80           C
ATOM   9076  O   TYR D 638      32.976 -12.541 -13.966  1.00 34.38           O
ATOM   9077  N   PHE D 639      31.474 -14.041 -13.252  1.00 31.41           N
ATOM   9078  CA  PHE D 639      32.294 -14.442 -12.115  1.00 31.43           C
ATOM   9079  CB  PHE D 639      31.522 -15.400 -11.210  1.00 33.41           C
ATOM   9080  CG  PHE D 639      30.224 -14.833 -10.715  1.00 35.32           C
ATOM   9081  CD1 PHE D 639      30.203 -13.926  -9.665  1.00 38.89           C
ATOM   9082  CE1 PHE D 639      29.008 -13.384  -9.216  1.00 39.97           C
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ATOM   9083  CZ  PHE D 639      27.818 -13.732  -9.836  1.00 39.03           C
ATOM   9084  CE2 PHE D 639      27.830 -14.618 -10.897  1.00 40.62           C
ATOM   9085  CD2 PHE D 639      29.030 -15.158 -11.338  1.00 37.61           C
ATOM   9086  C   PHE D 639      33.636 -15.029 -12.540  1.00 34.35           C
ATOM   9087  O   PHE D 639      34.691 -14.579 -12.089  1.00 33.91           O
ATOM   9088  N   GLY D 640      33.592 -16.017 -13.429  1.00 30.51           N
ATOM   9089  CA  GLY D 640      34.787 -16.657 -13.949  1.00 30.31           C
ATOM   9090  C   GLY D 640      35.703 -15.669 -14.651  1.00 34.18           C
ATOM   9091  O   GLY D 640      36.925 -15.759 -14.543  1.00 33.71           O
ATOM   9092  N   ASN D 641      35.106 -14.715 -15.360  1.00 30.64           N
ATOM   9093  CA  ASN D 641      35.867 -13.701 -16.078  1.00 30.59           C
ATOM   9094  CB  ASN D 641      34.976 -12.944 -17.065  1.00 28.47           C
ATOM   9095  CG  ASN D 641      35.776 -12.261 -18.153  1.00 46.16           C
ATOM   9096  OD1 ASN D 641      36.596 -12.893 -18.819  1.00 43.32           O
ATOM   9097  ND2 ASN D 641      35.589 -10.954 -18.300  1.00 30.41           N
ATOM   9098  C   ASN D 641      36.584 -12.708 -15.163  1.00 34.65           C
ATOM   9099  O   ASN D 641      37.717 -12.313 -15.438  1.00 33.39           O
ATOM   9100  N   ARG D 642      35.911 -12.288 -14.095  1.00 32.13           N
ATOM   9101  CA  ARG D 642      36.481 -11.320 -13.163  1.00 32.34           C
ATOM   9102  CB  ARG D 642      35.409 -10.764 -12.217  1.00 31.45           C
ATOM   9103  CG  ARG D 642      35.663  -9.331 -11.762  1.00 37.01           C
ATOM   9104  CD  ARG D 642      35.427  -9.164 -10.270  1.00 38.93           C
ATOM   9105  NE  ARG D 642      35.669 -10.405  -9.541  1.00 45.23           N
ATOM   9106  CZ  ARG D 642      36.762 -10.650  -8.825  1.00 58.81           C
ATOM   9107  NH1 ARG D 642      36.897 -11.810  -8.194  1.00 48.41           N
ATOM   9108  NH2 ARG D 642      37.722  -9.737  -8.738  1.00 43.23           N
ATOM   9109  C   ARG D 642      37.656 -11.895 -12.379  1.00 38.96           C
ATOM   9110  O   ARG D 642      38.661 -11.214 -12.179  1.00 38.92           O
ATOM   9111  N   LYS D 643      37.535 -13.151 -11.954  1.00 37.18           N
ATOM   9112  CA  LYS D 643      38.608 -13.819 -11.220  1.00 37.60           C
ATOM   9113  CB  LYS D 643      38.179 -15.230 -10.811  1.00 39.98           C
ATOM   9114  CG  LYS D 643      37.072 -15.285  -9.774  1.00 54.55           C
ATOM   9115  CD  LYS D 643      36.750 -16.726  -9.406  1.00 63.96           C
ATOM   9116  CE  LYS D 643      35.251 -16.979  -9.374  1.00 74.76           C
ATOM   9117  NZ  LYS D 643      34.887 -18.253 -10.058  1.00 83.12           N
ATOM   9118  C   LYS D 643      39.835 -13.906 -12.121  1.00 42.87           C
ATOM   9119  O   LYS D 643      40.965 -13.672 -11.685  1.00 42.93           O
ATOM   9120  N   GLN D 644      39.597 -14.229 -13.386  1.00 39.71           N
ATOM   9121  CA  GLN D 644      40.660 -14.328 -14.374  1.00 39.73           C
ATOM   9122  CB  GLN D 644      40.071 -14.721 -15.727  1.00 40.91           C
ATOM   9123  CG  GLN D 644      39.559 -16.142 -15.789  1.00 53.67           C
ATOM   9124  CD  GLN D 644      40.679 -17.152 -15.894  1.00 74.79           C
ATOM   9125  OE1 GLN D 644      40.497 -18.331 -15.595  1.00 71.91           O
ATOM   9126  NE2 GLN D 644      41.853 -16.690 -16.296  1.00 66.45           N
ATOM   9127  C   GLN D 644      41.439 -13.022 -14.508  1.00 44.72           C
ATOM   9128  O   GLN D 644      42.666 -13.017 -14.466  1.00 44.79           O
ATOM   9129  N   LEU D 645      40.723 -11.918 -14.696  1.00 41.61           N
ATOM   9130  CA  LEU D 645      41.358 -10.615 -14.880  1.00 41.72           C
ATOM   9131  CB  LEU D 645      40.332  -9.553 -15.290  1.00 41.53           C
ATOM   9132  CG  LEU D 645      39.689  -9.734 -16.669  1.00 45.65           C
ATOM   9133  CD1 LEU D 645      38.631  -8.674 -16.928  1.00 45.64           C
ATOM   9134  CD2 LEU D 645      40.738  -9.736 -17.768  1.00 47.16           C
ATOM   9135  C   LEU D 645      42.143 -10.147 -13.659  1.00 47.81           C
ATOM   9136  O   LEU D 645      43.258  -9.635 -13.783  1.00 47.75           O
ATOM   9137  N   GLU D 646      41.554 -10.311 -12.481  1.00 45.70           N
ATOM   9138  CA  GLU D 646      42.206  -9.908 -11.246  1.00 46.13           C
ATOM   9139  CB  GLU D 646      41.349 -10.291 -10.040  1.00 47.59           C
ATOM   9140  CG  GLU D 646      42.157 -10.527  -8.774  1.00 60.05           C
ATOM   9141  CD  GLU D 646      41.608  -9.764  -7.582  1.00 86.08           C
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ATOM   9142  OE1 GLU D 646      40.523 -10.140  -7.086  1.00 80.96           O
ATOM   9143  OE2 GLU D 646      42.263  -8.795  -7.137  1.00 83.46           O
ATOM   9144  C   GLU D 646      43.574 -10.576 -11.146  1.00 51.00           C
ATOM   9145  O   GLU D 646      44.587  -9.908 -10.938  1.00 50.41           O
ATOM   9146  N   GLU D 647      43.593 -11.898 -11.301  1.00 48.26           N
ATOM   9147  CA  GLU D 647      44.831 -12.667 -11.240  1.00 48.25           C
ATOM   9148  CB  GLU D 647      44.562 -14.134 -11.556  1.00 49.75           C
ATOM   9149  CG  GLU D 647      44.840 -15.069 -10.394  1.00 63.91           C
ATOM   9150  CD  GLU D 647      44.506 -16.512 -10.725  1.00 93.24           C
ATOM   9151  OE1 GLU D 647      43.464 -16.749 -11.375  1.00 92.24           O
ATOM   9152  OE2 GLU D 647      45.295 -17.407 -10.356  1.00 90.95           O
ATOM   9153  C   GLU D 647      45.861 -12.118 -12.214  1.00 52.07           C
ATOM   9154  O   GLU D 647      46.962 -11.733 -11.818  1.00 51.33           O
ATOM   9155  N   MET D 648      45.496 -12.089 -13.492  1.00 48.89           N
ATOM   9156  CA  MET D 648      46.383 -11.576 -14.525  1.00 48.88           C
ATOM   9157  CB  MET D 648      45.649 -11.474 -15.860  1.00 51.41           C
ATOM   9158  CG  MET D 648      45.410 -12.787 -16.581  1.00 55.41           C
ATOM   9159  SD  MET D 648      44.303 -12.500 -17.978  1.00 60.07           S
ATOM   9160  CE  MET D 648      43.438 -14.089 -18.096  1.00 56.56           C
ATOM   9161  C   MET D 648      46.868 -10.189 -14.138  1.00 52.75           C
ATOM   9162  O   MET D 648      48.068  -9.950 -14.018  1.00 52.65           O
ATOM   9163  N   TYR D 649      45.932  -9.265 -13.964  1.00 48.92           N
ATOM   9164  CA  TYR D 649      46.308  -7.904 -13.631  1.00 48.68           C
ATOM   9165  CB  TYR D 649      45.095  -7.008 -13.446  1.00 50.23           C
ATOM   9166  CG  TYR D 649      45.519  -5.614 -13.082  1.00 52.93           C
ATOM   9167  CD1 TYR D 649      46.119  -4.792 -14.028  1.00 55.17           C
ATOM   9168  CE1 TYR D 649      46.573  -3.529 -13.694  1.00 56.67           C
ATOM   9169  CZ  TYR D 649      46.467  -3.090 -12.392  1.00 63.04           C
ATOM   9170  OH  TYR D 649      46.918  -1.831 -12.070  1.00 64.42           O
ATOM   9171  CE2 TYR D 649      45.918  -3.906 -11.419  1.00 54.88           C
ATOM   9172  CD2 TYR D 649      45.465  -5.171 -11.765  1.00 53.81           C
ATOM   9173  C   TYR D 649      47.233  -7.771 -12.424  1.00 51.96           C
ATOM   9174  O   TYR D 649      48.196  -7.007 -12.456  1.00 51.42           O
ATOM   9175  N   GLN D 650      46.916  -8.475 -11.342  1.00 48.29           N
ATOM   9176  CA  GLN D 650      47.727  -8.392 -10.130  1.00 48.02           C
ATOM   9177  CB  GLN D 650      47.033  -9.081  -8.952  1.00 48.98           C
ATOM   9178  CG  GLN D 650      45.978  -8.213  -8.278  1.00 53.45           C
ATOM   9179  CD  GLN D 650      45.333  -8.883  -7.080  1.00 62.85           C
ATOM   9180  OE1 GLN D 650      45.539 -10.070  -6.829  1.00 54.22           O
ATOM   9181  NE2 GLN D 650      44.536  -8.124  -6.339  1.00 55.23           N
ATOM   9182  C   GLN D 650      49.138  -8.940 -10.332  1.00 52.93           C
ATOM   9183  O   GLN D 650      50.124  -8.285  -9.987  1.00 52.75           O
ATOM   9184  N   THR D 651      49.226 -10.143 -10.894  1.00 50.10           N
ATOM   9185  CA  THR D 651      50.512 -10.783 -11.144  1.00 50.12           C
ATOM   9186  CB  THR D 651      50.365 -12.297 -11.421  1.00 57.05           C
ATOM   9187  OG1 THR D 651      49.644 -12.503 -12.642  1.00 55.25           O
ATOM   9188  CG2 THR D 651      49.632 -12.985 -10.276  1.00 55.86           C
ATOM   9189  C   THR D 651      51.302 -10.069 -12.239  1.00 54.83           C
ATOM   9190  O   THR D 651      52.514 -10.252 -12.354  1.00 54.75           O
ATOM   9191  N   GLY D 652      50.617  -9.249 -13.033  1.00 51.41           N
ATOM   9192  CA  GLY D 652      51.243  -8.482 -14.099  1.00 51.19           C
ATOM   9193  C   GLY D 652      51.258  -9.141 -15.470  1.00 54.67           C
ATOM   9194  O   GLY D 652      51.847  -8.606 -16.414  1.00 54.24           O
ATOM   9195  N   SER D 653      50.609 -10.296 -15.590  1.00 50.64           N
ATOM   9196  CA  SER D 653      50.570 -11.018 -16.860  1.00 50.10           C
ATOM   9197  CB  SER D 653      50.362 -12.517 -16.630  1.00 53.18           C
ATOM   9198  OG  SER D 653      49.021 -12.801 -16.275  1.00 61.36           O
ATOM   9199  C   SER D 653      49.536 -10.478 -17.851  1.00 53.31           C
ATOM   9200  O   SER D 653      49.469 -10.931 -18.995  1.00 52.58           O
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ATOM   9201  N   LEU D 654      48.737  -9.506 -17.419  1.00 49.55           N
ATOM   9202  CA  LEU D 654      47.727  -8.929 -18.298  1.00 48.95           C
ATOM   9203  CB  LEU D 654      46.805  -7.977 -17.537  1.00 48.75           C
ATOM   9204  CG  LEU D 654      45.650  -7.437 -18.383  1.00 52.93           C
ATOM   9205  CD1 LEU D 654      44.834  -8.579 -18.968  1.00 52.86           C
ATOM   9206  CD2 LEU D 654      44.766  -6.494 -17.585  1.00 54.95           C
ATOM   9207  C   LEU D 654      48.370  -8.206 -19.472  1.00 53.03           C
ATOM   9208  O   LEU D 654      48.977  -7.146 -19.305  1.00 52.34           O
ATOM   9209  N   ASN D 655      48.230  -8.790 -20.658  1.00 50.00           N
ATOM   9210  CA  ASN D 655      48.785  -8.217 -21.880  1.00 49.95           C
ATOM   9211  CB  ASN D 655      49.744  -9.212 -22.538  1.00 51.65           C
ATOM   9212  CG  ASN D 655      50.153  -8.793 -23.935  1.00 75.69           C
ATOM   9213  OD1 ASN D 655      50.153  -7.607 -24.266  1.00 70.55           O
ATOM   9214  ND2 ASN D 655      50.512  -9.769 -24.763  1.00 67.61           N
ATOM   9215  C   ASN D 655      47.657  -7.844 -22.842  1.00 53.42           C
ATOM   9216  O   ASN D 655      46.975  -8.714 -23.384  1.00 53.04           O
ATOM   9217  N   LEU D 656      47.462  -6.545 -23.041  1.00 49.69           N
ATOM   9218  CA  LEU D 656      46.397  -6.047 -23.905  1.00 49.45           C
ATOM   9219  CB  LEU D 656      46.133  -4.568 -23.633  1.00 49.52           C
ATOM   9220  CG  LEU D 656      45.275  -4.300 -22.396  1.00 54.45           C
ATOM   9221  CD1 LEU D 656      44.841  -2.842 -22.347  1.00 54.72           C
ATOM   9222  CD2 LEU D 656      44.068  -5.228 -22.370  1.00 56.80           C
ATOM   9223  C   LEU D 656      46.615  -6.288 -25.395  1.00 53.15           C
ATOM   9224  O   LEU D 656      45.717  -6.058 -26.203  1.00 52.59           O
ATOM   9225  N   ASN D 657      47.805  -6.751 -25.757  1.00 50.01           N
ATOM   9226  CA  ASN D 657      48.104  -7.040 -27.153  1.00 49.71           C
ATOM   9227  CB  ASN D 657      49.583  -6.792 -27.455  1.00 50.88           C
ATOM   9228  CG  ASN D 657      49.903  -5.317 -27.609  1.00 73.84           C
ATOM   9229  OD1 ASN D 657      49.652  -4.719 -28.659  1.00 67.01           O
ATOM   9230  ND2 ASN D 657      50.439  -4.715 -26.553  1.00 66.02           N
ATOM   9231  C   ASN D 657      47.723  -8.484 -27.456  1.00 53.21           C
ATOM   9232  O   ASN D 657      47.876  -8.960 -28.581  1.00 53.24           O
ATOM   9233  N   ASN D 658      47.209  -9.168 -26.440  1.00 48.77           N
ATOM   9234  CA  ASN D 658      46.771 -10.550 -26.583  1.00 48.16           C
ATOM   9235  CB  ASN D 658      47.112 -11.341 -25.317  1.00 47.75           C
ATOM   9236  CG  ASN D 658      46.818 -12.820 -25.456  1.00 69.55           C
ATOM   9237  OD1 ASN D 658      45.919 -13.221 -26.193  1.00 66.05           O
ATOM   9238  ND2 ASN D 658      47.575 -13.641 -24.741  1.00 59.55           N
ATOM   9239  C   ASN D 658      45.262 -10.558 -26.822  1.00 51.28           C
ATOM   9240  O   ASN D 658      44.490 -10.135 -25.961  1.00 50.62           O
ATOM   9241  N   GLN D 659      44.850 -11.013 -28.003  1.00 47.41           N
ATOM   9242  CA  GLN D 659      43.433 -11.055 -28.363  1.00 46.97           C
ATOM   9243  CB  GLN D 659      43.229 -11.798 -29.684  1.00 48.21           C
ATOM   9244  CG  GLN D 659      41.854 -11.592 -30.302  1.00 59.96           C
ATOM   9245  CD  GLN D 659      41.409 -10.143 -30.262  1.00 77.33           C
ATOM   9246  OE1 GLN D 659      41.795  -9.339 -31.110  1.00 71.91           O
ATOM   9247  NE2 GLN D 659      40.595  -9.800 -29.271  1.00 69.77           N
ATOM   9248  C   GLN D 659      42.581 -11.691 -27.270  1.00 50.68           C
ATOM   9249  O   GLN D 659      41.581 -11.116 -26.841  1.00 50.60           O
ATOM   9250  N   SER D 660      42.985 -12.876 -26.823  1.00 46.51           N
ATOM   9251  CA  SER D 660      42.265 -13.594 -25.777  1.00 45.95           C
ATOM   9252  CB  SER D 660      43.003 -14.884 -25.414  1.00 49.89           C
ATOM   9253  OG  SER D 660      42.095 -15.895 -25.012  1.00 59.71           O
ATOM   9254  C   SER D 660      42.070 -12.732 -24.531  1.00 49.03           C
ATOM   9255  O   SER D 660      41.073 -12.870 -23.821  1.00 48.76           O
ATOM   9256  N   HIS D 661      43.027 -11.845 -24.268  1.00 44.89           N
ATOM   9257  CA  HIS D 661      42.959 -10.954 -23.112  1.00 44.18           C
ATOM   9258  CB  HIS D 661      44.347 -10.400 -22.779  1.00 45.11           C
ATOM   9259  CG  HIS D 661      45.220 -11.356 -22.024  1.00 48.66           C
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ATOM   9260  ND1 HIS D 661      46.486 -11.024 -21.590  1.00 50.48           N
ATOM   9261  CE1 HIS D 661      47.018 -12.056 -20.959  1.00 49.92           C
ATOM   9262  NE2 HIS D 661      46.143 -13.046 -20.969  1.00 50.27           N
ATOM   9263  CD2 HIS D 661      45.010 -12.634 -21.630  1.00 50.48           C
ATOM   9264  C   HIS D 661      41.995  -9.802 -23.381  1.00 46.00           C
ATOM   9265  O   HIS D 661      41.175  -9.451 -22.533  1.00 45.63           O
ATOM   9266  N   ARG D 662      42.104  -9.217 -24.569  1.00 40.95           N
ATOM   9267  CA  ARG D 662      41.239  -8.116 -24.974  1.00 39.93           C
ATOM   9268  CB  ARG D 662      41.545  -7.712 -26.418  1.00 39.38           C
ATOM   9269  CG  ARG D 662      41.554  -6.206 -26.652  1.00 48.10           C
ATOM   9270  CD  ARG D 662      42.904  -5.736 -27.181  1.00 52.74           C
ATOM   9271  NE  ARG D 662      42.752  -4.746 -28.243  1.00 58.48           N
ATOM   9272  CZ  ARG D 662      42.602  -3.442 -28.039  1.00 69.05           C
ATOM   9273  NH1 ARG D 662      42.581  -2.958 -26.809  1.00 54.64           N
ATOM   9274  NH2 ARG D 662      42.473  -2.620 -29.067  1.00 55.01           N
ATOM   9275  C   ARG D 662      39.769  -8.516 -24.844  1.00 42.49           C
ATOM   9276  O   ARG D 662      38.919  -7.702 -24.480  1.00 41.98           O
ATOM   9277  N   ASP D 663      39.477  -9.774 -25.156  1.00 37.96           N
ATOM   9278  CA  ASP D 663      38.114 -10.287 -25.076  1.00 37.48           C
ATOM   9279  CB  ASP D 663      38.035 -11.692 -25.673  1.00 39.39           C
ATOM   9280  CG  ASP D 663      38.120 -11.681 -27.188  1.00 50.32           C
ATOM   9281  OD1 ASP D 663      37.986 -10.584 -27.773  1.00 51.36           O
ATOM   9282  OD2 ASP D 663      38.330 -12.759 -27.788  1.00 56.25           O
ATOM   9283  C   ASP D 663      37.594 -10.288 -23.644  1.00 40.44           C
ATOM   9284  O   ASP D 663      36.465  -9.878 -23.379  1.00 39.89           O
ATOM   9285  N   ARG D 664      38.438 -10.738 -22.723  1.00 36.68           N
ATOM   9286  CA  ARG D 664      38.089 -10.784 -21.310  1.00 36.15           C
ATOM   9287  CB  ARG D 664      39.194 -11.476 -20.515  1.00 35.82           C
ATOM   9288  CG  ARG D 664      39.419 -12.927 -20.920  1.00 45.05           C
ATOM   9289  CD  ARG D 664      40.650 -13.506 -20.241  1.00 48.63           C
ATOM   9290  NE  ARG D 664      40.484 -14.910 -19.873  1.00 49.06           N
ATOM   9291  CZ  ARG D 664      39.416 -15.406 -19.255  1.00 60.71           C
ATOM   9292  NH1 ARG D 664      38.396 -14.618 -18.942  1.00 44.81           N
ATOM   9293  NH2 ARG D 664      39.363 -16.698 -18.955  1.00 48.70           N
ATOM   9294  C   ARG D 664      37.850  -9.380 -20.772  1.00 39.65           C
ATOM   9295  O   ARG D 664      36.943  -9.154 -19.970  1.00 39.69           O
ATOM   9296  N   VAL D 665      38.661  -8.433 -21.229  1.00 35.25           N
ATOM   9297  CA  VAL D 665      38.522  -7.052 -20.801  1.00 34.69           C
ATOM   9298  CB  VAL D 665      39.783  -6.227 -21.100  1.00 38.72           C
ATOM   9299  CG1 VAL D 665      39.493  -4.747 -20.939  1.00 38.41           C
ATOM   9300  CG2 VAL D 665      40.920  -6.655 -20.178  1.00 38.63           C
ATOM   9301  C   VAL D 665      37.262  -6.418 -21.383  1.00 36.83           C
ATOM   9302  O   VAL D 665      36.525  -5.734 -20.676  1.00 36.20           O
ATOM   9303  N   ILE D 666      37.009  -6.663 -22.667  1.00 32.01           N
ATOM   9304  CA  ILE D 666      35.813  -6.138 -23.315  1.00 31.21           C
ATOM   9305  CB  ILE D 666      35.812  -6.422 -24.832  1.00 33.73           C
ATOM   9306  CG1 ILE D 666      36.677  -5.400 -25.573  1.00 33.50           C
ATOM   9307  CD1 ILE D 666      37.271  -5.930 -26.862  1.00 35.74           C
ATOM   9308  CG2 ILE D 666      34.385  -6.421 -25.378  1.00 34.02           C
ATOM   9309  C   ILE D 666      34.609  -6.781 -22.640  1.00 35.10           C
ATOM   9310  O   ILE D 666      33.555  -6.161 -22.492  1.00 36.02           O
ATOM   9311  N   GLY D 667      34.778  -8.030 -22.226  1.00 30.29           N
ATOM   9312  CA  GLY D 667      33.729  -8.770 -21.553  1.00 29.81           C
ATOM   9313  C   GLY D 667      33.318  -8.127 -20.241  1.00 33.17           C
ATOM   9314  O   GLY D 667      32.141  -8.129 -19.884  1.00 33.47           O
ATOM   9315  N   LEU D 668      34.287  -7.585 -19.511  1.00 28.71           N
ATOM   9316  CA  LEU D 668      33.998  -6.953 -18.229  1.00 28.01           C
ATOM   9317  CB  LEU D 668      35.224  -6.951 -17.319  1.00 27.85           C
ATOM   9318  CG  LEU D 668      34.919  -6.570 -15.870  1.00 32.21           C
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ATOM   9319  CD1 LEU D 668      34.156  -7.692 -15.179  1.00 32.34           C
ATOM   9320  CD2 LEU D 668      36.192  -6.242 -15.114  1.00 34.58           C
ATOM   9321  C   LEU D 668      33.455  -5.542 -18.391  1.00 31.77           C
ATOM   9322  O   LEU D 668      32.698  -5.065 -17.548  1.00 31.06           O
ATOM   9323  N   MET D 669      33.849  -4.869 -19.469  1.00 28.71           N
ATOM   9324  CA  MET D 669      33.346  -3.527 -19.741  1.00 28.65           C
ATOM   9325  CB  MET D 669      34.026  -2.929 -20.976  1.00 31.13           C
ATOM   9326  CG  MET D 669      35.537  -2.798 -20.869  1.00 35.04           C
ATOM   9327  SD  MET D 669      36.263  -2.188 -22.401  1.00 39.50           S
ATOM   9328  CE  MET D 669      34.917  -1.185 -23.029  1.00 36.30           C
ATOM   9329  C   MET D 669      31.842  -3.631 -19.978  1.00 32.16           C
ATOM   9330  O   MET D 669      31.083  -2.733 -19.617  1.00 30.84           O
ATOM   9331  N   MET D 670      31.423  -4.747 -20.571  1.00 30.09           N
ATOM   9332  CA  MET D 670      30.011  -4.996 -20.865  1.00 30.35           C
ATOM   9333  CB  MET D 670      29.860  -6.152 -21.853  1.00 32.95           C
ATOM   9334  CG  MET D 670      30.341  -5.839 -23.261  1.00 37.15           C
ATOM   9335  SD  MET D 670      29.382  -4.538 -24.071  1.00 42.00           S
ATOM   9336  CE  MET D 670      27.748  -5.336 -24.164  1.00 38.65           C
ATOM   9337  C   MET D 670      29.213  -5.274 -19.598  1.00 34.41           C
ATOM   9338  O   MET D 670      28.068  -4.847 -19.471  1.00 34.53           O
ATOM   9339  N   THR D 671      29.830  -5.978 -18.655  1.00 30.63           N
ATOM   9340  CA  THR D 671      29.183  -6.281 -17.386  1.00 30.14           C
ATOM   9341  CB  THR D 671      29.951  -7.362 -16.605  1.00 37.17           C
ATOM   9342  OG1 THR D 671      29.690  -8.650 -17.180  1.00 37.93           O
ATOM   9343  CG2 THR D 671      29.522  -7.360 -15.146  1.00 33.80           C
ATOM   9344  C   THR D 671      29.029  -5.015 -16.546  1.00 33.34           C
ATOM   9345  O   THR D 671      28.098  -4.889 -15.754  1.00 33.23           O
ATOM   9346  N   ALA D 672      29.959  -4.082 -16.717  1.00 29.46           N
ATOM   9347  CA  ALA D 672      29.932  -2.827 -15.975  1.00 28.99           C
ATOM   9348  CB  ALA D 672      31.300  -2.168 -15.993  1.00 29.59           C
ATOM   9349  C   ALA D 672      28.868  -1.897 -16.550  1.00 31.64           C
ATOM   9350  O   ALA D 672      28.102  -1.285 -15.806  1.00 31.27           O
ATOM   9351  N   CYS D 673      28.801  -1.828 -17.878  1.00 27.92           N
ATOM   9352  CA  CYS D 673      27.797  -1.014 -18.561  1.00 27.72           C
ATOM   9353  CB  CYS D 673      27.997  -1.082 -20.082  1.00 28.00           C
ATOM   9354  SG  CYS D 673      29.531  -0.354 -20.724  1.00 32.04           S
ATOM   9355  C   CYS D 673      26.396  -1.527 -18.220  1.00 31.48           C
ATOM   9356  O   CYS D 673      25.500  -0.751 -17.895  1.00 30.58           O
ATOM   9357  N   ASP D 674      26.222  -2.842 -18.307  1.00 29.15           N
ATOM   9358  CA  ASP D 674      24.934  -3.498 -18.060  1.00 29.53           C
ATOM   9359  CB  ASP D 674      25.029  -4.984 -18.425  1.00 31.74           C
ATOM   9360  CG  ASP D 674      23.691  -5.706 -18.337  1.00 45.62           C
ATOM   9361  OD1 ASP D 674      22.635  -5.036 -18.272  1.00 46.88           O
ATOM   9362  OD2 ASP D 674      23.699  -6.956 -18.361  1.00 51.85           O
ATOM   9363  C   ASP D 674      24.406  -3.329 -16.633  1.00 34.35           C
ATOM   9364  O   ASP D 674      23.196  -3.330 -16.406  1.00 33.31           O
ATOM   9365  N   LEU D 675      25.313  -3.183 -15.673  1.00 32.24           N
ATOM   9366  CA  LEU D 675      24.921  -3.016 -14.275  1.00 32.46           C
ATOM   9367  CB  LEU D 675      25.853  -3.816 -13.359  1.00 32.46           C
ATOM   9368  CG  LEU D 675      26.011  -5.319 -13.600  1.00 36.37           C
ATOM   9369  CD1 LEU D 675      27.236  -5.836 -12.863  1.00 36.01           C
ATOM   9370  CD2 LEU D 675      24.765  -6.058 -13.139  1.00 39.40           C
ATOM   9371  C   LEU D 675      24.960  -1.545 -13.874  1.00 37.40           C
ATOM   9372  O   LEU D 675      24.676  -1.193 -12.731  1.00 36.44           O
ATOM   9373  N   CYS D 676      25.312  -0.692 -14.828  1.00 35.78           N
ATOM   9374  CA  CYS D 676      25.466   0.738 -14.586  1.00 36.38           C
ATOM   9375  CB  CYS D 676      25.844   1.467 -15.874  1.00 37.33           C
ATOM   9376  SG  CYS D 676      24.461   2.242 -16.722  1.00 41.65           S
ATOM   9377  C   CYS D 676      24.351   1.475 -13.844  1.00 39.74           C
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ATOM   9378  O   CYS D 676      24.459   2.680 -13.608  1.00 39.46           O
ATOM   9379  N   SER D 677      23.296   0.762 -13.458  1.00 35.36           N
ATOM   9380  CA  SER D 677      22.199   1.385 -12.722  1.00 34.50           C
ATOM   9381  CB  SER D 677      20.954   0.492 -12.740  1.00 37.96           C
ATOM   9382  OG  SER D 677      21.008  -0.500 -11.728  1.00 45.32           O
ATOM   9383  C   SER D 677      22.628   1.685 -11.283  1.00 37.04           C
ATOM   9384  O   SER D 677      22.063   2.563 -10.625  1.00 37.20           O
ATOM   9385  N   VAL D 678      23.641   0.959 -10.813  1.00 31.68           N
ATOM   9386  CA  VAL D 678      24.171   1.131  -9.462  1.00 30.81           C
ATOM   9387  CB  VAL D 678      24.691  -0.203  -8.882  1.00 34.83           C
ATOM   9388  CG1 VAL D 678      23.532  -1.149  -8.589  1.00 34.74           C
ATOM   9389  CG2 VAL D 678      25.693  -0.850  -9.830  1.00 34.48           C
ATOM   9390  C   VAL D 678      25.254   2.210  -9.410  1.00 32.64           C
ATOM   9391  O   VAL D 678      25.666   2.638  -8.332  1.00 31.91           O
ATOM   9392  N   THR D 679      25.696   2.652 -10.583  1.00 28.31           N
ATOM   9393  CA  THR D 679      26.733   3.673 -10.699  1.00 27.49           C
ATOM   9394  CB  THR D 679      27.777   3.274 -11.756  1.00 32.81           C
ATOM   9395  OG1 THR D 679      27.180   3.299 -13.060  1.00 31.86           O
ATOM   9396  CG2 THR D 679      28.305   1.880 -11.475  1.00 29.64           C
ATOM   9397  C   THR D 679      26.143   5.048 -11.006  1.00 30.77           C
ATOM   9398  O   THR D 679      26.805   5.907 -11.592  1.00 30.21           O
ATOM   9399  N   LYS D 680      24.890   5.243 -10.617  1.00 27.45           N
ATOM   9400  CA  LYS D 680      24.199   6.504 -10.838  1.00 27.25           C
ATOM   9401  CB  LYS D 680      22.843   6.267 -11.510  1.00 29.65           C
ATOM   9402  CG  LYS D 680      22.920   5.588 -12.867  1.00 39.26           C
ATOM   9403  CD  LYS D 680      23.215   6.582 -13.975  1.00 42.39           C
ATOM   9404  CE  LYS D 680      23.418   5.870 -15.304  1.00 42.11           C
ATOM   9405  NZ  LYS D 680      24.589   6.388 -16.069  1.00 40.62           N
ATOM   9406  C   LYS D 680      23.992   7.187  -9.494  1.00 31.71           C
ATOM   9407  O   LYS D 680      24.261   6.600  -8.446  1.00 31.18           O
ATOM   9408  N   LEU D 681      23.514   8.426  -9.525  1.00 28.86           N
ATOM   9409  CA  LEU D 681      23.259   9.161  -8.293  1.00 28.88           C
ATOM   9410  CB  LEU D 681      22.984  10.638  -8.585  1.00 28.72           C
ATOM   9411  CG  LEU D 681      24.140  11.412  -9.233  1.00 32.92           C
ATOM   9412  CD1 LEU D 681      23.776  12.875  -9.412  1.00 32.78           C
ATOM   9413  CD2 LEU D 681      25.434  11.268  -8.439  1.00 34.28           C
ATOM   9414  C   LEU D 681      22.091   8.508  -7.560  1.00 34.07           C
ATOM   9415  O   LEU D 681      21.158   8.011  -8.187  1.00 33.88           O
ATOM   9416  N   TRP D 682      22.167   8.481  -6.234  1.00 31.71           N
ATOM   9417  CA  TRP D 682      21.170   7.809  -5.402  1.00 31.57           C
ATOM   9418  CB  TRP D 682      21.375   8.130  -3.923  1.00 30.35           C
ATOM   9419  CG  TRP D 682      20.377   7.455  -3.017  1.00 31.38           C
ATOM   9420  CD1 TRP D 682      19.494   8.065  -2.171  1.00 34.33           C
ATOM   9421  NE1 TRP D 682      18.753   7.122  -1.499  1.00 33.67           N
ATOM   9422  CE2 TRP D 682      19.150   5.874  -1.902  1.00 35.03           C
ATOM   9423  CD2 TRP D 682      20.172   6.043  -2.859  1.00 31.11           C
ATOM   9424  CE3 TRP D 682      20.756   4.907  -3.428  1.00 32.49           C
ATOM   9425  CZ3 TRP D 682      20.300   3.658  -3.036  1.00 33.69           C
ATOM   9426  CH2 TRP D 682      19.281   3.526  -2.085  1.00 34.45           C
ATOM   9427  CZ2 TRP D 682      18.697   4.618  -1.507  1.00 34.23           C
ATOM   9428  C   TRP D 682      19.685   7.872  -5.784  1.00 34.88           C
ATOM   9429  O   TRP D 682      18.981   6.865  -5.700  1.00 34.26           O
ATOM   9430  N   PRO D 683      19.177   9.060  -6.158  1.00 31.43           N
ATOM   9431  CA  PRO D 683      17.736   9.093  -6.457  1.00 31.01           C
ATOM   9432  CB  PRO D 683      17.419  10.595  -6.535  1.00 32.88           C
ATOM   9433  CG  PRO D 683      18.635  11.296  -5.976  1.00 37.25           C
ATOM   9434  CD  PRO D 683      19.784  10.396  -6.272  1.00 32.86           C
ATOM   9435  C   PRO D 683      17.359   8.396  -7.761  1.00 34.17           C
ATOM   9436  O   PRO D 683      16.223   7.954  -7.933  1.00 33.54           O
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ATOM   9437  N   VAL D 684      18.310   8.317  -8.682  1.00 30.53           N
ATOM   9438  CA  VAL D 684      18.088   7.649  -9.958  1.00 30.13           C
ATOM   9439  CB  VAL D 684      19.036   8.201 -11.042  1.00 33.47           C
ATOM   9440  CG1 VAL D 684      19.276   7.161 -12.123  1.00 32.95           C
ATOM   9441  CG2 VAL D 684      18.479   9.491 -11.638  1.00 33.15           C
ATOM   9442  C   VAL D 684      18.324   6.163  -9.746  1.00 34.53           C
ATOM   9443  O   VAL D 684      17.681   5.317 -10.366  1.00 34.67           O
ATOM   9444  N   THR D 685      19.250   5.859  -8.844  1.00 30.95           N
ATOM   9445  CA  THR D 685      19.598   4.487  -8.521  1.00 30.54           C
ATOM   9446  CB  THR D 685      20.941   4.424  -7.766  1.00 36.49           C
ATOM   9447  OG1 THR D 685      22.022   4.482  -8.705  1.00 36.20           O
ATOM   9448  CG2 THR D 685      21.044   3.136  -6.959  1.00 33.35           C
ATOM   9449  C   THR D 685      18.489   3.809  -7.726  1.00 34.19           C
ATOM   9450  O   THR D 685      18.237   2.617  -7.888  1.00 33.79           O
ATOM   9451  N   LYS D 686      17.847   4.570  -6.847  1.00 30.84           N
ATOM   9452  CA  LYS D 686      16.783   4.038  -6.008  1.00 30.86           C
ATOM   9453  CB  LYS D 686      16.630   4.884  -4.741  1.00 33.55           C
ATOM   9454  CG  LYS D 686      15.342   5.681  -4.660  1.00 47.16           C
ATOM   9455  CD  LYS D 686      14.921   5.882  -3.214  1.00 54.74           C
ATOM   9456  CE  LYS D 686      14.810   7.359  -2.868  1.00 63.31           C
ATOM   9457  NZ  LYS D 686      14.824   7.594  -1.395  1.00 71.69           N
ATOM   9458  C   LYS D 686      15.464   3.930  -6.770  1.00 35.24           C
ATOM   9459  O   LYS D 686      14.605   3.112  -6.434  1.00 35.24           O
ATOM   9460  N   LEU D 687      15.326   4.734  -7.820  1.00 31.43           N
ATOM   9461  CA  LEU D 687      14.125   4.707  -8.646  1.00 30.80           C
ATOM   9462  CB  LEU D 687      13.911   6.061  -9.323  1.00 30.71           C
ATOM   9463  CG  LEU D 687      12.797   6.926  -8.726  1.00 35.16           C
ATOM   9464  CD1 LEU D 687      12.929   8.371  -9.181  1.00 34.89           C
ATOM   9465  CD2 LEU D 687      11.437   6.364  -9.097  1.00 37.12           C
ATOM   9466  C   LEU D 687      14.207   3.590  -9.686  1.00 34.30           C
ATOM   9467  O   LEU D 687      13.190   3.031 -10.089  1.00 33.29           O
ATOM   9468  N   THR D 688      15.426   3.262 -10.103  1.00 31.34           N
ATOM   9469  CA  THR D 688      15.653   2.202 -11.083  1.00 30.65           C
ATOM   9470  CB  THR D 688      17.061   2.295 -11.695  1.00 36.42           C
ATOM   9471  OG1 THR D 688      17.180   3.517 -12.434  1.00 39.64           O
ATOM   9472  CG2 THR D 688      17.319   1.118 -12.626  1.00 33.59           C
ATOM   9473  C   THR D 688      15.446   0.849 -10.422  1.00 34.21           C
ATOM   9474  O   THR D 688      14.964  -0.098 -11.044  1.00 33.99           O
ATOM   9475  N   ALA D 689      15.816   0.769  -9.151  1.00 30.24           N
ATOM   9476  CA  ALA D 689      15.669  -0.460  -8.390  1.00 29.78           C
ATOM   9477  CB  ALA D 689      16.076  -0.232  -6.944  1.00 30.42           C
ATOM   9478  C   ALA D 689      14.231  -0.950  -8.464  1.00 33.85           C
ATOM   9479  O   ALA D 689      13.981  -2.143  -8.634  1.00 33.97           O
ATOM   9480  N   ASN D 690      13.288  -0.025  -8.324  1.00 30.20           N
ATOM   9481  CA  ASN D 690      11.873  -0.369  -8.360  1.00 29.94           C
ATOM   9482  CB  ASN D 690      11.009   0.887  -8.221  1.00 32.69           C
ATOM   9483  CG  ASN D 690       9.532   0.568  -8.090  1.00 62.00           C
ATOM   9484  OD1 ASN D 690       9.149  -0.575  -7.835  1.00 58.42           O
ATOM   9485  ND2 ASN D 690       8.692   1.581  -8.271  1.00 53.14           N
ATOM   9486  C   ASN D 690      11.518  -1.136  -9.632  1.00 32.57           C
ATOM   9487  O   ASN D 690      10.865  -2.181  -9.576  1.00 31.91           O
ATOM   9488  N   ASP D 691      11.970  -0.621 -10.773  1.00 28.57           N
ATOM   9489  CA  ASP D 691      11.716  -1.252 -12.067  1.00 28.21           C
ATOM   9490  CB  ASP D 691      12.272  -0.388 -13.199  1.00 30.39           C
ATOM   9491  CG  ASP D 691      11.509   0.915 -13.372  1.00 45.34           C
ATOM   9492  OD1 ASP D 691      10.256   0.885 -13.328  1.00 45.96           O
ATOM   9493  OD2 ASP D 691      12.163   1.963 -13.587  1.00 52.92           O
ATOM   9494  C   ASP D 691      12.347  -2.635 -12.128  1.00 30.12           C
ATOM   9495  O   ASP D 691      11.747  -3.587 -12.635  1.00 29.43           O
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ATOM   9496  N   ILE D 692      13.563  -2.733 -11.608  1.00 25.99           N
ATOM   9497  CA  ILE D 692      14.287  -3.993 -11.567  1.00 25.84           C
ATOM   9498  CB  ILE D 692      15.647  -3.826 -10.863  1.00 29.07           C
ATOM   9499  CG1 ILE D 692      16.657  -3.133 -11.778  1.00 29.77           C
ATOM   9500  CD1 ILE D 692      17.900  -2.667 -11.051  1.00 37.83           C
ATOM   9501  CG2 ILE D 692      16.165  -5.171 -10.380  1.00 29.22           C
ATOM   9502  C   ILE D 692      13.458  -5.049 -10.845  1.00 29.43           C
ATOM   9503  O   ILE D 692      13.310  -6.171 -11.327  1.00 28.90           O
ATOM   9504  N   TYR D 693      12.948  -4.697  -9.669  1.00 26.39           N
ATOM   9505  CA  TYR D 693      12.171  -5.637  -8.867  1.00 26.22           C
ATOM   9506  CB  TYR D 693      12.108  -5.192  -7.407  1.00 27.79           C
ATOM   9507  CG  TYR D 693      13.353  -5.549  -6.628  1.00 29.86           C
ATOM   9508  CD1 TYR D 693      13.520  -6.817  -6.093  1.00 31.78           C
ATOM   9509  CE1 TYR D 693      14.668  -7.159  -5.410  1.00 32.42           C
ATOM   9510  CZ  TYR D 693      15.675  -6.236  -5.267  1.00 39.39           C
ATOM   9511  OH  TYR D 693      16.821  -6.574  -4.588  1.00 41.77           O
ATOM   9512  CE2 TYR D 693      15.545  -4.976  -5.804  1.00 31.91           C
ATOM   9513  CD2 TYR D 693      14.388  -4.639  -6.483  1.00 30.93           C
ATOM   9514  C   TYR D 693      10.782  -5.887  -9.427  1.00 29.90           C
ATOM   9515  O   TYR D 693      10.179  -6.937  -9.182  1.00 29.66           O
ATOM   9516  N   ALA D 694      10.273  -4.925 -10.185  1.00 26.59           N
ATOM   9517  CA  ALA D 694       8.969  -5.082 -10.805  1.00 26.55           C
ATOM   9518  CB  ALA D 694       8.608  -3.837 -11.598  1.00 27.29           C
ATOM   9519  C   ALA D 694       9.072  -6.299 -11.719  1.00 31.14           C
ATOM   9520  O   ALA D 694       8.198  -7.163 -11.728  1.00 31.08           O
ATOM   9521  N   GLU D 695      10.189  -6.394 -12.431  1.00 28.19           N
ATOM   9522  CA  GLU D 695      10.441  -7.521 -13.326  1.00 28.27           C
ATOM   9523  CB  GLU D 695      11.599  -7.198 -14.265  1.00 29.40           C
ATOM   9524  CG  GLU D 695      11.167  -6.500 -15.535  1.00 38.45           C
ATOM   9525  CD  GLU D 695      12.064  -6.828 -16.701  1.00 55.48           C
ATOM   9526  OE1 GLU D 695      12.929  -7.714 -16.541  1.00 48.57           O
ATOM   9527  OE2 GLU D 695      11.913  -6.195 -17.768  1.00 49.45           O
ATOM   9528  C   GLU D 695      10.716  -8.834 -12.585  1.00 32.66           C
ATOM   9529  O   GLU D 695      10.223  -9.891 -12.979  1.00 32.87           O
ATOM   9530  N   PHE D 696      11.524  -8.766 -11.532  1.00 29.01           N
ATOM   9531  CA  PHE D 696      11.859  -9.948 -10.743  1.00 28.71           C
ATOM   9532  CB  PHE D 696      12.722  -9.558  -9.537  1.00 30.40           C
ATOM   9533  CG  PHE D 696      14.175  -9.363  -9.865  1.00 31.98           C
ATOM   9534  CD1 PHE D 696      14.774 -10.092 -10.877  1.00 35.03           C
ATOM   9535  CE1 PHE D 696      16.108  -9.905 -11.188  1.00 35.82           C
ATOM   9536  CZ  PHE D 696      16.859  -8.987 -10.482  1.00 34.69           C
ATOM   9537  CE2 PHE D 696      16.276  -8.255  -9.469  1.00 36.73           C
ATOM   9538  CD2 PHE D 696      14.942  -8.447  -9.161  1.00 34.19           C
ATOM   9539  C   PHE D 696      10.568 -10.563 -10.233  1.00 32.29           C
ATOM   9540  O   PHE D 696      10.253 -11.716 -10.526  1.00 32.20           O
ATOM   9541  N   TRP D 697       9.829  -9.765  -9.470  1.00 28.24           N
ATOM   9542  CA  TRP D 697       8.563 -10.177  -8.879  1.00 27.91           C
ATOM   9543  CB  TRP D 697       7.892  -8.988  -8.190  1.00 26.35           C
ATOM   9544  CG  TRP D 697       8.666  -8.462  -7.012  1.00 27.10           C
ATOM   9545  CD1 TRP D 697       9.545  -9.156  -6.231  1.00 30.01           C
ATOM   9546  NE1 TRP D 697      10.051  -8.343  -5.245  1.00 29.29           N
ATOM   9547  CE2 TRP D 697       9.509  -7.094  -5.382  1.00 30.94           C
ATOM   9548  CD2 TRP D 697       8.628  -7.132  -6.484  1.00 27.02           C
ATOM   9549  CE3 TRP D 697       7.939  -5.967  -6.838  1.00 28.28           C
ATOM   9550  CZ3 TRP D 697       8.142  -4.822  -6.089  1.00 29.77           C
ATOM   9551  CH2 TRP D 697       9.023  -4.817  -4.998  1.00 30.30           C
ATOM   9552  CZ2 TRP D 697       9.715  -5.939  -4.631  1.00 30.39           C
ATOM   9553  C   TRP D 697       7.606 -10.847  -9.865  1.00 32.03           C
ATOM   9554  O   TRP D 697       6.921 -11.806  -9.513  1.00 31.40           O
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ATOM   9555  N   ALA D 698       7.550 -10.338 -11.093  1.00 29.12           N
ATOM   9556  CA  ALA D 698       6.671 -10.909 -12.111  1.00 29.05           C
ATOM   9557  CB  ALA D 698       6.611 -10.013 -13.336  1.00 29.74           C
ATOM   9558  C   ALA D 698       7.138 -12.310 -12.492  1.00 34.01           C
ATOM   9559  O   ALA D 698       6.323 -13.227 -12.647  1.00 33.58           O
ATOM   9560  N   GLU D 699       8.450 -12.477 -12.638  1.00 30.96           N
ATOM   9561  CA  GLU D 699       9.002 -13.791 -12.947  1.00 30.86           C
ATOM   9562  CB  GLU D 699      10.495 -13.710 -13.265  1.00 32.14           C
ATOM   9563  CG  GLU D 699      11.192 -15.061 -13.174  1.00 41.24           C
ATOM   9564  CD  GLU D 699      12.576 -15.056 -13.784  1.00 59.88           C
ATOM   9565  OE1 GLU D 699      12.883 -14.120 -14.552  1.00 52.33           O
ATOM   9566  OE2 GLU D 699      13.356 -15.989 -13.495  1.00 54.43           O
ATOM   9567  C   GLU D 699       8.781 -14.679 -11.727  1.00 34.53           C
ATOM   9568  O   GLU D 699       8.693 -15.901 -11.838  1.00 34.21           O
ATOM   9569  N   GLY D 700       8.674 -14.048 -10.563  1.00 30.98           N
ATOM   9570  CA  GLY D 700       8.434 -14.760  -9.322  1.00 30.50           C
ATOM   9571  C   GLY D 700       7.057 -15.391  -9.351  1.00 34.01           C
ATOM   9572  O   GLY D 700       6.901 -16.569  -9.038  1.00 33.48           O
ATOM   9573  N   ASP D 701       6.058 -14.604  -9.743  1.00 30.61           N
ATOM   9574  CA  ASP D 701       4.681 -15.089  -9.832  1.00 30.58           C
ATOM   9575  CB  ASP D 701       3.725 -13.959 -10.244  1.00 32.45           C
ATOM   9576  CG  ASP D 701       3.715 -12.792  -9.256  1.00 42.34           C
ATOM   9577  OD1 ASP D 701       3.955 -13.016  -8.048  1.00 43.69           O
ATOM   9578  OD2 ASP D 701       3.434 -11.650  -9.688  1.00 45.60           O
ATOM   9579  C   ASP D 701       4.602 -16.224 -10.849  1.00 34.79           C
ATOM   9580  O   ASP D 701       3.927 -17.227 -10.623  1.00 34.73           O
ATOM   9581  N   GLU D 702       5.303 -16.062 -11.967  1.00 31.47           N
ATOM   9582  CA  GLU D 702       5.317 -17.076 -13.013  1.00 31.59           C
ATOM   9583  CB  GLU D 702       6.120 -16.596 -14.218  1.00 32.87           C
ATOM   9584  CG  GLU D 702       5.406 -15.547 -15.051  1.00 43.57           C
ATOM   9585  CD  GLU D 702       3.972 -15.928 -15.371  1.00 63.67           C
ATOM   9586  OE1 GLU D 702       3.641 -17.130 -15.298  1.00 62.36           O
ATOM   9587  OE2 GLU D 702       3.178 -15.027 -15.713  1.00 57.24           O
ATOM   9588  C   GLU D 702       5.875 -18.399 -12.499  1.00 36.35           C
ATOM   9589  O   GLU D 702       5.428 -19.468 -12.910  1.00 36.22           O
ATOM   9590  N   MET D 703       6.851 -18.320 -11.603  1.00 32.94           N
ATOM   9591  CA  MET D 703       7.452 -19.512 -11.021  1.00 32.74           C
ATOM   9592  CB  MET D 703       8.727 -19.150 -10.258  1.00 35.32           C
ATOM   9593  CG  MET D 703       9.876 -18.681 -11.142  1.00 39.28           C
ATOM   9594  SD  MET D 703      10.965 -20.031 -11.611  1.00 43.83           S
ATOM   9595  CE  MET D 703      12.454 -19.117 -12.100  1.00 40.77           C
ATOM   9596  C   MET D 703       6.458 -20.175 -10.078  1.00 35.36           C
ATOM   9597  O   MET D 703       6.375 -21.397 -10.005  1.00 34.90           O
ATOM   9598  N   LYS D 704       5.721 -19.356  -9.334  1.00 31.10           N
ATOM   9599  CA  LYS D 704       4.714 -19.870  -8.413  1.00 30.03           C
ATOM   9600  CB  LYS D 704       4.067 -18.727  -7.627  1.00 31.63           C
ATOM   9601  CG  LYS D 704       4.953 -18.162  -6.520  1.00 37.75           C
ATOM   9602  CD  LYS D 704       4.329 -16.925  -5.883  1.00 43.20           C
ATOM   9603  CE  LYS D 704       5.351 -16.148  -5.064  1.00 51.25           C
ATOM   9604  NZ  LYS D 704       5.078 -14.680  -5.056  1.00 60.84           N
ATOM   9605  C   LYS D 704       3.665 -20.615  -9.233  1.00 32.90           C
ATOM   9606  O   LYS D 704       3.101 -21.617  -8.790  1.00 32.40           O
ATOM   9607  N   LYS D 705       3.437 -20.128 -10.448  1.00 28.55           N
ATOM   9608  CA  LYS D 705       2.496 -20.746 -11.368  1.00 28.32           C
ATOM   9609  CB  LYS D 705       2.145 -19.772 -12.494  1.00 29.80           C
ATOM   9610  CG  LYS D 705       1.325 -18.572 -12.047  1.00 32.03           C
ATOM   9611  CD  LYS D 705       0.674 -17.878 -13.232  1.00 33.37           C
ATOM   9612  CE  LYS D 705       0.166 -16.500 -12.847  1.00 39.85           C
ATOM   9613  NZ  LYS D 705       0.192 -15.562 -14.002  1.00 48.78           N
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ATOM   9614  C   LYS D 705       3.079 -22.028 -11.959  1.00 35.01           C
ATOM   9615  O   LYS D 705       2.351 -22.843 -12.525  1.00 34.24           O
ATOM   9616  N   LEU D 706       4.397 -22.189 -11.851  1.00 33.86           N
ATOM   9617  CA  LEU D 706       5.080 -23.376 -12.366  1.00 34.62           C
ATOM   9618  CB  LEU D 706       6.532 -23.042 -12.734  1.00 34.92           C
ATOM   9619  CG  LEU D 706       6.885 -22.648 -14.172  1.00 39.41           C
ATOM   9620  CD1 LEU D 706       8.358 -22.899 -14.444  1.00 39.50           C
ATOM   9621  CD2 LEU D 706       6.023 -23.392 -15.176  1.00 41.67           C
ATOM   9622  C   LEU D 706       5.076 -24.459 -11.291  1.00 40.62           C
ATOM   9623  O   LEU D 706       5.487 -25.595 -11.532  1.00 40.58           O
ATOM   9624  N   GLY D 707       4.634 -24.087 -10.093  1.00 38.18           N
ATOM   9625  CA  GLY D 707       4.590 -24.992  -8.962  1.00 38.50           C
ATOM   9626  C   GLY D 707       5.884 -24.976  -8.170  1.00 43.29           C
ATOM   9627  O   GLY D 707       6.102 -25.819  -7.298  1.00 42.75           O
ATOM   9628  N   ILE D 708       6.744 -24.010  -8.474  1.00 40.76           N
ATOM   9629  CA  ILE D 708       8.030 -23.894  -7.796  1.00 40.94           C
ATOM   9630  CB  ILE D 708       9.198 -23.971  -8.792  1.00 43.80           C
ATOM   9631  CG1 ILE D 708       9.024 -25.160  -9.735  1.00 43.93           C
ATOM   9632  CD1 ILE D 708       9.667 -24.957 -11.086  1.00 50.60           C
ATOM   9633  CG2 ILE D 708      10.517 -24.059  -8.050  1.00 44.75           C
ATOM   9634  C   ILE D 708       8.129 -22.623  -6.969  1.00 46.54           C
ATOM   9635  O   ILE D 708       7.627 -21.572  -7.364  1.00 46.52           O
ATOM   9636  N   GLN D 709       8.809 -22.720  -5.832  1.00 44.12           N
ATOM   9637  CA  GLN D 709       9.016 -21.569  -4.963  1.00 44.21           C
ATOM   9638  CB  GLN D 709       9.259 -22.029  -3.523  1.00 45.79           C
ATOM   9639  CG  GLN D 709       8.224 -21.540  -2.523  1.00 67.23           C
ATOM   9640  CD  GLN D 709       8.427 -20.088  -2.135  1.00 90.49           C
ATOM   9641  OE1 GLN D 709       7.592 -19.493  -1.452  1.00 85.93           O
ATOM   9642  NE2 GLN D 709       9.536 -19.506  -2.578  1.00 85.01           N
ATOM   9643  C   GLN D 709      10.223 -20.781  -5.468  1.00 47.84           C
ATOM   9644  O   GLN D 709      11.311 -21.337  -5.640  1.00 47.50           O
ATOM   9645  N   PRO D 710      10.041 -19.474  -5.722  1.00 44.17           N
ATOM   9646  CA  PRO D 710      11.129 -18.622  -6.224  1.00 43.73           C
ATOM   9647  CB  PRO D 710      10.383 -17.444  -6.860  1.00 45.48           C
ATOM   9648  CG  PRO D 710       9.084 -17.392  -6.141  1.00 50.04           C
ATOM   9649  CD  PRO D 710       8.727 -18.820  -5.845  1.00 45.63           C
ATOM   9650  C   PRO D 710      12.046 -18.119  -5.112  1.00 46.62           C
ATOM   9651  O   PRO D 710      11.646 -18.056  -3.947  1.00 46.41           O
ATOM   9652  N   ILE D 711      13.273 -17.756  -5.482  1.00 41.97           N
ATOM   9653  CA  ILE D 711      14.238 -17.239  -4.518  1.00 40.91           C
ATOM   9654  CB  ILE D 711      15.616 -16.986  -5.163  1.00 43.79           C
ATOM   9655  CG1 ILE D 711      15.467 -16.149  -6.436  1.00 44.18           C
ATOM   9656  CD1 ILE D 711      16.788 -15.749  -7.063  1.00 49.65           C
ATOM   9657  CG2 ILE D 711      16.312 -18.307  -5.465  1.00 44.19           C
ATOM   9658  C   ILE D 711      13.666 -15.973  -3.897  1.00 43.70           C
ATOM   9659  O   ILE D 711      12.884 -15.263  -4.526  1.00 43.84           O
ATOM   9660  N   PRO D 712      14.026 -15.692  -2.637  1.00 38.91           N
ATOM   9661  CA  PRO D 712      13.540 -14.524  -1.896  1.00 38.19           C
ATOM   9662  CB  PRO D 712      14.518 -14.433  -0.727  1.00 39.89           C
ATOM   9663  CG  PRO D 712      14.920 -15.850  -0.476  1.00 44.34           C
ATOM   9664  CD  PRO D 712      14.828 -16.591  -1.788  1.00 40.08           C
ATOM   9665  C   PRO D 712      13.572 -13.235  -2.715  1.00 40.46           C
ATOM   9666  O   PRO D 712      12.672 -12.401  -2.613  1.00 39.92           O
ATOM   9667  N   MET D 713      14.612 -13.080  -3.528  1.00 36.06           N
ATOM   9668  CA  MET D 713      14.786 -11.886  -4.348  1.00 35.46           C
ATOM   9669  CB  MET D 713      16.131 -11.941  -5.077  1.00 37.52           C
ATOM   9670  CG  MET D 713      16.131 -11.317  -6.458  1.00 40.82           C
ATOM   9671  SD  MET D 713      17.737 -11.440  -7.261  1.00 44.85           S
ATOM   9672  CE  MET D 713      17.265 -12.146  -8.840  1.00 41.64           C
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ATOM   9673  C   MET D 713      13.640 -11.628  -5.331  1.00 39.98           C
ATOM   9674  O   MET D 713      13.333 -10.477  -5.648  1.00 39.86           O
ATOM   9675  N   MET D 714      13.009 -12.699  -5.806  1.00 36.64           N
ATOM   9676  CA  MET D 714      11.904 -12.583  -6.755  1.00 36.19           C
ATOM   9677  CB  MET D 714      12.080 -13.582  -7.894  1.00 38.41           C
ATOM   9678  CG  MET D 714      13.379 -13.451  -8.652  1.00 41.79           C
ATOM   9679  SD  MET D 714      13.322 -14.478 -10.124  1.00 45.68           S
ATOM   9680  CE  MET D 714      12.843 -16.053  -9.404  1.00 42.35           C
ATOM   9681  C   MET D 714      10.536 -12.793  -6.096  1.00 39.71           C
ATOM   9682  O   MET D 714       9.501 -12.758  -6.765  1.00 39.16           O
ATOM   9683  N   ASP D 715      10.538 -13.032  -4.789  1.00 35.99           N
ATOM   9684  CA  ASP D 715       9.301 -13.237  -4.049  1.00 35.66           C
ATOM   9685  CB  ASP D 715       9.548 -14.136  -2.833  1.00 37.50           C
ATOM   9686  CG  ASP D 715       8.301 -14.881  -2.393  1.00 48.23           C
ATOM   9687  OD1 ASP D 715       7.205 -14.279  -2.425  1.00 48.71           O
ATOM   9688  OD2 ASP D 715       8.417 -16.066  -2.012  1.00 54.14           O
ATOM   9689  C   ASP D 715       8.718 -11.897  -3.608  1.00 39.11           C
ATOM   9690  O   ASP D 715       9.295 -11.204  -2.766  1.00 38.86           O
ATOM   9691  N   ARG D 716       7.578 -11.528  -4.185  1.00 35.26           N
ATOM   9692  CA  ARG D 716       6.936 -10.265  -3.844  1.00 35.06           C
ATOM   9693  CB  ARG D 716       6.007  -9.793  -4.965  1.00 33.97           C
ATOM   9694  CG  ARG D 716       4.567 -10.247  -4.844  1.00 40.10           C
ATOM   9695  CD  ARG D 716       3.670  -9.395  -5.731  1.00 42.72           C
ATOM   9696  NE  ARG D 716       3.935  -9.609  -7.153  1.00 45.88           N
ATOM   9697  CZ  ARG D 716       4.277  -8.647  -8.007  1.00 53.73           C
ATOM   9698  NH1 ARG D 716       4.406  -7.395  -7.587  1.00 41.05           N
ATOM   9699  NH2 ARG D 716       4.492  -8.937  -9.283  1.00 34.73           N
ATOM   9700  C   ARG D 716       6.219 -10.328  -2.501  1.00 40.48           C
ATOM   9701  O   ARG D 716       5.645  -9.340  -2.040  1.00 40.08           O
ATOM   9702  N   ASP D 717       6.293 -11.488  -1.859  1.00 38.52           N
ATOM   9703  CA  ASP D 717       5.711 -11.676  -0.536  1.00 39.09           C
ATOM   9704  CB  ASP D 717       5.268 -13.132  -0.347  1.00 41.09           C
ATOM   9705  CG  ASP D 717       4.083 -13.512  -1.228  1.00 52.85           C
ATOM   9706  OD1 ASP D 717       3.563 -12.637  -1.955  1.00 53.90           O
ATOM   9707  OD2 ASP D 717       3.668 -14.692  -1.189  1.00 58.57           O
ATOM   9708  C   ASP D 717       6.786 -11.325   0.494  1.00 44.41           C
ATOM   9709  O   ASP D 717       6.483 -10.878   1.604  1.00 44.24           O
ATOM   9710  N   LYS D 718       8.043 -11.523   0.102  1.00 41.60           N
ATOM   9711  CA  LYS D 718       9.199 -11.240   0.955  1.00 41.46           C
ATOM   9712  CB  LYS D 718      10.279 -12.307   0.748  1.00 43.68           C
ATOM   9713  CG  LYS D 718       9.861 -13.713   1.155  1.00 55.81           C
ATOM   9714  CD  LYS D 718      10.889 -14.749   0.717  1.00 64.99           C
ATOM   9715  CE  LYS D 718      10.585 -16.121   1.305  1.00 75.00           C
ATOM   9716  NZ  LYS D 718      11.673 -17.105   1.032  1.00 83.33           N
ATOM   9717  C   LYS D 718       9.767  -9.862   0.623  1.00 46.00           C
ATOM   9718  O   LYS D 718      10.948  -9.588   0.836  1.00 45.55           O
ATOM   9719  N   LYS D 719       8.906  -9.004   0.092  1.00 43.15           N
ATOM   9720  CA  LYS D 719       9.282  -7.652  -0.303  1.00 43.24           C
ATOM   9721  CB  LYS D 719       8.025  -6.832  -0.606  1.00 45.13           C
ATOM   9722  CG  LYS D 719       8.208  -5.813  -1.711  1.00 51.20           C
ATOM   9723  CD  LYS D 719       6.915  -5.067  -1.992  1.00 55.92           C
ATOM   9724  CE  LYS D 719       5.872  -5.979  -2.621  1.00 61.26           C
ATOM   9725  NZ  LYS D 719       5.677  -5.704  -4.076  1.00 67.49           N
ATOM   9726  C   LYS D 719      10.161  -6.909   0.707  1.00 48.41           C
ATOM   9727  O   LYS D 719      10.887  -5.983   0.341  1.00 47.77           O
ATOM   9728  N   ASP D 720      10.089  -7.303   1.974  1.00 45.94           N
ATOM   9729  CA  ASP D 720      10.872  -6.650   3.019  1.00 46.18           C
ATOM   9730  CB  ASP D 720      10.463  -7.162   4.403  1.00 48.63           C
ATOM   9731  CG  ASP D 720       8.997  -6.903   4.713  1.00 64.02           C
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ATOM   9732  OD1 ASP D 720       8.410  -5.990   4.092  1.00 65.00           O
ATOM   9733  OD2 ASP D 720       8.433  -7.611   5.582  1.00 72.89           O
ATOM   9734  C   ASP D 720      12.381  -6.804   2.833  1.00 49.52           C
ATOM   9735  O   ASP D 720      13.129  -5.825   2.907  1.00 49.19           O
ATOM   9736  N   GLU D 721      12.825  -8.037   2.611  1.00 45.39           N
ATOM   9737  CA  GLU D 721      14.240  -8.360   2.444  1.00 44.91           C
ATOM   9738  CB  GLU D 721      14.403  -9.868   2.218  1.00 46.43           C
ATOM   9739  CG  GLU D 721      14.054 -10.734   3.422  1.00 57.73           C
ATOM   9740  CD  GLU D 721      13.784 -12.177   3.035  1.00 81.16           C
ATOM   9741  OE1 GLU D 721      14.724 -12.856   2.562  1.00 76.17           O
ATOM   9742  OE2 GLU D 721      12.618 -12.616   3.145  1.00 75.09           O
ATOM   9743  C   GLU D 721      14.965  -7.612   1.323  1.00 47.84           C
ATOM   9744  O   GLU D 721      16.123  -7.909   1.025  1.00 47.60           O
ATOM   9745  N   VAL D 722      14.295  -6.653   0.698  1.00 43.54           N
ATOM   9746  CA  VAL D 722      14.892  -5.930  -0.420  1.00 42.93           C
ATOM   9747  CB  VAL D 722      13.866  -5.069  -1.191  1.00 46.45           C
ATOM   9748  CG1 VAL D 722      14.580  -4.044  -2.040  1.00 46.18           C
ATOM   9749  CG2 VAL D 722      12.967  -5.955  -2.041  1.00 46.12           C
ATOM   9750  C   VAL D 722      16.217  -5.196  -0.174  1.00 46.30           C
ATOM   9751  O   VAL D 722      17.175  -5.369  -0.925  1.00 46.08           O
ATOM   9752  N   PRO D 723      16.282  -4.357   0.873  1.00 42.06           N
ATOM   9753  CA  PRO D 723      17.547  -3.640   1.079  1.00 41.44           C
ATOM   9754  CB  PRO D 723      17.241  -2.700   2.257  1.00 43.18           C
ATOM   9755  CG  PRO D 723      15.749  -2.650   2.336  1.00 47.71           C
ATOM   9756  CD  PRO D 723      15.289  -3.996   1.896  1.00 43.44           C
ATOM   9757  C   PRO D 723      18.706  -4.568   1.432  1.00 43.71           C
ATOM   9758  O   PRO D 723      19.851  -4.315   1.061  1.00 43.12           O
ATOM   9759  N   GLN D 724      18.399  -5.645   2.146  1.00 39.37           N
ATOM   9760  CA  GLN D 724      19.407  -6.624   2.528  1.00 38.44           C
ATOM   9761  CB  GLN D 724      18.821  -7.649   3.501  1.00 39.92           C
ATOM   9762  CG  GLN D 724      19.859  -8.555   4.140  1.00 56.04           C
ATOM   9763  CD  GLN D 724      20.893  -7.779   4.932  1.00 75.86           C
ATOM   9764  OE1 GLN D 724      20.558  -6.848   5.664  1.00 73.01           O
ATOM   9765  NE2 GLN D 724      22.160  -8.151   4.779  1.00 65.19           N
ATOM   9766  C   GLN D 724      19.938  -7.335   1.290  1.00 40.55           C
ATOM   9767  O   GLN D 724      21.102  -7.737   1.242  1.00 40.65           O
ATOM   9768  N   GLY D 725      19.076  -7.494   0.291  1.00 35.07           N
ATOM   9769  CA  GLY D 725      19.441  -8.140  -0.956  1.00 34.16           C
ATOM   9770  C   GLY D 725      20.257  -7.221  -1.842  1.00 36.71           C
ATOM   9771  O   GLY D 725      21.020  -7.678  -2.691  1.00 36.14           O
ATOM   9772  N   GLN D 726      20.084  -5.918  -1.648  1.00 33.20           N
ATOM   9773  CA  GLN D 726      20.820  -4.921  -2.417  1.00 33.02           C
ATOM   9774  CB  GLN D 726      20.132  -3.555  -2.333  1.00 33.82           C
ATOM   9775  CG  GLN D 726      19.061  -3.336  -3.392  1.00 36.07           C
ATOM   9776  CD  GLN D 726      19.539  -3.667  -4.797  1.00 44.75           C
ATOM   9777  OE1 GLN D 726      20.181  -2.849  -5.455  1.00 37.79           O
ATOM   9778  NE2 GLN D 726      19.204  -4.863  -5.271  1.00 32.56           N
ATOM   9779  C   GLN D 726      22.237  -4.841  -1.869  1.00 38.23           C
ATOM   9780  O   GLN D 726      23.197  -4.671  -2.619  1.00 38.05           O
ATOM   9781  N   LEU D 727      22.358  -5.003  -0.554  1.00 35.58           N
ATOM   9782  CA  LEU D 727      23.658  -5.010   0.107  1.00 35.71           C
ATOM   9783  CB  LEU D 727      23.483  -5.159   1.621  1.00 36.17           C
ATOM   9784  CG  LEU D 727      23.912  -3.972   2.486  1.00 41.40           C
ATOM   9785  CD1 LEU D 727      22.822  -3.632   3.495  1.00 41.74           C
ATOM   9786  CD2 LEU D 727      25.238  -4.260   3.190  1.00 43.86           C
ATOM   9787  C   LEU D 727      24.423  -6.211  -0.415  1.00 38.72           C
ATOM   9788  O   LEU D 727      25.562  -6.090  -0.867  1.00 39.44           O
ATOM   9789  N   GLY D 728      23.781  -7.373  -0.348  1.00 33.52           N
ATOM   9790  CA  GLY D 728      24.360  -8.620  -0.805  1.00 32.33           C
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ATOM   9791  C   GLY D 728      24.839  -8.550  -2.242  1.00 33.95           C
ATOM   9792  O   GLY D 728      25.898  -9.084  -2.570  1.00 34.04           O
ATOM   9793  N   PHE D 729      24.057  -7.895  -3.098  1.00 28.17           N
ATOM   9794  CA  PHE D 729      24.403  -7.774  -4.513  1.00 26.80           C
ATOM   9795  CB  PHE D 729      23.212  -7.280  -5.344  1.00 27.71           C
ATOM   9796  CG  PHE D 729      23.481  -7.262  -6.825  1.00 27.94           C
ATOM   9797  CD1 PHE D 729      23.569  -8.446  -7.537  1.00 29.84           C
ATOM   9798  CE1 PHE D 729      23.864  -8.442  -8.887  1.00 30.25           C
ATOM   9799  CZ  PHE D 729      24.093  -7.248  -9.537  1.00 29.35           C
ATOM   9800  CE2 PHE D 729      24.027  -6.059  -8.835  1.00 31.33           C
ATOM   9801  CD2 PHE D 729      23.728  -6.071  -7.485  1.00 28.92           C
ATOM   9802  C   PHE D 729      25.624  -6.887  -4.750  1.00 30.79           C
ATOM   9803  O   PHE D 729      26.503  -7.229  -5.539  1.00 30.45           O
ATOM   9804  N   TYR D 730      25.670  -5.743  -4.073  1.00 27.44           N
ATOM   9805  CA  TYR D 730      26.792  -4.825  -4.212  1.00 27.26           C
ATOM   9806  CB  TYR D 730      26.555  -3.567  -3.375  1.00 28.50           C
ATOM   9807  CG  TYR D 730      25.704  -2.519  -4.053  1.00 30.06           C
ATOM   9808  CD1 TYR D 730      24.346  -2.721  -4.246  1.00 32.00           C
ATOM   9809  CE1 TYR D 730      23.563  -1.765  -4.860  1.00 32.99           C
ATOM   9810  CZ  TYR D 730      24.135  -0.584  -5.281  1.00 38.52           C
ATOM   9811  OH  TYR D 730      23.354   0.372  -5.886  1.00 38.74           O
ATOM   9812  CE2 TYR D 730      25.483  -0.359  -5.100  1.00 31.59           C
ATOM   9813  CD2 TYR D 730      26.257  -1.325  -4.491  1.00 30.75           C
ATOM   9814  C   TYR D 730      28.062  -5.512  -3.726  1.00 31.79           C
ATOM   9815  O   TYR D 730      29.078  -5.547  -4.417  1.00 31.40           O
ATOM   9816  N   ASN D 731      27.992  -6.059  -2.521  1.00 28.90           N
ATOM   9817  CA  ASN D 731      29.132  -6.737  -1.929  1.00 28.71           C
ATOM   9818  CB  ASN D 731      28.752  -7.313  -0.562  1.00 26.81           C
ATOM   9819  CG  ASN D 731      28.512  -6.232   0.486  1.00 41.19           C
ATOM   9820  OD1 ASN D 731      29.138  -5.174   0.458  1.00 28.52           O
ATOM   9821  ND2 ASN D 731      27.607  -6.503   1.423  1.00 32.51           N
ATOM   9822  C   ASN D 731      29.656  -7.847  -2.834  1.00 33.74           C
ATOM   9823  O   ASN D 731      30.847  -7.907  -3.129  1.00 33.46           O
ATOM   9824  N   ALA D 732      28.756  -8.717  -3.278  1.00 31.40           N
ATOM   9825  CA  ALA D 732      29.123  -9.871  -4.093  1.00 31.61           C
ATOM   9826  CB  ALA D 732      28.174 -11.028  -3.824  1.00 32.31           C
ATOM   9827  C   ALA D 732      29.285  -9.660  -5.596  1.00 36.58           C
ATOM   9828  O   ALA D 732      29.955 -10.455  -6.258  1.00 36.65           O
ATOM   9829  N   VAL D 733      28.641  -8.639  -6.153  1.00 33.41           N
ATOM   9830  CA  VAL D 733      28.725  -8.415  -7.594  1.00 33.49           C
ATOM   9831  CB  VAL D 733      27.414  -8.791  -8.315  1.00 37.39           C
ATOM   9832  CG1 VAL D 733      27.712  -9.375  -9.693  1.00 37.02           C
ATOM   9833  CG2 VAL D 733      26.598  -9.763  -7.479  1.00 37.11           C
ATOM   9834  C   VAL D 733      29.195  -7.030  -8.014  1.00 38.70           C
ATOM   9835  O   VAL D 733      30.268  -6.879  -8.601  1.00 38.29           O
ATOM   9836  N   ALA D 734      28.359  -6.028  -7.765  1.00 36.09           N
ATOM   9837  CA  ALA D 734      28.661  -4.659  -8.167  1.00 36.25           C
ATOM   9838  CB  ALA D 734      27.632  -3.690  -7.598  1.00 36.90           C
ATOM   9839  C   ALA D 734      30.079  -4.196  -7.837  1.00 40.67           C
ATOM   9840  O   ALA D 734      30.888  -3.958  -8.733  1.00 40.49           O
ATOM   9841  N   ILE D 735      30.363  -4.048  -6.548  1.00 37.08           N
ATOM   9842  CA  ILE D 735      31.660  -3.557  -6.087  1.00 36.63           C
ATOM   9843  CB  ILE D 735      31.709  -3.434  -4.552  1.00 39.51           C
ATOM   9844  CG1 ILE D 735      30.479  -2.686  -4.038  1.00 39.51           C
ATOM   9845  CD1 ILE D 735      30.613  -1.183  -4.090  1.00 44.48           C
ATOM   9846  CG2 ILE D 735      32.985  -2.735  -4.119  1.00 40.24           C
ATOM   9847  C   ILE D 735      32.885  -4.289  -6.634  1.00 39.47           C
ATOM   9848  O   ILE D 735      33.874  -3.661  -7.017  1.00 39.03           O
ATOM   9849  N   PRO D 736      32.853  -5.630  -6.644  1.00 34.92           N
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ATOM   9850  CA  PRO D 736      34.088  -6.225  -7.172  1.00 34.29           C
ATOM   9851  CB  PRO D 736      33.870  -7.727  -6.967  1.00 36.01           C
ATOM   9852  CG  PRO D 736      32.893  -7.817  -5.835  1.00 40.27           C
ATOM   9853  CD  PRO D 736      31.983  -6.633  -6.004  1.00 35.89           C
ATOM   9854  C   PRO D 736      34.302  -5.911  -8.650  1.00 37.07           C
ATOM   9855  O   PRO D 736      35.432  -5.716  -9.093  1.00 36.56           O
ATOM   9856  N   CYS D 737      33.209  -5.855  -9.407  1.00 32.90           N
ATOM   9857  CA  CYS D 737      33.271  -5.586 -10.840  1.00 31.95           C
ATOM   9858  CB  CYS D 737      31.873  -5.637 -11.457  1.00 32.36           C
ATOM   9859  SG  CYS D 737      31.733  -4.823 -13.066  1.00 36.49           S
ATOM   9860  C   CYS D 737      33.958  -4.264 -11.186  1.00 34.13           C
ATOM   9861  O   CYS D 737      34.888  -4.236 -11.992  1.00 32.67           O
ATOM   9862  N   TYR D 738      33.483  -3.176 -10.585  1.00 30.43           N
ATOM   9863  CA  TYR D 738      34.032  -1.846 -10.832  1.00 30.26           C
ATOM   9864  CB  TYR D 738      33.055  -0.763 -10.358  1.00 30.91           C
ATOM   9865  CG  TYR D 738      31.726  -0.803 -11.085  1.00 31.16           C
ATOM   9866  CD1 TYR D 738      31.592  -0.251 -12.353  1.00 32.71           C
ATOM   9867  CE1 TYR D 738      30.391  -0.312 -13.039  1.00 32.50           C
ATOM   9868  CZ  TYR D 738      29.308  -0.947 -12.464  1.00 38.27           C
ATOM   9869  OH  TYR D 738      28.118  -1.016 -13.153  1.00 38.74           O
ATOM   9870  CE2 TYR D 738      29.419  -1.523 -11.214  1.00 31.73           C
ATOM   9871  CD2 TYR D 738      30.626  -1.454 -10.533  1.00 31.25           C
ATOM   9872  C   TYR D 738      35.410  -1.668 -10.197  1.00 35.63           C
ATOM   9873  O   TYR D 738      36.196  -0.827 -10.631  1.00 35.23           O
ATOM   9874  N   THR D 739      35.707  -2.478  -9.183  1.00 33.45           N
ATOM   9875  CA  THR D 739      37.012  -2.438  -8.528  1.00 33.91           C
ATOM   9876  CB  THR D 739      37.041  -3.327  -7.262  1.00 42.17           C
ATOM   9877  OG1 THR D 739      36.548  -2.593  -6.134  1.00 41.80           O
ATOM   9878  CG2 THR D 739      38.462  -3.800  -6.975  1.00 40.95           C
ATOM   9879  C   THR D 739      38.060  -2.916  -9.534  1.00 38.82           C
ATOM   9880  O   THR D 739      39.105  -2.289  -9.715  1.00 38.52           O
ATOM   9881  N   THR D 740      37.759  -4.033 -10.189  1.00 35.56           N
ATOM   9882  CA  THR D 740      38.651  -4.624 -11.178  1.00 35.13           C
ATOM   9883  CB  THR D 740      38.199  -6.049 -11.550  1.00 40.70           C
ATOM   9884  OG1 THR D 740      37.671  -6.703 -10.390  1.00 39.19           O
ATOM   9885  CG2 THR D 740      39.367  -6.854 -12.091  1.00 39.25           C
ATOM   9886  C   THR D 740      38.758  -3.740 -12.416  1.00 39.39           C
ATOM   9887  O   THR D 740      39.831  -3.604 -13.004  1.00 39.19           O
ATOM   9888  N   LEU D 741      37.640  -3.146 -12.814  1.00 36.01           N
ATOM   9889  CA  LEU D 741      37.625  -2.268 -13.978  1.00 35.62           C
ATOM   9890  CB  LEU D 741      36.194  -1.833 -14.294  1.00 35.43           C
ATOM   9891  CG  LEU D 741      35.920  -1.364 -15.723  1.00 39.48           C
ATOM   9892  CD1 LEU D 741      35.925  -2.546 -16.684  1.00 39.39           C
ATOM   9893  CD2 LEU D 741      34.596  -0.630 -15.782  1.00 41.35           C
ATOM   9894  C   LEU D 741      38.496  -1.042 -13.724  1.00 39.32           C
ATOM   9895  O   LEU D 741      39.192  -0.564 -14.620  1.00 39.00           O
ATOM   9896  N   THR D 742      38.448  -0.538 -12.495  1.00 35.66           N
ATOM   9897  CA  THR D 742      39.223   0.636 -12.105  1.00 35.13           C
ATOM   9898  CB  THR D 742      38.816   1.134 -10.709  1.00 41.93           C
ATOM   9899  OG1 THR D 742      37.753   2.085 -10.830  1.00 42.98           O
ATOM   9900  CG2 THR D 742      39.999   1.787 -10.003  1.00 39.92           C
ATOM   9901  C   THR D 742      40.719   0.359 -12.173  1.00 38.70           C
ATOM   9902  O   THR D 742      41.511   1.249 -12.481  1.00 38.26           O
ATOM   9903  N   GLN D 743      41.101  -0.879 -11.878  1.00 35.12           N
ATOM   9904  CA  GLN D 743      42.502  -1.271 -11.906  1.00 34.88           C
ATOM   9905  CB  GLN D 743      42.690  -2.648 -11.251  1.00 36.19           C
ATOM   9906  CG  GLN D 743      42.326  -2.715  -9.769  1.00 51.57           C
ATOM   9907  CD  GLN D 743      42.668  -1.443  -9.009  1.00 74.07           C
ATOM   9908  OE1 GLN D 743      43.823  -1.022  -8.968  1.00 68.81           O
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ATOM   9909  NE2 GLN D 743      41.666  -0.847  -8.372  1.00 65.84           N
ATOM   9910  C   GLN D 743      43.002  -1.317 -13.342  1.00 39.01           C
ATOM   9911  O   GLN D 743      44.069  -0.791 -13.659  1.00 39.54           O
ATOM   9912  N   ILE D 744      42.222  -1.960 -14.205  1.00 34.50           N
ATOM   9913  CA  ILE D 744      42.577  -2.113 -15.610  1.00 33.47           C
ATOM   9914  CB  ILE D 744      41.749  -3.216 -16.276  1.00 36.07           C
ATOM   9915  CG1 ILE D 744      42.010  -4.558 -15.589  1.00 36.26           C
ATOM   9916  CD1 ILE D 744      40.863  -5.536 -15.689  1.00 43.59           C
ATOM   9917  CG2 ILE D 744      42.062  -3.289 -17.753  1.00 36.43           C
ATOM   9918  C   ILE D 744      42.523  -0.806 -16.394  1.00 37.61           C
ATOM   9919  O   ILE D 744      43.443  -0.491 -17.150  1.00 37.48           O
ATOM   9920  N   LEU D 745      41.449  -0.047 -16.202  1.00 34.09           N
ATOM   9921  CA  LEU D 745      41.274   1.240 -16.868  1.00 34.00           C
ATOM   9922  CB  LEU D 745      40.171   1.148 -17.922  1.00 33.76           C
ATOM   9923  CG  LEU D 745      40.361   0.041 -18.958  1.00 37.98           C
ATOM   9924  CD1 LEU D 745      39.047  -0.683 -19.221  1.00 38.29           C
ATOM   9925  CD2 LEU D 745      40.935   0.610 -20.242  1.00 39.43           C
ATOM   9926  C   LEU D 745      40.917   2.297 -15.832  1.00 39.85           C
ATOM   9927  O   LEU D 745      39.742   2.594 -15.611  1.00 39.76           O
ATOM   9928  N   PRO D 746      41.937   2.862 -15.167  1.00 37.35           N
ATOM   9929  CA  PRO D 746      41.882   3.854 -14.087  1.00 37.19           C
ATOM   9930  CB  PRO D 746      43.304   4.419 -14.067  1.00 38.93           C
ATOM   9931  CG  PRO D 746      44.150   3.281 -14.525  1.00 43.28           C
ATOM   9932  CD  PRO D 746      43.324   2.508 -15.522  1.00 38.86           C
ATOM   9933  C   PRO D 746      40.857   4.977 -14.261  1.00 40.61           C
ATOM   9934  O   PRO D 746      40.283   5.458 -13.283  1.00 39.57           O
ATOM   9935  N   PRO D 747      40.636   5.430 -15.503  1.00 37.70           N
ATOM   9936  CA  PRO D 747      39.688   6.538 -15.682  1.00 37.43           C
ATOM   9937  CB  PRO D 747      39.796   6.853 -17.176  1.00 39.12           C
ATOM   9938  CG  PRO D 747      41.152   6.371 -17.566  1.00 43.61           C
ATOM   9939  CD  PRO D 747      41.402   5.153 -16.731  1.00 39.33           C
ATOM   9940  C   PRO D 747      38.244   6.194 -15.310  1.00 40.98           C
ATOM   9941  O   PRO D 747      37.421   7.090 -15.111  1.00 40.90           O
ATOM   9942  N   THR D 748      37.940   4.903 -15.218  1.00 36.74           N
ATOM   9943  CA  THR D 748      36.588   4.457 -14.894  1.00 36.51           C
ATOM   9944  CB  THR D 748      36.278   3.086 -15.519  1.00 41.43           C
ATOM   9945  OG1 THR D 748      37.027   2.068 -14.843  1.00 40.83           O
ATOM   9946  CG2 THR D 748      36.635   3.081 -16.995  1.00 38.35           C
ATOM   9947  C   THR D 748      36.261   4.473 -13.401  1.00 41.49           C
ATOM   9948  O   THR D 748      35.197   4.008 -12.990  1.00 41.22           O
ATOM   9949  N   GLU D 749      37.174   5.004 -12.594  1.00 38.39           N
ATOM   9950  CA  GLU D 749      36.971   5.079 -11.149  1.00 38.24           C
ATOM   9951  CB  GLU D 749      38.189   5.703 -10.456  1.00 39.78           C
ATOM   9952  CG  GLU D 749      38.002   7.156 -10.029  1.00 52.30           C
ATOM   9953  CD  GLU D 749      37.278   7.293  -8.697  1.00 78.21           C
ATOM   9954  OE1 GLU D 749      37.175   8.429  -8.186  1.00 71.53           O
ATOM   9955  OE2 GLU D 749      36.794   6.266  -8.172  1.00 76.72           O
ATOM   9956  C   GLU D 749      35.687   5.811 -10.748  1.00 41.16           C
ATOM   9957  O   GLU D 749      35.111   5.536  -9.693  1.00 41.35           O
ATOM   9958  N   PRO D 750      35.225   6.758 -11.580  1.00 36.25           N
ATOM   9959  CA  PRO D 750      33.994   7.455 -11.195  1.00 35.53           C
ATOM   9960  CB  PRO D 750      33.724   8.359 -12.394  1.00 37.32           C
ATOM   9961  CG  PRO D 750      35.085   8.691 -12.903  1.00 41.82           C
ATOM   9962  CD  PRO D 750      35.957   7.487 -12.632  1.00 37.58           C
ATOM   9963  C   PRO D 750      32.829   6.495 -10.975  1.00 38.11           C
ATOM   9964  O   PRO D 750      31.934   6.766 -10.175  1.00 37.90           O
ATOM   9965  N   LEU D 751      32.857   5.363 -11.670  1.00 33.50           N
ATOM   9966  CA  LEU D 751      31.810   4.359 -11.534  1.00 32.88           C
ATOM   9967  CB  LEU D 751      31.956   3.280 -12.612  1.00 32.66           C
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ATOM   9968  CG  LEU D 751      31.919   3.737 -14.071  1.00 36.53           C
ATOM   9969  CD1 LEU D 751      32.225   2.581 -15.006  1.00 36.15           C
ATOM   9970  CD2 LEU D 751      30.569   4.352 -14.407  1.00 38.60           C
ATOM   9971  C   LEU D 751      31.899   3.714 -10.159  1.00 36.97           C
ATOM   9972  O   LEU D 751      30.881   3.457  -9.511  1.00 36.96           O
ATOM   9973  N   LEU D 752      33.128   3.452  -9.724  1.00 33.18           N
ATOM   9974  CA  LEU D 752      33.380   2.819  -8.435  1.00 32.93           C
ATOM   9975  CB  LEU D 752      34.853   2.421  -8.311  1.00 32.84           C
ATOM   9976  CG  LEU D 752      35.271   1.730  -7.010  1.00 37.17           C
ATOM   9977  CD1 LEU D 752      34.280   0.637  -6.629  1.00 36.94           C
ATOM   9978  CD2 LEU D 752      36.678   1.170  -7.135  1.00 38.75           C
ATOM   9979  C   LEU D 752      32.959   3.702  -7.264  1.00 36.76           C
ATOM   9980  O   LEU D 752      32.268   3.246  -6.353  1.00 36.37           O
ATOM   9981  N   LYS D 753      33.372   4.965  -7.294  1.00 33.28           N
ATOM   9982  CA  LYS D 753      33.004   5.910  -6.245  1.00 33.27           C
ATOM   9983  CB  LYS D 753      33.600   7.293  -6.524  1.00 35.55           C
ATOM   9984  CG  LYS D 753      32.882   8.414  -5.793  1.00 46.80           C
ATOM   9985  CD  LYS D 753      33.411   9.786  -6.180  1.00 55.41           C
ATOM   9986  CE  LYS D 753      33.086  10.815  -5.104  1.00 62.49           C
ATOM   9987  NZ  LYS D 753      31.631  11.142  -5.064  1.00 68.65           N
ATOM   9988  C   LYS D 753      31.482   6.015  -6.141  1.00 37.20           C
ATOM   9989  O   LYS D 753      30.916   5.951  -5.048  1.00 36.94           O
ATOM   9990  N   ALA D 754      30.827   6.166  -7.288  1.00 33.71           N
ATOM   9991  CA  ALA D 754      29.368   6.266  -7.337  1.00 33.32           C
ATOM   9992  CB  ALA D 754      28.906   6.563  -8.751  1.00 34.05           C
ATOM   9993  C   ALA D 754      28.691   5.001  -6.809  1.00 36.84           C
ATOM   9994  O   ALA D 754      27.602   5.064  -6.242  1.00 35.99           O
ATOM   9995  N   CYS D 755      29.347   3.857  -6.991  1.00 34.09           N
ATOM   9996  CA  CYS D 755      28.814   2.580  -6.528  1.00 33.98           C
ATOM   9997  CB  CYS D 755      29.464   1.423  -7.285  1.00 34.78           C
ATOM   9998  SG  CYS D 755      28.784  -0.203  -6.905  1.00 38.94           S
ATOM   9999  C   CYS D 755      28.987   2.394  -5.019  1.00 36.09           C
ATOM  10000  O   CYS D 755      28.143   1.781  -4.360  1.00 35.50           O
ATOM  10001  N   ARG D 756      30.077   2.927  -4.474  1.00 31.74           N
ATOM  10002  CA  ARG D 756      30.344   2.843  -3.038  1.00 31.27           C
ATOM  10003  CB  ARG D 756      31.770   3.309  -2.726  1.00 31.53           C
ATOM  10004  CG  ARG D 756      32.842   2.264  -2.979  1.00 45.75           C
ATOM  10005  CD  ARG D 756      34.065   2.534  -2.113  1.00 59.97           C
ATOM  10006  NE  ARG D 756      34.903   1.347  -1.966  1.00 70.38           N
ATOM  10007  CZ  ARG D 756      34.456   0.156  -1.575  1.00 83.53           C
ATOM  10008  NH1 ARG D 756      33.170  -0.016  -1.296  1.00 70.39           N
ATOM  10009  NH2 ARG D 756      35.296  -0.867  -1.472  1.00 68.45           N
ATOM  10010  C   ARG D 756      29.353   3.728  -2.284  1.00 35.19           C
ATOM  10011  O   ARG D 756      28.846   3.357  -1.222  1.00 34.45           O
ATOM  10012  N   ASP D 757      29.092   4.905  -2.844  1.00 32.01           N
ATOM  10013  CA  ASP D 757      28.153   5.851  -2.256  1.00 32.12           C
ATOM  10014  CB  ASP D 757      28.139   7.156  -3.051  1.00 34.18           C
ATOM  10015  CG  ASP D 757      29.429   7.949  -2.908  1.00 47.12           C
ATOM  10016  OD1 ASP D 757      30.271   7.585  -2.056  1.00 47.85           O
ATOM  10017  OD2 ASP D 757      29.594   8.942  -3.651  1.00 54.05           O
ATOM  10018  C   ASP D 757      26.747   5.258  -2.218  1.00 36.35           C
ATOM  10019  O   ASP D 757      25.969   5.542  -1.306  1.00 36.33           O
ATOM  10020  N   ASN D 758      26.427   4.426  -3.206  1.00 32.23           N
ATOM  10021  CA  ASN D 758      25.111   3.794  -3.268  1.00 31.73           C
ATOM  10022  CB  ASN D 758      24.762   3.365  -4.692  1.00 30.36           C
ATOM  10023  CG  ASN D 758      24.141   4.489  -5.498  1.00 43.79           C
ATOM  10024  OD1 ASN D 758      23.732   5.512  -4.945  1.00 43.31           O
ATOM  10025  ND2 ASN D 758      24.078   4.312  -6.810  1.00 27.43           N
ATOM  10026  C   ASN D 758      24.986   2.626  -2.302  1.00 35.42           C
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ATOM  10027  O   ASN D 758      23.895   2.325  -1.823  1.00 34.45           O
ATOM  10028  N   LEU D 759      26.108   1.979  -2.004  1.00 32.63           N
ATOM  10029  CA  LEU D 759      26.105   0.874  -1.055  1.00 32.80           C
ATOM  10030  CB  LEU D 759      27.459   0.161  -1.052  1.00 33.04           C
ATOM  10031  CG  LEU D 759      27.629  -0.963  -0.025  1.00 37.93           C
ATOM  10032  CD1 LEU D 759      26.380  -1.832   0.049  1.00 38.27           C
ATOM  10033  CD2 LEU D 759      28.853  -1.808  -0.345  1.00 40.53           C
ATOM  10034  C   LEU D 759      25.816   1.446   0.329  1.00 37.78           C
ATOM  10035  O   LEU D 759      25.003   0.906   1.081  1.00 37.94           O
ATOM  10036  N   SER D 760      26.478   2.559   0.641  1.00 34.14           N
ATOM  10037  CA  SER D 760      26.322   3.242   1.922  1.00 33.82           C
ATOM  10038  CB  SER D 760      27.347   4.374   2.052  1.00 37.00           C
ATOM  10039  OG  SER D 760      26.947   5.515   1.310  1.00 44.27           O
ATOM  10040  C   SER D 760      24.913   3.790   2.134  1.00 37.45           C
ATOM  10041  O   SER D 760      24.492   4.017   3.268  1.00 37.46           O
ATOM  10042  N   GLN D 761      24.196   4.025   1.042  1.00 33.65           N
ATOM  10043  CA  GLN D 761      22.834   4.535   1.132  1.00 33.36           C
ATOM  10044  CB  GLN D 761      22.442   5.252  -0.158  1.00 34.48           C
ATOM  10045  CG  GLN D 761      23.113   6.600  -0.335  1.00 45.70           C
ATOM  10046  CD  GLN D 761      22.736   7.585   0.753  1.00 64.93           C
ATOM  10047  OE1 GLN D 761      21.643   7.518   1.315  1.00 60.45           O
ATOM  10048  NE2 GLN D 761      23.644   8.502   1.062  1.00 58.30           N
ATOM  10049  C   GLN D 761      21.875   3.384   1.421  1.00 37.86           C
ATOM  10050  O   GLN D 761      20.877   3.552   2.118  1.00 36.98           O
ATOM  10051  N   TRP D 762      22.198   2.206   0.900  1.00 35.66           N
ATOM  10052  CA  TRP D 762      21.382   1.023   1.137  1.00 36.04           C
ATOM  10053  CB  TRP D 762      21.785  -0.115   0.188  1.00 34.77           C
ATOM  10054  CG  TRP D 762      21.124  -0.028  -1.165  1.00 35.44           C
ATOM  10055  CD1 TRP D 762      21.744   0.094  -2.375  1.00 38.46           C
ATOM  10056  NE1 TRP D 762      20.809   0.181  -3.380  1.00 37.80           N
ATOM  10057  CE2 TRP D 762      19.557   0.118  -2.827  1.00 39.01           C
ATOM  10058  CD2 TRP D 762      19.715  -0.014  -1.434  1.00 35.29           C
ATOM  10059  CE3 TRP D 762      18.573  -0.100  -0.631  1.00 36.55           C
ATOM  10060  CZ3 TRP D 762      17.331  -0.054  -1.238  1.00 37.75           C
ATOM  10061  CH2 TRP D 762      17.209   0.074  -2.625  1.00 38.46           C
ATOM  10062  CZ2 TRP D 762      18.307   0.162  -3.434  1.00 38.18           C
ATOM  10063  C   TRP D 762      21.555   0.595   2.594  1.00 41.40           C
ATOM  10064  O   TRP D 762      20.650   0.016   3.201  1.00 41.63           O
ATOM  10065  N   GLU D 763      22.721   0.906   3.152  1.00 38.03           N
ATOM  10066  CA  GLU D 763      23.026   0.592   4.541  1.00 37.93           C
ATOM  10067  CB  GLU D 763      24.516   0.810   4.820  1.00 39.41           C
ATOM  10068  CG  GLU D 763      25.421  -0.318   4.344  1.00 52.32           C
ATOM  10069  CD  GLU D 763      26.897  -0.026   4.581  1.00 80.64           C
ATOM  10070  OE1 GLU D 763      27.312   1.142   4.414  1.00 80.01           O
ATOM  10071  OE2 GLU D 763      27.643  -0.963   4.944  1.00 77.33           O
ATOM  10072  C   GLU D 763      22.193   1.492   5.445  1.00 41.96           C
ATOM  10073  O   GLU D 763      21.602   1.037   6.422  1.00 41.26           O
ATOM  10074  N   LYS D 764      22.146   2.775   5.102  1.00 39.40           N
ATOM  10075  CA  LYS D 764      21.365   3.745   5.857  1.00 39.71           C
ATOM  10076  CB  LYS D 764      21.577   5.148   5.294  1.00 42.17           C
ATOM  10077  CG  LYS D 764      22.955   5.717   5.573  1.00 60.77           C
ATOM  10078  CD  LYS D 764      22.993   7.214   5.327  1.00 73.80           C
ATOM  10079  CE  LYS D 764      24.416   7.697   5.092  1.00 86.92           C
ATOM  10080  NZ  LYS D 764      24.797   7.633   3.652  1.00 96.12           N
ATOM  10081  C   LYS D 764      19.883   3.383   5.817  1.00 45.43           C
ATOM  10082  O   LYS D 764      19.150   3.625   6.776  1.00 45.46           O
ATOM  10083  N   VAL D 765      19.449   2.801   4.702  1.00 42.66           N
ATOM  10084  CA  VAL D 765      18.057   2.390   4.538  1.00 42.78           C
ATOM  10085  CB  VAL D 765      17.750   2.016   3.071  1.00 46.60           C
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ATOM  10086  CG1 VAL D 765      16.347   1.446   2.943  1.00 46.35           C
ATOM  10087  CG2 VAL D 765      17.933   3.216   2.158  1.00 46.39           C
ATOM  10088  C   VAL D 765      17.757   1.215   5.463  1.00 47.25           C
ATOM  10089  O   VAL D 765      16.725   1.179   6.128  1.00 46.38           O
ATOM  10090  N   ILE D 766      18.682   0.263   5.499  1.00 44.88           N
ATOM  10091  CA  ILE D 766      18.554  -0.929   6.327  1.00 45.30           C
ATOM  10092  CB  ILE D 766      19.810  -1.805   6.214  1.00 48.43           C
ATOM  10093  CG1 ILE D 766      19.644  -2.836   5.099  1.00 48.99           C
ATOM  10094  CD1 ILE D 766      20.476  -4.076   5.308  1.00 58.16           C
ATOM  10095  CG2 ILE D 766      20.112  -2.480   7.543  1.00 48.84           C
ATOM  10096  C   ILE D 766      18.260  -0.602   7.787  1.00 50.99           C
ATOM  10097  O   ILE D 766      17.713  -1.431   8.522  1.00 50.88           O
ATOM  10098  N   ARG D 767      18.638   0.604   8.201  1.00 48.14           N
ATOM  10099  CA  ARG D 767      18.446   1.040   9.580  1.00 47.80           C
ATOM  10100  CB  ARG D 767      19.771   0.961  10.336  1.00 47.62           C
ATOM  10101  CG  ARG D 767      20.790   1.985   9.873  1.00 53.94           C
ATOM  10102  CD  ARG D 767      22.210   1.484  10.090  1.00 61.36           C
ATOM  10103  NE  ARG D 767      23.137   1.973   9.074  1.00 68.11           N
ATOM  10104  CZ  ARG D 767      23.596   3.219   9.023  1.00 80.77           C
ATOM  10105  NH1 ARG D 767      24.442   3.574   8.063  1.00 65.24           N
ATOM  10106  NH2 ARG D 767      23.198   4.111   9.923  1.00 68.19           N
ATOM  10107  C   ARG D 767      17.917   2.465   9.666  1.00 51.42           C
ATOM  10108  O   ARG D 767      18.334   3.231  10.536  1.00 50.83           O
ATOM  10109  N   GLY D 768      17.000   2.821   8.771  1.00 48.28           N
ATOM  10110  CA  GLY D 768      16.424   4.154   8.753  1.00 75.46           C
ATOM  10111  C   GLY D 768      17.486   5.234   8.719  1.00101.71           C
ATOM  10112  O   GLY D 768      17.466   6.111   7.856  1.00 62.99           O
TER   10113       GLY D 768
HETATM10114 ZN    ZN I   1      91.276   0.709  19.001  1.00 30.84          ZN+2
HETATM10115 ZN    ZN I   2      54.450  -2.592  14.419  1.00 30.85          ZN+2
HETATM10116 ZN    ZN I   3      75.702  10.550 -13.380  1.00 30.77          ZN+2
HETATM10117 ZN    ZN I   4      20.895  -5.404 -20.139  1.00 30.19          ZN+2
HETATM10118 MG    MG I   5      93.792   2.632  16.652  1.00 20.81          MG+2
HETATM10119 MG    MG I   6      55.349  -3.256  18.157  1.00  6.29          MG+2
HETATM10120 MG    MG I   7      72.111  10.956 -14.107  1.00 24.48          MG+2
HETATM10121 MG    MG I   8      20.452  -9.094 -20.546  1.00 21.19          MG+2
HETATM10122  C1  LIG L   1      94.585  -7.577  13.496  1.00 27.89           C
HETATM10123  C2  LIG L   1      93.918  -7.446  14.707  1.00 27.30           C
HETATM10124  C3  LIG L   1      95.414  -6.569  13.079  1.00 29.70           C
HETATM10125  C4  LIG L   1      94.399  -8.717  12.736  1.00 27.23           C
HETATM10126  C5  LIG L   1      93.106  -8.426  15.117  1.00 27.40           C
HETATM10127  C6  LIG L   1      94.053  -6.336  15.525  1.00 28.80           C
HETATM10128  C7  LIG L   1      96.180  -6.577  11.817  1.00 32.41           C
HETATM10129  N8  LIG L   1      95.549  -5.527  13.824  1.00 29.39           N
HETATM10130  C9  LIG L   1      93.565  -9.673  13.168  1.00 25.72           C
HETATM10131 C10  LIG L   1      92.942  -9.534  14.328  1.00 27.03           C
HETATM10132 C11  LIG L   1      94.904  -5.336  15.055  1.00 28.99           C
HETATM10133 C12  LIG L   1      97.495  -7.136  12.194  1.00 34.67           C
HETATM10134 O13  LIG L   1      93.366 -10.766  12.448  1.00 24.79           O
HETATM10135 O14  LIG L   1      92.084 -10.533  14.793  1.00 28.86           O
HETATM10136 C15  LIG L   1      98.617  -6.376  12.549  1.00 35.80           C
HETATM10137 C16  LIG L   1      97.571  -8.526  12.181  1.00 35.94           C
HETATM10138 C17  LIG L   1      94.623 -11.427  11.999  1.00 24.16           C
HETATM10139 C18  LIG L   1      91.607 -10.401  16.185  1.00 29.37           C
HETATM10140 C19  LIG L   1      99.912  -6.951  12.923  1.00 36.22           C
HETATM10141 C20  LIG L   1      98.797  -9.114  12.538  1.00 36.55           C
HETATM10142 C21  LIG L   1      99.986  -8.336  12.913  1.00 37.03           C
HETATM10143 O22  LIG L   1     101.045  -6.257  13.278  1.00 35.49           O
HETATM10144 O23  LIG L   1     101.171  -8.961  13.252  1.00 38.45           O
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HETATM10145	C24	LIG	L	1	100.998	-4.826	12.952	1.00 35.26	C
HETATM10146	C25	LIG	L	1	101.165	-10.424	12.990	1.00 38.34	C
HETATM10147	C1	LIG	L	2	56.550	-12.792	13.999	1.00 31.87	C
HETATM10148	C2	LIG	L	2	55.950	-11.841	13.159	1.00 31.70	C
HETATM10149	C3	LIG	L	2	56.658	-12.503	15.352	1.00 32.46	C
HETATM10150	C4	LIG	L	2	57.010	-13.990	13.445	1.00 30.99	C
HETATM10151	C5	LIG	L	2	55.828	-12.093	11.833	1.00 31.43	C
HETATM10152	C6	LIG	L	2	55.467	-10.628	13.631	1.00 31.04	C
HETATM10153	C7	LIG	L	2	57.287	-13.373	16.372	1.00 34.05	C
HETATM10154	N8	LIG	L	2	56.192	-11.370	15.786	1.00 31.79	N
HETATM10155	C9	LIG	L	2	56.851	-14.213	12.124	1.00 31.04	C
HETATM10156	C10	LIG	L	2	56.281	-13.293	11.337	1.00 31.06	C
HETATM10157	C11	LIG	L	2	55.590	-10.400	14.991	1.00 30.38	C
HETATM10158	C12	LIG	L	2	56.307	-14.307	16.948	1.00 37.13	C
HETATM10159	O13	LIG	L	2	57.270	-15.333	11.566	1.00 32.30	O
HETATM10160	O14	LIG	L	2	56.142	-13.529	9.964	1.00 30.47	O
HETATM10161	C15	LIG	L	2	55.594	-14.107	18.149	1.00 38.67	C
HETATM10162	C16	LIG	L	2	56.141	-15.467	16.213	1.00 38.09	C
HETATM10163	C17	LIG	L	2	58.005	-16.242	12.489	1.00 32.66	C
HETATM10164	C18	LIG	L	2	55.223	-12.642	9.231	1.00 29.09	C
HETATM10165	C19	LIG	L	2	54.644	-15.092	18.687	1.00 39.96	C
HETATM10166	C20	LIG	L	2	55.242	-16.420	16.709	1.00 39.11	C
HETATM10167	C21	LIG	L	2	54.481	-16.253	17.941	1.00 39.56	C
HETATM10168	O22	LIG	L	2	53.894	-14.985	19.845	1.00 41.09	O
HETATM10169	O23	LIG	L	2	53.606	-17.243	18.356	1.00 40.75	O
HETATM10170	C24	LIG	L	2	54.533	-14.316	20.987	1.00 41.09	C
HETATM10171	C25	LIG	L	2	53.339	-18.273	17.320	1.00 40.69	C
HETATM10172	C1	LIG	L	3	73.542	1.101	-17.767	1.00 34.78	C
HETATM10173	C2	LIG	L	3	74.678	1.820	-17.389	1.00 35.01	C
HETATM10174	C3	LIG	L	3	72.372	1.810	-18.037	1.00 34.57	C
HETATM10175	C4	LIG	L	3	73.632	-0.298	-17.859	1.00 35.01	C
HETATM10176	C5	LIG	L	3	75.824	1.162	-17.127	1.00 35.83	C
HETATM10177	C6	LIG	L	3	74.693	3.199	-17.264	1.00 34.29	C
HETATM10178	C7	LIG	L	3	71.063	1.221	-18.414	1.00 34.64	C
HETATM10179	N8	LIG	L	3	72.383	3.099	-17.927	1.00 34.75	N
HETATM10180	C9	LIG	L	3	74.789	-0.935	-17.587	1.00 35.09	C
HETATM10181	C10	LIG	L	3	75.852	-0.214	-17.222	1.00 35.36	C
HETATM10182	C11	LIG	L	3	73.502	3.843	-17.549	1.00 34.37	C
HETATM10183	C12	LIG	L	3	70.920	1.129	-19.879	1.00 36.04	C
HETATM10184	O13	LIG	L	3	74.921	-2.272	-17.668	1.00 35.56	O
HETATM10185	O14	LIG	L	3	77.054	-0.842	-16.923	1.00 35.02	O
HETATM10186	C15	LIG	L	3	70.312	2.097	-20.682	1.00 36.68	C
HETATM10187	C16	LIG	L	3	71.426	-0.028	-20.450	1.00 37.60	C
HETATM10188	C17	LIG	L	3	73.949	-3.006	-18.523	1.00 34.84	C
HETATM10189	C18	LIG	L	3	78.249	0.006	-16.956	1.00 34.76	C
HETATM10190	C19	LIG	L	3	70.177	1.972	-22.130	1.00 38.09	C
HETATM10191	C20	LIG	L	3	71.311	-0.194	-21.840	1.00 38.01	C
HETATM10192	C21	LIG	L	3	70.688	0.809	-22.712	1.00 38.07	C
HETATM10193	O22	LIG	L	3	69.587	2.894	-22.965	1.00 39.57	O
HETATM10194	O23	LIG	L	3	70.602	0.592	-24.087	1.00 38.28	O
HETATM10195	C24	LIG	L	3	68.663	3.827	-22.327	1.00 39.77	C
HETATM10196	C25	LIG	L	3	71.581	-0.411	-24.588	1.00 37.88	C
HETATM10197	C1	LIG	L	4	20.371	-8.608	-10.236	1.00 32.61	C
HETATM10198	C2	LIG	L	4	20.781	-7.510	-10.963	1.00 31.76	C
HETATM10199	C3	LIG	L	4	20.344	-9.846	-10.821	1.00 33.79	C
HETATM10200	C4	LIG	L	4	19.982	-8.473	-8.919	1.00 32.06	C
HETATM10201	C5	LIG	L	4	20.794	-6.308	-10.360	1.00 32.22	C
HETATM10202	C6	LIG	L	4	21.180	-7.612	-12.289	1.00 32.22	C
HETATM10203	C7	LIG	L	4	19.908	-11.042	-10.085	1.00 35.01	C

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HETATM10204  N8  LIG L   4      20.720  -9.978 -12.048  1.00 33.93           N
HETATM10205  C9  LIG L   4      20.014  -7.281  -8.346  1.00 31.86           C
HETATM10206  C10 LIG L   4      20.409  -6.222  -9.046  1.00 32.30           C
HETATM10207  C11 LIG L   4      21.154  -8.903 -12.832  1.00 32.97           C
HETATM10208  C12 LIG L   4      21.175 -11.594  -9.576  1.00 36.85           C
HETATM10209  O13 LIG L   4      19.651  -7.167  -7.077  1.00 32.35           O
HETATM10210  O14 LIG L   4      20.449  -4.970  -8.455  1.00 33.69           O
HETATM10211  C15 LIG L   4      21.975 -12.457 -10.315  1.00 37.56           C
HETATM10212  C16 LIG L   4      21.566 -11.199  -8.300  1.00 37.70           C
HETATM10213  C17 LIG L   4      19.636  -8.493  -6.388  1.00 32.14           C
HETATM10214  C18 LIG L   4      20.727  -3.851  -9.372  1.00 35.18           C
HETATM10215  C19 LIG L   4      23.233 -13.006  -9.838  1.00 38.70           C
HETATM10216  C20 LIG L   4      22.780 -11.708  -7.792  1.00 38.38           C
HETATM10217  C21 LIG L   4      23.640 -12.626  -8.557  1.00 39.00           C
HETATM10218  O22 LIG L   4      24.032 -13.867 -10.558  1.00 39.11           O
HETATM10219  O23 LIG L   4      24.833 -13.120  -8.036  1.00 39.19           O
HETATM10220  C24 LIG L   4      23.296 -14.936 -11.247  1.00 38.39           C
HETATM10221  C25 LIG L   4      24.807 -13.369  -6.574  1.00 38.99           C
ATOM       1  OW0 HOH W   1      54.057  -3.082  16.305  1.00  3.00           O
ATOM       2  OW0 HOH W   2      54.599  -4.697  19.315  1.00  3.65           O
ATOM       3  OW0 HOH W   3      56.628  -3.262  19.897  1.00  7.70           O
ATOM       4  OW0 HOH W   4      51.106  -5.901  -2.448  1.00 14.68           O
ATOM       5  OW0 HOH W   5      53.146 -15.471  23.253  1.00 15.22           O
ATOM       6  OW0 HOH W   6      73.384  -8.519  23.843  1.00 15.38           O
ATOM       7  OW0 HOH W   7      66.463   6.769 -16.623  1.00 15.56           O
ATOM       8  OW0 HOH W   8       9.366 -10.466 -15.388  1.00 15.74           O
ATOM       9  OW0 HOH W   9      21.713  -9.213 -22.159  1.00 15.91           O
ATOM      10  OW0 HOH W  10      76.184  11.207  -1.819  1.00 17.07           O
ATOM      11  OW0 HOH W  11      92.249   3.646  -3.046  1.00 17.41           O
ATOM      12  OW0 HOH W  12      44.562  -8.563  19.593  1.00 17.66           O
ATOM      13  OW0 HOH W  13      74.376   9.449 -19.564  1.00 18.03           O
ATOM      14  OW0 HOH W  14      89.388  -5.653  20.458  1.00 18.10           O
ATOM      15  OW0 HOH W  15      73.827   7.219  29.337  1.00 18.15           O
ATOM      16  OW0 HOH W  16      94.326   3.633  14.906  1.00 18.23           O
ATOM      17  OW0 HOH W  17      79.668   7.586  16.183  1.00 18.36           O
ATOM      18  OW0 HOH W  18      61.746   2.719  15.426  1.00 18.46           O
ATOM      19  OW0 HOH W  19      44.849 -10.687  26.177  1.00 18.68           O
ATOM      20  OW0 HOH W  20      80.779   5.605  15.942  1.00 18.73           O
ATOM      21  OW0 HOH W  21      82.538  -5.468  16.448  1.00 18.89           O
ATOM      22  OW0 HOH W  22      81.900  -0.454 -14.336  1.00 19.19           O
ATOM      23  OW0 HOH W  23      72.090  11.394  -4.708  1.00 19.78           O
ATOM      24  OW0 HOH W  24      54.211  -2.073  19.216  1.00 19.86           O
ATOM      25  OW0 HOH W  25      48.489  -8.042  18.599  1.00 20.34           O
ATOM      26  OW0 HOH W  26      70.393   7.905 -17.937  1.00 20.39           O
ATOM      27  OW0 HOH W  27      86.578   5.619 -10.376  1.00 20.44           O
ATOM      28  OW0 HOH W  28      94.615  -1.339 -18.030  1.00 20.65           O
ATOM      29  OW0 HOH W  29      56.823  -4.645  17.421  1.00 20.68           O
ATOM      30  OW0 HOH W  30      65.822  -7.593  -8.603  1.00 20.70           O
ATOM      31  OW0 HOH W  31      71.214  10.534 -16.100  1.00 20.79           O
ATOM      32  OW0 HOH W  32      41.170   0.962  22.521  1.00 20.81           O
ATOM      33  OW0 HOH W  33      72.072  12.906 -14.888  1.00 20.86           O
ATOM      34  OW0 HOH W  34     102.223 -17.931  21.355  1.00 20.87           O
ATOM      35  OW0 HOH W  35      37.884 -12.145 -34.862  1.00 20.90           O
ATOM      36  OW0 HOH W  36      61.637  -7.154  16.825  1.00 20.90           O
ATOM      37  OW0 HOH W  37      85.420  -6.609  21.566  1.00 20.99           O
ATOM      38  OW0 HOH W  38      98.543   2.119 -22.805  1.00 21.17           O
ATOM      39  OW0 HOH W  39      56.437   6.772  -1.869  1.00 21.22           O
ATOM      40  OW0 HOH W  40      81.680 -11.813  26.352  1.00 21.60           O
ATOM      41  OW0 HOH W  41      53.708  22.700   9.616  1.00 21.70           O
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ATOM     42  OW0 HOH W  42      12.584  -6.202 -24.590  1.00 22.08           O
ATOM     43  OW0 HOH W  43      75.389  21.111  28.015  1.00 22.27           O
ATOM     44  OW0 HOH W  44      17.837 -11.955 -18.649  1.00 22.28           O
ATOM     45  OW0 HOH W  45      74.965  12.339 -25.970  1.00 22.66           O
ATOM     46  OW0 HOH W  46      87.613 -11.867  17.394  1.00 22.67           O
ATOM     47  OW0 HOH W  47      34.827  -8.639  26.696  1.00 22.78           O
ATOM     48  OW0 HOH W  48      48.971  -1.624   4.149  1.00 22.82           O
ATOM     49  OW0 HOH W  49      35.779  -6.879 -49.438  1.00 22.83           O
ATOM     50  OW0 HOH W  50      90.480 -27.144  20.548  1.00 22.83           O
ATOM     51  OW0 HOH W  51      74.345   3.089 -13.531  1.00 22.86           O
ATOM     52  OW0 HOH W  52      94.266   1.715  12.665  1.00 22.93           O
ATOM     53  OW0 HOH W  53       6.042  -5.467 -26.487  1.00 23.33           O
ATOM     54  OW0 HOH W  54      70.355  -3.712  -4.350  1.00 23.39           O
ATOM     55  OW0 HOH W  55      90.227  23.811 -20.378  1.00 24.05           O
ATOM     56  OW0 HOH W  56      86.004 -14.607 -13.404  1.00 24.07           O
ATOM     57  OW0 HOH W  57      55.983 -10.993   4.719  1.00 24.52           O
ATOM     58  OW0 HOH W  58      75.291  20.358 -24.871  1.00 24.54           O
ATOM     59  OW0 HOH W  59      58.622  -5.931  20.010  1.00 24.74           O
ATOM     60  OW0 HOH W  60      21.821 -10.623 -19.800  1.00 24.79           O
ATOM     61  OW0 HOH W  61      45.718 -20.782   0.640  1.00 25.06           O
ATOM     62  OW0 HOH W  62      45.440  -7.760  22.114  1.00 25.12           O
ATOM     63  OW0 HOH W  63      88.945 -11.734 -15.219  1.00 25.15           O
ATOM     64  OW0 HOH W  64      49.076  22.590  20.794  1.00 25.15           O
ATOM     65  OW0 HOH W  65      89.270  18.970   0.688  1.00 25.24           O
ATOM     66  OW0 HOH W  66      66.762  -6.742  16.433  1.00 25.54           O
ATOM     67  OW0 HOH W  67      50.557 -24.162  -2.521  1.00 25.64           O
ATOM     68  OW0 HOH W  68      91.856  15.860   4.681  1.00 25.65           O
ATOM     69  OW0 HOH W  69      22.355  10.007 -12.381  1.00 25.71           O
ATOM     70  OW0 HOH W  70      47.274 -13.688  25.983  1.00 25.73           O
ATOM     71  OW0 HOH W  71      65.678   1.411  -3.559  1.00 25.75           O
ATOM     72  OW0 HOH W  72      29.729   0.189  28.111  1.00 25.75           O
ATOM     73  OW0 HOH W  73      94.735   4.169  17.489  1.00 25.80           O
ATOM     74  OW0 HOH W  74      42.214  19.461  25.351  1.00 25.91           O
ATOM     75  OW0 HOH W  75      85.944 -18.469  24.256  1.00 26.18           O
ATOM     76  OW0 HOH W  76      80.964 -19.334  25.783  1.00 26.25           O
ATOM     77  OW0 HOH W  77      51.982 -11.143  -7.285  1.00 26.58           O
ATOM     78  OW0 HOH W  78      11.238  -0.720 -25.351  1.00 26.75           O
ATOM     79  OW0 HOH W  79     108.013  -2.942  17.677  1.00 26.80           O
ATOM     80  OW0 HOH W  80      64.865  -3.363  -2.674  1.00 27.01           O
ATOM     81  OW0 HOH W  81      86.861 -16.665  25.685  1.00 27.05           O
ATOM     82  OW0 HOH W  82      65.935 -18.901  10.703  1.00 27.39           O
ATOM     83  OW0 HOH W  83      22.075  -2.703 -46.343  1.00 27.41           O
ATOM     84  OW0 HOH W  84      59.720 -17.346  -4.592  1.00 27.41           O
ATOM     85  OW0 HOH W  85      85.923   6.594  13.387  1.00 27.60           O
ATOM     86  OW0 HOH W  86      29.137   7.115 -12.594  1.00 27.61           O
ATOM     87  OW0 HOH W  87      19.497 -14.666 -17.387  1.00 27.81           O
ATOM     88  OW0 HOH W  88      86.390  24.348  30.325  1.00 27.85           O
ATOM     89  OW0 HOH W  89      27.518 -12.745  16.466  1.00 27.99           O
ATOM     90  OW0 HOH W  90      21.096  -5.009 -15.606  1.00 27.99           O
ATOM     91  OW0 HOH W  91      52.282 -25.306  11.181  1.00 28.03           O
ATOM     92  OW0 HOH W  92      16.076  11.910 -31.900  1.00 28.18           O
ATOM     93  OW0 HOH W  93      95.217  21.090 -27.848  1.00 28.30           O
ATOM     94  OW0 HOH W  94      97.899  -5.360   1.966  1.00 28.36           O
ATOM     95  OW0 HOH W  95      50.708  -6.846  17.067  1.00 28.37           O
ATOM     96  OW0 HOH W  96      71.756   8.858 -13.884  1.00 28.44           O
ATOM     97  OW0 HOH W  97      20.257 -20.384 -15.745  1.00 28.45           O
ATOM     98  OW0 HOH W  98      20.101   6.388 -17.442  1.00 28.75           O
ATOM     99  OW0 HOH W  99      44.028 -17.304  20.122  1.00 28.75           O
ATOM    100  OW0 HOH W 100      84.972 -13.715   9.946  1.00 28.95           O
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ATOM    101  OW0 HOH W 101      70.395  42.884 -16.042  1.00 29.26           O
ATOM    102  OW0 HOH W 102      75.600  34.807  -4.074  1.00 29.28           O
ATOM    103  OW0 HOH W 103      94.594  16.424 -17.546  1.00 29.33           O
ATOM    104  OW0 HOH W 104      19.706 -10.760 -21.236  1.00 29.37           O
ATOM    105  OW0 HOH W 105      87.009   8.488 -10.053  1.00 29.38           O
ATOM    106  OW0 HOH W 106      74.495  26.577 -25.164  1.00 29.44           O
ATOM    107  OW0 HOH W 107      92.151   4.837  -5.404  1.00 29.44           O
ATOM    108  OW0 HOH W 108      97.444 -14.016  11.103  1.00 29.54           O
ATOM    109  OW0 HOH W 109     104.580   4.220   1.850  1.00 29.58           O
ATOM    110  OW0 HOH W 110      24.559   5.312 -18.552  1.00 29.66           O
ATOM    111  OW0 HOH W 111      87.373  -8.461  37.711  1.00 29.71           O
ATOM    112  OW0 HOH W 112      76.206   6.566  -0.450  1.00 29.73           O
ATOM    113  OW0 HOH W 113      30.515  13.709  -5.064  1.00 29.88           O
ATOM    114  OW0 HOH W 114      36.002  -7.776  29.266  1.00 29.97           O
ATOM    115  OW0 HOH W 115      54.850  -8.136  20.046  1.00 30.01           O
ATOM    116  OW0 HOH W 116      55.041  -6.567  14.113  1.00 30.09           O
ATOM    117  OW0 HOH W 117      95.433   1.589  16.776  1.00 30.11           O
ATOM    118  OW0 HOH W 118      21.313  -7.240 -20.050  1.00 30.71           O
ATOM    119  OW0 HOH W 119      53.412  -7.368  -6.219  1.00 30.74           O
ATOM    120  OW0 HOH W 120      67.444   7.531  14.096  1.00 30.83           O
ATOM    121  OW0 HOH W 121      93.629  17.416  13.816  1.00 30.88           O
ATOM    122  OW0 HOH W 122      74.045  10.418 -14.272  1.00 30.93           O
ATOM    123  OW0 HOH W 123      73.248  -7.683  16.788  1.00 31.04           O
ATOM    124  OW0 HOH W 124      79.651 -18.817   8.755  1.00 31.22           O
ATOM    125  OW0 HOH W 125      19.810   3.671 -14.801  1.00 31.22           O
ATOM    126  OW0 HOH W 126      79.429   9.068  14.044  1.00 31.30           O
ATOM    127  OW0 HOH W 127      10.682  -8.303 -30.995  1.00 31.47           O
ATOM    128  OW0 HOH W 128      81.501  -5.198  24.531  1.00 31.48           O
ATOM    129  OW0 HOH W 129      68.074   5.165 -19.580  1.00 31.55           O
ATOM    130  OW0 HOH W 130      94.264  18.410   4.694  1.00 31.56           O
ATOM    131  OW0 HOH W 131      79.896  -7.264 -10.182  1.00 31.63           O
ATOM    132  OW0 HOH W 132      95.290 -19.534  31.222  1.00 31.71           O
ATOM    133  OW0 HOH W 133      95.605   8.686 -19.273  1.00 31.80           O
ATOM    134  OW0 HOH W 134      31.166  11.482 -13.564  1.00 31.83           O
ATOM    135  OW0 HOH W 135      78.913   3.773  15.002  1.00 31.83           O
ATOM    136  OW0 HOH W 136      73.484   7.841 -17.414  1.00 32.00           O
ATOM    137  OW0 HOH W 137      27.329  -2.279 -22.691  1.00 32.01           O
ATOM    138  OW0 HOH W 138      79.331   2.551  17.441  1.00 32.07           O
ATOM    139  OW0 HOH W 139      41.499  -1.853  23.008  1.00 32.28           O
ATOM    140  OW0 HOH W 140      75.553  23.741   3.923  1.00 32.46           O
ATOM    141  OW0 HOH W 141      75.889   2.717 -30.996  1.00 32.54           O
ATOM    142  OW0 HOH W 142      47.438 -12.436  28.245  1.00 32.57           O
ATOM    143  OW0 HOH W 143      71.309 -15.160  14.938  1.00 32.57           O
ATOM    144  OW0 HOH W 144     100.762  -5.331  -0.685  1.00 32.61           O
ATOM    145  OW0 HOH W 145      59.694  12.802   5.482  1.00 32.64           O
ATOM    146  OW0 HOH W 146      93.123   1.011  17.593  1.00 32.73           O
ATOM    147  OW0 HOH W 147     103.338  12.071  32.468  1.00 32.78           O
ATOM    148  OW0 HOH W 148      89.764  30.631 -24.666  1.00 32.81           O
ATOM    149  OW0 HOH W 149      81.805  -2.292 -16.312  1.00 32.81           O
ATOM    150  OW0 HOH W 150      90.327 -12.658   4.045  1.00 32.85           O
ATOM    151  OW0 HOH W 151      68.937  30.507 -19.073  1.00 32.91           O
ATOM    152  OW0 HOH W 152       8.621  -0.470 -20.820  1.00 32.96           O
ATOM    153  OW0 HOH W 153      73.985  10.317 -22.387  1.00 32.99           O
ATOM    154  OW0 HOH W 154      63.470  -8.547  16.740  1.00 33.18           O
ATOM    155  OW0 HOH W 155      85.523  -4.812  27.875  1.00 33.30           O
ATOM    156  OW0 HOH W 156      19.109  -9.113 -19.049  1.00 33.32           O
ATOM    157  OW0 HOH W 157      72.978  -5.126 -22.009  1.00 33.39           O
ATOM    158  OW0 HOH W 158      54.434  14.112   1.780  1.00 33.43           O
ATOM    159  OW0 HOH W 159      71.778  20.468 -31.707  1.00 33.50           O
```

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ATOM    160  OW0 HOH W 160      41.769 -16.648 -21.168  1.00 33.59           O
ATOM    161  OW0 HOH W 161      96.226  -2.515  19.030  1.00 33.66           O
ATOM    162  OW0 HOH W 162      89.149  -7.219  -0.483  1.00 33.68           O
ATOM    163  OW0 HOH W 163      34.349  -8.733 -49.125  1.00 33.72           O
ATOM    164  OW0 HOH W 164      74.193   7.200 -15.120  1.00 33.83           O
ATOM    165  OW0 HOH W 165      84.573  16.302 -40.302  1.00 33.83           O
ATOM    166  OW0 HOH W 166      93.555   1.033  15.347  1.00 33.97           O
ATOM    167  OW0 HOH W 167      77.871  19.752   2.973  1.00 34.01           O
ATOM    168  OW0 HOH W 168      41.198  18.781  17.627  1.00 34.05           O
ATOM    169  OW0 HOH W 169      72.532  13.034 -25.344  1.00 34.12           O
ATOM    170  OW0 HOH W 170      63.406  -2.318  21.295  1.00 34.14           O
ATOM    171  OW0 HOH W 171      95.631   5.604 -25.405  1.00 34.43           O
ATOM    172  OW0 HOH W 172      93.690 -14.901   6.519  1.00 34.72           O
ATOM    173  OW0 HOH W 173      86.681  15.378  12.950  1.00 34.98           O
ATOM    174  OW0 HOH W 174      92.734  -2.061 -26.595  1.00 35.06           O
ATOM    175  OW0 HOH W 175      64.144 -14.246   4.070  1.00 35.06           O
ATOM    176  OW0 HOH W 176      16.750  -8.783  -3.033  1.00 35.12           O
ATOM    177  OW0 HOH W 177      19.759   0.422  -9.150  1.00 35.30           O
ATOM    178  OW0 HOH W 178      44.311  28.229   3.683  1.00 35.36           O
ATOM    179  OW0 HOH W 179       5.741  -6.852 -10.394  1.00 35.43           O
ATOM    180  OW0 HOH W 180     105.859   5.414  40.874  1.00 35.45           O
ATOM    181  OW0 HOH W 181      32.131 -10.502 -17.588  1.00 35.63           O
ATOM    182  OW0 HOH W 182      11.849  -9.415  -2.974  1.00 35.99           O
ATOM    183  OW0 HOH W 183      81.170  39.498 -16.895  1.00 36.15           O
ATOM    184  OW0 HOH W 184      20.780 -12.463 -14.036  1.00 36.16           O
ATOM    185  OW0 HOH W 185      62.597   7.574  10.731  1.00 36.18           O
ATOM    186  OW0 HOH W 186      63.961   8.030  18.982  1.00 36.33           O
ATOM    187  OW0 HOH W 187      14.886  12.221 -22.614  1.00 36.64           O
ATOM    188  OW0 HOH W 188      65.299   1.890   8.189  1.00 36.66           O
ATOM    189  OW0 HOH W 189     108.954  -2.555  41.604  1.00 36.80           O
ATOM    190  OW0 HOH W 190      65.163   8.345  12.505  1.00 36.84           O
ATOM    191  OW0 HOH W 191      89.253 -11.520 -23.521  1.00 37.05           O
ATOM    192  OW0 HOH W 192      63.438 -10.237 -15.548  1.00 37.13           O
ATOM    193  OW0 HOH W 193       7.042 -10.136 -17.704  1.00 37.37           O
ATOM    194  OW0 HOH W 194      27.035 -16.877  13.765  1.00 37.44           O
ATOM    195  OW0 HOH W 195      65.978   8.951  -8.405  1.00 38.00           O
ATOM    196  OW0 HOH W 196      36.113   6.735 -28.346  1.00 38.02           O
ATOM    197  OW0 HOH W 197      87.480  -9.682  17.945  1.00 38.04           O
ATOM    198  OW0 HOH W 198      69.846  10.760 -13.968  1.00 38.06           O
ATOM    199  OW0 HOH W 199      78.625 -14.263  -9.341  1.00 38.20           O
ATOM    200  OW0 HOH W 200      41.887  17.191   9.019  1.00 38.29           O
ATOM    201  OW0 HOH W 201      78.742 -11.532  -8.512  1.00 38.35           O
ATOM    202  OW0 HOH W 202      33.938 -13.316  -9.451  1.00 38.39           O
ATOM    203  OW0 HOH W 203      44.823  -7.845   1.165  1.00 38.53           O
ATOM    204  OW0 HOH W 204      82.004  22.197 -42.645  1.00 38.83           O
ATOM    205  OW0 HOH W 205      40.660  28.901   4.280  1.00 38.98           O
ATOM    206  OW0 HOH W 206      31.692 -13.382 -37.528  1.00 39.36           O
ATOM    207  OW0 HOH W 207      40.919  26.665   3.897  1.00 39.48           O
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ATOM    209  OW0 HOH W 209      55.092 -14.037   5.576  1.00 39.72           O
ATOM    210  OW0 HOH W 210      90.913  -4.732  13.813  1.00 40.32           O
ATOM    211  OW0 HOH W 211      95.396   1.353 -21.316  1.00 40.63           O
ATOM    212  OW0 HOH W 212      53.815 -22.979  15.235  1.00 40.79           O
ATOM    213  OW0 HOH W 213      83.380  15.495   0.487  1.00 41.54           O
ATOM    214  OW0 HOH W 214      88.100  -8.029  28.278  1.00 41.56           O
ATOM    215  OW0 HOH W 215      92.348  -2.211  16.755  1.00 41.68           O
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ATOM    217  OW0 HOH W 217      72.089   1.715  18.757  1.00 41.82           O
ATOM    218  OW0 HOH W 218      93.054  21.793 -27.936  1.00 41.94           O
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ATOM    219  OW0 HOH W 219      52.610  16.493   5.856  1.00 42.11           O
ATOM    220  OW0 HOH W 220      76.413  -6.275  21.415  1.00 42.45           O
ATOM    221  OW0 HOH W 221      35.214 -15.034 -36.870  1.00 42.67           O
ATOM    222  OW0 HOH W 222      37.822   6.260  26.495  1.00 42.94           O
ATOM    223  OW0 HOH W 223      25.815 -17.090  16.262  1.00 43.00           O
ATOM    224  OW0 HOH W 224     103.369   1.728  41.293  1.00 43.42           O
ATOM    225  OW0 HOH W 225      83.271 -18.940  26.386  1.00 43.44           O
ATOM    226  OW0 HOH W 226      80.158  10.275  11.887  1.00 43.89           O
ATOM    227  OW0 HOH W 227      50.722  21.019  23.771  1.00 44.17           O
ATOM    228  OW0 HOH W 228      87.330 -30.466  17.151  1.00 44.46           O
ATOM    229  OW0 HOH W 229      34.123 -10.485 -24.618  1.00 44.47           O
ATOM    230  OW0 HOH W 230      42.437  21.373   6.268  1.00 44.78           O
ATOM    231  OW0 HOH W 231      52.816  -6.523 -15.587  1.00 44.80           O
ATOM    232  OW0 HOH W 232      52.710  -7.746 -18.854  1.00 44.94           O
ATOM    233  OW0 HOH W 233      81.369  34.614 -11.845  1.00 46.80           O
ATOM    234  OW0 HOH W 234      84.263 -29.657  15.168  1.00 47.01           O
ATOM    235  OW0 HOH W 235      93.647  38.155  -3.940  1.00 47.91           O
ATOM    236  OW0 HOH W 236      29.408   6.105  13.003  1.00 48.04           O
ATOM    237  OW0 HOH W 237      72.547  19.548 -36.150  1.00 48.15           O
ATOM    238  OW0 HOH W 238      71.646 -20.823   7.339  1.00 48.68           O
ATOM    239  OW0 HOH W 239      19.846   0.822 -16.252  1.00 49.05           O
ATOM    240  OW0 HOH W 240      83.386 -14.355  11.476  1.00 49.59           O
ATOM    241  OW0 HOH W 241      56.014  20.976  10.139  1.00 49.63           O
ATOM    242  OW0 HOH W 242       6.382  -8.502   1.845  1.00 49.86           O
ATOM    243  OW0 HOH W 243      50.275  -4.634 -11.556  1.00 52.02           O
ATOM    244  OW0 HOH W 244      80.947 -15.794   8.425  1.00 52.67           O
ATOM    245  OW0 HOH W 245     106.187  11.392   6.911  1.00 53.58           O
ATOM    246  OW0 HOH W 246      63.492   6.945  -1.920  1.00 53.73           O
ATOM    247  OW0 HOH W 247      99.148  26.550  36.871  1.00 54.52           O
END
```

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2009/000036

A. CLASSIFICATION OF SUBJECT MATTER
INV. C12N9/16 C30B7/00 G01N23/20 G06F19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C12N C30B G01N G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, Sequence Search, WPI Data, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CHAPPIE THOMAS A ET AL: "Discovery of a series of 6,7-dimethoxy-4-pyrrolidylquinazoline PDE10A inhibitors." JOURNAL OF MEDICINAL CHEMISTRY 25 JAN 2007, vol. 50, no. 2, 25 January 2007 (2007-01-25), pages 182-185, XP002518026 ISSN: 0022-2623 cited in the application the whole document page 182, right-hand column page 183, left-hand column; figure 2 ----- -/--	1-17

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 March 2009	27/03/2009

Name and mailing address of the ISA/	Authorized officer
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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2009/000036

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/087919 A (PFIZER PROD INC [US]; PANDIT JAYVARDAN [US]) 22 September 2005 (2005-09-22) page 30, paragraph 2; example 3	1-17
X	WANG HUANCHEN ET AL: "Structural insight into substrate specificity of phosphodiesterase 10." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 3 APR 2007, vol. 104, no. 14, 3 April 2007 (2007-04-03), pages 5782-5787, XP002518027 ISSN: 0027-8424 cited in the application the whole document page 5787	1-17

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2009/000036

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005087919 A	22-09-2005	BR PI0508690 A	11-09-2007
		CA 2558213 A1	22-09-2005
		EP 1727896 A1	06-12-2006
		JP 2007528731 T	18-10-2007