

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 April 2008 (03.04.2008)

PCT

(10) International Publication Number
WO 2008/037688 A2

(51) International Patent Classification:
C12N 9/12 (2006.01)

(21) International Application Number:
PCT/EP2007/060098

(22) International Filing Date:
24 September 2007 (24.09.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
06121179.3 25 September 2006 (25.09.2006) EP

(71) Applicant (for all designated States except US): **NOVARTIS AG** [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WAGNER, Jürgen** [DE/CH]; Nussbaumweg 24, CH-4103 Bottmingen (CH). **RUMMEL, Gabriele** [DE/DE]; Pestalozzistr. 54, 79540 Lörrach (DE). **STARK, Wilhelm** [CH/CH]; Brunnmattstrasse 29, CH-4106 Therwil (CH). **GEISER, Martin** [CH/CH]; Spechtstrasse 14, CH-4106 Therwil (CH). **STRAUSS, Andre** [CH/CH]; Haldenstr. 33, CH-3550 Langnau Im Emmental (CH).

(74) Agent: **BOURGAREL, Denis**; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— without international search report and to be republished upon receipt of that report
— with sequence listing part of description published separately in electronic form and available upon request from the International Bureau

(54) Title: CRYSTALLINE FORMS OF PKC ALPHA KINASE, METHODS OF MAKING SUCH CRYSTALS, AND USES THEREOF

(57) Abstract: The present invention relates generally to the crystalline forms of liganded or unliganded human PKC alpha kinase, the methods of making such crystals and their use in drug discovery. The invention more specifically relates to the use of the three-dimensional structure of the PKC alpha kinase for designing and/or identifying ligands which inhibit the biological function of PKC alpha kinase.



WO 2008/037688 A2

Crystalline forms of PKC alpha kinase, Methods of making such crystals, and Uses thereof

Field of the Invention

The present invention relates generally to the crystalline forms of liganded or unliganded human PKC alpha kinase, the methods of making such crystals and their use in drug discovery. The invention more specifically relates to the use of the three-dimensional structure of the PKC alpha kinase for designing and/or identifying ligands which inhibit the biological function of PKC alpha kinase and/or other PKC Conventional kinases.

Background of the Invention

Members of the protein kinase C (PKC) family of serine/threonine kinases play a critical role in the regulation of cellular differentiation and the proliferation of diverse cell types. Upon cell activation, isoform-specific signals are required to trigger translocation from the cytosol to the membrane and to induce conformational changes, which displace the pseudo substrate moiety from the catalytic domain and enable PKC to phosphorylate protein substrates. Recent studies of gene-knockout mice have shown that at least three isotypes are critical for T-cell activation: PKC alpha, beta and theta. The role of the different PKC isoforms in the immune system has recently been reviewed [Tan et al. 2003]. In particular, PKC alpha is up-regulated shortly after T cell stimulation and PKC alpha-deficient mice have a Th1 defect and strongly reduced interferon- γ production.

Based on their cofactor requirements, the PKC isoforms are classified as Conventional, Novel or Atypical PKCs. The C1 domains bind phosphatidyl-serine and diacylglycerol / phorbol esters. The C2 domains bind anionic lipids and the C3-C4 domains are the N- and C-terminal lobes of the catalytic kinase domain. PS is the pseudo substrate domain, which prevents access to the active site in the inactive conformation. PKC alpha is most probably trans-phosphorylated in the activation loop by the upstream kinase PDK-1. The turn motif and the hydrophobic motif are subsequently self phosphorylated [Newton et al. 2003]. Once phosphorylated the hydrophobic motif binds to the hydrophobic motif binding pocket in the N-terminal lobe of the kinase domain.

Structural information is available for various domains of the PKC isoforms. In the regulatory region, the C1 domain of PKC delta (residues 231-280), and the C2 domains of PKC alpha

(residues 155-293), PKC beta (residues 157-289) and PKC delta (residues 1-123) [Zhang et al. 1995; Pappa et al. 1998; Sutton et al. 1998; Verdaguer et al. 1999 and Ochoa et al. 2002] have been described. The catalytic domain of PKC has been much more challenging to crystallize and only three structures are available: two complexes of PKC theta [Rummel et al. 2004, Xu et al. 2004] and one of the maleimide BIM1 bound to PKC ϵ [Messerschmidt et al. 2005]. However, there have been no crystals reported of any other Conventional PKC kinase domain. Such structural information would provide valuable information for discovery of PKC kinase inhibitors, and more specifically, for the design of selective inhibitor of Conventional PKC kinase, e.g. PKC alpha kinase.

The present invention provides for the first time the three dimensional structure of the PKC alpha kinase domain.

Summary of the Invention

It is an object of the present invention to provide a crystal comprising PKC alpha kinase catalytic domain and the three-dimensional structure of PKC alpha kinase catalytic domain, thereby enabling the design and/or identification of ligands that specifically bind to PKC alpha kinase and/or inhibit PKC alpha kinase biological activity.

The present invention relates to:

- (i) a crystal of the PKC alpha kinase with or without a ligand ;
- (ii) a method of making a crystal of the PKC alpha kinase domain ;
- (iii) methods of using said PKC alpha kinase crystal and its structural coordinates for screening, identifying and designing inhibitors of PKC Conventional kinases and more specifically PKC alpha kinases.

Detailed Description of the Invention

The nucleotide and amino acid sequences of full-length sequence of human PKC alpha kinase are known (Finkenzeller et al., 1990) and set forth in Genbank Accession (X52479), REFSEQ number (NM002737) and UniProt/SwissProt (P17252).2.

The present invention provides PKC alpha kinase in crystallized form. In particular, it provides crystals of PKC alpha kinase catalytic domain in complex with ligands.

The crystals according to the invention preferably belong to space group $P2_12_12_1$. In one embodiment of the present invention, a crystal of the catalytic domain of PKC alpha kinase comprises a unit cell dimension of $a = 44.2\text{\AA} \pm 10\text{\AA}$, $b = 101.3\text{\AA} \pm 10\text{\AA}$, $c = 252.0\text{\AA} \pm 10\text{\AA}$, or more preferably $a = 44.2\text{\AA} \pm 5\text{\AA}$, $b = 101.3\text{\AA} \pm 5\text{\AA}$, $c = 252.0\text{\AA} \pm 5\text{\AA}$.

Depending on the conditions used for crystallization, the parameters characterising the unit cell may vary with a limited range, at least within the range of the resolution. The resolution of the X-ray crystallography is typically ≈ 5 Ångstroms and by means of the purification method described therein, it is possible to provide crystals of such high internal order that a resolution of $\approx 2\text{\AA}$ can be achieved.

The term "unit cell" according to the invention refers to the basic shape block. The entire volume of a crystal may be constructed by regular assembly of such blocks. Each unit cell comprises a complete representation of the unit of pattern, the repetition of which builds up the crystal.

The term "space group" according to the invention refers to the arrangement of symmetry elements of a crystal.

In another embodiment of the invention, a crystal of a PKC alpha kinase catalytic domain bound to at least one ligand is provided wherein said crystal has a three-dimensional structure characterized by the structure coordinates of Table 1 or Table 2.

The term "structure coordinates" or "atomic coordinates" refers to mathematical coordinates derived from the mathematical equations related to the pattern obtained on diffraction of a monochromatic beam of Xrays by the atoms (scattering centers) of a crystal comprising PKC alpha catalytic domain. The diffraction data are used to calculate an electron density map of the repeating unit of the crystal. The electron density maps are used to establish the positions of the individual atoms within the unit cell of the crystal.

In a preferred embodiment of the invention, said PKC alpha kinase catalytic domain comprises the sequence of SEQ ID. No. 1 starting from residues 320 to residues 672, a fragment or a homologue thereof or a mutant thereof.

A "fragment" of PKC alpha kinase catalytic domain comprises more than 50% consecutive amino acids of the reference sequence of the PKC alpha kinase catalytic domain according to SEQ ID No.1, more preferably at least 80%, most preferably at least 90% of SEQ ID NO.1.

As used herein, a "homologue" of that sequence shares at least 70% identity, preferably 80% identity, more preferably 90%, and even more preferably 95% identity with the corresponding SEQ ID NO:1 when performing optimal alignment. Optimal alignment of sequences for determining a comparison window may be conducted by the local homology algorithm of Smith and Waterman (*J. Theor. Biol.*, 91 (2) pgs. 370-380 (1981), by the homology alignment algorithm of Needleman and Wunsch, *J. Mol. Biol.*, 48(3) pgs. 443-453 (1972), by the search for similarity via the method of Pearson and Lipman, *PNAS, USA*, 85(5) pgs. 2444-2448 (1988) or by computerized implementations of these algorithms (GAP, BESTFIT, FASTA and TFASTA in the Wisconsin Genetics Software Package Release 7.0, Genetic Computer Group, 575, Science Drive, Madison, Wisconsin).

The best alignment (*i.e.*, resulting in the highest percentage of identity over the comparison window) generated by the various methods is selected for determining percentage identity.

The term "ligand" according to the invention, refers to a molecule or group of molecules that bind to one or more specific sites of PKC alpha kinase, for example to the binding pocket of PKC alpha kinase. Ligands according to the invention are preferably low molecular weight molecules.

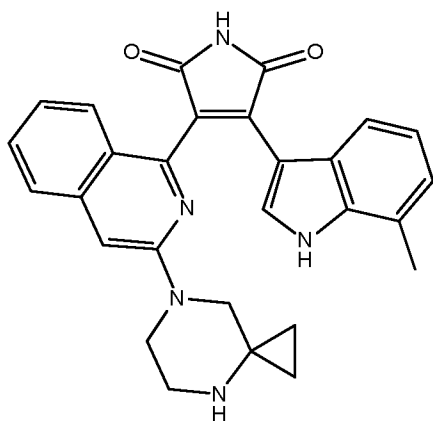
The term "low molecular weight molecules" according to the invention refers to preferably organic compounds generally having a molecular weight less than about 1000, more preferably less than about 500.

Specific examples of ligands are indolylmaleimides derivatives as described in PCT application WO02/38561 or in US6,645,970.

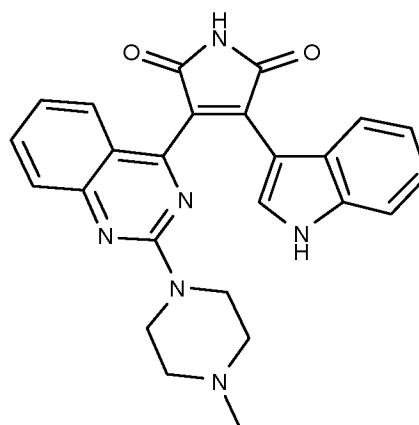
More preferably, said ligand inhibits PKC alpha kinase biological activity. Inhibition of PKC alpha kinase biological activity can be determined according to biological assay described for example in Zhang H.C. et al. (2005). A compound is considered as an PKC alpha kinase

inhibitor if it has an IC₅₀ ranging from 0.01nM to 1.0 μ M.

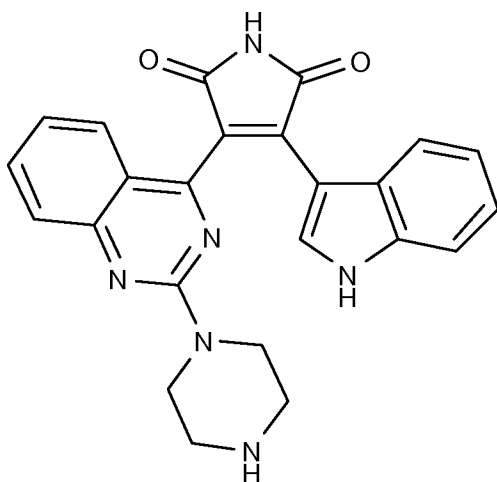
Such inhibitors include, without limitation, the following indolylmaleimide Compound (I), (II) or (III) as defined below:



(I)



(II)



(III)

PKC alpha kinase inhibitor can also be a "peptide" or a "peptide derivative", which terms are intended to embrace a "peptidomimetic" or "peptide analogue" which complement the three-dimensional structure of the binding pocket of PKC alpha kinase or can be designed with improved physical or chemical properties to bind with the three-dimensional binding pocket of the PKC alpha kinase as provided in the present invention.

The term “mutant” refers to a mutated sequence of SEQ ID NO:1 by deletion, insertion or preferably replacement of one or more selected amino acids, provided that such mutant sequence shares at least 90% identity, more preferably 95%, and even more preferably 99% identity with the corresponding fragment sequence of SEQ ID NO:1 when performing optimal alignment. Preferably, a mutant of PKC alpha kinase is a single mutant of PKC alpha kinase. In a specific embodiment of the invention, a PKC alpha kinase mutant is a PKC alpha kinase having a mutation in one or more of the phosphorylation site in catalytic domain. In one specific embodiment, a mutant is the mutant sequence defined by SEQ ID NO.2, corresponding to the PKC alpha fragment 320-672 with the following mutation: T497E.

Methods for the preparation of protein mutants are commonly known in the art. For example, PKC alpha mutants may be prepared by expression of PKC alpha DNA previously modified in its coding region by oligonucleotide directed mutagenesis.

As used herein, the term “binding pocket” refers to the region of human PKC alpha that, as a result of its shape and physico-chemical properties favorably associates with another chemical entity or compound. Preferably, it refers to the ATP-binding site, lined at least by the following amino acids: M343 – L355, L364 – I369, F399 – T409, E418 – L425, D467 – D472 and K478 – F482, and more specifically at least by the following amino acids: L345, G346, F350, G351, V353, A366, K368, T401, M417, Y419, V420, M470, A480 and D481 . It may further comprise the following hydrophobic motif binding site, lined at least by the following amino acids Y365 – L393 and H404 – M417, and more specifically at least by the following amino acids: I367, K372, V375, I376, V381, T384, M385, K388, C406, Q408, L413 and F415.

As used herein, the numbering of the amino acid residues is in agreement with the SwissProt/SwissProt UniProt entry P17252.

The invention further provides a method for making a crystal of PKC alpha comprising the catalytic domain of a PKC alpha kinase, said method comprising the following steps:

- (i) expressing a construct comprising the nucleotide sequence encoding PKC alpha catalytic domain for production of PKC alpha protein,
- (ii) purifying a sufficient amount of the PKC alpha protein produced at step (i) under appropriate conditions for crystallization,

- (iii) crystallizing the PKC alpha protein purified at step (ii).

In a specific embodiment, the construct comprises the mutant sequence of SEQ ID NO:2.

The produced PKC alpha protein to be used for crystallization may be biologically active or inactive. Such ability may be determined by morphological, biochemical or viability analysis well-known in the art.

In one specific embodiment of the invention, the construct comprises a mutant sequence encoding a constitutively inactive conformation of the PKC alpha catalytic domain.

Expression of recombinant PKC alpha catalytic domain is achievable in eukaryotic or prokaryotic systems or in vitro expression systems. For example, recombinant human PKC alpha may be expressed in insect cells, such as Sf21 cells, using a suitable recombinant baculovirus system or in bacteria.

According to a preferred embodiment, PKC alpha is bound to at least one ligand at any step prior to crystallization. For example, expression of PKC alpha in step (i) occurs in the presence of a ligand, e.g. in the presence of Compound (I), (II) or (III) as defined above.

The kinase may be expressed as a fusion protein, e.g. a glutathione-S-transferase (GST) or histidine-tagged fusion protein. If desired, the fusion partner is removed before crystallization.

In the present invention, purified PKC alpha is preferably at least 90 % homogeneous. Protein homogeneity is determinable according to analytical methods well-known in the art, e.g. sequence analysis, electrophoresis, spectroscopic or chromatographic techniques.

For carrying out step (iii) of crystallization of the method for making a crystal, various methods can be used including vapor diffusion, dialysis or batch crystallization according to methods known in the art ("Crystallization of Biological Macromolecules", A. McPherson, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, USA).

In vapor diffusion crystallization, a small volume (i.e., a few microliters) of protein solution is mixed with a solution containing a precipitant. This mixed volume is suspended over a well

containing a small amount, i.e. about 1 ml, of precipitant. Vapor diffusion from the drop to the well will result in crystal formation in the drop.

The dialysis method of crystallization utilizes a semipermeable size-exclusion membrane that retains the protein but allows small molecules (i.e. buffers and precipitants) to diffuse in and out. In dialysis, rather than concentrating the protein and the precipitant by evaporation, the precipitant is allowed to slowly diffuse through the membrane and reduce the solubility of the protein while keeping the protein concentration fixed.

The batch method generally involves the slow addition of a precipitant to an aqueous solution of protein until the solution just becomes turbid, at this point the container can be sealed and left undisturbed for a period of time until crystallization occurs. In the batch technique the precipitant and the target molecule solution are simply mixed. Supersaturation is achieved directly rather than by diffusion. Often the batch technique is performed under oil. The oil prevents evaporation and extremely small drops can be used. For this, the term "microbatch" is used. A modification of this technique is not to use paraffin oil (which prevents evaporation completely) but rather use silicone oil or a mixture of silicone and paraffin oils so that a slow evaporation is possible.

The claimed invention can encompass any and all methods of crystallization. One skilled in the art can choose any of such methods and vary the parameters such that the chosen method results in the desired crystals.

One preferred method of crystallization of PKC alpha involves mixing a PKC alpha solution with a "reservoir buffer". For crystal formation, the concentration of the precipitating agent in the mixture has to be increased, e.g. by addition of precipitating agent, for example by titration, or by allowing the concentration of precipitating agent to balance by diffusion between the crystallization buffer and a reservoir buffer (not necessarily the same as the original reservoir buffer). Under suitable conditions such diffusion of precipitating agent occurs along the gradient of precipitating agent, e.g. from the reservoir buffer having a higher concentration of precipitating agent into the crystallization buffer having a lower concentration of precipitating agent. Diffusion may be achieved e.g. by vapour diffusion techniques allowing diffusion of water in the common gas phase. Known techniques are e.g. vapour diffusion methods, such as the "hanging drop" or the "sitting drop" method. In the vapour diffusion method a drop of

crystallization buffer containing the protein is hanging above or sitting beside a much larger pool of reservoir buffer. Alternatively, the balancing of the precipitating agent can be achieved through a semipermeable membrane that separates the crystallization buffer from the reservoir buffer and prevents dilution of the protein into the reservoir buffer.

Formation of PKC alpha crystals can be achieved under various conditions which are essentially determined by the following parameters: pH, presence of salts and additives, precipitating agent, protein concentration and temperature. The pH may range, for example, from about 4.0 to 9.0. In a specific embodiment, the crystallization conditions comprises the use of a reservoir solution containing 20-23% PEG3350 and about 0.2M di ammonium hydrogen citrate. In another specific embodiment, free interface diffusion in glass capillaries is used, containing 4ml buffer 20-30% PEG3350, 0.2M di ammonium hydrogen citrate.

In another specific embodiment, the invention relates to a method for making a co-crystal of the PKC alpha catalytic domain in complex with a ligand, said method comprising:

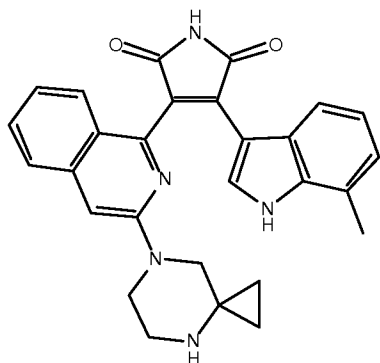
- a. expressing a construct comprising the nucleotide sequence encoding PKC alpha catalytic domain as shown in SEQ ID NO:2 in the presence of a ligand, preferably the compound (I), (II) or (III),
- b. purifying a sufficient amount of the PKC alpha protein produced at step (i) over a Ni-NTA column and a size exclusion column at a temperature preferably below 10°C,
- c. crystallizing the PKC alpha protein purified at step (b), using hanging drop vapor diffusion with a drop size of 2µl protein solution plus 1µl reservoir solution.

Preferably, in the above method, no ATP is added to the protein after Ni-NTA column purification.

The crystal form of PKC alpha crystal may also be used for exchanging the ligand by soaking compounds of interest, for example, for compound optimization, or for the discovery of novel scaffolds in fragment based screening approaches.

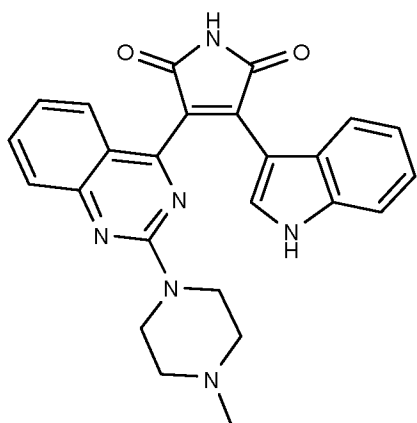
The present invention also relates to a crystal comprising the PKC alpha catalytic domain obtainable by the above methods.

The present invention provides in Table 1 the structure coordinates of human PKC alpha in complex with the Compound (I) :



(I)

The present invention further provides in Table 2 the structure coordinates of human PKC alpha in complex with the Compound (II) :



(II)

Structure coordinates of a crystalline composition of this invention may be stored in a machine-readable form on a machine-readable storage medium, e.g. a computer hard drive, diskette, DAT tape, etc., for display as a three-dimensional shape or for other uses involving computer-assisted manipulation of, or computation based on, the structural coordinates or the three-dimensional structures they define. For example, data defining the three dimensional structure of a protein of the PKC family, or portions or structurally similar homologues of such proteins, may be stored in a machine-readable storage medium, and

may be displayed as a graphical three-dimensional representation of the protein structure, typically using a computer capable of reading the data from said storage medium and programmed with instructions for creating the representation from such data.

In one embodiment of the invention, a method is provided for determining the three-dimensional structure of a complex comprising the catalytic domain of Conventional PKC kinase, preferably PKC alpha kinases, a fragment or homologue thereof bound to at least one ligand, comprising:

- (i) making a crystal of PKC as defined above;
- (ii) collecting x-ray diffraction data in the form of atomic coordinates for said crystal; and,
- (iii) utilizing the atomic coordinates of Table 1 or Table 2 or a selected portion of it to determine the three-dimensional structure of said Conventional PKC, a fragment, or homologue thereof.

According to the present invention, a three-dimensional PKC alpha model is obtainable from a PKC crystal comprising the catalytic domain of PKC alpha, fragment or homologue thereof.

The present invention also relates to a computer readable medium having stored a model of the PKC alpha crystal structure. In a preferred embodiment, said model is built from all or a selected portion of it, of the atomic coordinates of Table 1 or Table 2 derived from the X-ray diffraction data.

By "selected portion", it is meant the structure coordinates of at least 10 consecutive amino acids shown in Table 1 or Table 2 and preferably at least 50 amino acids, and more preferably at least 100 consecutive amino acids.

In a preferred embodiment, a selected portion corresponds to the structure coordinates of the amino acids forming at least the binding pocket of PKC alpha, or at least the ATP binding sites and/or the hydrophobic motif binding site and more preferably the catalytic domain of PKC alpha kinase.

The knowledge obtained from the three-dimensional model of the catalytic domain of PKC alpha can be used in various ways. For example, it can be used to identify chemical entities, for example, small organic and bioorganic molecules such as peptidomimetics and synthetic

organic molecules that bind to PKC alpha and preferably block or prevent a PKC alpha-mediated or associated process or event, or that act as PKC alpha agonists. Furthermore, this information can be used to design and prepare PKC mutants, e.g. mutants with altered catalytic activity, model the three-dimensional structure and solve the crystal structure of proteins, such as PKC homologues, PKC mutants or PKC co-complexes, involving e.g. molecular replacement or homology modeling.

The term "molecular replacement" refers to a method that involves generating a preliminary structural model of a crystal whose structural coordinates are unknown, by orienting and positioning a molecule whose structural coordinates are known, e.g., the PKC alpha coordinates within the unit cell of the unknown crystal, so as to best account for the observed diffraction pattern of the unknown crystal. Phases can then be calculated from this model, and combined with the observed amplitudes to give an approximated Fourier synthesis of the structure whose coordinates are unknown. This in turn can be subject to any of the several forms of refinement to provide a final accurate structure of the unknown crystal. Using the structural coordinates provided by this invention, molecular replacement may be used to determine the structural coordinates of a crystalline co complex, unknown ligand, mutant, or homolog, or of a different crystalline form of PKC. Additionally, the claimed crystal and its coordinates may be used to determine the structural coordinates of a chemical entity that associates with PKC.

"Homology modeling" according to the invention involves constructing a model of an unknown structure using structural coordinates of one or more related proteins, protein domains and/or one subdomains such as PKC. Homology modeling may be conducted by fitting common or homologous portions of the protein or peptide whose three dimensional structure is to be solved to the three dimensional structure of homologous structural elements. Homology modeling can include rebuilding part or all of a three dimensional structure with replace of amino acids or other components by those of the related structure to be solved.

Based on the three-dimensional structure of PKC alpha as provided in the present invention and using the atomic coordinates of Table 1 or Table 2, or a selected portion of it, the effects of site-specific mutations can be predicted. More specifically, the structural information provided herein permits the identification of desirable sites for amino acid modification,

particularly amino acid mutation resulting in substitutional, insertional or deletional variants. Such variants may be designed to have special properties, particularly properties distinct from wild-type PKC alpha, such as altered catalytic activity. Substitutions, deletions and insertions may be combined to arrive at a desired variant. Such variants can be prepared by methods well-known in the art, e.g. starting from wild-type PKC alpha or by de novo synthesis.

The PKC alpha structural information provided herein is useful for the design of ligands which are capable of selectively interacting with PKC Conventional kinases or with PKC alpha kinase, but not other non-Conventional kinases or kinases other than PKC alpha, and thereby specifically modulating the biological activity of PKC Conventional kinases and not other non-Conventional kinases. As used herein, the classification of PKC isoforms in Conventional, Novel, Atypical and other isoforms is done according to Newton (2001).

Chemical entities that have a surface that mimics the accessible surface of the binding pocket of PKC alpha can be constructed by those skilled in the art. By way of example, the skilled artisan can screen three-dimensional structural databases of compounds to identify those compounds that position appropriate functional groups in similar three dimensional structural arrangement, then build combinatorial chemistry libraries around such chemical entities to identify those with high affinity to the binding pocket of PKC alpha.

In one embodiment of the invention, a method is provided for identifying a ligand that binds to the PKC alpha comprising the steps of:

- (i) using the three-dimensional structure of the catalytic domain of PKC alpha to select and/or design a potential ligand that binds to PKC alpha,
- (ii) identifying among the potential ligand selected in step (i), those ligands that bind to PKC alpha in an *in vitro* or cell-based assay.

In a specific embodiment of the invention, the cell-based assay used at step (ii) is designed to identify ligands which inhibit the biological activity of PKC alpha.

Ligands, such as small molecular weight compounds can be identified from screening compound databases or libraries and using a computational means to form a fitting operation to a binding site on the PKC. The three dimensional structure of PKC as provided in the

present invention by the structure coordinates of Table 1 or Table 2 or a selected portion of it, can be used together with various docking programs.

The potential inhibitory or binding effect of a chemical entity on PKC alpha may be analyzed prior to its actual synthesis and testing by the use of computer-modeling techniques. If the theoretical structure of the given chemical entity suggests insufficient interaction and association between it and PKC alpha, the need for synthesis and testing of the chemical entity is obviated. However, if computer modeling indicates a strong interaction, the molecule may then be synthesized and tested for its ability to bind to PKC alpha. Thus, expensive and time-consuming synthesis of inoperative compounds may be avoided.

This "in silico" analysis may begin by visual inspection of, for example, the binding pocket on a computer screen based on the structural coordinates of Table 1 or Table 2 in whole or in part. Selected fragments or chemical entities may then be positioned in a variety of orientations, or "docked," within the binding pocket of PKC. Docking may be accomplished using software such as Quanta and SYBYL, followed by energy minimization and molecular dynamics with standard molecular mechanics force fields, such as CHARMM and AMBER. Specialized computer programs may be of use for selecting interesting fragments or chemical entities. These programs include, for example, GRID, available from Oxford University, Oxford, UK; 5 MCSS or CATALYST, available from Molecular Simulations, Burlington, MA; AUTODOCK, available from Scripps Research Institute, La Jolla, CA; DOCK, available from University of California, San Francisco, CA, and XSITE, available from University College of London, UK.

Preferred is a method for designing a PKC alpha inhibitor which interacts at the ATP binding site of PKC alpha or any other binding sites. One approach enabled by this invention is the use of the structure coordinates of PKC alpha to design chemical entities that bind to or associate with PKC alpha and alter the physical properties of the chemical entities in different ways. Thus, properties such as, for example, solubility, affinity, specificity, potency, on/off rates, or other binding characteristics may all be altered and/or maximized. One may design desired chemical entities by probing a PKC alpha comprising the catalytic domain with a library of different entities to determine optimal sites for interaction between candidate chemical entities and PKC alpha. For example, high-resolution X-ray diffraction data collected from crystals saturated with solvent allows the determination of where each type of solvent molecule adheres. Small molecules that bind tightly to those sites can then be designed and

synthesized and tested for the desired activity. Once the desired activity is obtained, the molecules can be further altered to maximize desirable properties.

Once a compound has been designed or selected by the above methods, the efficiency with which that compound may bind to PKC alpha may be tested and modified for the maximum desired characteristic(s) using computational or experimental evaluation. Various parameters can be maximized depending on the desired result. These include, but are not limited to, specificity, affinity, on/off rates, hydrophobicity, solubility, and other characteristics readily identifiable by the skilled artisan.

In a preferred embodiment, the structure coordinates of Table 1 or Table 2 of PKC alpha kinase is used in the above computer-based design step.

In one specific embodiment of the method, the ligand is selected and/or designed among the potential ligands that virtually bind to the residues lining the ATP binding site, and/or the hydrophobic motif binding site, according to a computer aided modeling program. More preferably, the ligand is selected and/or designed among those that virtually bind to at least one or more amino acids of the ATP binding site selected from the group consisting of: M343 – L355, L364 – I369, F399 – T409, E418 – L425, D467 – D472 and K478 – F482, and/or at least with one or more amino acids of the hydrophobic motif binding site regions selected from the group consisting of: Y365 – L393 and H404 – M417.

In a more preferred embodiment of the above method, the ligand is selected and/or designed among those that virtually bind to at least one or more amino acids of the ATP binding site selected from the group consisting of: L345, G346, F350, G351, V353, A366, K368, T401, M417, Y419, V420, M470, A480 and D481, and/or at least with one or more amino acids of the hydrophobic motif binding sites selected from the group consisting of: I367, K372, V375, I376, V381, T384, M385, K388, C406, Q408, L413 and F415.

The invention further relates to a method for selecting a ligand that binds to PKC alpha, comprising:

- a. co-crystallizing or incubating a candidate compound or mix of compounds with PKC alpha under appropriate conditions,
- b. determining by X-ray or NMR methods the amino acids of PKC alpha which interacts with

the candidate compound,

c. selecting the compound which interacts at least with one or more amino acids of the binding pocket and hydrophobic motif binding site selected among the group consisting of M343 – L355, L364 – I369, F399 – T409, E418 – L425, D467 – D472, K478 – F482, Y365 – L393 and H404 – M417.

For carrying out step b., mapping of the binding site of ligand is usually performed by recording NMR spectra with and without the candidate compound, and identifying those resonances of the protein that are affected by ligand binding. This requires assignment of the protein resonance prior to the analysis, or comparison with the pattern of chemical shift changes that occur upon binding of ligands with known binding sites. Alternatively, competition experiments using said ligands with known binding sites can yield equivalent information.

The present invention further provides methods to design novel ligands of PKC, using fragment linking approaches. Compounds binding to different binding regions of PKC are first selected. The ligands are linked together based on the spatial orientation, so that the designed novel compounds fits within the two binding sites.

The invention thus relates to a method to design ligands to PKC alpha, wherein said method comprises:

- a. providing a first ligand that binds to one or more amino acids of a first binding region of PKC alpha, for example the ATP binding site,
- b. providing a second ligand that binds to one or more amino amino acids of a second binding region of PKC alpha, for example the hydrophobic motif binding site, and,
- c. linking said first ligand to said second ligand to design a ligand that binds to the first and second binding pockets of PKC alpha.

Preferably, a first ligand is selected among the ligands that interact with one or more amino acids selected among the group consisting of: M343 – L355, L364 – I369, F399 – T409, E418 – L425, D467 – D472 and K478 – F482, and more preferably one or more amino acids selected among the group consisting of L345, G346, F350, G351, V353, A366, K368, T401, M417, Y419, V420, M470, A480 and D481.

The selection of an appropriate linking group is made by maintaining the spatial orientation of the ligands to one another and to PKC alpha based upon principles of bond angle and bond length information well known in the organic chemical art.

In a specific embodiment, a second ligand at step b. is selected among the ligand that interacts at least with one or more amino acids of the binding hydrophobic motif binding site selected among the group consisting of Y365 – L393 and H404 – M417 and more preferably I367, K372, V375, I376, V381, T384, M385, K388, C406, Q408, L413 and F415.

The following examples serve to illustrate the present invention but should not be construed as a limitation thereof. The invention particularly relates to the specific embodiments described in these examples.

LEGENDS OF THE FIGURES

Figure 1 : Thin rod like crystals of PKC alpha – Construct 4/Compound (I) with fine brushes of needles at both ends. (Diameter ~ 30 microns)

Figure 2 : Overall fold of PKC alpha – Construct 4/Compound (I). The polypeptide chain is colored using a rainbow color scheme from blue at the N-terminus to red at the C-terminus. The inhibitor of formula (I) (yellow carbons) is located in the ATP binding pocket of the kinase domain.

Figure 3 : The maleimide moiety (green carbons) of Compound (I) makes two hydrogen bonds with the hinge region of PKC alpha (residues E418 and V420), one to a water molecule and one to residue D467.

Figure 4: The figure shows the RMS deviations between the C-alpha atoms of the three molecules of PKC alpha – Construct 4 in the asymmetric unit. The curve B indicates the differences between molecule B and the molecule A, and the curve C shows the difference between the molecule C and the molecule A.

Figure 5: Crystal of the PKC alpha – Construct 4/Compound (II) complex.

Figure 6: Overall fold of the PKC alpha – Construct 4/Compound (II) complex.

Figure 7: Initial unbiased difference electron density clearly shows the conformation of the inhibitor Compound (II) in the ATP binding pocket of PKC alpha-Construct 4.

Figure 8: Compound (II) in the ATP binding pocket of PKC alpha-Construct 4 with the hinge to the left and the P-loop above (blue).

Figure 9: Superposition of the two structures of PKC alpha-Construct 4 presented here. The bulkiness of the Diaza-spiro-octyl group of Compound (I) forces the P-loop in a slightly more open conformation than it is observed for Compound (II).

EXAMPLES**List of abbreviations**

Abbreviation	Description
BIM	Bis-indolyl-maleimide
BV	Baculovirus
FCS	Fetal Calf Serum
MOI	Multiplicity of Infection
MPD	Methyl-pentane-diol
Ni-NTA	Nickel-nitrilotriacetic acid
NPL	Novartis Plasmid Number
NVP	Novartis Product Number
pfu	plaque forming units
PKC	Protein Kinase C
rms	root mean square
rpm	revolutions per minute
RT	room temperature
TCEP	Tris-(2-carboxyethyl) phosphine
wcp	wet cell pellet

Example 1: Crystal structure of PKC alpha kinase in complex with Compound (I) at**2.0 Å resolution****1. Methods**

Cloning of the human PKC alpha(320-672)T497E-His gene into a pBAKPac8 transfer vector. The plasmid encoding the human PKC alpha is from the orf cDNA clone library of Invitrogen and has the clone ID IOH29644. The sequence corresponds to the Genbank accession number NM_002737.2. The DNA encoding the fragment from amino acid 320 to 672 has been cloned by PCR with the oligonucleotides of
SEQ ID NO:3

(5'-GATTCGTCATCAATGGTGATGATGGTGATGTACTGCACTCTGTAAGATGGGGTG-3')/
SEQ ID NO:4

(5'-GGATCCCTGCAGGCCTCGAGTTCCCACCATGCCCTCTGAAGACAGGAAACAAC-3').

The obtained PCR fragment was integrated into plasmid pXI342i (as described in PCT application WO2004/076654) or following the published method [Geiser, Cebe, Drewello, and Schmitz, 2001]. Finally the mutation T497E was introduced by integrating the PCR fragment amplified from the original cDNA clone with

SEQ ID NO:5

(5'-ATGGATGGAGTCACGACCAGGGAGTTCTGTGGGACTCCAGATTATATCG-3') and
SEQ ID NO:3 into pXI525b. The resulting plasmid is called pXI525e. In short, the human PKC alpha(320-672)T497E is in front of an uncleavable (His)₆-tag and is under the control of the polyhedrin promoter. The DNA sequence of the clone was confirmed by DNA sequencing.

The new Baculovirus transfer vector pXI525e was used for the transfection of Sf9 insect cells according to the protocol proposed by Clontech. Other constructs were also tested and are summarized hereafter:

PKC alpha/Baculovirus:

1. M ²⁹⁹ ELRQ.....	T ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His
2. M ²⁹⁹ ELRQ.....	E ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His
3. (M)P ³²⁰ SEDRKQP.....	T ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His
4. (M)P ³²⁰ SEDRKQP.....	E ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His
5. (M)P ³²⁰ SEDRKQP.....	E ⁴⁹⁷ ... E ⁶⁵⁷ LQSAV ⁶⁷² – 6His
6. (M)P ³²⁷ SNNL....	T ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His
7. (M)P ³²⁷ SNNL....	E ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His
8. M ¹ ADVF.....	T ⁴⁹⁷ ... S ⁶⁵⁷ LQSAV ⁶⁷² – 6His

PKC alpha/E.coli:

9. M²⁹⁹ELRQ.....T⁴⁹⁷ ... S⁶⁵⁷ LQSAV⁶⁷² – 6His

The Construct 4 led to the crystal structures presented here.

Protein Expression

Methods for PKC alpha expression are described here with focus on the construct 4. In general, methods for Baculovirus (BV) and insect cell cultures as given by [O'Reilly, et al. 1994] were used. Recombinant BV was produced by transfection of Sf9 cells with the Bac-to-Bac transfection system from CLONTECH. A single direct amplification round of the rec. BV from plaques coming directly from the incubated and diluted transfection mixture was used to obtain a sufficient amount of BV needed for first optimization and 1-2 expression cultures at the liter-scale. In cases where higher amounts of BV for re-supply were needed, as for Construct 4, a conventional multi-step BV amplification was applied as follows: BV from suspended single plaques were amplified in a second amplification round in attached Sf9 cells cultured at 27°C in 25cm²-TC-flasks with 10 ml medium TC100 (Invitrogen)+10%FCS (Invitrogen), and in a third amplification round in suspended Sf9 cells cultured at 27°C, shaken at 90 rpm in 500 ml-Erlenmeyer flasks with 100 ml medium TC100+10%FCS+0.1% Pluronic F-68 (Invitrogen). Direct and conventional amplification resulted in rec. Baculovirus suspensions with titers in the range of 0.6 – 2.0x10⁸ pfu/ml, determined by plaque assay.

Shake flask cultures for testing PKC alpha-expression was carried out as follows: Suspended Sf21 cells were grown as preculture at 27°C and 90 rpm for three days in 100 ml medium SF900 II (Invitrogen) + 1 % FCS in 500 ml-Erlenmeyer flasks to reach a cell density of ca. 3x10⁶ cells/ml. Main cultures with a final volume of 50 ml were set up by dilution of the preculture to a cell density of 1.5x10⁶ cells/ml in ExCell420 (JRH) + 1 % FCS medium in 200 ml-Erlenmeyer flasks and the additions of rec. Baculovirus suspension of the third amplification for a MOI=1 and of typically 5 ml 10x concentrated inhibitor solution (100µM). The cultures were then further incubated for 3 days post infection under the same conditions.

The following protocol was applied for the liter-scale production of PKC alpha - Construct 4/Compound (I), leading to the crystal structure: Sf21 cells were precultured in medium SF900 II + 1% FCS for 3 days at 27°C, shaken at 90 rpm in 100 ml – cultures in shake flasks, as given above. Precultures were diluted to 1.5 x 10⁶ c/ml in medium EX-CELL 420 + 1% FCS, and 800 ml culture was dispensed in a 5 liter-Erlenmeyer flask, rec. Baculovirus for MOI=1 was added, a 10x conc. solution of Compound (I) in expression medium for a final conc. of 10 µM was added and the culture was cultivated for 60-66 hours at 27°C, shaken at 90 rpm. PKC alpha - Construct 4/Compound (I) - expressing cells were harvested by two

subsequent centrifugations at 400g at RT for 20 min, first in 1 liter - centrifuge bottles and then after resuspension of the pelleted cells in 20 ml PBS, pH 6.2 with a protease inhibitor mix (Complete, Roche) in 50 ml-plastic tubes and frozen and stored at -80°C prior to extraction.

At harvest, for 50 ml - and for 800 ml-cultures, 2 x 1 ml - samples for cell parameter analysis with ViCell and SDS-PAGE analysis and 30 ml - samples for cell fresh weight determination were taken and the two latter samples were centrifuged at 300g at RT for 10 min. For testing PKC alpha expression, cell pellets from the 1ml - samples were taken up in 1 ml 1xSDS-PAGE buffer and an amount of such total lysates normalized for cell yield (0.2 mg fresh weight cells) was applied on the gels for SDS-PAGE analysis. PKC alpha expression was estimated from gels stained with Coomassie Blue and from Western blots treated with anti-PKC alpha-antibody (Santa Cruz Biotechnology, # sc-8393). Solubility testing of the expressed PKC alpha - Construct 4/Compound (I) was carried out by comparing the band intensities on Western blots of samples from the supernatant or pellet fraction of cellular extracts after high speed centrifugation.

A stock solution in DMSO of 10 mM of Compound (I), stored at -20°C, was each time freshly diluted typically to 100 µM (10x concentrated) in expression medium and filter sterilized through a 0.22 µm-filter.

Purification

Due to the sensitivity of the protein all the purification steps were carried out on ice or at 4°C. A 10g wet cell pellet was resuspended in approximately 100 ml lysis buffer (300mM NaCl, 50mM Tris HCl, 3mM Tris-(carboxyethyl) phosphine = TCEP, 1mM NaF, 10µl Na₃VO₄, 10%glycerol, pH 8.0), containing 4 tablets of protease inhibitor cocktail Complete Mini, EDTA free (Roche) and 100µl Phosphatase Inhibitor cocktail 1 and 2 (Sigma). The suspension was treated with a hand homogenizer 10 times and the insoluble part removed by centrifugation for 60min with 30000g at 4°C. The supernatant was passed through a 5µm filter then loaded on a Ni-NTA-Superflow column (Pharmacia; 1cm diameter, 3ml volume, flow rate 1-3ml/min, pre-equilibrated with lysis buffer). The column was then washed with lysis buffer plus 10mM imidazole until absorption was close to zero (app. 15 column volumes) and then eluted with a gradient from 10 to 500mM imidazole in lysis buffer. Fractions containing the PKC alpha/Inhibitor complex (colored) were pooled. The pool was concentrated in a pre-cooled

Ultrafree Cell MW cutoff 30000 to 1-2ml and loaded on a HiLoad Superdex75 (16/60) prep-grade (Amersham, now GE Healthcare), equilibrated in SPX buffer (200mM NaCl, 50mM imidazole, 2% glycerol, 1mM NaF, 2mM TCEP, pH = 8.0). Colored fractions were concentrated in an Ultrafree cell to a final protein concentration of 10-15mg/ml, purity 96% (determined by HPLC).

Crystallization

With an initial screen of 480 different crystallization conditions, only one crystallization condition was found. The optimized crystallization condition for the successful Construct 4 – Compound (I) complex required a protein solution at 6 mg/ml PKC alpha in 0.2M NaCl, 0.05M imidazole pH 8.0, 2mM TCEP, 1mM NaF, 2% glycerol. The method used was hanging drop vapor diffusion, with a drop size of 2µl protein solution plus 1µl reservoir solution (1ml of 22% PEG-3350w/v, 0.2M (NH₄)₂H-citrate) at 4°C. Flat rod-like crystals typically appeared within 2-7 days at 4°C. Single fragments of the bundles of crystals that grew were treated with cryo-buffer (20% glycerol, 23% PEG-3350 w/v, 200mM (NH₄)₂H-citrate) at 4°C by increasing the glycerol concentration slowly by adding cryo buffer gradually to the original drop. Subsequently, the crystals were frozen by dipping them in liquid nitrogen and stored for data collection.

Data collection and analysis

Due to the small crystal size (thin rods of about 30 microns in diameter) synchrotron radiation was a must for these crystals. The data set was collected at the PXII (X10SA) beam line at the Swiss Light Source (SLS) in Villigen, Switzerland. This beam line is equipped with a MARCCD detector and a cryo-stream to keep the crystals at 100K. Annealing (blocking of the cryo stream for app. 6-8sec) of the crystal in situ improved the resolution from about 3.9 Å to 2.0 Å. Images were collected with 0.5° oscillation each and a crystal-to-detector distance of 240 mm. To collect a full data set the crystal was translated along the longest dimension. Raw diffraction data were processed and scaled with XDS / Xscale [Kabsch 1988] within the APRV program package [Kroemer et al. 2004]. Structure factor amplitudes for negative and very weak intensities were estimated using Bayesian statistics [French and Wilson, 1978].

Structure determination and refinement

The structure of the PKC alpha/Compound (I) complex was determined by molecular replacement with the program PHASER [McCoy et al. 2005] using a truncated model of the 2.0Å structure of the PKC theta complex [Rummel et al. 2004] as a starting model. The sequence identity between PKC alpha and PKC theta is 53.6 %. After the sequence of the model had been corrected to the human PKC alpha sequence, it was refined with REFMAC [Murshudov et al., 1997] which is part of the CCP4 program suite [Collaborative Computational Project, Number 4, 1994]. Model building was carried with the program O version 9.0 [Jones et al., 1991]. Cross-validation was used throughout refinement using a test set comprising 5% of the reflections.

Pictures were made with the program PYMOL (DeLano Scientific LLC).

2. Results

Expression of PKC alpha/Compound (I) complex

The Construct 4, which led finally to the co-crystal structure of Table 1, was sufficiently expressed with the PKC-specific inhibitor Compound (I) present in the culture. In the absence of the inhibitor, only residual levels of PKC alpha - Construct 4 protein were expressed. The same expression behavior was also observed for the PKC alpha Constructs 1, 2, 3, 5, 6 and 7. Strong stimulation of expression of proteins from PKC alpha - Construct 4 was also observed for 7 other PKC inhibitors added to the culture. The full-length version PKC alpha, Construct 8, was also expressed in absence of an inhibitor, but the expressed protein was unstable and degraded and could thus not be purified.

A dose-response experiment showed that the level of PKC alpha - Construct 4 expression correlates with the Compound (I) concentration in the medium (in the range of 0–30 µM). Maximal expression occurred at 30 µM Compound (I), which is slightly higher than at 10 µM. 10 µM Compound (I) was then used for liter scale expression of PKC alpha - Construct 4 for purification and crystallization. Experiments on the kinetics of expression showed that 60-66 hours post infection time is optimal for expression of PKC alpha - Construct 4/Compound (I) suitable for crystallization.

For the liter scale production of PKC alpha - Construct 4/Compound (I) leading to the crystal structure, a cellular yield of 14.71 g fresh weight cells per 790 ml culture was obtained and 16 mg of Construct 4/Compound (I) was isolated after the Ni-column. This means that the level

of expression of soluble PKC alpha - Construct 4/Compound (I) was at least 20 mg/l for this experiment. SDS-PAGE analysis of the total lysate revealed a strong band of the correct size on a Coomassie-stained gel and a correspondingly strong band on a Western blot treated with anti-PKC alpha-antibody. Approximately 50% of the PKC alpha - Construct 4/Compound (I) was found to be solubly expressed.

Purification

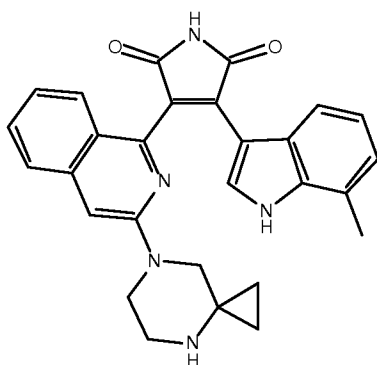
For none of the constructs of the kinase domain without a phosphorylation site mutation, Constructs 1, 3 and 6, purification of the protein was possible. For the four constructs with one or two mutations, Constructs 2, 4, 5 and 7, protein has been purified and screened for crystallization. For the Constructs 2, 5 and 7, phosphorylation and dephosphorylation experiments have been performed without resulting in a more homogenous phosphorylation state of the molecules. Best recovery of purified protein per gram wet cell pellet was obtained from Construct 4, which also produced crystals in complex with Compound (I). The expression of the full length protein, corresponding to Construct 8, resulted in a break down product of app. 50kDa and traces of the desired protein and purification of the protein was thus not possible.

Mass spectroscopic analysis on the purified PKC alpha-Construct 4/Compound (I) complex showed that the protein preparation was sufficiently homogeneous for crystallization (41304.0 Da = 10.5% (des-Met, mono-phosphorylated); 41383.2 Da = 81.5% (des-Met, phosphorylated at T638 and S657); 41466.0 Da = 8% (des-Met, 3x phosphorylated)). The expected mass of the des-Met protein is 41385 Dalton (for the 354 residues plus the His-tag, the mutation T497E and the two phosphorylation sites). The expected mass was in agreement with the measurements.

The crystals of the PKC alpha - Compound (I) complex

The Construct 4 crystallized comprises residues 320 to 672 and a C-terminal tag of 6 histidine residues. The phosphorylation site in the activation loop is mutated in this construct in order to stabilise the kinase in an active conformation (T497E). The asymmetric unit of the crystal contains 3 molecules. The crystals grew as thin needles of about 30 microns in diameter (Figure 1). The chemical structure of the Compound (I), 3-[3-(4,7-Diaza-spiro[2.5]oct-7-yl) -isoquinolin-1-yl]-4-(7-methyl-1H-indol-3-yl)-pyrrole-2,5-dione, present in the

crystal, is shown in formula (I) given below. The X-ray diffraction data statistics for the PKC alpha – Construct 4/Compound (I) crystal can be found in Table 3.



(I)

Table 3: X-ray diffraction data of the PKC alpha – Construct 4/Compound (I) crystal

	PKC alpha - compound (I)
Synchrotron beam line	SLS (PXII, X10SA)
Wavelength	1.0005
Detector	MARCCD225
Oscillation range	0.5
Distance	240 mm
Number of images used	250
Temperature of data collection	100K
Number of crystals	1
Space group	P2 ₁ 2 ₁ 2 ₁
Unit cell dimensions a, b, c, a, β, γ	44.20Å, 101.30Å, 252.0Å 90.0°, 90.0°, 90.0°
Number of monomers / asymmetric unit	3
Packing coefficient	2.23 Å ³ /Dalton

- 27 -

Solvent content	44.5%
Overall B-factor from Wilson Plot (resolution range)	31.1 Å ² 80.0 Å – 2.0 Å
Resolution range (last shell)	79.06 Å - 2.00 Å (2.08 Å - 2.00 Å)
Number of observations	304484
Number of rejections	1585
Number of unique reflection	70108
Mosaicity	0.17
Overall:	
Data redundancy	4.3
Data completeness (last shell)	90.1 % (57.5 %)
< I/s (I) > (last shell)	10.0 (1.8)
R _{merge} (last shell)	10.5% (68.5%)
Reflections with I > 3s (I)	64%

The structure of the PKC alpha - construct 4 in complex with Compound (I)

The overall fold of the molecule is shown as a ribbon drawing in Figure 2. PKC alpha shows the classical bi-lobal kinase fold. The N-terminal lobe (residues 320 - 420) consists mainly of a five stranded β -sheet and one α -helix. There are 10-15 residues at the N-terminus which are disordered. The C-terminal domain (residues 421 - 618) consists mainly of α -helical elements. The C-terminal tail (residues 618 – 672) containing the two phosphorylation sites (T638 and S657) wraps loosely around the N-terminal lobe and is partially disordered. The first part of this segment is not visible at all (residues 619 to 626), and the second part is only visible because it is in direct contact with a neighboring molecule in the crystal (residues 627 to 650). In solution both segments are expected to be highly flexible. The third part of the C-terminal tail is attached to the N-terminal domain. In particular the hydrophobic motif (...FXXFS...), which can be activated by the phosphorylation of the serine residue, binds with the two phenylalanine side chains in the hydrophobic motif binding pocket. After the hydrophobic motif the chain extends to form a 6th strand in the β -sheet of the N-terminal lobe. The last few C-terminal residues including the His-tag are partially disordered in the three

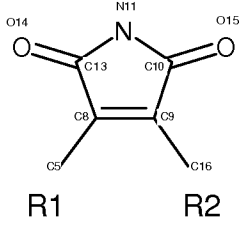
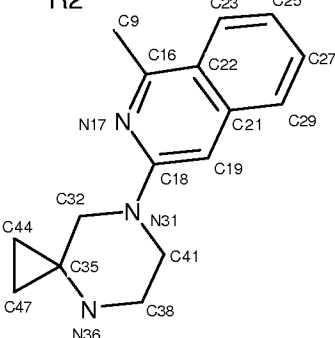
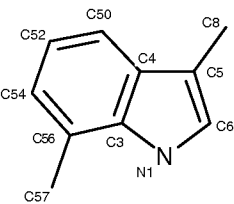
molecules in the asymmetric unit, with the amount of disorder depending on the crystal packing. The inhibitor is sitting between the two domains in the ATP binding site.

The refinement statistics is given in Table 4. Close contacts between the inhibitor and the protein are listed in Table 5. Figure 3 shows the hydrogen bonding network of Compound (I) in the binding site.

Table 4: Refinement statistics on the crystal structure of PKC alpha –
Construct 4/Compound (I)

Data used in refinement:	PKC alpha – Compound (I)
- resolution range (last shell)	79.06 Å – 2.00 Å (2.08 Å – 2.00 Å)
- intensity cutoff (s(F))	none
- number of reflections	66712
- completeness [working + test set] (last shell)	90.1 %
- test set	4.8 %
Fit to data used in refinement:	
- overall R_{cryst} (last shell)	20.9 % (26.0%)
- overall R_{free} (last shell)	26.4 % (34.3 %)
- overall mean FOM	
Number of non-hydrogen atoms used in the refinement:	
-Total	9026
Overall mean temperature factor (B): (4.0 Å - 2.0 Å)	29.1 Å ²
Overall mean temperature factor from Wilson plot	31.1 Å ²
RMS deviations from ideal geometry:	
- bond length	0.008
- bond angles	1.2°
-estimated standard deviation from Luzzatti plot (cross validated)	29.7 Å
- G factor from PROCHECK	0.1

Table 5: Hydrogen bonding distances between the PKC alpha – Construct 4 protein and the inhibitor Compound (I)

Inhibitor group	Inhibitor atoms	Protein or water (OW) Atoms	Distances in Molecule A	Distances in Molecule B	Distances in Molecule C
 R1	O15	Thr 401: OG	3.8	4.0	3.9
	N11	Glu 418: O	2.8	2.9	2.9
	O14	Val 420: N	2.7	2.8	2.8
	A:O15	A:811:OW	2.9		
	B:O15	B:811:OW		3.1	
	C:O15	C:129:OW			3.0
 R2	N36	Asp 424:OD2	3.3	4.2	4.6
	N36	Asp 467:O	2.9	3.1	3.6
	A:N36	A:800:OW	3.2		
	B:N36	B:814:OW		4.0	
	C:N36	C:819:OW			2.6
 R1	N1	Val 420: O	4.3	4.3	4.3
	A:N1	A:801:OW	3.5		
	B:N1	B:815:OW		3.0	
	C:N1	C:803:OW			3.0

There are three protein molecules in the asymmetric unit of the crystal. The root mean square deviations between the C α atoms of the three molecules are shown in Figure 4. The main differences can be explained by the different crystal contacts.

Example 2: Crystal structure of PKC alpha kinase in complex with Compound (II) at 2.8 Å resolution

1. Methods

Molecular biology for PKC alpha construct generation

The same procedure was used for generation of PKC alpha - Constructs 1-8, as described in Example 1. This includes also PKC alpha - Construct 4, PKC-alpha(320-672)T497E-His, which was used for obtaining the crystal structure of PKC alpha - Construct 4/Compound II. The constitutions of PKC alpha - Constructs 1-8 are listed in Example 1.

Protein Expression

Generation and amplification of recombinant BV for PKC alpha - Constructs 1-8, including Construct 4, was done as described in Example 1.

The same procedure for testing PKC alpha-expression in 50 mL-shake flask cultures was carried out as given in Example 1. However, typically 5 mL of a 10x concentrated solution of Compound (II) (400 μ M) in medium EX-CELL 420 + 1 % FCS was added to the cultures at the moment of BV infection to give a final concentration of 40 μ M Compound (II).

For purification and successful crystallization and crystal structure elucidation for Construct 4/Compound (II), the same protocol was used for the liter-scale production of Construct 4/Compound (II) as described in Example 1 for Construct 4/Compound (I), except that 40 μ M Compound (II) was used in the culture. A stock solution of 10 mM of Compound (II) in DMSO, stored at -20°C, was each time freshly diluted typically to 400 μ M (10x concentrated) in expression medium and filter-sterilized through a 0.22 μ m-filter prior to application.

The same protocol for harvesting the cells expressing PKC alpha – Construct 4/Compound (II) was employed as described in Example 1.

Sample preparation and performing of cell parameter analysis and analysis of PKC alpha expression by SDS-PAGE was done as described in Example 1.

Purification

The subsequently described protocol for purification of PKC alpha – Construct 4/Compound (II) differs only in minor points from that given in Example 1: Due to the sensitivity of the protein all the purification steps were carried out on ice or at 4 °C. A 10g wet cell pellet was resuspended in app.100ml lysis buffer (300mM NaCl, 50mM Tris HCl, 3mM TCEP, 1mM NaF, 10µl Na₃VO₄, 10% glycerol, pH 8.0), containing 4 tablets of protease inhibitor cocktail Complete Mini, EDTA free (Roche) and 100µl Phosphatase Inhibitor cocktail 1 and 2 (Sigma). The suspension was treated with a hand homogenizer 10x and the insoluble part was centrifuged 60-180min with 30000g at 4 °C. Subsequently the supernatant was passed through a 5µm filter. The supernatant was loaded on a Ni-NTA-Superflow column (Pharmacia; 1cm diameter, 3-4ml volume, flow 1-3ml/min, equilibrated with lysis buffer), washed with lysis buffer until absorption was close to zero (app. 15 column volumes), washed with lysis buffer plus 10 and 25mM imidazole and eluted with a gradient from 25 to 500mM imidazole in lysis buffer. Inhibitor containing fractions (colored) were pooled.

The pool was concentrated in a precooled Ultrafree Cell MW cutoff 30000 to 1-2ml, loaded on a HiLoad Superdex75 (16/60) prep grade (Pharmacia) and equilibrated in SPX buffer (200mM NaCl, 50mM imidazole, 1% glycerol, 1mM NaF, 2mM TCEP, pH = 8.0). Colored fractions were concentrated in an Ultrafree cell to a final protein concentration of 10-20mg/ml (determined by HPLC).

Mass spectroscopic analysis showed that the protein preparation was sufficiently pure for crystallization. The expected mass of the desMeth protein was 41385 Dalton for the 594 residues plus the His-tag and the two phosphorylation sites, which is in agreement with the measurements.

Crystallization

The optimized crystallization condition for the successful Construct 4 – Compound (II) complex required a protein solution at 22 mg/ml PKC α in 0.2M NaCl, 0.05M imidazole pH 8.0, 2mM TCEP, 1mM NaF, 2% glycerol. The protein was crystallized with the free interface diffusion method in glass capillaries (4 µl crystallization buffer containing 20-30% PEG3350 and 0.2 M di ammonium hydrogen citrate against 2 µl protein solution, 22mg/ml). The hanging drop method also worked but did not give large enough crystals in that case at 4 °C. Flat rod-like crystals typically appeared within 2-7 days at 4 °C.

Single fragments of the bundles of crystals that grew were treated with cryo-buffer (20% glycerol, 23% PEG-3350 w/v, 200mM $(\text{NH}_4)_2\text{H-citrate}$) at 4 °C by increasing the glycerol concentration slowly by adding cryo buffer gradually to the original drop. Subsequently, the crystals were frozen by dipping them in liquid nitrogen and stored for data collection.

Data collection and analysis

Due to the small crystal size (thin rods of about 30 microns in diameter) synchrotron radiation was a must for these crystals. The data set was collected at the PXII (X10SA) beam line at the Swiss Light Source (SLS) in Villigen, Switzerland. This beam line is equipped with a MARCCD detector and a cryo-stream to keep the crystals at 100K. Images were collected with 1 ° oscillation each and a crystal-to-detector distance of 250 mm. To collect a full data set the crystal was translated along the longest dimension. Raw diffraction data were processed and scaled with XDS / Xscale [Kabsch 1988] within the APRV program package [Kroemer et al. 2004]. Structure factor amplitudes for negative and very weak intensities were estimated using Bayesian statistics [French and Wilson, 1978].

Structure determination and refinement

The structure of the PKC alpha – Construct 4/Compound (II) complex was determined by molecular replacement with the PKC alphas –Construct 4/Compound (I) structure. The structure was refined using the programs COOT [Emsley P and Cowtan K., 2004] and REFMAC [Murshudov et al., 1997] which is part of the CCP4 program suite [Collaborative Computational Project, Number 4, 1994]. Cross-validation was used throughout refinement using a test set comprising 5% of the reflections. Pictures were prepared using the programs COOT and PYMOL (DeLano Scientific LLC).

2. Results

Expression of PKC alpha - Construct 4/Compound (II) complex

The Construct 4, which led finally to the co-crystal structure of PKC alpha – Construct 4/Compound (II) shown in Figure 6, was sufficiently expressed with the PKC-specific inhibitor Compound (II) present in the culture. In the absence of the inhibitor, only residual levels of

Construct 4 protein were expressed. The same expression behavior was also observed for the PKC alpha Constructs 1, 2, 3, 5, 6 and 7.

A dose-response experiment showed that maximal expression of PKC alpha – Construct 4/Compound (II) was obtained with 40 μ M Compound (II) in the culture medium.

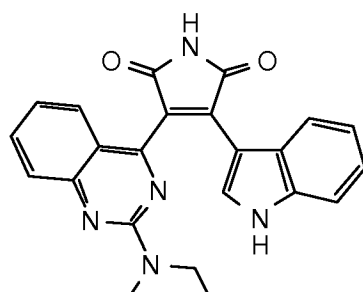
For the liter scale production of PKC alpha – Construct 4/Compound (II) leading to the crystal structure, a cellular yield of 14.63 g fresh weight cells per 760 ml culture was obtained and 14.9 mg of PKC alpha – Construct 4/Compound (II) was isolated after the Ni-column. This means that the level of expression of soluble PKC alpha – Construct 4/Compound (II) was at least 19 mg/l for this experiment. SDS-PAGE analysis of the total lysate revealed a strong band of the correct size on a Coomassie-stained gel and a correspondingly strong band on a Western blot treated with anti-PKC alpha-antibody. Approximately 50% of the PKC alpha – Construct 4/Compound (II) was found to be solubly expressed.

Purification

For Compound (II), purification was only performed for PKC alpha-Construct 4/Compound (II). Mass spectroscopic analysis on the purified PKC alpha-Construct 4/Compound (II) complex showed that the protein preparation was sufficiently homogeneous for crystallization (41304.6 Da = 7% (des-Met, mono-phosphorylated); 41384.4 Da = 93% (des-Met, phosphorylated at T638 and S657)). The expected mass of the des-Met protein is 41385 Dalton (for the 354 residues plus the His-tag, the mutation T497E and the two phosphorylation sites). The expected mass was in agreement with the measurements.

The crystals of the PKC alpha - Compound (II) complex

The construct crystallized is identical with the one of Example 1. Crystals of PKC alpha in complex with Compound (II) grew in the same space group as the once with Compound (I). Again they grew as thin needles of about 30 microns in diameter with the tendency to split ends (Figure 5). The asymmetric unit of the crystal contains again 3 molecules. The chemical structures of the inhibitors 3-(1H-Indol-3-yl)-4-[2-(4-methyl-piperazin-1-yl)-quiazolin -4-yl]-pyrrole-2,5-dione present in the crystals is shown in formula (II). The X-ray diffraction data statistics can be found in Table 6 below.



(II)

Table 6: X-ray diffraction data of the PKC alpha – Construct 4/Compound (II) crystal

	PKC alpha + Compound (II)
Synchrotron beam line	SLS (PXII, X10SA)
Wavelength	0.9788
Detector	MARCCD225
Oscillation range	1.0
Distance	250 mm
Number of images used	120
Temperature of data collection	100K
Number of crystals	1
Space group	P2 ₁ 2 ₁ 2 ₁
Unit cell dimensions a, b, c, a, β , γ	43.9Å, 100.7Å, 251.3Å 90.0°, 90.0°, 90.0°
Number of monomers / asymmetric unit	3
Packing coefficient	2.23 Å ³ /Dalton
Solvent content	44.5%
Overall B-factor from Wilson Plot (resolution range)	80.0Å – 2.8Å
Resolution range (last shell)	64.4 Å - 2.80 Å (2.92 Å - 2.80 Å)
Number of observations	127470
Number of rejections	780
Number of unique reflection	28331
Mosaicity	0.14
Overall:	
Data redundancy	4.5
Data completeness (last shell)	99.5 % (98.5 %)
< I / σ (I) > (last shell)	9.2 (2.3)
R _{merge} (last shell)	13.8% (66.4%)
Reflections with I > 3 σ (I)	64.9% (24.2%)

The structure of the PKC alpha - Construct 4 in complex with Compound (II)

The structure of PKC alpha – Construct 4/Compound (II) was solved using the structure of the PKC alpha – Construct 4/Compound (I) complex for molecular replacement. Due to the large unit cell with three molecules in the asymmetric unit and the relatively low resolution a full refinement was not possible. Only coordinates (x,y,z) and an overall B-factor were refined. The refinement statistics is given in Table 7. The overall fold (Figure 6) corresponds closely to the one observed for the complex with Compound (I). Due to the good starting model, the initial, unbiased difference electron density (Figure 7), calculated from the diffraction data, unambiguously showed how the Compound (II) is oriented in the active site.

Table 7: Refinement statistics on the crystal structure of PKC alpha –
Construct 4/Compound (II)

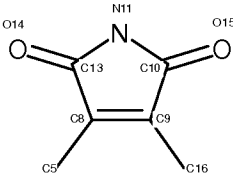
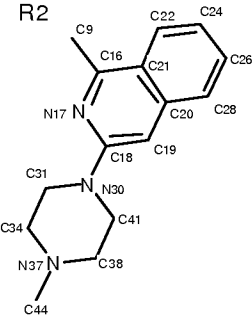
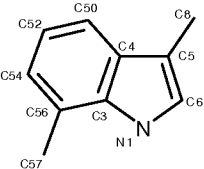
Table	PKC alpha - Compound (II)
- resolution range (last shell)	64.42 – 2.80 Å (2.873 – 2.80 Å)
- intensity cutoff (sigma(F))	None
- number of reflections	26913
- completeness [working + test set] (last shell)	98.59 %
- test set	5.0 %
Fit to data used in refinement:	
- overall R_{cryst} (last shell)	20.97 % (24.9 %)
- overall R_{free} (last shell)	28.70 % (30.9 %)
- overall mean FOM	0.79
Total Number of non-hydrogen atoms used in the refinement:	8960
Overall mean temperature factor (B): (4.0 Å - 2.8 Å)	48.27 Å ²

- 36 -

- estimated standard deviation based on ML	35.7Å
RMS deviations from ideal geometry:	
- bond length	0.019
- bond angles	1.849°
- G factor from PROCHECK	-0.1

Figure 8 shows how Compound (II) is located in the ATP-binding pocket of the kinase underneath the P-loop. Comparing the two structures clearly indicates that there are small but significant differences in the positioning of the compound as well as in the positioning of the P-loop (Figure 9). Compound (I) is with the diaza-spiro-octyl group bulkier than Compound (II). This forces the P-loop in a slightly more open conformation. Compound (II) however can enter a little bit deeper into the binding pocket which is reflected in the hydrogen bond distances given in Table 8. The conformational changes between these two structures are indeed small but they give a good example how small differences in the inhibitor can have long range effects on the structure. There are also differences between the three molecules in the asymmetric unit, residues 550-570 and 626-640. These are caused by different crystal contacts and are not relevant for the compound binding in the active site.

Table 8: Hydrogen bonding distances between the PKC alpha protein and the

Inhibitor group	Inhibitor atoms	Protein atoms	Distances in molecule A	Distances in molecule B	Distances in molecule C
 R1 R2	O15	Thr 401: OG	3.7	3.7	3.9
	N11	Glu 418: O	2.7	2.8	2.8
	O14	Val 420: N	2.7	2.8	2.8
 R2	N37	Asp 424:OD2	4.4	5.4	4.0
	N37	Asp 467:O	3.0	3.0	2.8
 R1	N1	Val 420: O	4.1	4.2	4.2

Conclusion

These two new PKC alpha complex structures can now serve as basis for drug design, aiming for the improvement of the specificity of the compounds between the different PKC isoforms. All the residues in the ATP binding sites of PKC alpha and PKC theta are identical, except one. PKC alpha has Met470 and PKC theta has Leu511 at the corresponding positions. The fact that these two residues occupy about the same space and have about the

same volume, makes it difficult, to specifically target these small differences. However Methionin residues are known to be more flexible than Leucin residues. The $-S-CH_3$ of the Methionin side chain group might be displaced easier than the Leucin side chain. Furthermore the flexibility of the structural elements around the ATP binding site can be explored as well.

References

- Collaborative Computational Project, Number 4 (1994). The CCP4 suite: Programs for Protein Crystallography. *Acta Cryst*; D50:760-763.
- Geiser M, Cebe R, Drewello D, Schmitz R. (2001). Integration of PCR fragments at any specific site within cloning vectors without the use of restriction enzymes and DNA ligase. *Biotechniques*; 31:88-92.
- Emsley P, Cowtan K (2004). Coot: model-building tools for molecular graphics. *Acta Cryst*; D60:2126-2132 Part 12 Sp Iss.
- Finkenzeller et al. (1990). Sequence of human protein kinase C. *Nucl. Acids Res.* 18: 2183
- French GS, Wilson, KS (1978). On the Treatment of Negative Intensity Observations. *Acta Cryst*; A34:517-525.
- Jones TA, Zou JY, Cowan SW, Kjeldgaard M (1991). Improved methods for binding protein models in electron density maps and the location of errors in these models. *Acta Cryst*; A47:110-119.
- Kabsch W (1988). *J Appl Crystallogr*; 21:67-71.
- Kroemer M, Dreyer MK, Wendt KU (2004). APRV – a program for automated data processing, refinement and visualization. *Acta Crystallogr*; D60:1679-1682.
- McCoy AJ, Grosse-Kunstleve RW, Storoni LC, Read RJ (2005). Likelihood-enhanced fast translation functions. *Acta Cryst.* D61, 458-464.
- Messerschmidt A, Macieira S, Velarde M, Bädeker M, Benda Ch, Jestel A, Brandstetter H, Neuefeind T, Blaesse M (2005). Crystal Structure of the Catalytic Domain of Human Atypical Protein Kinase C- ι Reveals Interaction Mode of Phosphorylation Site in Turn Motif. *J Mol Biol*; 352:918-931.
- Murshudov GN, Vagin AA, Dodson EJ (1997). Refinement of Macromolecular Structures by the Maximum-Likelihood Method. *Acta Cryst*; D53:240-255.
- Needleman and Wunsch (1972) *J. Mol. Biol.* 48: 443-453
- Newton AC (2001). Protein kinase C. Structural and spatial regulation by phosphorylation, cofactors, and macromolecular interactions. *Chem. Rev.* 101: 2353-2364.
- Newton AC (2003). Regulation of the ABC kinases by phosphorylation: protein kinase C as a paradigm. *Biochem J*; 370:361-371.
- Ochoa WF, Corbalán-García S, Eritja R, Rodríguez-Alfaro JA, Gómez-Fernández JC, Fita I, Verdaguer N (2002). Additional Binding Sites for Anionic Phospholipids and Calcium Ions in

the Crystal Structures of Complexes of the C2 Domain of Protein Kinase C α . *J Mol Biol*; 320:277-291.

O'Reilly DR, Miller LK and Luckow VA, (1994). *Baculovirus Expression Vectors*. Oxford University Press, NY.

Pappa H, Murray-Rust J, Decker LV, Parker PJ & McDonald NQ (1998). Crystal structure of the C2 domain from protein kinase C- δ . *Structure*; 6:885-894.

Pearson and Lipman, (1988) *PNAS, USA*, 85: 2444-2448

Rummel G, Stark W, Strauss A, Wagner J (2004). Crystal structure and three-dimensional structure of the catalytic domain of human protein kinase C- θ and inhibitor complexes for use in drug discovery. *PCT Int. Appl*; WO 2004/076654

Smith and Waterman (1981) *J. Theor. Biol.*, 91: 370-380

Sutton RB, Sprang SR (1998). Structure of the protein kinase C β phospholipid-binding C2 domain complexed with Ca^{2+} . *Structure*; 6:1395-1405.

Tan Seng-Lai & Parker Peter J (2003). Emerging and Diverse Roles of PKC in Immune Cell Signaling. *Biochemical Journal*; 376(3):545-552.

Verdaguer N, Corbalan-Garcia S, Ochoa WF, Fita I, Gómez-Fernández JC (1999). Ca^{2+} bridges the C2 membrane-binding domain of protein kinase C α directly to phosphatidylserine. *EMBO J*; 18:6329-6338.

Xu ZB, Chaudhary D, Olland S, Wolfrom S, Czerwinski R, Malakian K, Lin L, Stahl ML, Joseph-McCarthy D, Benander C, Fitz L, Greco R, Somers WS, Mosyak L (2004). Catalytic Domain Crystal Structure of Protein Kinase C- θ (PKC- θ). *J Biol Chem*; 279(48):50401-50409. (PCT Int. Appl; WO2005/097983)

Zhang G, Kazanietz MG, Blumberg PM, Hurley JH (1995). Crystal structure of the Cys2 Activator-Binding domain of protein Kinase C δ in complex with phorbol ester. *Cell*; 81:917-924.

Zhang H.C. et al. (2005). Novel indolyldiazoyl maleimides as inhibitors of protein kinase C- β : Synthesis, biological activity, and cardiovascular safety. *J. Med. Chem.*, 48, 1725-1728, Supporting Information, p.S1-S7

Table 1: Structure coordinates of PKC alpha in complex with Compound (I)

ATOM	1	N	ALA	A	331	-10.814	52.147	52.340	1.00	33.32	N
ATOM	2	CA	ALA	A	331	-10.755	50.942	51.453	1.00	33.28	C
ATOM	3	CB	ALA	A	331	-11.876	50.993	50.400	1.00	33.09	C
ATOM	4	C	ALA	A	331	-9.378	50.776	50.789	1.00	32.96	C
ATOM	5	O	ALA	A	331	-9.192	51.142	49.618	1.00	33.00	O
ATOM	6	N	ASP	A	332	-8.426	50.214	51.539	1.00	32.22	N
ATOM	7	CA	ASP	A	332	-7.016	50.132	51.115	1.00	31.42	C
ATOM	8	CB	ASP	A	332	-6.094	49.906	52.328	1.00	32.78	C
ATOM	9	CG	ASP	A	332	-4.624	50.172	52.014	1.00	33.66	C
ATOM	10	OD1	ASP	A	332	-4.334	51.083	51.203	1.00	33.79	O
ATOM	11	OD2	ASP	A	332	-3.757	49.463	52.584	1.00	34.47	O
ATOM	12	C	ASP	A	332	-6.762	49.088	50.016	1.00	29.78	C
ATOM	13	O	ASP	A	332	-5.936	48.179	50.171	1.00	29.29	O
ATOM	14	N	ARG	A	333	-7.481	49.247	48.906	1.00	27.98	N
ATOM	15	CA	ARG	A	333	-7.423	48.336	47.766	1.00	26.11	C
ATOM	16	CB	ARG	A	333	-8.631	48.570	46.845	1.00	27.69	C
ATOM	17	CG	ARG	A	333	-9.164	47.317	46.146	1.00	28.94	C
ATOM	18	CD	ARG	A	333	-9.892	47.669	44.857	1.00	29.69	C
ATOM	19	NE	ARG	A	333	-8.945	47.826	43.749	1.00	31.00	N
ATOM	20	CZ	ARG	A	333	-9.193	48.459	42.601	1.00	31.51	C
ATOM	21	NH1	ARG	A	333	-10.375	49.031	42.371	1.00	31.60	N
ATOM	22	NH2	ARG	A	333	-8.240	48.528	41.675	1.00	31.39	N
ATOM	23	C	ARG	A	333	-6.119	48.513	46.982	1.00	23.98	C
ATOM	24	O	ARG	A	333	-5.584	49.625	46.866	1.00	23.37	O
ATOM	25	N	VAL	A	334	-5.609	47.404	46.451	1.00	20.66	N
ATOM	26	CA	VAL	A	334	-4.416	47.433	45.608	1.00	18.52	C
ATOM	27	CB	VAL	A	334	-3.157	46.904	46.365	1.00	19.34	C
ATOM	28	CG1	VAL	A	334	-1.912	47.325	45.659	1.00	19.81	C
ATOM	29	CG2	VAL	A	334	-3.101	47.444	47.794	1.00	19.58	C
ATOM	30	C	VAL	A	334	-4.661	46.647	44.307	1.00	17.12	C
ATOM	31	O	VAL	A	334	-5.549	45.787	44.242	1.00	15.69	O
ATOM	32	N	LYS	A	335	-3.884	46.981	43.275	1.00	15.52	N
ATOM	33	CA	LYS	A	335	-3.874	46.269	41.997	1.00	14.22	C
ATOM	34	CB	LYS	A	335	-4.454	47.150	40.881	1.00	14.50	C
ATOM	35	CG	LYS	A	335	-3.757	48.505	40.729	1.00	16.18	C
ATOM	36	CD	LYS	A	335	-4.429	49.427	39.718	1.00	15.92	C
ATOM	37	CE	LYS	A	335	-3.626	50.718	39.546	1.00	17.09	C
ATOM	38	NZ	LYS	A	335	-4.107	51.601	38.430	1.00	17.56	N
ATOM	39	C	LYS	A	335	-2.433	45.869	41.676	1.00	13.19	C
ATOM	40	O	LYS	A	335	-1.493	46.265	42.385	1.00	13.68	O
ATOM	41	N	LEU	A	336	-2.257	45.092	40.610	1.00	11.65	N
ATOM	42	CA	LEU	A	336	-0.937	44.589	40.211	1.00	10.54	C
ATOM	43	CB	LEU	A	336	-1.068	43.698	38.966	1.00	10.80	C
ATOM	44	CG	LEU	A	336	0.146	42.992	38.357	1.00	11.00	C
ATOM	45	CD1	LEU	A	336	0.665	41.917	39.285	1.00	9.54	C
ATOM	46	CD2	LEU	A	336	-0.225	42.405	37.002	1.00	10.67	C
ATOM	47	C	LEU	A	336	0.070	45.704	39.963	1.00	9.56	C
ATOM	48	O	LEU	A	336	1.249	45.568	40.299	1.00	10.13	O
ATOM	49	N	THR	A	337	-0.408	46.805	39.390	1.00	9.02	N
ATOM	50	CA	THR	A	337	0.423	47.947	38.994	1.00	8.43	C
ATOM	51	CB	THR	A	337	-0.389	48.960	38.163	1.00	9.31	C
ATOM	52	OG1	THR	A	337	-1.543	48.319	37.606	1.00	12.12	O
ATOM	53	CG2	THR	A	337	0.457	49.536	37.047	1.00	10.89	C

- 42 -

ATOM	54	C	THR	A	337	1.017	48.700	40.189	1.00	7.53	C
ATOM	55	O	THR	A	337	1.888	49.562	40.016	1.00	5.94	O
ATOM	56	N	ASP	A	338	0.540	48.373	41.392	1.00	6.75	N
ATOM	57	CA	ASP	A	338	1.020	49.004	42.624	1.00	6.78	C
ATOM	58	CB	ASP	A	338	-0.104	49.093	43.661	1.00	7.49	C
ATOM	59	CG	ASP	A	338	-1.286	49.951	43.191	1.00	9.31	C
ATOM	60	OD1	ASP	A	338	-1.087	50.926	42.423	1.00	9.57	O
ATOM	61	OD2	ASP	A	338	-2.432	49.647	43.602	1.00	10.64	O
ATOM	62	C	ASP	A	338	2.252	48.304	43.219	1.00	6.22	C
ATOM	63	O	ASP	A	338	2.890	48.826	44.142	1.00	6.03	O
ATOM	64	N	PHE	A	339	2.591	47.136	42.674	1.00	5.77	N
ATOM	65	CA	PHE	A	339	3.721	46.339	43.173	1.00	5.14	C
ATOM	66	CB	PHE	A	339	3.251	44.914	43.496	1.00	4.42	C
ATOM	67	CG	PHE	A	339	2.226	44.866	44.576	1.00	4.10	C
ATOM	68	CD1	PHE	A	339	2.581	45.122	45.896	1.00	3.43	C
ATOM	69	CE1	PHE	A	339	1.632	45.094	46.897	1.00	3.78	C
ATOM	70	CZ	PHE	A	339	0.314	44.811	46.590	1.00	3.72	C
ATOM	71	CE2	PHE	A	339	-0.056	44.557	45.277	1.00	4.75	C
ATOM	72	CD2	PHE	A	339	0.897	44.592	44.277	1.00	4.42	C
ATOM	73	C	PHE	A	339	4.915	46.287	42.230	1.00	5.75	C
ATOM	74	O	PHE	A	339	4.747	46.265	41.008	1.00	6.13	O
ATOM	75	N	ASN	A	340	6.112	46.286	42.817	1.00	6.39	N
ATOM	76	CA	ASN	A	340	7.345	45.922	42.123	1.00	6.65	C
ATOM	77	CB	ASN	A	340	8.427	46.988	42.324	1.00	7.96	C
ATOM	78	CG	ASN	A	340	8.410	48.056	41.249	1.00	9.51	C
ATOM	79	OD1	ASN	A	340	8.442	49.250	41.555	1.00	10.48	O
ATOM	80	ND2	ASN	A	340	8.369	47.635	39.976	1.00	9.96	N
ATOM	81	C	ASN	A	340	7.861	44.561	42.602	1.00	6.13	C
ATOM	82	O	ASN	A	340	8.334	44.444	43.731	1.00	5.26	O
ATOM	83	N	PHE	A	341	7.757	43.550	41.741	1.00	5.88	N
ATOM	84	CA	PHE	A	341	8.252	42.209	42.023	1.00	6.63	C
ATOM	85	CB	PHE	A	341	7.861	41.244	40.903	1.00	9.59	C
ATOM	86	CG	PHE	A	341	6.400	40.948	40.830	1.00	11.11	C
ATOM	87	CD1	PHE	A	341	5.605	40.996	41.966	1.00	11.79	C
ATOM	88	CE1	PHE	A	341	4.265	40.710	41.901	1.00	11.53	C
ATOM	89	CZ	PHE	A	341	3.694	40.365	40.686	1.00	12.30	C
ATOM	90	CE2	PHE	A	341	4.472	40.307	39.541	1.00	11.76	C
ATOM	91	CD2	PHE	A	341	5.817	40.592	39.618	1.00	12.68	C
ATOM	92	C	PHE	A	341	9.764	42.207	42.167	1.00	6.53	C
ATOM	93	O	PHE	A	341	10.483	42.719	41.293	1.00	6.52	O
ATOM	94	N	LEU	A	342	10.251	41.640	43.270	1.00	5.84	N
ATOM	95	CA	LEU	A	342	11.686	41.649	43.547	1.00	6.06	C
ATOM	96	CB	LEU	A	342	11.975	42.045	45.009	1.00	6.06	C
ATOM	97	CG	LEU	A	342	11.467	43.432	45.426	1.00	6.11	C
ATOM	98	CD1	LEU	A	342	11.517	43.613	46.941	1.00	5.51	C
ATOM	99	CD2	LEU	A	342	12.259	44.542	44.710	1.00	6.47	C
ATOM	100	C	LEU	A	342	12.325	40.314	43.203	1.00	5.98	C
ATOM	101	O	LEU	A	342	13.231	40.250	42.376	1.00	4.11	O
ATOM	102	N	MET	A	343	11.841	39.259	43.848	1.00	5.34	N
ATOM	103	CA	MET	A	343	12.357	37.915	43.646	1.00	7.41	C
ATOM	104	CB	MET	A	343	13.497	37.631	44.631	1.00	9.04	C
ATOM	105	CG	MET	A	343	13.031	37.574	46.083	1.00	12.36	C
ATOM	106	SD	MET	A	343	14.322	37.023	47.213	1.00	17.44	S
ATOM	107	CE	MET	A	343	13.907	35.277	47.355	1.00	16.79	C
ATOM	108	C	MET	A	343	11.243	36.883	43.850	1.00	4.81	C
ATOM	109	O	MET	A	343	10.210	37.177	44.482	1.00	2.44	O
ATOM	110	N	VAL	A	344	11.471	35.684	43.312	1.00	3.37	N
ATOM	111	CA	VAL	A	344	10.624	34.537	43.572	1.00	2.83	C

- 43 -

ATOM	112	CB	VAL	A	344	10.711	33.460	42.459	1.00	2.88	C
ATOM	113	CG1	VAL	A	344	9.674	32.363	42.708	1.00	2.20	C
ATOM	114	CG2	VAL	A	344	10.470	34.069	41.100	1.00	2.58	C
ATOM	115	C	VAL	A	344	11.081	33.950	44.897	1.00	2.56	C
ATOM	116	O	VAL	A	344	12.220	33.488	45.020	1.00	2.17	O
ATOM	117	N	LEU	A	345	10.197	34.005	45.888	1.00	2.00	N
ATOM	118	CA	LEU	A	345	10.388	33.359	47.175	1.00	2.01	C
ATOM	119	CB	LEU	A	345	9.328	33.823	48.196	1.00	2.00	C
ATOM	120	CG	LEU	A	345	9.450	35.257	48.743	1.00	2.00	C
ATOM	121	CD1	LEU	A	345	8.291	35.584	49.684	1.00	2.00	C
ATOM	122	CD2	LEU	A	345	10.831	35.568	49.395	1.00	2.00	C
ATOM	123	C	LEU	A	345	10.340	31.842	47.065	1.00	2.55	C
ATOM	124	O	LEU	A	345	11.117	31.162	47.709	1.00	2.75	O
ATOM	125	N	GLY	A	346	9.412	31.312	46.275	1.00	3.08	N
ATOM	126	CA	GLY	A	346	9.276	29.862	46.122	1.00	2.74	C
ATOM	127	C	GLY	A	346	8.197	29.449	45.138	1.00	2.01	C
ATOM	128	O	GLY	A	346	7.270	30.186	44.897	1.00	2.03	O
ATOM	129	N	LYS	A	347	8.351	28.262	44.562	1.00	3.59	N
ATOM	130	CA	LYS	A	347	7.371	27.652	43.677	1.00	5.84	C
ATOM	131	CB	LYS	A	347	7.924	27.549	42.259	1.00	7.66	C
ATOM	132	CG	LYS	A	347	7.946	28.822	41.446	1.00	9.33	C
ATOM	133	CD	LYS	A	347	9.205	28.838	40.587	1.00	9.98	C
ATOM	134	CE	LYS	A	347	9.024	29.561	39.275	1.00	11.49	C
ATOM	135	NZ	LYS	A	347	8.865	28.584	38.156	1.00	13.84	N
ATOM	136	C	LYS	A	347	7.090	26.231	44.152	1.00	7.11	C
ATOM	137	O	LYS	A	347	8.005	25.503	44.551	1.00	8.04	O
ATOM	138	N	GLY	A	348	5.829	25.832	44.091	1.00	9.23	N
ATOM	139	CA	GLY	A	348	5.425	24.453	44.384	1.00	9.32	C
ATOM	140	C	GLY	A	348	3.944	24.276	44.106	1.00	9.14	C
ATOM	141	O	GLY	A	348	3.377	24.975	43.264	1.00	9.53	O
ATOM	142	N	SER	A	349	3.338	23.337	44.834	1.00	10.48	N
ATOM	143	CA	SER	A	349	1.881	23.087	44.860	1.00	11.14	C
ATOM	144	CB	SER	A	349	1.605	21.931	45.809	1.00	12.33	C
ATOM	145	OG	SER	A	349	2.258	22.159	47.057	1.00	14.64	O
ATOM	146	C	SER	A	349	1.063	24.285	45.323	1.00	10.21	C
ATOM	147	O	SER	A	349	-0.085	24.483	44.895	1.00	11.37	O
ATOM	148	N	PHE	A	350	1.660	25.073	46.214	1.00	8.87	N
ATOM	149	CA	PHE	A	350	1.080	26.320	46.699	1.00	6.54	C
ATOM	150	CB	PHE	A	350	1.799	26.761	47.980	1.00	7.67	C
ATOM	151	CG	PHE	A	350	3.303	26.876	47.829	1.00	8.08	C
ATOM	152	CD1	PHE	A	350	4.136	25.836	48.216	1.00	7.33	C
ATOM	153	CE1	PHE	A	350	5.516	25.948	48.074	1.00	9.19	C
ATOM	154	CZ	PHE	A	350	6.073	27.109	47.541	1.00	8.00	C
ATOM	155	CE2	PHE	A	350	5.247	28.158	47.156	1.00	8.11	C
ATOM	156	CD2	PHE	A	350	3.874	28.034	47.302	1.00	8.29	C
ATOM	157	C	PHE	A	350	1.166	27.421	45.651	1.00	6.77	C
ATOM	158	O	PHE	A	350	0.768	28.563	45.903	1.00	8.30	O
ATOM	159	N	GLY	A	351	1.684	27.084	44.474	1.00	4.61	N
ATOM	160	CA	GLY	A	351	1.811	28.044	43.389	1.00	4.77	C
ATOM	161	C	GLY	A	351	3.171	28.720	43.344	1.00	2.85	C
ATOM	162	O	GLY	A	351	4.191	28.122	43.695	1.00	4.23	O
ATOM	163	N	LYS	A	352	3.162	29.971	42.901	1.00	4.40	N
ATOM	164	CA	LYS	A	352	4.343	30.826	42.851	1.00	2.00	C
ATOM	165	CB	LYS	A	352	4.550	31.363	41.435	1.00	3.36	C
ATOM	166	CG	LYS	A	352	5.829	32.237	41.295	1.00	5.56	C
ATOM	167	CD	LYS	A	352	6.342	32.244	39.871	1.00	8.05	C
ATOM	168	CE	LYS	A	352	5.746	33.360	39.045	1.00	10.23	C
ATOM	169	NZ	LYS	A	352	6.393	33.424	37.690	1.00	11.15	N

- 44 -

ATOM	170	C	LYS	A	352	4.274	31.997	43.835	1.00	2.00	C
ATOM	171	O	LYS	A	352	3.479	32.911	43.666	1.00	2.00	O
ATOM	172	N	VAL	A	353	5.135	31.979	44.850	1.00	2.00	N
ATOM	173	CA	VAL	A	353	5.196	33.086	45.791	1.00	2.00	C
ATOM	174	CB	VAL	A	353	5.243	32.615	47.256	1.00	2.00	C
ATOM	175	CG1	VAL	A	353	5.166	33.795	48.192	1.00	2.00	C
ATOM	176	CG2	VAL	A	353	4.069	31.649	47.543	1.00	2.00	C
ATOM	177	C	VAL	A	353	6.344	34.019	45.426	1.00	2.00	C
ATOM	178	O	VAL	A	353	7.471	33.590	45.166	1.00	2.00	O
ATOM	179	N	MET	A	354	6.010	35.296	45.426	1.00	2.00	N
ATOM	180	CA	MET	A	354	6.788	36.361	44.872	1.00	2.00	C
ATOM	181	CB	MET	A	354	6.011	36.940	43.681	1.00	3.49	C
ATOM	182	CG	MET	A	354	6.771	37.891	42.806	1.00	9.72	C
ATOM	183	SD	MET	A	354	7.962	37.141	41.661	1.00	14.05	S
ATOM	184	CE	MET	A	354	6.858	36.272	40.572	1.00	8.43	C
ATOM	185	C	MET	A	354	6.963	37.382	45.990	1.00	2.00	C
ATOM	186	O	MET	A	354	6.001	37.734	46.675	1.00	2.00	O
ATOM	187	N	LEU	A	355	8.197	37.824	46.211	1.00	2.00	N
ATOM	188	CA	LEU	A	355	8.448	38.954	47.097	1.00	2.00	C
ATOM	189	CB	LEU	A	355	9.843	38.875	47.734	1.00	2.00	C
ATOM	190	CG	LEU	A	355	10.266	40.026	48.662	1.00	2.00	C
ATOM	191	CD1	LEU	A	355	9.571	39.974	50.021	1.00	2.00	C
ATOM	192	CD2	LEU	A	355	11.773	40.025	48.850	1.00	2.00	C
ATOM	193	C	LEU	A	355	8.318	40.221	46.273	1.00	2.00	C
ATOM	194	O	LEU	A	355	8.872	40.323	45.173	1.00	2.00	O
ATOM	195	N	ALA	A	356	7.583	41.176	46.825	1.00	2.00	N
ATOM	196	CA	ALA	A	356	7.265	42.414	46.166	1.00	2.32	C
ATOM	197	CB	ALA	A	356	5.876	42.302	45.497	1.00	2.00	C
ATOM	198	C	ALA	A	356	7.264	43.549	47.184	1.00	4.23	C
ATOM	199	O	ALA	A	356	7.057	43.327	48.383	1.00	5.76	O
ATOM	200	N	ASP	A	357	7.488	44.764	46.705	1.00	6.83	N
ATOM	201	CA	ASP	A	357	7.282	45.948	47.524	1.00	9.83	C
ATOM	202	CB	ASP	A	357	8.584	46.751	47.671	1.00	12.57	C
ATOM	203	CG	ASP	A	357	8.992	47.466	46.388	1.00	14.51	C
ATOM	204	OD1	ASP	A	357	9.127	46.794	45.348	1.00	16.35	O
ATOM	205	OD2	ASP	A	357	9.190	48.703	46.417	1.00	15.99	O
ATOM	206	C	ASP	A	357	6.193	46.795	46.894	1.00	10.33	C
ATOM	207	O	ASP	A	357	6.101	46.875	45.668	1.00	10.23	O
ATOM	208	N	ARG	A	358	5.361	47.416	47.723	1.00	11.14	N
ATOM	209	CA	ARG	A	358	4.355	48.337	47.219	1.00	12.49	C
ATOM	210	CB	ARG	A	358	3.314	48.642	48.300	1.00	13.18	C
ATOM	211	CG	ARG	A	358	2.023	49.269	47.798	1.00	13.35	C
ATOM	212	CD	ARG	A	358	1.015	49.318	48.937	1.00	14.25	C
ATOM	213	NE	ARG	A	358	-0.165	50.127	48.632	1.00	14.72	N
ATOM	214	CZ	ARG	A	358	-1.187	50.319	49.468	1.00	15.17	C
ATOM	215	NH1	ARG	A	358	-1.185	49.757	50.680	1.00	14.34	N
ATOM	216	NH2	ARG	A	358	-2.219	51.074	49.089	1.00	14.65	N
ATOM	217	C	ARG	A	358	5.062	49.603	46.732	1.00	13.15	C
ATOM	218	O	ARG	A	358	5.923	50.148	47.428	1.00	12.83	O
ATOM	219	N	LYS	A	359	4.712	50.047	45.526	1.00	13.52	N
ATOM	220	CA	LYS	A	359	5.359	51.203	44.913	1.00	14.25	C
ATOM	221	CB	LYS	A	359	4.814	51.452	43.504	1.00	14.20	C
ATOM	222	CG	LYS	A	359	5.466	50.593	42.435	1.00	13.84	C
ATOM	223	CD	LYS	A	359	4.842	50.849	41.082	1.00	13.91	C
ATOM	224	CE	LYS	A	359	5.329	49.852	40.050	1.00	13.77	C
ATOM	225	NZ	LYS	A	359	4.606	50.014	38.754	1.00	13.99	N
ATOM	226	C	LYS	A	359	5.234	52.459	45.773	1.00	14.80	C
ATOM	227	O	LYS	A	359	4.170	52.730	46.336	1.00	15.11	O

- 45 -

ATOM	228	N	GLY	A	360	6.335	53.206	45.878	1.00	15.16	N
ATOM	229	CA	GLY	A	360	6.386	54.443	46.665	1.00	15.52	C
ATOM	230	C	GLY	A	360	6.121	54.288	48.158	1.00	15.44	C
ATOM	231	O	GLY	A	360	5.806	55.262	48.842	1.00	15.64	O
ATOM	232	N	THR	A	361	6.233	53.061	48.658	1.00	15.68	N
ATOM	233	CA	THR	A	361	6.103	52.780	50.090	1.00	15.67	C
ATOM	234	CB	THR	A	361	4.703	52.175	50.478	1.00	15.34	C
ATOM	235	OG1	THR	A	361	4.648	50.792	50.116	1.00	14.93	O
ATOM	236	CG2	THR	A	361	3.536	52.925	49.820	1.00	14.78	C
ATOM	237	C	THR	A	361	7.214	51.820	50.525	1.00	15.94	C
ATOM	238	O	THR	A	361	7.910	51.233	49.688	1.00	16.05	O
ATOM	239	N	GLU	A	362	7.371	51.666	51.836	1.00	16.48	N
ATOM	240	CA	GLU	A	362	8.364	50.756	52.400	1.00	16.51	C
ATOM	241	CB	GLU	A	362	8.931	51.332	53.691	1.00	16.94	C
ATOM	242	CG	GLU	A	362	9.865	52.498	53.500	1.00	17.42	C
ATOM	243	CD	GLU	A	362	10.542	52.877	54.791	1.00	17.30	C
ATOM	244	OE1	GLU	A	362	11.115	51.974	55.436	1.00	18.08	O
ATOM	245	OE2	GLU	A	362	10.500	54.066	55.167	1.00	17.65	O
ATOM	246	C	GLU	A	362	7.793	49.363	52.675	1.00	16.07	C
ATOM	247	O	GLU	A	362	8.481	48.496	53.236	1.00	16.37	O
ATOM	248	N	GLU	A	363	6.541	49.159	52.273	1.00	14.24	N
ATOM	249	CA	GLU	A	363	5.811	47.938	52.567	1.00	13.64	C
ATOM	250	CB	GLU	A	363	4.296	48.198	52.442	1.00	14.00	C
ATOM	251	CG	GLU	A	363	3.778	49.401	53.255	1.00	14.76	C
ATOM	252	CD	GLU	A	363	2.316	49.776	52.967	1.00	14.83	C
ATOM	253	OE1	GLU	A	363	1.624	49.068	52.196	1.00	15.66	O
ATOM	254	OE2	GLU	A	363	1.848	50.791	53.527	1.00	15.20	O
ATOM	255	C	GLU	A	363	6.243	46.780	51.651	1.00	12.75	C
ATOM	256	O	GLU	A	363	6.151	46.882	50.418	1.00	12.68	O
ATOM	257	N	LEU	A	364	6.722	45.690	52.261	1.00	11.05	N
ATOM	258	CA	LEU	A	364	7.058	44.446	51.539	1.00	8.31	C
ATOM	259	CB	LEU	A	364	8.421	43.896	51.981	1.00	8.46	C
ATOM	260	CG	LEU	A	364	9.702	44.259	51.204	1.00	8.37	C
ATOM	261	CD1	LEU	A	364	10.058	45.741	51.315	1.00	9.37	C
ATOM	262	CD2	LEU	A	364	10.862	43.411	51.687	1.00	8.06	C
ATOM	263	C	LEU	A	364	5.999	43.380	51.758	1.00	6.72	C
ATOM	264	O	LEU	A	364	5.424	43.289	52.846	1.00	5.78	O
ATOM	265	N	TYR	A	365	5.749	42.580	50.718	1.00	4.47	N
ATOM	266	CA	TYR	A	365	4.717	41.544	50.732	1.00	2.00	C
ATOM	267	CB	TYR	A	365	3.417	42.046	50.053	1.00	3.18	C
ATOM	268	CG	TYR	A	365	2.810	43.252	50.721	1.00	3.34	C
ATOM	269	CD1	TYR	A	365	3.258	44.534	50.409	1.00	3.05	C
ATOM	270	CE1	TYR	A	365	2.719	45.649	51.024	1.00	4.17	C
ATOM	271	CZ	TYR	A	365	1.724	45.493	51.968	1.00	3.33	C
ATOM	272	OH	TYR	A	365	1.210	46.617	52.568	1.00	4.89	O
ATOM	273	CE2	TYR	A	365	1.251	44.228	52.304	1.00	3.65	C
ATOM	274	CD2	TYR	A	365	1.803	43.114	51.680	1.00	3.13	C
ATOM	275	C	TYR	A	365	5.190	40.286	50.008	1.00	2.00	C
ATOM	276	O	TYR	A	365	5.959	40.363	49.057	1.00	2.00	O
ATOM	277	N	ALA	A	366	4.725	39.131	50.470	1.00	2.00	N
ATOM	278	CA	ALA	A	366	4.790	37.906	49.689	1.00	2.00	C
ATOM	279	CB	ALA	A	366	5.057	36.721	50.579	1.00	2.00	C
ATOM	280	C	ALA	A	366	3.441	37.763	48.967	1.00	2.00	C
ATOM	281	O	ALA	A	366	2.387	37.767	49.597	1.00	2.00	O
ATOM	282	N	ILE	A	367	3.503	37.687	47.644	1.00	2.00	N
ATOM	283	CA	ILE	A	367	2.348	37.639	46.768	1.00	2.00	C
ATOM	284	CB	ILE	A	367	2.362	38.790	45.710	1.00	2.00	C
ATOM	285	CG1	ILE	A	367	2.270	40.153	46.406	1.00	2.00	C

- 46 -

ATOM	286	CD1	ILE	A	367	2.432	41.372	45.509	1.00	2.00	C
ATOM	287	CG2	ILE	A	367	1.204	38.603	44.683	1.00	2.00	C
ATOM	288	C	ILE	A	367	2.326	36.287	46.084	1.00	2.00	C
ATOM	289	O	ILE	A	367	3.276	35.904	45.365	1.00	2.00	O
ATOM	290	N	LYS	A	368	1.272	35.534	46.340	1.00	2.00	N
ATOM	291	CA	LYS	A	368	1.057	34.261	45.661	1.00	2.00	C
ATOM	292	CB	LYS	A	368	0.313	33.290	46.582	1.00	2.00	C
ATOM	293	CG	LYS	A	368	-0.331	32.114	45.868	1.00	2.00	C
ATOM	294	CD	LYS	A	368	-1.154	31.273	46.818	1.00	2.00	C
ATOM	295	CE	LYS	A	368	-1.732	30.109	46.075	1.00	2.00	C
ATOM	296	NZ	LYS	A	368	-1.732	28.860	46.848	1.00	2.00	N
ATOM	297	C	LYS	A	368	0.286	34.511	44.364	1.00	2.00	C
ATOM	298	O	LYS	A	368	-0.737	35.192	44.360	1.00	2.00	O
ATOM	299	N	ILE	A	369	0.808	33.969	43.266	1.00	2.00	N
ATOM	300	CA	ILE	A	369	0.257	34.190	41.941	1.00	2.00	C
ATOM	301	CB	ILE	A	369	1.300	34.839	40.976	1.00	2.00	C
ATOM	302	CG1	ILE	A	369	1.881	36.110	41.603	1.00	2.00	C
ATOM	303	CD1	ILE	A	369	3.098	36.710	40.883	1.00	2.00	C
ATOM	304	CG2	ILE	A	369	0.687	35.120	39.624	1.00	2.00	C
ATOM	305	C	ILE	A	369	-0.126	32.826	41.403	1.00	2.00	C
ATOM	306	O	ILE	A	369	0.685	31.894	41.402	1.00	2.00	O
ATOM	307	N	LEU	A	370	-1.373	32.710	40.953	1.00	2.00	N
ATOM	308	CA	LEU	A	370	-1.810	31.522	40.251	1.00	2.00	C
ATOM	309	CB	LEU	A	370	-2.871	30.769	41.070	1.00	2.00	C
ATOM	310	CG	LEU	A	370	-2.499	30.046	42.360	1.00	2.00	C
ATOM	311	CD1	LEU	A	370	-3.779	29.630	43.090	1.00	2.00	C
ATOM	312	CD2	LEU	A	370	-1.671	28.809	42.083	1.00	2.00	C
ATOM	313	C	LEU	A	370	-2.367	31.895	38.901	1.00	2.00	C
ATOM	314	O	LEU	A	370	-2.987	32.949	38.744	1.00	2.00	O
ATOM	315	N	LYS	A	371	-2.150	31.012	37.938	1.00	2.00	N
ATOM	316	CA	LYS	A	371	-2.717	31.139	36.606	1.00	2.00	C
ATOM	317	CB	LYS	A	371	-1.738	30.596	35.555	1.00	2.01	C
ATOM	318	CG	LYS	A	371	-0.579	31.537	35.234	1.00	2.00	C
ATOM	319	CD	LYS	A	371	0.655	30.794	34.714	1.00	6.35	C
ATOM	320	CE	LYS	A	371	0.442	30.159	33.349	1.00	6.30	C
ATOM	321	NZ	LYS	A	371	0.442	31.141	32.234	1.00	10.45	N
ATOM	322	C	LYS	A	371	-4.046	30.392	36.573	1.00	2.00	C
ATOM	323	O	LYS	A	371	-4.106	29.209	36.900	1.00	2.00	O
ATOM	324	N	LYS	A	372	-5.103	31.103	36.179	1.00	2.00	N
ATOM	325	CA	LYS	A	372	-6.458	30.590	36.254	1.00	2.00	C
ATOM	326	CB	LYS	A	372	-7.469	31.658	35.820	1.00	2.00	C
ATOM	327	CG	LYS	A	372	-7.585	32.858	36.745	1.00	2.00	C
ATOM	328	CD	LYS	A	372	-8.535	33.885	36.150	1.00	2.00	C
ATOM	329	CE	LYS	A	372	-9.019	34.881	37.190	1.00	2.00	C
ATOM	330	NZ	LYS	A	372	-9.876	35.935	36.554	1.00	2.00	N
ATOM	331	C	LYS	A	372	-6.595	29.378	35.373	1.00	2.00	C
ATOM	332	O	LYS	A	372	-7.194	28.404	35.783	1.00	2.00	O
ATOM	333	N	ASP	A	373	-6.048	29.431	34.161	1.00	2.00	N
ATOM	334	CA	ASP	A	373	-6.073	28.255	33.292	1.00	2.00	C
ATOM	335	CB	ASP	A	373	-5.577	28.548	31.860	1.00	3.61	C
ATOM	336	CG	ASP	A	373	-4.083	28.851	31.789	1.00	6.36	C
ATOM	337	OD1	ASP	A	373	-3.608	29.706	32.570	1.00	8.45	O
ATOM	338	OD2	ASP	A	373	-3.376	28.259	30.941	1.00	6.31	O
ATOM	339	C	ASP	A	373	-5.361	27.051	33.925	1.00	2.00	C
ATOM	340	O	ASP	A	373	-5.824	25.909	33.798	1.00	2.00	O
ATOM	341	N	VAL	A	374	-4.251	27.312	34.625	1.00	2.00	N
ATOM	342	CA	VAL	A	374	-3.525	26.235	35.323	1.00	2.00	C
ATOM	343	CB	VAL	A	374	-2.106	26.682	35.796	1.00	2.00	C

- 47 -

ATOM	344	CG1	VAL	A	374	-1.456	25.594	36.596	1.00	2.00	C
ATOM	345	CG2	VAL	A	374	-1.222	27.061	34.579	1.00	2.00	C
ATOM	346	C	VAL	A	374	-4.365	25.636	36.468	1.00	2.00	C
ATOM	347	O	VAL	A	374	-4.472	24.431	36.578	1.00	2.00	O
ATOM	348	N	VAL	A	375	-4.979	26.488	37.284	1.00	2.00	N
ATOM	349	CA	VAL	A	375	-5.882	26.071	38.363	1.00	2.00	C
ATOM	350	CB	VAL	A	375	-6.454	27.308	39.095	1.00	2.00	C
ATOM	351	CG1	VAL	A	375	-7.588	26.931	40.036	1.00	2.00	C
ATOM	352	CG2	VAL	A	375	-5.328	28.014	39.883	1.00	2.00	C
ATOM	353	C	VAL	A	375	-6.997	25.139	37.869	1.00	2.00	C
ATOM	354	O	VAL	A	375	-7.241	24.095	38.468	1.00	2.00	O
ATOM	355	N	ILE	A	376	-7.653	25.538	36.771	1.00	2.00	N
ATOM	356	CA	ILE	A	376	-8.723	24.759	36.136	1.00	2.00	C
ATOM	357	CB	ILE	A	376	-9.480	25.619	35.093	1.00	2.00	C
ATOM	358	CG1	ILE	A	376	-10.238	26.747	35.812	1.00	2.00	C
ATOM	359	CD1	ILE	A	376	-10.614	27.930	34.950	1.00	2.00	C
ATOM	360	CG2	ILE	A	376	-10.436	24.757	34.243	1.00	2.00	C
ATOM	361	C	ILE	A	376	-8.157	23.459	35.541	1.00	2.00	C
ATOM	362	O	ILE	A	376	-8.681	22.371	35.808	1.00	2.04	O
ATOM	363	N	GLN	A	377	-7.083	23.552	34.757	1.00	2.00	N
ATOM	364	CA	GLN	A	377	-6.375	22.344	34.283	1.00	3.83	C
ATOM	365	CB	GLN	A	377	-5.031	22.702	33.633	1.00	4.32	C
ATOM	366	CG	GLN	A	377	-5.074	23.181	32.192	1.00	9.95	C
ATOM	367	CD	GLN	A	377	-3.712	23.768	31.717	1.00	9.64	C
ATOM	368	OE1	GLN	A	377	-3.650	24.467	30.692	1.00	13.71	O
ATOM	369	NE2	GLN	A	377	-2.634	23.498	32.473	1.00	11.92	N
ATOM	370	C	GLN	A	377	-6.085	21.365	35.425	1.00	2.00	C
ATOM	371	O	GLN	A	377	-6.253	20.151	35.285	1.00	2.08	O
ATOM	372	N	ASP	A	378	-5.627	21.886	36.553	1.00	2.00	N
ATOM	373	CA	ASP	A	378	-5.256	21.014	37.660	1.00	2.00	C
ATOM	374	CB	ASP	A	378	-4.211	21.683	38.550	1.00	2.00	C
ATOM	375	CG	ASP	A	378	-2.896	21.941	37.822	1.00	2.00	C
ATOM	376	OD1	ASP	A	378	-2.728	21.463	36.663	1.00	2.37	O
ATOM	377	OD2	ASP	A	378	-2.033	22.627	38.423	1.00	2.23	O
ATOM	378	C	ASP	A	378	-6.440	20.562	38.515	1.00	2.00	C
ATOM	379	O	ASP	A	378	-6.266	19.759	39.425	1.00	2.00	O
ATOM	380	N	ASP	A	379	-7.631	21.085	38.232	1.00	2.00	N
ATOM	381	CA	ASP	A	379	-8.831	20.732	38.982	1.00	2.64	C
ATOM	382	CB	ASP	A	379	-9.060	19.214	38.945	1.00	4.25	C
ATOM	383	CG	ASP	A	379	-10.534	18.835	39.020	1.00	5.02	C
ATOM	384	OD1	ASP	A	379	-11.398	19.741	38.969	1.00	5.03	O
ATOM	385	OD2	ASP	A	379	-10.829	17.621	39.127	1.00	5.77	O
ATOM	386	C	ASP	A	379	-8.716	21.234	40.424	1.00	2.38	C
ATOM	387	O	ASP	A	379	-9.118	20.546	41.378	1.00	2.00	O
ATOM	388	N	ASP	A	380	-8.161	22.438	40.562	1.00	2.00	N
ATOM	389	CA	ASP	A	380	-7.827	23.011	41.867	1.00	2.08	C
ATOM	390	CB	ASP	A	380	-6.361	23.446	41.863	1.00	3.12	C
ATOM	391	CG	ASP	A	380	-5.399	22.302	42.158	1.00	6.41	C
ATOM	392	OD1	ASP	A	380	-5.826	21.297	42.776	1.00	8.53	O
ATOM	393	OD2	ASP	A	380	-4.202	22.414	41.784	1.00	8.50	O
ATOM	394	C	ASP	A	380	-8.679	24.223	42.250	1.00	2.00	C
ATOM	395	O	ASP	A	380	-8.387	24.888	43.230	1.00	2.42	O
ATOM	396	N	VAL	A	381	-9.717	24.524	41.484	1.00	2.00	N
ATOM	397	CA	VAL	A	381	-10.551	25.714	41.747	1.00	2.00	C
ATOM	398	CB	VAL	A	381	-11.758	25.786	40.744	1.00	2.57	C
ATOM	399	CG1	VAL	A	381	-12.789	26.814	41.198	1.00	2.00	C
ATOM	400	CG2	VAL	A	381	-11.247	26.091	39.338	1.00	2.00	C
ATOM	401	C	VAL	A	381	-11.083	25.775	43.182	1.00	2.09	C

- 48 -

ATOM	402	O	VAL	A	381	-11.015	26.811	43.842	1.00	3.90	O
ATOM	403	N	GLU	A	382	-11.625	24.663	43.658	1.00	3.35	N
ATOM	404	CA	GLU	A	382	-12.232	24.617	44.973	1.00	4.02	C
ATOM	405	CB	GLU	A	382	-13.023	23.323	45.192	1.00	7.52	C
ATOM	406	CG	GLU	A	382	-13.959	23.399	46.417	1.00	13.60	C
ATOM	407	CD	GLU	A	382	-14.684	24.768	46.542	1.00	15.41	C
ATOM	408	OE1	GLU	A	382	-15.689	24.999	45.823	1.00	19.25	O
ATOM	409	OE2	GLU	A	382	-14.255	25.626	47.355	1.00	16.86	O
ATOM	410	C	GLU	A	382	-11.246	24.852	46.099	1.00	3.59	C
ATOM	411	O	GLU	A	382	-11.528	25.643	46.993	1.00	2.49	O
ATOM	412	N	CYS	A	383	-10.082	24.190	46.071	1.00	2.00	N
ATOM	413	CA	CYS	A	383	-9.102	24.431	47.119	1.00	2.81	C
ATOM	414	CB	CYS	A	383	-7.958	23.387	47.083	1.00	4.25	C
ATOM	415	SG	CYS	A	383	-6.967	23.372	45.557	1.00	12.35	S
ATOM	416	C	CYS	A	383	-8.597	25.869	47.091	1.00	2.00	C
ATOM	417	O	CYS	A	383	-8.277	26.442	48.127	1.00	2.19	O
ATOM	418	N	THR	A	384	-8.536	26.462	45.904	1.00	2.00	N
ATOM	419	CA	THR	A	384	-8.134	27.853	45.740	1.00	2.00	C
ATOM	420	CB	THR	A	384	-7.881	28.167	44.256	1.00	2.00	C
ATOM	421	OG1	THR	A	384	-6.926	27.237	43.734	1.00	2.00	O
ATOM	422	CG2	THR	A	384	-7.330	29.582	44.044	1.00	2.00	C
ATOM	423	C	THR	A	384	-9.151	28.846	46.351	1.00	2.00	C
ATOM	424	O	THR	A	384	-8.748	29.838	46.982	1.00	2.00	O
ATOM	425	N	MET	A	385	-10.449	28.568	46.186	1.00	2.00	N
ATOM	426	CA	MET	A	385	-11.485	29.420	46.752	1.00	2.00	C
ATOM	427	CB	MET	A	385	-12.849	29.213	46.053	1.00	2.00	C
ATOM	428	CG	MET	A	385	-12.865	29.603	44.561	1.00	2.00	C
ATOM	429	SD	MET	A	385	-12.223	31.247	44.128	1.00	2.19	S
ATOM	430	CE	MET	A	385	-13.315	32.296	45.043	1.00	2.00	C
ATOM	431	C	MET	A	385	-11.618	29.239	48.249	1.00	2.00	C
ATOM	432	O	MET	A	385	-11.892	30.195	48.952	1.00	2.00	O
ATOM	433	N	VAL	A	386	-11.432	28.015	48.729	1.00	2.00	N
ATOM	434	CA	VAL	A	386	-11.341	27.740	50.167	1.00	2.00	C
ATOM	435	CB	VAL	A	386	-11.298	26.218	50.445	1.00	2.00	C
ATOM	436	CG1	VAL	A	386	-11.061	25.920	51.900	1.00	2.00	C
ATOM	437	CG2	VAL	A	386	-12.603	25.564	50.001	1.00	2.00	C
ATOM	438	C	VAL	A	386	-10.130	28.432	50.817	1.00	2.00	C
ATOM	439	O	VAL	A	386	-10.257	28.999	51.884	1.00	2.00	O
ATOM	440	N	GLU	A	387	-8.966	28.393	50.172	1.00	2.00	N
ATOM	441	CA	GLU	A	387	-7.780	29.121	50.679	1.00	2.00	C
ATOM	442	CB	GLU	A	387	-6.591	28.950	49.721	1.00	2.00	C
ATOM	443	CG	GLU	A	387	-5.370	29.829	50.034	1.00	5.24	C
ATOM	444	CD	GLU	A	387	-4.128	29.378	49.274	1.00	4.19	C
ATOM	445	OE1	GLU	A	387	-4.187	28.339	48.581	1.00	9.42	O
ATOM	446	OE2	GLU	A	387	-3.081	30.054	49.363	1.00	9.51	O
ATOM	447	C	GLU	A	387	-8.089	30.610	50.886	1.00	2.00	C
ATOM	448	O	GLU	A	387	-7.857	31.139	51.956	1.00	2.00	O
ATOM	449	N	LYS	A	388	-8.606	31.274	49.850	1.00	2.00	N
ATOM	450	CA	LYS	A	388	-9.069	32.665	49.965	1.00	2.00	C
ATOM	451	CB	LYS	A	388	-9.728	33.129	48.649	1.00	2.00	C
ATOM	452	CG	LYS	A	388	-10.409	34.532	48.696	1.00	2.00	C
ATOM	453	CD	LYS	A	388	-11.927	34.419	49.116	1.00	2.00	C
ATOM	454	CE	LYS	A	388	-12.634	35.761	49.232	1.00	2.00	C
ATOM	455	NZ	LYS	A	388	-14.013	35.660	49.973	1.00	2.00	N
ATOM	456	C	LYS	A	388	-10.058	32.819	51.117	1.00	2.00	C
ATOM	457	O	LYS	A	388	-9.998	33.780	51.865	1.00	2.00	O
ATOM	458	N	ARG	A	389	-10.995	31.887	51.243	1.00	2.00	N
ATOM	459	CA	ARG	A	389	-12.000	32.010	52.308	1.00	2.00	C

- 49 -

ATOM	460	CB	ARG	A	389	-13.145	31.032	52.096	1.00	2.00	C
ATOM	461	CG	ARG	A	389	-14.318	31.685	51.374	1.00	2.00	C
ATOM	462	CD	ARG	A	389	-15.576	30.830	51.445	1.00	2.00	C
ATOM	463	NE	ARG	A	389	-15.311	29.499	50.912	1.00	2.00	N
ATOM	464	CZ	ARG	A	389	-15.359	29.190	49.623	1.00	2.69	C
ATOM	465	NH1	ARG	A	389	-15.681	30.124	48.727	1.00	2.00	N
ATOM	466	NH2	ARG	A	389	-15.076	27.942	49.233	1.00	2.87	N
ATOM	467	C	ARG	A	389	-11.417	31.881	53.722	1.00	2.00	C
ATOM	468	O	ARG	A	389	-11.790	32.633	54.636	1.00	2.00	O
ATOM	469	N	VAL	A	390	-10.517	30.927	53.900	1.00	2.00	N
ATOM	470	CA	VAL	A	390	-9.869	30.733	55.191	1.00	2.00	C
ATOM	471	CB	VAL	A	390	-9.062	29.410	55.229	1.00	2.00	C
ATOM	472	CG1	VAL	A	390	-8.275	29.317	56.514	1.00	2.00	C
ATOM	473	CG2	VAL	A	390	-9.998	28.213	55.089	1.00	2.00	C
ATOM	474	C	VAL	A	390	-8.949	31.921	55.521	1.00	2.00	C
ATOM	475	O	VAL	A	390	-8.978	32.434	56.631	1.00	2.00	O
ATOM	476	N	LEU	A	391	-8.161	32.371	54.549	1.00	2.00	N
ATOM	477	CA	LEU	A	391	-7.349	33.576	54.730	1.00	2.00	C
ATOM	478	CB	LEU	A	391	-6.401	33.802	53.541	1.00	2.00	C
ATOM	479	CG	LEU	A	391	-5.269	32.790	53.325	1.00	2.00	C
ATOM	480	CD1	LEU	A	391	-4.541	33.040	52.013	1.00	2.00	C
ATOM	481	CD2	LEU	A	391	-4.273	32.779	54.466	1.00	2.53	C
ATOM	482	C	LEU	A	391	-8.148	34.846	55.047	1.00	2.00	C
ATOM	483	O	LEU	A	391	-7.649	35.712	55.768	1.00	2.00	O
ATOM	484	N	ALA	A	392	-9.382	34.934	54.536	1.00	2.00	N
ATOM	485	CA	ALA	A	392	-10.247	36.113	54.660	1.00	2.00	C
ATOM	486	CB	ALA	A	392	-11.257	36.174	53.472	1.00	2.00	C
ATOM	487	C	ALA	A	392	-11.012	36.175	55.975	1.00	2.00	C
ATOM	488	O	ALA	A	392	-11.710	37.148	56.258	1.00	2.00	O
ATOM	489	N	LEU	A	393	-10.862	35.134	56.788	1.00	2.00	N
ATOM	490	CA	LEU	A	393	-11.546	35.064	58.062	1.00	2.00	C
ATOM	491	CB	LEU	A	393	-11.220	33.752	58.782	1.00	2.00	C
ATOM	492	CG	LEU	A	393	-11.970	32.502	58.274	1.00	2.00	C
ATOM	493	CD1	LEU	A	393	-11.626	31.328	59.151	1.00	2.00	C
ATOM	494	CD2	LEU	A	393	-13.530	32.654	58.184	1.00	2.00	C
ATOM	495	C	LEU	A	393	-11.226	36.257	58.942	1.00	2.00	C
ATOM	496	O	LEU	A	393	-10.098	36.744	58.951	1.00	2.00	O
ATOM	497	N	LEU	A	394	-12.232	36.729	59.676	1.00	2.00	N
ATOM	498	CA	LEU	A	394	-12.066	37.847	60.594	1.00	2.00	C
ATOM	499	CB	LEU	A	394	-13.402	38.582	60.820	1.00	2.00	C
ATOM	500	CG	LEU	A	394	-14.165	39.312	59.708	1.00	2.00	C
ATOM	501	CD1	LEU	A	394	-15.386	39.962	60.338	1.00	2.00	C
ATOM	502	CD2	LEU	A	394	-13.309	40.367	59.045	1.00	2.00	C
ATOM	503	C	LEU	A	394	-11.579	37.331	61.935	1.00	2.00	C
ATOM	504	O	LEU	A	394	-11.811	36.176	62.276	1.00	2.00	O
ATOM	505	N	ASP	A	395	-10.924	38.202	62.697	1.00	2.00	N
ATOM	506	CA	ASP	A	395	-10.427	37.873	64.046	1.00	2.00	C
ATOM	507	CB	ASP	A	395	-11.598	37.618	65.009	1.00	3.49	C
ATOM	508	CG	ASP	A	395	-12.573	38.751	65.030	1.00	4.01	C
ATOM	509	OD1	ASP	A	395	-12.137	39.882	65.315	1.00	5.96	O
ATOM	510	OD2	ASP	A	395	-13.773	38.512	64.756	1.00	6.79	O
ATOM	511	C	ASP	A	395	-9.416	36.724	64.127	1.00	2.00	C
ATOM	512	O	ASP	A	395	-9.338	36.020	65.142	1.00	2.00	O
ATOM	513	N	LYS	A	396	-8.641	36.538	63.063	1.00	2.00	N
ATOM	514	CA	LYS	A	396	-7.568	35.544	63.074	1.00	2.00	C
ATOM	515	CB	LYS	A	396	-6.857	35.495	61.707	1.00	2.00	C
ATOM	516	CG	LYS	A	396	-7.761	35.009	60.573	1.00	2.18	C
ATOM	517	CD	LYS	A	396	-7.044	34.433	59.363	1.00	2.00	C

- 50 -

ATOM	518	CE	LYS	A	396	-5.742	35.172	59.044	1.00	2.96	C
ATOM	519	NZ	LYS	A	396	-5.244	34.872	57.677	1.00	2.77	N
ATOM	520	C	LYS	A	396	-6.565	35.877	64.179	1.00	2.00	C
ATOM	521	O	LYS	A	396	-6.319	37.050	64.444	1.00	2.00	O
ATOM	522	N	PRO	A	397	-5.992	34.850	64.839	1.00	2.00	N
ATOM	523	CA	PRO	A	397	-4.894	35.105	65.763	1.00	2.00	C
ATOM	524	CB	PRO	A	397	-4.675	33.740	66.434	1.00	2.00	C
ATOM	525	CG	PRO	A	397	-5.173	32.752	65.437	1.00	2.00	C
ATOM	526	CD	PRO	A	397	-6.326	33.418	64.766	1.00	2.00	C
ATOM	527	C	PRO	A	397	-3.634	35.532	64.999	1.00	2.00	C
ATOM	528	O	PRO	A	397	-3.506	35.249	63.803	1.00	2.00	O
ATOM	529	N	PRO	A	398	-2.698	36.215	65.681	1.00	2.00	N
ATOM	530	CA	PRO	A	398	-1.456	36.618	65.009	1.00	2.00	C
ATOM	531	CB	PRO	A	398	-0.697	37.360	66.108	1.00	2.00	C
ATOM	532	CG	PRO	A	398	-1.271	36.802	67.387	1.00	2.00	C
ATOM	533	CD	PRO	A	398	-2.722	36.643	67.089	1.00	2.00	C
ATOM	534	C	PRO	A	398	-0.585	35.453	64.499	1.00	2.00	C
ATOM	535	O	PRO	A	398	0.424	35.688	63.815	1.00	2.00	O
ATOM	536	N	PHE	A	399	-0.986	34.230	64.832	1.00	2.00	N
ATOM	537	CA	PHE	A	399	-0.230	33.018	64.534	1.00	2.00	C
ATOM	538	CB	PHE	A	399	-0.376	32.031	65.692	1.00	2.00	C
ATOM	539	CG	PHE	A	399	0.020	32.625	67.010	1.00	2.00	C
ATOM	540	CD1	PHE	A	399	1.309	33.134	67.198	1.00	2.00	C
ATOM	541	CE1	PHE	A	399	1.677	33.707	68.394	1.00	2.00	C
ATOM	542	CZ	PHE	A	399	0.765	33.772	69.448	1.00	2.00	C
ATOM	543	CE2	PHE	A	399	-0.522	33.277	69.278	1.00	2.00	C
ATOM	544	CD2	PHE	A	399	-0.889	32.711	68.058	1.00	2.00	C
ATOM	545	C	PHE	A	399	-0.511	32.380	63.177	1.00	2.00	C
ATOM	546	O	PHE	A	399	0.123	31.387	62.812	1.00	2.00	O
ATOM	547	N	LEU	A	400	-1.451	32.960	62.432	1.00	2.00	N
ATOM	548	CA	LEU	A	400	-1.627	32.615	61.033	1.00	2.00	C
ATOM	549	CB	LEU	A	400	-3.089	32.267	60.724	1.00	2.00	C
ATOM	550	CG	LEU	A	400	-3.848	31.397	61.720	1.00	2.00	C
ATOM	551	CD1	LEU	A	400	-5.323	31.262	61.278	1.00	2.00	C
ATOM	552	CD2	LEU	A	400	-3.187	30.037	61.841	1.00	2.00	C
ATOM	553	C	LEU	A	400	-1.198	33.782	60.176	1.00	2.00	C
ATOM	554	O	LEU	A	400	-1.357	34.939	60.581	1.00	2.00	O
ATOM	555	N	THR	A	401	-0.678	33.489	58.988	1.00	2.00	N
ATOM	556	CA	THR	A	401	-0.270	34.557	58.063	1.00	2.00	C
ATOM	557	CB	THR	A	401	0.392	34.005	56.788	1.00	2.00	C
ATOM	558	OG1	THR	A	401	-0.514	33.119	56.098	1.00	2.00	O
ATOM	559	CG2	THR	A	401	1.616	33.254	57.157	1.00	2.00	C
ATOM	560	C	THR	A	401	-1.444	35.464	57.683	1.00	2.00	C
ATOM	561	O	THR	A	401	-2.529	34.987	57.351	1.00	2.00	O
ATOM	562	N	GLN	A	402	-1.201	36.770	57.736	1.00	2.00	N
ATOM	563	CA	GLN	A	402	-2.202	37.740	57.369	1.00	2.00	C
ATOM	564	CB	GLN	A	402	-1.861	39.130	57.879	1.00	2.00	C
ATOM	565	CG	GLN	A	402	-1.670	39.298	59.365	1.00	2.00	C
ATOM	566	CD	GLN	A	402	-1.472	40.763	59.684	1.00	2.00	C
ATOM	567	OE1	GLN	A	402	-2.437	41.528	59.794	1.00	2.00	O
ATOM	568	NE2	GLN	A	402	-0.214	41.175	59.801	1.00	2.00	N
ATOM	569	C	GLN	A	402	-2.338	37.826	55.862	1.00	2.00	C
ATOM	570	O	GLN	A	402	-1.362	37.788	55.123	1.00	2.00	O
ATOM	571	N	LEU	A	403	-3.584	37.951	55.427	1.00	2.00	N
ATOM	572	CA	LEU	A	403	-3.892	38.343	54.073	1.00	2.00	C
ATOM	573	CB	LEU	A	403	-5.169	37.632	53.612	1.00	2.00	C
ATOM	574	CG	LEU	A	403	-5.651	38.037	52.226	1.00	2.00	C
ATOM	575	CD1	LEU	A	403	-7.085	37.589	52.021	1.00	2.00	C

- 51 -

ATOM	576	CD2	LEU	A	403	-4.742	37.416	51.183	1.00	2.00	C
ATOM	577	C	LEU	A	403	-4.087	39.859	54.051	1.00	2.00	C
ATOM	578	O	LEU	A	403	-4.912	40.367	54.796	1.00	2.00	O
ATOM	579	N	HIS	A	404	-3.315	40.576	53.223	1.00	2.00	N
ATOM	580	CA	HIS	A	404	-3.596	41.976	52.968	1.00	2.00	C
ATOM	581	CB	HIS	A	404	-2.422	42.694	52.280	1.00	2.00	C
ATOM	582	CG	HIS	A	404	-2.738	44.100	51.865	1.00	2.00	C
ATOM	583	ND1	HIS	A	404	-2.441	45.191	52.653	1.00	2.00	N
ATOM	584	CE1	HIS	A	404	-2.835	46.298	52.044	1.00	2.00	C
ATOM	585	NE2	HIS	A	404	-3.379	45.964	50.889	1.00	2.00	N
ATOM	586	CD2	HIS	A	404	-3.331	44.594	50.751	1.00	2.00	C
ATOM	587	C	HIS	A	404	-4.850	42.079	52.108	1.00	2.00	C
ATOM	588	O	HIS	A	404	-5.812	42.714	52.505	1.00	2.00	O
ATOM	589	N	SER	A	405	-4.820	41.464	50.930	1.00	2.00	N
ATOM	590	CA	SER	A	405	-5.915	41.539	49.981	1.00	2.00	C
ATOM	591	CB	SER	A	405	-5.905	42.893	49.242	1.00	2.00	C
ATOM	592	OG	SER	A	405	-4.698	43.078	48.505	1.00	2.00	O
ATOM	593	C	SER	A	405	-5.807	40.375	49.014	1.00	2.00	C
ATOM	594	O	SER	A	405	-4.725	39.788	48.870	1.00	2.00	O
ATOM	595	N	CYS	A	406	-6.940	40.021	48.391	1.00	2.00	N
ATOM	596	CA	CYS	A	406	-6.997	39.035	47.295	1.00	2.72	C
ATOM	597	CB	CYS	A	406	-7.967	37.874	47.636	1.00	3.12	C
ATOM	598	SG	CYS	A	406	-7.112	36.447	48.306	1.00	14.39	S
ATOM	599	C	CYS	A	406	-7.527	39.795	46.089	1.00	2.00	C
ATOM	600	O	CYS	A	406	-8.424	40.600	46.236	1.00	2.00	O
ATOM	601	N	PHE	A	407	-6.975	39.573	44.902	1.00	2.00	N
ATOM	602	CA	PHE	A	407	-7.563	40.170	43.691	1.00	2.00	C
ATOM	603	CB	PHE	A	407	-7.175	41.642	43.505	1.00	2.00	C
ATOM	604	CG	PHE	A	407	-5.711	41.864	43.192	1.00	2.00	C
ATOM	605	CD1	PHE	A	407	-5.278	41.940	41.870	1.00	2.00	C
ATOM	606	CE1	PHE	A	407	-3.950	42.134	41.559	1.00	2.00	C
ATOM	607	CZ	PHE	A	407	-3.008	42.269	42.587	1.00	2.00	C
ATOM	608	CE2	PHE	A	407	-3.423	42.203	43.913	1.00	2.00	C
ATOM	609	CD2	PHE	A	407	-4.778	41.996	44.209	1.00	2.00	C
ATOM	610	C	PHE	A	407	-7.288	39.313	42.454	1.00	2.00	C
ATOM	611	O	PHE	A	407	-6.389	38.444	42.440	1.00	2.00	O
ATOM	612	N	GLN	A	408	-8.096	39.521	41.428	1.00	2.00	N
ATOM	613	CA	GLN	A	408	-7.929	38.771	40.221	1.00	2.00	C
ATOM	614	CB	GLN	A	408	-9.108	37.827	39.981	1.00	2.00	C
ATOM	615	CG	GLN	A	408	-10.481	38.501	39.783	1.00	2.00	C
ATOM	616	CD	GLN	A	408	-11.560	37.457	39.683	1.00	2.00	C
ATOM	617	OE1	GLN	A	408	-11.542	36.634	38.771	1.00	2.00	O
ATOM	618	NE2	GLN	A	408	-12.484	37.457	40.634	1.00	2.00	N
ATOM	619	C	GLN	A	408	-7.712	39.691	39.046	1.00	2.00	C
ATOM	620	O	GLN	A	408	-8.214	40.803	39.012	1.00	2.00	O
ATOM	621	N	THR	A	409	-6.942	39.195	38.088	1.00	2.00	N
ATOM	622	CA	THR	A	409	-6.769	39.840	36.807	1.00	2.00	C
ATOM	623	CB	THR	A	409	-5.275	40.024	36.511	1.00	2.00	C
ATOM	624	OG1	THR	A	409	-5.114	41.069	35.549	1.00	4.36	O
ATOM	625	CG2	THR	A	409	-4.696	38.780	35.961	1.00	2.00	C
ATOM	626	C	THR	A	409	-7.431	38.922	35.784	1.00	2.00	C
ATOM	627	O	THR	A	409	-7.951	37.889	36.139	1.00	2.00	O
ATOM	628	N	VAL	A	410	-7.381	39.248	34.579	1.00	2.00	N
ATOM	629	CA	VAL	A	410	-8.077	38.440	33.601	1.00	2.00	C
ATOM	630	CB	VAL	A	410	-8.081	39.070	32.184	1.00	2.00	C
ATOM	631	CG1	VAL	A	410	-6.739	38.980	31.517	1.00	2.00	C
ATOM	632	CG2	VAL	A	410	-9.198	38.467	31.333	1.00	2.00	C
ATOM	633	C	VAL	A	410	-7.634	36.974	33.568	1.00	2.00	C

- 52 -

ATOM	634	O	VAL	A	410	-8.468	36.074	33.394	1.00	2.00	O
ATOM	635	N	ASP	A	411	-6.346	36.739	33.781	1.00	2.00	N
ATOM	636	CA	ASP	A	411	-5.830	35.380	33.663	1.00	2.00	C
ATOM	637	CB	ASP	A	411	-4.954	35.206	32.409	1.00	2.00	C
ATOM	638	CG	ASP	A	411	-3.924	36.296	32.238	1.00	2.07	C
ATOM	639	OD1	ASP	A	411	-3.692	37.062	33.199	1.00	2.00	O
ATOM	640	OD2	ASP	A	411	-3.329	36.390	31.125	1.00	2.49	O
ATOM	641	C	ASP	A	411	-5.140	34.840	34.903	1.00	2.00	C
ATOM	642	O	ASP	A	411	-4.723	33.688	34.921	1.00	2.00	O
ATOM	643	N	ARG	A	412	-5.060	35.653	35.947	1.00	2.00	N
ATOM	644	CA	ARG	A	412	-4.347	35.254	37.167	1.00	2.00	C
ATOM	645	CB	ARG	A	412	-2.952	35.898	37.212	1.00	2.00	C
ATOM	646	CG	ARG	A	412	-1.946	35.223	36.306	1.00	2.00	C
ATOM	647	CD	ARG	A	412	-0.754	36.103	36.080	1.00	2.00	C
ATOM	648	NE	ARG	A	412	0.247	35.419	35.273	1.00	3.15	N
ATOM	649	CZ	ARG	A	412	0.293	35.477	33.948	1.00	2.59	C
ATOM	650	NH1	ARG	A	412	-0.622	36.183	33.279	1.00	7.18	N
ATOM	651	NH2	ARG	A	412	1.232	34.819	33.294	1.00	5.30	N
ATOM	652	C	ARG	A	412	-5.101	35.630	38.426	1.00	2.00	C
ATOM	653	O	ARG	A	412	-5.913	36.562	38.415	1.00	2.00	O
ATOM	654	N	LEU	A	413	-4.813	34.886	39.491	1.00	2.00	N
ATOM	655	CA	LEU	A	413	-5.229	35.187	40.850	1.00	2.00	C
ATOM	656	CB	LEU	A	413	-5.833	33.943	41.498	1.00	2.00	C
ATOM	657	CG	LEU	A	413	-6.975	33.241	40.773	1.00	2.00	C
ATOM	658	CD1	LEU	A	413	-7.235	31.901	41.403	1.00	2.00	C
ATOM	659	CD2	LEU	A	413	-8.251	34.097	40.784	1.00	2.00	C
ATOM	660	C	LEU	A	413	-4.035	35.647	41.693	1.00	2.00	C
ATOM	661	O	LEU	A	413	-2.952	35.075	41.599	1.00	2.00	O
ATOM	662	N	TYR	A	414	-4.262	36.643	42.539	1.00	2.00	N
ATOM	663	CA	TYR	A	414	-3.235	37.204	43.396	1.00	2.00	C
ATOM	664	CB	TYR	A	414	-2.922	38.623	42.943	1.00	2.00	C
ATOM	665	CG	TYR	A	414	-2.298	38.689	41.577	1.00	2.00	C
ATOM	666	CD1	TYR	A	414	-0.893	38.666	41.427	1.00	2.00	C
ATOM	667	CE1	TYR	A	414	-0.308	38.724	40.174	1.00	2.00	C
ATOM	668	CZ	TYR	A	414	-1.118	38.805	39.048	1.00	2.00	C
ATOM	669	OH	TYR	A	414	-0.536	38.868	37.802	1.00	2.00	O
ATOM	670	CE2	TYR	A	414	-2.509	38.829	39.167	1.00	2.00	C
ATOM	671	CD2	TYR	A	414	-3.085	38.769	40.428	1.00	2.00	C
ATOM	672	C	TYR	A	414	-3.611	37.216	44.870	1.00	2.00	C
ATOM	673	O	TYR	A	414	-4.563	37.868	45.258	1.00	2.00	O
ATOM	674	N	PHE	A	415	-2.857	36.494	45.689	1.00	2.00	N
ATOM	675	CA	PHE	A	415	-2.959	36.617	47.155	1.00	2.00	C
ATOM	676	CB	PHE	A	415	-2.896	35.257	47.869	1.00	2.00	C
ATOM	677	CG	PHE	A	415	-3.887	34.227	47.370	1.00	2.78	C
ATOM	678	CD1	PHE	A	415	-3.754	33.651	46.099	1.00	2.00	C
ATOM	679	CE1	PHE	A	415	-4.658	32.691	45.652	1.00	4.27	C
ATOM	680	CZ	PHE	A	415	-5.697	32.270	46.474	1.00	2.00	C
ATOM	681	CE2	PHE	A	415	-5.835	32.816	47.740	1.00	4.27	C
ATOM	682	CD2	PHE	A	415	-4.927	33.793	48.193	1.00	2.30	C
ATOM	683	C	PHE	A	415	-1.802	37.481	47.660	1.00	2.00	C
ATOM	684	O	PHE	A	415	-0.637	37.128	47.478	1.00	2.00	O
ATOM	685	N	VAL	A	416	-2.124	38.618	48.270	1.00	2.00	N
ATOM	686	CA	VAL	A	416	-1.119	39.523	48.806	1.00	2.00	C
ATOM	687	CB	VAL	A	416	-1.393	41.003	48.474	1.00	2.00	C
ATOM	688	CG1	VAL	A	416	-0.315	41.894	49.083	1.00	2.00	C
ATOM	689	CG2	VAL	A	416	-1.482	41.206	46.972	1.00	2.00	C
ATOM	690	C	VAL	A	416	-1.032	39.314	50.311	1.00	2.00	C
ATOM	691	O	VAL	A	416	-1.928	39.715	51.056	1.00	2.00	O

- 53 -

ATOM	692	N	MET	A	417	0.055	38.666	50.732	1.00	2.00	N
ATOM	693	CA	MET	A	417	0.207	38.215	52.106	1.00	2.00	C
ATOM	694	CB	MET	A	417	0.706	36.762	52.123	1.00	2.00	C
ATOM	695	CG	MET	A	417	-0.106	35.791	51.231	1.00	2.00	C
ATOM	696	SD	MET	A	417	-1.744	35.510	51.917	1.00	4.60	S
ATOM	697	CE	MET	A	417	-1.271	34.861	53.517	1.00	2.00	C
ATOM	698	C	MET	A	417	1.193	39.136	52.837	1.00	2.00	C
ATOM	699	O	MET	A	417	1.974	39.839	52.198	1.00	2.00	O
ATOM	700	N	GLU	A	418	1.145	39.142	54.167	1.00	2.00	N
ATOM	701	CA	GLU	A	418	2.242	39.712	54.924	1.00	2.00	C
ATOM	702	CB	GLU	A	418	1.961	39.768	56.424	1.00	2.00	C
ATOM	703	CG	GLU	A	418	2.180	38.458	57.170	1.00	2.00	C
ATOM	704	CD	GLU	A	418	1.777	38.541	58.619	1.00	2.00	C
ATOM	705	OE1	GLU	A	418	1.959	39.610	59.245	1.00	2.48	O
ATOM	706	OE2	GLU	A	418	1.263	37.531	59.135	1.00	4.09	O
ATOM	707	C	GLU	A	418	3.483	38.875	54.619	1.00	2.00	C
ATOM	708	O	GLU	A	418	3.393	37.652	54.396	1.00	2.00	O
ATOM	709	N	TYR	A	419	4.628	39.549	54.579	1.00	2.00	N
ATOM	710	CA	TYR	A	419	5.890	38.879	54.339	1.00	2.00	C
ATOM	711	CB	TYR	A	419	6.822	39.797	53.561	1.00	2.00	C
ATOM	712	CG	TYR	A	419	8.239	39.302	53.475	1.00	2.00	C
ATOM	713	CD1	TYR	A	419	8.514	38.014	53.009	1.00	2.00	C
ATOM	714	CE1	TYR	A	419	9.799	37.547	52.933	1.00	2.00	C
ATOM	715	CZ	TYR	A	419	10.844	38.371	53.308	1.00	2.00	C
ATOM	716	OH	TYR	A	419	12.118	37.894	53.216	1.00	2.00	O
ATOM	717	CE2	TYR	A	419	10.608	39.661	53.765	1.00	2.02	C
ATOM	718	CD2	TYR	A	419	9.299	40.118	53.846	1.00	2.00	C
ATOM	719	C	TYR	A	419	6.477	38.449	55.674	1.00	2.00	C
ATOM	720	O	TYR	A	419	6.642	39.265	56.568	1.00	2.00	O
ATOM	721	N	VAL	A	420	6.759	37.160	55.803	1.00	2.00	N
ATOM	722	CA	VAL	A	420	7.270	36.595	57.039	1.00	2.00	C
ATOM	723	CB	VAL	A	420	6.472	35.337	57.467	1.00	2.00	C
ATOM	724	CG1	VAL	A	420	6.939	34.833	58.811	1.00	2.00	C
ATOM	725	CG2	VAL	A	420	4.970	35.606	57.502	1.00	2.00	C
ATOM	726	C	VAL	A	420	8.730	36.201	56.826	1.00	2.29	C
ATOM	727	O	VAL	A	420	9.031	35.415	55.944	1.00	2.00	O
ATOM	728	N	ASN	A	421	9.626	36.748	57.633	1.00	2.69	N
ATOM	729	CA	ASN	A	421	11.032	36.553	57.344	1.00	5.10	C
ATOM	730	CB	ASN	A	421	11.700	37.742	56.629	1.00	7.26	C
ATOM	731	CG	ASN	A	421	12.173	38.841	57.580	1.00	9.07	C
ATOM	732	OD1	ASN	A	421	12.505	38.599	58.723	1.00	11.87	O
ATOM	733	ND2	ASN	A	421	12.232	40.052	57.076	1.00	10.39	N
ATOM	734	C	ASN	A	421	11.959	35.720	58.196	1.00	4.18	C
ATOM	735	O	ASN	A	421	13.081	35.534	57.808	1.00	5.06	O
ATOM	736	N	GLY	A	422	11.480	35.206	59.326	1.00	3.17	N
ATOM	737	CA	GLY	A	422	12.305	34.507	60.292	1.00	2.02	C
ATOM	738	C	GLY	A	422	12.659	33.074	59.976	1.00	2.17	C
ATOM	739	O	GLY	A	422	13.344	32.435	60.748	1.00	2.04	O
ATOM	740	N	GLY	A	423	12.189	32.585	58.835	1.00	2.44	N
ATOM	741	CA	GLY	A	423	12.438	31.231	58.360	1.00	4.32	C
ATOM	742	C	GLY	A	423	11.636	30.122	59.010	1.00	4.76	C
ATOM	743	O	GLY	A	423	11.132	30.281	60.094	1.00	5.83	O
ATOM	744	N	ASP	A	424	11.524	28.986	58.338	1.00	5.81	N
ATOM	745	CA	ASP	A	424	10.659	27.940	58.840	1.00	6.71	C
ATOM	746	CB	ASP	A	424	9.960	27.119	57.715	1.00	10.11	C
ATOM	747	CG	ASP	A	424	10.923	26.526	56.701	1.00	12.70	C
ATOM	748	OD1	ASP	A	424	11.910	25.852	57.085	1.00	13.19	O
ATOM	749	OD2	ASP	A	424	10.668	26.721	55.488	1.00	14.37	O

- 54 -

ATOM	750	C	ASP	A	424	11.292	27.071	59.919	1.00	5.62	C
ATOM	751	O	ASP	A	424	12.520	27.049	60.094	1.00	4.40	O
ATOM	752	N	LEU	A	425	10.420	26.368	60.639	1.00	3.15	N
ATOM	753	CA	LEU	A	425	10.830	25.512	61.737	1.00	2.64	C
ATOM	754	CB	LEU	A	425	9.631	24.963	62.498	1.00	2.47	C
ATOM	755	CG	LEU	A	425	8.815	25.838	63.436	1.00	5.76	C
ATOM	756	CD1	LEU	A	425	7.843	24.942	64.199	1.00	2.75	C
ATOM	757	CD2	LEU	A	425	9.708	26.622	64.374	1.00	2.85	C
ATOM	758	C	LEU	A	425	11.695	24.352	61.307	1.00	2.00	C
ATOM	759	O	LEU	A	425	12.508	23.891	62.081	1.00	2.00	O
ATOM	760	N	MET	A	426	11.505	23.873	60.089	1.00	2.00	N
ATOM	761	CA	MET	A	426	12.366	22.839	59.515	1.00	2.00	C
ATOM	762	CB	MET	A	426	11.903	22.480	58.100	1.00	2.81	C
ATOM	763	CG	MET	A	426	12.688	21.368	57.387	1.00	4.78	C
ATOM	764	SD	MET	A	426	12.682	19.845	58.334	1.00	6.88	S
ATOM	765	CE	MET	A	426	13.790	18.806	57.403	1.00	6.34	C
ATOM	766	C	MET	A	426	13.810	23.356	59.499	1.00	3.54	C
ATOM	767	O	MET	A	426	14.731	22.680	59.976	1.00	3.16	O
ATOM	768	N	TYR	A	427	14.004	24.556	58.968	1.00	3.44	N
ATOM	769	CA	TYR	A	427	15.345	25.150	58.922	1.00	2.94	C
ATOM	770	CB	TYR	A	427	15.312	26.498	58.209	1.00	4.73	C
ATOM	771	CG	TYR	A	427	16.566	27.289	58.349	1.00	4.77	C
ATOM	772	CD1	TYR	A	427	17.703	26.965	57.612	1.00	7.23	C
ATOM	773	CE1	TYR	A	427	18.886	27.700	57.743	1.00	5.18	C
ATOM	774	CZ	TYR	A	427	18.918	28.770	58.620	1.00	6.41	C
ATOM	775	OH	TYR	A	427	20.056	29.510	58.765	1.00	4.77	O
ATOM	776	CE2	TYR	A	427	17.804	29.109	59.365	1.00	5.16	C
ATOM	777	CD2	TYR	A	427	16.633	28.369	59.227	1.00	6.87	C
ATOM	778	C	TYR	A	427	15.917	25.279	60.327	1.00	2.62	C
ATOM	779	O	TYR	A	427	16.993	24.754	60.600	1.00	2.00	O
ATOM	780	N	HIS	A	428	15.182	25.938	61.225	1.00	2.00	N
ATOM	781	CA	HIS	A	428	15.670	26.185	62.577	1.00	2.00	C
ATOM	782	CB	HIS	A	428	14.737	27.138	63.324	1.00	2.00	C
ATOM	783	CG	HIS	A	428	14.638	28.494	62.698	1.00	2.15	C
ATOM	784	ND1	HIS	A	428	15.681	29.396	62.708	1.00	2.00	N
ATOM	785	CE1	HIS	A	428	15.315	30.497	62.073	1.00	2.00	C
ATOM	786	NE2	HIS	A	428	14.066	30.348	61.664	1.00	2.00	N
ATOM	787	CD2	HIS	A	428	13.616	29.104	62.044	1.00	2.00	C
ATOM	788	C	HIS	A	428	15.902	24.917	63.387	1.00	2.00	C
ATOM	789	O	HIS	A	428	16.751	24.888	64.272	1.00	2.00	O
ATOM	790	N	ILE	A	429	15.153	23.858	63.104	1.00	2.00	N
ATOM	791	CA	ILE	A	429	15.429	22.580	63.778	1.00	2.00	C
ATOM	792	CB	ILE	A	429	14.261	21.603	63.622	1.00	2.00	C
ATOM	793	CG1	ILE	A	429	14.426	20.414	64.556	1.00	3.90	C
ATOM	794	CD1	ILE	A	429	13.117	19.987	65.075	1.00	5.94	C
ATOM	795	CG2	ILE	A	429	14.119	21.118	62.215	1.00	2.00	C
ATOM	796	C	ILE	A	429	16.785	21.972	63.307	1.00	2.00	C
ATOM	797	O	ILE	A	429	17.582	21.481	64.103	1.00	2.00	O
ATOM	798	N	GLN	A	430	17.042	22.037	62.011	1.00	2.00	N
ATOM	799	CA	GLN	A	430	18.302	21.524	61.471	1.00	3.22	C
ATOM	800	CB	GLN	A	430	18.314	21.613	59.955	1.00	4.21	C
ATOM	801	CG	GLN	A	430	17.163	20.847	59.307	1.00	6.40	C
ATOM	802	CD	GLN	A	430	17.269	20.796	57.813	1.00	7.45	C
ATOM	803	OE1	GLN	A	430	17.812	19.839	57.250	1.00	9.46	O
ATOM	804	NE2	GLN	A	430	16.763	21.822	57.148	1.00	8.12	N
ATOM	805	C	GLN	A	430	19.493	22.255	62.087	1.00	3.67	C
ATOM	806	O	GLN	A	430	20.538	21.653	62.276	1.00	4.16	O
ATOM	807	N	GLN	A	431	19.313	23.536	62.440	1.00	4.54	N

- 55 -

ATOM	808	CA	GLN	A	431	20.395	24.365	63.023	1.00	3.67	C
ATOM	809	CB	GLN	A	431	20.020	25.853	63.060	1.00	4.88	C
ATOM	810	CG	GLN	A	431	19.723	26.498	61.720	1.00	8.45	C
ATOM	811	CD	GLN	A	431	20.885	26.439	60.746	1.00	9.43	C
ATOM	812	OE1	GLN	A	431	20.736	25.943	59.632	1.00	13.49	O
ATOM	813	NE2	GLN	A	431	22.034	26.940	61.151	1.00	10.89	N
ATOM	814	C	GLN	A	431	20.839	23.925	64.420	1.00	2.63	C
ATOM	815	O	GLN	A	431	21.950	24.244	64.849	1.00	2.00	O
ATOM	816	N	VAL	A	432	19.979	23.194	65.121	1.00	2.00	N
ATOM	817	CA	VAL	A	432	20.251	22.778	66.507	1.00	2.00	C
ATOM	818	CB	VAL	A	432	19.374	23.585	67.512	1.00	2.00	C
ATOM	819	CG1	VAL	A	432	19.780	25.058	67.531	1.00	2.00	C
ATOM	820	CG2	VAL	A	432	17.881	23.448	67.159	1.00	2.00	C
ATOM	821	C	VAL	A	432	20.130	21.271	66.792	1.00	2.00	C
ATOM	822	O	VAL	A	432	20.499	20.814	67.872	1.00	2.00	O
ATOM	823	N	GLY	A	433	19.627	20.503	65.837	1.00	2.00	N
ATOM	824	CA	GLY	A	433	19.337	19.077	66.040	1.00	2.00	C
ATOM	825	C	GLY	A	433	17.920	18.826	66.542	1.00	2.00	C
ATOM	826	O	GLY	A	433	17.132	18.112	65.913	1.00	2.00	O
ATOM	827	N	LYS	A	434	17.612	19.414	67.689	1.00	2.00	N
ATOM	828	CA	LYS	A	434	16.274	19.330	68.261	1.00	2.00	C
ATOM	829	CB	LYS	A	434	16.094	18.007	68.997	1.00	2.00	C
ATOM	830	CG	LYS	A	434	16.947	17.826	70.241	1.00	2.00	C
ATOM	831	CD	LYS	A	434	17.148	16.329	70.501	1.00	2.65	C
ATOM	832	CE	LYS	A	434	17.769	16.038	71.854	1.00	2.13	C
ATOM	833	NZ	LYS	A	434	18.955	16.894	72.076	1.00	6.42	N
ATOM	834	C	LYS	A	434	16.090	20.491	69.201	1.00	2.00	C
ATOM	835	O	LYS	A	434	17.084	21.004	69.780	1.00	2.00	O
ATOM	836	N	PHE	A	435	14.832	20.914	69.376	1.00	2.00	N
ATOM	837	CA	PHE	A	435	14.570	22.001	70.287	1.00	2.00	C
ATOM	838	CB	PHE	A	435	13.247	22.676	69.973	1.00	2.17	C
ATOM	839	CG	PHE	A	435	13.188	23.313	68.617	1.00	2.00	C
ATOM	840	CD1	PHE	A	435	14.325	23.894	68.047	1.00	2.00	C
ATOM	841	CE1	PHE	A	435	14.273	24.498	66.809	1.00	2.00	C
ATOM	842	CZ	PHE	A	435	13.089	24.530	66.114	1.00	2.00	C
ATOM	843	CE2	PHE	A	435	11.921	23.962	66.662	1.00	2.00	C
ATOM	844	CD2	PHE	A	435	11.973	23.363	67.916	1.00	2.00	C
ATOM	845	C	PHE	A	435	14.590	21.465	71.717	1.00	3.40	C
ATOM	846	O	PHE	A	435	14.082	20.367	71.989	1.00	3.78	O
ATOM	847	N	LYS	A	436	15.189	22.227	72.631	1.00	3.53	N
ATOM	848	CA	LYS	A	436	15.048	21.920	74.042	1.00	4.43	C
ATOM	849	CB	LYS	A	436	16.012	22.731	74.909	1.00	6.47	C
ATOM	850	CG	LYS	A	436	17.478	22.433	74.630	1.00	11.15	C
ATOM	851	CD	LYS	A	436	17.767	20.923	74.635	1.00	13.35	C
ATOM	852	CE	LYS	A	436	19.266	20.653	74.468	1.00	15.36	C
ATOM	853	NZ	LYS	A	436	19.696	20.817	73.031	1.00	17.62	N
ATOM	854	C	LYS	A	436	13.600	22.174	74.427	1.00	2.64	C
ATOM	855	O	LYS	A	436	12.933	23.015	73.833	1.00	2.00	O
ATOM	856	N	GLU	A	437	13.133	21.429	75.417	1.00	2.00	N
ATOM	857	CA	GLU	A	437	11.695	21.307	75.661	1.00	2.00	C
ATOM	858	CB	GLU	A	437	11.409	20.322	76.792	1.00	2.00	C
ATOM	859	CG	GLU	A	437	9.930	20.016	76.951	1.00	4.94	C
ATOM	860	CD	GLU	A	437	9.652	19.030	78.055	1.00	5.36	C
ATOM	861	OE1	GLU	A	437	10.175	17.898	77.976	1.00	6.32	O
ATOM	862	OE2	GLU	A	437	8.908	19.381	78.997	1.00	6.82	O
ATOM	863	C	GLU	A	437	10.948	22.635	75.871	1.00	2.00	C
ATOM	864	O	GLU	A	437	9.908	22.825	75.251	1.00	2.00	O
ATOM	865	N	PRO	A	438	11.461	23.549	76.735	1.00	2.00	N

- 56 -

ATOM	866	CA	PRO	A	438	10.758	24.835	76.906	1.00	2.00	C
ATOM	867	CB	PRO	A	438	11.684	25.629	77.821	1.00	2.00	C
ATOM	868	CG	PRO	A	438	12.473	24.595	78.562	1.00	2.00	C
ATOM	869	CD	PRO	A	438	12.658	23.465	77.602	1.00	2.00	C
ATOM	870	C	PRO	A	438	10.536	25.576	75.591	1.00	2.00	C
ATOM	871	O	PRO	A	438	9.474	26.185	75.401	1.00	2.00	O
ATOM	872	N	GLN	A	439	11.509	25.509	74.682	1.00	2.00	N
ATOM	873	CA	GLN	A	439	11.350	26.080	73.343	1.00	2.00	C
ATOM	874	CB	GLN	A	439	12.684	26.055	72.610	1.00	2.00	C
ATOM	875	CG	GLN	A	439	12.641	26.581	71.193	1.00	2.00	C
ATOM	876	CD	GLN	A	439	14.025	26.592	70.543	1.00	2.00	C
ATOM	877	OE1	GLN	A	439	14.275	27.343	69.600	1.00	2.00	O
ATOM	878	NE2	GLN	A	439	14.918	25.748	71.045	1.00	2.00	N
ATOM	879	C	GLN	A	439	10.307	25.354	72.483	1.00	2.00	C
ATOM	880	O	GLN	A	439	9.539	26.000	71.790	1.00	2.00	O
ATOM	881	N	ALA	A	440	10.314	24.021	72.509	1.00	2.00	N
ATOM	882	CA	ALA	A	440	9.345	23.231	71.767	1.00	2.00	C
ATOM	883	CB	ALA	A	440	9.696	21.766	71.795	1.00	2.00	C
ATOM	884	C	ALA	A	440	7.924	23.463	72.358	1.00	2.00	C
ATOM	885	O	ALA	A	440	6.934	23.420	71.632	1.00	2.00	O
ATOM	886	N	VAL	A	441	7.863	23.714	73.666	1.00	2.00	N
ATOM	887	CA	VAL	A	441	6.615	24.040	74.372	1.00	2.00	C
ATOM	888	CB	VAL	A	441	6.803	24.044	75.902	1.00	2.00	C
ATOM	889	CG1	VAL	A	441	5.672	24.789	76.602	1.00	2.00	C
ATOM	890	CG2	VAL	A	441	6.884	22.631	76.431	1.00	2.00	C
ATOM	891	C	VAL	A	441	6.028	25.374	73.891	1.00	2.00	C
ATOM	892	O	VAL	A	441	4.830	25.488	73.670	1.00	2.00	O
ATOM	893	N	PHE	A	442	6.886	26.366	73.709	1.00	2.00	N
ATOM	894	CA	PHE	A	442	6.474	27.671	73.235	1.00	2.00	C
ATOM	895	CB	PHE	A	442	7.641	28.655	73.307	1.00	2.00	C
ATOM	896	CG	PHE	A	442	7.364	29.973	72.648	1.00	2.00	C
ATOM	897	CD1	PHE	A	442	6.887	31.043	73.386	1.00	2.00	C
ATOM	898	CE1	PHE	A	442	6.632	32.268	72.782	1.00	2.00	C
ATOM	899	CZ	PHE	A	442	6.855	32.425	71.436	1.00	2.00	C
ATOM	900	CE2	PHE	A	442	7.333	31.358	70.681	1.00	2.00	C
ATOM	901	CD2	PHE	A	442	7.587	30.142	71.289	1.00	2.00	C
ATOM	902	C	PHE	A	442	5.909	27.568	71.820	1.00	2.00	C
ATOM	903	O	PHE	A	442	4.807	28.058	71.555	1.00	2.00	O
ATOM	904	N	TYR	A	443	6.657	26.923	70.922	1.00	2.00	N
ATOM	905	CA	TYR	A	443	6.193	26.722	69.552	1.00	2.00	C
ATOM	906	CB	TYR	A	443	7.249	26.029	68.692	1.00	2.00	C
ATOM	907	CG	TYR	A	443	8.519	26.838	68.550	1.00	2.00	C
ATOM	908	CD1	TYR	A	443	8.477	28.229	68.542	1.00	2.00	C
ATOM	909	CE1	TYR	A	443	9.626	28.973	68.414	1.00	2.00	C
ATOM	910	CZ	TYR	A	443	10.840	28.316	68.276	1.00	2.00	C
ATOM	911	OH	TYR	A	443	11.973	29.049	68.140	1.00	2.00	O
ATOM	912	CE2	TYR	A	443	10.904	26.940	68.260	1.00	2.00	C
ATOM	913	CD2	TYR	A	443	9.746	26.214	68.407	1.00	2.00	C
ATOM	914	C	TYR	A	443	4.877	25.950	69.473	1.00	2.00	C
ATOM	915	O	TYR	A	443	3.993	26.363	68.757	1.00	2.00	O
ATOM	916	N	ALA	A	444	4.776	24.844	70.209	1.00	2.00	N
ATOM	917	CA	ALA	A	444	3.553	24.023	70.285	1.00	2.00	C
ATOM	918	CB	ALA	A	444	3.767	22.826	71.206	1.00	2.00	C
ATOM	919	C	ALA	A	444	2.328	24.815	70.744	1.00	2.00	C
ATOM	920	O	ALA	A	444	1.240	24.650	70.179	1.00	2.00	O
ATOM	921	N	ALA	A	445	2.513	25.643	71.771	1.00	2.00	N
ATOM	922	CA	ALA	A	445	1.447	26.474	72.323	1.00	2.00	C
ATOM	923	CB	ALA	A	445	1.896	27.137	73.650	1.00	2.00	C

- 57 -

ATOM	924	C	ALA	A	445	0.923	27.505	71.332	1.00	2.00	C
ATOM	925	O	ALA	A	445	-0.299	27.632	71.129	1.00	2.00	O
ATOM	926	N	GLU	A	446	1.833	28.235	70.699	1.00	2.00	N
ATOM	927	CA	GLU	A	446	1.437	29.162	69.643	1.00	2.00	C
ATOM	928	CB	GLU	A	446	2.624	30.008	69.226	1.00	2.00	C
ATOM	929	CG	GLU	A	446	3.076	30.962	70.334	1.00	2.00	C
ATOM	930	CD	GLU	A	446	3.969	32.084	69.836	1.00	2.00	C
ATOM	931	OE1	GLU	A	446	4.609	31.937	68.771	1.00	2.00	O
ATOM	932	OE2	GLU	A	446	4.022	33.129	70.526	1.00	2.00	O
ATOM	933	C	GLU	A	446	0.760	28.493	68.422	1.00	2.00	C
ATOM	934	O	GLU	A	446	-0.208	29.043	67.889	1.00	2.00	O
ATOM	935	N	ILE	A	447	1.257	27.323	67.998	1.00	2.00	N
ATOM	936	CA	ILE	A	447	0.663	26.574	66.898	1.00	2.00	C
ATOM	937	CB	ILE	A	447	1.482	25.306	66.529	1.00	2.00	C
ATOM	938	CG1	ILE	A	447	2.857	25.669	65.939	1.00	2.00	C
ATOM	939	CD1	ILE	A	447	3.842	24.504	65.883	1.00	2.00	C
ATOM	940	CG2	ILE	A	447	0.699	24.447	65.502	1.00	2.00	C
ATOM	941	C	ILE	A	447	-0.788	26.152	67.239	1.00	2.00	C
ATOM	942	O	ILE	A	447	-1.688	26.285	66.412	1.00	2.00	O
ATOM	943	N	SER	A	448	-0.978	25.666	68.461	1.00	2.00	N
ATOM	944	CA	SER	A	448	-2.270	25.170	68.929	1.00	2.00	C
ATOM	945	CB	SER	A	448	-2.123	24.578	70.320	1.00	2.00	C
ATOM	946	OG	SER	A	448	-2.058	25.599	71.289	1.00	2.00	O
ATOM	947	C	SER	A	448	-3.359	26.250	68.905	1.00	2.00	C
ATOM	948	O	SER	A	448	-4.529	25.947	68.677	1.00	2.00	O
ATOM	949	N	ILE	A	449	-2.973	27.502	69.137	1.00	2.00	N
ATOM	950	CA	ILE	A	449	-3.908	28.617	69.044	1.00	2.00	C
ATOM	951	CB	ILE	A	449	-3.359	29.883	69.705	1.00	2.00	C
ATOM	952	CG1	ILE	A	449	-3.491	29.697	71.222	1.00	2.00	C
ATOM	953	CD1	ILE	A	449	-2.541	30.470	71.995	1.00	2.00	C
ATOM	954	CG2	ILE	A	449	-4.152	31.140	69.267	1.00	2.00	C
ATOM	955	C	ILE	A	449	-4.423	28.823	67.618	1.00	2.00	C
ATOM	956	O	ILE	A	449	-5.609	29.118	67.404	1.00	2.00	O
ATOM	957	N	GLY	A	450	-3.531	28.669	66.649	1.00	2.00	N
ATOM	958	CA	GLY	A	450	-3.937	28.619	65.252	1.00	2.00	C
ATOM	959	C	GLY	A	450	-4.969	27.504	65.018	1.00	2.00	C
ATOM	960	O	GLY	A	450	-6.016	27.739	64.401	1.00	2.00	O
ATOM	961	N	LEU	A	451	-4.658	26.303	65.504	1.00	2.00	N
ATOM	962	CA	LEU	A	451	-5.530	25.136	65.347	1.00	2.00	C
ATOM	963	CB	LEU	A	451	-4.852	23.840	65.814	1.00	2.00	C
ATOM	964	CG	LEU	A	451	-3.680	23.259	64.994	1.00	2.00	C
ATOM	965	CD1	LEU	A	451	-3.215	21.969	65.633	1.00	2.00	C
ATOM	966	CD2	LEU	A	451	-4.078	23.027	63.527	1.00	2.00	C
ATOM	967	C	LEU	A	451	-6.877	25.313	66.042	1.00	2.00	C
ATOM	968	O	LEU	A	451	-7.894	24.961	65.455	1.00	2.00	O
ATOM	969	N	PHE	A	452	-6.888	25.854	67.268	1.00	2.00	N
ATOM	970	CA	PHE	A	452	-8.142	26.059	68.027	1.00	2.00	C
ATOM	971	CB	PHE	A	452	-7.914	26.679	69.421	1.00	2.00	C
ATOM	972	CG	PHE	A	452	-7.064	25.855	70.351	1.00	2.00	C
ATOM	973	CD1	PHE	A	452	-7.126	24.473	70.355	1.00	2.00	C
ATOM	974	CE1	PHE	A	452	-6.350	23.720	71.218	1.00	2.00	C
ATOM	975	CZ	PHE	A	452	-5.491	24.361	72.117	1.00	2.00	C
ATOM	976	CE2	PHE	A	452	-5.413	25.742	72.132	1.00	2.00	C
ATOM	977	CD2	PHE	A	452	-6.205	26.487	71.256	1.00	2.00	C
ATOM	978	C	PHE	A	452	-9.094	26.977	67.253	1.00	2.00	C
ATOM	979	O	PHE	A	452	-10.276	26.675	67.132	1.00	2.00	O
ATOM	980	N	PHE	A	453	-8.545	28.083	66.743	1.00	2.00	N
ATOM	981	CA	PHE	A	453	-9.276	29.066	65.953	1.00	2.00	C

- 58 -

ATOM	982	CB	PHE	A	453	-8.334	30.190	65.494	1.00	2.00	C
ATOM	983	CG	PHE	A	453	-8.981	31.170	64.536	1.00	2.00	C
ATOM	984	CD1	PHE	A	453	-9.751	32.224	65.023	1.00	2.00	C
ATOM	985	CE1	PHE	A	453	-10.351	33.132	64.148	1.00	2.00	C
ATOM	986	CZ	PHE	A	453	-10.167	32.979	62.773	1.00	2.00	C
ATOM	987	CE2	PHE	A	453	-9.403	31.935	62.285	1.00	2.00	C
ATOM	988	CD2	PHE	A	453	-8.817	31.035	63.157	1.00	2.00	C
ATOM	989	C	PHE	A	453	-9.897	28.449	64.718	1.00	2.00	C
ATOM	990	O	PHE	A	453	-11.067	28.652	64.424	1.00	2.00	O
ATOM	991	N	LEU	A	454	-9.084	27.710	63.972	1.00	2.00	N
ATOM	992	CA	LEU	A	454	-9.554	27.094	62.750	1.00	2.00	C
ATOM	993	CB	LEU	A	454	-8.413	26.409	62.016	1.00	2.00	C
ATOM	994	CG	LEU	A	454	-7.328	27.279	61.367	1.00	2.00	C
ATOM	995	CD1	LEU	A	454	-6.347	26.345	60.694	1.00	2.00	C
ATOM	996	CD2	LEU	A	454	-7.887	28.276	60.344	1.00	2.00	C
ATOM	997	C	LEU	A	454	-10.631	26.082	63.085	1.00	2.00	C
ATOM	998	O	LEU	A	454	-11.664	26.022	62.416	1.00	2.00	O
ATOM	999	N	HIS	A	455	-10.398	25.280	64.117	1.00	2.00	N
ATOM	1000	CA	HIS	A	455	-11.330	24.204	64.425	1.00	2.00	C
ATOM	1001	CB	HIS	A	455	-10.746	23.240	65.457	1.00	2.00	C
ATOM	1002	CG	HIS	A	455	-9.667	22.365	64.903	1.00	2.00	C
ATOM	1003	ND1	HIS	A	455	-8.850	21.594	65.701	1.00	2.00	N
ATOM	1004	CE1	HIS	A	455	-7.991	20.940	64.942	1.00	2.00	C
ATOM	1005	NE2	HIS	A	455	-8.211	21.275	63.684	1.00	2.00	N
ATOM	1006	CD2	HIS	A	455	-9.244	22.175	63.634	1.00	2.00	C
ATOM	1007	C	HIS	A	455	-12.694	24.744	64.860	1.00	2.00	C
ATOM	1008	O	HIS	A	455	-13.738	24.201	64.491	1.00	2.00	O
ATOM	1009	N	LYS	A	456	-12.663	25.832	65.618	1.00	2.28	N
ATOM	1010	CA	LYS	A	456	-13.859	26.518	66.048	1.00	3.51	C
ATOM	1011	CB	LYS	A	456	-13.477	27.607	67.029	1.00	6.61	C
ATOM	1012	CG	LYS	A	456	-13.292	27.111	68.445	1.00	11.37	C
ATOM	1013	CD	LYS	A	456	-12.383	28.060	69.239	1.00	13.08	C
ATOM	1014	CE	LYS	A	456	-12.778	28.139	70.700	1.00	15.28	C
ATOM	1015	NZ	LYS	A	456	-11.752	28.904	71.483	1.00	16.74	N
ATOM	1016	C	LYS	A	456	-14.673	27.110	64.886	1.00	3.52	C
ATOM	1017	O	LYS	A	456	-15.898	27.238	64.989	1.00	3.77	O
ATOM	1018	N	ARG	A	457	-13.994	27.491	63.808	1.00	3.31	N
ATOM	1019	CA	ARG	A	457	-14.643	27.964	62.590	1.00	3.58	C
ATOM	1020	CB	ARG	A	457	-13.736	28.940	61.829	1.00	5.09	C
ATOM	1021	CG	ARG	A	457	-13.247	30.179	62.602	1.00	7.31	C
ATOM	1022	CD	ARG	A	457	-14.409	31.042	63.041	1.00	10.10	C
ATOM	1023	NE	ARG	A	457	-14.070	32.230	63.840	1.00	11.59	N
ATOM	1024	CZ	ARG	A	457	-13.551	32.224	65.079	1.00	14.34	C
ATOM	1025	NH1	ARG	A	457	-13.224	31.079	65.689	1.00	14.26	N
ATOM	1026	NH2	ARG	A	457	-13.332	33.381	65.711	1.00	12.46	N
ATOM	1027	C	ARG	A	457	-15.090	26.816	61.654	1.00	3.86	C
ATOM	1028	O	ARG	A	457	-15.573	27.062	60.539	1.00	5.85	O
ATOM	1029	N	GLY	A	458	-14.940	25.569	62.099	1.00	2.38	N
ATOM	1030	CA	GLY	A	458	-15.268	24.405	61.278	1.00	2.00	C
ATOM	1031	C	GLY	A	458	-14.278	24.167	60.155	1.00	2.00	C
ATOM	1032	O	GLY	A	458	-14.606	23.571	59.141	1.00	2.00	O
ATOM	1033	N	ILE	A	459	-13.049	24.627	60.332	1.00	2.00	N
ATOM	1034	CA	ILE	A	459	-12.005	24.397	59.328	1.00	2.00	C
ATOM	1035	CB	ILE	A	459	-11.285	25.728	58.968	1.00	2.00	C
ATOM	1036	CG1	ILE	A	459	-12.244	26.647	58.207	1.00	3.03	C
ATOM	1037	CD1	ILE	A	459	-12.083	28.115	58.535	1.00	2.07	C
ATOM	1038	CG2	ILE	A	459	-10.001	25.474	58.137	1.00	2.00	C
ATOM	1039	C	ILE	A	459	-11.007	23.345	59.845	1.00	2.00	C

- 59 -

ATOM	1040	O	ILE	A	459	-10.529	23.458	60.974	1.00	2.00	O
ATOM	1041	N	ILE	A	460	-10.741	22.321	59.035	1.00	2.00	N
ATOM	1042	CA	ILE	A	460	-9.619	21.413	59.241	1.00	2.00	C
ATOM	1043	CB	ILE	A	460	-9.920	19.934	58.932	1.00	2.00	C
ATOM	1044	CG1	ILE	A	460	-11.337	19.518	59.329	1.00	2.30	C
ATOM	1045	CD1	ILE	A	460	-11.649	18.149	58.766	1.00	2.98	C
ATOM	1046	CG2	ILE	A	460	-8.919	19.055	59.678	1.00	2.00	C
ATOM	1047	C	ILE	A	460	-8.498	21.810	58.300	1.00	2.00	C
ATOM	1048	O	ILE	A	460	-8.707	21.976	57.088	1.00	2.00	O
ATOM	1049	N	TYR	A	461	-7.307	21.950	58.876	1.00	2.00	N
ATOM	1050	CA	TYR	A	461	-6.144	22.454	58.182	1.00	2.00	C
ATOM	1051	CB	TYR	A	461	-5.130	22.889	59.243	1.00	2.00	C
ATOM	1052	CG	TYR	A	461	-3.892	23.495	58.675	1.00	2.00	C
ATOM	1053	CD1	TYR	A	461	-3.964	24.539	57.767	1.00	2.60	C
ATOM	1054	CE1	TYR	A	461	-2.825	25.096	57.240	1.00	3.01	C
ATOM	1055	CZ	TYR	A	461	-1.588	24.612	57.620	1.00	3.51	C
ATOM	1056	OH	TYR	A	461	-0.431	25.151	57.092	1.00	2.92	O
ATOM	1057	CE2	TYR	A	461	-1.490	23.583	58.526	1.00	3.79	C
ATOM	1058	CD2	TYR	A	461	-2.644	23.024	59.046	1.00	3.24	C
ATOM	1059	C	TYR	A	461	-5.547	21.425	57.215	1.00	2.00	C
ATOM	1060	O	TYR	A	461	-5.245	21.733	56.054	1.00	2.00	O
ATOM	1061	N	ARG	A	462	-5.369	20.207	57.720	1.00	2.00	N
ATOM	1062	CA	ARG	A	462	-4.978	19.033	56.954	1.00	2.00	C
ATOM	1063	CB	ARG	A	462	-6.000	18.670	55.852	1.00	2.00	C
ATOM	1064	CG	ARG	A	462	-7.386	18.326	56.368	1.00	2.00	C
ATOM	1065	CD	ARG	A	462	-8.246	17.689	55.272	1.00	2.00	C
ATOM	1066	NE	ARG	A	462	-8.334	18.478	54.043	1.00	2.00	N
ATOM	1067	CZ	ARG	A	462	-9.039	18.127	52.956	1.00	2.62	C
ATOM	1068	NH1	ARG	A	462	-9.754	16.994	52.918	1.00	2.00	N
ATOM	1069	NH2	ARG	A	462	-9.043	18.928	51.889	1.00	4.08	N
ATOM	1070	C	ARG	A	462	-3.568	19.069	56.356	1.00	2.00	C
ATOM	1071	O	ARG	A	462	-3.211	18.149	55.667	1.00	2.56	O
ATOM	1072	N	ASP	A	463	-2.777	20.101	56.623	1.00	2.00	N
ATOM	1073	CA	ASP	A	463	-1.422	20.170	56.075	1.00	2.73	C
ATOM	1074	CB	ASP	A	463	-1.398	21.077	54.832	1.00	4.00	C
ATOM	1075	CG	ASP	A	463	-0.200	20.793	53.884	1.00	7.06	C
ATOM	1076	OD1	ASP	A	463	0.413	19.682	53.913	1.00	6.05	O
ATOM	1077	OD2	ASP	A	463	0.112	21.702	53.069	1.00	7.80	O
ATOM	1078	C	ASP	A	463	-0.430	20.667	57.123	1.00	2.30	C
ATOM	1079	O	ASP	A	463	0.540	21.342	56.779	1.00	4.46	O
ATOM	1080	N	LEU	A	464	-0.654	20.362	58.411	1.00	2.00	N
ATOM	1081	CA	LEU	A	464	0.342	20.783	59.414	1.00	2.00	C
ATOM	1082	CB	LEU	A	464	-0.186	20.693	60.851	1.00	2.00	C
ATOM	1083	CG	LEU	A	464	0.689	21.238	62.000	1.00	2.00	C
ATOM	1084	CD1	LEU	A	464	1.021	22.735	61.870	1.00	2.00	C
ATOM	1085	CD2	LEU	A	464	0.085	20.953	63.352	1.00	2.00	C
ATOM	1086	C	LEU	A	464	1.618	19.978	59.247	1.00	2.00	C
ATOM	1087	O	LEU	A	464	1.586	18.758	59.286	1.00	2.00	O
ATOM	1088	N	LYS	A	465	2.730	20.692	59.048	1.00	2.00	N
ATOM	1089	CA	LYS	A	465	4.049	20.109	58.849	1.00	2.00	C
ATOM	1090	CB	LYS	A	465	4.188	19.532	57.444	1.00	2.00	C
ATOM	1091	CG	LYS	A	465	4.287	20.563	56.360	1.00	2.00	C
ATOM	1092	CD	LYS	A	465	3.988	19.968	55.026	1.00	3.12	C
ATOM	1093	CE	LYS	A	465	4.125	21.050	53.961	1.00	4.59	C
ATOM	1094	NZ	LYS	A	465	3.608	20.556	52.647	1.00	8.91	N
ATOM	1095	C	LYS	A	465	5.043	21.240	59.085	1.00	2.00	C
ATOM	1096	O	LYS	A	465	4.656	22.404	59.120	1.00	2.00	O
ATOM	1097	N	LEU	A	466	6.310	20.889	59.262	1.00	2.00	N

- 60 -

ATOM	1098	CA	LEU	A	466	7.330	21.850	59.675	1.00	2.00	C
ATOM	1099	CB	LEU	A	466	8.623	21.121	60.043	1.00	2.00	C
ATOM	1100	CG	LEU	A	466	8.636	20.384	61.377	1.00	2.00	C
ATOM	1101	CD1	LEU	A	466	9.815	19.469	61.391	1.00	2.00	C
ATOM	1102	CD2	LEU	A	466	8.691	21.331	62.590	1.00	2.00	C
ATOM	1103	C	LEU	A	466	7.610	22.985	58.688	1.00	2.00	C
ATOM	1104	O	LEU	A	466	7.885	24.116	59.106	1.00	3.77	O
ATOM	1105	N	ASP	A	467	7.561	22.682	57.397	1.00	3.25	N
ATOM	1106	CA	ASP	A	467	7.772	23.692	56.351	1.00	5.78	C
ATOM	1107	CB	ASP	A	467	7.993	23.048	54.970	1.00	8.00	C
ATOM	1108	CG	ASP	A	467	9.198	22.151	54.942	1.00	7.82	C
ATOM	1109	OD1	ASP	A	467	10.167	22.450	55.658	1.00	11.34	O
ATOM	1110	OD2	ASP	A	467	9.179	21.136	54.223	1.00	9.51	O
ATOM	1111	C	ASP	A	467	6.656	24.718	56.241	1.00	3.97	C
ATOM	1112	O	ASP	A	467	6.878	25.792	55.686	1.00	4.43	O
ATOM	1113	N	ASN	A	468	5.463	24.390	56.741	1.00	3.32	N
ATOM	1114	CA	ASN	A	468	4.368	25.357	56.776	1.00	2.59	C
ATOM	1115	CB	ASN	A	468	3.010	24.681	56.671	1.00	2.00	C
ATOM	1116	CG	ASN	A	468	2.735	24.216	55.285	1.00	2.00	C
ATOM	1117	OD1	ASN	A	468	3.406	24.662	54.334	1.00	2.00	O
ATOM	1118	ND2	ASN	A	468	1.775	23.315	55.135	1.00	2.00	N
ATOM	1119	C	ASN	A	468	4.382	26.271	57.970	1.00	2.00	C
ATOM	1120	O	ASN	A	468	3.576	27.198	58.046	1.00	2.22	O
ATOM	1121	N	VAL	A	469	5.291	26.016	58.901	1.00	2.00	N
ATOM	1122	CA	VAL	A	469	5.368	26.815	60.109	1.00	2.00	C
ATOM	1123	CB	VAL	A	469	5.285	25.945	61.375	1.00	2.00	C
ATOM	1124	CG1	VAL	A	469	5.244	26.827	62.625	1.00	2.00	C
ATOM	1125	CG2	VAL	A	469	4.062	24.989	61.315	1.00	2.00	C
ATOM	1126	C	VAL	A	469	6.654	27.624	60.114	1.00	2.00	C
ATOM	1127	O	VAL	A	469	7.753	27.058	60.101	1.00	2.00	O
ATOM	1128	N	MET	A	470	6.495	28.945	60.157	1.00	2.00	N
ATOM	1129	CA	MET	A	470	7.575	29.900	60.042	1.00	2.00	C
ATOM	1130	CB	MET	A	470	7.328	30.852	58.864	1.00	2.00	C
ATOM	1131	CG	MET	A	470	7.610	30.264	57.503	1.00	2.00	C
ATOM	1132	SD	MET	A	470	7.412	31.527	56.242	1.00	2.37	S
ATOM	1133	CE	MET	A	470	5.675	31.971	56.410	1.00	2.60	C
ATOM	1134	C	MET	A	470	7.658	30.702	61.319	1.00	2.00	C
ATOM	1135	O	MET	A	470	6.712	30.749	62.094	1.00	2.00	O
ATOM	1136	N	LEU	A	471	8.803	31.322	61.546	1.00	2.00	N
ATOM	1137	CA	LEU	A	471	8.900	32.349	62.574	1.00	2.00	C
ATOM	1138	CB	LEU	A	471	10.185	32.231	63.377	1.00	2.00	C
ATOM	1139	CG	LEU	A	471	10.478	30.883	64.044	1.00	2.00	C
ATOM	1140	CD1	LEU	A	471	11.840	30.986	64.730	1.00	2.00	C
ATOM	1141	CD2	LEU	A	471	9.371	30.429	65.033	1.00	2.00	C
ATOM	1142	C	LEU	A	471	8.853	33.685	61.884	1.00	2.00	C
ATOM	1143	O	LEU	A	471	9.270	33.809	60.730	1.00	2.00	O
ATOM	1144	N	ASP	A	472	8.310	34.666	62.575	1.00	2.00	N
ATOM	1145	CA	ASP	A	472	8.428	36.036	62.139	1.00	2.00	C
ATOM	1146	CB	ASP	A	472	7.180	36.861	62.505	1.00	2.00	C
ATOM	1147	CG	ASP	A	472	6.952	36.994	64.017	1.00	2.00	C
ATOM	1148	OD1	ASP	A	472	7.893	36.760	64.831	1.00	2.00	O
ATOM	1149	OD2	ASP	A	472	5.826	37.352	64.405	1.00	2.00	O
ATOM	1150	C	ASP	A	472	9.728	36.664	62.657	1.00	2.00	C
ATOM	1151	O	ASP	A	472	10.519	36.009	63.336	1.00	2.00	O
ATOM	1152	N	SER	A	473	9.945	37.931	62.349	1.00	2.00	N
ATOM	1153	CA	SER	A	473	11.205	38.573	62.737	1.00	2.72	C
ATOM	1154	CB	SER	A	473	11.326	39.952	62.094	1.00	3.23	C
ATOM	1155	OG	SER	A	473	10.300	40.792	62.536	1.00	5.74	O

- 61 -

ATOM	1156	C	SER	A	473	11.419	38.634	64.235	1.00	3.35	C
ATOM	1157	O	SER	A	473	12.521	38.884	64.706	1.00	2.92	O
ATOM	1158	N	GLU	A	474	10.368	38.386	64.996	1.00	3.59	N
ATOM	1159	CA	GLU	A	474	10.448	38.421	66.444	1.00	4.91	C
ATOM	1160	CB	GLU	A	474	9.283	39.223	67.009	1.00	8.80	C
ATOM	1161	CG	GLU	A	474	9.058	40.550	66.267	1.00	12.78	C
ATOM	1162	CD	GLU	A	474	10.139	41.578	66.588	1.00	14.82	C
ATOM	1163	OE1	GLU	A	474	10.314	41.866	67.775	1.00	16.27	O
ATOM	1164	OE2	GLU	A	474	10.806	42.097	65.668	1.00	17.27	O
ATOM	1165	C	GLU	A	474	10.538	37.039	67.065	1.00	3.73	C
ATOM	1166	O	GLU	A	474	10.821	36.916	68.242	1.00	2.83	O
ATOM	1167	N	GLY	A	475	10.339	35.996	66.255	1.00	2.69	N
ATOM	1168	CA	GLY	A	475	10.458	34.603	66.723	1.00	2.00	C
ATOM	1169	C	GLY	A	475	9.156	33.982	67.219	1.00	2.00	C
ATOM	1170	O	GLY	A	475	9.158	32.907	67.822	1.00	2.00	O
ATOM	1171	N	HIS	A	476	8.050	34.683	66.963	1.00	2.00	N
ATOM	1172	CA	HIS	A	476	6.672	34.160	67.121	1.00	2.00	C
ATOM	1173	CB	HIS	A	476	5.704	35.322	67.310	1.00	2.00	C
ATOM	1174	CG	HIS	A	476	5.872	36.031	68.613	1.00	2.00	C
ATOM	1175	ND1	HIS	A	476	5.492	35.473	69.814	1.00	2.00	N
ATOM	1176	CE1	HIS	A	476	5.764	36.315	70.792	1.00	2.00	C
ATOM	1177	NE2	HIS	A	476	6.309	37.400	70.271	1.00	2.00	N
ATOM	1178	CD2	HIS	A	476	6.392	37.246	68.909	1.00	2.00	C
ATOM	1179	C	HIS	A	476	6.270	33.351	65.893	1.00	2.00	C
ATOM	1180	O	HIS	A	476	6.729	33.627	64.785	1.00	2.25	O
ATOM	1181	N	ILE	A	477	5.438	32.334	66.055	1.00	2.00	N
ATOM	1182	CA	ILE	A	477	5.179	31.454	64.917	1.00	2.00	C
ATOM	1183	CB	ILE	A	477	4.714	30.003	65.323	1.00	3.72	C
ATOM	1184	CG1	ILE	A	477	3.296	29.987	65.871	1.00	5.25	C
ATOM	1185	CD1	ILE	A	477	2.293	29.403	64.906	1.00	5.06	C
ATOM	1186	CG2	ILE	A	477	5.663	29.292	66.280	1.00	3.55	C
ATOM	1187	C	ILE	A	477	4.217	32.102	63.915	1.00	2.00	C
ATOM	1188	O	ILE	A	477	3.388	32.945	64.288	1.00	2.45	O
ATOM	1189	N	LYS	A	478	4.347	31.714	62.645	1.00	2.00	N
ATOM	1190	CA	LYS	A	478	3.365	32.038	61.590	1.00	2.00	C
ATOM	1191	CB	LYS	A	478	3.938	33.069	60.592	1.00	2.00	C
ATOM	1192	CG	LYS	A	478	4.079	34.494	61.129	1.00	2.00	C
ATOM	1193	CD	LYS	A	478	2.712	35.187	61.147	1.00	2.00	C
ATOM	1194	CE	LYS	A	478	2.792	36.606	61.705	1.00	2.00	C
ATOM	1195	NZ	LYS	A	478	1.392	37.136	61.902	1.00	2.70	N
ATOM	1196	C	LYS	A	478	3.065	30.763	60.842	1.00	2.00	C
ATOM	1197	O	LYS	A	478	3.979	30.203	60.219	1.00	2.00	O
ATOM	1198	N	ILE	A	479	1.824	30.280	60.908	1.00	2.00	N
ATOM	1199	CA	ILE	A	479	1.392	29.139	60.092	1.00	2.00	C
ATOM	1200	CB	ILE	A	479	0.184	28.358	60.716	1.00	2.00	C
ATOM	1201	CG1	ILE	A	479	0.599	27.658	62.004	1.00	2.00	C
ATOM	1202	CD1	ILE	A	479	-0.523	27.401	62.975	1.00	2.00	C
ATOM	1203	CG2	ILE	A	479	-0.370	27.322	59.722	1.00	2.00	C
ATOM	1204	C	ILE	A	479	0.991	29.653	58.716	1.00	2.00	C
ATOM	1205	O	ILE	A	479	0.254	30.636	58.605	1.00	2.00	O
ATOM	1206	N	ALA	A	480	1.462	28.968	57.673	1.00	2.00	N
ATOM	1207	CA	ALA	A	480	1.279	29.400	56.288	1.00	2.00	C
ATOM	1208	CB	ALA	A	480	2.641	29.754	55.692	1.00	2.00	C
ATOM	1209	C	ALA	A	480	0.604	28.310	55.455	1.00	2.00	C
ATOM	1210	O	ALA	A	480	0.527	27.165	55.893	1.00	2.00	O
ATOM	1211	N	ASP	A	481	0.136	28.671	54.258	1.00	2.43	N
ATOM	1212	CA	ASP	A	481	-0.451	27.739	53.282	1.00	2.20	C
ATOM	1213	CB	ASP	A	481	0.553	26.669	52.852	1.00	5.10	C

- 62 -

ATOM	1214	CG	ASP	A	481	0.187	26.013	51.524	1.00	4.10	C
ATOM	1215	OD1	ASP	A	481	-0.966	26.158	51.057	1.00	7.17	O
ATOM	1216	OD2	ASP	A	481	1.047	25.359	50.928	1.00	3.12	O
ATOM	1217	C	ASP	A	481	-1.758	27.057	53.719	1.00	5.18	C
ATOM	1218	O	ASP	A	481	-1.729	26.036	54.415	1.00	5.62	O
ATOM	1219	N	PHE	A	482	-2.891	27.607	53.263	1.00	2.84	N
ATOM	1220	CA	PHE	A	482	-4.220	27.101	53.597	1.00	3.43	C
ATOM	1221	CB	PHE	A	482	-5.048	28.214	54.264	1.00	3.00	C
ATOM	1222	CG	PHE	A	482	-4.390	28.751	55.517	1.00	3.92	C
ATOM	1223	CD1	PHE	A	482	-3.462	29.783	55.443	1.00	2.93	C
ATOM	1224	CE1	PHE	A	482	-2.841	30.257	56.577	1.00	4.60	C
ATOM	1225	CZ	PHE	A	482	-3.131	29.687	57.819	1.00	4.45	C
ATOM	1226	CE2	PHE	A	482	-4.055	28.642	57.903	1.00	3.60	C
ATOM	1227	CD2	PHE	A	482	-4.657	28.173	56.763	1.00	4.08	C
ATOM	1228	C	PHE	A	482	-4.929	26.472	52.409	1.00	2.73	C
ATOM	1229	O	PHE	A	482	-6.154	26.407	52.364	1.00	3.42	O
ATOM	1230	N	GLY	A	483	-4.131	25.959	51.482	1.00	2.66	N
ATOM	1231	CA	GLY	A	483	-4.621	25.389	50.247	1.00	5.65	C
ATOM	1232	C	GLY	A	483	-5.068	23.941	50.296	1.00	6.48	C
ATOM	1233	O	GLY	A	483	-5.409	23.384	49.254	1.00	8.00	O
ATOM	1234	N	MET	A	484	-5.073	23.345	51.491	1.00	6.07	N
ATOM	1235	CA	MET	A	484	-5.606	21.995	51.709	1.00	7.49	C
ATOM	1236	CB	MET	A	484	-4.495	21.052	52.169	1.00	8.04	C
ATOM	1237	CG	MET	A	484	-3.761	20.366	51.030	1.00	12.85	C
ATOM	1238	SD	MET	A	484	-2.445	19.286	51.648	1.00	14.40	S
ATOM	1239	CE	MET	A	484	-3.473	17.988	52.329	1.00	13.82	C
ATOM	1240	C	MET	A	484	-6.778	21.924	52.717	1.00	4.40	C
ATOM	1241	O	MET	A	484	-7.218	20.826	53.081	1.00	3.19	O
ATOM	1242	N	CYS	A	485	-7.272	23.076	53.168	1.00	3.08	N
ATOM	1243	CA	CYS	A	485	-8.297	23.119	54.194	1.00	2.63	C
ATOM	1244	CB	CYS	A	485	-8.516	24.559	54.662	1.00	2.88	C
ATOM	1245	SG	CYS	A	485	-7.138	25.279	55.571	1.00	4.87	S
ATOM	1246	C	CYS	A	485	-9.637	22.530	53.728	1.00	2.84	C
ATOM	1247	O	CYS	A	485	-9.935	22.517	52.533	1.00	2.00	O
ATOM	1248	N	LYS	A	486	-10.425	22.045	54.688	1.00	4.30	N
ATOM	1249	CA	LYS	A	486	-11.816	21.597	54.454	1.00	5.10	C
ATOM	1250	CB	LYS	A	486	-11.967	20.102	54.801	1.00	6.09	C
ATOM	1251	CG	LYS	A	486	-13.223	19.393	54.246	1.00	7.06	C
ATOM	1252	CD	LYS	A	486	-13.121	19.123	52.753	1.00	8.34	C
ATOM	1253	CE	LYS	A	486	-14.335	18.345	52.212	1.00	8.01	C
ATOM	1254	NZ	LYS	A	486	-15.552	19.201	52.047	1.00	10.91	N
ATOM	1255	C	LYS	A	486	-12.665	22.438	55.376	1.00	5.03	C
ATOM	1256	O	LYS	A	486	-12.402	22.469	56.565	1.00	5.37	O
ATOM	1257	N	GLU	A	487	-13.666	23.131	54.822	1.00	5.95	N
ATOM	1258	CA	GLU	A	487	-14.568	24.014	55.590	1.00	5.21	C
ATOM	1259	CB	GLU	A	487	-14.762	25.376	54.887	1.00	5.74	C
ATOM	1260	CG	GLU	A	487	-14.707	25.283	53.373	1.00	7.94	C
ATOM	1261	CD	GLU	A	487	-14.990	26.577	52.622	1.00	7.60	C
ATOM	1262	OE1	GLU	A	487	-14.760	27.687	53.166	1.00	7.68	O
ATOM	1263	OE2	GLU	A	487	-15.437	26.461	51.450	1.00	8.80	O
ATOM	1264	C	GLU	A	487	-15.929	23.369	55.901	1.00	4.66	C
ATOM	1265	O	GLU	A	487	-16.215	22.275	55.432	1.00	2.00	O
ATOM	1266	N	HIS	A	488	-16.732	24.062	56.713	1.00	3.72	N
ATOM	1267	CA	HIS	A	488	-18.047	23.597	57.156	1.00	4.97	C
ATOM	1268	CB	HIS	A	488	-19.053	23.467	55.983	1.00	5.59	C
ATOM	1269	CG	HIS	A	488	-19.090	24.655	55.074	1.00	6.20	C
ATOM	1270	ND1	HIS	A	488	-19.495	25.905	55.495	1.00	9.15	N
ATOM	1271	CE1	HIS	A	488	-19.421	26.757	54.486	1.00	8.53	C

- 63 -

ATOM	1272	NE2	HIS	A	488	-18.986	26.104	53.424	1.00	8.65	N
ATOM	1273	CD2	HIS	A	488	-18.774	24.787	53.765	1.00	7.88	C
ATOM	1274	C	HIS	A	488	-17.928	22.270	57.885	1.00	4.62	C
ATOM	1275	O	HIS	A	488	-18.815	21.452	57.809	1.00	3.73	O
ATOM	1276	N	MET	A	489	-16.816	22.051	58.577	1.00	4.51	N
ATOM	1277	CA	MET	A	489	-16.628	20.805	59.320	1.00	4.74	C
ATOM	1278	CB	MET	A	489	-15.179	20.297	59.175	1.00	6.10	C
ATOM	1279	CG	MET	A	489	-14.828	19.993	57.718	1.00	4.27	C
ATOM	1280	SD	MET	A	489	-15.542	18.437	57.173	1.00	6.46	S
ATOM	1281	CE	MET	A	489	-16.257	18.930	55.618	1.00	7.77	C
ATOM	1282	C	MET	A	489	-17.058	21.002	60.771	1.00	5.67	C
ATOM	1283	O	MET	A	489	-16.240	21.183	61.685	1.00	4.75	O
ATOM	1284	N	MET	A	490	-18.373	20.979	60.964	1.00	7.05	N
ATOM	1285	CA	MET	A	490	-18.979	21.211	62.262	1.00	8.60	C
ATOM	1286	CB	MET	A	490	-20.280	22.021	62.113	1.00	10.48	C
ATOM	1287	CG	MET	A	490	-20.250	23.203	61.113	1.00	11.28	C
ATOM	1288	SD	MET	A	490	-19.203	24.665	61.368	1.00	16.12	S
ATOM	1289	CE	MET	A	490	-19.070	24.844	63.151	1.00	12.02	C
ATOM	1290	C	MET	A	490	-19.252	19.878	62.958	1.00	8.68	C
ATOM	1291	O	MET	A	490	-18.814	18.834	62.481	1.00	8.68	O
ATOM	1292	N	ASP	A	491	-19.979	19.909	64.076	1.00	9.09	N
ATOM	1293	CA	ASP	A	491	-20.161	18.709	64.903	1.00	9.75	C
ATOM	1294	CB	ASP	A	491	-21.124	18.974	66.068	1.00	12.25	C
ATOM	1295	CG	ASP	A	491	-21.134	17.841	67.094	1.00	14.06	C
ATOM	1296	OD1	ASP	A	491	-20.052	17.292	67.396	1.00	15.92	O
ATOM	1297	OD2	ASP	A	491	-22.222	17.489	67.600	1.00	15.22	O
ATOM	1298	C	ASP	A	491	-20.597	17.474	64.104	1.00	8.87	C
ATOM	1299	O	ASP	A	491	-21.663	17.466	63.487	1.00	7.96	O
ATOM	1300	N	GLY	A	492	-19.749	16.443	64.101	1.00	7.18	N
ATOM	1301	CA	GLY	A	492	-20.086	15.159	63.491	1.00	5.30	C
ATOM	1302	C	GLY	A	492	-19.940	15.066	61.982	1.00	4.98	C
ATOM	1303	O	GLY	A	492	-20.087	13.982	61.416	1.00	5.67	O
ATOM	1304	N	VAL	A	493	-19.664	16.196	61.330	1.00	4.47	N
ATOM	1305	CA	VAL	A	493	-19.388	16.242	59.885	1.00	2.94	C
ATOM	1306	CB	VAL	A	493	-19.448	17.685	59.345	1.00	2.00	C
ATOM	1307	CG1	VAL	A	493	-19.089	17.722	57.886	1.00	2.00	C
ATOM	1308	CG2	VAL	A	493	-20.872	18.316	59.578	1.00	2.00	C
ATOM	1309	C	VAL	A	493	-18.002	15.620	59.601	1.00	3.59	C
ATOM	1310	O	VAL	A	493	-17.030	15.875	60.318	1.00	2.10	O
ATOM	1311	N	THR	A	494	-17.938	14.788	58.567	1.00	3.42	N
ATOM	1312	CA	THR	A	494	-16.731	14.050	58.244	1.00	5.54	C
ATOM	1313	CB	THR	A	494	-16.825	12.568	58.695	1.00	5.97	C
ATOM	1314	OG1	THR	A	494	-17.957	11.955	58.065	1.00	8.01	O
ATOM	1315	CG2	THR	A	494	-16.937	12.439	60.230	1.00	5.52	C
ATOM	1316	C	THR	A	494	-16.439	14.093	56.747	1.00	5.29	C
ATOM	1317	O	THR	A	494	-17.333	14.401	55.931	1.00	7.90	O
ATOM	1318	N	THR	A	495	-15.198	13.772	56.397	1.00	3.79	N
ATOM	1319	CA	THR	A	495	-14.805	13.596	55.008	1.00	3.20	C
ATOM	1320	CB	THR	A	495	-14.144	14.891	54.455	1.00	3.72	C
ATOM	1321	OG1	THR	A	495	-13.784	14.709	53.084	1.00	5.72	O
ATOM	1322	CG2	THR	A	495	-12.924	15.272	55.257	1.00	3.08	C
ATOM	1323	C	THR	A	495	-13.925	12.340	54.887	1.00	3.42	C
ATOM	1324	O	THR	A	495	-13.347	11.886	55.889	1.00	2.93	O
ATOM	1325	N	ARG	A	496	-13.838	11.751	53.692	1.00	2.29	N
ATOM	1326	CA	ARG	A	496	-12.983	10.561	53.515	1.00	2.84	C
ATOM	1327	CB	ARG	A	496	-13.792	9.385	52.974	1.00	2.00	C
ATOM	1328	CG	ARG	A	496	-14.496	8.578	54.025	1.00	2.00	C
ATOM	1329	CD	ARG	A	496	-15.373	7.479	53.419	1.00	2.00	C

- 64 -

ATOM	1330	NE	ARG	A	496	-14.675	6.213	53.226	1.00	2.00	N
ATOM	1331	CZ	ARG	A	496	-15.005	5.282	52.336	1.00	2.00	C
ATOM	1332	NH1	ARG	A	496	-16.043	5.436	51.516	1.00	2.00	N
ATOM	1333	NH2	ARG	A	496	-14.291	4.173	52.260	1.00	2.00	N
ATOM	1334	C	ARG	A	496	-11.748	10.791	52.615	1.00	2.23	C
ATOM	1335	O	ARG	A	496	-11.005	9.846	52.301	1.00	4.41	O
ATOM	1336	N	GLU	A	497	-11.549	12.034	52.209	1.00	2.00	N
ATOM	1337	CA	GLU	A	497	-10.532	12.420	51.237	1.00	3.77	C
ATOM	1338	CB	GLU	A	497	-10.693	13.907	50.952	1.00	6.08	C
ATOM	1339	CG	GLU	A	497	-10.007	14.420	49.711	1.00	9.93	C
ATOM	1340	CD	GLU	A	497	-10.262	15.910	49.482	1.00	7.89	C
ATOM	1341	OE1	GLU	A	497	-10.833	16.586	50.378	1.00	12.65	O
ATOM	1342	OE2	GLU	A	497	-9.886	16.410	48.401	1.00	11.89	O
ATOM	1343	C	GLU	A	497	-9.095	12.153	51.698	1.00	2.00	C
ATOM	1344	O	GLU	A	497	-8.671	12.667	52.737	1.00	2.00	O
ATOM	1345	N	PHE	A	498	-8.371	11.341	50.919	1.00	3.04	N
ATOM	1346	CA	PHE	A	498	-6.958	11.035	51.180	1.00	5.35	C
ATOM	1347	CB	PHE	A	498	-6.488	9.806	50.390	1.00	5.28	C
ATOM	1348	CG	PHE	A	498	-5.055	9.425	50.691	1.00	5.61	C
ATOM	1349	CD1	PHE	A	498	-4.755	8.622	51.793	1.00	5.38	C
ATOM	1350	CE1	PHE	A	498	-3.428	8.282	52.091	1.00	5.73	C
ATOM	1351	CZ	PHE	A	498	-2.397	8.748	51.286	1.00	5.33	C
ATOM	1352	CE2	PHE	A	498	-2.670	9.560	50.185	1.00	5.16	C
ATOM	1353	CD2	PHE	A	498	-3.996	9.901	49.890	1.00	6.34	C
ATOM	1354	C	PHE	A	498	-6.059	12.212	50.812	1.00	5.42	C
ATOM	1355	O	PHE	A	498	-6.110	12.704	49.680	1.00	5.92	O
ATOM	1356	N	CYS	A	499	-5.237	12.650	51.760	1.00	5.20	N
ATOM	1357	CA	CYS	A	499	-4.392	13.829	51.574	1.00	7.36	C
ATOM	1358	CB	CYS	A	499	-5.229	15.085	51.321	1.00	7.96	C
ATOM	1359	SG	CYS	A	499	-6.071	15.705	52.779	1.00	11.39	S
ATOM	1360	C	CYS	A	499	-3.435	14.054	52.757	1.00	6.81	C
ATOM	1361	O	CYS	A	499	-3.615	13.473	53.815	1.00	8.07	O
ATOM	1362	N	GLY	A	500	-2.418	14.889	52.554	1.00	7.01	N
ATOM	1363	CA	GLY	A	500	-1.431	15.190	53.579	1.00	4.83	C
ATOM	1364	C	GLY	A	500	-0.021	14.761	53.204	1.00	5.56	C
ATOM	1365	O	GLY	A	500	0.193	14.051	52.219	1.00	5.85	O
ATOM	1366	N	THR	A	501	0.955	15.196	53.996	1.00	3.89	N
ATOM	1367	CA	THR	A	501	2.326	14.714	53.836	1.00	5.10	C
ATOM	1368	CB	THR	A	501	3.355	15.767	54.356	1.00	5.95	C
ATOM	1369	OG1	THR	A	501	3.106	17.020	53.712	1.00	6.91	O
ATOM	1370	CG2	THR	A	501	4.809	15.346	54.055	1.00	5.33	C
ATOM	1371	C	THR	A	501	2.429	13.393	54.603	1.00	3.44	C
ATOM	1372	O	THR	A	501	2.099	13.353	55.792	1.00	4.37	O
ATOM	1373	N	PRO	A	502	2.852	12.313	53.921	1.00	2.43	N
ATOM	1374	CA	PRO	A	502	2.870	10.955	54.458	1.00	2.18	C
ATOM	1375	CB	PRO	A	502	3.761	10.214	53.469	1.00	2.00	C
ATOM	1376	CG	PRO	A	502	3.345	10.838	52.176	1.00	2.36	C
ATOM	1377	CD	PRO	A	502	3.325	12.315	52.522	1.00	2.32	C
ATOM	1378	C	PRO	A	502	3.322	10.776	55.900	1.00	2.00	C
ATOM	1379	O	PRO	A	502	2.618	10.129	56.658	1.00	2.00	O
ATOM	1380	N	ASP	A	503	4.456	11.360	56.298	1.00	2.00	N
ATOM	1381	CA	ASP	A	503	4.875	11.242	57.697	1.00	2.00	C
ATOM	1382	CB	ASP	A	503	6.282	11.798	57.917	1.00	2.00	C
ATOM	1383	CG	ASP	A	503	7.343	10.805	57.518	1.00	2.00	C
ATOM	1384	OD1	ASP	A	503	7.670	10.730	56.324	1.00	2.00	O
ATOM	1385	OD2	ASP	A	503	7.836	10.074	58.391	1.00	3.74	O
ATOM	1386	C	ASP	A	503	3.916	11.817	58.721	1.00	2.00	C
ATOM	1387	O	ASP	A	503	3.979	11.426	59.885	1.00	2.00	O

- 65 -

ATOM	1388	N	TYR	A	504	3.036	12.729	58.291	1.00	2.00	N
ATOM	1389	CA	TYR	A	504	2.124	13.439	59.205	1.00	2.00	C
ATOM	1390	CB	TYR	A	504	2.086	14.932	58.872	1.00	2.00	C
ATOM	1391	CG	TYR	A	504	3.415	15.660	59.050	1.00	2.00	C
ATOM	1392	CD1	TYR	A	504	4.384	15.631	58.054	1.00	2.00	C
ATOM	1393	CE1	TYR	A	504	5.612	16.315	58.216	1.00	2.00	C
ATOM	1394	CZ	TYR	A	504	5.851	17.007	59.380	1.00	2.00	C
ATOM	1395	OH	TYR	A	504	7.039	17.679	59.527	1.00	2.00	O
ATOM	1396	CE2	TYR	A	504	4.898	17.046	60.396	1.00	2.00	C
ATOM	1397	CD2	TYR	A	504	3.687	16.366	60.216	1.00	2.00	C
ATOM	1398	C	TYR	A	504	0.692	12.920	59.169	1.00	2.00	C
ATOM	1399	O	TYR	A	504	-0.132	13.348	59.970	1.00	2.00	O
ATOM	1400	N	ILE	A	505	0.431	12.019	58.227	1.00	2.00	N
ATOM	1401	CA	ILE	A	505	-0.892	11.451	57.941	1.00	2.00	C
ATOM	1402	CB	ILE	A	505	-0.873	10.755	56.561	1.00	2.00	C
ATOM	1403	CG1	ILE	A	505	-0.722	11.801	55.458	1.00	2.00	C
ATOM	1404	CD1	ILE	A	505	-0.666	11.216	54.023	1.00	2.00	C
ATOM	1405	CG2	ILE	A	505	-2.171	9.933	56.310	1.00	2.00	C
ATOM	1406	C	ILE	A	505	-1.379	10.489	59.035	1.00	2.00	C
ATOM	1407	O	ILE	A	505	-0.672	9.541	59.411	1.00	2.00	O
ATOM	1408	N	ALA	A	506	-2.601	10.743	59.536	1.00	2.00	N
ATOM	1409	CA	ALA	A	506	-3.196	9.962	60.621	1.00	2.00	C
ATOM	1410	CB	ALA	A	506	-4.327	10.737	61.229	1.00	2.00	C
ATOM	1411	C	ALA	A	506	-3.678	8.590	60.142	1.00	2.00	C
ATOM	1412	O	ALA	A	506	-4.002	8.415	58.944	1.00	2.00	O
ATOM	1413	N	PRO	A	507	-3.738	7.599	61.060	1.00	2.00	N
ATOM	1414	CA	PRO	A	507	-4.233	6.287	60.636	1.00	2.00	C
ATOM	1415	CB	PRO	A	507	-4.280	5.492	61.953	1.00	2.00	C
ATOM	1416	CG	PRO	A	507	-3.245	6.142	62.796	1.00	2.00	C
ATOM	1417	CD	PRO	A	507	-3.378	7.595	62.490	1.00	2.00	C
ATOM	1418	C	PRO	A	507	-5.615	6.319	59.962	1.00	2.00	C
ATOM	1419	O	PRO	A	507	-5.852	5.547	59.024	1.00	2.00	O
ATOM	1420	N	GLU	A	508	-6.518	7.197	60.413	1.00	2.00	N
ATOM	1421	CA	GLU	A	508	-7.891	7.180	59.865	1.00	2.00	C
ATOM	1422	CB	GLU	A	508	-8.891	7.991	60.734	1.00	2.00	C
ATOM	1423	CG	GLU	A	508	-8.542	9.468	60.908	1.00	2.00	C
ATOM	1424	CD	GLU	A	508	-7.578	9.753	62.081	1.00	2.00	C
ATOM	1425	OE1	GLU	A	508	-6.781	8.880	62.489	1.00	2.00	O
ATOM	1426	OE2	GLU	A	508	-7.623	10.874	62.592	1.00	2.00	O
ATOM	1427	C	GLU	A	508	-7.894	7.625	58.406	1.00	2.00	C
ATOM	1428	O	GLU	A	508	-8.758	7.222	57.614	1.00	2.00	O
ATOM	1429	N	ILE	A	509	-6.925	8.468	58.048	1.00	2.00	N
ATOM	1430	CA	ILE	A	509	-6.765	8.861	56.665	1.00	2.00	C
ATOM	1431	CB	ILE	A	509	-5.780	10.061	56.464	1.00	2.00	C
ATOM	1432	CG1	ILE	A	509	-6.401	11.353	57.025	1.00	2.00	C
ATOM	1433	CD1	ILE	A	509	-5.542	12.560	56.943	1.00	2.00	C
ATOM	1434	CG2	ILE	A	509	-5.409	10.204	54.986	1.00	2.00	C
ATOM	1435	C	ILE	A	509	-6.326	7.642	55.876	1.00	2.00	C
ATOM	1436	O	ILE	A	509	-6.936	7.327	54.860	1.00	2.00	O
ATOM	1437	N	ILE	A	510	-5.297	6.935	56.356	1.00	2.00	N
ATOM	1438	CA	ILE	A	510	-4.788	5.754	55.647	1.00	2.00	C
ATOM	1439	CB	ILE	A	510	-3.490	5.191	56.310	1.00	2.00	C
ATOM	1440	CG1	ILE	A	510	-2.350	6.201	56.175	1.00	2.00	C
ATOM	1441	CD1	ILE	A	510	-1.342	6.217	57.382	1.00	2.00	C
ATOM	1442	CG2	ILE	A	510	-3.091	3.871	55.671	1.00	2.00	C
ATOM	1443	C	ILE	A	510	-5.843	4.658	55.516	1.00	2.00	C
ATOM	1444	O	ILE	A	510	-5.880	3.939	54.519	1.00	2.00	O
ATOM	1445	N	ALA	A	511	-6.702	4.540	56.523	1.00	2.00	N

- 66 -

ATOM	1446	CA	ALA	A	511	-7.766	3.543	56.523	1.00	2.00	C
ATOM	1447	CB	ALA	A	511	-8.133	3.149	57.957	1.00	2.00	C
ATOM	1448	C	ALA	A	511	-9.010	3.998	55.769	1.00	2.00	C
ATOM	1449	O	ALA	A	511	-9.975	3.235	55.655	1.00	2.00	O
ATOM	1450	N	TYR	A	512	-8.987	5.230	55.270	1.00	2.00	N
ATOM	1451	CA	TYR	A	512	-10.146	5.862	54.629	1.00	2.00	C
ATOM	1452	CB	TYR	A	512	-10.496	5.200	53.278	1.00	2.00	C
ATOM	1453	CG	TYR	A	512	-9.473	5.453	52.207	1.00	2.00	C
ATOM	1454	CD1	TYR	A	512	-9.656	6.476	51.278	1.00	2.00	C
ATOM	1455	CE1	TYR	A	512	-8.715	6.729	50.295	1.00	2.00	C
ATOM	1456	CZ	TYR	A	512	-7.558	5.960	50.245	1.00	2.00	C
ATOM	1457	OH	TYR	A	512	-6.628	6.215	49.264	1.00	2.36	O
ATOM	1458	CE2	TYR	A	512	-7.342	4.943	51.165	1.00	2.00	C
ATOM	1459	CD2	TYR	A	512	-8.310	4.696	52.143	1.00	2.00	C
ATOM	1460	C	TYR	A	512	-11.351	5.816	55.548	1.00	2.00	C
ATOM	1461	O	TYR	A	512	-12.439	5.501	55.100	1.00	2.00	O
ATOM	1462	N	GLN	A	513	-11.152	6.101	56.829	1.00	2.00	N
ATOM	1463	CA	GLN	A	513	-12.271	6.159	57.739	1.00	2.00	C
ATOM	1464	CB	GLN	A	513	-11.920	5.587	59.117	1.00	4.36	C
ATOM	1465	CG	GLN	A	513	-11.521	4.072	59.110	1.00	8.40	C
ATOM	1466	CD	GLN	A	513	-12.644	3.083	58.636	1.00	12.74	C
ATOM	1467	OE1	GLN	A	513	-13.843	3.228	58.965	1.00	12.93	O
ATOM	1468	NE2	GLN	A	513	-12.238	2.071	57.860	1.00	12.74	N
ATOM	1469	C	GLN	A	513	-12.739	7.616	57.787	1.00	2.00	C
ATOM	1470	O	GLN	A	513	-11.911	8.534	57.793	1.00	2.00	O
ATOM	1471	N	PRO	A	514	-14.077	7.842	57.784	1.00	2.00	N
ATOM	1472	CA	PRO	A	514	-14.565	9.220	57.869	1.00	2.00	C
ATOM	1473	CB	PRO	A	514	-16.040	9.040	58.229	1.00	2.00	C
ATOM	1474	CG	PRO	A	514	-16.421	7.718	57.545	1.00	2.00	C
ATOM	1475	CD	PRO	A	514	-15.176	6.854	57.712	1.00	2.00	C
ATOM	1476	C	PRO	A	514	-13.837	9.930	59.007	1.00	2.00	C
ATOM	1477	O	PRO	A	514	-13.771	9.393	60.107	1.00	2.00	O
ATOM	1478	N	TYR	A	515	-13.294	11.112	58.731	1.00	2.00	N
ATOM	1479	CA	TYR	A	515	-12.495	11.853	59.711	1.00	2.00	C
ATOM	1480	CB	TYR	A	515	-10.974	11.728	59.397	1.00	2.00	C
ATOM	1481	CG	TYR	A	515	-10.529	12.387	58.110	1.00	2.00	C
ATOM	1482	CD1	TYR	A	515	-10.239	13.758	58.068	1.00	2.00	C
ATOM	1483	CE1	TYR	A	515	-9.823	14.370	56.897	1.00	2.00	C
ATOM	1484	CZ	TYR	A	515	-9.694	13.617	55.754	1.00	2.00	C
ATOM	1485	OH	TYR	A	515	-9.305	14.222	54.588	1.00	2.00	O
ATOM	1486	CE2	TYR	A	515	-9.972	12.243	55.762	1.00	2.00	C
ATOM	1487	CD2	TYR	A	515	-10.382	11.642	56.936	1.00	2.00	C
ATOM	1488	C	TYR	A	515	-12.927	13.317	59.823	1.00	2.00	C
ATOM	1489	O	TYR	A	515	-13.535	13.869	58.907	1.00	2.00	O
ATOM	1490	N	GLY	A	516	-12.591	13.939	60.948	1.00	2.00	N
ATOM	1491	CA	GLY	A	516	-12.779	15.362	61.134	1.00	2.00	C
ATOM	1492	C	GLY	A	516	-11.480	16.003	61.588	1.00	2.00	C
ATOM	1493	O	GLY	A	516	-10.423	15.651	61.083	1.00	2.00	O
ATOM	1494	N	LYS	A	517	-11.575	16.906	62.557	1.00	2.00	N
ATOM	1495	CA	LYS	A	517	-10.447	17.683	63.094	1.00	2.00	C
ATOM	1496	CB	LYS	A	517	-10.974	18.688	64.116	1.00	2.00	C
ATOM	1497	CG	LYS	A	517	-11.394	18.040	65.451	1.00	2.00	C
ATOM	1498	CD	LYS	A	517	-11.646	19.104	66.509	1.00	2.35	C
ATOM	1499	CE	LYS	A	517	-12.786	18.662	67.424	1.00	2.93	C
ATOM	1500	NZ	LYS	A	517	-13.371	19.832	68.184	1.00	3.71	N
ATOM	1501	C	LYS	A	517	-9.308	16.859	63.726	1.00	2.00	C
ATOM	1502	O	LYS	A	517	-8.193	17.374	63.938	1.00	2.00	O
ATOM	1503	N	SER	A	518	-9.585	15.590	64.027	1.00	2.00	N

- 67 -

ATOM	1504	CA	SER	A	518	-8.638	14.705	64.696	1.00	2.00	C
ATOM	1505	CB	SER	A	518	-9.255	13.333	64.909	1.00	2.00	C
ATOM	1506	OG	SER	A	518	-9.297	12.632	63.669	1.00	3.05	O
ATOM	1507	C	SER	A	518	-7.312	14.523	63.932	1.00	2.00	C
ATOM	1508	O	SER	A	518	-6.289	14.230	64.548	1.00	2.00	O
ATOM	1509	N	VAL	A	519	-7.351	14.681	62.607	1.00	2.00	N
ATOM	1510	CA	VAL	A	519	-6.170	14.475	61.774	1.00	2.00	C
ATOM	1511	CB	VAL	A	519	-6.505	14.384	60.256	1.00	2.00	C
ATOM	1512	CG1	VAL	A	519	-7.548	13.289	59.995	1.00	2.00	C
ATOM	1513	CG2	VAL	A	519	-6.988	15.737	59.677	1.00	2.00	C
ATOM	1514	C	VAL	A	519	-5.137	15.570	62.061	1.00	2.00	C
ATOM	1515	O	VAL	A	519	-3.919	15.335	61.960	1.00	2.00	O
ATOM	1516	N	ASP	A	520	-5.637	16.751	62.448	1.00	2.00	N
ATOM	1517	CA	ASP	A	520	-4.793	17.909	62.730	1.00	2.00	C
ATOM	1518	CB	ASP	A	520	-5.594	19.198	62.814	1.00	2.00	C
ATOM	1519	CG	ASP	A	520	-5.907	19.806	61.436	1.00	2.00	C
ATOM	1520	OD1	ASP	A	520	-5.376	19.348	60.395	1.00	2.00	O
ATOM	1521	OD2	ASP	A	520	-6.695	20.773	61.413	1.00	2.00	O
ATOM	1522	C	ASP	A	520	-4.032	17.723	64.011	1.00	2.00	C
ATOM	1523	O	ASP	A	520	-2.893	18.177	64.126	1.00	2.00	O
ATOM	1524	N	TRP	A	521	-4.662	17.046	64.961	1.00	2.00	N
ATOM	1525	CA	TRP	A	521	-4.050	16.790	66.247	1.00	2.00	C
ATOM	1526	CB	TRP	A	521	-5.115	16.520	67.313	1.00	2.00	C
ATOM	1527	CG	TRP	A	521	-5.862	17.772	67.610	1.00	2.00	C
ATOM	1528	CD1	TRP	A	521	-7.191	17.998	67.410	1.00	2.00	C
ATOM	1529	NE1	TRP	A	521	-7.510	19.283	67.762	1.00	2.00	N
ATOM	1530	CE2	TRP	A	521	-6.383	19.927	68.203	1.00	2.00	C
ATOM	1531	CD2	TRP	A	521	-5.312	19.010	68.106	1.00	2.00	C
ATOM	1532	CE3	TRP	A	521	-4.016	19.429	68.493	1.00	2.00	C
ATOM	1533	CZ3	TRP	A	521	-3.836	20.740	68.953	1.00	2.00	C
ATOM	1534	CH2	TRP	A	521	-4.918	21.625	69.033	1.00	2.00	C
ATOM	1535	CZ2	TRP	A	521	-6.206	21.241	68.662	1.00	2.00	C
ATOM	1536	C	TRP	A	521	-3.001	15.684	66.150	1.00	2.00	C
ATOM	1537	O	TRP	A	521	-1.987	15.737	66.854	1.00	2.00	O
ATOM	1538	N	TRP	A	522	-3.261	14.705	65.278	1.00	2.00	N
ATOM	1539	CA	TRP	A	522	-2.276	13.673	64.991	1.00	2.00	C
ATOM	1540	CB	TRP	A	522	-2.839	12.559	64.097	1.00	2.00	C
ATOM	1541	CG	TRP	A	522	-1.787	11.626	63.623	1.00	2.00	C
ATOM	1542	CD1	TRP	A	522	-0.890	11.855	62.601	1.00	2.00	C
ATOM	1543	NE1	TRP	A	522	-0.055	10.786	62.459	1.00	2.00	N
ATOM	1544	CE2	TRP	A	522	-0.370	9.835	63.392	1.00	2.00	C
ATOM	1545	CD2	TRP	A	522	-1.460	10.330	64.150	1.00	2.00	C
ATOM	1546	CE3	TRP	A	522	-1.983	9.537	65.178	1.00	2.00	C
ATOM	1547	CZ3	TRP	A	522	-1.408	8.284	65.410	1.00	2.00	C
ATOM	1548	CH2	TRP	A	522	-0.313	7.823	64.635	1.00	2.00	C
ATOM	1549	CZ2	TRP	A	522	0.214	8.581	63.631	1.00	2.00	C
ATOM	1550	C	TRP	A	522	-1.023	14.317	64.365	1.00	2.00	C
ATOM	1551	O	TRP	A	522	0.110	14.020	64.805	1.00	2.00	O
ATOM	1552	N	ALA	A	523	-1.233	15.186	63.370	1.00	2.00	N
ATOM	1553	CA	ALA	A	523	-0.159	15.901	62.644	1.00	2.00	C
ATOM	1554	CB	ALA	A	523	-0.723	16.668	61.471	1.00	2.00	C
ATOM	1555	C	ALA	A	523	0.618	16.831	63.572	1.00	2.00	C
ATOM	1556	O	ALA	A	523	1.851	16.956	63.470	1.00	2.00	O
ATOM	1557	N	TYR	A	524	-0.113	17.470	64.475	1.00	2.00	N
ATOM	1558	CA	TYR	A	524	0.449	18.239	65.587	1.00	2.00	C
ATOM	1559	CB	TYR	A	524	-0.721	18.813	66.392	1.00	2.00	C
ATOM	1560	CG	TYR	A	524	-0.389	19.754	67.535	1.00	2.00	C
ATOM	1561	CD1	TYR	A	524	-0.155	21.105	67.312	1.00	2.00	C

- 68 -

ATOM	1562	CE1	TYR	A	524	0.144	21.963	68.377	1.00	2.00	C
ATOM	1563	CZ	TYR	A	524	0.173	21.467	69.672	1.00	2.00	C
ATOM	1564	OH	TYR	A	524	0.428	22.279	70.721	1.00	2.00	O
ATOM	1565	CE2	TYR	A	524	-0.082	20.134	69.919	1.00	2.00	C
ATOM	1566	CD2	TYR	A	524	-0.366	19.288	68.847	1.00	2.00	C
ATOM	1567	C	TYR	A	524	1.377	17.401	66.476	1.00	2.00	C
ATOM	1568	O	TYR	A	524	2.403	17.888	66.908	1.00	2.00	O
ATOM	1569	N	GLY	A	525	1.012	16.144	66.736	1.00	2.00	N
ATOM	1570	CA	GLY	A	525	1.837	15.235	67.523	1.00	2.00	C
ATOM	1571	C	GLY	A	525	3.109	14.849	66.785	1.00	2.00	C
ATOM	1572	O	GLY	A	525	4.195	14.798	67.370	1.00	2.00	O
ATOM	1573	N	VAL	A	526	2.972	14.575	65.491	1.00	2.00	N
ATOM	1574	CA	VAL	A	526	4.111	14.273	64.658	1.00	2.00	C
ATOM	1575	CB	VAL	A	526	3.729	13.905	63.199	1.00	2.00	C
ATOM	1576	CG1	VAL	A	526	5.036	13.694	62.355	1.00	2.00	C
ATOM	1577	CG2	VAL	A	526	2.864	12.650	63.166	1.00	2.00	C
ATOM	1578	C	VAL	A	526	5.099	15.455	64.702	1.00	2.00	C
ATOM	1579	O	VAL	A	526	6.311	15.255	64.944	1.00	2.00	O
ATOM	1580	N	LEU	A	527	4.577	16.672	64.513	1.00	2.00	N
ATOM	1581	CA	LEU	A	527	5.409	17.900	64.516	1.00	2.00	C
ATOM	1582	CB	LEU	A	527	4.566	19.137	64.167	1.00	2.00	C
ATOM	1583	CG	LEU	A	527	5.260	20.433	63.718	1.00	2.00	C
ATOM	1584	CD1	LEU	A	527	4.426	21.162	62.701	1.00	2.00	C
ATOM	1585	CD2	LEU	A	527	5.594	21.366	64.902	1.00	2.00	C
ATOM	1586	C	LEU	A	527	6.130	18.119	65.843	1.00	2.00	C
ATOM	1587	O	LEU	A	527	7.303	18.524	65.881	1.00	2.00	O
ATOM	1588	N	LEU	A	528	5.418	17.857	66.927	1.00	2.00	N
ATOM	1589	CA	LEU	A	528	5.935	18.067	68.253	1.00	2.00	C
ATOM	1590	CB	LEU	A	528	4.841	17.904	69.304	1.00	2.00	C
ATOM	1591	CG	LEU	A	528	4.758	18.990	70.370	1.00	4.17	C
ATOM	1592	CD1	LEU	A	528	3.723	18.594	71.427	1.00	2.61	C
ATOM	1593	CD2	LEU	A	528	6.145	19.333	70.994	1.00	3.48	C
ATOM	1594	C	LEU	A	528	7.030	17.061	68.541	1.00	2.00	C
ATOM	1595	O	LEU	A	528	8.024	17.414	69.160	1.00	2.00	O
ATOM	1596	N	TYR	A	529	6.820	15.820	68.101	1.00	2.00	N
ATOM	1597	CA	TYR	A	529	7.799	14.765	68.278	1.00	2.00	C
ATOM	1598	CB	TYR	A	529	7.259	13.427	67.792	1.00	2.00	C
ATOM	1599	CG	TYR	A	529	8.224	12.268	67.967	1.00	2.00	C
ATOM	1600	CD1	TYR	A	529	9.236	12.032	67.035	1.00	2.00	C
ATOM	1601	CE1	TYR	A	529	10.120	10.979	67.183	1.00	2.00	C
ATOM	1602	CZ	TYR	A	529	9.997	10.138	68.258	1.00	2.00	C
ATOM	1603	OH	TYR	A	529	10.877	9.087	68.391	1.00	2.00	O
ATOM	1604	CE2	TYR	A	529	9.009	10.335	69.195	1.00	2.00	C
ATOM	1605	CD2	TYR	A	529	8.115	11.402	69.041	1.00	2.00	C
ATOM	1606	C	TYR	A	529	9.106	15.133	67.547	1.00	2.00	C
ATOM	1607	O	TYR	A	529	10.189	14.929	68.072	1.00	2.00	O
ATOM	1608	N	GLU	A	530	8.976	15.693	66.355	1.00	2.00	N
ATOM	1609	CA	GLU	A	530	10.110	16.172	65.565	1.00	2.00	C
ATOM	1610	CB	GLU	A	530	9.638	16.624	64.190	1.00	2.00	C
ATOM	1611	CG	GLU	A	530	9.347	15.484	63.274	1.00	2.00	C
ATOM	1612	CD	GLU	A	530	8.825	15.919	61.940	1.00	2.00	C
ATOM	1613	OE1	GLU	A	530	7.839	16.686	61.896	1.00	2.00	O
ATOM	1614	OE2	GLU	A	530	9.367	15.485	60.917	1.00	2.00	O
ATOM	1615	C	GLU	A	530	10.837	17.308	66.260	1.00	2.00	C
ATOM	1616	O	GLU	A	530	12.054	17.287	66.356	1.00	2.00	O
ATOM	1617	N	MET	A	531	10.089	18.285	66.769	1.00	2.00	N
ATOM	1618	CA	MET	A	531	10.647	19.404	67.537	1.00	2.00	C
ATOM	1619	CB	MET	A	531	9.557	20.376	68.015	1.00	2.00	C

- 69 -

ATOM	1620	CG	MET	A	531	8.948	21.194	66.886	1.00	2.00	C
ATOM	1621	SD	MET	A	531	8.342	22.736	67.505	1.00	2.00	S
ATOM	1622	CE	MET	A	531	6.799	22.154	68.308	1.00	2.00	C
ATOM	1623	C	MET	A	531	11.432	18.884	68.710	1.00	2.00	C
ATOM	1624	O	MET	A	531	12.554	19.381	69.002	1.00	2.00	O
ATOM	1625	N	LEU	A	532	10.890	17.857	69.353	1.00	2.00	N
ATOM	1626	CA	LEU	A	532	11.527	17.313	70.548	1.00	2.00	C
ATOM	1627	CB	LEU	A	532	10.504	16.766	71.526	1.00	2.00	C
ATOM	1628	CG	LEU	A	532	9.539	17.715	72.206	1.00	2.00	C
ATOM	1629	CD1	LEU	A	532	8.369	16.850	72.683	1.00	2.00	C
ATOM	1630	CD2	LEU	A	532	10.178	18.492	73.340	1.00	2.00	C
ATOM	1631	C	LEU	A	532	12.622	16.254	70.350	1.00	2.00	C
ATOM	1632	O	LEU	A	532	13.580	16.240	71.109	1.00	2.00	O
ATOM	1633	N	ALA	A	533	12.455	15.355	69.393	1.00	2.00	N
ATOM	1634	CA	ALA	A	533	13.416	14.267	69.181	1.00	2.00	C
ATOM	1635	CB	ALA	A	533	12.711	12.928	69.025	1.00	2.00	C
ATOM	1636	C	ALA	A	533	14.327	14.499	68.000	1.00	2.00	C
ATOM	1637	O	ALA	A	533	15.347	13.811	67.871	1.00	2.27	O
ATOM	1638	N	GLY	A	534	13.965	15.452	67.141	1.00	2.00	N
ATOM	1639	CA	GLY	A	534	14.755	15.790	65.948	1.00	2.00	C
ATOM	1640	C	GLY	A	534	14.641	14.760	64.834	1.00	2.00	C
ATOM	1641	O	GLY	A	534	15.420	14.750	63.887	1.00	2.00	O
ATOM	1642	N	GLN	A	535	13.646	13.894	64.947	1.00	2.00	N
ATOM	1643	CA	GLN	A	535	13.495	12.775	64.038	1.00	3.06	C
ATOM	1644	CB	GLN	A	535	14.135	11.525	64.662	1.00	6.59	C
ATOM	1645	CG	GLN	A	535	14.979	10.686	63.708	1.00	13.27	C
ATOM	1646	CD	GLN	A	535	16.229	11.406	63.219	1.00	13.75	C
ATOM	1647	OE1	GLN	A	535	16.423	11.592	62.010	1.00	16.39	O
ATOM	1648	NE2	GLN	A	535	17.080	11.824	64.155	1.00	16.28	N
ATOM	1649	C	GLN	A	535	12.000	12.563	63.866	1.00	2.00	C
ATOM	1650	O	GLN	A	535	11.231	12.939	64.745	1.00	2.00	O
ATOM	1651	N	PRO	A	536	11.576	11.980	62.739	1.00	2.00	N
ATOM	1652	CA	PRO	A	536	10.164	11.625	62.666	1.00	2.00	C
ATOM	1653	CB	PRO	A	536	9.934	11.356	61.179	1.00	2.00	C
ATOM	1654	CG	PRO	A	536	11.266	10.987	60.614	1.00	2.00	C
ATOM	1655	CD	PRO	A	536	12.319	11.628	61.511	1.00	2.00	C
ATOM	1656	C	PRO	A	536	9.838	10.401	63.534	1.00	2.00	C
ATOM	1657	O	PRO	A	536	10.729	9.576	63.801	1.00	2.00	O
ATOM	1658	N	PRO	A	537	8.576	10.313	64.016	1.00	2.00	N
ATOM	1659	CA	PRO	A	537	8.165	9.178	64.845	1.00	2.00	C
ATOM	1660	CB	PRO	A	537	6.820	9.630	65.439	1.00	2.00	C
ATOM	1661	CG	PRO	A	537	6.264	10.657	64.459	1.00	2.00	C
ATOM	1662	CD	PRO	A	537	7.491	11.308	63.820	1.00	2.00	C
ATOM	1663	C	PRO	A	537	8.032	7.848	64.105	1.00	2.00	C
ATOM	1664	O	PRO	A	537	8.200	6.806	64.713	1.00	2.00	O
ATOM	1665	N	PHE	A	538	7.761	7.877	62.802	1.00	2.00	N
ATOM	1666	CA	PHE	A	538	7.558	6.647	62.038	1.00	2.00	C
ATOM	1667	CB	PHE	A	538	6.083	6.526	61.556	1.00	2.00	C
ATOM	1668	CG	PHE	A	538	5.108	6.585	62.676	1.00	2.00	C
ATOM	1669	CD1	PHE	A	538	4.807	5.445	63.413	1.00	2.00	C
ATOM	1670	CE1	PHE	A	538	3.911	5.500	64.475	1.00	2.00	C
ATOM	1671	CZ	PHE	A	538	3.319	6.714	64.818	1.00	2.00	C
ATOM	1672	CE2	PHE	A	538	3.619	7.861	64.102	1.00	2.00	C
ATOM	1673	CD2	PHE	A	538	4.516	7.792	63.029	1.00	2.13	C
ATOM	1674	C	PHE	A	538	8.521	6.601	60.887	1.00	3.39	C
ATOM	1675	O	PHE	A	538	8.983	7.635	60.408	1.00	4.44	O
ATOM	1676	N	ASP	A	539	8.829	5.395	60.436	1.00	6.72	N
ATOM	1677	CA	ASP	A	539	9.777	5.222	59.344	1.00	9.37	C

- 70 -

ATOM	1678	CB	ASP	A	539	11.191	4.955	59.900	1.00	14.06	C
ATOM	1679	CG	ASP	A	539	11.933	6.241	60.267	1.00	17.59	C
ATOM	1680	OD1	ASP	A	539	12.386	6.968	59.342	1.00	17.80	O
ATOM	1681	OD2	ASP	A	539	12.070	6.515	61.485	1.00	18.92	O
ATOM	1682	C	ASP	A	539	9.382	4.106	58.404	1.00	7.80	C
ATOM	1683	O	ASP	A	539	8.521	3.284	58.725	1.00	9.29	O
ATOM	1684	N	GLY	A	540	10.032	4.084	57.245	1.00	6.66	N
ATOM	1685	CA	GLY	A	540	9.817	3.043	56.266	1.00	5.09	C
ATOM	1686	C	GLY	A	540	10.564	3.375	55.004	1.00	4.77	C
ATOM	1687	O	GLY	A	540	10.779	4.562	54.691	1.00	4.73	O
ATOM	1688	N	GLU	A	541	10.953	2.329	54.274	1.00	4.50	N
ATOM	1689	CA	GLU	A	541	11.748	2.460	53.058	1.00	5.49	C
ATOM	1690	CB	GLU	A	541	12.387	1.109	52.698	1.00	8.06	C
ATOM	1691	CG	GLU	A	541	13.225	0.524	53.840	1.00	10.53	C
ATOM	1692	CD	GLU	A	541	13.780	-0.873	53.563	1.00	11.51	C
ATOM	1693	OE1	GLU	A	541	14.434	-1.068	52.504	1.00	15.00	O
ATOM	1694	OE2	GLU	A	541	13.580	-1.775	54.421	1.00	13.62	O
ATOM	1695	C	GLU	A	541	10.924	3.026	51.899	1.00	3.83	C
ATOM	1696	O	GLU	A	541	11.456	3.397	50.861	1.00	3.05	O
ATOM	1697	N	ASP	A	542	9.613	3.100	52.088	1.00	2.00	N
ATOM	1698	CA	ASP	A	542	8.720	3.640	51.072	1.00	2.00	C
ATOM	1699	CB	ASP	A	542	8.596	2.686	49.872	1.00	2.00	C
ATOM	1700	CG	ASP	A	542	7.799	1.409	50.174	1.00	2.19	C
ATOM	1701	OD1	ASP	A	542	7.250	1.226	51.299	1.00	2.45	O
ATOM	1702	OD2	ASP	A	542	7.714	0.577	49.242	1.00	2.00	O
ATOM	1703	C	ASP	A	542	7.377	4.003	51.720	1.00	2.00	C
ATOM	1704	O	ASP	A	542	7.165	3.703	52.898	1.00	2.00	O
ATOM	1705	N	GLU	A	543	6.495	4.669	50.973	1.00	2.00	N
ATOM	1706	CA	GLU	A	543	5.206	5.107	51.531	1.00	2.00	C
ATOM	1707	CB	GLU	A	543	4.359	5.831	50.479	1.00	2.00	C
ATOM	1708	CG	GLU	A	543	3.277	6.640	51.099	1.00	2.00	C
ATOM	1709	CD	GLU	A	543	2.562	7.553	50.123	1.00	2.50	C
ATOM	1710	OE1	GLU	A	543	2.743	7.419	48.902	1.00	3.08	O
ATOM	1711	OE2	GLU	A	543	1.812	8.429	50.590	1.00	4.11	O
ATOM	1712	C	GLU	A	543	4.424	3.950	52.149	1.00	2.00	C
ATOM	1713	O	GLU	A	543	3.973	4.045	53.279	1.00	2.00	O
ATOM	1714	N	ASP	A	544	4.290	2.863	51.393	1.00	2.00	N
ATOM	1715	CA	ASP	A	544	3.624	1.631	51.828	1.00	3.37	C
ATOM	1716	CB	ASP	A	544	3.814	0.544	50.766	1.00	5.85	C
ATOM	1717	CG	ASP	A	544	3.853	1.108	49.312	1.00	12.21	C
ATOM	1718	OD1	ASP	A	544	4.549	2.150	49.023	1.00	10.53	O
ATOM	1719	OD2	ASP	A	544	3.187	0.478	48.437	1.00	11.15	O
ATOM	1720	C	ASP	A	544	4.113	1.126	53.209	1.00	3.53	C
ATOM	1721	O	ASP	A	544	3.301	0.793	54.092	1.00	2.65	O
ATOM	1722	N	GLU	A	545	5.436	1.096	53.399	1.00	2.00	N
ATOM	1723	CA	GLU	A	545	6.024	0.631	54.644	1.00	2.00	C
ATOM	1724	CB	GLU	A	545	7.530	0.401	54.468	1.00	3.98	C
ATOM	1725	CG	GLU	A	545	8.043	-0.793	55.241	1.00	9.26	C
ATOM	1726	CD	GLU	A	545	9.548	-0.739	55.520	1.00	8.81	C
ATOM	1727	OE1	GLU	A	545	10.255	0.076	54.899	1.00	10.15	O
ATOM	1728	OE2	GLU	A	545	10.019	-1.515	56.376	1.00	11.59	O
ATOM	1729	C	GLU	A	545	5.763	1.628	55.778	1.00	2.00	C
ATOM	1730	O	GLU	A	545	5.464	1.233	56.909	1.00	2.00	O
ATOM	1731	N	LEU	A	546	5.893	2.912	55.463	1.00	2.00	N
ATOM	1732	CA	LEU	A	546	5.613	3.980	56.420	1.00	2.00	C
ATOM	1733	CB	LEU	A	546	5.950	5.331	55.809	1.00	2.00	C
ATOM	1734	CG	LEU	A	546	5.497	6.565	56.590	1.00	2.00	C
ATOM	1735	CD1	LEU	A	546	6.375	6.796	57.793	1.00	2.00	C

- 71 -

ATOM	1736	CD2	LEU	A	546	5.505	7.765	55.676	1.00	2.25	C
ATOM	1737	C	LEU	A	546	4.133	3.988	56.895	1.00	2.00	C
ATOM	1738	O	LEU	A	546	3.838	4.251	58.069	1.00	2.00	O
ATOM	1739	N	PHE	A	547	3.215	3.711	55.983	1.00	2.00	N
ATOM	1740	CA	PHE	A	547	1.789	3.626	56.369	1.00	2.00	C
ATOM	1741	CB	PHE	A	547	0.876	3.597	55.143	1.00	2.00	C
ATOM	1742	CG	PHE	A	547	0.739	4.926	54.456	1.00	2.00	C
ATOM	1743	CD1	PHE	A	547	1.120	6.104	55.099	1.00	2.00	C
ATOM	1744	CE1	PHE	A	547	0.992	7.339	54.470	1.00	2.00	C
ATOM	1745	CZ	PHE	A	547	0.469	7.396	53.190	1.00	2.00	C
ATOM	1746	CE2	PHE	A	547	0.071	6.221	52.543	1.00	2.00	C
ATOM	1747	CD2	PHE	A	547	0.202	5.003	53.178	1.00	2.00	C
ATOM	1748	C	PHE	A	547	1.563	2.406	57.223	1.00	2.00	C
ATOM	1749	O	PHE	A	547	0.779	2.453	58.179	1.00	2.00	O
ATOM	1750	N	GLN	A	548	2.258	1.315	56.894	1.00	2.00	N
ATOM	1751	CA	GLN	A	548	2.163	0.086	57.679	1.00	2.79	C
ATOM	1752	CB	GLN	A	548	3.017	-1.015	57.052	1.00	4.17	C
ATOM	1753	CG	GLN	A	548	3.045	-2.353	57.760	1.00	8.00	C
ATOM	1754	CD	GLN	A	548	4.253	-3.190	57.326	1.00	8.06	C
ATOM	1755	OE1	GLN	A	548	4.189	-3.929	56.335	1.00	11.71	O
ATOM	1756	NE2	GLN	A	548	5.365	-3.071	58.062	1.00	10.70	N
ATOM	1757	C	GLN	A	548	2.582	0.398	59.101	1.00	2.00	C
ATOM	1758	O	GLN	A	548	2.009	-0.098	60.066	1.00	2.56	O
ATOM	1759	N	SER	A	549	3.563	1.273	59.224	1.00	2.00	N
ATOM	1760	CA	SER	A	549	4.148	1.605	60.504	1.00	2.00	C
ATOM	1761	CB	SER	A	549	5.526	2.230	60.263	1.00	2.00	C
ATOM	1762	OG	SER	A	549	5.980	2.879	61.425	1.00	6.62	O
ATOM	1763	C	SER	A	549	3.242	2.526	61.320	1.00	2.00	C
ATOM	1764	O	SER	A	549	3.036	2.310	62.512	1.00	2.00	O
ATOM	1765	N	ILE	A	550	2.687	3.545	60.669	1.00	2.00	N
ATOM	1766	CA	ILE	A	550	1.719	4.439	61.304	1.00	2.00	C
ATOM	1767	CB	ILE	A	550	1.262	5.547	60.315	1.00	2.00	C
ATOM	1768	CG1	ILE	A	550	2.442	6.478	59.953	1.00	2.00	C
ATOM	1769	CD1	ILE	A	550	2.249	7.202	58.593	1.00	2.00	C
ATOM	1770	CG2	ILE	A	550	0.099	6.370	60.914	1.00	2.00	C
ATOM	1771	C	ILE	A	550	0.515	3.641	61.801	1.00	2.00	C
ATOM	1772	O	ILE	A	550	-0.072	3.963	62.834	1.00	2.00	O
ATOM	1773	N	MET	A	551	0.167	2.590	61.066	1.00	2.00	N
ATOM	1774	CA	MET	A	551	-1.019	1.780	61.328	1.00	2.91	C
ATOM	1775	CB	MET	A	551	-1.446	1.055	60.045	1.00	3.76	C
ATOM	1776	CG	MET	A	551	-2.962	1.017	59.775	1.00	8.22	C
ATOM	1777	SD	MET	A	551	-3.772	2.623	59.554	1.00	8.49	S
ATOM	1778	CE	MET	A	551	-2.520	3.461	58.678	1.00	8.13	C
ATOM	1779	C	MET	A	551	-0.871	0.765	62.454	1.00	3.62	C
ATOM	1780	O	MET	A	551	-1.808	0.582	63.234	1.00	2.45	O
ATOM	1781	N	GLU	A	552	0.298	0.126	62.554	1.00	6.42	N
ATOM	1782	CA	GLU	A	552	0.487	-1.071	63.405	1.00	7.93	C
ATOM	1783	CB	GLU	A	552	1.014	-2.246	62.570	1.00	8.22	C
ATOM	1784	CG	GLU	A	552	0.202	-2.617	61.348	1.00	9.47	C
ATOM	1785	CD	GLU	A	552	0.912	-3.640	60.488	1.00	9.42	C
ATOM	1786	OE1	GLU	A	552	2.130	-3.856	60.687	1.00	11.16	O
ATOM	1787	OE2	GLU	A	552	0.257	-4.226	59.605	1.00	12.15	O
ATOM	1788	C	GLU	A	552	1.449	-0.903	64.588	1.00	8.82	C
ATOM	1789	O	GLU	A	552	1.406	-1.702	65.547	1.00	7.38	O
ATOM	1790	N	HIS	A	553	2.308	0.114	64.515	1.00	9.77	N
ATOM	1791	CA	HIS	A	553	3.409	0.259	65.466	1.00	11.68	C
ATOM	1792	CB	HIS	A	553	4.754	0.484	64.742	1.00	12.02	C
ATOM	1793	CG	HIS	A	553	5.953	0.279	65.625	1.00	14.03	C

- 72 -

ATOM	1794	ND1	HIS	A	553	6.895	1.264	65.851	1.00	15.36	N
ATOM	1795	CE1	HIS	A	553	7.824	0.806	66.672	1.00	14.72	C
ATOM	1796	NE2	HIS	A	553	7.517	-0.440	66.993	1.00	15.89	N
ATOM	1797	CD2	HIS	A	553	6.355	-0.796	66.349	1.00	12.86	C
ATOM	1798	C	HIS	A	553	3.213	1.337	66.529	1.00	11.79	C
ATOM	1799	O	HIS	A	553	2.945	2.494	66.219	1.00	10.48	O
ATOM	1800	N	ASN	A	554	3.370	0.940	67.787	1.00	12.83	N
ATOM	1801	CA	ASN	A	554	3.515	1.897	68.870	1.00	14.17	C
ATOM	1802	CB	ASN	A	554	3.121	1.263	70.206	1.00	14.27	C
ATOM	1803	CG	ASN	A	554	1.613	1.157	70.397	1.00	15.80	C
ATOM	1804	OD1	ASN	A	554	0.811	1.574	69.537	1.00	15.36	O
ATOM	1805	ND2	ASN	A	554	1.215	0.594	71.543	1.00	14.04	N
ATOM	1806	C	ASN	A	554	4.971	2.383	68.929	1.00	13.58	C
ATOM	1807	O	ASN	A	554	5.881	1.574	69.069	1.00	15.36	O
ATOM	1808	N	VAL	A	555	5.157	3.699	68.822	1.00	13.85	N
ATOM	1809	CA	VAL	A	555	6.458	4.391	68.776	1.00	13.99	C
ATOM	1810	CB	VAL	A	555	6.235	5.942	68.686	1.00	13.60	C
ATOM	1811	CG1	VAL	A	555	7.552	6.734	68.722	1.00	14.44	C
ATOM	1812	CG2	VAL	A	555	5.449	6.299	67.456	1.00	14.44	C
ATOM	1813	C	VAL	A	555	7.408	4.091	69.966	1.00	15.18	C
ATOM	1814	O	VAL	A	555	6.956	3.889	71.097	1.00	13.35	O
ATOM	1815	N	SER	A	556	8.718	4.064	69.686	1.00	15.44	N
ATOM	1816	CA	SER	A	556	9.763	4.032	70.732	1.00	16.85	C
ATOM	1817	CB	SER	A	556	10.957	3.161	70.300	1.00	18.21	C
ATOM	1818	OG	SER	A	556	10.723	1.784	70.601	1.00	20.12	O
ATOM	1819	C	SER	A	556	10.240	5.447	71.067	1.00	15.51	C
ATOM	1820	O	SER	A	556	10.823	6.119	70.215	1.00	16.47	O
ATOM	1821	N	TYR	A	557	9.980	5.890	72.302	1.00	14.56	N
ATOM	1822	CA	TYR	A	557	10.345	7.242	72.759	1.00	13.10	C
ATOM	1823	CB	TYR	A	557	9.312	7.767	73.766	1.00	11.45	C
ATOM	1824	CG	TYR	A	557	7.992	8.086	73.135	1.00	10.15	C
ATOM	1825	CD1	TYR	A	557	6.993	7.130	73.083	1.00	9.02	C
ATOM	1826	CE1	TYR	A	557	5.770	7.403	72.490	1.00	9.94	C
ATOM	1827	CZ	TYR	A	557	5.539	8.646	71.941	1.00	9.33	C
ATOM	1828	OH	TYR	A	557	4.320	8.879	71.354	1.00	10.61	O
ATOM	1829	CE2	TYR	A	557	6.514	9.623	71.974	1.00	10.19	C
ATOM	1830	CD2	TYR	A	557	7.751	9.337	72.567	1.00	9.23	C
ATOM	1831	C	TYR	A	557	11.720	7.310	73.402	1.00	14.07	C
ATOM	1832	O	TYR	A	557	12.054	6.461	74.231	1.00	13.43	O
ATOM	1833	N	PRO	A	558	12.507	8.341	73.040	1.00	14.77	N
ATOM	1834	CA	PRO	A	558	13.843	8.574	73.577	1.00	15.72	C
ATOM	1835	CB	PRO	A	558	14.282	9.859	72.868	1.00	15.68	C
ATOM	1836	CG	PRO	A	558	13.455	9.875	71.598	1.00	14.71	C
ATOM	1837	CD	PRO	A	558	12.135	9.373	72.057	1.00	15.53	C
ATOM	1838	C	PRO	A	558	13.782	8.773	75.090	1.00	15.83	C
ATOM	1839	O	PRO	A	558	12.798	9.331	75.608	1.00	15.18	O
ATOM	1840	N	LYS	A	559	14.806	8.294	75.794	1.00	14.58	N
ATOM	1841	CA	LYS	A	559	14.814	8.357	77.261	1.00	13.48	C
ATOM	1842	CB	LYS	A	559	15.734	7.287	77.884	1.00	13.88	C
ATOM	1843	CG	LYS	A	559	17.194	7.293	77.396	1.00	15.86	C
ATOM	1844	CD	LYS	A	559	18.000	6.193	78.082	1.00	15.09	C
ATOM	1845	CE	LYS	A	559	19.501	6.357	77.825	1.00	17.04	C
ATOM	1846	NZ	LYS	A	559	20.307	5.325	78.548	1.00	16.24	N
ATOM	1847	C	LYS	A	559	15.105	9.761	77.777	1.00	11.51	C
ATOM	1848	O	LYS	A	559	14.843	10.066	78.944	1.00	9.58	O
ATOM	1849	N	SER	A	560	15.611	10.615	76.886	1.00	11.96	N
ATOM	1850	CA	SER	A	560	15.902	12.027	77.190	1.00	12.14	C
ATOM	1851	CB	SER	A	560	16.808	12.630	76.122	1.00	11.91	C

- 73 -

ATOM	1852	OG	SER	A	560	16.273	12.423	74.824	1.00	15.89	O
ATOM	1853	C	SER	A	560	14.633	12.874	77.333	1.00	11.65	C
ATOM	1854	O	SER	A	560	14.607	13.856	78.091	1.00	11.65	O
ATOM	1855	N	LEU	A	561	13.590	12.479	76.604	1.00	9.65	N
ATOM	1856	CA	LEU	A	561	12.278	13.110	76.699	1.00	8.44	C
ATOM	1857	CB	LEU	A	561	11.329	12.477	75.685	1.00	8.47	C
ATOM	1858	CG	LEU	A	561	11.002	13.150	74.354	1.00	9.89	C
ATOM	1859	CD1	LEU	A	561	12.206	13.563	73.574	1.00	9.71	C
ATOM	1860	CD2	LEU	A	561	10.104	12.221	73.526	1.00	9.15	C
ATOM	1861	C	LEU	A	561	11.709	13.014	78.111	1.00	7.12	C
ATOM	1862	O	LEU	A	561	11.869	11.999	78.794	1.00	6.75	O
ATOM	1863	N	SER	A	562	11.055	14.086	78.545	1.00	5.77	N
ATOM	1864	CA	SER	A	562	10.427	14.131	79.856	1.00	4.56	C
ATOM	1865	CB	SER	A	562	10.187	15.583	80.285	1.00	4.59	C
ATOM	1866	OG	SER	A	562	9.039	16.105	79.612	1.00	3.85	O
ATOM	1867	C	SER	A	562	9.094	13.369	79.876	1.00	3.81	C
ATOM	1868	O	SER	A	562	8.477	13.077	78.840	1.00	2.65	O
ATOM	1869	N	LYS	A	563	8.666	13.059	81.088	1.00	2.00	N
ATOM	1870	CA	LYS	A	563	7.375	12.455	81.372	1.00	2.00	C
ATOM	1871	CB	LYS	A	563	7.189	12.540	82.879	1.00	2.00	C
ATOM	1872	CG	LYS	A	563	5.996	11.875	83.466	1.00	3.46	C
ATOM	1873	CD	LYS	A	563	5.956	12.196	84.979	1.00	3.27	C
ATOM	1874	CE	LYS	A	563	6.496	13.598	85.281	1.00	2.00	C
ATOM	1875	NZ	LYS	A	563	6.226	13.969	86.689	1.00	2.59	N
ATOM	1876	C	LYS	A	563	6.223	13.154	80.608	1.00	2.00	C
ATOM	1877	O	LYS	A	563	5.395	12.485	79.968	1.00	2.00	O
ATOM	1878	N	GLU	A	564	6.195	14.487	80.661	1.00	2.00	N
ATOM	1879	CA	GLU	A	564	5.129	15.275	80.051	1.00	2.00	C
ATOM	1880	CB	GLU	A	564	5.146	16.711	80.555	1.00	2.00	C
ATOM	1881	CG	GLU	A	564	4.819	16.826	82.030	1.00	2.00	C
ATOM	1882	CD	GLU	A	564	6.020	16.675	82.934	1.00	2.00	C
ATOM	1883	OE1	GLU	A	564	7.160	16.488	82.420	1.00	2.00	O
ATOM	1884	OE2	GLU	A	564	5.831	16.757	84.164	1.00	2.00	O
ATOM	1885	C	GLU	A	564	5.173	15.258	78.541	1.00	2.00	C
ATOM	1886	O	GLU	A	564	4.116	15.191	77.897	1.00	2.00	O
ATOM	1887	N	ALA	A	565	6.383	15.333	77.982	1.00	2.00	N
ATOM	1888	CA	ALA	A	565	6.573	15.282	76.544	1.00	2.00	C
ATOM	1889	CB	ALA	A	565	8.030	15.597	76.177	1.00	2.00	C
ATOM	1890	C	ALA	A	565	6.137	13.948	75.960	1.00	2.00	C
ATOM	1891	O	ALA	A	565	5.529	13.902	74.898	1.00	2.00	O
ATOM	1892	N	VAL	A	566	6.445	12.859	76.654	1.00	2.00	N
ATOM	1893	CA	VAL	A	566	5.998	11.532	76.237	1.00	2.00	C
ATOM	1894	CB	VAL	A	566	6.744	10.413	77.013	1.00	2.00	C
ATOM	1895	CG1	VAL	A	566	6.243	9.049	76.619	1.00	2.00	C
ATOM	1896	CG2	VAL	A	566	8.212	10.470	76.705	1.00	2.00	C
ATOM	1897	C	VAL	A	566	4.460	11.404	76.330	1.00	2.00	C
ATOM	1898	O	VAL	A	566	3.823	10.879	75.418	1.00	2.00	O
ATOM	1899	N	SER	A	567	3.885	11.891	77.424	1.00	2.00	N
ATOM	1900	CA	SER	A	567	2.454	11.831	77.646	1.00	2.00	C
ATOM	1901	CB	SER	A	567	2.073	12.461	78.983	1.00	2.00	C
ATOM	1902	OG	SER	A	567	0.670	12.362	79.189	1.00	2.00	O
ATOM	1903	C	SER	A	567	1.698	12.504	76.527	1.00	2.00	C
ATOM	1904	O	SER	A	567	0.795	11.879	75.951	1.00	2.00	O
ATOM	1905	N	ILE	A	568	2.086	13.747	76.211	1.00	2.00	N
ATOM	1906	CA	ILE	A	568	1.385	14.530	75.208	1.00	2.00	C
ATOM	1907	CB	ILE	A	568	1.723	16.052	75.247	1.00	2.00	C
ATOM	1908	CG1	ILE	A	568	0.623	16.843	74.499	1.00	2.00	C
ATOM	1909	CD1	ILE	A	568	0.680	18.368	74.593	1.00	2.00	C

- 74 -

ATOM	1910	CG2	ILE	A	568	3.122	16.323	74.683	1.00	2.00	C
ATOM	1911	C	ILE	A	568	1.564	13.903	73.836	1.00	2.00	C
ATOM	1912	O	ILE	A	568	0.594	13.790	73.091	1.00	2.00	O
ATOM	1913	N	CYS	A	569	2.784	13.455	73.509	1.00	2.00	N
ATOM	1914	CA	CYS	A	569	3.018	12.757	72.234	1.00	2.00	C
ATOM	1915	CB	CYS	A	569	4.500	12.503	71.998	1.00	2.00	C
ATOM	1916	SG	CYS	A	569	5.417	14.002	71.570	1.00	3.02	S
ATOM	1917	C	CYS	A	569	2.225	11.455	72.084	1.00	2.00	C
ATOM	1918	O	CYS	A	569	1.689	11.159	71.005	1.00	2.00	O
ATOM	1919	N	LYS	A	570	2.147	10.677	73.159	1.00	2.00	N
ATOM	1920	CA	LYS	A	570	1.298	9.491	73.174	1.00	2.00	C
ATOM	1921	CB	LYS	A	570	1.511	8.719	74.464	1.00	2.00	C
ATOM	1922	CG	LYS	A	570	2.819	7.960	74.541	1.00	2.00	C
ATOM	1923	CD	LYS	A	570	2.752	7.066	75.761	1.00	3.20	C
ATOM	1924	CE	LYS	A	570	3.836	6.005	75.784	1.00	5.78	C
ATOM	1925	NZ	LYS	A	570	3.936	5.425	77.183	1.00	8.14	N
ATOM	1926	C	LYS	A	570	-0.194	9.831	73.011	1.00	2.00	C
ATOM	1927	O	LYS	A	570	-0.927	9.127	72.306	1.00	2.00	O
ATOM	1928	N	GLY	A	571	-0.636	10.900	73.667	1.00	2.00	N
ATOM	1929	CA	GLY	A	571	-2.024	11.345	73.594	1.00	2.00	C
ATOM	1930	C	GLY	A	571	-2.388	11.802	72.194	1.00	2.00	C
ATOM	1931	O	GLY	A	571	-3.433	11.423	71.666	1.00	2.00	O
ATOM	1932	N	LEU	A	572	-1.514	12.612	71.596	1.00	2.00	N
ATOM	1933	CA	LEU	A	572	-1.726	13.122	70.228	1.00	2.00	C
ATOM	1934	CB	LEU	A	572	-0.785	14.284	69.950	1.00	2.00	C
ATOM	1935	CG	LEU	A	572	-0.979	15.524	70.835	1.00	2.00	C
ATOM	1936	CD1	LEU	A	572	0.290	16.356	70.838	1.00	2.00	C
ATOM	1937	CD2	LEU	A	572	-2.203	16.351	70.382	1.00	2.00	C
ATOM	1938	C	LEU	A	572	-1.580	12.066	69.135	1.00	2.00	C
ATOM	1939	O	LEU	A	572	-2.285	12.103	68.124	1.00	2.00	O
ATOM	1940	N	MET	A	573	-0.660	11.127	69.316	1.00	2.00	N
ATOM	1941	CA	MET	A	573	-0.519	10.052	68.337	1.00	2.00	C
ATOM	1942	CB	MET	A	573	0.938	9.819	67.965	1.00	2.00	C
ATOM	1943	CG	MET	A	573	1.597	11.038	67.283	1.00	2.00	C
ATOM	1944	SD	MET	A	573	3.345	10.838	66.874	1.00	2.00	S
ATOM	1945	CE	MET	A	573	4.159	10.974	68.472	1.00	2.00	C
ATOM	1946	C	MET	A	573	-1.241	8.774	68.796	1.00	2.00	C
ATOM	1947	O	MET	A	573	-0.763	7.663	68.628	1.00	2.00	O
ATOM	1948	N	THR	A	574	-2.411	8.954	69.384	1.00	2.00	N
ATOM	1949	CA	THR	A	574	-3.328	7.844	69.639	1.00	2.00	C
ATOM	1950	CB	THR	A	574	-4.391	8.238	70.680	1.00	2.00	C
ATOM	1951	OG1	THR	A	574	-3.774	8.316	71.955	1.00	2.00	O
ATOM	1952	CG2	THR	A	574	-5.500	7.209	70.784	1.00	2.00	C
ATOM	1953	C	THR	A	574	-3.965	7.486	68.304	1.00	2.00	C
ATOM	1954	O	THR	A	574	-4.471	8.368	67.610	1.00	2.26	O
ATOM	1955	N	LYS	A	575	-3.934	6.199	67.955	1.00	2.00	N
ATOM	1956	CA	LYS	A	575	-4.345	5.727	66.634	1.00	2.00	C
ATOM	1957	CB	LYS	A	575	-3.788	4.325	66.351	1.00	2.00	C
ATOM	1958	CG	LYS	A	575	-2.261	4.260	66.143	1.00	2.00	C
ATOM	1959	CD	LYS	A	575	-1.829	2.911	65.564	1.00	2.00	C
ATOM	1960	CE	LYS	A	575	-0.353	2.533	65.882	1.00	2.00	C
ATOM	1961	NZ	LYS	A	575	0.677	3.481	65.343	1.00	2.00	N
ATOM	1962	C	LYS	A	575	-5.868	5.796	66.407	1.00	2.00	C
ATOM	1963	O	LYS	A	575	-6.319	6.107	65.302	1.00	2.00	O
ATOM	1964	N	HIS	A	576	-6.649	5.502	67.450	1.00	2.79	N
ATOM	1965	CA	HIS	A	576	-8.103	5.620	67.392	1.00	2.90	C
ATOM	1966	CB	HIS	A	576	-8.768	4.709	68.420	1.00	5.45	C
ATOM	1967	CG	HIS	A	576	-8.561	3.248	68.153	1.00	8.42	C

- 75 -

ATOM	1968	ND1	HIS	A	576	-7.447	2.560	68.594	1.00	8.37	N
ATOM	1969	CE1	HIS	A	576	-7.539	1.295	68.222	1.00	8.57	C
ATOM	1970	NE2	HIS	A	576	-8.667	1.136	67.554	1.00	8.97	N
ATOM	1971	CD2	HIS	A	576	-9.328	2.341	67.501	1.00	8.91	C
ATOM	1972	C	HIS	A	576	-8.459	7.071	67.655	1.00	2.08	C
ATOM	1973	O	HIS	A	576	-8.228	7.577	68.748	1.00	3.19	O
ATOM	1974	N	PRO	A	577	-8.991	7.764	66.644	1.00	2.00	N
ATOM	1975	CA	PRO	A	577	-9.208	9.186	66.831	1.00	2.51	C
ATOM	1976	CB	PRO	A	577	-9.645	9.670	65.440	1.00	2.00	C
ATOM	1977	CG	PRO	A	577	-10.032	8.484	64.700	1.00	2.00	C
ATOM	1978	CD	PRO	A	577	-9.360	7.310	65.295	1.00	2.00	C
ATOM	1979	C	PRO	A	577	-10.172	9.612	67.961	1.00	4.28	C
ATOM	1980	O	PRO	A	577	-10.012	10.718	68.475	1.00	5.65	O
ATOM	1981	N	ALA	A	578	-11.141	8.765	68.350	1.00	6.48	N
ATOM	1982	CA	ALA	A	578	-12.088	9.080	69.443	1.00	6.11	C
ATOM	1983	CB	ALA	A	578	-13.061	7.940	69.643	1.00	7.53	C
ATOM	1984	C	ALA	A	578	-11.386	9.390	70.766	1.00	7.07	C
ATOM	1985	O	ALA	A	578	-11.840	10.255	71.532	1.00	8.09	O
ATOM	1986	N	LYS	A	579	-10.288	8.675	71.018	1.00	6.03	N
ATOM	1987	CA	LYS	A	579	-9.472	8.799	72.236	1.00	5.69	C
ATOM	1988	CB	LYS	A	579	-8.822	7.461	72.536	1.00	8.51	C
ATOM	1989	CG	LYS	A	579	-9.711	6.370	73.065	1.00	13.66	C
ATOM	1990	CD	LYS	A	579	-8.926	5.042	73.093	1.00	15.34	C
ATOM	1991	CE	LYS	A	579	-7.494	5.168	73.667	1.00	16.24	C
ATOM	1992	NZ	LYS	A	579	-6.568	4.138	73.071	1.00	17.80	N
ATOM	1993	C	LYS	A	579	-8.328	9.817	72.106	1.00	4.71	C
ATOM	1994	O	LYS	A	579	-7.626	10.108	73.078	1.00	4.54	O
ATOM	1995	N	ARG	A	580	-8.115	10.329	70.903	1.00	2.60	N
ATOM	1996	CA	ARG	A	580	-6.980	11.195	70.647	1.00	2.00	C
ATOM	1997	CB	ARG	A	580	-6.810	11.425	69.143	1.00	2.00	C
ATOM	1998	CG	ARG	A	580	-5.514	12.190	68.766	1.00	2.00	C
ATOM	1999	CD	ARG	A	580	-5.306	12.197	67.259	1.00	2.00	C
ATOM	2000	NE	ARG	A	580	-5.290	10.833	66.733	1.00	2.00	N
ATOM	2001	CZ	ARG	A	580	-5.758	10.477	65.537	1.00	2.00	C
ATOM	2002	NH1	ARG	A	580	-6.268	11.381	64.727	1.00	2.00	N
ATOM	2003	NH2	ARG	A	580	-5.689	9.209	65.140	1.00	2.00	N
ATOM	2004	C	ARG	A	580	-7.090	12.506	71.446	1.00	2.00	C
ATOM	2005	O	ARG	A	580	-8.193	12.997	71.708	1.00	2.00	O
ATOM	2006	N	LEU	A	581	-5.934	13.036	71.865	1.00	2.00	N
ATOM	2007	CA	LEU	A	581	-5.872	14.312	72.571	1.00	2.00	C
ATOM	2008	CB	LEU	A	581	-4.464	14.555	73.129	1.00	2.00	C
ATOM	2009	CG	LEU	A	581	-4.210	15.734	74.083	1.00	2.00	C
ATOM	2010	CD1	LEU	A	581	-5.123	15.731	75.327	1.00	2.00	C
ATOM	2011	CD2	LEU	A	581	-2.786	15.787	74.511	1.00	2.00	C
ATOM	2012	C	LEU	A	581	-6.282	15.423	71.605	1.00	2.00	C
ATOM	2013	O	LEU	A	581	-5.856	15.433	70.443	1.00	2.00	O
ATOM	2014	N	GLY	A	582	-7.118	16.337	72.099	1.00	2.00	N
ATOM	2015	CA	GLY	A	582	-7.661	17.417	71.283	1.00	2.00	C
ATOM	2016	C	GLY	A	582	-8.987	17.121	70.591	1.00	2.62	C
ATOM	2017	O	GLY	A	582	-9.608	18.027	70.022	1.00	2.00	O
ATOM	2018	N	CYS	A	583	-9.430	15.868	70.631	1.00	3.69	N
ATOM	2019	CA	CYS	A	583	-10.599	15.454	69.856	1.00	6.50	C
ATOM	2020	CB	CYS	A	583	-10.302	14.196	69.054	1.00	6.13	C
ATOM	2021	SG	CYS	A	583	-8.766	14.338	68.119	1.00	13.44	S
ATOM	2022	C	CYS	A	583	-11.856	15.245	70.685	1.00	8.69	C
ATOM	2023	O	CYS	A	583	-12.936	15.008	70.123	1.00	9.16	O
ATOM	2024	N	GLY	A	584	-11.720	15.333	72.004	1.00	9.62	N
ATOM	2025	CA	GLY	A	584	-12.860	15.208	72.901	1.00	12.55	C

- 76 -

ATOM	2026	C	GLY	A	584	-13.836	16.367	72.748	1.00	13.06	C
ATOM	2027	O	GLY	A	584	-13.637	17.252	71.894	1.00	13.99	O
ATOM	2028	N	PRO	A	585	-14.915	16.356	73.550	1.00	13.73	N
ATOM	2029	CA	PRO	A	585	-15.861	17.482	73.700	1.00	12.96	C
ATOM	2030	CB	PRO	A	585	-16.928	16.904	74.626	1.00	13.03	C
ATOM	2031	CG	PRO	A	585	-16.234	15.786	75.366	1.00	12.48	C
ATOM	2032	CD	PRO	A	585	-15.315	15.191	74.368	1.00	13.16	C
ATOM	2033	C	PRO	A	585	-15.210	18.714	74.360	1.00	12.95	C
ATOM	2034	O	PRO	A	585	-15.638	19.848	74.124	1.00	13.84	O
ATOM	2035	N	GLU	A	586	-14.197	18.481	75.191	1.00	11.56	N
ATOM	2036	CA	GLU	A	586	-13.385	19.567	75.768	1.00	9.36	C
ATOM	2037	CB	GLU	A	586	-13.399	19.527	77.309	1.00	9.28	C
ATOM	2038	CG	GLU	A	586	-14.774	19.804	77.976	1.00	9.22	C
ATOM	2039	CD	GLU	A	586	-15.227	21.264	77.913	1.00	9.07	C
ATOM	2040	OE1	GLU	A	586	-14.407	22.171	77.633	1.00	9.55	O
ATOM	2041	OE2	GLU	A	586	-16.434	21.510	78.151	1.00	11.71	O
ATOM	2042	C	GLU	A	586	-11.955	19.498	75.229	1.00	7.28	C
ATOM	2043	O	GLU	A	586	-10.988	19.765	75.962	1.00	6.69	O
ATOM	2044	N	GLY	A	587	-11.841	19.160	73.949	1.00	4.33	N
ATOM	2045	CA	GLY	A	587	-10.561	18.963	73.268	1.00	5.52	C
ATOM	2046	C	GLY	A	587	-9.567	20.092	73.453	1.00	5.20	C
ATOM	2047	O	GLY	A	587	-8.406	19.850	73.765	1.00	6.19	O
ATOM	2048	N	GLU	A	588	-10.031	21.323	73.255	1.00	5.53	N
ATOM	2049	CA	GLU	A	588	-9.219	22.510	73.459	1.00	5.62	C
ATOM	2050	CB	GLU	A	588	-9.973	23.784	73.050	1.00	5.56	C
ATOM	2051	CG	GLU	A	588	-9.234	25.085	73.416	1.00	6.31	C
ATOM	2052	CD	GLU	A	588	-9.697	26.323	72.635	1.00	7.98	C
ATOM	2053	OE1	GLU	A	588	-10.609	26.218	71.771	1.00	7.82	O
ATOM	2054	OE2	GLU	A	588	-9.130	27.423	72.897	1.00	9.55	O
ATOM	2055	C	GLU	A	588	-8.700	22.606	74.894	1.00	5.25	C
ATOM	2056	O	GLU	A	588	-7.495	22.816	75.117	1.00	4.08	O
ATOM	2057	N	ARG	A	589	-9.602	22.452	75.857	1.00	4.11	N
ATOM	2058	CA	ARG	A	589	-9.228	22.472	77.247	1.00	2.80	C
ATOM	2059	CB	ARG	A	589	-10.450	22.346	78.168	1.00	3.54	C
ATOM	2060	CG	ARG	A	589	-10.307	23.178	79.426	1.00	4.84	C
ATOM	2061	CD	ARG	A	589	-10.780	22.492	80.718	1.00	7.26	C
ATOM	2062	NE	ARG	A	589	-12.092	21.864	80.647	1.00	4.35	N
ATOM	2063	CZ	ARG	A	589	-13.091	22.090	81.489	1.00	6.72	C
ATOM	2064	NH1	ARG	A	589	-12.991	22.981	82.467	1.00	6.62	N
ATOM	2065	NH2	ARG	A	589	-14.216	21.436	81.323	1.00	6.00	N
ATOM	2066	C	ARG	A	589	-8.229	21.386	77.593	1.00	2.00	C
ATOM	2067	O	ARG	A	589	-7.321	21.640	78.350	1.00	2.00	O
ATOM	2068	N	ASP	A	590	-8.417	20.186	77.056	1.00	2.00	N
ATOM	2069	CA	ASP	A	590	-7.555	19.047	77.368	1.00	2.00	C
ATOM	2070	CB	ASP	A	590	-8.078	17.763	76.744	1.00	2.00	C
ATOM	2071	CG	ASP	A	590	-9.371	17.319	77.354	1.00	2.00	C
ATOM	2072	OD1	ASP	A	590	-9.575	17.549	78.578	1.00	2.00	O
ATOM	2073	OD2	ASP	A	590	-10.161	16.741	76.591	1.00	2.00	O
ATOM	2074	C	ASP	A	590	-6.115	19.268	76.904	1.00	2.00	C
ATOM	2075	O	ASP	A	590	-5.193	18.856	77.583	1.00	2.00	O
ATOM	2076	N	VAL	A	591	-5.956	19.902	75.745	1.00	2.00	N
ATOM	2077	CA	VAL	A	591	-4.626	20.306	75.231	1.00	2.00	C
ATOM	2078	CB	VAL	A	591	-4.680	20.699	73.735	1.00	2.00	C
ATOM	2079	CG1	VAL	A	591	-3.402	21.441	73.291	1.00	2.00	C
ATOM	2080	CG2	VAL	A	591	-4.882	19.460	72.899	1.00	2.00	C
ATOM	2081	C	VAL	A	591	-4.017	21.399	76.104	1.00	2.00	C
ATOM	2082	O	VAL	A	591	-2.901	21.237	76.616	1.00	2.00	O
ATOM	2083	N	ARG	A	592	-4.756	22.490	76.315	1.00	2.00	N

- 77 -

ATOM	2084	CA	ARG	A	592	-4.271	23.613	77.136	1.00	2.00	C
ATOM	2085	CB	ARG	A	592	-5.289	24.767	77.158	1.00	3.07	C
ATOM	2086	CG	ARG	A	592	-5.554	25.388	75.793	1.00	2.43	C
ATOM	2087	CD	ARG	A	592	-6.766	26.312	75.807	1.00	4.04	C
ATOM	2088	NE	ARG	A	592	-6.411	27.688	76.121	1.00	8.70	N
ATOM	2089	CZ	ARG	A	592	-6.463	28.728	75.285	1.00	8.27	C
ATOM	2090	NH1	ARG	A	592	-6.879	28.607	74.034	1.00	10.51	N
ATOM	2091	NH2	ARG	A	592	-6.098	29.921	75.724	1.00	11.16	N
ATOM	2092	C	ARG	A	592	-3.888	23.200	78.558	1.00	2.00	C
ATOM	2093	O	ARG	A	592	-2.992	23.784	79.163	1.00	2.00	O
ATOM	2094	N	GLU	A	593	-4.563	22.183	79.079	1.00	2.00	N
ATOM	2095	CA	GLU	A	593	-4.438	21.798	80.482	1.00	2.00	C
ATOM	2096	CB	GLU	A	593	-5.803	21.349	81.053	1.00	3.94	C
ATOM	2097	CG	GLU	A	593	-6.960	22.287	80.774	1.00	6.25	C
ATOM	2098	CD	GLU	A	593	-7.082	23.369	81.806	1.00	8.23	C
ATOM	2099	OE1	GLU	A	593	-6.043	23.982	82.156	1.00	10.02	O
ATOM	2100	OE2	GLU	A	593	-8.220	23.600	82.272	1.00	8.73	O
ATOM	2101	C	GLU	A	593	-3.467	20.662	80.664	1.00	2.00	C
ATOM	2102	O	GLU	A	593	-3.228	20.218	81.776	1.00	2.00	O
ATOM	2103	N	HIS	A	594	-2.921	20.164	79.573	1.00	2.00	N
ATOM	2104	CA	HIS	A	594	-1.962	19.086	79.677	1.00	2.00	C
ATOM	2105	CB	HIS	A	594	-1.616	18.534	78.301	1.00	2.00	C
ATOM	2106	CG	HIS	A	594	-0.909	17.220	78.357	1.00	2.00	C
ATOM	2107	ND1	HIS	A	594	0.407	17.109	78.751	1.00	2.00	N
ATOM	2108	CE1	HIS	A	594	0.762	15.838	78.718	1.00	2.00	C
ATOM	2109	NE2	HIS	A	594	-0.277	15.122	78.320	1.00	2.00	N
ATOM	2110	CD2	HIS	A	594	-1.335	15.965	78.094	1.00	2.00	C
ATOM	2111	C	HIS	A	594	-0.715	19.586	80.424	1.00	2.00	C
ATOM	2112	O	HIS	A	594	-0.353	20.745	80.312	1.00	2.00	O
ATOM	2113	N	ALA	A	595	-0.115	18.694	81.208	1.00	2.00	N
ATOM	2114	CA	ALA	A	595	1.109	18.945	81.978	1.00	2.00	C
ATOM	2115	CB	ALA	A	595	1.579	17.657	82.617	1.00	2.00	C
ATOM	2116	C	ALA	A	595	2.237	19.546	81.155	1.00	2.00	C
ATOM	2117	O	ALA	A	595	3.013	20.359	81.663	1.00	2.00	O
ATOM	2118	N	PHE	A	596	2.327	19.133	79.894	1.00	2.00	N
ATOM	2119	CA	PHE	A	596	3.288	19.665	78.946	1.00	2.00	C
ATOM	2120	CB	PHE	A	596	3.009	19.081	77.563	1.00	2.00	C
ATOM	2121	CG	PHE	A	596	4.069	19.370	76.544	1.00	2.00	C
ATOM	2122	CD1	PHE	A	596	5.338	18.787	76.647	1.00	2.00	C
ATOM	2123	CE1	PHE	A	596	6.323	19.051	75.697	1.00	2.00	C
ATOM	2124	CZ	PHE	A	596	6.043	19.902	74.638	1.00	2.00	C
ATOM	2125	CE2	PHE	A	596	4.777	20.507	74.532	1.00	2.00	C
ATOM	2126	CD2	PHE	A	596	3.805	20.234	75.474	1.00	2.00	C
ATOM	2127	C	PHE	A	596	3.268	21.184	78.910	1.00	2.00	C
ATOM	2128	O	PHE	A	596	4.299	21.795	78.720	1.00	2.00	O
ATOM	2129	N	PHE	A	597	2.095	21.790	79.104	1.00	2.00	N
ATOM	2130	CA	PHE	A	597	1.963	23.257	79.119	1.00	2.00	C
ATOM	2131	CB	PHE	A	597	0.762	23.690	78.255	1.00	2.00	C
ATOM	2132	CG	PHE	A	597	0.884	23.319	76.802	1.00	2.00	C
ATOM	2133	CD1	PHE	A	597	1.806	23.950	75.984	1.00	2.00	C
ATOM	2134	CE1	PHE	A	597	1.904	23.618	74.646	1.00	2.00	C
ATOM	2135	CZ	PHE	A	597	1.087	22.648	74.104	1.00	2.00	C
ATOM	2136	CE2	PHE	A	597	0.142	22.015	74.905	1.00	2.00	C
ATOM	2137	CD2	PHE	A	597	0.047	22.354	76.243	1.00	2.00	C
ATOM	2138	C	PHE	A	597	1.897	23.920	80.515	1.00	2.00	C
ATOM	2139	O	PHE	A	597	1.567	25.096	80.618	1.00	2.00	O
ATOM	2140	N	ARG	A	598	2.238	23.168	81.567	1.00	2.00	N
ATOM	2141	CA	ARG	A	598	2.281	23.645	82.976	1.00	4.69	C

- 78 -

ATOM	2142	CB	ARG	A	598	3.367	22.890	83.770	1.00	6.28	C
ATOM	2143	CG	ARG	A	598	3.075	21.437	83.998	1.00	7.33	C
ATOM	2144	CD	ARG	A	598	4.064	20.776	84.949	1.00	4.66	C
ATOM	2145	NE	ARG	A	598	5.480	21.011	84.659	1.00	6.82	N
ATOM	2146	CZ	ARG	A	598	6.168	20.524	83.625	1.00	6.60	C
ATOM	2147	NH1	ARG	A	598	5.581	19.780	82.703	1.00	7.85	N
ATOM	2148	NH2	ARG	A	598	7.470	20.806	83.503	1.00	7.31	N
ATOM	2149	C	ARG	A	598	2.622	25.122	83.147	1.00	4.65	C
ATOM	2150	O	ARG	A	598	1.961	25.843	83.906	1.00	4.33	O
ATOM	2151	N	ARG	A	599	3.673	25.542	82.444	1.00	4.94	N
ATOM	2152	CA	ARG	A	599	4.317	26.825	82.702	1.00	6.08	C
ATOM	2153	CB	ARG	A	599	5.844	26.640	82.675	1.00	6.74	C
ATOM	2154	CG	ARG	A	599	6.273	25.440	83.545	1.00	8.77	C
ATOM	2155	CD	ARG	A	599	7.764	25.387	83.861	1.00	9.25	C
ATOM	2156	NE	ARG	A	599	8.160	26.422	84.819	1.00	13.34	N
ATOM	2157	CZ	ARG	A	599	8.167	26.308	86.158	1.00	14.14	C
ATOM	2158	NH1	ARG	A	599	7.770	25.186	86.767	1.00	14.86	N
ATOM	2159	NH2	ARG	A	599	8.566	27.339	86.899	1.00	12.81	N
ATOM	2160	C	ARG	A	599	3.819	27.944	81.786	1.00	5.02	C
ATOM	2161	O	ARG	A	599	4.202	29.107	81.938	1.00	6.58	O
ATOM	2162	N	ILE	A	600	2.934	27.591	80.859	1.00	3.97	N
ATOM	2163	CA	ILE	A	600	2.359	28.550	79.924	1.00	2.89	C
ATOM	2164	CB	ILE	A	600	1.887	27.843	78.629	1.00	2.00	C
ATOM	2165	CG1	ILE	A	600	3.038	27.069	77.974	1.00	2.00	C
ATOM	2166	CD1	ILE	A	600	4.209	27.959	77.432	1.00	2.00	C
ATOM	2167	CG2	ILE	A	600	1.255	28.822	77.635	1.00	2.00	C
ATOM	2168	C	ILE	A	600	1.204	29.342	80.556	1.00	3.86	C
ATOM	2169	O	ILE	A	600	0.203	28.765	80.996	1.00	5.71	O
ATOM	2170	N	ASP	A	601	1.364	30.663	80.608	1.00	4.18	N
ATOM	2171	CA	ASP	A	601	0.242	31.580	80.809	1.00	3.02	C
ATOM	2172	CB	ASP	A	601	0.731	32.922	81.365	1.00	5.19	C
ATOM	2173	CG	ASP	A	601	-0.406	33.805	81.854	1.00	6.39	C
ATOM	2174	OD1	ASP	A	601	-1.553	33.626	81.375	1.00	7.75	O
ATOM	2175	OD2	ASP	A	601	-0.148	34.673	82.721	1.00	7.21	O
ATOM	2176	C	ASP	A	601	-0.429	31.775	79.453	1.00	2.00	C
ATOM	2177	O	ASP	A	601	0.080	32.497	78.589	1.00	2.00	O
ATOM	2178	N	TRP	A	602	-1.572	31.117	79.271	1.00	2.00	N
ATOM	2179	CA	TRP	A	602	-2.258	31.108	77.981	1.00	2.00	C
ATOM	2180	CB	TRP	A	602	-3.394	30.080	77.984	1.00	2.00	C
ATOM	2181	CG	TRP	A	602	-2.876	28.695	77.853	1.00	2.00	C
ATOM	2182	CD1	TRP	A	602	-2.653	27.801	78.862	1.00	2.00	C
ATOM	2183	NE1	TRP	A	602	-2.151	26.633	78.354	1.00	2.00	N
ATOM	2184	CE2	TRP	A	602	-2.030	26.752	76.991	1.00	2.00	C
ATOM	2185	CD2	TRP	A	602	-2.474	28.047	76.641	1.00	2.00	C
ATOM	2186	CE3	TRP	A	602	-2.460	28.430	75.289	1.00	2.00	C
ATOM	2187	CZ3	TRP	A	602	-2.009	27.512	74.339	1.00	2.00	C
ATOM	2188	CH2	TRP	A	602	-1.575	26.228	74.720	1.00	2.00	C
ATOM	2189	CZ2	TRP	A	602	-1.588	25.828	76.035	1.00	2.00	C
ATOM	2190	C	TRP	A	602	-2.730	32.466	77.447	1.00	2.00	C
ATOM	2191	O	TRP	A	602	-2.700	32.691	76.230	1.00	2.00	O
ATOM	2192	N	GLU	A	603	-3.145	33.357	78.349	1.00	2.00	N
ATOM	2193	CA	GLU	A	603	-3.552	34.725	78.013	1.00	4.80	C
ATOM	2194	CB	GLU	A	603	-4.152	35.426	79.240	1.00	5.67	C
ATOM	2195	CG	GLU	A	603	-5.192	36.500	78.874	1.00	9.19	C
ATOM	2196	CD	GLU	A	603	-5.954	37.066	80.079	1.00	9.10	C
ATOM	2197	OE1	GLU	A	603	-5.316	37.383	81.113	1.00	9.80	O
ATOM	2198	OE2	GLU	A	603	-7.202	37.211	79.976	1.00	11.63	O
ATOM	2199	C	GLU	A	603	-2.421	35.561	77.426	1.00	5.12	C

- 79 -

ATOM	2200	O	GLU A 603	-2.597	36.235	76.411	1.00	4.88	O
ATOM	2201	N	LYS A 604	-1.255	35.514	78.064	1.00	6.85	N
ATOM	2202	CA	LYS A 604	-0.058	36.184	77.540	1.00	6.57	C
ATOM	2203	CB	LYS A 604	1.063	36.137	78.571	1.00	6.16	C
ATOM	2204	CG	LYS A 604	0.903	37.183	79.636	1.00	6.48	C
ATOM	2205	CD	LYS A 604	2.165	37.355	80.440	1.00	6.10	C
ATOM	2206	CE	LYS A 604	2.264	38.783	80.941	1.00	7.14	C
ATOM	2207	NZ	LYS A 604	1.199	39.150	81.933	1.00	7.51	N
ATOM	2208	C	LYS A 604	0.392	35.566	76.218	1.00	7.04	C
ATOM	2209	O	LYS A 604	0.618	36.277	75.239	1.00	7.03	O
ATOM	2210	N	LEU A 605	0.501	34.240	76.203	1.00	6.85	N
ATOM	2211	CA	LEU A 605	0.763	33.488	74.994	1.00	7.95	C
ATOM	2212	CB	LEU A 605	0.584	31.989	75.218	1.00	7.06	C
ATOM	2213	CG	LEU A 605	1.179	31.277	73.994	1.00	7.27	C
ATOM	2214	CD1	LEU A 605	2.649	30.894	74.195	1.00	7.10	C
ATOM	2215	CD2	LEU A 605	0.339	30.098	73.638	1.00	7.78	C
ATOM	2216	C	LEU A 605	-0.112	33.907	73.824	1.00	9.76	C
ATOM	2217	O	LEU A 605	0.397	34.340	72.784	1.00	9.69	O
ATOM	2218	N	GLU A 606	-1.425	33.775	73.994	1.00	11.83	N
ATOM	2219	CA	GLU A 606	-2.356	34.059	72.900	1.00	14.02	C
ATOM	2220	CB	GLU A 606	-3.760	33.494	73.183	1.00	14.42	C
ATOM	2221	CG	GLU A 606	-4.525	34.097	74.364	1.00	15.87	C
ATOM	2222	CD	GLU A 606	-5.755	33.263	74.761	1.00	15.20	C
ATOM	2223	OE1	GLU A 606	-5.872	32.112	74.298	1.00	16.34	O
ATOM	2224	OE2	GLU A 606	-6.600	33.753	75.545	1.00	17.17	O
ATOM	2225	C	GLU A 606	-2.399	35.538	72.520	1.00	14.40	C
ATOM	2226	O	GLU A 606	-2.822	35.882	71.426	1.00	15.50	O
ATOM	2227	N	ASN A 607	-1.955	36.411	73.417	1.00	14.99	N
ATOM	2228	CA	ASN A 607	-1.862	37.828	73.096	1.00	16.15	C
ATOM	2229	CB	ASN A 607	-2.422	38.707	74.236	1.00	16.25	C
ATOM	2230	CG	ASN A 607	-3.924	38.451	74.510	1.00	17.42	C
ATOM	2231	OD1	ASN A 607	-4.358	38.420	75.671	1.00	18.04	O
ATOM	2232	ND2	ASN A 607	-4.714	38.268	73.445	1.00	16.86	N
ATOM	2233	C	ASN A 607	-0.443	38.219	72.674	1.00	16.38	C
ATOM	2234	O	ASN A 607	-0.110	39.402	72.622	1.00	17.56	O
ATOM	2235	N	ARG A 608	0.379	37.210	72.364	1.00	16.30	N
ATOM	2236	CA	ARG A 608	1.713	37.410	71.784	1.00	16.36	C
ATOM	2237	CB	ARG A 608	1.584	38.205	70.477	1.00	16.32	C
ATOM	2238	CG	ARG A 608	2.237	37.596	69.263	1.00	16.30	C
ATOM	2239	CD	ARG A 608	1.976	38.458	68.052	1.00	16.48	C
ATOM	2240	NE	ARG A 608	3.095	38.399	67.123	1.00	19.28	N
ATOM	2241	CZ	ARG A 608	4.133	39.240	67.136	1.00	20.20	C
ATOM	2242	NH1	ARG A 608	4.181	40.223	68.032	1.00	21.53	N
ATOM	2243	NH2	ARG A 608	5.127	39.110	66.250	1.00	20.03	N
ATOM	2244	C	ARG A 608	2.664	38.118	72.767	1.00	17.09	C
ATOM	2245	O	ARG A 608	3.569	38.857	72.359	1.00	17.95	O
ATOM	2246	N	GLU A 609	2.466	37.879	74.061	1.00	16.35	N
ATOM	2247	CA	GLU A 609	3.157	38.634	75.097	1.00	16.11	C
ATOM	2248	CB	GLU A 609	2.154	39.179	76.116	1.00	17.22	C
ATOM	2249	CG	GLU A 609	1.426	40.450	75.683	1.00	19.08	C
ATOM	2250	CD	GLU A 609	0.276	40.822	76.622	1.00	19.28	C
ATOM	2251	OE1	GLU A 609	0.234	40.325	77.775	1.00	20.78	O
ATOM	2252	OE2	GLU A 609	-0.597	41.619	76.205	1.00	21.69	O
ATOM	2253	C	GLU A 609	4.265	37.860	75.809	1.00	14.41	C
ATOM	2254	O	GLU A 609	4.911	38.389	76.722	1.00	14.73	O
ATOM	2255	N	ILE A 610	4.481	36.614	75.397	1.00	12.31	N
ATOM	2256	CA	ILE A 610	5.593	35.822	75.923	1.00	11.47	C
ATOM	2257	CB	ILE A 610	5.226	34.331	76.114	1.00	11.62	C

- 80 -

ATOM	2258	CG1	ILE	A	610	3.895	34.210	76.869	1.00	9.73	C
ATOM	2259	CD1	ILE	A	610	3.544	32.807	77.315	1.00	11.56	C
ATOM	2260	CG2	ILE	A	610	6.380	33.597	76.842	1.00	10.23	C
ATOM	2261	C	ILE	A	610	6.820	35.940	75.021	1.00	10.66	C
ATOM	2262	O	ILE	A	610	6.744	35.651	73.822	1.00	10.16	O
ATOM	2263	N	GLN	A	611	7.942	36.363	75.608	1.00	9.09	N
ATOM	2264	CA	GLN	A	611	9.201	36.464	74.880	1.00	8.00	C
ATOM	2265	CB	GLN	A	611	10.353	36.948	75.770	1.00	8.40	C
ATOM	2266	CG	GLN	A	611	11.637	37.167	74.971	1.00	9.22	C
ATOM	2267	CD	GLN	A	611	12.775	37.758	75.777	1.00	9.74	C
ATOM	2268	OE1	GLN	A	611	13.071	37.319	76.896	1.00	11.14	O
ATOM	2269	NE2	GLN	A	611	13.430	38.756	75.205	1.00	10.00	N
ATOM	2270	C	GLN	A	611	9.544	35.129	74.243	1.00	5.96	C
ATOM	2271	O	GLN	A	611	9.573	34.096	74.928	1.00	5.54	O
ATOM	2272	N	PRO	A	612	9.778	35.142	72.921	1.00	4.28	N
ATOM	2273	CA	PRO	A	612	10.078	33.919	72.185	1.00	3.19	C
ATOM	2274	CB	PRO	A	612	10.058	34.377	70.718	1.00	2.44	C
ATOM	2275	CG	PRO	A	612	9.355	35.724	70.730	1.00	3.32	C
ATOM	2276	CD	PRO	A	612	9.762	36.318	72.033	1.00	3.39	C
ATOM	2277	C	PRO	A	612	11.453	33.364	72.567	1.00	2.74	C
ATOM	2278	O	PRO	A	612	12.322	34.130	73.015	1.00	2.00	O
ATOM	2279	N	PRO	A	613	11.646	32.041	72.396	1.00	2.61	N
ATOM	2280	CA	PRO	A	613	12.896	31.328	72.682	1.00	2.59	C
ATOM	2281	CB	PRO	A	613	12.655	29.951	72.063	1.00	2.00	C
ATOM	2282	CG	PRO	A	613	11.198	29.768	72.116	1.00	2.16	C
ATOM	2283	CD	PRO	A	613	10.608	31.124	71.889	1.00	2.54	C
ATOM	2284	C	PRO	A	613	14.107	31.980	72.031	1.00	3.11	C
ATOM	2285	O	PRO	A	613	15.173	32.055	72.649	1.00	2.00	O
ATOM	2286	N	PHE	A	614	13.952	32.434	70.790	1.00	3.25	N
ATOM	2287	CA	PHE	A	614	14.987	33.248	70.185	1.00	5.36	C
ATOM	2288	CB	PHE	A	614	16.129	32.383	69.628	1.00	6.93	C
ATOM	2289	CG	PHE	A	614	15.856	31.803	68.265	1.00	7.48	C
ATOM	2290	CD1	PHE	A	614	16.506	32.304	67.146	1.00	8.45	C
ATOM	2291	CE1	PHE	A	614	16.265	31.772	65.892	1.00	8.96	C
ATOM	2292	CZ	PHE	A	614	15.376	30.724	65.750	1.00	7.54	C
ATOM	2293	CE2	PHE	A	614	14.727	30.210	66.863	1.00	8.08	C
ATOM	2294	CD2	PHE	A	614	14.974	30.751	68.111	1.00	7.69	C
ATOM	2295	C	PHE	A	614	14.430	34.170	69.125	1.00	5.62	C
ATOM	2296	O	PHE	A	614	13.309	33.952	68.607	1.00	3.78	O
ATOM	2297	N	LYS	A	615	15.221	35.203	68.835	1.00	5.02	N
ATOM	2298	CA	LYS	A	615	14.972	36.107	67.728	1.00	7.03	C
ATOM	2299	CB	LYS	A	615	15.236	37.558	68.136	1.00	6.86	C
ATOM	2300	CG	LYS	A	615	14.791	38.585	67.117	1.00	7.92	C
ATOM	2301	CD	LYS	A	615	15.046	40.019	67.576	1.00	8.76	C
ATOM	2302	CE	LYS	A	615	14.306	40.994	66.650	1.00	9.58	C
ATOM	2303	NZ	LYS	A	615	14.935	42.341	66.609	1.00	8.93	N
ATOM	2304	C	LYS	A	615	15.827	35.680	66.523	1.00	8.24	C
ATOM	2305	O	LYS	A	615	17.060	35.606	66.623	1.00	7.24	O
ATOM	2306	N	PRO	A	616	15.161	35.368	65.386	1.00	8.83	N
ATOM	2307	CA	PRO	A	616	15.798	34.984	64.133	1.00	10.84	C
ATOM	2308	CB	PRO	A	616	14.596	34.660	63.215	1.00	10.19	C
ATOM	2309	CG	PRO	A	616	13.472	34.445	64.118	1.00	8.10	C
ATOM	2310	CD	PRO	A	616	13.692	35.357	65.262	1.00	8.88	C
ATOM	2311	C	PRO	A	616	16.649	36.119	63.545	1.00	13.62	C
ATOM	2312	O	PRO	A	616	16.352	37.302	63.777	1.00	12.59	O
ATOM	2313	N	LYS	A	617	17.689	35.742	62.795	1.00	17.08	N
ATOM	2314	CA	LYS	A	617	18.660	36.685	62.212	1.00	20.86	C
ATOM	2315	CB	LYS	A	617	19.897	35.939	61.676	1.00	21.35	C

- 81 -

ATOM	2316	CG	LYS	A	617	20.825	35.364	62.738	1.00	21.76	C
ATOM	2317	CD	LYS	A	617	21.779	36.403	63.320	1.00	22.36	C
ATOM	2318	CE	LYS	A	617	22.696	35.755	64.365	1.00	22.43	C
ATOM	2319	NZ	LYS	A	617	23.653	36.706	65.019	1.00	22.53	N
ATOM	2320	C	LYS	A	617	18.109	37.603	61.107	1.00	23.25	C
ATOM	2321	O	LYS	A	617	17.191	37.226	60.355	1.00	22.30	O
ATOM	2322	N	VAL	A	618	18.706	38.798	61.020	1.00	25.45	N
ATOM	2323	CA	VAL	A	618	18.397	39.793	59.978	1.00	27.51	C
ATOM	2324	CB	VAL	A	618	18.684	41.246	60.478	1.00	27.82	C
ATOM	2325	CG1	VAL	A	618	18.467	42.285	59.361	1.00	28.01	C
ATOM	2326	CG2	VAL	A	618	17.834	41.579	61.713	1.00	28.10	C
ATOM	2327	C	VAL	A	618	19.197	39.512	58.697	1.00	28.13	C
ATOM	2328	O	VAL	A	618	18.664	39.574	57.578	1.00	29.39	O
ATOM	2329	N	ALA	A	626	25.124	44.107	41.465	1.00	3.94	N
ATOM	2330	CA	ALA	A	626	25.773	43.118	42.329	1.00	4.52	C
ATOM	2331	CB	ALA	A	626	24.742	42.085	42.842	1.00	2.91	C
ATOM	2332	C	ALA	A	626	26.961	42.439	41.614	1.00	3.37	C
ATOM	2333	O	ALA	A	626	28.101	42.554	42.057	1.00	5.77	O
ATOM	2334	N	ASP	A	627	26.693	41.761	40.497	1.00	2.72	N
ATOM	2335	CA	ASP	A	627	27.728	41.049	39.719	1.00	2.00	C
ATOM	2336	CB	ASP	A	627	27.459	39.540	39.805	1.00	2.00	C
ATOM	2337	CG	ASP	A	627	28.504	38.681	39.079	1.00	2.00	C
ATOM	2338	OD1	ASP	A	627	29.326	39.174	38.260	1.00	2.00	O
ATOM	2339	OD2	ASP	A	627	28.457	37.464	39.343	1.00	2.00	O
ATOM	2340	C	ASP	A	627	27.660	41.507	38.273	1.00	2.00	C
ATOM	2341	O	ASP	A	627	26.654	41.295	37.577	1.00	2.00	O
ATOM	2342	N	LYS	A	628	28.730	42.136	37.816	1.00	2.00	N
ATOM	2343	CA	LYS	A	628	28.735	42.704	36.472	1.00	2.00	C
ATOM	2344	CB	LYS	A	628	29.699	43.902	36.377	1.00	2.00	C
ATOM	2345	CG	LYS	A	628	31.177	43.579	36.478	1.00	2.00	C
ATOM	2346	CD	LYS	A	628	32.012	44.858	36.239	1.00	2.00	C
ATOM	2347	CE	LYS	A	628	33.257	44.579	35.439	1.00	2.00	C
ATOM	2348	NZ	LYS	A	628	33.894	45.790	34.794	1.00	2.05	N
ATOM	2349	C	LYS	A	628	28.948	41.667	35.356	1.00	2.00	C
ATOM	2350	O	LYS	A	628	28.947	42.020	34.189	1.00	2.00	O
ATOM	2351	N	PHE	A	629	29.104	40.401	35.721	1.00	2.00	N
ATOM	2352	CA	PHE	A	629	29.339	39.321	34.755	1.00	2.00	C
ATOM	2353	CB	PHE	A	629	30.652	38.564	35.071	1.00	2.00	C
ATOM	2354	CG	PHE	A	629	31.852	39.457	35.141	1.00	2.00	C
ATOM	2355	CD1	PHE	A	629	32.492	39.683	36.339	1.00	2.00	C
ATOM	2356	CE1	PHE	A	629	33.599	40.532	36.400	1.00	2.00	C
ATOM	2357	CZ	PHE	A	629	34.035	41.159	35.267	1.00	2.00	C
ATOM	2358	CE2	PHE	A	629	33.393	40.940	34.071	1.00	2.00	C
ATOM	2359	CD2	PHE	A	629	32.301	40.099	34.016	1.00	2.00	C
ATOM	2360	C	PHE	A	629	28.178	38.334	34.641	1.00	2.00	C
ATOM	2361	O	PHE	A	629	28.157	37.498	33.754	1.00	2.00	O
ATOM	2362	N	PHE	A	630	27.240	38.428	35.576	1.00	2.00	N
ATOM	2363	CA	PHE	A	630	26.084	37.546	35.611	1.00	2.00	C
ATOM	2364	CB	PHE	A	630	26.396	36.232	36.349	1.00	2.00	C
ATOM	2365	CG	PHE	A	630	25.172	35.370	36.611	1.00	2.00	C
ATOM	2366	CD1	PHE	A	630	24.565	34.662	35.572	1.00	2.00	C
ATOM	2367	CE1	PHE	A	630	23.437	33.870	35.805	1.00	2.00	C
ATOM	2368	CZ	PHE	A	630	22.912	33.786	37.099	1.00	2.00	C
ATOM	2369	CE2	PHE	A	630	23.514	34.495	38.145	1.00	2.00	C
ATOM	2370	CD2	PHE	A	630	24.630	35.280	37.892	1.00	2.00	C
ATOM	2371	C	PHE	A	630	24.913	38.252	36.286	1.00	2.00	C
ATOM	2372	O	PHE	A	630	25.090	38.884	37.329	1.00	2.00	O
ATOM	2373	N	THR	A	631	23.727	38.128	35.680	1.00	2.00	N

- 82 -

ATOM	2374	CA	THR	A	631	22.448	38.502	36.309	1.00	3.74	C
ATOM	2375	CB	THR	A	631	21.888	39.847	35.770	1.00	5.10	C
ATOM	2376	OG1	THR	A	631	21.796	39.791	34.337	1.00	5.84	O
ATOM	2377	CG2	THR	A	631	22.788	41.027	36.178	1.00	7.34	C
ATOM	2378	C	THR	A	631	21.387	37.431	36.048	1.00	5.07	C
ATOM	2379	O	THR	A	631	21.432	36.719	35.033	1.00	3.12	O
ATOM	2380	N	ARG	A	632	20.433	37.342	36.972	1.00	7.65	N
ATOM	2381	CA	ARG	A	632	19.285	36.449	36.870	1.00	9.71	C
ATOM	2382	CB	ARG	A	632	18.782	36.087	38.267	1.00	11.57	C
ATOM	2383	CG	ARG	A	632	19.760	35.316	39.147	1.00	14.83	C
ATOM	2384	CD	ARG	A	632	19.301	33.873	39.352	1.00	16.15	C
ATOM	2385	NE	ARG	A	632	19.840	33.295	40.591	1.00	17.28	N
ATOM	2386	CZ	ARG	A	632	20.882	32.463	40.659	1.00	18.02	C
ATOM	2387	NH1	ARG	A	632	21.530	32.082	39.557	1.00	17.24	N
ATOM	2388	NH2	ARG	A	632	21.276	31.999	41.841	1.00	17.39	N
ATOM	2389	C	ARG	A	632	18.148	37.139	36.118	1.00	10.09	C
ATOM	2390	O	ARG	A	632	17.096	36.534	35.870	1.00	10.57	O
ATOM	2391	N	GLY	A	633	18.351	38.406	35.771	1.00	9.50	N
ATOM	2392	CA	GLY	A	633	17.307	39.208	35.152	1.00	10.23	C
ATOM	2393	C	GLY	A	633	16.226	39.628	36.131	1.00	11.55	C
ATOM	2394	O	GLY	A	633	16.229	39.237	37.311	1.00	11.44	O
ATOM	2395	N	GLN	A	634	15.299	40.449	35.648	1.00	12.76	N
ATOM	2396	CA	GLN	A	634	14.176	40.890	36.480	1.00	14.18	C
ATOM	2397	CB	GLN	A	634	13.903	42.385	36.273	1.00	15.13	C
ATOM	2398	CG	GLN	A	634	14.979	43.259	36.955	1.00	16.15	C
ATOM	2399	CD	GLN	A	634	14.947	44.724	36.552	1.00	16.39	C
ATOM	2400	OE1	GLN	A	634	16.007	45.361	36.399	1.00	16.99	O
ATOM	2401	NE2	GLN	A	634	13.734	45.280	36.388	1.00	16.60	N
ATOM	2402	C	GLN	A	634	12.939	40.033	36.225	1.00	13.41	C
ATOM	2403	O	GLN	A	634	12.618	39.748	35.073	1.00	12.34	O
ATOM	2404	N	PRO	A	635	12.258	39.591	37.303	1.00	14.56	N
ATOM	2405	CA	PRO	A	635	11.095	38.731	37.063	1.00	14.55	C
ATOM	2406	CB	PRO	A	635	10.712	38.223	38.465	1.00	14.59	C
ATOM	2407	CG	PRO	A	635	11.312	39.193	39.423	1.00	14.85	C
ATOM	2408	CD	PRO	A	635	12.502	39.823	38.743	1.00	14.04	C
ATOM	2409	C	PRO	A	635	9.939	39.467	36.370	1.00	15.48	C
ATOM	2410	O	PRO	A	635	9.391	40.437	36.907	1.00	16.00	O
ATOM	2411	N	VAL	A	636	9.595	38.999	35.172	1.00	15.38	N
ATOM	2412	CA	VAL	A	636	8.498	39.566	34.393	1.00	16.44	C
ATOM	2413	CB	VAL	A	636	8.957	40.043	32.983	1.00	16.03	C
ATOM	2414	CG1	VAL	A	636	9.868	41.264	33.104	1.00	16.21	C
ATOM	2415	CG2	VAL	A	636	9.638	38.908	32.210	1.00	14.81	C
ATOM	2416	C	VAL	A	636	7.381	38.536	34.260	1.00	16.75	C
ATOM	2417	O	VAL	A	636	7.575	37.339	34.546	1.00	16.70	O
ATOM	2418	N	LEU	A	637	6.209	38.994	33.838	1.00	17.28	N
ATOM	2419	CA	LEU	A	637	5.101	38.074	33.695	1.00	16.56	C
ATOM	2420	CB	LEU	A	637	3.844	38.521	34.480	1.00	17.05	C
ATOM	2421	CG	LEU	A	637	3.703	37.858	35.876	1.00	16.50	C
ATOM	2422	CD1	LEU	A	637	4.862	38.165	36.828	1.00	16.25	C
ATOM	2423	CD2	LEU	A	637	2.370	38.185	36.547	1.00	16.14	C
ATOM	2424	C	LEU	A	637	4.842	37.708	32.246	1.00	16.47	C
ATOM	2425	O	LEU	A	637	4.847	38.557	31.355	1.00	14.50	O
ATOM	2426	N	TPO	A	638	4.663	36.405	32.052	1.00	18.18	N
ATOM	2427	CA	TPO	A	638	4.484	35.780	30.756	1.00	21.14	C
ATOM	2428	CB	TPO	A	638	4.370	34.274	31.033	1.00	23.90	C
ATOM	2429	CG2	TPO	A	638	3.661	33.476	29.939	1.00	24.85	C
ATOM	2430	OG1	TPO	A	638	3.691	34.081	32.283	1.00	27.67	O
ATOM	2431	P	TPO	A	638	4.344	33.470	33.647	1.00	29.28	P

- 83 -

ATOM	2432	O1P	TPO	A	638	5.811	33.155	33.381	1.00	30.04	O
ATOM	2433	O2P	TPO	A	638	3.496	32.230	33.860	1.00	29.37	O
ATOM	2434	O3P	TPO	A	638	4.159	34.596	34.645	1.00	28.64	O
ATOM	2435	C	TPO	A	638	3.337	36.437	30.038	1.00	21.03	C
ATOM	2436	O	TPO	A	638	2.294	36.728	30.647	1.00	20.21	O
ATOM	2437	N	PRO	A	639	3.521	36.717	28.736	1.00	20.00	N
ATOM	2438	CA	PRO	A	639	2.505	37.470	27.984	1.00	20.26	C
ATOM	2439	CB	PRO	A	639	3.175	37.711	26.619	1.00	20.69	C
ATOM	2440	CG	PRO	A	639	4.292	36.728	26.540	1.00	19.81	C
ATOM	2441	CD	PRO	A	639	4.687	36.347	27.913	1.00	19.77	C
ATOM	2442	C	PRO	A	639	1.140	36.739	27.850	1.00	19.11	C
ATOM	2443	O	PRO	A	639	1.096	35.507	27.777	1.00	19.37	O
ATOM	2444	N	PRO	A	640	0.031	37.493	27.845	1.00	18.08	N
ATOM	2445	CA	PRO	A	640	-1.287	36.852	27.891	1.00	17.23	C
ATOM	2446	CB	PRO	A	640	-2.204	37.968	28.431	1.00	17.97	C
ATOM	2447	CG	PRO	A	640	-1.260	39.132	28.787	1.00	18.68	C
ATOM	2448	CD	PRO	A	640	-0.105	38.955	27.842	1.00	18.57	C
ATOM	2449	C	PRO	A	640	-1.777	36.335	26.535	1.00	14.61	C
ATOM	2450	O	PRO	A	640	-1.670	37.030	25.517	1.00	16.71	O
ATOM	2451	N	ASP	A	641	-2.312	35.118	26.548	1.00	10.72	N
ATOM	2452	CA	ASP	A	641	-2.765	34.416	25.357	1.00	7.57	C
ATOM	2453	CB	ASP	A	641	-2.440	32.931	25.568	1.00	9.01	C
ATOM	2454	CG	ASP	A	641	-2.573	32.089	24.299	1.00	12.21	C
ATOM	2455	OD1	ASP	A	641	-3.561	32.247	23.534	1.00	11.84	O
ATOM	2456	OD2	ASP	A	641	-1.670	31.235	24.074	1.00	13.19	O
ATOM	2457	C	ASP	A	641	-4.294	34.651	25.183	1.00	5.84	C
ATOM	2458	O	ASP	A	641	-5.081	34.232	26.020	1.00	2.92	O
ATOM	2459	N	GLN	A	642	-4.709	35.332	24.114	1.00	3.41	N
ATOM	2460	CA	GLN	A	642	-6.112	35.711	23.968	1.00	4.50	C
ATOM	2461	CB	GLN	A	642	-6.317	36.683	22.803	1.00	5.62	C
ATOM	2462	CG	GLN	A	642	-5.708	38.082	23.012	1.00	8.40	C
ATOM	2463	CD	GLN	A	642	-5.956	38.695	24.392	1.00	8.65	C
ATOM	2464	OE1	GLN	A	642	-5.025	38.835	25.193	1.00	11.70	O
ATOM	2465	NE2	GLN	A	642	-7.197	39.070	24.672	1.00	10.16	N
ATOM	2466	C	GLN	A	642	-7.078	34.521	23.870	1.00	3.27	C
ATOM	2467	O	GLN	A	642	-8.185	34.579	24.423	1.00	4.14	O
ATOM	2468	N	LEU	A	643	-6.660	33.451	23.183	1.00	2.00	N
ATOM	2469	CA	LEU	A	643	-7.478	32.234	23.048	1.00	2.00	C
ATOM	2470	CB	LEU	A	643	-6.809	31.216	22.126	1.00	2.00	C
ATOM	2471	CG	LEU	A	643	-7.680	29.998	21.780	1.00	2.00	C
ATOM	2472	CD1	LEU	A	643	-8.843	30.370	20.874	1.00	2.00	C
ATOM	2473	CD2	LEU	A	643	-6.838	28.903	21.126	1.00	2.00	C
ATOM	2474	C	LEU	A	643	-7.735	31.588	24.395	1.00	2.00	C
ATOM	2475	O	LEU	A	643	-8.877	31.234	24.728	1.00	2.00	O
ATOM	2476	N	VAL	A	644	-6.658	31.433	25.162	1.00	2.00	N
ATOM	2477	CA	VAL	A	644	-6.740	30.936	26.523	1.00	2.00	C
ATOM	2478	CB	VAL	A	644	-5.332	30.874	27.197	1.00	2.00	C
ATOM	2479	CG1	VAL	A	644	-5.452	30.572	28.699	1.00	2.00	C
ATOM	2480	CG2	VAL	A	644	-4.464	29.813	26.521	1.00	2.00	C
ATOM	2481	C	VAL	A	644	-7.700	31.796	27.364	1.00	2.00	C
ATOM	2482	O	VAL	A	644	-8.586	31.260	28.022	1.00	2.00	O
ATOM	2483	N	ILE	A	645	-7.512	33.114	27.331	1.00	2.00	N
ATOM	2484	CA	ILE	A	645	-8.336	34.065	28.096	1.00	2.00	C
ATOM	2485	CB	ILE	A	645	-7.840	35.528	27.906	1.00	2.00	C
ATOM	2486	CG1	ILE	A	645	-6.445	35.728	28.540	1.00	2.00	C
ATOM	2487	CD1	ILE	A	645	-5.861	37.141	28.312	1.00	2.00	C
ATOM	2488	CG2	ILE	A	645	-8.813	36.523	28.474	1.00	2.00	C
ATOM	2489	C	ILE	A	645	-9.822	33.977	27.714	1.00	2.00	C

- 84 -

ATOM	2490	O	ILE	A	645	-10.684	33.990	28.587	1.00	2.00	O
ATOM	2491	N	ALA	A	646	-10.112	33.875	26.418	1.00	2.00	N
ATOM	2492	CA	ALA	A	646	-11.495	33.775	25.957	1.00	2.00	C
ATOM	2493	CB	ALA	A	646	-11.557	33.822	24.449	1.00	2.00	C
ATOM	2494	C	ALA	A	646	-12.183	32.506	26.496	1.00	2.00	C
ATOM	2495	O	ALA	A	646	-13.400	32.394	26.465	1.00	2.00	O
ATOM	2496	N	ASN	A	647	-11.392	31.570	27.012	1.00	2.00	N
ATOM	2497	CA	ASN	A	647	-11.909	30.253	27.350	1.00	2.00	C
ATOM	2498	CB	ASN	A	647	-11.360	29.215	26.380	1.00	2.00	C
ATOM	2499	CG	ASN	A	647	-12.012	29.330	25.020	1.00	2.00	C
ATOM	2500	OD1	ASN	A	647	-11.518	30.013	24.129	1.00	2.00	O
ATOM	2501	ND2	ASN	A	647	-13.143	28.700	24.872	1.00	2.00	N
ATOM	2502	C	ASN	A	647	-11.745	29.825	28.789	1.00	2.00	C
ATOM	2503	O	ASN	A	647	-12.138	28.715	29.152	1.00	2.00	O
ATOM	2504	N	ILE	A	648	-11.185	30.720	29.599	1.00	2.00	N
ATOM	2505	CA	ILE	A	648	-11.194	30.610	31.059	1.00	2.00	C
ATOM	2506	CB	ILE	A	648	-10.314	31.711	31.713	1.00	2.00	C
ATOM	2507	CG1	ILE	A	648	-8.832	31.460	31.412	1.00	2.00	C
ATOM	2508	CD1	ILE	A	648	-7.956	32.639	31.789	1.00	2.00	C
ATOM	2509	CG2	ILE	A	648	-10.486	31.763	33.237	1.00	2.00	C
ATOM	2510	C	ILE	A	648	-12.640	30.714	31.580	1.00	2.00	C
ATOM	2511	O	ILE	A	648	-13.376	31.623	31.195	1.00	2.00	O
ATOM	2512	N	ASP	A	649	-13.031	29.776	32.445	1.00	2.00	N
ATOM	2513	CA	ASP	A	649	-14.335	29.835	33.125	1.00	2.00	C
ATOM	2514	CB	ASP	A	649	-14.804	28.437	33.562	1.00	2.02	C
ATOM	2515	CG	ASP	A	649	-16.259	28.418	34.022	1.00	4.36	C
ATOM	2516	OD1	ASP	A	649	-16.820	29.502	34.273	1.00	4.13	O
ATOM	2517	OD2	ASP	A	649	-16.860	27.321	34.117	1.00	5.25	O
ATOM	2518	C	ASP	A	649	-14.223	30.768	34.324	1.00	2.00	C
ATOM	2519	O	ASP	A	649	-13.801	30.365	35.402	1.00	2.00	O
ATOM	2520	N	GLN	A	650	-14.639	32.022	34.121	1.00	2.00	N
ATOM	2521	CA	GLN	A	650	-14.445	33.075	35.110	1.00	2.00	C
ATOM	2522	CB	GLN	A	650	-14.549	34.460	34.461	1.00	2.00	C
ATOM	2523	CG	GLN	A	650	-13.556	34.730	33.308	1.00	2.00	C
ATOM	2524	CD	GLN	A	650	-12.137	35.069	33.780	1.00	2.00	C
ATOM	2525	OE1	GLN	A	650	-11.773	34.820	34.916	1.00	2.00	O
ATOM	2526	NE2	GLN	A	650	-11.344	35.645	32.892	1.00	2.00	N
ATOM	2527	C	GLN	A	650	-15.404	32.951	36.299	1.00	2.00	C
ATOM	2528	O	GLN	A	650	-15.146	33.514	37.359	1.00	2.00	O
ATOM	2529	N	SER	A	651	-16.501	32.204	36.127	1.00	2.00	N
ATOM	2530	CA	SER	A	651	-17.442	31.948	37.225	1.00	2.00	C
ATOM	2531	CB	SER	A	651	-18.713	31.248	36.726	1.00	2.00	C
ATOM	2532	OG	SER	A	651	-18.475	29.900	36.372	1.00	2.00	O
ATOM	2533	C	SER	A	651	-16.799	31.147	38.368	1.00	2.00	C
ATOM	2534	O	SER	A	651	-17.222	31.274	39.531	1.00	2.00	O
ATOM	2535	N	ASP	A	652	-15.791	30.331	38.025	1.00	2.00	N
ATOM	2536	CA	ASP	A	652	-14.946	29.600	38.998	1.00	2.00	C
ATOM	2537	CB	ASP	A	652	-13.782	28.869	38.296	1.00	2.00	C
ATOM	2538	CG	ASP	A	652	-14.211	27.593	37.589	1.00	2.50	C
ATOM	2539	OD1	ASP	A	652	-15.313	27.056	37.866	1.00	3.00	O
ATOM	2540	OD2	ASP	A	652	-13.431	27.110	36.734	1.00	4.76	O
ATOM	2541	C	ASP	A	652	-14.374	30.520	40.082	1.00	2.00	C
ATOM	2542	O	ASP	A	652	-14.185	30.103	41.218	1.00	2.00	O
ATOM	2543	N	PHE	A	653	-14.137	31.778	39.728	1.00	2.00	N
ATOM	2544	CA	PHE	A	653	-13.470	32.743	40.606	1.00	2.00	C
ATOM	2545	CB	PHE	A	653	-12.227	33.259	39.868	1.00	2.00	C
ATOM	2546	CG	PHE	A	653	-11.395	32.139	39.312	1.00	2.00	C
ATOM	2547	CD1	PHE	A	653	-11.317	31.927	37.942	1.00	2.00	C

- 85 -

ATOM	2548	CE1	PHE	A	653	-10.577	30.859	37.427	1.00	2.00	C
ATOM	2549	CZ	PHE	A	653	-9.935	29.982	38.286	1.00	2.00	C
ATOM	2550	CE2	PHE	A	653	-10.014	30.171	39.664	1.00	2.00	C
ATOM	2551	CD2	PHE	A	653	-10.755	31.244	40.171	1.00	2.00	C
ATOM	2552	C	PHE	A	653	-14.356	33.871	41.117	1.00	2.00	C
ATOM	2553	O	PHE	A	653	-13.876	34.874	41.646	1.00	2.00	O
ATOM	2554	N	GLU	A	654	-15.663	33.691	40.952	1.00	2.00	N
ATOM	2555	CA	GLU	A	654	-16.673	34.635	41.482	1.00	2.00	C
ATOM	2556	CB	GLU	A	654	-18.076	34.122	41.199	1.00	2.00	C
ATOM	2557	CG	GLU	A	654	-19.176	35.123	41.619	1.00	3.81	C
ATOM	2558	CD	GLU	A	654	-20.587	34.513	41.713	1.00	3.78	C
ATOM	2559	OE1	GLU	A	654	-20.752	33.340	42.140	1.00	5.26	O
ATOM	2560	OE2	GLU	A	654	-21.542	35.240	41.379	1.00	4.56	O
ATOM	2561	C	GLU	A	654	-16.473	34.807	42.978	1.00	2.00	C
ATOM	2562	O	GLU	A	654	-16.348	33.819	43.702	1.00	2.00	O
ATOM	2563	N	GLY	A	655	-16.406	36.050	43.436	1.00	2.00	N
ATOM	2564	CA	GLY	A	655	-16.185	36.302	44.852	1.00	2.00	C
ATOM	2565	C	GLY	A	655	-14.748	36.211	45.382	1.00	2.00	C
ATOM	2566	O	GLY	A	655	-14.536	36.236	46.597	1.00	2.00	O
ATOM	2567	N	PHE	A	656	-13.755	36.120	44.492	1.00	2.00	N
ATOM	2568	CA	PHE	A	656	-12.368	35.999	44.927	1.00	2.00	C
ATOM	2569	CB	PHE	A	656	-11.452	35.681	43.741	1.00	2.00	C
ATOM	2570	CG	PHE	A	656	-10.033	35.401	44.139	1.00	2.00	C
ATOM	2571	CD1	PHE	A	656	-9.677	34.158	44.630	1.00	2.00	C
ATOM	2572	CE1	PHE	A	656	-8.359	33.900	44.994	1.00	2.00	C
ATOM	2573	CZ	PHE	A	656	-7.394	34.899	44.876	1.00	2.00	C
ATOM	2574	CE2	PHE	A	656	-7.743	36.138	44.394	1.00	2.00	C
ATOM	2575	CD2	PHE	A	656	-9.059	36.390	44.030	1.00	2.00	C
ATOM	2576	C	PHE	A	656	-11.843	37.232	45.635	1.00	2.00	C
ATOM	2577	O	PHE	A	656	-11.112	37.132	46.615	1.00	2.00	O
ATOM	2578	N	SEP	A	657	-12.209	38.404	45.145	1.00	2.00	N
ATOM	2579	CA	SEP	A	657	-11.614	39.628	45.655	1.00	2.19	C
ATOM	2580	CB	SEP	A	657	-11.852	40.785	44.700	1.00	3.91	C
ATOM	2581	OG	SEP	A	657	-11.092	40.556	43.537	1.00	7.13	O
ATOM	2582	P	SEP	A	657	-11.366	41.663	42.417	1.00	10.53	P
ATOM	2583	O1P	SEP	A	657	-12.813	41.351	41.765	1.00	6.94	O
ATOM	2584	O2P	SEP	A	657	-10.160	41.672	41.345	1.00	7.36	O
ATOM	2585	O3P	SEP	A	657	-11.390	43.153	43.080	1.00	9.35	O
ATOM	2586	C	SEP	A	657	-12.063	39.965	47.063	1.00	2.75	C
ATOM	2587	O	SEP	A	657	-13.225	39.769	47.423	1.00	3.06	O
ATOM	2588	N	TYR	A	658	-11.114	40.465	47.854	1.00	2.73	N
ATOM	2589	CA	TYR	A	658	-11.352	40.781	49.247	1.00	2.07	C
ATOM	2590	CB	TYR	A	658	-11.424	39.499	50.080	1.00	3.21	C
ATOM	2591	CG	TYR	A	658	-11.466	39.761	51.568	1.00	3.81	C
ATOM	2592	CD1	TYR	A	658	-12.636	40.237	52.167	1.00	4.58	C
ATOM	2593	CE1	TYR	A	658	-12.690	40.496	53.534	1.00	5.09	C
ATOM	2594	CZ	TYR	A	658	-11.561	40.277	54.317	1.00	3.72	C
ATOM	2595	OH	TYR	A	658	-11.633	40.542	55.669	1.00	3.34	O
ATOM	2596	CE2	TYR	A	658	-10.379	39.814	53.745	1.00	3.52	C
ATOM	2597	CD2	TYR	A	658	-10.334	39.558	52.374	1.00	3.62	C
ATOM	2598	C	TYR	A	658	-10.222	41.644	49.772	1.00	2.99	C
ATOM	2599	O	TYR	A	658	-9.047	41.320	49.572	1.00	3.20	O
ATOM	2600	N	VAL	A	659	-10.564	42.730	50.454	1.00	2.00	N
ATOM	2601	CA	VAL	A	659	-9.543	43.547	51.085	1.00	2.00	C
ATOM	2602	CB	VAL	A	659	-9.635	45.017	50.660	1.00	2.00	C
ATOM	2603	CG1	VAL	A	659	-8.487	45.832	51.290	1.00	2.00	C
ATOM	2604	CG2	VAL	A	659	-9.583	45.117	49.150	1.00	3.09	C
ATOM	2605	C	VAL	A	659	-9.693	43.427	52.589	1.00	2.00	C

- 86 -

ATOM	2606	O	VAL	A	659	-10.777	43.678	53.124	1.00	2.00	O
ATOM	2607	N	ASN	A	660	-8.605	43.041	53.258	1.00	2.00	N
ATOM	2608	CA	ASN	A	660	-8.550	43.003	54.721	1.00	3.05	C
ATOM	2609	CB	ASN	A	660	-7.296	42.239	55.168	1.00	2.76	C
ATOM	2610	CG	ASN	A	660	-7.235	41.992	56.680	1.00	3.20	C
ATOM	2611	OD1	ASN	A	660	-8.065	42.474	57.449	1.00	3.92	O
ATOM	2612	ND2	ASN	A	660	-6.238	41.216	57.101	1.00	2.79	N
ATOM	2613	C	ASN	A	660	-8.560	44.407	55.343	1.00	4.76	C
ATOM	2614	O	ASN	A	660	-7.555	45.137	55.250	1.00	6.33	O
ATOM	2615	N	PRO	A	661	-9.666	44.780	56.023	1.00	5.47	N
ATOM	2616	CA	PRO	A	661	-9.725	46.144	56.551	1.00	5.96	C
ATOM	2617	CB	PRO	A	661	-11.200	46.324	56.898	1.00	5.55	C
ATOM	2618	CG	PRO	A	661	-11.688	44.942	57.221	1.00	5.24	C
ATOM	2619	CD	PRO	A	661	-10.874	43.997	56.363	1.00	5.47	C
ATOM	2620	C	PRO	A	661	-8.844	46.344	57.792	1.00	7.75	C
ATOM	2621	O	PRO	A	661	-8.607	47.484	58.206	1.00	8.23	O
ATOM	2622	N	GLN	A	662	-8.353	45.247	58.367	1.00	8.87	N
ATOM	2623	CA	GLN	A	662	-7.591	45.322	59.602	1.00	9.90	C
ATOM	2624	CB	GLN	A	662	-8.398	44.719	60.754	1.00	11.68	C
ATOM	2625	CG	GLN	A	662	-9.580	45.596	61.217	1.00	14.11	C
ATOM	2626	CD	GLN	A	662	-9.133	46.896	61.878	1.00	14.59	C
ATOM	2627	OE1	GLN	A	662	-9.584	47.990	61.506	1.00	15.45	O
ATOM	2628	NE2	GLN	A	662	-8.241	46.783	62.865	1.00	15.05	N
ATOM	2629	C	GLN	A	662	-6.223	44.659	59.491	1.00	9.56	C
ATOM	2630	O	GLN	A	662	-5.726	44.091	60.466	1.00	10.14	O
ATOM	2631	N	PHE	A	663	-5.624	44.732	58.299	1.00	8.84	N
ATOM	2632	CA	PHE	A	663	-4.262	44.250	58.079	1.00	8.05	C
ATOM	2633	CB	PHE	A	663	-3.861	44.375	56.606	1.00	7.04	C
ATOM	2634	CG	PHE	A	663	-2.482	43.812	56.289	1.00	7.35	C
ATOM	2635	CD1	PHE	A	663	-2.302	42.448	56.064	1.00	6.56	C
ATOM	2636	CE1	PHE	A	663	-1.046	41.928	55.758	1.00	6.83	C
ATOM	2637	CZ	PHE	A	663	0.062	42.774	55.691	1.00	7.01	C
ATOM	2638	CE2	PHE	A	663	-0.093	44.142	55.918	1.00	6.83	C
ATOM	2639	CD2	PHE	A	663	-1.364	44.656	56.216	1.00	7.21	C
ATOM	2640	C	PHE	A	663	-3.319	45.044	58.967	1.00	7.62	C
ATOM	2641	O	PHE	A	663	-3.370	46.267	58.992	1.00	7.51	O
ATOM	2642	N	VAL	A	664	-2.482	44.329	59.708	1.00	9.41	N
ATOM	2643	CA	VAL	A	664	-1.524	44.942	60.631	1.00	11.40	C
ATOM	2644	CB	VAL	A	664	-1.371	44.119	61.946	1.00	12.28	C
ATOM	2645	CG1	VAL	A	664	-0.284	44.702	62.832	1.00	11.84	C
ATOM	2646	CG2	VAL	A	664	-2.689	44.048	62.700	1.00	10.86	C
ATOM	2647	C	VAL	A	664	-0.171	45.077	59.941	1.00	12.29	C
ATOM	2648	O	VAL	A	664	0.540	44.080	59.717	1.00	10.96	O
ATOM	2649	N	HIS	A	665	0.160	46.317	59.598	1.00	12.91	N
ATOM	2650	CA	HIS	A	665	1.455	46.655	59.035	1.00	14.79	C
ATOM	2651	CB	HIS	A	665	1.401	48.047	58.405	1.00	13.75	C
ATOM	2652	CG	HIS	A	665	0.500	48.132	57.214	1.00	13.81	C
ATOM	2653	ND1	HIS	A	665	0.966	48.047	55.918	1.00	14.43	N
ATOM	2654	CE1	HIS	A	665	-0.046	48.158	55.078	1.00	13.19	C
ATOM	2655	NE2	HIS	A	665	-1.152	48.318	55.782	1.00	14.01	N
ATOM	2656	CD2	HIS	A	665	-0.838	48.304	57.121	1.00	13.10	C
ATOM	2657	C	HIS	A	665	2.566	46.586	60.099	1.00	15.85	C
ATOM	2658	O	HIS	A	665	2.314	46.848	61.281	1.00	14.36	O
ATOM	2659	N	PRO	A	666	3.797	46.226	59.678	1.00	17.85	N
ATOM	2660	CA	PRO	A	666	4.941	46.166	60.610	1.00	19.00	C
ATOM	2661	CB	PRO	A	666	6.138	45.841	59.700	1.00	18.67	C
ATOM	2662	CG	PRO	A	666	5.656	46.122	58.291	1.00	19.64	C
ATOM	2663	CD	PRO	A	666	4.185	45.858	58.303	1.00	18.53	C

- 87 -

ATOM	2664	C	PRO	A	666	5.149	47.495	61.325	1.00	19.40	C
ATOM	2665	O	PRO	A	666	5.234	48.545	60.679	1.00	19.04	O
ATOM	2666	N	ILE	A	667	5.207	47.425	62.650	1.00	20.97	N
ATOM	2667	CA	ILE	A	667	5.353	48.581	63.527	1.00	23.53	C
ATOM	2668	CB	ILE	A	667	4.953	48.180	64.978	1.00	23.92	C
ATOM	2669	CG1	ILE	A	667	3.429	48.119	65.107	1.00	24.41	C
ATOM	2670	CD1	ILE	A	667	2.936	47.820	66.517	1.00	24.61	C
ATOM	2671	CG2	ILE	A	667	5.558	49.115	66.040	1.00	25.48	C
ATOM	2672	C	ILE	A	667	6.780	49.160	63.485	1.00	24.47	C
ATOM	2673	O	ILE	A	667	7.739	48.431	63.228	1.00	24.65	O
ATOM	2674	N	LEU	A	668	6.900	50.470	63.725	1.00	25.87	N
ATOM	2675	CA	LEU	A	668	8.194	51.152	63.876	1.00	27.67	C
ATOM	2676	CB	LEU	A	668	7.998	52.636	64.224	1.00	27.14	C
ATOM	2677	CG	LEU	A	668	8.138	53.699	63.126	1.00	27.75	C
ATOM	2678	CD1	LEU	A	668	7.010	53.615	62.117	1.00	27.81	C
ATOM	2679	CD2	LEU	A	668	8.184	55.091	63.737	1.00	27.48	C
ATOM	2680	C	LEU	A	668	9.039	50.484	64.957	1.00	28.35	C
ATOM	2681	O	LEU	A	668	8.521	50.136	66.023	1.00	28.70	O
ATOM	2682	N	ALA	A	669	10.329	50.306	64.675	1.00	29.07	N
ATOM	2683	CA	ALA	A	669	11.237	49.631	65.608	1.00	29.96	C
ATOM	2684	CB	ALA	A	669	12.529	49.214	64.897	1.00	29.89	C
ATOM	2685	C	ALA	A	669	11.545	50.501	66.830	1.00	30.28	C
ATOM	2686	O	ALA	A	669	10.760	50.568	67.786	1.00	29.78	O
ATOM	2687	N1	LIG	A	1	8.989	32.821	52.670	1.00	2.00	N
ATOM	2688	C3	LIG	A	1	8.635	31.939	51.713	1.00	2.00	C
ATOM	2689	C4	LIG	A	1	7.253	31.956	51.562	1.00	2.00	C
ATOM	2690	C5	LIG	A	1	6.835	32.979	52.587	1.00	2.00	C
ATOM	2691	C6	LIG	A	1	7.959	33.418	53.184	1.00	2.00	C
ATOM	2692	C8	LIG	A	1	5.476	33.460	52.924	1.00	2.00	C
ATOM	2693	C9	LIG	A	1	4.283	32.863	52.893	1.00	2.00	C
ATOM	2694	C10	LIG	A	1	3.288	33.825	53.378	1.00	2.00	C
ATOM	2695	N11	LIG	A	1	3.909	34.979	53.708	1.00	2.00	N
ATOM	2696	C13	LIG	A	1	5.229	34.789	53.445	1.00	2.00	C
ATOM	2697	O14	LIG	A	1	6.157	35.563	53.603	1.00	2.00	O
ATOM	2698	O15	LIG	A	1	2.084	33.557	53.449	1.00	2.00	O
ATOM	2699	C16	LIG	A	1	3.951	31.461	52.436	1.00	2.00	C
ATOM	2700	N17	LIG	A	1	4.764	30.515	52.914	1.00	2.00	N
ATOM	2701	C18	LIG	A	1	4.640	29.207	52.610	1.00	2.00	C
ATOM	2702	C19	LIG	A	1	3.606	28.779	51.771	1.00	2.00	C
ATOM	2703	C21	LIG	A	1	2.733	29.739	51.259	1.00	2.00	C
ATOM	2704	C22	LIG	A	1	2.899	31.092	51.574	1.00	2.00	C
ATOM	2705	C23	LIG	A	1	1.988	32.017	51.030	1.00	2.00	C
ATOM	2706	C25	LIG	A	1	0.959	31.597	50.195	1.00	2.00	C
ATOM	2707	C27	LIG	A	1	0.803	30.246	49.889	1.00	2.00	C
ATOM	2708	C29	LIG	A	1	1.695	29.310	50.407	1.00	2.00	C
ATOM	2709	N31	LIG	A	1	5.543	28.362	53.156	1.00	2.00	N
ATOM	2710	C32	LIG	A	1	5.661	26.974	52.694	1.00	4.08	C
ATOM	2711	C35	LIG	A	1	7.167	26.701	52.477	1.00	3.92	C
ATOM	2712	N36	LIG	A	1	8.087	27.177	53.505	1.00	4.14	N
ATOM	2713	C38	LIG	A	1	7.878	28.618	53.763	1.00	3.41	C
ATOM	2714	C41	LIG	A	1	6.422	28.854	54.213	1.00	3.04	C
ATOM	2715	C44	LIG	A	1	7.559	25.477	51.627	1.00	3.87	C
ATOM	2716	C47	LIG	A	1	7.742	26.909	51.070	1.00	6.44	C
ATOM	2717	C50	LIG	A	1	6.582	31.139	50.637	1.00	2.00	C
ATOM	2718	C52	LIG	A	1	7.361	30.295	49.843	1.00	2.00	C
ATOM	2719	C54	LIG	A	1	8.756	30.277	49.996	1.00	2.00	C
ATOM	2720	C56	LIG	A	1	9.429	31.091	50.934	1.00	2.00	C
ATOM	2721	C57	LIG	A	1	10.943	31.004	51.018	1.00	2.00	C

- 88 -

ATOM	2722	OW0	HOH	A	800	11.051	26.315	52.817	1.00	17.14	O
ATOM	2723	OW0	HOH	A	801	11.672	33.415	54.046	1.00	19.59	O
ATOM	2724	OW0	HOH	A	802	12.617	35.578	52.885	1.00	19.38	O
ATOM	2725	OW0	HOH	A	803	14.203	34.258	51.496	1.00	12.65	O
ATOM	2726	OW0	HOH	A	804	17.886	32.527	62.166	1.00	22.82	O
ATOM	2727	OW0	HOH	A	806	3.424	24.920	51.868	1.00	2.00	O
ATOM	2728	OW0	HOH	A	807	13.042	24.279	55.023	1.00	17.96	O
ATOM	2729	OW0	HOH	A	808	10.501	33.042	56.397	1.00	2.00	O
ATOM	2730	OW0	HOH	A	809	-35.074	21.986	50.503	1.00	2.00	O
ATOM	2731	OW0	HOH	A	810	7.185	19.143	53.511	1.00	10.32	O
ATOM	2732	OW0	HOH	A	811	0.035	31.556	53.932	1.00	2.50	O
ATOM	2733	OW0	HOH	A	812	17.009	27.775	68.613	1.00	8.58	O
ATOM	2734	OW0	HOH	A	813	13.567	31.973	48.444	1.00	3.46	O
ATOM	2735	OW0	HOH	A	814	17.128	27.396	65.701	1.00	6.37	O
ATOM	2736	OW0	HOH	A	815	-36.755	19.907	56.200	1.00	2.00	O
ATOM	2737	OW0	HOH	A	816	19.691	34.458	57.506	1.00	21.23	O
ATOM	2738	OW0	HOH	A	817	15.772	36.572	56.042	1.00	31.79	O
ATOM	2739	OW0	HOH	A	818	-33.369	27.064	48.001	1.00	15.41	O
ATOM	2740	OW0	HOH	A	819	12.150	30.227	40.201	1.00	20.38	O
ATOM	2741	OW0	HOH	A	820	-28.921	29.646	45.690	1.00	17.60	O
ATOM	2742	OW0	HOH	A	821	18.240	28.953	64.026	1.00	11.71	O
ATOM	2743	OW0	HOH	A	822	8.893	25.668	48.239	1.00	11.80	O
ATOM	2744	OW0	HOH	A	825	-21.250	28.561	36.220	1.00	24.98	O
ATOM	2745	OW0	HOH	A	826	20.615	31.394	36.651	1.00	28.40	O
ATOM	2746	OW0	HOH	A	827	-19.388	27.146	34.451	1.00	12.56	O
ATOM	2747	OW0	HOH	A	828	-21.267	29.560	31.712	1.00	33.52	O
ATOM	2748	OW0	HOH	A	829	6.680	21.926	51.891	1.00	22.60	O
ATOM	2749	OW0	HOH	A	830	10.631	24.267	50.926	1.00	19.46	O
ATOM	2750	OW0	HOH	A	832	-6.276	28.458	78.798	1.00	7.49	O
ATOM	2751	OW0	HOH	A	833	-11.043	24.572	68.750	1.00	2.00	O
ATOM	2752	OW0	HOH	A	834	-12.530	22.869	75.343	1.00	6.97	O
ATOM	2753	N	VAL	B	334	-27.616	-0.546	35.701	1.00	13.21	N
ATOM	2754	CA	VAL	B	334	-26.458	-0.570	36.659	1.00	12.66	C
ATOM	2755	CB	VAL	B	334	-25.171	0.036	36.033	1.00	11.73	C
ATOM	2756	CG1	VAL	B	334	-24.654	-0.851	34.906	1.00	10.03	C
ATOM	2757	CG2	VAL	B	334	-25.413	1.475	35.563	1.00	9.42	C
ATOM	2758	C	VAL	B	334	-26.752	0.180	37.950	1.00	13.00	C
ATOM	2759	O	VAL	B	334	-27.730	0.939	38.040	1.00	12.10	O
ATOM	2760	N	LYS	B	335	-25.887	-0.042	38.938	1.00	12.10	N
ATOM	2761	CA	LYS	B	335	-25.951	0.654	40.217	1.00	11.46	C
ATOM	2762	CB	LYS	B	335	-26.827	-0.115	41.224	1.00	12.00	C
ATOM	2763	CG	LYS	B	335	-26.278	-1.446	41.712	1.00	12.96	C
ATOM	2764	CD	LYS	B	335	-27.366	-2.236	42.439	1.00	13.12	C
ATOM	2765	CE	LYS	B	335	-26.778	-3.318	43.313	1.00	14.14	C
ATOM	2766	NZ	LYS	B	335	-26.264	-4.492	42.540	1.00	15.37	N
ATOM	2767	C	LYS	B	335	-24.524	0.919	40.718	1.00	10.58	C
ATOM	2768	O	LYS	B	335	-23.555	0.543	40.058	1.00	9.94	O
ATOM	2769	N	LEU	B	336	-24.397	1.581	41.862	1.00	9.63	N
ATOM	2770	CA	LEU	B	336	-23.112	2.150	42.293	1.00	9.37	C
ATOM	2771	CB	LEU	B	336	-23.311	3.028	43.537	1.00	9.44	C
ATOM	2772	CG	LEU	B	336	-22.119	3.738	44.160	1.00	9.94	C
ATOM	2773	CD1	LEU	B	336	-21.420	4.711	43.183	1.00	9.97	C
ATOM	2774	CD2	LEU	B	336	-22.580	4.446	45.411	1.00	9.22	C
ATOM	2775	C	LEU	B	336	-22.004	1.106	42.495	1.00	8.34	C
ATOM	2776	O	LEU	B	336	-20.862	1.317	42.097	1.00	7.31	O
ATOM	2777	N	THR	B	337	-22.355	-0.036	43.075	1.00	8.37	N
ATOM	2778	CA	THR	B	337	-21.368	-1.075	43.374	1.00	7.96	C
ATOM	2779	CB	THR	B	337	-21.858	-2.007	44.505	1.00	9.73	C

- 89 -

ATOM	2780	OG1	THR	B	337	-22.658	-1.271	45.443	1.00	10.50	O
ATOM	2781	CG2	THR	B	337	-20.672	-2.638	45.235	1.00	11.82	C
ATOM	2782	C	THR	B	337	-20.987	-1.909	42.132	1.00	6.47	C
ATOM	2783	O	THR	B	337	-20.253	-2.890	42.252	1.00	6.55	O
ATOM	2784	N	ASP	B	338	-21.493	-1.522	40.954	1.00	4.99	N
ATOM	2785	CA	ASP	B	338	-21.064	-2.114	39.684	1.00	4.57	C
ATOM	2786	CB	ASP	B	338	-22.134	-1.965	38.593	1.00	5.80	C
ATOM	2787	CG	ASP	B	338	-23.353	-2.853	38.817	1.00	7.74	C
ATOM	2788	OD1	ASP	B	338	-23.238	-3.922	39.462	1.00	8.76	O
ATOM	2789	OD2	ASP	B	338	-24.440	-2.476	38.329	1.00	8.48	O
ATOM	2790	C	ASP	B	338	-19.777	-1.462	39.184	1.00	3.36	C
ATOM	2791	O	ASP	B	338	-19.170	-1.939	38.227	1.00	2.00	O
ATOM	2792	N	PHE	B	339	-19.366	-0.369	39.820	1.00	2.92	N
ATOM	2793	CA	PHE	B	339	-18.196	0.389	39.347	1.00	2.59	C
ATOM	2794	CB	PHE	B	339	-18.586	1.806	38.888	1.00	2.00	C
ATOM	2795	CG	PHE	B	339	-19.655	1.832	37.830	1.00	2.00	C
ATOM	2796	CD1	PHE	B	339	-19.318	1.789	36.478	1.00	2.00	C
ATOM	2797	CE1	PHE	B	339	-20.292	1.820	35.505	1.00	2.00	C
ATOM	2798	CZ	PHE	B	339	-21.649	1.885	35.884	1.00	2.00	C
ATOM	2799	CE2	PHE	B	339	-21.989	1.925	37.221	1.00	2.00	C
ATOM	2800	CD2	PHE	B	339	-20.995	1.897	38.188	1.00	2.00	C
ATOM	2801	C	PHE	B	339	-17.063	0.503	40.356	1.00	3.37	C
ATOM	2802	O	PHE	B	339	-17.272	0.462	41.567	1.00	2.80	O
ATOM	2803	N	ASN	B	340	-15.861	0.662	39.815	1.00	4.29	N
ATOM	2804	CA	ASN	B	340	-14.691	1.062	40.575	1.00	5.16	C
ATOM	2805	CB	ASN	B	340	-13.563	0.048	40.386	1.00	7.02	C
ATOM	2806	CG	ASN	B	340	-13.707	-1.150	41.291	1.00	8.96	C
ATOM	2807	OD1	ASN	B	340	-13.786	-2.291	40.822	1.00	10.64	O
ATOM	2808	ND2	ASN	B	340	-13.729	-0.904	42.607	1.00	9.46	N
ATOM	2809	C	ASN	B	340	-14.237	2.435	40.104	1.00	4.50	C
ATOM	2810	O	ASN	B	340	-14.042	2.644	38.901	1.00	3.61	O
ATOM	2811	N	PHE	B	341	-14.081	3.364	41.044	1.00	3.76	N
ATOM	2812	CA	PHE	B	341	-13.629	4.705	40.726	1.00	3.56	C
ATOM	2813	CB	PHE	B	341	-13.985	5.692	41.827	1.00	4.78	C
ATOM	2814	CG	PHE	B	341	-15.445	5.933	41.985	1.00	5.31	C
ATOM	2815	CD1	PHE	B	341	-16.349	5.615	40.963	1.00	6.41	C
ATOM	2816	CE1	PHE	B	341	-17.699	5.844	41.122	1.00	5.82	C
ATOM	2817	CZ	PHE	B	341	-18.167	6.417	42.306	1.00	7.63	C
ATOM	2818	CE2	PHE	B	341	-17.281	6.743	43.328	1.00	5.41	C
ATOM	2819	CD2	PHE	B	341	-15.932	6.502	43.164	1.00	6.00	C
ATOM	2820	C	PHE	B	341	-12.133	4.694	40.564	1.00	3.25	C
ATOM	2821	O	PHE	B	341	-11.403	4.200	41.426	1.00	3.02	O
ATOM	2822	N	LEU	B	342	-11.673	5.259	39.462	1.00	3.52	N
ATOM	2823	CA	LEU	B	342	-10.260	5.275	39.144	1.00	2.69	C
ATOM	2824	CB	LEU	B	342	-10.061	5.017	37.643	1.00	2.49	C
ATOM	2825	CG	LEU	B	342	-9.941	3.573	37.109	1.00	2.32	C
ATOM	2826	CD1	LEU	B	342	-10.426	2.473	38.038	1.00	4.03	C
ATOM	2827	CD2	LEU	B	342	-10.524	3.399	35.725	1.00	2.00	C
ATOM	2828	C	LEU	B	342	-9.614	6.576	39.589	1.00	3.29	C
ATOM	2829	O	LEU	B	342	-8.635	6.561	40.332	1.00	4.24	O
ATOM	2830	N	MET	B	343	-10.159	7.693	39.126	1.00	3.64	N
ATOM	2831	CA	MET	B	343	-9.618	9.031	39.374	1.00	4.14	C
ATOM	2832	CB	MET	B	343	-8.430	9.305	38.464	1.00	5.62	C
ATOM	2833	CG	MET	B	343	-8.667	8.997	36.999	1.00	8.68	C
ATOM	2834	SD	MET	B	343	-7.532	9.904	35.937	1.00	12.91	S
ATOM	2835	CE	MET	B	343	-8.439	11.448	35.854	1.00	11.26	C
ATOM	2836	C	MET	B	343	-10.690	10.069	39.069	1.00	2.18	C
ATOM	2837	O	MET	B	343	-11.630	9.786	38.327	1.00	2.00	O

- 90 -

ATOM	2838	N	VAL	B	344	-10.540	11.271	39.623	1.00	2.00	N
ATOM	2839	CA	VAL	B	344	-11.458	12.367	39.301	1.00	2.00	C
ATOM	2840	CB	VAL	B	344	-11.574	13.418	40.436	1.00	2.00	C
ATOM	2841	CG1	VAL	B	344	-12.393	14.613	39.996	1.00	2.00	C
ATOM	2842	CG2	VAL	B	344	-12.261	12.812	41.630	1.00	2.54	C
ATOM	2843	C	VAL	B	344	-11.018	12.987	37.989	1.00	2.00	C
ATOM	2844	O	VAL	B	344	-9.869	13.386	37.831	1.00	2.00	O
ATOM	2845	N	LEU	B	345	-11.948	13.049	37.040	1.00	2.00	N
ATOM	2846	CA	LEU	B	345	-11.684	13.653	35.745	1.00	2.00	C
ATOM	2847	CB	LEU	B	345	-12.738	13.184	34.724	1.00	2.00	C
ATOM	2848	CG	LEU	B	345	-12.485	11.802	34.135	1.00	2.00	C
ATOM	2849	CD1	LEU	B	345	-13.660	11.375	33.299	1.00	2.00	C
ATOM	2850	CD2	LEU	B	345	-11.191	11.776	33.300	1.00	2.00	C
ATOM	2851	C	LEU	B	345	-11.700	15.163	35.874	1.00	2.00	C
ATOM	2852	O	LEU	B	345	-10.869	15.841	35.308	1.00	2.00	O
ATOM	2853	N	GLY	B	346	-12.678	15.685	36.616	1.00	2.00	N
ATOM	2854	CA	GLY	B	346	-12.836	17.118	36.796	1.00	2.00	C
ATOM	2855	C	GLY	B	346	-13.934	17.397	37.786	1.00	2.06	C
ATOM	2856	O	GLY	B	346	-14.840	16.590	37.962	1.00	2.00	O
ATOM	2857	N	LYS	B	347	-13.833	18.547	38.443	1.00	4.28	N
ATOM	2858	CA	LYS	B	347	-14.871	19.015	39.343	1.00	6.78	C
ATOM	2859	CB	LYS	B	347	-14.415	18.891	40.799	1.00	9.72	C
ATOM	2860	CG	LYS	B	347	-15.568	18.828	41.816	1.00	12.17	C
ATOM	2861	CD	LYS	B	347	-15.083	19.376	43.179	1.00	14.75	C
ATOM	2862	CE	LYS	B	347	-16.193	19.464	44.234	1.00	14.20	C
ATOM	2863	NZ	LYS	B	347	-16.366	18.163	44.951	1.00	15.76	N
ATOM	2864	C	LYS	B	347	-15.208	20.467	39.007	1.00	7.40	C
ATOM	2865	O	LYS	B	347	-14.332	21.254	38.644	1.00	7.24	O
ATOM	2866	N	GLY	B	348	-16.485	20.818	39.120	1.00	7.59	N
ATOM	2867	CA	GLY	B	348	-16.907	22.186	38.852	1.00	8.38	C
ATOM	2868	C	GLY	B	348	-18.408	22.379	38.914	1.00	9.20	C
ATOM	2869	O	GLY	B	348	-19.113	21.669	39.647	1.00	7.95	O
ATOM	2870	N	SER	B	349	-18.888	23.342	38.126	1.00	9.81	N
ATOM	2871	CA	SER	B	349	-20.325	23.650	38.031	1.00	11.03	C
ATOM	2872	CB	SER	B	349	-20.541	24.919	37.198	1.00	12.22	C
ATOM	2873	OG	SER	B	349	-19.842	24.832	35.957	1.00	14.31	O
ATOM	2874	C	SER	B	349	-21.074	22.491	37.405	1.00	10.21	C
ATOM	2875	O	SER	B	349	-22.265	22.349	37.595	1.00	11.21	O
ATOM	2876	N	PHE	B	350	-20.356	21.661	36.653	1.00	9.74	N
ATOM	2877	CA	PHE	B	350	-20.901	20.440	36.068	1.00	7.97	C
ATOM	2878	CB	PHE	B	350	-20.076	20.071	34.830	1.00	9.13	C
ATOM	2879	CG	PHE	B	350	-18.572	20.075	35.079	1.00	8.36	C
ATOM	2880	CD1	PHE	B	350	-17.807	21.184	34.759	1.00	8.90	C
ATOM	2881	CE1	PHE	B	350	-16.436	21.203	34.998	1.00	9.46	C
ATOM	2882	CZ	PHE	B	350	-15.818	20.091	35.567	1.00	8.83	C
ATOM	2883	CE2	PHE	B	350	-16.582	18.968	35.897	1.00	8.39	C
ATOM	2884	CD2	PHE	B	350	-17.942	18.969	35.652	1.00	8.78	C
ATOM	2885	C	PHE	B	350	-20.873	19.281	37.075	1.00	7.25	C
ATOM	2886	O	PHE	B	350	-21.099	18.139	36.702	1.00	10.04	O
ATOM	2887	N	GLY	B	351	-20.583	19.562	38.339	1.00	5.04	N
ATOM	2888	CA	GLY	B	351	-20.529	18.510	39.356	1.00	5.73	C
ATOM	2889	C	GLY	B	351	-19.168	17.829	39.400	1.00	3.97	C
ATOM	2890	O	GLY	B	351	-18.186	18.411	38.973	1.00	4.04	O
ATOM	2891	N	LYS	B	352	-19.108	16.606	39.923	1.00	4.03	N
ATOM	2892	CA	LYS	B	352	-17.841	15.882	40.002	1.00	4.62	C
ATOM	2893	CB	LYS	B	352	-17.631	15.281	41.383	1.00	4.77	C
ATOM	2894	CG	LYS	B	352	-16.244	14.709	41.582	1.00	6.79	C
ATOM	2895	CD	LYS	B	352	-16.178	13.772	42.774	1.00	8.00	C

- 91 -

ATOM	2896	CE	LYS	B	352	-15.933	14.485	44.110	1.00	9.57	C
ATOM	2897	NZ	LYS	B	352	-15.946	13.517	45.274	1.00	9.98	N
ATOM	2898	C	LYS	B	352	-17.859	14.788	38.965	1.00	4.45	C
ATOM	2899	O	LYS	B	352	-18.704	13.911	39.021	1.00	4.57	O
ATOM	2900	N	VAL	B	353	-16.946	14.850	38.000	1.00	2.00	N
ATOM	2901	CA	VAL	B	353	-16.890	13.821	36.979	1.00	2.00	C
ATOM	2902	CB	VAL	B	353	-16.817	14.375	35.552	1.00	2.00	C
ATOM	2903	CG1	VAL	B	353	-16.866	13.206	34.558	1.00	2.00	C
ATOM	2904	CG2	VAL	B	353	-18.034	15.282	35.288	1.00	2.00	C
ATOM	2905	C	VAL	B	353	-15.785	12.818	37.283	1.00	2.00	C
ATOM	2906	O	VAL	B	353	-14.622	13.188	37.467	1.00	2.00	O
ATOM	2907	N	MET	B	354	-16.187	11.553	37.351	1.00	2.00	N
ATOM	2908	CA	MET	B	354	-15.355	10.461	37.820	1.00	2.00	C
ATOM	2909	CB	MET	B	354	-16.043	9.770	38.999	1.00	2.77	C
ATOM	2910	CG	MET	B	354	-15.176	8.823	39.809	1.00	6.32	C
ATOM	2911	SD	MET	B	354	-14.151	9.637	41.063	1.00	5.55	S
ATOM	2912	CE	MET	B	354	-15.379	10.591	41.940	1.00	6.86	C
ATOM	2913	C	MET	B	354	-15.053	9.430	36.721	1.00	2.00	C
ATOM	2914	O	MET	B	354	-15.962	8.887	36.049	1.00	2.00	O
ATOM	2915	N	LEU	B	355	-13.771	9.135	36.562	1.00	2.00	N
ATOM	2916	CA	LEU	B	355	-13.375	8.025	35.702	1.00	2.00	C
ATOM	2917	CB	LEU	B	355	-11.937	8.172	35.194	1.00	2.00	C
ATOM	2918	CG	LEU	B	355	-11.496	7.064	34.230	1.00	2.00	C
ATOM	2919	CD1	LEU	B	355	-12.357	6.981	32.977	1.00	2.00	C
ATOM	2920	CD2	LEU	B	355	-10.030	7.229	33.860	1.00	2.00	C
ATOM	2921	C	LEU	B	355	-13.583	6.707	36.461	1.00	2.00	C
ATOM	2922	O	LEU	B	355	-13.058	6.524	37.567	1.00	2.00	O
ATOM	2923	N	ALA	B	356	-14.356	5.814	35.834	1.00	2.00	N
ATOM	2924	CA	ALA	B	356	-14.825	4.579	36.449	1.00	2.00	C
ATOM	2925	CB	ALA	B	356	-16.235	4.749	37.007	1.00	2.00	C
ATOM	2926	C	ALA	B	356	-14.778	3.367	35.519	1.00	2.00	C
ATOM	2927	O	ALA	B	356	-15.052	3.453	34.317	1.00	2.00	O
ATOM	2928	N	ASP	B	357	-14.437	2.241	36.124	1.00	2.00	N
ATOM	2929	CA	ASP	B	357	-14.365	0.968	35.455	1.00	3.65	C
ATOM	2930	CB	ASP	B	357	-13.142	0.191	35.974	1.00	5.14	C
ATOM	2931	CG	ASP	B	357	-13.081	-1.236	35.448	1.00	9.80	C
ATOM	2932	OD1	ASP	B	357	-12.867	-1.409	34.225	1.00	11.17	O
ATOM	2933	OD2	ASP	B	357	-13.226	-2.198	36.250	1.00	10.33	O
ATOM	2934	C	ASP	B	357	-15.621	0.229	35.854	1.00	3.47	C
ATOM	2935	O	ASP	B	357	-16.007	0.270	37.018	1.00	2.00	O
ATOM	2936	N	ARG	B	358	-16.268	-0.436	34.904	1.00	4.79	N
ATOM	2937	CA	ARG	B	358	-17.380	-1.304	35.253	1.00	6.05	C
ATOM	2938	CB	ARG	B	358	-18.296	-1.514	34.044	1.00	8.66	C
ATOM	2939	CG	ARG	B	358	-19.660	-2.090	34.387	1.00	12.19	C
ATOM	2940	CD	ARG	B	358	-20.539	-2.163	33.139	1.00	15.74	C
ATOM	2941	NE	ARG	B	358	-20.487	-3.482	32.488	1.00	18.22	N
ATOM	2942	CZ	ARG	B	358	-20.963	-3.751	31.268	1.00	18.65	C
ATOM	2943	NH1	ARG	B	358	-21.517	-2.790	30.541	1.00	18.41	N
ATOM	2944	NH2	ARG	B	358	-20.872	-4.987	30.766	1.00	18.82	N
ATOM	2945	C	ARG	B	358	-16.759	-2.613	35.718	1.00	4.81	C
ATOM	2946	O	ARG	B	358	-15.981	-3.206	34.971	1.00	5.06	O
ATOM	2947	N	LYS	B	359	-17.091	-3.062	36.935	1.00	3.43	N
ATOM	2948	CA	LYS	B	359	-16.465	-4.258	37.531	1.00	4.41	C
ATOM	2949	CB	LYS	B	359	-17.023	-4.559	38.938	1.00	4.06	C
ATOM	2950	CG	LYS	B	359	-16.732	-3.502	39.977	1.00	4.28	C
ATOM	2951	CD	LYS	B	359	-16.978	-4.008	41.391	1.00	4.02	C
ATOM	2952	CE	LYS	B	359	-16.700	-2.892	42.396	1.00	4.53	C
ATOM	2953	NZ	LYS	B	359	-17.073	-3.224	43.797	1.00	3.88	N

- 92 -

ATOM	2954	C	LYS	B	359	-16.675	-5.481	36.656	1.00	4.27	C
ATOM	2955	O	LYS	B	359	-17.744	-5.651	36.074	1.00	5.32	O
ATOM	2956	N	GLY	B	360	-15.662	-6.332	36.576	1.00	4.55	N
ATOM	2957	CA	GLY	B	360	-15.736	-7.539	35.766	1.00	4.95	C
ATOM	2958	C	GLY	B	360	-15.411	-7.323	34.299	1.00	5.19	C
ATOM	2959	O	GLY	B	360	-15.507	-8.248	33.498	1.00	5.21	O
ATOM	2960	N	THR	B	361	-15.017	-6.083	33.940	1.00	5.49	N
ATOM	2961	CA	THR	B	361	-14.725	-5.724	32.562	1.00	7.14	C
ATOM	2962	CB	THR	B	361	-16.018	-5.350	31.759	1.00	7.49	C
ATOM	2963	OG1	THR	B	361	-15.712	-5.278	30.358	1.00	12.23	O
ATOM	2964	CG2	THR	B	361	-16.611	-4.023	32.202	1.00	8.31	C
ATOM	2965	C	THR	B	361	-13.671	-4.611	32.499	1.00	7.76	C
ATOM	2966	O	THR	B	361	-13.349	-3.995	33.513	1.00	7.69	O
ATOM	2967	N	GLU	B	362	-13.136	-4.378	31.334	1.00	8.17	N
ATOM	2968	CA	GLU	B	362	-12.260	-3.250	31.110	1.00	8.74	C
ATOM	2969	CB	GLU	B	362	-11.064	-3.682	30.262	1.00	12.52	C
ATOM	2970	CG	GLU	B	362	-9.925	-4.371	31.035	1.00	15.89	C
ATOM	2971	CD	GLU	B	362	-10.106	-5.894	31.197	1.00	18.14	C
ATOM	2972	OE1	GLU	B	362	-11.298	-6.394	31.306	1.00	18.06	O
ATOM	2973	OE2	GLU	B	362	-9.049	-6.613	31.191	1.00	18.81	O
ATOM	2974	C	GLU	B	362	-13.001	-2.069	30.453	1.00	7.99	C
ATOM	2975	O	GLU	B	362	-12.387	-1.285	29.759	1.00	7.82	O
ATOM	2976	N	GLU	B	363	-14.311	-1.948	30.678	1.00	5.34	N
ATOM	2977	CA	GLU	B	363	-15.080	-0.794	30.170	1.00	4.19	C
ATOM	2978	CB	GLU	B	363	-16.531	-1.167	29.890	1.00	5.72	C
ATOM	2979	CG	GLU	B	363	-16.749	-1.811	28.528	1.00	9.22	C
ATOM	2980	CD	GLU	B	363	-17.993	-2.666	28.488	1.00	8.85	C
ATOM	2981	OE1	GLU	B	363	-18.922	-2.392	29.280	1.00	10.24	O
ATOM	2982	OE2	GLU	B	363	-18.033	-3.620	27.678	1.00	10.74	O
ATOM	2983	C	GLU	B	363	-15.057	0.404	31.096	1.00	2.33	C
ATOM	2984	O	GLU	B	363	-15.431	0.312	32.274	1.00	2.49	O
ATOM	2985	N	LEU	B	364	-14.644	1.532	30.533	1.00	2.00	N
ATOM	2986	CA	LEU	B	364	-14.536	2.815	31.228	1.00	2.00	C
ATOM	2987	CB	LEU	B	364	-13.276	3.536	30.720	1.00	2.00	C
ATOM	2988	CG	LEU	B	364	-11.921	3.421	31.442	1.00	2.00	C
ATOM	2989	CD1	LEU	B	364	-11.776	2.212	32.336	1.00	2.00	C
ATOM	2990	CD2	LEU	B	364	-10.782	3.527	30.436	1.00	2.00	C
ATOM	2991	C	LEU	B	364	-15.757	3.720	30.992	1.00	2.00	C
ATOM	2992	O	LEU	B	364	-16.307	3.734	29.895	1.00	2.00	O
ATOM	2993	N	TYR	B	365	-16.158	4.462	32.025	1.00	2.00	N
ATOM	2994	CA	TYR	B	365	-17.246	5.435	31.954	1.00	2.00	C
ATOM	2995	CB	TYR	B	365	-18.554	4.873	32.577	1.00	2.03	C
ATOM	2996	CG	TYR	B	365	-19.013	3.614	31.879	1.00	2.05	C
ATOM	2997	CD1	TYR	B	365	-18.430	2.384	32.180	1.00	2.00	C
ATOM	2998	CE1	TYR	B	365	-18.830	1.221	31.528	1.00	2.02	C
ATOM	2999	CZ	TYR	B	365	-19.829	1.278	30.564	1.00	2.49	C
ATOM	3000	OH	TYR	B	365	-20.213	0.112	29.929	1.00	3.16	O
ATOM	3001	CE2	TYR	B	365	-20.430	2.487	30.243	1.00	2.04	C
ATOM	3002	CD2	TYR	B	365	-20.005	3.655	30.893	1.00	2.38	C
ATOM	3003	C	TYR	B	365	-16.860	6.720	32.653	1.00	2.00	C
ATOM	3004	O	TYR	B	365	-16.058	6.708	33.579	1.00	2.00	O
ATOM	3005	N	ALA	B	366	-17.432	7.821	32.184	1.00	2.00	N
ATOM	3006	CA	ALA	B	366	-17.426	9.081	32.885	1.00	2.00	C
ATOM	3007	CB	ALA	B	366	-17.264	10.217	31.930	1.00	2.00	C
ATOM	3008	C	ALA	B	366	-18.740	9.211	33.696	1.00	2.00	C
ATOM	3009	O	ALA	B	366	-19.845	9.382	33.146	1.00	2.00	O
ATOM	3010	N	ILE	B	367	-18.598	9.121	35.013	1.00	2.00	N
ATOM	3011	CA	ILE	B	367	-19.731	9.157	35.938	1.00	2.00	C

- 93 -

ATOM	3012	CB	ILE	B	367	-19.636	8.000	36.954	1.00	2.00	C
ATOM	3013	CG1	ILE	B	367	-19.709	6.662	36.223	1.00	2.00	C
ATOM	3014	CD1	ILE	B	367	-19.564	5.475	37.133	1.00	2.00	C
ATOM	3015	CG2	ILE	B	367	-20.763	8.068	38.026	1.00	2.00	C
ATOM	3016	C	ILE	B	367	-19.836	10.531	36.592	1.00	2.00	C
ATOM	3017	O	ILE	B	367	-18.981	10.937	37.383	1.00	2.00	O
ATOM	3018	N	LYS	B	368	-20.880	11.269	36.221	1.00	2.00	N
ATOM	3019	CA	LYS	B	368	-21.153	12.564	36.838	1.00	2.00	C
ATOM	3020	CB	LYS	B	368	-21.957	13.481	35.902	1.00	2.00	C
ATOM	3021	CG	LYS	B	368	-22.403	14.769	36.570	1.00	2.00	C
ATOM	3022	CD	LYS	B	368	-23.305	15.581	35.666	1.00	2.00	C
ATOM	3023	CE	LYS	B	368	-23.893	16.734	36.427	1.00	2.89	C
ATOM	3024	NZ	LYS	B	368	-23.974	17.941	35.553	1.00	3.97	N
ATOM	3025	C	LYS	B	368	-21.904	12.343	38.127	1.00	2.00	C
ATOM	3026	O	LYS	B	368	-22.942	11.649	38.136	1.00	2.00	O
ATOM	3027	N	ILE	B	369	-21.388	12.913	39.214	1.00	2.00	N
ATOM	3028	CA	ILE	B	369	-21.965	12.687	40.540	1.00	2.00	C
ATOM	3029	CB	ILE	B	369	-20.960	12.000	41.508	1.00	2.00	C
ATOM	3030	CG1	ILE	B	369	-20.388	10.718	40.896	1.00	2.00	C
ATOM	3031	CD1	ILE	B	369	-19.158	10.188	41.637	1.00	2.00	C
ATOM	3032	CG2	ILE	B	369	-21.592	11.755	42.862	1.00	2.00	C
ATOM	3033	C	ILE	B	369	-22.348	14.047	41.109	1.00	2.00	C
ATOM	3034	O	ILE	B	369	-21.565	15.014	41.031	1.00	2.00	O
ATOM	3035	N	LEU	B	370	-23.562	14.117	41.669	1.00	2.00	N
ATOM	3036	CA	LEU	B	370	-24.057	15.314	42.300	1.00	2.00	C
ATOM	3037	CB	LEU	B	370	-25.145	15.971	41.427	1.00	2.00	C
ATOM	3038	CG	LEU	B	370	-24.802	16.611	40.058	1.00	2.00	C
ATOM	3039	CD1	LEU	B	370	-26.079	16.970	39.313	1.00	2.00	C
ATOM	3040	CD2	LEU	B	370	-23.927	17.854	40.199	1.00	2.00	C
ATOM	3041	C	LEU	B	370	-24.645	14.925	43.634	1.00	2.00	C
ATOM	3042	O	LEU	B	370	-25.330	13.882	43.741	1.00	2.00	O
ATOM	3043	N	LYS	B	371	-24.398	15.762	44.641	1.00	2.00	N
ATOM	3044	CA	LYS	B	371	-25.017	15.637	45.945	1.00	2.00	C
ATOM	3045	CB	LYS	B	371	-24.100	16.184	47.045	1.00	2.00	C
ATOM	3046	CG	LYS	B	371	-23.032	15.201	47.510	1.00	2.19	C
ATOM	3047	CD	LYS	B	371	-21.981	15.833	48.449	1.00	3.06	C
ATOM	3048	CE	LYS	B	371	-22.537	15.907	49.874	1.00	4.87	C
ATOM	3049	NZ	LYS	B	371	-21.493	16.198	50.904	1.00	7.20	N
ATOM	3050	C	LYS	B	371	-26.370	16.374	45.941	1.00	2.00	C
ATOM	3051	O	LYS	B	371	-26.414	17.572	45.720	1.00	2.00	O
ATOM	3052	N	LYS	B	372	-27.454	15.633	46.172	1.00	2.00	N
ATOM	3053	CA	LYS	B	372	-28.815	16.195	46.166	1.00	2.00	C
ATOM	3054	CB	LYS	B	372	-29.853	15.145	46.584	1.00	2.00	C
ATOM	3055	CG	LYS	B	372	-30.058	14.026	45.601	1.00	2.00	C
ATOM	3056	CD	LYS	B	372	-30.951	12.952	46.193	1.00	2.00	C
ATOM	3057	CE	LYS	B	372	-31.325	11.941	45.163	1.00	2.00	C
ATOM	3058	NZ	LYS	B	372	-32.009	10.822	45.795	1.00	2.00	N
ATOM	3059	C	LYS	B	372	-28.903	17.439	47.044	1.00	2.00	C
ATOM	3060	O	LYS	B	372	-29.398	18.452	46.603	1.00	2.00	O
ATOM	3061	N	ASP	B	373	-28.366	17.386	48.261	1.00	2.00	N
ATOM	3062	CA	ASP	B	373	-28.462	18.536	49.171	1.00	2.00	C
ATOM	3063	CB	ASP	B	373	-27.984	18.194	50.586	1.00	2.50	C
ATOM	3064	CG	ASP	B	373	-26.513	17.831	50.655	1.00	4.88	C
ATOM	3065	OD1	ASP	B	373	-26.011	17.133	49.733	1.00	6.43	O
ATOM	3066	OD2	ASP	B	373	-25.851	18.235	51.649	1.00	6.07	O
ATOM	3067	C	ASP	B	373	-27.791	19.803	48.631	1.00	2.00	C
ATOM	3068	O	ASP	B	373	-28.338	20.922	48.737	1.00	2.00	O
ATOM	3069	N	VAL	B	374	-26.621	19.607	48.039	1.00	2.00	N

- 94 -

ATOM	3070	CA	VAL	B	374	-25.874	20.658	47.372	1.00	2.00	C
ATOM	3071	CB	VAL	B	374	-24.427	20.157	46.993	1.00	2.00	C
ATOM	3072	CG1	VAL	B	374	-23.636	21.245	46.262	1.00	2.00	C
ATOM	3073	CG2	VAL	B	374	-23.675	19.703	48.256	1.00	2.00	C
ATOM	3074	C	VAL	B	374	-26.630	21.183	46.148	1.00	2.00	C
ATOM	3075	O	VAL	B	374	-26.697	22.380	45.941	1.00	2.00	O
ATOM	3076	N	VAL	B	375	-27.195	20.286	45.347	1.00	2.00	N
ATOM	3077	CA	VAL	B	375	-28.003	20.685	44.187	1.00	2.00	C
ATOM	3078	CB	VAL	B	375	-28.502	19.446	43.378	1.00	2.00	C
ATOM	3079	CG1	VAL	B	375	-29.585	19.818	42.366	1.00	2.00	C
ATOM	3080	CG2	VAL	B	375	-27.361	18.794	42.643	1.00	2.00	C
ATOM	3081	C	VAL	B	375	-29.173	21.576	44.634	1.00	2.00	C
ATOM	3082	O	VAL	B	375	-29.448	22.594	44.010	1.00	2.00	O
ATOM	3083	N	ILE	B	376	-29.819	21.202	45.735	1.00	2.00	N
ATOM	3084	CA	ILE	B	376	-30.927	21.982	46.288	1.00	2.00	C
ATOM	3085	CB	ILE	B	376	-31.759	21.151	47.310	1.00	2.00	C
ATOM	3086	CG1	ILE	B	376	-32.480	20.013	46.582	1.00	2.00	C
ATOM	3087	CD1	ILE	B	376	-32.996	18.922	47.499	1.00	2.00	C
ATOM	3088	CG2	ILE	B	376	-32.758	22.050	48.078	1.00	2.00	C
ATOM	3089	C	ILE	B	376	-30.462	23.339	46.846	1.00	2.00	C
ATOM	3090	O	ILE	B	376	-30.969	24.389	46.422	1.00	2.00	O
ATOM	3091	N	GLN	B	377	-29.491	23.318	47.766	1.00	3.04	N
ATOM	3092	CA	GLN	B	377	-28.874	24.548	48.276	1.00	5.07	C
ATOM	3093	CB	GLN	B	377	-27.636	24.209	49.115	1.00	7.18	C
ATOM	3094	CG	GLN	B	377	-26.581	25.303	49.162	1.00	9.48	C
ATOM	3095	CD	GLN	B	377	-25.261	24.864	49.789	1.00	10.02	C
ATOM	3096	OE1	GLN	B	377	-24.899	25.343	50.869	1.00	12.64	O
ATOM	3097	NE2	GLN	B	377	-24.524	23.971	49.109	1.00	10.85	N
ATOM	3098	C	GLN	B	377	-28.494	25.519	47.148	1.00	4.27	C
ATOM	3099	O	GLN	B	377	-28.621	26.734	47.299	1.00	3.95	O
ATOM	3100	N	ASP	B	378	-28.028	24.976	46.026	1.00	4.36	N
ATOM	3101	CA	ASP	B	378	-27.589	25.791	44.898	1.00	5.19	C
ATOM	3102	CB	ASP	B	378	-26.518	25.043	44.082	1.00	6.16	C
ATOM	3103	CG	ASP	B	378	-25.144	25.016	44.766	1.00	7.05	C
ATOM	3104	OD1	ASP	B	378	-24.907	25.752	45.754	1.00	7.34	O
ATOM	3105	OD2	ASP	B	378	-24.276	24.244	44.297	1.00	9.48	O
ATOM	3106	C	ASP	B	378	-28.701	26.290	43.956	1.00	5.41	C
ATOM	3107	O	ASP	B	378	-28.417	27.027	43.011	1.00	5.24	O
ATOM	3108	N	ASP	B	379	-29.951	25.897	44.204	1.00	5.10	N
ATOM	3109	CA	ASP	B	379	-31.065	26.173	43.278	1.00	6.40	C
ATOM	3110	CB	ASP	B	379	-31.343	27.675	43.147	1.00	9.02	C
ATOM	3111	CG	ASP	B	379	-32.208	28.204	44.241	1.00	12.24	C
ATOM	3112	OD1	ASP	B	379	-32.901	27.405	44.915	1.00	13.72	O
ATOM	3113	OD2	ASP	B	379	-32.201	29.446	44.433	1.00	14.86	O
ATOM	3114	C	ASP	B	379	-30.852	25.598	41.880	1.00	4.73	C
ATOM	3115	O	ASP	B	379	-31.228	26.228	40.882	1.00	5.45	O
ATOM	3116	N	ASP	B	380	-30.257	24.414	41.807	1.00	3.38	N
ATOM	3117	CA	ASP	B	380	-29.922	23.793	40.525	1.00	2.00	C
ATOM	3118	CB	ASP	B	380	-28.451	23.380	40.508	1.00	3.64	C
ATOM	3119	CG	ASP	B	380	-27.512	24.531	40.214	1.00	4.56	C
ATOM	3120	OD1	ASP	B	380	-27.981	25.654	39.934	1.00	5.27	O
ATOM	3121	OD2	ASP	B	380	-26.279	24.288	40.271	1.00	7.37	O
ATOM	3122	C	ASP	B	380	-30.767	22.562	40.160	1.00	2.00	C
ATOM	3123	O	ASP	B	380	-30.409	21.805	39.255	1.00	2.00	O
ATOM	3124	N	VAL	B	381	-31.878	22.352	40.853	1.00	2.00	N
ATOM	3125	CA	VAL	B	381	-32.740	21.180	40.574	1.00	2.00	C
ATOM	3126	CB	VAL	B	381	-33.864	21.068	41.617	1.00	2.00	C
ATOM	3127	CG1	VAL	B	381	-34.938	20.096	41.167	1.00	2.00	C

- 95 -

ATOM	3128	CG2	VAL	B	381	-33.289	20.629	42.940	1.00	2.00	C
ATOM	3129	C	VAL	B	381	-33.265	21.191	39.132	1.00	2.00	C
ATOM	3130	O	VAL	B	381	-33.230	20.176	38.413	1.00	3.13	O
ATOM	3131	N	GLU	B	382	-33.709	22.353	38.688	1.00	2.00	N
ATOM	3132	CA	GLU	B	382	-34.313	22.474	37.385	1.00	2.00	C
ATOM	3133	CB	GLU	B	382	-34.913	23.873	37.188	1.00	3.66	C
ATOM	3134	CG	GLU	B	382	-36.113	24.153	38.083	1.00	8.85	C
ATOM	3135	CD	GLU	B	382	-35.759	24.449	39.559	1.00	10.77	C
ATOM	3136	OE1	GLU	B	382	-34.550	24.701	39.875	1.00	10.61	O
ATOM	3137	OE2	GLU	B	382	-36.719	24.430	40.397	1.00	11.87	O
ATOM	3138	C	GLU	B	382	-33.336	22.135	36.286	1.00	2.00	C
ATOM	3139	O	GLU	B	382	-33.600	21.259	35.486	1.00	2.00	O
ATOM	3140	N	CYS	B	383	-32.199	22.817	36.240	1.00	2.00	N
ATOM	3141	CA	CYS	B	383	-31.205	22.498	35.216	1.00	2.16	C
ATOM	3142	CB	CYS	B	383	-30.060	23.504	35.235	1.00	5.73	C
ATOM	3143	SG	CYS	B	383	-29.161	23.576	36.780	1.00	9.86	S
ATOM	3144	C	CYS	B	383	-30.724	21.048	35.297	1.00	2.00	C
ATOM	3145	O	CYS	B	383	-30.446	20.409	34.273	1.00	2.17	O
ATOM	3146	N	THR	B	384	-30.665	20.504	36.504	1.00	2.00	N
ATOM	3147	CA	THR	B	384	-30.246	19.120	36.696	1.00	2.00	C
ATOM	3148	CB	THR	B	384	-30.087	18.771	38.194	1.00	2.00	C
ATOM	3149	OG1	THR	B	384	-29.143	19.679	38.792	1.00	2.87	O
ATOM	3150	CG2	THR	B	384	-29.543	17.374	38.353	1.00	2.00	C
ATOM	3151	C	THR	B	384	-31.225	18.148	36.048	1.00	2.00	C
ATOM	3152	O	THR	B	384	-30.821	17.147	35.447	1.00	2.00	O
ATOM	3153	N	MET	B	385	-32.510	18.447	36.183	1.00	2.00	N
ATOM	3154	CA	MET	B	385	-33.555	17.577	35.637	1.00	2.00	C
ATOM	3155	CB	MET	B	385	-34.896	17.818	36.358	1.00	2.00	C
ATOM	3156	CG	MET	B	385	-34.921	17.344	37.837	1.00	2.00	C
ATOM	3157	SD	MET	B	385	-34.251	15.688	38.190	1.00	2.00	S
ATOM	3158	CE	MET	B	385	-35.522	14.657	37.471	1.00	2.00	C
ATOM	3159	C	MET	B	385	-33.662	17.731	34.127	1.00	2.00	C
ATOM	3160	O	MET	B	385	-33.948	16.775	33.431	1.00	2.00	O
ATOM	3161	N	VAL	B	386	-33.425	18.946	33.642	1.00	2.00	N
ATOM	3162	CA	VAL	B	386	-33.351	19.246	32.211	1.00	2.00	C
ATOM	3163	CB	VAL	B	386	-33.261	20.802	31.961	1.00	2.00	C
ATOM	3164	CG1	VAL	B	386	-32.882	21.133	30.522	1.00	2.00	C
ATOM	3165	CG2	VAL	B	386	-34.577	21.489	32.323	1.00	2.00	C
ATOM	3166	C	VAL	B	386	-32.150	18.550	31.525	1.00	2.00	C
ATOM	3167	O	VAL	B	386	-32.274	18.016	30.412	1.00	2.00	O
ATOM	3168	N	GLU	B	387	-30.989	18.579	32.189	1.00	2.00	N
ATOM	3169	CA	GLU	B	387	-29.795	17.864	31.707	1.00	2.00	C
ATOM	3170	CB	GLU	B	387	-28.612	18.097	32.647	1.00	2.00	C
ATOM	3171	CG	GLU	B	387	-27.384	17.313	32.290	1.00	3.38	C
ATOM	3172	CD	GLU	B	387	-26.159	17.740	33.082	1.00	3.82	C
ATOM	3173	OE1	GLU	B	387	-26.229	18.724	33.860	1.00	6.01	O
ATOM	3174	OE2	GLU	B	387	-25.117	17.094	32.911	1.00	5.45	O
ATOM	3175	C	GLU	B	387	-30.042	16.367	31.533	1.00	2.00	C
ATOM	3176	O	GLU	B	387	-29.637	15.798	30.521	1.00	2.13	O
ATOM	3177	N	LYS	B	388	-30.723	15.735	32.502	1.00	2.23	N
ATOM	3178	CA	LYS	B	388	-31.149	14.322	32.369	1.00	2.00	C
ATOM	3179	CB	LYS	B	388	-31.769	13.780	33.671	1.00	2.00	C
ATOM	3180	CG	LYS	B	388	-32.308	12.347	33.586	1.00	2.74	C
ATOM	3181	CD	LYS	B	388	-33.852	12.360	33.353	1.00	5.66	C
ATOM	3182	CE	LYS	B	388	-34.394	11.053	32.797	1.00	6.65	C
ATOM	3183	NZ	LYS	B	388	-35.894	11.094	32.712	1.00	8.00	N
ATOM	3184	C	LYS	B	388	-32.084	14.096	31.175	1.00	2.00	C
ATOM	3185	O	LYS	B	388	-31.869	13.177	30.375	1.00	2.00	O

- 96 -

ATOM	3186	N	ARG B 389	-33.117	14.927	31.051	1.00	2.00	N
ATOM	3187	CA	ARG B 389	-34.041	14.787	29.936	1.00	2.00	C
ATOM	3188	CB	ARG B 389	-35.219	15.746	30.078	1.00	2.00	C
ATOM	3189	CG	ARG B 389	-36.195	15.342	31.151	1.00	2.00	C
ATOM	3190	CD	ARG B 389	-37.477	16.182	31.018	1.00	2.00	C
ATOM	3191	NE	ARG B 389	-37.267	17.575	31.421	1.00	2.00	N
ATOM	3192	CZ	ARG B 389	-37.334	18.017	32.676	1.00	2.34	C
ATOM	3193	NH1	ARG B 389	-37.627	17.182	33.678	1.00	2.00	N
ATOM	3194	NH2	ARG B 389	-37.122	19.303	32.934	1.00	2.83	N
ATOM	3195	C	ARG B 389	-33.394	14.947	28.568	1.00	2.00	C
ATOM	3196	O	ARG B 389	-33.732	14.224	27.630	1.00	2.00	O
ATOM	3197	N	VAL B 390	-32.497	15.915	28.448	1.00	2.00	N
ATOM	3198	CA	VAL B 390	-31.780	16.144	27.204	1.00	2.00	C
ATOM	3199	CB	VAL B 390	-31.005	17.508	27.232	1.00	2.00	C
ATOM	3200	CG1	VAL B 390	-30.042	17.626	26.047	1.00	2.00	C
ATOM	3201	CG2	VAL B 390	-31.979	18.674	27.240	1.00	2.00	C
ATOM	3202	C	VAL B 390	-30.863	14.946	26.893	1.00	2.00	C
ATOM	3203	O	VAL B 390	-30.791	14.504	25.731	1.00	2.00	O
ATOM	3204	N	LEU B 391	-30.177	14.422	27.918	1.00	2.00	N
ATOM	3205	CA	LEU B 391	-29.310	13.236	27.765	1.00	2.19	C
ATOM	3206	CB	LEU B 391	-28.430	12.994	29.012	1.00	2.00	C
ATOM	3207	CG	LEU B 391	-27.306	13.976	29.339	1.00	2.41	C
ATOM	3208	CD1	LEU B 391	-26.721	13.651	30.717	1.00	2.00	C
ATOM	3209	CD2	LEU B 391	-26.223	13.959	28.257	1.00	2.57	C
ATOM	3210	C	LEU B 391	-30.098	11.968	27.434	1.00	2.75	C
ATOM	3211	O	LEU B 391	-29.597	11.078	26.738	1.00	4.32	O
ATOM	3212	N	ALA B 392	-31.336	11.911	27.926	1.00	2.00	N
ATOM	3213	CA	ALA B 392	-32.208	10.767	27.783	1.00	2.00	C
ATOM	3214	CB	ALA B 392	-33.139	10.673	28.987	1.00	2.00	C
ATOM	3215	C	ALA B 392	-33.014	10.772	26.480	1.00	2.00	C
ATOM	3216	O	ALA B 392	-33.703	9.799	26.195	1.00	2.00	O
ATOM	3217	N	LEU B 393	-32.927	11.847	25.695	1.00	2.00	N
ATOM	3218	CA	LEU B 393	-33.535	11.886	24.363	1.00	2.00	C
ATOM	3219	CB	LEU B 393	-33.126	13.148	23.608	1.00	2.00	C
ATOM	3220	CG	LEU B 393	-33.719	14.486	24.054	1.00	2.00	C
ATOM	3221	CD1	LEU B 393	-32.952	15.569	23.392	1.00	2.00	C
ATOM	3222	CD2	LEU B 393	-35.233	14.591	23.745	1.00	2.00	C
ATOM	3223	C	LEU B 393	-33.194	10.684	23.492	1.00	2.00	C
ATOM	3224	O	LEU B 393	-32.040	10.245	23.431	1.00	2.00	O
ATOM	3225	N	LEU B 394	-34.206	10.179	22.794	1.00	2.00	N
ATOM	3226	CA	LEU B 394	-34.016	9.106	21.830	1.00	2.00	C
ATOM	3227	CB	LEU B 394	-35.361	8.412	21.527	1.00	2.00	C
ATOM	3228	CG	LEU B 394	-35.883	7.497	22.634	1.00	2.00	C
ATOM	3229	CD1	LEU B 394	-37.266	6.954	22.278	1.00	2.92	C
ATOM	3230	CD2	LEU B 394	-34.911	6.348	22.921	1.00	2.60	C
ATOM	3231	C	LEU B 394	-33.385	9.619	20.538	1.00	2.00	C
ATOM	3232	O	LEU B 394	-33.485	10.803	20.207	1.00	2.00	O
ATOM	3233	N	ASP B 395	-32.720	8.718	19.823	1.00	3.26	N
ATOM	3234	CA	ASP B 395	-32.228	8.993	18.466	1.00	3.45	C
ATOM	3235	CB	ASP B 395	-33.407	9.293	17.516	1.00	4.41	C
ATOM	3236	CG	ASP B 395	-34.456	8.176	17.478	1.00	6.15	C
ATOM	3237	OD1	ASP B 395	-34.084	6.999	17.281	1.00	5.66	O
ATOM	3238	OD2	ASP B 395	-35.668	8.484	17.635	1.00	6.46	O
ATOM	3239	C	ASP B 395	-31.222	10.138	18.408	1.00	2.55	C
ATOM	3240	O	ASP B 395	-31.103	10.813	17.382	1.00	3.42	O
ATOM	3241	N	LYS B 396	-30.510	10.374	19.506	1.00	3.17	N
ATOM	3242	CA	LYS B 396	-29.392	11.325	19.517	1.00	2.43	C
ATOM	3243	CB	LYS B 396	-28.703	11.365	20.881	1.00	2.20	C

- 97 -

ATOM	3244	CG	LYS	B	396	-29.388	12.238	21.924	1.00	4.93	C
ATOM	3245	CD	LYS	B	396	-29.057	11.753	23.333	1.00	3.36	C
ATOM	3246	CE	LYS	B	396	-27.580	11.955	23.667	1.00	3.89	C
ATOM	3247	NZ	LYS	B	396	-27.293	11.598	25.089	1.00	4.37	N
ATOM	3248	C	LYS	B	396	-28.353	10.955	18.463	1.00	2.57	C
ATOM	3249	O	LYS	B	396	-28.046	9.773	18.282	1.00	4.05	O
ATOM	3250	N	PRO	B	397	-27.815	11.958	17.749	1.00	2.21	N
ATOM	3251	CA	PRO	B	397	-26.702	11.683	16.845	1.00	2.00	C
ATOM	3252	CB	PRO	B	397	-26.562	12.990	16.064	1.00	2.00	C
ATOM	3253	CG	PRO	B	397	-27.113	14.029	16.962	1.00	2.01	C
ATOM	3254	CD	PRO	B	397	-28.225	13.376	17.706	1.00	2.61	C
ATOM	3255	C	PRO	B	397	-25.404	11.307	17.620	1.00	2.00	C
ATOM	3256	O	PRO	B	397	-25.331	11.507	18.843	1.00	2.00	O
ATOM	3257	N	PRO	B	398	-24.400	10.738	16.920	1.00	2.00	N
ATOM	3258	CA	PRO	B	398	-23.205	10.250	17.628	1.00	2.00	C
ATOM	3259	CB	PRO	B	398	-22.511	9.395	16.573	1.00	2.00	C
ATOM	3260	CG	PRO	B	398	-22.940	9.946	15.290	1.00	2.00	C
ATOM	3261	CD	PRO	B	398	-24.316	10.493	15.471	1.00	2.00	C
ATOM	3262	C	PRO	B	398	-22.274	11.370	18.134	1.00	2.00	C
ATOM	3263	O	PRO	B	398	-21.302	11.090	18.843	1.00	4.68	O
ATOM	3264	N	PHE	B	399	-22.587	12.621	17.803	1.00	2.00	N
ATOM	3265	CA	PHE	B	399	-21.726	13.766	18.132	1.00	2.00	C
ATOM	3266	CB	PHE	B	399	-21.760	14.764	16.988	1.00	2.00	C
ATOM	3267	CG	PHE	B	399	-21.600	14.124	15.658	1.00	2.00	C
ATOM	3268	CD1	PHE	B	399	-20.410	13.492	15.320	1.00	2.00	C
ATOM	3269	CE1	PHE	B	399	-20.268	12.870	14.083	1.00	2.00	C
ATOM	3270	CZ	PHE	B	399	-21.323	12.881	13.173	1.00	2.00	C
ATOM	3271	CE2	PHE	B	399	-22.515	13.496	13.519	1.00	2.00	C
ATOM	3272	CD2	PHE	B	399	-22.645	14.111	14.755	1.00	2.00	C
ATOM	3273	C	PHE	B	399	-22.093	14.425	19.455	1.00	2.00	C
ATOM	3274	O	PHE	B	399	-21.510	15.435	19.848	1.00	2.00	O
ATOM	3275	N	LEU	B	400	-23.082	13.847	20.128	1.00	2.00	N
ATOM	3276	CA	LEU	B	400	-23.443	14.244	21.480	1.00	2.00	C
ATOM	3277	CB	LEU	B	400	-24.949	14.497	21.600	1.00	2.00	C
ATOM	3278	CG	LEU	B	400	-25.696	15.528	20.723	1.00	2.00	C
ATOM	3279	CD1	LEU	B	400	-27.217	15.457	20.978	1.00	2.00	C
ATOM	3280	CD2	LEU	B	400	-25.189	16.939	20.958	1.00	2.00	C
ATOM	3281	C	LEU	B	400	-23.027	13.099	22.383	1.00	2.00	C
ATOM	3282	O	LEU	B	400	-23.117	11.935	21.986	1.00	2.00	O
ATOM	3283	N	THR	B	401	-22.568	13.422	23.593	1.00	2.00	N
ATOM	3284	CA	THR	B	401	-22.161	12.390	24.547	1.00	2.00	C
ATOM	3285	CB	THR	B	401	-21.613	12.974	25.857	1.00	2.00	C
ATOM	3286	OG1	THR	B	401	-22.542	13.949	26.365	1.00	2.42	O
ATOM	3287	CG2	THR	B	401	-20.269	13.611	25.628	1.00	2.00	C
ATOM	3288	C	THR	B	401	-23.310	11.444	24.888	1.00	2.00	C
ATOM	3289	O	THR	B	401	-24.414	11.888	25.196	1.00	2.00	O
ATOM	3290	N	GLN	B	402	-23.015	10.143	24.844	1.00	2.00	N
ATOM	3291	CA	GLN	B	402	-23.966	9.085	25.135	1.00	2.00	C
ATOM	3292	CB	GLN	B	402	-23.434	7.755	24.635	1.00	2.82	C
ATOM	3293	CG	GLN	B	402	-23.619	7.450	23.176	1.00	2.00	C
ATOM	3294	CD	GLN	B	402	-23.234	6.023	22.869	1.00	2.26	C
ATOM	3295	OE1	GLN	B	402	-24.104	5.154	22.763	1.00	2.36	O
ATOM	3296	NE2	GLN	B	402	-21.918	5.759	22.746	1.00	2.00	N
ATOM	3297	C	GLN	B	402	-24.142	8.935	26.619	1.00	2.00	C
ATOM	3298	O	GLN	B	402	-23.179	8.933	27.372	1.00	2.00	O
ATOM	3299	N	LEU	B	403	-25.395	8.784	27.045	1.00	2.00	N
ATOM	3300	CA	LEU	B	403	-25.682	8.449	28.409	1.00	2.00	C
ATOM	3301	CB	LEU	B	403	-26.915	9.228	28.873	1.00	2.00	C

- 98 -

ATOM	3302	CG	LEU	B	403	-27.534	8.830	30.211	1.00	2.00	C
ATOM	3303	CD1	LEU	B	403	-26.777	9.427	31.358	1.00	2.00	C
ATOM	3304	CD2	LEU	B	403	-29.005	9.263	30.264	1.00	2.00	C
ATOM	3305	C	LEU	B	403	-25.908	6.938	28.447	1.00	2.00	C
ATOM	3306	O	LEU	B	403	-26.673	6.384	27.618	1.00	2.00	O
ATOM	3307	N	HIS	B	404	-25.242	6.252	29.376	1.00	2.00	N
ATOM	3308	CA	HIS	B	404	-25.539	4.856	29.592	1.00	2.00	C
ATOM	3309	CB	HIS	B	404	-24.379	4.160	30.280	1.00	2.00	C
ATOM	3310	CG	HIS	B	404	-24.644	2.720	30.587	1.00	2.00	C
ATOM	3311	ND1	HIS	B	404	-25.465	2.323	31.621	1.00	2.00	N
ATOM	3312	CE1	HIS	B	404	-25.519	1.003	31.652	1.00	2.00	C
ATOM	3313	NE2	HIS	B	404	-24.754	0.532	30.682	1.00	2.00	N
ATOM	3314	CD2	HIS	B	404	-24.192	1.586	30.003	1.00	2.00	C
ATOM	3315	C	HIS	B	404	-26.823	4.730	30.438	1.00	2.00	C
ATOM	3316	O	HIS	B	404	-27.781	4.092	30.036	1.00	2.00	O
ATOM	3317	N	SER	B	405	-26.803	5.351	31.616	1.00	2.00	N
ATOM	3318	CA	SER	B	405	-27.949	5.395	32.493	1.00	2.00	C
ATOM	3319	CB	SER	B	405	-28.122	4.057	33.200	1.00	2.49	C
ATOM	3320	OG	SER	B	405	-26.926	3.687	33.857	1.00	2.00	O
ATOM	3321	C	SER	B	405	-27.799	6.504	33.516	1.00	2.00	C
ATOM	3322	O	SER	B	405	-26.717	7.084	33.676	1.00	2.00	O
ATOM	3323	N	CYS	B	406	-28.913	6.797	34.177	1.00	2.00	N
ATOM	3324	CA	CYS	B	406	-29.028	7.791	35.218	1.00	4.11	C
ATOM	3325	CB	CYS	B	406	-30.128	8.800	34.838	1.00	4.46	C
ATOM	3326	SG	CYS	B	406	-29.557	10.201	34.026	1.00	18.59	S
ATOM	3327	C	CYS	B	406	-29.559	6.980	36.362	1.00	2.29	C
ATOM	3328	O	CYS	B	406	-30.440	6.141	36.147	1.00	2.00	O
ATOM	3329	N	PHE	B	407	-29.076	7.217	37.576	1.00	2.00	N
ATOM	3330	CA	PHE	B	407	-29.757	6.644	38.758	1.00	2.00	C
ATOM	3331	CB	PHE	B	407	-29.354	5.171	39.016	1.00	2.00	C
ATOM	3332	CG	PHE	B	407	-27.870	4.955	39.234	1.00	2.10	C
ATOM	3333	CD1	PHE	B	407	-27.332	4.990	40.520	1.00	2.46	C
ATOM	3334	CE1	PHE	B	407	-25.980	4.798	40.736	1.00	2.05	C
ATOM	3335	CZ	PHE	B	407	-25.125	4.552	39.635	1.00	2.30	C
ATOM	3336	CE2	PHE	B	407	-25.650	4.505	38.353	1.00	2.00	C
ATOM	3337	CD2	PHE	B	407	-27.020	4.706	38.159	1.00	2.37	C
ATOM	3338	C	PHE	B	407	-29.497	7.515	39.974	1.00	2.00	C
ATOM	3339	O	PHE	B	407	-28.655	8.389	39.935	1.00	2.00	O
ATOM	3340	N	GLN	B	408	-30.225	7.285	41.059	1.00	2.00	N
ATOM	3341	CA	GLN	B	408	-30.036	8.081	42.265	1.00	2.00	C
ATOM	3342	CB	GLN	B	408	-31.223	9.057	42.481	1.00	2.00	C
ATOM	3343	CG	GLN	B	408	-32.600	8.382	42.620	1.00	2.00	C
ATOM	3344	CD	GLN	B	408	-33.758	9.378	42.734	1.00	2.00	C
ATOM	3345	OE1	GLN	B	408	-33.746	10.270	43.584	1.00	2.00	O
ATOM	3346	NE2	GLN	B	408	-34.759	9.223	41.872	1.00	2.00	N
ATOM	3347	C	GLN	B	408	-29.929	7.112	43.422	1.00	2.00	C
ATOM	3348	O	GLN	B	408	-30.510	6.022	43.404	1.00	2.00	O
ATOM	3349	N	THR	B	409	-29.184	7.521	44.431	1.00	2.00	N
ATOM	3350	CA	THR	B	409	-29.192	6.866	45.720	1.00	2.00	C
ATOM	3351	CB	THR	B	409	-27.760	6.664	46.189	1.00	2.00	C
ATOM	3352	OG1	THR	B	409	-27.114	7.942	46.204	1.00	2.00	O
ATOM	3353	CG2	THR	B	409	-27.037	5.735	45.225	1.00	2.00	C
ATOM	3354	C	THR	B	409	-29.935	7.844	46.631	1.00	2.00	C
ATOM	3355	O	THR	B	409	-30.371	8.859	46.147	1.00	2.00	O
ATOM	3356	N	VAL	B	410	-30.086	7.560	47.924	1.00	2.00	N
ATOM	3357	CA	VAL	B	410	-30.824	8.497	48.806	1.00	2.00	C
ATOM	3358	CB	VAL	B	410	-30.795	8.149	50.326	1.00	2.00	C
ATOM	3359	CG1	VAL	B	410	-31.995	7.383	50.745	1.00	2.00	C

- 99 -

ATOM	3360	CG2	VAL	B	410	-29.476	7.501	50.765	1.00	2.00	C
ATOM	3361	C	VAL	B	410	-30.289	9.912	48.732	1.00	2.00	C
ATOM	3362	O	VAL	B	410	-31.062	10.871	48.873	1.00	2.00	O
ATOM	3363	N	ASP	B	411	-28.965	10.033	48.523	1.00	2.00	N
ATOM	3364	CA	ASP	B	411	-28.277	11.317	48.666	1.00	2.00	C
ATOM	3365	CB	ASP	B	411	-27.304	11.258	49.852	1.00	2.16	C
ATOM	3366	CG	ASP	B	411	-26.187	10.270	49.640	1.00	2.90	C
ATOM	3367	OD1	ASP	B	411	-26.356	9.247	48.930	1.00	4.22	O
ATOM	3368	OD2	ASP	B	411	-25.111	10.527	50.194	1.00	6.53	O
ATOM	3369	C	ASP	B	411	-27.548	11.874	47.430	1.00	2.00	C
ATOM	3370	O	ASP	B	411	-27.255	13.053	47.374	1.00	2.00	O
ATOM	3371	N	ARG	B	412	-27.279	11.035	46.448	1.00	2.00	N
ATOM	3372	CA	ARG	B	412	-26.572	11.475	45.261	1.00	2.00	C
ATOM	3373	CB	ARG	B	412	-25.118	10.961	45.285	1.00	2.00	C
ATOM	3374	CG	ARG	B	412	-24.243	11.800	46.194	1.00	2.00	C
ATOM	3375	CD	ARG	B	412	-22.759	11.457	46.165	1.00	2.00	C
ATOM	3376	NE	ARG	B	412	-22.439	10.562	47.249	1.00	4.85	N
ATOM	3377	CZ	ARG	B	412	-21.837	10.915	48.378	1.00	5.16	C
ATOM	3378	NH1	ARG	B	412	-21.440	12.163	48.563	1.00	8.93	N
ATOM	3379	NH2	ARG	B	412	-21.614	10.004	49.321	1.00	5.84	N
ATOM	3380	C	ARG	B	412	-27.275	11.130	43.960	1.00	2.00	C
ATOM	3381	O	ARG	B	412	-28.097	10.200	43.914	1.00	2.00	O
ATOM	3382	N	LEU	B	413	-26.977	11.906	42.927	1.00	2.00	N
ATOM	3383	CA	LEU	B	413	-27.377	11.617	41.563	1.00	2.00	C
ATOM	3384	CB	LEU	B	413	-28.019	12.844	40.922	1.00	2.00	C
ATOM	3385	CG	LEU	B	413	-29.151	13.528	41.678	1.00	2.00	C
ATOM	3386	CD1	LEU	B	413	-29.390	14.931	41.097	1.00	2.00	C
ATOM	3387	CD2	LEU	B	413	-30.394	12.642	41.641	1.00	2.00	C
ATOM	3388	C	LEU	B	413	-26.163	11.184	40.729	1.00	2.00	C
ATOM	3389	O	LEU	B	413	-25.091	11.769	40.844	1.00	2.00	O
ATOM	3390	N	TYR	B	414	-26.386	10.183	39.879	1.00	2.00	N
ATOM	3391	CA	TYR	B	414	-25.366	9.586	39.043	1.00	2.00	C
ATOM	3392	CB	TYR	B	414	-25.090	8.176	39.530	1.00	2.00	C
ATOM	3393	CG	TYR	B	414	-24.502	8.134	40.916	1.00	2.00	C
ATOM	3394	CD1	TYR	B	414	-23.106	8.203	41.096	1.00	2.00	C
ATOM	3395	CE1	TYR	B	414	-22.538	8.157	42.353	1.00	2.00	C
ATOM	3396	CZ	TYR	B	414	-23.337	8.059	43.463	1.00	2.00	C
ATOM	3397	OH	TYR	B	414	-22.745	8.018	44.703	1.00	2.00	O
ATOM	3398	CE2	TYR	B	414	-24.746	7.991	43.337	1.00	2.00	C
ATOM	3399	CD2	TYR	B	414	-25.319	8.025	42.065	1.00	2.00	C
ATOM	3400	C	TYR	B	414	-25.806	9.539	37.585	1.00	2.00	C
ATOM	3401	O	TYR	B	414	-26.837	8.955	37.269	1.00	2.00	O
ATOM	3402	N	PHE	B	415	-25.020	10.159	36.706	1.00	2.00	N
ATOM	3403	CA	PHE	B	415	-25.193	10.027	35.270	1.00	2.00	C
ATOM	3404	CB	PHE	B	415	-25.120	11.385	34.560	1.00	2.00	C
ATOM	3405	CG	PHE	B	415	-26.021	12.454	35.117	1.00	2.00	C
ATOM	3406	CD1	PHE	B	415	-25.895	12.893	36.437	1.00	2.00	C
ATOM	3407	CE1	PHE	B	415	-26.709	13.897	36.935	1.00	2.00	C
ATOM	3408	CZ	PHE	B	415	-27.640	14.508	36.099	1.00	2.00	C
ATOM	3409	CE2	PHE	B	415	-27.761	14.107	34.784	1.00	2.00	C
ATOM	3410	CD2	PHE	B	415	-26.935	13.074	34.291	1.00	2.00	C
ATOM	3411	C	PHE	B	415	-23.958	9.238	34.785	1.00	2.00	C
ATOM	3412	O	PHE	B	415	-22.840	9.736	34.852	1.00	2.00	O
ATOM	3413	N	VAL	B	416	-24.176	8.023	34.300	1.00	2.00	N
ATOM	3414	CA	VAL	B	416	-23.121	7.196	33.728	1.00	2.00	C
ATOM	3415	CB	VAL	B	416	-23.413	5.693	33.945	1.00	2.00	C
ATOM	3416	CG1	VAL	B	416	-22.258	4.800	33.407	1.00	2.00	C
ATOM	3417	CG2	VAL	B	416	-23.648	5.407	35.418	1.00	2.00	C

- 100 -

ATOM	3418	C	VAL	B	416	-22.978	7.507	32.243	1.00	2.00	C
ATOM	3419	O	VAL	B	416	-23.787	7.031	31.424	1.00	2.00	O
ATOM	3420	N	MET	B	417	-21.957	8.299	31.891	1.00	2.00	N
ATOM	3421	CA	MET	B	417	-21.689	8.673	30.504	1.00	2.00	C
ATOM	3422	CB	MET	B	417	-21.132	10.101	30.405	1.00	2.00	C
ATOM	3423	CG	MET	B	417	-21.883	11.155	31.242	1.00	5.32	C
ATOM	3424	SD	MET	B	417	-23.624	11.274	30.800	1.00	2.38	S
ATOM	3425	CE	MET	B	417	-23.506	11.961	29.168	1.00	3.38	C
ATOM	3426	C	MET	B	417	-20.686	7.744	29.834	1.00	2.00	C
ATOM	3427	O	MET	B	417	-19.969	7.008	30.502	1.00	2.00	O
ATOM	3428	N	GLU	B	418	-20.634	7.787	28.509	1.00	2.00	N
ATOM	3429	CA	GLU	B	418	-19.533	7.198	27.791	1.00	2.00	C
ATOM	3430	CB	GLU	B	418	-19.798	7.195	26.291	1.00	2.00	C
ATOM	3431	CG	GLU	B	418	-19.693	8.561	25.649	1.00	2.00	C
ATOM	3432	CD	GLU	B	418	-19.987	8.513	24.178	1.00	2.00	C
ATOM	3433	OE1	GLU	B	418	-19.670	7.488	23.523	1.00	2.00	O
ATOM	3434	OE2	GLU	B	418	-20.545	9.502	23.666	1.00	2.00	O
ATOM	3435	C	GLU	B	418	-18.276	8.037	28.102	1.00	2.00	C
ATOM	3436	O	GLU	B	418	-18.344	9.273	28.209	1.00	2.00	O
ATOM	3437	N	TYR	B	419	-17.153	7.350	28.266	1.00	2.00	N
ATOM	3438	CA	TYR	B	419	-15.858	7.997	28.439	1.00	2.00	C
ATOM	3439	CB	TYR	B	419	-14.889	7.067	29.184	1.00	2.00	C
ATOM	3440	CG	TYR	B	419	-13.498	7.660	29.367	1.00	2.00	C
ATOM	3441	CD1	TYR	B	419	-13.323	8.942	29.888	1.00	2.00	C
ATOM	3442	CE1	TYR	B	419	-12.047	9.488	30.043	1.00	2.00	C
ATOM	3443	CZ	TYR	B	419	-10.950	8.750	29.691	1.00	2.00	C
ATOM	3444	OH	TYR	B	419	-9.688	9.302	29.862	1.00	2.00	O
ATOM	3445	CE2	TYR	B	419	-11.092	7.478	29.177	1.00	2.00	C
ATOM	3446	CD2	TYR	B	419	-12.355	6.941	29.008	1.00	2.00	C
ATOM	3447	C	TYR	B	419	-15.294	8.416	27.079	1.00	2.00	C
ATOM	3448	O	TYR	B	419	-15.085	7.583	26.188	1.00	2.00	O
ATOM	3449	N	VAL	B	420	-15.045	9.715	26.940	1.00	2.00	N
ATOM	3450	CA	VAL	B	420	-14.474	10.305	25.736	1.00	2.00	C
ATOM	3451	CB	VAL	B	420	-15.364	11.480	25.260	1.00	2.00	C
ATOM	3452	CG1	VAL	B	420	-14.847	12.099	23.981	1.00	2.00	C
ATOM	3453	CG2	VAL	B	420	-16.813	10.991	25.067	1.00	2.00	C
ATOM	3454	C	VAL	B	420	-13.056	10.777	26.053	1.00	2.00	C
ATOM	3455	O	VAL	B	420	-12.863	11.639	26.906	1.00	2.00	O
ATOM	3456	N	ASN	B	421	-12.075	10.201	25.369	1.00	2.00	N
ATOM	3457	CA	ASN	B	421	-10.674	10.410	25.722	1.00	2.54	C
ATOM	3458	CB	ASN	B	421	-10.049	9.106	26.227	1.00	3.69	C
ATOM	3459	CG	ASN	B	421	-10.004	8.012	25.167	1.00	6.34	C
ATOM	3460	OD1	ASN	B	421	-9.300	7.042	25.325	1.00	8.07	O
ATOM	3461	ND2	ASN	B	421	-10.760	8.160	24.109	1.00	7.18	N
ATOM	3462	C	ASN	B	421	-9.760	11.015	24.674	1.00	2.00	C
ATOM	3463	O	ASN	B	421	-8.554	10.893	24.810	1.00	3.04	O
ATOM	3464	N	GLY	B	422	-10.312	11.642	23.640	1.00	2.00	N
ATOM	3465	CA	GLY	B	422	-9.505	12.220	22.547	1.00	2.00	C
ATOM	3466	C	GLY	B	422	-9.111	13.669	22.778	1.00	2.00	C
ATOM	3467	O	GLY	B	422	-8.505	14.289	21.915	1.00	2.14	O
ATOM	3468	N	GLY	B	423	-9.443	14.215	23.942	1.00	2.00	N
ATOM	3469	CA	GLY	B	423	-9.056	15.583	24.297	1.00	2.00	C
ATOM	3470	C	GLY	B	423	-10.037	16.630	23.777	1.00	2.48	C
ATOM	3471	O	GLY	B	423	-10.721	16.409	22.773	1.00	3.17	O
ATOM	3472	N	ASP	B	424	-10.109	17.784	24.435	1.00	3.62	N
ATOM	3473	CA	ASP	B	424	-11.033	18.824	23.961	1.00	4.41	C
ATOM	3474	CB	ASP	B	424	-11.601	19.662	25.111	1.00	8.80	C
ATOM	3475	CG	ASP	B	424	-10.561	20.468	25.829	1.00	10.83	C

- 101 -

ATOM	3476	OD1	ASP	B	424	-9.783	21.168	25.157	1.00	13.76	O
ATOM	3477	OD2	ASP	B	424	-10.538	20.416	27.083	1.00	13.57	O
ATOM	3478	C	ASP	B	424	-10.457	19.683	22.840	1.00	3.57	C
ATOM	3479	O	ASP	B	424	-9.242	19.747	22.681	1.00	2.00	O
ATOM	3480	N	LEU	B	425	-11.336	20.323	22.060	1.00	2.00	N
ATOM	3481	CA	LEU	B	425	-10.924	21.119	20.914	1.00	2.31	C
ATOM	3482	CB	LEU	B	425	-12.131	21.633	20.138	1.00	2.92	C
ATOM	3483	CG	LEU	B	425	-12.770	20.775	19.054	1.00	2.40	C
ATOM	3484	CD1	LEU	B	425	-13.694	21.673	18.229	1.00	2.00	C
ATOM	3485	CD2	LEU	B	425	-11.771	20.082	18.150	1.00	2.00	C
ATOM	3486	C	LEU	B	425	-10.025	22.298	21.255	1.00	3.66	C
ATOM	3487	O	LEU	B	425	-9.191	22.700	20.438	1.00	2.56	O
ATOM	3488	N	MET	B	426	-10.205	22.861	22.444	1.00	4.32	N
ATOM	3489	CA	MET	B	426	-9.309	23.890	22.940	1.00	5.51	C
ATOM	3490	CB	MET	B	426	-9.795	24.370	24.307	1.00	9.53	C
ATOM	3491	CG	MET	B	426	-8.863	25.348	25.054	1.00	12.75	C
ATOM	3492	SD	MET	B	426	-8.707	26.964	24.289	1.00	12.92	S
ATOM	3493	CE	MET	B	426	-10.326	27.211	23.657	1.00	14.89	C
ATOM	3494	C	MET	B	426	-7.849	23.371	22.969	1.00	6.03	C
ATOM	3495	O	MET	B	426	-6.969	23.992	22.380	1.00	5.12	O
ATOM	3496	N	TYR	B	427	-7.608	22.232	23.623	1.00	5.14	N
ATOM	3497	CA	TYR	B	427	-6.292	21.574	23.583	1.00	5.49	C
ATOM	3498	CB	TYR	B	427	-6.324	20.244	24.339	1.00	6.61	C
ATOM	3499	CG	TYR	B	427	-5.092	19.392	24.147	1.00	7.40	C
ATOM	3500	CD1	TYR	B	427	-3.911	19.670	24.835	1.00	6.91	C
ATOM	3501	CE1	TYR	B	427	-2.774	18.876	24.658	1.00	8.90	C
ATOM	3502	CZ	TYR	B	427	-2.827	17.801	23.786	1.00	7.71	C
ATOM	3503	OH	TYR	B	427	-1.712	17.012	23.596	1.00	9.87	O
ATOM	3504	CE2	TYR	B	427	-3.995	17.520	23.100	1.00	8.32	C
ATOM	3505	CD2	TYR	B	427	-5.110	18.303	23.289	1.00	6.65	C
ATOM	3506	C	TYR	B	427	-5.756	21.386	22.149	1.00	4.75	C
ATOM	3507	O	TYR	B	427	-4.619	21.775	21.841	1.00	4.69	O
ATOM	3508	N	HIS	B	428	-6.577	20.818	21.268	1.00	3.08	N
ATOM	3509	CA	HIS	B	428	-6.143	20.543	19.898	1.00	2.00	C
ATOM	3510	CB	HIS	B	428	-7.118	19.601	19.198	1.00	2.00	C
ATOM	3511	CG	HIS	B	428	-7.136	18.239	19.802	1.00	2.00	C
ATOM	3512	ND1	HIS	B	428	-6.032	17.413	19.803	1.00	2.00	N
ATOM	3513	CE1	HIS	B	428	-6.327	16.285	20.423	1.00	2.00	C
ATOM	3514	NE2	HIS	B	428	-7.586	16.353	20.827	1.00	2.00	N
ATOM	3515	CD2	HIS	B	428	-8.111	17.566	20.455	1.00	2.00	C
ATOM	3516	C	HIS	B	428	-5.848	21.777	19.052	1.00	2.56	C
ATOM	3517	O	HIS	B	428	-4.887	21.767	18.279	1.00	2.00	O
ATOM	3518	N	ILE	B	429	-6.668	22.829	19.185	1.00	2.00	N
ATOM	3519	CA	ILE	B	429	-6.355	24.125	18.563	1.00	2.00	C
ATOM	3520	CB	ILE	B	429	-7.440	25.205	18.808	1.00	2.00	C
ATOM	3521	CG1	ILE	B	429	-8.656	24.961	17.922	1.00	2.38	C
ATOM	3522	CD1	ILE	B	429	-9.927	25.672	18.410	1.00	2.49	C
ATOM	3523	CG2	ILE	B	429	-6.901	26.585	18.439	1.00	2.00	C
ATOM	3524	C	ILE	B	429	-4.977	24.619	19.041	1.00	2.00	C
ATOM	3525	O	ILE	B	429	-4.144	24.996	18.227	1.00	2.00	O
ATOM	3526	N	GLN	B	430	-4.740	24.594	20.350	1.00	2.33	N
ATOM	3527	CA	GLN	B	430	-3.425	24.971	20.919	1.00	4.46	C
ATOM	3528	CB	GLN	B	430	-3.444	24.823	22.437	1.00	6.10	C
ATOM	3529	CG	GLN	B	430	-4.355	25.815	23.108	1.00	8.77	C
ATOM	3530	CD	GLN	B	430	-4.524	25.546	24.589	1.00	10.59	C
ATOM	3531	OE1	GLN	B	430	-4.865	24.437	24.996	1.00	12.89	O
ATOM	3532	NE2	GLN	B	430	-4.306	26.568	25.405	1.00	13.62	N
ATOM	3533	C	GLN	B	430	-2.191	24.251	20.342	1.00	4.53	C

- 102 -

ATOM	3534	O	GLN	B	430	-1.126	24.857	20.210	1.00	4.32	O
ATOM	3535	N	GLN	B	431	-2.341	22.974	19.996	1.00	4.61	N
ATOM	3536	CA	GLN	B	431	-1.234	22.166	19.470	1.00	3.22	C
ATOM	3537	CB	GLN	B	431	-1.614	20.691	19.418	1.00	3.84	C
ATOM	3538	CG	GLN	B	431	-1.899	20.036	20.755	1.00	6.19	C
ATOM	3539	CD	GLN	B	431	-0.978	20.506	21.870	1.00	6.22	C
ATOM	3540	OE1	GLN	B	431	-1.409	21.236	22.774	1.00	8.24	O
ATOM	3541	NE2	GLN	B	431	0.291	20.092	21.816	1.00	6.81	N
ATOM	3542	C	GLN	B	431	-0.793	22.600	18.085	1.00	2.67	C
ATOM	3543	O	GLN	B	431	0.360	22.434	17.720	1.00	4.68	O
ATOM	3544	N	VAL	B	432	-1.716	23.167	17.314	1.00	3.01	N
ATOM	3545	CA	VAL	B	432	-1.448	23.520	15.926	1.00	3.43	C
ATOM	3546	CB	VAL	B	432	-2.290	22.656	14.940	1.00	4.75	C
ATOM	3547	CG1	VAL	B	432	-1.839	21.182	14.997	1.00	4.01	C
ATOM	3548	CG2	VAL	B	432	-3.786	22.793	15.226	1.00	3.58	C
ATOM	3549	C	VAL	B	432	-1.650	25.001	15.616	1.00	3.56	C
ATOM	3550	O	VAL	B	432	-1.328	25.451	14.517	1.00	3.81	O
ATOM	3551	N	GLY	B	433	-2.183	25.750	16.570	1.00	2.01	N
ATOM	3552	CA	GLY	B	433	-2.400	27.197	16.396	1.00	3.00	C
ATOM	3553	C	GLY	B	433	-3.786	27.508	15.854	1.00	3.28	C
ATOM	3554	O	GLY	B	433	-4.573	28.267	16.465	1.00	3.20	O
ATOM	3555	N	LYS	B	434	-4.086	26.923	14.700	1.00	2.27	N
ATOM	3556	CA	LYS	B	434	-5.432	26.963	14.155	1.00	3.34	C
ATOM	3557	CB	LYS	B	434	-5.682	28.282	13.430	1.00	4.26	C
ATOM	3558	CG	LYS	B	434	-4.802	28.509	12.195	1.00	4.96	C
ATOM	3559	CD	LYS	B	434	-4.966	29.915	11.641	1.00	6.43	C
ATOM	3560	CE	LYS	B	434	-4.080	30.144	10.409	1.00	8.97	C
ATOM	3561	NZ	LYS	B	434	-2.619	29.917	10.692	1.00	10.45	N
ATOM	3562	C	LYS	B	434	-5.617	25.788	13.208	1.00	2.86	C
ATOM	3563	O	LYS	B	434	-4.650	25.225	12.672	1.00	2.09	O
ATOM	3564	N	PHE	B	435	-6.866	25.427	12.995	1.00	2.00	N
ATOM	3565	CA	PHE	B	435	-7.191	24.362	12.067	1.00	2.16	C
ATOM	3566	CB	PHE	B	435	-8.571	23.774	12.386	1.00	2.00	C
ATOM	3567	CG	PHE	B	435	-8.661	23.118	13.727	1.00	2.00	C
ATOM	3568	CD1	PHE	B	435	-7.545	22.521	14.315	1.00	2.00	C
ATOM	3569	CE1	PHE	B	435	-7.642	21.897	15.571	1.00	2.00	C
ATOM	3570	CZ	PHE	B	435	-8.866	21.864	16.239	1.00	2.00	C
ATOM	3571	CE2	PHE	B	435	-9.997	22.456	15.646	1.00	2.00	C
ATOM	3572	CD2	PHE	B	435	-9.883	23.068	14.398	1.00	2.00	C
ATOM	3573	C	PHE	B	435	-7.183	24.867	10.640	1.00	2.69	C
ATOM	3574	O	PHE	B	435	-7.721	25.946	10.340	1.00	4.19	O
ATOM	3575	N	LYS	B	436	-6.576	24.083	9.760	1.00	4.97	N
ATOM	3576	CA	LYS	B	436	-6.660	24.315	8.320	1.00	6.28	C
ATOM	3577	CB	LYS	B	436	-5.789	23.296	7.574	1.00	8.26	C
ATOM	3578	CG	LYS	B	436	-4.345	23.244	8.084	1.00	11.49	C
ATOM	3579	CD	LYS	B	436	-3.654	21.904	7.804	1.00	13.46	C
ATOM	3580	CE	LYS	B	436	-2.635	22.030	6.664	1.00	14.16	C
ATOM	3581	NZ	LYS	B	436	-1.855	20.782	6.495	1.00	15.27	N
ATOM	3582	C	LYS	B	436	-8.140	24.189	7.938	1.00	5.01	C
ATOM	3583	O	LYS	B	436	-8.888	23.443	8.579	1.00	5.17	O
ATOM	3584	N	GLU	B	437	-8.561	24.927	6.917	1.00	4.81	N
ATOM	3585	CA	GLU	B	437	-9.991	25.029	6.584	1.00	6.02	C
ATOM	3586	CB	GLU	B	437	-10.231	25.906	5.337	1.00	6.63	C
ATOM	3587	CG	GLU	B	437	-11.704	26.014	4.924	1.00	10.10	C
ATOM	3588	CD	GLU	B	437	-12.022	27.247	4.091	1.00	10.35	C
ATOM	3589	OE1	GLU	B	437	-11.409	28.310	4.335	1.00	12.71	O
ATOM	3590	OE2	GLU	B	437	-12.897	27.164	3.190	1.00	12.53	O
ATOM	3591	C	GLU	B	437	-10.756	23.673	6.524	1.00	4.49	C

- 103 -

ATOM	3592	O	GLU	B 437	-11.780	23.549	7.187	1.00	6.70	O
ATOM	3593	N	PRO	B 438	-10.269	22.668	5.747	1.00	3.85	N
ATOM	3594	CA	PRO	B 438	-11.014	21.401	5.645	1.00	2.80	C
ATOM	3595	CB	PRO	B 438	-10.115	20.531	4.756	1.00	3.77	C
ATOM	3596	CG	PRO	B 438	-9.324	21.488	3.967	1.00	2.88	C
ATOM	3597	CD	PRO	B 438	-9.054	22.630	4.908	1.00	2.99	C
ATOM	3598	C	PRO	B 438	-11.243	20.724	6.990	1.00	3.27	C
ATOM	3599	O	PRO	B 438	-12.300	20.093	7.189	1.00	2.50	O
ATOM	3600	N	GLN	B 439	-10.270	20.861	7.901	1.00	2.38	N
ATOM	3601	CA	GLN	B 439	-10.377	20.302	9.245	1.00	2.00	C
ATOM	3602	CB	GLN	B 439	-9.017	20.317	9.951	1.00	2.00	C
ATOM	3603	CG	GLN	B 439	-9.119	19.928	11.396	1.00	2.00	C
ATOM	3604	CD	GLN	B 439	-7.779	19.772	12.091	1.00	2.45	C
ATOM	3605	OE1	GLN	B 439	-7.628	18.922	12.986	1.00	2.68	O
ATOM	3606	NE2	GLN	B 439	-6.804	20.589	11.701	1.00	2.00	N
ATOM	3607	C	GLN	B 439	-11.439	21.014	10.087	1.00	2.00	C
ATOM	3608	O	GLN	B 439	-12.234	20.361	10.775	1.00	2.00	O
ATOM	3609	N	ALA	B 440	-11.451	22.340	10.030	1.00	2.00	N
ATOM	3610	CA	ALA	B 440	-12.478	23.122	10.719	1.00	2.00	C
ATOM	3611	CB	ALA	B 440	-12.140	24.588	10.715	1.00	2.00	C
ATOM	3612	C	ALA	B 440	-13.871	22.887	10.118	1.00	2.00	C
ATOM	3613	O	ALA	B 440	-14.846	22.813	10.857	1.00	2.00	O
ATOM	3614	N	VAL	B 441	-13.945	22.775	8.785	1.00	2.00	N
ATOM	3615	CA	VAL	B 441	-15.182	22.444	8.056	1.00	2.00	C
ATOM	3616	CB	VAL	B 441	-14.933	22.328	6.514	1.00	2.00	C
ATOM	3617	CG1	VAL	B 441	-16.055	21.580	5.819	1.00	2.00	C
ATOM	3618	CG2	VAL	B 441	-14.751	23.684	5.882	1.00	2.00	C
ATOM	3619	C	VAL	B 441	-15.792	21.150	8.604	1.00	2.00	C
ATOM	3620	O	VAL	B 441	-16.997	21.101	8.908	1.00	2.00	O
ATOM	3621	N	PHE	B 442	-14.957	20.122	8.739	1.00	2.00	N
ATOM	3622	CA	PHE	B 442	-15.342	18.836	9.291	1.00	2.00	C
ATOM	3623	CB	PHE	B 442	-14.145	17.861	9.214	1.00	2.00	C
ATOM	3624	CG	PHE	B 442	-14.408	16.522	9.850	1.00	2.00	C
ATOM	3625	CD1	PHE	B 442	-14.812	15.442	9.081	1.00	2.00	C
ATOM	3626	CE1	PHE	B 442	-15.074	14.206	9.678	1.00	2.00	C
ATOM	3627	CZ	PHE	B 442	-14.922	14.051	11.055	1.00	2.00	C
ATOM	3628	CE2	PHE	B 442	-14.523	15.119	11.825	1.00	2.00	C
ATOM	3629	CD2	PHE	B 442	-14.271	16.349	11.224	1.00	2.00	C
ATOM	3630	C	PHE	B 442	-15.904	18.919	10.727	1.00	2.00	C
ATOM	3631	O	PHE	B 442	-17.001	18.391	11.014	1.00	2.00	O
ATOM	3632	N	TYR	B 443	-15.169	19.560	11.634	1.00	2.00	N
ATOM	3633	CA	TYR	B 443	-15.658	19.704	13.017	1.00	2.00	C
ATOM	3634	CB	TYR	B 443	-14.582	20.285	13.934	1.00	2.00	C
ATOM	3635	CG	TYR	B 443	-13.324	19.452	14.036	1.00	2.00	C
ATOM	3636	CD1	TYR	B 443	-13.382	18.061	14.026	1.00	2.00	C
ATOM	3637	CE1	TYR	B 443	-12.235	17.291	14.120	1.00	2.00	C
ATOM	3638	CZ	TYR	B 443	-10.997	17.926	14.247	1.00	2.00	C
ATOM	3639	OH	TYR	B 443	-9.860	17.172	14.350	1.00	2.00	O
ATOM	3640	CE2	TYR	B 443	-10.916	19.307	14.277	1.00	2.00	C
ATOM	3641	CD2	TYR	B 443	-12.087	20.063	14.174	1.00	2.00	C
ATOM	3642	C	TYR	B 443	-16.936	20.551	13.132	1.00	2.00	C
ATOM	3643	O	TYR	B 443	-17.833	20.226	13.924	1.00	2.00	O
ATOM	3644	N	ALA	B 444	-16.988	21.642	12.367	1.00	2.00	N
ATOM	3645	CA	ALA	B 444	-18.150	22.532	12.353	1.00	2.00	C
ATOM	3646	CB	ALA	B 444	-17.885	23.752	11.493	1.00	2.00	C
ATOM	3647	C	ALA	B 444	-19.371	21.778	11.842	1.00	2.00	C
ATOM	3648	O	ALA	B 444	-20.464	21.967	12.337	1.00	2.00	O
ATOM	3649	N	ALA	B 445	-19.164	20.922	10.849	1.00	2.00	N

- 104 -

ATOM	3650	CA	ALA	B	445	-20.228	20.105	10.295	1.00	2.00	C
ATOM	3651	CB	ALA	B	445	-19.760	19.423	9.020	1.00	2.00	C
ATOM	3652	C	ALA	B	445	-20.794	19.090	11.298	1.00	2.00	C
ATOM	3653	O	ALA	B	445	-22.024	18.963	11.428	1.00	2.00	O
ATOM	3654	N	GLU	B	446	-19.911	18.375	12.008	1.00	2.00	N
ATOM	3655	CA	GLU	B	446	-20.340	17.407	13.032	1.00	2.00	C
ATOM	3656	CB	GLU	B	446	-19.168	16.524	13.489	1.00	2.00	C
ATOM	3657	CG	GLU	B	446	-18.638	15.593	12.374	1.00	2.00	C
ATOM	3658	CD	GLU	B	446	-17.667	14.517	12.860	1.00	2.00	C
ATOM	3659	OE1	GLU	B	446	-16.964	14.731	13.884	1.00	2.00	O
ATOM	3660	OE2	GLU	B	446	-17.612	13.447	12.195	1.00	2.00	O
ATOM	3661	C	GLU	B	446	-21.018	18.077	14.225	1.00	2.00	C
ATOM	3662	O	GLU	B	446	-21.969	17.539	14.823	1.00	2.00	O
ATOM	3663	N	ILE	B	447	-20.522	19.254	14.567	1.00	2.00	N
ATOM	3664	CA	ILE	B	447	-21.080	20.058	15.623	1.00	2.00	C
ATOM	3665	CB	ILE	B	447	-20.196	21.286	15.946	1.00	2.00	C
ATOM	3666	CG1	ILE	B	447	-18.908	20.855	16.663	1.00	2.00	C
ATOM	3667	CD1	ILE	B	447	-17.868	21.944	16.745	1.00	2.00	C
ATOM	3668	CG2	ILE	B	447	-20.972	22.279	16.820	1.00	2.00	C
ATOM	3669	C	ILE	B	447	-22.461	20.532	15.237	1.00	2.00	C
ATOM	3670	O	ILE	B	447	-23.352	20.525	16.060	1.00	2.00	O
ATOM	3671	N	SER	B	448	-22.635	20.947	13.990	1.00	2.00	N
ATOM	3672	CA	SER	B	448	-23.939	21.440	13.535	1.00	2.00	C
ATOM	3673	CB	SER	B	448	-23.848	22.007	12.123	1.00	2.00	C
ATOM	3674	OG	SER	B	448	-23.853	20.962	11.166	1.00	2.00	O
ATOM	3675	C	SER	B	448	-25.044	20.380	13.604	1.00	2.00	C
ATOM	3676	O	SER	B	448	-26.200	20.714	13.815	1.00	2.00	O
ATOM	3677	N	ILE	B	449	-24.677	19.114	13.440	1.00	2.00	N
ATOM	3678	CA	ILE	B	449	-25.627	18.016	13.536	1.00	2.00	C
ATOM	3679	CB	ILE	B	449	-25.041	16.704	12.953	1.00	2.00	C
ATOM	3680	CG1	ILE	B	449	-24.873	16.865	11.445	1.00	2.00	C
ATOM	3681	CD1	ILE	B	449	-23.985	15.868	10.841	1.00	2.93	C
ATOM	3682	CG2	ILE	B	449	-25.938	15.498	13.258	1.00	2.00	C
ATOM	3683	C	ILE	B	449	-26.138	17.841	14.966	1.00	2.00	C
ATOM	3684	O	ILE	B	449	-27.316	17.525	15.170	1.00	2.00	O
ATOM	3685	N	GLY	B	450	-25.262	18.060	15.945	1.00	2.00	N
ATOM	3686	CA	GLY	B	450	-25.664	18.105	17.340	1.00	2.00	C
ATOM	3687	C	GLY	B	450	-26.701	19.201	17.536	1.00	2.00	C
ATOM	3688	O	GLY	B	450	-27.740	18.977	18.163	1.00	2.00	O
ATOM	3689	N	LEU	B	451	-26.430	20.388	16.991	1.00	2.00	N
ATOM	3690	CA	LEU	B	451	-27.356	21.521	17.121	1.00	2.00	C
ATOM	3691	CB	LEU	B	451	-26.700	22.837	16.664	1.00	2.00	C
ATOM	3692	CG	LEU	B	451	-25.496	23.353	17.462	1.00	2.00	C
ATOM	3693	CD1	LEU	B	451	-24.978	24.646	16.827	1.00	2.00	C
ATOM	3694	CD2	LEU	B	451	-25.839	23.575	18.933	1.00	2.00	C
ATOM	3695	C	LEU	B	451	-28.706	21.323	16.407	1.00	2.00	C
ATOM	3696	O	LEU	B	451	-29.742	21.668	16.976	1.00	2.00	O
ATOM	3697	N	PHE	B	452	-28.684	20.773	15.185	1.00	2.00	N
ATOM	3698	CA	PHE	B	452	-29.891	20.546	14.390	1.00	2.00	C
ATOM	3699	CB	PHE	B	452	-29.571	19.888	13.043	1.00	2.00	C
ATOM	3700	CG	PHE	B	452	-28.768	20.751	12.105	1.00	2.00	C
ATOM	3701	CD1	PHE	B	452	-28.973	22.133	12.041	1.00	2.00	C
ATOM	3702	CE1	PHE	B	452	-28.225	22.940	11.154	1.00	2.00	C
ATOM	3703	CZ	PHE	B	452	-27.271	22.350	10.317	1.00	2.00	C
ATOM	3704	CE2	PHE	B	452	-27.070	20.960	10.367	1.00	2.27	C
ATOM	3705	CD2	PHE	B	452	-27.826	20.171	11.257	1.00	2.00	C
ATOM	3706	C	PHE	B	452	-30.868	19.656	15.124	1.00	2.00	C
ATOM	3707	O	PHE	B	452	-32.076	19.900	15.121	1.00	2.00	O

- 105 -

ATOM	3708	N	PHE	B	453	-30.320	18.614	15.734	1.00	2.00	N
ATOM	3709	CA	PHE	B	453	-31.082	17.662	16.522	1.00	2.00	C
ATOM	3710	CB	PHE	B	453	-30.180	16.504	16.978	1.00	2.00	C
ATOM	3711	CG	PHE	B	453	-30.837	15.565	17.961	1.00	2.00	C
ATOM	3712	CD1	PHE	B	453	-31.687	14.564	17.522	1.00	2.00	C
ATOM	3713	CE1	PHE	B	453	-32.265	13.707	18.419	1.00	2.00	C
ATOM	3714	CZ	PHE	B	453	-32.027	13.834	19.771	1.00	2.00	C
ATOM	3715	CE2	PHE	B	453	-31.187	14.824	20.235	1.00	2.00	C
ATOM	3716	CD2	PHE	B	453	-30.596	15.687	19.332	1.00	2.00	C
ATOM	3717	C	PHE	B	453	-31.693	18.337	17.742	1.00	2.00	C
ATOM	3718	O	PHE	B	453	-32.875	18.158	18.024	1.00	2.00	O
ATOM	3719	N	LEU	B	454	-30.888	19.099	18.474	1.00	2.00	N
ATOM	3720	CA	LEU	B	454	-31.374	19.731	19.696	1.00	2.00	C
ATOM	3721	CB	LEU	B	454	-30.230	20.388	20.466	1.00	2.00	C
ATOM	3722	CG	LEU	B	454	-29.199	19.495	21.180	1.00	2.00	C
ATOM	3723	CD1	LEU	B	454	-28.207	20.388	21.913	1.00	2.77	C
ATOM	3724	CD2	LEU	B	454	-29.860	18.516	22.180	1.00	2.00	C
ATOM	3725	C	LEU	B	454	-32.475	20.748	19.375	1.00	2.00	C
ATOM	3726	O	LEU	B	454	-33.523	20.776	20.029	1.00	2.00	O
ATOM	3727	N	HIS	B	455	-32.247	21.567	18.362	1.00	2.00	N
ATOM	3728	CA	HIS	B	455	-33.196	22.611	17.999	1.00	2.00	C
ATOM	3729	CB	HIS	B	455	-32.569	23.538	16.981	1.00	2.00	C
ATOM	3730	CG	HIS	B	455	-31.413	24.318	17.526	1.00	2.00	C
ATOM	3731	ND1	HIS	B	455	-30.608	25.098	16.731	1.00	2.00	N
ATOM	3732	CE1	HIS	B	455	-29.685	25.675	17.477	1.00	2.00	C
ATOM	3733	NE2	HIS	B	455	-29.863	25.291	18.727	1.00	2.00	N
ATOM	3734	CD2	HIS	B	455	-30.936	24.441	18.784	1.00	2.00	C
ATOM	3735	C	HIS	B	455	-34.518	22.037	17.484	1.00	2.00	C
ATOM	3736	O	HIS	B	455	-35.574	22.555	17.783	1.00	2.00	O
ATOM	3737	N	LYS	B	456	-34.424	20.955	16.726	1.00	2.09	N
ATOM	3738	CA	LYS	B	456	-35.568	20.179	16.247	1.00	4.61	C
ATOM	3739	CB	LYS	B	456	-35.030	19.019	15.399	1.00	5.58	C
ATOM	3740	CG	LYS	B	456	-36.026	18.120	14.656	1.00	8.70	C
ATOM	3741	CD	LYS	B	456	-35.250	17.100	13.787	1.00	8.47	C
ATOM	3742	CE	LYS	B	456	-34.086	16.408	14.573	1.00	10.49	C
ATOM	3743	NZ	LYS	B	456	-33.585	15.122	13.946	1.00	9.51	N
ATOM	3744	C	LYS	B	456	-36.449	19.667	17.404	1.00	4.08	C
ATOM	3745	O	LYS	B	456	-37.664	19.637	17.281	1.00	4.17	O
ATOM	3746	N	ARG	B	457	-35.833	19.272	18.517	1.00	4.85	N
ATOM	3747	CA	ARG	B	457	-36.578	18.848	19.712	1.00	5.44	C
ATOM	3748	CB	ARG	B	457	-35.809	17.779	20.488	1.00	6.46	C
ATOM	3749	CG	ARG	B	457	-35.135	16.756	19.602	1.00	9.44	C
ATOM	3750	CD	ARG	B	457	-35.736	15.388	19.738	1.00	12.14	C
ATOM	3751	NE	ARG	B	457	-35.670	14.678	18.463	1.00	14.56	N
ATOM	3752	CZ	ARG	B	457	-35.629	13.356	18.329	1.00	16.30	C
ATOM	3753	NH1	ARG	B	457	-35.633	12.551	19.404	1.00	15.18	N
ATOM	3754	NH2	ARG	B	457	-35.579	12.839	17.100	1.00	16.90	N
ATOM	3755	C	ARG	B	457	-36.905	20.037	20.624	1.00	5.59	C
ATOM	3756	O	ARG	B	457	-37.267	19.856	21.810	1.00	4.54	O
ATOM	3757	N	GLY	B	458	-36.770	21.240	20.058	1.00	3.76	N
ATOM	3758	CA	GLY	B	458	-37.133	22.478	20.714	1.00	3.51	C
ATOM	3759	C	GLY	B	458	-36.254	22.813	21.894	1.00	3.39	C
ATOM	3760	O	GLY	B	458	-36.697	23.439	22.845	1.00	3.84	O
ATOM	3761	N	ILE	B	459	-34.998	22.401	21.827	1.00	3.29	N
ATOM	3762	CA	ILE	B	459	-34.053	22.624	22.905	1.00	2.00	C
ATOM	3763	CB	ILE	B	459	-33.413	21.281	23.318	1.00	2.01	C
ATOM	3764	CG1	ILE	B	459	-34.480	20.364	23.933	1.00	2.06	C
ATOM	3765	CD1	ILE	B	459	-33.981	18.985	24.280	1.00	3.96	C

- 106 -

ATOM	3766	CG2	ILE	B	459	-32.213	21.471	24.254	1.00	2.00	C
ATOM	3767	C	ILE	B	459	-33.009	23.632	22.412	1.00	2.00	C
ATOM	3768	O	ILE	B	459	-32.517	23.495	21.288	1.00	2.00	O
ATOM	3769	N	ILE	B	460	-32.715	24.650	23.228	1.00	2.00	N
ATOM	3770	CA	ILE	B	460	-31.526	25.509	23.014	1.00	2.00	C
ATOM	3771	CB	ILE	B	460	-31.745	27.024	23.335	1.00	2.00	C
ATOM	3772	CG1	ILE	B	460	-33.134	27.532	22.997	1.00	2.00	C
ATOM	3773	CD1	ILE	B	460	-33.393	28.847	23.735	1.00	2.00	C
ATOM	3774	CG2	ILE	B	460	-30.693	27.903	22.616	1.00	2.00	C
ATOM	3775	C	ILE	B	460	-30.413	25.051	23.948	1.00	2.00	C
ATOM	3776	O	ILE	B	460	-30.653	24.808	25.133	1.00	2.00	O
ATOM	3777	N	TYR	B	461	-29.185	24.975	23.420	1.00	2.00	N
ATOM	3778	CA	TYR	B	461	-28.068	24.437	24.154	1.00	2.00	C
ATOM	3779	CB	TYR	B	461	-27.041	23.854	23.148	1.00	2.00	C
ATOM	3780	CG	TYR	B	461	-25.796	23.301	23.784	1.00	2.62	C
ATOM	3781	CD1	TYR	B	461	-25.866	22.292	24.732	1.00	4.52	C
ATOM	3782	CE1	TYR	B	461	-24.698	21.784	25.323	1.00	3.74	C
ATOM	3783	CZ	TYR	B	461	-23.471	22.285	24.949	1.00	3.41	C
ATOM	3784	OH	TYR	B	461	-22.311	21.780	25.523	1.00	2.00	O
ATOM	3785	CE2	TYR	B	461	-23.389	23.270	24.001	1.00	3.90	C
ATOM	3786	CD2	TYR	B	461	-24.533	23.780	23.428	1.00	3.76	C
ATOM	3787	C	TYR	B	461	-27.431	25.470	25.111	1.00	2.00	C
ATOM	3788	O	TYR	B	461	-27.219	25.184	26.290	1.00	2.00	O
ATOM	3789	N	ARG	B	462	-27.118	26.658	24.597	1.00	2.00	N
ATOM	3790	CA	ARG	B	462	-26.741	27.831	25.408	1.00	2.46	C
ATOM	3791	CB	ARG	B	462	-27.815	28.173	26.462	1.00	2.00	C
ATOM	3792	CG	ARG	B	462	-29.176	28.482	25.859	1.00	2.89	C
ATOM	3793	CD	ARG	B	462	-30.108	29.215	26.814	1.00	2.46	C
ATOM	3794	NE	ARG	B	462	-30.267	28.528	28.093	1.00	4.32	N
ATOM	3795	CZ	ARG	B	462	-31.078	28.923	29.071	1.00	5.38	C
ATOM	3796	NH1	ARG	B	462	-31.826	30.026	28.937	1.00	4.46	N
ATOM	3797	NH2	ARG	B	462	-31.129	28.221	30.197	1.00	4.53	N
ATOM	3798	C	ARG	B	462	-25.354	27.777	26.067	1.00	2.54	C
ATOM	3799	O	ARG	B	462	-24.985	28.684	26.823	1.00	4.73	O
ATOM	3800	N	ASP	B	463	-24.591	26.728	25.810	1.00	2.98	N
ATOM	3801	CA	ASP	B	463	-23.271	26.623	26.454	1.00	4.42	C
ATOM	3802	CB	ASP	B	463	-23.353	25.715	27.689	1.00	4.83	C
ATOM	3803	CG	ASP	B	463	-22.215	25.957	28.694	1.00	8.42	C
ATOM	3804	OD1	ASP	B	463	-21.736	27.115	28.837	1.00	9.07	O
ATOM	3805	OD2	ASP	B	463	-21.806	24.972	29.357	1.00	8.19	O
ATOM	3806	C	ASP	B	463	-22.216	26.142	25.471	1.00	3.52	C
ATOM	3807	O	ASP	B	463	-21.246	25.475	25.845	1.00	5.49	O
ATOM	3808	N	LEU	B	464	-22.398	26.466	24.194	1.00	3.21	N
ATOM	3809	CA	LEU	B	464	-21.427	26.020	23.205	1.00	2.00	C
ATOM	3810	CB	LEU	B	464	-21.999	26.066	21.788	1.00	2.00	C
ATOM	3811	CG	LEU	B	464	-21.146	25.508	20.647	1.00	2.00	C
ATOM	3812	CD1	LEU	B	464	-20.913	24.005	20.727	1.00	3.18	C
ATOM	3813	CD2	LEU	B	464	-21.761	25.861	19.300	1.00	2.00	C
ATOM	3814	C	LEU	B	464	-20.141	26.849	23.348	1.00	2.00	C
ATOM	3815	O	LEU	B	464	-20.187	28.070	23.434	1.00	2.00	O
ATOM	3816	N	LYS	B	465	-19.013	26.150	23.405	1.00	2.00	N
ATOM	3817	CA	LYS	B	465	-17.711	26.741	23.685	1.00	2.00	C
ATOM	3818	CB	LYS	B	465	-17.671	27.330	25.105	1.00	2.00	C
ATOM	3819	CG	LYS	B	465	-17.731	26.310	26.223	1.00	2.00	C
ATOM	3820	CD	LYS	B	465	-17.905	26.995	27.550	1.00	2.20	C
ATOM	3821	CE	LYS	B	465	-17.836	25.992	28.680	1.00	2.60	C
ATOM	3822	NZ	LYS	B	465	-18.330	26.600	29.927	1.00	4.92	N
ATOM	3823	C	LYS	B	465	-16.700	25.616	23.482	1.00	2.00	C

- 107 -

ATOM	3824	O	LYS	B	465	-17.056	24.447	23.567	1.00	2.00	O
ATOM	3825	N	LEU	B	466	-15.458	25.963	23.200	1.00	2.00	N
ATOM	3826	CA	LEU	B	466	-14.446	24.962	22.890	1.00	2.00	C
ATOM	3827	CB	LEU	B	466	-13.114	25.611	22.529	1.00	2.00	C
ATOM	3828	CG	LEU	B	466	-13.046	26.322	21.174	1.00	2.00	C
ATOM	3829	CD1	LEU	B	466	-11.893	27.294	21.116	1.00	2.00	C
ATOM	3830	CD2	LEU	B	466	-12.979	25.335	20.022	1.00	2.00	C
ATOM	3831	C	LEU	B	466	-14.247	23.914	23.976	1.00	2.00	C
ATOM	3832	O	LEU	B	466	-13.952	22.765	23.661	1.00	3.08	O
ATOM	3833	N	ASP	B	467	-14.415	24.302	25.237	1.00	2.90	N
ATOM	3834	CA	ASP	B	467	-14.219	23.365	26.340	1.00	3.25	C
ATOM	3835	CB	ASP	B	467	-14.043	24.093	27.678	1.00	2.83	C
ATOM	3836	CG	ASP	B	467	-12.716	24.854	27.757	1.00	5.31	C
ATOM	3837	OD1	ASP	B	467	-11.781	24.524	26.994	1.00	3.09	O
ATOM	3838	OD2	ASP	B	467	-12.600	25.792	28.580	1.00	5.02	O
ATOM	3839	C	ASP	B	467	-15.299	22.273	26.406	1.00	2.30	C
ATOM	3840	O	ASP	B	467	-15.006	21.159	26.842	1.00	2.00	O
ATOM	3841	N	ASN	B	468	-16.511	22.562	25.928	1.00	2.00	N
ATOM	3842	CA	ASN	B	468	-17.549	21.549	25.884	1.00	2.00	C
ATOM	3843	CB	ASN	B	468	-18.943	22.184	25.940	1.00	2.00	C
ATOM	3844	CG	ASN	B	468	-19.266	22.670	27.302	1.00	2.00	C
ATOM	3845	OD1	ASN	B	468	-18.552	22.366	28.263	1.00	2.00	O
ATOM	3846	ND2	ASN	B	468	-20.345	23.434	27.418	1.00	2.00	N
ATOM	3847	C	ASN	B	468	-17.479	20.612	24.717	1.00	2.00	C
ATOM	3848	O	ASN	B	468	-18.313	19.719	24.594	1.00	2.76	O
ATOM	3849	N	VAL	B	469	-16.519	20.821	23.832	1.00	2.00	N
ATOM	3850	CA	VAL	B	469	-16.458	20.017	22.626	1.00	2.00	C
ATOM	3851	CB	VAL	B	469	-16.502	20.885	21.346	1.00	2.00	C
ATOM	3852	CG1	VAL	B	469	-16.479	20.006	20.134	1.00	2.00	C
ATOM	3853	CG2	VAL	B	469	-17.741	21.773	21.325	1.00	2.00	C
ATOM	3854	C	VAL	B	469	-15.183	19.170	22.672	1.00	2.00	C
ATOM	3855	O	VAL	B	469	-14.078	19.690	22.828	1.00	2.69	O
ATOM	3856	N	MET	B	470	-15.345	17.867	22.539	1.00	2.00	N
ATOM	3857	CA	MET	B	470	-14.226	16.942	22.648	1.00	3.01	C
ATOM	3858	CB	MET	B	470	-14.473	15.998	23.831	1.00	3.93	C
ATOM	3859	CG	MET	B	470	-14.367	16.659	25.195	1.00	3.04	C
ATOM	3860	SD	MET	B	470	-14.401	15.428	26.505	1.00	6.35	S
ATOM	3861	CE	MET	B	470	-16.101	14.877	26.429	1.00	4.42	C
ATOM	3862	C	MET	B	470	-14.065	16.137	21.368	1.00	2.00	C
ATOM	3863	O	MET	B	470	-14.971	16.121	20.539	1.00	2.16	O
ATOM	3864	N	LEU	B	471	-12.918	15.473	21.203	1.00	2.00	N
ATOM	3865	CA	LEU	B	471	-12.805	14.433	20.184	1.00	2.00	C
ATOM	3866	CB	LEU	B	471	-11.504	14.569	19.351	1.00	2.00	C
ATOM	3867	CG	LEU	B	471	-11.305	15.866	18.552	1.00	2.00	C
ATOM	3868	CD1	LEU	B	471	-9.979	15.850	17.822	1.00	2.00	C
ATOM	3869	CD2	LEU	B	471	-12.468	16.124	17.574	1.00	2.00	C
ATOM	3870	C	LEU	B	471	-12.863	13.081	20.878	1.00	2.00	C
ATOM	3871	O	LEU	B	471	-12.412	12.956	22.024	1.00	2.00	O
ATOM	3872	N	ASP	B	472	-13.422	12.075	20.201	1.00	2.00	N
ATOM	3873	CA	ASP	B	472	-13.324	10.714	20.710	1.00	2.00	C
ATOM	3874	CB	ASP	B	472	-14.599	9.887	20.431	1.00	2.01	C
ATOM	3875	CG	ASP	B	472	-14.838	9.619	18.952	1.00	4.79	C
ATOM	3876	OD1	ASP	B	472	-13.871	9.542	18.149	1.00	5.80	O
ATOM	3877	OD2	ASP	B	472	-16.022	9.460	18.580	1.00	5.98	O
ATOM	3878	C	ASP	B	472	-12.053	10.037	20.177	1.00	2.00	C
ATOM	3879	O	ASP	B	472	-11.255	10.661	19.482	1.00	2.00	O
ATOM	3880	N	SER	B	473	-11.873	8.765	20.512	1.00	2.87	N
ATOM	3881	CA	SER	B	473	-10.724	7.957	20.036	1.00	2.89	C

- 108 -

ATOM	3882	CB	SER	B	473	-10.936	6.499	20.412	1.00	2.49	C
ATOM	3883	OG	SER	B	473	-10.824	6.355	21.805	1.00	5.19	O
ATOM	3884	C	SER	B	473	-10.407	8.027	18.547	1.00	2.83	C
ATOM	3885	O	SER	B	473	-9.241	8.029	18.149	1.00	2.91	O
ATOM	3886	N	GLU	B	474	-11.441	8.055	17.722	1.00	4.03	N
ATOM	3887	CA	GLU	B	474	-11.248	7.990	16.285	1.00	4.81	C
ATOM	3888	CB	GLU	B	474	-12.322	7.117	15.631	1.00	7.47	C
ATOM	3889	CG	GLU	B	474	-12.511	5.729	16.267	1.00	10.15	C
ATOM	3890	CD	GLU	B	474	-11.452	4.706	15.868	1.00	12.53	C
ATOM	3891	OE1	GLU	B	474	-11.191	4.534	14.648	1.00	13.07	O
ATOM	3892	OE2	GLU	B	474	-10.892	4.045	16.784	1.00	13.61	O
ATOM	3893	C	GLU	B	474	-11.180	9.366	15.625	1.00	3.99	C
ATOM	3894	O	GLU	B	474	-10.960	9.464	14.426	1.00	6.69	O
ATOM	3895	N	GLY	B	475	-11.347	10.434	16.395	1.00	3.51	N
ATOM	3896	CA	GLY	B	475	-11.240	11.781	15.833	1.00	2.00	C
ATOM	3897	C	GLY	B	475	-12.555	12.491	15.538	1.00	2.00	C
ATOM	3898	O	GLY	B	475	-12.558	13.573	14.952	1.00	2.00	O
ATOM	3899	N	HIS	B	476	-13.667	11.877	15.937	1.00	2.00	N
ATOM	3900	CA	HIS	B	476	-14.990	12.480	15.751	1.00	2.00	C
ATOM	3901	CB	HIS	B	476	-16.079	11.415	15.518	1.00	2.00	C
ATOM	3902	CG	HIS	B	476	-15.884	10.623	14.267	1.00	2.00	C
ATOM	3903	ND1	HIS	B	476	-16.263	11.085	13.024	1.00	2.00	N
ATOM	3904	CE1	HIS	B	476	-15.958	10.181	12.112	1.00	2.00	C
ATOM	3905	NE2	HIS	B	476	-15.410	9.146	12.719	1.00	2.00	N
ATOM	3906	CD2	HIS	B	476	-15.340	9.399	14.065	1.00	2.00	C
ATOM	3907	C	HIS	B	476	-15.342	13.372	16.927	1.00	2.00	C
ATOM	3908	O	HIS	B	476	-14.784	13.238	18.015	1.00	2.00	O
ATOM	3909	N	ILE	B	477	-16.266	14.286	16.674	1.00	2.00	N
ATOM	3910	CA	ILE	B	477	-16.748	15.266	17.645	1.00	2.00	C
ATOM	3911	CB	ILE	B	477	-17.475	16.430	16.887	1.00	2.00	C
ATOM	3912	CG1	ILE	B	477	-16.468	17.335	16.161	1.00	2.00	C
ATOM	3913	CD1	ILE	B	477	-15.617	18.227	17.068	1.00	2.00	C
ATOM	3914	CG2	ILE	B	477	-18.393	17.238	17.802	1.00	2.00	C
ATOM	3915	C	ILE	B	477	-17.698	14.647	18.684	1.00	2.00	C
ATOM	3916	O	ILE	B	477	-18.506	13.764	18.353	1.00	2.00	O
ATOM	3917	N	LYS	B	478	-17.577	15.116	19.934	1.00	2.00	N
ATOM	3918	CA	LYS	B	478	-18.550	14.836	21.011	1.00	2.00	C
ATOM	3919	CB	LYS	B	478	-18.016	13.806	22.016	1.00	2.00	C
ATOM	3920	CG	LYS	B	478	-17.871	12.383	21.490	1.00	2.00	C
ATOM	3921	CD	LYS	B	478	-19.215	11.671	21.328	1.00	2.00	C
ATOM	3922	CE	LYS	B	478	-19.046	10.219	20.941	1.00	2.00	C
ATOM	3923	NZ	LYS	B	478	-20.381	9.495	20.989	1.00	4.15	N
ATOM	3924	C	LYS	B	478	-18.810	16.153	21.728	1.00	2.00	C
ATOM	3925	O	LYS	B	478	-17.858	16.832	22.154	1.00	2.00	O
ATOM	3926	N	ILE	B	479	-20.077	16.542	21.834	1.00	2.00	N
ATOM	3927	CA	ILE	B	479	-20.462	17.706	22.634	1.00	2.00	C
ATOM	3928	CB	ILE	B	479	-21.572	18.546	21.929	1.00	2.00	C
ATOM	3929	CG1	ILE	B	479	-21.104	18.982	20.531	1.00	2.00	C
ATOM	3930	CD1	ILE	B	479	-22.279	19.222	19.523	1.00	2.00	C
ATOM	3931	CG2	ILE	B	479	-21.939	19.794	22.749	1.00	2.00	C
ATOM	3932	C	ILE	B	479	-20.893	17.217	24.019	1.00	2.00	C
ATOM	3933	O	ILE	B	479	-21.719	16.294	24.147	1.00	2.00	O
ATOM	3934	N	ALA	B	480	-20.324	17.820	25.056	1.00	2.00	N
ATOM	3935	CA	ALA	B	480	-20.595	17.414	26.437	1.00	2.00	C
ATOM	3936	CB	ALA	B	480	-19.292	17.029	27.154	1.00	2.00	C
ATOM	3937	C	ALA	B	480	-21.298	18.543	27.178	1.00	2.00	C
ATOM	3938	O	ALA	B	480	-21.341	19.674	26.694	1.00	2.29	O
ATOM	3939	N	ASP	B	481	-21.853	18.222	28.342	1.00	2.75	N

- 109 -

ATOM	3940	CA	ASP	B	481	-22.449	19.194	29.254	1.00	3.19	C
ATOM	3941	CB	ASP	B	481	-21.449	20.260	29.705	1.00	5.08	C
ATOM	3942	CG	ASP	B	481	-21.931	21.019	30.934	1.00	7.70	C
ATOM	3943	OD1	ASP	B	481	-23.141	20.957	31.227	1.00	7.11	O
ATOM	3944	OD2	ASP	B	481	-21.104	21.664	31.626	1.00	10.02	O
ATOM	3945	C	ASP	B	481	-23.721	19.885	28.768	1.00	3.46	C
ATOM	3946	O	ASP	B	481	-23.648	20.953	28.150	1.00	3.86	O
ATOM	3947	N	PHE	B	482	-24.869	19.297	29.104	1.00	2.21	N
ATOM	3948	CA	PHE	B	482	-26.173	19.858	28.756	1.00	2.00	C
ATOM	3949	CB	PHE	B	482	-27.010	18.811	28.053	1.00	2.00	C
ATOM	3950	CG	PHE	B	482	-26.315	18.237	26.855	1.00	2.00	C
ATOM	3951	CD1	PHE	B	482	-25.461	17.171	26.994	1.00	2.00	C
ATOM	3952	CE1	PHE	B	482	-24.795	16.658	25.914	1.00	2.00	C
ATOM	3953	CZ	PHE	B	482	-24.972	17.208	24.680	1.00	2.00	C
ATOM	3954	CE2	PHE	B	482	-25.812	18.289	24.525	1.00	2.00	C
ATOM	3955	CD2	PHE	B	482	-26.479	18.799	25.606	1.00	2.00	C
ATOM	3956	C	PHE	B	482	-26.863	20.496	29.956	1.00	2.55	C
ATOM	3957	O	PHE	B	482	-28.095	20.608	30.008	1.00	2.00	O
ATOM	3958	N	GLY	B	483	-26.037	20.963	30.892	1.00	2.00	N
ATOM	3959	CA	GLY	B	483	-26.521	21.631	32.089	1.00	3.67	C
ATOM	3960	C	GLY	B	483	-27.074	23.029	31.913	1.00	5.28	C
ATOM	3961	O	GLY	B	483	-27.556	23.609	32.880	1.00	7.20	O
ATOM	3962	N	MET	B	484	-27.035	23.586	30.706	1.00	4.63	N
ATOM	3963	CA	MET	B	484	-27.566	24.939	30.522	1.00	8.58	C
ATOM	3964	CB	MET	B	484	-26.438	25.909	30.175	1.00	9.88	C
ATOM	3965	CG	MET	B	484	-25.512	26.218	31.330	1.00	13.31	C
ATOM	3966	SD	MET	B	484	-24.447	27.577	30.827	1.00	17.70	S
ATOM	3967	CE	MET	B	484	-25.698	28.853	30.675	1.00	15.31	C
ATOM	3968	C	MET	B	484	-28.688	25.053	29.482	1.00	6.00	C
ATOM	3969	O	MET	B	484	-29.146	26.156	29.158	1.00	6.69	O
ATOM	3970	N	CYS	B	485	-29.130	23.912	28.977	1.00	5.81	N
ATOM	3971	CA	CYS	B	485	-30.183	23.844	27.974	1.00	4.24	C
ATOM	3972	CB	CYS	B	485	-30.437	22.385	27.589	1.00	4.17	C
ATOM	3973	SG	CYS	B	485	-29.103	21.586	26.672	1.00	6.06	S
ATOM	3974	C	CYS	B	485	-31.491	24.473	28.463	1.00	5.40	C
ATOM	3975	O	CYS	B	485	-31.799	24.453	29.667	1.00	3.87	O
ATOM	3976	N	LYS	B	486	-32.242	25.032	27.518	1.00	5.04	N
ATOM	3977	CA	LYS	B	486	-33.598	25.464	27.767	1.00	7.07	C
ATOM	3978	CB	LYS	B	486	-33.789	26.936	27.413	1.00	7.67	C
ATOM	3979	CG	LYS	B	486	-35.125	27.525	27.855	1.00	7.84	C
ATOM	3980	CD	LYS	B	486	-35.005	28.159	29.203	1.00	9.72	C
ATOM	3981	CE	LYS	B	486	-36.307	28.759	29.669	1.00	9.00	C
ATOM	3982	NZ	LYS	B	486	-36.119	29.169	31.101	1.00	13.56	N
ATOM	3983	C	LYS	B	486	-34.456	24.573	26.891	1.00	7.87	C
ATOM	3984	O	LYS	B	486	-34.154	24.355	25.715	1.00	8.22	O
ATOM	3985	N	GLU	B	487	-35.529	24.072	27.482	1.00	8.72	N
ATOM	3986	CA	GLU	B	487	-36.244	22.928	26.972	1.00	10.74	C
ATOM	3987	CB	GLU	B	487	-36.798	22.144	28.146	1.00	13.69	C
ATOM	3988	CG	GLU	B	487	-36.397	20.702	28.142	1.00	16.62	C
ATOM	3989	CD	GLU	B	487	-36.817	19.999	29.416	1.00	16.78	C
ATOM	3990	OE1	GLU	B	487	-37.268	20.657	30.382	1.00	17.81	O
ATOM	3991	OE2	GLU	B	487	-36.697	18.769	29.443	1.00	17.97	O
ATOM	3992	C	GLU	B	487	-37.370	23.164	25.971	1.00	11.08	C
ATOM	3993	O	GLU	B	487	-37.384	22.539	24.914	1.00	13.74	O
ATOM	3994	N	HIS	B	488	-38.326	24.021	26.270	1.00	9.08	N
ATOM	3995	CA	HIS	B	488	-39.587	23.934	25.501	1.00	8.63	C
ATOM	3996	CB	HIS	B	488	-40.791	23.908	26.431	1.00	8.24	C
ATOM	3997	CG	HIS	B	488	-40.850	22.690	27.294	1.00	9.31	C

- 110 -

ATOM	3998	ND1	HIS	B	488	-41.144	22.742	28.639	1.00	10.22	N
ATOM	3999	CE1	HIS	B	488	-41.115	21.519	29.140	1.00	11.15	C
ATOM	4000	NE2	HIS	B	488	-40.798	20.678	28.171	1.00	10.45	N
ATOM	4001	CD2	HIS	B	488	-40.630	21.385	27.007	1.00	9.75	C
ATOM	4002	C	HIS	B	488	-39.699	25.037	24.461	1.00	8.94	C
ATOM	4003	O	HIS	B	488	-40.751	25.651	24.286	1.00	6.94	O
ATOM	4004	N	MET	B	489	-38.583	25.249	23.765	1.00	7.49	N
ATOM	4005	CA	MET	B	489	-38.410	26.385	22.877	1.00	8.14	C
ATOM	4006	CB	MET	B	489	-36.950	26.854	22.931	1.00	8.88	C
ATOM	4007	CG	MET	B	489	-36.509	27.202	24.357	1.00	9.23	C
ATOM	4008	SD	MET	B	489	-37.243	28.733	24.973	1.00	11.91	S
ATOM	4009	CE	MET	B	489	-37.981	28.175	26.502	1.00	12.39	C
ATOM	4010	C	MET	B	489	-38.847	26.050	21.462	1.00	7.61	O
ATOM	4011	O	MET	B	489	-38.029	25.787	20.574	1.00	6.88	O
ATOM	4012	N	MET	B	490	-40.154	26.062	21.271	1.00	7.35	N
ATOM	4013	CA	MET	B	490	-40.766	25.763	19.987	1.00	8.51	C
ATOM	4014	CB	MET	B	490	-42.121	25.049	20.159	1.00	8.56	C
ATOM	4015	CG	MET	B	490	-42.182	23.980	21.245	1.00	8.99	C
ATOM	4016	SD	MET	B	490	-41.046	22.580	21.118	1.00	9.49	S
ATOM	4017	CE	MET	B	490	-41.140	22.094	19.409	1.00	11.57	C
ATOM	4018	C	MET	B	490	-40.970	27.052	19.231	1.00	8.72	C
ATOM	4019	O	MET	B	490	-40.570	28.129	19.685	1.00	9.02	O
ATOM	4020	N	ASP	B	491	-41.608	26.945	18.075	1.00	9.08	N
ATOM	4021	CA	ASP	B	491	-41.699	28.079	17.173	1.00	10.28	C
ATOM	4022	CB	ASP	B	491	-42.442	27.674	15.901	1.00	13.21	C
ATOM	4023	CG	ASP	B	491	-41.721	26.533	15.150	1.00	16.66	C
ATOM	4024	OD1	ASP	B	491	-40.463	26.437	15.251	1.00	15.38	O
ATOM	4025	OD2	ASP	B	491	-42.410	25.727	14.471	1.00	16.67	O
ATOM	4026	C	ASP	B	491	-42.289	29.312	17.860	1.00	9.25	C
ATOM	4027	O	ASP	B	491	-43.422	29.276	18.364	1.00	8.30	O
ATOM	4028	N	GLY	B	492	-41.473	30.371	17.918	1.00	6.82	N
ATOM	4029	CA	GLY	B	492	-41.877	31.672	18.459	1.00	5.38	C
ATOM	4030	C	GLY	B	492	-41.678	31.902	19.949	1.00	4.64	C
ATOM	4031	O	GLY	B	492	-41.851	33.023	20.439	1.00	5.70	O
ATOM	4032	N	VAL	B	493	-41.323	30.845	20.669	1.00	3.48	N
ATOM	4033	CA	VAL	B	493	-41.072	30.905	22.098	1.00	2.00	C
ATOM	4034	CB	VAL	B	493	-41.156	29.499	22.742	1.00	2.00	C
ATOM	4035	CG1	VAL	B	493	-40.885	29.552	24.245	1.00	2.00	C
ATOM	4036	CG2	VAL	B	493	-42.508	28.868	22.449	1.00	2.00	C
ATOM	4037	C	VAL	B	493	-39.671	31.512	22.338	1.00	3.10	C
ATOM	4038	O	VAL	B	493	-38.679	31.137	21.683	1.00	2.00	O
ATOM	4039	N	THR	B	494	-39.629	32.464	23.271	1.00	2.71	N
ATOM	4040	CA	THR	B	494	-38.427	33.219	23.572	1.00	3.43	C
ATOM	4041	CB	THR	B	494	-38.514	34.681	23.066	1.00	4.57	C
ATOM	4042	OG1	THR	B	494	-39.637	35.343	23.672	1.00	5.19	O
ATOM	4043	CG2	THR	B	494	-38.670	34.747	21.544	1.00	3.60	C
ATOM	4044	C	THR	B	494	-38.199	33.191	25.076	1.00	3.80	C
ATOM	4045	O	THR	B	494	-39.127	32.929	25.865	1.00	4.40	O
ATOM	4046	N	THR	B	495	-36.959	33.439	25.469	1.00	2.28	N
ATOM	4047	CA	THR	B	495	-36.618	33.643	26.858	1.00	3.47	C
ATOM	4048	CB	THR	B	495	-35.983	32.362	27.493	1.00	4.22	C
ATOM	4049	OG1	THR	B	495	-35.647	32.622	28.860	1.00	8.14	O
ATOM	4050	CG2	THR	B	495	-34.746	31.902	26.748	1.00	5.79	C
ATOM	4051	C	THR	B	495	-35.745	34.891	27.000	1.00	2.98	C
ATOM	4052	O	THR	B	495	-35.249	35.437	26.001	1.00	2.00	O
ATOM	4053	N	ARG	B	496	-35.578	35.363	28.229	1.00	2.94	N
ATOM	4054	CA	ARG	B	496	-34.707	36.524	28.471	1.00	3.72	C
ATOM	4055	CB	ARG	B	496	-35.526	37.730	28.958	1.00	4.45	C

- 111 -

ATOM	4056	CG	ARG	B	496	-36.334	38.421	27.868	1.00	5.67	C
ATOM	4057	CD	ARG	B	496	-37.064	39.618	28.423	1.00	6.44	C
ATOM	4058	NE	ARG	B	496	-36.249	40.838	28.334	1.00	7.80	N
ATOM	4059	CZ	ARG	B	496	-36.467	41.941	29.048	1.00	7.65	C
ATOM	4060	NH1	ARG	B	496	-37.470	41.983	29.928	1.00	8.66	N
ATOM	4061	NH2	ARG	B	496	-35.683	43.005	28.895	1.00	6.76	N
ATOM	4062	C	ARG	B	496	-33.562	36.239	29.453	1.00	2.35	C
ATOM	4063	O	ARG	B	496	-32.848	37.156	29.864	1.00	2.07	O
ATOM	4064	N	GLU	B	497	-33.388	34.981	29.825	1.00	2.70	N
ATOM	4065	CA	GLU	B	497	-32.381	34.617	30.827	1.00	6.48	C
ATOM	4066	CB	GLU	B	497	-32.617	33.188	31.346	1.00	7.73	C
ATOM	4067	CG	GLU	B	497	-31.418	32.586	32.098	1.00	12.94	C
ATOM	4068	CD	GLU	B	497	-31.784	31.432	33.032	1.00	11.85	C
ATOM	4069	OE1	GLU	B	497	-32.950	31.360	33.491	1.00	15.87	O
ATOM	4070	OE2	GLU	B	497	-30.882	30.605	33.327	1.00	16.29	O
ATOM	4071	C	GLU	B	497	-30.940	34.823	30.330	1.00	6.03	C
ATOM	4072	O	GLU	B	497	-30.521	34.233	29.323	1.00	6.74	O
ATOM	4073	N	PHE	B	498	-30.209	35.683	31.043	1.00	6.65	N
ATOM	4074	CA	PHE	B	498	-28.767	35.918	30.811	1.00	6.20	C
ATOM	4075	CB	PHE	B	498	-28.299	37.145	31.607	1.00	7.01	C
ATOM	4076	CG	PHE	B	498	-26.858	37.505	31.380	1.00	6.47	C
ATOM	4077	CD1	PHE	B	498	-26.503	38.442	30.415	1.00	6.74	C
ATOM	4078	CE1	PHE	B	498	-25.153	38.759	30.190	1.00	6.54	C
ATOM	4079	CZ	PHE	B	498	-24.158	38.140	30.948	1.00	7.10	C
ATOM	4080	CE2	PHE	B	498	-24.506	37.202	31.919	1.00	7.39	C
ATOM	4081	CD2	PHE	B	498	-25.847	36.890	32.124	1.00	7.88	C
ATOM	4082	C	PHE	B	498	-27.955	34.716	31.237	1.00	5.60	C
ATOM	4083	O	PHE	B	498	-28.069	34.253	32.370	1.00	4.13	O
ATOM	4084	N	CYS	B	499	-27.115	34.223	30.332	1.00	6.20	N
ATOM	4085	CA	CYS	B	499	-26.280	33.069	30.625	1.00	8.06	C
ATOM	4086	CB	CYS	B	499	-27.140	31.856	30.985	1.00	8.89	C
ATOM	4087	SG	CYS	B	499	-28.070	31.234	29.616	1.00	10.71	S
ATOM	4088	C	CYS	B	499	-25.352	32.738	29.464	1.00	7.69	C
ATOM	4089	O	CYS	B	499	-25.490	33.277	28.372	1.00	9.61	O
ATOM	4090	N	GLY	B	500	-24.417	31.844	29.718	1.00	8.13	N
ATOM	4091	CA	GLY	B	500	-23.411	31.452	28.717	1.00	7.54	C
ATOM	4092	C	GLY	B	500	-22.036	31.969	29.068	1.00	6.70	C
ATOM	4093	O	GLY	B	500	-21.876	32.731	30.027	1.00	7.77	O
ATOM	4094	N	THR	B	501	-21.039	31.553	28.291	1.00	7.11	N
ATOM	4095	CA	THR	B	501	-19.660	32.023	28.469	1.00	7.62	C
ATOM	4096	CB	THR	B	501	-18.656	30.961	27.987	1.00	8.64	C
ATOM	4097	OG1	THR	B	501	-19.016	29.709	28.568	1.00	13.63	O
ATOM	4098	CG2	THR	B	501	-17.221	31.294	28.394	1.00	10.69	C
ATOM	4099	C	THR	B	501	-19.447	33.318	27.688	1.00	6.38	C
ATOM	4100	O	THR	B	501	-19.653	33.352	26.475	1.00	7.30	O
ATOM	4101	N	PRO	B	502	-18.992	34.374	28.374	1.00	5.76	N
ATOM	4102	CA	PRO	B	502	-18.944	35.730	27.838	1.00	4.76	C
ATOM	4103	CB	PRO	B	502	-18.070	36.464	28.860	1.00	5.15	C
ATOM	4104	CG	PRO	B	502	-18.408	35.789	30.126	1.00	5.91	C
ATOM	4105	CD	PRO	B	502	-18.454	34.333	29.747	1.00	6.10	C
ATOM	4106	C	PRO	B	502	-18.383	35.907	26.431	1.00	2.08	C
ATOM	4107	O	PRO	B	502	-18.909	36.743	25.698	1.00	2.00	O
ATOM	4108	N	ASP	B	503	-17.308	35.193	26.057	1.00	2.10	N
ATOM	4109	CA	ASP	B	503	-16.757	35.350	24.692	1.00	2.00	C
ATOM	4110	CB	ASP	B	503	-15.329	34.796	24.547	1.00	2.00	C
ATOM	4111	CG	ASP	B	503	-14.318	35.713	25.179	1.00	2.00	C
ATOM	4112	OD1	ASP	B	503	-14.128	35.641	26.400	1.00	2.00	O
ATOM	4113	OD2	ASP	B	503	-13.767	36.561	24.457	1.00	2.00	O

- 112 -

ATOM	4114	C	ASP	B	503	-17.669	34.813	23.601	1.00	2.00	C
ATOM	4115	O	ASP	B	503	-17.506	35.157	22.428	1.00	2.00	O
ATOM	4116	N	TYR	B	504	-18.633	33.988	24.016	1.00	2.00	N
ATOM	4117	CA	TYR	B	504	-19.559	33.309	23.123	1.00	2.00	C
ATOM	4118	CB	TYR	B	504	-19.599	31.814	23.449	1.00	2.00	C
ATOM	4119	CG	TYR	B	504	-18.270	31.078	23.267	1.00	2.00	C
ATOM	4120	CD1	TYR	B	504	-17.325	31.031	24.295	1.00	2.00	C
ATOM	4121	CE1	TYR	B	504	-16.110	30.348	24.123	1.00	2.00	C
ATOM	4122	CZ	TYR	B	504	-15.827	29.722	22.915	1.00	2.00	C
ATOM	4123	OH	TYR	B	504	-14.624	29.048	22.740	1.00	2.00	O
ATOM	4124	CE2	TYR	B	504	-16.739	29.751	21.877	1.00	2.00	C
ATOM	4125	CD2	TYR	B	504	-17.962	30.433	22.057	1.00	2.00	C
ATOM	4126	C	TYR	B	504	-20.977	33.870	23.199	1.00	2.00	C
ATOM	4127	O	TYR	B	504	-21.860	33.401	22.462	1.00	2.00	O
ATOM	4128	N	ILE	B	505	-21.177	34.852	24.086	1.00	2.00	N
ATOM	4129	CA	ILE	B	505	-22.505	35.409	24.339	1.00	2.00	C
ATOM	4130	CB	ILE	B	505	-22.559	36.131	25.708	1.00	2.00	C
ATOM	4131	CG1	ILE	B	505	-22.687	35.110	26.848	1.00	3.66	C
ATOM	4132	CD1	ILE	B	505	-22.699	35.763	28.289	1.00	2.89	C
ATOM	4133	CG2	ILE	B	505	-23.716	37.091	25.785	1.00	2.00	C
ATOM	4134	C	ILE	B	505	-22.972	36.306	23.184	1.00	2.00	C
ATOM	4135	O	ILE	B	505	-22.255	37.200	22.757	1.00	2.00	O
ATOM	4136	N	ALA	B	506	-24.193	36.040	22.688	1.00	2.00	N
ATOM	4137	CA	ALA	B	506	-24.787	36.776	21.588	1.00	2.00	C
ATOM	4138	CB	ALA	B	506	-26.007	35.979	21.005	1.00	2.00	C
ATOM	4139	C	ALA	B	506	-25.213	38.177	22.028	1.00	2.00	C
ATOM	4140	O	ALA	B	506	-25.478	38.399	23.193	1.00	2.00	O
ATOM	4141	N	PRO	B	507	-25.244	39.148	21.095	1.00	2.00	N
ATOM	4142	CA	PRO	B	507	-25.818	40.464	21.351	1.00	2.00	C
ATOM	4143	CB	PRO	B	507	-25.860	41.077	19.958	1.00	2.00	C
ATOM	4144	CG	PRO	B	507	-24.614	40.530	19.317	1.00	2.00	C
ATOM	4145	CD	PRO	B	507	-24.661	39.085	19.743	1.00	2.00	C
ATOM	4146	C	PRO	B	507	-27.208	40.486	22.012	1.00	2.00	C
ATOM	4147	O	PRO	B	507	-27.431	41.273	22.933	1.00	2.00	O
ATOM	4148	N	GLU	B	508	-28.113	39.614	21.572	1.00	2.00	N
ATOM	4149	CA	GLU	B	508	-29.475	39.621	22.126	1.00	2.00	C
ATOM	4150	CB	GLU	B	508	-30.433	38.776	21.282	1.00	2.00	C
ATOM	4151	CG	GLU	B	508	-30.029	37.344	21.129	1.00	2.00	C
ATOM	4152	CD	GLU	B	508	-29.126	37.091	19.931	1.00	2.00	C
ATOM	4153	OE1	GLU	B	508	-28.423	38.019	19.465	1.00	2.00	O
ATOM	4154	OE2	GLU	B	508	-29.127	35.950	19.456	1.00	2.00	O
ATOM	4155	C	GLU	B	508	-29.518	39.226	23.591	1.00	2.00	C
ATOM	4156	O	GLU	B	508	-30.374	39.678	24.323	1.00	2.00	O
ATOM	4157	N	ILE	B	509	-28.572	38.411	24.037	1.00	2.00	N
ATOM	4158	CA	ILE	B	509	-28.489	38.096	25.463	1.00	2.00	C
ATOM	4159	CB	ILE	B	509	-27.554	36.898	25.723	1.00	2.00	C
ATOM	4160	CG1	ILE	B	509	-28.149	35.625	25.134	1.00	2.00	C
ATOM	4161	CD1	ILE	B	509	-27.178	34.465	25.040	1.00	2.00	C
ATOM	4162	CG2	ILE	B	509	-27.257	36.760	27.216	1.00	2.00	C
ATOM	4163	C	ILE	B	509	-28.039	39.321	26.253	1.00	2.00	C
ATOM	4164	O	ILE	B	509	-28.577	39.617	27.304	1.00	2.00	O
ATOM	4165	N	ILE	B	510	-27.037	40.033	25.729	1.00	2.00	N
ATOM	4166	CA	ILE	B	510	-26.458	41.194	26.392	1.00	2.00	C
ATOM	4167	CB	ILE	B	510	-25.169	41.706	25.647	1.00	2.00	C
ATOM	4168	CG1	ILE	B	510	-24.031	40.702	25.798	1.00	2.00	C
ATOM	4169	CD1	ILE	B	510	-22.928	40.788	24.669	1.00	2.00	C
ATOM	4170	CG2	ILE	B	510	-24.721	43.062	26.195	1.00	2.00	C
ATOM	4171	C	ILE	B	510	-27.487	42.297	26.478	1.00	2.00	C

- 113 -

ATOM	4172	O	ILE	B	510	-27.581	42.996	27.508	1.00	2.00	O
ATOM	4173	N	ALA	B	511	-28.263	42.443	25.409	1.00	2.00	N
ATOM	4174	CA	ALA	B	511	-29.246	43.516	25.308	1.00	2.00	C
ATOM	4175	CB	ALA	B	511	-29.527	43.836	23.839	1.00	2.00	C
ATOM	4176	C	ALA	B	511	-30.538	43.157	26.035	1.00	2.00	C
ATOM	4177	O	ALA	B	511	-31.438	43.974	26.132	1.00	2.00	O
ATOM	4178	N	TYR	B	512	-30.605	41.939	26.568	1.00	2.00	N
ATOM	4179	CA	TYR	B	512	-31.823	41.355	27.119	1.00	2.00	C
ATOM	4180	CB	TYR	B	512	-32.199	41.992	28.466	1.00	2.92	C
ATOM	4181	CG	TYR	B	512	-31.265	41.649	29.596	1.00	4.31	C
ATOM	4182	CD1	TYR	B	512	-31.530	40.556	30.436	1.00	4.67	C
ATOM	4183	CE1	TYR	B	512	-30.667	40.225	31.486	1.00	3.79	C
ATOM	4184	CZ	TYR	B	512	-29.531	41.000	31.693	1.00	4.20	C
ATOM	4185	OH	TYR	B	512	-28.688	40.674	32.729	1.00	4.86	O
ATOM	4186	CE2	TYR	B	512	-29.246	42.085	30.874	1.00	3.97	C
ATOM	4187	CD2	TYR	B	512	-30.110	42.409	29.831	1.00	4.08	C
ATOM	4188	C	TYR	B	512	-33.036	41.360	26.168	1.00	2.55	C
ATOM	4189	O	TYR	B	512	-34.175	41.513	26.628	1.00	2.00	O
ATOM	4190	N	GLN	B	513	-32.812	41.199	24.861	1.00	2.04	N
ATOM	4191	CA	GLN	B	513	-33.941	40.992	23.956	1.00	4.64	C
ATOM	4192	CB	GLN	B	513	-33.564	41.181	22.489	1.00	5.83	C
ATOM	4193	CG	GLN	B	513	-33.293	42.580	22.037	1.00	9.98	C
ATOM	4194	CD	GLN	B	513	-33.175	42.699	20.502	1.00	10.50	C
ATOM	4195	OE1	GLN	B	513	-33.212	41.692	19.755	1.00	12.36	O
ATOM	4196	NE2	GLN	B	513	-33.034	43.941	20.028	1.00	13.20	N
ATOM	4197	C	GLN	B	513	-34.355	39.546	24.155	1.00	3.44	C
ATOM	4198	O	GLN	B	513	-33.492	38.690	24.409	1.00	5.14	O
ATOM	4199	N	PRO	B	514	-35.668	39.260	24.060	1.00	3.58	N
ATOM	4200	CA	PRO	B	514	-36.084	37.861	24.064	1.00	2.04	C
ATOM	4201	CB	PRO	B	514	-37.586	37.949	23.806	1.00	2.00	C
ATOM	4202	CG	PRO	B	514	-37.959	39.310	24.324	1.00	3.69	C
ATOM	4203	CD	PRO	B	514	-36.818	40.177	23.934	1.00	2.00	C
ATOM	4204	C	PRO	B	514	-35.396	37.094	22.944	1.00	2.00	C
ATOM	4205	O	PRO	B	514	-35.298	37.590	21.817	1.00	2.00	O
ATOM	4206	N	TYR	B	515	-34.926	35.895	23.247	1.00	2.00	N
ATOM	4207	CA	TYR	B	515	-34.188	35.128	22.265	1.00	2.00	C
ATOM	4208	CB	TYR	B	515	-32.664	35.182	22.563	1.00	2.00	C
ATOM	4209	CG	TYR	B	515	-32.250	34.542	23.869	1.00	2.00	C
ATOM	4210	CD1	TYR	B	515	-31.959	33.172	23.938	1.00	2.00	C
ATOM	4211	CE1	TYR	B	515	-31.588	32.586	25.126	1.00	2.00	C
ATOM	4212	CZ	TYR	B	515	-31.492	33.355	26.262	1.00	2.00	C
ATOM	4213	OH	TYR	B	515	-31.103	32.772	27.447	1.00	2.00	O
ATOM	4214	CE2	TYR	B	515	-31.764	34.716	26.223	1.00	2.00	C
ATOM	4215	CD2	TYR	B	515	-32.138	35.299	25.030	1.00	2.00	C
ATOM	4216	C	TYR	B	515	-34.681	33.689	22.180	1.00	2.00	C
ATOM	4217	O	TYR	B	515	-35.381	33.217	23.072	1.00	2.00	O
ATOM	4218	N	GLY	B	516	-34.309	33.006	21.096	1.00	2.00	N
ATOM	4219	CA	GLY	B	516	-34.496	31.555	20.936	1.00	2.00	C
ATOM	4220	C	GLY	B	516	-33.170	30.880	20.565	1.00	2.00	C
ATOM	4221	O	GLY	B	516	-32.118	31.200	21.150	1.00	2.00	O
ATOM	4222	N	LYS	B	517	-33.218	29.969	19.587	1.00	2.00	N
ATOM	4223	CA	LYS	B	517	-32.070	29.167	19.166	1.00	2.00	C
ATOM	4224	CB	LYS	B	517	-32.509	28.061	18.195	1.00	2.00	C
ATOM	4225	CG	LYS	B	517	-32.778	28.560	16.777	1.00	3.31	C
ATOM	4226	CD	LYS	B	517	-33.398	27.506	15.913	1.00	5.84	C
ATOM	4227	CE	LYS	B	517	-33.368	27.903	14.456	1.00	7.70	C
ATOM	4228	NZ	LYS	B	517	-34.347	27.065	13.652	1.00	11.71	N
ATOM	4229	C	LYS	B	517	-30.946	29.995	18.528	1.00	2.00	C

- 114 -

ATOM	4230	O	LYS	B	517	-29.851	29.475	18.341	1.00	2.00	O
ATOM	4231	N	SER	B	518	-31.235	31.262	18.203	1.00	2.00	N
ATOM	4232	CA	SER	B	518	-30.284	32.191	17.597	1.00	2.00	C
ATOM	4233	CB	SER	B	518	-30.855	33.608	17.585	1.00	2.00	C
ATOM	4234	OG	SER	B	518	-30.932	34.163	18.901	1.00	2.00	O
ATOM	4235	C	SER	B	518	-28.947	32.234	18.328	1.00	2.00	C
ATOM	4236	O	SER	B	518	-27.912	32.399	17.702	1.00	2.00	O
ATOM	4237	N	VAL	B	519	-28.988	32.112	19.652	1.00	2.00	N
ATOM	4238	CA	VAL	B	519	-27.814	32.331	20.487	1.00	2.00	C
ATOM	4239	CB	VAL	B	519	-28.168	32.544	21.980	1.00	2.00	C
ATOM	4240	CG1	VAL	B	519	-29.003	33.810	22.138	1.00	2.00	C
ATOM	4241	CG2	VAL	B	519	-28.875	31.319	22.599	1.00	2.00	C
ATOM	4242	C	VAL	B	519	-26.804	31.206	20.287	1.00	2.00	C
ATOM	4243	O	VAL	B	519	-25.595	31.426	20.388	1.00	2.00	O
ATOM	4244	N	ASP	B	520	-27.323	30.014	19.978	1.00	2.00	N
ATOM	4245	CA	ASP	B	520	-26.504	28.845	19.665	1.00	2.00	C
ATOM	4246	CB	ASP	B	520	-27.343	27.571	19.577	1.00	2.00	C
ATOM	4247	CG	ASP	B	520	-27.748	27.028	20.946	1.00	2.00	C
ATOM	4248	OD1	ASP	B	520	-27.241	27.482	21.993	1.00	2.00	O
ATOM	4249	OD2	ASP	B	520	-28.586	26.104	20.967	1.00	2.00	O
ATOM	4250	C	ASP	B	520	-25.731	29.034	18.373	1.00	2.00	C
ATOM	4251	O	ASP	B	520	-24.603	28.571	18.259	1.00	2.00	O
ATOM	4252	N	TRP	B	521	-26.354	29.704	17.409	1.00	2.00	N
ATOM	4253	CA	TRP	B	521	-25.731	29.925	16.110	1.00	2.00	C
ATOM	4254	CB	TRP	B	521	-26.783	30.210	15.024	1.00	2.00	C
ATOM	4255	CG	TRP	B	521	-27.547	28.969	14.729	1.00	2.00	C
ATOM	4256	CD1	TRP	B	521	-28.889	28.772	14.879	1.00	2.00	C
ATOM	4257	NE1	TRP	B	521	-29.223	27.483	14.524	1.00	2.00	N
ATOM	4258	CE2	TRP	B	521	-28.080	26.818	14.146	1.00	2.00	C
ATOM	4259	CD2	TRP	B	521	-27.000	27.728	14.267	1.00	2.00	C
ATOM	4260	CE3	TRP	B	521	-25.689	27.293	13.935	1.00	2.00	C
ATOM	4261	CZ3	TRP	B	521	-25.512	25.974	13.502	1.00	2.00	C
ATOM	4262	CH2	TRP	B	521	-26.619	25.084	13.388	1.00	2.00	C
ATOM	4263	CZ2	TRP	B	521	-27.905	25.490	13.699	1.00	2.00	C
ATOM	4264	C	TRP	B	521	-24.639	30.978	16.179	1.00	2.00	C
ATOM	4265	O	TRP	B	521	-23.638	30.874	15.486	1.00	2.00	O
ATOM	4266	N	TRP	B	522	-24.840	31.974	17.035	1.00	2.00	N
ATOM	4267	CA	TRP	B	522	-23.825	32.965	17.344	1.00	2.00	C
ATOM	4268	CB	TRP	B	522	-24.381	34.066	18.250	1.00	2.00	C
ATOM	4269	CG	TRP	B	522	-23.298	35.061	18.705	1.00	2.00	C
ATOM	4270	CD1	TRP	B	522	-22.458	34.918	19.758	1.00	2.00	C
ATOM	4271	NE1	TRP	B	522	-21.615	36.008	19.855	1.00	2.00	N
ATOM	4272	CE2	TRP	B	522	-21.924	36.890	18.861	1.00	2.00	C
ATOM	4273	CD2	TRP	B	522	-22.975	36.328	18.109	1.00	2.00	C
ATOM	4274	CE3	TRP	B	522	-23.482	37.049	17.019	1.00	2.00	C
ATOM	4275	CZ3	TRP	B	522	-22.935	38.281	16.723	1.00	2.00	C
ATOM	4276	CH2	TRP	B	522	-21.887	38.807	17.488	1.00	2.00	C
ATOM	4277	CZ2	TRP	B	522	-21.371	38.128	18.559	1.00	2.00	C
ATOM	4278	C	TRP	B	522	-22.600	32.298	17.982	1.00	2.00	C
ATOM	4279	O	TRP	B	522	-21.498	32.472	17.490	1.00	2.00	O
ATOM	4280	N	ALA	B	523	-22.819	31.531	19.053	1.00	2.00	N
ATOM	4281	CA	ALA	B	523	-21.759	30.786	19.749	1.00	2.00	C
ATOM	4282	CB	ALA	B	523	-22.320	30.024	20.891	1.00	2.00	C
ATOM	4283	C	ALA	B	523	-20.983	29.843	18.826	1.00	2.00	C
ATOM	4284	O	ALA	B	523	-19.786	29.661	18.999	1.00	2.00	O
ATOM	4285	N	TYR	B	524	-21.699	29.243	17.871	1.00	2.00	N
ATOM	4286	CA	TYR	B	524	-21.156	28.377	16.830	1.00	2.00	C
ATOM	4287	CB	TYR	B	524	-22.323	27.764	16.041	1.00	2.00	C

- 115 -

ATOM	4288	CG	TYR	B	524	-22.004	26.812	14.909	1.00	2.00	C
ATOM	4289	CD1	TYR	B	524	-21.682	25.480	15.154	1.00	2.00	C
ATOM	4290	CE1	TYR	B	524	-21.410	24.606	14.111	1.00	2.00	C
ATOM	4291	CZ	TYR	B	524	-21.480	25.066	12.810	1.00	2.00	C
ATOM	4292	OH	TYR	B	524	-21.230	24.225	11.771	1.00	2.00	O
ATOM	4293	CE2	TYR	B	524	-21.800	26.375	12.537	1.00	2.00	C
ATOM	4294	CD2	TYR	B	524	-22.066	27.239	13.587	1.00	2.00	C
ATOM	4295	C	TYR	B	524	-20.224	29.158	15.914	1.00	2.00	C
ATOM	4296	O	TYR	B	524	-19.161	28.666	15.575	1.00	2.00	O
ATOM	4297	N	GLY	B	525	-20.635	30.366	15.532	1.00	2.00	N
ATOM	4298	CA	GLY	B	525	-19.804	31.293	14.777	1.00	2.00	C
ATOM	4299	C	GLY	B	525	-18.526	31.679	15.496	1.00	2.00	C
ATOM	4300	O	GLY	B	525	-17.478	31.701	14.891	1.00	2.00	O
ATOM	4301	N	VAL	B	526	-18.618	31.971	16.790	1.00	2.00	N
ATOM	4302	CA	VAL	B	526	-17.433	32.300	17.587	1.00	2.00	C
ATOM	4303	CB	VAL	B	526	-17.808	32.732	19.013	1.00	2.00	C
ATOM	4304	CG1	VAL	B	526	-16.576	32.962	19.877	1.00	2.00	C
ATOM	4305	CG2	VAL	B	526	-18.601	34.016	18.961	1.00	2.00	C
ATOM	4306	C	VAL	B	526	-16.440	31.126	17.567	1.00	2.00	C
ATOM	4307	O	VAL	B	526	-15.304	31.315	17.209	1.00	2.00	O
ATOM	4308	N	LEU	B	527	-16.920	29.932	17.928	1.00	2.00	N
ATOM	4309	CA	LEU	B	527	-16.150	28.699	17.961	1.00	2.00	C
ATOM	4310	CB	LEU	B	527	-17.065	27.547	18.390	1.00	2.00	C
ATOM	4311	CG	LEU	B	527	-16.443	26.211	18.801	1.00	2.00	C
ATOM	4312	CD1	LEU	B	527	-17.291	25.486	19.783	1.00	2.00	C
ATOM	4313	CD2	LEU	B	527	-16.142	25.333	17.612	1.00	2.00	C
ATOM	4314	C	LEU	B	527	-15.524	28.388	16.610	1.00	2.00	C
ATOM	4315	O	LEU	B	527	-14.347	28.056	16.528	1.00	2.00	O
ATOM	4316	N	LEU	B	528	-16.328	28.498	15.556	1.00	2.00	N
ATOM	4317	CA	LEU	B	528	-15.853	28.340	14.200	1.00	2.00	C
ATOM	4318	CB	LEU	B	528	-16.995	28.533	13.209	1.00	2.00	C
ATOM	4319	CG	LEU	B	528	-17.139	27.599	12.017	1.00	2.25	C
ATOM	4320	CD1	LEU	B	528	-18.167	28.165	11.060	1.00	2.08	C
ATOM	4321	CD2	LEU	B	528	-15.788	27.360	11.287	1.00	3.29	C
ATOM	4322	C	LEU	B	528	-14.726	29.336	13.893	1.00	2.00	C
ATOM	4323	O	LEU	B	528	-13.700	28.949	13.331	1.00	2.00	O
ATOM	4324	N	TYR	B	529	-14.920	30.590	14.278	1.00	2.00	N
ATOM	4325	CA	TYR	B	529	-13.899	31.626	14.109	1.00	2.00	C
ATOM	4326	CB	TYR	B	529	-14.435	33.000	14.539	1.00	2.00	C
ATOM	4327	CG	TYR	B	529	-13.459	34.124	14.328	1.00	2.00	C
ATOM	4328	CD1	TYR	B	529	-12.453	34.375	15.269	1.00	2.00	C
ATOM	4329	CE1	TYR	B	529	-11.545	35.390	15.089	1.00	2.00	C
ATOM	4330	CZ	TYR	B	529	-11.624	36.166	13.965	1.00	2.00	C
ATOM	4331	OH	TYR	B	529	-10.710	37.178	13.820	1.00	2.00	O
ATOM	4332	CE2	TYR	B	529	-12.613	35.938	13.005	1.00	2.00	C
ATOM	4333	CD2	TYR	B	529	-13.518	34.918	13.194	1.00	2.00	C
ATOM	4334	C	TYR	B	529	-12.618	31.262	14.869	1.00	2.00	C
ATOM	4335	O	TYR	B	529	-11.512	31.402	14.330	1.00	2.00	O
ATOM	4336	N	GLU	B	530	-12.775	30.776	16.105	1.00	2.00	N
ATOM	4337	CA	GLU	B	530	-11.625	30.312	16.878	1.00	2.00	C
ATOM	4338	CB	GLU	B	530	-12.024	29.945	18.297	1.00	2.00	C
ATOM	4339	CG	GLU	B	530	-12.403	31.134	19.152	1.00	2.00	C
ATOM	4340	CD	GLU	B	530	-12.909	30.677	20.479	1.00	2.00	C
ATOM	4341	OE1	GLU	B	530	-13.734	29.757	20.491	1.00	2.00	O
ATOM	4342	OE2	GLU	B	530	-12.483	31.200	21.518	1.00	2.00	O
ATOM	4343	C	GLU	B	530	-10.877	29.157	16.213	1.00	2.00	C
ATOM	4344	O	GLU	B	530	-9.664	29.130	16.246	1.00	2.00	O
ATOM	4345	N	MET	B	531	-11.600	28.211	15.608	1.00	2.00	N

- 116 -

ATOM	4346	CA	MET	B	531	-10.968	27.094	14.898	1.00	2.00	C
ATOM	4347	CB	MET	B	531	-12.005	26.063	14.447	1.00	2.00	C
ATOM	4348	CG	MET	B	531	-12.534	25.158	15.552	1.00	2.00	C
ATOM	4349	SD	MET	B	531	-13.430	23.718	14.910	1.00	2.00	S
ATOM	4350	CE	MET	B	531	-14.908	24.485	14.231	1.00	2.00	C
ATOM	4351	C	MET	B	531	-10.180	27.568	13.680	1.00	2.00	C
ATOM	4352	O	MET	B	531	-9.096	27.062	13.411	1.00	2.00	O
ATOM	4353	N	LEU	B	532	-10.749	28.527	12.954	1.00	2.00	N
ATOM	4354	CA	LEU	B	532	-10.188	29.021	11.704	1.00	2.00	C
ATOM	4355	CB	LEU	B	532	-11.275	29.650	10.834	1.00	2.00	C
ATOM	4356	CG	LEU	B	532	-12.372	28.749	10.284	1.00	2.00	C
ATOM	4357	CD1	LEU	B	532	-13.510	29.636	9.782	1.00	2.00	C
ATOM	4358	CD2	LEU	B	532	-11.837	27.853	9.178	1.00	2.00	C
ATOM	4359	C	LEU	B	532	-9.073	30.037	11.885	1.00	2.00	C
ATOM	4360	O	LEU	B	532	-8.171	30.091	11.054	1.00	2.00	O
ATOM	4361	N	ALA	B	533	-9.146	30.831	12.947	1.00	2.00	N
ATOM	4362	CA	ALA	B	533	-8.227	31.965	13.139	1.00	2.00	C
ATOM	4363	CB	ALA	B	533	-9.020	33.278	13.277	1.00	2.00	C
ATOM	4364	C	ALA	B	533	-7.280	31.781	14.328	1.00	2.00	C
ATOM	4365	O	ALA	B	533	-6.297	32.503	14.453	1.00	2.00	O
ATOM	4366	N	GLY	B	534	-7.586	30.825	15.209	1.00	2.00	N
ATOM	4367	CA	GLY	B	534	-6.778	30.593	16.410	1.00	2.00	C
ATOM	4368	C	GLY	B	534	-6.886	31.673	17.474	1.00	2.00	C
ATOM	4369	O	GLY	B	534	-6.141	31.642	18.444	1.00	2.00	O
ATOM	4370	N	GLN	B	535	-7.826	32.616	17.295	1.00	2.00	N
ATOM	4371	CA	GLN	B	535	-8.035	33.768	18.199	1.00	2.00	C
ATOM	4372	CB	GLN	B	535	-7.446	35.067	17.601	1.00	2.00	C
ATOM	4373	CG	GLN	B	535	-5.963	35.019	17.190	1.00	6.45	C
ATOM	4374	CD	GLN	B	535	-5.021	34.869	18.377	1.00	6.32	C
ATOM	4375	OE1	GLN	B	535	-5.408	35.108	19.522	1.00	9.90	O
ATOM	4376	NE2	GLN	B	535	-3.776	34.477	18.109	1.00	8.33	N
ATOM	4377	C	GLN	B	535	-9.541	33.980	18.368	1.00	2.00	C
ATOM	4378	O	GLN	B	535	-10.309	33.625	17.464	1.00	2.00	O
ATOM	4379	N	PRO	B	536	-9.973	34.559	19.511	1.00	2.00	N
ATOM	4380	CA	PRO	B	536	-11.391	35.000	19.647	1.00	2.00	C
ATOM	4381	CB	PRO	B	536	-11.502	35.376	21.124	1.00	2.00	C
ATOM	4382	CG	PRO	B	536	-10.094	35.732	21.535	1.00	2.00	C
ATOM	4383	CD	PRO	B	536	-9.198	34.812	20.742	1.00	2.00	C
ATOM	4384	C	PRO	B	536	-11.766	36.212	18.773	1.00	2.00	C
ATOM	4385	O	PRO	B	536	-10.970	37.114	18.607	1.00	2.00	O
ATOM	4386	N	PRO	B	537	-13.002	36.243	18.231	1.00	2.00	N
ATOM	4387	CA	PRO	B	537	-13.383	37.378	17.386	1.00	2.00	C
ATOM	4388	CB	PRO	B	537	-14.725	36.928	16.795	1.00	2.00	C
ATOM	4389	CG	PRO	B	537	-15.267	35.974	17.805	1.00	2.00	C
ATOM	4390	CD	PRO	B	537	-14.092	35.251	18.343	1.00	2.00	C
ATOM	4391	C	PRO	B	537	-13.537	38.698	18.139	1.00	2.00	C
ATOM	4392	O	PRO	B	537	-13.464	39.742	17.527	1.00	2.00	O
ATOM	4393	N	PHE	B	538	-13.743	38.638	19.453	1.00	2.00	N
ATOM	4394	CA	PHE	B	538	-14.089	39.798	20.274	1.00	2.00	C
ATOM	4395	CB	PHE	B	538	-15.591	39.722	20.704	1.00	2.00	C
ATOM	4396	CG	PHE	B	538	-16.541	39.767	19.539	1.00	2.00	C
ATOM	4397	CD1	PHE	B	538	-16.742	40.943	18.844	1.00	2.00	C
ATOM	4398	CE1	PHE	B	538	-17.580	40.980	17.750	1.00	2.00	C
ATOM	4399	CZ	PHE	B	538	-18.245	39.820	17.336	1.00	2.00	C
ATOM	4400	CE2	PHE	B	538	-18.039	38.640	18.022	1.00	2.00	C
ATOM	4401	CD2	PHE	B	538	-17.196	38.624	19.116	1.00	2.00	C
ATOM	4402	C	PHE	B	538	-13.138	39.828	21.458	1.00	3.00	C
ATOM	4403	O	PHE	B	538	-12.733	38.776	21.952	1.00	4.15	O

- 117 -

ATOM	4404	N	ASP	B	539	-12.737	41.020	21.896	1.00	5.30	N
ATOM	4405	CA	ASP	B	539	-11.905	41.138	23.093	1.00	5.90	C
ATOM	4406	CB	ASP	B	539	-10.391	41.179	22.777	1.00	9.35	C
ATOM	4407	CG	ASP	B	539	-10.083	41.743	21.391	1.00	11.27	C
ATOM	4408	OD1	ASP	B	539	-10.400	42.931	21.126	1.00	12.22	O
ATOM	4409	OD2	ASP	B	539	-9.518	40.988	20.566	1.00	12.09	O
ATOM	4410	C	ASP	B	539	-12.311	42.295	23.981	1.00	4.97	C
ATOM	4411	O	ASP	B	539	-13.121	43.142	23.588	1.00	2.00	O
ATOM	4412	N	GLY	B	540	-11.733	42.321	25.183	1.00	3.67	N
ATOM	4413	CA	GLY	B	540	-11.995	43.390	26.144	1.00	2.00	C
ATOM	4414	C	GLY	B	540	-11.085	43.171	27.335	1.00	2.24	C
ATOM	4415	O	GLY	B	540	-10.675	42.039	27.589	1.00	2.00	O
ATOM	4416	N	GLU	B	541	-10.769	44.250	28.051	1.00	4.17	N
ATOM	4417	CA	GLU	B	541	-9.969	44.202	29.285	1.00	6.59	C
ATOM	4418	CB	GLU	B	541	-9.494	45.613	29.684	1.00	10.21	C
ATOM	4419	CG	GLU	B	541	-8.724	46.388	28.578	1.00	15.62	C
ATOM	4420	CD	GLU	B	541	-7.222	46.036	28.432	1.00	18.50	C
ATOM	4421	OE1	GLU	B	541	-6.806	44.871	28.693	1.00	21.15	O
ATOM	4422	OE2	GLU	B	541	-6.443	46.947	28.036	1.00	19.63	O
ATOM	4423	C	GLU	B	541	-10.749	43.554	30.435	1.00	5.35	C
ATOM	4424	O	GLU	B	541	-10.163	42.984	31.368	1.00	3.72	O
ATOM	4425	N	ASP	B	542	-12.072	43.661	30.353	1.00	3.58	N
ATOM	4426	CA	ASP	B	542	-12.986	43.063	31.312	1.00	3.10	C
ATOM	4427	CB	ASP	B	542	-13.230	43.992	32.522	1.00	4.38	C
ATOM	4428	CG	ASP	B	542	-13.840	45.327	32.150	1.00	4.43	C
ATOM	4429	OD1	ASP	B	542	-14.623	45.433	31.169	1.00	6.78	O
ATOM	4430	OD2	ASP	B	542	-13.546	46.296	32.866	1.00	7.08	O
ATOM	4431	C	ASP	B	542	-14.280	42.681	30.601	1.00	2.21	C
ATOM	4432	O	ASP	B	542	-14.375	42.801	29.384	1.00	2.00	O
ATOM	4433	N	GLU	B	543	-15.273	42.216	31.354	1.00	2.27	N
ATOM	4434	CA	GLU	B	543	-16.488	41.699	30.741	1.00	2.32	C
ATOM	4435	CB	GLU	B	543	-17.339	40.950	31.763	1.00	3.50	C
ATOM	4436	CG	GLU	B	543	-18.365	40.091	31.081	1.00	5.59	C
ATOM	4437	CD	GLU	B	543	-19.142	39.243	32.031	1.00	7.06	C
ATOM	4438	OE1	GLU	B	543	-19.049	39.472	33.254	1.00	7.98	O
ATOM	4439	OE2	GLU	B	543	-19.852	38.333	31.550	1.00	8.51	O
ATOM	4440	C	GLU	B	543	-17.314	42.782	30.047	1.00	2.87	C
ATOM	4441	O	GLU	B	543	-17.934	42.533	29.008	1.00	2.56	O
ATOM	4442	N	ASP	B	544	-17.294	43.971	30.640	1.00	2.38	N
ATOM	4443	CA	ASP	B	544	-18.001	45.142	30.169	1.00	4.36	C
ATOM	4444	CB	ASP	B	544	-17.838	46.242	31.214	1.00	8.16	C
ATOM	4445	CG	ASP	B	544	-17.984	45.721	32.661	1.00	12.64	C
ATOM	4446	OD1	ASP	B	544	-17.165	44.856	33.143	1.00	12.00	O
ATOM	4447	OD2	ASP	B	544	-18.934	46.201	33.325	1.00	13.34	O
ATOM	4448	C	ASP	B	544	-17.460	45.623	28.817	1.00	3.98	C
ATOM	4449	O	ASP	B	544	-18.230	45.963	27.910	1.00	2.99	O
ATOM	4450	N	GLU	B	545	-16.135	45.654	28.696	1.00	2.00	N
ATOM	4451	CA	GLU	B	545	-15.464	46.009	27.453	1.00	3.86	C
ATOM	4452	CB	GLU	B	545	-13.961	46.237	27.707	1.00	4.54	C
ATOM	4453	CG	GLU	B	545	-13.181	46.801	26.516	1.00	10.47	C
ATOM	4454	CD	GLU	B	545	-11.766	47.206	26.878	1.00	8.81	C
ATOM	4455	OE1	GLU	B	545	-11.587	47.833	27.952	1.00	13.35	O
ATOM	4456	OE2	GLU	B	545	-10.828	46.913	26.091	1.00	13.38	O
ATOM	4457	C	GLU	B	545	-15.699	44.962	26.359	1.00	2.00	C
ATOM	4458	O	GLU	B	545	-15.869	45.318	25.192	1.00	2.00	O
ATOM	4459	N	LEU	B	546	-15.692	43.691	26.762	1.00	2.00	N
ATOM	4460	CA	LEU	B	546	-15.989	42.568	25.909	1.00	2.00	C
ATOM	4461	CB	LEU	B	546	-15.797	41.254	26.648	1.00	2.00	C

- 118 -

ATOM	4462	CG	LEU	B	546	-16.194	39.959	25.908	1.00	2.00	C
ATOM	4463	CD1	LEU	B	546	-15.412	39.700	24.607	1.00	2.00	C
ATOM	4464	CD2	LEU	B	546	-16.080	38.804	26.808	1.00	2.00	C
ATOM	4465	C	LEU	B	546	-17.422	42.632	25.358	1.00	2.00	C
ATOM	4466	O	LEU	B	546	-17.635	42.352	24.178	1.00	2.00	O
ATOM	4467	N	PHE	B	547	-18.381	42.979	26.217	1.00	2.00	N
ATOM	4468	CA	PHE	B	547	-19.764	43.125	25.785	1.00	2.00	C
ATOM	4469	CB	PHE	B	547	-20.682	43.326	26.983	1.00	2.00	C
ATOM	4470	CG	PHE	B	547	-20.914	42.068	27.792	1.00	2.00	C
ATOM	4471	CD1	PHE	B	547	-20.431	40.836	27.359	1.00	2.00	C
ATOM	4472	CE1	PHE	B	547	-20.638	39.680	28.088	1.00	2.00	C
ATOM	4473	CZ	PHE	B	547	-21.379	39.757	29.283	1.00	2.00	C
ATOM	4474	CE2	PHE	B	547	-21.875	40.977	29.720	1.00	2.00	C
ATOM	4475	CD2	PHE	B	547	-21.650	42.125	28.978	1.00	2.00	C
ATOM	4476	C	PHE	B	547	-19.901	44.258	24.785	1.00	2.00	C
ATOM	4477	O	PHE	B	547	-20.553	44.091	23.770	1.00	2.00	O
ATOM	4478	N	GLN	B	548	-19.279	45.401	25.063	1.00	2.00	N
ATOM	4479	CA	GLN	B	548	-19.226	46.504	24.093	1.00	2.00	C
ATOM	4480	CB	GLN	B	548	-18.458	47.702	24.641	1.00	2.00	C
ATOM	4481	CG	GLN	B	548	-18.588	48.920	23.771	1.00	3.42	C
ATOM	4482	CD	GLN	B	548	-17.758	50.093	24.253	1.00	5.19	C
ATOM	4483	OE1	GLN	B	548	-16.624	49.932	24.745	1.00	4.88	O
ATOM	4484	NE2	GLN	B	548	-18.315	51.289	24.109	1.00	4.64	N
ATOM	4485	C	GLN	B	548	-18.662	46.068	22.735	1.00	2.00	C
ATOM	4486	O	GLN	B	548	-19.243	46.371	21.679	1.00	2.00	O
ATOM	4487	N	SER	B	549	-17.567	45.319	22.766	1.00	2.00	N
ATOM	4488	CA	SER	B	549	-17.003	44.741	21.576	1.00	2.00	C
ATOM	4489	CB	SER	B	549	-15.771	43.898	21.925	1.00	2.00	C
ATOM	4490	OG	SER	B	549	-15.163	43.442	20.742	1.00	2.00	O
ATOM	4491	C	SER	B	549	-18.025	43.871	20.867	1.00	2.00	C
ATOM	4492	O	SER	B	549	-18.272	44.020	19.671	1.00	2.00	O
ATOM	4493	N	ILE	B	550	-18.635	42.963	21.617	1.00	2.00	N
ATOM	4494	CA	ILE	B	550	-19.649	42.076	21.039	1.00	2.00	C
ATOM	4495	CB	ILE	B	550	-20.112	41.000	22.058	1.00	2.00	C
ATOM	4496	CG1	ILE	B	550	-18.964	39.985	22.281	1.00	2.00	C
ATOM	4497	CD1	ILE	B	550	-19.075	39.122	23.546	1.00	2.00	C
ATOM	4498	CG2	ILE	B	550	-21.404	40.267	21.543	1.00	2.00	C
ATOM	4499	C	ILE	B	550	-20.796	42.889	20.393	1.00	2.00	C
ATOM	4500	O	ILE	B	550	-21.234	42.586	19.293	1.00	2.00	O
ATOM	4501	N	MET	B	551	-21.239	43.939	21.069	1.00	2.00	N
ATOM	4502	CA	MET	B	551	-22.299	44.837	20.551	1.00	2.00	C
ATOM	4503	CB	MET	B	551	-22.830	45.751	21.662	1.00	2.00	C
ATOM	4504	CG	MET	B	551	-23.436	45.065	22.867	1.00	2.00	C
ATOM	4505	SD	MET	B	551	-24.799	43.883	22.554	1.00	2.90	S
ATOM	4506	CE	MET	B	551	-26.043	44.952	21.935	1.00	2.00	C
ATOM	4507	C	MET	B	551	-21.902	45.738	19.372	1.00	2.00	C
ATOM	4508	O	MET	B	551	-22.766	46.136	18.593	1.00	2.00	O
ATOM	4509	N	GLU	B	552	-20.614	46.085	19.247	1.00	2.00	N
ATOM	4510	CA	GLU	B	552	-20.196	47.185	18.360	1.00	2.00	C
ATOM	4511	CB	GLU	B	552	-19.764	48.399	19.196	1.00	2.00	C
ATOM	4512	CG	GLU	B	552	-20.755	48.802	20.279	1.00	2.00	C
ATOM	4513	CD	GLU	B	552	-20.431	50.126	20.947	1.00	2.00	C
ATOM	4514	OE1	GLU	B	552	-19.278	50.619	20.837	1.00	2.00	O
ATOM	4515	OE2	GLU	B	552	-21.344	50.679	21.591	1.00	2.00	O
ATOM	4516	C	GLU	B	552	-19.072	46.839	17.367	1.00	2.00	C
ATOM	4517	O	GLU	B	552	-18.997	47.426	16.293	1.00	2.00	O
ATOM	4518	N	HIS	B	553	-18.211	45.900	17.730	1.00	2.00	N
ATOM	4519	CA	HIS	B	553	-17.026	45.578	16.941	1.00	2.00	C

- 119 -

ATOM	4520	CB	HIS	B	553	-16.063	44.729	17.791	1.00	2.00	C
ATOM	4521	CG	HIS	B	553	-14.712	44.513	17.173	1.00	2.00	C
ATOM	4522	ND1	HIS	B	553	-14.218	43.257	16.894	1.00	2.00	N
ATOM	4523	CE1	HIS	B	553	-13.008	43.365	16.368	1.00	2.00	C
ATOM	4524	NE2	HIS	B	553	-12.701	44.645	16.301	1.00	2.00	N
ATOM	4525	CD2	HIS	B	553	-13.749	45.385	16.801	1.00	2.00	C
ATOM	4526	C	HIS	B	553	-17.359	44.862	15.633	1.00	2.00	C
ATOM	4527	O	HIS	B	553	-18.186	43.947	15.584	1.00	2.00	O
ATOM	4528	N	ASN	B	554	-16.686	45.281	14.573	1.00	2.00	N
ATOM	4529	CA	ASN	B	554	-16.719	44.577	13.315	1.00	2.00	C
ATOM	4530	CB	ASN	B	554	-16.568	45.568	12.150	1.00	2.00	C
ATOM	4531	CG	ASN	B	554	-17.638	46.651	12.155	1.00	2.00	C
ATOM	4532	OD1	ASN	B	554	-17.357	47.817	11.878	1.00	2.00	O
ATOM	4533	ND2	ASN	B	554	-18.851	46.279	12.485	1.00	2.00	N
ATOM	4534	C	ASN	B	554	-15.540	43.607	13.334	1.00	2.00	C
ATOM	4535	O	ASN	B	554	-14.384	44.032	13.345	1.00	2.00	O
ATOM	4536	N	VAL	B	555	-15.841	42.319	13.341	1.00	2.00	N
ATOM	4537	CA	VAL	B	555	-14.834	41.267	13.414	1.00	2.00	C
ATOM	4538	CB	VAL	B	555	-15.486	39.838	13.382	1.00	2.00	C
ATOM	4539	CG1	VAL	B	555	-14.418	38.746	13.317	1.00	2.00	C
ATOM	4540	CG2	VAL	B	555	-16.454	39.607	14.579	1.00	2.00	C
ATOM	4541	C	VAL	B	555	-13.872	41.410	12.229	1.00	2.00	C
ATOM	4542	O	VAL	B	555	-14.289	41.704	11.107	1.00	2.00	O
ATOM	4543	N	SER	B	556	-12.585	41.200	12.491	1.00	2.00	N
ATOM	4544	CA	SER	B	556	-11.578	41.157	11.427	1.00	2.00	C
ATOM	4545	CB	SER	B	556	-10.310	41.912	11.831	1.00	2.07	C
ATOM	4546	OG	SER	B	556	-10.110	41.803	13.221	1.00	4.68	O
ATOM	4547	C	SER	B	556	-11.227	39.728	11.065	1.00	2.00	C
ATOM	4548	O	SER	B	556	-11.148	38.850	11.923	1.00	2.00	O
ATOM	4549	N	TYR	B	557	-11.013	39.509	9.781	1.00	2.00	N
ATOM	4550	CA	TYR	B	557	-10.738	38.192	9.242	1.00	2.00	C
ATOM	4551	CB	TYR	B	557	-11.820	37.816	8.215	1.00	2.00	C
ATOM	4552	CG	TYR	B	557	-13.165	37.767	8.859	1.00	2.00	C
ATOM	4553	CD1	TYR	B	557	-14.015	38.870	8.824	1.00	2.00	C
ATOM	4554	CE1	TYR	B	557	-15.276	38.831	9.451	1.00	2.00	C
ATOM	4555	CZ	TYR	B	557	-15.659	37.675	10.121	1.00	2.00	C
ATOM	4556	OH	TYR	B	557	-16.867	37.609	10.754	1.00	2.00	O
ATOM	4557	CE2	TYR	B	557	-14.822	36.574	10.175	1.00	2.00	C
ATOM	4558	CD2	TYR	B	557	-13.581	36.622	9.546	1.00	2.00	C
ATOM	4559	C	TYR	B	557	-9.378	38.244	8.596	1.00	2.00	C
ATOM	4560	O	TYR	B	557	-9.145	39.114	7.769	1.00	2.00	O
ATOM	4561	N	PRO	B	558	-8.471	37.329	9.008	1.00	3.40	N
ATOM	4562	CA	PRO	B	558	-7.183	37.113	8.370	1.00	5.09	C
ATOM	4563	CB	PRO	B	558	-6.699	35.809	9.002	1.00	4.93	C
ATOM	4564	CG	PRO	B	558	-7.308	35.803	10.351	1.00	2.91	C
ATOM	4565	CD	PRO	B	558	-8.670	36.428	10.161	1.00	3.24	C
ATOM	4566	C	PRO	B	558	-7.366	36.952	6.863	1.00	7.42	C
ATOM	4567	O	PRO	B	558	-8.391	36.415	6.429	1.00	7.88	O
ATOM	4568	N	LYS	B	559	-6.392	37.421	6.075	1.00	8.77	N
ATOM	4569	CA	LYS	B	559	-6.480	37.408	4.612	1.00	10.77	C
ATOM	4570	CB	LYS	B	559	-5.274	38.123	3.988	1.00	11.75	C
ATOM	4571	CG	LYS	B	559	-5.118	39.595	4.351	1.00	13.88	C
ATOM	4572	CD	LYS	B	559	-3.730	40.157	3.935	1.00	13.32	C
ATOM	4573	CE	LYS	B	559	-2.577	39.556	4.761	1.00	14.48	C
ATOM	4574	NZ	LYS	B	559	-1.670	38.630	3.962	1.00	15.93	N
ATOM	4575	C	LYS	B	559	-6.511	35.987	4.068	1.00	11.61	C
ATOM	4576	O	LYS	B	559	-7.009	35.737	2.952	1.00	11.61	O
ATOM	4577	N	SER	B	560	-5.962	35.075	4.870	1.00	11.34	N

- 120 -

ATOM	4578	CA	SER	B	560	-5.769	33.675	4.517	1.00	12.38	C
ATOM	4579	CB	SER	B	560	-4.601	33.108	5.323	1.00	12.96	C
ATOM	4580	OG	SER	B	560	-4.649	33.599	6.655	1.00	15.60	O
ATOM	4581	C	SER	B	560	-7.005	32.813	4.731	1.00	11.94	C
ATOM	4582	O	SER	B	560	-6.989	31.621	4.413	1.00	13.00	O
ATOM	4583	N	LEU	B	561	-8.061	33.413	5.280	1.00	10.83	N
ATOM	4584	CA	LEU	B	561	-9.379	32.809	5.304	1.00	8.57	C
ATOM	4585	CB	LEU	B	561	-10.284	33.546	6.294	1.00	7.67	C
ATOM	4586	CG	LEU	B	561	-10.420	32.961	7.702	1.00	9.72	C
ATOM	4587	CD1	LEU	B	561	-9.074	32.846	8.405	1.00	9.08	C
ATOM	4588	CD2	LEU	B	561	-11.409	33.789	8.553	1.00	8.01	C
ATOM	4589	C	LEU	B	561	-9.972	32.897	3.916	1.00	7.11	C
ATOM	4590	O	LEU	B	561	-9.887	33.942	3.272	1.00	8.51	O
ATOM	4591	N	SER	B	562	-10.576	31.804	3.460	1.00	5.69	N
ATOM	4592	CA	SER	B	562	-11.241	31.759	2.156	1.00	4.81	C
ATOM	4593	CB	SER	B	562	-11.622	30.320	1.811	1.00	4.68	C
ATOM	4594	OG	SER	B	562	-12.559	29.807	2.767	1.00	4.84	O
ATOM	4595	C	SER	B	562	-12.491	32.634	2.181	1.00	4.97	C
ATOM	4596	O	SER	B	562	-12.975	33.002	3.259	1.00	4.05	O
ATOM	4597	N	LYS	B	563	-13.027	32.973	1.009	1.00	4.99	N
ATOM	4598	CA	LYS	B	563	-14.214	33.813	0.991	1.00	5.90	C
ATOM	4599	CB	LYS	B	563	-14.529	34.404	-0.402	1.00	6.21	C
ATOM	4600	CG	LYS	B	563	-14.917	33.394	-1.476	1.00	8.54	C
ATOM	4601	CD	LYS	B	563	-15.749	34.028	-2.599	1.00	8.40	C
ATOM	4602	CE	LYS	B	563	-15.709	33.147	-3.853	1.00	11.30	C
ATOM	4603	NZ	LYS	B	563	-16.244	33.845	-5.087	1.00	10.70	N
ATOM	4604	C	LYS	B	563	-15.415	33.074	1.584	1.00	5.09	C
ATOM	4605	O	LYS	B	563	-16.322	33.716	2.096	1.00	4.19	O
ATOM	4606	N	GLU	B	564	-15.404	31.739	1.524	1.00	3.45	N
ATOM	4607	CA	GLU	B	564	-16.469	30.926	2.109	1.00	3.74	C
ATOM	4608	CB	GLU	B	564	-16.463	29.510	1.534	1.00	4.84	C
ATOM	4609	CG	GLU	B	564	-16.758	29.436	0.040	1.00	6.42	C
ATOM	4610	CD	GLU	B	564	-15.509	29.517	-0.827	1.00	7.26	C
ATOM	4611	OE1	GLU	B	564	-14.387	29.568	-0.279	1.00	8.16	O
ATOM	4612	OE2	GLU	B	564	-15.645	29.511	-2.067	1.00	8.09	O
ATOM	4613	C	GLU	B	564	-16.411	30.888	3.641	1.00	2.30	C
ATOM	4614	O	GLU	B	564	-17.440	30.975	4.296	1.00	2.93	O
ATOM	4615	N	ALA	B	565	-15.203	30.764	4.197	1.00	2.27	N
ATOM	4616	CA	ALA	B	565	-14.971	30.860	5.644	1.00	2.00	C
ATOM	4617	CB	ALA	B	565	-13.513	30.590	5.974	1.00	2.00	C
ATOM	4618	C	ALA	B	565	-15.413	32.194	6.228	1.00	2.00	C
ATOM	4619	O	ALA	B	565	-16.061	32.237	7.266	1.00	2.00	O
ATOM	4620	N	VAL	B	566	-15.063	33.280	5.551	1.00	2.00	N
ATOM	4621	CA	VAL	B	566	-15.458	34.620	5.956	1.00	2.00	C
ATOM	4622	CB	VAL	B	566	-14.733	35.684	5.101	1.00	2.00	C
ATOM	4623	CG1	VAL	B	566	-15.338	37.066	5.308	1.00	2.00	C
ATOM	4624	CG2	VAL	B	566	-13.239	35.691	5.434	1.00	2.00	C
ATOM	4625	C	VAL	B	566	-16.971	34.820	5.869	1.00	2.00	C
ATOM	4626	O	VAL	B	566	-17.554	35.473	6.719	1.00	2.00	O
ATOM	4627	N	SER	B	567	-17.596	34.256	4.840	1.00	2.00	N
ATOM	4628	CA	SER	B	567	-19.021	34.422	4.619	1.00	2.00	C
ATOM	4629	CB	SER	B	567	-19.400	33.898	3.235	1.00	2.00	C
ATOM	4630	OG	SER	B	567	-20.805	33.880	3.051	1.00	2.00	O
ATOM	4631	C	SER	B	567	-19.825	33.742	5.724	1.00	2.00	C
ATOM	4632	O	SER	B	567	-20.763	34.330	6.261	1.00	2.00	O
ATOM	4633	N	ILE	B	568	-19.448	32.515	6.081	1.00	2.00	N
ATOM	4634	CA	ILE	B	568	-20.190	31.778	7.109	1.00	2.00	C
ATOM	4635	CB	ILE	B	568	-19.924	30.232	7.117	1.00	2.00	C

- 121 -

ATOM	4636	CG1	ILE	B	568	-21.055	29.492	7.859	1.00	2.00	C
ATOM	4637	CD1	ILE	B	568	-20.910	28.001	7.922	1.00	2.00	C
ATOM	4638	CG2	ILE	B	568	-18.516	29.879	7.654	1.00	2.00	C
ATOM	4639	C	ILE	B	568	-19.987	32.427	8.467	1.00	2.00	C
ATOM	4640	O	ILE	B	568	-20.951	32.612	9.206	1.00	2.10	O
ATOM	4641	N	CYS	B	569	-18.754	32.829	8.773	1.00	2.00	N
ATOM	4642	CA	CYS	B	569	-18.479	33.567	10.012	1.00	2.00	C
ATOM	4643	CB	CYS	B	569	-16.973	33.783	10.208	1.00	2.00	C
ATOM	4644	SG	CYS	B	569	-16.041	32.325	10.697	1.00	3.21	S
ATOM	4645	C	CYS	B	569	-19.226	34.897	10.083	1.00	2.00	C
ATOM	4646	O	CYS	B	569	-19.763	35.241	11.131	1.00	2.00	O
ATOM	4647	N	LYS	B	570	-19.271	35.642	8.979	1.00	2.00	N
ATOM	4648	CA	LYS	B	570	-20.064	36.874	8.903	1.00	2.00	C
ATOM	4649	CB	LYS	B	570	-19.889	37.566	7.549	1.00	3.21	C
ATOM	4650	CG	LYS	B	570	-18.717	38.523	7.449	1.00	6.32	C
ATOM	4651	CD	LYS	B	570	-18.580	39.049	6.027	1.00	7.76	C
ATOM	4652	CE	LYS	B	570	-17.605	40.222	5.905	1.00	10.50	C
ATOM	4653	NZ	LYS	B	570	-17.875	40.979	4.625	1.00	10.14	N
ATOM	4654	C	LYS	B	570	-21.544	36.572	9.134	1.00	2.00	C
ATOM	4655	O	LYS	B	570	-22.205	37.257	9.927	1.00	2.50	O
ATOM	4656	N	GLY	B	571	-22.057	35.555	8.435	1.00	2.00	N
ATOM	4657	CA	GLY	B	571	-23.433	35.087	8.608	1.00	2.00	C
ATOM	4658	C	GLY	B	571	-23.833	34.700	10.024	1.00	2.00	C
ATOM	4659	O	GLY	B	571	-24.892	35.109	10.508	1.00	2.00	O
ATOM	4660	N	LEU	B	572	-22.999	33.914	10.688	1.00	2.00	N
ATOM	4661	CA	LEU	B	572	-23.266	33.475	12.067	1.00	2.00	C
ATOM	4662	CB	LEU	B	572	-22.382	32.280	12.423	1.00	2.00	C
ATOM	4663	CG	LEU	B	572	-22.518	31.015	11.572	1.00	2.00	C
ATOM	4664	CD1	LEU	B	572	-21.272	30.117	11.657	1.00	2.00	C
ATOM	4665	CD2	LEU	B	572	-23.787	30.268	11.969	1.00	2.00	C
ATOM	4666	C	LEU	B	572	-23.070	34.562	13.097	1.00	2.00	C
ATOM	4667	O	LEU	B	572	-23.740	34.592	14.122	1.00	2.00	O
ATOM	4668	N	MET	B	573	-22.126	35.456	12.843	1.00	2.00	N
ATOM	4669	CA	MET	B	573	-21.868	36.560	13.760	1.00	2.00	C
ATOM	4670	CB	MET	B	573	-20.365	36.715	14.066	1.00	2.00	C
ATOM	4671	CG	MET	B	573	-19.842	35.608	15.003	1.00	2.00	C
ATOM	4672	SD	MET	B	573	-18.096	35.779	15.468	1.00	2.00	S
ATOM	4673	CE	MET	B	573	-17.296	35.448	13.910	1.00	2.00	C
ATOM	4674	C	MET	B	573	-22.511	37.845	13.277	1.00	2.00	C
ATOM	4675	O	MET	B	573	-21.986	38.936	13.493	1.00	2.00	O
ATOM	4676	N	THR	B	574	-23.674	37.704	12.636	1.00	2.00	N
ATOM	4677	CA	THR	B	574	-24.578	38.812	12.384	1.00	2.00	C
ATOM	4678	CB	THR	B	574	-25.626	38.402	11.352	1.00	2.00	C
ATOM	4679	OG1	THR	B	574	-24.961	38.251	10.094	1.00	2.00	O
ATOM	4680	CG2	THR	B	574	-26.737	39.466	11.212	1.00	2.00	C
ATOM	4681	C	THR	B	574	-25.232	39.202	13.694	1.00	2.00	C
ATOM	4682	O	THR	B	574	-25.821	38.357	14.377	1.00	2.43	O
ATOM	4683	N	LYS	B	575	-25.118	40.475	14.059	1.00	2.00	N
ATOM	4684	CA	LYS	B	575	-25.569	40.935	15.374	1.00	2.00	C
ATOM	4685	CB	LYS	B	575	-24.987	42.308	15.698	1.00	2.00	C
ATOM	4686	CG	LYS	B	575	-23.465	42.301	15.818	1.00	2.00	C
ATOM	4687	CD	LYS	B	575	-22.955	43.650	16.263	1.00	2.00	C
ATOM	4688	CE	LYS	B	575	-21.472	43.861	15.956	1.00	2.00	C
ATOM	4689	NZ	LYS	B	575	-20.567	43.034	16.826	1.00	2.00	N
ATOM	4690	C	LYS	B	575	-27.087	40.890	15.613	1.00	2.00	C
ATOM	4691	O	LYS	B	575	-27.525	40.512	16.695	1.00	2.00	O
ATOM	4692	N	HIS	B	576	-27.882	41.278	14.612	1.00	2.00	N
ATOM	4693	CA	HIS	B	576	-29.334	41.198	14.714	1.00	2.00	C

- 122 -

ATOM	4694	CB	HIS	B	576	-30.008	42.165	13.732	1.00	4.19	C
ATOM	4695	CG	HIS	B	576	-29.788	43.605	14.072	1.00	4.78	C
ATOM	4696	ND1	HIS	B	576	-28.669	44.304	13.677	1.00	7.45	N
ATOM	4697	CE1	HIS	B	576	-28.741	45.543	14.128	1.00	7.62	C
ATOM	4698	NE2	HIS	B	576	-29.869	45.672	14.806	1.00	7.66	N
ATOM	4699	CD2	HIS	B	576	-30.539	44.474	14.783	1.00	6.32	C
ATOM	4700	C	HIS	B	576	-29.705	39.772	14.417	1.00	2.00	C
ATOM	4701	O	HIS	B	576	-29.439	39.294	13.312	1.00	2.00	O
ATOM	4702	N	PRO	B	577	-30.289	39.061	15.413	1.00	2.00	N
ATOM	4703	CA	PRO	B	577	-30.559	37.629	15.239	1.00	2.01	C
ATOM	4704	CB	PRO	B	577	-31.168	37.216	16.572	1.00	2.00	C
ATOM	4705	CG	PRO	B	577	-31.618	38.449	17.219	1.00	2.65	C
ATOM	4706	CD	PRO	B	577	-30.715	39.540	16.741	1.00	2.00	C
ATOM	4707	C	PRO	B	577	-31.519	37.299	14.107	1.00	3.12	C
ATOM	4708	O	PRO	B	577	-31.442	36.207	13.546	1.00	5.43	O
ATOM	4709	N	ALA	B	578	-32.419	38.216	13.770	1.00	5.06	N
ATOM	4710	CA	ALA	B	578	-33.369	37.970	12.679	1.00	5.75	C
ATOM	4711	CB	ALA	B	578	-34.370	39.097	12.581	1.00	5.49	C
ATOM	4712	C	ALA	B	578	-32.630	37.780	11.351	1.00	6.47	C
ATOM	4713	O	ALA	B	578	-33.099	37.079	10.451	1.00	7.64	O
ATOM	4714	N	LYS	B	579	-31.454	38.389	11.258	1.00	6.12	N
ATOM	4715	CA	LYS	B	579	-30.671	38.422	10.030	1.00	6.89	C
ATOM	4716	CB	LYS	B	579	-30.043	39.826	9.875	1.00	8.00	C
ATOM	4717	CG	LYS	B	579	-31.081	40.969	9.793	1.00	11.85	C
ATOM	4718	CD	LYS	B	579	-30.466	42.363	10.024	1.00	11.15	C
ATOM	4719	CE	LYS	B	579	-31.553	43.361	10.512	1.00	14.84	C
ATOM	4720	NZ	LYS	B	579	-31.060	44.770	10.604	1.00	13.59	N
ATOM	4721	C	LYS	B	579	-29.593	37.316	9.975	1.00	4.00	C
ATOM	4722	O	LYS	B	579	-28.929	37.149	8.955	1.00	3.86	O
ATOM	4723	N	ARG	B	580	-29.474	36.554	11.060	1.00	2.00	N
ATOM	4724	CA	ARG	B	580	-28.368	35.649	11.304	1.00	2.00	C
ATOM	4725	CB	ARG	B	580	-28.135	35.542	12.820	1.00	2.00	C
ATOM	4726	CG	ARG	B	580	-26.980	34.614	13.246	1.00	2.00	C
ATOM	4727	CD	ARG	B	580	-26.734	34.623	14.749	1.00	2.00	C
ATOM	4728	NE	ARG	B	580	-26.800	35.976	15.293	1.00	2.00	N
ATOM	4729	CZ	ARG	B	580	-27.263	36.275	16.499	1.00	2.00	C
ATOM	4730	NH1	ARG	B	580	-27.680	35.313	17.307	1.00	2.00	N
ATOM	4731	NH2	ARG	B	580	-27.309	37.534	16.893	1.00	2.00	N
ATOM	4732	C	ARG	B	580	-28.521	34.264	10.664	1.00	2.00	C
ATOM	4733	O	ARG	B	580	-29.581	33.629	10.756	1.00	2.00	O
ATOM	4734	N	LEU	B	581	-27.455	33.790	10.020	1.00	2.00	N
ATOM	4735	CA	LEU	B	581	-27.412	32.427	9.492	1.00	2.00	C
ATOM	4736	CB	LEU	B	581	-26.023	32.103	8.931	1.00	2.00	C
ATOM	4737	CG	LEU	B	581	-25.854	30.810	8.121	1.00	4.15	C
ATOM	4738	CD1	LEU	B	581	-26.692	30.838	6.864	1.00	2.00	C
ATOM	4739	CD2	LEU	B	581	-24.387	30.559	7.763	1.00	2.00	C
ATOM	4740	C	LEU	B	581	-27.842	31.371	10.530	1.00	2.16	C
ATOM	4741	O	LEU	B	581	-27.361	31.371	11.666	1.00	2.00	O
ATOM	4742	N	GLY	B	582	-28.748	30.483	10.114	1.00	2.72	N
ATOM	4743	CA	GLY	B	582	-29.355	29.480	10.989	1.00	4.42	C
ATOM	4744	C	GLY	B	582	-30.632	29.884	11.722	1.00	7.09	C
ATOM	4745	O	GLY	B	582	-31.234	29.060	12.420	1.00	7.81	O
ATOM	4746	N	CYS	B	583	-31.067	31.135	11.579	1.00	9.31	N
ATOM	4747	CA	CYS	B	583	-32.179	31.630	12.412	1.00	11.74	C
ATOM	4748	CB	CYS	B	583	-31.790	32.913	13.149	1.00	11.81	C
ATOM	4749	SG	CYS	B	583	-30.323	32.678	14.175	1.00	13.00	S
ATOM	4750	C	CYS	B	583	-33.491	31.828	11.679	1.00	13.81	C
ATOM	4751	O	CYS	B	583	-34.496	32.220	12.293	1.00	15.06	O

- 123 -

ATOM	4752	N	GLY B 584	-33.498	31.554	10.377	1.00	14.72	N
ATOM	4753	CA	GLY B 584	-34.743	31.662	9.608	1.00	15.85	C
ATOM	4754	C	GLY B 584	-35.632	30.450	9.835	1.00	15.87	C
ATOM	4755	O	GLY B 584	-35.255	29.533	10.583	1.00	16.21	O
ATOM	4756	N	PRO B 585	-36.821	30.431	9.194	1.00	16.15	N
ATOM	4757	CA	PRO B 585	-37.601	29.190	9.143	1.00	15.83	C
ATOM	4758	CB	PRO B 585	-38.805	29.567	8.275	1.00	15.60	C
ATOM	4759	CG	PRO B 585	-38.385	30.816	7.543	1.00	16.42	C
ATOM	4760	CD	PRO B 585	-37.498	31.534	8.485	1.00	16.38	C
ATOM	4761	C	PRO B 585	-36.768	28.076	8.479	1.00	15.66	C
ATOM	4762	O	PRO B 585	-36.749	26.937	8.956	1.00	16.21	O
ATOM	4763	N	GLU B 586	-36.067	28.436	7.403	1.00	14.91	N
ATOM	4764	CA	GLU B 586	-35.172	27.537	6.692	1.00	14.07	C
ATOM	4765	CB	GLU B 586	-35.160	27.912	5.196	1.00	15.96	C
ATOM	4766	CG	GLU B 586	-36.219	27.190	4.324	1.00	17.28	C
ATOM	4767	CD	GLU B 586	-37.660	27.626	4.592	1.00	17.75	C
ATOM	4768	OE1	GLU B 586	-37.979	28.821	4.394	1.00	18.46	O
ATOM	4769	OE2	GLU B 586	-38.483	26.770	4.987	1.00	18.49	O
ATOM	4770	C	GLU B 586	-33.755	27.564	7.295	1.00	13.59	C
ATOM	4771	O	GLU B 586	-32.759	27.363	6.591	1.00	13.10	O
ATOM	4772	N	GLY B 587	-33.674	27.798	8.605	1.00	12.63	N
ATOM	4773	CA	GLY B 587	-32.397	27.891	9.318	1.00	11.93	C
ATOM	4774	C	GLY B 587	-31.404	26.770	9.081	1.00	11.79	C
ATOM	4775	O	GLY B 587	-30.246	27.029	8.759	1.00	11.90	O
ATOM	4776	N	GLU B 588	-31.850	25.527	9.236	1.00	12.14	N
ATOM	4777	CA	GLU B 588	-30.977	24.361	9.071	1.00	12.86	C
ATOM	4778	CB	GLU B 588	-31.705	23.079	9.492	1.00	14.66	C
ATOM	4779	CG	GLU B 588	-31.018	21.758	9.096	1.00	15.62	C
ATOM	4780	CD	GLU B 588	-31.622	20.546	9.799	1.00	15.90	C
ATOM	4781	OE1	GLU B 588	-32.631	20.702	10.538	1.00	16.80	O
ATOM	4782	OE2	GLU B 588	-31.081	19.430	9.610	1.00	16.22	O
ATOM	4783	C	GLU B 588	-30.442	24.222	7.645	1.00	12.42	C
ATOM	4784	O	GLU B 588	-29.249	23.973	7.446	1.00	13.49	O
ATOM	4785	N	ARG B 589	-31.332	24.385	6.669	1.00	11.06	N
ATOM	4786	CA	ARG B 589	-30.984	24.311	5.263	1.00	10.46	C
ATOM	4787	CB	ARG B 589	-32.226	24.582	4.393	1.00	11.80	C
ATOM	4788	CG	ARG B 589	-33.155	23.385	4.238	1.00	14.81	C
ATOM	4789	CD	ARG B 589	-34.480	23.775	3.595	1.00	14.74	C
ATOM	4790	NE	ARG B 589	-35.485	24.236	4.562	1.00	18.55	N
ATOM	4791	CZ	ARG B 589	-36.596	23.565	4.893	1.00	19.61	C
ATOM	4792	NH1	ARG B 589	-36.868	22.385	4.337	1.00	19.97	N
ATOM	4793	NH2	ARG B 589	-37.448	24.077	5.785	1.00	20.07	N
ATOM	4794	C	ARG B 589	-29.908	25.334	4.940	1.00	8.31	C
ATOM	4795	O	ARG B 589	-28.993	25.062	4.155	1.00	8.09	O
ATOM	4796	N	ASP B 590	-30.045	26.518	5.536	1.00	5.93	N
ATOM	4797	CA	ASP B 590	-29.172	27.649	5.244	1.00	4.66	C
ATOM	4798	CB	ASP B 590	-29.690	28.918	5.929	1.00	4.84	C
ATOM	4799	CG	ASP B 590	-30.852	29.559	5.197	1.00	4.85	C
ATOM	4800	OD1	ASP B 590	-31.123	29.219	4.022	1.00	5.22	O
ATOM	4801	OD2	ASP B 590	-31.510	30.430	5.808	1.00	5.93	O
ATOM	4802	C	ASP B 590	-27.730	27.371	5.678	1.00	4.04	C
ATOM	4803	O	ASP B 590	-26.802	27.708	4.970	1.00	2.19	O
ATOM	4804	N	VAL B 591	-27.567	26.752	6.845	1.00	4.34	N
ATOM	4805	CA	VAL B 591	-26.242	26.353	7.337	1.00	3.66	C
ATOM	4806	CB	VAL B 591	-26.290	25.975	8.837	1.00	3.05	C
ATOM	4807	CG1	VAL B 591	-24.907	25.532	9.334	1.00	3.02	C
ATOM	4808	CG2	VAL B 591	-26.786	27.149	9.657	1.00	2.30	C
ATOM	4809	C	VAL B 591	-25.730	25.166	6.515	1.00	4.60	C

- 124 -

ATOM	4810	O	VAL	B	591	-24.586	25.178	6.060	1.00	5.10	O
ATOM	4811	N	ARG	B	592	-26.591	24.157	6.327	1.00	4.92	N
ATOM	4812	CA	ARG	B	592	-26.271	22.924	5.589	1.00	5.94	C
ATOM	4813	CB	ARG	B	592	-27.466	21.977	5.591	1.00	8.68	C
ATOM	4814	CG	ARG	B	592	-27.408	20.853	6.585	1.00	10.89	C
ATOM	4815	CD	ARG	B	592	-28.589	19.921	6.326	1.00	13.25	C
ATOM	4816	NE	ARG	B	592	-28.266	18.539	6.672	1.00	15.43	N
ATOM	4817	CZ	ARG	B	592	-28.447	18.010	7.877	1.00	16.52	C
ATOM	4818	NH1	ARG	B	592	-28.958	18.746	8.848	1.00	17.92	N
ATOM	4819	NH2	ARG	B	592	-28.122	16.743	8.113	1.00	17.28	N
ATOM	4820	C	ARG	B	592	-25.873	23.156	4.142	1.00	5.91	C
ATOM	4821	O	ARG	B	592	-24.965	22.489	3.621	1.00	6.28	O
ATOM	4822	N	GLU	B	593	-26.560	24.089	3.491	1.00	4.90	N
ATOM	4823	CA	GLU	B	593	-26.289	24.388	2.097	1.00	5.68	C
ATOM	4824	CB	GLU	B	593	-27.603	24.493	1.305	1.00	8.38	C
ATOM	4825	CG	GLU	B	593	-27.534	23.902	-0.118	1.00	11.53	C
ATOM	4826	CD	GLU	B	593	-27.364	22.371	-0.180	1.00	12.05	C
ATOM	4827	OE1	GLU	B	593	-27.313	21.680	0.867	1.00	13.51	O
ATOM	4828	OE2	GLU	B	593	-27.280	21.851	-1.309	1.00	13.22	O
ATOM	4829	C	GLU	B	593	-25.395	25.615	1.910	1.00	4.56	C
ATOM	4830	O	GLU	B	593	-25.263	26.122	0.800	1.00	4.59	O
ATOM	4831	N	HIS	B	594	-24.770	26.083	2.990	1.00	3.85	N
ATOM	4832	CA	HIS	B	594	-23.805	27.171	2.880	1.00	3.49	C
ATOM	4833	CB	HIS	B	594	-23.460	27.791	4.256	1.00	4.75	C
ATOM	4834	CG	HIS	B	594	-22.618	29.034	4.160	1.00	3.70	C
ATOM	4835	ND1	HIS	B	594	-21.278	29.000	3.841	1.00	3.82	N
ATOM	4836	CE1	HIS	B	594	-20.798	30.229	3.795	1.00	2.68	C
ATOM	4837	NE2	HIS	B	594	-21.777	31.064	4.082	1.00	5.05	N
ATOM	4838	CD2	HIS	B	594	-22.929	30.343	4.320	1.00	4.71	C
ATOM	4839	C	HIS	B	594	-22.549	26.669	2.149	1.00	2.54	C
ATOM	4840	O	HIS	B	594	-22.106	25.537	2.365	1.00	3.21	O
ATOM	4841	N	ALA	B	595	-21.987	27.513	1.280	1.00	2.00	N
ATOM	4842	CA	ALA	B	595	-20.832	27.138	0.437	1.00	2.00	C
ATOM	4843	CB	ALA	B	595	-20.524	28.225	-0.550	1.00	2.00	C
ATOM	4844	C	ALA	B	595	-19.569	26.730	1.218	1.00	2.00	C
ATOM	4845	O	ALA	B	595	-18.684	26.106	0.671	1.00	3.69	O
ATOM	4846	N	PHE	B	596	-19.492	27.091	2.491	1.00	2.00	N
ATOM	4847	CA	PHE	B	596	-18.476	26.591	3.415	1.00	2.00	C
ATOM	4848	CB	PHE	B	596	-18.725	27.201	4.809	1.00	2.00	C
ATOM	4849	CG	PHE	B	596	-17.635	26.921	5.813	1.00	2.00	C
ATOM	4850	CD1	PHE	B	596	-16.360	27.482	5.658	1.00	2.00	C
ATOM	4851	CE1	PHE	B	596	-15.359	27.227	6.577	1.00	2.00	C
ATOM	4852	CZ	PHE	B	596	-15.624	26.408	7.673	1.00	2.00	C
ATOM	4853	CE2	PHE	B	596	-16.899	25.845	7.838	1.00	2.00	C
ATOM	4854	CD2	PHE	B	596	-17.885	26.107	6.914	1.00	2.00	C
ATOM	4855	C	PHE	B	596	-18.521	25.059	3.498	1.00	2.00	C
ATOM	4856	O	PHE	B	596	-17.500	24.397	3.679	1.00	2.00	O
ATOM	4857	N	PHE	B	597	-19.721	24.504	3.349	1.00	2.91	N
ATOM	4858	CA	PHE	B	597	-19.943	23.066	3.464	1.00	2.02	C
ATOM	4859	CB	PHE	B	597	-21.150	22.804	4.367	1.00	2.00	C
ATOM	4860	CG	PHE	B	597	-20.926	23.202	5.801	1.00	2.00	C
ATOM	4861	CD1	PHE	B	597	-19.938	22.576	6.565	1.00	2.00	C
ATOM	4862	CE1	PHE	B	597	-19.733	22.930	7.871	1.00	2.00	C
ATOM	4863	CZ	PHE	B	597	-20.515	23.925	8.441	1.00	2.00	C
ATOM	4864	CE2	PHE	B	597	-21.502	24.546	7.691	1.00	2.00	C
ATOM	4865	CD2	PHE	B	597	-21.702	24.193	6.387	1.00	2.00	C
ATOM	4866	C	PHE	B	597	-20.137	22.377	2.112	1.00	3.25	C
ATOM	4867	O	PHE	B	597	-20.708	21.277	2.043	1.00	2.37	O

- 125 -

ATOM	4868	N	ARG	B	598	-19.633	23.014	1.052	1.00	4.78	N
ATOM	4869	CA	ARG	B	598	-19.858	22.559	-0.329	1.00	6.20	C
ATOM	4870	CB	ARG	B	598	-19.413	23.632	-1.330	1.00	7.07	C
ATOM	4871	CG	ARG	B	598	-17.952	23.580	-1.714	1.00	9.09	C
ATOM	4872	CD	ARG	B	598	-17.461	24.922	-2.234	1.00	9.56	C
ATOM	4873	NE	ARG	B	598	-16.933	25.709	-1.131	1.00	12.25	N
ATOM	4874	CZ	ARG	B	598	-15.651	25.768	-0.787	1.00	12.74	C
ATOM	4875	NH1	ARG	B	598	-14.734	25.092	-1.472	1.00	12.97	N
ATOM	4876	NH2	ARG	B	598	-15.289	26.514	0.253	1.00	14.32	N
ATOM	4877	C	ARG	B	598	-19.220	21.209	-0.674	1.00	6.57	C
ATOM	4878	O	ARG	B	598	-19.658	20.533	-1.611	1.00	7.12	O
ATOM	4879	N	ARG	B	599	-18.189	20.827	0.074	1.00	7.60	N
ATOM	4880	CA	ARG	B	599	-17.522	19.544	-0.134	1.00	7.77	C
ATOM	4881	CB	ARG	B	599	-16.005	19.725	-0.061	1.00	8.87	C
ATOM	4882	CG	ARG	B	599	-15.373	20.229	-1.355	1.00	11.82	C
ATOM	4883	CD	ARG	B	599	-15.384	19.124	-2.425	1.00	13.89	C
ATOM	4884	NE	ARG	B	599	-14.697	19.487	-3.673	1.00	16.51	N
ATOM	4885	CZ	ARG	B	599	-13.552	18.947	-4.107	1.00	17.00	C
ATOM	4886	NH1	ARG	B	599	-12.938	18.000	-3.395	1.00	16.84	N
ATOM	4887	NH2	ARG	B	599	-13.019	19.353	-5.265	1.00	17.12	N
ATOM	4888	C	ARG	B	599	-18.020	18.456	0.840	1.00	8.02	C
ATOM	4889	O	ARG	B	599	-17.508	17.330	0.837	1.00	8.02	O
ATOM	4890	N	ILE	B	600	-19.028	18.788	1.653	1.00	6.47	N
ATOM	4891	CA	ILE	B	600	-19.554	17.854	2.657	1.00	6.60	C
ATOM	4892	CB	ILE	B	600	-19.991	18.593	3.978	1.00	7.00	C
ATOM	4893	CG1	ILE	B	600	-18.771	19.130	4.755	1.00	6.80	C
ATOM	4894	CD1	ILE	B	600	-17.835	18.066	5.353	1.00	5.56	C
ATOM	4895	CG2	ILE	B	600	-20.869	17.702	4.866	1.00	6.92	C
ATOM	4896	C	ILE	B	600	-20.710	16.998	2.113	1.00	7.75	C
ATOM	4897	O	ILE	B	600	-21.714	17.523	1.595	1.00	8.55	O
ATOM	4898	N	ASP	B	601	-20.544	15.679	2.228	1.00	8.06	N
ATOM	4899	CA	ASP	B	601	-21.612	14.713	2.027	1.00	7.44	C
ATOM	4900	CB	ASP	B	601	-21.040	13.367	1.543	1.00	8.33	C
ATOM	4901	CG	ASP	B	601	-22.094	12.464	0.912	1.00	8.42	C
ATOM	4902	OD1	ASP	B	601	-23.175	12.271	1.511	1.00	8.58	O
ATOM	4903	OD2	ASP	B	601	-21.832	11.931	-0.191	1.00	10.28	O
ATOM	4904	C	ASP	B	601	-22.301	14.565	3.380	1.00	7.42	C
ATOM	4905	O	ASP	B	601	-21.804	13.882	4.283	1.00	8.02	O
ATOM	4906	N	TRP	B	602	-23.444	15.229	3.513	1.00	7.90	N
ATOM	4907	CA	TRP	B	602	-24.151	15.333	4.782	1.00	7.51	C
ATOM	4908	CB	TRP	B	602	-25.248	16.394	4.687	1.00	9.03	C
ATOM	4909	CG	TRP	B	602	-24.717	17.802	4.744	1.00	8.67	C
ATOM	4910	CD1	TRP	B	602	-24.573	18.663	3.700	1.00	8.85	C
ATOM	4911	NE1	TRP	B	602	-24.065	19.857	4.135	1.00	9.59	N
ATOM	4912	CE2	TRP	B	602	-23.855	19.785	5.488	1.00	8.72	C
ATOM	4913	CD2	TRP	B	602	-24.260	18.502	5.907	1.00	8.86	C
ATOM	4914	CE3	TRP	B	602	-24.157	18.169	7.269	1.00	8.91	C
ATOM	4915	CZ3	TRP	B	602	-23.660	19.118	8.152	1.00	8.95	C
ATOM	4916	CH2	TRP	B	602	-23.262	20.396	7.700	1.00	8.52	C
ATOM	4917	CZ2	TRP	B	602	-23.355	20.745	6.377	1.00	9.26	C
ATOM	4918	C	TRP	B	602	-24.730	14.016	5.268	1.00	8.37	C
ATOM	4919	O	TRP	B	602	-24.823	13.806	6.479	1.00	8.75	O
ATOM	4920	N	GLU	B	603	-25.115	13.139	4.332	1.00	8.99	N
ATOM	4921	CA	GLU	B	603	-25.561	11.773	4.662	1.00	10.88	C
ATOM	4922	CB	GLU	B	603	-26.044	11.008	3.407	1.00	11.90	C
ATOM	4923	CG	GLU	B	603	-26.999	11.782	2.459	1.00	13.86	C
ATOM	4924	CD	GLU	B	603	-27.483	10.941	1.266	1.00	14.32	C
ATOM	4925	OE1	GLU	B	603	-27.710	9.714	1.442	1.00	16.41	O

- 126 -

ATOM	4926	OE2	GLU	B	603	-27.641	11.504	0.149	1.00	15.57	O
ATOM	4927	C	GLU	B	603	-24.417	10.997	5.324	1.00	10.13	C
ATOM	4928	O	GLU	B	603	-24.587	10.356	6.365	1.00	8.79	O
ATOM	4929	N	LYS	B	604	-23.247	11.086	4.705	1.00	10.61	N
ATOM	4930	CA	LYS	B	604	-22.083	10.329	5.119	1.00	11.64	C
ATOM	4931	CB	LYS	B	604	-21.007	10.438	4.043	1.00	12.72	C
ATOM	4932	CG	LYS	B	604	-20.345	9.121	3.696	1.00	14.45	C
ATOM	4933	CD	LYS	B	604	-19.761	9.134	2.297	1.00	15.10	C
ATOM	4934	CE	LYS	B	604	-20.682	8.461	1.291	1.00	16.10	C
ATOM	4935	NZ	LYS	B	604	-20.092	8.499	-0.089	1.00	17.01	N
ATOM	4936	C	LYS	B	604	-21.569	10.824	6.469	1.00	11.74	C
ATOM	4937	O	LYS	B	604	-21.224	10.019	7.339	1.00	11.78	O
ATOM	4938	N	LEU	B	605	-21.541	12.149	6.631	1.00	12.43	N
ATOM	4939	CA	LEU	B	605	-21.073	12.805	7.852	1.00	13.21	C
ATOM	4940	CB	LEU	B	605	-21.087	14.328	7.683	1.00	13.70	C
ATOM	4941	CG	LEU	B	605	-20.531	15.130	8.867	1.00	14.41	C
ATOM	4942	CD1	LEU	B	605	-19.046	15.410	8.700	1.00	13.65	C
ATOM	4943	CD2	LEU	B	605	-21.304	16.410	9.009	1.00	13.67	C
ATOM	4944	C	LEU	B	605	-21.917	12.416	9.056	1.00	13.85	C
ATOM	4945	O	LEU	B	605	-21.376	12.077	10.105	1.00	13.01	O
ATOM	4946	N	GLU	B	606	-23.240	12.476	8.877	1.00	15.78	N
ATOM	4947	CA	GLU	B	606	-24.240	12.093	9.890	1.00	17.68	C
ATOM	4948	CB	GLU	B	606	-25.652	12.256	9.321	1.00	18.34	C
ATOM	4949	CG	GLU	B	606	-26.181	13.678	9.263	1.00	19.74	C
ATOM	4950	CD	GLU	B	606	-27.563	13.755	8.629	1.00	19.75	C
ATOM	4951	OE1	GLU	B	606	-27.731	13.315	7.468	1.00	21.28	O
ATOM	4952	OE2	GLU	B	606	-28.491	14.261	9.294	1.00	21.61	O
ATOM	4953	C	GLU	B	606	-24.083	10.646	10.337	1.00	17.71	C
ATOM	4954	O	GLU	B	606	-24.430	10.301	11.465	1.00	17.69	O
ATOM	4955	N	ASN	B	607	-23.571	9.816	9.425	1.00	18.77	N
ATOM	4956	CA	ASN	B	607	-23.381	8.385	9.636	1.00	19.35	C
ATOM	4957	CB	ASN	B	607	-23.768	7.608	8.369	1.00	20.60	C
ATOM	4958	CG	ASN	B	607	-25.234	7.790	7.969	1.00	22.26	C
ATOM	4959	OD1	ASN	B	607	-25.571	7.688	6.785	1.00	23.37	O
ATOM	4960	ND2	ASN	B	607	-26.110	8.049	8.945	1.00	22.57	N
ATOM	4961	C	ASN	B	607	-21.949	8.023	10.035	1.00	18.80	C
ATOM	4962	O	ASN	B	607	-21.620	6.845	10.155	1.00	19.17	O
ATOM	4963	N	ARG	B	608	-21.113	9.042	10.233	1.00	19.24	N
ATOM	4964	CA	ARG	B	608	-19.692	8.893	10.600	1.00	19.43	C
ATOM	4965	CB	ARG	B	608	-19.525	8.304	12.008	1.00	20.06	C
ATOM	4966	CG	ARG	B	608	-19.811	9.278	13.136	1.00	20.58	C
ATOM	4967	CD	ARG	B	608	-19.833	8.582	14.487	1.00	20.58	C
ATOM	4968	NE	ARG	B	608	-18.510	8.159	14.918	1.00	22.73	N
ATOM	4969	CZ	ARG	B	608	-18.171	7.862	16.172	1.00	23.38	C
ATOM	4970	NH1	ARG	B	608	-19.069	7.935	17.153	1.00	23.41	N
ATOM	4971	NH2	ARG	B	608	-16.919	7.491	16.444	1.00	23.59	N
ATOM	4972	C	ARG	B	608	-18.891	8.093	9.573	1.00	19.30	C
ATOM	4973	O	ARG	B	608	-17.936	7.381	9.918	1.00	19.27	O
ATOM	4974	N	GLU	B	609	-19.289	8.222	8.309	1.00	18.82	N
ATOM	4975	CA	GLU	B	609	-18.614	7.541	7.214	1.00	18.76	C
ATOM	4976	CB	GLU	B	609	-19.623	7.080	6.160	1.00	19.66	C
ATOM	4977	CG	GLU	B	609	-20.399	5.825	6.527	1.00	21.73	C
ATOM	4978	CD	GLU	B	609	-21.463	5.454	5.494	1.00	22.08	C
ATOM	4979	OE1	GLU	B	609	-21.452	6.008	4.364	1.00	24.11	O
ATOM	4980	OE2	GLU	B	609	-22.318	4.595	5.818	1.00	24.42	O
ATOM	4981	C	GLU	B	609	-17.539	8.421	6.579	1.00	16.86	C
ATOM	4982	O	GLU	B	609	-16.891	8.009	5.617	1.00	16.57	O
ATOM	4983	N	ILE	B	610	-17.356	9.628	7.115	1.00	14.70	N

- 127 -

ATOM	4984	CA	ILE	B	610	-16.275	10.508	6.667	1.00	13.47	C
ATOM	4985	CB	ILE	B	610	-16.693	12.003	6.617	1.00	13.98	C
ATOM	4986	CG1	ILE	B	610	-17.883	12.197	5.659	1.00	13.74	C
ATOM	4987	CD1	ILE	B	610	-18.306	13.636	5.442	1.00	13.93	C
ATOM	4988	CG2	ILE	B	610	-15.504	12.882	6.205	1.00	13.40	C
ATOM	4989	C	ILE	B	610	-15.074	10.342	7.580	1.00	12.63	C
ATOM	4990	O	ILE	B	610	-15.205	10.404	8.806	1.00	12.15	O
ATOM	4991	N	GLN	B	611	-13.910	10.125	6.969	1.00	11.76	N
ATOM	4992	CA	GLN	B	611	-12.648	10.022	7.697	1.00	11.50	C
ATOM	4993	CB	GLN	B	611	-11.497	9.695	6.735	1.00	13.97	C
ATOM	4994	CG	GLN	B	611	-10.119	9.635	7.400	1.00	15.52	C
ATOM	4995	CD	GLN	B	611	-9.768	8.258	7.927	1.00	16.59	C
ATOM	4996	OE1	GLN	B	611	-10.480	7.679	8.757	1.00	17.22	O
ATOM	4997	NE2	GLN	B	611	-8.647	7.727	7.452	1.00	17.36	N
ATOM	4998	C	GLN	B	611	-12.344	11.319	8.438	1.00	9.39	C
ATOM	4999	O	GLN	B	611	-12.315	12.383	7.814	1.00	10.08	O
ATOM	5000	N	PRO	B	612	-12.133	11.234	9.771	1.00	7.88	N
ATOM	5001	CA	PRO	B	612	-11.745	12.386	10.603	1.00	7.05	C
ATOM	5002	CB	PRO	B	612	-11.684	11.790	12.018	1.00	6.48	C
ATOM	5003	CG	PRO	B	612	-12.526	10.574	11.951	1.00	5.94	C
ATOM	5004	CD	PRO	B	612	-12.278	10.019	10.587	1.00	7.93	C
ATOM	5005	C	PRO	B	612	-10.385	12.951	10.181	1.00	6.00	C
ATOM	5006	O	PRO	B	612	-9.545	12.199	9.683	1.00	6.85	O
ATOM	5007	N	PRO	B	613	-10.167	14.268	10.363	1.00	5.01	N
ATOM	5008	CA	PRO	B	613	-8.925	14.868	9.878	1.00	4.86	C
ATOM	5009	CB	PRO	B	613	-9.098	16.352	10.198	1.00	4.57	C
ATOM	5010	CG	PRO	B	613	-10.595	16.535	10.412	1.00	3.72	C
ATOM	5011	CD	PRO	B	613	-11.029	15.264	11.021	1.00	4.78	C
ATOM	5012	C	PRO	B	613	-7.691	14.302	10.579	1.00	5.81	C
ATOM	5013	O	PRO	B	613	-6.588	14.389	10.039	1.00	7.21	O
ATOM	5014	N	PHE	B	614	-7.867	13.733	11.768	1.00	6.44	N
ATOM	5015	CA	PHE	B	614	-6.782	12.985	12.424	1.00	7.17	C
ATOM	5016	CB	PHE	B	614	-5.656	13.928	12.881	1.00	8.05	C
ATOM	5017	CG	PHE	B	614	-5.919	14.587	14.205	1.00	7.71	C
ATOM	5018	CD1	PHE	B	614	-5.223	14.183	15.337	1.00	8.44	C
ATOM	5019	CE1	PHE	B	614	-5.462	14.768	16.562	1.00	8.17	C
ATOM	5020	CZ	PHE	B	614	-6.412	15.773	16.677	1.00	8.65	C
ATOM	5021	CE2	PHE	B	614	-7.117	16.198	15.554	1.00	8.42	C
ATOM	5022	CD2	PHE	B	614	-6.861	15.598	14.318	1.00	8.43	C
ATOM	5023	C	PHE	B	614	-7.305	12.147	13.595	1.00	7.44	C
ATOM	5024	O	PHE	B	614	-8.408	12.386	14.111	1.00	5.96	O
ATOM	5025	N	LYS	B	615	-6.500	11.171	13.999	1.00	7.60	N
ATOM	5026	CA	LYS	B	615	-6.794	10.312	15.134	1.00	8.24	C
ATOM	5027	CB	LYS	B	615	-6.437	8.862	14.784	1.00	9.35	C
ATOM	5028	CG	LYS	B	615	-7.104	7.773	15.623	1.00	9.17	C
ATOM	5029	CD	LYS	B	615	-7.078	6.462	14.850	1.00	9.46	C
ATOM	5030	CE	LYS	B	615	-7.984	5.380	15.447	1.00	10.15	C
ATOM	5031	NZ	LYS	B	615	-7.981	4.117	14.594	1.00	10.84	N
ATOM	5032	C	LYS	B	615	-5.985	10.819	16.337	1.00	9.51	C
ATOM	5033	O	LYS	B	615	-4.747	10.882	16.277	1.00	8.80	O
ATOM	5034	N	PRO	B	616	-6.676	11.203	17.433	1.00	10.59	N
ATOM	5035	CA	PRO	B	616	-6.003	11.689	18.637	1.00	12.85	C
ATOM	5036	CB	PRO	B	616	-7.166	11.973	19.598	1.00	12.03	C
ATOM	5037	CG	PRO	B	616	-8.326	12.182	18.721	1.00	11.41	C
ATOM	5038	CD	PRO	B	616	-8.137	11.221	17.596	1.00	10.79	C
ATOM	5039	C	PRO	B	616	-5.051	10.660	19.256	1.00	15.75	C
ATOM	5040	O	PRO	B	616	-5.112	9.474	18.921	1.00	15.13	O
ATOM	5041	N	LYS	B	617	-4.196	11.138	20.162	1.00	19.57	N

- 128 -

ATOM	5042	CA	LYS	B	617	-3.177	10.333	20.829	1.00	22.54	C
ATOM	5043	CB	LYS	B	617	-2.240	11.241	21.627	1.00	23.51	C
ATOM	5044	CG	LYS	B	617	-0.803	10.751	21.670	1.00	24.60	C
ATOM	5045	CD	LYS	B	617	-0.145	10.846	20.301	1.00	24.84	C
ATOM	5046	CE	LYS	B	617	1.068	9.913	20.217	1.00	25.53	C
ATOM	5047	NZ	LYS	B	617	1.612	9.842	18.827	1.00	25.26	N
ATOM	5048	C	LYS	B	617	-3.761	9.265	21.749	1.00	24.71	C
ATOM	5049	O	LYS	B	617	-4.626	9.552	22.593	1.00	23.48	O
ATOM	5050	N	VAL	B	618	-3.260	8.038	21.587	1.00	26.48	N
ATOM	5051	CA	VAL	B	618	-3.833	6.863	22.252	1.00	29.00	C
ATOM	5052	CB	VAL	B	618	-3.512	5.550	21.477	1.00	29.60	C
ATOM	5053	CG1	VAL	B	618	-4.310	4.368	22.046	1.00	29.89	C
ATOM	5054	CG2	VAL	B	618	-3.791	5.725	19.969	1.00	30.02	C
ATOM	5055	C	VAL	B	618	-3.412	6.751	23.724	1.00	30.10	C
ATOM	5056	O	VAL	B	618	-2.237	6.524	24.038	1.00	31.43	O
ATOM	5057	N	ASN	B	625	4.420	0.973	44.526	1.00	24.38	N
ATOM	5058	CA	ASN	B	625	3.352	1.554	43.732	1.00	24.96	C
ATOM	5059	CB	ASN	B	625	2.695	2.693	44.531	1.00	25.86	C
ATOM	5060	CG	ASN	B	625	1.311	3.066	44.018	1.00	26.96	C
ATOM	5061	OD1	ASN	B	625	1.177	3.816	43.045	1.00	27.16	O
ATOM	5062	ND2	ASN	B	625	0.267	2.560	44.688	1.00	27.64	N
ATOM	5063	C	ASN	B	625	3.910	2.040	42.384	1.00	24.49	C
ATOM	5064	O	ASN	B	625	5.097	1.837	42.085	1.00	25.47	O
ATOM	5065	N	PHE	B	626	3.045	2.650	41.572	1.00	23.35	N
ATOM	5066	CA	PHE	B	626	3.432	3.429	40.389	1.00	20.86	C
ATOM	5067	CB	PHE	B	626	2.198	4.159	39.865	1.00	22.20	C
ATOM	5068	CG	PHE	B	626	2.394	4.850	38.548	1.00	24.08	C
ATOM	5069	CD1	PHE	B	626	2.694	4.123	37.395	1.00	24.61	C
ATOM	5070	CE1	PHE	B	626	2.862	4.765	36.167	1.00	24.77	C
ATOM	5071	CZ	PHE	B	626	2.722	6.155	36.081	1.00	24.91	C
ATOM	5072	CE2	PHE	B	626	2.415	6.893	37.225	1.00	25.26	C
ATOM	5073	CD2	PHE	B	626	2.247	6.235	38.452	1.00	24.53	C
ATOM	5074	C	PHE	B	626	4.549	4.425	40.752	1.00	17.04	C
ATOM	5075	O	PHE	B	626	5.618	4.407	40.144	1.00	17.53	O
ATOM	5076	N	ASP	B	627	4.273	5.290	41.733	1.00	11.75	N
ATOM	5077	CA	ASP	B	627	5.307	6.030	42.465	1.00	6.30	C
ATOM	5078	CB	ASP	B	627	5.027	7.533	42.467	1.00	5.10	C
ATOM	5079	CG	ASP	B	627	6.179	8.355	43.079	1.00	2.24	C
ATOM	5080	OD1	ASP	B	627	6.915	7.868	43.967	1.00	2.00	O
ATOM	5081	OD2	ASP	B	627	6.325	9.512	42.667	1.00	2.00	O
ATOM	5082	C	ASP	B	627	5.352	5.499	43.896	1.00	4.16	C
ATOM	5083	O	ASP	B	627	4.361	5.551	44.640	1.00	2.00	O
ATOM	5084	N	LYS	B	628	6.506	4.990	44.278	1.00	2.00	N
ATOM	5085	CA	LYS	B	628	6.659	4.306	45.543	1.00	2.00	C
ATOM	5086	CB	LYS	B	628	7.972	3.541	45.497	1.00	2.11	C
ATOM	5087	CG	LYS	B	628	7.891	2.121	45.971	1.00	6.01	C
ATOM	5088	CD	LYS	B	628	9.134	1.333	45.544	1.00	6.23	C
ATOM	5089	CE	LYS	B	628	10.429	2.068	45.869	1.00	7.22	C
ATOM	5090	NZ	LYS	B	628	11.548	1.109	46.057	1.00	7.50	N
ATOM	5091	C	LYS	B	628	6.644	5.251	46.753	1.00	2.00	C
ATOM	5092	O	LYS	B	628	6.493	4.799	47.879	1.00	2.00	O
ATOM	5093	N	PHE	B	629	6.804	6.551	46.512	1.00	2.00	N
ATOM	5094	CA	PHE	B	629	6.953	7.548	47.580	1.00	2.00	C
ATOM	5095	CB	PHE	B	629	8.298	8.297	47.441	1.00	2.00	C
ATOM	5096	CG	PHE	B	629	9.470	7.380	47.191	1.00	2.00	C
ATOM	5097	CD1	PHE	B	629	9.999	6.609	48.223	1.00	2.00	C
ATOM	5098	CE1	PHE	B	629	11.056	5.745	47.998	1.00	2.00	C
ATOM	5099	CZ	PHE	B	629	11.602	5.639	46.733	1.00	2.00	C

- 129 -

ATOM	5100	CE2	PHE	B	629	11.094	6.394	45.697	1.00	2.00	C
ATOM	5101	CD2	PHE	B	629	10.017	7.262	45.925	1.00	2.00	C
ATOM	5102	C	PHE	B	629	5.799	8.549	47.632	1.00	2.00	C
ATOM	5103	O	PHE	B	629	5.769	9.415	48.503	1.00	2.00	O
ATOM	5104	N	PHE	B	630	4.872	8.428	46.683	1.00	2.00	N
ATOM	5105	CA	PHE	B	630	3.732	9.345	46.566	1.00	2.00	C
ATOM	5106	CB	PHE	B	630	4.101	10.587	45.755	1.00	2.00	C
ATOM	5107	CG	PHE	B	630	2.911	11.441	45.363	1.00	2.00	C
ATOM	5108	CD1	PHE	B	630	2.441	11.457	44.052	1.00	2.00	C
ATOM	5109	CE1	PHE	B	630	1.331	12.243	43.697	1.00	2.00	C
ATOM	5110	CZ	PHE	B	630	0.707	13.032	44.652	1.00	2.00	C
ATOM	5111	CE2	PHE	B	630	1.169	13.033	45.957	1.00	2.00	C
ATOM	5112	CD2	PHE	B	630	2.266	12.234	46.310	1.00	2.00	C
ATOM	5113	C	PHE	B	630	2.538	8.655	45.915	1.00	2.00	C
ATOM	5114	O	PHE	B	630	2.684	7.946	44.919	1.00	2.00	O
ATOM	5115	N	THR	B	631	1.347	8.898	46.469	1.00	2.00	N
ATOM	5116	CA	THR	B	631	0.113	8.407	45.890	1.00	2.00	C
ATOM	5117	CB	THR	B	631	-0.318	7.052	46.545	1.00	2.00	C
ATOM	5118	OG1	THR	B	631	-1.458	6.523	45.873	1.00	2.54	O
ATOM	5119	CG2	THR	B	631	-0.606	7.173	48.045	1.00	2.00	C
ATOM	5120	C	THR	B	631	-0.933	9.510	46.025	1.00	2.00	C
ATOM	5121	O	THR	B	631	-0.875	10.332	46.952	1.00	2.00	O
ATOM	5122	N	ARG	B	632	-1.864	9.559	45.086	1.00	2.16	N
ATOM	5123	CA	ARG	B	632	-2.993	10.479	45.212	1.00	3.74	C
ATOM	5124	CB	ARG	B	632	-3.467	10.948	43.833	1.00	7.50	C
ATOM	5125	CG	ARG	B	632	-2.536	11.990	43.255	1.00	9.62	C
ATOM	5126	CD	ARG	B	632	-2.822	12.298	41.804	1.00	12.19	C
ATOM	5127	NE	ARG	B	632	-1.823	13.246	41.307	1.00	14.38	N
ATOM	5128	CZ	ARG	B	632	-2.072	14.532	41.057	1.00	16.32	C
ATOM	5129	NH1	ARG	B	632	-3.302	15.033	41.233	1.00	15.50	N
ATOM	5130	NH2	ARG	B	632	-1.094	15.319	40.613	1.00	15.20	N
ATOM	5131	C	ARG	B	632	-4.118	9.852	46.018	1.00	2.27	C
ATOM	5132	O	ARG	B	632	-5.060	10.540	46.411	1.00	2.17	O
ATOM	5133	N	GLY	B	633	-3.992	8.550	46.266	1.00	2.00	N
ATOM	5134	CA	GLY	B	633	-4.997	7.760	46.968	1.00	4.05	C
ATOM	5135	C	GLY	B	633	-6.233	7.512	46.107	1.00	4.46	C
ATOM	5136	O	GLY	B	633	-6.339	8.026	44.992	1.00	4.80	O
ATOM	5137	N	GLN	B	634	-7.169	6.727	46.634	1.00	5.27	N
ATOM	5138	CA	GLN	B	634	-8.338	6.267	45.880	1.00	6.06	C
ATOM	5139	CB	GLN	B	634	-8.807	4.922	46.424	1.00	8.04	C
ATOM	5140	CG	GLN	B	634	-7.906	3.715	46.158	1.00	13.24	C
ATOM	5141	CD	GLN	B	634	-8.686	2.399	46.333	1.00	12.64	C
ATOM	5142	OE1	GLN	B	634	-9.697	2.157	45.649	1.00	14.24	O
ATOM	5143	NE2	GLN	B	634	-8.226	1.557	47.259	1.00	16.14	N
ATOM	5144	C	GLN	B	634	-9.493	7.245	46.009	1.00	4.36	C
ATOM	5145	O	GLN	B	634	-9.787	7.705	47.113	1.00	3.35	O
ATOM	5146	N	PRO	B	635	-10.171	7.571	44.888	1.00	3.38	N
ATOM	5147	CA	PRO	B	635	-11.372	8.389	45.033	1.00	2.11	C
ATOM	5148	CB	PRO	B	635	-11.818	8.644	43.580	1.00	2.90	C
ATOM	5149	CG	PRO	B	635	-10.605	8.364	42.759	1.00	3.17	C
ATOM	5150	CD	PRO	B	635	-9.899	7.254	43.478	1.00	2.32	C
ATOM	5151	C	PRO	B	635	-12.457	7.625	45.776	1.00	2.26	C
ATOM	5152	O	PRO	B	635	-12.824	6.514	45.383	1.00	2.30	O
ATOM	5153	N	VAL	B	636	-12.942	8.209	46.863	1.00	2.00	N
ATOM	5154	CA	VAL	B	636	-13.989	7.581	47.655	1.00	2.53	C
ATOM	5155	CB	VAL	B	636	-13.461	6.948	48.982	1.00	2.00	C
ATOM	5156	CG1	VAL	B	636	-12.623	5.701	48.692	1.00	4.15	C
ATOM	5157	CG2	VAL	B	636	-12.662	7.957	49.812	1.00	2.06	C

- 130 -

ATOM	5158	C	VAL B 636	-15.054	8.624	47.940	1.00	2.41	C
ATOM	5159	O	VAL B 636	-14.821	9.833	47.750	1.00	2.00	O
ATOM	5160	N	LEU B 637	-16.218	8.145	48.373	1.00	2.85	N
ATOM	5161	CA	LEU B 637	-17.330	9.011	48.742	1.00	5.55	C
ATOM	5162	CB	LEU B 637	-18.609	8.701	47.896	1.00	5.50	C
ATOM	5163	CG	LEU B 637	-18.540	8.852	46.354	1.00	6.47	C
ATOM	5164	CD1	LEU B 637	-19.787	8.323	45.656	1.00	4.30	C
ATOM	5165	CD2	LEU B 637	-18.268	10.298	45.905	1.00	5.51	C
ATOM	5166	C	LEU B 637	-17.615	8.861	50.235	1.00	4.70	C
ATOM	5167	O	LEU B 637	-17.677	7.751	50.760	1.00	4.48	O
ATOM	5168	N	TPO B 638	-17.774	9.984	50.919	1.00	6.48	N
ATOM	5169	CA	TPO B 638	-18.147	9.943	52.342	1.00	10.24	C
ATOM	5170	CB	TPO B 638	-17.651	11.188	53.108	1.00	13.40	C
ATOM	5171	CG2	TPO B 638	-18.244	11.357	54.508	1.00	13.32	C
ATOM	5172	OG1	TPO B 638	-17.881	12.361	52.344	1.00	16.56	O
ATOM	5173	P	TPO B 638	-16.810	13.002	51.301	1.00	16.52	P
ATOM	5174	O1P	TPO B 638	-17.102	12.335	49.967	1.00	17.60	O
ATOM	5175	O2P	TPO B 638	-15.389	12.788	51.780	1.00	17.69	O
ATOM	5176	O3P	TPO B 638	-17.266	14.447	51.382	1.00	17.47	O
ATOM	5177	C	TPO B 638	-19.615	9.611	52.452	1.00	8.90	C
ATOM	5178	O	TPO B 638	-20.430	10.121	51.661	1.00	6.26	O
ATOM	5179	N	PRO B 639	-19.969	8.694	53.391	1.00	9.46	N
ATOM	5180	CA	PRO B 639	-21.381	8.347	53.592	1.00	8.35	C
ATOM	5181	CB	PRO B 639	-21.354	7.309	54.728	1.00	9.47	C
ATOM	5182	CG	PRO B 639	-19.987	7.384	55.323	1.00	9.96	C
ATOM	5183	CD	PRO B 639	-19.074	7.916	54.275	1.00	9.35	C
ATOM	5184	C	PRO B 639	-22.189	9.569	53.996	1.00	7.57	C
ATOM	5185	O	PRO B 639	-21.641	10.522	54.540	1.00	4.83	O
ATOM	5186	N	PRO B 640	-23.500	9.551	53.707	1.00	8.31	N
ATOM	5187	CA	PRO B 640	-24.252	10.777	53.973	1.00	7.83	C
ATOM	5188	CB	PRO B 640	-25.491	10.627	53.095	1.00	8.66	C
ATOM	5189	CG	PRO B 640	-25.658	9.108	52.932	1.00	10.09	C
ATOM	5190	CD	PRO B 640	-24.327	8.464	53.150	1.00	7.38	C
ATOM	5191	C	PRO B 640	-24.594	10.909	55.442	1.00	6.77	C
ATOM	5192	O	PRO B 640	-24.495	9.912	56.182	1.00	5.79	O
ATOM	5193	N	ASP B 641	-24.949	12.131	55.857	1.00	6.21	N
ATOM	5194	CA	ASP B 641	-25.439	12.408	57.219	1.00	6.07	C
ATOM	5195	CB	ASP B 641	-25.148	13.877	57.603	1.00	9.64	C
ATOM	5196	CG	ASP B 641	-25.689	14.271	58.983	1.00	13.44	C
ATOM	5197	OD1	ASP B 641	-26.425	13.490	59.628	1.00	14.54	O
ATOM	5198	OD2	ASP B 641	-25.375	15.402	59.444	1.00	16.85	O
ATOM	5199	C	ASP B 641	-26.931	12.100	57.252	1.00	4.04	C
ATOM	5200	O	ASP B 641	-27.685	12.519	56.362	1.00	2.06	O
ATOM	5201	N	GLN B 642	-27.360	11.369	58.271	1.00	2.03	N
ATOM	5202	CA	GLN B 642	-28.733	10.924	58.336	1.00	2.00	C
ATOM	5203	CB	GLN B 642	-28.964	9.915	59.461	1.00	3.65	C
ATOM	5204	CG	GLN B 642	-28.486	8.462	59.157	1.00	7.69	C
ATOM	5205	CD	GLN B 642	-28.505	8.076	57.664	1.00	8.84	C
ATOM	5206	OE1	GLN B 642	-29.533	8.168	56.991	1.00	11.19	O
ATOM	5207	NE2	GLN B 642	-27.369	7.629	57.155	1.00	9.20	N
ATOM	5208	C	GLN B 642	-29.714	12.102	58.391	1.00	2.00	C
ATOM	5209	O	GLN B 642	-30.728	12.055	57.732	1.00	2.00	O
ATOM	5210	N	LEU B 643	-29.367	13.151	59.131	1.00	2.00	N
ATOM	5211	CA	LEU B 643	-30.185	14.348	59.273	1.00	2.00	C
ATOM	5212	CB	LEU B 643	-29.612	15.259	60.366	1.00	2.00	C
ATOM	5213	CG	LEU B 643	-30.405	16.504	60.738	1.00	2.00	C
ATOM	5214	CD1	LEU B 643	-31.587	16.153	61.648	1.00	2.00	C
ATOM	5215	CD2	LEU B 643	-29.512	17.527	61.387	1.00	2.00	C

- 131 -

ATOM	5216	C	LEU	B	643	-30.333	15.114	57.960	1.00	2.00	C
ATOM	5217	O	LEU	B	643	-31.420	15.581	57.627	1.00	2.00	O
ATOM	5218	N	VAL	B	644	-29.232	15.242	57.216	1.00	2.00	N
ATOM	5219	CA	VAL	B	644	-29.284	15.807	55.877	1.00	2.00	C
ATOM	5220	CB	VAL	B	644	-27.871	15.881	55.228	1.00	2.00	C
ATOM	5221	CG1	VAL	B	644	-27.974	16.110	53.736	1.00	2.00	C
ATOM	5222	CG2	VAL	B	644	-27.063	16.980	55.868	1.00	2.00	C
ATOM	5223	C	VAL	B	644	-30.280	15.047	54.982	1.00	2.00	C
ATOM	5224	O	VAL	B	644	-31.176	15.662	54.386	1.00	2.00	O
ATOM	5225	N	ILE	B	645	-30.108	13.726	54.911	1.00	2.00	N
ATOM	5226	CA	ILE	B	645	-30.941	12.832	54.118	1.00	2.00	C
ATOM	5227	CB	ILE	B	645	-30.464	11.375	54.254	1.00	2.00	C
ATOM	5228	CG1	ILE	B	645	-29.070	11.201	53.639	1.00	2.46	C
ATOM	5229	CD1	ILE	B	645	-28.457	9.865	54.001	1.00	4.79	C
ATOM	5230	CG2	ILE	B	645	-31.425	10.428	53.564	1.00	2.44	C
ATOM	5231	C	ILE	B	645	-32.444	12.906	54.477	1.00	2.00	C
ATOM	5232	O	ILE	B	645	-33.287	12.890	53.587	1.00	2.00	O
ATOM	5233	N	ALA	B	646	-32.756	12.978	55.770	1.00	2.00	N
ATOM	5234	CA	ALA	B	646	-34.125	13.119	56.262	1.00	2.00	C
ATOM	5235	CB	ALA	B	646	-34.154	12.993	57.783	1.00	2.00	C
ATOM	5236	C	ALA	B	646	-34.758	14.435	55.829	1.00	2.00	C
ATOM	5237	O	ALA	B	646	-35.993	14.584	55.840	1.00	2.00	O
ATOM	5238	N	ASN	B	647	-33.925	15.395	55.452	1.00	2.00	N
ATOM	5239	CA	ASN	B	647	-34.430	16.701	55.054	1.00	2.00	C
ATOM	5240	CB	ASN	B	647	-33.953	17.777	56.031	1.00	2.00	C
ATOM	5241	CG	ASN	B	647	-34.593	17.614	57.407	1.00	2.00	C
ATOM	5242	OD1	ASN	B	647	-35.664	18.166	57.670	1.00	2.00	O
ATOM	5243	ND2	ASN	B	647	-33.962	16.827	58.270	1.00	2.00	N
ATOM	5244	C	ASN	B	647	-34.234	17.069	53.576	1.00	2.00	C
ATOM	5245	O	ASN	B	647	-34.420	18.231	53.179	1.00	2.00	O
ATOM	5246	N	ILE	B	648	-33.880	16.064	52.772	1.00	2.00	N
ATOM	5247	CA	ILE	B	648	-33.837	16.205	51.312	1.00	2.00	C
ATOM	5248	CB	ILE	B	648	-33.005	15.089	50.620	1.00	2.00	C
ATOM	5249	CG1	ILE	B	648	-31.535	15.145	51.037	1.00	2.00	C
ATOM	5250	CD1	ILE	B	648	-30.723	13.993	50.476	1.00	2.00	C
ATOM	5251	CG2	ILE	B	648	-33.113	15.183	49.089	1.00	2.00	C
ATOM	5252	C	ILE	B	648	-35.271	16.104	50.795	1.00	2.00	C
ATOM	5253	O	ILE	B	648	-36.025	15.211	51.199	1.00	2.00	O
ATOM	5254	N	ASP	B	649	-35.636	17.037	49.920	1.00	2.00	N
ATOM	5255	CA	ASP	B	649	-36.903	16.971	49.189	1.00	2.00	C
ATOM	5256	CB	ASP	B	649	-37.294	18.365	48.723	1.00	3.60	C
ATOM	5257	CG	ASP	B	649	-38.707	18.443	48.205	1.00	6.75	C
ATOM	5258	OD1	ASP	B	649	-39.422	17.409	48.155	1.00	7.22	O
ATOM	5259	OD2	ASP	B	649	-39.115	19.571	47.848	1.00	7.46	O
ATOM	5260	C	ASP	B	649	-36.699	16.069	47.983	1.00	2.00	C
ATOM	5261	O	ASP	B	649	-36.284	16.519	46.926	1.00	2.00	O
ATOM	5262	N	GLN	B	650	-36.991	14.782	48.164	1.00	2.00	N
ATOM	5263	CA	GLN	B	650	-36.797	13.777	47.121	1.00	2.00	C
ATOM	5264	CB	GLN	B	650	-36.940	12.379	47.718	1.00	2.00	C
ATOM	5265	CG	GLN	B	650	-35.950	12.098	48.847	1.00	2.00	C
ATOM	5266	CD	GLN	B	650	-34.541	11.735	48.350	1.00	2.00	C
ATOM	5267	OE1	GLN	B	650	-34.202	11.939	47.188	1.00	2.00	O
ATOM	5268	NE2	GLN	B	650	-33.735	11.184	49.246	1.00	2.00	N
ATOM	5269	C	GLN	B	650	-37.754	13.971	45.943	1.00	2.00	C
ATOM	5270	O	GLN	B	650	-37.472	13.540	44.821	1.00	2.00	O
ATOM	5271	N	SER	B	651	-38.892	14.604	46.221	1.00	2.00	N
ATOM	5272	CA	SER	B	651	-39.794	15.099	45.193	1.00	2.00	C
ATOM	5273	CB	SER	B	651	-40.742	16.098	45.834	1.00	2.00	C

- 132 -

ATOM	5274	OG	SER	B	651	-41.561	16.673	44.863	1.00	5.20	O
ATOM	5275	C	SER	B	651	-39.064	15.780	44.008	1.00	2.00	C
ATOM	5276	O	SER	B	651	-39.483	15.642	42.848	1.00	2.00	O
ATOM	5277	N	ASP	B	652	-37.983	16.506	44.314	1.00	2.00	N
ATOM	5278	CA	ASP	B	652	-37.211	17.268	43.305	1.00	2.00	C
ATOM	5279	CB	ASP	B	652	-36.053	18.033	43.972	1.00	2.00	C
ATOM	5280	CG	ASP	B	652	-36.520	19.188	44.835	1.00	2.00	C
ATOM	5281	OD1	ASP	B	652	-37.671	19.650	44.698	1.00	4.31	O
ATOM	5282	OD2	ASP	B	652	-35.742	19.645	45.689	1.00	3.33	O
ATOM	5283	C	ASP	B	652	-36.653	16.379	42.184	1.00	2.00	C
ATOM	5284	O	ASP	B	652	-36.454	16.830	41.046	1.00	2.00	O
ATOM	5285	N	PHE	B	653	-36.411	15.117	42.519	1.00	2.00	N
ATOM	5286	CA	PHE	B	653	-35.669	14.201	41.646	1.00	2.00	C
ATOM	5287	CB	PHE	B	653	-34.453	13.670	42.400	1.00	2.00	C
ATOM	5288	CG	PHE	B	653	-33.695	14.758	43.125	1.00	2.00	C
ATOM	5289	CD1	PHE	B	653	-33.718	14.830	44.512	1.00	2.00	C
ATOM	5290	CE1	PHE	B	653	-33.053	15.854	45.185	1.00	2.00	C
ATOM	5291	CZ	PHE	B	653	-32.355	16.808	44.463	1.00	2.00	C
ATOM	5292	CE2	PHE	B	653	-32.335	16.759	43.074	1.00	2.00	C
ATOM	5293	CD2	PHE	B	653	-33.009	15.732	42.411	1.00	2.00	C
ATOM	5294	C	PHE	B	653	-36.558	13.086	41.114	1.00	2.00	C
ATOM	5295	O	PHE	B	653	-36.069	12.066	40.654	1.00	2.00	O
ATOM	5296	N	GLU	B	654	-37.875	13.316	41.186	1.00	2.00	N
ATOM	5297	CA	GLU	B	654	-38.892	12.396	40.640	1.00	2.00	C
ATOM	5298	CB	GLU	B	654	-40.285	12.971	40.858	1.00	4.54	C
ATOM	5299	CG	GLU	B	654	-41.417	12.120	40.244	1.00	10.24	C
ATOM	5300	CD	GLU	B	654	-42.624	12.959	39.868	1.00	12.59	C
ATOM	5301	OE1	GLU	B	654	-42.955	13.909	40.631	1.00	14.17	O
ATOM	5302	OE2	GLU	B	654	-43.241	12.676	38.804	1.00	14.94	O
ATOM	5303	C	GLU	B	654	-38.670	12.155	39.148	1.00	2.00	C
ATOM	5304	O	GLU	B	654	-38.485	13.105	38.390	1.00	2.00	O
ATOM	5305	N	GLY	B	655	-38.667	10.887	38.739	1.00	2.00	N
ATOM	5306	CA	GLY	B	655	-38.449	10.510	37.347	1.00	2.00	C
ATOM	5307	C	GLY	B	655	-37.003	10.645	36.864	1.00	2.00	C
ATOM	5308	O	GLY	B	655	-36.767	10.784	35.668	1.00	2.00	O
ATOM	5309	N	PHE	B	656	-36.036	10.623	37.777	1.00	2.00	N
ATOM	5310	CA	PHE	B	656	-34.639	10.822	37.384	1.00	2.00	C
ATOM	5311	CB	PHE	B	656	-33.782	11.221	38.581	1.00	2.00	C
ATOM	5312	CG	PHE	B	656	-32.344	11.461	38.230	1.00	2.00	C
ATOM	5313	CD1	PHE	B	656	-31.939	12.673	37.675	1.00	2.00	C
ATOM	5314	CE1	PHE	B	656	-30.590	12.888	37.343	1.00	2.00	C
ATOM	5315	CZ	PHE	B	656	-29.645	11.883	37.545	1.00	2.00	C
ATOM	5316	CE2	PHE	B	656	-30.039	10.672	38.087	1.00	2.00	C
ATOM	5317	CD2	PHE	B	656	-31.395	10.461	38.427	1.00	2.00	C
ATOM	5318	C	PHE	B	656	-34.020	9.601	36.682	1.00	2.00	C
ATOM	5319	O	PHE	B	656	-33.331	9.725	35.656	1.00	2.35	O
ATOM	5320	N	SEP	B	657	-34.240	8.420	37.242	1.00	2.00	N
ATOM	5321	CA	SEP	B	657	-33.591	7.241	36.739	1.00	2.00	C
ATOM	5322	CB	SEP	B	657	-33.829	6.069	37.666	1.00	3.36	C
ATOM	5323	OG	SEP	B	657	-33.079	6.256	38.847	1.00	4.59	O
ATOM	5324	P	SEP	B	657	-33.407	5.099	39.906	1.00	8.76	P
ATOM	5325	O1P	SEP	B	657	-34.922	5.380	40.367	1.00	5.92	O
ATOM	5326	O2P	SEP	B	657	-32.395	5.175	41.159	1.00	6.18	O
ATOM	5327	O3P	SEP	B	657	-33.345	3.609	39.267	1.00	6.00	O
ATOM	5328	C	SEP	B	657	-34.025	6.926	35.327	1.00	2.00	C
ATOM	5329	O	SEP	B	657	-35.172	7.136	34.955	1.00	2.00	O
ATOM	5330	N	TYR	B	658	-33.074	6.428	34.539	1.00	2.00	N
ATOM	5331	CA	TYR	B	658	-33.298	6.116	33.133	1.00	2.00	C

- 133 -

ATOM	5332	CB	TYR	B	658	-33.342	7.408	32.308	1.00	2.00	C
ATOM	5333	CG	TYR	B	658	-33.489	7.159	30.832	1.00	2.00	C
ATOM	5334	CD1	TYR	B	658	-34.715	6.776	30.300	1.00	2.00	C
ATOM	5335	CE1	TYR	B	658	-34.866	6.528	28.934	1.00	2.00	C
ATOM	5336	CZ	TYR	B	658	-33.790	6.651	28.088	1.00	2.00	C
ATOM	5337	OH	TYR	B	658	-33.960	6.391	26.738	1.00	2.00	O
ATOM	5338	CE2	TYR	B	658	-32.539	7.022	28.592	1.00	2.00	C
ATOM	5339	CD2	TYR	B	658	-32.396	7.271	29.963	1.00	2.00	C
ATOM	5340	C	TYR	B	658	-32.155	5.235	32.638	1.00	2.00	C
ATOM	5341	O	TYR	B	658	-31.007	5.518	32.933	1.00	2.00	O
ATOM	5342	N	VAL	B	659	-32.484	4.188	31.893	1.00	2.00	N
ATOM	5343	CA	VAL	B	659	-31.511	3.362	31.178	1.00	2.00	C
ATOM	5344	CB	VAL	B	659	-31.635	1.868	31.551	1.00	2.00	C
ATOM	5345	CG1	VAL	B	659	-30.756	0.986	30.653	1.00	2.44	C
ATOM	5346	CG2	VAL	B	659	-31.310	1.648	33.034	1.00	2.00	C
ATOM	5347	C	VAL	B	659	-31.700	3.556	29.677	1.00	2.00	C
ATOM	5348	O	VAL	B	659	-32.804	3.369	29.147	1.00	2.00	O
ATOM	5349	N	ASN	B	660	-30.615	3.955	29.006	1.00	2.00	N
ATOM	5350	CA	ASN	B	660	-30.579	4.125	27.550	1.00	2.00	C
ATOM	5351	CB	ASN	B	660	-29.366	5.000	27.170	1.00	2.00	C
ATOM	5352	CG	ASN	B	660	-29.260	5.259	25.680	1.00	2.00	C
ATOM	5353	OD1	ASN	B	660	-30.137	4.892	24.909	1.00	2.00	O
ATOM	5354	ND2	ASN	B	660	-28.193	5.915	25.273	1.00	2.00	N
ATOM	5355	C	ASN	B	660	-30.479	2.775	26.842	1.00	2.00	C
ATOM	5356	O	ASN	B	660	-29.449	2.100	26.946	1.00	2.00	O
ATOM	5357	N	PRO	B	661	-31.535	2.373	26.098	1.00	2.92	N
ATOM	5358	CA	PRO	B	661	-31.385	1.048	25.489	1.00	4.40	C
ATOM	5359	CB	PRO	B	661	-32.840	0.584	25.285	1.00	2.88	C
ATOM	5360	CG	PRO	B	661	-33.671	1.882	25.218	1.00	3.27	C
ATOM	5361	CD	PRO	B	661	-32.824	3.019	25.755	1.00	2.19	C
ATOM	5362	C	PRO	B	661	-30.620	1.111	24.159	1.00	5.08	C
ATOM	5363	O	PRO	B	661	-30.379	0.082	23.533	1.00	5.57	O
ATOM	5364	N	GLN	B	662	-30.240	2.319	23.750	1.00	7.95	N
ATOM	5365	CA	GLN	B	662	-29.517	2.544	22.494	1.00	8.84	C
ATOM	5366	CB	GLN	B	662	-30.123	3.733	21.725	1.00	9.13	C
ATOM	5367	CG	GLN	B	662	-31.546	3.511	21.171	1.00	11.35	C
ATOM	5368	CD	GLN	B	662	-32.185	4.794	20.572	1.00	11.67	C
ATOM	5369	OE1	GLN	B	662	-31.852	5.923	20.962	1.00	11.85	O
ATOM	5370	NE2	GLN	B	662	-33.116	4.606	19.621	1.00	13.05	N
ATOM	5371	C	GLN	B	662	-28.018	2.763	22.723	1.00	8.51	C
ATOM	5372	O	GLN	B	662	-27.304	3.150	21.797	1.00	9.72	O
ATOM	5373	N	PHE	B	663	-27.540	2.521	23.942	1.00	6.89	N
ATOM	5374	CA	PHE	B	663	-26.138	2.785	24.264	1.00	7.20	C
ATOM	5375	CB	PHE	B	663	-25.844	2.665	25.767	1.00	4.16	C
ATOM	5376	CG	PHE	B	663	-24.473	3.163	26.162	1.00	2.15	C
ATOM	5377	CD1	PHE	B	663	-24.261	4.514	26.448	1.00	2.00	C
ATOM	5378	CE1	PHE	B	663	-22.992	4.988	26.819	1.00	2.00	C
ATOM	5379	CZ	PHE	B	663	-21.914	4.092	26.897	1.00	2.00	C
ATOM	5380	CE2	PHE	B	663	-22.115	2.751	26.606	1.00	2.00	C
ATOM	5381	CD2	PHE	B	663	-23.392	2.286	26.249	1.00	2.00	C
ATOM	5382	C	PHE	B	663	-25.248	1.856	23.453	1.00	8.13	C
ATOM	5383	O	PHE	B	663	-25.404	0.636	23.478	1.00	6.99	O
ATOM	5384	N	VAL	B	664	-24.332	2.467	22.714	1.00	10.15	N
ATOM	5385	CA	VAL	B	664	-23.389	1.753	21.867	1.00	12.23	C
ATOM	5386	CB	VAL	B	664	-23.352	2.369	20.433	1.00	12.35	C
ATOM	5387	CG1	VAL	B	664	-22.343	1.647	19.547	1.00	13.42	C
ATOM	5388	CG2	VAL	B	664	-24.734	2.293	19.801	1.00	12.66	C
ATOM	5389	C	VAL	B	664	-22.032	1.827	22.559	1.00	13.30	C

- 134 -

ATOM	5390	O	VAL	B	664	-21.411	2.896	22.646	1.00	12.76	O
ATOM	5391	N	HIS	B	665	-21.619	0.696	23.107	1.00	15.68	N
ATOM	5392	CA	HIS	B	665	-20.283	0.545	23.653	1.00	18.64	C
ATOM	5393	CB	HIS	B	665	-20.166	-0.741	24.484	1.00	18.03	C
ATOM	5394	CG	HIS	B	665	-21.249	-0.938	25.505	1.00	17.68	C
ATOM	5395	ND1	HIS	B	665	-21.006	-0.904	26.861	1.00	17.33	N
ATOM	5396	CE1	HIS	B	665	-22.131	-1.129	27.514	1.00	17.74	C
ATOM	5397	NE2	HIS	B	665	-23.094	-1.310	26.632	1.00	17.15	N
ATOM	5398	CD2	HIS	B	665	-22.567	-1.207	25.369	1.00	17.23	C
ATOM	5399	C	HIS	B	665	-19.328	0.423	22.469	1.00	20.99	C
ATOM	5400	O	HIS	B	665	-19.706	-0.088	21.420	1.00	22.61	O
ATOM	5401	N	PRO	B	666	-18.087	0.871	22.624	1.00	23.02	N
ATOM	5402	CA	PRO	B	666	-17.047	0.513	21.646	1.00	24.59	C
ATOM	5403	CB	PRO	B	666	-15.756	0.718	22.432	1.00	24.28	C
ATOM	5404	CG	PRO	B	666	-16.100	1.824	23.355	1.00	24.89	C
ATOM	5405	CD	PRO	B	666	-17.533	1.610	23.781	1.00	23.73	C
ATOM	5406	C	PRO	B	666	-17.157	-0.958	21.186	1.00	25.46	C
ATOM	5407	O	PRO	B	666	-16.855	-1.877	21.983	1.00	25.49	O
ATOM	5408	N1	LIG	B	1	-12.918	14.332	30.292	1.00	2.00	N
ATOM	5409	C3	LIG	B	1	-13.417	15.147	31.279	1.00	2.00	C
ATOM	5410	C4	LIG	B	1	-14.809	15.024	31.335	1.00	2.00	C
ATOM	5411	C5	LIG	B	1	-15.082	14.021	30.242	1.00	2.00	C
ATOM	5412	C6	LIG	B	1	-13.882	13.683	29.689	1.00	2.00	C
ATOM	5413	C8	LIG	B	1	-16.400	13.507	29.808	1.00	2.00	C
ATOM	5414	C9	LIG	B	1	-17.625	14.084	29.838	1.00	2.00	C
ATOM	5415	C10	LIG	B	1	-18.576	13.131	29.253	1.00	2.00	C
ATOM	5416	N11	LIG	B	1	-17.935	12.015	28.899	1.00	2.00	N
ATOM	5417	C13	LIG	B	1	-16.626	12.192	29.213	1.00	2.00	C
ATOM	5418	O14	LIG	B	1	-15.733	11.387	29.050	1.00	2.00	O
ATOM	5419	O15	LIG	B	1	-19.767	13.363	29.117	1.00	2.00	O
ATOM	5420	C16	LIG	B	1	-18.074	15.466	30.295	1.00	2.00	C
ATOM	5421	N17	LIG	B	1	-17.281	16.419	29.812	1.00	2.00	N
ATOM	5422	C18	LIG	B	1	-17.458	17.735	30.037	1.00	2.00	C
ATOM	5423	C19	LIG	B	1	-18.539	18.162	30.815	1.00	2.00	C
ATOM	5424	C21	LIG	B	1	-19.428	17.204	31.327	1.00	2.00	C
ATOM	5425	C22	LIG	B	1	-19.208	15.823	31.076	1.00	2.00	C
ATOM	5426	C23	LIG	B	1	-20.134	14.890	31.617	1.00	2.29	C
ATOM	5427	C25	LIG	B	1	-21.230	15.308	32.390	1.00	2.00	C
ATOM	5428	C27	LIG	B	1	-21.410	16.693	32.629	1.00	2.00	C
ATOM	5429	C29	LIG	B	1	-20.517	17.638	32.100	1.00	2.00	C
ATOM	5430	N31	LIG	B	1	-16.531	18.582	29.489	1.00	2.00	N
ATOM	5431	C32	LIG	B	1	-16.524	19.994	29.818	1.00	2.28	C
ATOM	5432	C35	LIG	B	1	-15.109	20.365	30.294	1.00	2.52	C
ATOM	5433	N36	LIG	B	1	-13.934	19.706	29.661	1.00	3.74	N
ATOM	5434	C38	LIG	B	1	-14.143	18.278	29.320	1.00	2.00	C
ATOM	5435	C41	LIG	B	1	-15.489	18.107	28.570	1.00	2.00	C
ATOM	5436	C44	LIG	B	1	-14.912	21.793	30.855	1.00	4.24	C
ATOM	5437	C47	LIG	B	1	-14.981	20.585	31.823	1.00	4.69	C
ATOM	5438	C50	LIG	B	1	-15.587	15.742	32.268	1.00	2.00	C
ATOM	5439	C52	LIG	B	1	-14.923	16.610	33.159	1.00	2.00	C
ATOM	5440	C54	LIG	B	1	-13.532	16.730	33.096	1.00	2.00	C
ATOM	5441	C56	LIG	B	1	-12.748	16.005	32.163	1.00	2.00	C
ATOM	5442	C57	LIG	B	1	-11.209	16.184	32.166	1.00	2.00	C
ATOM	5443	OW0	HOH	B	800	-27.083	20.668	35.472	1.00	3.28	O
ATOM	5444	OW0	HOH	B	801	-18.707	21.956	30.932	1.00	2.00	O
ATOM	5445	OW0	HOH	B	802	-8.672	13.180	27.283	1.00	19.48	O
ATOM	5446	OW0	HOH	B	803	-21.441	23.326	33.624	1.00	2.00	O
ATOM	5447	OW0	HOH	B	804	0.060	24.758	85.663	1.00	19.31	O

- 135 -

ATOM	5448	OW0	HOH	B	805	-23.525	19.402	33.438	1.00	9.74	O
ATOM	5449	OW0	HOH	B	806	-30.851	24.315	32.106	1.00	2.00	O
ATOM	5450	OW0	HOH	B	808	-24.286	16.510	30.397	1.00	2.00	O
ATOM	5451	OW0	HOH	B	812	-16.670	24.645	34.223	1.00	8.20	O
ATOM	5452	OW0	HOH	B	813	-8.608	22.453	31.109	1.00	25.14	O
ATOM	5453	OW0	HOH	B	814	-11.624	22.922	30.717	1.00	17.37	O
ATOM	5454	OW0	HOH	B	815	-10.240	14.204	29.076	1.00	5.93	O
ATOM	5455	OW0	HOH	B	816	-18.702	-10.260	33.505	1.00	24.45	O
ATOM	5456	OW0	HOH	B	821	-38.615	22.047	48.018	1.00	17.53	O
ATOM	5457	N	ASN	C	330	-9.529	44.285	5.638	1.00	16.12	N
ATOM	5458	CA	ASN	C	330	-10.589	44.476	6.679	1.00	17.43	C
ATOM	5459	CB	ASN	C	330	-10.066	44.101	8.071	1.00	17.55	C
ATOM	5460	CG	ASN	C	330	-9.896	42.617	8.239	1.00	17.72	C
ATOM	5461	OD1	ASN	C	330	-10.875	41.871	8.213	1.00	17.25	O
ATOM	5462	ND2	ASN	C	330	-8.649	42.171	8.404	1.00	17.65	N
ATOM	5463	C	ASN	C	330	-11.162	45.887	6.703	1.00	17.37	C
ATOM	5464	O	ASN	C	330	-11.844	46.287	7.660	1.00	17.75	O
ATOM	5465	N	LEU	C	331	-10.879	46.639	5.647	1.00	17.00	N
ATOM	5466	CA	LEU	C	331	-11.500	47.933	5.455	1.00	16.90	C
ATOM	5467	CB	LEU	C	331	-10.504	48.924	4.840	1.00	17.12	C
ATOM	5468	CG	LEU	C	331	-9.417	49.452	5.796	1.00	17.55	C
ATOM	5469	CD1	LEU	C	331	-8.468	50.413	5.085	1.00	16.96	C
ATOM	5470	CD2	LEU	C	331	-10.044	50.119	7.050	1.00	17.14	C
ATOM	5471	C	LEU	C	331	-12.769	47.789	4.613	1.00	16.29	C
ATOM	5472	O	LEU	C	331	-12.719	47.364	3.456	1.00	16.89	O
ATOM	5473	N	ASP	C	332	-13.902	48.130	5.218	1.00	15.77	N
ATOM	5474	CA	ASP	C	332	-15.203	48.112	4.559	1.00	15.97	C
ATOM	5475	CB	ASP	C	332	-16.317	48.287	5.605	1.00	15.08	C
ATOM	5476	CG	ASP	C	332	-17.710	47.980	5.049	1.00	15.26	C
ATOM	5477	OD1	ASP	C	332	-17.820	47.331	3.974	1.00	13.86	O
ATOM	5478	OD2	ASP	C	332	-18.697	48.388	5.702	1.00	13.34	O
ATOM	5479	C	ASP	C	332	-15.281	49.224	3.505	1.00	16.21	C
ATOM	5480	O	ASP	C	332	-16.043	50.191	3.655	1.00	16.48	O
ATOM	5481	N	ARG	C	333	-14.484	49.087	2.449	1.00	15.80	N
ATOM	5482	CA	ARG	C	333	-14.425	50.089	1.393	1.00	17.19	C
ATOM	5483	CB	ARG	C	333	-13.182	49.917	0.519	1.00	19.45	C
ATOM	5484	CG	ARG	C	333	-13.089	50.941	-0.626	1.00	22.32	C
ATOM	5485	CD	ARG	C	333	-11.650	51.118	-1.051	1.00	22.62	C
ATOM	5486	NE	ARG	C	333	-10.840	51.224	0.155	1.00	25.25	N
ATOM	5487	CZ	ARG	C	333	-9.532	51.050	0.209	1.00	24.54	C
ATOM	5488	NH1	ARG	C	333	-8.850	50.764	-0.895	1.00	27.07	N
ATOM	5489	NH2	ARG	C	333	-8.914	51.166	1.373	1.00	25.50	N
ATOM	5490	C	ARG	C	333	-15.672	50.059	0.523	1.00	16.60	C
ATOM	5491	O	ARG	C	333	-16.137	48.994	0.093	1.00	16.68	O
ATOM	5492	N	VAL	C	334	-16.193	51.247	0.256	1.00	14.85	N
ATOM	5493	CA	VAL	C	334	-17.440	51.375	-0.442	1.00	14.98	C
ATOM	5494	CB	VAL	C	334	-18.503	51.807	0.586	1.00	14.82	C
ATOM	5495	CG1	VAL	C	334	-18.641	53.314	0.630	1.00	15.21	C
ATOM	5496	CG2	VAL	C	334	-19.809	51.084	0.365	1.00	17.18	C
ATOM	5497	C	VAL	C	334	-17.264	52.345	-1.627	1.00	14.07	C
ATOM	5498	O	VAL	C	334	-16.386	53.216	-1.597	1.00	12.75	O
ATOM	5499	N	LYS	C	335	-18.071	52.163	-2.670	1.00	12.97	N
ATOM	5500	CA	LYS	C	335	-18.068	53.037	-3.853	1.00	12.36	C
ATOM	5501	CB	LYS	C	335	-17.633	52.264	-5.115	1.00	13.70	C
ATOM	5502	CG	LYS	C	335	-16.216	51.715	-5.106	1.00	16.41	C
ATOM	5503	CD	LYS	C	335	-16.043	50.666	-6.193	1.00	17.68	C
ATOM	5504	CE	LYS	C	335	-14.563	50.515	-6.593	1.00	19.90	C
ATOM	5505	NZ	LYS	C	335	-14.303	49.163	-7.203	1.00	21.44	N

- 136 -

ATOM	5506	C	LYS	C	335	-19.473	53.582	-4.090	1.00	10.31	C
ATOM	5507	O	LYS	C	335	-20.443	53.132	-3.460	1.00	10.29	O
ATOM	5508	N	LEU	C	336	-19.585	54.532	-5.012	1.00	7.97	N
ATOM	5509	CA	LEU	C	336	-20.858	55.196	-5.296	1.00	8.94	C
ATOM	5510	CB	LEU	C	336	-20.666	56.288	-6.350	1.00	9.60	C
ATOM	5511	CG	LEU	C	336	-21.842	57.190	-6.730	1.00	9.07	C
ATOM	5512	CD1	LEU	C	336	-22.358	57.959	-5.539	1.00	9.41	C
ATOM	5513	CD2	LEU	C	336	-21.396	58.144	-7.840	1.00	9.39	C
ATOM	5514	C	LEU	C	336	-21.958	54.206	-5.692	1.00	7.72	C
ATOM	5515	O	LEU	C	336	-23.064	54.274	-5.169	1.00	7.90	O
ATOM	5516	N	THR	C	337	-21.629	53.282	-6.586	1.00	7.06	N
ATOM	5517	CA	THR	C	337	-22.532	52.231	-7.032	1.00	6.49	C
ATOM	5518	CB	THR	C	337	-21.890	51.363	-8.131	1.00	7.92	C
ATOM	5519	CG1	THR	C	337	-20.563	51.001	-7.729	1.00	10.27	O
ATOM	5520	CG2	THR	C	337	-21.857	52.087	-9.474	1.00	8.09	C
ATOM	5521	C	THR	C	337	-22.966	51.259	-5.947	1.00	5.78	C
ATOM	5522	O	THR	C	337	-23.827	50.413	-6.200	1.00	4.49	O
ATOM	5523	N	ASP	C	338	-22.381	51.355	-4.753	1.00	4.57	N
ATOM	5524	CA	ASP	C	338	-22.880	50.565	-3.619	1.00	5.10	C
ATOM	5525	CB	ASP	C	338	-21.811	50.402	-2.544	1.00	5.98	C
ATOM	5526	CG	ASP	C	338	-20.591	49.642	-3.042	1.00	7.27	C
ATOM	5527	OD1	ASP	C	338	-20.743	48.732	-3.885	1.00	8.04	O
ATOM	5528	OD2	ASP	C	338	-19.482	49.956	-2.587	1.00	6.92	O
ATOM	5529	C	ASP	C	338	-24.167	51.129	-2.980	1.00	4.50	C
ATOM	5530	O	ASP	C	338	-24.744	50.491	-2.092	1.00	3.15	O
ATOM	5531	N	PHE	C	339	-24.615	52.302	-3.437	1.00	3.49	N
ATOM	5532	CA	PHE	C	339	-25.777	52.973	-2.831	1.00	3.36	C
ATOM	5533	CB	PHE	C	339	-25.331	54.276	-2.161	1.00	3.53	C
ATOM	5534	CG	PHE	C	339	-24.263	54.080	-1.138	1.00	3.21	C
ATOM	5535	CD1	PHE	C	339	-24.591	53.814	0.179	1.00	3.51	C
ATOM	5536	CE1	PHE	C	339	-23.583	53.629	1.131	1.00	3.54	C
ATOM	5537	CZ	PHE	C	339	-22.245	53.702	0.753	1.00	3.56	C
ATOM	5538	CE2	PHE	C	339	-21.909	53.961	-0.564	1.00	2.90	C
ATOM	5539	CD2	PHE	C	339	-22.913	54.147	-1.502	1.00	4.13	C
ATOM	5540	C	PHE	C	339	-26.913	53.295	-3.781	1.00	4.55	C
ATOM	5541	O	PHE	C	339	-26.693	53.544	-4.955	1.00	5.87	O
ATOM	5542	N	ASN	C	340	-28.128	53.300	-3.245	1.00	4.55	N
ATOM	5543	CA	ASN	C	340	-29.295	53.882	-3.912	1.00	6.04	C
ATOM	5544	CB	ASN	C	340	-30.487	52.914	-3.886	1.00	7.58	C
ATOM	5545	CG	ASN	C	340	-31.646	53.349	-4.824	1.00	11.98	C
ATOM	5546	OD1	ASN	C	340	-31.599	53.146	-6.047	1.00	12.34	O
ATOM	5547	ND2	ASN	C	340	-32.698	53.924	-4.239	1.00	13.30	N
ATOM	5548	C	ASN	C	340	-29.644	55.171	-3.163	1.00	4.19	C
ATOM	5549	O	ASN	C	340	-29.872	55.138	-1.950	1.00	2.80	O
ATOM	5550	N	PHE	C	341	-29.658	56.298	-3.872	1.00	2.98	N
ATOM	5551	CA	PHE	C	341	-30.079	57.563	-3.286	1.00	2.67	C
ATOM	5552	CB	PHE	C	341	-29.754	58.728	-4.203	1.00	2.75	C
ATOM	5553	CG	PHE	C	341	-28.308	59.003	-4.370	1.00	3.43	C
ATOM	5554	CD1	PHE	C	341	-27.361	58.552	-3.442	1.00	4.19	C
ATOM	5555	CE1	PHE	C	341	-26.007	58.836	-3.612	1.00	3.13	C
ATOM	5556	CZ	PHE	C	341	-25.593	59.584	-4.705	1.00	3.86	C
ATOM	5557	CE2	PHE	C	341	-26.523	60.047	-5.637	1.00	4.75	C
ATOM	5558	CD2	PHE	C	341	-27.881	59.755	-5.458	1.00	3.22	C
ATOM	5559	C	PHE	C	341	-31.595	57.527	-3.088	1.00	2.00	C
ATOM	5560	O	PHE	C	341	-32.333	57.263	-4.036	1.00	2.00	O
ATOM	5561	N	LEU	C	342	-32.061	57.802	-1.873	1.00	2.00	N
ATOM	5562	CA	LEU	C	342	-33.496	57.741	-1.595	1.00	2.11	C
ATOM	5563	CB	LEU	C	342	-33.757	57.070	-0.245	1.00	2.00	C

- 137 -

ATOM	5564	CG	LEU	C	342	-33.341	55.604	-0.224	1.00	2.00	C
ATOM	5565	CD1	LEU	C	342	-33.432	55.085	1.205	1.00	2.00	C
ATOM	5566	CD2	LEU	C	342	-34.186	54.752	-1.209	1.00	2.00	C
ATOM	5567	C	LEU	C	342	-34.169	59.116	-1.652	1.00	2.64	C
ATOM	5568	O	LEU	C	342	-35.250	59.239	-2.181	1.00	2.00	O
ATOM	5569	N	MET	C	343	-33.502	60.132	-1.099	1.00	2.77	N
ATOM	5570	CA	MET	C	343	-34.020	61.503	-1.059	1.00	4.37	C
ATOM	5571	CB	MET	C	343	-35.264	61.574	-0.169	1.00	4.85	C
ATOM	5572	CG	MET	C	343	-35.032	61.091	1.243	1.00	8.70	C
ATOM	5573	SD	MET	C	343	-36.421	61.548	2.304	1.00	13.32	S
ATOM	5574	CE	MET	C	343	-35.690	63.010	3.055	1.00	12.84	C
ATOM	5575	C	MET	C	343	-32.941	62.467	-0.512	1.00	2.00	C
ATOM	5576	O	MET	C	343	-32.050	62.050	0.232	1.00	2.00	O
ATOM	5577	N	VAL	C	344	-33.060	63.742	-0.876	1.00	2.00	N
ATOM	5578	CA	VAL	C	344	-32.221	64.800	-0.348	1.00	2.00	C
ATOM	5579	CB	VAL	C	344	-32.289	66.051	-1.259	1.00	2.00	C
ATOM	5580	CG1	VAL	C	344	-31.348	67.133	-0.782	1.00	2.00	C
ATOM	5581	CG2	VAL	C	344	-31.969	65.681	-2.737	1.00	2.00	C
ATOM	5582	C	VAL	C	344	-32.661	65.112	1.093	1.00	2.00	C
ATOM	5583	O	VAL	C	344	-33.800	65.492	1.343	1.00	2.00	O
ATOM	5584	N	LEU	C	345	-31.762	64.904	2.043	1.00	2.00	N
ATOM	5585	CA	LEU	C	345	-32.026	65.254	3.431	1.00	2.00	C
ATOM	5586	CB	LEU	C	345	-31.055	64.529	4.391	1.00	2.00	C
ATOM	5587	CG	LEU	C	345	-31.282	63.040	4.664	1.00	2.00	C
ATOM	5588	CD1	LEU	C	345	-30.104	62.382	5.394	1.00	2.00	C
ATOM	5589	CD2	LEU	C	345	-32.537	62.876	5.493	1.00	2.00	C
ATOM	5590	C	LEU	C	345	-31.948	66.776	3.627	1.00	2.00	C
ATOM	5591	O	LEU	C	345	-32.808	67.363	4.276	1.00	2.00	O
ATOM	5592	N	GLY	C	346	-30.916	67.408	3.059	1.00	2.00	N
ATOM	5593	CA	GLY	C	346	-30.801	68.874	3.067	1.00	2.00	C
ATOM	5594	C	GLY	C	346	-29.737	69.355	2.083	1.00	2.00	C
ATOM	5595	O	GLY	C	346	-28.891	68.573	1.665	1.00	2.00	O
ATOM	5596	N	LYS	C	347	-29.813	70.628	1.692	1.00	2.00	N
ATOM	5597	CA	LYS	C	347	-28.776	71.298	0.873	1.00	3.30	C
ATOM	5598	CB	LYS	C	347	-29.283	71.684	-0.517	1.00	4.13	C
ATOM	5599	CG	LYS	C	347	-29.716	70.604	-1.437	1.00	6.86	C
ATOM	5600	CD	LYS	C	347	-30.842	71.189	-2.290	1.00	8.70	C
ATOM	5601	CE	LYS	C	347	-30.858	70.633	-3.699	1.00	10.25	C
ATOM	5602	NZ	LYS	C	347	-31.434	71.633	-4.659	1.00	11.08	N
ATOM	5603	C	LYS	C	347	-28.456	72.623	1.505	1.00	4.65	C
ATOM	5604	O	LYS	C	347	-29.357	73.335	1.951	1.00	5.62	O
ATOM	5605	N	GLY	C	348	-27.184	72.995	1.490	1.00	5.96	N
ATOM	5606	CA	GLY	C	348	-26.791	74.309	1.982	1.00	7.02	C
ATOM	5607	C	GLY	C	348	-25.281	74.433	1.948	1.00	6.91	C
ATOM	5608	O	GLY	C	348	-24.605	73.796	1.128	1.00	7.04	O
ATOM	5609	N	SER	C	349	-24.750	75.261	2.835	1.00	6.99	N
ATOM	5610	CA	SER	C	349	-23.321	75.548	2.829	1.00	8.74	C
ATOM	5611	CB	SER	C	349	-23.021	76.745	3.734	1.00	8.37	C
ATOM	5612	OG	SER	C	349	-23.203	76.397	5.090	1.00	11.43	O
ATOM	5613	C	SER	C	349	-22.538	74.279	3.225	1.00	7.52	C
ATOM	5614	O	SER	C	349	-21.360	74.123	2.866	1.00	9.22	O
ATOM	5615	N	PHE	C	350	-23.221	73.363	3.921	1.00	6.31	N
ATOM	5616	CA	PHE	C	350	-22.707	72.020	4.243	1.00	5.40	C
ATOM	5617	CB	PHE	C	350	-23.534	71.385	5.382	1.00	4.03	C
ATOM	5618	CG	PHE	C	350	-25.030	71.540	5.220	1.00	5.35	C
ATOM	5619	CD1	PHE	C	350	-25.702	72.629	5.786	1.00	3.42	C
ATOM	5620	CE1	PHE	C	350	-27.079	72.780	5.631	1.00	4.88	C
ATOM	5621	CZ	PHE	C	350	-27.806	71.821	4.909	1.00	3.33	C

- 138 -

ATOM	5622	CE2	PHE	C	350	-27.138	70.730	4.347	1.00	5.09	C
ATOM	5623	CD2	PHE	C	350	-25.766	70.600	4.504	1.00	3.62	C
ATOM	5624	C	PHE	C	350	-22.695	71.063	3.039	1.00	3.83	C
ATOM	5625	O	PHE	C	350	-22.314	69.912	3.190	1.00	2.22	O
ATOM	5626	N	GLY	C	351	-23.161	71.507	1.865	1.00	2.69	N
ATOM	5627	CA	GLY	C	351	-23.196	70.629	0.693	1.00	2.00	C
ATOM	5628	C	GLY	C	351	-24.564	70.001	0.484	1.00	3.08	C
ATOM	5629	O	GLY	C	351	-25.540	70.491	1.012	1.00	3.60	O
ATOM	5630	N	LYS	C	352	-24.639	68.948	-0.330	1.00	3.29	N
ATOM	5631	CA	LYS	C	352	-25.905	68.249	-0.551	1.00	4.83	C
ATOM	5632	CB	LYS	C	352	-26.168	68.032	-2.049	1.00	5.35	C
ATOM	5633	CG	LYS	C	352	-27.497	67.330	-2.384	1.00	8.03	C
ATOM	5634	CD	LYS	C	352	-27.727	67.250	-3.895	1.00	7.94	C
ATOM	5635	CE	LYS	C	352	-27.779	68.673	-4.518	1.00	12.56	C
ATOM	5636	NZ	LYS	C	352	-28.265	68.777	-5.961	1.00	11.75	N
ATOM	5637	C	LYS	C	352	-25.822	66.930	0.184	1.00	4.09	C
ATOM	5638	O	LYS	C	352	-24.957	66.104	-0.139	1.00	4.60	O
ATOM	5639	N	VAL	C	353	-26.703	66.749	1.177	1.00	2.00	N
ATOM	5640	CA	VAL	C	353	-26.768	65.540	2.006	1.00	2.00	C
ATOM	5641	CB	VAL	C	353	-26.913	65.899	3.498	1.00	2.00	C
ATOM	5642	CG1	VAL	C	353	-26.956	64.637	4.356	1.00	2.00	C
ATOM	5643	CG2	VAL	C	353	-25.776	66.829	3.932	1.00	2.00	C
ATOM	5644	C	VAL	C	353	-27.953	64.658	1.584	1.00	2.00	C
ATOM	5645	O	VAL	C	353	-29.108	65.075	1.631	1.00	2.00	O
ATOM	5646	N	MET	C	354	-27.628	63.428	1.218	1.00	2.00	N
ATOM	5647	CA	MET	C	354	-28.511	62.534	0.545	1.00	2.00	C
ATOM	5648	CB	MET	C	354	-27.790	62.063	-0.724	1.00	2.00	C
ATOM	5649	CG	MET	C	354	-28.622	61.237	-1.637	1.00	4.04	C
ATOM	5650	SD	MET	C	354	-29.743	62.262	-2.635	1.00	7.12	S
ATOM	5651	CE	MET	C	354	-28.600	63.356	-3.454	1.00	2.00	C
ATOM	5652	C	MET	C	354	-28.746	61.365	1.489	1.00	2.00	C
ATOM	5653	O	MET	C	354	-27.791	60.795	2.031	1.00	2.00	O
ATOM	5654	N	LEU	C	355	-30.008	61.011	1.715	1.00	2.00	N
ATOM	5655	CA	LEU	C	355	-30.293	59.760	2.396	1.00	2.00	C
ATOM	5656	CB	LEU	C	355	-31.682	59.749	3.024	1.00	2.00	C
ATOM	5657	CG	LEU	C	355	-32.048	58.444	3.730	1.00	2.00	C
ATOM	5658	CD1	LEU	C	355	-31.201	58.188	4.969	1.00	2.00	C
ATOM	5659	CD2	LEU	C	355	-33.530	58.455	4.096	1.00	2.00	C
ATOM	5660	C	LEU	C	355	-30.131	58.588	1.415	1.00	2.00	C
ATOM	5661	O	LEU	C	355	-30.720	58.574	0.327	1.00	2.00	O
ATOM	5662	N	ALA	C	356	-29.313	57.618	1.820	1.00	2.00	N
ATOM	5663	CA	ALA	C	356	-28.948	56.527	0.946	1.00	2.00	C
ATOM	5664	CB	ALA	C	356	-27.539	56.719	0.391	1.00	2.00	C
ATOM	5665	C	ALA	C	356	-29.085	55.173	1.591	1.00	2.00	C
ATOM	5666	O	ALA	C	356	-28.836	54.976	2.773	1.00	2.00	O
ATOM	5667	N	ASP	C	357	-29.505	54.238	0.769	1.00	5.94	N
ATOM	5668	CA	ASP	C	357	-29.595	52.859	1.152	1.00	9.01	C
ATOM	5669	CB	ASP	C	357	-30.870	52.281	0.529	1.00	11.89	C
ATOM	5670	CG	ASP	C	357	-31.004	50.810	0.733	1.00	14.84	C
ATOM	5671	OD1	ASP	C	357	-30.472	50.277	1.740	1.00	17.14	O
ATOM	5672	OD2	ASP	C	357	-31.659	50.180	-0.126	1.00	17.22	O
ATOM	5673	C	ASP	C	357	-28.322	52.195	0.626	1.00	8.05	C
ATOM	5674	O	ASP	C	357	-27.899	52.481	-0.476	1.00	8.47	O
ATOM	5675	N	ARG	C	358	-27.690	51.343	1.427	1.00	9.45	N
ATOM	5676	CA	ARG	C	358	-26.578	50.521	0.941	1.00	8.82	C
ATOM	5677	CB	ARG	C	358	-25.580	50.236	2.057	1.00	9.70	C
ATOM	5678	CG	ARG	C	358	-24.256	49.684	1.578	1.00	9.63	C
ATOM	5679	CD	ARG	C	358	-23.379	49.331	2.753	1.00	10.15	C

- 139 -

ATOM	5680	NE	ARG	C	358	-22.132	48.685	2.335	1.00	11.93	N
ATOM	5681	CZ	ARG	C	358	-21.107	48.411	3.141	1.00	11.50	C
ATOM	5682	NH1	ARG	C	358	-21.153	48.733	4.434	1.00	12.30	N
ATOM	5683	NH2	ARG	C	358	-20.033	47.815	2.650	1.00	10.96	N
ATOM	5684	C	ARG	C	358	-27.120	49.210	0.375	1.00	9.57	C
ATOM	5685	O	ARG	C	358	-27.835	48.468	1.057	1.00	8.34	O
ATOM	5686	N	LYS	C	359	-26.750	48.951	-0.875	1.00	9.91	N
ATOM	5687	CA	LYS	C	359	-27.197	47.813	-1.678	1.00	10.94	C
ATOM	5688	CB	LYS	C	359	-26.387	47.795	-2.976	1.00	11.37	C
ATOM	5689	CG	LYS	C	359	-27.159	47.441	-4.200	1.00	12.15	C
ATOM	5690	CD	LYS	C	359	-26.599	48.190	-5.393	1.00	12.85	C
ATOM	5691	CE	LYS	C	359	-27.212	49.568	-5.513	1.00	11.71	C
ATOM	5692	NZ	LYS	C	359	-26.707	50.273	-6.723	1.00	12.75	N
ATOM	5693	C	LYS	C	359	-27.066	46.460	-0.977	1.00	10.67	C
ATOM	5694	O	LYS	C	359	-25.992	46.118	-0.464	1.00	9.82	O
ATOM	5695	N	GLY	C	360	-28.171	45.710	-0.946	1.00	10.10	N
ATOM	5696	CA	GLY	C	360	-28.181	44.359	-0.384	1.00	10.92	C
ATOM	5697	C	GLY	C	360	-28.289	44.281	1.125	1.00	11.25	C
ATOM	5698	O	GLY	C	360	-28.460	43.196	1.677	1.00	12.47	O
ATOM	5699	N	THR	C	361	-28.192	45.428	1.793	1.00	12.31	N
ATOM	5700	CA	THR	C	361	-28.297	45.525	3.257	1.00	12.45	C
ATOM	5701	CB	THR	C	361	-27.006	46.109	3.889	1.00	13.13	C
ATOM	5702	OG1	THR	C	361	-26.953	47.520	3.641	1.00	11.46	O
ATOM	5703	CG2	THR	C	361	-25.738	45.440	3.330	1.00	13.02	C
ATOM	5704	C	THR	C	361	-29.432	46.455	3.666	1.00	12.89	C
ATOM	5705	O	THR	C	361	-30.012	47.166	2.835	1.00	14.46	O
ATOM	5706	N	GLU	C	362	-29.721	46.473	4.957	1.00	12.59	N
ATOM	5707	CA	GLU	C	362	-30.759	47.339	5.500	1.00	13.11	C
ATOM	5708	CB	GLU	C	362	-31.388	46.674	6.723	1.00	15.47	C
ATOM	5709	CG	GLU	C	362	-32.879	46.887	6.843	1.00	17.86	C
ATOM	5710	CD	GLU	C	362	-33.671	45.826	6.094	1.00	19.22	C
ATOM	5711	OE1	GLU	C	362	-33.458	45.669	4.864	1.00	19.86	O
ATOM	5712	OE2	GLU	C	362	-34.506	45.150	6.742	1.00	19.06	O
ATOM	5713	C	GLU	C	362	-30.230	48.711	5.900	1.00	12.63	C
ATOM	5714	O	GLU	C	362	-31.004	49.578	6.308	1.00	13.03	O
ATOM	5715	N	GLU	C	363	-28.914	48.898	5.774	1.00	10.84	N
ATOM	5716	CA	GLU	C	363	-28.200	50.033	6.351	1.00	9.73	C
ATOM	5717	CB	GLU	C	363	-26.696	49.747	6.335	1.00	10.80	C
ATOM	5718	CG	GLU	C	363	-26.301	48.331	6.797	1.00	13.49	C
ATOM	5719	CD	GLU	C	363	-24.879	47.908	6.385	1.00	12.70	C
ATOM	5720	OE1	GLU	C	363	-24.015	48.779	6.159	1.00	14.25	O
ATOM	5721	OE2	GLU	C	363	-24.625	46.681	6.297	1.00	15.73	O
ATOM	5722	C	GLU	C	363	-28.477	51.343	5.607	1.00	5.81	C
ATOM	5723	O	GLU	C	363	-28.243	51.441	4.408	1.00	6.18	O
ATOM	5724	N	LEU	C	364	-28.982	52.333	6.333	1.00	2.95	N
ATOM	5725	CA	LEU	C	364	-29.111	53.707	5.858	1.00	2.00	C
ATOM	5726	CB	LEU	C	364	-30.383	54.350	6.434	1.00	2.00	C
ATOM	5727	CG	LEU	C	364	-31.732	54.270	5.683	1.00	2.30	C
ATOM	5728	CD1	LEU	C	364	-31.885	53.080	4.765	1.00	2.00	C
ATOM	5729	CD2	LEU	C	364	-32.879	54.371	6.684	1.00	2.00	C
ATOM	5730	C	LEU	C	364	-27.918	54.577	6.231	1.00	2.00	C
ATOM	5731	O	LEU	C	364	-27.424	54.528	7.350	1.00	2.00	O
ATOM	5732	N	TYR	C	365	-27.479	55.392	5.283	1.00	2.00	N
ATOM	5733	CA	TYR	C	365	-26.390	56.343	5.494	1.00	2.00	C
ATOM	5734	CB	TYR	C	365	-25.158	55.905	4.701	1.00	2.00	C
ATOM	5735	CG	TYR	C	365	-24.557	54.616	5.195	1.00	2.00	C
ATOM	5736	CD1	TYR	C	365	-24.893	53.399	4.606	1.00	2.63	C
ATOM	5737	CE1	TYR	C	365	-24.340	52.207	5.060	1.00	3.97	C

- 140 -

ATOM	5738	CZ	TYR	C	365	-23.433	52.230	6.124	1.00	2.63	C
ATOM	5739	OH	TYR	C	365	-22.888	51.045	6.572	1.00	3.58	O
ATOM	5740	CE2	TYR	C	365	-23.089	53.413	6.724	1.00	2.96	C
ATOM	5741	CD2	TYR	C	365	-23.660	54.612	6.265	1.00	2.73	C
ATOM	5742	C	TYR	C	365	-26.803	57.715	4.998	1.00	2.00	C
ATOM	5743	O	TYR	C	365	-27.598	57.833	4.059	1.00	2.00	O
ATOM	5744	N	ALA	C	366	-26.250	58.745	5.620	1.00	2.00	N
ATOM	5745	CA	ALA	C	366	-26.353	60.083	5.115	1.00	2.00	C
ATOM	5746	CB	ALA	C	366	-26.509	61.038	6.274	1.00	2.00	C
ATOM	5747	C	ALA	C	366	-25.075	60.396	4.299	1.00	2.00	C
ATOM	5748	O	ALA	C	366	-23.969	60.374	4.835	1.00	2.00	O
ATOM	5749	N	ILE	C	367	-25.233	60.670	3.012	1.00	2.00	N
ATOM	5750	CA	ILE	C	367	-24.103	60.926	2.134	1.00	2.00	C
ATOM	5751	CB	ILE	C	367	-24.094	59.987	0.916	1.00	2.00	C
ATOM	5752	CG1	ILE	C	367	-23.951	58.540	1.400	1.00	2.00	C
ATOM	5753	CD1	ILE	C	367	-24.161	57.507	0.345	1.00	2.00	C
ATOM	5754	CG2	ILE	C	367	-22.944	60.366	-0.043	1.00	2.00	C
ATOM	5755	C	ILE	C	367	-23.982	62.400	1.762	1.00	2.00	C
ATOM	5756	O	ILE	C	367	-24.846	62.971	1.097	1.00	2.00	O
ATOM	5757	N	LYS	C	368	-22.938	63.037	2.261	1.00	2.00	N
ATOM	5758	CA	LYS	C	368	-22.679	64.407	1.896	1.00	2.00	C
ATOM	5759	CB	LYS	C	368	-21.895	65.117	2.983	1.00	2.00	C
ATOM	5760	CG	LYS	C	368	-21.326	66.448	2.536	1.00	2.00	C
ATOM	5761	CD	LYS	C	368	-20.665	67.122	3.679	1.00	2.00	C
ATOM	5762	CE	LYS	C	368	-19.835	68.293	3.195	1.00	2.00	C
ATOM	5763	NZ	LYS	C	368	-19.842	69.384	4.213	1.00	2.30	N
ATOM	5764	C	LYS	C	368	-21.928	64.392	0.575	1.00	2.00	C
ATOM	5765	O	LYS	C	368	-20.934	63.658	0.429	1.00	2.00	O
ATOM	5766	N	ILE	C	369	-22.437	65.172	-0.376	1.00	2.00	N
ATOM	5767	CA	ILE	C	369	-21.910	65.256	-1.727	1.00	2.00	C
ATOM	5768	CB	ILE	C	369	-22.957	64.805	-2.799	1.00	2.00	C
ATOM	5769	CG1	ILE	C	369	-23.469	63.405	-2.461	1.00	2.00	C
ATOM	5770	CD1	ILE	C	369	-24.691	62.927	-3.248	1.00	2.00	C
ATOM	5771	CG2	ILE	C	369	-22.363	64.849	-4.214	1.00	2.00	C
ATOM	5772	C	ILE	C	369	-21.486	66.712	-1.979	1.00	2.00	C
ATOM	5773	O	ILE	C	369	-22.261	67.660	-1.749	1.00	2.00	O
ATOM	5774	N	LEU	C	370	-20.250	66.868	-2.443	1.00	2.00	N
ATOM	5775	CA	LEU	C	370	-19.740	68.159	-2.884	1.00	2.00	C
ATOM	5776	CB	LEU	C	370	-18.593	68.623	-1.968	1.00	2.00	C
ATOM	5777	CG	LEU	C	370	-18.958	69.026	-0.546	1.00	2.00	C
ATOM	5778	CD1	LEU	C	370	-17.636	69.232	0.202	1.00	2.00	C
ATOM	5779	CD2	LEU	C	370	-19.820	70.319	-0.529	1.00	2.00	C
ATOM	5780	C	LEU	C	370	-19.194	68.022	-4.280	1.00	2.00	C
ATOM	5781	O	LEU	C	370	-18.588	67.011	-4.600	1.00	2.00	O
ATOM	5782	N	LYS	C	371	-19.416	69.033	-5.108	1.00	2.00	N
ATOM	5783	CA	LYS	C	371	-18.775	69.107	-6.411	1.00	2.00	C
ATOM	5784	CB	LYS	C	371	-19.660	69.893	-7.379	1.00	2.00	C
ATOM	5785	CG	LYS	C	371	-20.890	69.106	-7.844	1.00	2.00	C
ATOM	5786	CD	LYS	C	371	-21.877	70.007	-8.590	1.00	2.00	C
ATOM	5787	CE	LYS	C	371	-21.454	70.312	-10.010	1.00	2.00	C
ATOM	5788	NZ	LYS	C	371	-22.653	71.017	-10.695	1.00	3.94	N
ATOM	5789	C	LYS	C	371	-17.443	69.811	-6.209	1.00	2.00	C
ATOM	5790	O	LYS	C	371	-17.421	70.882	-5.630	1.00	2.00	O
ATOM	5791	N	LYS	C	372	-16.346	69.185	-6.652	1.00	2.00	N
ATOM	5792	CA	LYS	C	372	-14.988	69.780	-6.536	1.00	2.00	C
ATOM	5793	CB	LYS	C	372	-13.896	68.868	-7.151	1.00	2.00	C
ATOM	5794	CG	LYS	C	372	-13.689	67.584	-6.418	1.00	2.00	C
ATOM	5795	CD	LYS	C	372	-12.754	66.689	-7.207	1.00	2.00	C

- 141 -

ATOM	5796	CE	LYS	C	372	-12.531	65.372	-6.538	1.00	2.00	C
ATOM	5797	NZ	LYS	C	372	-11.607	64.523	-7.340	1.00	2.00	N
ATOM	5798	C	LYS	C	372	-14.886	71.161	-7.159	1.00	2.00	C
ATOM	5799	O	LYS	C	372	-14.307	72.054	-6.558	1.00	2.00	O
ATOM	5800	N	ASP	C	373	-15.425	71.362	-8.361	1.00	2.00	N
ATOM	5801	CA	ASP	C	373	-15.323	72.682	-9.009	1.00	2.00	C
ATOM	5802	CB	ASP	C	373	-15.840	72.663	-10.454	1.00	4.24	C
ATOM	5803	CG	ASP	C	373	-17.369	72.407	-10.551	1.00	7.10	C
ATOM	5804	OD1	ASP	C	373	-17.888	71.525	-9.813	1.00	8.92	O
ATOM	5805	OD2	ASP	C	373	-18.071	73.062	-11.377	1.00	9.82	O
ATOM	5806	C	ASP	C	373	-15.985	73.808	-8.181	1.00	2.00	C
ATOM	5807	O	ASP	C	373	-15.489	74.926	-8.118	1.00	2.00	O
ATOM	5808	N	VAL	C	374	-17.113	73.493	-7.557	1.00	2.00	N
ATOM	5809	CA	VAL	C	374	-17.845	74.433	-6.695	1.00	2.00	C
ATOM	5810	CB	VAL	C	374	-19.254	73.882	-6.367	1.00	2.00	C
ATOM	5811	CG1	VAL	C	374	-19.977	74.755	-5.301	1.00	2.00	C
ATOM	5812	CG2	VAL	C	374	-20.105	73.809	-7.630	1.00	2.00	C
ATOM	5813	C	VAL	C	374	-17.087	74.772	-5.395	1.00	2.00	C
ATOM	5814	O	VAL	C	374	-17.038	75.925	-5.003	1.00	2.00	O
ATOM	5815	N	VAL	C	375	-16.524	73.771	-4.728	1.00	2.00	N
ATOM	5816	CA	VAL	C	375	-15.684	73.966	-3.508	1.00	2.00	C
ATOM	5817	CB	VAL	C	375	-15.185	72.582	-2.994	1.00	2.00	C
ATOM	5818	CG1	VAL	C	375	-14.195	72.696	-1.880	1.00	2.00	C
ATOM	5819	CG2	VAL	C	375	-16.403	71.717	-2.522	1.00	2.00	C
ATOM	5820	C	VAL	C	375	-14.520	74.918	-3.806	1.00	2.00	C
ATOM	5821	O	VAL	C	375	-14.204	75.828	-3.022	1.00	2.00	O
ATOM	5822	N	ILE	C	376	-13.905	74.720	-4.965	1.00	2.00	N
ATOM	5823	CA	ILE	C	376	-12.818	75.600	-5.438	1.00	2.00	C
ATOM	5824	CB	ILE	C	376	-12.115	74.980	-6.628	1.00	2.00	C
ATOM	5825	CG1	ILE	C	376	-11.431	73.697	-6.149	1.00	2.00	C
ATOM	5826	CD1	ILE	C	376	-10.966	72.742	-7.284	1.00	2.00	C
ATOM	5827	CG2	ILE	C	376	-11.102	76.007	-7.290	1.00	2.00	C
ATOM	5828	C	ILE	C	376	-13.235	77.044	-5.711	1.00	2.00	C
ATOM	5829	O	ILE	C	376	-12.623	77.960	-5.160	1.00	2.00	O
ATOM	5830	N	GLN	C	377	-14.255	77.252	-6.557	1.00	2.00	N
ATOM	5831	CA	GLN	C	377	-14.873	78.578	-6.769	1.00	2.06	C
ATOM	5832	CB	GLN	C	377	-16.173	78.461	-7.566	1.00	4.15	C
ATOM	5833	CG	GLN	C	377	-16.070	78.025	-8.989	1.00	10.82	C
ATOM	5834	CD	GLN	C	377	-17.444	77.631	-9.590	1.00	10.87	C
ATOM	5835	OE1	GLN	C	377	-18.521	77.809	-8.972	1.00	14.55	O
ATOM	5836	NE2	GLN	C	377	-17.397	77.068	-10.785	1.00	14.87	N
ATOM	5837	C	GLN	C	377	-15.273	79.259	-5.468	1.00	2.00	C
ATOM	5838	O	GLN	C	377	-15.151	80.444	-5.327	1.00	2.00	O
ATOM	5839	N	ASP	C	378	-15.786	78.482	-4.531	1.00	2.00	N
ATOM	5840	CA	ASP	C	378	-16.285	79.020	-3.276	1.00	2.00	C
ATOM	5841	CB	ASP	C	378	-17.294	78.060	-2.671	1.00	2.05	C
ATOM	5842	CG	ASP	C	378	-18.659	78.121	-3.366	1.00	3.97	C
ATOM	5843	OD1	ASP	C	378	-18.838	78.915	-4.317	1.00	4.06	O
ATOM	5844	OD2	ASP	C	378	-19.549	77.349	-2.962	1.00	4.07	O
ATOM	5845	C	ASP	C	378	-15.176	79.257	-2.274	1.00	2.00	C
ATOM	5846	O	ASP	C	378	-15.399	79.858	-1.219	1.00	2.00	O
ATOM	5847	N	ASP	C	379	-13.986	78.762	-2.615	1.00	2.82	N
ATOM	5848	CA	ASP	C	379	-12.774	78.938	-1.790	1.00	2.68	C
ATOM	5849	CB	ASP	C	379	-12.547	80.433	-1.537	1.00	4.27	C
ATOM	5850	CG	ASP	C	379	-11.098	80.789	-1.245	1.00	5.97	C
ATOM	5851	OD1	ASP	C	379	-10.162	80.048	-1.662	1.00	6.72	O
ATOM	5852	OD2	ASP	C	379	-10.898	81.848	-0.595	1.00	6.23	O
ATOM	5853	C	ASP	C	379	-12.924	78.156	-0.481	1.00	2.00	C

- 142 -

ATOM	5854	O	ASP	C	379	-12.534	78.623	0.576	1.00	2.00	O
ATOM	5855	N	ASP	C	380	-13.500	76.963	-0.572	1.00	2.00	N
ATOM	5856	CA	ASP	C	380	-13.813	76.118	0.605	1.00	2.00	C
ATOM	5857	CB	ASP	C	380	-15.301	75.753	0.638	1.00	2.44	C
ATOM	5858	CG	ASP	C	380	-16.192	76.922	1.045	1.00	4.24	C
ATOM	5859	OD1	ASP	C	380	-15.727	77.793	1.822	1.00	3.89	O
ATOM	5860	OD2	ASP	C	380	-17.349	76.952	0.553	1.00	2.79	O
ATOM	5861	C	ASP	C	380	-13.007	74.806	0.671	1.00	2.00	C
ATOM	5862	O	ASP	C	380	-13.381	73.890	1.363	1.00	2.00	O
ATOM	5863	N	VAL	C	381	-11.902	74.728	-0.054	1.00	2.00	N
ATOM	5864	CA	VAL	C	381	-11.048	73.535	-0.030	1.00	2.00	C
ATOM	5865	CB	VAL	C	381	-9.833	73.705	-0.996	1.00	2.00	C
ATOM	5866	CG1	VAL	C	381	-8.847	72.564	-0.812	1.00	2.00	C
ATOM	5867	CG2	VAL	C	381	-10.312	73.753	-2.445	1.00	2.00	C
ATOM	5868	C	VAL	C	381	-10.526	73.190	1.380	1.00	2.00	C
ATOM	5869	O	VAL	C	381	-10.639	72.047	1.840	1.00	2.00	O
ATOM	5870	N	GLU	C	382	-9.943	74.172	2.057	1.00	2.00	N
ATOM	5871	CA	GLU	C	382	-9.350	73.899	3.346	1.00	2.39	C
ATOM	5872	CB	GLU	C	382	-8.508	75.069	3.859	1.00	5.69	C
ATOM	5873	CG	GLU	C	382	-7.903	74.852	5.272	1.00	14.11	C
ATOM	5874	CD	GLU	C	382	-6.914	73.651	5.399	1.00	16.05	C
ATOM	5875	OE1	GLU	C	382	-7.075	72.616	4.690	1.00	17.62	O
ATOM	5876	OE2	GLU	C	382	-5.968	73.754	6.233	1.00	18.07	O
ATOM	5877	C	GLU	C	382	-10.391	73.483	4.367	1.00	2.00	C
ATOM	5878	O	GLU	C	382	-10.187	72.484	5.040	1.00	2.00	O
ATOM	5879	N	CYS	C	383	-11.501	74.221	4.502	1.00	2.00	N
ATOM	5880	CA	CYS	C	383	-12.535	73.790	5.472	1.00	3.16	C
ATOM	5881	CB	CYS	C	383	-13.654	74.839	5.652	1.00	4.83	C
ATOM	5882	SG	CYS	C	383	-14.677	75.170	4.234	1.00	14.39	S
ATOM	5883	C	CYS	C	383	-13.074	72.389	5.166	1.00	2.00	C
ATOM	5884	O	CYS	C	383	-13.412	71.610	6.081	1.00	2.00	O
ATOM	5885	N	THR	C	384	-13.093	72.043	3.879	1.00	2.00	N
ATOM	5886	CA	THR	C	384	-13.556	70.725	3.417	1.00	2.00	C
ATOM	5887	CB	THR	C	384	-13.717	70.762	1.895	1.00	2.00	C
ATOM	5888	OG1	THR	C	384	-14.739	71.717	1.577	1.00	3.65	O
ATOM	5889	CG2	THR	C	384	-14.111	69.396	1.320	1.00	2.00	C
ATOM	5890	C	THR	C	384	-12.574	69.605	3.836	1.00	2.00	C
ATOM	5891	O	THR	C	384	-12.985	68.535	4.322	1.00	2.00	O
ATOM	5892	N	MET	C	385	-11.285	69.884	3.667	1.00	2.00	N
ATOM	5893	CA	MET	C	385	-10.203	68.957	4.033	1.00	2.00	C
ATOM	5894	CB	MET	C	385	-8.886	69.369	3.338	1.00	2.00	C
ATOM	5895	CG	MET	C	385	-8.878	69.172	1.796	1.00	2.00	C
ATOM	5896	SD	MET	C	385	-9.336	67.475	1.224	1.00	2.20	S
ATOM	5897	CE	MET	C	385	-8.054	66.502	1.985	1.00	2.00	C
ATOM	5898	C	MET	C	385	-10.052	68.872	5.559	1.00	2.00	C
ATOM	5899	O	MET	C	385	-9.860	67.777	6.095	1.00	2.00	O
ATOM	5900	N	VAL	C	386	-10.174	70.009	6.255	1.00	2.00	N
ATOM	5901	CA	VAL	C	386	-10.273	70.022	7.713	1.00	2.00	C
ATOM	5902	CB	VAL	C	386	-10.428	71.464	8.257	1.00	2.00	C
ATOM	5903	CG1	VAL	C	386	-10.833	71.473	9.740	1.00	2.00	C
ATOM	5904	CG2	VAL	C	386	-9.129	72.259	8.084	1.00	2.00	C
ATOM	5905	C	VAL	C	386	-11.444	69.146	8.198	1.00	2.00	C
ATOM	5906	O	VAL	C	386	-11.304	68.353	9.113	1.00	2.00	O
ATOM	5907	N	GLU	C	387	-12.606	69.291	7.574	1.00	2.00	N
ATOM	5908	CA	GLU	C	387	-13.773	68.491	7.942	1.00	2.00	C
ATOM	5909	CB	GLU	C	387	-14.980	68.895	7.079	1.00	2.00	C
ATOM	5910	CG	GLU	C	387	-16.264	68.061	7.355	1.00	4.74	C
ATOM	5911	CD	GLU	C	387	-17.531	68.714	6.799	1.00	4.22	C

- 143 -

ATOM	5912	OE1	GLU	C	387	-17.479	69.889	6.380	1.00	8.70	O
ATOM	5913	OE2	GLU	C	387	-18.611	68.065	6.811	1.00	11.19	O
ATOM	5914	C	GLU	C	387	-13.501	66.996	7.804	1.00	2.00	C
ATOM	5915	O	GLU	C	387	-13.945	66.183	8.632	1.00	2.00	O
ATOM	5916	N	LYS	C	388	-12.793	66.634	6.747	1.00	2.00	N
ATOM	5917	CA	LYS	C	388	-12.398	65.254	6.526	1.00	2.00	C
ATOM	5918	CB	LYS	C	388	-11.797	65.070	5.112	1.00	2.00	C
ATOM	5919	CG	LYS	C	388	-11.229	63.676	4.799	1.00	2.00	C
ATOM	5920	CD	LYS	C	388	-9.663	63.612	5.092	1.00	2.00	C
ATOM	5921	CE	LYS	C	388	-9.180	62.179	5.184	1.00	2.00	C
ATOM	5922	NZ	LYS	C	388	-7.681	62.087	5.372	1.00	4.83	N
ATOM	5923	C	LYS	C	388	-11.490	64.767	7.654	1.00	2.00	C
ATOM	5924	O	LYS	C	388	-11.665	63.677	8.165	1.00	2.00	O
ATOM	5925	N	ARG	C	389	-10.545	65.594	8.074	1.00	2.00	N
ATOM	5926	CA	ARG	C	389	-9.620	65.138	9.068	1.00	2.00	C
ATOM	5927	CB	ARG	C	389	-8.389	66.031	9.101	1.00	2.00	C
ATOM	5928	CG	ARG	C	389	-7.542	65.933	7.855	1.00	2.00	C
ATOM	5929	CD	ARG	C	389	-6.169	66.574	8.104	1.00	2.00	C
ATOM	5930	NE	ARG	C	389	-6.253	68.029	8.084	1.00	2.00	N
ATOM	5931	CZ	ARG	C	389	-6.290	68.781	6.981	1.00	2.00	C
ATOM	5932	NH1	ARG	C	389	-6.247	68.237	5.785	1.00	2.00	N
ATOM	5933	NH2	ARG	C	389	-6.376	70.099	7.081	1.00	2.00	N
ATOM	5934	C	ARG	C	389	-10.239	65.037	10.448	1.00	2.00	C
ATOM	5935	O	ARG	C	389	-9.887	64.139	11.207	1.00	2.00	O
ATOM	5936	N	VAL	C	390	-11.151	65.954	10.767	1.00	2.00	N
ATOM	5937	CA	VAL	C	390	-11.874	65.904	12.036	1.00	2.00	C
ATOM	5938	CB	VAL	C	390	-12.657	67.211	12.337	1.00	2.00	C
ATOM	5939	CG1	VAL	C	390	-13.408	67.101	13.647	1.00	2.00	C
ATOM	5940	CG2	VAL	C	390	-11.651	68.393	12.406	1.00	2.00	C
ATOM	5941	C	VAL	C	390	-12.756	64.669	12.098	1.00	2.00	C
ATOM	5942	O	VAL	C	390	-12.704	63.945	13.081	1.00	2.00	O
ATOM	5943	N	LEU	C	391	-13.536	64.416	11.042	1.00	2.00	N
ATOM	5944	CA	LEU	C	391	-14.336	63.177	10.944	1.00	2.00	C
ATOM	5945	CB	LEU	C	391	-15.260	63.213	9.708	1.00	2.00	C
ATOM	5946	CG	LEU	C	391	-16.393	64.244	9.755	1.00	2.00	C
ATOM	5947	CD1	LEU	C	391	-17.041	64.475	8.388	1.00	2.00	C
ATOM	5948	CD2	LEU	C	391	-17.446	63.866	10.804	1.00	2.67	C
ATOM	5949	C	LEU	C	391	-13.513	61.886	10.953	1.00	2.00	C
ATOM	5950	O	LEU	C	391	-13.980	60.870	11.482	1.00	2.00	O
ATOM	5951	N	ALA	C	392	-12.303	61.930	10.372	1.00	2.00	N
ATOM	5952	CA	ALA	C	392	-11.361	60.779	10.353	1.00	2.00	C
ATOM	5953	CB	ALA	C	392	-10.291	60.959	9.237	1.00	2.00	C
ATOM	5954	C	ALA	C	392	-10.657	60.466	11.667	1.00	2.00	C
ATOM	5955	O	ALA	C	392	-9.998	59.436	11.777	1.00	2.00	O
ATOM	5956	N	LEU	C	393	-10.774	61.333	12.662	1.00	2.00	N
ATOM	5957	CA	LEU	C	393	-10.130	61.100	13.961	1.00	2.00	C
ATOM	5958	CB	LEU	C	393	-10.534	62.187	14.955	1.00	2.00	C
ATOM	5959	CG	LEU	C	393	-9.740	63.473	15.137	1.00	3.80	C
ATOM	5960	CD1	LEU	C	393	-9.066	63.890	13.908	1.00	4.37	C
ATOM	5961	CD2	LEU	C	393	-10.676	64.560	15.646	1.00	2.00	C
ATOM	5962	C	LEU	C	393	-10.443	59.732	14.575	1.00	2.00	C
ATOM	5963	O	LEU	C	393	-11.587	59.262	14.540	1.00	2.00	O
ATOM	5964	N	LEU	C	394	-9.429	59.102	15.167	1.00	2.00	N
ATOM	5965	CA	LEU	C	394	-9.638	57.839	15.874	1.00	2.00	C
ATOM	5966	CB	LEU	C	394	-8.313	57.058	16.035	1.00	2.00	C
ATOM	5967	CG	LEU	C	394	-7.594	56.484	14.807	1.00	2.00	C
ATOM	5968	CD1	LEU	C	394	-6.349	55.770	15.266	1.00	2.80	C
ATOM	5969	CD2	LEU	C	394	-8.520	55.509	14.050	1.00	4.85	C

- 144 -

ATOM	5970	C	LEU	C	394	-10.214	58.084	17.257	1.00	2.00	C
ATOM	5971	O	LEU	C	394	-10.054	59.159	17.827	1.00	2.00	O
ATOM	5972	N	ASP	C	395	-10.863	57.070	17.807	1.00	2.00	N
ATOM	5973	CA	ASP	C	395	-11.308	57.101	19.210	1.00	2.13	C
ATOM	5974	CB	ASP	C	395	-10.115	57.171	20.175	1.00	3.08	C
ATOM	5975	CG	ASP	C	395	-9.189	55.985	20.050	1.00	6.61	C
ATOM	5976	OD1	ASP	C	395	-9.667	54.840	20.246	1.00	7.43	O
ATOM	5977	OD2	ASP	C	395	-7.969	56.199	19.773	1.00	6.78	O
ATOM	5978	C	ASP	C	395	-12.308	58.215	19.518	1.00	2.00	C
ATOM	5979	O	ASP	C	395	-12.365	58.704	20.638	1.00	2.00	O
ATOM	5980	N	LYS	C	396	-13.076	58.621	18.507	1.00	2.00	N
ATOM	5981	CA	LYS	C	396	-14.117	59.641	18.668	1.00	2.00	C
ATOM	5982	CB	LYS	C	396	-14.799	59.915	17.338	1.00	2.00	C
ATOM	5983	CG	LYS	C	396	-14.023	60.786	16.392	1.00	2.00	C
ATOM	5984	CD	LYS	C	396	-14.556	60.689	14.979	1.00	2.00	C
ATOM	5985	CE	LYS	C	396	-15.948	61.344	14.840	1.00	2.00	C
ATOM	5986	NZ	LYS	C	396	-16.515	61.077	13.493	1.00	2.62	N
ATOM	5987	C	LYS	C	396	-15.141	59.113	19.632	1.00	2.00	C
ATOM	5988	O	LYS	C	396	-15.467	57.933	19.559	1.00	2.00	O
ATOM	5989	N	PRO	C	397	-15.636	59.965	20.551	1.00	2.00	N
ATOM	5990	CA	PRO	C	397	-16.774	59.555	21.384	1.00	2.00	C
ATOM	5991	CB	PRO	C	397	-16.972	60.750	22.313	1.00	2.00	C
ATOM	5992	CG	PRO	C	397	-16.358	61.895	21.600	1.00	2.00	C
ATOM	5993	CD	PRO	C	397	-15.188	61.328	20.893	1.00	2.00	C
ATOM	5994	C	PRO	C	397	-18.033	59.313	20.533	1.00	2.00	C
ATOM	5995	O	PRO	C	397	-18.109	59.798	19.390	1.00	2.00	O
ATOM	5996	N	PRO	C	398	-19.011	58.562	21.075	1.00	2.00	N
ATOM	5997	CA	PRO	C	398	-20.227	58.282	20.320	1.00	2.00	C
ATOM	5998	CB	PRO	C	398	-21.012	57.349	21.260	1.00	2.00	C
ATOM	5999	CG	PRO	C	398	-20.438	57.578	22.608	1.00	2.00	C
ATOM	6000	CD	PRO	C	398	-19.026	57.914	22.403	1.00	2.00	C
ATOM	6001	C	PRO	C	398	-21.059	59.525	19.964	1.00	2.00	C
ATOM	6002	O	PRO	C	398	-21.954	59.455	19.121	1.00	3.52	O
ATOM	6003	N	PHE	C	399	-20.748	60.652	20.587	1.00	2.00	N
ATOM	6004	CA	PHE	C	399	-21.551	61.870	20.500	1.00	2.00	C
ATOM	6005	CB	PHE	C	399	-21.424	62.610	21.824	1.00	2.00	C
ATOM	6006	CG	PHE	C	399	-21.739	61.744	22.999	1.00	2.00	C
ATOM	6007	CD1	PHE	C	399	-22.990	61.084	23.082	1.00	2.00	C
ATOM	6008	CE1	PHE	C	399	-23.287	60.271	24.135	1.00	2.00	C
ATOM	6009	CZ	PHE	C	399	-22.365	60.092	25.164	1.00	2.00	C
ATOM	6010	CE2	PHE	C	399	-21.127	60.724	25.090	1.00	2.00	C
ATOM	6011	CD2	PHE	C	399	-20.821	61.547	24.000	1.00	2.00	C
ATOM	6012	C	PHE	C	399	-21.184	62.767	19.315	1.00	2.00	C
ATOM	6013	O	PHE	C	399	-21.744	63.842	19.136	1.00	2.00	O
ATOM	6014	N	LEU	C	400	-20.253	62.317	18.490	1.00	2.00	N
ATOM	6015	CA	LEU	C	400	-19.990	63.002	17.235	1.00	2.00	C
ATOM	6016	CB	LEU	C	400	-18.479	63.200	17.059	1.00	2.00	C
ATOM	6017	CG	LEU	C	400	-17.777	63.965	18.185	1.00	2.00	C
ATOM	6018	CD1	LEU	C	400	-16.279	64.125	17.851	1.00	2.00	C
ATOM	6019	CD2	LEU	C	400	-18.426	65.321	18.441	1.00	2.00	C
ATOM	6020	C	LEU	C	400	-20.561	62.092	16.154	1.00	2.00	C
ATOM	6021	O	LEU	C	400	-20.579	60.879	16.334	1.00	2.00	O
ATOM	6022	N	THR	C	401	-21.031	62.653	15.045	1.00	2.00	N
ATOM	6023	CA	THR	C	401	-21.521	61.824	13.956	1.00	2.00	C
ATOM	6024	CB	THR	C	401	-22.078	62.664	12.799	1.00	2.00	C
ATOM	6025	OG1	THR	C	401	-21.071	63.633	12.398	1.00	2.00	O
ATOM	6026	CG2	THR	C	401	-23.366	63.368	13.226	1.00	2.00	C
ATOM	6027	C	THR	C	401	-20.351	61.006	13.419	1.00	2.00	C

- 145 -

ATOM	6028	O	THR	C	401	-19.276	61.542	13.201	1.00	2.00	O
ATOM	6029	N	GLN	C	402	-20.585	59.725	13.194	1.00	2.00	N
ATOM	6030	CA	GLN	C	402	-19.581	58.827	12.630	1.00	2.00	C
ATOM	6031	CB	GLN	C	402	-19.985	57.378	12.873	1.00	2.00	C
ATOM	6032	CG	GLN	C	402	-19.911	56.872	14.289	1.00	2.00	C
ATOM	6033	CD	GLN	C	402	-20.162	55.383	14.338	1.00	2.00	C
ATOM	6034	OE1	GLN	C	402	-19.220	54.575	14.374	1.00	2.00	O
ATOM	6035	NE2	GLN	C	402	-21.436	55.002	14.328	1.00	2.00	N
ATOM	6036	C	GLN	C	402	-19.467	58.995	11.132	1.00	2.00	C
ATOM	6037	O	GLN	C	402	-20.465	59.166	10.425	1.00	2.00	O
ATOM	6038	N	LEU	C	403	-18.232	58.897	10.663	1.00	2.00	N
ATOM	6039	CA	LEU	C	403	-17.923	58.759	9.264	1.00	2.00	C
ATOM	6040	CB	LEU	C	403	-16.659	59.586	8.938	1.00	2.00	C
ATOM	6041	CG	LEU	C	403	-16.111	59.524	7.503	1.00	2.00	C
ATOM	6042	CD1	LEU	C	403	-16.952	60.309	6.515	1.00	2.00	C
ATOM	6043	CD2	LEU	C	403	-14.648	60.036	7.458	1.00	2.00	C
ATOM	6044	C	LEU	C	403	-17.697	57.272	9.010	1.00	2.00	C
ATOM	6045	O	LEU	C	403	-16.947	56.597	9.751	1.00	2.00	O
ATOM	6046	N	HIS	C	404	-18.353	56.745	7.985	1.00	2.00	N
ATOM	6047	CA	HIS	C	404	-18.075	55.395	7.547	1.00	2.00	C
ATOM	6048	CB	HIS	C	404	-19.285	54.841	6.766	1.00	2.00	C
ATOM	6049	CG	HIS	C	404	-18.982	53.572	6.051	1.00	2.00	C
ATOM	6050	ND1	HIS	C	404	-19.233	52.323	6.592	1.00	2.00	N
ATOM	6051	CE1	HIS	C	404	-18.825	51.397	5.745	1.00	2.00	C
ATOM	6052	NE2	HIS	C	404	-18.311	51.997	4.684	1.00	2.00	N
ATOM	6053	CD2	HIS	C	404	-18.402	53.355	4.848	1.00	2.00	C
ATOM	6054	C	HIS	C	404	-16.811	55.415	6.653	1.00	2.00	C
ATOM	6055	O	HIS	C	404	-15.858	54.658	6.855	1.00	2.00	O
ATOM	6056	N	SER	C	405	-16.845	56.292	5.652	1.00	2.00	N
ATOM	6057	CA	SER	C	405	-15.777	56.478	4.692	1.00	2.00	C
ATOM	6058	CB	SER	C	405	-15.601	55.243	3.800	1.00	2.00	C
ATOM	6059	OG	SER	C	405	-16.780	54.919	3.067	1.00	2.00	O
ATOM	6060	C	SER	C	405	-15.999	57.764	3.887	1.00	2.00	C
ATOM	6061	O	SER	C	405	-17.111	58.352	3.883	1.00	2.00	O
ATOM	6062	N	CYS	C	406	-14.897	58.181	3.261	1.00	2.00	N
ATOM	6063	CA	CYS	C	406	-14.676	59.374	2.466	1.00	2.13	C
ATOM	6064	CB	CYS	C	406	-13.474	60.119	3.084	1.00	4.27	C
ATOM	6065	SG	CYS	C	406	-13.899	61.432	4.016	1.00	17.00	S
ATOM	6066	C	CYS	C	406	-14.116	58.865	1.146	1.00	2.00	C
ATOM	6067	O	CYS	C	406	-13.195	58.053	1.151	1.00	2.00	O
ATOM	6068	N	PHE	C	407	-14.624	59.342	0.022	1.00	2.00	N
ATOM	6069	CA	PHE	C	407	-14.050	58.986	-1.276	1.00	2.00	C
ATOM	6070	CB	PHE	C	407	-14.469	57.568	-1.725	1.00	2.00	C
ATOM	6071	CG	PHE	C	407	-15.941	57.410	-2.041	1.00	2.00	C
ATOM	6072	CD1	PHE	C	407	-16.433	57.699	-3.310	1.00	2.00	C
ATOM	6073	CE1	PHE	C	407	-17.778	57.541	-3.618	1.00	2.00	C
ATOM	6074	CZ	PHE	C	407	-18.654	57.082	-2.635	1.00	2.00	C
ATOM	6075	CE2	PHE	C	407	-18.167	56.776	-1.365	1.00	2.00	C
ATOM	6076	CD2	PHE	C	407	-16.835	56.945	-1.074	1.00	2.00	C
ATOM	6077	C	PHE	C	407	-14.347	60.037	-2.349	1.00	2.00	C
ATOM	6078	O	PHE	C	407	-15.285	60.826	-2.221	1.00	2.00	O
ATOM	6079	N	GLN	C	408	-13.521	60.056	-3.399	1.00	2.00	N
ATOM	6080	CA	GLN	C	408	-13.669	61.029	-4.460	1.00	2.00	C
ATOM	6081	CB	GLN	C	408	-12.530	62.070	-4.451	1.00	2.00	C
ATOM	6082	CG	GLN	C	408	-11.115	61.529	-4.749	1.00	2.00	C
ATOM	6083	CD	GLN	C	408	-10.027	62.601	-4.599	1.00	2.00	C
ATOM	6084	OE1	GLN	C	408	-10.054	63.620	-5.290	1.00	2.00	O
ATOM	6085	NE2	GLN	C	408	-9.071	62.369	-3.696	1.00	2.00	N

- 146 -

ATOM	6086	C	GLN	C 408	-13.789	60.341	-5.804	1.00	2.00	C
ATOM	6087	O	GLN	C 408	-13.195	59.276	-6.033	1.00	2.00	O
ATOM	6088	N	THR	C 409	-14.602	60.940	-6.670	1.00	2.00	N
ATOM	6089	CA	THR	C 409	-14.668	60.594	-8.084	1.00	2.00	C
ATOM	6090	CB	THR	C 409	-16.144	60.584	-8.580	1.00	2.00	C
ATOM	6091	OG1	THR	C 409	-16.717	61.879	-8.387	1.00	2.00	O
ATOM	6092	CG2	THR	C 409	-16.970	59.516	-7.826	1.00	2.00	C
ATOM	6093	C	THR	C 409	-13.865	61.698	-8.795	1.00	2.00	C
ATOM	6094	O	THR	C 409	-13.300	62.542	-8.113	1.00	2.00	O
ATOM	6095	N	VAL	C 410	-13.782	61.712	-10.127	1.00	2.00	N
ATOM	6096	CA	VAL	C 410	-13.052	62.822	-10.773	1.00	2.00	C
ATOM	6097	CB	VAL	C 410	-13.093	62.892	-12.333	1.00	2.00	C
ATOM	6098	CG1	VAL	C 410	-11.851	62.338	-12.977	1.00	2.00	C
ATOM	6099	CG2	VAL	C 410	-14.394	62.432	-12.960	1.00	2.00	C
ATOM	6100	C	VAL	C 410	-13.618	64.155	-10.321	1.00	2.00	C
ATOM	6101	O	VAL	C 410	-12.886	65.091	-10.053	1.00	2.00	O
ATOM	6102	N	ASP	C 411	-14.952	64.229	-10.218	1.00	2.00	N
ATOM	6103	CA	ASP	C 411	-15.606	65.525	-10.089	1.00	2.00	C
ATOM	6104	CB	ASP	C 411	-16.607	65.650	-11.211	1.00	2.00	C
ATOM	6105	CG	ASP	C 411	-17.751	64.680	-11.060	1.00	2.00	C
ATOM	6106	OD1	ASP	C 411	-17.529	63.466	-10.853	1.00	2.00	O
ATOM	6107	OD2	ASP	C 411	-18.888	65.171	-11.151	1.00	2.81	O
ATOM	6108	C	ASP	C 411	-16.264	65.835	-8.732	1.00	2.00	C
ATOM	6109	O	ASP	C 411	-16.625	66.977	-8.472	1.00	2.00	O
ATOM	6110	N	ARG	C 412	-16.392	64.842	-7.861	1.00	2.00	N
ATOM	6111	CA	ARG	C 412	-17.089	65.023	-6.595	1.00	2.00	C
ATOM	6112	CB	ARG	C 412	-18.521	64.460	-6.702	1.00	2.00	C
ATOM	6113	CG	ARG	C 412	-19.510	65.458	-7.363	1.00	2.00	C
ATOM	6114	CD	ARG	C 412	-20.954	64.973	-7.449	1.00	2.00	C
ATOM	6115	NE	ARG	C 412	-21.172	64.442	-8.772	1.00	6.14	N
ATOM	6116	CZ	ARG	C 412	-21.962	64.939	-9.715	1.00	4.51	C
ATOM	6117	NH1	ARG	C 412	-22.715	66.016	-9.531	1.00	8.83	N
ATOM	6118	NH2	ARG	C 412	-22.019	64.302	-10.872	1.00	9.13	N
ATOM	6119	C	ARG	C 412	-16.400	64.408	-5.383	1.00	2.00	C
ATOM	6120	O	ARG	C 412	-15.631	63.474	-5.512	1.00	2.00	O
ATOM	6121	N	LEU	C 413	-16.731	64.943	-4.207	1.00	2.00	N
ATOM	6122	CA	LEU	C 413	-16.299	64.408	-2.921	1.00	2.00	C
ATOM	6123	CB	LEU	C 413	-15.742	65.534	-2.061	1.00	2.00	C
ATOM	6124	CG	LEU	C 413	-14.585	66.325	-2.679	1.00	2.00	C
ATOM	6125	CD1	LEU	C 413	-14.065	67.341	-1.706	1.00	2.00	C
ATOM	6126	CD2	LEU	C 413	-13.500	65.355	-3.061	1.00	2.00	C
ATOM	6127	C	LEU	C 413	-17.517	63.799	-2.204	1.00	2.00	C
ATOM	6128	O	LEU	C 413	-18.596	64.386	-2.252	1.00	2.00	O
ATOM	6129	N	TYR	C 414	-17.315	62.668	-1.531	1.00	2.00	N
ATOM	6130	CA	TYR	C 414	-18.375	61.944	-0.815	1.00	2.00	C
ATOM	6131	CB	TYR	C 414	-18.731	60.644	-1.523	1.00	2.00	C
ATOM	6132	CG	TYR	C 414	-19.305	60.867	-2.898	1.00	2.00	C
ATOM	6133	CD1	TYR	C 414	-20.685	61.036	-3.083	1.00	2.00	C
ATOM	6134	CE1	TYR	C 414	-21.225	61.256	-4.376	1.00	2.00	C
ATOM	6135	CZ	TYR	C 414	-20.360	61.304	-5.460	1.00	2.00	C
ATOM	6136	OH	TYR	C 414	-20.850	61.509	-6.725	1.00	2.00	O
ATOM	6137	CE2	TYR	C 414	-18.990	61.122	-5.289	1.00	2.00	C
ATOM	6138	CD2	TYR	C 414	-18.479	60.907	-4.012	1.00	2.00	C
ATOM	6139	C	TYR	C 414	-17.983	61.636	0.599	1.00	2.00	C
ATOM	6140	O	TYR	C 414	-16.930	61.021	0.830	1.00	2.00	O
ATOM	6141	N	PHE	C 415	-18.810	62.061	1.544	1.00	2.00	N
ATOM	6142	CA	PHE	C 415	-18.624	61.699	2.940	1.00	2.00	C
ATOM	6143	CB	PHE	C 415	-18.703	62.928	3.854	1.00	2.00	C

- 147 -

ATOM	6144	CG	PHE	C	415	-17.670	64.011	3.612	1.00	2.00	C
ATOM	6145	CD1	PHE	C	415	-17.762	64.875	2.529	1.00	2.00	C
ATOM	6146	CE1	PHE	C	415	-16.813	65.908	2.356	1.00	2.00	C
ATOM	6147	CZ	PHE	C	415	-15.772	66.083	3.303	1.00	2.00	C
ATOM	6148	CE2	PHE	C	415	-15.690	65.236	4.379	1.00	2.01	C
ATOM	6149	CD2	PHE	C	415	-16.654	64.216	4.542	1.00	2.00	C
ATOM	6150	C	PHE	C	415	-19.807	60.746	3.305	1.00	2.00	C
ATOM	6151	O	PHE	C	415	-20.945	61.195	3.425	1.00	2.00	O
ATOM	6152	N	VAL	C	416	-19.523	59.460	3.479	1.00	2.00	N
ATOM	6153	CA	VAL	C	416	-20.488	58.486	3.979	1.00	2.00	C
ATOM	6154	CB	VAL	C	416	-20.221	57.059	3.446	1.00	2.00	C
ATOM	6155	CG1	VAL	C	416	-21.360	56.093	3.865	1.00	2.00	C
ATOM	6156	CG2	VAL	C	416	-20.098	57.080	1.931	1.00	2.00	C
ATOM	6157	C	VAL	C	416	-20.608	58.540	5.515	1.00	2.00	C
ATOM	6158	O	VAL	C	416	-19.727	58.048	6.257	1.00	2.00	O
ATOM	6159	N	MET	C	417	-21.680	59.189	5.976	1.00	2.00	N
ATOM	6160	CA	MET	C	417	-21.924	59.434	7.404	1.00	2.00	C
ATOM	6161	CB	MET	C	417	-22.491	60.851	7.610	1.00	3.48	C
ATOM	6162	CG	MET	C	417	-21.714	61.979	6.940	1.00	3.98	C
ATOM	6163	SD	MET	C	417	-20.072	62.109	7.678	1.00	6.30	S
ATOM	6164	CE	MET	C	417	-20.432	62.671	9.333	1.00	2.00	C
ATOM	6165	C	MET	C	417	-22.942	58.416	7.912	1.00	2.00	C
ATOM	6166	O	MET	C	417	-23.748	57.898	7.119	1.00	2.52	O
ATOM	6167	N	GLU	C	418	-22.939	58.124	9.215	1.00	2.00	N
ATOM	6168	CA	GLU	C	418	-24.063	57.406	9.799	1.00	2.00	C
ATOM	6169	CB	GLU	C	418	-23.833	57.072	11.280	1.00	2.00	C
ATOM	6170	CG	GLU	C	418	-23.794	58.299	12.175	1.00	2.00	C
ATOM	6171	CD	GLU	C	418	-23.567	57.964	13.627	1.00	2.60	C
ATOM	6172	OE1	GLU	C	418	-23.948	56.856	14.083	1.00	4.67	O
ATOM	6173	OE2	GLU	C	418	-23.001	58.813	14.341	1.00	3.42	O
ATOM	6174	C	GLU	C	418	-25.350	58.255	9.635	1.00	2.00	C
ATOM	6175	O	GLU	C	418	-25.302	59.484	9.634	1.00	2.00	O
ATOM	6176	N	TYR	C	419	-26.487	57.586	9.521	1.00	2.00	N
ATOM	6177	CA	TYR	C	419	-27.744	58.293	9.432	1.00	2.00	C
ATOM	6178	CB	TYR	C	419	-28.762	57.486	8.623	1.00	2.00	C
ATOM	6179	CG	TYR	C	419	-30.113	58.153	8.522	1.00	2.00	C
ATOM	6180	CD1	TYR	C	419	-30.228	59.534	8.316	1.00	2.00	C
ATOM	6181	CE1	TYR	C	419	-31.479	60.153	8.221	1.00	2.00	C
ATOM	6182	CZ	TYR	C	419	-32.629	59.375	8.337	1.00	2.00	C
ATOM	6183	OH	TYR	C	419	-33.879	59.970	8.247	1.00	2.00	O
ATOM	6184	CE2	TYR	C	419	-32.540	58.009	8.541	1.00	2.00	C
ATOM	6185	CD2	TYR	C	419	-31.296	57.402	8.646	1.00	2.00	C
ATOM	6186	C	TYR	C	419	-28.280	58.524	10.827	1.00	2.00	C
ATOM	6187	O	TYR	C	419	-28.574	57.566	11.539	1.00	2.00	O
ATOM	6188	N	VAL	C	420	-28.423	59.785	11.209	1.00	2.00	N
ATOM	6189	CA	VAL	C	420	-28.972	60.134	12.520	1.00	2.00	C
ATOM	6190	CB	VAL	C	420	-28.120	61.173	13.241	1.00	2.00	C
ATOM	6191	CG1	VAL	C	420	-28.596	61.364	14.631	1.00	2.00	C
ATOM	6192	CG2	VAL	C	420	-26.586	60.761	13.232	1.00	2.00	C
ATOM	6193	C	VAL	C	420	-30.417	60.628	12.339	1.00	2.00	C
ATOM	6194	O	VAL	C	420	-30.670	61.627	11.647	1.00	2.00	O
ATOM	6195	N	ASN	C	421	-31.372	59.924	12.943	1.00	2.00	N
ATOM	6196	CA	ASN	C	421	-32.763	60.174	12.581	1.00	2.00	C
ATOM	6197	CB	ASN	C	421	-33.366	58.930	11.891	1.00	3.43	C
ATOM	6198	CG	ASN	C	421	-33.593	57.769	12.851	1.00	5.92	C
ATOM	6199	OD1	ASN	C	421	-33.321	57.866	14.051	1.00	6.78	O
ATOM	6200	ND2	ASN	C	421	-34.098	56.663	12.326	1.00	4.80	N
ATOM	6201	C	ASN	C	421	-33.678	60.647	13.728	1.00	2.00	C

- 148 -

ATOM	6202	O	ASN	C 421	-34.908	60.581	13.603	1.00	2.00	O
ATOM	6203	N	GLY	C 422	-33.083	61.127	14.818	1.00	2.00	N
ATOM	6204	CA	GLY	C 422	-33.861	61.393	16.019	1.00	2.00	C
ATOM	6205	C	GLY	C 422	-34.294	62.832	16.136	1.00	2.00	C
ATOM	6206	O	GLY	C 422	-34.892	63.207	17.128	1.00	2.00	O
ATOM	6207	N	GLY	C 423	-33.990	63.638	15.121	1.00	2.00	N
ATOM	6208	CA	GLY	C 423	-34.360	65.057	15.113	1.00	2.25	C
ATOM	6209	C	GLY	C 423	-33.353	65.932	15.843	1.00	3.24	C
ATOM	6210	O	GLY	C 423	-32.574	65.458	16.671	1.00	4.06	O
ATOM	6211	N	ASP	C 424	-33.366	67.219	15.563	1.00	3.18	N
ATOM	6212	CA	ASP	C 424	-32.372	68.093	16.169	1.00	4.20	C
ATOM	6213	CB	ASP	C 424	-31.844	69.100	15.124	1.00	7.34	C
ATOM	6214	CG	ASP	C 424	-32.906	70.098	14.691	1.00	8.85	C
ATOM	6215	OD1	ASP	C 424	-33.527	70.715	15.579	1.00	8.84	O
ATOM	6216	OD2	ASP	C 424	-33.125	70.266	13.474	1.00	10.34	O
ATOM	6217	C	ASP	C 424	-32.930	68.749	17.437	1.00	4.45	C
ATOM	6218	O	ASP	C 424	-34.167	68.755	17.657	1.00	2.00	O
ATOM	6219	N	LEU	C 425	-32.040	69.274	18.284	1.00	2.00	N
ATOM	6220	CA	LEU	C 425	-32.465	69.799	19.590	1.00	2.00	C
ATOM	6221	CB	LEU	C 425	-31.270	70.072	20.512	1.00	2.00	C
ATOM	6222	CG	LEU	C 425	-30.615	68.934	21.282	1.00	2.00	C
ATOM	6223	CD1	LEU	C 425	-29.652	69.542	22.325	1.00	2.09	C
ATOM	6224	CD2	LEU	C 425	-31.588	67.997	21.967	1.00	2.00	C
ATOM	6225	C	LEU	C 425	-33.315	71.064	19.503	1.00	2.00	C
ATOM	6226	O	LEU	C 425	-34.029	71.380	20.438	1.00	2.00	O
ATOM	6227	N	MET	C 426	-33.230	71.781	18.388	1.00	2.00	N
ATOM	6228	CA	MET	C 426	-34.068	72.937	18.128	1.00	2.00	C
ATOM	6229	CB	MET	C 426	-33.565	73.672	16.890	1.00	2.59	C
ATOM	6230	CG	MET	C 426	-34.446	74.834	16.369	1.00	3.21	C
ATOM	6231	SD	MET	C 426	-34.579	76.151	17.588	1.00	10.13	S
ATOM	6232	CE	MET	C 426	-35.788	77.215	16.821	1.00	5.07	C
ATOM	6233	C	MET	C 426	-35.514	72.437	17.933	1.00	2.00	C
ATOM	6234	O	MET	C 426	-36.446	72.996	18.497	1.00	2.00	O
ATOM	6235	N	TYR	C 427	-35.684	71.384	17.141	1.00	2.00	N
ATOM	6236	CA	TYR	C 427	-36.999	70.758	16.998	1.00	2.18	C
ATOM	6237	CB	TYR	C 427	-36.962	69.591	16.000	1.00	4.89	C
ATOM	6238	CG	TYR	C 427	-38.267	68.829	15.969	1.00	6.98	C
ATOM	6239	CD1	TYR	C 427	-39.411	69.384	15.395	1.00	7.31	C
ATOM	6240	CE1	TYR	C 427	-40.638	68.688	15.376	1.00	7.85	C
ATOM	6241	CZ	TYR	C 427	-40.716	67.430	15.946	1.00	7.59	C
ATOM	6242	OH	TYR	C 427	-41.904	66.735	15.943	1.00	8.90	O
ATOM	6243	CE2	TYR	C 427	-39.591	66.857	16.519	1.00	7.97	C
ATOM	6244	CD2	TYR	C 427	-38.372	67.565	16.539	1.00	6.89	C
ATOM	6245	C	TYR	C 427	-37.570	70.295	18.340	1.00	2.03	C
ATOM	6246	O	TYR	C 427	-38.742	70.531	18.637	1.00	2.00	O
ATOM	6247	N	HIS	C 428	-36.754	69.619	19.154	1.00	2.00	N
ATOM	6248	CA	HIS	C 428	-37.257	69.061	20.395	1.00	2.00	C
ATOM	6249	CB	HIS	C 428	-36.376	67.923	20.902	1.00	2.00	C
ATOM	6250	CG	HIS	C 428	-36.318	66.765	19.964	1.00	2.00	C
ATOM	6251	ND1	HIS	C 428	-37.366	65.883	19.803	1.00	2.00	N
ATOM	6252	CE1	HIS	C 428	-37.038	64.977	18.901	1.00	2.00	C
ATOM	6253	NE2	HIS	C 428	-35.811	65.234	18.480	1.00	2.00	N
ATOM	6254	CD2	HIS	C 428	-35.341	66.350	19.124	1.00	2.00	C
ATOM	6255	C	HIS	C 428	-37.507	70.065	21.479	1.00	2.00	C
ATOM	6256	O	HIS	C 428	-38.403	69.886	22.294	1.00	2.00	O
ATOM	6257	N	ILE	C 429	-36.721	71.134	21.511	1.00	2.00	N
ATOM	6258	CA	ILE	C 429	-36.997	72.199	22.459	1.00	2.00	C
ATOM	6259	CB	ILE	C 429	-35.922	73.313	22.439	1.00	2.00	C

- 149 -

ATOM	6260	CG1	ILE	C	429	-34.725	72.899	23.281	1.00	2.00	C
ATOM	6261	CD1	ILE	C	429	-33.539	73.776	23.128	1.00	2.00	C
ATOM	6262	CG2	ILE	C	429	-36.469	74.580	23.059	1.00	2.42	C
ATOM	6263	C	ILE	C	429	-38.367	72.786	22.128	1.00	2.00	C
ATOM	6264	O	ILE	C	429	-39.194	73.015	23.007	1.00	2.00	O
ATOM	6265	N	GLN	C	430	-38.619	73.029	20.855	1.00	2.00	N
ATOM	6266	CA	GLN	C	430	-39.889	73.652	20.553	1.00	3.36	C
ATOM	6267	CB	GLN	C	430	-39.864	74.423	19.232	1.00	4.05	C
ATOM	6268	CG	GLN	C	430	-39.450	73.665	18.042	1.00	7.40	C
ATOM	6269	CD	GLN	C	430	-39.001	74.567	16.916	1.00	6.38	C
ATOM	6270	OE1	GLN	C	430	-39.467	75.700	16.769	1.00	6.92	O
ATOM	6271	NE2	GLN	C	430	-38.086	74.065	16.107	1.00	9.15	N
ATOM	6272	C	GLN	C	430	-41.151	72.782	20.761	1.00	3.67	C
ATOM	6273	O	GLN	C	430	-42.223	73.338	20.886	1.00	2.00	O
ATOM	6274	N	GLN	C	431	-41.013	71.452	20.837	1.00	4.56	N
ATOM	6275	CA	GLN	C	431	-42.154	70.563	21.176	1.00	5.87	C
ATOM	6276	CB	GLN	C	431	-41.796	69.065	21.059	1.00	7.78	C
ATOM	6277	CG	GLN	C	431	-41.159	68.558	19.758	1.00	9.01	C
ATOM	6278	CD	GLN	C	431	-40.368	67.208	19.933	1.00	11.31	C
ATOM	6279	OE1	GLN	C	431	-40.126	66.700	21.050	1.00	13.85	O
ATOM	6280	NE2	GLN	C	431	-39.973	66.638	18.817	1.00	12.30	N
ATOM	6281	C	GLN	C	431	-42.604	70.803	22.601	1.00	4.05	C
ATOM	6282	O	GLN	C	431	-43.739	70.522	22.953	1.00	4.89	O
ATOM	6283	N	VAL	C	432	-41.705	71.315	23.440	1.00	2.86	N
ATOM	6284	CA	VAL	C	432	-41.968	71.386	24.882	1.00	2.00	C
ATOM	6285	CB	VAL	C	432	-41.090	70.342	25.666	1.00	2.00	C
ATOM	6286	CG1	VAL	C	432	-41.439	68.897	25.256	1.00	2.00	C
ATOM	6287	CG2	VAL	C	432	-39.603	70.599	25.441	1.00	2.00	C
ATOM	6288	C	VAL	C	432	-41.771	72.782	25.488	1.00	2.00	C
ATOM	6289	O	VAL	C	432	-42.062	72.981	26.663	1.00	2.24	O
ATOM	6290	N	GLY	C	433	-41.270	73.737	24.711	1.00	2.00	N
ATOM	6291	CA	GLY	C	433	-40.977	75.069	25.241	1.00	2.00	C
ATOM	6292	C	GLY	C	433	-39.555	75.216	25.780	1.00	2.00	C
ATOM	6293	O	GLY	C	433	-38.804	76.075	25.333	1.00	2.00	O
ATOM	6294	N	LYS	C	434	-39.201	74.368	26.746	1.00	2.00	N
ATOM	6295	CA	LYS	C	434	-37.845	74.294	27.317	1.00	2.00	C
ATOM	6296	CB	LYS	C	434	-37.608	75.374	28.380	1.00	2.00	C
ATOM	6297	CG	LYS	C	434	-38.588	75.343	29.552	1.00	2.00	C
ATOM	6298	CD	LYS	C	434	-38.562	76.646	30.311	1.00	2.00	C
ATOM	6299	CE	LYS	C	434	-39.620	76.682	31.415	1.00	6.50	C
ATOM	6300	NZ	LYS	C	434	-39.155	76.177	32.761	1.00	5.90	N
ATOM	6301	C	LYS	C	434	-37.768	72.935	27.957	1.00	2.00	C
ATOM	6302	O	LYS	C	434	-38.817	72.314	28.244	1.00	2.00	O
ATOM	6303	N	PHE	C	435	-36.545	72.465	28.171	1.00	2.00	N
ATOM	6304	CA	PHE	C	435	-36.314	71.205	28.838	1.00	2.00	C
ATOM	6305	CB	PHE	C	435	-34.954	70.617	28.421	1.00	2.00	C
ATOM	6306	CG	PHE	C	435	-34.853	70.258	26.972	1.00	2.00	C
ATOM	6307	CD1	PHE	C	435	-35.954	69.795	26.263	1.00	2.00	C
ATOM	6308	CE1	PHE	C	435	-35.859	69.448	24.948	1.00	2.00	C
ATOM	6309	CZ	PHE	C	435	-34.639	69.546	24.290	1.00	2.00	C
ATOM	6310	CE2	PHE	C	435	-33.524	70.017	24.981	1.00	2.00	C
ATOM	6311	CD2	PHE	C	435	-33.631	70.370	26.308	1.00	2.00	C
ATOM	6312	C	PHE	C	435	-36.342	71.374	30.354	1.00	2.00	C
ATOM	6313	O	PHE	C	435	-35.955	72.422	30.873	1.00	3.83	O
ATOM	6314	N	LYS	C	436	-36.826	70.349	31.055	1.00	2.46	N
ATOM	6315	CA	LYS	C	436	-36.624	70.201	32.492	1.00	3.78	C
ATOM	6316	CB	LYS	C	436	-37.296	68.913	32.992	1.00	5.66	C
ATOM	6317	CG	LYS	C	436	-36.822	67.638	32.232	1.00	9.38	C

- 150 -

ATOM	6318	CD	LYS	C	436	-36.630	66.440	33.175	1.00	10.65	C
ATOM	6319	CE	LYS	C	436	-35.991	65.273	32.454	1.00	9.72	C
ATOM	6320	NZ	LYS	C	436	-35.900	64.055	33.303	1.00	13.92	N
ATOM	6321	C	LYS	C	436	-35.110	70.117	32.762	1.00	2.26	C
ATOM	6322	O	LYS	C	436	-34.356	69.597	31.933	1.00	2.96	O
ATOM	6323	N	GLU	C	437	-34.671	70.614	33.908	1.00	2.36	N
ATOM	6324	CA	GLU	C	437	-33.242	70.604	34.219	1.00	4.21	C
ATOM	6325	CB	GLU	C	437	-32.973	71.113	35.626	1.00	5.35	C
ATOM	6326	CG	GLU	C	437	-31.497	71.376	35.871	1.00	7.55	C
ATOM	6327	CD	GLU	C	437	-31.256	72.339	37.009	1.00	8.66	C
ATOM	6328	OE1	GLU	C	437	-31.995	73.346	37.108	1.00	10.71	O
ATOM	6329	OE2	GLU	C	437	-30.326	72.100	37.808	1.00	9.80	O
ATOM	6330	C	GLU	C	437	-32.595	69.226	34.019	1.00	2.92	C
ATOM	6331	O	GLU	C	437	-31.603	69.135	33.303	1.00	3.03	O
ATOM	6332	N	PRO	C	438	-33.153	68.155	34.632	1.00	2.00	N
ATOM	6333	CA	PRO	C	438	-32.426	66.888	34.470	1.00	2.00	C
ATOM	6334	CB	PRO	C	438	-33.303	65.872	35.239	1.00	2.00	C
ATOM	6335	CG	PRO	C	438	-34.114	66.689	36.182	1.00	2.00	C
ATOM	6336	CD	PRO	C	438	-34.367	67.980	35.471	1.00	2.00	C
ATOM	6337	C	PRO	C	438	-32.214	66.468	33.010	1.00	2.00	C
ATOM	6338	O	PRO	C	438	-31.185	65.872	32.674	1.00	2.00	O
ATOM	6339	N	GLN	C	439	-33.162	66.794	32.134	1.00	2.00	N
ATOM	6340	CA	GLN	C	439	-32.980	66.505	30.720	1.00	2.00	C
ATOM	6341	CB	GLN	C	439	-34.285	66.701	29.984	1.00	2.00	C
ATOM	6342	CG	GLN	C	439	-34.162	66.694	28.497	1.00	2.00	C
ATOM	6343	CD	GLN	C	439	-35.523	66.622	27.836	1.00	2.00	C
ATOM	6344	OE1	GLN	C	439	-35.684	66.031	26.753	1.00	2.00	O
ATOM	6345	NE2	GLN	C	439	-36.515	67.221	28.484	1.00	2.00	N
ATOM	6346	C	GLN	C	439	-31.879	67.359	30.074	1.00	2.00	C
ATOM	6347	O	GLN	C	439	-31.122	66.871	29.250	1.00	2.00	O
ATOM	6348	N	ALA	C	440	-31.834	68.633	30.452	1.00	2.00	N
ATOM	6349	CA	ALA	C	440	-30.852	69.599	29.950	1.00	2.00	C
ATOM	6350	CB	ALA	C	440	-31.242	71.030	30.383	1.00	2.00	C
ATOM	6351	C	ALA	C	440	-29.440	69.274	30.446	1.00	2.00	C
ATOM	6352	O	ALA	C	440	-28.469	69.563	29.768	1.00	2.00	O
ATOM	6353	N	VAL	C	441	-29.354	68.687	31.632	1.00	2.00	N
ATOM	6354	CA	VAL	C	441	-28.107	68.217	32.214	1.00	2.00	C
ATOM	6355	CB	VAL	C	441	-28.313	67.769	33.689	1.00	2.00	C
ATOM	6356	CG1	VAL	C	441	-27.093	67.009	34.216	1.00	2.00	C
ATOM	6357	CG2	VAL	C	441	-28.602	68.970	34.601	1.00	2.00	C
ATOM	6358	C	VAL	C	441	-27.570	67.063	31.368	1.00	2.00	C
ATOM	6359	O	VAL	C	441	-26.400	67.077	30.981	1.00	2.00	O
ATOM	6360	N	PHE	C	442	-28.428	66.089	31.069	1.00	2.00	N
ATOM	6361	CA	PHE	C	442	-28.080	64.928	30.242	1.00	2.00	C
ATOM	6362	CB	PHE	C	442	-29.306	63.973	30.121	1.00	2.00	C
ATOM	6363	CG	PHE	C	442	-29.100	62.816	29.192	1.00	2.00	C
ATOM	6364	CD1	PHE	C	442	-28.655	61.603	29.675	1.00	2.00	C
ATOM	6365	CE1	PHE	C	442	-28.447	60.547	28.814	1.00	2.00	C
ATOM	6366	CZ	PHE	C	442	-28.702	60.689	27.449	1.00	2.00	C
ATOM	6367	CE2	PHE	C	442	-29.154	61.895	26.948	1.00	2.00	C
ATOM	6368	CD2	PHE	C	442	-29.351	62.948	27.822	1.00	2.00	C
ATOM	6369	C	PHE	C	442	-27.514	65.349	28.866	1.00	2.00	C
ATOM	6370	O	PHE	C	442	-26.469	64.857	28.448	1.00	2.00	O
ATOM	6371	N	TYR	C	443	-28.204	66.263	28.177	1.00	2.00	N
ATOM	6372	CA	TYR	C	443	-27.750	66.732	26.874	1.00	2.00	C
ATOM	6373	CB	TYR	C	443	-28.829	67.548	26.143	1.00	2.00	C
ATOM	6374	CG	TYR	C	443	-30.094	66.756	25.849	1.00	2.00	C
ATOM	6375	CD1	TYR	C	443	-30.037	65.398	25.522	1.00	2.00	C

- 151 -

ATOM	6376	CE1	TYR	C	443	-31.198	64.666	25.259	1.00	2.00	C
ATOM	6377	CZ	TYR	C	443	-32.441	65.319	25.296	1.00	2.00	C
ATOM	6378	OH	TYR	C	443	-33.609	64.626	25.053	1.00	2.00	O
ATOM	6379	CE2	TYR	C	443	-32.508	66.645	25.601	1.00	2.00	C
ATOM	6380	CD2	TYR	C	443	-31.345	67.368	25.873	1.00	2.00	C
ATOM	6381	C	TYR	C	443	-26.454	67.516	26.988	1.00	2.00	C
ATOM	6382	O	TYR	C	443	-25.530	67.271	26.240	1.00	2.00	O
ATOM	6383	N	ALA	C	444	-26.405	68.443	27.934	1.00	2.00	N
ATOM	6384	CA	ALA	C	444	-25.253	69.260	28.184	1.00	2.00	C
ATOM	6385	CB	ALA	C	444	-25.547	70.249	29.288	1.00	2.00	C
ATOM	6386	C	ALA	C	444	-24.018	68.376	28.514	1.00	2.00	C
ATOM	6387	O	ALA	C	444	-22.957	68.626	28.014	1.00	2.00	O
ATOM	6388	N	ALA	C	445	-24.220	67.317	29.305	1.00	2.00	N
ATOM	6389	CA	ALA	C	445	-23.162	66.401	29.667	1.00	2.00	C
ATOM	6390	CB	ALA	C	445	-23.623	65.483	30.746	1.00	2.00	C
ATOM	6391	C	ALA	C	445	-22.626	65.625	28.457	1.00	2.00	C
ATOM	6392	O	ALA	C	445	-21.398	65.537	28.269	1.00	2.00	O
ATOM	6393	N	GLU	C	446	-23.533	65.077	27.635	1.00	2.00	N
ATOM	6394	CA	GLU	C	446	-23.128	64.398	26.411	1.00	2.00	C
ATOM	6395	CB	GLU	C	446	-24.328	63.630	25.766	1.00	2.00	C
ATOM	6396	CG	GLU	C	446	-24.859	62.492	26.656	1.00	2.00	C
ATOM	6397	CD	GLU	C	446	-25.680	61.443	25.907	1.00	2.00	C
ATOM	6398	OE1	GLU	C	446	-26.204	61.772	24.816	1.00	2.00	O
ATOM	6399	OE2	GLU	C	446	-25.794	60.294	26.422	1.00	2.00	O
ATOM	6400	C	GLU	C	446	-22.433	65.367	25.420	1.00	2.00	C
ATOM	6401	O	GLU	C	446	-21.433	65.010	24.800	1.00	2.00	O
ATOM	6402	N	ILE	C	447	-22.947	66.587	25.268	1.00	2.00	N
ATOM	6403	CA	ILE	C	447	-22.320	67.545	24.373	1.00	2.00	C
ATOM	6404	CB	ILE	C	447	-23.140	68.841	24.257	1.00	2.00	C
ATOM	6405	CG1	ILE	C	447	-24.475	68.596	23.472	1.00	2.00	C
ATOM	6406	CD1	ILE	C	447	-25.494	69.724	23.638	1.00	2.00	C
ATOM	6407	CG2	ILE	C	447	-22.329	69.978	23.603	1.00	2.00	C
ATOM	6408	C	ILE	C	447	-20.854	67.826	24.835	1.00	2.00	C
ATOM	6409	O	ILE	C	447	-19.945	67.798	24.037	1.00	2.00	O
ATOM	6410	N	SER	C	448	-20.669	68.065	26.129	1.00	2.00	N
ATOM	6411	CA	SER	C	448	-19.390	68.379	26.710	1.00	2.00	C
ATOM	6412	CB	SER	C	448	-19.540	68.528	28.221	1.00	2.00	C
ATOM	6413	OG	SER	C	448	-19.617	67.277	28.833	1.00	2.00	O
ATOM	6414	C	SER	C	448	-18.325	67.318	26.373	1.00	2.00	C
ATOM	6415	O	SER	C	448	-17.209	67.677	26.049	1.00	2.00	O
ATOM	6416	N	ILE	C	449	-18.681	66.032	26.416	1.00	2.00	N
ATOM	6417	CA	ILE	C	449	-17.770	64.928	26.011	1.00	2.00	C
ATOM	6418	CB	ILE	C	449	-18.461	63.559	26.162	1.00	2.00	C
ATOM	6419	CG1	ILE	C	449	-18.663	63.258	27.636	1.00	2.00	C
ATOM	6420	CD1	ILE	C	449	-19.981	62.570	27.862	1.00	4.50	C
ATOM	6421	CG2	ILE	C	449	-17.645	62.425	25.529	1.00	2.00	C
ATOM	6422	C	ILE	C	449	-17.234	65.081	24.588	1.00	2.00	C
ATOM	6423	O	ILE	C	449	-16.021	64.865	24.330	1.00	2.00	O
ATOM	6424	N	GLY	C	450	-18.129	65.455	23.666	1.00	2.00	N
ATOM	6425	CA	GLY	C	450	-17.745	65.813	22.309	1.00	2.00	C
ATOM	6426	C	GLY	C	450	-16.702	66.928	22.288	1.00	2.00	C
ATOM	6427	O	GLY	C	450	-15.725	66.842	21.551	1.00	2.00	O
ATOM	6428	N	LEU	C	451	-16.918	67.965	23.093	1.00	2.00	N
ATOM	6429	CA	LEU	C	451	-16.027	69.114	23.135	1.00	2.00	C
ATOM	6430	CB	LEU	C	451	-16.672	70.303	23.830	1.00	2.00	C
ATOM	6431	CG	LEU	C	451	-17.820	71.039	23.097	1.00	2.00	C
ATOM	6432	CD1	LEU	C	451	-18.252	72.192	23.922	1.00	2.00	C
ATOM	6433	CD2	LEU	C	451	-17.382	71.499	21.708	1.00	2.00	C

- 152 -

ATOM	6434	C	LEU	C	451	-14.688	68.827	23.813	1.00	2.00	C
ATOM	6435	O	LEU	C	451	-13.666	69.348	23.377	1.00	2.00	O
ATOM	6436	N	PHE	C	452	-14.716	68.061	24.891	1.00	2.00	N
ATOM	6437	CA	PHE	C	452	-13.499	67.667	25.579	1.00	2.00	C
ATOM	6438	CB	PHE	C	452	-13.790	66.705	26.711	1.00	2.00	C
ATOM	6439	CG	PHE	C	452	-14.628	67.270	27.816	1.00	2.00	C
ATOM	6440	CD1	PHE	C	452	-14.544	68.615	28.182	1.00	2.00	C
ATOM	6441	CE1	PHE	C	452	-15.310	69.108	29.222	1.00	2.00	C
ATOM	6442	CZ	PHE	C	452	-16.169	68.263	29.933	1.00	2.00	C
ATOM	6443	CE2	PHE	C	452	-16.265	66.916	29.588	1.00	2.00	C
ATOM	6444	CD2	PHE	C	452	-15.482	66.423	28.537	1.00	2.00	C
ATOM	6445	C	PHE	C	452	-12.568	66.981	24.593	1.00	2.00	C
ATOM	6446	O	PHE	C	452	-11.409	67.336	24.509	1.00	2.00	O
ATOM	6447	N	PHE	C	453	-13.097	65.999	23.873	1.00	2.00	N
ATOM	6448	CA	PHE	C	453	-12.375	65.233	22.879	1.00	2.00	C
ATOM	6449	CB	PHE	C	453	-13.279	64.178	22.218	1.00	2.00	C
ATOM	6450	CG	PHE	C	453	-12.623	63.481	21.029	1.00	2.00	C
ATOM	6451	CD1	PHE	C	453	-11.838	62.359	21.214	1.00	2.00	C
ATOM	6452	CE1	PHE	C	453	-11.229	61.714	20.141	1.00	2.00	C
ATOM	6453	CZ	PHE	C	453	-11.407	62.207	18.859	1.00	2.00	C
ATOM	6454	CE2	PHE	C	453	-12.179	63.340	18.659	1.00	2.00	C
ATOM	6455	CD2	PHE	C	453	-12.789	63.971	19.736	1.00	2.00	C
ATOM	6456	C	PHE	C	453	-11.768	66.118	21.788	1.00	2.00	C
ATOM	6457	O	PHE	C	453	-10.580	66.025	21.530	1.00	2.00	O
ATOM	6458	N	LEU	C	454	-12.591	66.955	21.140	1.00	2.00	N
ATOM	6459	CA	LEU	C	454	-12.102	67.844	20.088	1.00	2.00	C
ATOM	6460	CB	LEU	C	454	-13.243	68.646	19.473	1.00	2.00	C
ATOM	6461	CG	LEU	C	454	-14.303	67.915	18.613	1.00	2.00	C
ATOM	6462	CD1	LEU	C	454	-15.339	68.916	18.230	1.00	2.00	C
ATOM	6463	CD2	LEU	C	454	-13.643	67.326	17.358	1.00	2.00	C
ATOM	6464	C	LEU	C	454	-10.995	68.779	20.630	1.00	2.00	C
ATOM	6465	O	LEU	C	454	-9.917	68.893	20.045	1.00	2.00	O
ATOM	6466	N	HIS	C	455	-11.263	69.418	21.754	1.00	2.00	N
ATOM	6467	CA	HIS	C	455	-10.316	70.331	22.348	1.00	2.00	C
ATOM	6468	CB	HIS	C	455	-10.915	70.975	23.577	1.00	2.00	C
ATOM	6469	CG	HIS	C	455	-12.050	71.903	23.272	1.00	2.00	C
ATOM	6470	ND1	HIS	C	455	-12.829	72.466	24.257	1.00	2.00	N
ATOM	6471	CE1	HIS	C	455	-13.756	73.229	23.699	1.00	2.00	C
ATOM	6472	NE2	HIS	C	455	-13.610	73.172	22.391	1.00	2.00	N
ATOM	6473	CD2	HIS	C	455	-12.555	72.342	22.095	1.00	2.00	C
ATOM	6474	C	HIS	C	455	-8.971	69.661	22.705	1.00	2.00	C
ATOM	6475	O	HIS	C	455	-7.930	70.258	22.493	1.00	2.00	O
ATOM	6476	N	LYS	C	456	-9.019	68.444	23.237	1.00	2.00	N
ATOM	6477	CA	LYS	C	456	-7.811	67.637	23.529	1.00	2.82	C
ATOM	6478	CB	LYS	C	456	-8.235	66.382	24.293	1.00	2.00	C
ATOM	6479	CG	LYS	C	456	-7.213	65.303	24.571	1.00	9.02	C
ATOM	6480	CD	LYS	C	456	-7.919	64.035	25.127	1.00	8.41	C
ATOM	6481	CE	LYS	C	456	-8.826	63.335	24.045	1.00	11.39	C
ATOM	6482	NZ	LYS	C	456	-9.478	62.034	24.539	1.00	11.50	N
ATOM	6483	C	LYS	C	456	-6.964	67.346	22.259	1.00	2.00	C
ATOM	6484	O	LYS	C	456	-5.729	67.240	22.330	1.00	2.51	O
ATOM	6485	N	ARG	C	457	-7.625	67.273	21.109	1.00	2.00	N
ATOM	6486	CA	ARG	C	457	-6.986	67.086	19.794	1.00	2.45	C
ATOM	6487	CB	ARG	C	457	-7.885	66.268	18.854	1.00	4.94	C
ATOM	6488	CG	ARG	C	457	-8.288	64.890	19.363	1.00	9.48	C
ATOM	6489	CD	ARG	C	457	-7.100	64.069	19.806	1.00	12.60	C
ATOM	6490	NE	ARG	C	457	-7.461	63.123	20.867	1.00	16.87	N
ATOM	6491	CZ	ARG	C	457	-7.718	61.828	20.679	1.00	17.84	C

- 153 -

ATOM	6492	NH1	ARG	C	457	-7.650	61.292	19.458	1.00	19.12	N
ATOM	6493	NH2	ARG	C	457	-8.031	61.061	21.724	1.00	18.43	N
ATOM	6494	C	ARG	C	457	-6.576	68.394	19.092	1.00	2.72	C
ATOM	6495	O	ARG	C	457	-6.206	68.381	17.893	1.00	2.99	O
ATOM	6496	N	GLY	C	458	-6.610	69.499	19.833	1.00	2.00	N
ATOM	6497	CA	GLY	C	458	-6.319	70.825	19.307	1.00	2.00	C
ATOM	6498	C	GLY	C	458	-7.323	71.339	18.292	1.00	2.00	C
ATOM	6499	O	GLY	C	458	-6.963	72.070	17.386	1.00	2.00	O
ATOM	6500	N	ILE	C	459	-8.587	70.935	18.415	1.00	2.00	N
ATOM	6501	CA	ILE	C	459	-9.595	71.373	17.444	1.00	2.00	C
ATOM	6502	CB	ILE	C	459	-10.345	70.179	16.823	1.00	2.00	C
ATOM	6503	CG1	ILE	C	459	-9.374	69.250	16.084	1.00	2.00	C
ATOM	6504	CD1	ILE	C	459	-9.908	67.849	16.011	1.00	2.56	C
ATOM	6505	CG2	ILE	C	459	-11.386	70.651	15.859	1.00	2.00	C
ATOM	6506	C	ILE	C	459	-10.584	72.318	18.120	1.00	2.00	C
ATOM	6507	O	ILE	C	459	-11.076	72.007	19.195	1.00	2.00	O
ATOM	6508	N	ILE	C	460	-10.840	73.476	17.508	1.00	2.00	N
ATOM	6509	CA	ILE	C	460	-11.969	74.337	17.927	1.00	2.00	C
ATOM	6510	CB	ILE	C	460	-11.649	75.885	17.969	1.00	2.00	C
ATOM	6511	CG1	ILE	C	460	-10.251	76.195	18.523	1.00	3.33	C
ATOM	6512	CD1	ILE	C	460	-9.838	77.658	18.224	1.00	2.00	C
ATOM	6513	CG2	ILE	C	460	-12.666	76.620	18.830	1.00	2.48	C
ATOM	6514	C	ILE	C	460	-13.134	74.097	16.984	1.00	2.00	C
ATOM	6515	O	ILE	C	460	-13.003	74.160	15.760	1.00	2.00	O
ATOM	6516	N	TYR	C	461	-14.304	73.847	17.569	1.00	2.00	N
ATOM	6517	CA	TYR	C	461	-15.470	73.489	16.796	1.00	2.00	C
ATOM	6518	CB	TYR	C	461	-16.481	72.782	17.717	1.00	2.00	C
ATOM	6519	CG	TYR	C	461	-17.736	72.363	17.028	1.00	2.00	C
ATOM	6520	CD1	TYR	C	461	-17.691	71.695	15.821	1.00	2.00	C
ATOM	6521	CE1	TYR	C	461	-18.842	71.295	15.172	1.00	2.02	C
ATOM	6522	CZ	TYR	C	461	-20.062	71.572	15.740	1.00	2.12	C
ATOM	6523	OH	TYR	C	461	-21.231	71.178	15.094	1.00	2.00	O
ATOM	6524	CE2	TYR	C	461	-20.118	72.225	16.948	1.00	2.00	C
ATOM	6525	CD2	TYR	C	461	-18.972	72.622	17.586	1.00	2.00	C
ATOM	6526	C	TYR	C	461	-16.077	74.703	16.082	1.00	2.00	C
ATOM	6527	O	TYR	C	461	-16.371	74.642	14.880	1.00	2.00	O
ATOM	6528	N	ARG	C	462	-16.262	75.793	16.835	1.00	2.00	N
ATOM	6529	CA	ARG	C	462	-16.694	77.102	16.310	1.00	2.00	C
ATOM	6530	CB	ARG	C	462	-15.677	77.689	15.302	1.00	2.00	C
ATOM	6531	CG	ARG	C	462	-14.283	77.774	15.849	1.00	2.00	C
ATOM	6532	CD	ARG	C	462	-13.437	78.706	15.010	1.00	2.00	C
ATOM	6533	NE	ARG	C	462	-13.264	78.203	13.653	1.00	2.00	N
ATOM	6534	CZ	ARG	C	462	-12.594	78.859	12.703	1.00	2.08	C
ATOM	6535	NH1	ARG	C	462	-12.063	80.032	12.967	1.00	2.94	N
ATOM	6536	NH2	ARG	C	462	-12.467	78.354	11.494	1.00	2.08	N
ATOM	6537	C	ARG	C	462	-18.080	77.171	15.700	1.00	2.00	C
ATOM	6538	O	ARG	C	462	-18.462	78.228	15.197	1.00	2.00	O
ATOM	6539	N	ASP	C	463	-18.850	76.085	15.757	1.00	2.00	N
ATOM	6540	CA	ASP	C	463	-20.208	76.101	15.205	1.00	2.00	C
ATOM	6541	CB	ASP	C	463	-20.222	75.461	13.814	1.00	2.81	C
ATOM	6542	CG	ASP	C	463	-21.346	75.970	12.938	1.00	4.84	C
ATOM	6543	OD1	ASP	C	463	-21.883	77.075	13.218	1.00	4.42	O
ATOM	6544	OD2	ASP	C	463	-21.697	75.271	11.948	1.00	3.62	O
ATOM	6545	C	ASP	C	463	-21.206	75.389	16.108	1.00	2.00	C
ATOM	6546	O	ASP	C	463	-22.163	74.785	15.620	1.00	2.00	O
ATOM	6547	N	LEU	C	464	-21.004	75.441	17.427	1.00	2.00	N
ATOM	6548	CA	LEU	C	464	-21.949	74.806	18.310	1.00	2.00	C
ATOM	6549	CB	LEU	C	464	-21.401	74.633	19.731	1.00	2.00	C

- 154 -

ATOM	6550	CG	LEU	C	464	-22.299	73.876	20.696	1.00	2.00	C
ATOM	6551	CD1	LEU	C	464	-22.658	72.489	20.168	1.00	2.00	C
ATOM	6552	CD2	LEU	C	464	-21.647	73.784	22.068	1.00	2.00	C
ATOM	6553	C	LEU	C	464	-23.240	75.612	18.309	1.00	2.00	C
ATOM	6554	O	LEU	C	464	-23.238	76.800	18.626	1.00	2.00	O
ATOM	6555	N	LYS	C	465	-24.346	74.959	17.943	1.00	2.00	N
ATOM	6556	CA	LYS	C	465	-25.617	75.625	17.934	1.00	2.00	C
ATOM	6557	CB	LYS	C	465	-25.798	76.471	16.665	1.00	2.00	C
ATOM	6558	CG	LYS	C	465	-25.630	75.700	15.373	1.00	2.00	C
ATOM	6559	CD	LYS	C	465	-25.759	76.629	14.162	1.00	2.41	C
ATOM	6560	CE	LYS	C	465	-25.470	75.871	12.888	1.00	2.00	C
ATOM	6561	NZ	LYS	C	465	-25.396	76.810	11.765	1.00	4.34	N
ATOM	6562	C	LYS	C	465	-26.649	74.520	17.966	1.00	2.00	C
ATOM	6563	O	LYS	C	465	-26.370	73.389	17.586	1.00	2.00	O
ATOM	6564	N	LEU	C	466	-27.842	74.853	18.408	1.00	2.00	N
ATOM	6565	CA	LEU	C	466	-28.922	73.848	18.459	1.00	2.00	C
ATOM	6566	CB	LEU	C	466	-30.225	74.495	18.918	1.00	2.00	C
ATOM	6567	CG	LEU	C	466	-30.305	74.864	20.399	1.00	2.00	C
ATOM	6568	CD1	LEU	C	466	-31.568	75.741	20.595	1.00	2.00	C
ATOM	6569	CD2	LEU	C	466	-30.374	73.622	21.277	1.00	2.00	C
ATOM	6570	C	LEU	C	466	-29.157	73.047	17.174	1.00	2.00	C
ATOM	6571	O	LEU	C	466	-29.420	71.865	17.224	1.00	2.00	O
ATOM	6572	N	ASP	C	467	-29.031	73.691	16.031	1.00	2.00	N
ATOM	6573	CA	ASP	C	467	-29.271	73.013	14.782	1.00	2.89	C
ATOM	6574	CB	ASP	C	467	-29.435	74.022	13.657	1.00	6.43	C
ATOM	6575	CG	ASP	C	467	-30.806	74.710	13.702	1.00	7.72	C
ATOM	6576	OD1	ASP	C	467	-31.662	74.332	14.546	1.00	9.98	O
ATOM	6577	OD2	ASP	C	467	-31.036	75.638	12.909	1.00	10.17	O
ATOM	6578	C	ASP	C	467	-28.241	71.943	14.446	1.00	3.39	C
ATOM	6579	O	ASP	C	467	-28.559	71.013	13.724	1.00	2.52	O
ATOM	6580	N	ASN	C	468	-27.024	72.065	14.989	1.00	2.15	N
ATOM	6581	CA	ASN	C	468	-25.978	71.053	14.755	1.00	2.02	C
ATOM	6582	CB	ASN	C	468	-24.584	71.691	14.715	1.00	2.00	C
ATOM	6583	CG	ASN	C	468	-24.315	72.362	13.409	1.00	2.00	C
ATOM	6584	OD1	ASN	C	468	-25.052	72.156	12.440	1.00	2.73	O
ATOM	6585	ND2	ASN	C	468	-23.261	73.165	13.351	1.00	2.00	N
ATOM	6586	C	ASN	C	468	-25.982	69.880	15.724	1.00	2.00	C
ATOM	6587	O	ASN	C	468	-25.129	69.008	15.645	1.00	2.00	O
ATOM	6588	N	VAL	C	469	-26.924	69.880	16.655	1.00	2.00	N
ATOM	6589	CA	VAL	C	469	-26.988	68.854	17.643	1.00	2.00	C
ATOM	6590	CB	VAL	C	469	-26.927	69.483	19.036	1.00	2.00	C
ATOM	6591	CG1	VAL	C	469	-27.012	68.411	20.117	1.00	2.00	C
ATOM	6592	CG2	VAL	C	469	-25.634	70.279	19.152	1.00	2.00	C
ATOM	6593	C	VAL	C	469	-28.283	68.060	17.430	1.00	2.00	C
ATOM	6594	O	VAL	C	469	-29.360	68.616	17.502	1.00	2.24	O
ATOM	6595	N	MET	C	470	-28.155	66.771	17.128	1.00	2.00	N
ATOM	6596	CA	MET	C	470	-29.294	65.908	16.869	1.00	2.00	C
ATOM	6597	CB	MET	C	470	-29.096	65.159	15.549	1.00	2.46	C
ATOM	6598	CG	MET	C	470	-29.301	66.029	14.329	1.00	4.36	C
ATOM	6599	SD	MET	C	470	-29.197	65.108	12.772	1.00	7.70	S
ATOM	6600	CE	MET	C	470	-27.427	64.896	12.651	1.00	3.78	C
ATOM	6601	C	MET	C	470	-29.430	64.934	18.007	1.00	2.00	C
ATOM	6602	O	MET	C	470	-28.543	64.859	18.843	1.00	2.00	O
ATOM	6603	N	LEU	C	471	-30.558	64.224	18.074	1.00	2.00	N
ATOM	6604	CA	LEU	C	471	-30.672	63.037	18.917	1.00	2.00	C
ATOM	6605	CB	LEU	C	471	-31.955	63.044	19.778	1.00	2.00	C
ATOM	6606	CG	LEU	C	471	-32.236	64.179	20.750	1.00	2.00	C
ATOM	6607	CD1	LEU	C	471	-33.547	63.903	21.476	1.00	2.00	C

- 155 -

ATOM	6608	CD2	LEU	C	471	-31.059	64.274	21.736	1.00	2.00	C
ATOM	6609	C	LEU	C	471	-30.682	61.866	17.957	1.00	2.00	C
ATOM	6610	O	LEU	C	471	-31.184	62.006	16.843	1.00	2.00	O
ATOM	6611	N	ASP	C	472	-30.089	60.740	18.348	1.00	2.00	N
ATOM	6612	CA	ASP	C	472	-30.168	59.529	17.557	1.00	2.00	C
ATOM	6613	CB	ASP	C	472	-28.925	58.625	17.678	1.00	2.00	C
ATOM	6614	CG	ASP	C	472	-28.698	58.093	19.082	1.00	2.00	C
ATOM	6615	OD1	ASP	C	472	-29.571	58.194	19.938	1.00	3.04	O
ATOM	6616	OD2	ASP	C	472	-27.623	57.578	19.392	1.00	4.01	O
ATOM	6617	C	ASP	C	472	-31.441	58.796	17.960	1.00	2.00	C
ATOM	6618	O	ASP	C	472	-32.246	59.335	18.711	1.00	2.00	O
ATOM	6619	N	SER	C	473	-31.607	57.583	17.472	1.00	2.00	N
ATOM	6620	CA	SER	C	473	-32.904	56.922	17.557	1.00	3.11	C
ATOM	6621	CB	SER	C	473	-32.995	55.759	16.570	1.00	2.02	C
ATOM	6622	OG	SER	C	473	-32.070	54.758	16.905	1.00	5.14	O
ATOM	6623	C	SER	C	473	-33.217	56.515	18.997	1.00	3.29	C
ATOM	6624	O	SER	C	473	-34.361	56.364	19.358	1.00	4.11	O
ATOM	6625	N	GLU	C	474	-32.177	56.394	19.813	1.00	4.90	N
ATOM	6626	CA	GLU	C	474	-32.313	56.083	21.228	1.00	6.08	C
ATOM	6627	CB	GLU	C	474	-31.154	55.179	21.711	1.00	7.24	C
ATOM	6628	CG	GLU	C	474	-30.743	54.070	20.719	1.00	12.66	C
ATOM	6629	CD	GLU	C	474	-30.062	52.857	21.356	1.00	13.32	C
ATOM	6630	OE1	GLU	C	474	-30.108	52.709	22.595	1.00	17.04	O
ATOM	6631	OE2	GLU	C	474	-29.475	52.016	20.608	1.00	18.92	O
ATOM	6632	C	GLU	C	474	-32.479	57.318	22.123	1.00	3.76	C
ATOM	6633	O	GLU	C	474	-32.914	57.197	23.247	1.00	4.03	O
ATOM	6634	N	GLY	C	475	-32.158	58.506	21.618	1.00	2.00	N
ATOM	6635	CA	GLY	C	475	-32.247	59.726	22.399	1.00	2.00	C
ATOM	6636	C	GLY	C	475	-30.917	60.299	22.908	1.00	2.00	C
ATOM	6637	O	GLY	C	475	-30.927	61.244	23.647	1.00	2.00	O
ATOM	6638	N	HIS	C	476	-29.795	59.710	22.493	1.00	2.00	N
ATOM	6639	CA	HIS	C	476	-28.449	60.232	22.829	1.00	2.00	C
ATOM	6640	CB	HIS	C	476	-27.378	59.126	22.823	1.00	2.00	C
ATOM	6641	CG	HIS	C	476	-27.506	58.153	23.944	1.00	2.00	C
ATOM	6642	ND1	HIS	C	476	-27.106	58.443	25.231	1.00	2.00	N
ATOM	6643	CE1	HIS	C	476	-27.348	57.408	26.009	1.00	2.00	C
ATOM	6644	NE2	HIS	C	476	-27.884	56.450	25.272	1.00	2.00	N
ATOM	6645	CD2	HIS	C	476	-27.996	56.890	23.975	1.00	2.00	C
ATOM	6646	C	HIS	C	476	-28.067	61.281	21.795	1.00	2.00	C
ATOM	6647	O	HIS	C	476	-28.584	61.320	20.666	1.00	2.00	O
ATOM	6648	N	ILE	C	477	-27.166	62.145	22.182	1.00	2.00	N
ATOM	6649	CA	ILE	C	477	-26.789	63.241	21.350	1.00	2.00	C
ATOM	6650	CB	ILE	C	477	-26.336	64.410	22.252	1.00	2.00	C
ATOM	6651	CG1	ILE	C	477	-27.538	65.372	22.361	1.00	2.00	C
ATOM	6652	CD1	ILE	C	477	-27.384	66.315	23.412	1.00	3.99	C
ATOM	6653	CG2	ILE	C	477	-24.926	65.033	21.780	1.00	2.00	C
ATOM	6654	C	ILE	C	477	-25.750	62.849	20.276	1.00	2.00	C
ATOM	6655	O	ILE	C	477	-24.938	61.927	20.465	1.00	2.00	O
ATOM	6656	N	LYS	C	478	-25.864	63.548	19.146	1.00	2.00	N
ATOM	6657	CA	LYS	C	478	-24.988	63.444	18.001	1.00	2.00	C
ATOM	6658	CB	LYS	C	478	-25.629	62.621	16.881	1.00	2.00	C
ATOM	6659	CG	LYS	C	478	-25.777	61.161	17.166	1.00	2.00	C
ATOM	6660	CD	LYS	C	478	-24.434	60.460	17.146	1.00	2.00	C
ATOM	6661	CE	LYS	C	478	-24.592	58.987	17.164	1.00	2.00	C
ATOM	6662	NZ	LYS	C	478	-23.305	58.316	16.911	1.00	2.00	N
ATOM	6663	C	LYS	C	478	-24.749	64.875	17.528	1.00	2.00	C
ATOM	6664	O	LYS	C	478	-25.694	65.599	17.163	1.00	2.00	O
ATOM	6665	N	ILE	C	479	-23.484	65.285	17.555	1.00	2.00	N

- 156 -

ATOM	6666	CA	ILE	C	479	-23.085	66.593	17.074	1.00	2.00	C
ATOM	6667	CB	ILE	C	479	-21.962	67.205	17.933	1.00	2.00	C
ATOM	6668	CG1	ILE	C	479	-22.443	67.418	19.379	1.00	2.00	C
ATOM	6669	CD1	ILE	C	479	-21.306	67.660	20.375	1.00	2.00	C
ATOM	6670	CG2	ILE	C	479	-21.461	68.491	17.290	1.00	2.00	C
ATOM	6671	C	ILE	C	479	-22.590	66.448	15.640	1.00	2.00	C
ATOM	6672	O	ILE	C	479	-21.745	65.588	15.341	1.00	2.00	O
ATOM	6673	N	ALA	C	480	-23.105	67.306	14.768	1.00	2.00	N
ATOM	6674	CA	ALA	C	480	-22.855	67.198	13.351	1.00	2.00	C
ATOM	6675	CB	ALA	C	480	-24.165	66.943	12.625	1.00	2.00	C
ATOM	6676	C	ALA	C	480	-22.221	68.447	12.814	1.00	2.00	C
ATOM	6677	O	ALA	C	480	-22.221	69.484	13.482	1.00	2.00	O
ATOM	6678	N	ASP	C	481	-21.708	68.344	11.588	1.00	2.00	N
ATOM	6679	CA	ASP	C	481	-21.174	69.474	10.834	1.00	2.00	C
ATOM	6680	CB	ASP	C	481	-22.219	70.562	10.584	1.00	2.95	C
ATOM	6681	CG	ASP	C	481	-21.786	71.535	9.492	1.00	4.34	C
ATOM	6682	OD1	ASP	C	481	-20.638	71.459	9.030	1.00	4.32	O
ATOM	6683	OD2	ASP	C	481	-22.589	72.377	9.065	1.00	6.53	O
ATOM	6684	C	ASP	C	481	-19.859	70.049	11.390	1.00	2.43	C
ATOM	6685	O	ASP	C	481	-19.852	70.941	12.256	1.00	3.97	O
ATOM	6686	N	PHE	C	482	-18.743	69.530	10.863	1.00	2.29	N
ATOM	6687	CA	PHE	C	482	-17.411	69.922	11.301	1.00	2.43	C
ATOM	6688	CB	PHE	C	482	-16.605	68.674	11.739	1.00	2.51	C
ATOM	6689	CG	PHE	C	482	-17.289	67.917	12.859	1.00	2.86	C
ATOM	6690	CD1	PHE	C	482	-18.252	66.942	12.578	1.00	4.46	C
ATOM	6691	CE1	PHE	C	482	-18.942	66.270	13.608	1.00	3.71	C
ATOM	6692	CZ	PHE	C	482	-18.645	66.574	14.925	1.00	3.22	C
ATOM	6693	CE2	PHE	C	482	-17.682	67.567	15.212	1.00	3.52	C
ATOM	6694	CD2	PHE	C	482	-17.022	68.229	14.177	1.00	2.00	C
ATOM	6695	C	PHE	C	482	-16.717	70.745	10.236	1.00	4.17	C
ATOM	6696	O	PHE	C	482	-15.464	70.740	10.110	1.00	5.90	O
ATOM	6697	N	GLY	C	483	-17.533	71.471	9.485	1.00	3.76	N
ATOM	6698	CA	GLY	C	483	-17.050	72.311	8.403	1.00	5.10	C
ATOM	6699	C	GLY	C	483	-16.510	73.655	8.816	1.00	5.14	C
ATOM	6700	O	GLY	C	483	-16.013	74.375	7.982	1.00	7.64	O
ATOM	6701	N	MET	C	484	-16.632	74.009	10.091	1.00	6.90	N
ATOM	6702	CA	MET	C	484	-16.076	75.262	10.618	1.00	8.54	C
ATOM	6703	CB	MET	C	484	-17.183	76.094	11.283	1.00	9.35	C
ATOM	6704	CG	MET	C	484	-17.846	77.024	10.281	1.00	14.19	C
ATOM	6705	SD	MET	C	484	-19.123	78.031	11.018	1.00	18.76	S
ATOM	6706	CE	MET	C	484	-18.104	78.956	12.153	1.00	15.88	C
ATOM	6707	C	MET	C	484	-14.879	75.104	11.576	1.00	4.47	C
ATOM	6708	O	MET	C	484	-14.383	76.088	12.122	1.00	2.37	O
ATOM	6709	N	CYS	C	485	-14.417	73.874	11.760	1.00	2.52	N
ATOM	6710	CA	CYS	C	485	-13.313	73.581	12.692	1.00	2.10	C
ATOM	6711	CB	CYS	C	485	-13.065	72.076	12.762	1.00	2.00	C
ATOM	6712	SG	CYS	C	485	-14.425	71.271	13.663	1.00	4.09	S
ATOM	6713	C	CYS	C	485	-12.010	74.292	12.374	1.00	2.00	C
ATOM	6714	O	CYS	C	485	-11.708	74.567	11.194	1.00	2.00	O
ATOM	6715	N	LYS	C	486	-11.253	74.574	13.435	1.00	2.00	N
ATOM	6716	CA	LYS	C	486	-9.887	75.079	13.334	1.00	3.58	C
ATOM	6717	CB	LYS	C	486	-9.786	76.442	14.032	1.00	3.63	C
ATOM	6718	CG	LYS	C	486	-8.587	77.293	13.662	1.00	5.41	C
ATOM	6719	CD	LYS	C	486	-8.772	78.012	12.326	1.00	7.23	C
ATOM	6720	CE	LYS	C	486	-7.401	78.518	11.755	1.00	8.38	C
ATOM	6721	NZ	LYS	C	486	-7.652	79.069	10.366	1.00	10.60	N
ATOM	6722	C	LYS	C	486	-8.959	74.022	13.987	1.00	4.22	C
ATOM	6723	O	LYS	C	486	-9.202	73.603	15.119	1.00	4.37	O

- 157 -

ATOM	6724	N	GLU	C	487	-7.953	73.549	13.243	1.00	2.70	N
ATOM	6725	CA	GLU	C	487	-7.018	72.521	13.722	1.00	4.81	C
ATOM	6726	CB	GLU	C	487	-6.450	71.721	12.554	1.00	6.15	C
ATOM	6727	CG	GLU	C	487	-7.431	71.051	11.682	1.00	8.44	C
ATOM	6728	CD	GLU	C	487	-6.732	70.373	10.550	1.00	7.57	C
ATOM	6729	OE1	GLU	C	487	-6.252	71.066	9.613	1.00	9.41	O
ATOM	6730	OE2	GLU	C	487	-6.657	69.131	10.604	1.00	10.65	O
ATOM	6731	C	GLU	C	487	-5.784	73.184	14.335	1.00	3.92	C
ATOM	6732	O	GLU	C	487	-5.600	74.393	14.209	1.00	2.00	O
ATOM	6733	N	HIS	C	488	-4.935	72.373	14.964	1.00	4.31	N
ATOM	6734	CA	HIS	C	488	-3.628	72.819	15.478	1.00	4.85	C
ATOM	6735	CB	HIS	C	488	-2.705	73.288	14.347	1.00	4.39	C
ATOM	6736	CG	HIS	C	488	-2.691	72.366	13.181	1.00	6.68	C
ATOM	6737	ND1	HIS	C	488	-2.437	71.019	13.309	1.00	9.42	N
ATOM	6738	CE1	HIS	C	488	-2.503	70.442	12.124	1.00	9.00	C
ATOM	6739	NE2	HIS	C	488	-2.793	71.369	11.230	1.00	9.55	N
ATOM	6740	CD2	HIS	C	488	-2.922	72.582	11.865	1.00	8.01	C
ATOM	6741	C	HIS	C	488	-3.737	73.883	16.541	1.00	4.57	C
ATOM	6742	O	HIS	C	488	-2.839	74.702	16.700	1.00	4.47	O
ATOM	6743	N	MET	C	489	-4.831	73.843	17.295	1.00	4.40	N
ATOM	6744	CA	MET	C	489	-5.064	74.846	18.327	1.00	4.95	C
ATOM	6745	CB	MET	C	489	-6.525	75.304	18.311	1.00	4.65	C
ATOM	6746	CG	MET	C	489	-6.931	75.909	16.971	1.00	5.29	C
ATOM	6747	SD	MET	C	489	-6.120	77.501	16.637	1.00	7.64	S
ATOM	6748	CE	MET	C	489	-5.195	77.127	15.147	1.00	7.76	C
ATOM	6749	C	MET	C	489	-4.592	74.291	19.673	1.00	6.30	C
ATOM	6750	O	MET	C	489	-5.378	73.851	20.494	1.00	2.20	O
ATOM	6751	N	MET	C	490	-3.264	74.306	19.848	1.00	5.50	N
ATOM	6752	CA	MET	C	490	-2.582	73.789	21.020	1.00	7.37	C
ATOM	6753	CB	MET	C	490	-1.183	73.293	20.612	1.00	10.40	C
ATOM	6754	CG	MET	C	490	-1.153	72.367	19.395	1.00	9.53	C
ATOM	6755	SD	MET	C	490	-2.427	71.088	19.466	1.00	16.11	S
ATOM	6756	CE	MET	C	490	-1.974	70.148	20.915	1.00	12.35	C
ATOM	6757	C	MET	C	490	-2.442	74.898	22.057	1.00	8.88	C
ATOM	6758	O	MET	C	490	-2.928	76.012	21.851	1.00	9.37	O
ATOM	6759	N	ASP	C	491	-1.759	74.608	23.163	1.00	9.31	N
ATOM	6760	CA	ASP	C	491	-1.539	75.621	24.213	1.00	9.94	C
ATOM	6761	CB	ASP	C	491	-0.511	75.150	25.242	1.00	11.66	C
ATOM	6762	CG	ASP	C	491	-0.518	76.004	26.499	1.00	13.44	C
ATOM	6763	OD1	ASP	C	491	-1.613	76.281	27.037	1.00	14.36	O
ATOM	6764	OD2	ASP	C	491	0.577	76.386	26.977	1.00	16.41	O
ATOM	6765	C	ASP	C	491	-1.093	76.998	23.708	1.00	7.84	C
ATOM	6766	O	ASP	C	491	0.007	77.146	23.160	1.00	5.03	O
ATOM	6767	N	GLY	C	492	-1.956	77.997	23.916	1.00	4.01	N
ATOM	6768	CA	GLY	C	492	-1.623	79.394	23.633	1.00	2.00	C
ATOM	6769	C	GLY	C	492	-1.735	79.767	22.168	1.00	2.11	C
ATOM	6770	O	GLY	C	492	-1.392	80.887	21.786	1.00	2.93	O
ATOM	6771	N	VAL	C	493	-2.213	78.841	21.341	1.00	2.00	N
ATOM	6772	CA	VAL	C	493	-2.406	79.101	19.909	1.00	2.00	C
ATOM	6773	CB	VAL	C	493	-2.243	77.827	19.072	1.00	2.00	C
ATOM	6774	CG1	VAL	C	493	-2.596	78.078	17.628	1.00	2.00	C
ATOM	6775	CG2	VAL	C	493	-0.784	77.339	19.154	1.00	2.00	C
ATOM	6776	C	VAL	C	493	-3.806	79.727	19.752	1.00	2.00	C
ATOM	6777	O	VAL	C	493	-4.750	79.375	20.473	1.00	2.00	O
ATOM	6778	N	THR	C	494	-3.914	80.634	18.792	1.00	2.00	N
ATOM	6779	CA	THR	C	494	-4.970	81.627	18.764	1.00	3.54	C
ATOM	6780	CB	THR	C	494	-4.476	82.824	19.624	1.00	3.24	C
ATOM	6781	OG1	THR	C	494	-5.524	83.324	20.455	1.00	7.52	O

- 158 -

ATOM	6782	CG2	THR	C	494	-3.849	83.907	18.801	1.00	2.00	C
ATOM	6783	C	THR	C	494	-5.289	81.984	17.287	1.00	3.83	C
ATOM	6784	O	THR	C	494	-4.379	81.987	16.434	1.00	3.70	O
ATOM	6785	N	THR	C	495	-6.553	82.251	16.971	1.00	2.00	N
ATOM	6786	CA	THR	C	495	-6.925	82.761	15.645	1.00	2.00	C
ATOM	6787	CB	THR	C	495	-7.726	81.735	14.815	1.00	4.47	C
ATOM	6788	OG1	THR	C	495	-8.810	81.191	15.599	1.00	8.53	O
ATOM	6789	CG2	THR	C	495	-6.862	80.622	14.403	1.00	9.22	C
ATOM	6790	C	THR	C	495	-7.761	84.025	15.809	1.00	2.00	C
ATOM	6791	O	THR	C	495	-8.228	84.303	16.918	1.00	2.00	O
ATOM	6792	N	ARG	C	496	-7.960	84.777	14.721	1.00	2.00	N
ATOM	6793	CA	ARG	C	496	-8.735	86.030	14.752	1.00	2.52	C
ATOM	6794	CB	ARG	C	496	-7.834	87.212	14.414	1.00	2.36	C
ATOM	6795	CG	ARG	C	496	-7.225	87.883	15.591	1.00	3.52	C
ATOM	6796	CD	ARG	C	496	-6.467	89.116	15.171	1.00	4.57	C
ATOM	6797	NE	ARG	C	496	-7.313	90.315	15.227	1.00	4.32	N
ATOM	6798	CZ	ARG	C	496	-7.022	91.454	14.599	1.00	4.75	C
ATOM	6799	NH1	ARG	C	496	-5.920	91.542	13.851	1.00	2.68	N
ATOM	6800	NH2	ARG	C	496	-7.833	92.504	14.700	1.00	2.85	N
ATOM	6801	C	ARG	C	496	-9.981	86.050	13.823	1.00	3.62	C
ATOM	6802	O	ARG	C	496	-10.691	87.075	13.707	1.00	4.84	O
ATOM	6803	N	GLU	C	497	-10.256	84.917	13.191	1.00	2.63	N
ATOM	6804	CA	GLU	C	497	-11.215	84.824	12.109	1.00	4.71	C
ATOM	6805	CB	GLU	C	497	-11.037	83.462	11.433	1.00	7.10	C
ATOM	6806	CG	GLU	C	497	-11.558	83.380	10.024	1.00	15.36	C
ATOM	6807	CD	GLU	C	497	-11.857	81.957	9.565	1.00	17.39	C
ATOM	6808	OE1	GLU	C	497	-11.510	80.974	10.275	1.00	19.16	O
ATOM	6809	OE2	GLU	C	497	-12.457	81.822	8.476	1.00	20.48	O
ATOM	6810	C	GLU	C	497	-12.669	85.008	12.624	1.00	2.04	C
ATOM	6811	O	GLU	C	497	-13.110	84.285	13.513	1.00	2.00	O
ATOM	6812	N	PHE	C	498	-13.389	85.980	12.067	1.00	2.76	N
ATOM	6813	CA	PHE	C	498	-14.773	86.255	12.482	1.00	2.70	C
ATOM	6814	CB	PHE	C	498	-15.268	87.609	11.966	1.00	3.30	C
ATOM	6815	CG	PHE	C	498	-16.731	87.835	12.209	1.00	5.69	C
ATOM	6816	CD1	PHE	C	498	-17.173	88.348	13.423	1.00	4.97	C
ATOM	6817	CE1	PHE	C	498	-18.531	88.538	13.641	1.00	6.11	C
ATOM	6818	CZ	PHE	C	498	-19.465	88.207	12.645	1.00	4.81	C
ATOM	6819	CE2	PHE	C	498	-19.042	87.700	11.443	1.00	4.85	C
ATOM	6820	CD2	PHE	C	498	-17.678	87.516	11.220	1.00	5.00	C
ATOM	6821	C	PHE	C	498	-15.664	85.102	11.998	1.00	2.51	C
ATOM	6822	O	PHE	C	498	-15.644	84.711	10.824	1.00	2.00	O
ATOM	6823	N	CYS	C	499	-16.458	84.568	12.906	1.00	3.25	N
ATOM	6824	CA	CYS	C	499	-16.860	83.203	12.776	1.00	5.43	C
ATOM	6825	CB	CYS	C	499	-15.735	82.390	13.438	1.00	7.03	C
ATOM	6826	SG	CYS	C	499	-15.483	80.970	12.613	1.00	10.17	S
ATOM	6827	C	CYS	C	499	-18.089	82.915	13.588	1.00	3.94	C
ATOM	6828	O	CYS	C	499	-18.101	83.280	14.753	1.00	4.28	O
ATOM	6829	N	GLY	C	500	-19.092	82.251	12.996	1.00	4.51	N
ATOM	6830	CA	GLY	C	500	-20.200	81.648	13.774	1.00	3.27	C
ATOM	6831	C	GLY	C	500	-21.596	82.210	13.572	1.00	4.24	C
ATOM	6832	O	GLY	C	500	-21.808	83.193	12.863	1.00	5.15	O
ATOM	6833	N	THR	C	501	-22.568	81.587	14.230	1.00	5.36	N
ATOM	6834	CA	THR	C	501	-23.956	82.063	14.217	1.00	4.72	C
ATOM	6835	CB	THR	C	501	-24.888	80.868	14.477	1.00	5.52	C
ATOM	6836	OG1	THR	C	501	-24.735	79.969	13.377	1.00	6.40	O
ATOM	6837	CG2	THR	C	501	-26.357	81.298	14.583	1.00	5.68	C
ATOM	6838	C	THR	C	501	-24.089	83.145	15.286	1.00	4.10	C
ATOM	6839	O	THR	C	501	-23.746	82.885	16.444	1.00	4.53	O

- 159 -

ATOM	6840	N	PRO	C	502	-24.575	84.350	14.912	1.00	2.09	N
ATOM	6841	CA	PRO	C	502	-24.499	85.531	15.779	1.00	2.00	C
ATOM	6842	CB	PRO	C	502	-25.309	86.598	15.028	1.00	2.00	C
ATOM	6843	CG	PRO	C	502	-25.245	86.185	13.650	1.00	2.00	C
ATOM	6844	CD	PRO	C	502	-25.236	84.680	13.636	1.00	2.00	C
ATOM	6845	C	PRO	C	502	-25.000	85.403	17.212	1.00	2.04	C
ATOM	6846	O	PRO	C	502	-24.335	85.970	18.109	1.00	2.00	O
ATOM	6847	N	ASP	C	503	-26.120	84.695	17.455	1.00	2.00	N
ATOM	6848	CA	ASP	C	503	-26.564	84.500	18.838	1.00	2.00	C
ATOM	6849	CB	ASP	C	503	-27.958	83.894	18.917	1.00	2.00	C
ATOM	6850	CG	ASP	C	503	-29.022	84.922	18.651	1.00	2.00	C
ATOM	6851	OD1	ASP	C	503	-29.290	85.206	17.474	1.00	2.00	O
ATOM	6852	OD2	ASP	C	503	-29.539	85.479	19.633	1.00	2.00	O
ATOM	6853	C	ASP	C	503	-25.613	83.697	19.732	1.00	2.00	C
ATOM	6854	O	ASP	C	503	-25.708	83.766	20.957	1.00	2.00	O
ATOM	6855	N	TYR	C	504	-24.726	82.939	19.108	1.00	2.00	N
ATOM	6856	CA	TYR	C	504	-23.806	82.055	19.815	1.00	2.00	C
ATOM	6857	CB	TYR	C	504	-23.761	80.696	19.133	1.00	2.00	C
ATOM	6858	CG	TYR	C	504	-25.060	79.911	19.196	1.00	2.00	C
ATOM	6859	CD1	TYR	C	504	-26.069	80.133	18.257	1.00	2.00	C
ATOM	6860	CE1	TYR	C	504	-27.315	79.387	18.310	1.00	2.00	C
ATOM	6861	CZ	TYR	C	504	-27.488	78.441	19.299	1.00	2.00	C
ATOM	6862	OH	TYR	C	504	-28.661	77.705	19.370	1.00	2.00	O
ATOM	6863	CE2	TYR	C	504	-26.498	78.215	20.252	1.00	2.00	C
ATOM	6864	CD2	TYR	C	504	-25.278	78.952	20.195	1.00	2.00	C
ATOM	6865	C	TYR	C	504	-22.377	82.588	19.838	1.00	2.00	C
ATOM	6866	O	TYR	C	504	-21.490	81.922	20.387	1.00	2.00	O
ATOM	6867	N	ILE	C	505	-22.150	83.746	19.219	1.00	2.00	N
ATOM	6868	CA	ILE	C	505	-20.793	84.318	19.067	1.00	2.00	C
ATOM	6869	CB	ILE	C	505	-20.734	85.332	17.887	1.00	2.00	C
ATOM	6870	CG1	ILE	C	505	-20.881	84.610	16.560	1.00	2.00	C
ATOM	6871	CD1	ILE	C	505	-21.056	85.599	15.372	1.00	2.00	C
ATOM	6872	CG2	ILE	C	505	-19.392	86.110	17.806	1.00	2.00	C
ATOM	6873	C	ILE	C	505	-20.266	84.925	20.385	1.00	2.00	C
ATOM	6874	O	ILE	C	505	-20.962	85.702	21.057	1.00	2.00	O
ATOM	6875	N	ALA	C	506	-19.022	84.589	20.729	1.00	2.00	N
ATOM	6876	CA	ALA	C	506	-18.421	85.006	21.981	1.00	2.00	C
ATOM	6877	CB	ALA	C	506	-17.250	84.080	22.337	1.00	2.00	C
ATOM	6878	C	ALA	C	506	-17.956	86.447	21.854	1.00	2.00	C
ATOM	6879	O	ALA	C	506	-17.588	86.869	20.766	1.00	2.00	O
ATOM	6880	N	PRO	C	507	-17.962	87.214	22.964	1.00	2.00	N
ATOM	6881	CA	PRO	C	507	-17.415	88.579	22.947	1.00	2.00	C
ATOM	6882	CB	PRO	C	507	-17.309	88.906	24.440	1.00	2.00	C
ATOM	6883	CG	PRO	C	507	-18.501	88.229	24.986	1.00	2.00	C
ATOM	6884	CD	PRO	C	507	-18.473	86.889	24.307	1.00	2.00	C
ATOM	6885	C	PRO	C	507	-16.049	88.752	22.262	1.00	2.00	C
ATOM	6886	O	PRO	C	507	-15.819	89.763	21.583	1.00	2.00	O
ATOM	6887	N	GLU	C	508	-15.160	87.780	22.446	1.00	2.00	N
ATOM	6888	CA	GLU	C	508	-13.796	87.910	21.886	1.00	2.00	C
ATOM	6889	CB	GLU	C	508	-12.816	86.914	22.532	1.00	2.00	C
ATOM	6890	CG	GLU	C	508	-13.188	85.443	22.410	1.00	2.00	C
ATOM	6891	CD	GLU	C	508	-14.032	84.923	23.566	1.00	2.00	C
ATOM	6892	OE1	GLU	C	508	-14.788	85.715	24.185	1.00	2.00	O
ATOM	6893	OE2	GLU	C	508	-13.933	83.716	23.848	1.00	2.00	O
ATOM	6894	C	GLU	C	508	-13.802	87.819	20.355	1.00	2.00	C
ATOM	6895	O	GLU	C	508	-12.965	88.451	19.709	1.00	2.00	O
ATOM	6896	N	ILE	C	509	-14.738	87.046	19.772	1.00	2.00	N
ATOM	6897	CA	ILE	C	509	-14.908	87.044	18.310	1.00	2.00	C

- 160 -

ATOM	6898	CB	ILE	C	509	-15.785	85.880	17.797	1.00	2.00	C
ATOM	6899	CG1	ILE	C	509	-15.134	84.538	18.112	1.00	2.00	C
ATOM	6900	CD1	ILE	C	509	-16.029	83.299	17.859	1.00	2.00	C
ATOM	6901	CG2	ILE	C	509	-16.072	86.026	16.271	1.00	2.00	C
ATOM	6902	C	ILE	C	509	-15.422	88.392	17.774	1.00	2.00	C
ATOM	6903	O	ILE	C	509	-14.904	88.925	16.781	1.00	2.00	O
ATOM	6904	N	ILE	C	510	-16.409	88.966	18.443	1.00	2.00	N
ATOM	6905	CA	ILE	C	510	-16.936	90.256	18.018	1.00	2.00	C
ATOM	6906	CB	ILE	C	510	-18.222	90.601	18.795	1.00	2.00	C
ATOM	6907	CG1	ILE	C	510	-19.298	89.551	18.509	1.00	2.00	C
ATOM	6908	CD1	ILE	C	510	-20.358	89.482	19.620	1.00	2.00	C
ATOM	6909	CG2	ILE	C	510	-18.720	92.021	18.484	1.00	2.00	C
ATOM	6910	C	ILE	C	510	-15.921	91.392	18.179	1.00	2.00	C
ATOM	6911	O	ILE	C	510	-15.860	92.306	17.353	1.00	2.00	O
ATOM	6912	N	ALA	C	511	-15.143	91.327	19.247	1.00	2.00	N
ATOM	6913	CA	ALA	C	511	-14.025	92.247	19.473	1.00	2.00	C
ATOM	6914	CB	ALA	C	511	-13.567	92.115	20.901	1.00	2.00	C
ATOM	6915	C	ALA	C	511	-12.844	92.047	18.519	1.00	2.00	C
ATOM	6916	O	ALA	C	511	-11.913	92.826	18.548	1.00	2.00	O
ATOM	6917	N	TYR	C	512	-12.878	91.016	17.680	1.00	2.00	N
ATOM	6918	CA	TYR	C	512	-11.698	90.612	16.851	1.00	2.00	C
ATOM	6919	CB	TYR	C	512	-11.465	91.567	15.679	1.00	3.90	C
ATOM	6920	CG	TYR	C	512	-12.425	91.408	14.510	1.00	3.45	C
ATOM	6921	CD1	TYR	C	512	-12.067	90.672	13.366	1.00	3.75	C
ATOM	6922	CE1	TYR	C	512	-12.959	90.539	12.284	1.00	4.75	C
ATOM	6923	CZ	TYR	C	512	-14.204	91.164	12.350	1.00	3.97	C
ATOM	6924	OH	TYR	C	512	-15.108	91.068	11.306	1.00	4.76	O
ATOM	6925	CE2	TYR	C	512	-14.557	91.897	13.456	1.00	4.60	C
ATOM	6926	CD2	TYR	C	512	-13.663	92.019	14.531	1.00	4.67	C
ATOM	6927	C	TYR	C	512	-10.399	90.409	17.661	1.00	2.00	C
ATOM	6928	O	TYR	C	512	-9.278	90.739	17.210	1.00	2.00	O
ATOM	6929	N	GLN	C	513	-10.570	89.868	18.858	1.00	2.00	N
ATOM	6930	CA	GLN	C	513	-9.475	89.516	19.731	1.00	2.00	C
ATOM	6931	CB	GLN	C	513	-9.935	89.558	21.200	1.00	3.81	C
ATOM	6932	CG	GLN	C	513	-10.224	90.974	21.758	1.00	8.20	C
ATOM	6933	CD	GLN	C	513	-9.018	91.940	21.656	1.00	10.67	C
ATOM	6934	OE1	GLN	C	513	-7.952	91.709	22.254	1.00	12.25	O
ATOM	6935	NE2	GLN	C	513	-9.200	93.040	20.913	1.00	11.72	N
ATOM	6936	C	GLN	C	513	-9.041	88.106	19.362	1.00	2.03	C
ATOM	6937	O	GLN	C	513	-9.914	87.230	19.081	1.00	2.00	O
ATOM	6938	N	PRO	C	514	-7.703	87.849	19.364	1.00	2.00	N
ATOM	6939	CA	PRO	C	514	-7.290	86.475	19.061	1.00	2.00	C
ATOM	6940	CB	PRO	C	514	-5.761	86.521	19.186	1.00	2.00	C
ATOM	6941	CG	PRO	C	514	-5.414	87.972	19.035	1.00	2.00	C
ATOM	6942	CD	PRO	C	514	-6.550	88.732	19.627	1.00	2.00	C
ATOM	6943	C	PRO	C	514	-7.916	85.509	20.062	1.00	2.00	C
ATOM	6944	O	PRO	C	514	-7.920	85.780	21.255	1.00	2.00	O
ATOM	6945	N	TYR	C	515	-8.483	84.412	19.575	1.00	2.00	N
ATOM	6946	CA	TYR	C	515	-9.183	83.492	20.465	1.00	2.00	C
ATOM	6947	CB	TYR	C	515	-10.715	83.606	20.267	1.00	2.00	C
ATOM	6948	CG	TYR	C	515	-11.185	83.229	18.877	1.00	2.00	C
ATOM	6949	CD1	TYR	C	515	-11.460	81.903	18.545	1.00	2.00	C
ATOM	6950	CE1	TYR	C	515	-11.877	81.548	17.260	1.00	2.00	C
ATOM	6951	CZ	TYR	C	515	-12.024	82.538	16.290	1.00	2.00	C
ATOM	6952	OH	TYR	C	515	-12.456	82.231	15.003	1.00	2.00	O
ATOM	6953	CE2	TYR	C	515	-11.735	83.857	16.610	1.00	2.00	C
ATOM	6954	CD2	TYR	C	515	-11.315	84.193	17.892	1.00	2.00	C
ATOM	6955	C	TYR	C	515	-8.746	82.041	20.300	1.00	2.00	C

- 161 -

ATOM	6956	O	TYR	C	515	-8.090	81.674	19.327	1.00	2.00	O
ATOM	6957	N	GLY	C	516	-9.138	81.211	21.258	1.00	2.00	N
ATOM	6958	CA	GLY	C	516	-8.929	79.790	21.159	1.00	2.00	C
ATOM	6959	C	GLY	C	516	-10.218	79.041	21.457	1.00	2.00	C
ATOM	6960	O	GLY	C	516	-11.309	79.463	21.034	1.00	2.00	O
ATOM	6961	N	LYS	C	517	-10.079	77.954	22.191	1.00	2.00	N
ATOM	6962	CA	LYS	C	517	-11.174	77.054	22.476	1.00	2.00	C
ATOM	6963	CB	LYS	C	517	-10.641	75.780	23.118	1.00	2.90	C
ATOM	6964	CG	LYS	C	517	-10.271	75.935	24.543	1.00	8.95	C
ATOM	6965	CD	LYS	C	517	-11.162	75.159	25.490	1.00	11.01	C
ATOM	6966	CE	LYS	C	517	-10.388	74.644	26.709	1.00	12.15	C
ATOM	6967	NZ	LYS	C	517	-9.081	73.833	26.494	1.00	13.87	N
ATOM	6968	C	LYS	C	517	-12.274	77.710	23.338	1.00	2.00	C
ATOM	6969	O	LYS	C	517	-13.377	77.216	23.423	1.00	2.00	O
ATOM	6970	N	SER	C	518	-11.920	78.814	23.978	1.00	2.00	N
ATOM	6971	CA	SER	C	518	-12.832	79.516	24.845	1.00	2.00	C
ATOM	6972	CB	SER	C	518	-12.273	80.873	25.249	1.00	2.00	C
ATOM	6973	OG	SER	C	518	-12.108	81.730	24.119	1.00	3.03	O
ATOM	6974	C	SER	C	518	-14.192	79.715	24.157	1.00	2.00	C
ATOM	6975	O	SER	C	518	-15.216	79.685	24.826	1.00	2.00	O
ATOM	6976	N	VAL	C	519	-14.181	79.924	22.839	1.00	2.00	N
ATOM	6977	CA	VAL	C	519	-15.404	80.309	22.117	1.00	2.00	C
ATOM	6978	CB	VAL	C	519	-15.118	80.813	20.691	1.00	2.00	C
ATOM	6979	CG1	VAL	C	519	-14.201	82.040	20.726	1.00	2.00	C
ATOM	6980	CG2	VAL	C	519	-14.513	79.678	19.819	1.00	2.00	C
ATOM	6981	C	VAL	C	519	-16.435	79.172	22.080	1.00	2.00	C
ATOM	6982	O	VAL	C	519	-17.631	79.433	21.942	1.00	2.00	O
ATOM	6983	N	ASP	C	520	-15.968	77.922	22.188	1.00	2.00	N
ATOM	6984	CA	ASP	C	520	-16.889	76.768	22.197	1.00	2.00	C
ATOM	6985	CB	ASP	C	520	-16.158	75.456	22.001	1.00	2.00	C
ATOM	6986	CG	ASP	C	520	-15.708	75.232	20.572	1.00	2.00	C
ATOM	6987	OD1	ASP	C	520	-16.243	75.862	19.633	1.00	2.00	O
ATOM	6988	OD2	ASP	C	520	-14.814	74.389	20.407	1.00	2.00	O
ATOM	6989	C	ASP	C	520	-17.613	76.701	23.515	1.00	2.00	C
ATOM	6990	O	ASP	C	520	-18.746	76.242	23.572	1.00	2.00	O
ATOM	6991	N	TRP	C	521	-16.951	77.147	24.581	1.00	2.00	N
ATOM	6992	CA	TRP	C	521	-17.570	77.126	25.914	1.00	2.00	C
ATOM	6993	CB	TRP	C	521	-16.522	77.146	27.034	1.00	2.00	C
ATOM	6994	CG	TRP	C	521	-15.796	75.825	27.072	1.00	2.00	C
ATOM	6995	CD1	TRP	C	521	-14.467	75.610	26.829	1.00	2.00	C
ATOM	6996	NE1	TRP	C	521	-14.182	74.263	26.923	1.00	2.00	N
ATOM	6997	CE2	TRP	C	521	-15.343	73.582	27.211	1.00	2.00	C
ATOM	6998	CD2	TRP	C	521	-16.382	74.537	27.312	1.00	2.00	C
ATOM	6999	CE3	TRP	C	521	-17.698	74.092	27.586	1.00	2.00	C
ATOM	7000	CZ3	TRP	C	521	-17.919	72.723	27.779	1.00	2.00	C
ATOM	7001	CH2	TRP	C	521	-16.860	71.797	27.678	1.00	2.00	C
ATOM	7002	CZ2	TRP	C	521	-15.566	72.211	27.387	1.00	2.00	C
ATOM	7003	C	TRP	C	521	-18.619	78.202	26.089	1.00	2.00	C
ATOM	7004	O	TRP	C	521	-19.661	77.985	26.778	1.00	2.00	O
ATOM	7005	N	TRP	C	522	-18.361	79.340	25.461	1.00	2.00	N
ATOM	7006	CA	TRP	C	522	-19.354	80.413	25.384	1.00	2.00	C
ATOM	7007	CB	TRP	C	522	-18.794	81.663	24.714	1.00	2.00	C
ATOM	7008	CG	TRP	C	522	-19.883	82.748	24.541	1.00	2.00	C
ATOM	7009	CD1	TRP	C	522	-20.793	82.827	23.541	1.00	2.00	C
ATOM	7010	NE1	TRP	C	522	-21.617	83.911	23.730	1.00	2.00	N
ATOM	7011	CE2	TRP	C	522	-21.232	84.565	24.876	1.00	2.00	C
ATOM	7012	CD2	TRP	C	522	-20.145	83.850	25.420	1.00	2.00	C
ATOM	7013	CE3	TRP	C	522	-19.563	84.301	26.610	1.00	2.00	C

- 162 -

ATOM	7014	CZ3	TRP	C	522	-20.066	85.447	27.207	1.00	2.00	C
ATOM	7015	CH2	TRP	C	522	-21.172	86.140	26.647	1.00	2.00	C
ATOM	7016	CZ2	TRP	C	522	-21.756	85.713	25.484	1.00	2.00	C
ATOM	7017	C	TRP	C	522	-20.641	79.954	24.652	1.00	2.00	C
ATOM	7018	O	TRP	C	522	-21.753	80.141	25.168	1.00	2.00	O
ATOM	7019	N	ALA	C	523	-20.459	79.365	23.472	1.00	2.00	N
ATOM	7020	CA	ALA	C	523	-21.547	78.854	22.641	1.00	2.00	C
ATOM	7021	CB	ALA	C	523	-21.004	78.359	21.320	1.00	2.00	C
ATOM	7022	C	ALA	C	523	-22.330	77.746	23.340	1.00	2.00	C
ATOM	7023	O	ALA	C	523	-23.556	77.659	23.199	1.00	2.00	O
ATOM	7024	N	TYR	C	524	-21.595	76.888	24.058	1.00	2.00	N
ATOM	7025	CA	TYR	C	524	-22.129	75.886	24.966	1.00	2.00	C
ATOM	7026	CB	TYR	C	524	-20.961	75.191	25.628	1.00	2.00	C
ATOM	7027	CG	TYR	C	524	-21.281	74.055	26.551	1.00	2.00	C
ATOM	7028	CD1	TYR	C	524	-21.609	72.786	26.054	1.00	2.00	C
ATOM	7029	CE1	TYR	C	524	-21.888	71.718	26.925	1.00	2.00	C
ATOM	7030	CZ	TYR	C	524	-21.824	71.916	28.297	1.00	2.00	C
ATOM	7031	OH	TYR	C	524	-22.064	70.873	29.155	1.00	2.00	O
ATOM	7032	CE2	TYR	C	524	-21.480	73.146	28.816	1.00	2.00	C
ATOM	7033	CD2	TYR	C	524	-21.205	74.221	27.934	1.00	2.00	C
ATOM	7034	C	TYR	C	524	-23.016	76.507	26.043	1.00	2.00	C
ATOM	7035	O	TYR	C	524	-24.076	75.967	26.365	1.00	2.00	O
ATOM	7036	N	GLY	C	525	-22.572	77.626	26.601	1.00	2.00	N
ATOM	7037	CA	GLY	C	525	-23.349	78.397	27.560	1.00	2.00	C
ATOM	7038	C	GLY	C	525	-24.670	78.883	26.967	1.00	2.00	C
ATOM	7039	O	GLY	C	525	-25.724	78.771	27.613	1.00	2.00	O
ATOM	7040	N	VAL	C	526	-24.602	79.418	25.748	1.00	2.00	N
ATOM	7041	CA	VAL	C	526	-25.785	79.905	25.018	1.00	2.00	C
ATOM	7042	CB	VAL	C	526	-25.426	80.637	23.667	1.00	2.00	C
ATOM	7043	CG1	VAL	C	526	-26.717	80.918	22.825	1.00	2.00	C
ATOM	7044	CG2	VAL	C	526	-24.668	81.936	23.929	1.00	2.00	C
ATOM	7045	C	VAL	C	526	-26.790	78.758	24.782	1.00	2.00	C
ATOM	7046	O	VAL	C	526	-27.967	78.901	25.073	1.00	2.00	O
ATOM	7047	N	LEU	C	527	-26.290	77.635	24.269	1.00	2.00	N
ATOM	7048	CA	LEU	C	527	-27.088	76.447	23.993	1.00	2.00	C
ATOM	7049	CB	LEU	C	527	-26.241	75.374	23.301	1.00	2.00	C
ATOM	7050	CG	LEU	C	527	-26.917	74.203	22.573	1.00	2.00	C
ATOM	7051	CD1	LEU	C	527	-25.940	73.656	21.531	1.00	2.00	C
ATOM	7052	CD2	LEU	C	527	-27.340	73.096	23.559	1.00	2.00	C
ATOM	7053	C	LEU	C	527	-27.736	75.886	25.271	1.00	2.00	C
ATOM	7054	O	LEU	C	527	-28.917	75.490	25.259	1.00	2.00	O
ATOM	7055	N	LEU	C	528	-26.973	75.870	26.360	1.00	2.00	N
ATOM	7056	CA	LEU	C	528	-27.509	75.451	27.639	1.00	2.00	C
ATOM	7057	CB	LEU	C	528	-26.387	75.318	28.664	1.00	2.00	C
ATOM	7058	CG	LEU	C	528	-26.593	74.545	29.952	1.00	2.00	C
ATOM	7059	CD1	LEU	C	528	-27.686	73.415	29.851	1.00	2.00	C
ATOM	7060	CD2	LEU	C	528	-25.269	73.982	30.425	1.00	2.00	C
ATOM	7061	C	LEU	C	528	-28.601	76.398	28.164	1.00	2.00	C
ATOM	7062	O	LEU	C	528	-29.622	75.928	28.674	1.00	2.00	O
ATOM	7063	N	TYR	C	529	-28.366	77.709	28.058	1.00	2.00	N
ATOM	7064	CA	TYR	C	529	-29.365	78.702	28.403	1.00	2.00	C
ATOM	7065	CB	TYR	C	529	-28.882	80.130	28.164	1.00	2.00	C
ATOM	7066	CG	TYR	C	529	-29.867	81.182	28.659	1.00	2.00	C
ATOM	7067	CD1	TYR	C	529	-30.874	81.677	27.823	1.00	2.00	C
ATOM	7068	CE1	TYR	C	529	-31.781	82.656	28.264	1.00	2.00	C
ATOM	7069	CZ	TYR	C	529	-31.681	83.134	29.541	1.00	2.00	C
ATOM	7070	OH	TYR	C	529	-32.556	84.092	29.978	1.00	2.00	O
ATOM	7071	CE2	TYR	C	529	-30.705	82.653	30.397	1.00	2.00	C

- 163 -

ATOM	7072	CD2	TYR	C	529	-29.797	81.677	29.948	1.00	2.00	C
ATOM	7073	C	TYR	C	529	-30.668	78.478	27.605	1.00	2.00	C
ATOM	7074	O	TYR	C	529	-31.755	78.553	28.180	1.00	2.00	O
ATOM	7075	N	GLU	C	530	-30.534	78.223	26.302	1.00	2.00	N
ATOM	7076	CA	GLU	C	530	-31.699	77.970	25.428	1.00	2.00	C
ATOM	7077	CB	GLU	C	530	-31.265	77.856	23.976	1.00	2.00	C
ATOM	7078	CG	GLU	C	530	-30.764	79.147	23.412	1.00	2.00	C
ATOM	7079	CD	GLU	C	530	-30.366	78.997	21.975	1.00	2.00	C
ATOM	7080	OE1	GLU	C	530	-29.529	78.145	21.688	1.00	2.00	O
ATOM	7081	OE2	GLU	C	530	-30.938	79.702	21.122	1.00	2.00	O
ATOM	7082	C	GLU	C	530	-32.467	76.725	25.851	1.00	2.00	C
ATOM	7083	O	GLU	C	530	-33.688	76.742	25.886	1.00	2.00	O
ATOM	7084	N	MET	C	531	-31.764	75.660	26.218	1.00	2.00	N
ATOM	7085	CA	MET	C	531	-32.413	74.425	26.714	1.00	2.00	C
ATOM	7086	CB	MET	C	531	-31.379	73.307	26.943	1.00	2.00	C
ATOM	7087	CG	MET	C	531	-30.742	72.759	25.664	1.00	2.00	C
ATOM	7088	SD	MET	C	531	-30.037	71.121	25.971	1.00	2.00	S
ATOM	7089	CE	MET	C	531	-28.592	71.533	26.943	1.00	2.00	C
ATOM	7090	C	MET	C	531	-33.193	74.662	28.005	1.00	2.00	C
ATOM	7091	O	MET	C	531	-34.325	74.170	28.181	1.00	2.00	O
ATOM	7092	N	LEU	C	532	-32.576	75.437	28.887	1.00	2.00	N
ATOM	7093	CA	LEU	C	532	-33.089	75.707	30.220	1.00	2.00	C
ATOM	7094	CB	LEU	C	532	-31.959	76.157	31.162	1.00	2.00	C
ATOM	7095	CG	LEU	C	532	-30.977	75.050	31.563	1.00	2.00	C
ATOM	7096	CD1	LEU	C	532	-29.656	75.636	32.173	1.00	2.00	C
ATOM	7097	CD2	LEU	C	532	-31.604	74.017	32.527	1.00	2.00	C
ATOM	7098	C	LEU	C	532	-34.208	76.743	30.221	1.00	2.00	C
ATOM	7099	O	LEU	C	532	-35.186	76.592	30.951	1.00	2.00	O
ATOM	7100	N	ALA	C	533	-34.042	77.775	29.394	1.00	2.00	N
ATOM	7101	CA	ALA	C	533	-34.957	78.921	29.346	1.00	2.00	C
ATOM	7102	CB	ALA	C	533	-34.179	80.223	29.430	1.00	2.00	C
ATOM	7103	C	ALA	C	533	-35.892	78.957	28.141	1.00	2.00	C
ATOM	7104	O	ALA	C	533	-36.918	79.661	28.163	1.00	2.00	O
ATOM	7105	N	GLY	C	534	-35.563	78.208	27.101	1.00	2.00	N
ATOM	7106	CA	GLY	C	534	-36.366	78.180	25.872	1.00	2.00	C
ATOM	7107	C	GLY	C	534	-36.266	79.471	25.091	1.00	2.00	C
ATOM	7108	O	GLY	C	534	-37.005	79.678	24.142	1.00	2.00	O
ATOM	7109	N	GLN	C	535	-35.326	80.334	25.485	1.00	2.01	N
ATOM	7110	CA	GLN	C	535	-35.131	81.658	24.871	1.00	3.03	C
ATOM	7111	CB	GLN	C	535	-35.659	82.771	25.788	1.00	3.71	C
ATOM	7112	CG	GLN	C	535	-37.153	82.777	26.015	1.00	11.96	C
ATOM	7113	CD	GLN	C	535	-37.886	83.541	24.923	1.00	13.28	C
ATOM	7114	OE1	GLN	C	535	-38.790	82.998	24.293	1.00	16.60	O
ATOM	7115	NE2	GLN	C	535	-37.489	84.813	24.689	1.00	15.27	N
ATOM	7116	C	GLN	C	535	-33.629	81.893	24.735	1.00	2.00	C
ATOM	7117	O	GLN	C	535	-32.863	81.312	25.477	1.00	2.00	O
ATOM	7118	N	PRO	C	536	-33.208	82.761	23.792	1.00	2.00	N
ATOM	7119	CA	PRO	C	536	-31.775	83.127	23.735	1.00	2.00	C
ATOM	7120	CB	PRO	C	536	-31.607	83.744	22.362	1.00	2.00	C
ATOM	7121	CG	PRO	C	536	-33.019	84.114	21.901	1.00	2.00	C
ATOM	7122	CD	PRO	C	536	-34.016	83.435	22.756	1.00	2.00	C
ATOM	7123	C	PRO	C	536	-31.394	84.113	24.837	1.00	2.00	C
ATOM	7124	O	PRO	C	536	-32.204	84.952	25.241	1.00	2.00	O
ATOM	7125	N	PRO	C	537	-30.154	84.013	25.348	1.00	2.00	N
ATOM	7126	CA	PRO	C	537	-29.753	84.880	26.458	1.00	2.00	C
ATOM	7127	CB	PRO	C	537	-28.448	84.238	26.924	1.00	2.00	C
ATOM	7128	CG	PRO	C	537	-27.851	83.654	25.634	1.00	2.00	C
ATOM	7129	CD	PRO	C	537	-29.079	83.096	24.926	1.00	2.00	C

- 164 -

ATOM	7130	C	PRO	C	537	-29.562	86.352	26.062	1.00	2.00	C
ATOM	7131	O	PRO	C	537	-29.653	87.220	26.907	1.00	2.00	O
ATOM	7132	N	PHE	C	538	-29.304	86.622	24.789	1.00	2.00	N
ATOM	7133	CA	PHE	C	538	-28.999	87.961	24.283	1.00	2.00	C
ATOM	7134	CB	PHE	C	538	-27.537	88.035	23.764	1.00	2.00	C
ATOM	7135	CG	PHE	C	538	-26.538	87.776	24.850	1.00	2.00	C
ATOM	7136	CD1	PHE	C	538	-26.284	88.746	25.810	1.00	2.00	C
ATOM	7137	CE1	PHE	C	538	-25.426	88.503	26.840	1.00	2.00	C
ATOM	7138	CZ	PHE	C	538	-24.787	87.249	26.923	1.00	2.00	C
ATOM	7139	CE2	PHE	C	538	-25.048	86.264	25.985	1.00	2.00	C
ATOM	7140	CD2	PHE	C	538	-25.925	86.534	24.953	1.00	2.00	C
ATOM	7141	C	PHE	C	538	-29.992	88.265	23.163	1.00	2.00	C
ATOM	7142	O	PHE	C	538	-30.595	87.368	22.611	1.00	2.00	O
ATOM	7143	N	ASP	C	539	-30.162	89.526	22.819	1.00	4.35	N
ATOM	7144	CA	ASP	C	539	-31.132	89.876	21.774	1.00	4.58	C
ATOM	7145	CB	ASP	C	539	-32.559	89.871	22.358	1.00	10.09	C
ATOM	7146	CG	ASP	C	539	-32.623	90.438	23.759	1.00	14.17	C
ATOM	7147	OD1	ASP	C	539	-31.855	91.382	24.074	1.00	14.88	O
ATOM	7148	OD2	ASP	C	539	-33.464	89.932	24.552	1.00	17.22	O
ATOM	7149	C	ASP	C	539	-30.836	91.220	21.143	1.00	2.95	C
ATOM	7150	O	ASP	C	539	-30.149	92.036	21.740	1.00	2.00	O
ATOM	7151	N	GLY	C	540	-31.388	91.453	19.951	1.00	2.86	N
ATOM	7152	CA	GLY	C	540	-31.286	92.730	19.263	1.00	2.11	C
ATOM	7153	C	GLY	C	540	-32.157	92.723	18.026	1.00	3.75	C
ATOM	7154	O	GLY	C	540	-32.547	91.648	17.534	1.00	2.00	O
ATOM	7155	N	GLU	C	541	-32.465	93.923	17.520	1.00	4.60	N
ATOM	7156	CA	GLU	C	541	-33.277	94.070	16.314	1.00	5.71	C
ATOM	7157	CB	GLU	C	541	-33.941	95.456	16.267	1.00	6.90	C
ATOM	7158	CG	GLU	C	541	-35.065	95.599	17.316	1.00	11.58	C
ATOM	7159	CD	GLU	C	541	-35.880	96.882	17.171	1.00	11.87	C
ATOM	7160	OE1	GLU	C	541	-36.655	97.018	16.184	1.00	15.81	O
ATOM	7161	OE2	GLU	C	541	-35.746	97.762	18.057	1.00	15.41	O
ATOM	7162	C	GLU	C	541	-32.506	93.714	15.026	1.00	4.53	C
ATOM	7163	O	GLU	C	541	-33.097	93.366	13.992	1.00	3.68	O
ATOM	7164	N	ASP	C	542	-31.183	93.794	15.101	1.00	2.07	N
ATOM	7165	CA	ASP	C	542	-30.318	93.370	14.029	1.00	2.00	C
ATOM	7166	CB	ASP	C	542	-30.103	94.499	13.000	1.00	2.00	C
ATOM	7167	CG	ASP	C	542	-29.536	95.773	13.604	1.00	2.06	C
ATOM	7168	OD1	ASP	C	542	-28.960	95.766	14.707	1.00	2.00	O
ATOM	7169	OD2	ASP	C	542	-29.677	96.834	12.951	1.00	6.43	O
ATOM	7170	C	ASP	C	542	-28.992	92.846	14.618	1.00	2.00	C
ATOM	7171	O	ASP	C	542	-28.840	92.775	15.835	1.00	2.00	O
ATOM	7172	N	GLU	C	543	-28.051	92.471	13.753	1.00	2.00	N
ATOM	7173	CA	GLU	C	543	-26.808	91.850	14.212	1.00	2.00	C
ATOM	7174	CB	GLU	C	543	-25.977	91.367	13.025	1.00	2.00	C
ATOM	7175	CG	GLU	C	543	-25.192	90.151	13.378	1.00	3.77	C
ATOM	7176	CD	GLU	C	543	-24.245	89.680	12.302	1.00	4.65	C
ATOM	7177	OE1	GLU	C	543	-24.326	90.140	11.145	1.00	5.45	O
ATOM	7178	OE2	GLU	C	543	-23.396	88.825	12.638	1.00	6.45	O
ATOM	7179	C	GLU	C	543	-25.978	92.800	15.079	1.00	2.00	C
ATOM	7180	O	GLU	C	543	-25.442	92.415	16.129	1.00	2.00	O
ATOM	7181	N	ASP	C	544	-25.890	94.039	14.629	1.00	2.00	N
ATOM	7182	CA	ASP	C	544	-25.186	95.098	15.341	1.00	4.35	C
ATOM	7183	CB	ASP	C	544	-25.348	96.409	14.584	1.00	6.66	C
ATOM	7184	CG	ASP	C	544	-25.310	96.232	13.076	1.00	11.40	C
ATOM	7185	OD1	ASP	C	544	-26.140	95.431	12.479	1.00	9.80	O
ATOM	7186	OD2	ASP	C	544	-24.441	96.935	12.490	1.00	11.12	O
ATOM	7187	C	ASP	C	544	-25.722	95.281	16.756	1.00	3.32	C

- 165 -

ATOM	7188	O	ASP	C	544	-24.956	95.345	17.714	1.00	2.00	O
ATOM	7189	N	GLU	C	545	-27.045	95.386	16.886	1.00	2.00	N
ATOM	7190	CA	GLU	C	545	-27.657	95.482	18.209	1.00	2.00	C
ATOM	7191	CB	GLU	C	545	-29.137	95.870	18.095	1.00	2.10	C
ATOM	7192	CG	GLU	C	545	-29.769	96.239	19.411	1.00	7.72	C
ATOM	7193	CD	GLU	C	545	-31.300	96.300	19.348	1.00	6.58	C
ATOM	7194	OE1	GLU	C	545	-31.835	96.681	18.284	1.00	8.39	O
ATOM	7195	OE2	GLU	C	545	-31.959	95.960	20.363	1.00	9.80	O
ATOM	7196	C	GLU	C	545	-27.431	94.200	19.028	1.00	2.00	C
ATOM	7197	O	GLU	C	545	-27.097	94.259	20.206	1.00	2.00	O
ATOM	7198	N	LEU	C	546	-27.572	93.043	18.396	1.00	2.00	N
ATOM	7199	CA	LEU	C	546	-27.240	91.773	19.055	1.00	2.00	C
ATOM	7200	CB	LEU	C	546	-27.410	90.602	18.089	1.00	2.00	C
ATOM	7201	CG	LEU	C	546	-27.117	89.189	18.608	1.00	2.00	C
ATOM	7202	CD1	LEU	C	546	-27.885	88.850	19.888	1.00	2.00	C
ATOM	7203	CD2	LEU	C	546	-27.432	88.208	17.521	1.00	2.00	C
ATOM	7204	C	LEU	C	546	-25.815	91.756	19.652	1.00	2.00	C
ATOM	7205	O	LEU	C	546	-25.626	91.365	20.802	1.00	2.00	O
ATOM	7206	N	PHE	C	547	-24.842	92.191	18.857	1.00	2.00	N
ATOM	7207	CA	PHE	C	547	-23.430	92.154	19.237	1.00	2.00	C
ATOM	7208	CB	PHE	C	547	-22.558	92.553	18.053	1.00	2.00	C
ATOM	7209	CG	PHE	C	547	-22.380	91.471	17.051	1.00	2.00	C
ATOM	7210	CD1	PHE	C	547	-22.812	90.177	17.313	1.00	2.00	C
ATOM	7211	CE1	PHE	C	547	-22.641	89.172	16.385	1.00	2.00	C
ATOM	7212	CZ	PHE	C	547	-22.018	89.462	15.182	1.00	2.00	C
ATOM	7213	CE2	PHE	C	547	-21.584	90.724	14.916	1.00	2.00	C
ATOM	7214	CD2	PHE	C	547	-21.754	91.731	15.847	1.00	2.00	C
ATOM	7215	C	PHE	C	547	-23.178	93.094	20.377	1.00	2.00	C
ATOM	7216	O	PHE	C	547	-22.438	92.773	21.291	1.00	2.00	O
ATOM	7217	N	GLN	C	548	-23.806	94.261	20.306	1.00	2.00	N
ATOM	7218	CA	GLN	C	548	-23.817	95.234	21.388	1.00	2.57	C
ATOM	7219	CB	GLN	C	548	-24.714	96.398	20.970	1.00	5.08	C
ATOM	7220	CG	GLN	C	548	-24.999	97.420	22.035	1.00	10.99	C
ATOM	7221	CD	GLN	C	548	-25.973	98.474	21.552	1.00	11.60	C
ATOM	7222	OE1	GLN	C	548	-26.012	98.807	20.346	1.00	14.79	O
ATOM	7223	NE2	GLN	C	548	-26.774	99.011	22.482	1.00	13.35	N
ATOM	7224	C	GLN	C	548	-24.302	94.622	22.705	1.00	2.00	C
ATOM	7225	O	GLN	C	548	-23.736	94.881	23.774	1.00	2.02	O
ATOM	7226	N	SER	C	549	-25.351	93.809	22.618	1.00	2.00	N
ATOM	7227	CA	SER	C	549	-25.879	93.087	23.760	1.00	2.00	C
ATOM	7228	CB	SER	C	549	-27.288	92.551	23.413	1.00	2.86	C
ATOM	7229	OG	SER	C	549	-27.728	91.631	24.378	1.00	4.04	O
ATOM	7230	C	SER	C	549	-24.928	91.981	24.291	1.00	2.00	C
ATOM	7231	O	SER	C	549	-24.719	91.854	25.505	1.00	2.00	O
ATOM	7232	N	ILE	C	550	-24.325	91.207	23.386	1.00	2.00	N
ATOM	7233	CA	ILE	C	550	-23.353	90.196	23.794	1.00	2.00	C
ATOM	7234	CB	ILE	C	550	-22.895	89.341	22.592	1.00	2.00	C
ATOM	7235	CG1	ILE	C	550	-24.076	88.530	22.051	1.00	2.00	C
ATOM	7236	CD1	ILE	C	550	-23.871	88.002	20.653	1.00	2.00	C
ATOM	7237	CG2	ILE	C	550	-21.755	88.419	22.970	1.00	2.00	C
ATOM	7238	C	ILE	C	550	-22.182	90.854	24.540	1.00	2.00	C
ATOM	7239	O	ILE	C	550	-21.715	90.326	25.543	1.00	2.00	O
ATOM	7240	N	MET	C	551	-21.740	92.013	24.067	1.00	2.00	N
ATOM	7241	CA	MET	C	551	-20.644	92.765	24.706	1.00	2.04	C
ATOM	7242	CB	MET	C	551	-20.146	93.893	23.783	1.00	2.00	C
ATOM	7243	CG	MET	C	551	-19.622	93.422	22.466	1.00	4.00	C
ATOM	7244	SD	MET	C	551	-18.202	92.333	22.693	1.00	7.37	S
ATOM	7245	CE	MET	C	551	-18.776	90.955	21.819	1.00	7.93	C

- 166 -

ATOM	7246	C	MET	C	551	-20.992	93.369	26.060	1.00	2.00	C
ATOM	7247	O	MET	C	551	-20.116	93.474	26.931	1.00	2.00	O
ATOM	7248	N	GLU	C	552	-22.253	93.764	26.233	1.00	2.39	N
ATOM	7249	CA	GLU	C	552	-22.667	94.683	27.305	1.00	2.90	C
ATOM	7250	CB	GLU	C	552	-23.267	95.956	26.695	1.00	4.74	C
ATOM	7251	CG	GLU	C	552	-22.343	96.733	25.793	1.00	6.81	C
ATOM	7252	CD	GLU	C	552	-21.031	97.040	26.471	1.00	6.59	C
ATOM	7253	OE1	GLU	C	552	-21.045	97.325	27.691	1.00	8.71	O
ATOM	7254	OE2	GLU	C	552	-19.990	96.985	25.788	1.00	8.41	O
ATOM	7255	C	GLU	C	552	-23.685	94.160	28.311	1.00	3.45	C
ATOM	7256	O	GLU	C	552	-23.703	94.590	29.471	1.00	3.14	O
ATOM	7257	N	HIS	C	553	-24.551	93.259	27.864	1.00	5.40	N
ATOM	7258	CA	HIS	C	553	-25.748	92.892	28.628	1.00	5.33	C
ATOM	7259	CB	HIS	C	553	-26.833	92.375	27.662	1.00	6.13	C
ATOM	7260	CG	HIS	C	553	-28.106	91.920	28.323	1.00	8.97	C
ATOM	7261	ND1	HIS	C	553	-28.612	90.640	28.168	1.00	10.21	N
ATOM	7262	CE1	HIS	C	553	-29.750	90.530	28.835	1.00	9.21	C
ATOM	7263	NE2	HIS	C	553	-30.005	91.690	29.411	1.00	8.85	N
ATOM	7264	CD2	HIS	C	553	-28.998	92.579	29.101	1.00	8.72	C
ATOM	7265	C	HIS	C	553	-25.413	91.845	29.675	1.00	5.80	C
ATOM	7266	O	HIS	C	553	-24.716	90.869	29.396	1.00	3.33	O
ATOM	7267	N	ASN	C	554	-25.915	92.052	30.885	1.00	7.40	N
ATOM	7268	CA	ASN	C	554	-25.980	90.986	31.871	1.00	10.15	C
ATOM	7269	CB	ASN	C	554	-26.117	91.578	33.281	1.00	12.93	C
ATOM	7270	CG	ASN	C	554	-24.877	92.355	33.707	1.00	14.85	C
ATOM	7271	OD1	ASN	C	554	-23.785	92.164	33.157	1.00	16.29	O
ATOM	7272	ND2	ASN	C	554	-25.042	93.250	34.681	1.00	16.59	N
ATOM	7273	C	ASN	C	554	-27.175	90.124	31.537	1.00	9.82	C
ATOM	7274	O	ASN	C	554	-28.276	90.645	31.366	1.00	12.30	O
ATOM	7275	N	VAL	C	555	-26.971	88.813	31.435	1.00	9.01	N
ATOM	7276	CA	VAL	C	555	-28.054	87.877	31.121	1.00	6.37	C
ATOM	7277	CB	VAL	C	555	-27.491	86.473	30.819	1.00	5.65	C
ATOM	7278	CG1	VAL	C	555	-28.576	85.428	30.694	1.00	4.32	C
ATOM	7279	CG2	VAL	C	555	-26.612	86.511	29.586	1.00	6.27	C
ATOM	7280	C	VAL	C	555	-29.078	87.808	32.278	1.00	7.15	C
ATOM	7281	O	VAL	C	555	-28.708	87.785	33.458	1.00	5.30	O
ATOM	7282	N	SER	C	556	-30.359	87.779	31.926	1.00	6.25	N
ATOM	7283	CA	SER	C	556	-31.411	87.656	32.924	1.00	7.77	C
ATOM	7284	CB	SER	C	556	-32.643	88.479	32.506	1.00	10.11	C
ATOM	7285	OG	SER	C	556	-33.313	87.869	31.394	1.00	14.87	O
ATOM	7286	C	SER	C	556	-31.792	86.190	33.139	1.00	5.90	C
ATOM	7287	O	SER	C	556	-32.186	85.503	32.196	1.00	6.86	O
ATOM	7288	N	TYR	C	557	-31.677	85.727	34.382	1.00	5.22	N
ATOM	7289	CA	TYR	C	557	-32.025	84.360	34.756	1.00	3.78	C
ATOM	7290	CB	TYR	C	557	-30.929	83.784	35.681	1.00	3.39	C
ATOM	7291	CG	TYR	C	557	-29.620	83.686	34.930	1.00	2.00	C
ATOM	7292	CD1	TYR	C	557	-28.612	84.628	35.107	1.00	2.97	C
ATOM	7293	CE1	TYR	C	557	-27.427	84.544	34.384	1.00	2.00	C
ATOM	7294	CZ	TYR	C	557	-27.258	83.528	33.460	1.00	2.00	C
ATOM	7295	OH	TYR	C	557	-26.069	83.420	32.717	1.00	2.00	O
ATOM	7296	CE2	TYR	C	557	-28.247	82.594	33.278	1.00	2.00	C
ATOM	7297	CD2	TYR	C	557	-29.414	82.681	33.998	1.00	2.00	C
ATOM	7298	C	TYR	C	557	-33.392	84.304	35.418	1.00	5.61	C
ATOM	7299	O	TYR	C	557	-33.552	84.879	36.499	1.00	9.48	O
ATOM	7300	N	PRO	C	558	-34.378	83.621	34.792	1.00	3.56	N
ATOM	7301	CA	PRO	C	558	-35.692	83.509	35.456	1.00	5.42	C
ATOM	7302	CB	PRO	C	558	-36.545	82.688	34.481	1.00	3.49	C
ATOM	7303	CG	PRO	C	558	-35.614	82.115	33.490	1.00	4.23	C

- 167 -

ATOM	7304	CD	PRO	C	558	-34.364	82.946	33.481	1.00	3.40	C
ATOM	7305	C	PRO	C	558	-35.574	82.791	36.773	1.00	6.98	C
ATOM	7306	O	PRO	C	558	-34.699	81.935	36.949	1.00	3.31	O
ATOM	7307	N	LYS	C	559	-36.471	83.139	37.694	1.00	8.49	N
ATOM	7308	CA	LYS	C	559	-36.370	82.747	39.083	1.00	10.16	C
ATOM	7309	CB	LYS	C	559	-37.352	83.601	39.928	1.00	13.23	C
ATOM	7310	CG	LYS	C	559	-37.130	85.138	39.730	1.00	14.28	C
ATOM	7311	CD	LYS	C	559	-38.434	86.012	39.779	1.00	14.44	C
ATOM	7312	CE	LYS	C	559	-38.180	87.472	39.280	1.00	15.74	C
ATOM	7313	NZ	LYS	C	559	-38.987	88.539	39.995	1.00	16.09	N
ATOM	7314	C	LYS	C	559	-36.623	81.254	39.216	1.00	9.98	C
ATOM	7315	O	LYS	C	559	-36.237	80.651	40.197	1.00	10.35	O
ATOM	7316	N	SER	C	560	-37.253	80.661	38.203	1.00	8.66	N
ATOM	7317	CA	SER	C	560	-37.532	79.223	38.169	1.00	7.82	C
ATOM	7318	CB	SER	C	560	-38.441	78.910	36.993	1.00	7.31	C
ATOM	7319	OG	SER	C	560	-37.932	79.511	35.825	1.00	9.80	O
ATOM	7320	C	SER	C	560	-36.267	78.356	38.057	1.00	7.54	C
ATOM	7321	O	SER	C	560	-36.300	77.152	38.355	1.00	6.21	O
ATOM	7322	N	LEU	C	561	-35.168	78.973	37.635	1.00	4.05	N
ATOM	7323	CA	LEU	C	561	-33.911	78.264	37.424	1.00	4.22	C
ATOM	7324	CB	LEU	C	561	-33.014	79.047	36.470	1.00	5.37	C
ATOM	7325	CG	LEU	C	561	-32.826	78.557	35.027	1.00	7.42	C
ATOM	7326	CD1	LEU	C	561	-34.146	78.194	34.369	1.00	8.54	C
ATOM	7327	CD2	LEU	C	561	-32.117	79.605	34.220	1.00	7.65	C
ATOM	7328	C	LEU	C	561	-33.189	77.977	38.728	1.00	2.00	C
ATOM	7329	O	LEU	C	561	-33.098	78.840	39.616	1.00	2.00	O
ATOM	7330	N	SER	C	562	-32.670	76.760	38.843	1.00	2.00	N
ATOM	7331	CA	SER	C	562	-31.922	76.377	40.032	1.00	2.00	C
ATOM	7332	CB	SER	C	562	-31.616	74.879	40.016	1.00	2.00	C
ATOM	7333	OG	SER	C	562	-30.643	74.543	39.032	1.00	2.00	O
ATOM	7334	C	SER	C	562	-30.634	77.186	40.137	1.00	2.00	C
ATOM	7335	O	SER	C	562	-30.186	77.775	39.141	1.00	2.00	O
ATOM	7336	N	LYS	C	563	-30.064	77.217	41.344	1.00	2.00	N
ATOM	7337	CA	LYS	C	563	-28.817	77.924	41.592	1.00	2.00	C
ATOM	7338	CB	LYS	C	563	-28.481	77.949	43.086	1.00	2.00	C
ATOM	7339	CG	LYS	C	563	-28.342	76.591	43.726	1.00	2.00	C
ATOM	7340	CD	LYS	C	563	-28.231	76.686	45.254	1.00	2.00	C
ATOM	7341	CE	LYS	C	563	-27.601	75.402	45.840	1.00	2.00	C
ATOM	7342	NZ	LYS	C	563	-27.407	75.514	47.331	1.00	2.00	N
ATOM	7343	C	LYS	C	563	-27.684	77.301	40.766	1.00	2.00	C
ATOM	7344	O	LYS	C	563	-26.783	78.011	40.330	1.00	2.16	O
ATOM	7345	N	GLU	C	564	-27.747	75.991	40.543	1.00	2.00	N
ATOM	7346	CA	GLU	C	564	-26.716	75.272	39.803	1.00	2.00	C
ATOM	7347	CB	GLU	C	564	-26.819	73.769	39.996	1.00	2.00	C
ATOM	7348	CG	GLU	C	564	-26.586	73.310	41.437	1.00	2.00	C
ATOM	7349	CD	GLU	C	564	-27.876	73.197	42.233	1.00	2.00	C
ATOM	7350	OE1	GLU	C	564	-28.891	73.767	41.793	1.00	2.00	O
ATOM	7351	OE2	GLU	C	564	-27.858	72.550	43.307	1.00	2.00	O
ATOM	7352	C	GLU	C	564	-26.769	75.608	38.332	1.00	2.00	C
ATOM	7353	O	GLU	C	564	-25.735	75.745	37.686	1.00	2.00	O
ATOM	7354	N	ALA	C	565	-27.988	75.720	37.809	1.00	2.00	N
ATOM	7355	CA	ALA	C	565	-28.225	76.095	36.438	1.00	2.00	C
ATOM	7356	CB	ALA	C	565	-29.717	75.928	36.074	1.00	2.00	C
ATOM	7357	C	ALA	C	565	-27.774	77.517	36.213	1.00	2.00	C
ATOM	7358	O	ALA	C	565	-27.103	77.819	35.220	1.00	2.00	O
ATOM	7359	N	VAL	C	566	-28.116	78.408	37.133	1.00	2.00	N
ATOM	7360	CA	VAL	C	566	-27.643	79.785	36.983	1.00	2.00	C
ATOM	7361	CB	VAL	C	566	-28.212	80.727	38.024	1.00	2.00	C

- 168 -

ATOM	7362	CG1	VAL	C	566	-27.581	82.114	37.885	1.00	2.00	C
ATOM	7363	CG2	VAL	C	566	-29.757	80.806	37.875	1.00	2.00	C
ATOM	7364	C	VAL	C	566	-26.123	79.872	37.036	1.00	2.00	C
ATOM	7365	O	VAL	C	566	-25.525	80.610	36.261	1.00	2.00	O
ATOM	7366	N	SER	C	567	-25.526	79.130	37.975	1.00	2.00	N
ATOM	7367	CA	SER	C	567	-24.091	79.131	38.200	1.00	2.00	C
ATOM	7368	CB	SER	C	567	-23.720	78.246	39.404	1.00	2.00	C
ATOM	7369	OG	SER	C	567	-22.314	78.113	39.500	1.00	4.52	O
ATOM	7370	C	SER	C	567	-23.327	78.726	36.961	1.00	2.00	C
ATOM	7371	O	SER	C	567	-22.388	79.439	36.554	1.00	2.00	O
ATOM	7372	N	ILE	C	568	-23.723	77.603	36.348	1.00	2.00	N
ATOM	7373	CA	ILE	C	568	-22.995	77.101	35.174	1.00	2.00	C
ATOM	7374	CB	ILE	C	568	-23.305	75.626	34.797	1.00	2.00	C
ATOM	7375	CG1	ILE	C	568	-22.192	75.043	33.915	1.00	2.00	C
ATOM	7376	CD1	ILE	C	568	-22.331	73.587	33.666	1.00	2.00	C
ATOM	7377	CG2	ILE	C	568	-24.678	75.470	34.113	1.00	2.00	C
ATOM	7378	C	ILE	C	568	-23.176	78.060	34.013	1.00	2.00	C
ATOM	7379	O	ILE	C	568	-22.227	78.302	33.249	1.00	2.00	O
ATOM	7380	N	CYS	C	569	-24.376	78.647	33.887	1.00	2.00	N
ATOM	7381	CA	CYS	C	569	-24.581	79.578	32.796	1.00	2.00	C
ATOM	7382	CB	CYS	C	569	-26.064	79.894	32.624	1.00	2.00	C
ATOM	7383	SG	CYS	C	569	-27.046	78.544	31.899	1.00	4.59	S
ATOM	7384	C	CYS	C	569	-23.755	80.844	32.991	1.00	2.00	C
ATOM	7385	O	CYS	C	569	-23.229	81.398	32.026	1.00	2.00	O
ATOM	7386	N	LYS	C	570	-23.641	81.306	34.230	1.00	2.00	N
ATOM	7387	CA	LYS	C	570	-22.848	82.499	34.531	1.00	2.00	C
ATOM	7388	CB	LYS	C	570	-22.985	82.939	36.001	1.00	2.00	C
ATOM	7389	CG	LYS	C	570	-24.251	83.741	36.257	1.00	2.34	C
ATOM	7390	CD	LYS	C	570	-24.220	84.581	37.521	1.00	4.43	C
ATOM	7391	CE	LYS	C	570	-25.483	85.461	37.605	1.00	4.99	C
ATOM	7392	NZ	LYS	C	570	-25.727	86.022	38.993	1.00	8.26	N
ATOM	7393	C	LYS	C	570	-21.385	82.265	34.198	1.00	2.00	C
ATOM	7394	O	LYS	C	570	-20.738	83.155	33.638	1.00	2.00	O
ATOM	7395	N	GLY	C	571	-20.895	81.075	34.556	1.00	2.00	N
ATOM	7396	CA	GLY	C	571	-19.532	80.639	34.292	1.00	2.00	C
ATOM	7397	C	GLY	C	571	-19.197	80.485	32.828	1.00	2.00	C
ATOM	7398	O	GLY	C	571	-18.108	80.857	32.391	1.00	2.00	O
ATOM	7399	N	LEU	C	572	-20.124	79.916	32.075	1.00	2.00	N
ATOM	7400	CA	LEU	C	572	-19.980	79.752	30.644	1.00	2.00	C
ATOM	7401	CB	LEU	C	572	-20.954	78.690	30.111	1.00	2.00	C
ATOM	7402	CG	LEU	C	572	-20.707	77.270	30.636	1.00	2.00	C
ATOM	7403	CD1	LEU	C	572	-21.938	76.381	30.488	1.00	2.00	C
ATOM	7404	CD2	LEU	C	572	-19.445	76.627	30.000	1.00	2.00	C
ATOM	7405	C	LEU	C	572	-20.117	81.055	29.887	1.00	2.00	C
ATOM	7406	O	LEU	C	572	-19.407	81.276	28.920	1.00	2.00	O
ATOM	7407	N	MET	C	573	-21.034	81.924	30.309	1.00	2.00	N
ATOM	7408	CA	MET	C	573	-21.236	83.178	29.610	1.00	2.00	C
ATOM	7409	CB	MET	C	573	-22.730	83.455	29.350	1.00	2.00	C
ATOM	7410	CG	MET	C	573	-23.333	82.564	28.199	1.00	2.00	C
ATOM	7411	SD	MET	C	573	-25.087	82.823	27.890	1.00	2.00	S
ATOM	7412	CE	MET	C	573	-25.812	82.148	29.380	1.00	2.00	C
ATOM	7413	C	MET	C	573	-20.491	84.333	30.295	1.00	2.00	C
ATOM	7414	O	MET	C	573	-20.934	85.481	30.291	1.00	2.00	O
ATOM	7415	N	THR	C	574	-19.365	84.009	30.903	1.00	2.00	N
ATOM	7416	CA	THR	C	574	-18.393	85.000	31.371	1.00	2.00	C
ATOM	7417	CB	THR	C	574	-17.347	84.319	32.290	1.00	2.00	C
ATOM	7418	OG1	THR	C	574	-18.007	83.851	33.477	1.00	2.00	O
ATOM	7419	CG2	THR	C	574	-16.192	85.265	32.659	1.00	2.00	C

- 169 -

ATOM	7420	C	THR	C	574	-17.728	85.622	30.139	1.00	2.00	C
ATOM	7421	O	THR	C	574	-17.252	84.911	29.242	1.00	2.00	O
ATOM	7422	N	LYS	C	575	-17.707	86.948	30.090	1.00	2.00	N
ATOM	7423	CA	LYS	C	575	-17.306	87.667	28.881	1.00	2.00	C
ATOM	7424	CB	LYS	C	575	-17.878	89.103	28.851	1.00	2.00	C
ATOM	7425	CG	LYS	C	575	-19.436	89.151	28.834	1.00	2.00	C
ATOM	7426	CD	LYS	C	575	-19.978	90.561	28.520	1.00	2.00	C
ATOM	7427	CE	LYS	C	575	-21.433	90.772	28.958	1.00	2.00	C
ATOM	7428	NZ	LYS	C	575	-22.488	90.087	28.124	1.00	2.00	N
ATOM	7429	C	LYS	C	575	-15.791	87.605	28.619	1.00	2.00	C
ATOM	7430	O	LYS	C	575	-15.370	87.482	27.470	1.00	2.00	O
ATOM	7431	N	HIS	C	576	-14.996	87.681	29.685	1.00	2.00	N
ATOM	7432	CA	HIS	C	576	-13.557	87.460	29.620	1.00	2.00	C
ATOM	7433	CB	HIS	C	576	-12.854	88.046	30.868	1.00	2.58	C
ATOM	7434	CG	HIS	C	576	-12.913	89.539	30.948	1.00	4.57	C
ATOM	7435	ND1	HIS	C	576	-14.042	90.217	31.353	1.00	3.30	N
ATOM	7436	CE1	HIS	C	576	-13.804	91.515	31.336	1.00	4.31	C
ATOM	7437	NE2	HIS	C	576	-12.556	91.705	30.941	1.00	7.18	N
ATOM	7438	CD2	HIS	C	576	-11.974	90.485	30.695	1.00	5.51	C
ATOM	7439	C	HIS	C	576	-13.201	85.992	29.508	1.00	2.00	C
ATOM	7440	O	HIS	C	576	-13.373	85.222	30.460	1.00	2.00	O
ATOM	7441	N	PRO	C	577	-12.694	85.590	28.344	1.00	2.00	N
ATOM	7442	CA	PRO	C	577	-12.422	84.179	28.122	1.00	2.00	C
ATOM	7443	CB	PRO	C	577	-11.813	84.158	26.720	1.00	2.00	C
ATOM	7444	CG	PRO	C	577	-11.420	85.536	26.447	1.00	2.00	C
ATOM	7445	CD	PRO	C	577	-12.379	86.397	27.165	1.00	2.00	C
ATOM	7446	C	PRO	C	577	-11.465	83.592	29.156	1.00	2.12	C
ATOM	7447	O	PRO	C	577	-11.581	82.412	29.479	1.00	3.52	O
ATOM	7448	N	ALA	C	578	-10.559	84.414	29.703	1.00	2.00	N
ATOM	7449	CA	ALA	C	578	-9.613	83.941	30.706	1.00	2.96	C
ATOM	7450	CB	ALA	C	578	-8.628	85.043	31.062	1.00	3.22	C
ATOM	7451	C	ALA	C	578	-10.277	83.403	31.976	1.00	3.13	C
ATOM	7452	O	ALA	C	578	-9.740	82.476	32.617	1.00	2.00	O
ATOM	7453	N	LYS	C	579	-11.433	83.983	32.333	1.00	2.00	N
ATOM	7454	CA	LYS	C	579	-12.144	83.616	33.554	1.00	2.00	C
ATOM	7455	CB	LYS	C	579	-12.676	84.867	34.258	1.00	2.47	C
ATOM	7456	CG	LYS	C	579	-11.623	85.986	34.500	1.00	5.96	C
ATOM	7457	CD	LYS	C	579	-12.289	87.207	35.186	1.00	5.89	C
ATOM	7458	CE	LYS	C	579	-13.679	87.557	34.527	1.00	8.61	C
ATOM	7459	NZ	LYS	C	579	-14.395	88.594	35.324	1.00	10.51	N
ATOM	7460	C	LYS	C	579	-13.308	82.657	33.308	1.00	2.00	C
ATOM	7461	O	LYS	C	579	-14.033	82.273	34.242	1.00	2.00	O
ATOM	7462	N	ARG	C	580	-13.484	82.259	32.058	1.00	2.00	N
ATOM	7463	CA	ARG	C	580	-14.654	81.475	31.664	1.00	2.00	C
ATOM	7464	CB	ARG	C	580	-14.915	81.659	30.156	1.00	2.00	C
ATOM	7465	CG	ARG	C	580	-16.200	81.034	29.576	1.00	2.00	C
ATOM	7466	CD	ARG	C	580	-16.340	81.364	28.088	1.00	2.00	C
ATOM	7467	NE	ARG	C	580	-16.315	82.802	27.843	1.00	2.00	N
ATOM	7468	CZ	ARG	C	580	-15.875	83.361	26.721	1.00	2.00	C
ATOM	7469	NH1	ARG	C	580	-15.431	82.620	25.724	1.00	2.00	N
ATOM	7470	NH2	ARG	C	580	-15.891	84.663	26.583	1.00	2.00	N
ATOM	7471	C	ARG	C	580	-14.517	80.013	32.061	1.00	2.00	C
ATOM	7472	O	ARG	C	580	-13.452	79.402	31.939	1.00	2.00	O
ATOM	7473	N	LEU	C	581	-15.621	79.444	32.543	1.00	2.00	N
ATOM	7474	CA	LEU	C	581	-15.701	78.032	32.834	1.00	2.00	C
ATOM	7475	CB	LEU	C	581	-17.110	77.678	33.362	1.00	2.00	C
ATOM	7476	CG	LEU	C	581	-17.321	76.236	33.794	1.00	2.00	C
ATOM	7477	CD1	LEU	C	581	-16.413	75.828	34.970	1.00	2.00	C

- 170 -

ATOM	7478	CD2	LEU	C	581	-18.815	75.996	34.124	1.00	2.00	C
ATOM	7479	C	LEU	C	581	-15.374	77.202	31.597	1.00	2.00	C
ATOM	7480	O	LEU	C	581	-15.895	77.449	30.493	1.00	2.00	O
ATOM	7481	N	GLY	C	582	-14.527	76.212	31.808	1.00	2.00	N
ATOM	7482	CA	GLY	C	582	-13.982	75.376	30.748	1.00	2.00	C
ATOM	7483	C	GLY	C	582	-12.651	75.839	30.172	1.00	3.56	C
ATOM	7484	O	GLY	C	582	-12.049	75.128	29.387	1.00	2.00	O
ATOM	7485	N	CYS	C	583	-12.202	77.023	30.569	1.00	4.06	N
ATOM	7486	CA	CYS	C	583	-11.015	77.652	29.979	1.00	5.06	C
ATOM	7487	CB	CYS	C	583	-11.341	79.041	29.446	1.00	5.02	C
ATOM	7488	SG	CYS	C	583	-12.836	79.058	28.390	1.00	8.32	S
ATOM	7489	C	CYS	C	583	-9.831	77.706	30.922	1.00	7.80	C
ATOM	7490	O	CYS	C	583	-8.730	78.063	30.515	1.00	9.24	O
ATOM	7491	N	GLY	C	584	-10.036	77.334	32.169	1.00	8.25	N
ATOM	7492	CA	GLY	C	584	-8.907	77.106	33.049	1.00	12.92	C
ATOM	7493	C	GLY	C	584	-7.808	76.142	32.592	1.00	12.71	C
ATOM	7494	O	GLY	C	584	-7.970	75.413	31.594	1.00	12.66	O
ATOM	7495	N	PRO	C	585	-6.691	76.115	33.353	1.00	12.30	N
ATOM	7496	CA	PRO	C	585	-5.738	75.012	33.288	1.00	11.80	C
ATOM	7497	CB	PRO	C	585	-4.808	75.271	34.490	1.00	11.92	C
ATOM	7498	CG	PRO	C	585	-5.487	76.247	35.317	1.00	12.67	C
ATOM	7499	CD	PRO	C	585	-6.337	77.065	34.416	1.00	11.78	C
ATOM	7500	C	PRO	C	585	-6.450	73.663	33.452	1.00	11.77	C
ATOM	7501	O	PRO	C	585	-6.120	72.718	32.751	1.00	12.67	O
ATOM	7502	N	GLU	C	586	-7.436	73.587	34.355	1.00	9.04	N
ATOM	7503	CA	GLU	C	586	-8.168	72.357	34.559	1.00	5.93	C
ATOM	7504	CB	GLU	C	586	-8.111	71.926	35.991	1.00	5.82	C
ATOM	7505	CG	GLU	C	586	-6.713	71.851	36.564	1.00	8.89	C
ATOM	7506	CD	GLU	C	586	-6.774	71.479	37.995	1.00	9.95	C
ATOM	7507	OE1	GLU	C	586	-6.792	70.285	38.305	1.00	11.40	O
ATOM	7508	OE2	GLU	C	586	-6.819	72.388	38.808	1.00	12.61	O
ATOM	7509	C	GLU	C	586	-9.626	72.479	34.102	1.00	6.23	C
ATOM	7510	O	GLU	C	586	-10.550	72.112	34.825	1.00	3.15	O
ATOM	7511	N	GLY	C	587	-9.777	72.985	32.889	1.00	4.05	N
ATOM	7512	CA	GLY	C	587	-11.061	73.336	32.313	1.00	3.04	C
ATOM	7513	C	GLY	C	587	-12.043	72.199	32.271	1.00	2.48	C
ATOM	7514	O	GLY	C	587	-13.188	72.376	32.661	1.00	2.00	O
ATOM	7515	N	GLU	C	588	-11.597	71.039	31.790	1.00	2.00	N
ATOM	7516	CA	GLU	C	588	-12.465	69.872	31.653	1.00	2.21	C
ATOM	7517	CB	GLU	C	588	-11.776	68.741	30.871	1.00	2.00	C
ATOM	7518	CG	GLU	C	588	-12.558	67.416	30.866	1.00	2.04	C
ATOM	7519	CD	GLU	C	588	-11.867	66.302	30.080	1.00	3.42	C
ATOM	7520	OE1	GLU	C	588	-10.891	66.578	29.331	1.00	3.93	O
ATOM	7521	OE2	GLU	C	588	-12.303	65.137	30.212	1.00	3.89	O
ATOM	7522	C	GLU	C	588	-12.924	69.409	33.021	1.00	2.25	C
ATOM	7523	O	GLU	C	588	-14.111	69.122	33.229	1.00	2.00	O
ATOM	7524	N	ARG	C	589	-11.976	69.349	33.963	1.00	2.00	N
ATOM	7525	CA	ARG	C	589	-12.288	69.036	35.333	1.00	2.00	C
ATOM	7526	CB	ARG	C	589	-11.011	69.000	36.168	1.00	2.00	C
ATOM	7527	CG	ARG	C	589	-11.233	68.491	37.571	1.00	2.00	C
ATOM	7528	CD	ARG	C	589	-9.911	68.386	38.314	1.00	2.00	C
ATOM	7529	NE	ARG	C	589	-10.110	67.916	39.687	1.00	2.00	N
ATOM	7530	CZ	ARG	C	589	-9.129	67.701	40.555	1.00	2.00	C
ATOM	7531	NH1	ARG	C	589	-7.876	67.922	40.196	1.00	2.00	N
ATOM	7532	NH2	ARG	C	589	-9.405	67.270	41.778	1.00	2.00	N
ATOM	7533	C	ARG	C	589	-13.301	69.998	35.969	1.00	2.00	C
ATOM	7534	O	ARG	C	589	-14.214	69.560	36.677	1.00	2.00	O
ATOM	7535	N	ASP	C	590	-13.141	71.294	35.706	1.00	2.00	N

- 171 -

ATOM	7536	CA	ASP	C	590	-14.018	72.307	36.261	1.00	2.00	C
ATOM	7537	CB	ASP	C	590	-13.534	73.689	35.828	1.00	2.00	C
ATOM	7538	CG	ASP	C	590	-12.268	74.119	36.550	1.00	2.00	C
ATOM	7539	OD1	ASP	C	590	-11.902	73.524	37.596	1.00	2.00	O
ATOM	7540	OD2	ASP	C	590	-11.643	75.076	36.039	1.00	2.00	O
ATOM	7541	C	ASP	C	590	-15.479	72.091	35.800	1.00	2.00	C
ATOM	7542	O	ASP	C	590	-16.429	72.190	36.601	1.00	2.00	O
ATOM	7543	N	VAL	C	591	-15.629	71.766	34.517	1.00	2.00	N
ATOM	7544	CA	VAL	C	591	-16.943	71.418	33.954	1.00	2.00	C
ATOM	7545	CB	VAL	C	591	-16.889	71.364	32.405	1.00	2.00	C
ATOM	7546	CG1	VAL	C	591	-18.278	70.950	31.800	1.00	2.00	C
ATOM	7547	CG2	VAL	C	591	-16.441	72.701	31.841	1.00	2.00	C
ATOM	7548	C	VAL	C	591	-17.472	70.111	34.575	1.00	2.00	C
ATOM	7549	O	VAL	C	591	-18.508	70.106	35.214	1.00	2.80	O
ATOM	7550	N	ARG	C	592	-16.770	69.002	34.408	1.00	2.00	N
ATOM	7551	CA	ARG	C	592	-17.196	67.741	35.012	1.00	2.00	C
ATOM	7552	CB	ARG	C	592	-16.150	66.646	34.746	1.00	2.00	C
ATOM	7553	CG	ARG	C	592	-15.916	66.436	33.255	1.00	2.00	C
ATOM	7554	CD	ARG	C	592	-14.614	65.718	32.953	1.00	3.34	C
ATOM	7555	NE	ARG	C	592	-14.807	64.313	33.209	1.00	5.61	N
ATOM	7556	CZ	ARG	C	592	-15.011	63.369	32.290	1.00	5.22	C
ATOM	7557	NH1	ARG	C	592	-14.974	63.634	30.996	1.00	3.42	N
ATOM	7558	NH2	ARG	C	592	-15.191	62.122	32.700	1.00	4.35	N
ATOM	7559	C	ARG	C	592	-17.581	67.813	36.514	1.00	2.00	C
ATOM	7560	O	ARG	C	592	-18.522	67.129	36.963	1.00	2.00	O
ATOM	7561	N	GLU	C	593	-16.876	68.645	37.275	1.00	2.00	N
ATOM	7562	CA	GLU	C	593	-17.128	68.763	38.709	1.00	2.00	C
ATOM	7563	CB	GLU	C	593	-15.797	68.843	39.475	1.00	2.00	C
ATOM	7564	CG	GLU	C	593	-14.948	67.583	39.311	1.00	2.00	C
ATOM	7565	CD	GLU	C	593	-13.639	67.632	40.076	1.00	3.01	C
ATOM	7566	OE1	GLU	C	593	-13.198	68.742	40.504	1.00	4.61	O
ATOM	7567	OE2	GLU	C	593	-13.042	66.541	40.235	1.00	5.12	O
ATOM	7568	C	GLU	C	593	-18.069	69.913	39.099	1.00	2.00	C
ATOM	7569	O	GLU	C	593	-18.337	70.122	40.282	1.00	2.00	O
ATOM	7570	N	HIS	C	594	-18.569	70.658	38.117	1.00	2.00	N
ATOM	7571	CA	HIS	C	594	-19.503	71.724	38.410	1.00	2.00	C
ATOM	7572	CB	HIS	C	594	-19.834	72.555	37.167	1.00	2.00	C
ATOM	7573	CG	HIS	C	594	-20.570	73.822	37.485	1.00	2.00	C
ATOM	7574	ND1	HIS	C	594	-21.906	73.835	37.833	1.00	2.00	N
ATOM	7575	CE1	HIS	C	594	-22.283	75.075	38.082	1.00	2.00	C
ATOM	7576	NE2	HIS	C	594	-21.238	75.869	37.936	1.00	2.00	N
ATOM	7577	CD2	HIS	C	594	-20.147	75.108	37.571	1.00	2.00	C
ATOM	7578	C	HIS	C	594	-20.767	71.102	39.036	1.00	2.00	C
ATOM	7579	O	HIS	C	594	-21.179	69.996	38.668	1.00	2.00	O
ATOM	7580	N	ALA	C	595	-21.335	71.796	40.015	1.00	2.00	N
ATOM	7581	CA	ALA	C	595	-22.533	71.300	40.737	1.00	2.00	C
ATOM	7582	CB	ALA	C	595	-22.940	72.258	41.860	1.00	2.00	C
ATOM	7583	C	ALA	C	595	-23.737	70.944	39.837	1.00	2.00	C
ATOM	7584	O	ALA	C	595	-24.487	70.049	40.160	1.00	2.00	O
ATOM	7585	N	PHE	C	596	-23.892	71.614	38.708	1.00	2.00	N
ATOM	7586	CA	PHE	C	596	-24.918	71.297	37.712	1.00	2.00	C
ATOM	7587	CB	PHE	C	596	-24.684	72.175	36.494	1.00	2.00	C
ATOM	7588	CG	PHE	C	596	-25.787	72.134	35.470	1.00	2.00	C
ATOM	7589	CD1	PHE	C	596	-27.048	72.708	35.755	1.00	2.00	C
ATOM	7590	CE1	PHE	C	596	-28.081	72.693	34.806	1.00	2.00	C
ATOM	7591	CZ	PHE	C	596	-27.861	72.109	33.570	1.00	2.00	C
ATOM	7592	CE2	PHE	C	596	-26.587	71.528	33.275	1.00	2.00	C
ATOM	7593	CD2	PHE	C	596	-25.577	71.552	34.226	1.00	2.00	C

- 172 -

ATOM	7594	C	PHE	C	596	-24.893	69.818	37.296	1.00	2.00	C
ATOM	7595	O	PHE	C	596	-25.937	69.209	36.996	1.00	2.00	O
ATOM	7596	N	PHE	C	597	-23.697	69.230	37.297	1.00	2.00	N
ATOM	7597	CA	PHE	C	597	-23.525	67.831	36.882	1.00	2.00	C
ATOM	7598	CB	PHE	C	597	-22.307	67.698	35.939	1.00	2.00	C
ATOM	7599	CG	PHE	C	597	-22.443	68.454	34.630	1.00	2.00	C
ATOM	7600	CD1	PHE	C	597	-23.428	68.106	33.696	1.00	2.00	C
ATOM	7601	CE1	PHE	C	597	-23.551	68.804	32.490	1.00	2.00	C
ATOM	7602	CZ	PHE	C	597	-22.670	69.848	32.204	1.00	2.00	C
ATOM	7603	CE2	PHE	C	597	-21.681	70.190	33.117	1.00	2.00	C
ATOM	7604	CD2	PHE	C	597	-21.579	69.500	34.319	1.00	2.00	C
ATOM	7605	C	PHE	C	597	-23.420	66.849	38.055	1.00	2.00	C
ATOM	7606	O	PHE	C	597	-23.046	65.691	37.863	1.00	2.00	O
ATOM	7607	N	ARG	C	598	-23.750	67.303	39.263	1.00	2.00	N
ATOM	7608	CA	ARG	C	598	-23.499	66.533	40.482	1.00	2.00	C
ATOM	7609	CB	ARG	C	598	-23.979	67.295	41.728	1.00	2.00	C
ATOM	7610	CG	ARG	C	598	-25.515	67.430	41.827	1.00	2.00	C
ATOM	7611	CD	ARG	C	598	-25.907	68.472	42.858	1.00	2.00	C
ATOM	7612	NE	ARG	C	598	-27.338	68.750	42.863	1.00	2.00	N
ATOM	7613	CZ	ARG	C	598	-27.989	69.454	41.938	1.00	2.00	C
ATOM	7614	NH1	ARG	C	598	-27.331	69.959	40.887	1.00	2.00	N
ATOM	7615	NH2	ARG	C	598	-29.317	69.638	42.053	1.00	2.00	N
ATOM	7616	C	ARG	C	598	-24.121	65.141	40.483	1.00	2.90	C
ATOM	7617	O	ARG	C	598	-23.652	64.267	41.194	1.00	2.53	O
ATOM	7618	N	ARG	C	599	-25.178	64.936	39.700	1.00	4.48	N
ATOM	7619	CA	ARG	C	599	-25.889	63.655	39.713	1.00	6.02	C
ATOM	7620	CB	ARG	C	599	-27.407	63.852	39.597	1.00	8.92	C
ATOM	7621	CG	ARG	C	599	-28.006	64.928	40.481	1.00	11.92	C
ATOM	7622	CD	ARG	C	599	-29.404	64.531	40.958	1.00	14.71	C
ATOM	7623	NE	ARG	C	599	-29.351	64.023	42.338	1.00	18.78	N
ATOM	7624	CZ	ARG	C	599	-30.377	63.499	43.016	1.00	19.63	C
ATOM	7625	NH1	ARG	C	599	-31.583	63.391	42.454	1.00	20.51	N
ATOM	7626	NH2	ARG	C	599	-30.197	63.072	44.269	1.00	20.02	N
ATOM	7627	C	ARG	C	599	-25.395	62.713	38.619	1.00	5.92	C
ATOM	7628	O	ARG	C	599	-25.831	61.564	38.539	1.00	5.64	O
ATOM	7629	N	ILE	C	600	-24.481	63.198	37.787	1.00	3.91	N
ATOM	7630	CA	ILE	C	600	-23.951	62.420	36.655	1.00	5.58	C
ATOM	7631	CB	ILE	C	600	-23.649	63.341	35.446	1.00	6.12	C
ATOM	7632	CG1	ILE	C	600	-24.969	63.759	34.796	1.00	6.29	C
ATOM	7633	CD1	ILE	C	600	-24.826	65.010	34.028	1.00	7.78	C
ATOM	7634	CG2	ILE	C	600	-22.732	62.677	34.423	1.00	4.88	C
ATOM	7635	C	ILE	C	600	-22.726	61.559	37.004	1.00	4.75	C
ATOM	7636	O	ILE	C	600	-21.723	62.067	37.536	1.00	6.56	O
ATOM	7637	N	ASP	C	601	-22.864	60.262	36.714	1.00	4.82	N
ATOM	7638	CA	ASP	C	601	-21.794	59.263	36.733	1.00	4.12	C
ATOM	7639	CB	ASP	C	601	-22.380	57.859	36.990	1.00	5.44	C
ATOM	7640	CG	ASP	C	601	-21.311	56.764	37.112	1.00	5.55	C
ATOM	7641	OD1	ASP	C	601	-20.256	56.866	36.459	1.00	6.91	O
ATOM	7642	OD2	ASP	C	601	-21.529	55.784	37.860	1.00	6.20	O
ATOM	7643	C	ASP	C	601	-21.166	59.370	35.351	1.00	4.31	C
ATOM	7644	O	ASP	C	601	-21.723	58.882	34.353	1.00	4.47	O
ATOM	7645	N	TRP	C	602	-20.024	60.054	35.291	1.00	3.04	N
ATOM	7646	CA	TRP	C	602	-19.387	60.396	34.015	1.00	2.38	C
ATOM	7647	CB	TRP	C	602	-18.228	61.383	34.238	1.00	2.00	C
ATOM	7648	CG	TRP	C	602	-18.686	62.768	34.480	1.00	2.00	C
ATOM	7649	CD1	TRP	C	602	-18.784	63.404	35.689	1.00	2.00	C
ATOM	7650	NE1	TRP	C	602	-19.249	64.687	35.507	1.00	2.00	N
ATOM	7651	CE2	TRP	C	602	-19.450	64.907	34.170	1.00	2.00	C

- 173 -

ATOM	7652	CD2	TRP	C	602	-19.108	63.717	33.489	1.00	2.00	C
ATOM	7653	CE3	TRP	C	602	-19.222	63.679	32.087	1.00	2.00	C
ATOM	7654	CZ3	TRP	C	602	-19.666	64.812	31.426	1.00	2.00	C
ATOM	7655	CH2	TRP	C	602	-20.008	65.979	32.136	1.00	2.00	C
ATOM	7656	CZ2	TRP	C	602	-19.898	66.047	33.504	1.00	2.00	C
ATOM	7657	C	TRP	C	602	-18.902	59.204	33.200	1.00	2.49	C
ATOM	7658	O	TRP	C	602	-19.007	59.212	31.969	1.00	2.00	O
ATOM	7659	N	GLU	C	603	-18.385	58.180	33.879	1.00	3.16	N
ATOM	7660	CA	GLU	C	603	-17.971	56.957	33.190	1.00	6.51	C
ATOM	7661	CB	GLU	C	603	-17.205	56.021	34.137	1.00	8.78	C
ATOM	7662	CG	GLU	C	603	-15.899	56.693	34.634	1.00	11.83	C
ATOM	7663	CD	GLU	C	603	-14.923	55.750	35.329	1.00	11.37	C
ATOM	7664	OE1	GLU	C	603	-15.229	55.294	36.460	1.00	13.75	O
ATOM	7665	OE2	GLU	C	603	-13.834	55.486	34.747	1.00	14.84	O
ATOM	7666	C	GLU	C	603	-19.136	56.269	32.495	1.00	6.95	C
ATOM	7667	O	GLU	C	603	-18.995	55.800	31.369	1.00	6.57	O
ATOM	7668	N	LYS	C	604	-20.294	56.235	33.156	1.00	7.54	N
ATOM	7669	CA	LYS	C	604	-21.510	55.706	32.544	1.00	8.69	C
ATOM	7670	CB	LYS	C	604	-22.611	55.500	33.587	1.00	8.70	C
ATOM	7671	CG	LYS	C	604	-22.491	54.186	34.319	1.00	10.37	C
ATOM	7672	CD	LYS	C	604	-23.236	54.169	35.645	1.00	10.81	C
ATOM	7673	CE	LYS	C	604	-24.590	53.486	35.538	1.00	11.41	C
ATOM	7674	NZ	LYS	C	604	-24.892	52.747	36.803	1.00	10.13	N
ATOM	7675	C	LYS	C	604	-21.995	56.600	31.395	1.00	8.20	C
ATOM	7676	O	LYS	C	604	-22.354	56.107	30.331	1.00	8.08	O
ATOM	7677	N	LEU	C	605	-21.991	57.909	31.617	1.00	8.45	N
ATOM	7678	CA	LEU	C	605	-22.405	58.869	30.598	1.00	9.01	C
ATOM	7679	CB	LEU	C	605	-22.321	60.300	31.138	1.00	7.70	C
ATOM	7680	CG	LEU	C	605	-22.865	61.339	30.149	1.00	8.30	C
ATOM	7681	CD1	LEU	C	605	-24.273	61.716	30.481	1.00	6.74	C
ATOM	7682	CD2	LEU	C	605	-22.016	62.536	30.162	1.00	7.89	C
ATOM	7683	C	LEU	C	605	-21.557	58.728	29.328	1.00	10.31	C
ATOM	7684	O	LEU	C	605	-22.088	58.610	28.224	1.00	10.09	O
ATOM	7685	N	GLU	C	606	-20.243	58.711	29.507	1.00	12.32	N
ATOM	7686	CA	GLU	C	606	-19.303	58.602	28.393	1.00	14.81	C
ATOM	7687	CB	GLU	C	606	-17.889	58.586	28.921	1.00	16.18	C
ATOM	7688	CG	GLU	C	606	-17.275	59.938	29.097	1.00	17.92	C
ATOM	7689	CD	GLU	C	606	-16.157	59.884	30.104	1.00	18.32	C
ATOM	7690	OE1	GLU	C	606	-16.246	60.640	31.085	1.00	18.30	O
ATOM	7691	OE2	GLU	C	606	-15.215	59.074	29.934	1.00	19.16	O
ATOM	7692	C	GLU	C	606	-19.501	57.349	27.574	1.00	15.44	C
ATOM	7693	O	GLU	C	606	-19.311	57.361	26.363	1.00	17.24	O
ATOM	7694	N	ASN	C	607	-19.878	56.268	28.239	1.00	17.11	N
ATOM	7695	CA	ASN	C	607	-20.004	54.963	27.594	1.00	18.71	C
ATOM	7696	CB	ASN	C	607	-19.402	53.869	28.476	1.00	19.93	C
ATOM	7697	CG	ASN	C	607	-17.911	54.028	28.624	1.00	21.66	C
ATOM	7698	OD1	ASN	C	607	-17.416	54.338	29.707	1.00	22.11	O
ATOM	7699	ND2	ASN	C	607	-17.180	53.854	27.518	1.00	22.16	N
ATOM	7700	C	ASN	C	607	-21.437	54.664	27.229	1.00	18.20	C
ATOM	7701	O	ASN	C	607	-21.800	53.511	26.979	1.00	19.35	O
ATOM	7702	N	ARG	C	608	-22.237	55.730	27.208	1.00	18.12	N
ATOM	7703	CA	ARG	C	608	-23.616	55.703	26.750	1.00	18.04	C
ATOM	7704	CB	ARG	C	608	-23.632	55.419	25.236	1.00	18.05	C
ATOM	7705	CG	ARG	C	608	-24.801	55.991	24.524	1.00	18.44	C
ATOM	7706	CD	ARG	C	608	-24.466	56.573	23.174	1.00	18.03	C
ATOM	7707	NE	ARG	C	608	-24.028	55.554	22.237	1.00	18.22	N
ATOM	7708	CZ	ARG	C	608	-24.067	55.699	20.920	1.00	19.51	C
ATOM	7709	NH1	ARG	C	608	-24.535	56.828	20.398	1.00	19.57	N

- 174 -

ATOM	7710	NH2	ARG	C	608	-23.632	54.721	20.124	1.00	20.58	N
ATOM	7711	C	ARG	C	608	-24.490	54.740	27.597	1.00	18.37	C
ATOM	7712	O	ARG	C	608	-25.474	54.140	27.118	1.00	18.53	O
ATOM	7713	N	GLU	C	609	-24.136	54.611	28.875	1.00	16.87	N
ATOM	7714	CA	GLU	C	609	-24.823	53.669	29.754	1.00	17.14	C
ATOM	7715	CB	GLU	C	609	-23.826	52.932	30.657	1.00	17.87	C
ATOM	7716	CG	GLU	C	609	-22.789	52.118	29.870	1.00	21.13	C
ATOM	7717	CD	GLU	C	609	-21.793	51.363	30.745	1.00	20.77	C
ATOM	7718	OE1	GLU	C	609	-21.601	51.735	31.931	1.00	23.70	O
ATOM	7719	OE2	GLU	C	609	-21.188	50.389	30.237	1.00	22.87	O
ATOM	7720	C	GLU	C	609	-25.957	54.296	30.569	1.00	14.78	C
ATOM	7721	O	GLU	C	609	-26.631	53.596	31.326	1.00	15.08	O
ATOM	7722	N	ILE	C	610	-26.165	55.605	30.406	1.00	12.10	N
ATOM	7723	CA	ILE	C	610	-27.271	56.311	31.073	1.00	10.52	C
ATOM	7724	CB	ILE	C	610	-26.851	57.719	31.602	1.00	9.89	C
ATOM	7725	CG1	ILE	C	610	-25.706	57.596	32.623	1.00	9.89	C
ATOM	7726	CD1	ILE	C	610	-25.176	58.937	33.130	1.00	9.68	C
ATOM	7727	CG2	ILE	C	610	-28.048	58.449	32.250	1.00	9.70	C
ATOM	7728	C	ILE	C	610	-28.476	56.409	30.123	1.00	9.63	C
ATOM	7729	O	ILE	C	610	-28.316	56.797	28.968	1.00	8.89	O
ATOM	7730	N	GLN	C	611	-29.665	56.045	30.620	1.00	9.17	N
ATOM	7731	CA	GLN	C	611	-30.912	56.076	29.835	1.00	8.82	C
ATOM	7732	CB	GLN	C	611	-32.065	55.381	30.591	1.00	10.45	C
ATOM	7733	CG	GLN	C	611	-33.190	54.853	29.669	1.00	12.59	C
ATOM	7734	CD	GLN	C	611	-34.537	54.684	30.369	1.00	12.43	C
ATOM	7735	OE1	GLN	C	611	-34.620	54.240	31.524	1.00	14.71	O
ATOM	7736	NE2	GLN	C	611	-35.612	55.026	29.657	1.00	14.88	N
ATOM	7737	C	GLN	C	611	-31.297	57.514	29.459	1.00	6.77	C
ATOM	7738	O	GLN	C	611	-31.467	58.364	30.336	1.00	6.18	O
ATOM	7739	N	PRO	C	612	-31.419	57.801	28.149	1.00	4.96	N
ATOM	7740	CA	PRO	C	612	-31.757	59.158	27.738	1.00	5.00	C
ATOM	7741	CB	PRO	C	612	-31.805	59.057	26.204	1.00	4.20	C
ATOM	7742	CG	PRO	C	612	-30.977	57.880	25.884	1.00	4.22	C
ATOM	7743	CD	PRO	C	612	-31.227	56.917	26.987	1.00	4.73	C
ATOM	7744	C	PRO	C	612	-33.110	59.608	28.311	1.00	5.16	C
ATOM	7745	O	PRO	C	612	-33.969	58.753	28.583	1.00	4.98	O
ATOM	7746	N	PRO	C	613	-33.310	60.939	28.473	1.00	4.43	N
ATOM	7747	CA	PRO	C	613	-34.534	61.494	29.049	1.00	5.00	C
ATOM	7748	CB	PRO	C	613	-34.316	63.005	28.947	1.00	4.35	C
ATOM	7749	CG	PRO	C	613	-32.844	63.182	28.813	1.00	4.05	C
ATOM	7750	CD	PRO	C	613	-32.368	61.997	28.076	1.00	4.10	C
ATOM	7751	C	PRO	C	613	-35.784	61.090	28.249	1.00	6.05	C
ATOM	7752	O	PRO	C	613	-36.853	60.930	28.820	1.00	6.07	O
ATOM	7753	N	PHE	C	614	-35.647	60.944	26.931	1.00	7.12	N
ATOM	7754	CA	PHE	C	614	-36.740	60.434	26.114	1.00	7.72	C
ATOM	7755	CB	PHE	C	614	-37.830	61.512	25.892	1.00	7.95	C
ATOM	7756	CG	PHE	C	614	-37.629	62.344	24.662	1.00	6.26	C
ATOM	7757	CD1	PHE	C	614	-38.451	62.172	23.554	1.00	7.24	C
ATOM	7758	CE1	PHE	C	614	-38.281	62.927	22.426	1.00	5.76	C
ATOM	7759	CZ	PHE	C	614	-37.258	63.867	22.379	1.00	6.75	C
ATOM	7760	CE2	PHE	C	614	-36.448	64.054	23.469	1.00	5.91	C
ATOM	7761	CD2	PHE	C	614	-36.637	63.293	24.613	1.00	7.11	C
ATOM	7762	C	PHE	C	614	-36.218	59.833	24.804	1.00	7.07	C
ATOM	7763	O	PHE	C	614	-35.104	60.128	24.377	1.00	7.30	O
ATOM	7764	N	LYS	C	615	-37.023	58.967	24.197	1.00	6.15	N
ATOM	7765	CA	LYS	C	615	-36.666	58.288	22.967	1.00	6.53	C
ATOM	7766	CB	LYS	C	615	-36.949	56.791	23.093	1.00	9.23	C
ATOM	7767	CG	LYS	C	615	-36.388	55.901	21.991	1.00	8.87	C

- 175 -

ATOM	7768	CD	LYS	C	615	-37.073	54.536	22.048	1.00	11.35	C
ATOM	7769	CE	LYS	C	615	-36.477	53.523	21.082	1.00	11.06	C
ATOM	7770	NZ	LYS	C	615	-35.152	53.053	21.571	1.00	13.62	N
ATOM	7771	C	LYS	C	615	-37.510	58.913	21.871	1.00	7.42	C
ATOM	7772	O	LYS	C	615	-38.751	58.821	21.929	1.00	5.46	O
ATOM	7773	N	PRO	C	616	-36.851	59.569	20.879	1.00	6.90	N
ATOM	7774	CA	PRO	C	616	-37.562	60.251	19.780	1.00	8.42	C
ATOM	7775	CB	PRO	C	616	-36.430	60.809	18.892	1.00	7.29	C
ATOM	7776	CG	PRO	C	616	-35.176	60.738	19.722	1.00	3.96	C
ATOM	7777	CD	PRO	C	616	-35.381	59.709	20.773	1.00	6.76	C
ATOM	7778	C	PRO	C	616	-38.465	59.305	18.975	1.00	11.32	C
ATOM	7779	O	PRO	C	616	-38.347	58.080	19.094	1.00	11.00	O
ATOM	7780	N	LYS	C	617	-39.335	59.879	18.146	1.00	15.52	N
ATOM	7781	CA	LYS	C	617	-40.401	59.131	17.477	1.00	20.10	C
ATOM	7782	CB	LYS	C	617	-41.629	60.029	17.322	1.00	20.47	C
ATOM	7783	CG	LYS	C	617	-42.306	60.368	18.648	1.00	23.06	C
ATOM	7784	CD	LYS	C	617	-43.687	61.011	18.447	1.00	22.65	C
ATOM	7785	CE	LYS	C	617	-44.598	60.141	17.582	1.00	24.02	C
ATOM	7786	NZ	LYS	C	617	-44.954	58.848	18.246	1.00	24.98	N
ATOM	7787	C	LYS	C	617	-40.060	58.476	16.127	1.00	21.48	C
ATOM	7788	O	LYS	C	617	-40.751	57.529	15.703	1.00	22.23	O
ATOM	7789	N	VAL	C	618	-39.004	58.965	15.472	1.00	23.12	N
ATOM	7790	CA	VAL	C	618	-38.685	58.662	14.050	1.00	24.36	C
ATOM	7791	CB	VAL	C	618	-37.930	57.294	13.824	1.00	24.59	C
ATOM	7792	CG1	VAL	C	618	-38.818	56.072	14.082	1.00	26.63	C
ATOM	7793	CG2	VAL	C	618	-37.383	57.239	12.416	1.00	26.78	C
ATOM	7794	C	VAL	C	618	-39.868	58.884	13.067	1.00	25.48	C
ATOM	7795	O	VAL	C	618	-40.831	58.089	13.006	1.00	24.47	O
ATOM	7796	N	PHE	C	626	-46.450	56.612	-2.311	1.00	12.37	N
ATOM	7797	CA	PHE	C	626	-46.894	56.613	-3.700	1.00	12.41	C
ATOM	7798	CB	PHE	C	626	-46.971	55.195	-4.284	1.00	14.20	C
ATOM	7799	CG	PHE	C	626	-47.231	55.158	-5.789	1.00	15.10	C
ATOM	7800	CD1	PHE	C	626	-46.238	55.561	-6.698	1.00	16.02	C
ATOM	7801	CE1	PHE	C	626	-46.472	55.532	-8.079	1.00	15.60	C
ATOM	7802	CZ	PHE	C	626	-47.709	55.088	-8.560	1.00	15.76	C
ATOM	7803	CE2	PHE	C	626	-48.699	54.678	-7.667	1.00	15.50	C
ATOM	7804	CD2	PHE	C	626	-48.457	54.717	-6.291	1.00	15.34	C
ATOM	7805	C	PHE	C	626	-48.257	57.292	-3.863	1.00	10.93	C
ATOM	7806	O	PHE	C	626	-49.182	57.043	-3.105	1.00	10.46	O
ATOM	7807	N	ASP	C	627	-48.327	58.146	-4.879	1.00	7.66	N
ATOM	7808	CA	ASP	C	627	-49.486	58.927	-5.257	1.00	3.60	C
ATOM	7809	CB	ASP	C	627	-49.228	60.383	-4.817	1.00	2.64	C
ATOM	7810	CG	ASP	C	627	-50.225	61.387	-5.407	1.00	2.00	C
ATOM	7811	OD1	ASP	C	627	-51.046	61.034	-6.269	1.00	2.00	O
ATOM	7812	OD2	ASP	C	627	-50.161	62.558	-4.994	1.00	2.00	O
ATOM	7813	C	ASP	C	627	-49.428	58.782	-6.769	1.00	2.00	C
ATOM	7814	O	ASP	C	627	-48.419	59.146	-7.388	1.00	2.28	O
ATOM	7815	N	LYS	C	628	-50.465	58.231	-7.381	1.00	2.00	N
ATOM	7816	CA	LYS	C	628	-50.382	57.977	-8.811	1.00	2.00	C
ATOM	7817	CB	LYS	C	628	-51.357	56.885	-9.280	1.00	2.00	C
ATOM	7818	CG	LYS	C	628	-52.815	57.051	-8.917	1.00	2.00	C
ATOM	7819	CD	LYS	C	628	-53.598	55.896	-9.544	1.00	2.00	C
ATOM	7820	CE	LYS	C	628	-55.083	56.144	-9.559	1.00	2.42	C
ATOM	7821	NZ	LYS	C	628	-55.793	55.437	-10.710	1.00	3.98	N
ATOM	7822	C	LYS	C	628	-50.427	59.233	-9.695	1.00	2.00	C
ATOM	7823	O	LYS	C	628	-50.325	59.124	-10.912	1.00	2.00	O
ATOM	7824	N	PHE	C	629	-50.546	60.405	-9.068	1.00	2.00	N
ATOM	7825	CA	PHE	C	629	-50.698	61.669	-9.790	1.00	2.00	C

- 176 -

ATOM	7826	CB	PHE	C	629	-52.032	62.351	-9.417	1.00	2.00	C
ATOM	7827	CG	PHE	C	629	-53.223	61.445	-9.577	1.00	2.00	C
ATOM	7828	CD1	PHE	C	629	-53.559	60.951	-10.827	1.00	2.00	C
ATOM	7829	CE1	PHE	C	629	-54.621	60.099	-10.994	1.00	2.00	C
ATOM	7830	CZ	PHE	C	629	-55.386	59.727	-9.891	1.00	2.00	C
ATOM	7831	CE2	PHE	C	629	-55.064	60.200	-8.635	1.00	2.00	C
ATOM	7832	CD2	PHE	C	629	-53.974	61.060	-8.475	1.00	2.00	C
ATOM	7833	C	PHE	C	629	-49.538	62.629	-9.618	1.00	2.00	C
ATOM	7834	O	PHE	C	629	-49.450	63.613	-10.333	1.00	2.00	O
ATOM	7835	N	PHE	C	630	-48.657	62.336	-8.666	1.00	2.00	N
ATOM	7836	CA	PHE	C	630	-47.526	63.199	-8.385	1.00	2.00	C
ATOM	7837	CB	PHE	C	630	-47.900	64.278	-7.367	1.00	2.00	C
ATOM	7838	CG	PHE	C	630	-46.715	65.034	-6.827	1.00	2.00	C
ATOM	7839	CD1	PHE	C	630	-46.081	65.998	-7.594	1.00	2.00	C
ATOM	7840	CE1	PHE	C	630	-44.988	66.689	-7.100	1.00	2.00	C
ATOM	7841	CZ	PHE	C	630	-44.518	66.424	-5.824	1.00	2.00	C
ATOM	7842	CE2	PHE	C	630	-45.138	65.475	-5.051	1.00	2.00	C
ATOM	7843	CD2	PHE	C	630	-46.238	64.780	-5.555	1.00	2.00	C
ATOM	7844	C	PHE	C	630	-46.332	62.385	-7.874	1.00	2.00	C
ATOM	7845	O	PHE	C	630	-46.492	61.584	-6.970	1.00	2.00	O
ATOM	7846	N	THR	C	631	-45.164	62.595	-8.460	1.00	2.00	N
ATOM	7847	CA	THR	C	631	-43.886	62.138	-7.845	1.00	2.00	C
ATOM	7848	CB	THR	C	631	-43.140	61.056	-8.628	1.00	2.00	C
ATOM	7849	OG1	THR	C	631	-42.921	61.509	-9.973	1.00	5.87	O
ATOM	7850	CG2	THR	C	631	-43.923	59.741	-8.631	1.00	7.13	C
ATOM	7851	C	THR	C	631	-42.929	63.293	-7.718	1.00	3.50	C
ATOM	7852	O	THR	C	631	-42.935	64.211	-8.550	1.00	5.31	O
ATOM	7853	N	ARG	C	632	-42.126	63.231	-6.662	1.00	4.41	N
ATOM	7854	CA	ARG	C	632	-40.946	64.069	-6.479	1.00	8.02	C
ATOM	7855	CB	ARG	C	632	-40.509	63.996	-5.019	1.00	9.70	C
ATOM	7856	CG	ARG	C	632	-41.503	64.590	-4.070	1.00	14.08	C
ATOM	7857	CD	ARG	C	632	-41.049	64.474	-2.641	1.00	16.85	C
ATOM	7858	NE	ARG	C	632	-41.905	65.246	-1.736	1.00	18.70	N
ATOM	7859	CZ	ARG	C	632	-41.748	66.545	-1.468	1.00	20.95	C
ATOM	7860	NH1	ARG	C	632	-40.767	67.245	-2.039	1.00	21.23	N
ATOM	7861	NH2	ARG	C	632	-42.577	67.154	-0.621	1.00	21.85	N
ATOM	7862	C	ARG	C	632	-39.795	63.626	-7.400	1.00	7.34	C
ATOM	7863	O	ARG	C	632	-38.935	64.430	-7.757	1.00	8.98	O
ATOM	7864	N	GLY	C	633	-39.804	62.347	-7.779	1.00	6.15	N
ATOM	7865	CA	GLY	C	633	-38.805	61.768	-8.663	1.00	5.06	C
ATOM	7866	C	GLY	C	633	-37.541	61.336	-7.913	1.00	5.04	C
ATOM	7867	O	GLY	C	633	-37.403	61.576	-6.714	1.00	5.48	O
ATOM	7868	N	GLN	C	634	-36.611	60.725	-8.631	1.00	2.68	N
ATOM	7869	CA	GLN	C	634	-35.457	60.084	-8.027	1.00	4.83	C
ATOM	7870	CB	GLN	C	634	-35.124	58.817	-8.840	1.00	6.46	C
ATOM	7871	CG	GLN	C	634	-34.032	57.909	-8.236	1.00	12.60	C
ATOM	7872	CD	GLN	C	634	-34.493	57.202	-6.965	1.00	14.74	C
ATOM	7873	OE1	GLN	C	634	-35.709	57.142	-6.664	1.00	16.43	O
ATOM	7874	NE2	GLN	C	634	-33.535	56.651	-6.213	1.00	15.03	N
ATOM	7875	C	GLN	C	634	-34.262	61.073	-7.980	1.00	2.86	C
ATOM	7876	O	GLN	C	634	-33.995	61.763	-8.967	1.00	2.00	O
ATOM	7877	N	PRO	C	635	-33.534	61.147	-6.842	1.00	4.15	N
ATOM	7878	CA	PRO	C	635	-32.391	62.064	-6.869	1.00	3.49	C
ATOM	7879	CB	PRO	C	635	-31.943	62.144	-5.404	1.00	3.80	C
ATOM	7880	CG	PRO	C	635	-32.959	61.380	-4.621	1.00	4.01	C
ATOM	7881	CD	PRO	C	635	-33.655	60.460	-5.542	1.00	3.72	C
ATOM	7882	C	PRO	C	635	-31.277	61.478	-7.733	1.00	5.81	C
ATOM	7883	O	PRO	C	635	-30.873	60.324	-7.533	1.00	7.49	O

- 177 -

ATOM	7884	N	VAL	C	636	-30.832	62.262	-8.712	1.00	5.44	N
ATOM	7885	CA	VAL	C	636	-29.793	61.851	-9.651	1.00	7.22	C
ATOM	7886	CB	VAL	C	636	-30.343	61.519	-11.100	1.00	6.79	C
ATOM	7887	CG1	VAL	C	636	-31.147	60.238	-11.090	1.00	6.01	C
ATOM	7888	CG2	VAL	C	636	-31.161	62.658	-11.692	1.00	6.35	C
ATOM	7889	C	VAL	C	636	-28.670	62.887	-9.705	1.00	6.06	C
ATOM	7890	O	VAL	C	636	-28.805	64.022	-9.222	1.00	5.73	O
ATOM	7891	N	LEU	C	637	-27.565	62.484	-10.300	1.00	5.42	N
ATOM	7892	CA	LEU	C	637	-26.443	63.365	-10.442	1.00	6.07	C
ATOM	7893	CB	LEU	C	637	-25.203	62.714	-9.786	1.00	6.03	C
ATOM	7894	CG	LEU	C	637	-24.758	62.987	-8.327	1.00	9.15	C
ATOM	7895	CD1	LEU	C	637	-25.841	63.336	-7.326	1.00	4.99	C
ATOM	7896	CD2	LEU	C	637	-23.850	61.869	-7.774	1.00	5.93	C
ATOM	7897	C	LEU	C	637	-26.191	63.610	-11.919	1.00	4.44	C
ATOM	7898	O	LEU	C	637	-26.106	62.670	-12.707	1.00	3.83	O
ATOM	7899	N	TPO	C	638	-26.049	64.868	-12.300	1.00	4.09	N
ATOM	7900	CA	TPO	C	638	-25.644	65.147	-13.669	1.00	7.42	C
ATOM	7901	CB	TPO	C	638	-26.082	66.543	-14.138	1.00	10.22	C
ATOM	7902	CG2	TPO	C	638	-25.461	66.948	-15.463	1.00	10.21	C
ATOM	7903	OG1	TPO	C	638	-25.790	67.554	-13.178	1.00	16.77	O
ATOM	7904	P	TPO	C	638	-26.783	67.935	-11.958	1.00	18.40	P
ATOM	7905	O1P	TPO	C	638	-26.443	66.886	-10.901	1.00	16.95	O
ATOM	7906	O2P	TPO	C	638	-26.315	69.325	-11.624	1.00	19.61	O
ATOM	7907	O3P	TPO	C	638	-28.204	67.919	-12.444	1.00	18.34	O
ATOM	7908	C	TPO	C	638	-24.182	64.760	-13.832	1.00	6.44	C
ATOM	7909	O	TPO	C	638	-23.365	65.020	-12.947	1.00	2.74	O
ATOM	7910	N	PRO	C	639	-23.852	64.104	-14.953	1.00	7.33	N
ATOM	7911	CA	PRO	C	639	-22.467	63.773	-15.281	1.00	6.05	C
ATOM	7912	CB	PRO	C	639	-22.590	63.011	-16.609	1.00	8.34	C
ATOM	7913	CG	PRO	C	639	-23.929	63.449	-17.174	1.00	8.54	C
ATOM	7914	CD	PRO	C	639	-24.794	63.627	-15.984	1.00	7.33	C
ATOM	7915	C	PRO	C	639	-21.607	65.023	-15.468	1.00	4.58	C
ATOM	7916	O	PRO	C	639	-22.102	66.060	-15.896	1.00	4.02	O
ATOM	7917	N	PRO	C	640	-20.319	64.930	-15.116	1.00	6.17	N
ATOM	7918	CA	PRO	C	640	-19.412	66.084	-15.183	1.00	5.74	C
ATOM	7919	CB	PRO	C	640	-18.152	65.563	-14.477	1.00	7.27	C
ATOM	7920	CG	PRO	C	640	-18.185	64.076	-14.750	1.00	8.31	C
ATOM	7921	CD	PRO	C	640	-19.639	63.721	-14.618	1.00	6.37	C
ATOM	7922	C	PRO	C	640	-19.092	66.462	-16.624	1.00	4.55	C
ATOM	7923	O	PRO	C	640	-19.121	65.606	-17.494	1.00	3.49	O
ATOM	7924	N	ASP	C	641	-18.806	67.740	-16.852	1.00	3.44	N
ATOM	7925	CA	ASP	C	641	-18.323	68.228	-18.115	1.00	4.09	C
ATOM	7926	CB	ASP	C	641	-18.584	69.732	-18.186	1.00	6.87	C
ATOM	7927	CG	ASP	C	641	-17.853	70.405	-19.330	1.00	11.58	C
ATOM	7928	OD1	ASP	C	641	-18.268	70.275	-20.511	1.00	13.99	O
ATOM	7929	OD2	ASP	C	641	-16.852	71.086	-19.046	1.00	11.83	O
ATOM	7930	C	ASP	C	641	-16.814	67.922	-18.218	1.00	3.76	C
ATOM	7931	O	ASP	C	641	-16.080	68.067	-17.242	1.00	2.00	O
ATOM	7932	N	GLN	C	642	-16.386	67.485	-19.393	1.00	2.44	N
ATOM	7933	CA	GLN	C	642	-15.005	67.172	-19.673	1.00	4.27	C
ATOM	7934	CB	GLN	C	642	-14.894	66.564	-21.070	1.00	8.50	C
ATOM	7935	CG	GLN	C	642	-15.502	65.149	-21.141	1.00	12.76	C
ATOM	7936	CD	GLN	C	642	-14.937	64.195	-20.082	1.00	14.00	C
ATOM	7937	OE1	GLN	C	642	-15.677	63.690	-19.218	1.00	16.15	O
ATOM	7938	NE2	GLN	C	642	-13.623	63.935	-20.149	1.00	15.03	N
ATOM	7939	C	GLN	C	642	-14.044	68.353	-19.487	1.00	2.92	C
ATOM	7940	O	GLN	C	642	-12.941	68.178	-18.975	1.00	2.00	O
ATOM	7941	N	LEU	C	643	-14.476	69.544	-19.889	1.00	2.00	N

- 178 -

ATOM	7942	CA	LEU	C	643	-13.659	70.737	-19.757	1.00	2.00	C
ATOM	7943	CB	LEU	C	643	-14.238	71.898	-20.560	1.00	2.00	C
ATOM	7944	CG	LEU	C	643	-13.305	73.113	-20.670	1.00	2.00	C
ATOM	7945	CD1	LEU	C	643	-12.129	72.821	-21.591	1.00	2.00	C
ATOM	7946	CD2	LEU	C	643	-14.106	74.309	-21.132	1.00	2.00	C
ATOM	7947	C	LEU	C	643	-13.547	71.126	-18.308	1.00	2.00	C
ATOM	7948	O	LEU	C	643	-12.488	71.546	-17.868	1.00	2.00	O
ATOM	7949	N	VAL	C	644	-14.636	70.990	-17.551	1.00	2.00	N
ATOM	7950	CA	VAL	C	644	-14.538	71.233	-16.134	1.00	2.00	C
ATOM	7951	CB	VAL	C	644	-15.907	71.220	-15.433	1.00	2.00	C
ATOM	7952	CG1	VAL	C	644	-15.736	71.282	-13.903	1.00	2.00	C
ATOM	7953	CG2	VAL	C	644	-16.738	72.386	-15.942	1.00	2.00	C
ATOM	7954	C	VAL	C	644	-13.578	70.247	-15.463	1.00	2.00	C
ATOM	7955	O	VAL	C	644	-12.689	70.673	-14.717	1.00	2.00	O
ATOM	7956	N	ILE	C	645	-13.768	68.957	-15.729	1.00	2.00	N
ATOM	7957	CA	ILE	C	645	-12.904	67.892	-15.201	1.00	2.00	C
ATOM	7958	CB	ILE	C	645	-13.239	66.520	-15.844	1.00	2.00	C
ATOM	7959	CG1	ILE	C	645	-14.575	65.959	-15.332	1.00	2.00	C
ATOM	7960	CD1	ILE	C	645	-14.890	64.613	-15.985	1.00	2.00	C
ATOM	7961	CG2	ILE	C	645	-12.143	65.457	-15.537	1.00	2.00	C
ATOM	7962	C	ILE	C	645	-11.404	68.220	-15.440	1.00	2.00	C
ATOM	7963	O	ILE	C	645	-10.601	68.110	-14.528	1.00	2.00	O
ATOM	7964	N	ALA	C	646	-11.066	68.633	-16.658	1.00	2.00	N
ATOM	7965	CA	ALA	C	646	-9.666	68.819	-17.076	1.00	2.00	C
ATOM	7966	CB	ALA	C	646	-9.556	69.001	-18.580	1.00	2.00	C
ATOM	7967	C	ALA	C	646	-9.008	69.983	-16.370	1.00	2.00	C
ATOM	7968	O	ALA	C	646	-7.781	70.083	-16.344	1.00	2.00	O
ATOM	7969	N	ASN	C	647	-9.822	70.861	-15.805	1.00	2.00	N
ATOM	7970	CA	ASN	C	647	-9.310	72.065	-15.191	1.00	2.00	C
ATOM	7971	CB	ASN	C	647	-9.894	73.284	-15.897	1.00	2.00	C
ATOM	7972	CG	ASN	C	647	-9.361	73.437	-17.290	1.00	2.00	C
ATOM	7973	OD1	ASN	C	647	-8.277	73.996	-17.495	1.00	2.00	O
ATOM	7974	ND2	ASN	C	647	-10.110	72.935	-18.266	1.00	2.00	N
ATOM	7975	C	ASN	C	647	-9.535	72.150	-13.702	1.00	2.00	C
ATOM	7976	O	ASN	C	647	-9.318	73.205	-13.123	1.00	2.00	O
ATOM	7977	N	ILE	C	648	-9.971	71.047	-13.082	1.00	2.00	N
ATOM	7978	CA	ILE	C	648	-9.988	70.915	-11.617	1.00	2.00	C
ATOM	7979	CB	ILE	C	648	-10.875	69.736	-11.131	1.00	2.00	C
ATOM	7980	CG1	ILE	C	648	-12.356	69.950	-11.491	1.00	2.00	C
ATOM	7981	CD1	ILE	C	648	-13.172	68.693	-11.330	1.00	2.00	C
ATOM	7982	CG2	ILE	C	648	-10.791	69.579	-9.617	1.00	2.00	C
ATOM	7983	C	ILE	C	648	-8.563	70.668	-11.109	1.00	2.00	C
ATOM	7984	O	ILE	C	648	-7.837	69.843	-11.670	1.00	2.00	O
ATOM	7985	N	ASP	C	649	-8.175	71.402	-10.065	1.00	2.00	N
ATOM	7986	CA	ASP	C	649	-6.911	71.157	-9.372	1.00	2.00	C
ATOM	7987	CB	ASP	C	649	-6.439	72.410	-8.632	1.00	2.00	C
ATOM	7988	CG	ASP	C	649	-4.970	72.327	-8.212	1.00	2.00	C
ATOM	7989	OD1	ASP	C	649	-4.414	71.204	-8.218	1.00	2.00	O
ATOM	7990	OD2	ASP	C	649	-4.390	73.390	-7.863	1.00	2.00	O
ATOM	7991	C	ASP	C	649	-7.070	70.001	-8.406	1.00	2.00	C
ATOM	7992	O	ASP	C	649	-7.502	70.182	-7.262	1.00	2.00	O
ATOM	7993	N	GLN	C	650	-6.729	68.808	-8.864	1.00	2.00	N
ATOM	7994	CA	GLN	C	650	-6.912	67.617	-8.048	1.00	2.00	C
ATOM	7995	CB	GLN	C	650	-6.832	66.361	-8.899	1.00	2.00	C
ATOM	7996	CG	GLN	C	650	-7.864	66.340	-10.048	1.00	2.00	C
ATOM	7997	CD	GLN	C	650	-9.258	65.943	-9.606	1.00	2.00	C
ATOM	7998	OE1	GLN	C	650	-9.565	65.914	-8.414	1.00	2.00	O
ATOM	7999	NE2	GLN	C	650	-10.119	65.632	-10.575	1.00	2.00	N

- 179 -

ATOM	8000	C	GLN	C	650	-6.001	67.538	-6.826	1.00	2.00	C
ATOM	8001	O	GLN	C	650	-6.323	66.834	-5.877	1.00	2.00	O
ATOM	8002	N	SER	C	651	-4.876	68.266	-6.860	1.00	2.00	N
ATOM	8003	CA	SER	C	651	-3.962	68.382	-5.705	1.00	2.00	C
ATOM	8004	CB	SER	C	651	-2.732	69.249	-6.031	1.00	2.00	C
ATOM	8005	OG	SER	C	651	-3.068	70.626	-6.149	1.00	2.00	O
ATOM	8006	C	SER	C	651	-4.689	68.939	-4.478	1.00	2.00	C
ATOM	8007	O	SER	C	651	-4.282	68.684	-3.349	1.00	2.00	O
ATOM	8008	N	ASP	C	652	-5.777	69.683	-4.712	1.00	2.00	N
ATOM	8009	CA	ASP	C	652	-6.604	70.260	-3.624	1.00	2.00	C
ATOM	8010	CB	ASP	C	652	-7.771	71.089	-4.195	1.00	2.00	C
ATOM	8011	CG	ASP	C	652	-7.355	72.464	-4.690	1.00	2.00	C
ATOM	8012	OD1	ASP	C	652	-6.214	72.902	-4.407	1.00	2.00	O
ATOM	8013	OD2	ASP	C	652	-8.194	73.126	-5.360	1.00	2.26	O
ATOM	8014	C	ASP	C	652	-7.192	69.191	-2.714	1.00	2.00	C
ATOM	8015	O	ASP	C	652	-7.494	69.457	-1.546	1.00	2.00	O
ATOM	8016	N	PHE	C	653	-7.380	67.992	-3.252	1.00	2.00	N
ATOM	8017	CA	PHE	C	653	-8.074	66.910	-2.518	1.00	2.00	C
ATOM	8018	CB	PHE	C	653	-9.332	66.546	-3.288	1.00	2.00	C
ATOM	8019	CG	PHE	C	653	-10.086	67.745	-3.756	1.00	2.00	C
ATOM	8020	CD1	PHE	C	653	-10.103	68.090	-5.099	1.00	2.00	C
ATOM	8021	CE1	PHE	C	653	-10.774	69.210	-5.527	1.00	2.00	C
ATOM	8022	CZ	PHE	C	653	-11.437	70.018	-4.595	1.00	2.00	C
ATOM	8023	CE2	PHE	C	653	-11.415	69.695	-3.267	1.00	2.00	C
ATOM	8024	CD2	PHE	C	653	-10.738	68.560	-2.843	1.00	2.00	C
ATOM	8025	C	PHE	C	653	-7.173	65.686	-2.305	1.00	2.00	C
ATOM	8026	O	PHE	C	653	-7.643	64.562	-2.116	1.00	2.00	O
ATOM	8027	N	GLU	C	654	-5.868	65.937	-2.332	1.00	2.00	N
ATOM	8028	CA	GLU	C	654	-4.866	64.909	-2.048	1.00	2.00	C
ATOM	8029	CB	GLU	C	654	-3.472	65.515	-2.126	1.00	2.00	C
ATOM	8030	CG	GLU	C	654	-2.372	64.512	-1.767	1.00	2.00	C
ATOM	8031	CD	GLU	C	654	-0.954	65.100	-1.750	1.00	2.30	C
ATOM	8032	OE1	GLU	C	654	-0.748	66.248	-1.279	1.00	3.59	O
ATOM	8033	OE2	GLU	C	654	-0.044	64.383	-2.212	1.00	4.38	O
ATOM	8034	C	GLU	C	654	-5.128	64.375	-0.647	1.00	2.00	C
ATOM	8035	O	GLU	C	654	-5.306	65.149	0.291	1.00	2.00	O
ATOM	8036	N	GLY	C	655	-5.177	63.064	-0.493	1.00	2.00	N
ATOM	8037	CA	GLY	C	655	-5.336	62.498	0.847	1.00	2.00	C
ATOM	8038	C	GLY	C	655	-6.756	62.593	1.381	1.00	2.00	C
ATOM	8039	O	GLY	C	655	-6.978	62.541	2.598	1.00	2.00	O
ATOM	8040	N	PHE	C	656	-7.722	62.730	0.477	1.00	2.00	N
ATOM	8041	CA	PHE	C	656	-9.141	62.807	0.881	1.00	2.00	C
ATOM	8042	CB	PHE	C	656	-10.024	63.421	-0.233	1.00	2.00	C
ATOM	8043	CG	PHE	C	656	-11.469	63.587	0.185	1.00	2.00	C
ATOM	8044	CD1	PHE	C	656	-11.861	64.660	0.986	1.00	2.00	C
ATOM	8045	CE1	PHE	C	656	-13.191	64.808	1.389	1.00	2.00	C
ATOM	8046	CZ	PHE	C	656	-14.135	63.877	0.997	1.00	2.00	C
ATOM	8047	CE2	PHE	C	656	-13.770	62.807	0.212	1.00	2.00	C
ATOM	8048	CD2	PHE	C	656	-12.428	62.660	-0.204	1.00	2.00	C
ATOM	8049	C	PHE	C	656	-9.709	61.452	1.352	1.00	2.00	C
ATOM	8050	O	PHE	C	656	-10.335	61.353	2.419	1.00	2.00	O
ATOM	8051	N	SEP	C	657	-9.479	60.392	0.591	1.00	2.00	N
ATOM	8052	CA	SEP	C	657	-10.104	59.118	0.930	1.00	2.00	C
ATOM	8053	CB	SEP	C	657	-9.959	58.116	-0.197	1.00	2.00	C
ATOM	8054	OG	SEP	C	657	-10.620	58.650	-1.313	1.00	2.00	O
ATOM	8055	P	SEP	C	657	-10.433	57.812	-2.648	1.00	6.59	P
ATOM	8056	O1P	SEP	C	657	-9.025	58.247	-3.291	1.00	2.00	O
ATOM	8057	O2P	SEP	C	657	-11.662	58.200	-3.614	1.00	2.00	O

- 180 -

ATOM	8058	O3P	SEP	C	657	-10.459	56.228	-2.419	1.00	4.46	O
ATOM	8059	C	SEP	C	657	-9.694	58.504	2.246	1.00	2.00	C
ATOM	8060	O	SEP	C	657	-8.511	58.508	2.622	1.00	2.00	O
ATOM	8061	N	TYR	C	658	-10.695	57.982	2.952	1.00	2.00	N
ATOM	8062	CA	TYR	C	658	-10.496	57.405	4.258	1.00	2.00	C
ATOM	8063	CB	TYR	C	658	-10.560	58.481	5.337	1.00	2.00	C
ATOM	8064	CG	TYR	C	658	-10.369	57.918	6.742	1.00	2.00	C
ATOM	8065	CD1	TYR	C	658	-9.106	57.560	7.196	1.00	2.00	C
ATOM	8066	CE1	TYR	C	658	-8.924	57.036	8.471	1.00	2.00	C
ATOM	8067	CZ	TYR	C	658	-10.020	56.874	9.310	1.00	2.00	C
ATOM	8068	OH	TYR	C	658	-9.817	56.362	10.583	1.00	2.13	O
ATOM	8069	CE2	TYR	C	658	-11.286	57.227	8.883	1.00	2.00	C
ATOM	8070	CD2	TYR	C	658	-11.457	57.742	7.611	1.00	2.00	C
ATOM	8071	C	TYR	C	658	-11.597	56.399	4.526	1.00	2.00	C
ATOM	8072	O	TYR	C	658	-12.768	56.674	4.254	1.00	2.00	O
ATOM	8073	N	VAL	C	659	-11.223	55.253	5.089	1.00	2.00	N
ATOM	8074	CA	VAL	C	659	-12.201	54.270	5.530	1.00	2.00	C
ATOM	8075	CB	VAL	C	659	-12.032	52.917	4.828	1.00	2.00	C
ATOM	8076	CG1	VAL	C	659	-13.092	51.939	5.301	1.00	2.00	C
ATOM	8077	CG2	VAL	C	659	-12.102	53.055	3.318	1.00	2.00	C
ATOM	8078	C	VAL	C	659	-12.048	54.072	7.021	1.00	2.00	C
ATOM	8079	O	VAL	C	659	-10.995	53.669	7.474	1.00	2.00	O
ATOM	8080	N	ASN	C	660	-13.107	54.361	7.785	1.00	2.00	N
ATOM	8081	CA	ASN	C	660	-13.152	54.080	9.230	1.00	2.00	C
ATOM	8082	CB	ASN	C	660	-14.462	54.630	9.838	1.00	2.00	C
ATOM	8083	CG	ASN	C	660	-14.487	54.583	11.365	1.00	2.00	C
ATOM	8084	OD1	ASN	C	660	-13.708	53.865	12.015	1.00	2.00	O
ATOM	8085	ND2	ASN	C	660	-15.386	55.352	11.943	1.00	2.00	N
ATOM	8086	C	ASN	C	660	-13.068	52.578	9.475	1.00	2.00	C
ATOM	8087	O	ASN	C	660	-13.940	51.837	9.027	1.00	2.00	O
ATOM	8088	N	PRO	C	661	-12.011	52.115	10.175	1.00	2.28	N
ATOM	8089	CA	PRO	C	661	-11.911	50.672	10.378	1.00	3.20	C
ATOM	8090	CB	PRO	C	661	-10.486	50.479	10.906	1.00	4.02	C
ATOM	8091	CG	PRO	C	661	-10.059	51.813	11.442	1.00	3.98	C
ATOM	8092	CD	PRO	C	661	-10.882	52.865	10.769	1.00	2.86	C
ATOM	8093	C	PRO	C	661	-12.943	50.091	11.368	1.00	4.92	C
ATOM	8094	O	PRO	C	661	-13.195	48.872	11.367	1.00	5.77	O
ATOM	8095	N	GLN	C	662	-13.519	50.942	12.210	1.00	2.64	N
ATOM	8096	CA	GLN	C	662	-14.502	50.467	13.180	1.00	2.00	C
ATOM	8097	CB	GLN	C	662	-13.870	50.269	14.573	1.00	2.00	C
ATOM	8098	CG	GLN	C	662	-12.939	49.038	14.715	1.00	2.00	C
ATOM	8099	CD	GLN	C	662	-13.596	47.703	14.344	1.00	2.00	C
ATOM	8100	OE1	GLN	C	662	-12.935	46.797	13.821	1.00	2.00	O
ATOM	8101	NE2	GLN	C	662	-14.883	47.569	14.630	1.00	2.00	N
ATOM	8102	C	GLN	C	662	-15.681	51.430	13.220	1.00	2.00	C
ATOM	8103	O	GLN	C	662	-15.842	52.187	14.170	1.00	2.00	O
ATOM	8104	N	PHE	C	663	-16.481	51.405	12.161	1.00	2.00	N
ATOM	8105	CA	PHE	C	663	-17.727	52.148	12.101	1.00	2.00	C
ATOM	8106	CB	PHE	C	663	-18.130	52.380	10.643	1.00	2.00	C
ATOM	8107	CG	PHE	C	663	-19.474	53.047	10.464	1.00	2.00	C
ATOM	8108	CD1	PHE	C	663	-19.595	54.434	10.492	1.00	2.00	C
ATOM	8109	CE1	PHE	C	663	-20.839	55.052	10.305	1.00	2.00	C
ATOM	8110	CZ	PHE	C	663	-21.981	54.276	10.088	1.00	2.00	C
ATOM	8111	CE2	PHE	C	663	-21.874	52.890	10.063	1.00	2.00	C
ATOM	8112	CD2	PHE	C	663	-20.618	52.283	10.243	1.00	2.00	C
ATOM	8113	C	PHE	C	663	-18.760	51.292	12.820	1.00	2.00	C
ATOM	8114	O	PHE	C	663	-18.923	50.120	12.499	1.00	2.00	O
ATOM	8115	N	VAL	C	664	-19.432	51.883	13.800	1.00	2.00	N

- 181 -

ATOM	8116	CA	VAL	C	664	-20.362	51.150	14.635	1.00	2.00	C
ATOM	8117	CB	VAL	C	664	-20.333	51.658	16.080	1.00	2.00	C
ATOM	8118	CG1	VAL	C	664	-21.342	50.886	16.943	1.00	2.00	C
ATOM	8119	CG2	VAL	C	664	-18.920	51.566	16.645	1.00	2.00	C
ATOM	8120	C	VAL	C	664	-21.776	51.274	14.069	1.00	2.00	C
ATOM	8121	O	VAL	C	664	-22.387	52.342	14.145	1.00	2.00	O
ATOM	8122	N	HIS	C	665	-22.256	50.170	13.502	1.00	2.00	N
ATOM	8123	CA	HIS	C	665	-23.613	50.029	12.993	1.00	2.00	C
ATOM	8124	CB	HIS	C	665	-23.719	48.764	12.131	1.00	2.00	C
ATOM	8125	CG	HIS	C	665	-22.697	48.704	11.038	1.00	2.00	C
ATOM	8126	ND1	HIS	C	665	-22.859	49.347	9.830	1.00	2.31	N
ATOM	8127	CE1	HIS	C	665	-21.797	49.133	9.071	1.00	2.00	C
ATOM	8128	NE2	HIS	C	665	-20.944	48.385	9.749	1.00	2.00	N
ATOM	8129	CD2	HIS	C	665	-21.481	48.109	10.984	1.00	2.00	C
ATOM	8130	C	HIS	C	665	-24.610	50.023	14.149	1.00	2.00	C
ATOM	8131	O	HIS	C	665	-24.243	49.709	15.276	1.00	2.00	O
ATOM	8132	N	PRO	C	666	-25.883	50.385	13.881	1.00	3.57	N
ATOM	8133	CA	PRO	C	666	-26.849	50.526	14.975	1.00	2.95	C
ATOM	8134	CB	PRO	C	666	-28.190	50.655	14.235	1.00	4.30	C
ATOM	8135	CG	PRO	C	666	-27.813	51.348	12.939	1.00	4.69	C
ATOM	8136	CD	PRO	C	666	-26.498	50.664	12.565	1.00	3.23	C
ATOM	8137	C	PRO	C	666	-26.850	49.317	15.904	1.00	3.86	C
ATOM	8138	O	PRO	C	666	-26.927	48.176	15.439	1.00	4.23	O
ATOM	8139	N	ILE	C	667	-26.732	49.582	17.202	1.00	4.21	N
ATOM	8140	CA	ILE	C	667	-26.632	48.558	18.231	1.00	6.24	C
ATOM	8141	CB	ILE	C	667	-25.997	49.163	19.523	1.00	7.03	C
ATOM	8142	CG1	ILE	C	667	-24.679	49.886	19.210	1.00	7.95	C
ATOM	8143	CD1	ILE	C	667	-23.710	49.064	18.409	1.00	9.35	C
ATOM	8144	CG2	ILE	C	667	-25.747	48.120	20.585	1.00	6.94	C
ATOM	8145	C	ILE	C	667	-28.018	47.978	18.552	1.00	7.77	C
ATOM	8146	O	ILE	C	667	-29.032	48.710	18.519	1.00	6.57	O
ATOM	8147	N	LEU	C	668	-28.059	46.676	18.852	1.00	9.46	N
ATOM	8148	CA	LEU	C	668	-29.265	46.025	19.393	1.00	12.47	C
ATOM	8149	CB	LEU	C	668	-29.014	44.548	19.726	1.00	12.78	C
ATOM	8150	CG	LEU	C	668	-29.157	43.418	18.690	1.00	14.51	C
ATOM	8151	CD1	LEU	C	668	-29.347	42.095	19.419	1.00	13.34	C
ATOM	8152	CD2	LEU	C	668	-30.337	43.607	17.725	1.00	14.90	C
ATOM	8153	C	LEU	C	668	-29.729	46.759	20.650	1.00	14.83	C
ATOM	8154	O	LEU	C	668	-28.973	46.880	21.615	1.00	15.35	O
ATOM	8155	N	GLN	C	669	-30.970	47.245	20.630	1.00	17.94	N
ATOM	8156	CA	GLN	C	669	-31.509	48.069	21.718	1.00	21.69	C
ATOM	8157	CB	GLN	C	669	-32.711	48.884	21.229	1.00	22.29	C
ATOM	8158	CG	GLN	C	669	-32.348	49.976	20.193	1.00	24.79	C
ATOM	8159	CD	GLN	C	669	-33.573	50.670	19.549	1.00	24.88	C
ATOM	8160	OE1	GLN	C	669	-34.609	50.039	19.305	1.00	26.06	O
ATOM	8161	NE2	GLN	C	669	-33.437	51.972	19.259	1.00	25.54	N
ATOM	8162	C	GLN	C	669	-31.846	47.271	22.990	1.00	23.22	C
ATOM	8163	O	GLN	C	669	-32.284	46.116	22.917	1.00	22.21	O
ATOM	8164	N	SER	C	670	-31.628	47.905	24.148	1.00	25.86	N
ATOM	8165	CA	SER	C	670	-31.784	47.266	25.458	1.00	28.56	C
ATOM	8166	CB	SER	C	670	-30.411	47.114	26.127	1.00	28.72	C
ATOM	8167	OG	SER	C	670	-30.507	46.428	27.371	1.00	29.66	O
ATOM	8168	C	SER	C	670	-32.738	48.012	26.406	1.00	30.51	C
ATOM	8169	O	SER	C	670	-33.342	49.026	26.031	1.00	31.79	O
ATOM	8170	N	ALA	C	671	-32.860	47.499	27.634	1.00	31.81	N
ATOM	8171	CA	ALA	C	671	-33.666	48.125	28.691	1.00	32.63	C
ATOM	8172	CB	ALA	C	671	-35.046	47.455	28.783	1.00	32.85	C
ATOM	8173	C	ALA	C	671	-32.956	48.118	30.059	1.00	32.67	C

- 182 -

ATOM	8174	O	ALA	C	671	-32.668	47.056	30.627	1.00	32.25	O
ATOM	8175	N1	LIG	C	1	-30.706	64.868	8.860	1.00	2.00	N
ATOM	8176	C3	LIG	C	1	-30.224	65.869	8.083	1.00	2.00	C
ATOM	8177	C4	LIG	C	1	-28.829	65.747	7.993	1.00	2.00	C
ATOM	8178	C5	LIG	C	1	-28.528	64.546	8.850	1.00	2.00	C
ATOM	8179	C6	LIG	C	1	-29.736	64.099	9.316	1.00	2.00	C
ATOM	8180	C8	LIG	C	1	-27.208	63.947	9.123	1.00	2.00	C
ATOM	8181	C9	LIG	C	1	-25.985	64.528	9.190	1.00	2.00	C
ATOM	8182	C10	LIG	C	1	-25.013	63.473	9.484	1.00	2.00	C
ATOM	8183	N11	LIG	C	1	-25.638	62.298	9.566	1.00	2.00	N
ATOM	8184	C13	LIG	C	1	-26.949	62.528	9.361	1.00	2.00	C
ATOM	8185	O14	LIG	C	1	-27.795	61.654	9.354	1.00	2.00	O
ATOM	8186	O15	LIG	C	1	-23.826	63.659	9.615	1.00	2.00	O
ATOM	8187	C16	LIG	C	1	-25.573	65.979	9.055	1.00	2.00	C
ATOM	8188	N17	LIG	C	1	-26.379	66.814	9.751	1.00	2.00	N
ATOM	8189	C18	LIG	C	1	-26.199	68.152	9.796	1.00	2.00	C
ATOM	8190	C19	LIG	C	1	-25.136	68.734	9.110	1.00	2.00	C
ATOM	8191	C21	LIG	C	1	-24.259	67.925	8.370	1.00	2.00	C
ATOM	8192	C22	LIG	C	1	-24.461	66.519	8.328	1.00	2.00	C
ATOM	8193	C23	LIG	C	1	-23.556	65.758	7.553	1.00	2.00	C
ATOM	8194	C25	LIG	C	1	-22.488	66.361	6.858	1.00	2.00	C
ATOM	8195	C27	LIG	C	1	-22.310	67.749	6.920	1.00	2.00	C
ATOM	8196	C29	LIG	C	1	-23.190	68.534	7.674	1.00	2.00	C
ATOM	8197	N31	LIG	C	1	-27.083	68.881	10.527	1.00	2.00	N
ATOM	8198	C32	LIG	C	1	-26.983	70.328	10.530	1.00	5.00	C
ATOM	8199	C35	LIG	C	1	-28.377	70.729	9.999	1.00	5.28	C
ATOM	8200	N36	LIG	C	1	-29.601	70.047	10.473	1.00	7.06	N
ATOM	8201	C38	LIG	C	1	-29.446	68.571	10.471	1.00	4.03	C
ATOM	8202	C41	LIG	C	1	-28.171	68.257	11.274	1.00	2.55	C
ATOM	8203	C44	LIG	C	1	-28.591	72.170	9.521	1.00	8.72	C
ATOM	8204	C47	LIG	C	1	-28.359	71.028	8.496	1.00	6.69	C
ATOM	8205	C50	LIG	C	1	-28.066	66.644	7.230	1.00	2.00	C
ATOM	8206	C52	LIG	C	1	-28.744	67.678	6.564	1.00	2.00	C
ATOM	8207	C54	LIG	C	1	-30.165	67.789	6.632	1.00	2.00	C
ATOM	8208	C56	LIG	C	1	-30.923	66.891	7.405	1.00	2.00	C
ATOM	8209	C57	LIG	C	1	-32.445	67.067	7.465	1.00	2.00	C
ATOM	8210	OW0	HOH	C	800	-32.371	63.982	12.746	1.00	2.00	O
ATOM	8211	OW0	HOH	C	801	-5.319	69.393	15.732	1.00	2.00	O
ATOM	8212	OW0	HOH	C	802	-25.009	76.134	6.747	1.00	34.80	O
ATOM	8213	OW0	HOH	C	803	-33.370	64.299	9.603	1.00	9.96	O
ATOM	8214	OW0	HOH	C	804	-14.458	77.791	8.448	1.00	15.80	O
ATOM	8215	OW0	HOH	C	805	-20.116	70.622	6.608	1.00	7.87	O
ATOM	8216	OW0	HOH	C	807	-33.527	71.300	-6.678	1.00	20.95	O
ATOM	8217	OW0	HOH	C	808	-10.697	75.751	7.284	1.00	3.58	O
ATOM	8218	OW0	HOH	C	819	-30.897	71.218	12.331	1.00	4.19	O
ATOM	8219	OW0	HOH	C	828	-24.755	72.738	9.832	1.00	2.00	O
ATOM	8220	OW0	HOH	C	830	-8.350	53.037	7.691	1.00	2.00	O
ATOM	8221	OW0	HOH	Z	2	-22.038	47.339	0.109	1.00	11.96	O
ATOM	8222	OW0	HOH	Z	3	-18.737	76.797	18.964	1.00	2.00	O
ATOM	8223	OW0	HOH	Z	4	-15.060	36.421	21.522	1.00	2.00	O
ATOM	8224	OW0	HOH	Z	5	-19.719	36.537	21.571	1.00	2.00	O
ATOM	8225	OW0	HOH	Z	6	-10.113	14.656	14.169	1.00	2.00	O
ATOM	8226	OW0	HOH	Z	7	-9.300	79.659	24.533	1.00	2.00	O
ATOM	8227	OW0	HOH	Z	8	-2.868	18.602	59.460	1.00	2.00	O
ATOM	8228	OW0	HOH	Z	9	-28.159	84.883	22.276	1.00	2.00	O
ATOM	8229	OW0	HOH	Z	10	-17.485	73.083	12.652	1.00	2.00	O
ATOM	8230	OW0	HOH	Z	11	-8.171	74.041	22.377	1.00	4.08	O
ATOM	8231	OW0	HOH	Z	12	-23.486	84.978	22.032	1.00	2.00	O

- 183 -

ATOM	8232	OW0	HOH	Z	13	-18.667	58.867	16.785	1.00	2.00	O
ATOM	8233	OW0	HOH	Z	14	-5.180	3.911	69.551	1.00	5.05	O
ATOM	8234	OW0	HOH	Z	15	-9.678	21.927	68.536	1.00	2.00	O
ATOM	8235	OW0	HOH	Z	17	-20.252	67.283	39.022	1.00	2.00	O
ATOM	8236	OW0	HOH	Z	18	-32.957	40.910	14.780	1.00	2.00	O
ATOM	8237	OW0	HOH	Z	19	-16.722	55.739	14.515	1.00	2.00	O
ATOM	8238	OW0	HOH	Z	20	-27.497	14.925	49.618	1.00	6.68	O
ATOM	8239	OW0	HOH	Z	21	-16.185	88.633	32.145	1.00	2.00	O
ATOM	8240	OW0	HOH	Z	22	-24.646	28.125	22.719	1.00	2.00	O
ATOM	8241	OW0	HOH	Z	23	-29.834	8.641	25.896	1.00	2.00	O
ATOM	8242	OW0	HOH	Z	24	-13.174	8.155	23.035	1.00	12.36	O
ATOM	8243	OW0	HOH	Z	25	-18.744	81.427	20.270	1.00	2.00	O
ATOM	8244	OW0	HOH	Z	26	-24.473	7.699	47.259	1.00	3.84	O
ATOM	8245	OW0	HOH	Z	28	-18.735	41.663	12.764	1.00	2.00	O
ATOM	8246	OW0	HOH	Z	30	-33.373	61.993	24.697	1.00	2.00	O
ATOM	8247	OW0	HOH	Z	31	-26.013	23.182	28.091	1.00	2.00	O
ATOM	8248	OW0	HOH	Z	32	8.395	38.850	59.807	1.00	12.92	O
ATOM	8249	OW0	HOH	Z	33	-51.681	64.375	-5.842	1.00	2.00	O
ATOM	8250	OW0	HOH	Z	34	-36.223	10.908	44.420	1.00	2.00	O
ATOM	8251	OW0	HOH	Z	35	-34.367	64.169	-9.823	1.00	2.00	O
ATOM	8252	OW0	HOH	Z	36	2.775	5.373	69.050	1.00	18.68	O
ATOM	8253	OW0	HOH	Z	37	-14.174	33.806	54.973	1.00	4.07	O
ATOM	8254	OW0	HOH	Z	38	-7.616	55.090	10.502	1.00	11.66	O
ATOM	8255	OW0	HOH	Z	39	5.092	24.086	80.185	1.00	2.00	O
ATOM	8256	OW0	HOH	Z	40	-1.960	39.274	35.484	1.00	2.00	O
ATOM	8257	OW0	HOH	Z	41	-19.353	61.399	-9.228	1.00	2.00	O
ATOM	8258	OW0	HOH	Z	42	-27.355	95.877	27.329	1.00	10.82	O
ATOM	8259	OW0	HOH	Z	43	6.385	-0.948	62.297	1.00	18.98	O
ATOM	8260	OW0	HOH	Z	44	-12.821	72.991	-13.296	1.00	2.00	O
ATOM	8261	OW0	HOH	Z	45	-22.449	87.456	29.628	1.00	2.00	O
ATOM	8262	OW0	HOH	Z	46	-17.343	92.209	11.892	1.00	7.19	O
ATOM	8263	OW0	HOH	Z	47	-20.360	40.666	14.653	1.00	2.00	O
ATOM	8264	OW0	HOH	Z	48	-8.917	9.020	53.820	1.00	2.00	O
ATOM	8265	OW0	HOH	Z	49	-16.952	22.018	2.318	1.00	8.37	O
ATOM	8266	OW0	HOH	Z	50	-31.912	64.927	-9.127	1.00	2.00	O
ATOM	8267	OW0	HOH	Z	51	30.024	35.868	38.004	1.00	2.00	O
ATOM	8268	OW0	HOH	Z	52	-4.844	40.941	59.576	1.00	4.14	O
ATOM	8269	OW0	HOH	Z	54	-46.940	59.164	-9.609	1.00	2.00	O
ATOM	8270	OW0	HOH	Z	55	4.091	31.265	80.729	1.00	10.03	O
ATOM	8271	OW0	HOH	Z	56	-31.510	24.665	13.834	1.00	2.00	O
ATOM	8272	OW0	HOH	Z	57	-22.985	23.309	1.214	1.00	9.13	O
ATOM	8273	OW0	HOH	Z	58	-3.958	23.526	54.186	1.00	2.00	O
ATOM	8274	OW0	HOH	Z	59	-10.133	1.941	49.797	1.00	11.26	O
ATOM	8275	OW0	HOH	Z	60	-31.169	87.667	29.062	1.00	2.00	O
ATOM	8276	OW0	HOH	Z	61	-23.001	87.043	10.909	1.00	2.00	O
ATOM	8277	OW0	HOH	Z	62	-6.596	74.159	-12.766	1.00	2.00	O
ATOM	8278	OW0	HOH	Z	63	-0.988	22.939	81.057	1.00	5.69	O
ATOM	8279	OW0	HOH	Z	64	-9.162	66.090	-13.429	1.00	2.00	O
ATOM	8280	OW0	HOH	Z	65	-21.803	78.732	17.455	1.00	2.00	O
ATOM	8281	OW0	HOH	Z	66	-10.184	77.176	-1.149	1.00	2.00	O
ATOM	8282	OW0	HOH	Z	67	-9.392	85.641	23.298	1.00	2.00	O
ATOM	8283	OW0	HOH	Z	68	-29.790	65.904	-10.595	1.00	11.71	O
ATOM	8284	OW0	HOH	Z	69	6.636	9.955	60.635	1.00	2.00	O
ATOM	8285	OW0	HOH	Z	70	-12.208	55.032	13.850	1.00	4.58	O
ATOM	8286	OW0	HOH	Z	72	-13.405	43.349	50.598	1.00	8.01	O
ATOM	8287	OW0	HOH	Z	73	10.917	21.911	80.268	1.00	11.44	O
ATOM	8288	OW0	HOH	Z	74	-12.393	14.522	64.647	1.00	3.37	O
ATOM	8289	OW0	HOH	Z	75	-14.363	22.577	52.180	1.00	6.67	O

- 184 -

ATOM	8290	OW0	HOH	Z	76	-10.447	68.988	26.619	1.00	2.00	O
ATOM	8291	OW0	HOH	Z	77	-9.719	82.835	23.652	1.00	4.78	O
ATOM	8292	OW0	HOH	Z	78	-20.217	74.320	41.212	1.00	2.00	O
ATOM	8293	OW0	HOH	Z	79	-35.771	74.521	32.509	1.00	2.00	O
ATOM	8294	OW0	HOH	Z	80	-7.465	25.473	31.681	1.00	13.36	O
ATOM	8295	OW0	HOH	Z	81	-33.462	35.347	19.125	1.00	2.00	O
ATOM	8296	OW0	HOH	Z	82	-1.655	23.236	51.086	1.00	16.77	O
ATOM	8297	OW0	HOH	Z	83	-18.661	11.231	17.705	1.00	11.37	O
ATOM	8298	OW0	HOH	Z	84	-5.577	38.217	57.688	1.00	2.00	O
ATOM	8299	OW0	HOH	Z	85	-2.390	30.378	51.944	1.00	5.05	O
ATOM	8300	OW0	HOH	Z	87	-12.800	87.544	15.118	1.00	2.00	O
ATOM	8301	OW0	HOH	Z	88	-17.295	55.841	-6.650	1.00	3.49	O
ATOM	8302	OW0	HOH	Z	89	-2.980	34.522	29.211	1.00	7.01	O
ATOM	8303	OW0	HOH	Z	90	-30.619	37.978	28.100	1.00	2.00	O
ATOM	8304	OW0	HOH	Z	91	-4.880	18.941	14.739	1.00	4.99	O
ATOM	8305	OW0	HOH	Z	92	-12.340	76.589	33.848	1.00	2.00	O
ATOM	8306	OW0	HOH	Z	93	-27.407	97.689	11.243	1.00	20.14	O
ATOM	8307	OW0	HOH	Z	94	11.613	31.683	68.680	1.00	2.00	O
ATOM	8308	OW0	HOH	Z	95	-13.988	75.601	-10.161	1.00	4.65	O
ATOM	8309	OW0	HOH	Z	96	-25.214	58.294	28.663	1.00	4.44	O
ATOM	8310	OW0	HOH	Z	97	-3.507	17.552	18.861	1.00	10.54	O
ATOM	8311	OW0	HOH	Z	98	-7.808	38.422	56.288	1.00	2.00	O
ATOM	8312	OW0	HOH	Z	99	-22.791	18.029	43.998	1.00	2.00	O
ATOM	8313	OW0	HOH	Z	101	-22.029	76.187	41.618	1.00	9.52	O
ATOM	8314	OW0	HOH	Z	102	-7.610	76.999	23.104	1.00	2.00	O
ATOM	8315	OW0	HOH	Z	103	-16.275	58.108	12.835	1.00	2.00	O
ATOM	8316	OW0	HOH	Z	104	3.685	34.724	72.906	1.00	9.55	O
ATOM	8317	OW0	HOH	Z	105	-26.820	79.165	11.891	1.00	6.37	O
ATOM	8318	OW0	HOH	Z	106	-11.673	27.282	31.573	1.00	2.00	O
ATOM	8319	OW0	HOH	Z	107	-31.983	7.264	25.114	1.00	3.29	O
ATOM	8320	OW0	HOH	Z	109	-31.888	76.463	43.386	1.00	2.50	O
ATOM	8321	OW0	HOH	Z	110	-7.454	74.755	10.439	1.00	2.00	O
ATOM	8322	OW0	HOH	Z	111	-26.652	2.349	43.497	1.00	2.00	O
ATOM	8323	OW0	HOH	Z	112	17.635	16.513	63.872	1.00	4.56	O
ATOM	8324	OW0	HOH	Z	113	-8.281	54.834	4.937	1.00	2.00	O
ATOM	8325	OW0	HOH	Z	114	-25.456	45.216	18.748	1.00	2.00	O
ATOM	8326	OW0	HOH	Z	115	-9.224	37.259	24.958	1.00	2.65	O
ATOM	8327	OW0	HOH	Z	116	-36.594	19.738	51.320	1.00	106.19	O
ATOM	8328	OW0	HOH	Z	117	-26.673	66.903	37.863	1.00	2.00	O
ATOM	8329	OW0	HOH	Z	118	-11.600	6.135	67.310	1.00	11.40	O
ATOM	8330	OW0	HOH	Z	119	-11.946	10.767	47.742	1.00	3.35	O
ATOM	8331	OW0	HOH	Z	120	-4.065	30.027	18.476	1.00	2.00	O
ATOM	8332	OW0	HOH	Z	121	-24.206	88.034	31.659	1.00	2.85	O
ATOM	8333	OW0	HOH	Z	122	-32.777	81.146	40.233	1.00	2.00	O
ATOM	8334	OW0	HOH	Z	123	-36.689	11.162	23.388	1.00	2.57	O
ATOM	8335	OW0	HOH	Z	124	-38.648	20.504	24.199	1.00	4.50	O
ATOM	8336	OW0	HOH	Z	125	-17.842	-9.446	31.538	1.00	2.00	O
ATOM	8337	OW0	HOH	Z	126	-24.490	20.021	37.301	1.00	7.50	O
ATOM	8338	OW0	HOH	Z	127	23.920	22.568	65.419	1.00	5.77	O
ATOM	8339	OW0	HOH	Z	128	-13.862	58.087	11.678	1.00	2.00	O
ATOM	8340	OW0	HOH	Z	129	-21.568	65.582	10.536	1.00	2.00	O
ATOM	8341	OW0	HOH	Z	130	-32.452	38.073	26.422	1.00	6.34	O
ATOM	8342	OW0	HOH	Z	131	-34.140	32.500	17.641	1.00	2.00	O
ATOM	8343	OW0	HOH	Z	132	-26.554	42.870	12.492	1.00	3.29	O
ATOM	8344	OW0	HOH	Z	133	-31.552	87.005	19.842	1.00	2.00	O
ATOM	8345	OW0	HOH	Z	134	-11.937	12.046	45.159	1.00	3.19	O
ATOM	8346	OW0	HOH	Z	135	-19.789	35.661	45.902	1.00	14.55	O
ATOM	8347	OW0	HOH	Z	136	-22.542	78.892	15.228	1.00	3.51	O

- 185 -

ATOM	8348	OW0	HOH	Z	137	-2.981	13.726	59.906	1.00	2.00	O
ATOM	8349	OW0	HOH	Z	139	-5.154	68.383	-11.102	1.00	2.16	O
ATOM	8350	OW0	HOH	Z	140	-5.526	80.325	23.141	1.00	11.14	O
ATOM	8351	OW0	HOH	Z	141	-8.916	43.367	46.276	1.00	12.59	O
ATOM	8352	OW0	HOH	Z	142	-21.461	39.621	10.319	1.00	2.00	O
ATOM	8353	OW0	HOH	Z	143	-20.646	64.280	38.718	1.00	2.00	O
ATOM	8354	OW0	HOH	Z	145	-11.864	40.612	15.227	1.00	2.00	O
ATOM	8355	OW0	HOH	Z	146	-13.836	72.578	8.417	1.00	2.00	O
ATOM	8356	OW0	HOH	Z	147	-16.121	33.006	31.817	1.00	2.42	O
ATOM	8357	OW0	HOH	Z	148	-12.103	9.045	61.987	1.00	8.19	O
ATOM	8358	OW0	HOH	Z	149	-47.792	65.862	-10.472	1.00	2.00	O
ATOM	8359	OW0	HOH	Z	150	-23.355	42.131	12.146	1.00	12.48	O
ATOM	8360	OW0	HOH	Z	151	-9.071	69.195	33.260	1.00	2.00	O
ATOM	8361	OW0	HOH	Z	152	-15.116	25.375	2.685	1.00	13.68	O
ATOM	8362	OW0	HOH	Z	153	-39.889	69.914	29.467	1.00	7.85	O
ATOM	8363	OW0	HOH	Z	155	14.884	40.025	63.411	1.00	22.80	O
ATOM	8364	OW0	HOH	Z	156	-39.813	80.205	27.164	1.00	6.35	O
ATOM	8365	OW0	HOH	Z	157	-4.739	91.290	17.391	1.00	4.82	O
ATOM	8366	OW0	HOH	Z	158	-27.358	8.859	25.000	1.00	2.00	O
ATOM	8367	OW0	HOH	Z	159	-12.348	22.121	41.990	1.00	3.86	O
ATOM	8368	OW0	HOH	Z	160	-23.712	23.241	29.825	1.00	18.41	O
ATOM	8369	OW0	HOH	Z	161	-34.520	44.942	26.378	1.00	22.05	O
ATOM	8370	OW0	HOH	Z	162	-21.784	85.724	33.639	1.00	2.00	O
ATOM	8371	OW0	HOH	Z	163	-25.835	59.549	36.329	1.00	12.10	O
ATOM	8372	OW0	HOH	Z	164	-23.196	29.944	0.622	1.00	5.21	O
ATOM	8373	OW0	HOH	Z	165	-11.733	11.550	63.190	1.00	8.18	O
ATOM	8374	OW0	HOH	Z	166	-16.060	17.909	61.699	1.00	2.00	O
ATOM	8375	OW0	HOH	Z	167	3.973	11.579	49.193	1.00	2.00	O
ATOM	8376	OW0	HOH	Z	168	-18.016	14.890	2.215	1.00	12.94	O
ATOM	8377	OW0	HOH	Z	170	-36.399	57.686	-4.005	1.00	2.00	O
ATOM	8378	OW0	HOH	Z	171	-19.398	67.108	9.283	1.00	2.00	O
ATOM	8379	OW0	HOH	Z	172	-35.367	58.023	31.077	1.00	18.33	O
ATOM	8380	OW0	HOH	Z	173	-16.740	70.071	-22.292	1.00	14.52	O
ATOM	8381	OW0	HOH	Z	174	-7.018	7.432	19.352	1.00	9.02	O
ATOM	8382	OW0	HOH	Z	175	7.711	44.031	38.512	1.00	10.37	O
ATOM	8383	OW0	HOH	Z	176	6.784	39.475	72.145	1.00	9.29	O
ATOM	8384	OW0	HOH	Z	177	-13.772	11.556	49.476	1.00	14.14	O
ATOM	8385	OW0	HOH	Z	178	-20.822	47.610	14.326	1.00	2.00	O
ATOM	8386	OW0	HOH	Z	179	-1.468	21.644	47.786	1.00	21.95	O
ATOM	8387	OW0	HOH	Z	180	-6.165	58.983	1.142	1.00	2.00	O
ATOM	8388	OW0	HOH	Z	182	-30.867	3.346	36.027	1.00	2.00	O
ATOM	8389	OW0	HOH	Z	183	-35.722	57.489	8.855	1.00	29.54	O
ATOM	8390	OW0	HOH	Z	184	-30.332	8.490	21.926	1.00	2.00	O
ATOM	8391	OW0	HOH	Z	185	-15.705	32.990	48.549	1.00	9.53	O
ATOM	8392	OW0	HOH	Z	186	3.152	78.309	27.101	1.00	18.36	O
ATOM	8393	OW0	HOH	Z	187	-11.714	42.354	18.907	1.00	17.33	O
ATOM	8394	OW0	HOH	Z	188	-32.874	46.246	18.244	1.00	8.89	O
ATOM	8395	OW0	HOH	Z	189	-12.903	55.286	0.750	1.00	2.00	O
ATOM	8396	OW0	HOH	Z	190	-3.982	15.343	55.985	1.00	11.92	O
ATOM	8397	OW0	HOH	Z	191	-6.778	92.351	18.747	1.00	2.00	O
ATOM	8398	OW0	HOH	Z	192	-8.830	23.107	27.448	1.00	13.65	O
ATOM	8399	OW0	HOH	Z	193	-8.214	19.173	81.030	1.00	12.08	O
ATOM	8400	OW0	HOH	Z	195	-4.548	78.389	24.557	1.00	5.46	O
ATOM	8401	OW0	HOH	Z	196	-8.310	40.197	27.314	1.00	15.32	O
ATOM	8402	OW0	HOH	Z	197	-25.304	45.118	13.141	1.00	11.03	O
ATOM	8403	OW0	HOH	Z	198	-49.910	60.016	-1.664	1.00	2.00	O
ATOM	8404	OW0	HOH	Z	199	-39.845	58.407	25.928	1.00	6.69	O
ATOM	8405	OW0	HOH	Z	200	-16.268	73.209	38.858	1.00	2.00	O

- 186 -

ATOM	8406	OW0	HOH	Z	201	-24.426	76.050	42.417	1.00	2.94	O
ATOM	8407	OW0	HOH	Z	202	-30.305	57.522	14.810	1.00	2.00	O
ATOM	8408	OW0	HOH	Z	205	-6.836	1.247	53.399	1.00	14.98	O
ATOM	8409	OW0	HOH	Z	206	-9.539	88.062	24.399	1.00	10.76	O
ATOM	8410	OW0	HOH	Z	207	-14.316	63.208	25.671	1.00	18.76	O
ATOM	8411	OW0	HOH	Z	208	-24.478	85.629	33.082	1.00	2.00	O
ATOM	8412	OW0	HOH	Z	209	-16.882	4.974	55.186	1.00	2.00	O
ATOM	8413	OW0	HOH	Z	210	-28.385	70.168	38.169	1.00	2.00	O
ATOM	8414	OW0	HOH	Z	211	-36.262	71.527	35.920	1.00	6.17	O
ATOM	8415	OW0	HOH	Z	212	-3.930	9.520	25.141	1.00	26.77	O
ATOM	8416	OW0	HOH	Z	213	-19.030	94.415	29.257	1.00	2.18	O
ATOM	8417	OW0	HOH	Z	214	-1.074	81.970	17.723	1.00	2.00	O
ATOM	8418	OW0	HOH	Z	215	-18.178	21.767	51.897	1.00	6.16	O
ATOM	8419	OW0	HOH	Z	216	-14.868	29.531	55.215	1.00	13.75	O
ATOM	8420	OW0	HOH	Z	217	-38.686	67.138	23.408	1.00	2.54	O
ATOM	8421	OW0	HOH	Z	218	-38.058	80.247	31.357	1.00	3.81	O
ATOM	8422	OW0	HOH	Z	220	11.340	50.226	51.533	1.00	33.65	O
ATOM	8423	OW0	HOH	Z	221	16.521	6.162	73.868	1.00	6.94	O
ATOM	8424	OW0	HOH	Z	222	-18.764	48.974	30.358	1.00	23.43	O
ATOM	8425	OW0	HOH	Z	223	-18.682	79.610	18.346	1.00	2.00	O
ATOM	8426	OW0	HOH	Z	224	-7.580	42.963	31.602	1.00	9.72	O
ATOM	8427	OW0	HOH	Z	225	-17.159	89.313	34.529	1.00	21.25	O
ATOM	8428	OW0	HOH	Z	226	-24.354	74.259	44.500	1.00	4.52	O
ATOM	8429	OW0	HOH	Z	228	-16.277	39.053	43.432	1.00	7.55	O
ATOM	8430	OW0	HOH	Z	229	-12.735	74.842	8.790	1.00	2.00	O
ATOM	8431	OW0	HOH	Z	230	-6.503	41.868	33.524	1.00	2.00	O
ATOM	8432	OW0	HOH	Z	231	-19.941	73.614	5.550	1.00	29.31	O
ATOM	8433	OW0	HOH	Z	232	1.999	10.017	60.875	1.00	2.00	O
ATOM	8434	OW0	HOH	Z	233	-18.715	74.614	-1.409	1.00	15.80	O
ATOM	8435	OW0	HOH	Z	234	-31.984	34.402	9.237	1.00	7.49	O
ATOM	8436	OW0	HOH	Z	235	-9.443	10.137	48.428	1.00	2.00	O
ATOM	8437	OW0	HOH	Z	236	-34.178	19.516	51.052	1.00	2.00	O
ATOM	8438	OW0	HOH	Z	237	12.269	55.226	56.722	1.00	19.35	O
ATOM	8439	OW0	HOH	Z	238	-17.800	74.840	40.286	1.00	2.00	O
ATOM	8440	OW0	HOH	Z	239	-35.397	3.798	31.919	1.00	4.97	O
ATOM	8441	OW0	HOH	Z	240	-35.634	54.494	-4.123	1.00	28.02	O
ATOM	8442	OW0	HOH	Z	241	-4.795	26.808	46.106	1.00	15.70	O
ATOM	8443	OW0	HOH	Z	242	11.591	16.374	76.803	1.00	13.11	O
ATOM	8444	OW0	HOH	Z	243	-14.665	59.387	-11.356	1.00	2.00	O
ATOM	8445	OW0	HOH	Z	244	-25.516	52.365	9.693	1.00	14.98	O
ATOM	8446	OW0	HOH	Z	245	-4.623	31.985	33.192	1.00	4.86	O
ATOM	8447	OW0	HOH	Z	246	-8.204	4.021	41.989	1.00	8.89	O
ATOM	8448	OW0	HOH	Z	247	-17.284	58.728	25.129	1.00	11.41	O
ATOM	8449	OW0	HOH	Z	248	-8.608	28.547	28.788	1.00	2.00	O
ATOM	8450	OW0	HOH	Z	249	-17.105	30.810	65.532	1.00	10.74	O
ATOM	8451	OW0	HOH	Z	250	-10.015	21.280	43.843	1.00	12.78	O
ATOM	8452	OW0	HOH	Z	251	-13.093	45.910	20.308	1.00	20.78	O
ATOM	8453	OW0	HOH	Z	252	-29.368	65.013	-6.219	1.00	8.08	O
ATOM	8454	OW0	HOH	Z	253	-17.997	11.616	9.855	1.00	12.75	O
ATOM	8455	OW0	HOH	Z	254	-24.564	32.976	22.539	1.00	2.00	O
ATOM	8456	OW0	HOH	Z	255	-16.069	56.737	23.690	1.00	22.45	O
ATOM	8457	OW0	HOH	Z	256	-9.060	27.441	31.280	1.00	7.56	O
ATOM	8458	OW0	HOH	Z	257	11.789	20.557	54.059	1.00	2.00	O
ATOM	8459	OW0	HOH	Z	258	-11.245	14.004	26.320	1.00	2.00	O
ATOM	8460	OW0	HOH	Z	259	-21.800	29.723	24.971	1.00	2.00	O
ATOM	8461	OW0	HOH	Z	260	-11.750	37.999	24.428	1.00	2.00	O
ATOM	8462	OW0	HOH	Z	261	-36.183	13.100	27.420	1.00	2.00	O
ATOM	8463	OW0	HOH	Z	263	0.685	5.621	67.504	1.00	2.00	O

- 187 -

ATOM	8464	OW0	HOH	Z	264	-9.307	81.748	27.452	1.00	3.07	O
ATOM	8465	OW0	HOH	Z	265	-0.959	70.512	15.588	1.00	15.22	O
ATOM	8466	OW0	HOH	Z	266	-3.092	15.866	58.442	1.00	2.00	O
ATOM	8467	OW0	HOH	Z	267	-15.080	79.865	-10.021	1.00	10.80	O
ATOM	8468	OW0	HOH	Z	268	-5.368	74.964	38.784	1.00	11.82	O
ATOM	8469	OW0	HOH	Z	269	-19.794	66.504	41.626	1.00	6.07	O
ATOM	8470	OW0	HOH	Z	270	-8.915	58.647	-5.910	1.00	23.25	O
ATOM	8471	OW0	HOH	Z	271	-39.495	15.613	38.274	1.00	18.06	O
ATOM	8472	OW0	HOH	Z	272	-3.716	39.204	63.289	1.00	16.36	O
ATOM	8473	OW0	HOH	Z	273	11.346	40.586	73.519	1.00	26.23	O
ATOM	8474	OW0	HOH	Z	274	-9.146	77.109	1.041	1.00	2.00	O
ATOM	8475	OW0	HOH	Z	275	-7.436	63.078	10.885	1.00	2.00	O
ATOM	8476	OW0	HOH	Z	276	-39.871	19.018	30.747	1.00	26.33	O
ATOM	8477	OW0	HOH	Z	277	-24.950	72.617	-1.915	1.00	15.33	O
ATOM	8478	OW0	HOH	Z	278	-14.474	38.327	49.600	1.00	5.92	O
ATOM	8479	OW0	HOH	Z	279	-18.378	27.723	38.244	1.00	2.90	O
ATOM	8480	OW0	HOH	Z	281	-29.827	64.182	34.241	1.00	6.04	O
ATOM	8481	OW0	HOH	Z	282	-5.160	47.544	61.287	1.00	12.84	O
ATOM	8482	OW0	HOH	Z	283	-11.400	22.421	39.590	1.00	2.00	O
ATOM	8483	OW0	HOH	Z	284	-17.868	36.930	48.015	1.00	16.13	O
ATOM	8484	OW0	HOH	Z	285	10.597	35.789	34.807	1.00	11.54	O
ATOM	8485	OW0	HOH	Z	286	-45.521	59.414	-5.365	1.00	6.28	O
ATOM	8486	OW0	HOH	Z	287	-34.824	11.096	51.893	1.00	2.00	O
ATOM	8487	OW0	HOH	Z	288	25.513	44.892	39.255	1.00	8.50	O
ATOM	8488	OW0	HOH	Z	289	-29.235	56.100	-6.935	1.00	2.00	O
ATOM	8489	OW0	HOH	Z	291	-35.355	74.672	34.994	1.00	2.00	O
ATOM	8490	OW0	HOH	Z	292	-5.564	45.585	53.491	1.00	8.08	O
ATOM	8491	OW0	HOH	Z	293	-30.930	18.060	53.853	1.00	2.00	O
ATOM	8492	OW0	HOH	Z	295	-37.183	12.269	52.003	1.00	9.23	O
ATOM	8493	OW0	HOH	Z	296	-30.132	58.035	-8.076	1.00	9.91	O
ATOM	8494	OW0	HOH	Z	297	12.385	7.753	63.120	1.00	5.76	O
ATOM	8495	OW0	HOH	Z	299	-23.134	47.332	16.049	1.00	2.00	O
ATOM	8496	OW0	HOH	Z	300	18.708	22.589	71.142	1.00	7.36	O
ATOM	8497	OW0	HOH	Z	301	-15.729	51.948	7.470	1.00	2.00	O
ATOM	8498	OW0	HOH	Z	302	6.827	-1.033	58.627	1.00	18.13	O
ATOM	8499	OW0	HOH	Z	303	-24.429	53.409	15.653	1.00	9.91	O
ATOM	8500	OW0	HOH	Z	304	-16.167	49.977	28.143	1.00	26.65	O
ATOM	8501	OW0	HOH	Z	305	-0.215	16.957	57.374	1.00	3.93	O
ATOM	8502	OW0	HOH	Z	306	-42.332	33.050	24.672	1.00	19.09	O
ATOM	8503	OW0	HOH	Z	307	-15.506	39.721	45.948	1.00	4.67	O
ATOM	8504	OW0	HOH	Z	308	-23.941	55.246	17.383	1.00	2.00	O
ATOM	8505	OW0	HOH	Z	309	-37.289	20.687	37.926	1.00	2.65	O
ATOM	8506	OW0	HOH	Z	310	-42.128	34.836	23.108	1.00	12.75	O
ATOM	8507	OW0	HOH	Z	311	-35.217	64.637	-2.142	1.00	8.07	O
ATOM	8508	OW0	HOH	Z	312	3.010	35.636	65.158	1.00	8.55	O
ATOM	8509	OW0	HOH	Z	315	-23.747	12.705	50.670	1.00	5.33	O
ATOM	8510	OW0	HOH	Z	317	-12.311	35.310	30.171	1.00	2.00	O
ATOM	8511	OW0	HOH	Z	319	-43.193	69.447	18.080	1.00	6.20	O
ATOM	8512	OW0	HOH	Z	320	-14.418	27.066	26.322	1.00	4.52	O
ATOM	8513	OW0	HOH	Z	321	-9.636	74.310	-10.498	1.00	2.00	O
ATOM	8514	OW0	HOH	Z	322	-45.584	72.213	24.011	1.00	14.44	O
ATOM	8515	OW0	HOH	Z	323	-12.159	6.166	62.720	1.00	19.04	O
ATOM	8516	OW0	HOH	Z	324	-11.978	66.686	42.730	1.00	2.02	O
ATOM	8517	OW0	HOH	Z	325	-9.128	15.622	74.404	1.00	2.00	O
ATOM	8518	OW0	HOH	Z	326	1.335	10.683	49.354	1.00	2.90	O
ATOM	8519	OW0	HOH	Z	327	8.582	18.521	81.321	1.00	4.73	O
ATOM	8520	OW0	HOH	Z	328	10.366	9.471	79.863	1.00	19.95	O
ATOM	8521	OW0	HOH	Z	329	-3.944	4.503	51.939	1.00	5.50	O

- 188 -

ATOM	8522	OW0	HOH	Z	330	-15.453	34.045	27.590	1.00	2.00	O
ATOM	8523	OW0	HOH	Z	331	14.579	37.929	60.445	1.00	12.17	O
ATOM	8524	OW0	HOH	Z	332	-23.790	-3.811	42.093	1.00	23.85	O
ATOM	8525	OW0	HOH	Z	333	-17.409	60.170	-12.121	1.00	9.71	O
ATOM	8526	OW0	HOH	Z	334	3.650	45.460	55.259	1.00	12.24	O
ATOM	8527	OW0	HOH	Z	335	-10.199	46.574	13.317	1.00	11.44	O
ATOM	8528	OW0	HOH	Z	336	-16.427	49.584	9.252	1.00	2.00	O
ATOM	8529	OW0	HOH	Z	337	-6.471	-1.614	69.176	1.00	33.53	O
ATOM	8530	OW0	HOH	Z	338	-13.789	34.262	62.452	1.00	17.82	O
ATOM	8531	OW0	HOH	Z	339	-18.118	71.257	3.328	1.00	22.84	O
ATOM	8532	OW0	HOH	Z	340	-38.812	13.803	50.474	1.00	3.44	O
ATOM	8533	OW0	HOH	Z	341	-31.842	11.720	14.982	1.00	7.96	O
ATOM	8534	OW0	HOH	Z	343	-1.506	68.258	-2.624	1.00	2.00	O
ATOM	8535	OW0	HOH	Z	344	-15.284	35.426	59.385	1.00	2.00	O
ATOM	8536	OW0	HOH	Z	345	-24.523	82.215	40.420	1.00	4.68	O
ATOM	8537	OW0	HOH	Z	346	-11.195	32.256	-0.970	1.00	22.09	O
ATOM	8538	OW0	HOH	Z	347	-5.968	65.276	4.962	1.00	2.00	O
ATOM	8539	OW0	HOH	Z	348	-6.452	60.970	12.332	1.00	11.35	O
ATOM	8540	OW0	HOH	Z	350	-28.082	83.863	15.795	1.00	2.00	O
ATOM	8541	OW0	HOH	Z	351	-16.730	82.487	35.453	1.00	12.77	O
ATOM	8542	OW0	HOH	Z	352	-3.625	15.030	80.426	1.00	10.03	O
ATOM	8543	OW0	HOH	Z	353	-29.558	16.265	13.115	1.00	2.00	O
ATOM	8544	OW0	HOH	Z	354	-21.924	74.567	7.178	1.00	9.20	O
ATOM	8545	OW0	HOH	Z	355	-13.795	90.093	25.861	1.00	16.95	O
ATOM	8546	OW0	HOH	Z	356	-9.281	0.430	54.506	1.00	22.75	O
ATOM	8547	OW0	HOH	Z	357	-1.966	15.643	49.830	1.00	2.00	O
ATOM	8548	OW0	HOH	Z	358	-37.158	37.407	19.586	1.00	5.97	O
ATOM	8549	OW0	HOH	Z	360	-25.993	54.497	9.459	1.00	5.56	O
ATOM	8550	OW0	HOH	Z	361	-16.367	89.938	36.991	1.00	11.74	O
ATOM	8551	OW0	HOH	Z	362	-3.361	70.195	-10.710	1.00	2.00	O
ATOM	8552	OW0	HOH	Z	363	-26.625	56.301	17.312	1.00	2.00	O
ATOM	8553	OW0	HOH	Z	365	-33.589	43.159	13.266	1.00	16.42	O
ATOM	8554	OW0	HOH	Z	366	-10.933	89.353	27.684	1.00	17.10	O
ATOM	8555	OW0	HOH	Z	367	-5.878	43.783	8.639	1.00	18.97	O
ATOM	8556	OW0	HOH	Z	368	-35.488	84.033	28.734	1.00	17.57	O
ATOM	8557	OW0	HOH	Z	369	-22.592	99.287	21.784	1.00	19.06	O
ATOM	8558	OW0	HOH	Z	372	-20.178	13.560	45.823	1.00	6.46	O
ATOM	8559	OW0	HOH	Z	373	-11.815	77.201	3.414	1.00	5.82	O
ATOM	8560	OW0	HOH	Z	374	-27.387	57.322	14.769	1.00	2.46	O
ATOM	8561	OW0	HOH	Z	375	-35.754	29.795	18.516	1.00	14.42	O
ATOM	8562	OW0	HOH	Z	376	-42.508	15.308	48.953	1.00	8.66	O
ATOM	8563	OW0	HOH	Z	377	-11.126	87.367	16.752	1.00	18.15	O
ATOM	8564	OW0	HOH	Z	378	-15.036	3.319	56.146	1.00	7.73	O
ATOM	8565	OW0	HOH	Z	379	18.331	38.602	65.876	1.00	8.75	O
ATOM	8566	OW0	HOH	Z	380	-11.682	63.192	25.775	1.00	14.93	O
ATOM	8567	OW0	HOH	Z	381	10.757	31.678	76.139	1.00	18.58	O
ATOM	8568	OW0	HOH	Z	382	-5.788	64.860	11.580	1.00	6.71	O
ATOM	8569	OW0	HOH	Z	383	-42.511	75.770	21.759	1.00	2.00	O
ATOM	8570	OW0	HOH	Z	384	-1.412	27.383	48.964	1.00	22.56	O
ATOM	8571	OW0	HOH	Z	385	-13.583	39.155	42.674	1.00	2.00	O
ATOM	8572	OW0	HOH	Z	387	-1.142	39.549	62.952	1.00	29.52	O
ATOM	8573	OW0	HOH	Z	388	-25.712	22.070	51.195	1.00	27.68	O
ATOM	8574	OW0	HOH	Z	389	-18.610	60.632	37.677	1.00	7.39	O
ATOM	8575	OW0	HOH	Z	390	-28.983	5.004	48.728	1.00	2.00	O
ATOM	8576	OW0	HOH	Z	392	-16.791	49.120	15.582	1.00	2.00	O
ATOM	8577	OW0	HOH	Z	393	-23.402	15.058	61.528	1.00	24.50	O
ATOM	8578	OW0	HOH	Z	395	-20.939	71.321	-4.019	1.00	2.00	O
ATOM	8579	OW0	HOH	Z	396	-19.891	43.827	12.185	1.00	9.77	O

- 189 -

ATOM	8580	OW0	HOH	Z	397	-7.489	28.318	9.327	1.00	2.00	O
ATOM	8581	OW0	HOH	Z	398	-24.080	15.247	64.291	1.00	16.65	O
ATOM	8582	OW0	HOH	Z	399	-20.162	31.555	32.555	1.00	14.44	O
ATOM	8583	OW0	HOH	Z	400	-11.635	-7.177	30.124	1.00	9.49	O
ATOM	8584	OW0	HOH	Z	401	-22.427	34.250	32.200	1.00	13.52	O
ATOM	8585	OW0	HOH	Z	402	25.633	41.694	35.213	1.00	21.85	O
ATOM	8586	OW0	HOH	Z	403	-25.216	10.432	21.026	1.00	9.52	O
ATOM	8587	OW0	HOH	Z	404	10.956	49.079	71.375	1.00	13.24	O
ATOM	8588	OW0	HOH	Z	405	-40.460	16.226	50.230	1.00	10.25	O
ATOM	8589	OW0	HOH	Z	406	-4.255	79.886	13.310	1.00	18.13	O
ATOM	8590	OW0	HOH	Z	407	14.127	18.209	73.106	1.00	2.00	O
ATOM	8591	OW0	HOH	Z	408	-30.633	68.199	38.074	1.00	8.55	O
ATOM	8592	OW0	HOH	Z	409	-26.131	-4.241	38.553	1.00	13.97	O
ATOM	8593	OW0	HOH	Z	410	-35.445	93.089	13.559	1.00	2.00	O
ATOM	8594	OW0	HOH	Z	411	-30.627	2.735	41.552	1.00	11.83	O
ATOM	8595	OW0	HOH	Z	412	17.928	9.113	74.748	1.00	28.83	O
ATOM	8596	OW0	HOH	Z	413	-13.316	20.832	63.613	1.00	9.96	O
ATOM	8597	OW0	HOH	Z	414	5.950	6.865	38.993	1.00	26.85	O
ATOM	8598	OW0	HOH	Z	415	-7.536	45.651	4.146	1.00	12.84	O
ATOM	8599	OW0	HOH	Z	417	-2.730	29.892	7.092	1.00	18.62	O
ATOM	8600	OW0	HOH	Z	418	-4.573	71.043	22.902	1.00	9.02	O
ATOM	8601	OW0	HOH	Z	419	-26.714	42.409	33.080	1.00	20.71	O
ATOM	8602	OW0	HOH	Z	420	-5.215	69.592	3.379	1.00	4.65	O
ATOM	8603	OW0	HOH	Z	421	-45.452	69.158	-9.638	1.00	11.92	O
ATOM	8604	OW0	HOH	Z	422	-9.132	25.966	80.468	1.00	17.54	O
ATOM	8605	OW0	HOH	Z	423	-16.617	64.851	41.040	1.00	15.73	O
ATOM	8606	OW0	HOH	Z	424	-9.907	7.732	12.490	1.00	16.44	O
ATOM	8607	OW0	HOH	Z	425	-14.946	61.989	35.428	1.00	10.53	O
ATOM	8608	OW0	HOH	Z	426	-26.126	80.333	41.284	1.00	4.11	O
ATOM	8609	OW0	HOH	Z	427	-2.779	5.116	49.748	1.00	14.61	O
ATOM	8610	OW0	HOH	Z	428	-21.614	61.335	-12.721	1.00	15.75	O
ATOM	8611	OW0	HOH	Z	429	-5.081	28.314	8.041	1.00	18.78	O
ATOM	8612	OW0	HOH	Z	430	-26.927	29.140	3.003	1.00	9.53	O
ATOM	8613	OW0	HOH	Z	432	-5.620	77.083	20.946	1.00	2.00	O
ATOM	8614	OW0	HOH	Z	433	-3.539	36.473	61.158	1.00	6.34	O
ATOM	8615	OW0	HOH	Z	434	-32.941	51.387	28.011	1.00	29.07	O
ATOM	8616	OW0	HOH	Z	435	-26.819	78.912	49.191	1.00	14.60	O
ATOM	8617	OW0	HOH	Z	436	-7.037	62.128	8.330	1.00	2.11	O
ATOM	8618	OW0	HOH	Z	437	-17.624	92.852	15.070	1.00	8.88	O
ATOM	8619	OW0	HOH	Z	438	-22.787	44.933	12.650	1.00	13.30	O
ATOM	8620	OW0	HOH	Z	439	-6.502	60.325	14.907	1.00	2.00	O
ATOM	8621	OW0	HOH	Z	440	-25.291	31.316	2.066	1.00	15.40	O
ATOM	8622	OW0	HOH	Z	441	-23.564	23.364	32.467	1.00	10.22	O
ATOM	8623	OW0	HOH	Z	442	14.529	26.213	75.375	1.00	6.24	O
ATOM	8624	OW0	HOH	Z	443	8.306	7.517	52.052	1.00	22.18	O
ATOM	8625	OW0	HOH	Z	444	6.888	20.502	79.341	1.00	2.00	O
ATOM	8626	OW0	HOH	Z	445	-0.081	6.497	71.614	1.00	2.00	O
ATOM	8627	OW0	HOH	Z	446	-27.259	55.104	20.818	1.00	23.05	O
ATOM	8628	OW0	HOH	Z	448	-20.707	36.419	33.000	1.00	2.00	O
ATOM	8629	OW0	HOH	Z	449	-24.343	45.834	9.762	1.00	20.19	O
ATOM	8630	OW0	HOH	Z	450	-39.268	77.838	23.638	1.00	2.00	O
ATOM	8631	OW0	HOH	Z	451	-14.010	54.524	-3.956	1.00	17.68	O
ATOM	8632	OW0	HOH	Z	452	5.297	34.536	81.326	1.00	19.19	O
ATOM	8633	OW0	HOH	Z	453	4.334	52.696	54.947	1.00	32.59	O
ATOM	8634	OW0	HOH	Z	454	-13.514	10.763	65.551	1.00	18.75	O
ATOM	8635	OW0	HOH	Z	456	-42.435	72.372	15.905	1.00	20.43	O
ATOM	8636	OW0	HOH	Z	457	-10.167	36.529	3.933	1.00	18.92	O
ATOM	8637	OW0	HOH	Z	458	-19.618	56.132	17.873	1.00	14.25	O

- 190 -

ATOM	8638	OW0	HOH	Z	459	-23.809	30.851	32.672	1.00	10.81	O
ATOM	8639	OW0	HOH	Z	460	-20.142	11.903	59.454	1.00	14.64	O
ATOM	8640	OW0	HOH	Z	461	-4.210	13.887	21.001	1.00	9.11	O
ATOM	8641	OW0	HOH	Z	462	-8.692	79.855	-5.519	1.00	19.58	O
ATOM	8642	OW0	HOH	Z	464	7.558	-0.849	69.725	1.00	25.81	O
ATOM	8643	OW0	HOH	Z	465	-17.257	92.702	26.648	1.00	6.74	O
ATOM	8644	OW0	HOH	Z	466	-20.667	15.170	44.216	1.00	6.45	O
ATOM	8645	OW0	HOH	Z	467	-2.045	24.847	47.219	1.00	24.63	O
ATOM	8646	OW0	HOH	Z	468	-29.417	90.457	35.586	1.00	21.80	O
ATOM	8647	OW0	HOH	Z	469	-8.681	37.159	1.359	1.00	17.99	O
ATOM	8648	OW0	HOH	Z	470	-22.886	20.315	42.497	1.00	18.93	O
ATOM	8649	OW0	HOH	Z	471	-36.695	56.467	18.151	1.00	5.13	O
ATOM	8650	OW0	HOH	Z	472	-16.972	14.284	63.123	1.00	7.98	O
ATOM	8651	OW0	HOH	Z	473	-4.452	77.475	31.027	1.00	17.66	O
ATOM	8652	OW0	HOH	Z	474	-18.308	66.742	-21.675	1.00	2.00	O
ATOM	8653	OW0	HOH	Z	476	-50.418	63.261	-12.992	1.00	9.45	O
ATOM	8654	OW0	HOH	Z	478	-4.318	48.720	57.661	1.00	5.06	O
ATOM	8655	OW0	HOH	Z	480	11.401	8.622	77.825	1.00	9.72	O
ATOM	8656	OW0	HOH	Z	481	-3.716	35.956	6.975	1.00	2.36	O
ATOM	8657	OW0	HOH	Z	482	-34.840	72.566	13.417	1.00	8.10	O
ATOM	8658	OW0	HOH	Z	483	2.399	33.334	37.025	1.00	7.65	O
ATOM	8659	OW0	HOH	Z	484	-21.274	46.768	28.031	1.00	14.77	O
ATOM	8660	OW0	HOH	Z	485	-35.806	2.932	29.098	1.00	24.60	O
ATOM	8661	OW0	HOH	Z	486	-8.696	11.567	41.557	1.00	2.00	O
ATOM	8662	OW0	HOH	Z	487	13.217	4.392	57.226	1.00	12.52	O
ATOM	8663	OW0	HOH	Z	488	-24.036	25.872	40.125	1.00	27.18	O
ATOM	8664	OW0	HOH	Z	489	-21.074	6.101	15.890	1.00	25.71	O
ATOM	8665	OW0	HOH	Z	490	-3.505	3.821	72.868	1.00	24.64	O
ATOM	8666	OW0	HOH	Z	491	-5.240	17.251	79.328	1.00	4.87	O
ATOM	8667	OW0	HOH	Z	492	-7.302	59.449	4.953	1.00	15.80	O
ATOM	8668	OW0	HOH	Z	493	-25.135	59.227	20.441	1.00	8.01	O
ATOM	8669	OW0	HOH	Z	494	-9.185	75.465	35.460	1.00	2.00	O
ATOM	8670	OW0	HOH	Z	495	-43.819	24.480	12.756	1.00	10.16	O
ATOM	8671	OW0	HOH	Z	496	-2.667	77.761	13.220	1.00	18.62	O
ATOM	8672	OW0	HOH	Z	498	-0.584	28.899	83.829	1.00	21.66	O
ATOM	8673	OW0	HOH	Z	499	-12.936	23.683	2.720	1.00	11.53	O
ATOM	8674	OW0	HOH	Z	500	-8.037	38.377	60.447	1.00	2.00	O
ATOM	8675	OW0	HOH	Z	501	-13.458	57.239	15.860	1.00	3.40	O
ATOM	8676	OW0	HOH	Z	502	-11.584	56.886	12.227	1.00	2.00	O
ATOM	8677	OW0	HOH	Z	503	-12.595	46.010	23.305	1.00	6.37	O
ATOM	8678	OW0	HOH	Z	504	-19.793	14.360	52.042	1.00	19.29	O
ATOM	8679	OW0	HOH	Z	505	-1.088	27.411	19.916	1.00	3.36	O
ATOM	8680	OW0	HOH	Z	506	-43.823	29.042	13.880	1.00	17.43	O
ATOM	8681	OW0	HOH	Z	507	-1.761	71.910	26.486	1.00	20.00	O
ATOM	8682	OW0	HOH	Z	508	-12.187	64.576	-22.415	1.00	27.03	O
ATOM	8683	OW0	HOH	Z	509	13.539	36.431	72.312	1.00	14.73	O
ATOM	8684	OW0	HOH	Z	510	-23.566	18.991	62.304	1.00	4.99	O
ATOM	8685	OW0	HOH	Z	511	-35.287	31.542	32.285	1.00	18.31	O
ATOM	8686	OW0	HOH	Z	512	-27.014	6.401	22.531	1.00	7.41	O
ATOM	8687	OW0	HOH	Z	513	-17.811	4.157	27.249	1.00	11.15	O
ATOM	8688	OW0	HOH	Z	514	-25.566	54.844	13.611	1.00	2.00	O
ATOM	8689	OW0	HOH	Z	515	-16.288	36.180	1.907	1.00	9.02	O
ATOM	8690	OW0	HOH	Z	517	-35.851	25.957	18.867	1.00	11.72	O
ATOM	8691	OW0	HOH	Z	519	-17.403	58.488	36.906	1.00	8.10	O
ATOM	8692	OW0	HOH	Z	520	-3.221	72.675	-4.070	1.00	5.14	O
ATOM	8693	OW0	HOH	Z	521	-23.606	67.007	-6.599	1.00	2.00	O
ATOM	8694	OW0	HOH	Z	522	-30.339	89.105	14.513	1.00	9.37	O
ATOM	8695	OW0	HOH	Z	523	-27.308	59.579	-10.516	1.00	6.17	O

- 191 -

ATOM	8696	OW0	HOH	Z	524	-36.090	24.593	30.138	1.00	17.80	O
ATOM	8697	OW0	HOH	Z	525	-14.378	16.864	1.561	1.00	10.44	O
ATOM	8698	OW0	HOH	Z	526	-30.904	24.859	1.300	1.00	30.66	O
ATOM	8699	OW0	HOH	Z	527	-24.906	21.850	41.764	1.00	12.40	O
ATOM	8700	OW0	HOH	Z	528	18.114	36.237	58.144	1.00	18.38	O
ATOM	8701	OW0	HOH	Z	529	-0.291	28.804	38.497	1.00	2.00	O
ATOM	8702	OW0	HOH	Z	530	-30.067	75.616	3.652	1.00	16.85	O
ATOM	8703	OW0	HOH	Z	531	-11.082	80.117	33.325	1.00	15.26	O
ATOM	8704	OW0	HOH	Z	532	-37.939	85.991	36.335	1.00	20.19	O
ATOM	8705	OW0	HOH	Z	533	-8.781	71.257	29.962	1.00	3.70	O
ATOM	8706	OW0	HOH	Z	534	-7.434	30.264	68.941	1.00	5.83	O
ATOM	8707	OW0	HOH	Z	535	-38.406	25.981	29.536	1.00	14.21	O
ATOM	8708	OW0	HOH	Z	537	-31.774	28.463	47.359	1.00	10.48	O
ATOM	8709	OW0	HOH	Z	538	-12.716	16.316	76.650	1.00	5.89	O
ATOM	8710	OW0	HOH	Z	539	-25.508	72.049	44.476	1.00	2.00	O
ATOM	8711	OW0	HOH	Z	540	-37.643	88.444	23.816	1.00	20.30	O
ATOM	8712	OW0	HOH	Z	541	-38.343	61.449	16.045	1.00	32.66	O
ATOM	8713	OW0	HOH	Z	542	-33.573	37.968	20.001	1.00	2.29	O
ATOM	8714	OW0	HOH	Z	543	-15.406	35.904	57.127	1.00	9.81	O
ATOM	8715	OW0	HOH	Z	544	15.262	22.790	55.161	1.00	25.36	O
ATOM	8716	OW0	HOH	Z	546	-40.256	72.519	31.494	1.00	15.05	O
ATOM	8717	OW0	HOH	Z	547	1.559	27.983	36.272	1.00	22.72	O
ATOM	8718	OW0	HOH	Z	548	10.474	34.753	37.288	1.00	19.12	O
ATOM	8719	OW0	HOH	Z	549	-43.128	62.821	1.682	1.00	18.96	O
ATOM	8720	OW0	HOH	Z	550	-10.103	78.635	9.246	1.00	20.75	O
ATOM	8721	OW0	HOH	Z	551	-12.666	2.246	55.097	1.00	11.87	O
ATOM	8722	OW0	HOH	Z	554	-41.134	27.509	27.685	1.00	27.49	O
ATOM	8723	OW0	HOH	Z	556	-6.502	67.275	-13.202	1.00	2.00	O
ATOM	8724	OW0	HOH	Z	557	-28.507	7.932	15.955	1.00	13.01	O
ATOM	8725	OW0	HOH	Z	559	-25.591	31.177	26.346	1.00	13.43	O
ATOM	8726	OW0	HOH	Z	560	-14.025	79.025	3.855	1.00	11.94	O
ATOM	8727	OW0	HOH	Z	561	-19.882	74.710	8.841	1.00	20.76	O
ATOM	8728	OW0	HOH	Z	562	-37.581	95.262	14.359	1.00	14.02	O
ATOM	8729	OW0	HOH	Z	563	-28.275	67.858	45.521	1.00	23.59	O
ATOM	8730	OW0	HOH	Z	564	-1.069	26.547	81.262	1.00	4.27	O
ATOM	8731	OW0	HOH	Z	565	-58.162	57.301	-9.786	1.00	6.46	O
ATOM	8732	OW0	HOH	Z	566	3.700	17.180	85.502	1.00	4.28	O
ATOM	8733	OW0	HOH	Z	567	-37.477	6.850	36.249	1.00	2.00	O
ATOM	8734	OW0	HOH	Z	568	-8.109	48.034	54.347	1.00	21.25	O
ATOM	8735	OW0	HOH	Z	569	13.363	42.504	63.533	1.00	25.63	O
ATOM	8736	OW0	HOH	Z	570	-26.660	26.412	52.235	1.00	16.79	O
ATOM	8737	OW0	HOH	Z	571	-29.691	21.706	31.750	1.00	4.68	O
ATOM	8738	OW0	HOH	Z	572	-11.682	25.673	76.091	1.00	7.02	O
ATOM	8739	OW0	HOH	Z	573	11.201	30.789	55.189	1.00	21.97	O
ATOM	8740	OW0	HOH	Z	574	-23.496	23.359	-1.142	1.00	9.64	O
ATOM	8741	OW0	HOH	Z	575	-12.742	39.670	29.940	1.00	10.00	O
ATOM	8742	OW0	HOH	Z	576	-3.841	40.826	32.757	1.00	22.16	O
ATOM	8743	OW0	HOH	Z	577	-18.003	17.967	78.182	1.00	30.42	O
ATOM	8744	OW0	HOH	Z	580	-42.451	60.277	2.867	1.00	23.21	O
ATOM	8745	OW0	HOH	Z	581	-3.115	0.996	68.600	1.00	13.12	O
ATOM	8746	OW0	HOH	Z	583	-38.694	66.534	25.709	1.00	2.00	O
ATOM	8747	OW0	HOH	Z	584	-23.420	60.605	-14.238	1.00	11.31	O
ATOM	8748	OW0	HOH	Z	585	-11.658	65.663	-18.940	1.00	2.00	O
ATOM	8749	OW0	HOH	Z	586	-9.972	39.452	57.390	1.00	5.73	O
ATOM	8750	OW0	HOH	Z	587	-31.707	66.157	42.101	1.00	24.08	O
ATOM	8751	OW0	HOH	Z	588	-10.974	21.277	84.579	1.00	12.14	O
ATOM	8752	OW0	HOH	Z	590	-18.492	20.242	53.998	1.00	17.87	O
ATOM	8753	OW0	HOH	Z	591	-8.188	53.928	2.993	1.00	12.40	O

- 192 -

ATOM	8754	OW0	HOH	Z	592	-8.430	76.344	-9.535	1.00	2.00	O
ATOM	8755	OW0	HOH	Z	593	-25.415	0.669	44.876	1.00	18.47	O
ATOM	8756	OW0	HOH	Z	594	8.006	35.798	37.297	1.00	25.43	O
ATOM	8757	OW0	HOH	Z	595	-36.111	9.185	27.003	1.00	7.67	O
ATOM	8758	OW0	HOH	Z	596	-10.258	29.066	75.146	1.00	15.79	O
ATOM	8759	OW0	HOH	Z	598	-35.135	3.236	34.587	1.00	15.96	O
ATOM	8760	OW0	HOH	Z	599	2.384	35.085	83.501	1.00	12.89	O
ATOM	8761	OW0	HOH	Z	600	-37.566	62.063	31.531	1.00	32.59	O
ATOM	8762	OW0	HOH	Z	602	-17.765	29.773	63.558	1.00	10.02	O
ATOM	8763	OW0	HOH	Z	603	-43.491	25.664	24.305	1.00	7.26	O
ATOM	8764	OW0	HOH	Z	604	-16.372	42.760	9.716	1.00	9.37	O
ATOM	8765	OW0	HOH	Z	605	-7.897	24.998	50.851	1.00	6.90	O
ATOM	8766	OW0	HOH	Z	606	-37.971	29.246	20.366	1.00	2.00	O
ATOM	8767	OW0	HOH	Z	607	-30.214	71.729	40.446	1.00	3.22	O
ATOM	8768	OW0	HOH	Z	608	-20.112	67.550	-11.067	1.00	2.00	O
ATOM	8769	OW0	HOH	Z	609	-15.381	53.025	16.713	1.00	15.43	O
ATOM	8770	OW0	HOH	Z	610	-21.495	73.003	-1.779	1.00	18.45	O
ATOM	8771	OW0	HOH	Z	611	-21.248	-4.649	36.343	1.00	9.40	O
ATOM	8772	OW0	HOH	Z	612	-22.485	89.737	32.649	1.00	5.21	O
ATOM	8773	OW0	HOH	Z	613	-35.618	7.597	39.639	1.00	2.00	O
ATOM	8774	OW0	HOH	Z	615	10.285	13.299	83.324	1.00	3.09	O
ATOM	8775	OW0	HOH	Z	616	-16.371	26.559	57.975	1.00	2.00	O
ATOM	8776	OW0	HOH	Z	618	-4.279	60.510	4.017	1.00	23.34	O
ATOM	8777	OW0	HOH	Z	619	-6.394	94.299	12.086	1.00	12.74	O
ATOM	8778	OW0	HOH	Z	620	-33.766	24.500	42.249	1.00	2.00	O
ATOM	8779	OW0	HOH	Z	621	-12.832	39.772	68.514	1.00	26.14	O
ATOM	8780	OW0	HOH	Z	622	-18.727	39.866	10.838	1.00	2.00	O
ATOM	8781	OW0	HOH	Z	623	14.848	35.312	34.949	1.00	11.73	O
ATOM	8782	OW0	HOH	Z	624	-14.420	15.143	49.504	1.00	24.36	O
ATOM	8783	OW0	HOH	Z	625	17.619	24.935	70.754	1.00	10.84	O
ATOM	8784	OW0	HOH	Z	626	-16.500	5.043	47.902	1.00	10.78	O
ATOM	8785	OW0	HOH	Z	627	-27.731	1.323	28.717	1.00	4.92	O
ATOM	8786	OW0	HOH	Z	628	-25.138	50.359	8.893	1.00	7.53	O
ATOM	8787	OW0	HOH	Z	629	-6.827	75.270	-15.485	1.00	2.00	O
ATOM	8788	OW0	HOH	Z	630	-25.716	74.871	9.367	1.00	21.10	O
ATOM	8789	OW0	HOH	Z	631	6.533	12.616	54.716	1.00	2.00	O
ATOM	8790	OW0	HOH	Z	632	1.946	19.516	47.883	1.00	7.91	O
ATOM	8791	OW0	HOH	Z	633	-31.312	36.787	33.624	1.00	2.80	O
ATOM	8792	OW0	HOH	Z	634	-11.994	43.708	3.642	1.00	24.18	O
ATOM	8793	OW0	HOH	Z	635	-36.671	20.909	35.535	1.00	18.84	O
ATOM	8794	OW0	HOH	Z	636	-8.947	22.514	49.958	1.00	4.15	O
ATOM	8795	OW0	HOH	Z	637	-14.902	47.557	23.986	1.00	23.47	O
ATOM	8796	OW0	HOH	Z	639	-1.143	15.892	81.671	1.00	3.88	O
ATOM	8797	OW0	HOH	Z	640	-10.007	87.513	29.097	1.00	2.00	O
ATOM	8798	OW0	HOH	Z	641	-11.995	71.302	27.165	1.00	2.00	O
ATOM	8799	OW0	HOH	Z	642	-2.782	-0.406	65.576	1.00	12.77	O
ATOM	8800	OW0	HOH	Z	643	-15.383	54.012	0.884	1.00	2.00	O
ATOM	8801	OW0	HOH	Z	644	-5.995	44.437	39.032	1.00	18.03	O
ATOM	8802	OW0	HOH	Z	646	-36.053	65.851	-8.193	1.00	10.29	O
ATOM	8803	OW0	HOH	Z	647	20.064	33.783	34.065	1.00	37.44	O
ATOM	8804	OW0	HOH	Z	648	-0.645	26.048	40.429	1.00	13.03	O
ATOM	8805	OW0	HOH	Z	649	-24.062	33.360	3.687	1.00	16.19	O
ATOM	8806	OW0	HOH	Z	650	-6.663	18.391	41.813	1.00	14.43	O
ATOM	8807	OW0	HOH	Z	651	-14.220	17.209	63.399	1.00	2.51	O
ATOM	8808	OW0	HOH	Z	652	10.950	51.846	47.765	1.00	10.04	O
ATOM	8809	OW0	HOH	Z	653	-8.395	15.509	34.666	1.00	2.51	O
ATOM	8810	OW0	HOH	Z	654	-20.293	59.888	-14.583	1.00	20.63	O
ATOM	8811	OW0	HOH	Z	657	-17.912	80.596	16.019	1.00	5.31	O

- 193 -

ATOM	8812	OW0	HOH	Z	658	-23.472	68.705	-4.313	1.00	6.52	O
ATOM	8813	OW0	HOH	Z	659	0.738	47.717	68.772	1.00	16.88	O
ATOM	8814	OW0	HOH	Z	661	-18.244	56.581	-9.466	1.00	10.54	O
ATOM	8815	OW0	HOH	Z	662	-16.939	50.113	20.067	1.00	2.00	O
ATOM	8816	OW0	HOH	Z	663	-17.171	-8.972	38.788	1.00	14.55	O
ATOM	8817	OW0	HOH	Z	664	-18.486	0.470	26.777	1.00	8.88	O
ATOM	8818	OW0	HOH	Z	665	-1.935	30.300	14.275	1.00	20.91	O
ATOM	8819	OW0	HOH	Z	666	18.426	13.536	67.463	1.00	15.22	O
ATOM	8820	OW0	HOH	Z	668	-10.659	38.948	4.581	1.00	14.73	O
ATOM	8821	OW0	HOH	Z	669	-10.476	19.137	82.984	1.00	17.34	O
ATOM	8822	OW0	HOH	Z	671	14.886	19.505	77.096	1.00	18.71	O
ATOM	8823	OW0	HOH	Z	672	-11.975	54.692	-1.385	1.00	4.07	O
ATOM	8824	OW0	HOH	Z	673	4.269	45.258	38.715	1.00	17.02	O
ATOM	8825	OW0	HOH	Z	674	-21.948	67.659	-12.876	1.00	2.61	O
ATOM	8826	OW0	HOH	Z	675	-27.659	-0.786	25.464	1.00	19.70	O
ATOM	8827	OW0	HOH	Z	676	-6.091	72.663	2.028	1.00	21.99	O
ATOM	8828	OW0	HOH	Z	677	-37.145	73.517	14.000	1.00	12.77	O
ATOM	8829	OW0	HOH	Z	678	-34.931	66.301	5.240	1.00	2.00	O
ATOM	8830	OW0	HOH	Z	679	-30.713	31.333	8.174	1.00	11.24	O
ATOM	8831	OW0	HOH	Z	680	-29.362	61.953	33.386	1.00	10.63	O
ATOM	8832	OW0	HOH	Z	682	24.947	44.373	37.065	1.00	6.70	O
ATOM	8833	OW0	HOH	Z	683	-10.079	26.485	77.981	1.00	27.66	O
ATOM	8834	OW0	HOH	Z	684	-17.713	81.276	-0.596	1.00	20.01	O
ATOM	8835	OW0	HOH	Z	685	-2.158	-5.587	61.037	1.00	23.62	O
ATOM	8836	OW0	HOH	Z	687	-25.596	68.155	-8.973	1.00	18.05	O
ATOM	8837	OW0	HOH	Z	688	29.191	37.423	30.987	1.00	14.10	O
ATOM	8838	OW0	HOH	Z	689	10.464	8.507	58.119	1.00	4.05	O
ATOM	8839	OW0	HOH	Z	690	-17.123	72.720	1.605	1.00	7.35	O
ATOM	8840	OW0	HOH	Z	691	-7.325	45.333	42.532	1.00	13.88	O
ATOM	8841	OW0	HOH	Z	692	8.681	51.058	45.760	1.00	30.95	O
ATOM	8842	OW0	HOH	Z	694	-13.542	60.896	24.785	1.00	8.13	O
ATOM	8843	OW0	HOH	Z	695	4.715	18.147	51.732	1.00	15.46	O
ATOM	8844	OW0	HOH	Z	696	2.981	5.003	47.060	1.00	6.88	O
ATOM	8845	OW0	HOH	Z	697	-28.658	60.485	35.748	1.00	14.87	O
ATOM	8846	OW0	HOH	Z	698	-7.458	68.089	35.469	1.00	10.34	O
ATOM	8847	OW0	HOH	Z	699	-13.569	49.480	7.922	1.00	15.96	O
ATOM	8848	OW0	HOH	Z	700	-37.878	14.776	27.278	1.00	7.97	O
ATOM	8849	OW0	HOH	Z	701	-1.582	23.259	83.982	1.00	6.16	O
ATOM	8850	OW0	HOH	Z	702	-4.524	33.419	21.105	1.00	9.21	O
ATOM	8851	OW0	HOH	Z	703	-15.104	28.219	29.149	1.00	7.02	O
ATOM	8852	OW0	HOH	Z	704	20.620	18.713	70.342	1.00	16.70	O
ATOM	8853	OW0	HOH	Z	705	-27.113	61.497	42.204	1.00	24.42	O
ATOM	8854	OW0	HOH	Z	706	-12.835	83.727	-0.138	1.00	7.43	O
ATOM	8855	OW0	HOH	Z	707	-16.410	31.388	60.239	1.00	16.67	O
ATOM	8856	OW0	HOH	Z	708	-25.720	45.814	15.286	1.00	5.97	O
ATOM	8857	OW0	HOH	Z	709	-19.393	78.546	37.611	1.00	6.74	O
ATOM	8858	OW0	HOH	Z	711	-6.606	31.908	78.828	1.00	26.45	O
ATOM	8859	OW0	HOH	Z	713	0.910	59.646	0.430	1.00	15.67	O
ATOM	8860	OW0	HOH	Z	714	-21.951	46.432	5.872	1.00	22.55	O
ATOM	8861	OW0	HOH	Z	715	-18.688	17.644	54.000	1.00	37.48	O
ATOM	8862	OW0	HOH	Z	716	-23.789	69.461	-12.282	1.00	26.32	O
ATOM	8863	OW0	HOH	Z	718	-15.155	42.627	6.386	1.00	16.39	O
ATOM	8864	OW0	HOH	Z	720	-26.210	43.278	29.970	1.00	8.80	O
ATOM	8865	OW0	HOH	Z	721	4.308	-2.538	54.059	1.00	18.60	O
ATOM	8866	OW0	HOH	Z	722	-38.988	67.756	28.023	1.00	12.79	O
ATOM	8867	OW0	HOH	Z	723	-15.019	76.461	38.596	1.00	19.57	O
ATOM	8868	OW0	HOH	Z	724	-39.233	60.340	2.442	1.00	22.75	O
ATOM	8869	OW0	HOH	Z	725	-43.836	69.827	-3.691	1.00	11.69	O

- 194 -

ATOM	8870	OW0	HOH	Z	726	-9.324	65.919	33.051	1.00	20.60	O
ATOM	8871	OW0	HOH	Z	727	-11.454	65.441	34.359	1.00	11.61	O
ATOM	8872	OW0	HOH	Z	728	18.421	4.612	73.589	1.00	14.31	O
ATOM	8873	OW0	HOH	Z	729	-37.081	61.968	-3.539	1.00	15.35	O
ATOM	8874	OW0	HOH	Z	732	-35.842	4.687	25.919	1.00	3.54	O
ATOM	8875	OW0	HOH	Z	734	-6.689	50.006	43.479	1.00	26.63	O
ATOM	8876	OW0	HOH	Z	735	-41.336	65.254	22.694	1.00	6.42	O
ATOM	8877	OW0	HOH	Z	736	-0.341	23.527	48.836	1.00	22.72	O
ATOM	8878	OW0	HOH	Z	737	-13.387	53.824	52.007	1.00	11.86	O
ATOM	8879	OW0	HOH	Z	738	6.165	51.255	60.496	1.00	25.07	O
ATOM	8880	OW0	HOH	Z	739	-15.578	47.942	20.801	1.00	11.05	O
ATOM	8881	OW0	HOH	Z	740	-38.800	20.928	42.472	1.00	17.95	O
ATOM	8882	OW0	HOH	Z	741	-17.786	74.894	-13.109	1.00	4.34	O
ATOM	8883	OW0	HOH	Z	742	-2.562	35.949	22.232	1.00	3.98	O
ATOM	8884	OW0	HOH	Z	743	-31.347	19.034	51.137	1.00	12.54	O
ATOM	8885	OW0	HOH	Z	744	-12.381	73.633	-10.797	1.00	2.34	O
ATOM	8886	OW0	HOH	Z	745	-4.530	68.164	38.442	1.00	17.14	O
ATOM	8887	OW0	HOH	Z	746	-18.612	48.649	8.272	1.00	13.74	O
ATOM	8888	OW0	HOH	Z	747	-24.500	9.752	0.274	1.00	25.95	O
ATOM	8889	OW0	HOH	Z	748	-28.685	-2.627	34.695	1.00	11.58	O
ATOM	8890	OW0	HOH	Z	749	-42.585	69.190	-5.863	1.00	24.72	O
ATOM	8891	OW0	HOH	Z	750	-6.827	42.054	29.004	1.00	7.56	O
ATOM	8892	OW0	HOH	Z	751	-12.242	54.095	49.625	1.00	15.87	O
ATOM	8893	OW0	HOH	Z	752	-28.623	-1.795	32.448	1.00	13.47	O
ATOM	8894	OW0	HOH	Z	753	-6.121	62.332	17.182	1.00	23.73	O
ATOM	8895	OW0	HOH	Z	754	-19.491	81.803	10.041	1.00	7.04	O
ATOM	8896	OW0	HOH	Z	755	-45.912	31.675	16.901	1.00	18.43	O
ATOM	8897	OW0	HOH	Z	757	21.613	14.286	71.250	1.00	16.43	O
ATOM	8898	OW0	HOH	Z	758	-34.127	88.211	35.560	1.00	15.12	O
ATOM	8899	OW0	HOH	Z	759	-5.159	38.375	60.138	1.00	19.25	O
ATOM	8900	OW0	HOH	Z	760	-18.745	62.949	-17.706	1.00	22.93	O
ATOM	8901	OW0	HOH	Z	761	8.137	14.084	88.997	1.00	22.97	O
ATOM	8902	OW0	HOH	Z	762	3.710	26.493	87.271	1.00	17.78	O
ATOM	8903	OW0	HOH	Z	763	-5.357	56.550	10.944	1.00	16.30	O
ATOM	8904	OW0	HOH	Z	764	-10.031	29.469	5.673	1.00	21.30	O
ATOM	8905	OW0	HOH	Z	765	-6.910	41.739	5.553	1.00	24.70	O
ATOM	8906	OW0	HOH	Z	766	-0.389	71.956	-5.244	1.00	26.24	O
ATOM	8907	OW0	HOH	Z	768	-9.744	41.268	59.210	1.00	10.70	O
ATOM	8908	OW0	HOH	Z	769	-22.476	11.037	59.304	1.00	10.31	O
ATOM	8909	OW0	HOH	Z	770	3.197	20.555	68.086	1.00	14.88	O
ATOM	8910	OW0	HOH	Z	771	-10.091	41.169	61.872	1.00	2.40	O
ATOM	8911	OW0	HOH	Z	772	6.668	41.528	36.567	1.00	29.06	O
ATOM	8912	OW0	HOH	Z	773	-6.664	70.120	31.884	1.00	11.43	O
ATOM	8913	OW0	HOH	Z	774	24.128	42.686	46.126	1.00	15.97	O
ATOM	8914	OW0	HOH	Z	776	-8.804	40.540	3.484	1.00	28.61	O
ATOM	8915	OW0	HOH	Z	777	-18.654	88.388	32.251	1.00	8.98	O
ATOM	8916	OW0	HOH	Z	778	-38.736	63.966	29.911	1.00	12.43	O
ATOM	8917	OW0	HOH	Z	779	-4.709	76.023	24.607	1.00	27.53	O
ATOM	8918	OW0	HOH	Z	780	-39.148	30.345	16.897	1.00	4.09	O
ATOM	8919	OW0	HOH	Z	781	-31.591	43.877	1.971	1.00	10.80	O
ATOM	8920	OW0	HOH	Z	782	-8.624	43.952	25.041	1.00	10.34	O
ATOM	8921	OW0	HOH	Z	784	-22.556	76.325	9.510	1.00	7.46	O
ATOM	8922	OW0	HOH	Z	785	1.341	32.319	27.148	1.00	39.17	O
ATOM	8923	OW0	HOH	Z	787	-6.892	8.336	23.356	1.00	10.71	O
ATOM	8924	OW0	HOH	Z	788	-34.173	24.054	7.126	1.00	12.91	O
ATOM	8925	OW0	HOH	Z	790	-15.774	49.755	17.738	1.00	9.74	O
ATOM	8926	OW0	HOH	Z	791	-11.814	39.246	26.553	1.00	19.09	O
ATOM	8927	OW0	HOH	Z	793	-21.382	35.958	0.812	1.00	26.58	O

- 195 -

ATOM	8928	OW0	HOH	Z	794	-33.111	75.057	36.649	1.00	2.00	O
ATOM	8929	OW0	HOH	Z	796	0.525	74.529	17.014	1.00	23.46	O
ATOM	8930	OW0	HOH	Z	798	-7.931	29.541	71.380	1.00	23.32	O
ATOM	8931	OW0	HOH	Z	803	-23.243	47.104	-2.068	1.00	28.64	O
ATOM	8932	OW0	HOH	Z	804	-11.703	48.098	51.993	1.00	27.14	O
ATOM	8933	OW0	HOH	Z	806	-18.264	13.722	48.405	1.00	2.00	O
ATOM	8934	OW0	HOH	Z	808	-25.007	41.947	31.765	1.00	6.56	O
ATOM	8935	OW0	HOH	Z	813	-8.471	54.723	0.850	1.00	2.91	O
ATOM	8936	OW0	HOH	Z	814	-40.186	77.002	21.434	1.00	4.64	O
ATOM	8937	OW0	HOH	Z	815	-22.763	-3.592	34.835	1.00	33.19	O
ATOM	8938	OW0	HOH	Z	816	-3.294	26.085	9.282	1.00	25.43	O
ATOM	8939	OW0	HOH	Z	817	-30.503	-0.871	35.535	1.00	19.30	O
ATOM	8940	OW0	HOH	Z	818	-11.631	29.165	-1.618	1.00	27.57	O
ATOM	8941	OW0	HOH	Z	819	-32.082	73.419	10.138	1.00	10.02	O
ATOM	8942	OW0	HOH	Z	820	-13.352	71.571	39.976	1.00	20.42	O
ATOM	8943	OW0	HOH	Z	821	-18.564	85.607	35.730	1.00	6.42	O
ATOM	8944	OW0	HOH	Z	822	-43.702	24.063	28.236	1.00	21.44	O
ATOM	8945	OW0	HOH	Z	826	-7.766	82.020	9.888	1.00	18.79	O
ATOM	8946	OW0	HOH	Z	827	-20.264	73.782	11.075	1.00	11.33	O
ATOM	8947	OW0	HOH	Z	829	-8.218	60.099	-2.106	1.00	2.00	O
ATOM	8948	OW0	HOH	Z	831	-14.005	23.629	39.083	1.00	9.04	O
ATOM	8949	OW0	HOH	Z	832	-17.069	24.980	36.991	1.00	16.20	O
ATOM	8950	OW0	HOH	Z	834	-23.762	23.144	34.914	1.00	9.71	O
ATOM	8951	OW0	HOH	Z	835	-18.954	75.760	3.456	1.00	18.71	O
ATOM	8952	OW0	HOH	Z	836	-6.047	77.064	2.428	1.00	23.94	O
ATOM	8953	OW0	HOH	Z	838	2.845	6.713	71.016	1.00	4.87	O
ATOM	8954	OW0	HOH	Z	839	8.342	4.379	75.207	1.00	10.40	O
ATOM	8955	OW0	HOH	Z	840	9.177	6.124	77.318	1.00	27.60	O
ATOM	8956	OW0	HOH	Z	841	-3.153	4.177	70.001	1.00	13.37	O
ATOM	8957	OW0	HOH	Z	842	-20.447	80.655	38.174	1.00	5.31	O
ATOM	8958	OW0	HOH	Z	843	-17.223	79.715	36.681	1.00	18.88	O
ATOM	8959	OW0	HOH	Z	844	-6.494	44.838	46.583	1.00	5.22	O
ATOM	8960	OW0	HOH	Z	845	-16.068	8.005	22.922	1.00	16.45	O
ATOM	8961	OW0	HOH	Z	846	-17.268	7.134	19.885	1.00	7.82	O
ATOM	8962	OW0	HOH	Z	847	-14.609	5.872	19.721	1.00	31.61	O
ATOM	8963	OW0	HOH	Z	849	-21.792	55.180	18.029	1.00	17.95	O
ATOM	8964	OW0	HOH	W	1	-16.522	69.144	-10.037	1.00	2.00	O
ATOM	8965	OW0	HOH	W	2	-41.326	70.922	17.368	1.00	21.60	O
ATOM	8966	OW0	HOH	W	3	-1.343	23.748	53.271	1.00	13.83	O

Table 2: Structure coordinates of PKC alpha in complex with Compound (II)

ATOM	1	N	ALA	A	331	-11.363	50.848	51.982	1.00	75.65	N
ATOM	2	CA	ALA	A	331	-10.881	49.648	51.224	1.00	75.61	C
ATOM	3	CB	ALA	A	331	-11.850	49.306	50.043	1.00	75.42	C
ATOM	4	C	ALA	A	331	-9.435	49.806	50.723	1.00	75.29	C
ATOM	5	O	ALA	A	331	-9.209	50.282	49.593	1.00	75.33	O
ATOM	6	N	ASP	A	332	-8.464	49.408	51.560	1.00	74.55	N
ATOM	7	CA	ASP	A	332	-7.026	49.379	51.184	1.00	73.75	C
ATOM	8	CB	ASP	A	332	-6.127	49.058	52.403	1.00	75.11	C
ATOM	9	CG	ASP	A	332	-4.666	49.513	52.217	1.00	75.99	C
ATOM	10	OD1	ASP	A	332	-4.425	50.511	51.497	1.00	76.12	O
ATOM	11	OD2	ASP	A	332	-3.759	48.867	52.808	1.00	76.80	O

- 196 -

ATOM	12	C	ASP	A	332	-6.808	48.389	50.030	1.00	72.11	C
ATOM	13	O	ASP	A	332	-5.935	47.530	50.053	1.00	71.62	O
ATOM	14	N	ARG	A	333	-7.642	48.551	49.017	1.00	70.31	N
ATOM	15	CA	ARG	A	333	-7.644	47.712	47.860	1.00	68.44	C
ATOM	16	CB	ARG	A	333	-8.842	48.038	46.978	1.00	70.02	C
ATOM	17	CG	ARG	A	333	-9.417	46.846	46.280	1.00	71.27	C
ATOM	18	CD	ARG	A	333	-10.026	47.289	44.984	1.00	72.02	C
ATOM	19	NE	ARG	A	333	-8.966	47.582	44.013	1.00	73.33	N
ATOM	20	CZ	ARG	A	333	-9.164	47.997	42.758	1.00	73.84	C
ATOM	21	NH1	ARG	A	333	-10.397	48.189	42.284	1.00	73.93	N
ATOM	22	NH2	ARG	A	333	-8.112	48.225	41.974	1.00	73.72	N
ATOM	23	C	ARG	A	333	-6.380	48.017	47.111	1.00	66.31	C
ATOM	24	O	ARG	A	333	-5.963	49.186	46.992	1.00	65.70	O
ATOM	25	N	VAL	A	334	-5.775	46.939	46.626	1.00	62.99	N
ATOM	26	CA	VAL	A	334	-4.598	47.005	45.769	1.00	60.85	C
ATOM	27	CB	VAL	A	334	-3.346	46.503	46.497	1.00	61.67	C
ATOM	28	CG1	VAL	A	334	-2.486	47.700	46.959	1.00	62.14	C
ATOM	29	CG2	VAL	A	334	-3.743	45.599	47.664	1.00	61.91	C
ATOM	30	C	VAL	A	334	-4.804	46.200	44.500	1.00	59.45	C
ATOM	31	O	VAL	A	334	-5.694	45.376	44.441	1.00	58.02	O
ATOM	32	N	LYS	A	335	-3.998	46.466	43.484	1.00	57.85	N
ATOM	33	CA	LYS	A	335	-4.013	45.696	42.245	1.00	56.55	C
ATOM	34	CB	LYS	A	335	-4.666	46.483	41.115	1.00	56.83	C
ATOM	35	CG	LYS	A	335	-3.876	47.735	40.718	1.00	58.51	C
ATOM	36	CD	LYS	A	335	-4.715	48.804	40.047	1.00	58.25	C
ATOM	37	CE	LYS	A	335	-4.058	50.149	40.312	1.00	59.42	C
ATOM	38	NZ	LYS	A	335	-4.636	51.320	39.580	1.00	59.89	N
ATOM	39	C	LYS	A	335	-2.581	45.359	41.875	1.00	55.52	C
ATOM	40	O	LYS	A	335	-1.641	45.799	42.554	1.00	56.01	O
ATOM	41	N	LEU	A	336	-2.393	44.600	40.797	1.00	53.98	N
ATOM	42	CA	LEU	A	336	-1.041	44.180	40.376	1.00	52.87	C
ATOM	43	CB	LEU	A	336	-1.114	43.319	39.103	1.00	53.13	C
ATOM	44	CG	LEU	A	336	0.090	42.690	38.356	1.00	53.33	C
ATOM	45	CD1	LEU	A	336	0.967	41.843	39.229	1.00	51.87	C
ATOM	46	CD2	LEU	A	336	-0.403	41.842	37.180	1.00	53.00	C
ATOM	47	C	LEU	A	336	-0.024	45.329	40.221	1.00	51.89	C
ATOM	48	O	LEU	A	336	1.074	45.238	40.764	1.00	52.46	O
ATOM	49	N	THR	A	337	-0.380	46.417	39.532	1.00	51.35	N
ATOM	50	CA	THR	A	337	0.614	47.479	39.298	1.00	50.76	C
ATOM	51	CB	THR	A	337	0.227	48.596	38.276	1.00	51.64	C
ATOM	52	OG1	THR	A	337	-1.176	48.554	37.963	1.00	54.45	O
ATOM	53	CG2	THR	A	337	1.071	48.427	36.990	1.00	53.22	C
ATOM	54	C	THR	A	337	1.091	48.183	40.541	1.00	49.86	C
ATOM	55	O	THR	A	337	1.988	49.047	40.444	1.00	48.27	O
ATOM	56	N	ASP	A	338	0.510	47.842	41.696	1.00	49.08	N
ATOM	57	CA	ASP	A	338	0.900	48.496	42.955	1.00	49.11	C
ATOM	58	CB	ASP	A	338	-0.285	48.587	43.929	1.00	49.82	C
ATOM	59	CG	ASP	A	338	-1.595	49.008	43.232	1.00	51.64	C
ATOM	60	OD1	ASP	A	338	-1.521	49.669	42.164	1.00	51.90	O
ATOM	61	OD2	ASP	A	338	-2.701	48.679	43.746	1.00	52.97	O
ATOM	62	C	ASP	A	338	2.142	47.818	43.573	1.00	48.55	C
ATOM	63	O	ASP	A	338	2.619	48.210	44.654	1.00	48.36	O
ATOM	64	N	PHE	A	339	2.677	46.819	42.867	1.00	48.10	N
ATOM	65	CA	PHE	A	339	3.835	46.051	43.374	1.00	47.47	C
ATOM	66	CB	PHE	A	339	3.399	44.655	43.816	1.00	46.75	C
ATOM	67	CG	PHE	A	339	2.262	44.662	44.750	1.00	46.43	C
ATOM	68	CD1	PHE	A	339	2.483	44.729	46.110	1.00	45.76	C
ATOM	69	CE1	PHE	A	339	1.436	44.726	46.971	1.00	46.11	C

- 197 -

ATOM	70	CZ	PHE	A	339	0.148	44.673	46.483	1.00	46.05	C
ATOM	71	CE2	PHE	A	339	-0.085	44.627	45.128	1.00	47.08	C
ATOM	72	CD2	PHE	A	339	0.963	44.623	44.272	1.00	46.75	C
ATOM	73	C	PHE	A	339	4.985	45.888	42.375	1.00	48.08	C
ATOM	74	O	PHE	A	339	4.762	45.730	41.156	1.00	48.46	O
ATOM	75	N	ASN	A	340	6.205	45.925	42.892	1.00	48.72	N
ATOM	76	CA	ASN	A	340	7.343	45.420	42.132	1.00	48.98	C
ATOM	77	CB	ASN	A	340	8.577	46.303	42.288	1.00	50.29	C
ATOM	78	CG	ASN	A	340	8.486	47.552	41.497	1.00	51.84	C
ATOM	79	OD1	ASN	A	340	8.229	48.626	42.034	1.00	52.81	O
ATOM	80	ND2	ASN	A	340	8.679	47.429	40.198	1.00	52.29	N
ATOM	81	C	ASN	A	340	7.674	44.028	42.621	1.00	48.46	C
ATOM	82	O	ASN	A	340	7.882	43.812	43.834	1.00	47.59	O
ATOM	83	N	PHE	A	341	7.719	43.083	41.689	1.00	48.21	N
ATOM	84	CA	PHE	A	341	8.228	41.750	42.013	1.00	48.96	C
ATOM	85	CB	PHE	A	341	7.983	40.761	40.884	1.00	51.92	C
ATOM	86	CG	PHE	A	341	6.549	40.424	40.649	1.00	53.44	C
ATOM	87	CD1	PHE	A	341	5.622	40.469	41.686	1.00	54.12	C
ATOM	88	CE1	PHE	A	341	4.319	40.156	41.464	1.00	53.86	C
ATOM	89	CZ	PHE	A	341	3.913	39.755	40.178	1.00	54.63	C
ATOM	90	CE2	PHE	A	341	4.847	39.688	39.128	1.00	54.09	C
ATOM	91	CD2	PHE	A	341	6.141	40.017	39.375	1.00	55.01	C
ATOM	92	C	PHE	A	341	9.735	41.759	42.266	1.00	48.86	C
ATOM	93	O	PHE	A	341	10.529	42.129	41.398	1.00	48.85	O
ATOM	94	N	LEU	A	342	10.143	41.309	43.443	1.00	48.17	N
ATOM	95	CA	LEU	A	342	11.576	41.250	43.754	1.00	48.39	C
ATOM	96	CB	LEU	A	342	11.824	41.631	45.210	1.00	48.39	C
ATOM	97	CG	LEU	A	342	11.347	43.065	45.354	1.00	48.44	C
ATOM	98	CD1	LEU	A	342	11.138	43.405	46.797	1.00	47.84	C
ATOM	99	CD2	LEU	A	342	12.329	44.025	44.682	1.00	48.80	C
ATOM	100	C	LEU	A	342	12.211	39.908	43.353	1.00	48.31	C
ATOM	101	O	LEU	A	342	13.005	39.864	42.416	1.00	46.44	O
ATOM	102	N	MET	A	343	11.813	38.829	44.033	1.00	47.67	N
ATOM	103	CA	MET	A	343	12.244	37.452	43.749	1.00	49.74	C
ATOM	104	CB	MET	A	343	13.400	37.089	44.673	1.00	51.37	C
ATOM	105	CG	MET	A	343	12.972	37.054	46.159	1.00	54.69	C
ATOM	106	SD	MET	A	343	14.228	36.551	47.391	1.00	59.77	S
ATOM	107	CE	MET	A	343	13.775	34.827	47.730	1.00	59.12	C
ATOM	108	C	MET	A	343	11.126	36.407	43.981	1.00	47.14	C
ATOM	109	O	MET	A	343	10.093	36.676	44.633	1.00	44.77	O
ATOM	110	N	VAL	A	344	11.338	35.200	43.479	1.00	45.70	N
ATOM	111	CA	VAL	A	344	10.438	34.122	43.781	1.00	45.16	C
ATOM	112	CB	VAL	A	344	10.604	32.971	42.790	1.00	45.21	C
ATOM	113	CG1	VAL	A	344	9.715	31.797	43.181	1.00	44.53	C
ATOM	114	CG2	VAL	A	344	10.267	33.408	41.369	1.00	44.91	C
ATOM	115	C	VAL	A	344	10.771	33.651	45.193	1.00	44.89	C
ATOM	116	O	VAL	A	344	11.904	33.333	45.485	1.00	44.50	O
ATOM	117	N	LEU	A	345	9.800	33.634	46.096	1.00	44.33	N
ATOM	118	CA	LEU	A	345	10.055	33.011	47.401	1.00	44.34	C
ATOM	119	CB	LEU	A	345	9.074	33.489	48.488	1.00	44.33	C
ATOM	120	CG	LEU	A	345	9.108	34.978	48.851	1.00	44.33	C
ATOM	121	CD1	LEU	A	345	7.988	35.422	49.779	1.00	44.33	C
ATOM	122	CD2	LEU	A	345	10.375	35.286	49.497	1.00	44.33	C
ATOM	123	C	LEU	A	345	10.121	31.477	47.286	1.00	44.88	C
ATOM	124	O	LEU	A	345	10.976	30.852	47.911	1.00	45.08	O
ATOM	125	N	GLY	A	346	9.238	30.886	46.480	1.00	45.41	N
ATOM	126	CA	GLY	A	346	9.288	29.470	46.148	1.00	45.07	C
ATOM	127	C	GLY	A	346	8.163	29.059	45.214	1.00	44.34	C

- 198 -

ATOM	128	O	GLY A 346	7.127	29.701	45.166	1.00	44.36	O
ATOM	129	N	LYS A 347	8.375	27.997	44.453	1.00	45.92	N
ATOM	130	CA	LYS A 347	7.362	27.433	43.580	1.00	48.17	C
ATOM	131	CB	LYS A 347	7.880	27.241	42.148	1.00	49.99	C
ATOM	132	CG	LYS A 347	7.801	28.405	41.142	1.00	51.66	C
ATOM	133	CD	LYS A 347	8.135	27.825	39.743	1.00	52.31	C
ATOM	134	CE	LYS A 347	8.737	28.839	38.719	1.00	53.82	C
ATOM	135	NZ	LYS A 347	8.470	28.357	37.318	1.00	56.17	N
ATOM	136	C	LYS A 347	7.067	26.055	44.140	1.00	49.44	C
ATOM	137	O	LYS A 347	7.954	25.378	44.618	1.00	50.37	O
ATOM	138	N	GLY A 348	5.816	25.628	44.072	1.00	51.56	N
ATOM	139	CA	GLY A 348	5.447	24.309	44.585	1.00	51.65	C
ATOM	140	C	GLY A 348	3.988	23.993	44.336	1.00	51.47	C
ATOM	141	O	GLY A 348	3.325	24.637	43.509	1.00	51.86	O
ATOM	142	N	SER A 349	3.497	22.994	45.051	1.00	52.81	N
ATOM	143	CA	SER A 349	2.077	22.647	45.047	1.00	53.47	C
ATOM	144	CB	SER A 349	1.845	21.476	45.972	1.00	54.66	C
ATOM	145	OG	SER A 349	1.868	21.989	47.282	1.00	56.97	O
ATOM	146	C	SER A 349	1.200	23.803	45.532	1.00	52.54	C
ATOM	147	O	SER A 349	0.057	23.912	45.143	1.00	53.70	O
ATOM	148	N	PHE A 350	1.752	24.630	46.407	1.00	51.20	N
ATOM	149	CA	PHE A 350	1.150	25.875	46.814	1.00	48.87	C
ATOM	150	CB	PHE A 350	1.788	26.398	48.102	1.00	50.00	C
ATOM	151	CG	PHE A 350	3.281	26.525	48.037	1.00	50.41	C
ATOM	152	CD1	PHE A 350	4.087	25.658	48.738	1.00	49.66	C
ATOM	153	CE1	PHE A 350	5.433	25.757	48.678	1.00	51.52	C
ATOM	154	CZ	PHE A 350	6.006	26.719	47.893	1.00	50.33	C
ATOM	155	CE2	PHE A 350	5.223	27.586	47.167	1.00	50.44	C
ATOM	156	CD2	PHE A 350	3.881	27.493	47.251	1.00	50.62	C
ATOM	157	C	PHE A 350	1.215	26.956	45.754	1.00	49.10	C
ATOM	158	O	PHE A 350	0.853	28.074	46.036	1.00	50.63	O
ATOM	159	N	GLY A 351	1.662	26.627	44.544	1.00	46.94	N
ATOM	160	CA	GLY A 351	1.794	27.616	43.478	1.00	47.10	C
ATOM	161	C	GLY A 351	3.140	28.323	43.530	1.00	45.18	C
ATOM	162	O	GLY A 351	4.131	27.744	43.990	1.00	46.56	O
ATOM	163	N	LYS A 352	3.183	29.551	43.013	1.00	46.73	N
ATOM	164	CA	LYS A 352	4.383	30.392	43.016	1.00	44.33	C
ATOM	165	CB	LYS A 352	4.666	30.994	41.627	1.00	45.69	C
ATOM	166	CG	LYS A 352	5.938	31.892	41.461	1.00	47.89	C
ATOM	167	CD	LYS A 352	6.379	31.952	39.963	1.00	50.38	C
ATOM	168	CE	LYS A 352	5.420	32.789	39.082	1.00	52.56	C
ATOM	169	NZ	LYS A 352	5.492	32.666	37.584	1.00	53.48	N
ATOM	170	C	LYS A 352	4.169	31.491	44.029	1.00	44.33	C
ATOM	171	O	LYS A 352	3.172	32.203	43.990	1.00	44.33	O
ATOM	172	N	VAL A 353	5.085	31.607	44.972	1.00	44.33	N
ATOM	173	CA	VAL A 353	5.063	32.746	45.881	1.00	44.33	C
ATOM	174	CB	VAL A 353	5.154	32.367	47.376	1.00	44.33	C
ATOM	175	CG1	VAL A 353	5.049	33.611	48.253	1.00	44.33	C
ATOM	176	CG2	VAL A 353	4.069	31.414	47.743	1.00	44.33	C
ATOM	177	C	VAL A 353	6.198	33.708	45.546	1.00	44.33	C
ATOM	178	O	VAL A 353	7.340	33.324	45.352	1.00	44.33	O
ATOM	179	N	MET A 354	5.869	34.979	45.500	1.00	44.33	N
ATOM	180	CA	MET A 354	6.792	35.945	45.024	1.00	44.33	C
ATOM	181	CB	MET A 354	6.224	36.612	43.803	1.00	45.82	C
ATOM	182	CG	MET A 354	7.260	37.273	42.957	1.00	52.05	C
ATOM	183	SD	MET A 354	7.908	36.124	41.746	1.00	56.38	S
ATOM	184	CE	MET A 354	6.387	35.559	40.996	1.00	50.76	C
ATOM	185	C	MET A 354	6.973	36.974	46.096	1.00	44.33	C

- 199 -

ATOM	186	O	MET	A	354	6.004	37.466	46.674	1.00	44.33	O
ATOM	187	N	LEU	A	355	8.220	37.309	46.388	1.00	44.33	N
ATOM	188	CA	LEU	A	355	8.414	38.458	47.235	1.00	44.33	C
ATOM	189	CB	LEU	A	355	9.758	38.510	47.938	1.00	44.33	C
ATOM	190	CG	LEU	A	355	9.758	39.650	48.966	1.00	44.33	C
ATOM	191	CD1	LEU	A	355	8.828	39.399	50.182	1.00	44.33	C
ATOM	192	CD2	LEU	A	355	11.148	39.957	49.420	1.00	44.33	C
ATOM	193	C	LEU	A	355	8.250	39.714	46.402	1.00	44.33	C
ATOM	194	O	LEU	A	355	8.826	39.855	45.294	1.00	44.33	O
ATOM	195	N	ALA	A	356	7.452	40.630	46.956	1.00	44.33	N
ATOM	196	CA	ALA	A	356	7.132	41.875	46.286	1.00	44.65	C
ATOM	197	CB	ALA	A	356	5.812	41.760	45.518	1.00	44.33	C
ATOM	198	C	ALA	A	356	7.126	43.059	47.229	1.00	46.56	C
ATOM	199	O	ALA	A	356	6.881	42.936	48.441	1.00	48.09	O
ATOM	200	N	ASP	A	357	7.437	44.215	46.659	1.00	49.16	N
ATOM	201	CA	ASP	A	357	7.389	45.440	47.426	1.00	52.16	C
ATOM	202	CB	ASP	A	357	8.752	46.155	47.430	1.00	54.90	C
ATOM	203	CG	ASP	A	357	8.863	47.253	46.400	1.00	56.84	C
ATOM	204	OD1	ASP	A	357	8.959	46.943	45.190	1.00	58.68	O
ATOM	205	OD2	ASP	A	357	8.891	48.434	46.826	1.00	58.32	O
ATOM	206	C	ASP	A	357	6.262	46.305	46.912	1.00	52.66	C
ATOM	207	O	ASP	A	357	6.046	46.416	45.704	1.00	52.56	O
ATOM	208	N	ARG	A	358	5.504	46.880	47.830	1.00	53.47	N
ATOM	209	CA	ARG	A	358	4.459	47.802	47.399	1.00	54.82	C
ATOM	210	CB	ARG	A	358	3.367	47.956	48.460	1.00	55.51	C
ATOM	211	CG	ARG	A	358	2.126	48.842	48.025	1.00	55.68	C
ATOM	212	CD	ARG	A	358	1.424	49.259	49.363	1.00	56.58	C
ATOM	213	NE	ARG	A	358	0.093	49.856	49.218	1.00	57.05	N
ATOM	214	CZ	ARG	A	358	-1.013	49.416	49.837	1.00	57.50	C
ATOM	215	NH1	ARG	A	358	-0.971	48.356	50.660	1.00	56.67	N
ATOM	216	NH2	ARG	A	358	-2.180	50.043	49.643	1.00	56.98	N
ATOM	217	C	ARG	A	358	5.082	49.163	47.025	1.00	55.48	C
ATOM	218	O	ARG	A	358	5.857	49.760	47.815	1.00	55.16	O
ATOM	219	N	LYS	A	359	4.752	49.641	45.819	1.00	55.85	N
ATOM	220	CA	LYS	A	359	5.379	50.852	45.271	1.00	56.58	C
ATOM	221	CB	LYS	A	359	4.831	51.237	43.902	1.00	56.53	C
ATOM	222	CG	LYS	A	359	5.737	50.900	42.743	1.00	56.17	C
ATOM	223	CD	LYS	A	359	4.891	50.797	41.490	1.00	56.24	C
ATOM	224	CE	LYS	A	359	5.316	49.655	40.604	1.00	56.10	C
ATOM	225	NZ	LYS	A	359	4.263	49.433	39.587	1.00	56.32	N
ATOM	226	C	LYS	A	359	5.258	52.034	46.198	1.00	57.13	C
ATOM	227	O	LYS	A	359	4.217	52.257	46.804	1.00	57.44	O
ATOM	228	N	GLY	A	360	6.345	52.782	46.309	1.00	57.49	N
ATOM	229	CA	GLY	A	360	6.379	53.972	47.120	1.00	57.85	C
ATOM	230	C	GLY	A	360	6.357	53.656	48.593	1.00	57.77	C
ATOM	231	O	GLY	A	360	6.272	54.561	49.413	1.00	57.97	O
ATOM	232	N	THR	A	361	6.422	52.378	48.946	1.00	58.01	N
ATOM	233	CA	THR	A	361	6.484	51.996	50.354	1.00	58.00	C
ATOM	234	CB	THR	A	361	5.147	51.382	50.893	1.00	57.67	C
ATOM	235	OG1	THR	A	361	4.891	50.096	50.289	1.00	57.26	O
ATOM	236	CG2	THR	A	361	3.971	52.313	50.651	1.00	57.11	C
ATOM	237	C	THR	A	361	7.594	50.999	50.585	1.00	58.27	C
ATOM	238	O	THR	A	361	8.136	50.414	49.629	1.00	58.38	O
ATOM	239	N	GLU	A	362	7.911	50.814	51.867	1.00	58.81	N
ATOM	240	CA	GLU	A	362	8.887	49.830	52.322	1.00	58.84	C
ATOM	241	CB	GLU	A	362	9.543	50.297	53.618	1.00	59.27	C
ATOM	242	CG	GLU	A	362	10.638	51.327	53.488	1.00	59.75	C
ATOM	243	CD	GLU	A	362	11.116	51.776	54.862	1.00	59.63	C

- 200 -

ATOM	244	OE1	GLU	A	362	11.326	50.903	55.741	1.00	60.41	O
ATOM	245	OE2	GLU	A	362	11.257	53.000	55.075	1.00	59.98	O
ATOM	246	C	GLU	A	362	8.221	48.479	52.584	1.00	58.40	C
ATOM	247	O	GLU	A	362	8.903	47.537	53.012	1.00	58.70	O
ATOM	248	N	GLU	A	363	6.905	48.391	52.341	1.00	56.57	N
ATOM	249	CA	GLU	A	363	6.105	47.214	52.727	1.00	55.97	C
ATOM	250	CB	GLU	A	363	4.606	47.519	52.714	1.00	56.33	C
ATOM	251	CG	GLU	A	363	4.143	48.483	53.802	1.00	57.09	C
ATOM	252	CD	GLU	A	363	2.931	49.373	53.391	1.00	57.16	C
ATOM	253	OE1	GLU	A	363	2.284	49.119	52.333	1.00	57.99	O
ATOM	254	OE2	GLU	A	363	2.626	50.334	54.151	1.00	57.53	O
ATOM	255	C	GLU	A	363	6.389	46.055	51.804	1.00	55.08	C
ATOM	256	O	GLU	A	363	6.171	46.137	50.581	1.00	55.01	O
ATOM	257	N	LEU	A	364	6.899	44.980	52.393	1.00	53.38	N
ATOM	258	CA	LEU	A	364	7.098	43.763	51.648	1.00	50.64	C
ATOM	259	CB	LEU	A	364	8.410	43.108	52.066	1.00	50.79	C
ATOM	260	CG	LEU	A	364	9.536	43.472	51.081	1.00	50.70	C
ATOM	261	CD1	LEU	A	364	9.361	44.862	50.507	1.00	51.70	C
ATOM	262	CD2	LEU	A	364	10.894	43.317	51.731	1.00	50.39	C
ATOM	263	C	LEU	A	364	5.901	42.871	51.853	1.00	49.05	C
ATOM	264	O	LEU	A	364	5.284	42.872	52.933	1.00	48.11	O
ATOM	265	N	TYR	A	365	5.532	42.169	50.792	1.00	46.80	N
ATOM	266	CA	TYR	A	365	4.512	41.154	50.909	1.00	44.33	C
ATOM	267	CB	TYR	A	365	3.111	41.634	50.425	1.00	45.51	C
ATOM	268	CG	TYR	A	365	2.501	42.894	51.040	1.00	45.67	C
ATOM	269	CD1	TYR	A	365	2.606	44.157	50.377	1.00	45.38	C
ATOM	270	CE1	TYR	A	365	2.040	45.335	50.923	1.00	46.50	C
ATOM	271	CZ	TYR	A	365	1.348	45.257	52.139	1.00	45.66	C
ATOM	272	OH	TYR	A	365	0.805	46.410	52.702	1.00	47.22	O
ATOM	273	CE2	TYR	A	365	1.219	44.012	52.808	1.00	45.98	C
ATOM	274	CD2	TYR	A	365	1.794	42.837	52.252	1.00	45.46	C
ATOM	275	C	TYR	A	365	4.906	39.900	50.122	1.00	44.33	C
ATOM	276	O	TYR	A	365	5.653	39.960	49.141	1.00	44.33	O
ATOM	277	N	ALA	A	366	4.371	38.763	50.561	1.00	44.33	N
ATOM	278	CA	ALA	A	366	4.406	37.552	49.778	1.00	44.33	C
ATOM	279	CB	ALA	A	366	4.607	36.344	50.672	1.00	44.33	C
ATOM	280	C	ALA	A	366	3.082	37.462	49.022	1.00	44.33	C
ATOM	281	O	ALA	A	366	1.989	37.686	49.585	1.00	44.33	O
ATOM	282	N	ILE	A	367	3.216	37.166	47.734	1.00	44.33	N
ATOM	283	CA	ILE	A	367	2.103	37.100	46.856	1.00	44.33	C
ATOM	284	CB	ILE	A	367	2.114	38.231	45.780	1.00	44.33	C
ATOM	285	CG1	ILE	A	367	2.326	39.610	46.408	1.00	44.33	C
ATOM	286	CD1	ILE	A	367	2.342	40.770	45.371	1.00	44.33	C
ATOM	287	CG2	ILE	A	367	0.793	38.255	45.013	1.00	44.33	C
ATOM	288	C	ILE	A	367	2.126	35.749	46.176	1.00	44.33	C
ATOM	289	O	ILE	A	367	2.977	35.491	45.331	1.00	44.33	O
ATOM	290	N	LYS	A	368	1.161	34.900	46.535	1.00	44.33	N
ATOM	291	CA	LYS	A	368	0.933	33.682	45.805	1.00	44.33	C
ATOM	292	CB	LYS	A	368	0.080	32.733	46.627	1.00	44.33	C
ATOM	293	CG	LYS	A	368	-0.310	31.510	45.840	1.00	44.33	C
ATOM	294	CD	LYS	A	368	-1.317	30.639	46.581	1.00	44.33	C
ATOM	295	CE	LYS	A	368	-1.418	29.290	45.898	1.00	44.33	C
ATOM	296	NZ	LYS	A	368	-2.170	28.322	46.723	1.00	44.33	N
ATOM	297	C	LYS	A	368	0.244	34.038	44.487	1.00	44.33	C
ATOM	298	O	LYS	A	368	-0.751	34.754	44.475	1.00	44.33	O
ATOM	299	N	ILE	A	369	0.785	33.538	43.384	1.00	44.33	N
ATOM	300	CA	ILE	A	369	0.205	33.749	42.070	1.00	44.33	C
ATOM	301	CB	ILE	A	369	1.235	34.507	41.197	1.00	44.33	C

- 201 -

ATOM	302	CG1	ILE	A	369	1.639	35.787	41.940	1.00	44.33	C
ATOM	303	CD1	ILE	A	369	2.838	36.607	41.377	1.00	44.33	C
ATOM	304	CG2	ILE	A	369	0.751	34.777	39.767	1.00	44.33	C
ATOM	305	C	ILE	A	369	-0.261	32.410	41.462	1.00	44.33	C
ATOM	306	O	ILE	A	369	0.501	31.435	41.363	1.00	44.33	O
ATOM	307	N	LEU	A	370	-1.526	32.337	41.081	1.00	44.33	N
ATOM	308	CA	LEU	A	370	-1.968	31.188	40.279	1.00	44.33	C
ATOM	309	CB	LEU	A	370	-3.075	30.423	40.981	1.00	44.33	C
ATOM	310	CG	LEU	A	370	-2.572	29.561	42.132	1.00	44.33	C
ATOM	311	CD1	LEU	A	370	-3.719	29.467	43.059	1.00	44.33	C
ATOM	312	CD2	LEU	A	370	-2.070	28.146	41.735	1.00	44.33	C
ATOM	313	C	LEU	A	370	-2.407	31.546	38.859	1.00	44.33	C
ATOM	314	O	LEU	A	370	-3.004	32.606	38.630	1.00	44.33	O
ATOM	315	N	LYS	A	371	-2.090	30.666	37.919	1.00	44.33	N
ATOM	316	CA	LYS	A	371	-2.609	30.765	36.584	1.00	44.33	C
ATOM	317	CB	LYS	A	371	-1.618	30.088	35.634	1.00	44.34	C
ATOM	318	CG	LYS	A	371	-0.448	31.010	35.119	1.00	44.33	C
ATOM	319	CD	LYS	A	371	0.643	30.283	34.228	1.00	48.68	C
ATOM	320	CE	LYS	A	371	0.126	29.660	32.890	1.00	48.63	C
ATOM	321	NZ	LYS	A	371	0.350	30.479	31.667	1.00	52.78	N
ATOM	322	C	LYS	A	371	-3.958	30.046	36.579	1.00	44.33	C
ATOM	323	O	LYS	A	371	-3.994	28.848	36.896	1.00	44.33	O
ATOM	324	N	LYS	A	372	-5.053	30.763	36.246	1.00	44.33	N
ATOM	325	CA	LYS	A	372	-6.408	30.164	36.207	1.00	44.33	C
ATOM	326	CB	LYS	A	372	-7.438	31.166	35.745	1.00	44.33	C
ATOM	327	CG	LYS	A	372	-7.898	32.122	36.787	1.00	44.33	C
ATOM	328	CD	LYS	A	372	-8.513	33.338	36.155	1.00	44.33	C
ATOM	329	CE	LYS	A	372	-8.907	34.313	37.235	1.00	44.33	C
ATOM	330	NZ	LYS	A	372	-9.996	35.218	36.692	1.00	44.33	N
ATOM	331	C	LYS	A	372	-6.498	28.884	35.351	1.00	44.33	C
ATOM	332	O	LYS	A	372	-7.051	27.878	35.796	1.00	44.33	O
ATOM	333	N	ASP	A	373	-5.930	28.891	34.144	1.00	44.33	N
ATOM	334	CA	ASP	A	373	-6.032	27.694	33.274	1.00	44.33	C
ATOM	335	CB	ASP	A	373	-5.382	27.828	31.884	1.00	45.94	C
ATOM	336	CG	ASP	A	373	-3.863	27.971	31.924	1.00	48.69	C
ATOM	337	OD1	ASP	A	373	-3.347	28.765	32.748	1.00	50.78	O
ATOM	338	OD2	ASP	A	373	-3.188	27.321	31.084	1.00	48.64	O
ATOM	339	C	ASP	A	373	-5.460	26.500	33.964	1.00	44.33	C
ATOM	340	O	ASP	A	373	-5.990	25.403	33.854	1.00	44.33	O
ATOM	341	N	VAL	A	374	-4.373	26.742	34.686	1.00	44.33	N
ATOM	342	CA	VAL	A	374	-3.673	25.698	35.392	1.00	44.33	C
ATOM	343	CB	VAL	A	374	-2.332	26.121	36.005	1.00	44.33	C
ATOM	344	CG1	VAL	A	374	-1.704	24.924	36.670	1.00	44.33	C
ATOM	345	CG2	VAL	A	374	-1.411	26.688	34.943	1.00	44.33	C
ATOM	346	C	VAL	A	374	-4.519	25.252	36.523	1.00	44.33	C
ATOM	347	O	VAL	A	374	-4.725	24.060	36.674	1.00	44.33	O
ATOM	348	N	VAL	A	375	-5.014	26.168	37.338	1.00	44.33	N
ATOM	349	CA	VAL	A	375	-5.837	25.696	38.447	1.00	44.33	C
ATOM	350	CB	VAL	A	375	-6.365	26.825	39.339	1.00	44.33	C
ATOM	351	CG1	VAL	A	375	-7.736	26.525	39.922	1.00	44.33	C
ATOM	352	CG2	VAL	A	375	-5.400	27.070	40.444	1.00	44.33	C
ATOM	353	C	VAL	A	375	-6.941	24.805	37.903	1.00	44.33	C
ATOM	354	O	VAL	A	375	-7.159	23.702	38.409	1.00	44.33	O
ATOM	355	N	ILE	A	376	-7.591	25.265	36.835	1.00	44.33	N
ATOM	356	CA	ILE	A	376	-8.645	24.491	36.219	1.00	44.33	C
ATOM	357	CB	ILE	A	376	-9.465	25.332	35.290	1.00	44.33	C
ATOM	358	CG1	ILE	A	376	-10.135	26.410	36.108	1.00	44.33	C
ATOM	359	CD1	ILE	A	376	-10.583	27.572	35.280	1.00	44.33	C

- 202 -

ATOM	360	CG2	ILE	A	376	-10.492	24.497	34.537	1.00	44.33	C
ATOM	361	C	ILE	A	376	-8.084	23.217	35.603	1.00	44.33	C
ATOM	362	O	ILE	A	376	-8.442	22.163	36.014	1.00	44.37	O
ATOM	363	N	GLN	A	377	-7.177	23.293	34.660	1.00	44.33	N
ATOM	364	CA	GLN	A	377	-6.514	22.075	34.181	1.00	46.16	C
ATOM	365	CB	GLN	A	377	-5.143	22.402	33.606	1.00	46.65	C
ATOM	366	CG	GLN	A	377	-4.940	22.372	32.128	1.00	52.28	C
ATOM	367	CD	GLN	A	377	-3.589	23.035	31.808	1.00	51.97	C
ATOM	368	OE1	GLN	A	377	-3.490	23.944	30.955	1.00	56.04	O
ATOM	369	NE2	GLN	A	377	-2.543	22.611	32.539	1.00	54.25	N
ATOM	370	C	GLN	A	377	-6.177	21.111	35.307	1.00	44.33	C
ATOM	371	O	GLN	A	377	-6.146	19.911	35.085	1.00	44.41	O
ATOM	372	N	ASP	A	378	-5.811	21.640	36.481	1.00	44.33	N
ATOM	373	CA	ASP	A	378	-5.327	20.790	37.577	1.00	44.33	C
ATOM	374	CB	ASP	A	378	-4.329	21.521	38.464	1.00	44.33	C
ATOM	375	CG	ASP	A	378	-2.897	21.371	37.995	1.00	44.33	C
ATOM	376	OD1	ASP	A	378	-2.627	20.691	36.988	1.00	44.70	O
ATOM	377	OD2	ASP	A	378	-2.032	21.958	38.649	1.00	44.56	O
ATOM	378	C	ASP	A	378	-6.459	20.372	38.453	1.00	44.33	C
ATOM	379	O	ASP	A	378	-6.244	19.725	39.448	1.00	44.33	O
ATOM	380	N	ASP	A	379	-7.676	20.759	38.109	1.00	44.33	N
ATOM	381	CA	ASP	A	379	-8.792	20.372	38.916	1.00	44.97	C
ATOM	382	CB	ASP	A	379	-8.799	18.874	39.010	1.00	46.58	C
ATOM	383	CG	ASP	A	379	-10.038	18.300	38.491	1.00	47.35	C
ATOM	384	OD1	ASP	A	379	-10.999	19.065	38.274	1.00	47.36	O
ATOM	385	OD2	ASP	A	379	-10.054	17.072	38.272	1.00	48.10	O
ATOM	386	C	ASP	A	379	-8.664	20.909	40.315	1.00	44.71	C
ATOM	387	O	ASP	A	379	-9.013	20.220	41.254	1.00	44.33	O
ATOM	388	N	ASP	A	380	-8.179	22.137	40.455	1.00	44.33	N
ATOM	389	CA	ASP	A	380	-7.980	22.732	41.785	1.00	44.41	C
ATOM	390	CB	ASP	A	380	-6.534	23.145	41.912	1.00	45.45	C
ATOM	391	CG	ASP	A	380	-5.656	21.988	42.270	1.00	48.74	C
ATOM	392	OD1	ASP	A	380	-6.063	21.264	43.220	1.00	50.86	O
ATOM	393	OD2	ASP	A	380	-4.582	21.793	41.601	1.00	50.83	O
ATOM	394	C	ASP	A	380	-8.873	23.910	42.190	1.00	44.33	C
ATOM	395	O	ASP	A	380	-8.670	24.520	43.242	1.00	44.75	O
ATOM	396	N	VAL	A	381	-9.867	24.224	41.362	1.00	44.33	N
ATOM	397	CA	VAL	A	381	-10.713	25.387	41.583	1.00	44.33	C
ATOM	398	CB	VAL	A	381	-11.839	25.417	40.553	1.00	44.90	C
ATOM	399	CG1	VAL	A	381	-12.826	26.542	40.826	1.00	44.33	C
ATOM	400	CG2	VAL	A	381	-11.243	25.560	39.157	1.00	44.33	C
ATOM	401	C	VAL	A	381	-11.248	25.397	43.010	1.00	44.42	C
ATOM	402	O	VAL	A	381	-11.145	26.390	43.712	1.00	46.23	O
ATOM	403	N	GLU	A	382	-11.774	24.257	43.448	1.00	45.68	N
ATOM	404	CA	GLU	A	382	-12.410	24.115	44.763	1.00	46.35	C
ATOM	405	CB	GLU	A	382	-12.977	22.697	44.904	1.00	49.85	C
ATOM	406	CG	GLU	A	382	-13.851	22.474	46.121	1.00	55.93	C
ATOM	407	CD	GLU	A	382	-14.377	23.778	46.742	1.00	57.74	C
ATOM	408	OE1	GLU	A	382	-14.593	24.806	46.009	1.00	61.58	O
ATOM	409	OE2	GLU	A	382	-14.579	23.761	47.994	1.00	59.19	O
ATOM	410	C	GLU	A	382	-11.466	24.444	45.896	1.00	45.92	C
ATOM	411	O	GLU	A	382	-11.748	25.286	46.746	1.00	44.82	O
ATOM	412	N	CYS	A	383	-10.321	23.780	45.877	1.00	44.33	N
ATOM	413	CA	CYS	A	383	-9.377	23.963	46.949	1.00	45.14	C
ATOM	414	CB	CYS	A	383	-8.292	22.879	46.908	1.00	46.58	C
ATOM	415	SG	CYS	A	383	-7.343	22.887	45.367	1.00	54.68	S
ATOM	416	C	CYS	A	383	-8.830	25.388	46.925	1.00	44.33	C
ATOM	417	O	CYS	A	383	-8.443	25.897	47.954	1.00	44.52	O

- 203 -

ATOM	418	N	THR	A	384	-8.839	26.030	45.759	1.00	44.33	N
ATOM	419	CA	THR	A	384	-8.362	27.400	45.641	1.00	44.33	C
ATOM	420	CB	THR	A	384	-8.313	27.825	44.199	1.00	44.33	C
ATOM	421	OG1	THR	A	384	-7.740	26.772	43.412	1.00	44.33	O
ATOM	422	CG2	THR	A	384	-7.487	29.039	44.042	1.00	44.33	C
ATOM	423	C	THR	A	384	-9.316	28.330	46.344	1.00	44.33	C
ATOM	424	O	THR	A	384	-8.919	29.200	47.098	1.00	44.33	O
ATOM	425	N	MET	A	385	-10.597	28.130	46.088	1.00	44.33	N
ATOM	426	CA	MET	A	385	-11.643	28.894	46.722	1.00	44.33	C
ATOM	427	CB	MET	A	385	-12.977	28.526	46.100	1.00	44.33	C
ATOM	428	CG	MET	A	385	-13.148	29.047	44.695	1.00	44.33	C
ATOM	429	SD	MET	A	385	-12.555	30.741	44.605	1.00	44.52	S
ATOM	430	CE	MET	A	385	-14.037	31.627	45.154	1.00	44.33	C
ATOM	431	C	MET	A	385	-11.706	28.661	48.216	1.00	44.33	C
ATOM	432	O	MET	A	385	-12.013	29.583	48.994	1.00	44.33	O
ATOM	433	N	VAL	A	386	-11.434	27.432	48.633	1.00	44.33	N
ATOM	434	CA	VAL	A	386	-11.358	27.162	50.057	1.00	44.33	C
ATOM	435	CB	VAL	A	386	-11.428	25.661	50.352	1.00	44.33	C
ATOM	436	CG1	VAL	A	386	-11.142	25.396	51.794	1.00	44.33	C
ATOM	437	CG2	VAL	A	386	-12.812	25.146	50.010	1.00	44.33	C
ATOM	438	C	VAL	A	386	-10.148	27.889	50.702	1.00	44.33	C
ATOM	439	O	VAL	A	386	-10.295	28.506	51.758	1.00	44.33	O
ATOM	440	N	GLU	A	387	-8.989	27.883	50.056	1.00	44.33	N
ATOM	441	CA	GLU	A	387	-7.836	28.562	50.620	1.00	44.33	C
ATOM	442	CB	GLU	A	387	-6.612	28.520	49.690	1.00	44.33	C
ATOM	443	CG	GLU	A	387	-5.310	29.012	50.329	1.00	47.57	C
ATOM	444	CD	GLU	A	387	-4.113	28.878	49.424	1.00	46.52	C
ATOM	445	OE1	GLU	A	387	-4.161	28.126	48.448	1.00	51.75	O
ATOM	446	OE2	GLU	A	387	-3.090	29.525	49.682	1.00	51.84	O
ATOM	447	C	GLU	A	387	-8.210	30.004	50.904	1.00	44.33	C
ATOM	448	O	GLU	A	387	-7.937	30.528	52.001	1.00	44.33	O
ATOM	449	N	LYS	A	388	-8.850	30.632	49.919	1.00	44.33	N
ATOM	450	CA	LYS	A	388	-9.320	32.011	50.042	1.00	44.33	C
ATOM	451	CB	LYS	A	388	-10.116	32.429	48.803	1.00	44.33	C
ATOM	452	CG	LYS	A	388	-10.405	33.914	48.718	1.00	44.33	C
ATOM	453	CD	LYS	A	388	-11.547	34.319	49.590	1.00	44.33	C
ATOM	454	CE	LYS	A	388	-12.530	35.125	48.782	1.00	44.33	C
ATOM	455	NZ	LYS	A	388	-13.958	34.993	49.203	1.00	44.33	N
ATOM	456	C	LYS	A	388	-10.208	32.179	51.252	1.00	44.33	C
ATOM	457	O	LYS	A	388	-9.987	33.058	52.046	1.00	44.33	O
ATOM	458	N	ARG	A	389	-11.236	31.343	51.376	1.00	44.33	N
ATOM	459	CA	ARG	A	389	-12.129	31.471	52.514	1.00	44.33	C
ATOM	460	CB	ARG	A	389	-13.363	30.618	52.372	1.00	44.33	C
ATOM	461	CG	ARG	A	389	-14.223	31.010	51.151	1.00	44.33	C
ATOM	462	CD	ARG	A	389	-15.518	30.208	51.110	1.00	44.33	C
ATOM	463	NE	ARG	A	389	-15.299	28.849	50.642	1.00	44.33	N
ATOM	464	CZ	ARG	A	389	-15.420	28.483	49.372	1.00	45.02	C
ATOM	465	NH1	ARG	A	389	-15.756	29.388	48.447	1.00	44.33	N
ATOM	466	NH2	ARG	A	389	-15.230	27.211	49.021	1.00	45.20	N
ATOM	467	C	ARG	A	389	-11.404	31.194	53.804	1.00	44.33	C
ATOM	468	O	ARG	A	389	-11.482	31.971	54.720	1.00	44.33	O
ATOM	469	N	VAL	A	390	-10.638	30.132	53.897	1.00	44.33	N
ATOM	470	CA	VAL	A	390	-9.883	29.970	55.148	1.00	44.33	C
ATOM	471	CB	VAL	A	390	-9.012	28.707	55.204	1.00	44.33	C
ATOM	472	CG1	VAL	A	390	-8.372	28.627	56.533	1.00	44.33	C
ATOM	473	CG2	VAL	A	390	-9.861	27.497	55.027	1.00	44.33	C
ATOM	474	C	VAL	A	390	-9.029	31.193	55.519	1.00	44.33	C
ATOM	475	O	VAL	A	390	-8.982	31.577	56.693	1.00	44.33	O

- 204 -

ATOM	476	N	LEU A 391	-8.371	31.793	54.528	1.00	44.33	N
ATOM	477	CA	LEU A 391	-7.482	32.921	54.788	1.00	44.33	C
ATOM	478	CB	LEU A 391	-6.529	33.189	53.610	1.00	44.33	C
ATOM	479	CG	LEU A 391	-5.423	32.179	53.253	1.00	44.33	C
ATOM	480	CD1	LEU A 391	-4.858	32.461	51.896	1.00	44.33	C
ATOM	481	CD2	LEU A 391	-4.302	32.182	54.246	1.00	44.86	C
ATOM	482	C	LEU A 391	-8.301	34.155	55.106	1.00	44.33	C
ATOM	483	O	LEU A 391	-7.882	34.999	55.904	1.00	44.33	O
ATOM	484	N	ALA A 392	-9.493	34.242	54.507	1.00	44.33	N
ATOM	485	CA	ALA A 392	-10.384	35.428	54.673	1.00	44.33	C
ATOM	486	CB	ALA A 392	-11.367	35.574	53.541	1.00	44.33	C
ATOM	487	C	ALA A 392	-11.104	35.457	55.991	1.00	44.33	C
ATOM	488	O	ALA A 392	-11.601	36.494	56.384	1.00	44.33	O
ATOM	489	N	LEU A 393	-11.123	34.322	56.674	1.00	44.33	N
ATOM	490	CA	LEU A 393	-11.684	34.186	58.017	1.00	44.33	C
ATOM	491	CB	LEU A 393	-11.144	32.938	58.721	1.00	44.33	C
ATOM	492	CG	LEU A 393	-11.803	31.622	58.279	1.00	44.33	C
ATOM	493	CD1	LEU A 393	-11.318	30.452	59.114	1.00	44.33	C
ATOM	494	CD2	LEU A 393	-13.351	31.686	58.266	1.00	44.33	C
ATOM	495	C	LEU A 393	-11.412	35.364	58.901	1.00	44.33	C
ATOM	496	O	LEU A 393	-10.310	35.916	58.884	1.00	44.33	O
ATOM	497	N	LEU A 394	-12.410	35.755	59.689	1.00	44.33	N
ATOM	498	CA	LEU A 394	-12.199	36.844	60.634	1.00	44.33	C
ATOM	499	CB	LEU A 394	-13.472	37.654	60.896	1.00	44.33	C
ATOM	500	CG	LEU A 394	-14.155	38.430	59.769	1.00	44.33	C
ATOM	501	CD1	LEU A 394	-15.073	39.445	60.373	1.00	44.33	C
ATOM	502	CD2	LEU A 394	-13.212	39.107	58.823	1.00	44.33	C
ATOM	503	C	LEU A 394	-11.591	36.332	61.947	1.00	44.33	C
ATOM	504	O	LEU A 394	-11.640	35.138	62.241	1.00	44.33	O
ATOM	505	N	ASP A 395	-10.994	37.240	62.714	1.00	44.33	N
ATOM	506	CA	ASP A 395	-10.474	36.939	64.041	1.00	44.33	C
ATOM	507	CB	ASP A 395	-11.624	36.705	65.049	1.00	45.82	C
ATOM	508	CG	ASP A 395	-12.609	37.867	65.083	1.00	46.34	C
ATOM	509	OD1	ASP A 395	-12.173	38.996	64.813	1.00	48.29	O
ATOM	510	OD2	ASP A 395	-13.818	37.666	65.364	1.00	49.12	O
ATOM	511	C	ASP A 395	-9.426	35.824	64.100	1.00	44.33	C
ATOM	512	O	ASP A 395	-9.318	35.148	65.119	1.00	44.33	O
ATOM	513	N	LYS A 396	-8.642	35.649	63.032	1.00	44.33	N
ATOM	514	CA	LYS A 396	-7.581	34.634	63.002	1.00	44.33	C
ATOM	515	CB	LYS A 396	-6.929	34.568	61.632	1.00	44.33	C
ATOM	516	CG	LYS A 396	-7.929	34.348	60.494	1.00	44.51	C
ATOM	517	CD	LYS A 396	-7.282	34.032	59.226	1.00	44.33	C
ATOM	518	CE	LYS A 396	-6.162	34.956	59.049	1.00	45.29	C
ATOM	519	NZ	LYS A 396	-5.419	34.624	57.829	1.00	45.10	N
ATOM	520	C	LYS A 396	-6.557	35.037	64.004	1.00	44.33	C
ATOM	521	O	LYS A 396	-6.204	36.201	64.034	1.00	44.33	O
ATOM	522	N	PRO A 397	-6.123	34.116	64.885	1.00	44.33	N
ATOM	523	CA	PRO A 397	-4.910	34.296	65.689	1.00	44.33	C
ATOM	524	CB	PRO A 397	-4.597	32.884	66.221	1.00	44.33	C
ATOM	525	CG	PRO A 397	-5.755	32.057	65.939	1.00	44.33	C
ATOM	526	CD	PRO A 397	-6.832	32.891	65.266	1.00	44.33	C
ATOM	527	C	PRO A 397	-3.705	34.795	64.887	1.00	44.33	C
ATOM	528	O	PRO A 397	-3.707	34.704	63.654	1.00	44.33	O
ATOM	529	N	PRO A 398	-2.661	35.301	65.586	1.00	44.33	N
ATOM	530	CA	PRO A 398	-1.437	35.765	64.932	1.00	44.33	C
ATOM	531	CB	PRO A 398	-0.645	36.379	66.087	1.00	44.33	C
ATOM	532	CG	PRO A 398	-1.123	35.675	67.265	1.00	44.33	C
ATOM	533	CD	PRO A 398	-2.572	35.460	67.046	1.00	44.33	C

- 205 -

ATOM	534	C	PRO	A	398	-0.623	34.638	64.301	1.00	44.33	C
ATOM	535	O	PRO	A	398	0.241	34.885	63.470	1.00	44.33	O
ATOM	536	N	PHE	A	399	-0.948	33.416	64.689	1.00	44.33	N
ATOM	537	CA	PHE	A	399	-0.209	32.241	64.322	1.00	44.33	C
ATOM	538	CB	PHE	A	399	-0.340	31.266	65.467	1.00	44.33	C
ATOM	539	CG	PHE	A	399	-0.005	31.887	66.756	1.00	44.33	C
ATOM	540	CD1	PHE	A	399	1.254	32.475	66.940	1.00	44.33	C
ATOM	541	CE1	PHE	A	399	1.572	33.123	68.127	1.00	44.33	C
ATOM	542	CZ	PHE	A	399	0.611	33.178	69.161	1.00	44.33	C
ATOM	543	CE2	PHE	A	399	-0.637	32.594	68.972	1.00	44.33	C
ATOM	544	CD2	PHE	A	399	-0.939	31.972	67.752	1.00	44.33	C
ATOM	545	C	PHE	A	399	-0.576	31.639	62.970	1.00	44.33	C
ATOM	546	O	PHE	A	399	0.002	30.641	62.526	1.00	44.33	O
ATOM	547	N	LEU	A	400	-1.499	32.282	62.286	1.00	44.33	N
ATOM	548	CA	LEU	A	400	-1.749	31.956	60.906	1.00	44.33	C
ATOM	549	CB	LEU	A	400	-3.241	31.707	60.666	1.00	44.33	C
ATOM	550	CG	LEU	A	400	-3.877	30.696	61.638	1.00	44.33	C
ATOM	551	CD1	LEU	A	400	-5.342	30.443	61.384	1.00	44.33	C
ATOM	552	CD2	LEU	A	400	-3.066	29.392	61.638	1.00	44.33	C
ATOM	553	C	LEU	A	400	-1.257	33.127	60.080	1.00	44.33	C
ATOM	554	O	LEU	A	400	-1.190	34.270	60.545	1.00	44.33	O
ATOM	555	N	THR	A	401	-0.881	32.828	58.851	1.00	44.33	N
ATOM	556	CA	THR	A	401	-0.448	33.855	57.930	1.00	44.33	C
ATOM	557	CB	THR	A	401	-0.027	33.255	56.617	1.00	44.33	C
ATOM	558	OG1	THR	A	401	-0.971	32.238	56.233	1.00	44.33	O
ATOM	559	CG2	THR	A	401	1.346	32.670	56.769	1.00	44.33	C
ATOM	560	C	THR	A	401	-1.572	34.797	57.608	1.00	44.33	C
ATOM	561	O	THR	A	401	-2.633	34.362	57.188	1.00	44.33	O
ATOM	562	N	GLN	A	402	-1.325	36.082	57.798	1.00	44.33	N
ATOM	563	CA	GLN	A	402	-2.273	37.121	57.431	1.00	44.33	C
ATOM	564	CB	GLN	A	402	-1.809	38.476	57.960	1.00	44.33	C
ATOM	565	CG	GLN	A	402	-1.967	38.697	59.463	1.00	44.33	C
ATOM	566	CD	GLN	A	402	-1.597	40.114	59.884	1.00	44.33	C
ATOM	567	OE1	GLN	A	402	-2.267	41.076	59.551	1.00	44.33	O
ATOM	568	NE2	GLN	A	402	-0.534	40.229	60.630	1.00	44.33	N
ATOM	569	C	GLN	A	402	-2.519	37.261	55.921	1.00	44.33	C
ATOM	570	O	GLN	A	402	-1.591	37.412	55.113	1.00	44.33	O
ATOM	571	N	LEU	A	403	-3.796	37.240	55.549	1.00	44.33	N
ATOM	572	CA	LEU	A	403	-4.207	37.682	54.216	1.00	44.33	C
ATOM	573	CB	LEU	A	403	-5.609	37.165	53.885	1.00	44.33	C
ATOM	574	CG	LEU	A	403	-6.036	37.565	52.487	1.00	44.33	C
ATOM	575	CD1	LEU	A	403	-7.346	36.910	52.161	1.00	44.33	C
ATOM	576	CD2	LEU	A	403	-4.994	37.209	51.452	1.00	44.33	C
ATOM	577	C	LEU	A	403	-4.219	39.205	54.166	1.00	44.33	C
ATOM	578	O	LEU	A	403	-4.926	39.844	54.961	1.00	44.33	O
ATOM	579	N	HIS	A	404	-3.461	39.796	53.250	1.00	44.33	N
ATOM	580	CA	HIS	A	404	-3.715	41.204	52.977	1.00	44.33	C
ATOM	581	CB	HIS	A	404	-2.597	41.913	52.219	1.00	44.33	C
ATOM	582	CG	HIS	A	404	-3.000	43.278	51.739	1.00	44.33	C
ATOM	583	ND1	HIS	A	404	-2.534	44.441	52.313	1.00	44.33	N
ATOM	584	CE1	HIS	A	404	-3.071	45.480	51.697	1.00	44.33	C
ATOM	585	NE2	HIS	A	404	-3.877	45.034	50.752	1.00	44.33	N
ATOM	586	CD2	HIS	A	404	-3.857	43.663	50.762	1.00	44.33	C
ATOM	587	C	HIS	A	404	-4.985	41.363	52.170	1.00	44.33	C
ATOM	588	O	HIS	A	404	-5.865	42.135	52.533	1.00	44.33	O
ATOM	589	N	SER	A	405	-5.049	40.655	51.049	1.00	44.33	N
ATOM	590	CA	SER	A	405	-6.205	40.707	50.182	1.00	44.33	C
ATOM	591	CB	SER	A	405	-6.362	42.124	49.649	1.00	44.33	C

- 206 -

ATOM	592	OG	SER	A	405	-5.404	42.324	48.636	1.00	44.33	O
ATOM	593	C	SER	A	405	-6.021	39.772	49.000	1.00	44.33	C
ATOM	594	O	SER	A	405	-4.901	39.401	48.687	1.00	44.33	O
ATOM	595	N	CYS	A	406	-7.120	39.411	48.338	1.00	44.33	N
ATOM	596	CA	CYS	A	406	-7.076	38.703	47.056	1.00	45.05	C
ATOM	597	CB	CYS	A	406	-7.986	37.518	47.030	1.00	45.45	C
ATOM	598	SG	CYS	A	406	-7.731	36.545	48.313	1.00	56.72	S
ATOM	599	C	CYS	A	406	-7.649	39.532	45.965	1.00	44.33	C
ATOM	600	O	CYS	A	406	-8.586	40.319	46.186	1.00	44.33	O
ATOM	601	N	PHE	A	407	-7.137	39.293	44.762	1.00	44.33	N
ATOM	602	CA	PHE	A	407	-7.735	39.820	43.560	1.00	44.33	C
ATOM	603	CB	PHE	A	407	-7.296	41.274	43.314	1.00	44.33	C
ATOM	604	CG	PHE	A	407	-5.850	41.443	42.947	1.00	44.33	C
ATOM	605	CD1	PHE	A	407	-5.463	41.519	41.619	1.00	44.33	C
ATOM	606	CE1	PHE	A	407	-4.126	41.678	41.274	1.00	44.33	C
ATOM	607	CZ	PHE	A	407	-3.157	41.798	42.284	1.00	44.33	C
ATOM	608	CE2	PHE	A	407	-3.531	41.741	43.607	1.00	44.33	C
ATOM	609	CD2	PHE	A	407	-4.880	41.573	43.931	1.00	44.33	C
ATOM	610	C	PHE	A	407	-7.416	38.909	42.380	1.00	44.33	C
ATOM	611	O	PHE	A	407	-6.583	38.038	42.454	1.00	44.33	O
ATOM	612	N	GLN	A	408	-8.096	39.114	41.277	1.00	44.33	N
ATOM	613	CA	GLN	A	408	-7.819	38.313	40.126	1.00	44.33	C
ATOM	614	CB	GLN	A	408	-8.990	37.336	39.817	1.00	44.33	C
ATOM	615	CG	GLN	A	408	-10.440	37.904	39.949	1.00	44.33	C
ATOM	616	CD	GLN	A	408	-11.530	36.932	39.488	1.00	44.33	C
ATOM	617	OE1	GLN	A	408	-11.354	36.198	38.514	1.00	44.33	O
ATOM	618	NE2	GLN	A	408	-12.685	36.954	40.175	1.00	44.33	N
ATOM	619	C	GLN	A	408	-7.580	39.201	38.952	1.00	44.33	C
ATOM	620	O	GLN	A	408	-8.043	40.317	38.892	1.00	44.33	O
ATOM	621	N	THR	A	409	-6.849	38.680	38.001	1.00	44.33	N
ATOM	622	CA	THR	A	409	-6.727	39.268	36.690	1.00	44.33	C
ATOM	623	CB	THR	A	409	-5.252	39.238	36.292	1.00	44.33	C
ATOM	624	OG1	THR	A	409	-4.966	40.336	35.425	1.00	46.69	O
ATOM	625	CG2	THR	A	409	-4.939	37.980	35.543	1.00	44.33	C
ATOM	626	C	THR	A	409	-7.528	38.364	35.739	1.00	44.33	C
ATOM	627	O	THR	A	409	-8.077	37.359	36.150	1.00	44.33	O
ATOM	628	N	VAL	A	410	-7.593	38.714	34.474	1.00	44.33	N
ATOM	629	CA	VAL	A	410	-8.322	37.898	33.556	1.00	44.33	C
ATOM	630	CB	VAL	A	410	-8.288	38.509	32.131	1.00	44.33	C
ATOM	631	CG1	VAL	A	410	-6.861	38.569	31.536	1.00	44.33	C
ATOM	632	CG2	VAL	A	410	-9.279	37.812	31.218	1.00	44.33	C
ATOM	633	C	VAL	A	410	-7.798	36.476	33.596	1.00	44.33	C
ATOM	634	O	VAL	A	410	-8.564	35.515	33.496	1.00	44.33	O
ATOM	635	N	ASP	A	411	-6.490	36.324	33.760	1.00	44.33	N
ATOM	636	CA	ASP	A	411	-5.914	34.986	33.665	1.00	44.33	C
ATOM	637	CB	ASP	A	411	-5.038	34.764	32.400	1.00	44.33	C
ATOM	638	CG	ASP	A	411	-3.793	35.681	32.315	1.00	44.40	C
ATOM	639	OD1	ASP	A	411	-3.475	36.386	33.298	1.00	44.33	O
ATOM	640	OD2	ASP	A	411	-3.117	35.691	31.236	1.00	44.82	O
ATOM	641	C	ASP	A	411	-5.308	34.438	34.959	1.00	44.33	C
ATOM	642	O	ASP	A	411	-4.970	33.267	35.045	1.00	44.33	O
ATOM	643	N	ARG	A	412	-5.241	35.260	35.989	1.00	44.33	N
ATOM	644	CA	ARG	A	412	-4.470	34.874	37.152	1.00	44.33	C
ATOM	645	CB	ARG	A	412	-3.103	35.541	37.145	1.00	44.33	C
ATOM	646	CG	ARG	A	412	-2.073	34.914	36.249	1.00	44.33	C
ATOM	647	CD	ARG	A	412	-0.687	35.566	36.504	1.00	44.33	C
ATOM	648	NE	ARG	A	412	0.387	34.829	35.850	1.00	45.48	N
ATOM	649	CZ	ARG	A	412	0.547	34.816	34.539	1.00	44.92	C

- 207 -

ATOM	650	NH1	ARG	A	412	-0.271	35.508	33.753	1.00	49.51	N
ATOM	651	NH2	ARG	A	412	1.504	34.097	34.009	1.00	47.63	N
ATOM	652	C	ARG	A	412	-5.130	35.232	38.431	1.00	44.33	C
ATOM	653	O	ARG	A	412	-5.951	36.143	38.473	1.00	44.33	O
ATOM	654	N	LEU	A	413	-4.753	34.513	39.482	1.00	44.33	N
ATOM	655	CA	LEU	A	413	-5.212	34.804	40.837	1.00	44.33	C
ATOM	656	CB	LEU	A	413	-5.735	33.546	41.468	1.00	44.33	C
ATOM	657	CG	LEU	A	413	-6.743	32.687	40.723	1.00	44.33	C
ATOM	658	CD1	LEU	A	413	-6.641	31.396	41.430	1.00	44.33	C
ATOM	659	CD2	LEU	A	413	-8.187	33.258	40.784	1.00	44.33	C
ATOM	660	C	LEU	A	413	-4.050	35.225	41.682	1.00	44.33	C
ATOM	661	O	LEU	A	413	-2.946	34.740	41.489	1.00	44.33	O
ATOM	662	N	TYR	A	414	-4.292	36.084	42.657	1.00	44.33	N
ATOM	663	CA	TYR	A	414	-3.238	36.657	43.460	1.00	44.33	C
ATOM	664	CB	TYR	A	414	-3.025	38.097	43.037	1.00	44.33	C
ATOM	665	CG	TYR	A	414	-2.445	38.179	41.668	1.00	44.33	C
ATOM	666	CD1	TYR	A	414	-1.052	38.227	41.478	1.00	44.33	C
ATOM	667	CE1	TYR	A	414	-0.501	38.270	40.217	1.00	44.33	C
ATOM	668	CZ	TYR	A	414	-1.318	38.256	39.105	1.00	44.33	C
ATOM	669	OH	TYR	A	414	-0.764	38.320	37.845	1.00	44.33	O
ATOM	670	CE2	TYR	A	414	-2.709	38.202	39.257	1.00	44.33	C
ATOM	671	CD2	TYR	A	414	-3.263	38.159	40.547	1.00	44.33	C
ATOM	672	C	TYR	A	414	-3.666	36.668	44.878	1.00	44.33	C
ATOM	673	O	TYR	A	414	-4.711	37.209	45.180	1.00	44.33	O
ATOM	674	N	PHE	A	415	-2.878	36.090	45.770	1.00	44.33	N
ATOM	675	CA	PHE	A	415	-3.108	36.242	47.201	1.00	44.33	C
ATOM	676	CB	PHE	A	415	-3.017	34.908	47.896	1.00	44.33	C
ATOM	677	CG	PHE	A	415	-4.009	33.910	47.422	1.00	45.11	C
ATOM	678	CD1	PHE	A	415	-3.920	33.357	46.148	1.00	44.33	C
ATOM	679	CE1	PHE	A	415	-4.835	32.419	45.709	1.00	46.60	C
ATOM	680	CZ	PHE	A	415	-5.843	31.997	46.537	1.00	44.33	C
ATOM	681	CE2	PHE	A	415	-5.952	32.536	47.795	1.00	46.60	C
ATOM	682	CD2	PHE	A	415	-5.033	33.497	48.248	1.00	44.63	C
ATOM	683	C	PHE	A	415	-2.008	37.113	47.756	1.00	44.33	C
ATOM	684	O	PHE	A	415	-0.841	36.857	47.482	1.00	44.33	O
ATOM	685	N	VAL	A	416	-2.363	38.137	48.524	1.00	44.33	N
ATOM	686	CA	VAL	A	416	-1.372	39.058	48.989	1.00	44.33	C
ATOM	687	CB	VAL	A	416	-1.716	40.512	48.667	1.00	44.33	C
ATOM	688	CG1	VAL	A	416	-0.605	41.427	49.141	1.00	44.33	C
ATOM	689	CG2	VAL	A	416	-1.889	40.680	47.179	1.00	44.33	C
ATOM	690	C	VAL	A	416	-1.240	38.810	50.461	1.00	44.33	C
ATOM	691	O	VAL	A	416	-2.181	38.997	51.222	1.00	44.33	O
ATOM	692	N	MET	A	417	-0.047	38.378	50.852	1.00	44.33	N
ATOM	693	CA	MET	A	417	0.170	37.853	52.162	1.00	44.33	C
ATOM	694	CB	MET	A	417	0.811	36.486	52.037	1.00	44.33	C
ATOM	695	CG	MET	A	417	0.034	35.486	51.206	1.00	44.33	C
ATOM	696	SD	MET	A	417	-1.683	35.352	51.701	1.00	46.93	S
ATOM	697	CE	MET	A	417	-1.670	34.621	53.323	1.00	44.33	C
ATOM	698	C	MET	A	417	1.161	38.743	52.817	1.00	44.33	C
ATOM	699	O	MET	A	417	1.951	39.394	52.131	1.00	44.33	O
ATOM	700	N	GLU	A	418	1.147	38.738	54.152	1.00	44.33	N
ATOM	701	CA	GLU	A	418	2.220	39.310	54.932	1.00	44.33	C
ATOM	702	CB	GLU	A	418	1.907	39.268	56.409	1.00	44.33	C
ATOM	703	CG	GLU	A	418	1.637	37.915	56.996	1.00	44.33	C
ATOM	704	CD	GLU	A	418	1.443	37.998	58.514	1.00	44.33	C
ATOM	705	OE1	GLU	A	418	1.922	38.990	59.139	1.00	44.81	O
ATOM	706	OE2	GLU	A	418	0.802	37.080	59.084	1.00	46.42	O
ATOM	707	C	GLU	A	418	3.497	38.557	54.635	1.00	44.33	C

- 208 -

ATOM	708	O	GLU	A	418	3.467	37.399	54.213	1.00	44.33	O
ATOM	709	N	TYR	A	419	4.618	39.235	54.809	1.00	44.33	N
ATOM	710	CA	TYR	A	419	5.901	38.639	54.541	1.00	44.33	C
ATOM	711	CB	TYR	A	419	6.846	39.716	54.019	1.00	44.33	C
ATOM	712	CG	TYR	A	419	8.174	39.146	53.786	1.00	44.33	C
ATOM	713	CD1	TYR	A	419	8.276	37.812	53.435	1.00	44.33	C
ATOM	714	CE1	TYR	A	419	9.476	37.215	53.234	1.00	44.33	C
ATOM	715	CZ	TYR	A	419	10.613	37.944	53.352	1.00	44.33	C
ATOM	716	OH	TYR	A	419	11.755	37.245	53.094	1.00	44.33	O
ATOM	717	CE2	TYR	A	419	10.568	39.298	53.701	1.00	44.35	C
ATOM	718	CD2	TYR	A	419	9.328	39.894	53.921	1.00	44.33	C
ATOM	719	C	TYR	A	419	6.475	37.997	55.816	1.00	44.33	C
ATOM	720	O	TYR	A	419	6.818	38.700	56.748	1.00	44.33	O
ATOM	721	N	VAL	A	420	6.590	36.675	55.869	1.00	44.33	N
ATOM	722	CA	VAL	A	420	7.104	36.042	57.079	1.00	44.33	C
ATOM	723	CB	VAL	A	420	6.302	34.822	57.467	1.00	44.33	C
ATOM	724	CG1	VAL	A	420	6.726	34.357	58.792	1.00	44.33	C
ATOM	725	CG2	VAL	A	420	4.761	35.116	57.417	1.00	44.33	C
ATOM	726	C	VAL	A	420	8.507	35.630	56.795	1.00	44.62	C
ATOM	727	O	VAL	A	420	8.758	34.906	55.845	1.00	44.33	O
ATOM	728	N	ASN	A	421	9.425	36.084	57.630	1.00	45.02	N
ATOM	729	CA	ASN	A	421	10.835	36.017	57.298	1.00	47.43	C
ATOM	730	CB	ASN	A	421	11.330	37.419	56.888	1.00	49.59	C
ATOM	731	CG	ASN	A	421	11.457	38.398	58.079	1.00	51.40	C
ATOM	732	OD1	ASN	A	421	11.455	38.022	59.275	1.00	54.20	O
ATOM	733	ND2	ASN	A	421	11.593	39.671	57.739	1.00	52.72	N
ATOM	734	C	ASN	A	421	11.800	35.354	58.310	1.00	46.51	C
ATOM	735	O	ASN	A	421	13.004	35.478	58.175	1.00	47.39	O
ATOM	736	N	GLY	A	422	11.289	34.643	59.303	1.00	45.50	N
ATOM	737	CA	GLY	A	422	12.177	33.951	60.247	1.00	44.35	C
ATOM	738	C	GLY	A	422	12.634	32.543	59.879	1.00	44.50	C
ATOM	739	O	GLY	A	422	13.158	31.853	60.737	1.00	44.37	O
ATOM	740	N	GLY	A	423	12.433	32.106	58.632	1.00	44.77	N
ATOM	741	CA	GLY	A	423	12.715	30.729	58.253	1.00	46.65	C
ATOM	742	C	GLY	A	423	11.682	29.724	58.722	1.00	47.09	C
ATOM	743	O	GLY	A	423	10.860	30.000	59.589	1.00	48.16	O
ATOM	744	N	ASP	A	424	11.721	28.532	58.154	1.00	48.14	N
ATOM	745	CA	ASP	A	424	10.768	27.511	58.559	1.00	49.04	C
ATOM	746	CB	ASP	A	424	10.217	26.760	57.345	1.00	52.44	C
ATOM	747	CG	ASP	A	424	11.230	26.627	56.242	1.00	55.03	C
ATOM	748	OD1	ASP	A	424	12.175	25.835	56.385	1.00	55.52	O
ATOM	749	OD2	ASP	A	424	11.084	27.315	55.224	1.00	56.70	O
ATOM	750	C	ASP	A	424	11.309	26.554	59.638	1.00	47.95	C
ATOM	751	O	ASP	A	424	12.532	26.447	59.901	1.00	46.73	O
ATOM	752	N	LEU	A	425	10.378	25.859	60.282	1.00	45.48	N
ATOM	753	CA	LEU	A	425	10.761	25.021	61.413	1.00	44.97	C
ATOM	754	CB	LEU	A	425	9.557	24.387	62.094	1.00	44.80	C
ATOM	755	CG	LEU	A	425	8.693	25.132	63.104	1.00	48.09	C
ATOM	756	CD1	LEU	A	425	7.983	24.115	64.030	1.00	45.08	C
ATOM	757	CD2	LEU	A	425	9.511	26.076	63.912	1.00	45.18	C
ATOM	758	C	LEU	A	425	11.704	23.937	60.995	1.00	44.33	C
ATOM	759	O	LEU	A	425	12.651	23.667	61.697	1.00	44.33	O
ATOM	760	N	MET	A	426	11.451	23.307	59.862	1.00	44.33	N
ATOM	761	CA	MET	A	426	12.390	22.338	59.335	1.00	44.33	C
ATOM	762	CB	MET	A	426	12.012	22.047	57.910	1.00	45.14	C
ATOM	763	CG	MET	A	426	12.976	21.192	57.223	1.00	47.11	C
ATOM	764	SD	MET	A	426	12.560	19.551	57.673	1.00	49.21	S
ATOM	765	CE	MET	A	426	13.782	18.741	56.681	1.00	48.67	C

- 209 -

ATOM	766	C	MET	A	426	13.831	22.875	59.390	1.00	45.87	C
ATOM	767	O	MET	A	426	14.734	22.262	59.949	1.00	45.49	O
ATOM	768	N	TYR	A	427	14.022	24.054	58.838	1.00	45.77	N
ATOM	769	CA	TYR	A	427	15.311	24.679	58.830	1.00	45.27	C
ATOM	770	CB	TYR	A	427	15.171	26.074	58.227	1.00	47.06	C
ATOM	771	CG	TYR	A	427	16.405	26.903	58.374	1.00	47.10	C
ATOM	772	CD1	TYR	A	427	17.403	26.833	57.426	1.00	49.56	C
ATOM	773	CE1	TYR	A	427	18.546	27.603	57.539	1.00	47.51	C
ATOM	774	CZ	TYR	A	427	18.702	28.427	58.620	1.00	48.74	C
ATOM	775	OH	TYR	A	427	19.873	29.163	58.715	1.00	47.10	O
ATOM	776	CE2	TYR	A	427	17.695	28.508	59.592	1.00	47.49	C
ATOM	777	CD2	TYR	A	427	16.571	27.763	59.463	1.00	49.20	C
ATOM	778	C	TYR	A	427	15.849	24.782	60.255	1.00	44.95	C
ATOM	779	O	TYR	A	427	16.985	24.363	60.572	1.00	44.33	O
ATOM	780	N	HIS	A	428	15.029	25.363	61.115	1.00	44.33	N
ATOM	781	CA	HIS	A	428	15.488	25.707	62.437	1.00	44.33	C
ATOM	782	CB	HIS	A	428	14.447	26.586	63.117	1.00	44.33	C
ATOM	783	CG	HIS	A	428	14.462	28.009	62.646	1.00	44.48	C
ATOM	784	ND1	HIS	A	428	15.557	28.845	62.816	1.00	44.33	N
ATOM	785	CE1	HIS	A	428	15.282	30.026	62.297	1.00	44.33	C
ATOM	786	NE2	HIS	A	428	14.046	29.992	61.814	1.00	44.33	N
ATOM	787	CD2	HIS	A	428	13.514	28.743	62.016	1.00	44.33	C
ATOM	788	C	HIS	A	428	15.779	24.490	63.273	1.00	44.33	C
ATOM	789	O	HIS	A	428	16.710	24.489	64.061	1.00	44.33	O
ATOM	790	N	ILE	A	429	14.962	23.456	63.100	1.00	44.33	N
ATOM	791	CA	ILE	A	429	15.217	22.169	63.731	1.00	44.33	C
ATOM	792	CB	ILE	A	429	14.050	21.192	63.468	1.00	44.33	C
ATOM	793	CG1	ILE	A	429	13.386	20.782	64.769	1.00	46.23	C
ATOM	794	CD1	ILE	A	429	12.057	19.984	64.562	1.00	48.27	C
ATOM	795	CG2	ILE	A	429	14.538	19.907	62.856	1.00	44.33	C
ATOM	796	C	ILE	A	429	16.590	21.632	63.232	1.00	44.33	C
ATOM	797	O	ILE	A	429	17.413	21.171	64.029	1.00	44.33	O
ATOM	798	N	GLN	A	430	16.844	21.743	61.924	1.00	44.33	N
ATOM	799	CA	GLN	A	430	18.132	21.300	61.350	1.00	45.55	C
ATOM	800	CB	GLN	A	430	18.144	21.408	59.830	1.00	46.54	C
ATOM	801	CG	GLN	A	430	17.121	20.506	59.204	1.00	48.73	C
ATOM	802	CD	GLN	A	430	17.128	20.554	57.697	1.00	49.78	C
ATOM	803	OE1	GLN	A	430	17.085	19.521	57.046	1.00	51.79	O
ATOM	804	NE2	GLN	A	430	17.179	21.749	57.131	1.00	50.45	N
ATOM	805	C	GLN	A	430	19.367	21.979	61.922	1.00	46.00	C
ATOM	806	O	GLN	A	430	20.361	21.320	62.120	1.00	46.49	O
ATOM	807	N	GLN	A	431	19.284	23.278	62.188	1.00	46.87	N
ATOM	808	CA	GLN	A	431	20.330	24.000	62.914	1.00	46.00	C
ATOM	809	CB	GLN	A	431	19.922	25.438	63.218	1.00	47.21	C
ATOM	810	CG	GLN	A	431	19.538	26.230	62.014	1.00	50.78	C
ATOM	811	CD	GLN	A	431	20.563	26.106	60.988	1.00	51.76	C
ATOM	812	OE1	GLN	A	431	20.316	25.578	59.919	1.00	55.82	O
ATOM	813	NE2	GLN	A	431	21.762	26.544	61.319	1.00	53.22	N
ATOM	814	C	GLN	A	431	20.743	23.420	64.245	1.00	44.96	C
ATOM	815	O	GLN	A	431	21.820	23.728	64.684	1.00	44.33	O
ATOM	816	N	VAL	A	432	19.926	22.621	64.914	1.00	44.33	N
ATOM	817	CA	VAL	A	432	20.273	22.184	66.274	1.00	44.33	C
ATOM	818	CB	VAL	A	432	19.672	23.109	67.376	1.00	44.33	C
ATOM	819	CG1	VAL	A	432	20.229	24.541	67.304	1.00	44.33	C
ATOM	820	CG2	VAL	A	432	18.134	23.095	67.341	1.00	44.33	C
ATOM	821	C	VAL	A	432	19.926	20.733	66.627	1.00	44.33	C
ATOM	822	O	VAL	A	432	19.963	20.345	67.825	1.00	44.33	O
ATOM	823	N	GLY	A	433	19.594	19.942	65.590	1.00	44.33	N

- 210 -

ATOM	824	CA	GLY	A	433	19.199	18.528	65.724	1.00	44.33	C
ATOM	825	C	GLY	A	433	17.778	18.302	66.243	1.00	44.33	C
ATOM	826	O	GLY	A	433	17.048	17.489	65.690	1.00	44.33	O
ATOM	827	N	LYS	A	434	17.403	19.024	67.306	1.00	44.33	N
ATOM	828	CA	LYS	A	434	16.129	18.877	67.970	1.00	44.33	C
ATOM	829	CB	LYS	A	434	16.096	17.513	68.694	1.00	44.33	C
ATOM	830	CG	LYS	A	434	16.806	17.459	70.020	1.00	44.33	C
ATOM	831	CD	LYS	A	434	17.455	16.128	70.233	1.00	44.98	C
ATOM	832	CE	LYS	A	434	17.740	15.844	71.744	1.00	44.46	C
ATOM	833	NZ	LYS	A	434	17.800	16.971	72.807	1.00	48.75	N
ATOM	834	C	LYS	A	434	16.001	20.048	68.942	1.00	44.33	C
ATOM	835	O	LYS	A	434	17.002	20.510	69.457	1.00	44.33	O
ATOM	836	N	PHE	A	435	14.784	20.532	69.185	1.00	44.33	N
ATOM	837	CA	PHE	A	435	14.563	21.579	70.175	1.00	44.33	C
ATOM	838	CB	PHE	A	435	13.214	22.278	69.939	1.00	44.50	C
ATOM	839	CG	PHE	A	435	13.055	22.874	68.574	1.00	44.33	C
ATOM	840	CD1	PHE	A	435	13.989	23.739	68.063	1.00	44.33	C
ATOM	841	CE1	PHE	A	435	13.823	24.306	66.821	1.00	44.33	C
ATOM	842	CZ	PHE	A	435	12.718	24.009	66.076	1.00	44.33	C
ATOM	843	CE2	PHE	A	435	11.760	23.160	66.577	1.00	44.33	C
ATOM	844	CD2	PHE	A	435	11.938	22.600	67.820	1.00	44.33	C
ATOM	845	C	PHE	A	435	14.627	20.998	71.602	1.00	45.73	C
ATOM	846	O	PHE	A	435	14.240	19.856	71.818	1.00	46.11	O
ATOM	847	N	LYS	A	436	15.128	21.788	72.557	1.00	45.86	N
ATOM	848	CA	LYS	A	436	15.004	21.478	73.976	1.00	46.76	C
ATOM	849	CB	LYS	A	436	15.634	22.587	74.819	1.00	48.80	C
ATOM	850	CG	LYS	A	436	17.140	22.675	74.769	1.00	53.48	C
ATOM	851	CD	LYS	A	436	17.737	21.600	75.611	1.00	55.68	C
ATOM	852	CE	LYS	A	436	18.959	21.043	74.899	1.00	57.69	C
ATOM	853	NZ	LYS	A	436	18.574	20.442	73.556	1.00	59.95	N
ATOM	854	C	LYS	A	436	13.541	21.463	74.257	1.00	44.97	C
ATOM	855	O	LYS	A	436	12.795	22.178	73.588	1.00	44.33	O
ATOM	856	N	GLU	A	437	13.109	20.681	75.243	1.00	44.33	N
ATOM	857	CA	GLU	A	437	11.660	20.565	75.502	1.00	44.33	C
ATOM	858	CB	GLU	A	437	11.301	19.487	76.553	1.00	44.33	C
ATOM	859	CG	GLU	A	437	9.777	19.458	76.990	1.00	47.27	C
ATOM	860	CD	GLU	A	437	9.356	18.275	77.929	1.00	47.69	C
ATOM	861	OE1	GLU	A	437	10.055	17.225	77.956	1.00	48.65	O
ATOM	862	OE2	GLU	A	437	8.307	18.399	78.623	1.00	49.15	O
ATOM	863	C	GLU	A	437	10.915	21.927	75.693	1.00	44.33	C
ATOM	864	O	GLU	A	437	9.884	22.123	75.053	1.00	44.33	O
ATOM	865	N	PRO	A	438	11.427	22.878	76.515	1.00	44.33	N
ATOM	866	CA	PRO	A	438	10.640	24.137	76.650	1.00	44.33	C
ATOM	867	CB	PRO	A	438	11.482	24.980	77.599	1.00	44.33	C
ATOM	868	CG	PRO	A	438	12.217	23.907	78.439	1.00	44.33	C
ATOM	869	CD	PRO	A	438	12.618	22.891	77.379	1.00	44.33	C
ATOM	870	C	PRO	A	438	10.359	24.872	75.344	1.00	44.33	C
ATOM	871	O	PRO	A	438	9.289	25.476	75.184	1.00	44.33	O
ATOM	872	N	GLN	A	439	11.292	24.772	74.408	1.00	44.33	N
ATOM	873	CA	GLN	A	439	11.179	25.400	73.086	1.00	44.33	C
ATOM	874	CB	GLN	A	439	12.566	25.360	72.391	1.00	44.33	C
ATOM	875	CG	GLN	A	439	12.677	25.987	71.016	1.00	44.33	C
ATOM	876	CD	GLN	A	439	14.110	26.008	70.539	1.00	44.33	C
ATOM	877	OE1	GLN	A	439	14.449	26.678	69.575	1.00	44.33	O
ATOM	878	NE2	GLN	A	439	14.978	25.273	71.229	1.00	44.33	N
ATOM	879	C	GLN	A	439	10.104	24.680	72.271	1.00	44.33	C
ATOM	880	O	GLN	A	439	9.184	25.299	71.784	1.00	44.33	O
ATOM	881	N	ALA	A	440	10.257	23.371	72.134	1.00	44.33	N

- 211 -

ATOM	882	CA	ALA	A 440	9.278	22.534	71.513	1.00	44.33	C
ATOM	883	CB	ALA	A 440	9.689	21.088	71.662	1.00	44.33	C
ATOM	884	C	ALA	A 440	7.860	22.781	72.092	1.00	44.33	C
ATOM	885	O	ALA	A 440	6.877	22.896	71.331	1.00	44.33	O
ATOM	886	N	VAL	A 441	7.762	22.874	73.419	1.00	44.33	N
ATOM	887	CA	VAL	A 441	6.508	23.208	74.104	1.00	44.33	C
ATOM	888	CB	VAL	A 441	6.719	23.293	75.615	1.00	44.33	C
ATOM	889	CG1	VAL	A 441	5.411	23.600	76.321	1.00	44.33	C
ATOM	890	CG2	VAL	A 441	7.309	22.022	76.130	1.00	44.33	C
ATOM	891	C	VAL	A 441	5.872	24.525	73.606	1.00	44.33	C
ATOM	892	O	VAL	A 441	4.649	24.607	73.454	1.00	44.33	O
ATOM	893	N	PHE	A 442	6.720	25.535	73.373	1.00	44.33	N
ATOM	894	CA	PHE	A 442	6.306	26.853	72.948	1.00	44.33	C
ATOM	895	CB	PHE	A 442	7.492	27.835	73.027	1.00	44.33	C
ATOM	896	CG	PHE	A 442	7.230	29.205	72.367	1.00	44.33	C
ATOM	897	CD1	PHE	A 442	6.849	30.314	73.138	1.00	44.33	C
ATOM	898	CE1	PHE	A 442	6.613	31.577	72.539	1.00	44.33	C
ATOM	899	CZ	PHE	A 442	6.758	31.736	71.156	1.00	44.33	C
ATOM	900	CE2	PHE	A 442	7.130	30.638	70.365	1.00	44.33	C
ATOM	901	CD2	PHE	A 442	7.370	29.384	70.976	1.00	44.33	C
ATOM	902	C	PHE	A 442	5.782	26.744	71.535	1.00	44.33	C
ATOM	903	O	PHE	A 442	4.686	27.235	71.226	1.00	44.33	O
ATOM	904	N	TYR	A 443	6.560	26.110	70.663	1.00	44.33	N
ATOM	905	CA	TYR	A 443	6.122	25.976	69.287	1.00	44.33	C
ATOM	906	CB	TYR	A 443	7.177	25.333	68.404	1.00	44.33	C
ATOM	907	CG	TYR	A 443	8.380	26.195	68.282	1.00	44.33	C
ATOM	908	CD1	TYR	A 443	8.231	27.569	68.238	1.00	44.33	C
ATOM	909	CE1	TYR	A 443	9.322	28.404	68.126	1.00	44.33	C
ATOM	910	CZ	TYR	A 443	10.592	27.862	68.047	1.00	44.33	C
ATOM	911	OH	TYR	A 443	11.634	28.758	67.940	1.00	44.33	O
ATOM	912	CE2	TYR	A 443	10.773	26.481	68.070	1.00	44.33	C
ATOM	913	CD2	TYR	A 443	9.666	25.656	68.192	1.00	44.33	C
ATOM	914	C	TYR	A 443	4.823	25.203	69.299	1.00	44.33	C
ATOM	915	O	TYR	A 443	3.837	25.675	68.761	1.00	44.33	O
ATOM	916	N	ALA	A 444	4.793	24.058	69.978	1.00	44.33	N
ATOM	917	CA	ALA	A 444	3.583	23.236	69.979	1.00	44.33	C
ATOM	918	CB	ALA	A 444	3.806	21.962	70.757	1.00	44.33	C
ATOM	919	C	ALA	A 444	2.356	23.982	70.512	1.00	44.33	C
ATOM	920	O	ALA	A 444	1.239	23.816	69.967	1.00	44.33	O
ATOM	921	N	ALA	A 445	2.555	24.786	71.569	1.00	44.33	N
ATOM	922	CA	ALA	A 445	1.463	25.571	72.125	1.00	44.33	C
ATOM	923	CB	ALA	A 445	1.856	26.201	73.442	1.00	44.33	C
ATOM	924	C	ALA	A 445	0.949	26.615	71.099	1.00	44.33	C
ATOM	925	O	ALA	A 445	-0.263	26.659	70.771	1.00	44.33	O
ATOM	926	N	GLU	A 446	1.862	27.401	70.533	1.00	44.33	N
ATOM	927	CA	GLU	A 446	1.434	28.399	69.570	1.00	44.33	C
ATOM	928	CB	GLU	A 446	2.589	29.285	69.184	1.00	44.33	C
ATOM	929	CG	GLU	A 446	3.049	30.107	70.362	1.00	44.33	C
ATOM	930	CD	GLU	A 446	3.672	31.378	69.914	1.00	44.33	C
ATOM	931	OE1	GLU	A 446	4.198	31.380	68.796	1.00	44.33	O
ATOM	932	OE2	GLU	A 446	3.654	32.383	70.642	1.00	44.33	O
ATOM	933	C	GLU	A 446	0.707	27.778	68.374	1.00	44.33	C
ATOM	934	O	GLU	A 446	-0.380	28.233	68.015	1.00	44.33	O
ATOM	935	N	ILE	A 447	1.260	26.699	67.819	1.00	44.33	N
ATOM	936	CA	ILE	A 447	0.609	25.916	66.757	1.00	44.33	C
ATOM	937	CB	ILE	A 447	1.461	24.633	66.365	1.00	44.33	C
ATOM	938	CG1	ILE	A 447	2.906	24.993	65.923	1.00	44.33	C
ATOM	939	CD1	ILE	A 447	3.827	23.804	65.519	1.00	44.33	C

- 212 -

ATOM	940	CG2	ILE	A	447	0.757	23.872	65.268	1.00	44.33	C
ATOM	941	C	ILE	A	447	-0.836	25.495	67.106	1.00	44.33	C
ATOM	942	O	ILE	A	447	-1.748	25.662	66.288	1.00	44.33	O
ATOM	943	N	SER	A	448	-1.024	24.952	68.312	1.00	44.33	N
ATOM	944	CA	SER	A	448	-2.318	24.386	68.717	1.00	44.33	C
ATOM	945	CB	SER	A	448	-2.276	23.868	70.139	1.00	44.33	C
ATOM	946	OG	SER	A	448	-2.254	24.955	71.045	1.00	44.33	O
ATOM	947	C	SER	A	448	-3.376	25.462	68.652	1.00	44.33	C
ATOM	948	O	SER	A	448	-4.546	25.197	68.332	1.00	44.33	O
ATOM	949	N	ILE	A	449	-2.953	26.696	68.935	1.00	44.33	N
ATOM	950	CA	ILE	A	449	-3.880	27.817	68.873	1.00	44.33	C
ATOM	951	CB	ILE	A	449	-3.244	29.131	69.352	1.00	44.33	C
ATOM	952	CG1	ILE	A	449	-3.773	29.495	70.735	1.00	44.33	C
ATOM	953	CD1	ILE	A	449	-3.386	28.550	71.854	1.00	44.33	C
ATOM	954	CG2	ILE	A	449	-3.631	30.259	68.473	1.00	44.33	C
ATOM	955	C	ILE	A	449	-4.498	27.913	67.491	1.00	44.33	C
ATOM	956	O	ILE	A	449	-5.724	27.936	67.347	1.00	44.33	O
ATOM	957	N	GLY	A	450	-3.643	27.919	66.482	1.00	44.33	N
ATOM	958	CA	GLY	A	450	-4.098	27.835	65.117	1.00	44.33	C
ATOM	959	C	GLY	A	450	-5.119	26.719	65.006	1.00	44.33	C
ATOM	960	O	GLY	A	450	-6.183	26.878	64.370	1.00	44.33	O
ATOM	961	N	LEU	A	451	-4.835	25.574	65.622	1.00	44.33	N
ATOM	962	CA	LEU	A	451	-5.683	24.417	65.317	1.00	44.33	C
ATOM	963	CB	LEU	A	451	-5.024	23.095	65.697	1.00	44.33	C
ATOM	964	CG	LEU	A	451	-3.806	22.705	64.847	1.00	44.33	C
ATOM	965	CD1	LEU	A	451	-3.108	21.521	65.478	1.00	44.33	C
ATOM	966	CD2	LEU	A	451	-4.150	22.414	63.409	1.00	44.33	C
ATOM	967	C	LEU	A	451	-7.036	24.594	65.935	1.00	44.33	C
ATOM	968	O	LEU	A	451	-8.044	24.345	65.301	1.00	44.33	O
ATOM	969	N	PHE	A	452	-7.046	25.077	67.164	1.00	44.33	N
ATOM	970	CA	PHE	A	452	-8.287	25.345	67.860	1.00	44.33	C
ATOM	971	CB	PHE	A	452	-8.015	26.039	69.189	1.00	44.33	C
ATOM	972	CG	PHE	A	452	-7.102	25.297	70.099	1.00	44.33	C
ATOM	973	CD1	PHE	A	452	-7.190	23.929	70.245	1.00	44.33	C
ATOM	974	CE1	PHE	A	452	-6.332	23.247	71.132	1.00	44.33	C
ATOM	975	CZ	PHE	A	452	-5.404	23.952	71.903	1.00	44.33	C
ATOM	976	CE2	PHE	A	452	-5.310	25.312	71.757	1.00	44.33	C
ATOM	977	CD2	PHE	A	452	-6.158	25.986	70.853	1.00	44.33	C
ATOM	978	C	PHE	A	452	-9.160	26.261	67.033	1.00	44.33	C
ATOM	979	O	PHE	A	452	-10.343	26.002	66.832	1.00	44.33	O
ATOM	980	N	PHE	A	453	-8.566	27.352	66.580	1.00	44.33	N
ATOM	981	CA	PHE	A	453	-9.294	28.360	65.832	1.00	44.33	C
ATOM	982	CB	PHE	A	453	-8.338	29.468	65.357	1.00	44.33	C
ATOM	983	CG	PHE	A	453	-8.975	30.493	64.457	1.00	44.33	C
ATOM	984	CD1	PHE	A	453	-9.824	31.481	64.972	1.00	44.33	C
ATOM	985	CE1	PHE	A	453	-10.385	32.457	64.141	1.00	44.33	C
ATOM	986	CZ	PHE	A	453	-10.122	32.448	62.773	1.00	44.33	C
ATOM	987	CE2	PHE	A	453	-9.276	31.481	62.242	1.00	44.33	C
ATOM	988	CD2	PHE	A	453	-8.709	30.498	63.095	1.00	44.33	C
ATOM	989	C	PHE	A	453	-9.968	27.671	64.664	1.00	44.33	C
ATOM	990	O	PHE	A	453	-11.217	27.695	64.560	1.00	44.33	O
ATOM	991	N	LEU	A	454	-9.154	27.010	63.832	1.00	44.33	N
ATOM	992	CA	LEU	A	454	-9.678	26.341	62.657	1.00	44.33	C
ATOM	993	CB	LEU	A	454	-8.565	25.743	61.848	1.00	44.33	C
ATOM	994	CG	LEU	A	454	-7.756	26.804	61.138	1.00	44.33	C
ATOM	995	CD1	LEU	A	454	-6.564	26.078	60.503	1.00	44.33	C
ATOM	996	CD2	LEU	A	454	-8.611	27.479	60.109	1.00	44.33	C
ATOM	997	C	LEU	A	454	-10.753	25.304	62.969	1.00	44.33	C

- 213 -

ATOM	998	O	LEU	A	454	-11.765	25.216	62.262	1.00	44.33	O
ATOM	999	N	HIS	A	455	-10.543	24.544	64.036	1.00	44.33	N
ATOM	1000	CA	HIS	A	455	-11.426	23.457	64.338	1.00	44.33	C
ATOM	1001	CB	HIS	A	455	-10.841	22.591	65.417	1.00	44.33	C
ATOM	1002	CG	HIS	A	455	-9.756	21.701	64.918	1.00	44.33	C
ATOM	1003	ND1	HIS	A	455	-8.994	20.909	65.753	1.00	44.33	N
ATOM	1004	CE1	HIS	A	455	-8.126	20.222	65.024	1.00	44.33	C
ATOM	1005	NE2	HIS	A	455	-8.270	20.571	63.754	1.00	44.33	N
ATOM	1006	CD2	HIS	A	455	-9.285	21.493	63.660	1.00	44.33	C
ATOM	1007	C	HIS	A	455	-12.790	23.991	64.727	1.00	44.33	C
ATOM	1008	O	HIS	A	455	-13.840	23.518	64.211	1.00	44.33	O
ATOM	1009	N	LYS	A	456	-12.763	25.005	65.606	1.00	44.61	N
ATOM	1010	CA	LYS	A	456	-13.957	25.699	66.042	1.00	45.84	C
ATOM	1011	CB	LYS	A	456	-13.585	26.823	66.970	1.00	48.94	C
ATOM	1012	CG	LYS	A	456	-13.905	26.499	68.414	1.00	53.70	C
ATOM	1013	CD	LYS	A	456	-12.785	26.949	69.361	1.00	55.41	C
ATOM	1014	CE	LYS	A	456	-13.339	27.283	70.752	1.00	57.61	C
ATOM	1015	NZ	LYS	A	456	-12.287	27.942	71.602	1.00	59.07	N
ATOM	1016	C	LYS	A	456	-14.787	26.207	64.878	1.00	45.85	C
ATOM	1017	O	LYS	A	456	-16.012	26.153	64.921	1.00	46.10	O
ATOM	1018	N	ARG	A	457	-14.129	26.658	63.825	1.00	45.64	N
ATOM	1019	CA	ARG	A	457	-14.840	27.151	62.670	1.00	45.91	C
ATOM	1020	CB	ARG	A	457	-13.983	28.204	62.010	1.00	47.42	C
ATOM	1021	CG	ARG	A	457	-13.457	29.278	62.950	1.00	49.64	C
ATOM	1022	CD	ARG	A	457	-14.101	30.590	62.589	1.00	52.43	C
ATOM	1023	NE	ARG	A	457	-13.971	31.648	63.584	1.00	53.92	N
ATOM	1024	CZ	ARG	A	457	-13.652	31.496	64.866	1.00	56.67	C
ATOM	1025	NH1	ARG	A	457	-13.396	30.290	65.392	1.00	56.59	N
ATOM	1026	NH2	ARG	A	457	-13.597	32.589	65.623	1.00	54.79	N
ATOM	1027	C	ARG	A	457	-15.154	26.044	61.650	1.00	46.19	C
ATOM	1028	O	ARG	A	457	-15.406	26.344	60.463	1.00	48.18	O
ATOM	1029	N	GLY	A	458	-15.133	24.779	62.105	1.00	44.71	N
ATOM	1030	CA	GLY	A	458	-15.407	23.591	61.249	1.00	44.33	C
ATOM	1031	C	GLY	A	458	-14.458	23.365	60.051	1.00	44.33	C
ATOM	1032	O	GLY	A	458	-14.899	23.064	58.936	1.00	44.33	O
ATOM	1033	N	ILE	A	459	-13.163	23.529	60.276	1.00	44.33	N
ATOM	1034	CA	ILE	A	459	-12.177	23.407	59.229	1.00	44.33	C
ATOM	1035	CB	ILE	A	459	-11.493	24.753	58.965	1.00	44.33	C
ATOM	1036	CG1	ILE	A	459	-12.189	25.456	57.815	1.00	45.36	C
ATOM	1037	CD1	ILE	A	459	-12.369	26.961	58.080	1.00	44.40	C
ATOM	1038	CG2	ILE	A	459	-10.021	24.596	58.579	1.00	44.33	C
ATOM	1039	C	ILE	A	459	-11.142	22.409	59.684	1.00	44.33	C
ATOM	1040	O	ILE	A	459	-10.666	22.452	60.846	1.00	44.33	O
ATOM	1041	N	ILE	A	460	-10.813	21.502	58.771	1.00	44.33	N
ATOM	1042	CA	ILE	A	460	-9.719	20.574	58.946	1.00	44.33	C
ATOM	1043	CB	ILE	A	460	-10.170	19.192	58.453	1.00	44.33	C
ATOM	1044	CG1	ILE	A	460	-11.545	18.843	59.019	1.00	44.63	C
ATOM	1045	CD1	ILE	A	460	-12.050	17.451	58.532	1.00	45.31	C
ATOM	1046	CG2	ILE	A	460	-9.251	18.085	58.937	1.00	44.33	C
ATOM	1047	C	ILE	A	460	-8.538	21.064	58.106	1.00	44.33	C
ATOM	1048	O	ILE	A	460	-8.709	21.303	56.908	1.00	44.33	O
ATOM	1049	N	TYR	A	461	-7.354	21.199	58.710	1.00	44.33	N
ATOM	1050	CA	TYR	A	461	-6.174	21.708	57.978	1.00	44.33	C
ATOM	1051	CB	TYR	A	461	-5.058	22.033	58.953	1.00	44.33	C
ATOM	1052	CG	TYR	A	461	-3.823	22.723	58.398	1.00	44.33	C
ATOM	1053	CD1	TYR	A	461	-3.870	23.485	57.255	1.00	44.93	C
ATOM	1054	CE1	TYR	A	461	-2.765	24.113	56.801	1.00	45.34	C
ATOM	1055	CZ	TYR	A	461	-1.605	24.019	57.496	1.00	45.84	C

- 214 -

ATOM	1056	OH	TYR	A	461	-0.462	24.651	57.057	1.00	45.25	O
ATOM	1057	CE2	TYR	A	461	-1.553	23.298	58.636	1.00	46.12	C
ATOM	1058	CD2	TYR	A	461	-2.641	22.658	59.081	1.00	45.57	C
ATOM	1059	C	TYR	A	461	-5.675	20.712	56.990	1.00	44.33	C
ATOM	1060	O	TYR	A	461	-5.466	21.038	55.833	1.00	44.33	O
ATOM	1061	N	ARG	A	462	-5.473	19.496	57.472	1.00	44.33	N
ATOM	1062	CA	ARG	A	462	-5.097	18.368	56.639	1.00	44.33	C
ATOM	1063	CB	ARG	A	462	-6.161	18.157	55.572	1.00	44.33	C
ATOM	1064	CG	ARG	A	462	-7.540	17.827	56.122	1.00	44.33	C
ATOM	1065	CD	ARG	A	462	-8.421	17.129	55.090	1.00	44.33	C
ATOM	1066	NE	ARG	A	462	-8.388	17.837	53.812	1.00	44.33	N
ATOM	1067	CZ	ARG	A	462	-9.078	17.494	52.732	1.00	44.95	C
ATOM	1068	NH1	ARG	A	462	-9.883	16.421	52.738	1.00	44.33	N
ATOM	1069	NH2	ARG	A	462	-8.953	18.228	51.642	1.00	46.41	N
ATOM	1070	C	ARG	A	462	-3.687	18.449	56.048	1.00	44.33	C
ATOM	1071	O	ARG	A	462	-3.323	17.636	55.228	1.00	44.89	O
ATOM	1072	N	ASP	A	463	-2.908	19.435	56.482	1.00	44.33	N
ATOM	1073	CA	ASP	A	463	-1.603	19.649	55.910	1.00	45.06	C
ATOM	1074	CB	ASP	A	463	-1.638	20.535	54.680	1.00	46.33	C
ATOM	1075	CG	ASP	A	463	-0.518	20.216	53.749	1.00	49.39	C
ATOM	1076	OD1	ASP	A	463	-0.282	19.004	53.560	1.00	48.38	O
ATOM	1077	OD2	ASP	A	463	0.166	21.126	53.229	1.00	50.13	O
ATOM	1078	C	ASP	A	463	-0.653	20.198	56.935	1.00	44.63	C
ATOM	1079	O	ASP	A	463	0.324	20.887	56.598	1.00	46.79	O
ATOM	1080	N	LEU	A	464	-0.915	19.878	58.193	1.00	44.33	N
ATOM	1081	CA	LEU	A	464	0.072	20.188	59.214	1.00	44.33	C
ATOM	1082	CB	LEU	A	464	-0.494	19.969	60.612	1.00	44.33	C
ATOM	1083	CG	LEU	A	464	0.436	20.430	61.725	1.00	44.33	C
ATOM	1084	CD1	LEU	A	464	0.776	21.877	61.531	1.00	44.33	C
ATOM	1085	CD2	LEU	A	464	-0.224	20.192	63.098	1.00	44.33	C
ATOM	1086	C	LEU	A	464	1.310	19.365	58.984	1.00	44.33	C
ATOM	1087	O	LEU	A	464	1.200	18.145	58.932	1.00	44.33	O
ATOM	1088	N	LYS	A	465	2.454	20.055	58.831	1.00	44.33	N
ATOM	1089	CA	LYS	A	465	3.772	19.461	58.562	1.00	44.33	C
ATOM	1090	CB	LYS	A	465	3.819	18.898	57.152	1.00	44.33	C
ATOM	1091	CG	LYS	A	465	3.915	19.925	56.055	1.00	44.33	C
ATOM	1092	CD	LYS	A	465	3.800	19.331	54.684	1.00	45.45	C
ATOM	1093	CE	LYS	A	465	3.638	20.450	53.725	1.00	46.92	C
ATOM	1094	NZ	LYS	A	465	3.459	19.998	52.347	1.00	51.24	N
ATOM	1095	C	LYS	A	465	4.808	20.541	58.734	1.00	44.33	C
ATOM	1096	O	LYS	A	465	4.451	21.675	58.727	1.00	44.33	O
ATOM	1097	N	LEU	A	466	6.086	20.224	58.866	1.00	44.33	N
ATOM	1098	CA	LEU	A	466	7.079	21.243	59.197	1.00	44.33	C
ATOM	1099	CB	LEU	A	466	8.414	20.610	59.417	1.00	44.33	C
ATOM	1100	CG	LEU	A	466	8.440	19.968	60.764	1.00	44.33	C
ATOM	1101	CD1	LEU	A	466	9.767	19.308	60.945	1.00	44.33	C
ATOM	1102	CD2	LEU	A	466	8.207	21.011	61.807	1.00	44.33	C
ATOM	1103	C	LEU	A	466	7.269	22.356	58.206	1.00	44.33	C
ATOM	1104	O	LEU	A	466	7.518	23.469	58.599	1.00	46.10	O
ATOM	1105	N	ASP	A	467	7.220	22.057	56.916	1.00	45.58	N
ATOM	1106	CA	ASP	A	467	7.471	23.074	55.891	1.00	48.11	C
ATOM	1107	CB	ASP	A	467	7.744	22.459	54.531	1.00	50.33	C
ATOM	1108	CG	ASP	A	467	9.191	21.930	54.458	1.00	50.15	C
ATOM	1109	OD1	ASP	A	467	10.011	22.280	55.410	1.00	53.67	O
ATOM	1110	OD2	ASP	A	467	9.518	21.149	53.489	1.00	51.84	O
ATOM	1111	C	ASP	A	467	6.412	24.123	55.808	1.00	46.30	C
ATOM	1112	O	ASP	A	467	6.666	25.225	55.341	1.00	46.76	O
ATOM	1113	N	ASN	A	468	5.225	23.794	56.298	1.00	45.65	N

- 215 -

ATOM	1114	CA	ASN A 468	4.169	24.753	56.387	1.00	44.92	C
ATOM	1115	CB	ASN A 468	2.856	24.021	56.502	1.00	44.33	C
ATOM	1116	CG	ASN A 468	2.327	23.577	55.189	1.00	44.33	C
ATOM	1117	OD1	ASN A 468	2.901	23.850	54.147	1.00	44.33	O
ATOM	1118	ND2	ASN A 468	1.215	22.887	55.223	1.00	44.33	N
ATOM	1119	C	ASN A 468	4.367	25.706	57.565	1.00	44.33	C
ATOM	1120	O	ASN A 468	3.733	26.726	57.624	1.00	44.55	O
ATOM	1121	N	VAL A 469	5.250	25.403	58.492	1.00	44.33	N
ATOM	1122	CA	VAL A 469	5.338	26.221	59.689	1.00	44.33	C
ATOM	1123	CB	VAL A 469	5.246	25.362	60.960	1.00	44.33	C
ATOM	1124	CG1	VAL A 469	5.112	26.241	62.156	1.00	44.33	C
ATOM	1125	CG2	VAL A 469	4.068	24.341	60.882	1.00	44.33	C
ATOM	1126	C	VAL A 469	6.618	27.089	59.733	1.00	44.33	C
ATOM	1127	O	VAL A 469	7.775	26.596	59.690	1.00	44.33	O
ATOM	1128	N	MET A 470	6.429	28.392	59.824	1.00	44.33	N
ATOM	1129	CA	MET A 470	7.535	29.313	59.722	1.00	44.33	C
ATOM	1130	CB	MET A 470	7.274	30.352	58.621	1.00	44.33	C
ATOM	1131	CG	MET A 470	7.521	29.906	57.194	1.00	44.33	C
ATOM	1132	SD	MET A 470	7.099	31.141	55.959	1.00	44.70	S
ATOM	1133	CE	MET A 470	5.358	31.341	56.186	1.00	44.93	C
ATOM	1134	C	MET A 470	7.611	30.019	61.055	1.00	44.33	C
ATOM	1135	O	MET A 470	6.716	29.861	61.902	1.00	44.33	O
ATOM	1136	N	LEU A 471	8.694	30.757	61.265	1.00	44.33	N
ATOM	1137	CA	LEU A 471	8.694	31.737	62.304	1.00	44.33	C
ATOM	1138	CB	LEU A 471	9.857	31.532	63.247	1.00	44.33	C
ATOM	1139	CG	LEU A 471	9.906	30.198	63.966	1.00	44.33	C
ATOM	1140	CD1	LEU A 471	11.352	29.983	64.412	1.00	44.33	C
ATOM	1141	CD2	LEU A 471	8.939	30.129	65.153	1.00	44.33	C
ATOM	1142	C	LEU A 471	8.767	33.134	61.706	1.00	44.33	C
ATOM	1143	O	LEU A 471	9.373	33.375	60.654	1.00	44.33	O
ATOM	1144	N	ASP A 472	8.128	34.068	62.403	1.00	44.33	N
ATOM	1145	CA	ASP A 472	8.255	35.494	62.083	1.00	44.33	C
ATOM	1146	CB	ASP A 472	7.023	36.310	62.576	1.00	44.33	C
ATOM	1147	CG	ASP A 472	6.807	36.235	64.104	1.00	44.33	C
ATOM	1148	OD1	ASP A 472	7.825	36.286	64.833	1.00	44.33	O
ATOM	1149	OD2	ASP A 472	5.634	36.155	64.585	1.00	44.33	O
ATOM	1150	C	ASP A 472	9.583	35.996	62.662	1.00	44.33	C
ATOM	1151	O	ASP A 472	10.273	35.258	63.385	1.00	44.33	O
ATOM	1152	N	SER A 473	9.935	37.238	62.351	1.00	44.33	N
ATOM	1153	CA	SER A 473	11.186	37.814	62.814	1.00	45.05	C
ATOM	1154	CB	SER A 473	11.424	39.159	62.163	1.00	45.56	C
ATOM	1155	OG	SER A 473	10.380	40.026	62.496	1.00	48.07	O
ATOM	1156	C	SER A 473	11.291	37.924	64.348	1.00	45.68	C
ATOM	1157	O	SER A 473	12.372	38.009	64.893	1.00	45.25	O
ATOM	1158	N	GLU A 474	10.182	37.886	65.054	1.00	45.92	N
ATOM	1159	CA	GLU A 474	10.244	37.871	66.513	1.00	47.24	C
ATOM	1160	CB	GLU A 474	8.993	38.497	67.115	1.00	51.13	C
ATOM	1161	CG	GLU A 474	8.562	39.720	66.378	1.00	55.11	C
ATOM	1162	CD	GLU A 474	9.589	40.788	66.504	1.00	57.15	C
ATOM	1163	OE1	GLU A 474	9.683	41.347	67.615	1.00	58.60	O
ATOM	1164	OE2	GLU A 474	10.330	41.043	65.525	1.00	59.60	O
ATOM	1165	C	GLU A 474	10.383	36.468	67.064	1.00	46.06	C
ATOM	1166	O	GLU A 474	10.627	36.298	68.262	1.00	45.16	O
ATOM	1167	N	GLY A 475	10.190	35.464	66.208	1.00	45.02	N
ATOM	1168	CA	GLY A 475	10.369	34.081	66.617	1.00	44.33	C
ATOM	1169	C	GLY A 475	9.100	33.437	67.108	1.00	44.33	C
ATOM	1170	O	GLY A 475	9.123	32.424	67.796	1.00	44.33	O
ATOM	1171	N	HIS A 476	7.974	34.019	66.750	1.00	44.33	N

- 216 -

ATOM	1172	CA	HIS	A	476	6.674	33.355	66.958	1.00	44.33	C
ATOM	1173	CB	HIS	A	476	5.608	34.404	67.219	1.00	44.33	C
ATOM	1174	CG	HIS	A	476	5.862	35.183	68.460	1.00	44.33	C
ATOM	1175	ND1	HIS	A	476	5.719	34.634	69.716	1.00	44.33	N
ATOM	1176	CE1	HIS	A	476	6.003	35.541	70.626	1.00	44.33	C
ATOM	1177	NE2	HIS	A	476	6.350	36.652	70.001	1.00	44.33	N
ATOM	1178	CD2	HIS	A	476	6.283	36.450	68.645	1.00	44.33	C
ATOM	1179	C	HIS	A	476	6.292	32.527	65.752	1.00	44.33	C
ATOM	1180	O	HIS	A	476	6.828	32.761	64.648	1.00	44.58	O
ATOM	1181	N	ILE	A	477	5.370	31.576	65.932	1.00	44.33	N
ATOM	1182	CA	ILE	A	477	5.001	30.737	64.797	1.00	44.33	C
ATOM	1183	CB	ILE	A	477	4.561	29.270	65.132	1.00	46.05	C
ATOM	1184	CG1	ILE	A	477	3.175	29.228	65.710	1.00	47.58	C
ATOM	1185	CD1	ILE	A	477	2.144	28.987	64.601	1.00	47.39	C
ATOM	1186	CG2	ILE	A	477	5.547	28.483	65.963	1.00	45.88	C
ATOM	1187	C	ILE	A	477	4.005	31.422	63.860	1.00	44.33	C
ATOM	1188	O	ILE	A	477	3.146	32.193	64.283	1.00	44.78	O
ATOM	1189	N	LYS	A	478	4.189	31.132	62.575	1.00	44.33	N
ATOM	1190	CA	LYS	A	478	3.225	31.392	61.510	1.00	44.33	C
ATOM	1191	CB	LYS	A	478	3.750	32.456	60.508	1.00	44.33	C
ATOM	1192	CG	LYS	A	478	3.832	33.920	61.035	1.00	44.33	C
ATOM	1193	CD	LYS	A	478	2.421	34.550	61.233	1.00	44.33	C
ATOM	1194	CE	LYS	A	478	2.405	36.017	61.739	1.00	44.33	C
ATOM	1195	NZ	LYS	A	478	0.989	36.568	61.744	1.00	45.03	N
ATOM	1196	C	LYS	A	478	2.931	30.098	60.781	1.00	44.33	C
ATOM	1197	O	LYS	A	478	3.824	29.463	60.292	1.00	44.33	O
ATOM	1198	N	ILE	A	479	1.665	29.705	60.730	1.00	44.33	N
ATOM	1199	CA	ILE	A	479	1.255	28.564	59.879	1.00	44.33	C
ATOM	1200	CB	ILE	A	479	0.194	27.669	60.526	1.00	44.33	C
ATOM	1201	CG1	ILE	A	479	0.562	27.391	61.978	1.00	44.33	C
ATOM	1202	CD1	ILE	A	479	-0.495	26.685	62.760	1.00	44.33	C
ATOM	1203	CG2	ILE	A	479	0.059	26.364	59.744	1.00	44.33	C
ATOM	1204	C	ILE	A	479	0.797	29.062	58.519	1.00	44.33	C
ATOM	1205	O	ILE	A	479	0.115	30.081	58.440	1.00	44.33	O
ATOM	1206	N	ALA	A	480	1.216	28.371	57.458	1.00	44.33	N
ATOM	1207	CA	ALA	A	480	0.999	28.845	56.097	1.00	44.33	C
ATOM	1208	CB	ALA	A	480	2.289	29.325	55.481	1.00	44.33	C
ATOM	1209	C	ALA	A	480	0.350	27.753	55.254	1.00	44.33	C
ATOM	1210	O	ALA	A	480	0.140	26.625	55.737	1.00	44.33	O
ATOM	1211	N	ASP	A	481	0.017	28.094	54.013	1.00	44.76	N
ATOM	1212	CA	ASP	A	481	-0.429	27.125	53.029	1.00	44.53	C
ATOM	1213	CB	ASP	A	481	0.701	26.153	52.724	1.00	47.43	C
ATOM	1214	CG	ASP	A	481	0.397	25.247	51.563	1.00	46.43	C
ATOM	1215	OD1	ASP	A	481	-0.715	25.211	51.038	1.00	49.50	O
ATOM	1216	OD2	ASP	A	481	1.291	24.522	51.165	1.00	45.45	O
ATOM	1217	C	ASP	A	481	-1.719	26.386	53.448	1.00	47.51	C
ATOM	1218	O	ASP	A	481	-1.663	25.273	53.953	1.00	47.95	O
ATOM	1219	N	PHE	A	482	-2.868	27.010	53.205	1.00	45.17	N
ATOM	1220	CA	PHE	A	482	-4.167	26.422	53.482	1.00	45.76	C
ATOM	1221	CB	PHE	A	482	-5.039	27.445	54.198	1.00	45.33	C
ATOM	1222	CG	PHE	A	482	-4.443	27.926	55.442	1.00	46.25	C
ATOM	1223	CD1	PHE	A	482	-3.676	29.076	55.459	1.00	45.26	C
ATOM	1224	CE1	PHE	A	482	-3.062	29.504	56.642	1.00	46.93	C
ATOM	1225	CZ	PHE	A	482	-3.197	28.774	57.811	1.00	46.78	C
ATOM	1226	CE2	PHE	A	482	-3.929	27.620	57.818	1.00	45.93	C
ATOM	1227	CD2	PHE	A	482	-4.571	27.194	56.626	1.00	46.41	C
ATOM	1228	C	PHE	A	482	-4.900	25.841	52.252	1.00	45.06	C
ATOM	1229	O	PHE	A	482	-6.117	25.854	52.192	1.00	45.75	O

- 217 -

ATOM	1230	N	GLY	A	483	-4.148	25.308	51.296	1.00	44.99	N
ATOM	1231	CA	GLY	A	483	-4.699	24.720	50.080	1.00	47.98	C
ATOM	1232	C	GLY	A	483	-5.221	23.288	50.175	1.00	48.81	C
ATOM	1233	O	GLY	A	483	-5.437	22.660	49.147	1.00	50.33	O
ATOM	1234	N	MET	A	484	-5.424	22.753	51.375	1.00	48.40	N
ATOM	1235	CA	MET	A	484	-5.982	21.408	51.495	1.00	49.82	C
ATOM	1236	CB	MET	A	484	-4.910	20.361	51.800	1.00	50.37	C
ATOM	1237	CG	MET	A	484	-4.203	19.725	50.591	1.00	55.18	C
ATOM	1238	SD	MET	A	484	-2.653	18.950	51.159	1.00	56.73	S
ATOM	1239	CE	MET	A	484	-3.269	17.373	51.745	1.00	56.15	C
ATOM	1240	C	MET	A	484	-7.024	21.333	52.587	1.00	46.73	C
ATOM	1241	O	MET	A	484	-7.420	20.243	53.014	1.00	45.52	O
ATOM	1242	N	CYS	A	485	-7.484	22.474	53.058	1.00	45.41	N
ATOM	1243	CA	CYS	A	485	-8.433	22.457	54.125	1.00	44.96	C
ATOM	1244	CB	CYS	A	485	-8.666	23.883	54.630	1.00	45.21	C
ATOM	1245	SG	CYS	A	485	-7.250	24.728	55.444	1.00	47.20	S
ATOM	1246	C	CYS	A	485	-9.733	21.802	53.654	1.00	45.17	C
ATOM	1247	O	CYS	A	485	-10.003	21.693	52.435	1.00	44.33	O
ATOM	1248	N	LYS	A	486	-10.515	21.352	54.629	1.00	46.63	N
ATOM	1249	CA	LYS	A	486	-11.861	20.872	54.406	1.00	47.43	C
ATOM	1250	CB	LYS	A	486	-11.978	19.405	54.851	1.00	48.42	C
ATOM	1251	CG	LYS	A	486	-12.887	18.519	54.014	1.00	49.39	C
ATOM	1252	CD	LYS	A	486	-12.515	18.570	52.508	1.00	50.67	C
ATOM	1253	CE	LYS	A	486	-13.514	17.842	51.577	1.00	50.34	C
ATOM	1254	NZ	LYS	A	486	-14.951	18.129	51.849	1.00	53.24	N
ATOM	1255	C	LYS	A	486	-12.799	21.777	55.231	1.00	47.36	C
ATOM	1256	O	LYS	A	486	-12.648	21.915	56.465	1.00	47.70	O
ATOM	1257	N	GLU	A	487	-13.747	22.435	54.568	1.00	48.28	N
ATOM	1258	CA	GLU	A	487	-14.670	23.264	55.314	1.00	47.54	C
ATOM	1259	CB	GLU	A	487	-15.033	24.600	54.625	1.00	48.07	C
ATOM	1260	CG	GLU	A	487	-14.901	24.668	53.114	1.00	50.27	C
ATOM	1261	CD	GLU	A	487	-15.292	26.034	52.516	1.00	49.93	C
ATOM	1262	OE1	GLU	A	487	-15.001	27.107	53.107	1.00	50.01	O
ATOM	1263	OE2	GLU	A	487	-15.897	26.024	51.423	1.00	51.13	O
ATOM	1264	C	GLU	A	487	-15.899	22.518	55.769	1.00	46.99	C
ATOM	1265	O	GLU	A	487	-15.970	21.295	55.686	1.00	44.33	O
ATOM	1266	N	HIS	A	488	-16.846	23.293	56.289	1.00	46.05	N
ATOM	1267	CA	HIS	A	488	-18.104	22.843	56.888	1.00	47.30	C
ATOM	1268	CB	HIS	A	488	-19.274	22.880	55.857	1.00	47.92	C
ATOM	1269	CG	HIS	A	488	-19.250	24.089	54.954	1.00	48.53	C
ATOM	1270	ND1	HIS	A	488	-19.702	25.333	55.353	1.00	51.48	N
ATOM	1271	CE1	HIS	A	488	-19.510	26.204	54.374	1.00	50.86	C
ATOM	1272	NE2	HIS	A	488	-18.944	25.575	53.355	1.00	50.98	N
ATOM	1273	CD2	HIS	A	488	-18.772	24.253	53.691	1.00	50.21	C
ATOM	1274	C	HIS	A	488	-17.956	21.534	57.647	1.00	46.95	C
ATOM	1275	O	HIS	A	488	-18.847	20.700	57.651	1.00	46.06	O
ATOM	1276	N	MET	A	489	-16.829	21.392	58.326	1.00	46.84	N
ATOM	1277	CA	MET	A	489	-16.521	20.168	59.046	1.00	47.07	C
ATOM	1278	CB	MET	A	489	-15.029	19.884	58.957	1.00	48.43	C
ATOM	1279	CG	MET	A	489	-14.654	19.275	57.605	1.00	46.60	C
ATOM	1280	SD	MET	A	489	-15.544	17.703	57.344	1.00	48.79	S
ATOM	1281	CE	MET	A	489	-15.948	17.986	55.621	1.00	50.10	C
ATOM	1282	C	MET	A	489	-16.993	20.212	60.487	1.00	48.00	C
ATOM	1283	O	MET	A	489	-16.202	20.186	61.438	1.00	47.08	O
ATOM	1284	N	MET	A	490	-18.306	20.297	60.655	1.00	49.38	N
ATOM	1285	CA	MET	A	490	-18.862	20.484	61.997	1.00	50.93	C
ATOM	1286	CB	MET	A	490	-20.152	21.303	61.934	1.00	52.81	C
ATOM	1287	CG	MET	A	490	-20.155	22.442	60.898	1.00	53.61	C

- 218 -

ATOM	1288	SD	MET	A	490	-19.258	23.981	61.357	1.00	58.45	S
ATOM	1289	CE	MET	A	490	-19.367	24.089	63.176	1.00	54.35	C
ATOM	1290	C	MET	A	490	-19.105	19.154	62.700	1.00	51.01	C
ATOM	1291	O	MET	A	490	-18.944	18.093	62.112	1.00	51.01	O
ATOM	1292	N	ASP	A	491	-19.508	19.214	63.961	1.00	51.42	N
ATOM	1293	CA	ASP	A	491	-19.763	18.014	64.778	1.00	52.08	C
ATOM	1294	CB	ASP	A	491	-20.554	18.421	66.062	1.00	54.58	C
ATOM	1295	CG	ASP	A	491	-21.097	17.231	66.890	1.00	56.39	C
ATOM	1296	OD1	ASP	A	491	-20.661	16.090	66.704	1.00	58.25	O
ATOM	1297	OD2	ASP	A	491	-21.993	17.443	67.751	1.00	57.55	O
ATOM	1298	C	ASP	A	491	-20.373	16.843	63.975	1.00	51.20	C
ATOM	1299	O	ASP	A	491	-21.556	16.842	63.621	1.00	50.29	O
ATOM	1300	N	GLY	A	492	-19.530	15.866	63.649	1.00	49.51	N
ATOM	1301	CA	GLY	A	492	-19.991	14.610	63.014	1.00	47.63	C
ATOM	1302	C	GLY	A	492	-19.815	14.479	61.504	1.00	47.31	C
ATOM	1303	O	GLY	A	492	-19.867	13.363	60.956	1.00	48.00	O
ATOM	1304	N	VAL	A	493	-19.634	15.610	60.828	1.00	46.80	N
ATOM	1305	CA	VAL	A	493	-19.340	15.598	59.405	1.00	45.27	C
ATOM	1306	CB	VAL	A	493	-19.369	17.012	58.814	1.00	44.33	C
ATOM	1307	CG1	VAL	A	493	-19.291	16.976	57.291	1.00	44.33	C
ATOM	1308	CG2	VAL	A	493	-20.618	17.743	59.272	1.00	44.33	C
ATOM	1309	C	VAL	A	493	-17.959	14.965	59.213	1.00	45.92	C
ATOM	1310	O	VAL	A	493	-17.064	15.131	60.055	1.00	44.43	O
ATOM	1311	N	THR	A	494	-17.800	14.224	58.115	1.00	45.75	N
ATOM	1312	CA	THR	A	494	-16.603	13.438	57.863	1.00	47.87	C
ATOM	1313	CB	THR	A	494	-16.739	12.056	58.455	1.00	48.30	C
ATOM	1314	OG1	THR	A	494	-17.871	11.444	57.872	1.00	50.34	O
ATOM	1315	CG2	THR	A	494	-16.936	12.101	59.938	1.00	47.85	C
ATOM	1316	C	THR	A	494	-16.343	13.313	56.361	1.00	47.62	C
ATOM	1317	O	THR	A	494	-17.239	13.513	55.559	1.00	50.23	O
ATOM	1318	N	THR	A	495	-15.101	13.013	55.989	1.00	46.12	N
ATOM	1319	CA	THR	A	495	-14.728	12.837	54.589	1.00	45.53	C
ATOM	1320	CB	THR	A	495	-14.172	14.157	54.019	1.00	46.05	C
ATOM	1321	OG1	THR	A	495	-13.588	13.955	52.750	1.00	48.05	O
ATOM	1322	CG2	THR	A	495	-13.163	14.756	54.919	1.00	45.41	C
ATOM	1323	C	THR	A	495	-13.811	11.626	54.502	1.00	45.75	C
ATOM	1324	O	THR	A	495	-13.338	11.132	55.513	1.00	45.26	O
ATOM	1325	N	ARG	A	496	-13.634	11.081	53.317	1.00	44.62	N
ATOM	1326	CA	ARG	A	496	-12.741	9.935	53.187	1.00	45.17	C
ATOM	1327	CB	ARG	A	496	-13.508	8.658	52.806	1.00	44.33	C
ATOM	1328	CG	ARG	A	496	-14.385	8.048	53.873	1.00	44.33	C
ATOM	1329	CD	ARG	A	496	-15.297	7.021	53.235	1.00	44.33	C
ATOM	1330	NE	ARG	A	496	-14.804	5.638	53.334	1.00	44.33	N
ATOM	1331	CZ	ARG	A	496	-14.921	4.698	52.390	1.00	44.33	C
ATOM	1332	NH1	ARG	A	496	-15.506	4.982	51.230	1.00	44.33	N
ATOM	1333	NH2	ARG	A	496	-14.411	3.478	52.601	1.00	44.33	N
ATOM	1334	C	ARG	A	496	-11.659	10.231	52.164	1.00	44.56	C
ATOM	1335	O	ARG	A	496	-11.005	9.313	51.674	1.00	46.74	O
ATOM	1336	N	GLU	A	497	-11.453	11.513	51.865	1.00	44.33	N
ATOM	1337	CA	GLU	A	497	-10.526	11.920	50.835	1.00	46.10	C
ATOM	1338	CB	GLU	A	497	-10.716	13.388	50.531	1.00	48.41	C
ATOM	1339	CG	GLU	A	497	-10.599	13.719	49.038	1.00	52.26	C
ATOM	1340	CD	GLU	A	497	-9.955	15.082	48.811	1.00	50.22	C
ATOM	1341	OE1	GLU	A	497	-10.255	16.013	49.622	1.00	54.98	O
ATOM	1342	OE2	GLU	A	497	-9.138	15.205	47.843	1.00	54.22	O
ATOM	1343	C	GLU	A	497	-9.107	11.670	51.294	1.00	44.33	C
ATOM	1344	O	GLU	A	497	-8.688	12.246	52.299	1.00	44.33	O
ATOM	1345	N	PHE	A	498	-8.396	10.778	50.588	1.00	45.37	N

- 219 -

ATOM	1346	CA	PHE	A	498	-6.959	10.493	50.835	1.00	47.68	C
ATOM	1347	CB	PHE	A	498	-6.479	9.279	50.024	1.00	47.61	C
ATOM	1348	CG	PHE	A	498	-5.018	9.000	50.176	1.00	47.94	C
ATOM	1349	CD1	PHE	A	498	-4.533	8.378	51.315	1.00	47.71	C
ATOM	1350	CE1	PHE	A	498	-3.175	8.134	51.477	1.00	48.06	C
ATOM	1351	CZ	PHE	A	498	-2.302	8.494	50.475	1.00	47.66	C
ATOM	1352	CE2	PHE	A	498	-2.774	9.114	49.316	1.00	47.49	C
ATOM	1353	CD2	PHE	A	498	-4.116	9.366	49.185	1.00	48.67	C
ATOM	1354	C	PHE	A	498	-6.065	11.673	50.493	1.00	47.75	C
ATOM	1355	O	PHE	A	498	-6.103	12.142	49.379	1.00	48.25	O
ATOM	1356	N	CYS	A	499	-5.249	12.128	51.438	1.00	47.53	N
ATOM	1357	CA	CYS	A	499	-4.346	13.258	51.197	1.00	49.69	C
ATOM	1358	CB	CYS	A	499	-5.120	14.524	50.842	1.00	50.29	C
ATOM	1359	SG	CYS	A	499	-6.022	15.214	52.250	1.00	53.72	S
ATOM	1360	C	CYS	A	499	-3.407	13.583	52.347	1.00	49.14	C
ATOM	1361	O	CYS	A	499	-3.640	13.218	53.507	1.00	50.40	O
ATOM	1362	N	GLY	A	500	-2.349	14.307	52.001	1.00	49.34	N
ATOM	1363	CA	GLY	A	500	-1.379	14.788	52.966	1.00	47.16	C
ATOM	1364	C	GLY	A	500	-0.010	14.238	52.675	1.00	47.89	C
ATOM	1365	O	GLY	A	500	0.167	13.459	51.746	1.00	48.18	O
ATOM	1366	N	THR	A	501	0.955	14.640	53.484	1.00	46.22	N
ATOM	1367	CA	THR	A	501	2.302	14.188	53.282	1.00	47.43	C
ATOM	1368	CB	THR	A	501	3.301	15.283	53.681	1.00	48.28	C
ATOM	1369	OG1	THR	A	501	2.881	16.513	53.088	1.00	49.24	O
ATOM	1370	CG2	THR	A	501	4.685	14.973	53.186	1.00	47.66	C
ATOM	1371	C	THR	A	501	2.515	12.896	54.063	1.00	45.77	C
ATOM	1372	O	THR	A	501	2.364	12.891	55.287	1.00	46.70	O
ATOM	1373	N	PRO	A	502	2.906	11.810	53.355	1.00	44.76	N
ATOM	1374	CA	PRO	A	502	2.871	10.472	53.901	1.00	44.51	C
ATOM	1375	CB	PRO	A	502	3.690	9.695	52.881	1.00	44.33	C
ATOM	1376	CG	PRO	A	502	3.426	10.405	51.614	1.00	44.69	C
ATOM	1377	CD	PRO	A	502	3.422	11.818	51.973	1.00	44.65	C
ATOM	1378	C	PRO	A	502	3.336	10.291	55.376	1.00	44.33	C
ATOM	1379	O	PRO	A	502	2.655	9.623	56.150	1.00	44.33	O
ATOM	1380	N	ASP	A	503	4.432	10.915	55.789	1.00	44.33	N
ATOM	1381	CA	ASP	A	503	4.884	10.761	57.175	1.00	44.33	C
ATOM	1382	CB	ASP	A	503	6.226	11.403	57.390	1.00	44.33	C
ATOM	1383	CG	ASP	A	503	7.333	10.496	57.035	1.00	44.33	C
ATOM	1384	OD1	ASP	A	503	7.619	10.364	55.825	1.00	44.33	O
ATOM	1385	OD2	ASP	A	503	7.915	9.899	57.975	1.00	46.07	O
ATOM	1386	C	ASP	A	503	3.919	11.333	58.189	1.00	44.33	C
ATOM	1387	O	ASP	A	503	3.917	10.963	59.351	1.00	44.33	O
ATOM	1388	N	TYR	A	504	3.091	12.263	57.748	1.00	44.33	N
ATOM	1389	CA	TYR	A	504	2.170	12.948	58.656	1.00	44.33	C
ATOM	1390	CB	TYR	A	504	2.109	14.426	58.292	1.00	44.33	C
ATOM	1391	CG	TYR	A	504	3.377	15.174	58.526	1.00	44.33	C
ATOM	1392	CD1	TYR	A	504	4.334	15.243	57.552	1.00	44.33	C
ATOM	1393	CE1	TYR	A	504	5.554	15.960	57.756	1.00	44.33	C
ATOM	1394	CZ	TYR	A	504	5.766	16.635	58.938	1.00	44.33	C
ATOM	1395	OH	TYR	A	504	6.935	17.325	59.093	1.00	44.33	O
ATOM	1396	CE2	TYR	A	504	4.795	16.592	59.927	1.00	44.33	C
ATOM	1397	CD2	TYR	A	504	3.602	15.861	59.704	1.00	44.33	C
ATOM	1398	C	TYR	A	504	0.738	12.360	58.682	1.00	44.33	C
ATOM	1399	O	TYR	A	504	-0.097	12.789	59.475	1.00	44.33	O
ATOM	1400	N	ILE	A	505	0.487	11.372	57.825	1.00	44.33	N
ATOM	1401	CA	ILE	A	505	-0.841	10.832	57.593	1.00	44.33	C
ATOM	1402	CB	ILE	A	505	-0.931	10.233	56.156	1.00	44.33	C
ATOM	1403	CG1	ILE	A	505	-0.911	11.349	55.096	1.00	44.33	C

- 220 -

ATOM	1404	CD1	ILE	A	505	-0.745	10.858	53.661	1.00	44.33	C
ATOM	1405	CG2	ILE	A	505	-2.174	9.362	55.960	1.00	44.33	C
ATOM	1406	C	ILE	A	505	-1.289	9.864	58.699	1.00	44.33	C
ATOM	1407	O	ILE	A	505	-0.593	8.929	59.040	1.00	44.33	O
ATOM	1408	N	ALA	A	506	-2.476	10.138	59.237	1.00	44.33	N
ATOM	1409	CA	ALA	A	506	-3.146	9.360	60.281	1.00	44.33	C
ATOM	1410	CB	ALA	A	506	-4.321	10.134	60.765	1.00	44.33	C
ATOM	1411	C	ALA	A	506	-3.607	8.007	59.774	1.00	44.33	C
ATOM	1412	O	ALA	A	506	-3.969	7.879	58.627	1.00	44.33	O
ATOM	1413	N	PRO	A	507	-3.564	6.987	60.630	1.00	44.33	N
ATOM	1414	CA	PRO	A	507	-4.102	5.668	60.302	1.00	44.33	C
ATOM	1415	CB	PRO	A	507	-4.127	4.978	61.675	1.00	44.33	C
ATOM	1416	CG	PRO	A	507	-2.975	5.597	62.384	1.00	44.33	C
ATOM	1417	CD	PRO	A	507	-2.929	7.007	61.957	1.00	44.33	C
ATOM	1418	C	PRO	A	507	-5.490	5.661	59.606	1.00	44.33	C
ATOM	1419	O	PRO	A	507	-5.720	4.911	58.648	1.00	44.33	O
ATOM	1420	N	GLU	A	508	-6.400	6.495	60.072	1.00	44.33	N
ATOM	1421	CA	GLU	A	508	-7.733	6.517	59.495	1.00	44.33	C
ATOM	1422	CB	GLU	A	508	-8.726	7.306	60.369	1.00	44.33	C
ATOM	1423	CG	GLU	A	508	-8.406	8.732	60.540	1.00	44.33	C
ATOM	1424	CD	GLU	A	508	-7.483	9.005	61.701	1.00	44.33	C
ATOM	1425	OE1	GLU	A	508	-6.665	8.139	62.097	1.00	44.33	O
ATOM	1426	OE2	GLU	A	508	-7.577	10.123	62.223	1.00	44.33	O
ATOM	1427	C	GLU	A	508	-7.790	6.944	58.028	1.00	44.33	C
ATOM	1428	O	GLU	A	508	-8.650	6.509	57.283	1.00	44.33	O
ATOM	1429	N	ILE	A	509	-6.878	7.801	57.613	1.00	44.33	N
ATOM	1430	CA	ILE	A	509	-6.716	8.091	56.198	1.00	44.33	C
ATOM	1431	CB	ILE	A	509	-5.828	9.287	55.932	1.00	44.33	C
ATOM	1432	CG1	ILE	A	509	-6.407	10.565	56.561	1.00	44.33	C
ATOM	1433	CD1	ILE	A	509	-5.429	11.735	56.521	1.00	44.33	C
ATOM	1434	CG2	ILE	A	509	-5.658	9.477	54.456	1.00	44.33	C
ATOM	1435	C	ILE	A	509	-6.151	6.893	55.434	1.00	44.33	C
ATOM	1436	O	ILE	A	509	-6.610	6.600	54.330	1.00	44.33	O
ATOM	1437	N	ILE	A	510	-5.184	6.174	55.986	1.00	44.33	N
ATOM	1438	CA	ILE	A	510	-4.697	5.021	55.254	1.00	44.33	C
ATOM	1439	CB	ILE	A	510	-3.349	4.448	55.810	1.00	44.33	C
ATOM	1440	CG1	ILE	A	510	-2.268	5.547	55.812	1.00	44.33	C
ATOM	1441	CD1	ILE	A	510	-1.128	5.339	56.727	1.00	44.33	C
ATOM	1442	CG2	ILE	A	510	-2.924	3.219	55.006	1.00	44.33	C
ATOM	1443	C	ILE	A	510	-5.827	3.991	55.103	1.00	44.33	C
ATOM	1444	O	ILE	A	510	-6.056	3.474	54.026	1.00	44.33	O
ATOM	1445	N	ALA	A	511	-6.561	3.736	56.172	1.00	44.33	N
ATOM	1446	CA	ALA	A	511	-7.671	2.801	56.113	1.00	44.33	C
ATOM	1447	CB	ALA	A	511	-8.167	2.491	57.504	1.00	44.33	C
ATOM	1448	C	ALA	A	511	-8.822	3.276	55.273	1.00	44.33	C
ATOM	1449	O	ALA	A	511	-9.736	2.516	55.036	1.00	44.33	O
ATOM	1450	N	TYR	A	512	-8.784	4.520	54.813	1.00	44.33	N
ATOM	1451	CA	TYR	A	512	-9.964	5.178	54.194	1.00	44.33	C
ATOM	1452	CB	TYR	A	512	-10.262	4.765	52.705	1.00	44.33	C
ATOM	1453	CG	TYR	A	512	-9.133	4.891	51.660	1.00	44.33	C
ATOM	1454	CD1	TYR	A	512	-9.234	5.786	50.580	1.00	44.33	C
ATOM	1455	CE1	TYR	A	512	-8.188	5.875	49.614	1.00	44.33	C
ATOM	1456	CZ	TYR	A	512	-7.067	5.068	49.743	1.00	44.33	C
ATOM	1457	OH	TYR	A	512	-6.039	5.118	48.830	1.00	44.69	O
ATOM	1458	CE2	TYR	A	512	-6.953	4.188	50.807	1.00	44.33	C
ATOM	1459	CD2	TYR	A	512	-7.981	4.081	51.731	1.00	44.33	C
ATOM	1460	C	TYR	A	512	-11.208	5.004	55.097	1.00	44.33	C
ATOM	1461	O	TYR	A	512	-12.308	4.737	54.646	1.00	44.33	O

- 221 -

ATOM	1462	N	GLN	A	513	-10.998	5.127	56.396	1.00	44.33	N
ATOM	1463	CA	GLN	A	513	-12.099	5.286	57.306	1.00	44.33	C
ATOM	1464	CB	GLN	A	513	-11.721	4.815	58.701	1.00	46.69	C
ATOM	1465	CG	GLN	A	513	-11.612	3.251	58.857	1.00	50.73	C
ATOM	1466	CD	GLN	A	513	-12.923	2.475	58.533	1.00	55.07	C
ATOM	1467	OE1	GLN	A	513	-14.026	2.935	58.851	1.00	55.26	O
ATOM	1468	NE2	GLN	A	513	-12.792	1.294	57.907	1.00	55.07	N
ATOM	1469	C	GLN	A	513	-12.500	6.763	57.293	1.00	44.33	C
ATOM	1470	O	GLN	A	513	-11.623	7.641	57.270	1.00	44.33	O
ATOM	1471	N	PRO	A	514	-13.834	7.050	57.252	1.00	44.33	N
ATOM	1472	CA	PRO	A	514	-14.372	8.419	57.371	1.00	44.33	C
ATOM	1473	CB	PRO	A	514	-15.865	8.179	57.662	1.00	44.33	C
ATOM	1474	CG	PRO	A	514	-15.986	6.686	57.914	1.00	44.33	C
ATOM	1475	CD	PRO	A	514	-14.929	6.073	57.103	1.00	44.33	C
ATOM	1476	C	PRO	A	514	-13.713	9.117	58.557	1.00	44.33	C
ATOM	1477	O	PRO	A	514	-13.562	8.490	59.581	1.00	44.33	O
ATOM	1478	N	TYR	A	515	-13.318	10.382	58.425	1.00	44.33	N
ATOM	1479	CA	TYR	A	515	-12.522	11.037	59.456	1.00	44.33	C
ATOM	1480	CB	TYR	A	515	-10.989	10.909	59.139	1.00	44.33	C
ATOM	1481	CG	TYR	A	515	-10.532	11.680	57.899	1.00	44.33	C
ATOM	1482	CD1	TYR	A	515	-10.192	13.044	57.979	1.00	44.33	C
ATOM	1483	CE1	TYR	A	515	-9.819	13.755	56.866	1.00	44.33	C
ATOM	1484	CZ	TYR	A	515	-9.763	13.110	55.624	1.00	44.33	C
ATOM	1485	OH	TYR	A	515	-9.389	13.808	54.487	1.00	44.33	O
ATOM	1486	CE2	TYR	A	515	-10.087	11.753	55.519	1.00	44.33	C
ATOM	1487	CD2	TYR	A	515	-10.475	11.054	56.659	1.00	44.33	C
ATOM	1488	C	TYR	A	515	-12.928	12.505	59.614	1.00	44.33	C
ATOM	1489	O	TYR	A	515	-13.536	13.093	58.699	1.00	44.33	O
ATOM	1490	N	GLY	A	516	-12.563	13.098	60.754	1.00	44.33	N
ATOM	1491	CA	GLY	A	516	-12.745	14.526	60.975	1.00	44.33	C
ATOM	1492	C	GLY	A	516	-11.443	15.207	61.381	1.00	44.33	C
ATOM	1493	O	GLY	A	516	-10.371	14.896	60.840	1.00	44.33	O
ATOM	1494	N	LYS	A	517	-11.523	16.131	62.340	1.00	44.33	N
ATOM	1495	CA	LYS	A	517	-10.371	16.898	62.778	1.00	44.33	C
ATOM	1496	CB	LYS	A	517	-10.819	18.010	63.720	1.00	44.33	C
ATOM	1497	CG	LYS	A	517	-11.076	17.489	65.122	1.00	44.33	C
ATOM	1498	CD	LYS	A	517	-11.353	18.539	66.153	1.00	44.68	C
ATOM	1499	CE	LYS	A	517	-11.912	17.856	67.410	1.00	45.26	C
ATOM	1500	NZ	LYS	A	517	-13.169	18.598	67.800	1.00	46.04	N
ATOM	1501	C	LYS	A	517	-9.301	16.022	63.460	1.00	44.33	C
ATOM	1502	O	LYS	A	517	-8.188	16.495	63.748	1.00	44.33	O
ATOM	1503	N	SER	A	518	-9.623	14.763	63.729	1.00	44.33	N
ATOM	1504	CA	SER	A	518	-8.691	13.854	64.363	1.00	44.33	C
ATOM	1505	CB	SER	A	518	-9.238	12.440	64.279	1.00	44.33	C
ATOM	1506	OG	SER	A	518	-9.354	12.063	62.910	1.00	45.38	O
ATOM	1507	C	SER	A	518	-7.326	13.832	63.673	1.00	44.33	C
ATOM	1508	O	SER	A	518	-6.292	13.688	64.323	1.00	44.33	O
ATOM	1509	N	VAL	A	519	-7.353	13.918	62.344	1.00	44.33	N
ATOM	1510	CA	VAL	A	519	-6.149	13.808	61.522	1.00	44.33	C
ATOM	1511	CB	VAL	A	519	-6.471	13.667	59.990	1.00	44.33	C
ATOM	1512	CG1	VAL	A	519	-7.256	12.399	59.699	1.00	44.33	C
ATOM	1513	CG2	VAL	A	519	-7.155	14.900	59.429	1.00	44.33	C
ATOM	1514	C	VAL	A	519	-5.139	14.945	61.748	1.00	44.33	C
ATOM	1515	O	VAL	A	519	-3.911	14.772	61.612	1.00	44.33	O
ATOM	1516	N	ASP	A	520	-5.668	16.100	62.123	1.00	44.33	N
ATOM	1517	CA	ASP	A	520	-4.859	17.284	62.397	1.00	44.33	C
ATOM	1518	CB	ASP	A	520	-5.764	18.542	62.473	1.00	44.33	C
ATOM	1519	CG	ASP	A	520	-6.083	19.155	61.057	1.00	44.33	C

- 222 -

ATOM	1520	OD1	ASP	A	520	-5.421	18.815	60.041	1.00	44.33	O
ATOM	1521	OD2	ASP	A	520	-6.975	20.014	60.950	1.00	44.33	O
ATOM	1522	C	ASP	A	520	-4.010	17.060	63.628	1.00	44.33	C
ATOM	1523	O	ASP	A	520	-2.882	17.442	63.671	1.00	44.33	O
ATOM	1524	N	TRP	A	521	-4.560	16.340	64.584	1.00	44.33	N
ATOM	1525	CA	TRP	A	521	-3.882	16.076	65.841	1.00	44.33	C
ATOM	1526	CB	TRP	A	521	-4.911	15.821	66.945	1.00	44.33	C
ATOM	1527	CG	TRP	A	521	-5.740	17.025	67.246	1.00	44.33	C
ATOM	1528	CD1	TRP	A	521	-7.053	17.183	66.989	1.00	44.33	C
ATOM	1529	NE1	TRP	A	521	-7.482	18.424	67.400	1.00	44.33	N
ATOM	1530	CE2	TRP	A	521	-6.422	19.097	67.924	1.00	44.33	C
ATOM	1531	CD2	TRP	A	521	-5.302	18.245	67.844	1.00	44.33	C
ATOM	1532	CE3	TRP	A	521	-4.071	18.697	68.320	1.00	44.33	C
ATOM	1533	CZ3	TRP	A	521	-3.998	19.956	68.838	1.00	44.33	C
ATOM	1534	CH2	TRP	A	521	-5.149	20.780	68.912	1.00	44.33	C
ATOM	1535	CZ2	TRP	A	521	-6.360	20.361	68.445	1.00	44.33	C
ATOM	1536	C	TRP	A	521	-2.866	14.963	65.747	1.00	44.33	C
ATOM	1537	O	TRP	A	521	-1.807	15.003	66.423	1.00	44.33	O
ATOM	1538	N	TRP	A	522	-3.167	13.985	64.898	1.00	44.33	N
ATOM	1539	CA	TRP	A	522	-2.189	12.963	64.590	1.00	44.33	C
ATOM	1540	CB	TRP	A	522	-2.685	11.974	63.529	1.00	44.33	C
ATOM	1541	CG	TRP	A	522	-1.626	11.010	63.101	1.00	44.33	C
ATOM	1542	CD1	TRP	A	522	-0.704	11.202	62.121	1.00	44.33	C
ATOM	1543	NE1	TRP	A	522	0.118	10.135	62.036	1.00	44.33	N
ATOM	1544	CE2	TRP	A	522	-0.240	9.214	62.980	1.00	44.33	C
ATOM	1545	CD2	TRP	A	522	-1.338	9.738	63.675	1.00	44.33	C
ATOM	1546	CE3	TRP	A	522	-1.908	8.986	64.700	1.00	44.33	C
ATOM	1547	CZ3	TRP	A	522	-1.376	7.724	64.982	1.00	44.33	C
ATOM	1548	CH2	TRP	A	522	-0.281	7.228	64.261	1.00	44.33	C
ATOM	1549	CZ2	TRP	A	522	0.297	7.953	63.258	1.00	44.33	C
ATOM	1550	C	TRP	A	522	-0.936	13.655	64.114	1.00	44.33	C
ATOM	1551	O	TRP	A	522	0.097	13.495	64.724	1.00	44.33	O
ATOM	1552	N	ALA	A	523	-1.061	14.459	63.051	1.00	44.33	N
ATOM	1553	CA	ALA	A	523	0.085	15.148	62.419	1.00	44.33	C
ATOM	1554	CB	ALA	A	523	-0.349	15.932	61.223	1.00	44.33	C
ATOM	1555	C	ALA	A	523	0.748	16.063	63.382	1.00	44.33	C
ATOM	1556	O	ALA	A	523	1.951	16.187	63.365	1.00	44.33	O
ATOM	1557	N	TYR	A	524	-0.045	16.704	64.225	1.00	44.33	N
ATOM	1558	CA	TYR	A	524	0.480	17.524	65.281	1.00	44.33	C
ATOM	1559	CB	TYR	A	524	-0.666	18.057	66.127	1.00	44.33	C
ATOM	1560	CG	TYR	A	524	-0.305	18.996	67.289	1.00	44.33	C
ATOM	1561	CD1	TYR	A	524	-0.021	20.346	67.080	1.00	44.33	C
ATOM	1562	CE1	TYR	A	524	0.277	21.195	68.164	1.00	44.33	C
ATOM	1563	CZ	TYR	A	524	0.247	20.696	69.476	1.00	44.33	C
ATOM	1564	OH	TYR	A	524	0.530	21.493	70.572	1.00	44.33	O
ATOM	1565	CE2	TYR	A	524	-0.053	19.370	69.685	1.00	44.33	C
ATOM	1566	CD2	TYR	A	524	-0.325	18.535	68.608	1.00	44.33	C
ATOM	1567	C	TYR	A	524	1.438	16.723	66.132	1.00	44.33	C
ATOM	1568	O	TYR	A	524	2.511	17.198	66.463	1.00	44.33	O
ATOM	1569	N	GLY	A	525	1.029	15.505	66.483	1.00	44.33	N
ATOM	1570	CA	GLY	A	525	1.893	14.606	67.227	1.00	44.33	C
ATOM	1571	C	GLY	A	525	3.133	14.266	66.440	1.00	44.33	C
ATOM	1572	O	GLY	A	525	4.201	14.263	66.991	1.00	44.33	O
ATOM	1573	N	VAL	A	526	2.988	13.983	65.152	1.00	44.33	N
ATOM	1574	CA	VAL	A	526	4.116	13.590	64.313	1.00	44.33	C
ATOM	1575	CB	VAL	A	526	3.653	13.098	62.877	1.00	44.33	C
ATOM	1576	CG1	VAL	A	526	4.747	13.216	61.880	1.00	44.33	C
ATOM	1577	CG2	VAL	A	526	3.176	11.671	62.897	1.00	44.33	C

- 223 -

ATOM	1578	C	VAL	A	526	5.107	14.779	64.284	1.00	44.33	C
ATOM	1579	O	VAL	A	526	6.337	14.595	64.378	1.00	44.33	O
ATOM	1580	N	LEU	A	527	4.548	15.995	64.229	1.00	44.33	N
ATOM	1581	CA	LEU	A	527	5.336	17.199	64.085	1.00	44.33	C
ATOM	1582	CB	LEU	A	527	4.429	18.392	63.727	1.00	44.33	C
ATOM	1583	CG	LEU	A	527	5.182	19.707	63.433	1.00	44.33	C
ATOM	1584	CD1	LEU	A	527	4.405	20.706	62.554	1.00	44.33	C
ATOM	1585	CD2	LEU	A	527	5.625	20.367	64.716	1.00	44.33	C
ATOM	1586	C	LEU	A	527	6.072	17.442	65.385	1.00	44.33	C
ATOM	1587	O	LEU	A	527	7.261	17.725	65.425	1.00	44.33	O
ATOM	1588	N	LEU	A	528	5.316	17.324	66.451	1.00	44.33	N
ATOM	1589	CA	LEU	A	528	5.801	17.481	67.775	1.00	44.33	C
ATOM	1590	CB	LEU	A	528	4.661	17.108	68.663	1.00	44.33	C
ATOM	1591	CG	LEU	A	528	4.440	17.862	69.937	1.00	46.50	C
ATOM	1592	CD1	LEU	A	528	3.906	16.827	70.901	1.00	44.94	C
ATOM	1593	CD2	LEU	A	528	5.737	18.456	70.438	1.00	45.81	C
ATOM	1594	C	LEU	A	528	6.926	16.503	68.038	1.00	44.33	C
ATOM	1595	O	LEU	A	528	7.987	16.875	68.570	1.00	44.33	O
ATOM	1596	N	TYR	A	529	6.670	15.250	67.681	1.00	44.33	N
ATOM	1597	CA	TYR	A	529	7.659	14.214	67.805	1.00	44.33	C
ATOM	1598	CB	TYR	A	529	7.151	12.933	67.161	1.00	44.33	C
ATOM	1599	CG	TYR	A	529	8.137	11.822	67.290	1.00	44.33	C
ATOM	1600	CD1	TYR	A	529	9.122	11.601	66.315	1.00	44.33	C
ATOM	1601	CE1	TYR	A	529	10.089	10.579	66.471	1.00	44.33	C
ATOM	1602	CZ	TYR	A	529	10.040	9.800	67.604	1.00	44.33	C
ATOM	1603	OH	TYR	A	529	10.916	8.804	67.812	1.00	44.33	O
ATOM	1604	CE2	TYR	A	529	9.097	10.003	68.570	1.00	44.33	C
ATOM	1605	CD2	TYR	A	529	8.141	11.017	68.413	1.00	44.33	C
ATOM	1606	C	TYR	A	529	8.969	14.620	67.122	1.00	44.33	C
ATOM	1607	O	TYR	A	529	10.041	14.498	67.708	1.00	44.33	O
ATOM	1608	N	GLU	A	530	8.867	15.076	65.868	1.00	44.33	N
ATOM	1609	CA	GLU	A	530	10.025	15.555	65.116	1.00	44.33	C
ATOM	1610	CB	GLU	A	530	9.630	16.025	63.706	1.00	44.33	C
ATOM	1611	CG	GLU	A	530	9.265	14.941	62.674	1.00	44.33	C
ATOM	1612	CD	GLU	A	530	8.768	15.527	61.310	1.00	44.33	C
ATOM	1613	OE1	GLU	A	530	7.910	16.435	61.336	1.00	44.33	O
ATOM	1614	OE2	GLU	A	530	9.213	15.086	60.217	1.00	44.33	O
ATOM	1615	C	GLU	A	530	10.765	16.681	65.830	1.00	44.33	C
ATOM	1616	O	GLU	A	530	11.961	16.725	65.794	1.00	44.33	O
ATOM	1617	N	MET	A	531	10.051	17.600	66.461	1.00	44.33	N
ATOM	1618	CA	MET	A	531	10.688	18.720	67.157	1.00	44.33	C
ATOM	1619	CB	MET	A	531	9.661	19.676	67.747	1.00	44.33	C
ATOM	1620	CG	MET	A	531	9.185	20.691	66.766	1.00	44.33	C
ATOM	1621	SD	MET	A	531	8.134	21.979	67.426	1.00	44.33	S
ATOM	1622	CE	MET	A	531	6.747	21.098	68.089	1.00	44.33	C
ATOM	1623	C	MET	A	531	11.489	18.199	68.283	1.00	44.33	C
ATOM	1624	O	MET	A	531	12.531	18.729	68.592	1.00	44.33	O
ATOM	1625	N	LEU	A	532	10.991	17.143	68.891	1.00	44.33	N
ATOM	1626	CA	LEU	A	532	11.543	16.639	70.117	1.00	44.33	C
ATOM	1627	CB	LEU	A	532	10.407	16.032	70.912	1.00	44.33	C
ATOM	1628	CG	LEU	A	532	9.527	16.989	71.712	1.00	44.33	C
ATOM	1629	CD1	LEU	A	532	8.294	16.201	72.190	1.00	44.33	C
ATOM	1630	CD2	LEU	A	532	10.320	17.616	72.881	1.00	44.33	C
ATOM	1631	C	LEU	A	532	12.651	15.596	69.947	1.00	44.33	C
ATOM	1632	O	LEU	A	532	13.509	15.457	70.795	1.00	44.33	O
ATOM	1633	N	ALA	A	533	12.610	14.851	68.860	1.00	44.33	N
ATOM	1634	CA	ALA	A	533	13.476	13.713	68.641	1.00	44.33	C
ATOM	1635	CB	ALA	A	533	12.664	12.469	68.399	1.00	44.33	C

- 224 -

ATOM	1636	C	ALA	A	533	14.321	13.968	67.441	1.00	44.33	C
ATOM	1637	O	ALA	A	533	15.260	13.211	67.197	1.00	44.60	O
ATOM	1638	N	GLY	A	534	13.981	15.021	66.689	1.00	44.33	N
ATOM	1639	CA	GLY	A	534	14.653	15.382	65.444	1.00	44.33	C
ATOM	1640	C	GLY	A	534	14.583	14.359	64.337	1.00	44.33	C
ATOM	1641	O	GLY	A	534	15.387	14.383	63.416	1.00	44.33	O
ATOM	1642	N	GLN	A	535	13.617	13.459	64.417	1.00	44.33	N
ATOM	1643	CA	GLN	A	535	13.479	12.386	63.446	1.00	45.39	C
ATOM	1644	CB	GLN	A	535	14.173	11.120	63.940	1.00	48.92	C
ATOM	1645	CG	GLN	A	535	14.835	10.335	62.849	1.00	55.60	C
ATOM	1646	CD	GLN	A	535	16.284	10.739	62.666	1.00	56.08	C
ATOM	1647	OE1	GLN	A	535	16.751	11.032	61.547	1.00	58.72	O
ATOM	1648	NE2	GLN	A	535	17.015	10.763	63.777	1.00	58.61	N
ATOM	1649	C	GLN	A	535	11.997	12.162	63.347	1.00	44.33	C
ATOM	1650	O	GLN	A	535	11.268	12.643	64.184	1.00	44.33	O
ATOM	1651	N	PRO	A	536	11.518	11.499	62.298	1.00	44.33	N
ATOM	1652	CA	PRO	A	536	10.123	11.086	62.259	1.00	44.33	C
ATOM	1653	CB	PRO	A	536	9.891	10.778	60.776	1.00	44.33	C
ATOM	1654	CG	PRO	A	536	10.999	11.329	60.093	1.00	44.33	C
ATOM	1655	CD	PRO	A	536	12.156	11.198	61.022	1.00	44.33	C
ATOM	1656	C	PRO	A	536	9.816	9.836	63.070	1.00	44.33	C
ATOM	1657	O	PRO	A	536	10.660	8.972	63.220	1.00	44.33	O
ATOM	1658	N	PRO	A	537	8.598	9.752	63.596	1.00	44.33	N
ATOM	1659	CA	PRO	A	537	8.118	8.597	64.375	1.00	44.33	C
ATOM	1660	CB	PRO	A	537	6.671	8.959	64.723	1.00	44.33	C
ATOM	1661	CG	PRO	A	537	6.374	10.212	63.993	1.00	44.33	C
ATOM	1662	CD	PRO	A	537	7.626	10.852	63.539	1.00	44.33	C
ATOM	1663	C	PRO	A	537	8.148	7.272	63.641	1.00	44.33	C
ATOM	1664	O	PRO	A	537	8.345	6.219	64.254	1.00	44.33	O
ATOM	1665	N	PHE	A	538	7.980	7.324	62.334	1.00	44.33	N
ATOM	1666	CA	PHE	A	538	7.715	6.130	61.530	1.00	44.33	C
ATOM	1667	CB	PHE	A	538	6.257	6.136	61.038	1.00	44.33	C
ATOM	1668	CG	PHE	A	538	5.257	6.042	62.149	1.00	44.33	C
ATOM	1669	CD1	PHE	A	538	4.958	4.815	62.718	1.00	44.33	C
ATOM	1670	CE1	PHE	A	538	4.085	4.732	63.734	1.00	44.33	C
ATOM	1671	CZ	PHE	A	538	3.485	5.878	64.211	1.00	44.33	C
ATOM	1672	CE2	PHE	A	538	3.773	7.101	63.670	1.00	44.33	C
ATOM	1673	CD2	PHE	A	538	4.660	7.188	62.651	1.00	44.46	C
ATOM	1674	C	PHE	A	538	8.606	6.072	60.332	1.00	45.72	C
ATOM	1675	O	PHE	A	538	8.971	7.109	59.766	1.00	46.77	O
ATOM	1676	N	ASP	A	539	8.908	4.850	59.909	1.00	49.05	N
ATOM	1677	CA	ASP	A	539	9.862	4.614	58.820	1.00	51.70	C
ATOM	1678	CB	ASP	A	539	11.145	4.102	59.417	1.00	56.39	C
ATOM	1679	CG	ASP	A	539	11.993	5.221	59.891	1.00	59.92	C
ATOM	1680	OD1	ASP	A	539	12.577	5.925	59.002	1.00	60.13	O
ATOM	1681	OD2	ASP	A	539	12.007	5.414	61.145	1.00	61.25	O
ATOM	1682	C	ASP	A	539	9.426	3.607	57.818	1.00	50.13	C
ATOM	1683	O	ASP	A	539	8.582	2.779	58.119	1.00	51.62	O
ATOM	1684	N	GLY	A	540	10.027	3.668	56.637	1.00	48.99	N
ATOM	1685	CA	GLY	A	540	9.763	2.682	55.607	1.00	47.42	C
ATOM	1686	C	GLY	A	540	10.443	3.029	54.320	1.00	47.10	C
ATOM	1687	O	GLY	A	540	10.533	4.201	53.970	1.00	47.06	O
ATOM	1688	N	GLU	A	541	10.928	2.001	53.623	1.00	46.83	N
ATOM	1689	CA	GLU	A	541	11.728	2.179	52.404	1.00	47.82	C
ATOM	1690	CB	GLU	A	541	12.306	0.863	51.894	1.00	50.39	C
ATOM	1691	CG	GLU	A	541	13.460	0.309	52.698	1.00	52.86	C
ATOM	1692	CD	GLU	A	541	13.576	-1.237	52.576	1.00	53.84	C
ATOM	1693	OE1	GLU	A	541	13.580	-1.741	51.427	1.00	57.33	O

- 225 -

ATOM	1694	OE2	GLU	A	541	13.666	-1.946	53.624	1.00	55.95	O
ATOM	1695	C	GLU	A	541	10.901	2.785	51.315	1.00	46.16	C
ATOM	1696	O	GLU	A	541	11.428	3.414	50.437	1.00	45.38	O
ATOM	1697	N	ASP	A	542	9.602	2.574	51.357	1.00	44.33	N
ATOM	1698	CA	ASP	A	542	8.685	3.219	50.417	1.00	44.33	C
ATOM	1699	CB	ASP	A	542	8.450	2.374	49.151	1.00	44.33	C
ATOM	1700	CG	ASP	A	542	7.881	1.010	49.450	1.00	44.52	C
ATOM	1701	OD1	ASP	A	542	7.450	0.777	50.602	1.00	44.78	O
ATOM	1702	OD2	ASP	A	542	7.866	0.166	48.529	1.00	44.33	O
ATOM	1703	C	ASP	A	542	7.387	3.603	51.110	1.00	44.33	C
ATOM	1704	O	ASP	A	542	7.243	3.409	52.312	1.00	44.33	O
ATOM	1705	N	GLU	A	543	6.463	4.175	50.353	1.00	44.33	N
ATOM	1706	CA	GLU	A	543	5.184	4.612	50.921	1.00	44.33	C
ATOM	1707	CB	GLU	A	543	4.348	5.371	49.909	1.00	44.33	C
ATOM	1708	CG	GLU	A	543	3.285	6.150	50.556	1.00	44.33	C
ATOM	1709	CD	GLU	A	543	2.687	7.093	49.614	1.00	44.83	C
ATOM	1710	OE1	GLU	A	543	2.724	6.810	48.405	1.00	45.41	O
ATOM	1711	OE2	GLU	A	543	2.185	8.129	50.059	1.00	46.44	O
ATOM	1712	C	GLU	A	543	4.328	3.520	51.591	1.00	44.33	C
ATOM	1713	O	GLU	A	543	3.859	3.720	52.694	1.00	44.33	O
ATOM	1714	N	ASP	A	544	4.167	2.375	50.939	1.00	44.33	N
ATOM	1715	CA	ASP	A	544	3.412	1.242	51.461	1.00	45.70	C
ATOM	1716	CB	ASP	A	544	3.374	0.100	50.429	1.00	48.18	C
ATOM	1717	CG	ASP	A	544	3.778	0.564	48.976	1.00	54.54	C
ATOM	1718	OD1	ASP	A	544	4.422	1.665	48.794	1.00	52.86	O
ATOM	1719	OD2	ASP	A	544	3.459	-0.190	48.000	1.00	53.48	O
ATOM	1720	C	ASP	A	544	4.001	0.721	52.760	1.00	45.86	C
ATOM	1721	O	ASP	A	544	3.284	0.369	53.683	1.00	44.98	O
ATOM	1722	N	GLU	A	545	5.320	0.683	52.813	1.00	44.33	N
ATOM	1723	CA	GLU	A	545	6.070	0.298	53.984	1.00	44.33	C
ATOM	1724	CB	GLU	A	545	7.521	0.224	53.579	1.00	46.31	C
ATOM	1725	CG	GLU	A	545	8.167	-1.079	53.875	1.00	51.59	C
ATOM	1726	CD	GLU	A	545	9.610	-0.898	54.196	1.00	51.14	C
ATOM	1727	OE1	GLU	A	545	10.356	-0.386	53.356	1.00	52.48	O
ATOM	1728	OE2	GLU	A	545	10.017	-1.249	55.312	1.00	53.92	O
ATOM	1729	C	GLU	A	545	5.927	1.296	55.122	1.00	44.33	C
ATOM	1730	O	GLU	A	545	5.815	0.917	56.274	1.00	44.33	O
ATOM	1731	N	LEU	A	546	5.952	2.576	54.791	1.00	44.33	N
ATOM	1732	CA	LEU	A	546	5.722	3.602	55.771	1.00	44.33	C
ATOM	1733	CB	LEU	A	546	5.892	4.981	55.127	1.00	44.33	C
ATOM	1734	CG	LEU	A	546	5.564	6.277	55.874	1.00	44.33	C
ATOM	1735	CD1	LEU	A	546	6.568	6.591	56.967	1.00	44.33	C
ATOM	1736	CD2	LEU	A	546	5.523	7.356	54.864	1.00	44.58	C
ATOM	1737	C	LEU	A	546	4.320	3.447	56.336	1.00	44.33	C
ATOM	1738	O	LEU	A	546	4.116	3.511	57.546	1.00	44.33	O
ATOM	1739	N	PHE	A	547	3.363	3.243	55.437	1.00	44.33	N
ATOM	1740	CA	PHE	A	547	1.938	3.126	55.801	1.00	44.33	C
ATOM	1741	CB	PHE	A	547	1.043	2.986	54.552	1.00	44.33	C
ATOM	1742	CG	PHE	A	547	0.743	4.303	53.828	1.00	44.33	C
ATOM	1743	CD1	PHE	A	547	1.118	5.547	54.362	1.00	44.33	C
ATOM	1744	CE1	PHE	A	547	0.831	6.738	53.705	1.00	44.33	C
ATOM	1745	CZ	PHE	A	547	0.156	6.706	52.516	1.00	44.33	C
ATOM	1746	CE2	PHE	A	547	-0.236	5.492	51.963	1.00	44.33	C
ATOM	1747	CD2	PHE	A	547	0.043	4.297	52.622	1.00	44.33	C
ATOM	1748	C	PHE	A	547	1.740	1.968	56.785	1.00	44.33	C
ATOM	1749	O	PHE	A	547	1.131	2.136	57.837	1.00	44.33	O
ATOM	1750	N	GLN	A	548	2.323	0.823	56.444	1.00	44.33	N
ATOM	1751	CA	GLN	A	548	2.285	-0.339	57.267	1.00	45.12	C

- 226 -

ATOM	1752	CB	GLN	A	548	3.086	-1.410	56.592	1.00	46.50	C
ATOM	1753	CG	GLN	A	548	3.016	-2.775	57.224	1.00	50.33	C
ATOM	1754	CD	GLN	A	548	4.281	-3.594	56.953	1.00	50.39	C
ATOM	1755	OE1	GLN	A	548	4.253	-4.586	56.234	1.00	54.04	O
ATOM	1756	NE2	GLN	A	548	5.404	-3.154	57.519	1.00	53.03	N
ATOM	1757	C	GLN	A	548	2.888	0.023	58.604	1.00	44.33	C
ATOM	1758	O	GLN	A	548	2.425	-0.432	59.640	1.00	44.89	O
ATOM	1759	N	SER	A	549	3.911	0.874	58.594	1.00	44.33	N
ATOM	1760	CA	SER	A	549	4.532	1.268	59.833	1.00	44.33	C
ATOM	1761	CB	SER	A	549	5.792	2.045	59.540	1.00	44.33	C
ATOM	1762	OG	SER	A	549	6.279	2.671	60.713	1.00	48.95	O
ATOM	1763	C	SER	A	549	3.558	2.074	60.678	1.00	44.33	C
ATOM	1764	O	SER	A	549	3.425	1.844	61.854	1.00	44.33	O
ATOM	1765	N	ILE	A	550	2.856	3.007	60.057	1.00	44.33	N
ATOM	1766	CA	ILE	A	550	1.907	3.901	60.734	1.00	44.33	C
ATOM	1767	CB	ILE	A	550	1.420	4.983	59.735	1.00	44.33	C
ATOM	1768	CG1	ILE	A	550	2.463	6.088	59.555	1.00	44.33	C
ATOM	1769	CD1	ILE	A	550	2.190	6.963	58.342	1.00	44.33	C
ATOM	1770	CG2	ILE	A	550	0.058	5.542	60.105	1.00	44.33	C
ATOM	1771	C	ILE	A	550	0.700	3.129	61.271	1.00	44.33	C
ATOM	1772	O	ILE	A	550	0.157	3.460	62.310	1.00	44.33	O
ATOM	1773	N	MET	A	551	0.297	2.108	60.512	1.00	44.33	N
ATOM	1774	CA	MET	A	551	-0.806	1.194	60.772	1.00	45.24	C
ATOM	1775	CB	MET	A	551	-0.944	0.347	59.500	1.00	46.09	C
ATOM	1776	CG	MET	A	551	-2.109	0.641	58.518	1.00	50.55	C
ATOM	1777	SD	MET	A	551	-3.507	1.664	59.053	1.00	50.82	S
ATOM	1778	CE	MET	A	551	-2.633	3.195	59.134	1.00	50.46	C
ATOM	1779	C	MET	A	551	-0.542	0.260	61.967	1.00	45.95	C
ATOM	1780	O	MET	A	551	-1.473	-0.098	62.707	1.00	44.78	O
ATOM	1781	N	GLU	A	552	0.737	-0.095	62.155	1.00	48.75	N
ATOM	1782	CA	GLU	A	552	1.184	-1.248	62.961	1.00	50.26	C
ATOM	1783	CB	GLU	A	552	1.680	-2.343	62.016	1.00	50.55	C
ATOM	1784	CG	GLU	A	552	0.638	-2.661	60.967	1.00	51.80	C
ATOM	1785	CD	GLU	A	552	0.972	-3.813	60.031	1.00	51.75	C
ATOM	1786	OE1	GLU	A	552	2.084	-4.402	60.082	1.00	53.49	O
ATOM	1787	OE2	GLU	A	552	0.070	-4.128	59.227	1.00	54.48	O
ATOM	1788	C	GLU	A	552	2.246	-0.975	64.043	1.00	51.15	C
ATOM	1789	O	GLU	A	552	2.192	-1.541	65.168	1.00	49.71	O
ATOM	1790	N	HIS	A	553	3.198	-0.116	63.713	1.00	52.10	N
ATOM	1791	CA	HIS	A	553	4.295	0.095	64.607	1.00	54.01	C
ATOM	1792	CB	HIS	A	553	5.504	0.680	63.925	1.00	54.35	C
ATOM	1793	CG	HIS	A	553	6.726	0.499	64.743	1.00	56.36	C
ATOM	1794	ND1	HIS	A	553	7.569	1.543	65.072	1.00	57.69	N
ATOM	1795	CE1	HIS	A	553	8.546	1.078	65.838	1.00	57.05	C
ATOM	1796	NE2	HIS	A	553	8.341	-0.218	66.045	1.00	58.22	N
ATOM	1797	CD2	HIS	A	553	7.198	-0.602	65.385	1.00	55.19	C
ATOM	1798	C	HIS	A	553	3.946	0.902	65.847	1.00	54.12	C
ATOM	1799	O	HIS	A	553	3.040	1.751	65.820	1.00	52.81	O
ATOM	1800	N	ASN	A	554	4.637	0.583	66.948	1.00	55.16	N
ATOM	1801	CA	ASN	A	554	4.562	1.415	68.147	1.00	56.50	C
ATOM	1802	CB	ASN	A	554	4.245	0.622	69.429	1.00	56.60	C
ATOM	1803	CG	ASN	A	554	2.719	0.465	69.658	1.00	58.13	C
ATOM	1804	OD1	ASN	A	554	1.941	0.434	68.702	1.00	57.69	O
ATOM	1805	ND2	ASN	A	554	2.300	0.386	70.922	1.00	56.37	N
ATOM	1806	C	ASN	A	554	5.824	2.249	68.200	1.00	55.91	C
ATOM	1807	O	ASN	A	554	6.920	1.719	68.065	1.00	57.69	O
ATOM	1808	N	VAL	A	555	5.661	3.568	68.296	1.00	56.18	N
ATOM	1809	CA	VAL	A	555	6.810	4.455	68.235	1.00	56.32	C

- 227 -

ATOM	1810	CB	VAL	A	555	6.465	5.938	68.294	1.00	55.93	C
ATOM	1811	CG1	VAL	A	555	7.754	6.772	68.265	1.00	56.77	C
ATOM	1812	CG2	VAL	A	555	5.510	6.320	67.161	1.00	56.77	C
ATOM	1813	C	VAL	A	555	7.671	4.126	69.417	1.00	57.51	C
ATOM	1814	O	VAL	A	555	7.146	3.785	70.490	1.00	55.68	O
ATOM	1815	N	SER	A	556	8.981	4.181	69.179	1.00	57.77	N
ATOM	1816	CA	SER	A	556	10.007	4.042	70.197	1.00	59.18	C
ATOM	1817	CB	SER	A	556	11.203	3.292	69.608	1.00	60.54	C
ATOM	1818	OG	SER	A	556	11.819	2.424	70.555	1.00	62.45	O
ATOM	1819	C	SER	A	556	10.446	5.445	70.560	1.00	57.84	C
ATOM	1820	O	SER	A	556	10.918	6.169	69.695	1.00	58.80	O
ATOM	1821	N	TYR	A	557	10.286	5.845	71.817	1.00	56.89	N
ATOM	1822	CA	TYR	A	557	10.748	7.177	72.229	1.00	55.43	C
ATOM	1823	CB	TYR	A	557	9.729	7.878	73.111	1.00	53.78	C
ATOM	1824	CG	TYR	A	557	8.387	8.015	72.494	1.00	52.48	C
ATOM	1825	CD1	TYR	A	557	7.620	6.910	72.253	1.00	51.35	C
ATOM	1826	CE1	TYR	A	557	6.356	7.027	71.697	1.00	52.27	C
ATOM	1827	CZ	TYR	A	557	5.874	8.256	71.371	1.00	51.66	C
ATOM	1828	OH	TYR	A	557	4.642	8.319	70.825	1.00	52.94	O
ATOM	1829	CE2	TYR	A	557	6.616	9.386	71.600	1.00	52.52	C
ATOM	1830	CD2	TYR	A	557	7.868	9.261	72.169	1.00	51.56	C
ATOM	1831	C	TYR	A	557	12.083	7.123	72.944	1.00	56.40	C
ATOM	1832	O	TYR	A	557	12.280	6.317	73.864	1.00	55.76	O
ATOM	1833	N	PRO	A	558	13.016	7.966	72.508	1.00	57.10	N
ATOM	1834	CA	PRO	A	558	14.310	8.089	73.162	1.00	58.05	C
ATOM	1835	CB	PRO	A	558	14.923	9.327	72.498	1.00	58.01	C
ATOM	1836	CG	PRO	A	558	14.342	9.305	71.135	1.00	57.04	C
ATOM	1837	CD	PRO	A	558	12.917	8.810	71.310	1.00	57.86	C
ATOM	1838	C	PRO	A	558	14.165	8.318	74.647	1.00	58.16	C
ATOM	1839	O	PRO	A	558	13.303	9.084	75.093	1.00	57.51	O
ATOM	1840	N	LYS	A	559	15.022	7.633	75.391	1.00	56.91	N
ATOM	1841	CA	LYS	A	559	15.113	7.720	76.835	1.00	55.81	C
ATOM	1842	CB	LYS	A	559	16.230	6.781	77.275	1.00	56.21	C
ATOM	1843	CG	LYS	A	559	17.175	6.336	76.135	1.00	58.19	C
ATOM	1844	CD	LYS	A	559	18.087	5.173	76.611	1.00	57.42	C
ATOM	1845	CE	LYS	A	559	18.913	5.540	77.896	1.00	59.37	C
ATOM	1846	NZ	LYS	A	559	19.714	4.426	78.479	1.00	58.57	N
ATOM	1847	C	LYS	A	559	15.290	9.147	77.396	1.00	53.84	C
ATOM	1848	O	LYS	A	559	14.792	9.425	78.492	1.00	51.91	O
ATOM	1849	N	SER	A	560	15.934	10.045	76.645	1.00	54.29	N
ATOM	1850	CA	SER	A	560	16.053	11.443	77.053	1.00	54.47	C
ATOM	1851	CB	SER	A	560	17.136	12.138	76.226	1.00	54.24	C
ATOM	1852	OG	SER	A	560	16.606	12.691	75.026	1.00	58.22	O
ATOM	1853	C	SER	A	560	14.731	12.288	77.073	1.00	53.98	C
ATOM	1854	O	SER	A	560	14.728	13.438	77.521	1.00	53.98	O
ATOM	1855	N	LEU	A	561	13.615	11.743	76.609	1.00	51.98	N
ATOM	1856	CA	LEU	A	561	12.379	12.482	76.687	1.00	50.77	C
ATOM	1857	CB	LEU	A	561	11.408	11.917	75.667	1.00	50.80	C
ATOM	1858	CG	LEU	A	561	11.153	12.536	74.304	1.00	52.22	C
ATOM	1859	CD1	LEU	A	561	12.308	13.380	73.840	1.00	52.04	C
ATOM	1860	CD2	LEU	A	561	10.887	11.400	73.345	1.00	51.48	C
ATOM	1861	C	LEU	A	561	11.739	12.423	78.089	1.00	49.45	C
ATOM	1862	O	LEU	A	561	11.659	11.344	78.689	1.00	49.08	O
ATOM	1863	N	SER	A	562	11.288	13.581	78.589	1.00	48.10	N
ATOM	1864	CA	SER	A	562	10.412	13.661	79.748	1.00	46.89	C
ATOM	1865	CB	SER	A	562	9.931	15.105	79.921	1.00	46.92	C
ATOM	1866	OG	SER	A	562	8.561	15.280	79.500	1.00	46.18	O
ATOM	1867	C	SER	A	562	9.177	12.758	79.629	1.00	46.14	C

- 228 -

ATOM	1868	O	SER A 562	8.700	12.485	78.529	1.00	44.98	O
ATOM	1869	N	LYS A 563	8.687	12.315	80.783	1.00	44.33	N
ATOM	1870	CA	LYS A 563	7.372	11.716	81.003	1.00	44.33	C
ATOM	1871	CB	LYS A 563	7.150	11.816	82.525	1.00	44.33	C
ATOM	1872	CG	LYS A 563	5.901	11.261	83.110	1.00	45.79	C
ATOM	1873	CD	LYS A 563	5.973	11.347	84.646	1.00	45.60	C
ATOM	1874	CE	LYS A 563	6.107	12.799	85.122	1.00	44.33	C
ATOM	1875	NZ	LYS A 563	6.317	12.875	86.601	1.00	44.92	N
ATOM	1876	C	LYS A 563	6.244	12.436	80.234	1.00	44.33	C
ATOM	1877	O	LYS A 563	5.470	11.788	79.538	1.00	44.33	O
ATOM	1878	N	GLU A 564	6.165	13.763	80.350	1.00	44.33	N
ATOM	1879	CA	GLU A 564	5.091	14.521	79.716	1.00	44.33	C
ATOM	1880	CB	GLU A 564	4.946	15.881	80.355	1.00	44.33	C
ATOM	1881	CG	GLU A 564	4.604	15.727	81.803	1.00	44.33	C
ATOM	1882	CD	GLU A 564	5.815	15.721	82.755	1.00	44.33	C
ATOM	1883	OE1	GLU A 564	7.029	15.666	82.306	1.00	44.33	O
ATOM	1884	OE2	GLU A 564	5.513	15.797	83.978	1.00	44.33	O
ATOM	1885	C	GLU A 564	5.261	14.596	78.192	1.00	44.33	C
ATOM	1886	O	GLU A 564	4.254	14.591	77.445	1.00	44.33	O
ATOM	1887	N	ALA A 565	6.522	14.633	77.740	1.00	44.33	N
ATOM	1888	CA	ALA A 565	6.808	14.637	76.323	1.00	44.33	C
ATOM	1889	CB	ALA A 565	8.262	14.752	76.101	1.00	44.33	C
ATOM	1890	C	ALA A 565	6.277	13.356	75.737	1.00	44.33	C
ATOM	1891	O	ALA A 565	5.556	13.383	74.755	1.00	44.33	O
ATOM	1892	N	VAL A 566	6.595	12.238	76.364	1.00	44.33	N
ATOM	1893	CA	VAL A 566	6.180	10.962	75.827	1.00	44.33	C
ATOM	1894	CB	VAL A 566	7.041	9.820	76.388	1.00	44.33	C
ATOM	1895	CG1	VAL A 566	6.742	8.555	75.669	1.00	44.33	C
ATOM	1896	CG2	VAL A 566	8.528	10.141	76.206	1.00	44.33	C
ATOM	1897	C	VAL A 566	4.646	10.768	76.001	1.00	44.33	C
ATOM	1898	O	VAL A 566	3.960	10.263	75.117	1.00	44.33	O
ATOM	1899	N	SER A 567	4.106	11.238	77.113	1.00	44.33	N
ATOM	1900	CA	SER A 567	2.687	11.258	77.283	1.00	44.33	C
ATOM	1901	CB	SER A 567	2.338	11.988	78.565	1.00	44.33	C
ATOM	1902	OG	SER A 567	0.934	12.067	78.677	1.00	44.33	O
ATOM	1903	C	SER A 567	1.931	11.895	76.101	1.00	44.33	C
ATOM	1904	O	SER A 567	0.934	11.339	75.601	1.00	44.33	O
ATOM	1905	N	ILE A 568	2.359	13.074	75.681	1.00	44.33	N
ATOM	1906	CA	ILE A 568	1.564	13.812	74.722	1.00	44.33	C
ATOM	1907	CB	ILE A 568	1.885	15.301	74.680	1.00	44.33	C
ATOM	1908	CG1	ILE A 568	0.741	15.992	73.931	1.00	44.33	C
ATOM	1909	CD1	ILE A 568	0.663	17.475	74.055	1.00	44.33	C
ATOM	1910	CG2	ILE A 568	3.249	15.532	74.056	1.00	44.33	C
ATOM	1911	C	ILE A 568	1.740	13.159	73.366	1.00	44.33	C
ATOM	1912	O	ILE A 568	0.779	13.006	72.596	1.00	44.33	O
ATOM	1913	N	CYS A 569	2.962	12.721	73.102	1.00	44.33	N
ATOM	1914	CA	CYS A 569	3.200	11.936	71.899	1.00	44.33	C
ATOM	1915	CB	CYS A 569	4.655	11.585	71.758	1.00	44.33	C
ATOM	1916	SG	CYS A 569	5.562	13.015	71.293	1.00	45.35	S
ATOM	1917	C	CYS A 569	2.321	10.700	71.757	1.00	44.33	C
ATOM	1918	O	CYS A 569	1.732	10.462	70.693	1.00	44.33	O
ATOM	1919	N	LYS A 570	2.205	9.904	72.809	1.00	44.33	N
ATOM	1920	CA	LYS A 570	1.276	8.769	72.747	1.00	44.33	C
ATOM	1921	CB	LYS A 570	1.477	7.829	73.922	1.00	44.33	C
ATOM	1922	CG	LYS A 570	2.848	7.249	73.966	1.00	44.33	C
ATOM	1923	CD	LYS A 570	2.918	6.129	75.004	1.00	45.53	C
ATOM	1924	CE	LYS A 570	4.282	5.431	74.990	1.00	48.11	C
ATOM	1925	NZ	LYS A 570	4.351	4.393	76.041	1.00	50.47	N

- 229 -

ATOM	1926	C	LYS	A	570	-0.207	9.185	72.625	1.00	44.33	C
ATOM	1927	O	LYS	A	570	-1.001	8.521	71.938	1.00	44.33	O
ATOM	1928	N	GLY	A	571	-0.552	10.288	73.285	1.00	44.33	N
ATOM	1929	CA	GLY	A	571	-1.908	10.774	73.252	1.00	44.33	C
ATOM	1930	C	GLY	A	571	-2.299	11.186	71.863	1.00	44.33	C
ATOM	1931	O	GLY	A	571	-3.406	10.867	71.392	1.00	44.33	O
ATOM	1932	N	LEU	A	572	-1.375	11.897	71.213	1.00	44.33	N
ATOM	1933	CA	LEU	A	572	-1.606	12.432	69.889	1.00	44.33	C
ATOM	1934	CB	LEU	A	572	-0.767	13.677	69.644	1.00	44.33	C
ATOM	1935	CG	LEU	A	572	-0.921	14.848	70.608	1.00	44.33	C
ATOM	1936	CD1	LEU	A	572	0.343	15.743	70.656	1.00	44.33	C
ATOM	1937	CD2	LEU	A	572	-2.132	15.627	70.219	1.00	44.33	C
ATOM	1938	C	LEU	A	572	-1.373	11.361	68.810	1.00	44.33	C
ATOM	1939	O	LEU	A	572	-2.017	11.382	67.760	1.00	44.33	O
ATOM	1940	N	MET	A	573	-0.471	10.421	69.024	1.00	44.33	N
ATOM	1941	CA	MET	A	573	-0.345	9.392	67.999	1.00	44.33	C
ATOM	1942	CB	MET	A	573	1.105	9.180	67.534	1.00	44.33	C
ATOM	1943	CG	MET	A	573	1.692	10.366	66.802	1.00	44.33	C
ATOM	1944	SD	MET	A	573	3.405	10.128	66.338	1.00	44.33	S
ATOM	1945	CE	MET	A	573	4.323	10.555	67.821	1.00	44.33	C
ATOM	1946	C	MET	A	573	-0.991	8.097	68.432	1.00	44.33	C
ATOM	1947	O	MET	A	573	-0.427	7.032	68.242	1.00	44.33	O
ATOM	1948	N	THR	A	574	-2.167	8.205	69.041	1.00	44.33	N
ATOM	1949	CA	THR	A	574	-3.030	7.061	69.292	1.00	44.33	C
ATOM	1950	CB	THR	A	574	-4.244	7.381	70.220	1.00	44.33	C
ATOM	1951	OG1	THR	A	574	-3.793	7.635	71.543	1.00	44.33	O
ATOM	1952	CG2	THR	A	574	-5.231	6.205	70.284	1.00	44.33	C
ATOM	1953	C	THR	A	574	-3.609	6.735	67.951	1.00	44.33	C
ATOM	1954	O	THR	A	574	-4.193	7.590	67.283	1.00	44.59	O
ATOM	1955	N	LYS	A	575	-3.455	5.480	67.566	1.00	44.33	N
ATOM	1956	CA	LYS	A	575	-3.948	4.998	66.290	1.00	44.33	C
ATOM	1957	CB	LYS	A	575	-3.463	3.564	66.061	1.00	44.33	C
ATOM	1958	CG	LYS	A	575	-1.981	3.456	65.816	1.00	44.33	C
ATOM	1959	CD	LYS	A	575	-1.653	2.252	64.968	1.00	44.33	C
ATOM	1960	CE	LYS	A	575	-0.217	1.700	65.225	1.00	44.33	C
ATOM	1961	NZ	LYS	A	575	0.945	2.522	64.780	1.00	44.33	N
ATOM	1962	C	LYS	A	575	-5.484	5.118	66.088	1.00	44.33	C
ATOM	1963	O	LYS	A	575	-5.959	5.351	64.973	1.00	44.33	O
ATOM	1964	N	HIS	A	576	-6.249	4.974	67.162	1.00	45.12	N
ATOM	1965	CA	HIS	A	576	-7.695	4.964	67.039	1.00	45.23	C
ATOM	1966	CB	HIS	A	576	-8.319	3.942	67.989	1.00	47.78	C
ATOM	1967	CG	HIS	A	576	-8.131	2.501	67.595	1.00	50.75	C
ATOM	1968	ND1	HIS	A	576	-7.260	1.654	68.254	1.00	50.70	N
ATOM	1969	CE1	HIS	A	576	-7.335	0.445	67.725	1.00	50.90	C
ATOM	1970	NE2	HIS	A	576	-8.239	0.468	66.760	1.00	51.30	N
ATOM	1971	CD2	HIS	A	576	-8.764	1.737	66.671	1.00	51.24	C
ATOM	1972	C	HIS	A	576	-8.243	6.345	67.349	1.00	44.41	C
ATOM	1973	O	HIS	A	576	-8.254	6.768	68.496	1.00	45.52	O
ATOM	1974	N	PRO	A	577	-8.755	7.041	66.335	1.00	44.33	N
ATOM	1975	CA	PRO	A	577	-9.079	8.450	66.493	1.00	44.84	C
ATOM	1976	CB	PRO	A	577	-9.741	8.825	65.158	1.00	44.33	C
ATOM	1977	CG	PRO	A	577	-9.975	7.570	64.446	1.00	44.33	C
ATOM	1978	CD	PRO	A	577	-9.082	6.542	64.992	1.00	44.33	C
ATOM	1979	C	PRO	A	577	-10.002	8.750	67.669	1.00	46.61	C
ATOM	1980	O	PRO	A	577	-9.853	9.786	68.311	1.00	47.98	O
ATOM	1981	N	ALA	A	578	-10.919	7.840	67.961	1.00	48.81	N
ATOM	1982	CA	ALA	A	578	-11.905	8.021	69.039	1.00	48.44	C
ATOM	1983	CB	ALA	A	578	-12.920	6.825	69.071	1.00	49.86	C

- 230 -

ATOM	1984	C	ALA	A	578	-11.206	8.182	70.397	1.00	49.40	C
ATOM	1985	O	ALA	A	578	-11.725	8.840	71.301	1.00	50.42	O
ATOM	1986	N	LYS	A	579	-10.021	7.596	70.519	1.00	48.36	N
ATOM	1987	CA	LYS	A	579	-9.236	7.707	71.749	1.00	48.02	C
ATOM	1988	CB	LYS	A	579	-8.495	6.372	72.011	1.00	50.84	C
ATOM	1989	CG	LYS	A	579	-9.397	5.106	72.151	1.00	55.99	C
ATOM	1990	CD	LYS	A	579	-8.692	3.785	71.690	1.00	57.67	C
ATOM	1991	CE	LYS	A	579	-7.458	3.362	72.579	1.00	58.57	C
ATOM	1992	NZ	LYS	A	579	-6.633	2.151	72.164	1.00	60.13	N
ATOM	1993	C	LYS	A	579	-8.229	8.904	71.701	1.00	47.04	C
ATOM	1994	O	LYS	A	579	-7.715	9.370	72.726	1.00	46.87	O
ATOM	1995	N	ARG	A	580	-7.961	9.406	70.501	1.00	44.93	N
ATOM	1996	CA	ARG	A	580	-6.805	10.276	70.292	1.00	44.33	C
ATOM	1997	CB	ARG	A	580	-6.597	10.510	68.788	1.00	44.33	C
ATOM	1998	CG	ARG	A	580	-5.277	11.229	68.462	1.00	44.33	C
ATOM	1999	CD	ARG	A	580	-5.038	11.427	66.963	1.00	44.33	C
ATOM	2000	NE	ARG	A	580	-5.022	10.136	66.292	1.00	44.33	N
ATOM	2001	CZ	ARG	A	580	-5.490	9.942	65.078	1.00	44.33	C
ATOM	2002	NH1	ARG	A	580	-5.984	11.005	64.422	1.00	44.33	N
ATOM	2003	NH2	ARG	A	580	-5.469	8.706	64.548	1.00	44.33	N
ATOM	2004	C	ARG	A	580	-6.911	11.611	71.054	1.00	44.33	C
ATOM	2005	O	ARG	A	580	-7.947	12.277	71.002	1.00	44.33	O
ATOM	2006	N	LEU	A	581	-5.839	12.002	71.733	1.00	44.33	N
ATOM	2007	CA	LEU	A	581	-5.783	13.293	72.399	1.00	44.33	C
ATOM	2008	CB	LEU	A	581	-4.359	13.523	72.868	1.00	44.33	C
ATOM	2009	CG	LEU	A	581	-4.209	14.769	73.716	1.00	44.33	C
ATOM	2010	CD1	LEU	A	581	-5.263	14.722	74.842	1.00	44.33	C
ATOM	2011	CD2	LEU	A	581	-2.784	14.916	74.276	1.00	44.33	C
ATOM	2012	C	LEU	A	581	-6.222	14.448	71.509	1.00	44.33	C
ATOM	2013	O	LEU	A	581	-5.668	14.654	70.445	1.00	44.33	O
ATOM	2014	N	GLY	A	582	-7.207	15.210	71.945	1.00	44.33	N
ATOM	2015	CA	GLY	A	582	-7.665	16.380	71.177	1.00	44.33	C
ATOM	2016	C	GLY	A	582	-8.952	16.096	70.415	1.00	44.95	C
ATOM	2017	O	GLY	A	582	-9.639	17.007	69.885	1.00	44.33	O
ATOM	2018	N	CYS	A	583	-9.302	14.824	70.414	1.00	46.02	N
ATOM	2019	CA	CYS	A	583	-10.432	14.384	69.656	1.00	48.83	C
ATOM	2020	CB	CYS	A	583	-10.000	13.206	68.783	1.00	48.46	C
ATOM	2021	SG	CYS	A	583	-8.600	13.730	67.689	1.00	55.77	S
ATOM	2022	C	CYS	A	583	-11.713	14.143	70.458	1.00	51.02	C
ATOM	2023	O	CYS	A	583	-12.774	14.103	69.839	1.00	51.49	O
ATOM	2024	N	GLY	A	584	-11.621	14.029	71.797	1.00	51.95	N
ATOM	2025	CA	GLY	A	584	-12.806	13.941	72.692	1.00	54.88	C
ATOM	2026	C	GLY	A	584	-13.776	15.120	72.543	1.00	55.39	C
ATOM	2027	O	GLY	A	584	-13.477	16.091	71.800	1.00	56.32	O
ATOM	2028	N	PRO	A	585	-14.961	15.055	73.228	1.00	56.06	N
ATOM	2029	CA	PRO	A	585	-15.926	16.205	73.185	1.00	55.29	C
ATOM	2030	CB	PRO	A	585	-17.091	15.725	74.082	1.00	55.36	C
ATOM	2031	CG	PRO	A	585	-16.512	14.584	74.950	1.00	54.81	C
ATOM	2032	CD	PRO	A	585	-15.444	13.940	74.088	1.00	55.49	C
ATOM	2033	C	PRO	A	585	-15.261	17.500	73.741	1.00	55.28	C
ATOM	2034	O	PRO	A	585	-15.577	18.621	73.323	1.00	56.17	O
ATOM	2035	N	GLU	A	586	-14.324	17.319	74.660	1.00	53.89	N
ATOM	2036	CA	GLU	A	586	-13.554	18.418	75.179	1.00	51.69	C
ATOM	2037	CB	GLU	A	586	-13.607	18.395	76.717	1.00	51.61	C
ATOM	2038	CG	GLU	A	586	-15.002	18.614	77.370	1.00	51.55	C
ATOM	2039	CD	GLU	A	586	-15.352	20.091	77.650	1.00	51.40	C
ATOM	2040	OE1	GLU	A	586	-14.457	20.961	77.816	1.00	51.88	O
ATOM	2041	OE2	GLU	A	586	-16.553	20.381	77.711	1.00	54.04	O

- 231 -

ATOM	2042	C	GLU	A	586	-12.093	18.334	74.710	1.00	49.61	C
ATOM	2043	O	GLU	A	586	-11.183	18.425	75.554	1.00	49.02	O
ATOM	2044	N	GLY	A	587	-11.879	18.181	73.391	1.00	46.66	N
ATOM	2045	CA	GLY	A	587	-10.536	17.973	72.806	1.00	47.85	C
ATOM	2046	C	GLY	A	587	-9.543	19.103	73.077	1.00	47.53	C
ATOM	2047	O	GLY	A	587	-8.417	18.866	73.474	1.00	48.52	O
ATOM	2048	N	GLU	A	588	-9.998	20.332	72.879	1.00	47.86	N
ATOM	2049	CA	GLU	A	588	-9.210	21.522	73.114	1.00	47.95	C
ATOM	2050	CB	GLU	A	588	-10.044	22.779	72.893	1.00	47.89	C
ATOM	2051	CG	GLU	A	588	-9.321	24.092	73.161	1.00	48.64	C
ATOM	2052	CD	GLU	A	588	-10.027	25.192	72.410	1.00	50.31	C
ATOM	2053	OE1	GLU	A	588	-11.198	24.917	72.030	1.00	50.15	O
ATOM	2054	OE2	GLU	A	588	-9.453	26.290	72.178	1.00	51.88	O
ATOM	2055	C	GLU	A	588	-8.768	21.508	74.527	1.00	47.58	C
ATOM	2056	O	GLU	A	588	-7.576	21.422	74.777	1.00	46.41	O
ATOM	2057	N	ARG	A	589	-9.721	21.592	75.446	1.00	46.44	N
ATOM	2058	CA	ARG	A	589	-9.417	21.518	76.864	1.00	45.13	C
ATOM	2059	CB	ARG	A	589	-10.692	21.251	77.673	1.00	45.87	C
ATOM	2060	CG	ARG	A	589	-10.611	21.769	79.101	1.00	47.17	C
ATOM	2061	CD	ARG	A	589	-10.982	20.705	80.081	1.00	49.59	C
ATOM	2062	NE	ARG	A	589	-12.419	20.522	80.172	1.00	46.68	N
ATOM	2063	CZ	ARG	A	589	-13.182	20.948	81.175	1.00	49.05	C
ATOM	2064	NH1	ARG	A	589	-12.657	21.615	82.195	1.00	48.95	N
ATOM	2065	NH2	ARG	A	589	-14.485	20.704	81.141	1.00	48.33	N
ATOM	2066	C	ARG	A	589	-8.350	20.430	77.148	1.00	44.33	C
ATOM	2067	O	ARG	A	589	-7.291	20.733	77.709	1.00	44.33	O
ATOM	2068	N	ASP	A	590	-8.617	19.199	76.704	1.00	44.33	N
ATOM	2069	CA	ASP	A	590	-7.688	18.071	76.852	1.00	44.33	C
ATOM	2070	CB	ASP	A	590	-8.173	16.883	76.017	1.00	44.33	C
ATOM	2071	CG	ASP	A	590	-9.362	16.207	76.627	1.00	44.33	C
ATOM	2072	OD1	ASP	A	590	-9.424	16.241	77.869	1.00	44.33	O
ATOM	2073	OD2	ASP	A	590	-10.240	15.659	75.900	1.00	44.33	O
ATOM	2074	C	ASP	A	590	-6.210	18.374	76.487	1.00	44.33	C
ATOM	2075	O	ASP	A	590	-5.275	18.060	77.234	1.00	44.33	O
ATOM	2076	N	VAL	A	591	-6.018	18.976	75.325	1.00	44.33	N
ATOM	2077	CA	VAL	A	591	-4.706	19.370	74.882	1.00	44.33	C
ATOM	2078	CB	VAL	A	591	-4.694	19.786	73.349	1.00	44.33	C
ATOM	2079	CG1	VAL	A	591	-3.339	20.391	72.957	1.00	44.33	C
ATOM	2080	CG2	VAL	A	591	-5.070	18.600	72.397	1.00	44.33	C
ATOM	2081	C	VAL	A	591	-4.179	20.496	75.786	1.00	44.33	C
ATOM	2082	O	VAL	A	591	-3.109	20.342	76.376	1.00	44.33	O
ATOM	2083	N	ARG	A	592	-4.928	21.601	75.923	1.00	44.33	N
ATOM	2084	CA	ARG	A	592	-4.466	22.751	76.758	1.00	44.33	C
ATOM	2085	CB	ARG	A	592	-5.515	23.870	76.949	1.00	45.40	C
ATOM	2086	CG	ARG	A	592	-6.443	24.130	75.781	1.00	44.76	C
ATOM	2087	CD	ARG	A	592	-7.282	25.338	76.013	1.00	46.37	C
ATOM	2088	NE	ARG	A	592	-6.454	26.541	75.886	1.00	51.03	N
ATOM	2089	CZ	ARG	A	592	-6.629	27.498	74.967	1.00	50.60	C
ATOM	2090	NH1	ARG	A	592	-7.621	27.429	74.061	1.00	52.84	N
ATOM	2091	NH2	ARG	A	592	-5.810	28.547	74.970	1.00	53.49	N
ATOM	2092	C	ARG	A	592	-4.052	22.283	78.148	1.00	44.33	C
ATOM	2093	O	ARG	A	592	-3.038	22.719	78.691	1.00	44.33	O
ATOM	2094	N	GLU	A	593	-4.865	21.405	78.724	1.00	44.33	N
ATOM	2095	CA	GLU	A	593	-4.653	20.916	80.076	1.00	44.33	C
ATOM	2096	CB	GLU	A	593	-5.929	20.268	80.623	1.00	46.27	C
ATOM	2097	CG	GLU	A	593	-7.239	21.050	80.345	1.00	48.58	C
ATOM	2098	CD	GLU	A	593	-7.796	21.785	81.545	1.00	50.56	C
ATOM	2099	OE1	GLU	A	593	-7.103	22.696	82.059	1.00	52.35	O

- 232 -

ATOM	2100	OE2	GLU	A	593	-8.914	21.447	81.969	1.00	51.06	O
ATOM	2101	C	GLU	A	593	-3.551	19.881	80.177	1.00	44.33	C
ATOM	2102	O	GLU	A	593	-3.174	19.520	81.267	1.00	44.33	O
ATOM	2103	N	HIS	A	594	-3.041	19.361	79.076	1.00	44.33	N
ATOM	2104	CA	HIS	A	594	-2.084	18.247	79.216	1.00	44.33	C
ATOM	2105	CB	HIS	A	594	-1.661	17.673	77.858	1.00	44.33	C
ATOM	2106	CG	HIS	A	594	-0.938	16.359	77.953	1.00	44.33	C
ATOM	2107	ND1	HIS	A	594	0.439	16.262	77.968	1.00	44.33	N
ATOM	2108	CE1	HIS	A	594	0.788	14.990	78.043	1.00	44.33	C
ATOM	2109	NE2	HIS	A	594	-0.311	14.253	78.076	1.00	44.33	N
ATOM	2110	CD2	HIS	A	594	-1.404	15.085	78.022	1.00	44.33	C
ATOM	2111	C	HIS	A	594	-0.844	18.651	80.006	1.00	44.33	C
ATOM	2112	O	HIS	A	594	-0.339	19.773	79.877	1.00	44.33	O
ATOM	2113	N	ALA	A	595	-0.345	17.723	80.813	1.00	44.33	N
ATOM	2114	CA	ALA	A	595	0.806	17.966	81.685	1.00	44.33	C
ATOM	2115	CB	ALA	A	595	1.254	16.674	82.299	1.00	44.33	C
ATOM	2116	C	ALA	A	595	1.943	18.562	80.908	1.00	44.33	C
ATOM	2117	O	ALA	A	595	2.773	19.298	81.428	1.00	44.33	O
ATOM	2118	N	PHE	A	596	2.009	18.224	79.639	1.00	44.33	N
ATOM	2119	CA	PHE	A	596	3.069	18.753	78.794	1.00	44.33	C
ATOM	2120	CB	PHE	A	596	2.877	18.179	77.399	1.00	44.33	C
ATOM	2121	CG	PHE	A	596	3.943	18.532	76.418	1.00	44.33	C
ATOM	2122	CD1	PHE	A	596	5.158	17.883	76.438	1.00	44.33	C
ATOM	2123	CE1	PHE	A	596	6.128	18.180	75.505	1.00	44.33	C
ATOM	2124	CZ	PHE	A	596	5.870	19.106	74.536	1.00	44.33	C
ATOM	2125	CE2	PHE	A	596	4.638	19.742	74.490	1.00	44.33	C
ATOM	2126	CD2	PHE	A	596	3.688	19.449	75.420	1.00	44.33	C
ATOM	2127	C	PHE	A	596	3.086	20.298	78.770	1.00	44.33	C
ATOM	2128	O	PHE	A	596	4.146	20.909	78.595	1.00	44.33	O
ATOM	2129	N	PHE	A	597	1.904	20.896	78.957	1.00	44.33	N
ATOM	2130	CA	PHE	A	597	1.738	22.350	78.892	1.00	44.33	C
ATOM	2131	CB	PHE	A	597	0.546	22.715	78.021	1.00	44.33	C
ATOM	2132	CG	PHE	A	597	0.733	22.429	76.560	1.00	44.33	C
ATOM	2133	CD1	PHE	A	597	1.613	23.203	75.781	1.00	44.33	C
ATOM	2134	CE1	PHE	A	597	1.762	22.952	74.433	1.00	44.33	C
ATOM	2135	CZ	PHE	A	597	1.015	21.930	73.812	1.00	44.33	C
ATOM	2136	CE2	PHE	A	597	0.133	21.141	74.564	1.00	44.33	C
ATOM	2137	CD2	PHE	A	597	-0.017	21.406	75.937	1.00	44.33	C
ATOM	2138	C	PHE	A	597	1.612	23.052	80.278	1.00	44.33	C
ATOM	2139	O	PHE	A	597	1.279	24.250	80.343	1.00	44.33	O
ATOM	2140	N	ARG	A	598	1.870	22.309	81.361	1.00	44.33	N
ATOM	2141	CA	ARG	A	598	2.004	22.857	82.727	1.00	47.02	C
ATOM	2142	CB	ARG	A	598	3.028	22.043	83.530	1.00	48.61	C
ATOM	2143	CG	ARG	A	598	2.558	20.708	84.021	1.00	49.66	C
ATOM	2144	CD	ARG	A	598	3.772	19.914	84.545	1.00	46.99	C
ATOM	2145	NE	ARG	A	598	5.054	20.394	84.005	1.00	49.15	N
ATOM	2146	CZ	ARG	A	598	5.857	19.709	83.199	1.00	48.93	C
ATOM	2147	NH1	ARG	A	598	5.537	18.490	82.802	1.00	50.18	N
ATOM	2148	NH2	ARG	A	598	6.987	20.257	82.782	1.00	49.64	N
ATOM	2149	C	ARG	A	598	2.475	24.322	82.859	1.00	46.98	C
ATOM	2150	O	ARG	A	598	1.772	25.147	83.484	1.00	46.66	O
ATOM	2151	N	ARG	A	599	3.656	24.634	82.315	1.00	47.27	N
ATOM	2152	CA	ARG	A	599	4.272	25.919	82.564	1.00	48.41	C
ATOM	2153	CB	ARG	A	599	5.802	25.783	82.515	1.00	49.07	C
ATOM	2154	CG	ARG	A	599	6.351	24.505	83.222	1.00	51.10	C
ATOM	2155	CD	ARG	A	599	7.887	24.511	83.541	1.00	51.58	C
ATOM	2156	NE	ARG	A	599	8.259	25.475	84.612	1.00	55.67	N
ATOM	2157	CZ	ARG	A	599	8.260	25.229	85.941	1.00	56.47	C

- 233 -

ATOM	2158	NH1	ARG	A	599	7.910	24.026	86.399	1.00	57.19	N
ATOM	2159	NH2	ARG	A	599	8.621	26.181	86.825	1.00	55.14	N
ATOM	2160	C	ARG	A	599	3.717	27.023	81.646	1.00	47.35	C
ATOM	2161	O	ARG	A	599	4.195	28.145	81.635	1.00	48.91	O
ATOM	2162	N	ILE	A	600	2.665	26.727	80.909	1.00	46.30	N
ATOM	2163	CA	ILE	A	600	2.153	27.677	79.932	1.00	45.22	C
ATOM	2164	CB	ILE	A	600	1.880	26.940	78.620	1.00	44.33	C
ATOM	2165	CG1	ILE	A	600	3.218	26.396	78.035	1.00	44.33	C
ATOM	2166	CD1	ILE	A	600	4.024	27.341	77.244	1.00	44.33	C
ATOM	2167	CG2	ILE	A	600	0.931	27.769	77.684	1.00	44.33	C
ATOM	2168	C	ILE	A	600	0.932	28.508	80.373	1.00	46.19	C
ATOM	2169	O	ILE	A	600	-0.069	27.967	80.857	1.00	48.04	O
ATOM	2170	N	ASP	A	601	1.056	29.828	80.212	1.00	46.51	N
ATOM	2171	CA	ASP	A	601	-0.059	30.744	80.414	1.00	45.35	C
ATOM	2172	CB	ASP	A	601	0.391	32.061	81.035	1.00	47.52	C
ATOM	2173	CG	ASP	A	601	-0.776	32.857	81.594	1.00	48.72	C
ATOM	2174	OD1	ASP	A	601	-1.610	33.335	80.793	1.00	50.08	O
ATOM	2175	OD2	ASP	A	601	-0.873	33.001	82.832	1.00	49.54	O
ATOM	2176	C	ASP	A	601	-0.759	30.985	79.079	1.00	44.33	C
ATOM	2177	O	ASP	A	601	-0.342	31.822	78.253	1.00	44.33	O
ATOM	2178	N	TRP	A	602	-1.834	30.237	78.882	1.00	44.33	N
ATOM	2179	CA	TRP	A	602	-2.545	30.238	77.621	1.00	44.33	C
ATOM	2180	CB	TRP	A	602	-3.723	29.205	77.630	1.00	44.33	C
ATOM	2181	CG	TRP	A	602	-3.192	27.769	77.608	1.00	44.33	C
ATOM	2182	CD1	TRP	A	602	-3.025	26.927	78.685	1.00	44.33	C
ATOM	2183	NE1	TRP	A	602	-2.449	25.733	78.280	1.00	44.33	N
ATOM	2184	CE2	TRP	A	602	-2.213	25.790	76.928	1.00	44.33	C
ATOM	2185	CD2	TRP	A	602	-2.665	27.060	76.465	1.00	44.33	C
ATOM	2186	CE3	TRP	A	602	-2.523	27.378	75.093	1.00	44.33	C
ATOM	2187	CZ3	TRP	A	602	-1.970	26.431	74.233	1.00	44.33	C
ATOM	2188	CH2	TRP	A	602	-1.528	25.170	74.721	1.00	44.33	C
ATOM	2189	CZ2	TRP	A	602	-1.644	24.830	76.056	1.00	44.33	C
ATOM	2190	C	TRP	A	602	-2.936	31.656	77.172	1.00	44.33	C
ATOM	2191	O	TRP	A	602	-2.920	31.963	75.968	1.00	44.33	O
ATOM	2192	N	GLU	A	603	-3.248	32.534	78.119	1.00	44.33	N
ATOM	2193	CA	GLU	A	603	-3.667	33.878	77.711	1.00	47.13	C
ATOM	2194	CB	GLU	A	603	-4.254	34.670	78.859	1.00	48.00	C
ATOM	2195	CG	GLU	A	603	-5.400	35.594	78.464	1.00	51.52	C
ATOM	2196	CD	GLU	A	603	-6.175	36.030	79.705	1.00	51.43	C
ATOM	2197	OE1	GLU	A	603	-5.600	35.908	80.822	1.00	52.13	O
ATOM	2198	OE2	GLU	A	603	-7.351	36.460	79.570	1.00	53.96	O
ATOM	2199	C	GLU	A	603	-2.493	34.623	77.109	1.00	47.45	C
ATOM	2200	O	GLU	A	603	-2.587	35.116	75.978	1.00	47.21	O
ATOM	2201	N	LYS	A	604	-1.388	34.684	77.856	1.00	49.18	N
ATOM	2202	CA	LYS	A	604	-0.162	35.332	77.373	1.00	48.90	C
ATOM	2203	CB	LYS	A	604	0.981	35.208	78.382	1.00	48.49	C
ATOM	2204	CG	LYS	A	604	1.165	36.421	79.233	1.00	48.81	C
ATOM	2205	CD	LYS	A	604	2.643	36.818	79.425	1.00	48.43	C
ATOM	2206	CE	LYS	A	604	2.716	37.937	80.419	1.00	49.47	C
ATOM	2207	NZ	LYS	A	604	1.827	37.490	81.534	1.00	49.84	N
ATOM	2208	C	LYS	A	604	0.294	34.716	76.055	1.00	49.37	C
ATOM	2209	O	LYS	A	604	0.675	35.419	75.107	1.00	49.36	O
ATOM	2210	N	LEU	A	605	0.258	33.394	76.011	1.00	49.18	N
ATOM	2211	CA	LEU	A	605	0.662	32.702	74.839	1.00	50.28	C
ATOM	2212	CB	LEU	A	605	0.496	31.208	75.058	1.00	49.39	C
ATOM	2213	CG	LEU	A	605	1.283	30.343	74.083	1.00	49.60	C
ATOM	2214	CD1	LEU	A	605	2.476	29.746	74.799	1.00	49.43	C
ATOM	2215	CD2	LEU	A	605	0.394	29.250	73.509	1.00	50.11	C

- 234 -

ATOM	2216	C	LEU	A	605	-0.200	33.200	73.683	1.00	52.09	C
ATOM	2217	O	LEU	A	605	0.340	33.757	72.718	1.00	52.02	O
ATOM	2218	N	GLU	A	606	-1.533	33.047	73.810	1.00	54.16	N
ATOM	2219	CA	GLU	A	606	-2.430	33.341	72.697	1.00	56.35	C
ATOM	2220	CB	GLU	A	606	-3.794	32.589	72.751	1.00	56.75	C
ATOM	2221	CG	GLU	A	606	-4.965	33.103	73.625	1.00	58.20	C
ATOM	2222	CD	GLU	A	606	-5.753	31.950	74.333	1.00	57.53	C
ATOM	2223	OE1	GLU	A	606	-5.682	30.794	73.845	1.00	58.67	O
ATOM	2224	OE2	GLU	A	606	-6.419	32.198	75.388	1.00	59.50	O
ATOM	2225	C	GLU	A	606	-2.428	34.833	72.335	1.00	56.73	C
ATOM	2226	O	GLU	A	606	-2.729	35.205	71.196	1.00	57.83	O
ATOM	2227	N	ASN	A	607	-1.955	35.654	73.270	1.00	57.32	N
ATOM	2228	CA	ASN	A	607	-1.802	37.083	73.057	1.00	58.48	C
ATOM	2229	CB	ASN	A	607	-2.168	37.822	74.355	1.00	58.58	C
ATOM	2230	CG	ASN	A	607	-3.579	37.470	74.865	1.00	59.75	C
ATOM	2231	OD1	ASN	A	607	-3.809	37.304	76.082	1.00	60.37	O
ATOM	2232	ND2	ASN	A	607	-4.533	37.344	73.925	1.00	59.19	N
ATOM	2233	C	ASN	A	607	-0.384	37.467	72.579	1.00	58.71	C
ATOM	2234	O	ASN	A	607	-0.054	38.660	72.515	1.00	59.89	O
ATOM	2235	N	ARG	A	608	0.448	36.470	72.244	1.00	58.63	N
ATOM	2236	CA	ARG	A	608	1.780	36.727	71.684	1.00	58.69	C
ATOM	2237	CB	ARG	A	608	1.679	37.619	70.420	1.00	58.65	C
ATOM	2238	CG	ARG	A	608	1.857	36.971	69.031	1.00	58.63	C
ATOM	2239	CD	ARG	A	608	1.801	38.039	67.899	1.00	58.81	C
ATOM	2240	NE	ARG	A	608	2.892	37.825	66.956	1.00	61.61	N
ATOM	2241	CZ	ARG	A	608	4.090	38.426	67.016	1.00	62.53	C
ATOM	2242	NH1	ARG	A	608	4.346	39.346	67.940	1.00	63.86	N
ATOM	2243	NH2	ARG	A	608	5.036	38.130	66.124	1.00	62.36	N
ATOM	2244	C	ARG	A	608	2.630	37.458	72.726	1.00	59.42	C
ATOM	2245	O	ARG	A	608	3.493	38.270	72.367	1.00	60.28	O
ATOM	2246	N	GLU	A	609	2.362	37.198	74.003	1.00	58.68	N
ATOM	2247	CA	GLU	A	609	2.959	37.959	75.065	1.00	58.44	C
ATOM	2248	CB	GLU	A	609	1.921	38.315	76.109	1.00	59.55	C
ATOM	2249	CG	GLU	A	609	0.961	39.430	75.750	1.00	61.41	C
ATOM	2250	CD	GLU	A	609	-0.237	39.497	76.730	1.00	61.61	C
ATOM	2251	OE1	GLU	A	609	-0.451	38.578	77.566	1.00	63.11	O
ATOM	2252	OE2	GLU	A	609	-0.979	40.492	76.658	1.00	64.02	O
ATOM	2253	C	GLU	A	609	4.071	37.216	75.760	1.00	56.74	C
ATOM	2254	O	GLU	A	609	4.676	37.765	76.685	1.00	57.06	O
ATOM	2255	N	ILE	A	610	4.331	35.969	75.364	1.00	54.64	N
ATOM	2256	CA	ILE	A	610	5.469	35.234	75.945	1.00	53.80	C
ATOM	2257	CB	ILE	A	610	5.208	33.737	76.230	1.00	53.95	C
ATOM	2258	CG1	ILE	A	610	3.934	33.534	77.062	1.00	52.06	C
ATOM	2259	CD1	ILE	A	610	3.718	32.096	77.594	1.00	53.89	C
ATOM	2260	CG2	ILE	A	610	6.410	33.143	76.957	1.00	52.56	C
ATOM	2261	C	ILE	A	610	6.665	35.333	75.041	1.00	52.99	C
ATOM	2262	O	ILE	A	610	6.562	35.092	73.858	1.00	52.49	O
ATOM	2263	N	GLN	A	611	7.805	35.695	75.613	1.00	51.42	N
ATOM	2264	CA	GLN	A	611	9.059	35.755	74.872	1.00	50.33	C
ATOM	2265	CB	GLN	A	611	10.210	36.117	75.789	1.00	50.73	C
ATOM	2266	CG	GLN	A	611	11.520	36.123	75.062	1.00	51.55	C
ATOM	2267	CD	GLN	A	611	12.562	36.901	75.801	1.00	52.07	C
ATOM	2268	OE1	GLN	A	611	12.737	36.740	77.023	1.00	53.47	O
ATOM	2269	NE2	GLN	A	611	13.265	37.777	75.076	1.00	52.33	N
ATOM	2270	C	GLN	A	611	9.359	34.428	74.189	1.00	48.29	C
ATOM	2271	O	GLN	A	611	9.350	33.381	74.843	1.00	47.87	O
ATOM	2272	N	PRO	A	612	9.598	34.474	72.869	1.00	46.61	N
ATOM	2273	CA	PRO	A	612	9.965	33.282	72.096	1.00	45.52	C

- 235 -

ATOM	2274	CB	PRO	A	612	10.121	33.810	70.664	1.00	44.77	C
ATOM	2275	CG	PRO	A	612	9.495	35.179	70.660	1.00	45.65	C
ATOM	2276	CD	PRO	A	612	9.502	35.699	72.050	1.00	45.72	C
ATOM	2277	C	PRO	A	612	11.295	32.664	72.585	1.00	45.07	C
ATOM	2278	O	PRO	A	612	12.188	33.391	73.084	1.00	44.33	O
ATOM	2279	N	PRO	A	613	11.416	31.327	72.483	1.00	44.94	N
ATOM	2280	CA	PRO	A	613	12.643	30.606	72.725	1.00	44.92	C
ATOM	2281	CB	PRO	A	613	12.424	29.307	71.976	1.00	44.33	C
ATOM	2282	CG	PRO	A	613	10.942	29.049	72.079	1.00	44.49	C
ATOM	2283	CD	PRO	A	613	10.291	30.421	72.179	1.00	44.87	C
ATOM	2284	C	PRO	A	613	13.814	31.347	72.135	1.00	45.44	C
ATOM	2285	O	PRO	A	613	14.803	31.510	72.837	1.00	44.33	O
ATOM	2286	N	PHE	A	614	13.720	31.797	70.880	1.00	45.58	N
ATOM	2287	CA	PHE	A	614	14.765	32.665	70.327	1.00	47.69	C
ATOM	2288	CB	PHE	A	614	15.996	31.851	69.929	1.00	49.26	C
ATOM	2289	CG	PHE	A	614	15.996	31.463	68.503	1.00	49.81	C
ATOM	2290	CD1	PHE	A	614	16.844	32.097	67.608	1.00	50.78	C
ATOM	2291	CE1	PHE	A	614	16.823	31.761	66.278	1.00	51.29	C
ATOM	2292	CZ	PHE	A	614	15.926	30.787	65.817	1.00	49.87	C
ATOM	2293	CE2	PHE	A	614	15.069	30.150	66.706	1.00	50.41	C
ATOM	2294	CD2	PHE	A	614	15.106	30.494	68.038	1.00	50.02	C
ATOM	2295	C	PHE	A	614	14.292	33.525	69.139	1.00	47.95	C
ATOM	2296	O	PHE	A	614	13.244	33.255	68.512	1.00	46.11	O
ATOM	2297	N	LYS	A	615	15.093	34.543	68.822	1.00	47.35	N
ATOM	2298	CA	LYS	A	615	14.818	35.419	67.692	1.00	49.36	C
ATOM	2299	CB	LYS	A	615	14.973	36.881	68.131	1.00	49.19	C
ATOM	2300	CG	LYS	A	615	14.987	37.933	67.024	1.00	50.25	C
ATOM	2301	CD	LYS	A	615	14.754	39.317	67.630	1.00	51.09	C
ATOM	2302	CE	LYS	A	615	14.785	40.362	66.559	1.00	51.91	C
ATOM	2303	NZ	LYS	A	615	14.887	41.653	67.227	1.00	51.26	N
ATOM	2304	C	LYS	A	615	15.656	35.052	66.450	1.00	50.57	C
ATOM	2305	O	LYS	A	615	16.890	35.103	66.479	1.00	49.57	O
ATOM	2306	N	PRO	A	616	14.968	34.703	65.340	1.00	51.16	N
ATOM	2307	CA	PRO	A	616	15.642	34.238	64.137	1.00	53.17	C
ATOM	2308	CB	PRO	A	616	14.484	33.881	63.184	1.00	52.52	C
ATOM	2309	CG	PRO	A	616	13.281	33.952	63.950	1.00	50.43	C
ATOM	2310	CD	PRO	A	616	13.513	34.813	65.125	1.00	51.21	C
ATOM	2311	C	PRO	A	616	16.444	35.397	63.561	1.00	55.95	C
ATOM	2312	O	PRO	A	616	16.157	36.534	63.890	1.00	54.92	O
ATOM	2313	N	LYS	A	617	17.405	35.120	62.681	1.00	59.41	N
ATOM	2314	CA	LYS	A	617	18.360	36.136	62.269	1.00	63.19	C
ATOM	2315	CB	LYS	A	617	19.656	35.495	61.737	1.00	63.68	C
ATOM	2316	CG	LYS	A	617	20.331	34.496	62.712	1.00	64.09	C
ATOM	2317	CD	LYS	A	617	19.817	34.678	64.173	1.00	64.69	C
ATOM	2318	CE	LYS	A	617	20.595	33.899	65.229	1.00	64.76	C
ATOM	2319	NZ	LYS	A	617	21.752	34.726	65.694	1.00	64.86	N
ATOM	2320	C	LYS	A	617	17.726	37.078	61.271	1.00	65.58	C
ATOM	2321	O	LYS	A	617	16.665	36.781	60.723	1.00	64.63	O
ATOM	2322	N	VAL	A	618	18.365	38.234	61.097	1.00	67.78	N
ATOM	2323	CA	VAL	A	618	18.045	39.201	60.048	1.00	69.84	C
ATOM	2324	CB	VAL	A	618	18.219	40.666	60.543	1.00	70.15	C
ATOM	2325	CG1	VAL	A	618	17.948	41.673	59.412	1.00	70.34	C
ATOM	2326	CG2	VAL	A	618	17.330	40.952	61.761	1.00	70.43	C
ATOM	2327	C	VAL	A	618	18.977	38.967	58.853	1.00	70.46	C
ATOM	2328	O	VAL	A	618	18.528	38.727	57.727	1.00	71.72	O
ATOM	2329	N	ALA	A	626	24.421	43.298	41.766	1.00	46.27	N
ATOM	2330	CA	ALA	A	626	24.958	42.056	42.323	1.00	46.85	C
ATOM	2331	CB	ALA	A	626	23.884	40.911	42.266	1.00	45.24	C

- 236 -

ATOM	2332	C	ALA	A	626	26.280	41.651	41.629	1.00	45.70	C
ATOM	2333	O	ALA	A	626	27.392	41.822	42.196	1.00	48.10	O
ATOM	2334	N	ASP	A	627	26.155	41.134	40.408	1.00	45.05	N
ATOM	2335	CA	ASP	A	627	27.289	40.570	39.690	1.00	44.33	C
ATOM	2336	CB	ASP	A	627	27.178	39.033	39.719	1.00	44.33	C
ATOM	2337	CG	ASP	A	627	28.298	38.332	38.936	1.00	44.33	C
ATOM	2338	OD1	ASP	A	627	28.899	38.939	38.012	1.00	44.33	O
ATOM	2339	OD2	ASP	A	627	28.553	37.151	39.259	1.00	44.33	O
ATOM	2340	C	ASP	A	627	27.291	41.058	38.246	1.00	44.33	C
ATOM	2341	O	ASP	A	627	26.314	40.886	37.511	1.00	44.33	O
ATOM	2342	N	LYS	A	628	28.392	41.631	37.807	1.00	44.33	N
ATOM	2343	CA	LYS	A	628	28.396	42.150	36.448	1.00	44.33	C
ATOM	2344	CB	LYS	A	628	29.329	43.372	36.275	1.00	44.33	C
ATOM	2345	CG	LYS	A	628	30.796	43.112	36.383	1.00	44.33	C
ATOM	2346	CD	LYS	A	628	31.548	44.444	36.240	1.00	44.33	C
ATOM	2347	CE	LYS	A	628	33.103	44.301	36.284	1.00	44.33	C
ATOM	2348	NZ	LYS	A	628	33.773	45.353	35.450	1.00	44.38	N
ATOM	2349	C	LYS	A	628	28.658	41.086	35.390	1.00	44.33	C
ATOM	2350	O	LYS	A	628	28.649	41.390	34.198	1.00	44.33	O
ATOM	2351	N	PHE	A	629	28.888	39.849	35.795	1.00	44.33	N
ATOM	2352	CA	PHE	A	629	29.144	38.836	34.784	1.00	44.33	C
ATOM	2353	CB	PHE	A	629	30.454	38.100	35.071	1.00	44.33	C
ATOM	2354	CG	PHE	A	629	31.616	39.040	35.301	1.00	44.33	C
ATOM	2355	CD1	PHE	A	629	32.001	39.391	36.590	1.00	44.33	C
ATOM	2356	CE1	PHE	A	629	33.039	40.282	36.799	1.00	44.33	C
ATOM	2357	CZ	PHE	A	629	33.693	40.841	35.728	1.00	44.33	C
ATOM	2358	CE2	PHE	A	629	33.310	40.517	34.437	1.00	44.33	C
ATOM	2359	CD2	PHE	A	629	32.280	39.631	34.224	1.00	44.33	C
ATOM	2360	C	PHE	A	629	27.920	37.937	34.612	1.00	44.33	C
ATOM	2361	O	PHE	A	629	27.750	37.330	33.549	1.00	44.33	O
ATOM	2362	N	PHE	A	630	27.059	37.907	35.640	1.00	44.33	N
ATOM	2363	CA	PHE	A	630	25.840	37.129	35.647	1.00	44.33	C
ATOM	2364	CB	PHE	A	630	26.107	35.771	36.302	1.00	44.33	C
ATOM	2365	CG	PHE	A	630	24.859	34.982	36.592	1.00	44.33	C
ATOM	2366	CD1	PHE	A	630	24.277	34.198	35.604	1.00	44.33	C
ATOM	2367	CE1	PHE	A	630	23.097	33.468	35.863	1.00	44.33	C
ATOM	2368	CZ	PHE	A	630	22.476	33.530	37.150	1.00	44.33	C
ATOM	2369	CE2	PHE	A	630	23.072	34.317	38.157	1.00	44.33	C
ATOM	2370	CD2	PHE	A	630	24.258	35.036	37.865	1.00	44.33	C
ATOM	2371	C	PHE	A	630	24.701	37.869	36.390	1.00	44.33	C
ATOM	2372	O	PHE	A	630	24.930	38.503	37.446	1.00	44.33	O
ATOM	2373	N	THR	A	631	23.478	37.797	35.844	1.00	44.33	N
ATOM	2374	CA	THR	A	631	22.259	38.180	36.607	1.00	46.07	C
ATOM	2375	CB	THR	A	631	21.816	39.648	36.367	1.00	47.43	C
ATOM	2376	OG1	THR	A	631	20.878	39.679	35.294	1.00	48.17	O
ATOM	2377	CG2	THR	A	631	23.031	40.581	36.004	1.00	49.67	C
ATOM	2378	C	THR	A	631	21.081	37.212	36.335	1.00	47.40	C
ATOM	2379	O	THR	A	631	20.858	36.772	35.191	1.00	45.45	O
ATOM	2380	N	ARG	A	632	20.340	36.878	37.393	1.00	49.98	N
ATOM	2381	CA	ARG	A	632	19.223	35.923	37.289	1.00	52.04	C
ATOM	2382	CB	ARG	A	632	18.617	35.662	38.671	1.00	53.90	C
ATOM	2383	CG	ARG	A	632	19.529	34.923	39.625	1.00	57.16	C
ATOM	2384	CD	ARG	A	632	18.673	33.875	40.394	1.00	58.48	C
ATOM	2385	NE	ARG	A	632	19.475	33.073	41.344	1.00	59.61	N
ATOM	2386	CZ	ARG	A	632	20.195	31.981	41.023	1.00	60.35	C
ATOM	2387	NH1	ARG	A	632	20.278	31.554	39.756	1.00	59.57	N
ATOM	2388	NH2	ARG	A	632	20.855	31.314	41.977	1.00	59.72	N
ATOM	2389	C	ARG	A	632	18.117	36.370	36.299	1.00	52.42	C

- 237 -

ATOM	2390	O	ARG	A	632	17.284	35.565	35.847	1.00	52.90	O
ATOM	2391	N	GLY	A	633	18.128	37.650	35.947	1.00	51.83	N
ATOM	2392	CA	GLY	A	633	17.063	38.220	35.167	1.00	52.56	C
ATOM	2393	C	GLY	A	633	16.084	38.816	36.138	1.00	53.88	C
ATOM	2394	O	GLY	A	633	16.213	38.652	37.369	1.00	53.77	O
ATOM	2395	N	GLN	A	634	15.115	39.525	35.569	1.00	55.09	N
ATOM	2396	CA	GLN	A	634	14.024	40.112	36.323	1.00	56.51	C
ATOM	2397	CB	GLN	A	634	13.832	41.596	35.943	1.00	57.46	C
ATOM	2398	CG	GLN	A	634	14.950	42.530	36.453	1.00	58.48	C
ATOM	2399	CD	GLN	A	634	14.431	43.898	36.950	1.00	58.72	C
ATOM	2400	OE1	GLN	A	634	15.112	44.928	36.773	1.00	59.32	O
ATOM	2401	NE2	GLN	A	634	13.235	43.908	37.588	1.00	58.93	N
ATOM	2402	C	GLN	A	634	12.745	39.287	36.064	1.00	55.74	C
ATOM	2403	O	GLN	A	634	12.494	38.851	34.908	1.00	54.67	O
ATOM	2404	N	PRO	A	635	11.935	39.071	37.139	1.00	56.89	N
ATOM	2405	CA	PRO	A	635	10.784	38.175	37.045	1.00	56.88	C
ATOM	2406	CB	PRO	A	635	10.554	37.747	38.519	1.00	56.92	C
ATOM	2407	CG	PRO	A	635	11.521	38.592	39.385	1.00	57.18	C
ATOM	2408	CD	PRO	A	635	12.039	39.668	38.492	1.00	56.37	C
ATOM	2409	C	PRO	A	635	9.536	38.861	36.400	1.00	57.81	C
ATOM	2410	O	PRO	A	635	8.774	39.580	37.068	1.00	58.33	O
ATOM	2411	N	VAL	A	636	9.343	38.645	35.101	1.00	57.71	N
ATOM	2412	CA	VAL	A	636	8.185	39.190	34.395	1.00	58.77	C
ATOM	2413	CB	VAL	A	636	8.600	39.918	33.096	1.00	58.36	C
ATOM	2414	CG1	VAL	A	636	9.625	41.032	33.392	1.00	58.54	C
ATOM	2415	CG2	VAL	A	636	9.161	38.931	32.074	1.00	57.14	C
ATOM	2416	C	VAL	A	636	7.183	38.054	34.119	1.00	59.08	C
ATOM	2417	O	VAL	A	636	7.582	36.878	34.022	1.00	59.03	O
ATOM	2418	N	LEU	A	637	5.888	38.388	34.017	1.00	59.61	N
ATOM	2419	CA	LEU	A	637	4.871	37.343	33.828	1.00	58.89	C
ATOM	2420	CB	LEU	A	637	3.549	37.690	34.498	1.00	59.38	C
ATOM	2421	CG	LEU	A	637	3.591	37.257	35.967	1.00	58.83	C
ATOM	2422	CD1	LEU	A	637	4.794	37.879	36.689	1.00	58.58	C
ATOM	2423	CD2	LEU	A	637	2.284	37.580	36.701	1.00	58.47	C
ATOM	2424	C	LEU	A	637	4.691	36.975	32.379	1.00	58.80	C
ATOM	2425	O	LEU	A	637	4.848	37.804	31.479	1.00	56.83	O
ATOM	2426	N	TPO	A	638	4.410	35.701	32.160	1.00	60.51	N
ATOM	2427	CA	TPO	A	638	4.339	35.177	30.812	1.00	63.47	C
ATOM	2428	CB	TPO	A	638	4.120	33.647	30.804	1.00	66.23	C
ATOM	2429	CG2	TPO	A	638	3.229	33.112	29.676	1.00	67.18	C
ATOM	2430	OG1	TPO	A	638	3.575	33.189	32.054	1.00	70.00	O
ATOM	2431	P	TPO	A	638	4.407	32.829	33.421	1.00	71.61	P
ATOM	2432	O1P	TPO	A	638	5.777	32.353	32.915	1.00	72.37	O
ATOM	2433	O2P	TPO	A	638	3.596	31.702	34.054	1.00	71.70	O
ATOM	2434	O3P	TPO	A	638	4.424	34.145	34.220	1.00	70.97	O
ATOM	2435	C	TPO	A	638	3.371	36.040	30.038	1.00	63.36	C
ATOM	2436	O	TPO	A	638	2.346	36.475	30.571	1.00	62.54	O
ATOM	2437	N	PRO	A	639	3.690	36.310	28.766	1.00	62.33	N
ATOM	2438	CA	PRO	A	639	2.760	37.042	27.935	1.00	62.59	C
ATOM	2439	CB	PRO	A	639	3.375	36.885	26.527	1.00	63.02	C
ATOM	2440	CG	PRO	A	639	4.307	35.700	26.632	1.00	62.14	C
ATOM	2441	CD	PRO	A	639	4.869	35.882	27.994	1.00	62.10	C
ATOM	2442	C	PRO	A	639	1.379	36.367	27.996	1.00	61.44	C
ATOM	2443	O	PRO	A	639	1.301	35.121	28.076	1.00	61.70	O
ATOM	2444	N	PRO	A	640	0.302	37.167	27.978	1.00	60.41	N
ATOM	2445	CA	PRO	A	640	-1.033	36.548	28.016	1.00	59.56	C
ATOM	2446	CB	PRO	A	640	-1.977	37.751	28.166	1.00	60.30	C
ATOM	2447	CG	PRO	A	640	-1.041	38.923	28.628	1.00	61.01	C

- 238 -

ATOM	2448	CD	PRO	A	640	0.247	38.637	27.939	1.00	60.90	C
ATOM	2449	C	PRO	A	640	-1.327	35.756	26.734	1.00	56.94	C
ATOM	2450	O	PRO	A	640	-1.083	36.260	25.660	1.00	59.04	O
ATOM	2451	N	ASP	A	641	-1.798	34.518	26.859	1.00	53.05	N
ATOM	2452	CA	ASP	A	641	-2.240	33.719	25.710	1.00	49.90	C
ATOM	2453	CB	ASP	A	641	-1.876	32.232	25.910	1.00	51.34	C
ATOM	2454	CG	ASP	A	641	-2.210	31.348	24.682	1.00	54.54	C
ATOM	2455	OD1	ASP	A	641	-3.130	31.652	23.892	1.00	54.17	O
ATOM	2456	OD2	ASP	A	641	-1.565	30.306	24.498	1.00	55.52	O
ATOM	2457	C	ASP	A	641	-3.768	33.861	25.500	1.00	48.17	C
ATOM	2458	O	ASP	A	641	-4.567	33.300	26.283	1.00	45.25	O
ATOM	2459	N	GLN	A	642	-4.179	34.573	24.440	1.00	45.74	N
ATOM	2460	CA	GLN	A	642	-5.596	34.902	24.249	1.00	46.83	C
ATOM	2461	CB	GLN	A	642	-5.871	35.735	22.992	1.00	47.95	C
ATOM	2462	CG	GLN	A	642	-5.448	37.194	23.060	1.00	50.73	C
ATOM	2463	CD	GLN	A	642	-5.544	37.811	24.462	1.00	50.98	C
ATOM	2464	OE1	GLN	A	642	-4.526	38.252	25.049	1.00	54.03	O
ATOM	2465	NE2	GLN	A	642	-6.772	37.843	25.006	1.00	52.49	N
ATOM	2466	C	GLN	A	642	-6.435	33.671	24.175	1.00	45.60	C
ATOM	2467	O	GLN	A	642	-7.513	33.618	24.774	1.00	46.47	O
ATOM	2468	N	LEU	A	643	-5.953	32.677	23.436	1.00	44.33	N
ATOM	2469	CA	LEU	A	643	-6.789	31.512	23.198	1.00	44.33	C
ATOM	2470	CB	LEU	A	643	-6.040	30.450	22.444	1.00	44.33	C
ATOM	2471	CG	LEU	A	643	-7.012	29.362	22.062	1.00	44.33	C
ATOM	2472	CD1	LEU	A	643	-8.311	29.991	21.674	1.00	44.33	C
ATOM	2473	CD2	LEU	A	643	-6.476	28.528	20.917	1.00	44.33	C
ATOM	2474	C	LEU	A	643	-7.172	30.981	24.540	1.00	44.33	C
ATOM	2475	O	LEU	A	643	-8.324	30.646	24.801	1.00	44.33	O
ATOM	2476	N	VAL	A	644	-6.187	30.977	25.417	1.00	44.33	N
ATOM	2477	CA	VAL	A	644	-6.380	30.378	26.703	1.00	44.33	C
ATOM	2478	CB	VAL	A	644	-5.034	30.121	27.429	1.00	44.33	C
ATOM	2479	CG1	VAL	A	644	-5.277	29.565	28.820	1.00	44.33	C
ATOM	2480	CG2	VAL	A	644	-4.158	29.165	26.598	1.00	44.33	C
ATOM	2481	C	VAL	A	644	-7.378	31.197	27.503	1.00	44.33	C
ATOM	2482	O	VAL	A	644	-8.308	30.637	28.033	1.00	44.33	O
ATOM	2483	N	ILE	A	645	-7.223	32.513	27.522	1.00	44.33	N
ATOM	2484	CA	ILE	A	645	-8.143	33.376	28.254	1.00	44.33	C
ATOM	2485	CB	ILE	A	645	-7.844	34.845	28.020	1.00	44.33	C
ATOM	2486	CG1	ILE	A	645	-6.340	35.122	28.156	1.00	44.33	C
ATOM	2487	CD1	ILE	A	645	-5.943	36.401	28.961	1.00	44.33	C
ATOM	2488	CG2	ILE	A	645	-8.736	35.675	28.926	1.00	44.33	C
ATOM	2489	C	ILE	A	645	-9.603	33.195	27.848	1.00	44.33	C
ATOM	2490	O	ILE	A	645	-10.479	32.948	28.698	1.00	44.33	O
ATOM	2491	N	ALA	A	646	-9.842	33.357	26.547	1.00	44.33	N
ATOM	2492	CA	ALA	A	646	-11.133	33.271	25.899	1.00	44.33	C
ATOM	2493	CB	ALA	A	646	-10.887	33.022	24.462	1.00	44.33	C
ATOM	2494	C	ALA	A	646	-11.933	32.133	26.440	1.00	44.33	C
ATOM	2495	O	ALA	A	646	-13.164	32.124	26.447	1.00	44.33	O
ATOM	2496	N	ASN	A	647	-11.188	31.141	26.880	1.00	44.33	N
ATOM	2497	CA	ASN	A	647	-11.758	29.862	27.240	1.00	44.33	C
ATOM	2498	CB	ASN	A	647	-11.115	28.757	26.438	1.00	44.33	C
ATOM	2499	CG	ASN	A	647	-11.577	28.775	25.017	1.00	44.33	C
ATOM	2500	OD1	ASN	A	647	-11.317	29.728	24.269	1.00	44.33	O
ATOM	2501	ND2	ASN	A	647	-12.298	27.736	24.627	1.00	44.33	N
ATOM	2502	C	ASN	A	647	-11.718	29.512	28.705	1.00	44.33	C
ATOM	2503	O	ASN	A	647	-12.077	28.396	29.074	1.00	44.33	O
ATOM	2504	N	ILE	A	648	-11.322	30.460	29.545	1.00	44.33	N
ATOM	2505	CA	ILE	A	648	-11.402	30.246	30.972	1.00	44.33	C

- 239 -

ATOM	2506	CB	ILE	A	648	-10.570	31.237	31.739	1.00	44.33	C
ATOM	2507	CG1	ILE	A	648	-9.131	30.753	31.809	1.00	44.33	C
ATOM	2508	CD1	ILE	A	648	-8.219	31.841	32.136	1.00	44.33	C
ATOM	2509	CG2	ILE	A	648	-11.086	31.418	33.165	1.00	44.33	C
ATOM	2510	C	ILE	A	648	-12.805	30.387	31.427	1.00	44.33	C
ATOM	2511	O	ILE	A	648	-13.516	31.310	31.012	1.00	44.33	O
ATOM	2512	N	ASP	A	649	-13.236	29.465	32.272	1.00	44.33	N
ATOM	2513	CA	ASP	A	649	-14.572	29.568	32.857	1.00	44.33	C
ATOM	2514	CB	ASP	A	649	-15.127	28.178	33.222	1.00	44.35	C
ATOM	2515	CG	ASP	A	649	-16.573	28.222	33.714	1.00	46.69	C
ATOM	2516	OD1	ASP	A	649	-17.170	29.319	33.799	1.00	46.46	O
ATOM	2517	OD2	ASP	A	649	-17.125	27.152	34.034	1.00	47.58	O
ATOM	2518	C	ASP	A	649	-14.448	30.499	34.060	1.00	44.33	C
ATOM	2519	O	ASP	A	649	-14.156	30.042	35.175	1.00	44.33	O
ATOM	2520	N	GLN	A	650	-14.645	31.799	33.825	1.00	44.33	N
ATOM	2521	CA	GLN	A	650	-14.481	32.792	34.894	1.00	44.33	C
ATOM	2522	CB	GLN	A	650	-14.494	34.218	34.324	1.00	44.33	C
ATOM	2523	CG	GLN	A	650	-13.590	34.406	33.144	1.00	44.33	C
ATOM	2524	CD	GLN	A	650	-12.089	34.584	33.482	1.00	44.33	C
ATOM	2525	OE1	GLN	A	650	-11.634	34.433	34.622	1.00	44.33	O
ATOM	2526	NE2	GLN	A	650	-11.321	34.906	32.465	1.00	44.33	N
ATOM	2527	C	GLN	A	650	-15.438	32.600	36.113	1.00	44.33	C
ATOM	2528	O	GLN	A	650	-15.161	33.068	37.230	1.00	44.33	O
ATOM	2529	N	SER	A	651	-16.524	31.862	35.896	1.00	44.33	N
ATOM	2530	CA	SER	A	651	-17.513	31.586	36.935	1.00	44.33	C
ATOM	2531	CB	SER	A	651	-18.587	30.653	36.398	1.00	44.33	C
ATOM	2532	OG	SER	A	651	-18.045	29.351	36.251	1.00	44.33	O
ATOM	2533	C	SER	A	651	-16.848	30.904	38.087	1.00	44.33	C
ATOM	2534	O	SER	A	651	-17.189	31.135	39.227	1.00	44.33	O
ATOM	2535	N	ASP	A	652	-15.893	30.051	37.765	1.00	44.33	N
ATOM	2536	CA	ASP	A	652	-15.104	29.352	38.766	1.00	44.33	C
ATOM	2537	CB	ASP	A	652	-13.942	28.624	38.109	1.00	44.33	C
ATOM	2538	CG	ASP	A	652	-14.307	27.242	37.664	1.00	44.83	C
ATOM	2539	OD1	ASP	A	652	-15.467	26.805	37.852	1.00	45.33	O
ATOM	2540	OD2	ASP	A	652	-13.431	26.550	37.117	1.00	47.09	O
ATOM	2541	C	ASP	A	652	-14.545	30.232	39.867	1.00	44.33	C
ATOM	2542	O	ASP	A	652	-14.167	29.730	40.940	1.00	44.33	O
ATOM	2543	N	PHE	A	653	-14.474	31.535	39.614	1.00	44.33	N
ATOM	2544	CA	PHE	A	653	-13.663	32.393	40.461	1.00	44.33	C
ATOM	2545	CB	PHE	A	653	-12.425	32.870	39.687	1.00	44.33	C
ATOM	2546	CG	PHE	A	653	-11.607	31.730	39.103	1.00	44.33	C
ATOM	2547	CD1	PHE	A	653	-11.651	31.457	37.737	1.00	44.33	C
ATOM	2548	CE1	PHE	A	653	-10.927	30.396	37.215	1.00	44.33	C
ATOM	2549	CZ	PHE	A	653	-10.169	29.597	38.071	1.00	44.33	C
ATOM	2550	CE2	PHE	A	653	-10.148	29.869	39.448	1.00	44.33	C
ATOM	2551	CD2	PHE	A	653	-10.854	30.906	39.941	1.00	44.33	C
ATOM	2552	C	PHE	A	653	-14.495	33.508	40.988	1.00	44.33	C
ATOM	2553	O	PHE	A	653	-14.000	34.470	41.525	1.00	44.33	O
ATOM	2554	N	GLU	A	654	-15.797	33.339	40.841	1.00	44.33	N
ATOM	2555	CA	GLU	A	654	-16.774	34.252	41.396	1.00	44.33	C
ATOM	2556	CB	GLU	A	654	-18.104	33.595	41.246	1.00	44.33	C
ATOM	2557	CG	GLU	A	654	-19.246	34.422	41.724	1.00	46.14	C
ATOM	2558	CD	GLU	A	654	-20.538	33.710	41.428	1.00	46.11	C
ATOM	2559	OE1	GLU	A	654	-20.545	32.431	41.524	1.00	47.59	O
ATOM	2560	OE2	GLU	A	654	-21.513	34.431	41.062	1.00	46.89	O
ATOM	2561	C	GLU	A	654	-16.548	34.500	42.865	1.00	44.33	C
ATOM	2562	O	GLU	A	654	-16.381	33.551	43.625	1.00	44.33	O
ATOM	2563	N	GLY	A	655	-16.545	35.753	43.278	1.00	44.33	N

- 240 -

ATOM	2564	CA	GLY	A	655	-16.383	36.016	44.702	1.00	44.33	C
ATOM	2565	C	GLY	A	655	-14.993	35.704	45.262	1.00	44.33	C
ATOM	2566	O	GLY	A	655	-14.823	35.398	46.442	1.00	44.33	O
ATOM	2567	N	PHE	A	656	-13.983	35.803	44.425	1.00	44.33	N
ATOM	2568	CA	PHE	A	656	-12.665	35.577	44.895	1.00	44.33	C
ATOM	2569	CB	PHE	A	656	-11.782	35.210	43.736	1.00	44.33	C
ATOM	2570	CG	PHE	A	656	-10.381	35.000	44.119	1.00	44.33	C
ATOM	2571	CD1	PHE	A	656	-10.028	33.899	44.863	1.00	44.33	C
ATOM	2572	CE1	PHE	A	656	-8.697	33.699	45.204	1.00	44.33	C
ATOM	2573	CZ	PHE	A	656	-7.708	34.627	44.794	1.00	44.33	C
ATOM	2574	CE2	PHE	A	656	-8.074	35.726	44.058	1.00	44.33	C
ATOM	2575	CD2	PHE	A	656	-9.397	35.910	43.723	1.00	44.33	C
ATOM	2576	C	PHE	A	656	-12.034	36.756	45.613	1.00	44.33	C
ATOM	2577	O	PHE	A	656	-11.196	36.576	46.505	1.00	44.33	O
ATOM	2578	N	SEP	A	657	-12.359	37.961	45.190	1.00	44.33	N
ATOM	2579	CA	SEP	A	657	-11.647	39.103	45.713	1.00	44.52	C
ATOM	2580	CB	SEP	A	657	-11.879	40.222	44.784	1.00	46.24	C
ATOM	2581	OG	SEP	A	657	-11.667	39.619	43.541	1.00	49.46	O
ATOM	2582	P	SEP	A	657	-11.858	40.800	42.519	1.00	52.86	P
ATOM	2583	O1P	SEP	A	657	-13.464	40.890	42.235	1.00	49.27	O
ATOM	2584	O2P	SEP	A	657	-10.911	40.619	41.204	1.00	49.69	O
ATOM	2585	O3P	SEP	A	657	-11.399	42.136	43.316	1.00	51.68	O
ATOM	2586	C	SEP	A	657	-12.091	39.419	47.102	1.00	45.08	C
ATOM	2587	O	SEP	A	657	-13.207	39.092	47.469	1.00	45.39	O
ATOM	2588	N	TYR	A	658	-11.199	39.996	47.891	1.00	45.06	N
ATOM	2589	CA	TYR	A	658	-11.517	40.321	49.256	1.00	44.40	C
ATOM	2590	CB	TYR	A	658	-11.616	39.065	50.097	1.00	45.54	C
ATOM	2591	CG	TYR	A	658	-11.635	39.270	51.598	1.00	46.14	C
ATOM	2592	CD1	TYR	A	658	-12.819	39.313	52.290	1.00	46.91	C
ATOM	2593	CE1	TYR	A	658	-12.836	39.455	53.667	1.00	47.42	C
ATOM	2594	CZ	TYR	A	658	-11.669	39.558	54.368	1.00	46.05	C
ATOM	2595	OH	TYR	A	658	-11.702	39.699	55.729	1.00	45.67	O
ATOM	2596	CE2	TYR	A	658	-10.476	39.493	53.713	1.00	45.85	C
ATOM	2597	CD2	TYR	A	658	-10.456	39.350	52.333	1.00	45.95	C
ATOM	2598	C	TYR	A	658	-10.414	41.180	49.728	1.00	45.32	C
ATOM	2599	O	TYR	A	658	-9.316	41.098	49.212	1.00	45.53	O
ATOM	2600	N	VAL	A	659	-10.718	42.036	50.686	1.00	44.33	N
ATOM	2601	CA	VAL	A	659	-9.718	42.890	51.284	1.00	44.33	C
ATOM	2602	CB	VAL	A	659	-9.817	44.336	50.754	1.00	44.33	C
ATOM	2603	CG1	VAL	A	659	-8.756	45.202	51.406	1.00	44.33	C
ATOM	2604	CG2	VAL	A	659	-9.668	44.369	49.231	1.00	45.42	C
ATOM	2605	C	VAL	A	659	-9.835	42.782	52.824	1.00	44.33	C
ATOM	2606	O	VAL	A	659	-10.901	43.013	53.391	1.00	44.33	O
ATOM	2607	N	ASN	A	660	-8.740	42.371	53.476	1.00	44.33	N
ATOM	2608	CA	ASN	A	660	-8.736	42.194	54.922	1.00	45.38	C
ATOM	2609	CB	ASN	A	660	-7.521	41.396	55.440	1.00	45.09	C
ATOM	2610	CG	ASN	A	660	-7.634	41.069	56.955	1.00	45.53	C
ATOM	2611	OD1	ASN	A	660	-8.636	41.394	57.591	1.00	46.25	O
ATOM	2612	ND2	ASN	A	660	-6.600	40.431	57.522	1.00	45.12	N
ATOM	2613	C	ASN	A	660	-8.842	43.542	55.593	1.00	47.09	C
ATOM	2614	O	ASN	A	660	-7.879	44.319	55.627	1.00	48.66	O
ATOM	2615	N	PRO	A	661	-10.032	43.838	56.109	1.00	47.80	N
ATOM	2616	CA	PRO	A	661	-10.168	45.132	56.758	1.00	48.29	C
ATOM	2617	CB	PRO	A	661	-11.620	45.121	57.320	1.00	47.88	C
ATOM	2618	CG	PRO	A	661	-12.185	43.729	57.097	1.00	47.57	C
ATOM	2619	CD	PRO	A	661	-11.279	43.034	56.106	1.00	47.80	C
ATOM	2620	C	PRO	A	661	-9.121	45.302	57.879	1.00	50.08	C
ATOM	2621	O	PRO	A	661	-8.665	46.421	58.131	1.00	50.56	O

- 241 -

ATOM	2622	N	GLN	A	662	-8.711	44.195	58.501	1.00	51.20	N
ATOM	2623	CA	GLN	A	662	-7.973	44.249	59.764	1.00	52.23	C
ATOM	2624	CB	GLN	A	662	-8.800	43.517	60.829	1.00	54.01	C
ATOM	2625	CG	GLN	A	662	-9.894	44.409	61.395	1.00	56.44	C
ATOM	2626	CD	GLN	A	662	-9.288	45.623	62.126	1.00	56.92	C
ATOM	2627	OE1	GLN	A	662	-9.134	46.706	61.532	1.00	57.78	O
ATOM	2628	NE2	GLN	A	662	-8.894	45.430	63.405	1.00	57.38	N
ATOM	2629	C	GLN	A	662	-6.501	43.796	59.725	1.00	51.89	C
ATOM	2630	O	GLN	A	662	-6.018	43.220	60.696	1.00	52.47	O
ATOM	2631	N	PHE	A	663	-5.810	44.103	58.621	1.00	51.17	N
ATOM	2632	CA	PHE	A	663	-4.452	43.623	58.346	1.00	50.38	C
ATOM	2633	CB	PHE	A	663	-4.102	43.852	56.878	1.00	49.37	C
ATOM	2634	CG	PHE	A	663	-2.842	43.145	56.432	1.00	49.68	C
ATOM	2635	CD1	PHE	A	663	-2.750	41.751	56.458	1.00	48.89	C
ATOM	2636	CE1	PHE	A	663	-1.617	41.093	56.013	1.00	49.16	C
ATOM	2637	CZ	PHE	A	663	-0.549	41.813	55.537	1.00	49.34	C
ATOM	2638	CE2	PHE	A	663	-0.615	43.203	55.506	1.00	49.16	C
ATOM	2639	CD2	PHE	A	663	-1.761	43.864	55.954	1.00	49.54	C
ATOM	2640	C	PHE	A	663	-3.459	44.378	59.189	1.00	49.95	C
ATOM	2641	O	PHE	A	663	-3.327	45.582	59.025	1.00	49.84	O
ATOM	2642	N	VAL	A	664	-2.779	43.681	60.104	1.00	51.74	N
ATOM	2643	CA	VAL	A	664	-1.710	44.272	60.954	1.00	53.73	C
ATOM	2644	CB	VAL	A	664	-1.454	43.404	62.228	1.00	54.61	C
ATOM	2645	CG1	VAL	A	664	-0.154	43.790	62.918	1.00	54.17	C
ATOM	2646	CG2	VAL	A	664	-2.620	43.432	63.188	1.00	53.19	C
ATOM	2647	C	VAL	A	664	-0.377	44.355	60.173	1.00	54.62	C
ATOM	2648	O	VAL	A	664	0.359	43.353	60.036	1.00	53.29	O
ATOM	2649	N	HIS	A	665	-0.071	45.534	59.642	1.00	55.24	N
ATOM	2650	CA	HIS	A	665	1.249	45.808	59.081	1.00	57.12	C
ATOM	2651	CB	HIS	A	665	1.274	47.228	58.535	1.00	56.08	C
ATOM	2652	CG	HIS	A	665	0.387	47.423	57.352	1.00	56.14	C
ATOM	2653	ND1	HIS	A	665	0.873	47.530	56.065	1.00	56.76	N
ATOM	2654	CE1	HIS	A	665	-0.137	47.678	55.224	1.00	55.52	C
ATOM	2655	NE2	HIS	A	665	-1.260	47.654	55.921	1.00	56.34	N
ATOM	2656	CD2	HIS	A	665	-0.960	47.506	57.255	1.00	55.43	C
ATOM	2657	C	HIS	A	665	2.342	45.650	60.141	1.00	58.18	C
ATOM	2658	O	HIS	A	665	2.063	45.778	61.358	1.00	56.69	O
ATOM	2659	N	PRO	A	666	3.579	45.356	59.670	1.00	60.18	N
ATOM	2660	CA	PRO	A	666	4.775	45.305	60.510	1.00	61.33	C
ATOM	2661	CB	PRO	A	666	5.922	45.224	59.481	1.00	61.00	C
ATOM	2662	CG	PRO	A	666	5.293	45.573	58.119	1.00	61.97	C
ATOM	2663	CD	PRO	A	666	3.898	45.072	58.250	1.00	60.86	C
ATOM	2664	C	PRO	A	666	4.877	46.595	61.323	1.00	61.73	C
ATOM	2665	O	PRO	A	666	4.769	47.693	60.773	1.00	61.37	O
ATOM	2666	N	ILE	A	667	5.058	46.447	62.625	1.00	63.30	N
ATOM	2667	CA	ILE	A	667	5.149	47.574	63.535	1.00	65.86	C
ATOM	2668	CB	ILE	A	667	4.781	47.099	64.935	1.00	66.25	C
ATOM	2669	CG1	ILE	A	667	3.584	47.879	65.470	1.00	66.74	C
ATOM	2670	CD1	ILE	A	667	2.868	47.182	66.618	1.00	66.94	C
ATOM	2671	CG2	ILE	A	667	5.994	46.997	65.850	1.00	67.81	C
ATOM	2672	C	ILE	A	667	6.541	48.241	63.512	1.00	66.80	C
ATOM	2673	O	ILE	A	667	7.509	47.637	63.054	1.00	66.98	O
ATOM	2674	N	LEU	A	668	6.637	49.490	63.968	1.00	68.20	N
ATOM	2675	CA	LEU	A	668	7.926	50.183	64.075	1.00	70.00	C
ATOM	2676	CB	LEU	A	668	7.716	51.659	64.437	1.00	69.47	C
ATOM	2677	CG	LEU	A	668	8.211	52.754	63.496	1.00	70.08	C
ATOM	2678	CD1	LEU	A	668	7.719	52.504	62.118	1.00	70.14	C
ATOM	2679	CD2	LEU	A	668	7.787	54.133	63.956	1.00	69.81	C

- 242 -

ATOM	2680	C	LEU	A	668	8.805	49.506	65.128	1.00	70.68	C
ATOM	2681	O	LEU	A	668	8.343	49.280	66.240	1.00	71.03	O
ATOM	2682	N	ALA	A	669	10.056	49.182	64.785	1.00	71.40	N
ATOM	2683	CA	ALA	A	669	10.982	48.561	65.743	1.00	72.29	C
ATOM	2684	CB	ALA	A	669	12.374	48.337	65.097	1.00	72.22	C
ATOM	2685	C	ALA	A	669	11.114	49.391	67.032	1.00	72.61	C
ATOM	2686	O	ALA	A	669	10.313	49.277	67.967	1.00	72.11	O
ATOM	2687	N1	LIG	A	1	8.582	32.379	52.679	1.00	78.82	N
ATOM	2688	C3	LIG	A	1	8.116	31.536	51.761	1.00	78.90	C
ATOM	2689	C4	LIG	A	1	6.761	31.650	51.685	1.00	77.46	C
ATOM	2690	C5	LIG	A	1	6.478	32.691	52.713	1.00	77.74	C
ATOM	2691	C6	LIG	A	1	7.636	33.053	53.246	1.00	79.15	C
ATOM	2692	C8	LIG	A	1	5.191	33.232	53.074	1.00	79.20	C
ATOM	2693	C9	LIG	A	1	4.019	32.640	53.036	1.00	80.34	C
ATOM	2694	C10	LIG	A	1	3.057	33.609	53.501	1.00	78.78	C
ATOM	2695	N11	LIG	A	1	3.664	34.751	53.801	1.00	81.14	N
ATOM	2696	C13	LIG	A	1	4.960	34.580	53.567	1.00	80.97	C
ATOM	2697	O14	LIG	A	1	5.823	35.410	53.720	1.00	81.06	O
ATOM	2698	O15	LIG	A	1	1.889	33.370	53.581	1.00	78.40	O
ATOM	2699	C16	LIG	A	1	3.680	31.242	52.605	1.00	80.29	C
ATOM	2700	N17	LIG	A	1	4.438	30.272	53.113	1.00	80.64	N
ATOM	2701	C18	LIG	A	1	4.261	28.979	52.827	1.00	81.13	C
ATOM	2702	N19	LIG	A	1	3.271	28.659	51.995	1.00	81.33	N
ATOM	2703	C20	LIG	A	1	2.464	29.570	51.442	1.00	80.12	C
ATOM	2704	C21	LIG	A	1	2.640	30.919	51.729	1.00	79.21	C
ATOM	2705	C22	LIG	A	1	1.763	31.838	51.128	1.00	79.88	C
ATOM	2706	C24	LIG	A	1	0.748	31.420	50.258	1.00	79.92	C
ATOM	2707	C26	LIG	A	1	0.593	30.062	49.972	1.00	81.07	C
ATOM	2708	C28	LIG	A	1	1.454	29.137	50.574	1.00	80.62	C
ATOM	2709	N30	LIG	A	1	5.224	28.066	53.077	1.00	79.63	N
ATOM	2710	C31	LIG	A	1	4.971	26.660	52.797	1.00	76.01	C
ATOM	2711	C34	LIG	A	1	6.243	26.134	52.106	1.00	76.32	C
ATOM	2712	N37	LIG	A	1	7.450	26.391	52.937	1.00	75.79	N
ATOM	2713	C38	LIG	A	1	7.666	27.814	53.266	1.00	76.08	C
ATOM	2714	C41	LIG	A	1	6.386	28.392	53.903	1.00	77.26	C
ATOM	2715	C44	LIG	A	1	8.656	25.650	52.492	1.00	77.45	C
ATOM	2716	C48	LIG	A	1	6.027	30.884	50.799	1.00	79.02	C
ATOM	2717	C50	LIG	A	1	6.725	29.981	49.994	1.00	77.99	C
ATOM	2718	C52	LIG	A	1	8.110	29.873	50.080	1.00	78.08	C
ATOM	2719	C54	LIG	A	1	8.831	30.653	50.974	1.00	78.44	C
ATOM	2720	OW0	HOH	A	800	11.819	25.358	53.418	1.00	59.47	O
ATOM	2721	OW0	HOH	A	801	11.226	31.724	54.065	1.00	61.92	O
ATOM	2722	OW0	HOH	A	802	12.010	33.877	53.449	1.00	61.71	O
ATOM	2723	OW0	HOH	A	803	13.168	33.011	51.405	1.00	54.98	O
ATOM	2724	OW0	HOH	A	804	18.612	31.883	63.190	1.00	65.15	O
ATOM	2725	OW0	HOH	A	806	4.386	23.134	51.749	1.00	44.33	O
ATOM	2726	OW0	HOH	A	807	13.391	24.108	55.185	1.00	60.29	O
ATOM	2727	OW0	HOH	A	808	10.678	32.478	56.451	1.00	44.33	O
ATOM	2728	OW0	HOH	A	809	-35.483	20.310	48.920	1.00	44.33	O
ATOM	2729	OW0	HOH	A	810	7.090	18.735	53.137	1.00	52.65	O
ATOM	2730	OW0	HOH	A	811	0.078	31.443	53.693	1.00	44.83	O
ATOM	2731	OW0	HOH	A	812	16.936	27.484	67.880	1.00	50.91	O
ATOM	2732	OW0	HOH	A	813	12.312	31.929	49.725	1.00	45.79	O
ATOM	2733	OW0	HOH	A	814	16.782	27.530	65.094	1.00	48.70	O
ATOM	2734	OW0	HOH	A	815	-36.594	19.339	56.089	1.00	44.33	O
ATOM	2735	OW0	HOH	A	816	19.868	33.087	56.969	1.00	63.56	O
ATOM	2736	OW0	HOH	A	817	16.328	36.364	57.105	1.00	74.12	O
ATOM	2737	OW0	HOH	A	818	-33.787	25.989	48.544	1.00	57.74	O

- 243 -

ATOM	2738	OW0	HOH	A	819	11.661	28.375	39.904	1.00	62.71	O
ATOM	2739	OW0	HOH	A	820	-29.790	27.936	46.000	1.00	59.93	O
ATOM	2740	OW0	HOH	A	821	18.423	29.042	63.815	1.00	54.04	O
ATOM	2741	OW0	HOH	A	822	8.872	24.269	49.204	1.00	54.13	O
ATOM	2742	OW0	HOH	A	825	-21.039	28.244	35.015	1.00	67.31	O
ATOM	2743	OW0	HOH	A	826	21.335	30.013	35.364	1.00	70.73	O
ATOM	2744	OW0	HOH	A	827	-19.581	27.079	33.543	1.00	54.89	O
ATOM	2745	OW0	HOH	A	828	-20.556	28.134	30.523	1.00	75.85	O
ATOM	2746	OW0	HOH	A	829	6.630	20.071	51.472	1.00	64.93	O
ATOM	2747	OW0	HOH	A	830	10.843	23.281	50.843	1.00	61.79	O
ATOM	2748	OW0	HOH	A	832	-5.940	27.638	78.620	1.00	49.82	O
ATOM	2749	OW0	HOH	A	833	-11.245	23.922	68.612	1.00	44.33	O
ATOM	2750	OW0	HOH	A	834	-12.321	21.403	74.355	1.00	49.30	O
ATOM	2751	N	VAL	B	334	-27.685	-1.049	35.376	1.00	55.54	N
ATOM	2752	CA	VAL	B	334	-26.521	-1.126	36.310	1.00	54.99	C
ATOM	2753	CB	VAL	B	334	-25.144	-0.843	35.585	1.00	54.06	C
ATOM	2754	CG1	VAL	B	334	-24.912	-1.834	34.446	1.00	52.36	C
ATOM	2755	CG2	VAL	B	334	-25.029	0.609	35.074	1.00	51.75	C
ATOM	2756	C	VAL	B	334	-26.695	-0.227	37.541	1.00	55.33	C
ATOM	2757	O	VAL	B	334	-27.484	0.717	37.522	1.00	54.43	O
ATOM	2758	N	LYS	B	335	-25.966	-0.539	38.609	1.00	54.43	N
ATOM	2759	CA	LYS	B	335	-25.902	0.308	39.801	1.00	53.79	C
ATOM	2760	CB	LYS	B	335	-26.720	-0.252	40.965	1.00	54.33	C
ATOM	2761	CG	LYS	B	335	-26.400	-1.658	41.415	1.00	55.29	C
ATOM	2762	CD	LYS	B	335	-27.730	-2.382	41.626	1.00	55.45	C
ATOM	2763	CE	LYS	B	335	-27.637	-3.697	42.400	1.00	56.47	C
ATOM	2764	NZ	LYS	B	335	-26.511	-4.562	41.963	1.00	57.70	N
ATOM	2765	C	LYS	B	335	-24.479	0.580	40.242	1.00	52.91	C
ATOM	2766	O	LYS	B	335	-23.523	0.042	39.716	1.00	52.27	O
ATOM	2767	N	LEU	B	336	-24.355	1.414	41.250	1.00	51.96	N
ATOM	2768	CA	LEU	B	336	-23.065	1.867	41.728	1.00	51.70	C
ATOM	2769	CB	LEU	B	336	-23.288	2.783	42.941	1.00	51.77	C
ATOM	2770	CG	LEU	B	336	-22.255	3.345	43.909	1.00	52.27	C
ATOM	2771	CD1	LEU	B	336	-20.928	3.633	43.268	1.00	52.30	C
ATOM	2772	CD2	LEU	B	336	-22.826	4.593	44.447	1.00	51.55	C
ATOM	2773	C	LEU	B	336	-22.070	0.720	41.993	1.00	50.67	C
ATOM	2774	O	LEU	B	336	-20.883	0.822	41.634	1.00	49.64	O
ATOM	2775	N	THR	B	337	-22.517	-0.386	42.580	1.00	50.70	N
ATOM	2776	CA	THR	B	337	-21.519	-1.368	42.959	1.00	50.29	C
ATOM	2777	CB	THR	B	337	-21.941	-2.234	44.080	1.00	52.06	C
ATOM	2778	OG1	THR	B	337	-22.930	-1.535	44.852	1.00	52.83	O
ATOM	2779	CG2	THR	B	337	-20.657	-2.577	44.918	1.00	54.15	C
ATOM	2780	C	THR	B	337	-21.012	-2.172	41.787	1.00	48.80	C
ATOM	2781	O	THR	B	337	-20.146	-3.037	41.947	1.00	48.88	O
ATOM	2782	N	ASP	B	338	-21.542	-1.824	40.619	1.00	47.32	N
ATOM	2783	CA	ASP	B	338	-21.119	-2.390	39.372	1.00	46.90	C
ATOM	2784	CB	ASP	B	338	-22.173	-2.134	38.328	1.00	48.13	C
ATOM	2785	CG	ASP	B	338	-23.336	-2.996	38.500	1.00	50.07	C
ATOM	2786	OD1	ASP	B	338	-23.101	-4.104	39.002	1.00	51.09	O
ATOM	2787	OD2	ASP	B	338	-24.459	-2.599	38.123	1.00	50.81	O
ATOM	2788	C	ASP	B	338	-19.860	-1.759	38.859	1.00	45.69	C
ATOM	2789	O	ASP	B	338	-19.372	-2.186	37.813	1.00	44.33	O
ATOM	2790	N	PHE	B	339	-19.339	-0.750	39.560	1.00	45.25	N
ATOM	2791	CA	PHE	B	339	-18.162	-0.006	39.079	1.00	44.92	C
ATOM	2792	CB	PHE	B	339	-18.593	1.383	38.600	1.00	44.33	C
ATOM	2793	CG	PHE	B	339	-19.636	1.360	37.497	1.00	44.33	C
ATOM	2794	CD1	PHE	B	339	-19.248	1.402	36.142	1.00	44.33	C
ATOM	2795	CE1	PHE	B	339	-20.224	1.401	35.127	1.00	44.33	C

- 244 -

ATOM	2796	CZ	PHE	B	339	-21.622	1.360	35.471	1.00	44.33	C
ATOM	2797	CE2	PHE	B	339	-22.012	1.341	36.810	1.00	44.33	C
ATOM	2798	CD2	PHE	B	339	-21.026	1.333	37.811	1.00	44.33	C
ATOM	2799	C	PHE	B	339	-17.024	0.158	40.108	1.00	45.70	C
ATOM	2800	O	PHE	B	339	-17.292	0.392	41.283	1.00	45.13	O
ATOM	2801	N	ASN	B	340	-15.772	0.037	39.653	1.00	46.62	N
ATOM	2802	CA	ASN	B	340	-14.596	0.514	40.384	1.00	47.49	C
ATOM	2803	CB	ASN	B	340	-13.306	-0.244	39.969	1.00	49.35	C
ATOM	2804	CG	ASN	B	340	-13.005	-1.495	40.822	1.00	51.29	C
ATOM	2805	OD1	ASN	B	340	-13.798	-2.478	40.858	1.00	52.97	O
ATOM	2806	ND2	ASN	B	340	-11.803	-1.491	41.464	1.00	51.79	N
ATOM	2807	C	ASN	B	340	-14.347	1.948	39.936	1.00	46.83	C
ATOM	2808	O	ASN	B	340	-14.136	2.197	38.759	1.00	45.94	O
ATOM	2809	N	PHE	B	341	-14.317	2.885	40.857	1.00	46.09	N
ATOM	2810	CA	PHE	B	341	-13.786	4.191	40.547	1.00	45.89	C
ATOM	2811	CB	PHE	B	341	-14.056	5.141	41.699	1.00	47.11	C
ATOM	2812	CG	PHE	B	341	-15.480	5.529	41.829	1.00	47.64	C
ATOM	2813	CD1	PHE	B	341	-16.354	5.417	40.728	1.00	48.74	C
ATOM	2814	CE1	PHE	B	341	-17.668	5.779	40.823	1.00	48.15	C
ATOM	2815	CZ	PHE	B	341	-18.156	6.289	42.027	1.00	49.96	C
ATOM	2816	CE2	PHE	B	341	-17.293	6.421	43.143	1.00	47.74	C
ATOM	2817	CD2	PHE	B	341	-15.954	6.037	43.033	1.00	48.33	C
ATOM	2818	C	PHE	B	341	-12.294	4.155	40.320	1.00	45.58	C
ATOM	2819	O	PHE	B	341	-11.547	3.698	41.187	1.00	45.35	O
ATOM	2820	N	LEU	B	342	-11.844	4.659	39.174	1.00	45.85	N
ATOM	2821	CA	LEU	B	342	-10.395	4.682	38.876	1.00	45.02	C
ATOM	2822	CB	LEU	B	342	-10.101	4.273	37.431	1.00	44.82	C
ATOM	2823	CG	LEU	B	342	-9.917	2.770	37.181	1.00	44.65	C
ATOM	2824	CD1	LEU	B	342	-10.299	1.827	38.310	1.00	46.36	C
ATOM	2825	CD2	LEU	B	342	-10.676	2.463	35.951	1.00	44.33	C
ATOM	2826	C	LEU	B	342	-9.757	5.998	39.247	1.00	45.62	C
ATOM	2827	O	LEU	B	342	-8.905	6.031	40.122	1.00	46.57	O
ATOM	2828	N	MET	B	343	-10.192	7.075	38.612	1.00	45.97	N
ATOM	2829	CA	MET	B	343	-9.752	8.431	38.956	1.00	46.47	C
ATOM	2830	CB	MET	B	343	-8.457	8.761	38.244	1.00	47.95	C
ATOM	2831	CG	MET	B	343	-8.577	8.567	36.726	1.00	51.01	C
ATOM	2832	SD	MET	B	343	-7.211	9.260	35.754	1.00	55.24	S
ATOM	2833	CE	MET	B	343	-7.917	10.827	35.180	1.00	53.59	C
ATOM	2834	C	MET	B	343	-10.800	9.478	38.560	1.00	44.51	C
ATOM	2835	O	MET	B	343	-11.765	9.180	37.861	1.00	44.33	O
ATOM	2836	N	VAL	B	344	-10.585	10.710	39.002	1.00	44.33	N
ATOM	2837	CA	VAL	B	344	-11.435	11.821	38.629	1.00	44.33	C
ATOM	2838	CB	VAL	B	344	-11.339	12.994	39.671	1.00	44.33	C
ATOM	2839	CG1	VAL	B	344	-12.193	14.199	39.300	1.00	44.33	C
ATOM	2840	CG2	VAL	B	344	-11.741	12.520	41.033	1.00	44.87	C
ATOM	2841	C	VAL	B	344	-11.006	12.259	37.219	1.00	44.33	C
ATOM	2842	O	VAL	B	344	-9.828	12.523	36.952	1.00	44.33	O
ATOM	2843	N	LEU	B	345	-11.950	12.297	36.289	1.00	44.33	N
ATOM	2844	CA	LEU	B	345	-11.617	12.843	34.995	1.00	44.33	C
ATOM	2845	CB	LEU	B	345	-12.637	12.428	33.939	1.00	44.33	C
ATOM	2846	CG	LEU	B	345	-12.611	10.949	33.548	1.00	44.33	C
ATOM	2847	CD1	LEU	B	345	-13.834	10.628	32.656	1.00	44.33	C
ATOM	2848	CD2	LEU	B	345	-11.324	10.566	32.849	1.00	44.33	C
ATOM	2849	C	LEU	B	345	-11.522	14.359	35.136	1.00	44.33	C
ATOM	2850	O	LEU	B	345	-10.636	14.984	34.554	1.00	44.33	O
ATOM	2851	N	GLY	B	346	-12.428	14.933	35.924	1.00	44.33	N
ATOM	2852	CA	GLY	B	346	-12.425	16.351	36.199	1.00	44.33	C
ATOM	2853	C	GLY	B	346	-13.622	16.750	37.058	1.00	44.39	C

- 245 -

ATOM	2854	O	GLY B 346	-14.591	16.000	37.199	1.00	44.33	O
ATOM	2855	N	LYS B 347	-13.515	17.941	37.646	1.00	46.61	N
ATOM	2856	CA	LYS B 347	-14.486	18.487	38.556	1.00	49.11	C
ATOM	2857	CB	LYS B 347	-13.888	18.599	39.950	1.00	52.05	C
ATOM	2858	CG	LYS B 347	-14.339	17.477	40.878	1.00	54.50	C
ATOM	2859	CD	LYS B 347	-13.476	17.499	42.143	1.00	57.08	C
ATOM	2860	CE	LYS B 347	-13.886	18.640	43.118	1.00	56.53	C
ATOM	2861	NZ	LYS B 347	-15.364	18.696	43.515	1.00	58.09	N
ATOM	2862	C	LYS B 347	-14.719	19.874	38.030	1.00	49.73	C
ATOM	2863	O	LYS B 347	-13.772	20.523	37.570	1.00	49.57	O
ATOM	2864	N	GLY B 348	-15.967	20.334	38.107	1.00	49.92	N
ATOM	2865	CA	GLY B 348	-16.341	21.619	37.515	1.00	50.71	C
ATOM	2866	C	GLY B 348	-17.809	21.923	37.611	1.00	51.53	C
ATOM	2867	O	GLY B 348	-18.529	21.247	38.337	1.00	50.28	O
ATOM	2868	N	SER B 349	-18.264	22.930	36.876	1.00	52.14	N
ATOM	2869	CA	SER B 349	-19.692	23.260	36.872	1.00	53.36	C
ATOM	2870	CB	SER B 349	-19.963	24.535	36.068	1.00	54.55	C
ATOM	2871	OG	SER B 349	-19.298	24.487	34.812	1.00	56.64	O
ATOM	2872	C	SER B 349	-20.570	22.101	36.372	1.00	52.54	C
ATOM	2873	O	SER B 349	-21.729	22.020	36.740	1.00	53.54	O
ATOM	2874	N	PHE B 350	-19.999	21.229	35.532	1.00	52.07	N
ATOM	2875	CA	PHE B 350	-20.629	19.989	35.086	1.00	50.30	C
ATOM	2876	CB	PHE B 350	-19.900	19.433	33.853	1.00	51.46	C
ATOM	2877	CG	PHE B 350	-18.394	19.353	34.021	1.00	50.69	C
ATOM	2878	CD1	PHE B 350	-17.561	20.255	33.374	1.00	51.23	C
ATOM	2879	CE1	PHE B 350	-16.174	20.195	33.545	1.00	51.79	C
ATOM	2880	CZ	PHE B 350	-15.592	19.226	34.382	1.00	51.16	C
ATOM	2881	CE2	PHE B 350	-16.408	18.331	35.057	1.00	50.72	C
ATOM	2882	CD2	PHE B 350	-17.810	18.388	34.862	1.00	51.11	C
ATOM	2883	C	PHE B 350	-20.607	18.942	36.181	1.00	49.58	C
ATOM	2884	O	PHE B 350	-20.953	17.806	35.929	1.00	52.37	O
ATOM	2885	N	GLY B 351	-20.165	19.315	37.374	1.00	47.37	N
ATOM	2886	CA	GLY B 351	-20.032	18.383	38.481	1.00	48.06	C
ATOM	2887	C	GLY B 351	-18.695	17.663	38.514	1.00	46.30	C
ATOM	2888	O	GLY B 351	-17.694	18.177	38.025	1.00	46.37	O
ATOM	2889	N	LYS B 352	-18.698	16.465	39.105	1.00	46.36	N
ATOM	2890	CA	LYS B 352	-17.522	15.623	39.218	1.00	46.95	C
ATOM	2891	CB	LYS B 352	-17.428	15.019	40.629	1.00	47.10	C
ATOM	2892	CG	LYS B 352	-16.026	14.509	40.973	1.00	49.12	C
ATOM	2893	CD	LYS B 352	-15.999	13.513	42.102	1.00	50.33	C
ATOM	2894	CE	LYS B 352	-16.033	14.147	43.505	1.00	51.90	C
ATOM	2895	NZ	LYS B 352	-16.968	13.352	44.454	1.00	52.31	N
ATOM	2896	C	LYS B 352	-17.660	14.515	38.200	1.00	46.78	C
ATOM	2897	O	LYS B 352	-18.647	13.805	38.225	1.00	46.90	O
ATOM	2898	N	VAL B 353	-16.705	14.372	37.293	1.00	44.33	N
ATOM	2899	CA	VAL B 353	-16.729	13.247	36.358	1.00	44.33	C
ATOM	2900	CB	VAL B 353	-16.684	13.715	34.905	1.00	44.33	C
ATOM	2901	CG1	VAL B 353	-17.002	12.557	33.938	1.00	44.33	C
ATOM	2902	CG2	VAL B 353	-17.641	14.909	34.729	1.00	44.33	C
ATOM	2903	C	VAL B 353	-15.621	12.252	36.703	1.00	44.33	C
ATOM	2904	O	VAL B 353	-14.462	12.629	36.966	1.00	44.33	O
ATOM	2905	N	MET B 354	-15.999	10.985	36.740	1.00	44.33	N
ATOM	2906	CA	MET B 354	-15.162	9.966	37.321	1.00	44.33	C
ATOM	2907	CB	MET B 354	-15.899	9.329	38.492	1.00	45.10	C
ATOM	2908	CG	MET B 354	-15.067	8.432	39.335	1.00	48.65	C
ATOM	2909	SD	MET B 354	-14.025	9.386	40.418	1.00	47.88	S
ATOM	2910	CE	MET B 354	-15.213	10.282	41.406	1.00	49.19	C
ATOM	2911	C	MET B 354	-14.873	8.942	36.255	1.00	44.33	C

- 246 -

ATOM	2912	O	MET	B	354	-15.790	8.517	35.535	1.00	44.33	O
ATOM	2913	N	LEU	B	355	-13.609	8.567	36.124	1.00	44.33	N
ATOM	2914	CA	LEU	B	355	-13.287	7.448	35.272	1.00	44.33	C
ATOM	2915	CB	LEU	B	355	-11.814	7.457	34.891	1.00	44.33	C
ATOM	2916	CG	LEU	B	355	-11.345	6.368	33.926	1.00	44.33	C
ATOM	2917	CD1	LEU	B	355	-12.183	6.357	32.651	1.00	44.33	C
ATOM	2918	CD2	LEU	B	355	-9.881	6.564	33.676	1.00	44.33	C
ATOM	2919	C	LEU	B	355	-13.594	6.204	36.044	1.00	44.33	C
ATOM	2920	O	LEU	B	355	-13.215	6.103	37.200	1.00	44.33	O
ATOM	2921	N	ALA	B	356	-14.256	5.258	35.387	1.00	44.33	N
ATOM	2922	CA	ALA	B	356	-14.801	4.101	36.050	1.00	44.33	C
ATOM	2923	CB	ALA	B	356	-16.273	4.360	36.392	1.00	44.33	C
ATOM	2924	C	ALA	B	356	-14.695	2.845	35.215	1.00	44.33	C
ATOM	2925	O	ALA	B	356	-14.938	2.863	34.009	1.00	44.33	O
ATOM	2926	N	ASP	B	357	-14.385	1.748	35.887	1.00	44.33	N
ATOM	2927	CA	ASP	B	357	-14.289	0.443	35.291	1.00	45.98	C
ATOM	2928	CB	ASP	B	357	-13.034	-0.249	35.864	1.00	47.47	C
ATOM	2929	CG	ASP	B	357	-13.103	-1.758	35.755	1.00	52.13	C
ATOM	2930	OD1	ASP	B	357	-12.864	-2.303	34.656	1.00	53.50	O
ATOM	2931	OD2	ASP	B	357	-13.416	-2.410	36.768	1.00	52.66	O
ATOM	2932	C	ASP	B	357	-15.525	-0.351	35.678	1.00	45.80	C
ATOM	2933	O	ASP	B	357	-15.861	-0.415	36.857	1.00	44.33	O
ATOM	2934	N	ARG	B	358	-16.185	-0.982	34.713	1.00	47.12	N
ATOM	2935	CA	ARG	B	358	-17.249	-1.914	35.077	1.00	48.38	C
ATOM	2936	CB	ARG	B	358	-18.238	-2.122	33.935	1.00	50.99	C
ATOM	2937	CG	ARG	B	358	-19.615	-2.648	34.385	1.00	54.52	C
ATOM	2938	CD	ARG	B	358	-20.575	-2.698	33.197	1.00	58.07	C
ATOM	2939	NE	ARG	B	358	-20.547	-4.001	32.532	1.00	60.55	N
ATOM	2940	CZ	ARG	B	358	-20.496	-4.204	31.210	1.00	60.98	C
ATOM	2941	NH1	ARG	B	358	-20.454	-3.180	30.371	1.00	60.74	N
ATOM	2942	NH2	ARG	B	358	-20.475	-5.455	30.726	1.00	61.15	N
ATOM	2943	C	ARG	B	358	-16.670	-3.248	35.565	1.00	47.14	C
ATOM	2944	O	ARG	B	358	-15.839	-3.859	34.887	1.00	47.39	O
ATOM	2945	N	LYS	B	359	-17.099	-3.676	36.747	1.00	45.76	N
ATOM	2946	CA	LYS	B	359	-16.553	-4.867	37.381	1.00	46.74	C
ATOM	2947	CB	LYS	B	359	-17.195	-5.101	38.770	1.00	46.39	C
ATOM	2948	CG	LYS	B	359	-16.650	-4.201	39.901	1.00	46.61	C
ATOM	2949	CD	LYS	B	359	-17.177	-4.581	41.311	1.00	46.35	C
ATOM	2950	CE	LYS	B	359	-16.489	-3.766	42.470	1.00	46.86	C
ATOM	2951	NZ	LYS	B	359	-17.459	-3.284	43.538	1.00	46.21	N
ATOM	2952	C	LYS	B	359	-16.610	-6.126	36.480	1.00	46.60	C
ATOM	2953	O	LYS	B	359	-17.614	-6.384	35.831	1.00	47.65	O
ATOM	2954	N	GLY	B	360	-15.512	-6.877	36.418	1.00	46.88	N
ATOM	2955	CA	GLY	B	360	-15.451	-8.115	35.650	1.00	47.28	C
ATOM	2956	C	GLY	B	360	-15.428	-7.887	34.159	1.00	47.52	C
ATOM	2957	O	GLY	B	360	-15.590	-8.818	33.388	1.00	47.54	O
ATOM	2958	N	THR	B	361	-15.249	-6.640	33.749	1.00	47.82	N
ATOM	2959	CA	THR	B	361	-15.032	-6.330	32.343	1.00	49.47	C
ATOM	2960	CB	THR	B	361	-16.332	-5.953	31.623	1.00	49.82	C
ATOM	2961	OG1	THR	B	361	-16.096	-6.012	30.202	1.00	54.56	O
ATOM	2962	CG2	THR	B	361	-16.781	-4.544	32.026	1.00	50.64	C
ATOM	2963	C	THR	B	361	-13.945	-5.266	32.121	1.00	50.09	C
ATOM	2964	O	THR	B	361	-13.420	-4.671	33.065	1.00	50.02	O
ATOM	2965	N	GLU	B	362	-13.592	-5.046	30.859	1.00	50.50	N
ATOM	2966	CA	GLU	B	362	-12.593	-4.032	30.538	1.00	51.07	C
ATOM	2967	CB	GLU	B	362	-11.651	-4.491	29.421	1.00	54.85	C
ATOM	2968	CG	GLU	B	362	-10.223	-3.993	29.578	1.00	58.22	C
ATOM	2969	CD	GLU	B	362	-9.339	-5.048	30.249	1.00	60.47	C

- 247 -

ATOM	2970	OE1	GLU	B	362	-9.804	-5.631	31.283	1.00	60.39	O
ATOM	2971	OE2	GLU	B	362	-8.201	-5.309	29.732	1.00	61.14	O
ATOM	2972	C	GLU	B	362	-13.249	-2.710	30.135	1.00	50.32	C
ATOM	2973	O	GLU	B	362	-12.538	-1.792	29.724	1.00	50.15	O
ATOM	2974	N	GLU	B	363	-14.574	-2.602	30.222	1.00	47.67	N
ATOM	2975	CA	GLU	B	363	-15.218	-1.386	29.751	1.00	46.52	C
ATOM	2976	CB	GLU	B	363	-16.721	-1.554	29.580	1.00	48.05	C
ATOM	2977	CG	GLU	B	363	-17.105	-1.869	28.208	1.00	51.55	C
ATOM	2978	CD	GLU	B	363	-17.919	-3.107	28.192	1.00	51.18	C
ATOM	2979	OE1	GLU	B	363	-19.117	-3.015	28.543	1.00	52.57	O
ATOM	2980	OE2	GLU	B	363	-17.349	-4.174	27.852	1.00	53.07	O
ATOM	2981	C	GLU	B	363	-14.945	-0.243	30.688	1.00	44.66	C
ATOM	2982	O	GLU	B	363	-15.169	-0.314	31.895	1.00	44.82	O
ATOM	2983	N	LEU	B	364	-14.461	0.831	30.126	1.00	44.33	N
ATOM	2984	CA	LEU	B	364	-14.432	2.053	30.898	1.00	44.33	C
ATOM	2985	CB	LEU	B	364	-13.117	2.804	30.683	1.00	44.33	C
ATOM	2986	CG	LEU	B	364	-11.945	2.525	31.641	1.00	44.33	C
ATOM	2987	CD1	LEU	B	364	-12.101	1.294	32.535	1.00	44.33	C
ATOM	2988	CD2	LEU	B	364	-10.648	2.460	30.829	1.00	44.33	C
ATOM	2989	C	LEU	B	364	-15.649	2.950	30.621	1.00	44.33	C
ATOM	2990	O	LEU	B	364	-16.290	2.903	29.560	1.00	44.33	O
ATOM	2991	N	TYR	B	365	-15.985	3.745	31.609	1.00	44.33	N
ATOM	2992	CA	TYR	B	365	-17.035	4.694	31.437	1.00	44.33	C
ATOM	2993	CB	TYR	B	365	-18.317	4.163	32.029	1.00	44.36	C
ATOM	2994	CG	TYR	B	365	-18.801	2.898	31.448	1.00	44.38	C
ATOM	2995	CD1	TYR	B	365	-18.296	1.670	31.855	1.00	44.33	C
ATOM	2996	CE1	TYR	B	365	-18.761	0.488	31.293	1.00	44.35	C
ATOM	2997	CZ	TYR	B	365	-19.775	0.559	30.344	1.00	44.82	C
ATOM	2998	OH	TYR	B	365	-20.326	-0.545	29.732	1.00	45.49	O
ATOM	2999	CE2	TYR	B	365	-20.284	1.778	29.967	1.00	44.37	C
ATOM	3000	CD2	TYR	B	365	-19.792	2.925	30.508	1.00	44.71	C
ATOM	3001	C	TYR	B	365	-16.697	5.927	32.217	1.00	44.33	C
ATOM	3002	O	TYR	B	365	-16.002	5.878	33.241	1.00	44.33	O
ATOM	3003	N	ALA	B	366	-17.227	7.033	31.725	1.00	44.33	N
ATOM	3004	CA	ALA	B	366	-17.229	8.289	32.435	1.00	44.33	C
ATOM	3005	CB	ALA	B	366	-17.208	9.425	31.462	1.00	44.33	C
ATOM	3006	C	ALA	B	366	-18.520	8.340	33.201	1.00	44.33	C
ATOM	3007	O	ALA	B	366	-19.588	8.079	32.640	1.00	44.33	O
ATOM	3008	N	ILE	B	367	-18.433	8.679	34.483	1.00	44.33	N
ATOM	3009	CA	ILE	B	367	-19.630	8.833	35.281	1.00	44.33	C
ATOM	3010	CB	ILE	B	367	-19.768	7.738	36.335	1.00	44.33	C
ATOM	3011	CG1	ILE	B	367	-19.776	6.357	35.684	1.00	44.33	C
ATOM	3012	CD1	ILE	B	367	-19.785	5.231	36.701	1.00	44.33	C
ATOM	3013	CG2	ILE	B	367	-21.061	7.904	37.084	1.00	44.33	C
ATOM	3014	C	ILE	B	367	-19.677	10.200	35.930	1.00	44.33	C
ATOM	3015	O	ILE	B	367	-18.874	10.524	36.779	1.00	44.33	O
ATOM	3016	N	LYS	B	368	-20.634	11.010	35.511	1.00	44.33	N
ATOM	3017	CA	LYS	B	368	-20.929	12.246	36.217	1.00	44.33	C
ATOM	3018	CB	LYS	B	368	-21.832	13.145	35.372	1.00	44.33	C
ATOM	3019	CG	LYS	B	368	-22.180	14.480	36.040	1.00	44.33	C
ATOM	3020	CD	LYS	B	368	-23.253	15.194	35.248	1.00	44.33	C
ATOM	3021	CE	LYS	B	368	-23.538	16.552	35.750	1.00	45.22	C
ATOM	3022	NZ	LYS	B	368	-23.486	17.445	34.592	1.00	46.30	N
ATOM	3023	C	LYS	B	368	-21.658	11.913	37.508	1.00	44.33	C
ATOM	3024	O	LYS	B	368	-22.642	11.201	37.471	1.00	44.33	O
ATOM	3025	N	ILE	B	369	-21.161	12.437	38.629	1.00	44.33	N
ATOM	3026	CA	ILE	B	369	-21.788	12.298	39.908	1.00	44.33	C
ATOM	3027	CB	ILE	B	369	-20.855	11.716	40.935	1.00	44.33	C

- 248 -

ATOM	3028	CG1	ILE	B	369	-20.033	10.596	40.329	1.00	44.33	C
ATOM	3029	CD1	ILE	B	369	-18.974	10.112	41.256	1.00	44.33	C
ATOM	3030	CG2	ILE	B	369	-21.648	11.204	42.121	1.00	44.33	C
ATOM	3031	C	ILE	B	369	-22.167	13.660	40.436	1.00	44.33	C
ATOM	3032	O	ILE	B	369	-21.349	14.584	40.462	1.00	44.33	O
ATOM	3033	N	LEU	B	370	-23.418	13.778	40.871	1.00	44.33	N
ATOM	3034	CA	LEU	B	370	-23.864	14.952	41.594	1.00	44.33	C
ATOM	3035	CB	LEU	B	370	-24.979	15.639	40.824	1.00	44.33	C
ATOM	3036	CG	LEU	B	370	-24.667	16.363	39.521	1.00	44.33	C
ATOM	3037	CD1	LEU	B	370	-25.880	16.473	38.641	1.00	44.33	C
ATOM	3038	CD2	LEU	B	370	-24.058	17.729	39.813	1.00	44.33	C
ATOM	3039	C	LEU	B	370	-24.360	14.585	42.986	1.00	44.33	C
ATOM	3040	O	LEU	B	370	-24.922	13.512	43.179	1.00	44.33	O
ATOM	3041	N	LYS	B	371	-24.160	15.466	43.956	1.00	44.33	N
ATOM	3042	CA	LYS	B	371	-24.879	15.353	45.221	1.00	44.33	C
ATOM	3043	CB	LYS	B	371	-24.068	15.916	46.384	1.00	44.33	C
ATOM	3044	CG	LYS	B	371	-22.568	15.464	46.427	1.00	44.52	C
ATOM	3045	CD	LYS	B	371	-21.893	15.739	47.812	1.00	45.39	C
ATOM	3046	CE	LYS	B	371	-22.549	14.840	48.886	1.00	47.20	C
ATOM	3047	NZ	LYS	B	371	-22.327	15.258	50.295	1.00	49.53	N
ATOM	3048	C	LYS	B	371	-26.266	16.028	45.159	1.00	44.33	C
ATOM	3049	O	LYS	B	371	-26.416	17.149	44.699	1.00	44.33	O
ATOM	3050	N	LYS	B	372	-27.282	15.341	45.646	1.00	44.33	N
ATOM	3051	CA	LYS	B	372	-28.653	15.876	45.630	1.00	44.33	C
ATOM	3052	CB	LYS	B	372	-29.658	14.830	46.137	1.00	44.33	C
ATOM	3053	CG	LYS	B	372	-30.127	13.897	45.070	1.00	44.33	C
ATOM	3054	CD	LYS	B	372	-30.552	12.606	45.625	1.00	44.33	C
ATOM	3055	CE	LYS	B	372	-31.217	11.889	44.521	1.00	44.33	C
ATOM	3056	NZ	LYS	B	372	-31.894	10.668	44.880	1.00	44.33	N
ATOM	3057	C	LYS	B	372	-28.850	17.185	46.393	1.00	44.33	C
ATOM	3058	O	LYS	B	372	-29.423	18.150	45.872	1.00	44.33	O
ATOM	3059	N	ASP	B	373	-28.370	17.212	47.629	1.00	44.33	N
ATOM	3060	CA	ASP	B	373	-28.432	18.421	48.423	1.00	44.33	C
ATOM	3061	CB	ASP	B	373	-27.876	18.193	49.848	1.00	44.83	C
ATOM	3062	CG	ASP	B	373	-26.436	17.616	49.865	1.00	47.21	C
ATOM	3063	OD1	ASP	B	373	-26.264	16.401	49.525	1.00	48.76	O
ATOM	3064	OD2	ASP	B	373	-25.480	18.362	50.264	1.00	48.40	O
ATOM	3065	C	ASP	B	373	-27.779	19.624	47.711	1.00	44.33	C
ATOM	3066	O	ASP	B	373	-28.340	20.734	47.695	1.00	44.33	O
ATOM	3067	N	VAL	B	374	-26.613	19.365	47.114	1.00	44.33	N
ATOM	3068	CA	VAL	B	374	-25.842	20.358	46.392	1.00	44.33	C
ATOM	3069	CB	VAL	B	374	-24.413	19.828	46.087	1.00	44.33	C
ATOM	3070	CG1	VAL	B	374	-23.748	20.639	45.047	1.00	44.33	C
ATOM	3071	CG2	VAL	B	374	-23.580	19.808	47.352	1.00	44.33	C
ATOM	3072	C	VAL	B	374	-26.594	20.843	45.169	1.00	44.33	C
ATOM	3073	O	VAL	B	374	-26.746	22.036	44.982	1.00	44.33	O
ATOM	3074	N	VAL	B	375	-27.105	19.922	44.369	1.00	44.33	N
ATOM	3075	CA	VAL	B	375	-27.930	20.316	43.238	1.00	44.33	C
ATOM	3076	CB	VAL	B	375	-28.551	19.105	42.576	1.00	44.33	C
ATOM	3077	CG1	VAL	B	375	-29.519	19.531	41.457	1.00	44.33	C
ATOM	3078	CG2	VAL	B	375	-27.462	18.266	42.013	1.00	44.33	C
ATOM	3079	C	VAL	B	375	-29.053	21.262	43.668	1.00	44.33	C
ATOM	3080	O	VAL	B	375	-29.256	22.336	43.060	1.00	44.33	O
ATOM	3081	N	ILE	B	376	-29.760	20.840	44.727	1.00	44.33	N
ATOM	3082	CA	ILE	B	376	-30.841	21.605	45.320	1.00	44.33	C
ATOM	3083	CB	ILE	B	376	-31.578	20.842	46.430	1.00	44.33	C
ATOM	3084	CG1	ILE	B	376	-32.437	19.751	45.820	1.00	44.33	C
ATOM	3085	CD1	ILE	B	376	-32.866	18.725	46.776	1.00	44.33	C

- 249 -

ATOM	3086	CG2	ILE	B	376	-32.447	21.788	47.227	1.00	44.33	C
ATOM	3087	C	ILE	B	376	-30.316	22.914	45.876	1.00	44.33	C
ATOM	3088	O	ILE	B	376	-30.753	23.942	45.443	1.00	44.33	O
ATOM	3089	N	GLN	B	377	-29.366	22.904	46.802	1.00	45.37	N
ATOM	3090	CA	GLN	B	377	-28.876	24.192	47.295	1.00	47.40	C
ATOM	3091	CB	GLN	B	377	-27.990	24.082	48.568	1.00	49.51	C
ATOM	3092	CG	GLN	B	377	-26.547	24.614	48.456	1.00	51.81	C
ATOM	3093	CD	GLN	B	377	-25.488	23.758	49.257	1.00	52.35	C
ATOM	3094	OE1	GLN	B	377	-24.563	24.311	49.875	1.00	54.97	O
ATOM	3095	NE2	GLN	B	377	-25.640	22.416	49.237	1.00	53.18	N
ATOM	3096	C	GLN	B	377	-28.340	25.094	46.183	1.00	46.60	C
ATOM	3097	O	GLN	B	377	-28.345	26.287	46.370	1.00	46.28	O
ATOM	3098	N	ASP	B	378	-27.963	24.549	45.017	1.00	46.69	N
ATOM	3099	CA	ASP	B	378	-27.486	25.371	43.886	1.00	47.52	C
ATOM	3100	CB	ASP	B	378	-26.421	24.630	43.085	1.00	48.49	C
ATOM	3101	CG	ASP	B	378	-25.128	24.485	43.822	1.00	49.38	C
ATOM	3102	OD1	ASP	B	378	-24.951	25.127	44.878	1.00	49.67	O
ATOM	3103	OD2	ASP	B	378	-24.291	23.709	43.351	1.00	51.81	O
ATOM	3104	C	ASP	B	378	-28.585	25.748	42.903	1.00	47.74	C
ATOM	3105	O	ASP	B	378	-28.317	26.269	41.823	1.00	47.57	O
ATOM	3106	N	ASP	B	379	-29.822	25.463	43.259	1.00	47.43	N
ATOM	3107	CA	ASP	B	379	-30.963	25.631	42.354	1.00	48.73	C
ATOM	3108	CB	ASP	B	379	-31.409	27.076	42.214	1.00	51.35	C
ATOM	3109	CG	ASP	B	379	-31.956	27.642	43.490	1.00	54.57	C
ATOM	3110	OD1	ASP	B	379	-32.930	27.074	44.019	1.00	56.05	O
ATOM	3111	OD2	ASP	B	379	-31.415	28.670	43.967	1.00	57.19	O
ATOM	3112	C	ASP	B	379	-30.701	25.108	40.973	1.00	47.06	C
ATOM	3113	O	ASP	B	379	-30.964	25.799	40.000	1.00	47.78	O
ATOM	3114	N	ASP	B	380	-30.212	23.880	40.888	1.00	45.71	N
ATOM	3115	CA	ASP	B	380	-29.902	23.277	39.593	1.00	44.33	C
ATOM	3116	CB	ASP	B	380	-28.453	22.796	39.566	1.00	45.97	C
ATOM	3117	CG	ASP	B	380	-27.501	23.902	39.461	1.00	46.89	C
ATOM	3118	OD1	ASP	B	380	-27.883	24.912	38.885	1.00	47.60	O
ATOM	3119	OD2	ASP	B	380	-26.365	23.786	39.952	1.00	49.70	O
ATOM	3120	C	ASP	B	380	-30.806	22.108	39.244	1.00	44.33	C
ATOM	3121	O	ASP	B	380	-30.557	21.359	38.286	1.00	44.33	O
ATOM	3122	N	VAL	B	381	-31.865	21.937	40.021	1.00	44.33	N
ATOM	3123	CA	VAL	B	381	-32.737	20.777	39.816	1.00	44.33	C
ATOM	3124	CB	VAL	B	381	-33.842	20.775	40.894	1.00	44.33	C
ATOM	3125	CG1	VAL	B	381	-34.894	19.757	40.629	1.00	44.33	C
ATOM	3126	CG2	VAL	B	381	-33.220	20.493	42.229	1.00	44.33	C
ATOM	3127	C	VAL	B	381	-33.182	20.680	38.322	1.00	44.33	C
ATOM	3128	O	VAL	B	381	-33.013	19.630	37.660	1.00	45.46	O
ATOM	3129	N	GLU	B	382	-33.651	21.797	37.778	1.00	44.33	N
ATOM	3130	CA	GLU	B	382	-34.169	21.790	36.429	1.00	44.33	C
ATOM	3131	CB	GLU	B	382	-34.787	23.129	35.974	1.00	45.99	C
ATOM	3132	CG	GLU	B	382	-35.791	23.825	36.961	1.00	51.18	C
ATOM	3133	CD	GLU	B	382	-35.168	24.057	38.385	1.00	53.10	C
ATOM	3134	OE1	GLU	B	382	-33.908	24.335	38.502	1.00	52.94	O
ATOM	3135	OE2	GLU	B	382	-35.963	23.926	39.371	1.00	54.20	O
ATOM	3136	C	GLU	B	382	-33.121	21.412	35.447	1.00	44.33	C
ATOM	3137	O	GLU	B	382	-33.288	20.470	34.681	1.00	44.33	O
ATOM	3138	N	CYS	B	383	-32.028	22.151	35.446	1.00	44.33	N
ATOM	3139	CA	CYS	B	383	-31.049	21.915	34.405	1.00	44.49	C
ATOM	3140	CB	CYS	B	383	-29.961	22.991	34.354	1.00	48.06	C
ATOM	3141	SG	CYS	B	383	-29.126	23.289	35.907	1.00	52.19	S
ATOM	3142	C	CYS	B	383	-30.522	20.473	34.483	1.00	44.33	C
ATOM	3143	O	CYS	B	383	-30.243	19.829	33.443	1.00	44.50	O

- 250 -

ATOM	3144	N	THR	B	384	-30.469	19.949	35.701	1.00	44.33	N
ATOM	3145	CA	THR	B	384	-30.074	18.588	35.886	1.00	44.33	C
ATOM	3146	CB	THR	B	384	-30.119	18.246	37.309	1.00	44.33	C
ATOM	3147	OG1	THR	B	384	-29.241	19.127	38.014	1.00	45.20	O
ATOM	3148	CG2	THR	B	384	-29.652	16.843	37.508	1.00	44.33	C
ATOM	3149	C	THR	B	384	-31.004	17.650	35.153	1.00	44.33	C
ATOM	3150	O	THR	B	384	-30.529	16.735	34.424	1.00	44.33	O
ATOM	3151	N	MET	B	385	-32.314	17.879	35.311	1.00	44.33	N
ATOM	3152	CA	MET	B	385	-33.301	17.028	34.649	1.00	44.33	C
ATOM	3153	CB	MET	B	385	-34.672	17.174	35.290	1.00	44.33	C
ATOM	3154	CG	MET	B	385	-34.713	16.814	36.788	1.00	44.33	C
ATOM	3155	SD	MET	B	385	-34.442	15.066	37.172	1.00	44.33	S
ATOM	3156	CE	MET	B	385	-35.493	14.260	35.942	1.00	44.33	C
ATOM	3157	C	MET	B	385	-33.337	17.235	33.138	1.00	44.33	C
ATOM	3158	O	MET	B	385	-33.541	16.278	32.365	1.00	44.33	O
ATOM	3159	N	VAL	B	386	-33.102	18.469	32.711	1.00	44.33	N
ATOM	3160	CA	VAL	B	386	-32.937	18.734	31.272	1.00	44.33	C
ATOM	3161	CB	VAL	B	386	-32.842	20.245	30.938	1.00	44.33	C
ATOM	3162	CG1	VAL	B	386	-32.641	20.449	29.482	1.00	44.33	C
ATOM	3163	CG2	VAL	B	386	-34.058	20.959	31.346	1.00	44.33	C
ATOM	3164	C	VAL	B	386	-31.713	17.993	30.707	1.00	44.33	C
ATOM	3165	O	VAL	B	386	-31.823	17.384	29.625	1.00	44.33	O
ATOM	3166	N	GLU	B	387	-30.561	18.058	31.416	1.00	44.33	N
ATOM	3167	CA	GLU	B	387	-29.360	17.348	30.981	1.00	44.33	C
ATOM	3168	CB	GLU	B	387	-28.203	17.474	31.983	1.00	44.33	C
ATOM	3169	CG	GLU	B	387	-26.944	16.733	31.511	1.00	45.71	C
ATOM	3170	CD	GLU	B	387	-25.669	17.038	32.268	1.00	46.15	C
ATOM	3171	OE1	GLU	B	387	-25.736	17.592	33.383	1.00	48.34	O
ATOM	3172	OE2	GLU	B	387	-24.569	16.719	31.746	1.00	47.78	O
ATOM	3173	C	GLU	B	387	-29.714	15.893	30.732	1.00	44.33	C
ATOM	3174	O	GLU	B	387	-29.395	15.359	29.678	1.00	44.46	O
ATOM	3175	N	LYS	B	388	-30.400	15.278	31.701	1.00	44.56	N
ATOM	3176	CA	LYS	B	388	-30.878	13.900	31.575	1.00	44.33	C
ATOM	3177	CB	LYS	B	388	-31.655	13.518	32.808	1.00	44.33	C
ATOM	3178	CG	LYS	B	388	-32.197	12.126	32.754	1.00	45.07	C
ATOM	3179	CD	LYS	B	388	-33.657	12.106	32.280	1.00	47.99	C
ATOM	3180	CE	LYS	B	388	-34.320	10.790	32.665	1.00	48.98	C
ATOM	3181	NZ	LYS	B	388	-35.703	10.820	32.189	1.00	50.33	N
ATOM	3182	C	LYS	B	388	-31.736	13.686	30.325	1.00	44.33	C
ATOM	3183	O	LYS	B	388	-31.494	12.775	29.554	1.00	44.33	O
ATOM	3184	N	ARG	B	389	-32.724	14.535	30.114	1.00	44.33	N
ATOM	3185	CA	ARG	B	389	-33.530	14.388	28.934	1.00	44.33	C
ATOM	3186	CB	ARG	B	389	-34.679	15.362	28.959	1.00	44.33	C
ATOM	3187	CG	ARG	B	389	-35.717	15.016	29.971	1.00	44.33	C
ATOM	3188	CD	ARG	B	389	-36.973	15.763	29.645	1.00	44.33	C
ATOM	3189	NE	ARG	B	389	-36.937	17.109	30.181	1.00	44.33	N
ATOM	3190	CZ	ARG	B	389	-37.051	17.383	31.475	1.00	44.67	C
ATOM	3191	NH1	ARG	B	389	-37.190	16.381	32.357	1.00	44.33	N
ATOM	3192	NH2	ARG	B	389	-37.026	18.657	31.891	1.00	45.16	N
ATOM	3193	C	ARG	B	389	-32.744	14.543	27.651	1.00	44.33	C
ATOM	3194	O	ARG	B	389	-32.798	13.702	26.771	1.00	44.33	O
ATOM	3195	N	VAL	B	390	-32.009	15.624	27.516	1.00	44.33	N
ATOM	3196	CA	VAL	B	390	-31.244	15.803	26.273	1.00	44.33	C
ATOM	3197	CB	VAL	B	390	-30.383	17.041	26.288	1.00	44.33	C
ATOM	3198	CG1	VAL	B	390	-29.580	17.111	25.015	1.00	44.33	C
ATOM	3199	CG2	VAL	B	390	-31.255	18.272	26.470	1.00	44.33	C
ATOM	3200	C	VAL	B	390	-30.349	14.588	25.969	1.00	44.33	C
ATOM	3201	O	VAL	B	390	-30.367	14.074	24.834	1.00	44.33	O

- 251 -

ATOM	3202	N	LEU B 391	-29.595	14.135	26.987	1.00	44.33	N
ATOM	3203	CA	LEU B 391	-28.847	12.877	26.971	1.00	44.52	C
ATOM	3204	CB	LEU B 391	-28.120	12.725	28.309	1.00	44.33	C
ATOM	3205	CG	LEU B 391	-26.955	13.706	28.534	1.00	44.74	C
ATOM	3206	CD1	LEU B 391	-26.179	13.297	29.737	1.00	44.33	C
ATOM	3207	CD2	LEU B 391	-26.087	13.692	27.353	1.00	44.90	C
ATOM	3208	C	LEU B 391	-29.687	11.631	26.637	1.00	45.08	C
ATOM	3209	O	LEU B 391	-29.236	10.773	25.880	1.00	46.65	O
ATOM	3210	N	ALA B 392	-30.914	11.577	27.156	1.00	44.33	N
ATOM	3211	CA	ALA B 392	-31.786	10.419	27.023	1.00	44.33	C
ATOM	3212	CB	ALA B 392	-32.916	10.520	28.008	1.00	44.33	C
ATOM	3213	C	ALA B 392	-32.345	10.298	25.634	1.00	44.33	C
ATOM	3214	O	ALA B 392	-32.773	9.220	25.230	1.00	44.33	O
ATOM	3215	N	LEU B 393	-32.342	11.412	24.907	1.00	44.33	N
ATOM	3216	CA	LEU B 393	-32.960	11.504	23.586	1.00	44.33	C
ATOM	3217	CB	LEU B 393	-32.542	12.807	22.915	1.00	44.33	C
ATOM	3218	CG	LEU B 393	-33.338	14.026	23.440	1.00	44.33	C
ATOM	3219	CD1	LEU B 393	-32.985	15.231	22.607	1.00	44.33	C
ATOM	3220	CD2	LEU B 393	-34.892	13.835	23.503	1.00	44.33	C
ATOM	3221	C	LEU B 393	-32.631	10.330	22.701	1.00	44.33	C
ATOM	3222	O	LEU B 393	-31.506	9.800	22.773	1.00	44.33	O
ATOM	3223	N	LEU B 394	-33.597	9.895	21.887	1.00	44.33	N
ATOM	3224	CA	LEU B 394	-33.359	8.745	20.994	1.00	44.33	C
ATOM	3225	CB	LEU B 394	-34.637	7.944	20.728	1.00	44.33	C
ATOM	3226	CG	LEU B 394	-35.004	6.970	21.861	1.00	44.33	C
ATOM	3227	CD1	LEU B 394	-36.497	6.771	21.879	1.00	45.25	C
ATOM	3228	CD2	LEU B 394	-34.278	5.604	21.766	1.00	44.93	C
ATOM	3229	C	LEU B 394	-32.717	9.225	19.720	1.00	44.33	C
ATOM	3230	O	LEU B 394	-32.785	10.425	19.413	1.00	44.33	O
ATOM	3231	N	ASP B 395	-32.058	8.297	19.017	1.00	45.59	N
ATOM	3232	CA	ASP B 395	-31.478	8.576	17.681	1.00	45.78	C
ATOM	3233	CB	ASP B 395	-32.602	8.929	16.698	1.00	46.74	C
ATOM	3234	CG	ASP B 395	-33.561	7.804	16.534	1.00	48.48	C
ATOM	3235	OD1	ASP B 395	-33.199	6.838	15.816	1.00	47.99	O
ATOM	3236	OD2	ASP B 395	-34.635	7.867	17.162	1.00	48.79	O
ATOM	3237	C	ASP B 395	-30.388	9.644	17.630	1.00	44.88	C
ATOM	3238	O	ASP B 395	-30.180	10.262	16.594	1.00	45.75	O
ATOM	3239	N	LYS B 396	-29.695	9.861	18.744	1.00	45.50	N
ATOM	3240	CA	LYS B 396	-28.589	10.822	18.786	1.00	44.76	C
ATOM	3241	CB	LYS B 396	-27.944	10.817	20.164	1.00	44.53	C
ATOM	3242	CG	LYS B 396	-28.747	11.614	21.222	1.00	47.26	C
ATOM	3243	CD	LYS B 396	-28.459	11.147	22.627	1.00	45.69	C
ATOM	3244	CE	LYS B 396	-26.997	11.416	22.983	1.00	46.22	C
ATOM	3245	NZ	LYS B 396	-26.733	11.138	24.405	1.00	46.70	N
ATOM	3246	C	LYS B 396	-27.567	10.406	17.779	1.00	44.90	C
ATOM	3247	O	LYS B 396	-27.232	9.238	17.729	1.00	46.38	O
ATOM	3248	N	PRO B 397	-27.087	11.344	16.936	1.00	44.54	N
ATOM	3249	CA	PRO B 397	-25.886	11.116	16.105	1.00	44.33	C
ATOM	3250	CB	PRO B 397	-25.585	12.510	15.538	1.00	44.33	C
ATOM	3251	CG	PRO B 397	-26.472	13.459	16.265	1.00	44.34	C
ATOM	3252	CD	PRO B 397	-27.652	12.680	16.683	1.00	44.94	C
ATOM	3253	C	PRO B 397	-24.705	10.682	16.954	1.00	44.33	C
ATOM	3254	O	PRO B 397	-24.726	10.896	18.172	1.00	44.33	O
ATOM	3255	N	PRO B 398	-23.663	10.101	16.343	1.00	44.33	N
ATOM	3256	CA	PRO B 398	-22.504	9.652	17.126	1.00	44.33	C
ATOM	3257	CB	PRO B 398	-21.735	8.801	16.118	1.00	44.33	C
ATOM	3258	CG	PRO B 398	-22.087	9.425	14.768	1.00	44.33	C
ATOM	3259	CD	PRO B 398	-23.509	9.827	14.899	1.00	44.33	C

- 252 -

ATOM	3260	C	PRO	B	398	-21.618	10.799	17.681	1.00	44.33	C
ATOM	3261	O	PRO	B	398	-20.738	10.583	18.524	1.00	47.01	O
ATOM	3262	N	PHE	B	399	-21.859	12.013	17.227	1.00	44.33	N
ATOM	3263	CA	PHE	B	399	-21.043	13.153	17.630	1.00	44.33	C
ATOM	3264	CB	PHE	B	399	-20.989	14.147	16.477	1.00	44.33	C
ATOM	3265	CG	PHE	B	399	-20.530	13.525	15.190	1.00	44.33	C
ATOM	3266	CD1	PHE	B	399	-19.206	13.055	15.060	1.00	44.33	C
ATOM	3267	CE1	PHE	B	399	-18.765	12.465	13.869	1.00	44.33	C
ATOM	3268	CZ	PHE	B	399	-19.643	12.351	12.803	1.00	44.33	C
ATOM	3269	CE2	PHE	B	399	-20.957	12.798	12.934	1.00	44.33	C
ATOM	3270	CD2	PHE	B	399	-21.403	13.381	14.123	1.00	44.33	C
ATOM	3271	C	PHE	B	399	-21.473	13.838	18.921	1.00	44.33	C
ATOM	3272	O	PHE	B	399	-20.954	14.893	19.276	1.00	44.33	O
ATOM	3273	N	LEU	B	400	-22.410	13.224	19.615	1.00	44.33	N
ATOM	3274	CA	LEU	B	400	-22.765	13.638	20.932	1.00	44.33	C
ATOM	3275	CB	LEU	B	400	-24.281	13.834	21.003	1.00	44.33	C
ATOM	3276	CG	LEU	B	400	-24.985	14.790	20.034	1.00	44.33	C
ATOM	3277	CD1	LEU	B	400	-26.482	14.794	20.364	1.00	44.33	C
ATOM	3278	CD2	LEU	B	400	-24.410	16.164	20.091	1.00	44.33	C
ATOM	3279	C	LEU	B	400	-22.323	12.494	21.849	1.00	44.33	C
ATOM	3280	O	LEU	B	400	-22.223	11.321	21.424	1.00	44.33	O
ATOM	3281	N	THR	B	401	-22.053	12.832	23.107	1.00	44.33	N
ATOM	3282	CA	THR	B	401	-21.679	11.853	24.116	1.00	44.33	C
ATOM	3283	CB	THR	B	401	-21.339	12.565	25.441	1.00	44.33	C
ATOM	3284	OG1	THR	B	401	-22.284	13.624	25.685	1.00	44.75	O
ATOM	3285	CG2	THR	B	401	-19.989	13.157	25.354	1.00	44.33	C
ATOM	3286	C	THR	B	401	-22.814	10.896	24.364	1.00	44.33	C
ATOM	3287	O	THR	B	401	-23.889	11.336	24.621	1.00	44.33	O
ATOM	3288	N	GLN	B	402	-22.572	9.597	24.253	1.00	44.33	N
ATOM	3289	CA	GLN	B	402	-23.593	8.591	24.565	1.00	44.33	C
ATOM	3290	CB	GLN	B	402	-23.169	7.212	24.095	1.00	45.15	C
ATOM	3291	CG	GLN	B	402	-23.496	6.834	22.690	1.00	44.33	C
ATOM	3292	CD	GLN	B	402	-22.741	5.576	22.287	1.00	44.59	C
ATOM	3293	OE1	GLN	B	402	-23.338	4.564	21.874	1.00	44.69	O
ATOM	3294	NE2	GLN	B	402	-21.398	5.625	22.438	1.00	44.33	N
ATOM	3295	C	GLN	B	402	-23.880	8.469	26.052	1.00	44.33	C
ATOM	3296	O	GLN	B	402	-22.968	8.358	26.889	1.00	44.33	O
ATOM	3297	N	LEU	B	403	-25.162	8.441	26.371	1.00	44.33	N
ATOM	3298	CA	LEU	B	403	-25.590	8.024	27.686	1.00	44.33	C
ATOM	3299	CB	LEU	B	403	-27.008	8.532	27.933	1.00	44.33	C
ATOM	3300	CG	LEU	B	403	-27.629	8.413	29.317	1.00	44.33	C
ATOM	3301	CD1	LEU	B	403	-26.691	8.857	30.400	1.00	44.33	C
ATOM	3302	CD2	LEU	B	403	-28.840	9.281	29.319	1.00	44.33	C
ATOM	3303	C	LEU	B	403	-25.618	6.498	27.756	1.00	44.33	C
ATOM	3304	O	LEU	B	403	-26.347	5.866	27.006	1.00	44.33	O
ATOM	3305	N	HIS	B	404	-24.866	5.891	28.661	1.00	44.33	N
ATOM	3306	CA	HIS	B	404	-25.212	4.536	28.972	1.00	44.33	C
ATOM	3307	CB	HIS	B	404	-24.129	3.825	29.754	1.00	44.33	C
ATOM	3308	CG	HIS	B	404	-24.475	2.397	30.052	1.00	44.33	C
ATOM	3309	ND1	HIS	B	404	-25.225	2.025	31.148	1.00	44.33	N
ATOM	3310	CE1	HIS	B	404	-25.412	0.718	31.133	1.00	44.33	C
ATOM	3311	NE2	HIS	B	404	-24.806	0.229	30.069	1.00	44.33	N
ATOM	3312	CD2	HIS	B	404	-24.218	1.260	29.373	1.00	44.33	C
ATOM	3313	C	HIS	B	404	-26.542	4.464	29.718	1.00	44.33	C
ATOM	3314	O	HIS	B	404	-27.426	3.750	29.289	1.00	44.33	O
ATOM	3315	N	SER	B	405	-26.666	5.184	30.830	1.00	44.33	N
ATOM	3316	CA	SER	B	405	-27.874	5.180	31.593	1.00	44.33	C
ATOM	3317	CB	SER	B	405	-28.090	3.795	32.110	1.00	44.82	C

- 253 -

ATOM	3318	OG	SER	B	405	-27.122	3.546	33.101	1.00	44.33	O
ATOM	3319	C	SER	B	405	-27.689	6.080	32.795	1.00	44.33	C
ATOM	3320	O	SER	B	405	-26.549	6.341	33.155	1.00	44.33	O
ATOM	3321	N	CYS	B	406	-28.803	6.531	33.419	1.00	44.33	N
ATOM	3322	CA	CYS	B	406	-28.808	7.280	34.702	1.00	46.44	C
ATOM	3323	CB	CYS	B	406	-29.714	8.493	34.653	1.00	46.79	C
ATOM	3324	SG	CYS	B	406	-29.722	9.477	33.228	1.00	60.92	S
ATOM	3325	C	CYS	B	406	-29.419	6.473	35.822	1.00	44.62	C
ATOM	3326	O	CYS	B	406	-30.335	5.662	35.611	1.00	44.33	O
ATOM	3327	N	PHE	B	407	-28.988	6.764	37.031	1.00	44.33	N
ATOM	3328	CA	PHE	B	407	-29.673	6.246	38.158	1.00	44.33	C
ATOM	3329	CB	PHE	B	407	-29.274	4.797	38.394	1.00	44.33	C
ATOM	3330	CG	PHE	B	407	-27.863	4.640	38.736	1.00	44.43	C
ATOM	3331	CD1	PHE	B	407	-27.451	4.714	40.054	1.00	44.79	C
ATOM	3332	CE1	PHE	B	407	-26.112	4.600	40.366	1.00	44.38	C
ATOM	3333	CZ	PHE	B	407	-25.164	4.419	39.350	1.00	44.63	C
ATOM	3334	CE2	PHE	B	407	-25.568	4.356	38.041	1.00	44.33	C
ATOM	3335	CD2	PHE	B	407	-26.913	4.465	37.734	1.00	44.70	C
ATOM	3336	C	PHE	B	407	-29.378	7.134	39.345	1.00	44.33	C
ATOM	3337	O	PHE	B	407	-28.540	8.059	39.268	1.00	44.33	O
ATOM	3338	N	GLN	B	408	-30.096	6.881	40.432	1.00	44.33	N
ATOM	3339	CA	GLN	B	408	-29.908	7.669	41.610	1.00	44.33	C
ATOM	3340	CB	GLN	B	408	-31.087	8.630	41.815	1.00	44.33	C
ATOM	3341	CG	GLN	B	408	-32.464	7.990	41.882	1.00	44.33	C
ATOM	3342	CD	GLN	B	408	-33.599	8.980	41.839	1.00	44.33	C
ATOM	3343	OE1	GLN	B	408	-33.711	9.850	42.679	1.00	44.33	O
ATOM	3344	NE2	GLN	B	408	-34.451	8.834	40.863	1.00	44.33	N
ATOM	3345	C	GLN	B	408	-29.685	6.786	42.811	1.00	44.33	C
ATOM	3346	O	GLN	B	408	-29.995	5.609	42.787	1.00	44.33	O
ATOM	3347	N	THR	B	409	-29.099	7.353	43.852	1.00	44.33	N
ATOM	3348	CA	THR	B	409	-29.086	6.724	45.152	1.00	44.33	C
ATOM	3349	CB	THR	B	409	-27.662	6.574	45.618	1.00	44.33	C
ATOM	3350	OG1	THR	B	409	-27.052	7.839	45.468	1.00	44.33	O
ATOM	3351	CG2	THR	B	409	-26.902	5.569	44.790	1.00	44.33	C
ATOM	3352	C	THR	B	409	-29.897	7.667	46.061	1.00	44.33	C
ATOM	3353	O	THR	B	409	-30.498	8.595	45.571	1.00	44.33	O
ATOM	3354	N	VAL	B	410	-29.948	7.430	47.364	1.00	44.33	N
ATOM	3355	CA	VAL	B	410	-30.653	8.371	48.232	1.00	44.33	C
ATOM	3356	CB	VAL	B	410	-30.649	8.004	49.767	1.00	44.33	C
ATOM	3357	CG1	VAL	B	410	-31.792	7.112	50.117	1.00	44.33	C
ATOM	3358	CG2	VAL	B	410	-29.286	7.452	50.265	1.00	44.33	C
ATOM	3359	C	VAL	B	410	-30.071	9.774	48.105	1.00	44.33	C
ATOM	3360	O	VAL	B	410	-30.804	10.768	48.064	1.00	44.33	O
ATOM	3361	N	ASP	B	411	-28.737	9.843	48.052	1.00	44.33	N
ATOM	3362	CA	ASP	B	411	-28.019	11.111	48.191	1.00	44.33	C
ATOM	3363	CB	ASP	B	411	-26.929	11.018	49.282	1.00	44.49	C
ATOM	3364	CG	ASP	B	411	-26.033	9.816	49.104	1.00	45.23	C
ATOM	3365	OD1	ASP	B	411	-26.456	8.855	48.446	1.00	46.55	O
ATOM	3366	OD2	ASP	B	411	-24.902	9.807	49.612	1.00	48.86	O
ATOM	3367	C	ASP	B	411	-27.465	11.627	46.879	1.00	44.33	C
ATOM	3368	O	ASP	B	411	-27.153	12.781	46.773	1.00	44.33	O
ATOM	3369	N	ARG	B	412	-27.375	10.799	45.862	1.00	44.33	N
ATOM	3370	CA	ARG	B	412	-26.631	11.243	44.704	1.00	44.33	C
ATOM	3371	CB	ARG	B	412	-25.173	10.768	44.756	1.00	44.33	C
ATOM	3372	CG	ARG	B	412	-24.265	11.613	45.631	1.00	44.33	C
ATOM	3373	CD	ARG	B	412	-22.816	11.112	45.574	1.00	44.33	C
ATOM	3374	NE	ARG	B	412	-22.494	10.325	46.744	1.00	47.18	N
ATOM	3375	CZ	ARG	B	412	-21.818	10.797	47.784	1.00	47.49	C

- 254 -

ATOM	3376	NH1	ARG	B	412	-21.356	12.033	47.762	1.00	51.26	N
ATOM	3377	NH2	ARG	B	412	-21.575	10.026	48.844	1.00	48.17	N
ATOM	3378	C	ARG	B	412	-27.255	10.868	43.386	1.00	44.33	C
ATOM	3379	O	ARG	B	412	-28.069	9.960	43.319	1.00	44.33	O
ATOM	3380	N	LEU	B	413	-26.859	11.588	42.340	1.00	44.33	N
ATOM	3381	CA	LEU	B	413	-27.244	11.278	40.978	1.00	44.33	C
ATOM	3382	CB	LEU	B	413	-27.856	12.494	40.334	1.00	44.33	C
ATOM	3383	CG	LEU	B	413	-29.116	13.051	40.962	1.00	44.33	C
ATOM	3384	CD1	LEU	B	413	-29.377	14.382	40.268	1.00	44.33	C
ATOM	3385	CD2	LEU	B	413	-30.372	12.096	40.901	1.00	44.33	C
ATOM	3386	C	LEU	B	413	-26.036	10.893	40.156	1.00	44.33	C
ATOM	3387	O	LEU	B	413	-24.981	11.498	40.296	1.00	44.33	O
ATOM	3388	N	TYR	B	414	-26.207	9.921	39.265	1.00	44.33	N
ATOM	3389	CA	TYR	B	414	-25.101	9.424	38.471	1.00	44.33	C
ATOM	3390	CB	TYR	B	414	-24.667	8.053	38.951	1.00	44.33	C
ATOM	3391	CG	TYR	B	414	-24.241	7.972	40.379	1.00	44.33	C
ATOM	3392	CD1	TYR	B	414	-22.903	8.021	40.726	1.00	44.33	C
ATOM	3393	CE1	TYR	B	414	-22.495	7.934	42.069	1.00	44.33	C
ATOM	3394	CZ	TYR	B	414	-23.463	7.792	43.050	1.00	44.33	C
ATOM	3395	OH	TYR	B	414	-23.113	7.699	44.371	1.00	44.33	O
ATOM	3396	CE2	TYR	B	414	-24.803	7.745	42.705	1.00	44.33	C
ATOM	3397	CD2	TYR	B	414	-25.171	7.826	41.380	1.00	44.33	C
ATOM	3398	C	TYR	B	414	-25.551	9.290	37.065	1.00	44.33	C
ATOM	3399	O	TYR	B	414	-26.624	8.761	36.821	1.00	44.33	O
ATOM	3400	N	PHE	B	415	-24.751	9.791	36.133	1.00	44.33	N
ATOM	3401	CA	PHE	B	415	-24.934	9.468	34.711	1.00	44.33	C
ATOM	3402	CB	PHE	B	415	-25.002	10.668	33.807	1.00	44.33	C
ATOM	3403	CG	PHE	B	415	-25.909	11.734	34.241	1.00	44.33	C
ATOM	3404	CD1	PHE	B	415	-25.668	12.426	35.401	1.00	44.33	C
ATOM	3405	CE1	PHE	B	415	-26.461	13.438	35.763	1.00	44.33	C
ATOM	3406	CZ	PHE	B	415	-27.516	13.827	34.922	1.00	44.33	C
ATOM	3407	CE2	PHE	B	415	-27.750	13.153	33.725	1.00	44.33	C
ATOM	3408	CD2	PHE	B	415	-26.937	12.133	33.391	1.00	44.33	C
ATOM	3409	C	PHE	B	415	-23.751	8.686	34.205	1.00	44.33	C
ATOM	3410	O	PHE	B	415	-22.611	9.106	34.330	1.00	44.33	O
ATOM	3411	N	VAL	B	416	-24.031	7.575	33.571	1.00	44.33	N
ATOM	3412	CA	VAL	B	416	-23.001	6.717	33.084	1.00	44.33	C
ATOM	3413	CB	VAL	B	416	-23.337	5.258	33.398	1.00	44.33	C
ATOM	3414	CG1	VAL	B	416	-22.212	4.292	32.945	1.00	44.33	C
ATOM	3415	CG2	VAL	B	416	-23.591	5.123	34.881	1.00	44.33	C
ATOM	3416	C	VAL	B	416	-22.855	6.974	31.600	1.00	44.33	C
ATOM	3417	O	VAL	B	416	-23.765	6.727	30.831	1.00	44.33	O
ATOM	3418	N	MET	B	417	-21.686	7.493	31.233	1.00	44.33	N
ATOM	3419	CA	MET	B	417	-21.410	7.978	29.906	1.00	44.33	C
ATOM	3420	CB	MET	B	417	-20.851	9.377	29.979	1.00	44.33	C
ATOM	3421	CG	MET	B	417	-21.701	10.409	30.663	1.00	47.65	C
ATOM	3422	SD	MET	B	417	-23.267	10.738	29.839	1.00	44.71	S
ATOM	3423	CE	MET	B	417	-22.771	11.910	28.560	1.00	45.71	C
ATOM	3424	C	MET	B	417	-20.352	7.128	29.293	1.00	44.33	C
ATOM	3425	O	MET	B	417	-19.589	6.490	30.013	1.00	44.33	O
ATOM	3426	N	GLU	B	418	-20.299	7.125	27.964	1.00	44.33	N
ATOM	3427	CA	GLU	B	418	-19.186	6.498	27.240	1.00	44.33	C
ATOM	3428	CB	GLU	B	418	-19.383	6.621	25.729	1.00	44.33	C
ATOM	3429	CG	GLU	B	418	-19.468	8.035	25.156	1.00	44.33	C
ATOM	3430	CD	GLU	B	418	-19.710	8.005	23.651	1.00	44.33	C
ATOM	3431	OE1	GLU	B	418	-18.965	7.297	22.967	1.00	44.33	O
ATOM	3432	OE2	GLU	B	418	-20.645	8.656	23.132	1.00	44.33	O
ATOM	3433	C	GLU	B	418	-17.887	7.186	27.630	1.00	44.33	C

- 255 -

ATOM	3434	O	GLU	B	418	-17.905	8.364	27.999	1.00	44.33	O
ATOM	3435	N	TYR	B	419	-16.772	6.473	27.551	1.00	44.33	N
ATOM	3436	CA	TYR	B	419	-15.499	7.105	27.834	1.00	44.33	C
ATOM	3437	CB	TYR	B	419	-14.526	6.123	28.461	1.00	44.33	C
ATOM	3438	CG	TYR	B	419	-13.182	6.737	28.789	1.00	44.33	C
ATOM	3439	CD1	TYR	B	419	-13.090	8.039	29.315	1.00	44.33	C
ATOM	3440	CE1	TYR	B	419	-11.862	8.607	29.622	1.00	44.33	C
ATOM	3441	CZ	TYR	B	419	-10.684	7.871	29.446	1.00	44.33	C
ATOM	3442	OH	TYR	B	419	-9.461	8.444	29.789	1.00	44.33	O
ATOM	3443	CE2	TYR	B	419	-10.739	6.578	28.938	1.00	44.33	C
ATOM	3444	CD2	TYR	B	419	-11.993	6.016	28.607	1.00	44.33	C
ATOM	3445	C	TYR	B	419	-14.873	7.667	26.558	1.00	44.33	C
ATOM	3446	O	TYR	B	419	-14.398	6.914	25.681	1.00	44.33	O
ATOM	3447	N	VAL	B	420	-14.836	8.986	26.463	1.00	44.33	N
ATOM	3448	CA	VAL	B	420	-14.250	9.609	25.309	1.00	44.33	C
ATOM	3449	CB	VAL	B	420	-15.061	10.828	24.911	1.00	44.33	C
ATOM	3450	CG1	VAL	B	420	-14.396	11.570	23.789	1.00	44.33	C
ATOM	3451	CG2	VAL	B	420	-16.466	10.434	24.510	1.00	44.33	C
ATOM	3452	C	VAL	B	420	-12.806	9.981	25.633	1.00	44.33	C
ATOM	3453	O	VAL	B	420	-12.552	10.750	26.571	1.00	44.33	O
ATOM	3454	N	ASN	B	421	-11.851	9.461	24.865	1.00	44.33	N
ATOM	3455	CA	ASN	B	421	-10.444	9.645	25.262	1.00	44.87	C
ATOM	3456	CB	ASN	B	421	-9.911	8.352	25.836	1.00	46.02	C
ATOM	3457	CG	ASN	B	421	-9.792	7.308	24.789	1.00	48.67	C
ATOM	3458	OD1	ASN	B	421	-8.697	7.059	24.318	1.00	50.40	O
ATOM	3459	ND2	ASN	B	421	-10.925	6.735	24.348	1.00	49.51	N
ATOM	3460	C	ASN	B	421	-9.426	10.210	24.247	1.00	44.33	C
ATOM	3461	O	ASN	B	421	-8.215	10.029	24.407	1.00	45.37	O
ATOM	3462	N	GLY	B	422	-9.897	10.927	23.224	1.00	44.33	N
ATOM	3463	CA	GLY	B	422	-8.980	11.576	22.280	1.00	44.33	C
ATOM	3464	C	GLY	B	422	-8.514	12.992	22.633	1.00	44.33	C
ATOM	3465	O	GLY	B	422	-8.004	13.680	21.768	1.00	44.47	O
ATOM	3466	N	GLY	B	423	-8.681	13.447	23.872	1.00	44.33	N
ATOM	3467	CA	GLY	B	423	-8.454	14.865	24.190	1.00	44.33	C
ATOM	3468	C	GLY	B	423	-9.542	15.823	23.667	1.00	44.81	C
ATOM	3469	O	GLY	B	423	-10.339	15.503	22.755	1.00	45.50	O
ATOM	3470	N	ASP	B	424	-9.582	17.012	24.253	1.00	45.95	N
ATOM	3471	CA	ASP	B	424	-10.523	18.005	23.804	1.00	46.74	C
ATOM	3472	CB	ASP	B	424	-11.169	18.670	25.012	1.00	51.13	C
ATOM	3473	CG	ASP	B	424	-10.218	19.509	25.803	1.00	53.16	C
ATOM	3474	OD1	ASP	B	424	-9.588	20.389	25.175	1.00	56.09	O
ATOM	3475	OD2	ASP	B	424	-10.155	19.307	27.047	1.00	55.90	O
ATOM	3476	C	ASP	B	424	-9.955	19.020	22.794	1.00	45.90	C
ATOM	3477	O	ASP	B	424	-8.737	19.190	22.651	1.00	44.33	O
ATOM	3478	N	LEU	B	425	-10.849	19.702	22.098	1.00	44.33	N
ATOM	3479	CA	LEU	B	425	-10.423	20.492	20.966	1.00	44.64	C
ATOM	3480	CB	LEU	B	425	-11.618	20.964	20.134	1.00	45.25	C
ATOM	3481	CG	LEU	B	425	-12.018	20.031	19.000	1.00	44.73	C
ATOM	3482	CD1	LEU	B	425	-12.841	20.786	17.990	1.00	44.33	C
ATOM	3483	CD2	LEU	B	425	-10.812	19.514	18.331	1.00	44.33	C
ATOM	3484	C	LEU	B	425	-9.480	21.641	21.318	1.00	45.99	C
ATOM	3485	O	LEU	B	425	-8.599	21.995	20.531	1.00	44.89	O
ATOM	3486	N	MET	B	426	-9.680	22.246	22.478	1.00	46.65	N
ATOM	3487	CA	MET	B	426	-8.764	23.298	22.913	1.00	47.84	C
ATOM	3488	CB	MET	B	426	-9.246	23.840	24.253	1.00	51.86	C
ATOM	3489	CG	MET	B	426	-8.281	24.595	25.100	1.00	55.08	C
ATOM	3490	SD	MET	B	426	-8.120	26.388	24.842	1.00	55.25	S
ATOM	3491	CE	MET	B	426	-9.205	26.728	23.489	1.00	57.22	C

- 256 -

ATOM	3492	C	MET	B	426	-7.309	22.733	22.954	1.00	48.36	C
ATOM	3493	O	MET	B	426	-6.360	23.329	22.384	1.00	47.45	O
ATOM	3494	N	TYR	B	427	-7.151	21.561	23.578	1.00	47.47	N
ATOM	3495	CA	TYR	B	427	-5.877	20.879	23.599	1.00	47.82	C
ATOM	3496	CB	TYR	B	427	-6.060	19.512	24.251	1.00	48.94	C
ATOM	3497	CG	TYR	B	427	-4.885	18.621	24.056	1.00	49.73	C
ATOM	3498	CD1	TYR	B	427	-3.999	18.347	25.105	1.00	49.24	C
ATOM	3499	CE1	TYR	B	427	-2.889	17.503	24.900	1.00	51.23	C
ATOM	3500	CZ	TYR	B	427	-2.678	16.964	23.622	1.00	50.04	C
ATOM	3501	OH	TYR	B	427	-1.610	16.146	23.356	1.00	52.20	O
ATOM	3502	CE2	TYR	B	427	-3.536	17.227	22.573	1.00	50.65	C
ATOM	3503	CD2	TYR	B	427	-4.631	18.045	22.793	1.00	48.98	C
ATOM	3504	C	TYR	B	427	-5.324	20.742	22.167	1.00	47.08	C
ATOM	3505	O	TYR	B	427	-4.254	21.233	21.819	1.00	47.02	O
ATOM	3506	N	HIS	B	428	-6.084	20.090	21.328	1.00	45.41	N
ATOM	3507	CA	HIS	B	428	-5.608	19.773	20.033	1.00	44.33	C
ATOM	3508	CB	HIS	B	428	-6.569	18.826	19.393	1.00	44.33	C
ATOM	3509	CG	HIS	B	428	-6.581	17.504	20.089	1.00	44.33	C
ATOM	3510	ND1	HIS	B	428	-5.434	16.751	20.263	1.00	44.33	N
ATOM	3511	CE1	HIS	B	428	-5.732	15.651	20.924	1.00	44.33	C
ATOM	3512	NE2	HIS	B	428	-7.023	15.673	21.208	1.00	44.33	N
ATOM	3513	CD2	HIS	B	428	-7.573	16.829	20.716	1.00	44.33	C
ATOM	3514	C	HIS	B	428	-5.298	20.955	19.159	1.00	44.89	C
ATOM	3515	O	HIS	B	428	-4.286	20.914	18.448	1.00	44.33	O
ATOM	3516	N	ILE	B	429	-6.110	22.012	19.202	1.00	44.33	N
ATOM	3517	CA	ILE	B	429	-5.715	23.262	18.552	1.00	44.33	C
ATOM	3518	CB	ILE	B	429	-6.667	24.437	18.785	1.00	44.33	C
ATOM	3519	CG1	ILE	B	429	-8.034	24.187	18.141	1.00	44.71	C
ATOM	3520	CD1	ILE	B	429	-9.139	25.068	18.773	1.00	44.82	C
ATOM	3521	CG2	ILE	B	429	-6.082	25.723	18.191	1.00	44.33	C
ATOM	3522	C	ILE	B	429	-4.368	23.704	19.121	1.00	44.33	C
ATOM	3523	O	ILE	B	429	-3.414	23.999	18.338	1.00	44.33	O
ATOM	3524	N	GLN	B	430	-4.264	23.736	20.456	1.00	44.66	N
ATOM	3525	CA	GLN	B	430	-3.012	24.152	21.067	1.00	46.79	C
ATOM	3526	CB	GLN	B	430	-3.111	23.998	22.554	1.00	48.43	C
ATOM	3527	CG	GLN	B	430	-3.861	25.130	23.183	1.00	51.10	C
ATOM	3528	CD	GLN	B	430	-3.998	24.865	24.647	1.00	52.92	C
ATOM	3529	OE1	GLN	B	430	-4.521	23.805	25.034	1.00	55.22	O
ATOM	3530	NE2	GLN	B	430	-3.508	25.787	25.483	1.00	55.95	N
ATOM	3531	C	GLN	B	430	-1.752	23.436	20.543	1.00	46.86	C
ATOM	3532	O	GLN	B	430	-0.706	24.081	20.312	1.00	46.65	O
ATOM	3533	N	GLN	B	431	-1.837	22.122	20.325	1.00	46.94	N
ATOM	3534	CA	GLN	B	431	-0.657	21.421	19.818	1.00	45.55	C
ATOM	3535	CB	GLN	B	431	-0.819	19.874	19.832	1.00	46.17	C
ATOM	3536	CG	GLN	B	431	-1.278	19.300	21.161	1.00	48.52	C
ATOM	3537	CD	GLN	B	431	-0.465	19.824	22.336	1.00	48.55	C
ATOM	3538	OE1	GLN	B	431	-0.850	20.793	23.044	1.00	50.57	O
ATOM	3539	NE2	GLN	B	431	0.689	19.200	22.537	1.00	49.14	N
ATOM	3540	C	GLN	B	431	-0.194	21.934	18.437	1.00	45.00	C
ATOM	3541	O	GLN	B	431	0.893	21.562	18.015	1.00	47.01	O
ATOM	3542	N	VAL	B	432	-0.981	22.759	17.725	1.00	45.34	N
ATOM	3543	CA	VAL	B	432	-0.632	23.135	16.311	1.00	45.76	C
ATOM	3544	CB	VAL	B	432	-1.005	21.998	15.233	1.00	47.08	C
ATOM	3545	CG1	VAL	B	432	-1.329	20.656	15.898	1.00	46.34	C
ATOM	3546	CG2	VAL	B	432	-2.185	22.382	14.328	1.00	45.91	C
ATOM	3547	C	VAL	B	432	-1.107	24.557	15.885	1.00	45.89	C
ATOM	3548	O	VAL	B	432	-1.195	24.883	14.680	1.00	46.14	O
ATOM	3549	N	GLY	B	433	-1.386	25.403	16.885	1.00	44.34	N

- 257 -

ATOM	3550	CA	GLY	B	433	-1.733	26.813	16.640	1.00	45.33	C
ATOM	3551	C	GLY	B	433	-3.109	27.047	15.991	1.00	45.61	C
ATOM	3552	O	GLY	B	433	-3.853	27.928	16.428	1.00	45.53	O
ATOM	3553	N	LYS	B	434	-3.431	26.277	14.950	1.00	44.60	N
ATOM	3554	CA	LYS	B	434	-4.747	26.316	14.296	1.00	45.67	C
ATOM	3555	CB	LYS	B	434	-4.938	27.585	13.450	1.00	46.59	C
ATOM	3556	CG	LYS	B	434	-4.502	27.469	11.951	1.00	47.29	C
ATOM	3557	CD	LYS	B	434	-4.354	28.849	11.296	1.00	48.76	C
ATOM	3558	CE	LYS	B	434	-3.332	28.878	10.125	1.00	51.30	C
ATOM	3559	NZ	LYS	B	434	-1.918	29.062	10.553	1.00	52.78	N
ATOM	3560	C	LYS	B	434	-4.868	25.130	13.362	1.00	45.19	C
ATOM	3561	O	LYS	B	434	-3.900	24.715	12.752	1.00	44.42	O
ATOM	3562	N	PHE	B	435	-6.055	24.587	13.193	1.00	44.33	N
ATOM	3563	CA	PHE	B	435	-6.196	23.560	12.155	1.00	44.49	C
ATOM	3564	CB	PHE	B	435	-7.521	22.770	12.326	1.00	44.33	C
ATOM	3565	CG	PHE	B	435	-7.748	22.225	13.740	1.00	44.33	C
ATOM	3566	CD1	PHE	B	435	-6.675	21.808	14.538	1.00	44.33	C
ATOM	3567	CE1	PHE	B	435	-6.930	21.322	15.865	1.00	44.33	C
ATOM	3568	CZ	PHE	B	435	-8.277	21.230	16.345	1.00	44.33	C
ATOM	3569	CE2	PHE	B	435	-9.330	21.634	15.534	1.00	44.33	C
ATOM	3570	CD2	PHE	B	435	-9.068	22.121	14.264	1.00	44.33	C
ATOM	3571	C	PHE	B	435	-6.057	24.116	10.693	1.00	45.02	C
ATOM	3572	O	PHE	B	435	-6.390	25.267	10.418	1.00	46.52	O
ATOM	3573	N	LYS	B	436	-5.534	23.291	9.781	1.00	47.30	N
ATOM	3574	CA	LYS	B	436	-5.625	23.526	8.336	1.00	48.61	C
ATOM	3575	CB	LYS	B	436	-4.981	22.376	7.567	1.00	50.59	C
ATOM	3576	CG	LYS	B	436	-3.514	22.606	7.269	1.00	53.82	C
ATOM	3577	CD	LYS	B	436	-2.764	21.282	7.272	1.00	55.79	C
ATOM	3578	CE	LYS	B	436	-2.309	20.896	5.882	1.00	56.49	C
ATOM	3579	NZ	LYS	B	436	-1.393	19.724	5.972	1.00	57.60	N
ATOM	3580	C	LYS	B	436	-7.070	23.546	7.972	1.00	47.34	C
ATOM	3581	O	LYS	B	436	-7.882	22.855	8.603	1.00	47.50	O
ATOM	3582	N	GLU	B	437	-7.404	24.309	6.941	1.00	47.14	N
ATOM	3583	CA	GLU	B	437	-8.820	24.449	6.539	1.00	48.35	C
ATOM	3584	CB	GLU	B	437	-9.003	25.368	5.278	1.00	48.96	C
ATOM	3585	CG	GLU	B	437	-10.446	25.405	4.666	1.00	52.43	C
ATOM	3586	CD	GLU	B	437	-10.775	26.715	3.892	1.00	52.68	C
ATOM	3587	OE1	GLU	B	437	-9.930	27.654	3.919	1.00	55.04	O
ATOM	3588	OE2	GLU	B	437	-11.879	26.806	3.264	1.00	54.86	O
ATOM	3589	C	GLU	B	437	-9.565	23.073	6.427	1.00	46.82	C
ATOM	3590	O	GLU	B	437	-10.668	22.926	7.006	1.00	49.03	O
ATOM	3591	N	PRO	B	438	-8.967	22.060	5.719	1.00	46.18	N
ATOM	3592	CA	PRO	B	438	-9.789	20.819	5.569	1.00	45.13	C
ATOM	3593	CB	PRO	B	438	-8.911	19.846	4.737	1.00	46.10	C
ATOM	3594	CG	PRO	B	438	-7.769	20.646	4.221	1.00	45.21	C
ATOM	3595	CD	PRO	B	438	-7.642	21.931	5.068	1.00	45.32	C
ATOM	3596	C	PRO	B	438	-10.143	20.191	6.928	1.00	45.60	C
ATOM	3597	O	PRO	B	438	-11.242	19.614	7.059	1.00	44.83	O
ATOM	3598	N	GLN	B	439	-9.231	20.314	7.909	1.00	44.71	N
ATOM	3599	CA	GLN	B	439	-9.399	19.721	9.241	1.00	44.33	C
ATOM	3600	CB	GLN	B	439	-8.115	19.901	10.054	1.00	44.33	C
ATOM	3601	CG	GLN	B	439	-8.009	19.066	11.341	1.00	44.33	C
ATOM	3602	CD	GLN	B	439	-6.670	19.289	12.105	1.00	44.78	C
ATOM	3603	OE1	GLN	B	439	-6.448	18.767	13.214	1.00	45.01	O
ATOM	3604	NE2	GLN	B	439	-5.788	20.091	11.505	1.00	44.33	N
ATOM	3605	C	GLN	B	439	-10.561	20.422	9.955	1.00	44.33	C
ATOM	3606	O	GLN	B	439	-11.547	19.754	10.373	1.00	44.33	O
ATOM	3607	N	ALA	B	440	-10.438	21.755	10.091	1.00	44.33	N

- 258 -

ATOM	3608	CA	ALA	B	440	-11.483	22.576	10.681	1.00	44.33	C
ATOM	3609	CB	ALA	B	440	-11.111	23.985	10.688	1.00	44.33	C
ATOM	3610	C	ALA	B	440	-12.800	22.377	9.950	1.00	44.33	C
ATOM	3611	O	ALA	B	440	-13.859	22.348	10.601	1.00	44.33	O
ATOM	3612	N	VAL	B	441	-12.758	22.185	8.624	1.00	44.33	N
ATOM	3613	CA	VAL	B	441	-13.996	21.874	7.882	1.00	44.33	C
ATOM	3614	CB	VAL	B	441	-13.765	21.723	6.336	1.00	44.33	C
ATOM	3615	CG1	VAL	B	441	-14.564	20.582	5.728	1.00	44.33	C
ATOM	3616	CG2	VAL	B	441	-14.172	22.987	5.623	1.00	44.33	C
ATOM	3617	C	VAL	B	441	-14.686	20.648	8.482	1.00	44.33	C
ATOM	3618	O	VAL	B	441	-15.907	20.635	8.737	1.00	44.33	O
ATOM	3619	N	PHE	B	442	-13.865	19.636	8.727	1.00	44.33	N
ATOM	3620	CA	PHE	B	442	-14.322	18.326	9.180	1.00	44.33	C
ATOM	3621	CB	PHE	B	442	-13.189	17.300	9.023	1.00	44.33	C
ATOM	3622	CG	PHE	B	442	-13.519	15.927	9.542	1.00	44.33	C
ATOM	3623	CD1	PHE	B	442	-14.067	14.965	8.695	1.00	44.33	C
ATOM	3624	CE1	PHE	B	442	-14.359	13.663	9.166	1.00	44.33	C
ATOM	3625	CZ	PHE	B	442	-14.081	13.319	10.518	1.00	44.33	C
ATOM	3626	CE2	PHE	B	442	-13.530	14.291	11.392	1.00	44.33	C
ATOM	3627	CD2	PHE	B	442	-13.251	15.589	10.896	1.00	44.33	C
ATOM	3628	C	PHE	B	442	-14.804	18.425	10.632	1.00	44.33	C
ATOM	3629	O	PHE	B	442	-15.893	17.908	10.980	1.00	44.33	O
ATOM	3630	N	TYR	B	443	-14.029	19.111	11.466	1.00	44.33	N
ATOM	3631	CA	TYR	B	443	-14.535	19.393	12.794	1.00	44.33	C
ATOM	3632	CB	TYR	B	443	-13.498	20.068	13.664	1.00	44.33	C
ATOM	3633	CG	TYR	B	443	-12.329	19.132	13.927	1.00	44.33	C
ATOM	3634	CD1	TYR	B	443	-12.436	17.754	13.669	1.00	44.33	C
ATOM	3635	CE1	TYR	B	443	-11.359	16.867	13.906	1.00	44.33	C
ATOM	3636	CZ	TYR	B	443	-10.173	17.370	14.417	1.00	44.33	C
ATOM	3637	OH	TYR	B	443	-9.102	16.526	14.652	1.00	44.33	O
ATOM	3638	CE2	TYR	B	443	-10.051	18.731	14.684	1.00	44.33	C
ATOM	3639	CD2	TYR	B	443	-11.131	19.605	14.435	1.00	44.33	C
ATOM	3640	C	TYR	B	443	-15.866	20.130	12.727	1.00	44.33	C
ATOM	3641	O	TYR	B	443	-16.873	19.617	13.224	1.00	44.33	O
ATOM	3642	N	ALA	B	444	-15.931	21.259	12.037	1.00	44.33	N
ATOM	3643	CA	ALA	B	444	-17.190	22.004	12.051	1.00	44.33	C
ATOM	3644	CB	ALA	B	444	-17.040	23.331	11.356	1.00	44.33	C
ATOM	3645	C	ALA	B	444	-18.356	21.196	11.465	1.00	44.33	C
ATOM	3646	O	ALA	B	444	-19.525	21.348	11.880	1.00	44.33	O
ATOM	3647	N	ALA	B	445	-18.043	20.331	10.508	1.00	44.33	N
ATOM	3648	CA	ALA	B	445	-19.108	19.635	9.809	1.00	44.33	C
ATOM	3649	CB	ALA	B	445	-18.573	18.926	8.602	1.00	44.33	C
ATOM	3650	C	ALA	B	445	-19.711	18.671	10.800	1.00	44.33	C
ATOM	3651	O	ALA	B	445	-20.951	18.616	10.933	1.00	44.33	O
ATOM	3652	N	GLU	B	446	-18.824	17.962	11.528	1.00	44.33	N
ATOM	3653	CA	GLU	B	446	-19.221	16.931	12.502	1.00	44.33	C
ATOM	3654	CB	GLU	B	446	-17.991	16.172	13.037	1.00	44.33	C
ATOM	3655	CG	GLU	B	446	-17.379	15.166	11.995	1.00	44.33	C
ATOM	3656	CD	GLU	B	446	-16.343	14.123	12.533	1.00	44.33	C
ATOM	3657	OE1	GLU	B	446	-15.665	14.344	13.558	1.00	44.33	O
ATOM	3658	OE2	GLU	B	446	-16.181	13.047	11.903	1.00	44.33	O
ATOM	3659	C	GLU	B	446	-20.059	17.558	13.616	1.00	44.33	C
ATOM	3660	O	GLU	B	446	-21.152	17.088	13.951	1.00	44.33	O
ATOM	3661	N	ILE	B	447	-19.559	18.658	14.144	1.00	44.33	N
ATOM	3662	CA	ILE	B	447	-20.280	19.430	15.117	1.00	44.33	C
ATOM	3663	CB	ILE	B	447	-19.476	20.670	15.471	1.00	44.33	C
ATOM	3664	CG1	ILE	B	447	-18.155	20.248	16.093	1.00	44.33	C
ATOM	3665	CD1	ILE	B	447	-17.203	21.352	16.343	1.00	44.33	C

- 259 -

ATOM	3666	CG2	ILE	B	447	-20.277	21.567	16.363	1.00	44.33	C
ATOM	3667	C	ILE	B	447	-21.674	19.823	14.587	1.00	44.33	C
ATOM	3668	O	ILE	B	447	-22.699	19.593	15.238	1.00	44.33	O
ATOM	3669	N	SER	B	448	-21.722	20.399	13.397	1.00	44.33	N
ATOM	3670	CA	SER	B	448	-22.972	20.949	12.936	1.00	44.33	C
ATOM	3671	CB	SER	B	448	-22.842	21.436	11.500	1.00	44.33	C
ATOM	3672	OG	SER	B	448	-22.921	20.353	10.579	1.00	44.33	O
ATOM	3673	C	SER	B	448	-24.039	19.861	13.034	1.00	44.33	C
ATOM	3674	O	SER	B	448	-25.240	20.126	13.334	1.00	44.33	O
ATOM	3675	N	ILE	B	449	-23.613	18.625	12.800	1.00	44.33	N
ATOM	3676	CA	ILE	B	449	-24.627	17.578	12.785	1.00	44.33	C
ATOM	3677	CB	ILE	B	449	-24.173	16.292	12.081	1.00	44.33	C
ATOM	3678	CG1	ILE	B	449	-24.366	16.539	10.571	1.00	44.33	C
ATOM	3679	CD1	ILE	B	449	-23.773	15.536	9.649	1.00	45.26	C
ATOM	3680	CG2	ILE	B	449	-25.014	15.083	12.535	1.00	44.33	C
ATOM	3681	C	ILE	B	449	-25.327	17.454	14.138	1.00	44.33	C
ATOM	3682	O	ILE	B	449	-26.588	17.409	14.185	1.00	44.33	O
ATOM	3683	N	GLY	B	450	-24.509	17.511	15.203	1.00	44.33	N
ATOM	3684	CA	GLY	B	450	-24.988	17.656	16.554	1.00	44.33	C
ATOM	3685	C	GLY	B	450	-26.053	18.729	16.573	1.00	44.33	C
ATOM	3686	O	GLY	B	450	-27.212	18.489	16.996	1.00	44.33	O
ATOM	3687	N	LEU	B	451	-25.691	19.909	16.085	1.00	44.33	N
ATOM	3688	CA	LEU	B	451	-26.557	21.054	16.263	1.00	44.33	C
ATOM	3689	CB	LEU	B	451	-25.850	22.314	15.773	1.00	44.33	C
ATOM	3690	CG	LEU	B	451	-24.683	22.692	16.667	1.00	44.33	C
ATOM	3691	CD1	LEU	B	451	-24.193	24.067	16.387	1.00	44.33	C
ATOM	3692	CD2	LEU	B	451	-25.165	22.597	18.081	1.00	44.33	C
ATOM	3693	C	LEU	B	451	-27.929	20.857	15.588	1.00	44.33	C
ATOM	3694	O	LEU	B	451	-28.993	21.108	16.211	1.00	44.33	O
ATOM	3695	N	PHE	B	452	-27.892	20.374	14.340	1.00	44.33	N
ATOM	3696	CA	PHE	B	452	-29.112	20.047	13.601	1.00	44.33	C
ATOM	3697	CB	PHE	B	452	-28.783	19.373	12.273	1.00	44.33	C
ATOM	3698	CG	PHE	B	452	-27.886	20.188	11.382	1.00	44.33	C
ATOM	3699	CD1	PHE	B	452	-28.097	21.547	11.207	1.00	44.33	C
ATOM	3700	CE1	PHE	B	452	-27.263	22.298	10.359	1.00	44.33	C
ATOM	3701	CZ	PHE	B	452	-26.205	21.692	9.658	1.00	44.33	C
ATOM	3702	CE2	PHE	B	452	-25.984	20.337	9.824	1.00	44.60	C
ATOM	3703	CD2	PHE	B	452	-26.835	19.581	10.688	1.00	44.33	C
ATOM	3704	C	PHE	B	452	-30.007	19.141	14.424	1.00	44.33	C
ATOM	3705	O	PHE	B	452	-31.195	19.431	14.629	1.00	44.33	O
ATOM	3706	N	PHE	B	453	-29.422	18.049	14.905	1.00	44.33	N
ATOM	3707	CA	PHE	B	453	-30.151	17.097	15.752	1.00	44.33	C
ATOM	3708	CB	PHE	B	453	-29.227	16.026	16.355	1.00	44.33	C
ATOM	3709	CG	PHE	B	453	-29.931	15.061	17.264	1.00	44.33	C
ATOM	3710	CD1	PHE	B	453	-30.790	14.084	16.754	1.00	44.33	C
ATOM	3711	CE1	PHE	B	453	-31.456	13.167	17.611	1.00	44.33	C
ATOM	3712	CZ	PHE	B	453	-31.267	13.224	18.954	1.00	44.33	C
ATOM	3713	CE2	PHE	B	453	-30.407	14.184	19.494	1.00	44.33	C
ATOM	3714	CD2	PHE	B	453	-29.737	15.106	18.638	1.00	44.33	C
ATOM	3715	C	PHE	B	453	-30.822	17.851	16.874	1.00	44.33	C
ATOM	3716	O	PHE	B	453	-32.054	17.814	17.013	1.00	44.33	O
ATOM	3717	N	LEU	B	454	-30.025	18.558	17.659	1.00	44.33	N
ATOM	3718	CA	LEU	B	454	-30.602	19.235	18.801	1.00	44.33	C
ATOM	3719	CB	LEU	B	454	-29.532	19.935	19.614	1.00	44.33	C
ATOM	3720	CG	LEU	B	454	-28.617	18.907	20.269	1.00	44.33	C
ATOM	3721	CD1	LEU	B	454	-27.410	19.601	20.815	1.00	45.10	C
ATOM	3722	CD2	LEU	B	454	-29.315	18.141	21.362	1.00	44.33	C
ATOM	3723	C	LEU	B	454	-31.698	20.210	18.410	1.00	44.33	C

- 260 -

ATOM	3724	O	LEU	B	454	-32.750	20.256	19.064	1.00	44.33	O
ATOM	3725	N	HIS	B	455	-31.462	20.962	17.332	1.00	44.33	N
ATOM	3726	CA	HIS	B	455	-32.381	22.048	16.957	1.00	44.33	C
ATOM	3727	CB	HIS	B	455	-31.739	23.012	15.971	1.00	44.33	C
ATOM	3728	CG	HIS	B	455	-30.599	23.770	16.555	1.00	44.33	C
ATOM	3729	ND1	HIS	B	455	-29.636	24.393	15.779	1.00	44.33	N
ATOM	3730	CE1	HIS	B	455	-28.749	24.977	16.566	1.00	44.33	C
ATOM	3731	NE2	HIS	B	455	-29.098	24.748	17.823	1.00	44.33	N
ATOM	3732	CD2	HIS	B	455	-30.249	23.991	17.841	1.00	44.33	C
ATOM	3733	C	HIS	B	455	-33.737	21.549	16.450	1.00	44.33	C
ATOM	3734	O	HIS	B	455	-34.799	22.062	16.859	1.00	44.33	O
ATOM	3735	N	LYS	B	456	-33.674	20.543	15.575	1.00	44.42	N
ATOM	3736	CA	LYS	B	456	-34.843	19.752	15.159	1.00	46.94	C
ATOM	3737	CB	LYS	B	456	-34.345	18.461	14.510	1.00	47.91	C
ATOM	3738	CG	LYS	B	456	-34.807	18.158	13.096	1.00	51.03	C
ATOM	3739	CD	LYS	B	456	-33.806	17.189	12.410	1.00	50.80	C
ATOM	3740	CE	LYS	B	456	-33.459	15.939	13.308	1.00	52.82	C
ATOM	3741	NZ	LYS	B	456	-32.547	14.915	12.673	1.00	51.84	N
ATOM	3742	C	LYS	B	456	-35.697	19.399	16.390	1.00	46.41	C
ATOM	3743	O	LYS	B	456	-36.927	19.602	16.396	1.00	46.50	O
ATOM	3744	N	ARG	B	457	-35.035	18.920	17.447	1.00	47.18	N
ATOM	3745	CA	ARG	B	457	-35.736	18.400	18.598	1.00	47.77	C
ATOM	3746	CB	ARG	B	457	-34.872	17.358	19.296	1.00	48.79	C
ATOM	3747	CG	ARG	B	457	-34.394	16.233	18.390	1.00	51.77	C
ATOM	3748	CD	ARG	B	457	-35.545	15.352	17.969	1.00	54.47	C
ATOM	3749	NE	ARG	B	457	-35.083	14.137	17.265	1.00	56.89	N
ATOM	3750	CZ	ARG	B	457	-34.867	12.948	17.857	1.00	58.63	C
ATOM	3751	NH1	ARG	B	457	-35.050	12.780	19.182	1.00	57.51	N
ATOM	3752	NH2	ARG	B	457	-34.464	11.910	17.125	1.00	59.23	N
ATOM	3753	C	ARG	B	457	-36.132	19.518	19.541	1.00	47.92	C
ATOM	3754	O	ARG	B	457	-36.571	19.251	20.676	1.00	46.87	O
ATOM	3755	N	GLY	B	458	-35.996	20.760	19.069	1.00	46.09	N
ATOM	3756	CA	GLY	B	458	-36.464	21.940	19.821	1.00	45.84	C
ATOM	3757	C	GLY	B	458	-35.592	22.263	21.016	1.00	45.72	C
ATOM	3758	O	GLY	B	458	-36.085	22.674	22.084	1.00	46.17	O
ATOM	3759	N	ILE	B	459	-34.295	22.066	20.840	1.00	45.62	N
ATOM	3760	CA	ILE	B	459	-33.360	22.222	21.941	1.00	44.33	C
ATOM	3761	CB	ILE	B	459	-32.822	20.879	22.373	1.00	44.34	C
ATOM	3762	CG1	ILE	B	459	-33.769	20.340	23.434	1.00	44.39	C
ATOM	3763	CD1	ILE	B	459	-34.073	18.841	23.358	1.00	46.29	C
ATOM	3764	CG2	ILE	B	459	-31.499	21.024	22.991	1.00	44.33	C
ATOM	3765	C	ILE	B	459	-32.273	23.176	21.517	1.00	44.33	C
ATOM	3766	O	ILE	B	459	-31.781	23.082	20.378	1.00	44.33	O
ATOM	3767	N	ILE	B	460	-31.959	24.126	22.406	1.00	44.33	N
ATOM	3768	CA	ILE	B	460	-30.777	24.953	22.242	1.00	44.33	C
ATOM	3769	CB	ILE	B	460	-30.988	26.425	22.663	1.00	44.33	C
ATOM	3770	CG1	ILE	B	460	-32.355	26.937	22.189	1.00	44.33	C
ATOM	3771	CD1	ILE	B	460	-32.767	28.246	22.881	1.00	44.33	C
ATOM	3772	CG2	ILE	B	460	-29.695	27.317	22.269	1.00	44.33	C
ATOM	3773	C	ILE	B	460	-29.693	24.454	23.156	1.00	44.33	C
ATOM	3774	O	ILE	B	460	-29.961	24.184	24.333	1.00	44.33	O
ATOM	3775	N	TYR	B	461	-28.467	24.409	22.643	1.00	44.33	N
ATOM	3776	CA	TYR	B	461	-27.323	23.943	23.428	1.00	44.33	C
ATOM	3777	CB	TYR	B	461	-26.168	23.524	22.492	1.00	44.33	C
ATOM	3778	CG	TYR	B	461	-24.932	22.916	23.145	1.00	44.95	C
ATOM	3779	CD1	TYR	B	461	-25.035	22.053	24.218	1.00	46.85	C
ATOM	3780	CE1	TYR	B	461	-23.915	21.488	24.785	1.00	46.07	C
ATOM	3781	CZ	TYR	B	461	-22.665	21.775	24.278	1.00	45.74	C

- 261 -

ATOM	3782	OH	TYR	B	461	-21.528	21.201	24.863	1.00	44.33	O
ATOM	3783	CE2	TYR	B	461	-22.535	22.623	23.197	1.00	46.23	C
ATOM	3784	CD2	TYR	B	461	-23.660	23.183	22.642	1.00	46.09	C
ATOM	3785	C	TYR	B	461	-26.910	25.006	24.430	1.00	44.33	C
ATOM	3786	O	TYR	B	461	-26.830	24.729	25.630	1.00	44.33	O
ATOM	3787	N	ARG	B	462	-26.660	26.216	23.936	1.00	44.33	N
ATOM	3788	CA	ARG	B	462	-26.311	27.346	24.790	1.00	44.79	C
ATOM	3789	CB	ARG	B	462	-27.390	27.562	25.868	1.00	44.33	C
ATOM	3790	CG	ARG	B	462	-28.768	27.927	25.343	1.00	45.22	C
ATOM	3791	CD	ARG	B	462	-29.571	28.708	26.426	1.00	44.79	C
ATOM	3792	NE	ARG	B	462	-29.723	27.984	27.713	1.00	46.65	N
ATOM	3793	CZ	ARG	B	462	-30.571	28.302	28.719	1.00	47.71	C
ATOM	3794	NH1	ARG	B	462	-31.409	29.352	28.639	1.00	46.79	N
ATOM	3795	NH2	ARG	B	462	-30.590	27.563	29.835	1.00	46.86	N
ATOM	3796	C	ARG	B	462	-24.957	27.247	25.458	1.00	44.87	C
ATOM	3797	O	ARG	B	462	-24.633	28.049	26.335	1.00	47.06	O
ATOM	3798	N	ASP	B	463	-24.168	26.252	25.062	1.00	45.31	N
ATOM	3799	CA	ASP	B	463	-22.832	26.070	25.662	1.00	46.75	C
ATOM	3800	CB	ASP	B	463	-22.906	25.181	26.913	1.00	47.16	C
ATOM	3801	CG	ASP	B	463	-21.806	25.484	27.896	1.00	50.75	C
ATOM	3802	OD1	ASP	B	463	-21.229	26.590	27.784	1.00	51.40	O
ATOM	3803	OD2	ASP	B	463	-21.516	24.632	28.768	1.00	50.52	O
ATOM	3804	C	ASP	B	463	-21.810	25.514	24.685	1.00	45.85	C
ATOM	3805	O	ASP	B	463	-20.853	24.835	25.075	1.00	47.82	O
ATOM	3806	N	LEU	B	464	-22.011	25.790	23.403	1.00	45.54	N
ATOM	3807	CA	LEU	B	464	-20.950	25.478	22.453	1.00	44.33	C
ATOM	3808	CB	LEU	B	464	-21.344	25.719	21.016	1.00	44.33	C
ATOM	3809	CG	LEU	B	464	-20.438	24.971	20.038	1.00	44.33	C
ATOM	3810	CD1	LEU	B	464	-20.217	23.584	20.487	1.00	45.51	C
ATOM	3811	CD2	LEU	B	464	-21.054	24.953	18.658	1.00	44.33	C
ATOM	3812	C	LEU	B	464	-19.713	26.287	22.778	1.00	44.33	C
ATOM	3813	O	LEU	B	464	-19.753	27.511	22.883	1.00	44.33	O
ATOM	3814	N	LYS	B	465	-18.625	25.561	22.980	1.00	44.33	N
ATOM	3815	CA	LYS	B	465	-17.330	26.089	23.413	1.00	44.33	C
ATOM	3816	CB	LYS	B	465	-17.370	26.574	24.879	1.00	44.33	C
ATOM	3817	CG	LYS	B	465	-17.633	25.516	25.924	1.00	44.33	C
ATOM	3818	CD	LYS	B	465	-17.289	26.062	27.268	1.00	44.53	C
ATOM	3819	CE	LYS	B	465	-18.045	25.329	28.324	1.00	44.93	C
ATOM	3820	NZ	LYS	B	465	-18.735	26.296	29.222	1.00	47.25	N
ATOM	3821	C	LYS	B	465	-16.315	24.977	23.239	1.00	44.33	C
ATOM	3822	O	LYS	B	465	-16.688	23.826	23.268	1.00	44.33	O
ATOM	3823	N	LEU	B	466	-15.047	25.324	23.051	1.00	44.33	N
ATOM	3824	CA	LEU	B	466	-13.953	24.350	22.801	1.00	44.33	C
ATOM	3825	CB	LEU	B	466	-12.607	25.059	22.709	1.00	44.33	C
ATOM	3826	CG	LEU	B	466	-12.327	25.666	21.348	1.00	44.33	C
ATOM	3827	CD1	LEU	B	466	-11.098	26.535	21.353	1.00	44.33	C
ATOM	3828	CD2	LEU	B	466	-12.214	24.595	20.278	1.00	44.33	C
ATOM	3829	C	LEU	B	466	-13.768	23.232	23.820	1.00	44.33	C
ATOM	3830	O	LEU	B	466	-13.436	22.096	23.450	1.00	45.41	O
ATOM	3831	N	ASP	B	467	-13.940	23.561	25.097	1.00	45.23	N
ATOM	3832	CA	ASP	B	467	-13.801	22.561	26.144	1.00	45.58	C
ATOM	3833	CB	ASP	B	467	-13.757	23.189	27.521	1.00	45.16	C
ATOM	3834	CG	ASP	B	467	-12.574	24.078	27.646	1.00	47.64	C
ATOM	3835	OD1	ASP	B	467	-11.500	23.638	27.137	1.00	45.42	O
ATOM	3836	OD2	ASP	B	467	-12.709	25.230	28.153	1.00	47.35	O
ATOM	3837	C	ASP	B	467	-14.853	21.513	26.080	1.00	44.63	C
ATOM	3838	O	ASP	B	467	-14.576	20.373	26.432	1.00	44.33	O
ATOM	3839	N	ASN	B	468	-16.041	21.874	25.619	1.00	44.33	N

- 262 -

ATOM	3840	CA	ASN B 468	-17.124	20.900	25.523	1.00	44.33	C
ATOM	3841	CB	ASN B 468	-18.467	21.608	25.521	1.00	44.33	C
ATOM	3842	CG	ASN B 468	-18.829	22.115	26.886	1.00	44.33	C
ATOM	3843	OD1	ASN B 468	-18.061	21.984	27.832	1.00	44.33	O
ATOM	3844	ND2	ASN B 468	-20.021	22.674	27.007	1.00	44.33	N
ATOM	3845	C	ASN B 468	-16.982	19.896	24.363	1.00	44.33	C
ATOM	3846	O	ASN B 468	-17.710	18.903	24.294	1.00	45.09	O
ATOM	3847	N	VAL B 469	-16.014	20.139	23.480	1.00	44.33	N
ATOM	3848	CA	VAL B 469	-15.839	19.266	22.329	1.00	44.33	C
ATOM	3849	CB	VAL B 469	-15.786	20.050	21.027	1.00	44.33	C
ATOM	3850	CG1	VAL B 469	-15.661	19.093	19.871	1.00	44.33	C
ATOM	3851	CG2	VAL B 469	-17.030	20.909	20.880	1.00	44.33	C
ATOM	3852	C	VAL B 469	-14.557	18.451	22.452	1.00	44.33	C
ATOM	3853	O	VAL B 469	-13.456	18.989	22.632	1.00	45.02	O
ATOM	3854	N	MET B 470	-14.700	17.142	22.365	1.00	44.33	N
ATOM	3855	CA	MET B 470	-13.529	16.296	22.432	1.00	45.34	C
ATOM	3856	CB	MET B 470	-13.573	15.307	23.618	1.00	46.26	C
ATOM	3857	CG	MET B 470	-13.480	15.881	25.053	1.00	45.37	C
ATOM	3858	SD	MET B 470	-13.990	14.668	26.323	1.00	48.68	S
ATOM	3859	CE	MET B 470	-15.572	14.107	25.712	1.00	46.75	C
ATOM	3860	C	MET B 470	-13.467	15.498	21.145	1.00	44.33	C
ATOM	3861	O	MET B 470	-14.379	15.545	20.283	1.00	44.49	O
ATOM	3862	N	LEU B 471	-12.366	14.755	21.040	1.00	44.33	N
ATOM	3863	CA	LEU B 471	-12.180	13.791	19.987	1.00	44.33	C
ATOM	3864	CB	LEU B 471	-10.811	14.008	19.337	1.00	44.33	C
ATOM	3865	CG	LEU B 471	-10.509	15.386	18.715	1.00	44.33	C
ATOM	3866	CD1	LEU B 471	-9.055	15.489	18.253	1.00	44.33	C
ATOM	3867	CD2	LEU B 471	-11.467	15.679	17.580	1.00	44.33	C
ATOM	3868	C	LEU B 471	-12.225	12.421	20.601	1.00	44.33	C
ATOM	3869	O	LEU B 471	-11.641	12.201	21.666	1.00	44.33	O
ATOM	3870	N	ASP B 472	-12.908	11.487	19.950	1.00	44.33	N
ATOM	3871	CA	ASP B 472	-12.774	10.087	20.388	1.00	44.33	C
ATOM	3872	CB	ASP B 472	-13.991	9.234	19.989	1.00	44.34	C
ATOM	3873	CG	ASP B 472	-14.097	9.022	18.507	1.00	47.12	C
ATOM	3874	OD1	ASP B 472	-13.114	9.317	17.790	1.00	48.13	O
ATOM	3875	OD2	ASP B 472	-15.170	8.563	18.060	1.00	48.31	O
ATOM	3876	C	ASP B 472	-11.453	9.497	19.876	1.00	44.33	C
ATOM	3877	O	ASP B 472	-10.706	10.176	19.177	1.00	44.33	O
ATOM	3878	N	SER B 473	-11.174	8.244	20.226	1.00	45.20	N
ATOM	3879	CA	SER B 473	-9.971	7.507	19.773	1.00	45.22	C
ATOM	3880	CB	SER B 473	-10.135	6.025	20.094	1.00	44.82	C
ATOM	3881	OG	SER B 473	-9.951	5.794	21.461	1.00	47.52	O
ATOM	3882	C	SER B 473	-9.716	7.556	18.267	1.00	45.16	C
ATOM	3883	O	SER B 473	-8.576	7.607	17.830	1.00	45.24	O
ATOM	3884	N	GLU B 474	-10.784	7.466	17.482	1.00	46.36	N
ATOM	3885	CA	GLU B 474	-10.678	7.518	16.040	1.00	47.14	C
ATOM	3886	CB	GLU B 474	-11.989	7.077	15.379	1.00	49.80	C
ATOM	3887	CG	GLU B 474	-12.449	5.688	15.762	1.00	52.48	C
ATOM	3888	CD	GLU B 474	-11.276	4.749	15.941	1.00	54.86	C
ATOM	3889	OE1	GLU B 474	-10.772	4.229	14.905	1.00	55.40	O
ATOM	3890	OE2	GLU B 474	-10.853	4.557	17.112	1.00	55.94	O
ATOM	3891	C	GLU B 474	-10.364	8.913	15.563	1.00	46.32	C
ATOM	3892	O	GLU B 474	-9.922	9.085	14.438	1.00	49.02	O
ATOM	3893	N	GLY B 475	-10.607	9.910	16.406	1.00	45.84	N
ATOM	3894	CA	GLY B 475	-10.469	11.321	16.008	1.00	44.33	C
ATOM	3895	C	GLY B 475	-11.695	11.994	15.399	1.00	44.33	C
ATOM	3896	O	GLY B 475	-11.548	13.060	14.784	1.00	44.33	O
ATOM	3897	N	HIS B 476	-12.884	11.375	15.533	1.00	44.33	N

- 263 -

ATOM	3898	CA	HIS	B	476	-14.154	12.060	15.272	1.00	44.33	C
ATOM	3899	CB	HIS	B	476	-15.261	11.079	14.927	1.00	44.33	C
ATOM	3900	CG	HIS	B	476	-15.072	10.373	13.627	1.00	44.33	C
ATOM	3901	ND1	HIS	B	476	-16.031	10.390	12.628	1.00	44.33	N
ATOM	3902	CE1	HIS	B	476	-15.621	9.647	11.614	1.00	44.33	C
ATOM	3903	NE2	HIS	B	476	-14.427	9.154	11.920	1.00	44.33	N
ATOM	3904	CD2	HIS	B	476	-14.062	9.595	13.174	1.00	44.33	C
ATOM	3905	C	HIS	B	476	-14.594	12.857	16.508	1.00	44.33	C
ATOM	3906	O	HIS	B	476	-14.102	12.639	17.628	1.00	44.33	O
ATOM	3907	N	ILE	B	477	-15.545	13.756	16.280	1.00	44.33	N
ATOM	3908	CA	ILE	B	477	-15.958	14.727	17.239	1.00	44.33	C
ATOM	3909	CB	ILE	B	477	-16.547	15.949	16.475	1.00	44.33	C
ATOM	3910	CG1	ILE	B	477	-15.420	16.759	15.857	1.00	44.33	C
ATOM	3911	CD1	ILE	B	477	-14.496	17.420	16.900	1.00	44.33	C
ATOM	3912	CG2	ILE	B	477	-17.335	16.864	17.360	1.00	44.33	C
ATOM	3913	C	ILE	B	477	-16.951	14.080	18.165	1.00	44.33	C
ATOM	3914	O	ILE	B	477	-17.780	13.262	17.741	1.00	44.33	O
ATOM	3915	N	LYS	B	478	-16.835	14.452	19.442	1.00	44.33	N
ATOM	3916	CA	LYS	B	478	-17.856	14.186	20.472	1.00	44.33	C
ATOM	3917	CB	LYS	B	478	-17.360	13.095	21.450	1.00	44.33	C
ATOM	3918	CG	LYS	B	478	-17.289	11.684	20.887	1.00	44.33	C
ATOM	3919	CD	LYS	B	478	-18.625	10.982	20.840	1.00	44.33	C
ATOM	3920	CE	LYS	B	478	-18.382	9.491	20.826	1.00	44.33	C
ATOM	3921	NZ	LYS	B	478	-19.532	8.714	20.313	1.00	46.48	N
ATOM	3922	C	LYS	B	478	-18.186	15.473	21.247	1.00	44.33	C
ATOM	3923	O	LYS	B	478	-17.299	16.094	21.884	1.00	44.33	O
ATOM	3924	N	ILE	B	479	-19.455	15.860	21.231	1.00	44.33	N
ATOM	3925	CA	ILE	B	479	-19.887	16.978	22.080	1.00	44.33	C
ATOM	3926	CB	ILE	B	479	-20.925	17.859	21.422	1.00	44.33	C
ATOM	3927	CG1	ILE	B	479	-20.530	18.099	19.974	1.00	44.33	C
ATOM	3928	CD1	ILE	B	479	-21.397	19.094	19.234	1.00	44.33	C
ATOM	3929	CG2	ILE	B	479	-20.990	19.171	22.149	1.00	44.33	C
ATOM	3930	C	ILE	B	479	-20.424	16.493	23.406	1.00	44.33	C
ATOM	3931	O	ILE	B	479	-21.218	15.527	23.445	1.00	44.33	O
ATOM	3932	N	ALA	B	480	-19.998	17.183	24.471	1.00	44.33	N
ATOM	3933	CA	ALA	B	480	-20.287	16.820	25.846	1.00	44.33	C
ATOM	3934	CB	ALA	B	480	-19.022	16.396	26.509	1.00	44.33	C
ATOM	3935	C	ALA	B	480	-20.921	17.971	26.640	1.00	44.33	C
ATOM	3936	O	ALA	B	480	-21.053	19.104	26.179	1.00	44.62	O
ATOM	3937	N	ASP	B	481	-21.309	17.655	27.860	1.00	45.08	N
ATOM	3938	CA	ASP	B	481	-21.825	18.626	28.786	1.00	45.52	C
ATOM	3939	CB	ASP	B	481	-20.758	19.641	29.148	1.00	47.41	C
ATOM	3940	CG	ASP	B	481	-21.183	20.504	30.301	1.00	50.03	C
ATOM	3941	OD1	ASP	B	481	-22.407	20.583	30.512	1.00	49.44	O
ATOM	3942	OD2	ASP	B	481	-20.326	21.102	30.988	1.00	52.35	O
ATOM	3943	C	ASP	B	481	-23.105	19.319	28.311	1.00	45.79	C
ATOM	3944	O	ASP	B	481	-23.029	20.376	27.713	1.00	46.19	O
ATOM	3945	N	PHE	B	482	-24.275	18.759	28.612	1.00	44.54	N
ATOM	3946	CA	PHE	B	482	-25.550	19.400	28.213	1.00	44.33	C
ATOM	3947	CB	PHE	B	482	-26.411	18.400	27.459	1.00	44.33	C
ATOM	3948	CG	PHE	B	482	-25.701	17.812	26.297	1.00	44.33	C
ATOM	3949	CD1	PHE	B	482	-24.875	16.690	26.467	1.00	44.33	C
ATOM	3950	CE1	PHE	B	482	-24.151	16.132	25.386	1.00	44.33	C
ATOM	3951	CZ	PHE	B	482	-24.242	16.731	24.125	1.00	44.33	C
ATOM	3952	CE2	PHE	B	482	-25.066	17.902	23.958	1.00	44.33	C
ATOM	3953	CD2	PHE	B	482	-25.771	18.428	25.050	1.00	44.33	C
ATOM	3954	C	PHE	B	482	-26.319	20.083	29.343	1.00	44.88	C
ATOM	3955	O	PHE	B	482	-27.544	20.165	29.326	1.00	44.33	O

- 264 -

ATOM	3956	N	GLY B 483	-25.571	20.620	30.301	1.00	44.33	N
ATOM	3957	CA	GLY B 483	-26.150	21.223	31.484	1.00	46.00	C
ATOM	3958	C	GLY B 483	-26.712	22.627	31.332	1.00	47.61	C
ATOM	3959	O	GLY B 483	-26.965	23.309	32.323	1.00	49.53	O
ATOM	3960	N	MET B 484	-26.930	23.091	30.119	1.00	46.96	N
ATOM	3961	CA	MET B 484	-27.436	24.450	29.965	1.00	50.91	C
ATOM	3962	CB	MET B 484	-26.315	25.431	29.584	1.00	52.21	C
ATOM	3963	CG	MET B 484	-25.287	25.795	30.653	1.00	55.64	C
ATOM	3964	SD	MET B 484	-24.046	26.973	30.026	1.00	60.03	S
ATOM	3965	CE	MET B 484	-25.036	28.465	30.193	1.00	57.64	C
ATOM	3966	C	MET B 484	-28.439	24.487	28.842	1.00	48.33	C
ATOM	3967	O	MET B 484	-28.831	25.552	28.364	1.00	49.02	O
ATOM	3968	N	CYS B 485	-28.824	23.324	28.356	1.00	48.14	N
ATOM	3969	CA	CYS B 485	-29.746	23.305	27.262	1.00	46.57	C
ATOM	3970	CB	CYS B 485	-29.901	21.874	26.809	1.00	46.50	C
ATOM	3971	SG	CYS B 485	-28.396	21.213	26.089	1.00	48.39	S
ATOM	3972	C	CYS B 485	-31.098	23.965	27.657	1.00	47.73	C
ATOM	3973	O	CYS B 485	-31.399	24.128	28.860	1.00	46.20	O
ATOM	3974	N	LYS B 486	-31.870	24.397	26.652	1.00	47.37	N
ATOM	3975	CA	LYS B 486	-33.253	24.794	26.848	1.00	49.40	C
ATOM	3976	CB	LYS B 486	-33.532	26.250	26.444	1.00	50.00	C
ATOM	3977	CG	LYS B 486	-34.817	26.890	27.070	1.00	50.17	C
ATOM	3978	CD	LYS B 486	-34.655	27.053	28.583	1.00	52.05	C
ATOM	3979	CE	LYS B 486	-35.780	27.815	29.228	1.00	51.33	C
ATOM	3980	NZ	LYS B 486	-35.356	27.959	30.652	1.00	55.89	N
ATOM	3981	C	LYS B 486	-34.095	23.898	25.997	1.00	50.20	C
ATOM	3982	O	LYS B 486	-33.889	23.794	24.771	1.00	50.55	O
ATOM	3983	N	GLU B 487	-35.055	23.253	26.651	1.00	51.05	N
ATOM	3984	CA	GLU B 487	-36.003	22.419	25.960	1.00	53.07	C
ATOM	3985	CB	GLU B 487	-36.637	21.462	26.964	1.00	56.02	C
ATOM	3986	CG	GLU B 487	-35.691	20.567	27.738	1.00	58.95	C
ATOM	3987	CD	GLU B 487	-36.458	19.697	28.728	1.00	59.11	C
ATOM	3988	OE1	GLU B 487	-36.458	20.002	29.942	1.00	60.14	O
ATOM	3989	OE2	GLU B 487	-37.093	18.716	28.287	1.00	60.30	O
ATOM	3990	C	GLU B 487	-37.139	23.230	25.308	1.00	53.41	C
ATOM	3991	O	GLU B 487	-37.175	24.473	25.340	1.00	56.07	O
ATOM	3992	N	HIS B 488	-38.087	22.470	24.758	1.00	51.41	N
ATOM	3993	CA	HIS B 488	-39.315	22.949	24.099	1.00	50.96	C
ATOM	3994	CB	HIS B 488	-40.445	23.017	25.122	1.00	50.57	C
ATOM	3995	CG	HIS B 488	-40.354	21.945	26.160	1.00	51.64	C
ATOM	3996	ND1	HIS B 488	-40.786	22.122	27.462	1.00	52.55	N
ATOM	3997	CE1	HIS B 488	-40.554	21.020	28.156	1.00	53.48	C
ATOM	3998	NE2	HIS B 488	-39.971	20.138	27.356	1.00	52.78	N
ATOM	3999	CD2	HIS B 488	-39.846	20.688	26.099	1.00	52.08	C
ATOM	4000	C	HIS B 488	-39.146	24.259	23.320	1.00	51.27	C
ATOM	4001	O	HIS B 488	-40.099	25.086	23.245	1.00	49.27	O
ATOM	4002	N	MET B 489	-37.940	24.454	22.762	1.00	49.82	N
ATOM	4003	CA	MET B 489	-37.657	25.652	21.974	1.00	50.47	C
ATOM	4004	CB	MET B 489	-36.190	26.103	22.070	1.00	51.21	C
ATOM	4005	CG	MET B 489	-35.838	26.631	23.458	1.00	51.56	C
ATOM	4006	SD	MET B 489	-37.008	27.935	23.987	1.00	54.24	S
ATOM	4007	CE	MET B 489	-37.119	27.632	25.762	1.00	54.72	C
ATOM	4008	C	MET B 489	-38.041	25.423	20.537	1.00	49.94	C
ATOM	4009	O	MET B 489	-37.167	25.444	19.646	1.00	49.21	O
ATOM	4010	N	MET B 490	-39.332	25.192	20.306	1.00	49.68	N
ATOM	4011	CA	MET B 490	-39.803	25.008	18.942	1.00	50.84	C
ATOM	4012	CB	MET B 490	-41.069	24.125	18.871	1.00	50.89	C
ATOM	4013	CG	MET B 490	-41.494	23.488	20.208	1.00	51.32	C

- 265 -

ATOM	4014	SD	MET	B	490	-40.507	22.112	20.968	1.00	51.82	S
ATOM	4015	CE	MET	B	490	-40.845	20.676	19.880	1.00	53.90	C
ATOM	4016	C	MET	B	490	-40.047	26.355	18.262	1.00	51.05	C
ATOM	4017	O	MET	B	490	-40.095	27.414	18.895	1.00	51.35	O
ATOM	4018	N	ASP	B	491	-40.188	26.279	16.953	1.00	51.41	N
ATOM	4019	CA	ASP	B	491	-40.671	27.396	16.116	1.00	52.61	C
ATOM	4020	CB	ASP	B	491	-41.640	26.816	15.056	1.00	55.54	C
ATOM	4021	CG	ASP	B	491	-41.052	25.560	14.369	1.00	58.99	C
ATOM	4022	OD1	ASP	B	491	-39.776	25.545	14.127	1.00	57.71	O
ATOM	4023	OD2	ASP	B	491	-41.849	24.601	14.105	1.00	59.00	O
ATOM	4024	C	ASP	B	491	-41.267	28.635	16.859	1.00	51.58	C
ATOM	4025	O	ASP	B	491	-42.461	28.633	17.243	1.00	50.63	O
ATOM	4026	N	GLY	B	492	-40.436	29.666	17.060	1.00	49.15	N
ATOM	4027	CA	GLY	B	492	-40.910	30.917	17.686	1.00	47.71	C
ATOM	4028	C	GLY	B	492	-40.824	31.041	19.216	1.00	46.97	C
ATOM	4029	O	GLY	B	492	-40.846	32.169	19.747	1.00	48.03	O
ATOM	4030	N	VAL	B	493	-40.736	29.905	19.930	1.00	45.81	N
ATOM	4031	CA	VAL	B	493	-40.538	29.944	21.378	1.00	44.33	C
ATOM	4032	CB	VAL	B	493	-40.748	28.539	22.056	1.00	44.33	C
ATOM	4033	CG1	VAL	B	493	-40.310	28.532	23.572	1.00	44.33	C
ATOM	4034	CG2	VAL	B	493	-42.211	28.078	21.914	1.00	44.33	C
ATOM	4035	C	VAL	B	493	-39.164	30.591	21.627	1.00	45.43	C
ATOM	4036	O	VAL	B	493	-38.202	30.377	20.804	1.00	44.33	O
ATOM	4037	N	THR	B	494	-39.085	31.437	22.678	1.00	45.04	N
ATOM	4038	CA	THR	B	494	-37.831	32.140	22.979	1.00	45.76	C
ATOM	4039	CB	THR	B	494	-37.698	33.498	22.242	1.00	46.90	C
ATOM	4040	OG1	THR	B	494	-38.526	34.470	22.888	1.00	47.52	O
ATOM	4041	CG2	THR	B	494	-38.039	33.408	20.756	1.00	45.93	C
ATOM	4042	C	THR	B	494	-37.620	32.355	24.482	1.00	46.13	C
ATOM	4043	O	THR	B	494	-38.595	32.343	25.266	1.00	46.73	O
ATOM	4044	N	THR	B	495	-36.353	32.549	24.870	1.00	44.61	N
ATOM	4045	CA	THR	B	495	-36.033	32.968	26.233	1.00	45.80	C
ATOM	4046	CB	THR	B	495	-35.471	31.811	27.083	1.00	46.55	C
ATOM	4047	OG1	THR	B	495	-34.697	32.335	28.179	1.00	50.47	O
ATOM	4048	CG2	THR	B	495	-34.590	30.942	26.244	1.00	48.12	C
ATOM	4049	C	THR	B	495	-35.104	34.200	26.305	1.00	45.31	C
ATOM	4050	O	THR	B	495	-34.555	34.655	25.281	1.00	44.33	O
ATOM	4051	N	ARG	B	496	-34.961	34.756	27.513	1.00	45.27	N
ATOM	4052	CA	ARG	B	496	-34.060	35.875	27.729	1.00	46.05	C
ATOM	4053	CB	ARG	B	496	-34.850	37.129	28.119	1.00	46.78	C
ATOM	4054	CG	ARG	B	496	-35.876	37.577	27.124	1.00	48.00	C
ATOM	4055	CD	ARG	B	496	-36.711	38.625	27.792	1.00	48.77	C
ATOM	4056	NE	ARG	B	496	-36.142	39.970	27.700	1.00	50.13	N
ATOM	4057	CZ	ARG	B	496	-36.193	40.901	28.676	1.00	49.98	C
ATOM	4058	NH1	ARG	B	496	-36.759	40.631	29.863	1.00	50.99	N
ATOM	4059	NH2	ARG	B	496	-35.660	42.123	28.478	1.00	49.09	N
ATOM	4060	C	ARG	B	496	-33.079	35.545	28.859	1.00	44.68	C
ATOM	4061	O	ARG	B	496	-32.461	36.491	29.434	1.00	44.40	O
ATOM	4062	N	GLU	B	497	-32.962	34.243	29.212	1.00	45.03	N
ATOM	4063	CA	GLU	B	497	-31.995	33.794	30.260	1.00	48.81	C
ATOM	4064	CB	GLU	B	497	-32.185	32.284	30.706	1.00	50.06	C
ATOM	4065	CG	GLU	B	497	-31.283	31.815	31.969	1.00	55.27	C
ATOM	4066	CD	GLU	B	497	-31.278	30.262	32.356	1.00	54.18	C
ATOM	4067	OE1	GLU	B	497	-32.263	29.507	32.047	1.00	58.20	O
ATOM	4068	OE2	GLU	B	497	-30.271	29.799	33.005	1.00	58.62	O
ATOM	4069	C	GLU	B	497	-30.551	34.072	29.777	1.00	48.36	C
ATOM	4070	O	GLU	B	497	-30.107	33.503	28.774	1.00	49.07	O
ATOM	4071	N	PHE	B	498	-29.868	34.965	30.491	1.00	48.98	N

- 266 -

ATOM	4072	CA	PHE	B	498	-28.468	35.283	30.270	1.00	48.53	C
ATOM	4073	CB	PHE	B	498	-28.108	36.530	31.076	1.00	49.34	C
ATOM	4074	CG	PHE	B	498	-26.659	36.829	31.035	1.00	48.80	C
ATOM	4075	CD1	PHE	B	498	-26.149	37.673	30.062	1.00	49.07	C
ATOM	4076	CE1	PHE	B	498	-24.828	37.913	29.985	1.00	48.87	C
ATOM	4077	CZ	PHE	B	498	-23.977	37.290	30.857	1.00	49.43	C
ATOM	4078	CE2	PHE	B	498	-24.462	36.433	31.824	1.00	49.72	C
ATOM	4079	CD2	PHE	B	498	-25.794	36.194	31.905	1.00	50.21	C
ATOM	4080	C	PHE	B	498	-27.516	34.142	30.684	1.00	47.93	C
ATOM	4081	O	PHE	B	498	-27.490	33.724	31.855	1.00	46.46	O
ATOM	4082	N	CYS	B	499	-26.707	33.652	29.757	1.00	48.53	N
ATOM	4083	CA	CYS	B	499	-25.819	32.515	30.094	1.00	50.39	C
ATOM	4084	CB	CYS	B	499	-26.653	31.298	30.491	1.00	51.22	C
ATOM	4085	SG	CYS	B	499	-27.616	30.678	29.105	1.00	53.04	S
ATOM	4086	C	CYS	B	499	-24.825	32.099	28.994	1.00	50.02	C
ATOM	4087	O	CYS	B	499	-25.028	32.372	27.808	1.00	51.94	O
ATOM	4088	N	GLY	B	500	-23.766	31.405	29.401	1.00	50.46	N
ATOM	4089	CA	GLY	B	500	-22.785	30.843	28.450	1.00	49.87	C
ATOM	4090	C	GLY	B	500	-21.429	31.421	28.762	1.00	49.03	C
ATOM	4091	O	GLY	B	500	-21.329	32.232	29.687	1.00	50.10	O
ATOM	4092	N	THR	B	501	-20.390	31.008	28.019	1.00	49.44	N
ATOM	4093	CA	THR	B	501	-19.007	31.527	28.288	1.00	49.95	C
ATOM	4094	CB	THR	B	501	-17.870	30.456	28.034	1.00	50.97	C
ATOM	4095	OG1	THR	B	501	-18.369	29.165	28.398	1.00	55.96	O
ATOM	4096	CG2	THR	B	501	-16.637	30.704	28.857	1.00	53.02	C
ATOM	4097	C	THR	B	501	-18.816	32.850	27.527	1.00	48.71	C
ATOM	4098	O	THR	B	501	-19.004	32.914	26.311	1.00	49.63	O
ATOM	4099	N	PRO	B	502	-18.526	33.919	28.264	1.00	48.09	N
ATOM	4100	CA	PRO	B	502	-18.523	35.245	27.676	1.00	47.09	C
ATOM	4101	CB	PRO	B	502	-17.710	36.045	28.686	1.00	47.48	C
ATOM	4102	CG	PRO	B	502	-18.143	35.407	30.026	1.00	48.24	C
ATOM	4103	CD	PRO	B	502	-18.243	33.943	29.716	1.00	48.43	C
ATOM	4104	C	PRO	B	502	-18.018	35.344	26.226	1.00	44.41	C
ATOM	4105	O	PRO	B	502	-18.751	35.836	25.382	1.00	44.33	O
ATOM	4106	N	ASP	B	503	-16.836	34.833	25.907	1.00	44.43	N
ATOM	4107	CA	ASP	B	503	-16.312	34.955	24.537	1.00	44.33	C
ATOM	4108	CB	ASP	B	503	-14.901	34.339	24.439	1.00	44.33	C
ATOM	4109	CG	ASP	B	503	-13.841	35.184	25.138	1.00	44.33	C
ATOM	4110	OD1	ASP	B	503	-13.820	35.281	26.393	1.00	44.33	O
ATOM	4111	OD2	ASP	B	503	-13.005	35.776	24.431	1.00	44.33	O
ATOM	4112	C	ASP	B	503	-17.248	34.357	23.465	1.00	44.33	C
ATOM	4113	O	ASP	B	503	-17.184	34.719	22.296	1.00	44.33	O
ATOM	4114	N	TYR	B	504	-18.119	33.448	23.869	1.00	44.33	N
ATOM	4115	CA	TYR	B	504	-18.937	32.744	22.923	1.00	44.33	C
ATOM	4116	CB	TYR	B	504	-18.968	31.273	23.291	1.00	44.33	C
ATOM	4117	CG	TYR	B	504	-17.662	30.538	23.125	1.00	44.33	C
ATOM	4118	CD1	TYR	B	504	-16.676	30.619	24.091	1.00	44.33	C
ATOM	4119	CE1	TYR	B	504	-15.480	29.940	23.946	1.00	44.33	C
ATOM	4120	CZ	TYR	B	504	-15.248	29.156	22.794	1.00	44.33	C
ATOM	4121	OH	TYR	B	504	-14.041	28.461	22.648	1.00	44.33	O
ATOM	4122	CE2	TYR	B	504	-16.218	29.080	21.802	1.00	44.33	C
ATOM	4123	CD2	TYR	B	504	-17.420	29.762	21.986	1.00	44.33	C
ATOM	4124	C	TYR	B	504	-20.351	33.300	22.870	1.00	44.33	C
ATOM	4125	O	TYR	B	504	-21.184	32.834	22.097	1.00	44.33	O
ATOM	4126	N	ILE	B	505	-20.632	34.317	23.669	1.00	44.33	N
ATOM	4127	CA	ILE	B	505	-22.003	34.817	23.719	1.00	44.33	C
ATOM	4128	CB	ILE	B	505	-22.309	35.534	25.037	1.00	44.33	C
ATOM	4129	CG1	ILE	B	505	-22.077	34.584	26.228	1.00	45.99	C

- 267 -

ATOM	4130	CD1	ILE	B	505	-22.368	35.193	27.595	1.00	45.22	C
ATOM	4131	CG2	ILE	B	505	-23.744	36.020	25.020	1.00	44.33	C
ATOM	4132	C	ILE	B	505	-22.418	35.729	22.543	1.00	44.33	C
ATOM	4133	O	ILE	B	505	-21.767	36.744	22.240	1.00	44.33	O
ATOM	4134	N	ALA	B	506	-23.533	35.367	21.911	1.00	44.33	N
ATOM	4135	CA	ALA	B	506	-24.204	36.206	20.915	1.00	44.33	C
ATOM	4136	CB	ALA	B	506	-25.421	35.490	20.424	1.00	44.33	C
ATOM	4137	C	ALA	B	506	-24.619	37.592	21.444	1.00	44.33	C
ATOM	4138	O	ALA	B	506	-24.962	37.757	22.635	1.00	44.33	O
ATOM	4139	N	PRO	B	507	-24.607	38.602	20.562	1.00	44.33	N
ATOM	4140	CA	PRO	B	507	-25.141	39.934	20.886	1.00	44.33	C
ATOM	4141	CB	PRO	B	507	-25.112	40.647	19.555	1.00	44.33	C
ATOM	4142	CG	PRO	B	507	-23.938	40.036	18.884	1.00	44.33	C
ATOM	4143	CD	PRO	B	507	-24.043	38.565	19.206	1.00	44.33	C
ATOM	4144	C	PRO	B	507	-26.567	39.929	21.468	1.00	44.33	C
ATOM	4145	O	PRO	B	507	-26.836	40.692	22.419	1.00	44.33	O
ATOM	4146	N	GLU	B	508	-27.460	39.083	20.956	1.00	44.33	N
ATOM	4147	CA	GLU	B	508	-28.822	39.113	21.452	1.00	44.33	C
ATOM	4148	CB	GLU	B	508	-29.752	38.187	20.680	1.00	44.33	C
ATOM	4149	CG	GLU	B	508	-29.357	36.734	20.672	1.00	44.33	C
ATOM	4150	CD	GLU	B	508	-28.577	36.373	19.419	1.00	44.33	C
ATOM	4151	OE1	GLU	B	508	-27.560	37.045	19.150	1.00	44.33	O
ATOM	4152	OE2	GLU	B	508	-28.977	35.412	18.712	1.00	44.33	O
ATOM	4153	C	GLU	B	508	-28.916	38.799	22.920	1.00	44.33	C
ATOM	4154	O	GLU	B	508	-29.842	39.269	23.605	1.00	44.33	O
ATOM	4155	N	ILE	B	509	-27.985	37.991	23.411	1.00	44.33	N
ATOM	4156	CA	ILE	B	509	-27.973	37.646	24.824	1.00	44.33	C
ATOM	4157	CB	ILE	B	509	-27.203	36.373	25.057	1.00	44.33	C
ATOM	4158	CG1	ILE	B	509	-28.019	35.205	24.503	1.00	44.33	C
ATOM	4159	CD1	ILE	B	509	-27.290	33.920	24.534	1.00	44.33	C
ATOM	4160	CG2	ILE	B	509	-26.812	36.218	26.534	1.00	44.33	C
ATOM	4161	C	ILE	B	509	-27.453	38.804	25.646	1.00	44.33	C
ATOM	4162	O	ILE	B	509	-27.967	39.082	26.732	1.00	44.33	O
ATOM	4163	N	ILE	B	510	-26.451	39.514	25.137	1.00	44.33	N
ATOM	4164	CA	ILE	B	510	-26.011	40.727	25.839	1.00	44.33	C
ATOM	4165	CB	ILE	B	510	-24.799	41.330	25.217	1.00	44.33	C
ATOM	4166	CG1	ILE	B	510	-23.579	40.523	25.671	1.00	44.33	C
ATOM	4167	CD1	ILE	B	510	-22.630	40.105	24.551	1.00	44.33	C
ATOM	4168	CG2	ILE	B	510	-24.687	42.787	25.662	1.00	44.33	C
ATOM	4169	C	ILE	B	510	-27.166	41.739	25.856	1.00	44.33	C
ATOM	4170	O	ILE	B	510	-27.474	42.336	26.894	1.00	44.33	O
ATOM	4171	N	ALA	B	511	-27.842	41.906	24.728	1.00	44.33	N
ATOM	4172	CA	ALA	B	511	-28.951	42.857	24.692	1.00	44.33	C
ATOM	4173	CB	ALA	B	511	-29.553	42.982	23.271	1.00	44.33	C
ATOM	4174	C	ALA	B	511	-30.041	42.461	25.666	1.00	44.33	C
ATOM	4175	O	ALA	B	511	-30.838	43.292	26.062	1.00	44.33	O
ATOM	4176	N	TYR	B	512	-30.084	41.190	26.060	1.00	44.33	N
ATOM	4177	CA	TYR	B	512	-31.278	40.615	26.712	1.00	44.33	C
ATOM	4178	CB	TYR	B	512	-31.644	41.327	28.034	1.00	45.25	C
ATOM	4179	CG	TYR	B	512	-30.710	41.013	29.210	1.00	46.64	C
ATOM	4180	CD1	TYR	B	512	-31.032	39.990	30.127	1.00	47.00	C
ATOM	4181	CE1	TYR	B	512	-30.188	39.683	31.199	1.00	46.12	C
ATOM	4182	CZ	TYR	B	512	-29.006	40.426	31.386	1.00	46.53	C
ATOM	4183	OH	TYR	B	512	-28.179	40.112	32.465	1.00	47.19	O
ATOM	4184	CE2	TYR	B	512	-28.668	41.461	30.490	1.00	46.30	C
ATOM	4185	CD2	TYR	B	512	-29.519	41.742	29.410	1.00	46.41	C
ATOM	4186	C	TYR	B	512	-32.446	40.675	25.752	1.00	44.88	C
ATOM	4187	O	TYR	B	512	-33.580	40.809	26.169	1.00	44.33	O

- 268 -

ATOM	4188	N	GLN	B	513	-32.179	40.602	24.458	1.00	44.37	N
ATOM	4189	CA	GLN	B	513	-33.255	40.337	23.509	1.00	46.97	C
ATOM	4190	CB	GLN	B	513	-32.729	40.429	22.088	1.00	48.16	C
ATOM	4191	CG	GLN	B	513	-32.880	41.780	21.382	1.00	52.31	C
ATOM	4192	CD	GLN	B	513	-32.819	41.663	19.811	1.00	52.83	C
ATOM	4193	OE1	GLN	B	513	-32.564	40.577	19.219	1.00	54.69	O
ATOM	4194	NE2	GLN	B	513	-33.072	42.798	19.145	1.00	55.53	N
ATOM	4195	C	GLN	B	513	-33.735	38.896	23.680	1.00	45.77	C
ATOM	4196	O	GLN	B	513	-32.941	37.991	23.891	1.00	47.47	O
ATOM	4197	N	PRO	B	514	-35.034	38.661	23.597	1.00	45.91	N
ATOM	4198	CA	PRO	B	514	-35.503	37.278	23.513	1.00	44.37	C
ATOM	4199	CB	PRO	B	514	-36.979	37.481	23.164	1.00	44.33	C
ATOM	4200	CG	PRO	B	514	-37.327	38.763	23.956	1.00	46.02	C
ATOM	4201	CD	PRO	B	514	-36.148	39.633	23.656	1.00	44.33	C
ATOM	4202	C	PRO	B	514	-34.762	36.562	22.398	1.00	44.33	C
ATOM	4203	O	PRO	B	514	-34.440	37.213	21.434	1.00	44.33	O
ATOM	4204	N	TYR	B	515	-34.454	35.270	22.519	1.00	44.33	N
ATOM	4205	CA	TYR	B	515	-33.678	34.554	21.452	1.00	44.33	C
ATOM	4206	CB	TYR	B	515	-32.166	34.611	21.687	1.00	44.33	C
ATOM	4207	CG	TYR	B	515	-31.773	33.880	22.937	1.00	44.33	C
ATOM	4208	CD1	TYR	B	515	-31.505	32.514	22.917	1.00	44.33	C
ATOM	4209	CE1	TYR	B	515	-31.177	31.853	24.060	1.00	44.33	C
ATOM	4210	CZ	TYR	B	515	-31.092	32.570	25.263	1.00	44.33	C
ATOM	4211	OH	TYR	B	515	-30.767	31.950	26.464	1.00	44.33	O
ATOM	4212	CE2	TYR	B	515	-31.354	33.936	25.299	1.00	44.33	C
ATOM	4213	CD2	TYR	B	515	-31.696	34.566	24.145	1.00	44.33	C
ATOM	4214	C	TYR	B	515	-34.024	33.085	21.340	1.00	44.33	C
ATOM	4215	O	TYR	B	515	-34.540	32.486	22.308	1.00	44.33	O
ATOM	4216	N	GLY	B	516	-33.695	32.494	20.189	1.00	44.33	N
ATOM	4217	CA	GLY	B	516	-33.752	31.032	20.030	1.00	44.33	C
ATOM	4218	C	GLY	B	516	-32.409	30.380	19.614	1.00	44.33	C
ATOM	4219	O	GLY	B	516	-31.286	30.772	20.064	1.00	44.33	O
ATOM	4220	N	LYS	B	517	-32.526	29.381	18.738	1.00	44.33	N
ATOM	4221	CA	LYS	B	517	-31.393	28.577	18.316	1.00	44.33	C
ATOM	4222	CB	LYS	B	517	-31.837	27.454	17.351	1.00	44.33	C
ATOM	4223	CG	LYS	B	517	-31.862	27.853	15.874	1.00	45.64	C
ATOM	4224	CD	LYS	B	517	-32.362	26.733	14.967	1.00	48.17	C
ATOM	4225	CE	LYS	B	517	-32.924	27.333	13.683	1.00	50.03	C
ATOM	4226	NZ	LYS	B	517	-33.632	26.277	12.937	1.00	54.04	N
ATOM	4227	C	LYS	B	517	-30.291	29.437	17.686	1.00	44.33	C
ATOM	4228	O	LYS	B	517	-29.140	28.954	17.477	1.00	44.33	O
ATOM	4229	N	SER	B	518	-30.615	30.699	17.375	1.00	44.33	N
ATOM	4230	CA	SER	B	518	-29.601	31.580	16.768	1.00	44.33	C
ATOM	4231	CB	SER	B	518	-30.157	32.966	16.488	1.00	44.33	C
ATOM	4232	OG	SER	B	518	-30.043	33.760	17.668	1.00	44.33	O
ATOM	4233	C	SER	B	518	-28.289	31.698	17.612	1.00	44.33	C
ATOM	4234	O	SER	B	518	-27.198	31.885	17.054	1.00	44.33	O
ATOM	4235	N	VAL	B	519	-28.372	31.594	18.933	1.00	44.33	N
ATOM	4236	CA	VAL	B	519	-27.134	31.800	19.688	1.00	44.33	C
ATOM	4237	CB	VAL	B	519	-27.341	32.210	21.185	1.00	44.33	C
ATOM	4238	CG1	VAL	B	519	-28.251	33.424	21.289	1.00	44.33	C
ATOM	4239	CG2	VAL	B	519	-27.836	31.039	22.009	1.00	44.33	C
ATOM	4240	C	VAL	B	519	-26.119	30.644	19.545	1.00	44.33	C
ATOM	4241	O	VAL	B	519	-24.917	30.844	19.793	1.00	44.33	O
ATOM	4242	N	ASP	B	520	-26.603	29.450	19.156	1.00	44.33	N
ATOM	4243	CA	ASP	B	520	-25.709	28.284	18.999	1.00	44.33	C
ATOM	4244	CB	ASP	B	520	-26.458	26.993	18.746	1.00	44.33	C
ATOM	4245	CG	ASP	B	520	-27.085	26.445	19.980	1.00	44.33	C

- 269 -

ATOM	4246	OD1	ASP	B	520	-26.680	26.836	21.133	1.00	44.33	O
ATOM	4247	OD2	ASP	B	520	-28.026	25.632	19.781	1.00	44.33	O
ATOM	4248	C	ASP	B	520	-24.845	28.513	17.811	1.00	44.33	C
ATOM	4249	O	ASP	B	520	-23.725	28.101	17.760	1.00	44.33	O
ATOM	4250	N	TRP	B	521	-25.394	29.183	16.826	1.00	44.33	N
ATOM	4251	CA	TRP	B	521	-24.673	29.387	15.587	1.00	44.33	C
ATOM	4252	CB	TRP	B	521	-25.644	29.774	14.485	1.00	44.33	C
ATOM	4253	CG	TRP	B	521	-26.587	28.693	14.211	1.00	44.33	C
ATOM	4254	CD1	TRP	B	521	-27.943	28.680	14.451	1.00	44.33	C
ATOM	4255	NE1	TRP	B	521	-28.468	27.459	14.051	1.00	44.33	N
ATOM	4256	CE2	TRP	B	521	-27.438	26.675	13.578	1.00	44.33	C
ATOM	4257	CD2	TRP	B	521	-26.245	27.421	13.684	1.00	44.33	C
ATOM	4258	CE3	TRP	B	521	-25.041	26.842	13.276	1.00	44.33	C
ATOM	4259	CZ3	TRP	B	521	-25.061	25.569	12.773	1.00	44.33	C
ATOM	4260	CH2	TRP	B	521	-26.258	24.841	12.677	1.00	44.33	C
ATOM	4261	CZ2	TRP	B	521	-27.456	25.372	13.079	1.00	44.33	C
ATOM	4262	C	TRP	B	521	-23.671	30.466	15.755	1.00	44.33	C
ATOM	4263	O	TRP	B	521	-22.640	30.434	15.144	1.00	44.33	O
ATOM	4264	N	TRP	B	522	-23.987	31.448	16.568	1.00	44.33	N
ATOM	4265	CA	TRP	B	522	-23.018	32.480	16.817	1.00	44.33	C
ATOM	4266	CB	TRP	B	522	-23.528	33.492	17.817	1.00	44.33	C
ATOM	4267	CG	TRP	B	522	-22.518	34.491	18.226	1.00	44.33	C
ATOM	4268	CD1	TRP	B	522	-21.658	34.391	19.266	1.00	44.33	C
ATOM	4269	NE1	TRP	B	522	-20.887	35.509	19.358	1.00	44.33	N
ATOM	4270	CE2	TRP	B	522	-21.235	36.369	18.351	1.00	44.33	C
ATOM	4271	CD2	TRP	B	522	-22.265	35.757	17.616	1.00	44.33	C
ATOM	4272	CE3	TRP	B	522	-22.806	36.430	16.507	1.00	44.33	C
ATOM	4273	CZ3	TRP	B	522	-22.332	37.679	16.201	1.00	44.33	C
ATOM	4274	CH2	TRP	B	522	-21.313	38.277	16.978	1.00	44.33	C
ATOM	4275	CZ2	TRP	B	522	-20.748	37.635	18.044	1.00	44.33	C
ATOM	4276	C	TRP	B	522	-21.848	31.754	17.393	1.00	44.33	C
ATOM	4277	O	TRP	B	522	-20.767	31.776	16.814	1.00	44.33	O
ATOM	4278	N	ALA	B	523	-22.082	31.080	18.519	1.00	44.33	N
ATOM	4279	CA	ALA	B	523	-21.041	30.355	19.215	1.00	44.33	C
ATOM	4280	CB	ALA	B	523	-21.625	29.638	20.430	1.00	44.33	C
ATOM	4281	C	ALA	B	523	-20.265	29.394	18.298	1.00	44.33	C
ATOM	4282	O	ALA	B	523	-19.056	29.296	18.407	1.00	44.33	O
ATOM	4283	N	TYR	B	524	-20.969	28.732	17.385	1.00	44.33	N
ATOM	4284	CA	TYR	B	524	-20.366	27.869	16.371	1.00	44.33	C
ATOM	4285	CB	TYR	B	524	-21.466	27.164	15.609	1.00	44.33	C
ATOM	4286	CG	TYR	B	524	-21.061	26.312	14.422	1.00	44.33	C
ATOM	4287	CD1	TYR	B	524	-20.701	24.961	14.580	1.00	44.33	C
ATOM	4288	CE1	TYR	B	524	-20.362	24.155	13.474	1.00	44.33	C
ATOM	4289	CZ	TYR	B	524	-20.403	24.705	12.189	1.00	44.33	C
ATOM	4290	OH	TYR	B	524	-20.060	23.944	11.091	1.00	44.33	O
ATOM	4291	CE2	TYR	B	524	-20.783	26.026	12.004	1.00	44.33	C
ATOM	4292	CD2	TYR	B	524	-21.123	26.820	13.117	1.00	44.33	C
ATOM	4293	C	TYR	B	524	-19.447	28.653	15.438	1.00	44.33	C
ATOM	4294	O	TYR	B	524	-18.456	28.130	14.955	1.00	44.33	O
ATOM	4295	N	GLY	B	525	-19.764	29.918	15.218	1.00	44.33	N
ATOM	4296	CA	GLY	B	525	-18.910	30.787	14.446	1.00	44.33	C
ATOM	4297	C	GLY	B	525	-17.699	31.150	15.279	1.00	44.33	C
ATOM	4298	O	GLY	B	525	-16.565	31.182	14.790	1.00	44.33	O
ATOM	4299	N	VAL	B	526	-17.919	31.422	16.552	1.00	44.33	N
ATOM	4300	CA	VAL	B	526	-16.805	31.799	17.406	1.00	44.33	C
ATOM	4301	CB	VAL	B	526	-17.278	32.123	18.791	1.00	44.33	C
ATOM	4302	CG1	VAL	B	526	-16.110	32.462	19.646	1.00	44.33	C
ATOM	4303	CG2	VAL	B	526	-18.228	33.280	18.760	1.00	44.33	C

- 270 -

ATOM	4304	C	VAL	B	526	-15.807	30.645	17.496	1.00	44.33	C
ATOM	4305	O	VAL	B	526	-14.596	30.847	17.450	1.00	44.33	O
ATOM	4306	N	LEU	B	527	-16.344	29.432	17.604	1.00	44.33	N
ATOM	4307	CA	LEU	B	527	-15.556	28.225	17.771	1.00	44.33	C
ATOM	4308	CB	LEU	B	527	-16.470	27.063	18.080	1.00	44.33	C
ATOM	4309	CG	LEU	B	527	-15.868	25.725	18.494	1.00	44.33	C
ATOM	4310	CD1	LEU	B	527	-16.797	25.084	19.512	1.00	44.33	C
ATOM	4311	CD2	LEU	B	527	-15.662	24.820	17.290	1.00	44.33	C
ATOM	4312	C	LEU	B	527	-14.845	27.919	16.491	1.00	44.33	C
ATOM	4313	O	LEU	B	527	-13.640	27.673	16.458	1.00	44.33	O
ATOM	4314	N	LEU	B	528	-15.602	27.946	15.414	1.00	44.33	N
ATOM	4315	CA	LEU	B	528	-15.007	27.790	14.122	1.00	44.33	C
ATOM	4316	CB	LEU	B	528	-16.103	27.928	13.134	1.00	44.33	C
ATOM	4317	CG	LEU	B	528	-15.707	27.229	11.875	1.00	44.58	C
ATOM	4318	CD1	LEU	B	528	-17.006	27.023	11.070	1.00	44.41	C
ATOM	4319	CD2	LEU	B	528	-14.732	28.104	11.115	1.00	45.62	C
ATOM	4320	C	LEU	B	528	-13.878	28.826	13.868	1.00	44.33	C
ATOM	4321	O	LEU	B	528	-12.786	28.498	13.380	1.00	44.33	O
ATOM	4322	N	TYR	B	529	-14.134	30.079	14.215	1.00	44.33	N
ATOM	4323	CA	TYR	B	529	-13.126	31.103	14.011	1.00	44.33	C
ATOM	4324	CB	TYR	B	529	-13.624	32.457	14.499	1.00	44.33	C
ATOM	4325	CG	TYR	B	529	-12.556	33.528	14.413	1.00	44.33	C
ATOM	4326	CD1	TYR	B	529	-11.596	33.700	15.437	1.00	44.33	C
ATOM	4327	CE1	TYR	B	529	-10.628	34.702	15.338	1.00	44.33	C
ATOM	4328	CZ	TYR	B	529	-10.592	35.527	14.185	1.00	44.33	C
ATOM	4329	OH	TYR	B	529	-9.650	36.529	14.016	1.00	44.33	O
ATOM	4330	CE2	TYR	B	529	-11.506	35.351	13.174	1.00	44.33	C
ATOM	4331	CD2	TYR	B	529	-12.484	34.363	13.290	1.00	44.33	C
ATOM	4332	C	TYR	B	529	-11.869	30.713	14.757	1.00	44.33	C
ATOM	4333	O	TYR	B	529	-10.777	30.859	14.247	1.00	44.33	O
ATOM	4334	N	GLU	B	530	-12.042	30.217	15.975	1.00	44.33	N
ATOM	4335	CA	GLU	B	530	-10.914	29.839	16.809	1.00	44.33	C
ATOM	4336	CB	GLU	B	530	-11.427	29.455	18.175	1.00	44.33	C
ATOM	4337	CG	GLU	B	530	-11.883	30.605	19.036	1.00	44.33	C
ATOM	4338	CD	GLU	B	530	-12.260	30.081	20.418	1.00	44.33	C
ATOM	4339	OE1	GLU	B	530	-12.893	28.992	20.413	1.00	44.33	O
ATOM	4340	OE2	GLU	B	530	-11.924	30.697	21.474	1.00	44.33	O
ATOM	4341	C	GLU	B	530	-10.094	28.689	16.174	1.00	44.33	C
ATOM	4342	O	GLU	B	530	-8.868	28.712	16.140	1.00	44.33	O
ATOM	4343	N	MET	B	531	-10.789	27.688	15.658	1.00	44.33	N
ATOM	4344	CA	MET	B	531	-10.135	26.592	14.983	1.00	44.33	C
ATOM	4345	CB	MET	B	531	-11.158	25.607	14.411	1.00	44.33	C
ATOM	4346	CG	MET	B	531	-12.031	24.906	15.415	1.00	44.33	C
ATOM	4347	SD	MET	B	531	-12.599	23.326	14.692	1.00	44.33	S
ATOM	4348	CE	MET	B	531	-13.837	23.773	13.495	1.00	44.33	C
ATOM	4349	C	MET	B	531	-9.314	27.186	13.848	1.00	44.33	C
ATOM	4350	O	MET	B	531	-8.170	26.779	13.617	1.00	44.33	O
ATOM	4351	N	LEU	B	532	-9.883	28.161	13.146	1.00	44.33	N
ATOM	4352	CA	LEU	B	532	-9.268	28.649	11.929	1.00	44.33	C
ATOM	4353	CB	LEU	B	532	-10.312	29.294	11.054	1.00	44.33	C
ATOM	4354	CG	LEU	B	532	-11.123	28.316	10.207	1.00	44.33	C
ATOM	4355	CD1	LEU	B	532	-11.845	29.071	9.134	1.00	44.33	C
ATOM	4356	CD2	LEU	B	532	-10.194	27.343	9.567	1.00	44.33	C
ATOM	4357	C	LEU	B	532	-8.157	29.628	12.142	1.00	44.33	C
ATOM	4358	O	LEU	B	532	-7.201	29.600	11.386	1.00	44.33	O
ATOM	4359	N	ALA	B	533	-8.269	30.503	13.143	1.00	44.33	N
ATOM	4360	CA	ALA	B	533	-7.220	31.495	13.406	1.00	44.33	C
ATOM	4361	CB	ALA	B	533	-7.794	32.879	13.468	1.00	44.33	C

- 271 -

ATOM	4362	C	ALA	B 533	-6.417	31.227	14.667	1.00	44.33	C
ATOM	4363	O	ALA	B 533	-5.483	31.980	14.990	1.00	44.33	O
ATOM	4364	N	GLY	B 534	-6.780	30.185	15.413	1.00	44.33	N
ATOM	4365	CA	GLY	B 534	-6.162	29.957	16.724	1.00	44.33	C
ATOM	4366	C	GLY	B 534	-6.201	31.149	17.672	1.00	44.33	C
ATOM	4367	O	GLY	B 534	-5.373	31.268	18.576	1.00	44.33	O
ATOM	4368	N	GLN	B 535	-7.181	32.031	17.466	1.00	44.33	N
ATOM	4369	CA	GLN	B 535	-7.424	33.187	18.345	1.00	44.33	C
ATOM	4370	CB	GLN	B 535	-6.857	34.469	17.694	1.00	44.33	C
ATOM	4371	CG	GLN	B 535	-5.330	34.462	17.468	1.00	48.78	C
ATOM	4372	CD	GLN	B 535	-4.598	34.372	18.783	1.00	48.65	C
ATOM	4373	OE1	GLN	B 535	-5.226	34.308	19.850	1.00	52.23	O
ATOM	4374	NE2	GLN	B 535	-3.261	34.377	18.731	1.00	50.66	N
ATOM	4375	C	GLN	B 535	-8.919	33.334	18.528	1.00	44.33	C
ATOM	4376	O	GLN	B 535	-9.693	32.771	17.734	1.00	44.33	O
ATOM	4377	N	PRO	B 536	-9.335	34.104	19.542	1.00	44.33	N
ATOM	4378	CA	PRO	B 536	-10.745	34.493	19.706	1.00	44.33	C
ATOM	4379	CB	PRO	B 536	-10.818	34.906	21.186	1.00	44.33	C
ATOM	4380	CG	PRO	B 536	-9.445	35.272	21.590	1.00	44.33	C
ATOM	4381	CD	PRO	B 536	-8.467	34.687	20.578	1.00	44.33	C
ATOM	4382	C	PRO	B 536	-11.118	35.689	18.785	1.00	44.33	C
ATOM	4383	O	PRO	B 536	-10.297	36.584	18.603	1.00	44.33	O
ATOM	4384	N	PRO	B 537	-12.343	35.718	18.232	1.00	44.33	N
ATOM	4385	CA	PRO	B 537	-12.821	36.782	17.351	1.00	44.33	C
ATOM	4386	CB	PRO	B 537	-14.243	36.343	17.054	1.00	44.33	C
ATOM	4387	CG	PRO	B 537	-14.216	34.890	17.233	1.00	44.33	C
ATOM	4388	CD	PRO	B 537	-13.382	34.695	18.425	1.00	44.33	C
ATOM	4389	C	PRO	B 537	-12.872	38.153	17.998	1.00	44.33	C
ATOM	4390	O	PRO	B 537	-12.792	39.176	17.308	1.00	44.33	O
ATOM	4391	N	PHE	B 538	-12.989	38.161	19.314	1.00	44.33	N
ATOM	4392	CA	PHE	B 538	-13.291	39.367	20.078	1.00	44.33	C
ATOM	4393	CB	PHE	B 538	-14.763	39.327	20.564	1.00	44.33	C
ATOM	4394	CG	PHE	B 538	-15.742	39.317	19.456	1.00	44.33	C
ATOM	4395	CD1	PHE	B 538	-16.028	40.492	18.758	1.00	44.33	C
ATOM	4396	CE1	PHE	B 538	-16.927	40.492	17.705	1.00	44.33	C
ATOM	4397	CZ	PHE	B 538	-17.536	39.299	17.316	1.00	44.33	C
ATOM	4398	CE2	PHE	B 538	-17.247	38.114	17.998	1.00	44.33	C
ATOM	4399	CD2	PHE	B 538	-16.338	38.137	19.065	1.00	44.33	C
ATOM	4400	C	PHE	B 538	-12.405	39.424	21.297	1.00	45.33	C
ATOM	4401	O	PHE	B 538	-11.980	38.396	21.819	1.00	46.48	O
ATOM	4402	N	ASP	B 539	-12.140	40.620	21.787	1.00	47.63	N
ATOM	4403	CA	ASP	B 539	-11.365	40.708	23.006	1.00	48.23	C
ATOM	4404	CB	ASP	B 539	-9.850	40.647	22.717	1.00	51.68	C
ATOM	4405	CG	ASP	B 539	-9.510	41.028	21.260	1.00	53.60	C
ATOM	4406	OD1	ASP	B 539	-9.625	42.241	20.921	1.00	54.55	O
ATOM	4407	OD2	ASP	B 539	-9.154	40.095	20.466	1.00	54.42	O
ATOM	4408	C	ASP	B 539	-11.755	41.902	23.842	1.00	47.30	C
ATOM	4409	O	ASP	B 539	-12.541	42.756	23.395	1.00	44.33	O
ATOM	4410	N	GLY	B 540	-11.229	41.913	25.067	1.00	46.00	N
ATOM	4411	CA	GLY	B 540	-11.503	42.940	26.042	1.00	44.33	C
ATOM	4412	C	GLY	B 540	-10.823	42.667	27.371	1.00	44.57	C
ATOM	4413	O	GLY	B 540	-10.700	41.517	27.791	1.00	44.33	O
ATOM	4414	N	GLU	B 541	-10.394	43.734	28.043	1.00	46.50	N
ATOM	4415	CA	GLU	B 541	-9.724	43.640	29.348	1.00	48.92	C
ATOM	4416	CB	GLU	B 541	-9.292	45.027	29.856	1.00	52.54	C
ATOM	4417	CG	GLU	B 541	-8.600	45.927	28.814	1.00	57.95	C
ATOM	4418	CD	GLU	B 541	-7.142	45.535	28.502	1.00	60.83	C
ATOM	4419	OE1	GLU	B 541	-6.793	44.324	28.564	1.00	63.48	O

- 272 -

ATOM	4420	OE2	GLU	B	541	-6.338	46.446	28.173	1.00	61.96	O
ATOM	4421	C	GLU	B	541	-10.592	42.989	30.420	1.00	47.68	C
ATOM	4422	O	GLU	B	541	-10.108	42.337	31.328	1.00	46.05	O
ATOM	4423	N	ASP	B	542	-11.881	43.218	30.342	1.00	45.91	N
ATOM	4424	CA	ASP	B	542	-12.804	42.540	31.232	1.00	45.43	C
ATOM	4425	CB	ASP	B	542	-13.135	43.406	32.449	1.00	46.71	C
ATOM	4426	CG	ASP	B	542	-13.928	44.649	32.092	1.00	46.76	C
ATOM	4427	OD1	ASP	B	542	-14.581	44.695	31.007	1.00	49.11	O
ATOM	4428	OD2	ASP	B	542	-13.894	45.581	32.942	1.00	49.41	O
ATOM	4429	C	ASP	B	542	-14.068	42.140	30.480	1.00	44.54	C
ATOM	4430	O	ASP	B	542	-14.166	42.308	29.267	1.00	44.33	O
ATOM	4431	N	GLU	B	543	-15.028	41.617	31.204	1.00	44.60	N
ATOM	4432	CA	GLU	B	543	-16.230	41.107	30.580	1.00	44.65	C
ATOM	4433	CB	GLU	B	543	-17.160	40.521	31.638	1.00	45.83	C
ATOM	4434	CG	GLU	B	543	-18.127	39.578	31.032	1.00	47.92	C
ATOM	4435	CD	GLU	B	543	-18.925	38.817	32.045	1.00	49.39	C
ATOM	4436	OE1	GLU	B	543	-18.955	39.277	33.231	1.00	50.31	O
ATOM	4437	OE2	GLU	B	543	-19.517	37.767	31.640	1.00	50.84	O
ATOM	4438	C	GLU	B	543	-16.987	42.160	29.785	1.00	45.20	C
ATOM	4439	O	GLU	B	543	-17.430	41.912	28.660	1.00	44.89	O
ATOM	4440	N	ASP	B	544	-17.104	43.338	30.379	1.00	44.71	N
ATOM	4441	CA	ASP	B	544	-17.958	44.407	29.898	1.00	46.69	C
ATOM	4442	CB	ASP	B	544	-18.033	45.414	31.028	1.00	50.49	C
ATOM	4443	CG	ASP	B	544	-17.622	44.783	32.420	1.00	54.97	C
ATOM	4444	OD1	ASP	B	544	-17.337	43.539	32.539	1.00	54.33	O
ATOM	4445	OD2	ASP	B	544	-17.574	45.559	33.420	1.00	55.67	O
ATOM	4446	C	ASP	B	544	-17.356	44.967	28.612	1.00	46.31	C
ATOM	4447	O	ASP	B	544	-18.044	45.195	27.612	1.00	45.32	O
ATOM	4448	N	GLU	B	545	-16.041	45.099	28.638	1.00	44.33	N
ATOM	4449	CA	GLU	B	545	-15.245	45.379	27.455	1.00	46.19	C
ATOM	4450	CB	GLU	B	545	-13.809	45.486	27.921	1.00	46.87	C
ATOM	4451	CG	GLU	B	545	-12.975	46.188	26.944	1.00	52.80	C
ATOM	4452	CD	GLU	B	545	-11.898	47.016	27.576	1.00	51.14	C
ATOM	4453	OE1	GLU	B	545	-11.881	47.228	28.834	1.00	55.68	O
ATOM	4454	OE2	GLU	B	545	-11.055	47.448	26.760	1.00	55.71	O
ATOM	4455	C	GLU	B	545	-15.387	44.319	26.303	1.00	44.33	C
ATOM	4456	O	GLU	B	545	-15.481	44.640	25.104	1.00	44.33	O
ATOM	4457	N	LEU	B	546	-15.400	43.052	26.706	1.00	44.33	N
ATOM	4458	CA	LEU	B	546	-15.593	41.938	25.815	1.00	44.33	C
ATOM	4459	CB	LEU	B	546	-15.536	40.630	26.605	1.00	44.33	C
ATOM	4460	CG	LEU	B	546	-15.720	39.379	25.744	1.00	44.33	C
ATOM	4461	CD1	LEU	B	546	-14.602	39.348	24.759	1.00	44.33	C
ATOM	4462	CD2	LEU	B	546	-15.802	38.078	26.519	1.00	44.33	C
ATOM	4463	C	LEU	B	546	-16.942	42.088	25.160	1.00	44.33	C
ATOM	4464	O	LEU	B	546	-17.067	41.992	23.922	1.00	44.33	O
ATOM	4465	N	PHE	B	547	-17.957	42.338	25.994	1.00	44.33	N
ATOM	4466	CA	PHE	B	547	-19.343	42.514	25.511	1.00	44.33	C
ATOM	4467	CB	PHE	B	547	-20.333	42.672	26.679	1.00	44.33	C
ATOM	4468	CG	PHE	B	547	-20.483	41.410	27.520	1.00	44.33	C
ATOM	4469	CD1	PHE	B	547	-19.942	40.172	27.075	1.00	44.33	C
ATOM	4470	CE1	PHE	B	547	-20.043	39.017	27.832	1.00	44.33	C
ATOM	4471	CZ	PHE	B	547	-20.711	39.067	29.045	1.00	44.33	C
ATOM	4472	CE2	PHE	B	547	-21.258	40.276	29.509	1.00	44.33	C
ATOM	4473	CD2	PHE	B	547	-21.127	41.448	28.752	1.00	44.33	C
ATOM	4474	C	PHE	B	547	-19.466	43.658	24.516	1.00	44.33	C
ATOM	4475	O	PHE	B	547	-19.998	43.490	23.426	1.00	44.33	O
ATOM	4476	N	GLN	B	548	-18.921	44.809	24.881	1.00	44.33	N
ATOM	4477	CA	GLN	B	548	-18.899	45.908	23.972	1.00	44.33	C

- 273 -

ATOM	4478	CB	GLN	B	548	-18.282	47.101	24.631	1.00	44.33	C
ATOM	4479	CG	GLN	B	548	-18.940	48.313	24.174	1.00	45.75	C
ATOM	4480	CD	GLN	B	548	-17.983	49.437	24.034	1.00	47.52	C
ATOM	4481	OE1	GLN	B	548	-16.777	49.281	24.292	1.00	47.21	O
ATOM	4482	NE2	GLN	B	548	-18.498	50.602	23.616	1.00	46.97	N
ATOM	4483	C	GLN	B	548	-18.203	45.534	22.658	1.00	44.33	C
ATOM	4484	O	GLN	B	548	-18.678	45.902	21.577	1.00	44.33	O
ATOM	4485	N	SER	B	549	-17.115	44.779	22.745	1.00	44.33	N
ATOM	4486	CA	SER	B	549	-16.452	44.273	21.559	1.00	44.33	C
ATOM	4487	CB	SER	B	549	-15.215	43.448	21.966	1.00	44.33	C
ATOM	4488	OG	SER	B	549	-14.869	42.459	20.987	1.00	44.33	O
ATOM	4489	C	SER	B	549	-17.401	43.443	20.672	1.00	44.33	C
ATOM	4490	O	SER	B	549	-17.468	43.650	19.473	1.00	44.33	O
ATOM	4491	N	ILE	B	550	-18.120	42.503	21.281	1.00	44.33	N
ATOM	4492	CA	ILE	B	550	-19.113	41.654	20.598	1.00	44.33	C
ATOM	4493	CB	ILE	B	550	-19.595	40.516	21.574	1.00	44.33	C
ATOM	4494	CG1	ILE	B	550	-18.470	39.484	21.800	1.00	44.33	C
ATOM	4495	CD1	ILE	B	550	-18.551	38.754	23.104	1.00	44.33	C
ATOM	4496	CG2	ILE	B	550	-20.942	39.862	21.107	1.00	44.33	C
ATOM	4497	C	ILE	B	550	-20.327	42.453	20.069	1.00	44.33	C
ATOM	4498	O	ILE	B	550	-20.854	42.149	19.031	1.00	44.33	O
ATOM	4499	N	MET	B	551	-20.752	43.475	20.800	1.00	44.33	N
ATOM	4500	CA	MET	B	551	-21.858	44.341	20.379	1.00	44.33	C
ATOM	4501	CB	MET	B	551	-22.286	45.336	21.482	1.00	44.33	C
ATOM	4502	CG	MET	B	551	-23.010	44.800	22.706	1.00	44.33	C
ATOM	4503	SD	MET	B	551	-24.439	43.737	22.357	1.00	45.23	S
ATOM	4504	CE	MET	B	551	-25.377	44.527	21.044	1.00	44.33	C
ATOM	4505	C	MET	B	551	-21.484	45.202	19.182	1.00	44.33	C
ATOM	4506	O	MET	B	551	-22.377	45.579	18.404	1.00	44.33	O
ATOM	4507	N	GLU	B	552	-20.183	45.533	19.047	1.00	44.33	N
ATOM	4508	CA	GLU	B	552	-19.741	46.630	18.186	1.00	44.33	C
ATOM	4509	CB	GLU	B	552	-19.239	47.756	19.063	1.00	44.33	C
ATOM	4510	CG	GLU	B	552	-20.125	47.951	20.233	1.00	44.33	C
ATOM	4511	CD	GLU	B	552	-20.019	49.328	20.820	1.00	44.33	C
ATOM	4512	OE1	GLU	B	552	-19.016	49.994	20.489	1.00	44.33	O
ATOM	4513	OE2	GLU	B	552	-20.919	49.745	21.614	1.00	44.33	O
ATOM	4514	C	GLU	B	552	-18.657	46.281	17.167	1.00	44.33	C
ATOM	4515	O	GLU	B	552	-18.664	46.804	16.029	1.00	44.33	O
ATOM	4516	N	HIS	B	553	-17.705	45.436	17.575	1.00	44.33	N
ATOM	4517	CA	HIS	B	553	-16.471	45.189	16.818	1.00	44.33	C
ATOM	4518	CB	HIS	B	553	-15.527	44.366	17.692	1.00	44.33	C
ATOM	4519	CG	HIS	B	553	-14.178	44.099	17.089	1.00	44.33	C
ATOM	4520	ND1	HIS	B	553	-13.720	42.820	16.828	1.00	44.33	N
ATOM	4521	CE1	HIS	B	553	-12.495	42.882	16.341	1.00	44.33	C
ATOM	4522	NE2	HIS	B	553	-12.140	44.152	16.274	1.00	44.33	N
ATOM	4523	CD2	HIS	B	553	-13.173	44.937	16.735	1.00	44.33	C
ATOM	4524	C	HIS	B	553	-16.779	44.450	15.542	1.00	44.33	C
ATOM	4525	O	HIS	B	553	-17.681	43.634	15.512	1.00	44.33	O
ATOM	4526	N	ASN	B	554	-16.030	44.758	14.489	1.00	44.33	N
ATOM	4527	CA	ASN	B	554	-16.099	43.994	13.262	1.00	44.33	C
ATOM	4528	CB	ASN	B	554	-15.961	44.901	12.060	1.00	44.33	C
ATOM	4529	CG	ASN	B	554	-16.948	46.065	12.086	1.00	44.33	C
ATOM	4530	OD1	ASN	B	554	-16.702	47.110	11.494	1.00	44.33	O
ATOM	4531	ND2	ASN	B	554	-18.071	45.883	12.783	1.00	44.33	N
ATOM	4532	C	ASN	B	554	-14.904	43.124	13.359	1.00	44.33	C
ATOM	4533	O	ASN	B	554	-13.822	43.635	13.603	1.00	44.33	O
ATOM	4534	N	VAL	B	555	-15.099	41.813	13.226	1.00	44.33	N
ATOM	4535	CA	VAL	B	555	-14.033	40.828	13.346	1.00	44.33	C

- 274 -

ATOM	4536	CB	VAL	B	555	-14.639	39.425	13.211	1.00	44.33	C
ATOM	4537	CG1	VAL	B	555	-13.559	38.342	12.961	1.00	44.33	C
ATOM	4538	CG2	VAL	B	555	-15.563	39.115	14.449	1.00	44.33	C
ATOM	4539	C	VAL	B	555	-13.010	41.084	12.250	1.00	44.33	C
ATOM	4540	O	VAL	B	555	-13.402	41.404	11.121	1.00	44.33	O
ATOM	4541	N	SER	B	556	-11.718	40.996	12.585	1.00	44.33	N
ATOM	4542	CA	SER	B	556	-10.651	41.105	11.596	1.00	44.33	C
ATOM	4543	CB	SER	B	556	-9.450	41.919	12.141	1.00	44.40	C
ATOM	4544	OG	SER	B	556	-8.688	41.216	13.113	1.00	47.01	O
ATOM	4545	C	SER	B	556	-10.202	39.712	11.232	1.00	44.33	C
ATOM	4546	O	SER	B	556	-9.823	38.958	12.108	1.00	44.33	O
ATOM	4547	N	TYR	B	557	-10.245	39.369	9.947	1.00	44.33	N
ATOM	4548	CA	TYR	B	557	-9.841	38.037	9.456	1.00	44.33	C
ATOM	4549	CB	TYR	B	557	-10.822	37.557	8.369	1.00	44.33	C
ATOM	4550	CG	TYR	B	557	-12.235	37.414	8.894	1.00	44.33	C
ATOM	4551	CD1	TYR	B	557	-13.034	38.539	9.150	1.00	44.33	C
ATOM	4552	CE1	TYR	B	557	-14.335	38.400	9.660	1.00	44.33	C
ATOM	4553	CZ	TYR	B	557	-14.829	37.110	9.944	1.00	44.33	C
ATOM	4554	OH	TYR	B	557	-16.092	36.915	10.445	1.00	44.33	O
ATOM	4555	CE2	TYR	B	557	-14.037	35.993	9.708	1.00	44.33	C
ATOM	4556	CD2	TYR	B	557	-12.747	36.155	9.186	1.00	44.33	C
ATOM	4557	C	TYR	B	557	-8.416	38.066	8.886	1.00	44.33	C
ATOM	4558	O	TYR	B	557	-8.098	38.941	8.044	1.00	44.33	O
ATOM	4559	N	PRO	B	558	-7.542	37.112	9.313	1.00	45.73	N
ATOM	4560	CA	PRO	B	558	-6.193	37.197	8.731	1.00	47.42	C
ATOM	4561	CB	PRO	B	558	-5.401	36.083	9.435	1.00	47.26	C
ATOM	4562	CG	PRO	B	558	-6.451	35.073	9.802	1.00	45.24	C
ATOM	4563	CD	PRO	B	558	-7.677	35.934	10.195	1.00	45.57	C
ATOM	4564	C	PRO	B	558	-6.287	36.857	7.258	1.00	49.75	C
ATOM	4565	O	PRO	B	558	-7.097	35.992	6.849	1.00	50.21	O
ATOM	4566	N	LYS	B	559	-5.464	37.561	6.482	1.00	51.10	N
ATOM	4567	CA	LYS	B	559	-5.290	37.332	5.055	1.00	53.10	C
ATOM	4568	CB	LYS	B	559	-4.050	38.087	4.552	1.00	54.08	C
ATOM	4569	CG	LYS	B	559	-4.123	39.647	4.556	1.00	56.21	C
ATOM	4570	CD	LYS	B	559	-2.969	40.278	3.683	1.00	55.65	C
ATOM	4571	CE	LYS	B	559	-1.558	39.616	3.943	1.00	56.81	C
ATOM	4572	NZ	LYS	B	559	-1.141	38.465	3.029	1.00	58.26	N
ATOM	4573	C	LYS	B	559	-5.184	35.839	4.639	1.00	53.94	C
ATOM	4574	O	LYS	B	559	-5.697	35.472	3.573	1.00	53.94	O
ATOM	4575	N	SER	B	560	-4.546	34.973	5.438	1.00	53.67	N
ATOM	4576	CA	SER	B	560	-4.399	33.559	5.003	1.00	54.71	C
ATOM	4577	CB	SER	B	560	-3.296	32.779	5.764	1.00	55.29	C
ATOM	4578	OG	SER	B	560	-3.528	32.673	7.153	1.00	57.93	O
ATOM	4579	C	SER	B	560	-5.717	32.752	4.892	1.00	54.27	C
ATOM	4580	O	SER	B	560	-5.730	31.612	4.415	1.00	55.33	O
ATOM	4581	N	LEU	B	561	-6.833	33.339	5.293	1.00	53.16	N
ATOM	4582	CA	LEU	B	561	-8.082	32.602	5.250	1.00	50.90	C
ATOM	4583	CB	LEU	B	561	-9.077	33.231	6.212	1.00	50.00	C
ATOM	4584	CG	LEU	B	561	-9.075	32.644	7.624	1.00	52.05	C
ATOM	4585	CD1	LEU	B	561	-7.795	32.966	8.406	1.00	51.41	C
ATOM	4586	CD2	LEU	B	561	-10.310	33.142	8.370	1.00	50.34	C
ATOM	4587	C	LEU	B	561	-8.675	32.592	3.865	1.00	49.44	C
ATOM	4588	O	LEU	B	561	-8.719	33.623	3.229	1.00	50.84	O
ATOM	4589	N	SER	B	562	-9.166	31.443	3.413	1.00	48.02	N
ATOM	4590	CA	SER	B	562	-9.943	31.393	2.158	1.00	47.14	C
ATOM	4591	CB	SER	B	562	-10.265	29.932	1.752	1.00	47.01	C
ATOM	4592	OG	SER	B	562	-11.643	29.596	1.861	1.00	47.17	O
ATOM	4593	C	SER	B	562	-11.217	32.287	2.173	1.00	47.30	C

- 275 -

ATOM	4594	O	SER B 562	-11.664	32.768	3.239	1.00	46.38	O
ATOM	4595	N	LYS B 563	-11.789	32.531	0.990	1.00	47.32	N
ATOM	4596	CA	LYS B 563	-13.063	33.310	0.920	1.00	48.23	C
ATOM	4597	CB	LYS B 563	-13.455	33.818	-0.496	1.00	48.54	C
ATOM	4598	CG	LYS B 563	-14.712	33.101	-1.134	1.00	50.87	C
ATOM	4599	CD	LYS B 563	-15.159	33.743	-2.466	1.00	50.73	C
ATOM	4600	CE	LYS B 563	-15.170	32.719	-3.594	1.00	53.63	C
ATOM	4601	NZ	LYS B 563	-15.707	33.318	-4.832	1.00	53.03	N
ATOM	4602	C	LYS B 563	-14.246	32.530	1.531	1.00	47.42	C
ATOM	4603	O	LYS B 563	-15.143	33.144	2.128	1.00	46.52	O
ATOM	4604	N	GLU B 564	-14.265	31.203	1.369	1.00	45.78	N
ATOM	4605	CA	GLU B 564	-15.257	30.381	2.072	1.00	46.07	C
ATOM	4606	CB	GLU B 564	-15.253	28.927	1.584	1.00	47.17	C
ATOM	4607	CG	GLU B 564	-15.879	28.741	0.225	1.00	48.75	C
ATOM	4608	CD	GLU B 564	-14.977	29.228	-0.904	1.00	49.59	C
ATOM	4609	OE1	GLU B 564	-13.698	29.206	-0.745	1.00	50.49	O
ATOM	4610	OE2	GLU B 564	-15.555	29.626	-1.965	1.00	50.42	O
ATOM	4611	C	GLU B 564	-15.093	30.414	3.612	1.00	44.63	C
ATOM	4612	O	GLU B 564	-16.108	30.456	4.346	1.00	45.26	O
ATOM	4613	N	ALA B 565	-13.840	30.396	4.096	1.00	44.60	N
ATOM	4614	CA	ALA B 565	-13.607	30.506	5.548	1.00	44.33	C
ATOM	4615	CB	ALA B 565	-12.140	30.510	5.907	1.00	44.33	C
ATOM	4616	C	ALA B 565	-14.228	31.807	5.986	1.00	44.33	C
ATOM	4617	O	ALA B 565	-15.116	31.827	6.850	1.00	44.33	O
ATOM	4618	N	VAL B 566	-13.804	32.902	5.362	1.00	44.33	N
ATOM	4619	CA	VAL B 566	-14.267	34.181	5.842	1.00	44.33	C
ATOM	4620	CB	VAL B 566	-13.522	35.385	5.231	1.00	44.33	C
ATOM	4621	CG1	VAL B 566	-14.287	36.651	5.556	1.00	44.33	C
ATOM	4622	CG2	VAL B 566	-12.043	35.478	5.751	1.00	44.33	C
ATOM	4623	C	VAL B 566	-15.778	34.272	5.655	1.00	44.33	C
ATOM	4624	O	VAL B 566	-16.473	34.749	6.567	1.00	44.33	O
ATOM	4625	N	SER B 567	-16.308	33.768	4.534	1.00	44.33	N
ATOM	4626	CA	SER B 567	-17.770	33.907	4.326	1.00	44.33	C
ATOM	4627	CB	SER B 567	-18.301	33.413	2.966	1.00	44.33	C
ATOM	4628	OG	SER B 567	-19.746	33.284	3.002	1.00	44.33	O
ATOM	4629	C	SER B 567	-18.571	33.231	5.442	1.00	44.33	C
ATOM	4630	O	SER B 567	-19.542	33.827	5.956	1.00	44.33	O
ATOM	4631	N	ILE B 568	-18.194	31.992	5.800	1.00	44.33	N
ATOM	4632	CA	ILE B 568	-18.941	31.276	6.841	1.00	44.33	C
ATOM	4633	CB	ILE B 568	-18.541	29.777	6.987	1.00	44.33	C
ATOM	4634	CG1	ILE B 568	-19.623	29.044	7.791	1.00	44.33	C
ATOM	4635	CD1	ILE B 568	-20.108	27.740	7.200	1.00	44.33	C
ATOM	4636	CG2	ILE B 568	-17.131	29.626	7.596	1.00	44.33	C
ATOM	4637	C	ILE B 568	-18.834	32.040	8.167	1.00	44.33	C
ATOM	4638	O	ILE B 568	-19.863	32.291	8.837	1.00	44.43	O
ATOM	4639	N	CYS B 569	-17.606	32.461	8.504	1.00	44.33	N
ATOM	4640	CA	CYS B 569	-17.394	33.263	9.715	1.00	44.33	C
ATOM	4641	CB	CYS B 569	-15.919	33.595	9.885	1.00	44.33	C
ATOM	4642	SG	CYS B 569	-14.930	31.999	10.260	1.00	45.54	S
ATOM	4643	C	CYS B 569	-18.360	34.475	9.811	1.00	44.33	C
ATOM	4644	O	CYS B 569	-19.006	34.693	10.861	1.00	44.33	O
ATOM	4645	N	LYS B 570	-18.535	35.184	8.691	1.00	44.33	N
ATOM	4646	CA	LYS B 570	-19.385	36.370	8.677	1.00	44.33	C
ATOM	4647	CB	LYS B 570	-19.119	37.217	7.438	1.00	45.54	C
ATOM	4648	CG	LYS B 570	-17.713	37.789	7.367	1.00	48.65	C
ATOM	4649	CD	LYS B 570	-17.456	38.489	6.037	1.00	50.09	C
ATOM	4650	CE	LYS B 570	-16.131	39.305	6.089	1.00	52.83	C
ATOM	4651	NZ	LYS B 570	-16.214	40.527	5.235	1.00	52.47	N

- 276 -

ATOM	4652	C	LYS	B	570	-20.847	35.984	8.733	1.00	44.33	C
ATOM	4653	O	LYS	B	570	-21.654	36.659	9.353	1.00	44.83	O
ATOM	4654	N	GLY	B	571	-21.207	34.893	8.078	1.00	44.33	N
ATOM	4655	CA	GLY	B	571	-22.606	34.421	8.088	1.00	44.33	C
ATOM	4656	C	GLY	B	571	-23.001	33.988	9.485	1.00	44.33	C
ATOM	4657	O	GLY	B	571	-24.073	34.324	9.986	1.00	44.33	O
ATOM	4658	N	LEU	B	572	-22.084	33.251	10.116	1.00	44.33	N
ATOM	4659	CA	LEU	B	572	-22.184	32.767	11.489	1.00	44.33	C
ATOM	4660	CB	LEU	B	572	-21.038	31.769	11.731	1.00	44.33	C
ATOM	4661	CG	LEU	B	572	-21.061	30.512	10.827	1.00	44.33	C
ATOM	4662	CD1	LEU	B	572	-19.926	29.497	11.031	1.00	44.33	C
ATOM	4663	CD2	LEU	B	572	-22.375	29.844	11.027	1.00	44.33	C
ATOM	4664	C	LEU	B	572	-22.102	33.900	12.501	1.00	44.33	C
ATOM	4665	O	LEU	B	572	-22.877	33.946	13.427	1.00	44.33	O
ATOM	4666	N	MET	B	573	-21.152	34.804	12.337	1.00	44.33	N
ATOM	4667	CA	MET	B	573	-20.993	35.867	13.321	1.00	44.33	C
ATOM	4668	CB	MET	B	573	-19.505	36.030	13.698	1.00	44.33	C
ATOM	4669	CG	MET	B	573	-18.848	34.792	14.390	1.00	44.33	C
ATOM	4670	SD	MET	B	573	-17.233	35.128	15.264	1.00	44.33	S
ATOM	4671	CE	MET	B	573	-15.995	35.288	13.985	1.00	44.33	C
ATOM	4672	C	MET	B	573	-21.642	37.191	12.846	1.00	44.33	C
ATOM	4673	O	MET	B	573	-21.135	38.291	13.112	1.00	44.33	O
ATOM	4674	N	THR	B	574	-22.747	37.062	12.112	1.00	44.33	N
ATOM	4675	CA	THR	B	574	-23.684	38.176	11.883	1.00	44.33	C
ATOM	4676	CB	THR	B	574	-24.782	37.815	10.872	1.00	44.33	C
ATOM	4677	OG1	THR	B	574	-24.174	37.453	9.632	1.00	44.33	O
ATOM	4678	CG2	THR	B	574	-25.653	39.019	10.628	1.00	44.33	C
ATOM	4679	C	THR	B	574	-24.364	38.573	13.185	1.00	44.33	C
ATOM	4680	O	THR	B	574	-25.097	37.773	13.776	1.00	44.76	O
ATOM	4681	N	LYS	B	575	-24.138	39.807	13.607	1.00	44.33	N
ATOM	4682	CA	LYS	B	575	-24.704	40.284	14.842	1.00	44.33	C
ATOM	4683	CB	LYS	B	575	-24.198	41.678	15.111	1.00	44.33	C
ATOM	4684	CG	LYS	B	575	-22.737	41.768	15.115	1.00	44.33	C
ATOM	4685	CD	LYS	B	575	-22.331	43.017	15.798	1.00	44.33	C
ATOM	4686	CE	LYS	B	575	-20.939	43.375	15.438	1.00	44.33	C
ATOM	4687	NZ	LYS	B	575	-19.977	42.941	16.445	1.00	44.33	N
ATOM	4688	C	LYS	B	575	-26.248	40.260	14.947	1.00	44.33	C
ATOM	4689	O	LYS	B	575	-26.774	40.099	16.059	1.00	44.33	O
ATOM	4690	N	HIS	B	576	-26.972	40.418	13.836	1.00	44.33	N
ATOM	4691	CA	HIS	B	576	-28.435	40.375	13.917	1.00	44.33	C
ATOM	4692	CB	HIS	B	576	-29.099	41.383	12.968	1.00	46.52	C
ATOM	4693	CG	HIS	B	576	-28.975	42.811	13.397	1.00	47.11	C
ATOM	4694	ND1	HIS	B	576	-27.854	43.574	13.135	1.00	49.78	N
ATOM	4695	CE1	HIS	B	576	-28.043	44.797	13.596	1.00	49.95	C
ATOM	4696	NE2	HIS	B	576	-29.248	44.861	14.142	1.00	49.99	N
ATOM	4697	CD2	HIS	B	576	-29.853	43.631	14.027	1.00	48.65	C
ATOM	4698	C	HIS	B	576	-28.905	38.957	13.591	1.00	44.33	C
ATOM	4699	O	HIS	B	576	-28.771	38.493	12.451	1.00	44.33	O
ATOM	4700	N	PRO	B	577	-29.474	38.265	14.587	1.00	44.33	N
ATOM	4701	CA	PRO	B	577	-29.794	36.874	14.426	1.00	44.34	C
ATOM	4702	CB	PRO	B	577	-30.493	36.516	15.739	1.00	44.33	C
ATOM	4703	CG	PRO	B	577	-30.918	37.772	16.303	1.00	44.98	C
ATOM	4704	CD	PRO	B	577	-29.835	38.732	15.931	1.00	44.33	C
ATOM	4705	C	PRO	B	577	-30.693	36.580	13.250	1.00	45.45	C
ATOM	4706	O	PRO	B	577	-30.533	35.517	12.641	1.00	47.76	O
ATOM	4707	N	ALA	B	578	-31.604	37.482	12.894	1.00	47.39	N
ATOM	4708	CA	ALA	B	578	-32.562	37.122	11.847	1.00	48.08	C
ATOM	4709	CB	ALA	B	578	-33.838	38.015	11.849	1.00	47.82	C

- 277 -

ATOM	4710	C	ALA	B	578	-31.862	37.072	10.496	1.00	48.80	C
ATOM	4711	O	ALA	B	578	-32.313	36.415	9.548	1.00	49.97	O
ATOM	4712	N	LYS	B	579	-30.716	37.718	10.442	1.00	48.45	N
ATOM	4713	CA	LYS	B	579	-29.846	37.619	9.276	1.00	49.22	C
ATOM	4714	CB	LYS	B	579	-29.073	38.957	9.123	1.00	50.33	C
ATOM	4715	CG	LYS	B	579	-30.039	40.233	8.970	1.00	54.18	C
ATOM	4716	CD	LYS	B	579	-29.372	41.680	9.081	1.00	53.48	C
ATOM	4717	CE	LYS	B	579	-30.468	42.816	9.034	1.00	57.17	C
ATOM	4718	NZ	LYS	B	579	-30.129	44.194	9.583	1.00	55.92	N
ATOM	4719	C	LYS	B	579	-28.871	36.416	9.362	1.00	46.33	C
ATOM	4720	O	LYS	B	579	-28.407	35.881	8.334	1.00	46.19	O
ATOM	4721	N	ARG	B	580	-28.562	35.981	10.576	1.00	44.33	N
ATOM	4722	CA	ARG	B	580	-27.405	35.120	10.801	1.00	44.33	C
ATOM	4723	CB	ARG	B	580	-27.262	34.980	12.320	1.00	44.33	C
ATOM	4724	CG	ARG	B	580	-26.063	34.270	12.870	1.00	44.33	C
ATOM	4725	CD	ARG	B	580	-26.286	34.126	14.373	1.00	44.33	C
ATOM	4726	NE	ARG	B	580	-26.092	35.396	15.084	1.00	44.33	N
ATOM	4727	CZ	ARG	B	580	-26.575	35.671	16.294	1.00	44.33	C
ATOM	4728	NH1	ARG	B	580	-27.311	34.768	16.955	1.00	44.33	N
ATOM	4729	NH2	ARG	B	580	-26.314	36.856	16.835	1.00	44.33	N
ATOM	4730	C	ARG	B	580	-27.506	33.764	10.095	1.00	44.33	C
ATOM	4731	O	ARG	B	580	-28.576	33.143	10.074	1.00	44.33	O
ATOM	4732	N	LEU	B	581	-26.403	33.314	9.514	1.00	44.33	N
ATOM	4733	CA	LEU	B	581	-26.355	31.972	8.872	1.00	44.33	C
ATOM	4734	CB	LEU	B	581	-24.943	31.688	8.320	1.00	44.33	C
ATOM	4735	CG	LEU	B	581	-24.588	30.383	7.576	1.00	46.48	C
ATOM	4736	CD1	LEU	B	581	-25.604	29.884	6.483	1.00	44.33	C
ATOM	4737	CD2	LEU	B	581	-23.142	30.512	6.997	1.00	44.33	C
ATOM	4738	C	LEU	B	581	-26.792	30.799	9.787	1.00	44.49	C
ATOM	4739	O	LEU	B	581	-26.071	30.456	10.741	1.00	44.33	O
ATOM	4740	N	GLY	B	582	-27.962	30.207	9.500	1.00	45.05	N
ATOM	4741	CA	GLY	B	582	-28.410	28.998	10.175	1.00	46.75	C
ATOM	4742	C	GLY	B	582	-29.705	29.302	10.863	1.00	49.42	C
ATOM	4743	O	GLY	B	582	-30.412	28.391	11.395	1.00	50.14	O
ATOM	4744	N	CYS	B	583	-30.031	30.587	10.846	1.00	51.64	N
ATOM	4745	CA	CYS	B	583	-31.251	31.062	11.520	1.00	54.07	C
ATOM	4746	CB	CYS	B	583	-30.992	32.367	12.266	1.00	54.14	C
ATOM	4747	SG	CYS	B	583	-29.464	32.210	13.216	1.00	55.33	S
ATOM	4748	C	CYS	B	583	-32.490	31.197	10.640	1.00	56.14	C
ATOM	4749	O	CYS	B	583	-33.598	31.278	11.183	1.00	57.39	O
ATOM	4750	N	GLY	B	584	-32.316	31.218	9.310	1.00	57.05	N
ATOM	4751	CA	GLY	B	584	-33.464	31.251	8.366	1.00	58.18	C
ATOM	4752	C	GLY	B	584	-34.458	30.074	8.551	1.00	58.20	C
ATOM	4753	O	GLY	B	584	-34.122	29.047	9.223	1.00	58.54	O
ATOM	4754	N	PRO	B	585	-35.711	30.208	8.029	1.00	58.48	N
ATOM	4755	CA	PRO	B	585	-36.513	28.943	7.994	1.00	58.16	C
ATOM	4756	CB	PRO	B	585	-37.839	29.333	7.280	1.00	57.93	C
ATOM	4757	CG	PRO	B	585	-37.954	30.844	7.488	1.00	58.75	C
ATOM	4758	CD	PRO	B	585	-36.501	31.395	7.629	1.00	58.71	C
ATOM	4759	C	PRO	B	585	-35.782	27.714	7.378	1.00	57.99	C
ATOM	4760	O	PRO	B	585	-36.099	26.579	7.724	1.00	58.54	O
ATOM	4761	N	GLU	B	586	-34.785	27.944	6.529	1.00	57.24	N
ATOM	4762	CA	GLU	B	586	-33.961	26.866	5.949	1.00	56.40	C
ATOM	4763	CB	GLU	B	586	-33.927	27.031	4.410	1.00	58.29	C
ATOM	4764	CG	GLU	B	586	-35.265	26.785	3.712	1.00	59.61	C
ATOM	4765	CD	GLU	B	586	-36.461	27.498	4.388	1.00	60.08	C
ATOM	4766	OE1	GLU	B	586	-36.383	28.753	4.530	1.00	60.79	O
ATOM	4767	OE2	GLU	B	586	-37.472	26.812	4.776	1.00	60.82	O

- 278 -

ATOM	4768	C	GLU	B	586	-32.510	26.831	6.541	1.00	55.92	C
ATOM	4769	O	GLU	B	586	-31.522	26.596	5.820	1.00	55.43	O
ATOM	4770	N	GLY	B	587	-32.393	27.051	7.849	1.00	54.96	N
ATOM	4771	CA	GLY	B	587	-31.073	27.233	8.478	1.00	54.26	C
ATOM	4772	C	GLY	B	587	-30.087	26.098	8.210	1.00	54.12	C
ATOM	4773	O	GLY	B	587	-28.914	26.310	7.791	1.00	54.23	O
ATOM	4774	N	GLU	B	588	-30.595	24.889	8.475	1.00	54.47	N
ATOM	4775	CA	GLU	B	588	-29.905	23.611	8.276	1.00	55.19	C
ATOM	4776	CB	GLU	B	588	-30.933	22.452	8.525	1.00	56.99	C
ATOM	4777	CG	GLU	B	588	-30.530	20.946	8.286	1.00	57.95	C
ATOM	4778	CD	GLU	B	588	-31.182	19.910	9.304	1.00	58.23	C
ATOM	4779	OE1	GLU	B	588	-32.166	20.241	10.039	1.00	59.13	O
ATOM	4780	OE2	GLU	B	588	-30.684	18.743	9.382	1.00	58.55	O
ATOM	4781	C	GLU	B	588	-29.329	23.633	6.868	1.00	54.75	C
ATOM	4782	O	GLU	B	588	-28.097	23.766	6.689	1.00	55.82	O
ATOM	4783	N	ARG	B	589	-30.230	23.578	5.887	1.00	53.39	N
ATOM	4784	CA	ARG	B	589	-29.867	23.690	4.482	1.00	52.79	C
ATOM	4785	CB	ARG	B	589	-31.101	24.030	3.651	1.00	54.13	C
ATOM	4786	CG	ARG	B	589	-31.996	22.803	3.298	1.00	57.14	C
ATOM	4787	CD	ARG	B	589	-33.163	23.209	2.362	1.00	57.07	C
ATOM	4788	NE	ARG	B	589	-34.233	23.872	3.118	1.00	60.88	N
ATOM	4789	CZ	ARG	B	589	-35.231	23.247	3.757	1.00	61.94	C
ATOM	4790	NH1	ARG	B	589	-35.329	21.909	3.737	1.00	62.30	N
ATOM	4791	NH2	ARG	B	589	-36.140	23.967	4.421	1.00	62.40	N
ATOM	4792	C	ARG	B	589	-28.783	24.739	4.257	1.00	50.64	C
ATOM	4793	O	ARG	B	589	-27.739	24.414	3.677	1.00	50.42	O
ATOM	4794	N	ASP	B	590	-29.018	25.961	4.770	1.00	48.26	N
ATOM	4795	CA	ASP	B	590	-28.136	27.152	4.584	1.00	46.99	C
ATOM	4796	CB	ASP	B	590	-28.491	28.323	5.572	1.00	47.17	C
ATOM	4797	CG	ASP	B	590	-29.965	28.906	5.413	1.00	47.18	C
ATOM	4798	OD1	ASP	B	590	-30.524	29.023	4.264	1.00	47.55	O
ATOM	4799	OD2	ASP	B	590	-30.551	29.292	6.467	1.00	48.26	O
ATOM	4800	C	ASP	B	590	-26.697	26.789	4.862	1.00	46.37	C
ATOM	4801	O	ASP	B	590	-25.789	26.990	4.038	1.00	44.52	O
ATOM	4802	N	VAL	B	591	-26.504	26.248	6.061	1.00	46.67	N
ATOM	4803	CA	VAL	B	591	-25.168	25.916	6.529	1.00	45.99	C
ATOM	4804	CB	VAL	B	591	-25.161	25.643	8.021	1.00	45.38	C
ATOM	4805	CG1	VAL	B	591	-23.732	25.386	8.518	1.00	45.35	C
ATOM	4806	CG2	VAL	B	591	-25.865	26.812	8.764	1.00	44.63	C
ATOM	4807	C	VAL	B	591	-24.604	24.733	5.761	1.00	46.93	C
ATOM	4808	O	VAL	B	591	-23.445	24.798	5.345	1.00	47.43	O
ATOM	4809	N	ARG	B	592	-25.428	23.690	5.544	1.00	47.25	N
ATOM	4810	CA	ARG	B	592	-24.958	22.443	4.871	1.00	48.27	C
ATOM	4811	CB	ARG	B	592	-26.073	21.411	4.739	1.00	51.01	C
ATOM	4812	CG	ARG	B	592	-26.784	21.175	6.030	1.00	53.22	C
ATOM	4813	CD	ARG	B	592	-27.961	20.278	5.830	1.00	55.58	C
ATOM	4814	NE	ARG	B	592	-27.574	18.884	6.010	1.00	57.76	N
ATOM	4815	CZ	ARG	B	592	-27.723	18.215	7.149	1.00	58.85	C
ATOM	4816	NH1	ARG	B	592	-28.255	18.818	8.219	1.00	60.25	N
ATOM	4817	NH2	ARG	B	592	-27.335	16.940	7.210	1.00	59.61	N
ATOM	4818	C	ARG	B	592	-24.418	22.813	3.494	1.00	48.24	C
ATOM	4819	O	ARG	B	592	-23.291	22.398	3.107	1.00	48.61	O
ATOM	4820	N	GLU	B	593	-25.205	23.667	2.822	1.00	47.23	N
ATOM	4821	CA	GLU	B	593	-24.995	24.060	1.443	1.00	48.01	C
ATOM	4822	CB	GLU	B	593	-26.375	24.351	0.800	1.00	50.71	C
ATOM	4823	CG	GLU	B	593	-26.661	23.706	-0.587	1.00	53.86	C
ATOM	4824	CD	GLU	B	593	-26.892	22.145	-0.604	1.00	54.38	C
ATOM	4825	OE1	GLU	B	593	-26.899	21.472	0.473	1.00	55.84	O

- 279 -

ATOM	4826	OE2	GLU	B	593	-27.070	21.584	-1.725	1.00	55.55	O
ATOM	4827	C	GLU	B	593	-24.009	25.261	1.348	1.00	46.89	C
ATOM	4828	O	GLU	B	593	-23.650	25.697	0.246	1.00	46.92	O
ATOM	4829	N	HIS	B	594	-23.561	25.815	2.475	1.00	46.18	N
ATOM	4830	CA	HIS	B	594	-22.561	26.892	2.330	1.00	45.82	C
ATOM	4831	CB	HIS	B	594	-22.271	27.638	3.672	1.00	47.08	C
ATOM	4832	CG	HIS	B	594	-21.196	28.699	3.587	1.00	46.03	C
ATOM	4833	ND1	HIS	B	594	-19.972	28.496	2.967	1.00	46.15	N
ATOM	4834	CE1	HIS	B	594	-19.231	29.593	3.080	1.00	45.01	C
ATOM	4835	NE2	HIS	B	594	-19.913	30.496	3.770	1.00	47.38	N
ATOM	4836	CD2	HIS	B	594	-21.144	29.960	4.104	1.00	47.04	C
ATOM	4837	C	HIS	B	594	-21.301	26.353	1.582	1.00	44.87	C
ATOM	4838	O	HIS	B	594	-20.890	25.173	1.722	1.00	45.54	O
ATOM	4839	N	ALA	B	595	-20.735	27.215	0.748	1.00	44.33	N
ATOM	4840	CA	ALA	B	595	-19.620	26.809	-0.086	1.00	44.33	C
ATOM	4841	CB	ALA	B	595	-19.276	27.893	-1.115	1.00	44.33	C
ATOM	4842	C	ALA	B	595	-18.420	26.382	0.778	1.00	44.33	C
ATOM	4843	O	ALA	B	595	-17.579	25.625	0.339	1.00	46.02	O
ATOM	4844	N	PHE	B	596	-18.379	26.818	2.024	1.00	44.33	N
ATOM	4845	CA	PHE	B	596	-17.378	26.316	2.963	1.00	44.33	C
ATOM	4846	CB	PHE	B	596	-17.788	26.827	4.339	1.00	44.33	C
ATOM	4847	CG	PHE	B	596	-16.870	26.418	5.448	1.00	44.33	C
ATOM	4848	CD1	PHE	B	596	-15.587	26.993	5.544	1.00	44.33	C
ATOM	4849	CE1	PHE	B	596	-14.721	26.628	6.589	1.00	44.33	C
ATOM	4850	CZ	PHE	B	596	-15.153	25.665	7.567	1.00	44.33	C
ATOM	4851	CE2	PHE	B	596	-16.479	25.070	7.473	1.00	44.33	C
ATOM	4852	CD2	PHE	B	596	-17.318	25.470	6.423	1.00	44.33	C
ATOM	4853	C	PHE	B	596	-17.315	24.768	2.981	1.00	44.33	C
ATOM	4854	O	PHE	B	596	-16.242	24.166	3.179	1.00	44.33	O
ATOM	4855	N	PHE	B	597	-18.483	24.157	2.740	1.00	45.24	N
ATOM	4856	CA	PHE	B	597	-18.711	22.710	2.883	1.00	44.35	C
ATOM	4857	CB	PHE	B	597	-20.078	22.454	3.589	1.00	44.33	C
ATOM	4858	CG	PHE	B	597	-20.102	22.874	5.042	1.00	44.33	C
ATOM	4859	CD1	PHE	B	597	-19.188	22.311	5.965	1.00	44.33	C
ATOM	4860	CE1	PHE	B	597	-19.182	22.709	7.311	1.00	44.33	C
ATOM	4861	CZ	PHE	B	597	-20.091	23.658	7.738	1.00	44.33	C
ATOM	4862	CE2	PHE	B	597	-21.027	24.236	6.817	1.00	44.33	C
ATOM	4863	CD2	PHE	B	597	-21.027	23.833	5.487	1.00	44.33	C
ATOM	4864	C	PHE	B	597	-18.694	21.927	1.546	1.00	45.58	C
ATOM	4865	O	PHE	B	597	-18.891	20.679	1.514	1.00	44.70	O
ATOM	4866	N	ARG	B	598	-18.487	22.633	0.437	1.00	47.11	N
ATOM	4867	CA	ARG	B	598	-18.580	21.960	-0.878	1.00	48.53	C
ATOM	4868	CB	ARG	B	598	-18.132	22.864	-2.025	1.00	49.40	C
ATOM	4869	CG	ARG	B	598	-16.607	22.915	-2.189	1.00	51.42	C
ATOM	4870	CD	ARG	B	598	-16.144	24.340	-2.263	1.00	51.89	C
ATOM	4871	NE	ARG	B	598	-15.819	24.830	-0.931	1.00	54.58	N
ATOM	4872	CZ	ARG	B	598	-14.598	25.192	-0.508	1.00	55.07	C
ATOM	4873	NH1	ARG	B	598	-13.544	25.120	-1.336	1.00	55.30	N
ATOM	4874	NH2	ARG	B	598	-14.438	25.649	0.758	1.00	56.65	N
ATOM	4875	C	ARG	B	598	-17.892	20.568	-0.974	1.00	48.90	C
ATOM	4876	O	ARG	B	598	-18.450	19.681	-1.638	1.00	49.45	O
ATOM	4877	N	ARG	B	599	-16.721	20.377	-0.339	1.00	49.93	N
ATOM	4878	CA	ARG	B	599	-15.984	19.102	-0.435	1.00	50.10	C
ATOM	4879	CB	ARG	B	599	-14.474	19.289	-0.147	1.00	51.20	C
ATOM	4880	CG	ARG	B	599	-13.678	19.910	-1.304	1.00	54.15	C
ATOM	4881	CD	ARG	B	599	-13.887	19.094	-2.607	1.00	56.22	C
ATOM	4882	NE	ARG	B	599	-13.294	19.684	-3.826	1.00	58.84	N
ATOM	4883	CZ	ARG	B	599	-12.270	19.148	-4.511	1.00	59.33	C

- 280 -

ATOM	4884	NH1	ARG	B	599	-11.705	17.999	-4.108	1.00	59.17	N
ATOM	4885	NH2	ARG	B	599	-11.793	19.748	-5.598	1.00	59.45	N
ATOM	4886	C	ARG	B	599	-16.577	18.030	0.482	1.00	50.35	C
ATOM	4887	O	ARG	B	599	-16.002	16.950	0.641	1.00	50.35	O
ATOM	4888	N	ILE	B	600	-17.734	18.322	1.073	1.00	48.80	N
ATOM	4889	CA	ILE	B	600	-18.309	17.431	2.083	1.00	48.93	C
ATOM	4890	CB	ILE	B	600	-18.814	18.257	3.341	1.00	49.33	C
ATOM	4891	CG1	ILE	B	600	-17.702	18.360	4.404	1.00	49.13	C
ATOM	4892	CD1	ILE	B	600	-16.790	17.113	4.512	1.00	47.89	C
ATOM	4893	CG2	ILE	B	600	-20.192	17.741	3.900	1.00	49.25	C
ATOM	4894	C	ILE	B	600	-19.419	16.531	1.555	1.00	50.08	C
ATOM	4895	O	ILE	B	600	-20.413	17.024	0.997	1.00	50.88	O
ATOM	4896	N	ASP	B	601	-19.247	15.218	1.745	1.00	50.39	N
ATOM	4897	CA	ASP	B	601	-20.365	14.277	1.590	1.00	49.77	C
ATOM	4898	CB	ASP	B	601	-19.972	12.953	0.922	1.00	50.66	C
ATOM	4899	CG	ASP	B	601	-21.195	12.179	0.465	1.00	50.75	C
ATOM	4900	OD1	ASP	B	601	-21.954	11.695	1.360	1.00	50.91	O
ATOM	4901	OD2	ASP	B	601	-21.416	12.092	-0.783	1.00	52.61	O
ATOM	4902	C	ASP	B	601	-21.085	14.055	2.933	1.00	49.75	C
ATOM	4903	O	ASP	B	601	-20.698	13.202	3.766	1.00	50.35	O
ATOM	4904	N	TRP	B	602	-22.138	14.856	3.116	1.00	50.23	N
ATOM	4905	CA	TRP	B	602	-22.965	14.811	4.325	1.00	49.84	C
ATOM	4906	CB	TRP	B	602	-24.137	15.818	4.261	1.00	51.36	C
ATOM	4907	CG	TRP	B	602	-23.638	17.249	4.199	1.00	51.00	C
ATOM	4908	CD1	TRP	B	602	-23.616	18.070	3.093	1.00	51.18	C
ATOM	4909	NE1	TRP	B	602	-23.069	19.288	3.417	1.00	51.92	N
ATOM	4910	CE2	TRP	B	602	-22.706	19.280	4.739	1.00	51.05	C
ATOM	4911	CD2	TRP	B	602	-23.054	18.010	5.270	1.00	51.19	C
ATOM	4912	CE3	TRP	B	602	-22.781	17.742	6.624	1.00	51.24	C
ATOM	4913	CZ3	TRP	B	602	-22.174	18.735	7.400	1.00	51.28	C
ATOM	4914	CH2	TRP	B	602	-21.838	19.995	6.842	1.00	50.85	C
ATOM	4915	CZ2	TRP	B	602	-22.108	20.288	5.519	1.00	51.59	C
ATOM	4916	C	TRP	B	602	-23.447	13.394	4.738	1.00	50.70	C
ATOM	4917	O	TRP	B	602	-23.474	13.071	5.931	1.00	51.08	O
ATOM	4918	N	GLU	B	603	-23.814	12.544	3.783	1.00	51.32	N
ATOM	4919	CA	GLU	B	603	-24.186	11.171	4.145	1.00	53.21	C
ATOM	4920	CB	GLU	B	603	-24.629	10.352	2.925	1.00	54.23	C
ATOM	4921	CG	GLU	B	603	-25.865	10.898	2.246	1.00	56.19	C
ATOM	4922	CD	GLU	B	603	-25.904	10.560	0.751	1.00	56.65	C
ATOM	4923	OE1	GLU	B	603	-26.231	9.392	0.389	1.00	58.74	O
ATOM	4924	OE2	GLU	B	603	-25.622	11.468	-0.070	1.00	57.90	O
ATOM	4925	C	GLU	B	603	-23.014	10.495	4.848	1.00	52.46	C
ATOM	4926	O	GLU	B	603	-23.162	10.048	5.976	1.00	51.12	O
ATOM	4927	N	LYS	B	604	-21.857	10.468	4.181	1.00	52.94	N
ATOM	4928	CA	LYS	B	604	-20.608	9.821	4.658	1.00	53.97	C
ATOM	4929	CB	LYS	B	604	-19.529	10.004	3.582	1.00	55.05	C
ATOM	4930	CG	LYS	B	604	-18.527	8.862	3.352	1.00	56.78	C
ATOM	4931	CD	LYS	B	604	-17.911	9.002	1.945	1.00	57.43	C
ATOM	4932	CE	LYS	B	604	-18.913	8.550	0.832	1.00	58.43	C
ATOM	4933	NZ	LYS	B	604	-18.457	8.778	-0.587	1.00	59.34	N
ATOM	4934	C	LYS	B	604	-20.099	10.431	5.965	1.00	54.07	C
ATOM	4935	O	LYS	B	604	-19.646	9.722	6.881	1.00	54.11	O
ATOM	4936	N	LEU	B	605	-20.177	11.755	6.041	1.00	54.76	N
ATOM	4937	CA	LEU	B	605	-19.868	12.447	7.287	1.00	55.54	C
ATOM	4938	CB	LEU	B	605	-20.027	13.960	7.139	1.00	56.03	C
ATOM	4939	CG	LEU	B	605	-19.520	14.670	8.391	1.00	56.74	C
ATOM	4940	CD1	LEU	B	605	-18.061	15.063	8.227	1.00	55.98	C
ATOM	4941	CD2	LEU	B	605	-20.348	15.871	8.710	1.00	56.00	C

- 281 -

ATOM	4942	C	LEU	B	605	-20.793	11.956	8.393	1.00	56.18	C
ATOM	4943	O	LEU	B	605	-20.351	11.364	9.365	1.00	55.34	O
ATOM	4944	N	GLU	B	606	-22.083	12.200	8.202	1.00	58.11	N
ATOM	4945	CA	GLU	B	606	-23.139	11.801	9.115	1.00	60.01	C
ATOM	4946	CB	GLU	B	606	-24.479	11.875	8.384	1.00	60.67	C
ATOM	4947	CG	GLU	B	606	-25.409	12.934	8.912	1.00	62.07	C
ATOM	4948	CD	GLU	B	606	-26.411	13.370	7.885	1.00	62.08	C
ATOM	4949	OE1	GLU	B	606	-25.982	13.912	6.841	1.00	63.61	O
ATOM	4950	OE2	GLU	B	606	-27.624	13.179	8.138	1.00	63.94	O
ATOM	4951	C	GLU	B	606	-22.976	10.393	9.626	1.00	60.04	C
ATOM	4952	O	GLU	B	606	-23.340	10.095	10.771	1.00	60.02	O
ATOM	4953	N	ASN	B	607	-22.444	9.536	8.760	1.00	61.10	N
ATOM	4954	CA	ASN	B	607	-22.323	8.110	9.012	1.00	61.68	C
ATOM	4955	CB	ASN	B	607	-22.598	7.339	7.731	1.00	62.93	C
ATOM	4956	CG	ASN	B	607	-24.067	7.152	7.498	1.00	64.59	C
ATOM	4957	OD1	ASN	B	607	-24.608	7.624	6.499	1.00	65.70	O
ATOM	4958	ND2	ASN	B	607	-24.740	6.483	8.442	1.00	64.90	N
ATOM	4959	C	ASN	B	607	-20.964	7.738	9.497	1.00	61.13	C
ATOM	4960	O	ASN	B	607	-20.610	6.555	9.489	1.00	61.50	O
ATOM	4961	N	ARG	B	608	-20.193	8.750	9.890	1.00	61.57	N
ATOM	4962	CA	ARG	B	608	-18.856	8.545	10.457	1.00	61.76	C
ATOM	4963	CB	ARG	B	608	-18.906	7.700	11.740	1.00	62.39	C
ATOM	4964	CG	ARG	B	608	-19.424	8.396	12.988	1.00	62.91	C
ATOM	4965	CD	ARG	B	608	-18.979	7.688	14.244	1.00	62.91	C
ATOM	4966	NE	ARG	B	608	-17.531	7.721	14.384	1.00	65.06	N
ATOM	4967	CZ	ARG	B	608	-16.907	7.513	15.536	1.00	65.71	C
ATOM	4968	NH1	ARG	B	608	-17.629	7.262	16.639	1.00	65.74	N
ATOM	4969	NH2	ARG	B	608	-15.570	7.569	15.597	1.00	65.92	N
ATOM	4970	C	ARG	B	608	-17.994	7.787	9.475	1.00	61.63	C
ATOM	4971	O	ARG	B	608	-17.110	7.022	9.871	1.00	61.60	O
ATOM	4972	N	GLU	B	609	-18.277	7.969	8.194	1.00	61.15	N
ATOM	4973	CA	GLU	B	609	-17.609	7.199	7.168	1.00	61.09	C
ATOM	4974	CB	GLU	B	609	-18.574	6.884	6.031	1.00	61.99	C
ATOM	4975	CG	GLU	B	609	-19.442	5.674	6.251	1.00	64.06	C
ATOM	4976	CD	GLU	B	609	-20.546	5.581	5.222	1.00	64.41	C
ATOM	4977	OE1	GLU	B	609	-20.404	6.143	4.110	1.00	66.44	O
ATOM	4978	OE2	GLU	B	609	-21.562	4.930	5.537	1.00	66.75	O
ATOM	4979	C	GLU	B	609	-16.405	7.911	6.583	1.00	59.19	C
ATOM	4980	O	GLU	B	609	-15.708	7.332	5.759	1.00	58.90	O
ATOM	4981	N	ILE	B	610	-16.169	9.160	6.974	1.00	57.03	N
ATOM	4982	CA	ILE	B	610	-15.091	9.929	6.390	1.00	55.80	C
ATOM	4983	CB	ILE	B	610	-15.495	11.396	6.212	1.00	56.31	C
ATOM	4984	CG1	ILE	B	610	-16.734	11.489	5.303	1.00	56.07	C
ATOM	4985	CD1	ILE	B	610	-17.204	12.905	4.997	1.00	56.26	C
ATOM	4986	CG2	ILE	B	610	-14.280	12.250	5.747	1.00	55.73	C
ATOM	4987	C	ILE	B	610	-13.934	9.854	7.334	1.00	54.96	C
ATOM	4988	O	ILE	B	610	-14.097	10.124	8.521	1.00	54.48	O
ATOM	4989	N	GLN	B	611	-12.768	9.494	6.806	1.00	54.09	N
ATOM	4990	CA	GLN	B	611	-11.523	9.424	7.570	1.00	53.83	C
ATOM	4991	CB	GLN	B	611	-10.363	9.180	6.613	1.00	56.30	C
ATOM	4992	CG	GLN	B	611	-8.986	9.417	7.227	1.00	57.85	C
ATOM	4993	CD	GLN	B	611	-8.258	8.110	7.453	1.00	58.92	C
ATOM	4994	OE1	GLN	B	611	-8.087	7.660	8.603	1.00	59.55	O
ATOM	4995	NE2	GLN	B	611	-7.842	7.466	6.343	1.00	59.69	N
ATOM	4996	C	GLN	B	611	-11.247	10.739	8.237	1.00	51.72	C
ATOM	4997	O	GLN	B	611	-11.239	11.748	7.544	1.00	52.41	O
ATOM	4998	N	PRO	B	612	-10.964	10.726	9.563	1.00	50.21	N
ATOM	4999	CA	PRO	B	612	-10.727	11.975	10.300	1.00	49.38	C

- 282 -

ATOM	5000	CB	PRO	B	612	-10.675	11.537	11.775	1.00	48.81	C
ATOM	5001	CG	PRO	B	612	-11.086	10.105	11.785	1.00	48.27	C
ATOM	5002	CD	PRO	B	612	-10.771	9.553	10.432	1.00	50.26	C
ATOM	5003	C	PRO	B	612	-9.370	12.545	9.884	1.00	48.33	C
ATOM	5004	O	PRO	B	612	-8.495	11.783	9.476	1.00	49.18	O
ATOM	5005	N	PRO	B	613	-9.235	13.884	9.921	1.00	47.34	N
ATOM	5006	CA	PRO	B	613	-7.986	14.606	9.873	1.00	47.19	C
ATOM	5007	CB	PRO	B	613	-8.272	15.822	10.752	1.00	46.90	C
ATOM	5008	CG	PRO	B	613	-9.758	16.109	10.500	1.00	46.05	C
ATOM	5009	CD	PRO	B	613	-10.376	14.820	9.948	1.00	47.11	C
ATOM	5010	C	PRO	B	613	-6.857	13.811	10.475	1.00	48.14	C
ATOM	5011	O	PRO	B	613	-5.849	13.589	9.814	1.00	49.54	O
ATOM	5012	N	PHE	B	614	-7.017	13.382	11.716	1.00	48.77	N
ATOM	5013	CA	PHE	B	614	-5.961	12.609	12.382	1.00	49.50	C
ATOM	5014	CB	PHE	B	614	-4.801	13.542	12.793	1.00	50.38	C
ATOM	5015	CG	PHE	B	614	-4.834	13.982	14.245	1.00	50.04	C
ATOM	5016	CD1	PHE	B	614	-3.644	13.975	15.011	1.00	50.77	C
ATOM	5017	CE1	PHE	B	614	-3.640	14.398	16.351	1.00	50.50	C
ATOM	5018	CZ	PHE	B	614	-4.828	14.812	16.933	1.00	50.98	C
ATOM	5019	CE2	PHE	B	614	-6.037	14.827	16.160	1.00	50.75	C
ATOM	5020	CD2	PHE	B	614	-6.026	14.425	14.844	1.00	50.76	C
ATOM	5021	C	PHE	B	614	-6.454	11.759	13.585	1.00	49.77	C
ATOM	5022	O	PHE	B	614	-7.480	12.054	14.234	1.00	48.29	O
ATOM	5023	N	LYS	B	615	-5.701	10.696	13.867	1.00	49.93	N
ATOM	5024	CA	LYS	B	615	-5.982	9.799	15.011	1.00	50.57	C
ATOM	5025	CB	LYS	B	615	-5.602	8.337	14.692	1.00	51.68	C
ATOM	5026	CG	LYS	B	615	-6.013	7.298	15.730	1.00	51.50	C
ATOM	5027	CD	LYS	B	615	-6.354	5.973	15.020	1.00	51.79	C
ATOM	5028	CE	LYS	B	615	-6.506	4.755	15.984	1.00	52.48	C
ATOM	5029	NZ	LYS	B	615	-7.225	3.608	15.317	1.00	53.17	N
ATOM	5030	C	LYS	B	615	-5.242	10.310	16.257	1.00	51.84	C
ATOM	5031	O	LYS	B	615	-4.011	10.293	16.297	1.00	51.13	O
ATOM	5032	N	PRO	B	616	-5.997	10.781	17.269	1.00	52.92	N
ATOM	5033	CA	PRO	B	616	-5.323	11.298	18.448	1.00	55.18	C
ATOM	5034	CB	PRO	B	616	-6.465	11.652	19.426	1.00	54.36	C
ATOM	5035	CG	PRO	B	616	-7.693	11.411	18.730	1.00	53.74	C
ATOM	5036	CD	PRO	B	616	-7.465	10.837	17.376	1.00	53.12	C
ATOM	5037	C	PRO	B	616	-4.440	10.242	19.084	1.00	58.08	C
ATOM	5038	O	PRO	B	616	-4.590	9.032	18.815	1.00	57.46	O
ATOM	5039	N	LYS	B	617	-3.523	10.747	19.908	1.00	61.90	N
ATOM	5040	CA	LYS	B	617	-2.756	9.980	20.857	1.00	64.87	C
ATOM	5041	CB	LYS	B	617	-2.481	10.817	22.102	1.00	65.84	C
ATOM	5042	CG	LYS	B	617	-1.029	10.769	22.547	1.00	66.93	C
ATOM	5043	CD	LYS	B	617	-0.074	10.876	21.341	1.00	67.17	C
ATOM	5044	CE	LYS	B	617	0.237	9.483	20.749	1.00	67.86	C
ATOM	5045	NZ	LYS	B	617	0.340	9.654	19.213	1.00	67.59	N
ATOM	5046	C	LYS	B	617	-3.511	8.723	21.220	1.00	67.04	C
ATOM	5047	O	LYS	B	617	-4.604	8.782	21.806	1.00	65.81	O
ATOM	5048	N	VAL	B	618	-2.911	7.594	20.829	1.00	68.81	N
ATOM	5049	CA	VAL	B	618	-3.527	6.258	20.859	1.00	71.33	C
ATOM	5050	CB	VAL	B	618	-3.117	5.418	19.588	1.00	71.93	C
ATOM	5051	CG1	VAL	B	618	-3.717	4.037	19.626	1.00	72.22	C
ATOM	5052	CG2	VAL	B	618	-3.534	6.115	18.310	1.00	72.35	C
ATOM	5053	C	VAL	B	618	-3.177	5.505	22.160	1.00	72.43	C
ATOM	5054	O	VAL	B	618	-3.210	6.074	23.263	1.00	73.76	O
ATOM	5055	N	ASN	B	625	3.990	0.523	43.888	1.00	66.71	N
ATOM	5056	CA	ASN	B	625	3.032	1.325	43.112	1.00	67.29	C
ATOM	5057	CB	ASN	B	625	2.462	2.455	44.000	1.00	68.19	C

- 283 -

ATOM	5058	CG	ASN	B	625	0.964	2.731	43.747	1.00	69.29	C
ATOM	5059	OD1	ASN	B	625	0.562	3.109	42.636	1.00	69.49	O
ATOM	5060	ND2	ASN	B	625	0.142	2.574	44.792	1.00	69.97	N
ATOM	5061	C	ASN	B	625	3.675	1.852	41.787	1.00	66.82	C
ATOM	5062	O	ASN	B	625	4.891	1.676	41.563	1.00	67.80	O
ATOM	5063	N	PHE	B	626	2.866	2.445	40.900	1.00	65.68	N
ATOM	5064	CA	PHE	B	626	3.366	3.116	39.696	1.00	63.19	C
ATOM	5065	CB	PHE	B	626	2.204	3.876	39.055	1.00	64.53	C
ATOM	5066	CG	PHE	B	626	2.540	4.535	37.764	1.00	66.41	C
ATOM	5067	CD1	PHE	B	626	3.094	3.802	36.713	1.00	66.94	C
ATOM	5068	CE1	PHE	B	626	3.419	4.412	35.500	1.00	67.10	C
ATOM	5069	CZ	PHE	B	626	3.165	5.778	35.323	1.00	67.24	C
ATOM	5070	CE2	PHE	B	626	2.597	6.526	36.379	1.00	67.59	C
ATOM	5071	CD2	PHE	B	626	2.282	5.889	37.590	1.00	66.86	C
ATOM	5072	C	PHE	B	626	4.551	4.053	40.091	1.00	59.37	C
ATOM	5073	O	PHE	B	626	5.682	3.987	39.525	1.00	59.86	O
ATOM	5074	N	ASP	B	627	4.270	4.887	41.100	1.00	54.08	N
ATOM	5075	CA	ASP	B	627	5.281	5.606	41.835	1.00	48.63	C
ATOM	5076	CB	ASP	B	627	4.974	7.087	41.738	1.00	47.43	C
ATOM	5077	CG	ASP	B	627	5.944	7.936	42.488	1.00	44.57	C
ATOM	5078	OD1	ASP	B	627	6.906	7.420	43.100	1.00	44.33	O
ATOM	5079	OD2	ASP	B	627	5.739	9.158	42.476	1.00	44.33	O
ATOM	5080	C	ASP	B	627	5.268	5.070	43.279	1.00	46.49	C
ATOM	5081	O	ASP	B	627	4.306	5.256	44.012	1.00	44.33	O
ATOM	5082	N	LYS	B	628	6.337	4.356	43.642	1.00	44.33	N
ATOM	5083	CA	LYS	B	628	6.586	3.765	44.976	1.00	44.33	C
ATOM	5084	CB	LYS	B	628	8.028	3.293	44.968	1.00	44.44	C
ATOM	5085	CG	LYS	B	628	8.269	1.884	45.398	1.00	48.34	C
ATOM	5086	CD	LYS	B	628	9.222	1.177	44.420	1.00	48.56	C
ATOM	5087	CE	LYS	B	628	10.618	1.784	44.427	1.00	49.55	C
ATOM	5088	NZ	LYS	B	628	11.561	1.011	45.327	1.00	49.83	N
ATOM	5089	C	LYS	B	628	6.451	4.742	46.147	1.00	44.33	C
ATOM	5090	O	LYS	B	628	6.332	4.339	47.291	1.00	44.33	O
ATOM	5091	N	PHE	B	629	6.503	6.031	45.839	1.00	44.33	N
ATOM	5092	CA	PHE	B	629	6.730	7.078	46.816	1.00	44.33	C
ATOM	5093	CB	PHE	B	629	7.992	7.883	46.452	1.00	44.33	C
ATOM	5094	CG	PHE	B	629	9.245	7.039	46.350	1.00	44.33	C
ATOM	5095	CD1	PHE	B	629	9.703	6.294	47.447	1.00	44.33	C
ATOM	5096	CE1	PHE	B	629	10.843	5.497	47.353	1.00	44.33	C
ATOM	5097	CZ	PHE	B	629	11.519	5.447	46.176	1.00	44.33	C
ATOM	5098	CE2	PHE	B	629	11.091	6.183	45.085	1.00	44.33	C
ATOM	5099	CD2	PHE	B	629	9.961	6.965	45.166	1.00	44.33	C
ATOM	5100	C	PHE	B	629	5.525	8.002	46.964	1.00	44.33	C
ATOM	5101	O	PHE	B	629	5.305	8.552	48.037	1.00	44.33	O
ATOM	5102	N	PHE	B	630	4.764	8.180	45.889	1.00	44.33	N
ATOM	5103	CA	PHE	B	630	3.591	9.037	45.899	1.00	44.33	C
ATOM	5104	CB	PHE	B	630	3.887	10.349	45.162	1.00	44.33	C
ATOM	5105	CG	PHE	B	630	2.633	11.118	44.755	1.00	44.33	C
ATOM	5106	CD1	PHE	B	630	2.172	11.088	43.450	1.00	44.33	C
ATOM	5107	CE1	PHE	B	630	1.043	11.759	43.096	1.00	44.33	C
ATOM	5108	CZ	PHE	B	630	0.348	12.474	44.024	1.00	44.33	C
ATOM	5109	CE2	PHE	B	630	0.781	12.534	45.314	1.00	44.33	C
ATOM	5110	CD2	PHE	B	630	1.903	11.847	45.688	1.00	44.33	C
ATOM	5111	C	PHE	B	630	2.354	8.337	45.292	1.00	44.33	C
ATOM	5112	O	PHE	B	630	2.435	7.688	44.251	1.00	44.33	O
ATOM	5113	N	THR	B	631	1.200	8.465	45.944	1.00	44.33	N
ATOM	5114	CA	THR	B	631	-0.076	8.045	45.338	1.00	44.33	C
ATOM	5115	CB	THR	B	631	-0.638	6.714	45.941	1.00	44.33	C

- 284 -

ATOM	5116	OG1	THR	B	631	-1.785	6.308	45.199	1.00	44.87	O
ATOM	5117	CG2	THR	B	631	-0.983	6.838	47.417	1.00	44.33	C
ATOM	5118	C	THR	B	631	-1.090	9.162	45.415	1.00	44.33	C
ATOM	5119	O	THR	B	631	-1.035	9.965	46.313	1.00	44.33	O
ATOM	5120	N	ARG	B	632	-1.999	9.231	44.453	1.00	44.49	N
ATOM	5121	CA	ARG	B	632	-3.211	10.040	44.610	1.00	46.07	C
ATOM	5122	CB	ARG	B	632	-3.760	10.491	43.263	1.00	49.83	C
ATOM	5123	CG	ARG	B	632	-3.058	11.708	42.693	1.00	51.95	C
ATOM	5124	CD	ARG	B	632	-3.260	11.820	41.163	1.00	54.52	C
ATOM	5125	NE	ARG	B	632	-2.158	12.527	40.508	1.00	56.71	N
ATOM	5126	CZ	ARG	B	632	-2.051	13.850	40.452	1.00	58.65	C
ATOM	5127	NH1	ARG	B	632	-2.985	14.615	41.001	1.00	57.83	N
ATOM	5128	NH2	ARG	B	632	-1.010	14.410	39.846	1.00	57.53	N
ATOM	5129	C	ARG	B	632	-4.285	9.267	45.352	1.00	44.60	C
ATOM	5130	O	ARG	B	632	-5.368	9.793	45.573	1.00	44.50	O
ATOM	5131	N	GLY	B	633	-4.005	8.026	45.732	1.00	44.33	N
ATOM	5132	CA	GLY	B	633	-5.010	7.199	46.403	1.00	46.38	C
ATOM	5133	C	GLY	B	633	-6.291	6.881	45.616	1.00	46.79	C
ATOM	5134	O	GLY	B	633	-6.384	7.140	44.423	1.00	47.13	O
ATOM	5135	N	GLN	B	634	-7.276	6.305	46.291	1.00	47.60	N
ATOM	5136	CA	GLN	B	634	-8.510	5.882	45.626	1.00	48.39	C
ATOM	5137	CB	GLN	B	634	-8.922	4.510	46.127	1.00	50.37	C
ATOM	5138	CG	GLN	B	634	-8.005	3.335	45.748	1.00	55.57	C
ATOM	5139	CD	GLN	B	634	-8.845	2.045	45.631	1.00	54.97	C
ATOM	5140	OE1	GLN	B	634	-10.030	2.112	45.229	1.00	56.57	O
ATOM	5141	NE2	GLN	B	634	-8.263	0.884	46.021	1.00	58.47	N
ATOM	5142	C	GLN	B	634	-9.721	6.832	45.769	1.00	46.69	C
ATOM	5143	O	GLN	B	634	-10.101	7.186	46.896	1.00	45.68	O
ATOM	5144	N	PRO	B	635	-10.350	7.222	44.621	1.00	45.71	N
ATOM	5145	CA	PRO	B	635	-11.666	7.871	44.664	1.00	44.44	C
ATOM	5146	CB	PRO	B	635	-12.087	7.917	43.194	1.00	45.23	C
ATOM	5147	CG	PRO	B	635	-10.856	7.884	42.451	1.00	45.50	C
ATOM	5148	CD	PRO	B	635	-9.896	7.048	43.231	1.00	44.65	C
ATOM	5149	C	PRO	B	635	-12.650	7.014	45.480	1.00	44.59	C
ATOM	5150	O	PRO	B	635	-12.918	5.792	45.200	1.00	44.63	O
ATOM	5151	N	VAL	B	636	-13.132	7.624	46.542	1.00	44.33	N
ATOM	5152	CA	VAL	B	636	-14.137	6.940	47.316	1.00	44.86	C
ATOM	5153	CB	VAL	B	636	-13.605	6.449	48.664	1.00	44.33	C
ATOM	5154	CG1	VAL	B	636	-12.778	5.150	48.475	1.00	46.48	C
ATOM	5155	CG2	VAL	B	636	-12.835	7.560	49.328	1.00	44.39	C
ATOM	5156	C	VAL	B	636	-15.290	7.892	47.490	1.00	44.74	C
ATOM	5157	O	VAL	B	636	-15.182	9.066	47.108	1.00	44.33	O
ATOM	5158	N	LEU	B	637	-16.406	7.392	48.010	1.00	45.18	N
ATOM	5159	CA	LEU	B	637	-17.456	8.328	48.434	1.00	47.88	C
ATOM	5160	CB	LEU	B	637	-18.767	8.119	47.629	1.00	47.83	C
ATOM	5161	CG	LEU	B	637	-18.547	8.235	46.100	1.00	48.80	C
ATOM	5162	CD1	LEU	B	637	-19.466	7.354	45.264	1.00	46.63	C
ATOM	5163	CD2	LEU	B	637	-18.565	9.708	45.590	1.00	47.84	C
ATOM	5164	C	LEU	B	637	-17.625	8.285	49.971	1.00	47.03	C
ATOM	5165	O	LEU	B	637	-17.409	7.227	50.615	1.00	46.81	O
ATOM	5166	N	TPO	B	638	-17.976	9.427	50.559	1.00	48.81	N
ATOM	5167	CA	TPO	B	638	-18.153	9.452	51.996	1.00	52.57	C
ATOM	5168	CB	TPO	B	638	-17.803	10.776	52.648	1.00	55.73	C
ATOM	5169	CG2	TPO	B	638	-18.175	10.818	54.140	1.00	55.65	C
ATOM	5170	OG1	TPO	B	638	-18.349	11.803	51.812	1.00	58.89	O
ATOM	5171	P	TPO	B	638	-17.338	12.394	50.663	1.00	58.85	P
ATOM	5172	O1P	TPO	B	638	-17.670	11.445	49.478	1.00	59.93	O
ATOM	5173	O2P	TPO	B	638	-15.955	12.265	51.374	1.00	60.02	O

- 285 -

ATOM	5174	O3P	TPO	B	638	-17.681	13.852	50.267	1.00	59.80	O
ATOM	5175	C	TPO	B	638	-19.564	9.074	52.211	1.00	51.23	C
ATOM	5176	O	TPO	B	638	-20.430	9.584	51.475	1.00	48.59	O
ATOM	5177	N	PRO	B	639	-19.815	8.146	53.189	1.00	51.79	N
ATOM	5178	CA	PRO	B	639	-21.181	7.697	53.428	1.00	50.68	C
ATOM	5179	CB	PRO	B	639	-21.091	6.854	54.720	1.00	51.80	C
ATOM	5180	CG	PRO	B	639	-19.747	7.259	55.351	1.00	52.29	C
ATOM	5181	CD	PRO	B	639	-18.876	7.498	54.126	1.00	51.68	C
ATOM	5182	C	PRO	B	639	-22.027	8.919	53.671	1.00	49.90	C
ATOM	5183	O	PRO	B	639	-21.503	10.052	53.978	1.00	47.16	O
ATOM	5184	N	PRO	B	640	-23.324	8.708	53.540	1.00	50.64	N
ATOM	5185	CA	PRO	B	640	-24.180	9.846	53.457	1.00	50.16	C
ATOM	5186	CB	PRO	B	640	-25.467	9.267	52.882	1.00	50.99	C
ATOM	5187	CG	PRO	B	640	-25.140	7.789	52.514	1.00	52.42	C
ATOM	5188	CD	PRO	B	640	-24.051	7.440	53.465	1.00	49.71	C
ATOM	5189	C	PRO	B	640	-24.328	10.301	54.864	1.00	49.10	C
ATOM	5190	O	PRO	B	640	-24.003	9.542	55.760	1.00	48.12	O
ATOM	5191	N	ASP	B	641	-24.712	11.552	55.045	1.00	48.54	N
ATOM	5192	CA	ASP	B	641	-25.048	12.080	56.341	1.00	48.40	C
ATOM	5193	CB	ASP	B	641	-24.675	13.544	56.382	1.00	51.97	C
ATOM	5194	CG	ASP	B	641	-25.460	14.294	57.403	1.00	55.77	C
ATOM	5195	OD1	ASP	B	641	-26.108	13.639	58.271	1.00	56.87	O
ATOM	5196	OD2	ASP	B	641	-25.440	15.546	57.342	1.00	59.18	O
ATOM	5197	C	ASP	B	641	-26.565	11.872	56.578	1.00	46.37	C
ATOM	5198	O	ASP	B	641	-27.407	12.416	55.857	1.00	44.39	O
ATOM	5199	N	GLN	B	642	-26.950	11.088	57.569	1.00	44.36	N
ATOM	5200	CA	GLN	B	642	-28.354	10.703	57.594	1.00	44.33	C
ATOM	5201	CB	GLN	B	642	-28.563	9.670	58.673	1.00	45.98	C
ATOM	5202	CG	GLN	B	642	-27.465	8.587	58.665	1.00	50.02	C
ATOM	5203	CD	GLN	B	642	-27.493	7.711	57.414	1.00	51.17	C
ATOM	5204	OE1	GLN	B	642	-28.536	7.497	56.852	1.00	53.52	O
ATOM	5205	NE2	GLN	B	642	-26.332	7.210	56.984	1.00	51.53	N
ATOM	5206	C	GLN	B	642	-29.361	11.886	57.658	1.00	44.33	C
ATOM	5207	O	GLN	B	642	-30.350	11.905	56.937	1.00	44.33	O
ATOM	5208	N	LEU	B	643	-29.059	12.894	58.470	1.00	44.33	N
ATOM	5209	CA	LEU	B	643	-29.851	14.128	58.586	1.00	44.33	C
ATOM	5210	CB	LEU	B	643	-29.176	15.053	59.586	1.00	44.33	C
ATOM	5211	CG	LEU	B	643	-29.949	16.261	60.098	1.00	44.33	C
ATOM	5212	CD1	LEU	B	643	-31.087	15.781	60.961	1.00	44.33	C
ATOM	5213	CD2	LEU	B	643	-29.044	17.202	60.863	1.00	44.33	C
ATOM	5214	C	LEU	B	643	-30.061	14.899	57.285	1.00	44.33	C
ATOM	5215	O	LEU	B	643	-31.095	15.511	57.070	1.00	44.33	O
ATOM	5216	N	VAL	B	644	-29.052	14.900	56.430	1.00	44.33	N
ATOM	5217	CA	VAL	B	644	-29.165	15.599	55.168	1.00	44.33	C
ATOM	5218	CB	VAL	B	644	-27.796	15.924	54.518	1.00	44.33	C
ATOM	5219	CG1	VAL	B	644	-27.917	16.193	53.040	1.00	44.33	C
ATOM	5220	CG2	VAL	B	644	-27.254	17.123	55.149	1.00	44.33	C
ATOM	5221	C	VAL	B	644	-30.075	14.802	54.279	1.00	44.33	C
ATOM	5222	O	VAL	B	644	-30.926	15.370	53.621	1.00	44.33	O
ATOM	5223	N	ILE	B	645	-29.943	13.486	54.296	1.00	44.33	N
ATOM	5224	CA	ILE	B	645	-30.739	12.668	53.409	1.00	44.33	C
ATOM	5225	CB	ILE	B	645	-30.195	11.247	53.341	1.00	44.33	C
ATOM	5226	CG1	ILE	B	645	-28.815	11.249	52.732	1.00	44.79	C
ATOM	5227	CD1	ILE	B	645	-28.115	9.991	53.098	1.00	47.12	C
ATOM	5228	CG2	ILE	B	645	-31.082	10.312	52.512	1.00	44.77	C
ATOM	5229	C	ILE	B	645	-32.194	12.628	53.852	1.00	44.33	C
ATOM	5230	O	ILE	B	645	-33.067	12.333	53.060	1.00	44.33	O
ATOM	5231	N	ALA	B	646	-32.480	12.906	55.110	1.00	44.33	N

- 286 -

ATOM	5232	CA	ALA	B	646	-33.873	12.860	55.557	1.00	44.33	C
ATOM	5233	CB	ALA	B	646	-33.961	12.750	57.087	1.00	44.33	C
ATOM	5234	C	ALA	B	646	-34.620	14.076	55.078	1.00	44.33	C
ATOM	5235	O	ALA	B	646	-35.848	14.133	55.182	1.00	44.33	O
ATOM	5236	N	ASN	B	647	-33.863	15.034	54.559	1.00	44.33	N
ATOM	5237	CA	ASN	B	647	-34.390	16.329	54.282	1.00	44.33	C
ATOM	5238	CB	ASN	B	647	-33.798	17.313	55.283	1.00	44.33	C
ATOM	5239	CG	ASN	B	647	-34.184	16.968	56.723	1.00	44.33	C
ATOM	5240	OD1	ASN	B	647	-35.276	17.299	57.189	1.00	44.33	O
ATOM	5241	ND2	ASN	B	647	-33.299	16.282	57.417	1.00	44.33	N
ATOM	5242	C	ASN	B	647	-34.211	16.722	52.826	1.00	44.33	C
ATOM	5243	O	ASN	B	647	-34.420	17.857	52.472	1.00	44.33	O
ATOM	5244	N	ILE	B	648	-33.835	15.756	51.991	1.00	44.33	N
ATOM	5245	CA	ILE	B	648	-33.804	15.923	50.549	1.00	44.33	C
ATOM	5246	CB	ILE	B	648	-32.882	14.888	49.838	1.00	44.33	C
ATOM	5247	CG1	ILE	B	648	-31.418	15.102	50.228	1.00	44.33	C
ATOM	5248	CD1	ILE	B	648	-30.437	14.067	49.650	1.00	44.33	C
ATOM	5249	CG2	ILE	B	648	-33.027	14.982	48.314	1.00	44.33	C
ATOM	5250	C	ILE	B	648	-35.219	15.765	50.029	1.00	44.33	C
ATOM	5251	O	ILE	B	648	-35.952	14.884	50.488	1.00	44.33	O
ATOM	5252	N	ASP	B	649	-35.591	16.656	49.104	1.00	44.33	N
ATOM	5253	CA	ASP	B	649	-36.837	16.594	48.393	1.00	44.33	C
ATOM	5254	CB	ASP	B	649	-37.259	17.968	47.917	1.00	45.93	C
ATOM	5255	CG	ASP	B	649	-38.721	18.011	47.481	1.00	49.08	C
ATOM	5256	OD1	ASP	B	649	-39.276	16.960	47.036	1.00	49.55	O
ATOM	5257	OD2	ASP	B	649	-39.310	19.114	47.589	1.00	49.79	O
ATOM	5258	C	ASP	B	649	-36.659	15.676	47.204	1.00	44.33	C
ATOM	5259	O	ASP	B	649	-36.377	16.109	46.097	1.00	44.33	O
ATOM	5260	N	GLN	B	650	-36.863	14.399	47.450	1.00	44.33	N
ATOM	5261	CA	GLN	B	650	-36.751	13.373	46.449	1.00	44.33	C
ATOM	5262	CB	GLN	B	650	-37.001	12.011	47.103	1.00	44.33	C
ATOM	5263	CG	GLN	B	650	-36.018	11.735	48.238	1.00	44.33	C
ATOM	5264	CD	GLN	B	650	-34.561	11.440	47.798	1.00	44.33	C
ATOM	5265	OE1	GLN	B	650	-34.129	11.670	46.670	1.00	44.33	O
ATOM	5266	NE2	GLN	B	650	-33.814	10.917	48.720	1.00	44.33	N
ATOM	5267	C	GLN	B	650	-37.614	13.582	45.210	1.00	44.33	C
ATOM	5268	O	GLN	B	650	-37.219	13.171	44.114	1.00	44.33	O
ATOM	5269	N	SER	B	651	-38.760	14.240	45.367	1.00	44.33	N
ATOM	5270	CA	SER	B	651	-39.639	14.522	44.248	1.00	44.33	C
ATOM	5271	CB	SER	B	651	-40.785	15.410	44.709	1.00	44.33	C
ATOM	5272	OG	SER	B	651	-40.414	16.811	44.701	1.00	47.53	O
ATOM	5273	C	SER	B	651	-38.935	15.207	43.084	1.00	44.33	C
ATOM	5274	O	SER	B	651	-39.270	14.998	41.917	1.00	44.33	O
ATOM	5275	N	ASP	B	652	-37.972	16.057	43.432	1.00	44.33	N
ATOM	5276	CA	ASP	B	652	-37.105	16.756	42.489	1.00	44.33	C
ATOM	5277	CB	ASP	B	652	-36.023	17.497	43.273	1.00	44.33	C
ATOM	5278	CG	ASP	B	652	-36.559	18.734	43.950	1.00	44.33	C
ATOM	5279	OD1	ASP	B	652	-37.645	19.195	43.575	1.00	46.64	O
ATOM	5280	OD2	ASP	B	652	-35.903	19.284	44.852	1.00	45.66	O
ATOM	5281	C	ASP	B	652	-36.458	15.882	41.407	1.00	44.33	C
ATOM	5282	O	ASP	B	652	-36.095	16.394	40.338	1.00	44.33	O
ATOM	5283	N	PHE	B	653	-36.332	14.580	41.690	1.00	44.33	N
ATOM	5284	CA	PHE	B	653	-35.573	13.672	40.849	1.00	44.33	C
ATOM	5285	CB	PHE	B	653	-34.378	13.168	41.615	1.00	44.33	C
ATOM	5286	CG	PHE	B	653	-33.719	14.241	42.421	1.00	44.33	C
ATOM	5287	CD1	PHE	B	653	-33.952	14.337	43.793	1.00	44.33	C
ATOM	5288	CE1	PHE	B	653	-33.393	15.306	44.526	1.00	44.33	C
ATOM	5289	CZ	PHE	B	653	-32.583	16.235	43.888	1.00	44.33	C

- 287 -

ATOM	5290	CE2	PHE	B	653	-32.352	16.165	42.506	1.00	44.33	C
ATOM	5291	CD2	PHE	B	653	-32.911	15.184	41.800	1.00	44.33	C
ATOM	5292	C	PHE	B	653	-36.413	12.527	40.353	1.00	44.33	C
ATOM	5293	O	PHE	B	653	-35.879	11.513	39.901	1.00	44.33	O
ATOM	5294	N	GLU	B	654	-37.724	12.713	40.413	1.00	44.33	N
ATOM	5295	CA	GLU	B	654	-38.672	11.792	39.851	1.00	44.33	C
ATOM	5296	CB	GLU	B	654	-40.052	12.401	39.970	1.00	46.87	C
ATOM	5297	CG	GLU	B	654	-41.143	11.469	39.519	1.00	52.57	C
ATOM	5298	CD	GLU	B	654	-42.442	12.191	39.386	1.00	54.92	C
ATOM	5299	OE1	GLU	B	654	-43.377	11.795	40.111	1.00	56.50	O
ATOM	5300	OE2	GLU	B	654	-42.521	13.158	38.576	1.00	57.27	O
ATOM	5301	C	GLU	B	654	-38.432	11.513	38.381	1.00	44.33	C
ATOM	5302	O	GLU	B	654	-38.369	12.439	37.569	1.00	44.33	O
ATOM	5303	N	GLY	B	655	-38.370	10.246	38.011	1.00	44.33	N
ATOM	5304	CA	GLY	B	655	-38.175	9.926	36.608	1.00	44.33	C
ATOM	5305	C	GLY	B	655	-36.777	10.275	36.131	1.00	44.33	C
ATOM	5306	O	GLY	B	655	-36.578	10.638	35.001	1.00	44.33	O
ATOM	5307	N	PHE	B	656	-35.793	10.170	37.007	1.00	44.33	N
ATOM	5308	CA	PHE	B	656	-34.432	10.351	36.622	1.00	44.33	C
ATOM	5309	CB	PHE	B	656	-33.591	10.683	37.842	1.00	44.33	C
ATOM	5310	CG	PHE	B	656	-32.166	10.991	37.509	1.00	44.33	C
ATOM	5311	CD1	PHE	B	656	-31.845	12.114	36.751	1.00	44.33	C
ATOM	5312	CE1	PHE	B	656	-30.509	12.422	36.449	1.00	44.33	C
ATOM	5313	CZ	PHE	B	656	-29.480	11.588	36.896	1.00	44.33	C
ATOM	5314	CE2	PHE	B	656	-29.792	10.454	37.646	1.00	44.33	C
ATOM	5315	CD2	PHE	B	656	-31.148	10.157	37.940	1.00	44.33	C
ATOM	5316	C	PHE	B	656	-33.826	9.145	35.887	1.00	44.33	C
ATOM	5317	O	PHE	B	656	-33.088	9.296	34.902	1.00	44.68	O
ATOM	5318	N	SEP	B	657	-34.111	7.952	36.376	1.00	44.33	N
ATOM	5319	CA	SEP	B	657	-33.415	6.777	35.908	1.00	44.33	C
ATOM	5320	CB	SEP	B	657	-33.664	5.635	36.854	1.00	45.69	C
ATOM	5321	OG	SEP	B	657	-33.525	6.163	38.149	1.00	46.92	O
ATOM	5322	P	SEP	B	657	-33.662	5.053	39.295	1.00	51.09	P
ATOM	5323	O1P	SEP	B	657	-35.212	5.044	39.713	1.00	48.25	O
ATOM	5324	O2P	SEP	B	657	-32.810	5.378	40.629	1.00	48.51	O
ATOM	5325	O3P	SEP	B	657	-33.021	3.623	38.855	1.00	48.33	O
ATOM	5326	C	SEP	B	657	-33.863	6.438	34.533	1.00	44.33	C
ATOM	5327	O	SEP	B	657	-34.984	6.662	34.182	1.00	44.33	O
ATOM	5328	N	TYR	B	658	-32.950	5.902	33.756	1.00	44.33	N
ATOM	5329	CA	TYR	B	658	-33.144	5.672	32.365	1.00	44.33	C
ATOM	5330	CB	TYR	B	658	-33.077	7.001	31.628	1.00	44.33	C
ATOM	5331	CG	TYR	B	658	-33.266	6.826	30.166	1.00	44.33	C
ATOM	5332	CD1	TYR	B	658	-34.500	6.482	29.643	1.00	44.33	C
ATOM	5333	CE1	TYR	B	658	-34.679	6.286	28.302	1.00	44.33	C
ATOM	5334	CZ	TYR	B	658	-33.624	6.425	27.461	1.00	44.33	C
ATOM	5335	OH	TYR	B	658	-33.816	6.224	26.129	1.00	44.33	O
ATOM	5336	CE2	TYR	B	658	-32.378	6.768	27.942	1.00	44.33	C
ATOM	5337	CD2	TYR	B	658	-32.209	6.958	29.290	1.00	44.33	C
ATOM	5338	C	TYR	B	658	-32.004	4.732	31.975	1.00	44.33	C
ATOM	5339	O	TYR	B	658	-30.940	4.764	32.599	1.00	44.33	O
ATOM	5340	N	VAL	B	659	-32.246	3.849	31.003	1.00	44.33	N
ATOM	5341	CA	VAL	B	659	-31.235	2.927	30.478	1.00	44.33	C
ATOM	5342	CB	VAL	B	659	-31.482	1.427	30.830	1.00	44.33	C
ATOM	5343	CG1	VAL	B	659	-30.760	0.559	29.878	1.00	44.77	C
ATOM	5344	CG2	VAL	B	659	-30.982	1.103	32.188	1.00	44.33	C
ATOM	5345	C	VAL	B	659	-31.293	3.076	28.981	1.00	44.33	C
ATOM	5346	O	VAL	B	659	-32.352	2.876	28.388	1.00	44.33	O
ATOM	5347	N	ASN	B	660	-30.173	3.425	28.357	1.00	44.33	N

- 288 -

ATOM	5348	CA	ASN	B	660	-30.142	3.579	26.927	1.00	44.33	C
ATOM	5349	CB	ASN	B	660	-28.939	4.384	26.477	1.00	44.33	C
ATOM	5350	CG	ASN	B	660	-28.973	4.654	24.997	1.00	44.33	C
ATOM	5351	OD1	ASN	B	660	-29.752	4.020	24.268	1.00	44.33	O
ATOM	5352	ND2	ASN	B	660	-28.149	5.610	24.536	1.00	44.33	N
ATOM	5353	C	ASN	B	660	-30.168	2.250	26.217	1.00	44.33	C
ATOM	5354	O	ASN	B	660	-29.200	1.487	26.244	1.00	44.33	O
ATOM	5355	N	PRO	B	661	-31.279	1.981	25.532	1.00	45.25	N
ATOM	5356	CA	PRO	B	661	-31.520	0.663	24.967	1.00	46.73	C
ATOM	5357	CB	PRO	B	661	-32.907	0.833	24.341	1.00	45.21	C
ATOM	5358	CG	PRO	B	661	-32.984	2.313	23.978	1.00	45.60	C
ATOM	5359	CD	PRO	B	661	-32.339	2.946	25.176	1.00	44.52	C
ATOM	5360	C	PRO	B	661	-30.459	0.409	23.885	1.00	47.41	C
ATOM	5361	O	PRO	B	661	-30.066	-0.742	23.643	1.00	47.90	O
ATOM	5362	N	GLN	B	662	-29.981	1.520	23.312	1.00	50.28	N
ATOM	5363	CA	GLN	B	662	-29.158	1.607	22.100	1.00	51.17	C
ATOM	5364	CB	GLN	B	662	-29.679	2.812	21.293	1.00	51.46	C
ATOM	5365	CG	GLN	B	662	-30.789	2.637	20.261	1.00	53.68	C
ATOM	5366	CD	GLN	B	662	-31.249	4.027	19.640	1.00	54.00	C
ATOM	5367	OE1	GLN	B	662	-31.374	5.047	20.336	1.00	54.18	O
ATOM	5368	NE2	GLN	B	662	-31.503	4.035	18.330	1.00	55.38	N
ATOM	5369	C	GLN	B	662	-27.661	1.954	22.314	1.00	50.84	C
ATOM	5370	O	GLN	B	662	-27.043	2.528	21.404	1.00	52.05	O
ATOM	5371	N	PHE	B	663	-27.073	1.674	23.470	1.00	49.22	N
ATOM	5372	CA	PHE	B	663	-25.723	2.158	23.705	1.00	49.53	C
ATOM	5373	CB	PHE	B	663	-25.408	2.113	25.177	1.00	46.49	C
ATOM	5374	CG	PHE	B	663	-24.053	2.617	25.534	1.00	44.48	C
ATOM	5375	CD1	PHE	B	663	-23.793	3.984	25.599	1.00	44.33	C
ATOM	5376	CE1	PHE	B	663	-22.556	4.479	25.967	1.00	44.33	C
ATOM	5377	CZ	PHE	B	663	-21.574	3.626	26.288	1.00	44.33	C
ATOM	5378	CE2	PHE	B	663	-21.813	2.228	26.234	1.00	44.33	C
ATOM	5379	CD2	PHE	B	663	-23.054	1.745	25.866	1.00	44.33	C
ATOM	5380	C	PHE	B	663	-24.715	1.321	22.933	1.00	50.46	C
ATOM	5381	O	PHE	B	663	-24.703	0.100	23.047	1.00	49.32	O
ATOM	5382	N	VAL	B	664	-23.881	1.955	22.120	1.00	52.48	N
ATOM	5383	CA	VAL	B	664	-22.947	1.183	21.349	1.00	54.56	C
ATOM	5384	CB	VAL	B	664	-22.893	1.650	19.894	1.00	54.68	C
ATOM	5385	CG1	VAL	B	664	-21.660	1.090	19.182	1.00	55.75	C
ATOM	5386	CG2	VAL	B	664	-24.156	1.236	19.172	1.00	54.99	C
ATOM	5387	C	VAL	B	664	-21.606	1.199	22.060	1.00	55.63	C
ATOM	5388	O	VAL	B	664	-20.932	2.216	22.140	1.00	55.09	O
ATOM	5389	N	HIS	B	665	-21.222	0.066	22.619	1.00	58.01	N
ATOM	5390	CA	HIS	B	665	-19.899	-0.056	23.239	1.00	60.97	C
ATOM	5391	CB	HIS	B	665	-19.848	-1.323	24.105	1.00	60.36	C
ATOM	5392	CG	HIS	B	665	-20.978	-1.440	25.098	1.00	60.01	C
ATOM	5393	ND1	HIS	B	665	-20.792	-1.307	26.465	1.00	59.66	N
ATOM	5394	CE1	HIS	B	665	-21.959	-1.454	27.080	1.00	60.07	C
ATOM	5395	NE2	HIS	B	665	-22.891	-1.684	26.167	1.00	59.48	N
ATOM	5396	CD2	HIS	B	665	-22.304	-1.687	24.921	1.00	59.56	C
ATOM	5397	C	HIS	B	665	-18.819	-0.086	22.134	1.00	63.32	C
ATOM	5398	O	HIS	B	665	-19.175	-0.238	20.953	1.00	64.94	O
ATOM	5399	N	PRO	B	666	-17.507	0.086	22.485	1.00	65.35	N
ATOM	5400	CA	PRO	B	666	-16.392	-0.146	21.509	1.00	66.92	C
ATOM	5401	CB	PRO	B	666	-15.150	-0.269	22.408	1.00	66.61	C
ATOM	5402	CG	PRO	B	666	-15.442	0.619	23.553	1.00	67.22	C
ATOM	5403	CD	PRO	B	666	-16.978	0.571	23.777	1.00	66.06	C
ATOM	5404	C	PRO	B	666	-16.540	-1.414	20.670	1.00	67.79	C
ATOM	5405	O	PRO	B	666	-16.983	-2.427	21.193	1.00	67.82	O

- 289 -

ATOM	5406	N1	LIG	B	1	-12.908	13.526	29.540	1.00	67.33	N
ATOM	5407	C3	LIG	B	1	-13.352	14.405	30.433	1.00	69.49	C
ATOM	5408	C4	LIG	B	1	-14.725	14.311	30.549	1.00	69.52	C
ATOM	5409	C5	LIG	B	1	-15.025	13.207	29.592	1.00	68.29	C
ATOM	5410	C6	LIG	B	1	-13.872	12.832	29.046	1.00	68.01	C
ATOM	5411	C8	LIG	B	1	-16.334	12.658	29.237	1.00	68.76	C
ATOM	5412	C9	LIG	B	1	-17.562	13.219	29.226	1.00	70.70	C
ATOM	5413	C10	LIG	B	1	-18.448	12.191	28.718	1.00	70.71	C
ATOM	5414	N11	LIG	B	1	-17.764	11.066	28.444	1.00	69.49	N
ATOM	5415	C13	LIG	B	1	-16.483	11.301	28.722	1.00	68.71	C
ATOM	5416	O14	LIG	B	1	-15.556	10.525	28.607	1.00	69.10	O
ATOM	5417	O15	LIG	B	1	-19.633	12.393	28.577	1.00	69.41	O
ATOM	5418	C16	LIG	B	1	-18.027	14.614	29.617	1.00	71.12	C
ATOM	5419	N17	LIG	B	1	-17.236	15.594	29.177	1.00	71.83	N
ATOM	5420	C18	LIG	B	1	-17.463	16.876	29.427	1.00	70.67	C
ATOM	5421	N19	LIG	B	1	-18.533	17.237	30.142	1.00	70.50	N
ATOM	5422	C20	LIG	B	1	-19.397	16.337	30.608	1.00	70.06	C
ATOM	5423	C21	LIG	B	1	-19.179	14.970	30.367	1.00	70.36	C
ATOM	5424	C22	LIG	B	1	-20.106	14.076	30.909	1.00	69.82	C
ATOM	5425	C24	LIG	B	1	-21.200	14.533	31.638	1.00	70.74	C
ATOM	5426	C26	LIG	B	1	-21.383	15.901	31.851	1.00	72.30	C
ATOM	5427	C28	LIG	B	1	-20.472	16.816	31.337	1.00	71.98	C
ATOM	5428	N30	LIG	B	1	-16.567	17.788	29.068	1.00	69.15	N
ATOM	5429	C31	LIG	B	1	-16.761	19.174	29.448	1.00	67.75	C
ATOM	5430	C34	LIG	B	1	-15.453	19.653	30.086	1.00	68.67	C
ATOM	5431	N37	LIG	B	1	-14.263	19.240	29.316	1.00	64.68	N
ATOM	5432	C38	LIG	B	1	-14.245	17.825	28.884	1.00	66.27	C
ATOM	5433	C41	LIG	B	1	-15.524	17.480	28.115	1.00	67.50	C
ATOM	5434	C44	LIG	B	1	-13.033	19.638	30.024	1.00	67.17	C
ATOM	5435	C48	LIG	B	1	-15.455	15.115	31.432	1.00	68.34	C
ATOM	5436	C50	LIG	B	1	-14.722	16.038	32.200	1.00	68.66	C
ATOM	5437	C52	LIG	B	1	-13.329	16.138	32.075	1.00	67.23	C
ATOM	5438	C54	LIG	B	1	-12.618	15.315	31.189	1.00	68.95	C
ATOM	5439	OW0	HOH	B	800	-26.849	19.887	35.068	1.00	45.61	O
ATOM	5440	OW0	HOH	B	801	-17.180	22.244	30.318	1.00	44.33	O
ATOM	5441	OW0	HOH	B	802	-8.750	11.776	26.204	1.00	61.81	O
ATOM	5442	OW0	HOH	B	803	-20.725	23.454	32.100	1.00	44.33	O
ATOM	5443	OW0	HOH	B	804	-0.309	24.972	84.645	1.00	61.64	O
ATOM	5444	OW0	HOH	B	805	-23.860	19.227	32.698	1.00	52.07	O
ATOM	5445	OW0	HOH	B	806	-30.611	24.467	31.496	1.00	44.33	O
ATOM	5446	OW0	HOH	B	808	-23.832	15.978	29.573	1.00	44.33	O
ATOM	5447	OW0	HOH	B	812	-16.652	24.445	34.298	1.00	50.53	O
ATOM	5448	OW0	HOH	B	813	-7.843	21.778	30.310	1.00	67.47	O
ATOM	5449	OW0	HOH	B	814	-10.453	22.033	30.756	1.00	59.70	O
ATOM	5450	OW0	HOH	B	815	-9.326	13.440	29.308	1.00	48.26	O
ATOM	5451	OW0	HOH	B	816	-18.368	-11.187	33.041	1.00	66.78	O
ATOM	5452	OW0	HOH	B	821	-39.120	22.448	47.069	1.00	59.86	O
ATOM	5453	N	ASN	C	330	-7.913	44.020	6.309	1.00	58.45	N
ATOM	5454	CA	ASN	C	330	-9.402	44.063	6.535	1.00	59.76	C
ATOM	5455	CB	ASN	C	330	-9.780	43.453	7.898	1.00	59.88	C
ATOM	5456	CG	ASN	C	330	-9.294	42.044	8.058	1.00	60.05	C
ATOM	5457	OD1	ASN	C	330	-9.860	41.103	7.485	1.00	59.58	O
ATOM	5458	ND2	ASN	C	330	-8.239	41.881	8.848	1.00	59.98	N
ATOM	5459	C	ASN	C	330	-10.020	45.471	6.417	1.00	59.70	C
ATOM	5460	O	ASN	C	330	-10.384	46.123	7.429	1.00	60.08	O
ATOM	5461	N	LEU	C	331	-10.149	45.936	5.180	1.00	59.33	N
ATOM	5462	CA	LEU	C	331	-10.668	47.273	4.938	1.00	59.23	C
ATOM	5463	CB	LEU	C	331	-9.569	48.204	4.378	1.00	59.45	C

- 290 -

ATOM	5464	CG	LEU	C	331	-8.503	48.729	5.374	1.00	59.88	C
ATOM	5465	CD1	LEU	C	331	-7.308	49.305	4.638	1.00	59.29	C
ATOM	5466	CD2	LEU	C	331	-9.043	49.773	6.359	1.00	59.47	C
ATOM	5467	C	LEU	C	331	-11.929	47.239	4.066	1.00	58.62	C
ATOM	5468	O	LEU	C	331	-11.877	46.923	2.852	1.00	59.22	O
ATOM	5469	N	ASP	C	332	-13.051	47.573	4.716	1.00	58.10	N
ATOM	5470	CA	ASP	C	332	-14.366	47.544	4.106	1.00	58.30	C
ATOM	5471	CB	ASP	C	332	-15.448	47.694	5.188	1.00	57.41	C
ATOM	5472	CG	ASP	C	332	-16.826	47.159	4.734	1.00	57.59	C
ATOM	5473	OD1	ASP	C	332	-16.903	46.009	4.236	1.00	56.19	O
ATOM	5474	OD2	ASP	C	332	-17.837	47.877	4.881	1.00	55.67	O
ATOM	5475	C	ASP	C	332	-14.493	48.667	3.092	1.00	58.54	C
ATOM	5476	O	ASP	C	332	-15.229	49.629	3.328	1.00	58.81	O
ATOM	5477	N	ARG	C	333	-13.786	48.558	1.963	1.00	58.13	N
ATOM	5478	CA	ARG	C	333	-13.717	49.677	1.007	1.00	59.52	C
ATOM	5479	CB	ARG	C	333	-12.393	49.695	0.238	1.00	61.78	C
ATOM	5480	CG	ARG	C	333	-12.334	50.803	-0.832	1.00	64.65	C
ATOM	5481	CD	ARG	C	333	-10.949	50.947	-1.444	1.00	64.95	C
ATOM	5482	NE	ARG	C	333	-10.012	51.418	-0.424	1.00	67.58	N
ATOM	5483	CZ	ARG	C	333	-8.970	50.721	0.027	1.00	66.87	C
ATOM	5484	NH1	ARG	C	333	-8.711	49.518	-0.483	1.00	69.40	N
ATOM	5485	NH2	ARG	C	333	-8.186	51.236	0.984	1.00	67.83	N
ATOM	5486	C	ARG	C	333	-14.894	49.710	0.034	1.00	58.93	C
ATOM	5487	O	ARG	C	333	-15.238	48.695	-0.581	1.00	59.01	O
ATOM	5488	N	VAL	C	334	-15.468	50.897	-0.138	1.00	57.18	N
ATOM	5489	CA	VAL	C	334	-16.682	51.045	-0.906	1.00	57.31	C
ATOM	5490	CB	VAL	C	334	-17.763	51.332	0.095	1.00	57.15	C
ATOM	5491	CG1	VAL	C	334	-18.095	52.800	0.123	1.00	57.54	C
ATOM	5492	CG2	VAL	C	334	-18.958	50.454	-0.143	1.00	59.51	C
ATOM	5493	C	VAL	C	334	-16.537	52.142	-1.991	1.00	56.40	C
ATOM	5494	O	VAL	C	334	-15.661	53.004	-1.870	1.00	55.08	O
ATOM	5495	N	LYS	C	335	-17.356	52.076	-3.049	1.00	55.30	N
ATOM	5496	CA	LYS	C	335	-17.338	53.029	-4.165	1.00	54.69	C
ATOM	5497	CB	LYS	C	335	-16.865	52.343	-5.439	1.00	56.03	C
ATOM	5498	CG	LYS	C	335	-15.468	51.754	-5.470	1.00	58.74	C
ATOM	5499	CD	LYS	C	335	-15.390	50.807	-6.666	1.00	60.01	C
ATOM	5500	CE	LYS	C	335	-13.965	50.605	-7.164	1.00	62.23	C
ATOM	5501	NZ	LYS	C	335	-13.735	49.154	-7.596	1.00	63.77	N
ATOM	5502	C	LYS	C	335	-18.756	53.495	-4.441	1.00	52.64	C
ATOM	5503	O	LYS	C	335	-19.702	52.896	-3.976	1.00	52.62	O
ATOM	5504	N	LEU	C	336	-18.913	54.525	-5.254	1.00	50.30	N
ATOM	5505	CA	LEU	C	336	-20.220	55.075	-5.561	1.00	51.27	C
ATOM	5506	CB	LEU	C	336	-20.091	56.133	-6.644	1.00	51.93	C
ATOM	5507	CG	LEU	C	336	-21.427	56.826	-6.778	1.00	51.40	C
ATOM	5508	CD1	LEU	C	336	-21.790	57.270	-5.384	1.00	51.74	C
ATOM	5509	CD2	LEU	C	336	-21.333	57.997	-7.714	1.00	51.72	C
ATOM	5510	C	LEU	C	336	-21.239	54.032	-6.014	1.00	50.05	C
ATOM	5511	O	LEU	C	336	-22.427	54.087	-5.683	1.00	50.23	O
ATOM	5512	N	THR	C	337	-20.773	53.078	-6.789	1.00	49.39	N
ATOM	5513	CA	THR	C	337	-21.670	52.135	-7.424	1.00	48.82	C
ATOM	5514	CB	THR	C	337	-20.865	51.296	-8.359	1.00	50.25	C
ATOM	5515	OG1	THR	C	337	-20.040	50.434	-7.560	1.00	52.60	O
ATOM	5516	CG2	THR	C	337	-19.979	52.213	-9.216	1.00	50.42	C
ATOM	5517	C	THR	C	337	-22.243	51.195	-6.386	1.00	48.11	C
ATOM	5518	O	THR	C	337	-23.151	50.413	-6.668	1.00	46.82	O
ATOM	5519	N	ASP	C	338	-21.679	51.254	-5.188	1.00	46.90	N
ATOM	5520	CA	ASP	C	338	-22.123	50.389	-4.095	1.00	47.43	C
ATOM	5521	CB	ASP	C	338	-21.074	50.299	-2.980	1.00	48.31	C

- 291 -

ATOM	5522	CG	ASP	C	338	-19.788	49.644	-3.427	1.00	49.60	C
ATOM	5523	OD1	ASP	C	338	-19.876	48.600	-4.113	1.00	50.37	O
ATOM	5524	OD2	ASP	C	338	-18.700	50.174	-3.072	1.00	49.25	O
ATOM	5525	C	ASP	C	338	-23.392	50.882	-3.429	1.00	46.83	C
ATOM	5526	O	ASP	C	338	-23.911	50.204	-2.558	1.00	45.48	O
ATOM	5527	N	PHE	C	339	-23.862	52.075	-3.779	1.00	45.82	N
ATOM	5528	CA	PHE	C	339	-25.072	52.600	-3.106	1.00	45.69	C
ATOM	5529	CB	PHE	C	339	-24.787	53.784	-2.176	1.00	45.86	C
ATOM	5530	CG	PHE	C	339	-23.598	53.611	-1.291	1.00	45.54	C
ATOM	5531	CD1	PHE	C	339	-23.758	53.450	0.080	1.00	45.84	C
ATOM	5532	CE1	PHE	C	339	-22.656	53.323	0.931	1.00	45.87	C
ATOM	5533	CZ	PHE	C	339	-21.403	53.351	0.427	1.00	45.89	C
ATOM	5534	CE2	PHE	C	339	-21.213	53.514	-0.950	1.00	45.23	C
ATOM	5535	CD2	PHE	C	339	-22.303	53.664	-1.807	1.00	46.46	C
ATOM	5536	C	PHE	C	339	-26.174	53.015	-4.059	1.00	46.88	C
ATOM	5537	O	PHE	C	339	-25.926	53.513	-5.157	1.00	48.20	O
ATOM	5538	N	ASN	C	340	-27.391	52.799	-3.597	1.00	46.88	N
ATOM	5539	CA	ASN	C	340	-28.586	53.341	-4.166	1.00	48.37	C
ATOM	5540	CB	ASN	C	340	-29.651	52.312	-3.841	1.00	49.91	C
ATOM	5541	CG	ASN	C	340	-30.586	52.110	-4.959	1.00	54.31	C
ATOM	5542	OD1	ASN	C	340	-30.271	51.391	-5.926	1.00	54.67	O
ATOM	5543	ND2	ASN	C	340	-31.745	52.768	-4.878	1.00	55.63	N
ATOM	5544	C	ASN	C	340	-28.917	54.679	-3.454	1.00	46.52	C
ATOM	5545	O	ASN	C	340	-29.091	54.680	-2.230	1.00	45.13	O
ATOM	5546	N	PHE	C	341	-28.965	55.809	-4.168	1.00	45.31	N
ATOM	5547	CA	PHE	C	341	-29.381	57.049	-3.542	1.00	45.00	C
ATOM	5548	CB	PHE	C	341	-29.005	58.214	-4.433	1.00	45.08	C
ATOM	5549	CG	PHE	C	341	-27.544	58.550	-4.450	1.00	45.76	C
ATOM	5550	CD1	PHE	C	341	-26.689	58.128	-3.436	1.00	46.52	C
ATOM	5551	CE1	PHE	C	341	-25.319	58.473	-3.436	1.00	45.46	C
ATOM	5552	CZ	PHE	C	341	-24.815	59.263	-4.475	1.00	46.19	C
ATOM	5553	CE2	PHE	C	341	-25.691	59.717	-5.504	1.00	47.08	C
ATOM	5554	CD2	PHE	C	341	-27.040	59.356	-5.476	1.00	45.55	C
ATOM	5555	C	PHE	C	341	-30.921	57.042	-3.270	1.00	44.33	C
ATOM	5556	O	PHE	C	341	-31.756	56.899	-4.198	1.00	44.33	O
ATOM	5557	N	LEU	C	342	-31.319	57.165	-2.006	1.00	44.33	N
ATOM	5558	CA	LEU	C	342	-32.763	57.170	-1.694	1.00	44.44	C
ATOM	5559	CB	LEU	C	342	-33.047	56.425	-0.382	1.00	44.33	C
ATOM	5560	CG	LEU	C	342	-32.601	54.957	-0.368	1.00	44.33	C
ATOM	5561	CD1	LEU	C	342	-32.744	54.363	1.037	1.00	44.33	C
ATOM	5562	CD2	LEU	C	342	-33.359	54.119	-1.393	1.00	44.33	C
ATOM	5563	C	LEU	C	342	-33.394	58.596	-1.760	1.00	44.97	C
ATOM	5564	O	LEU	C	342	-34.173	58.885	-2.667	1.00	44.33	O
ATOM	5565	N	MET	C	343	-33.026	59.486	-0.844	1.00	45.10	N
ATOM	5566	CA	MET	C	343	-33.421	60.870	-0.961	1.00	46.70	C
ATOM	5567	CB	MET	C	343	-34.702	61.043	-0.218	1.00	47.18	C
ATOM	5568	CG	MET	C	343	-34.615	60.332	1.111	1.00	51.03	C
ATOM	5569	SD	MET	C	343	-35.756	61.069	2.256	1.00	55.65	S
ATOM	5570	CE	MET	C	343	-34.780	62.446	2.889	1.00	55.17	C
ATOM	5571	C	MET	C	343	-32.357	61.787	-0.373	1.00	44.33	C
ATOM	5572	O	MET	C	343	-31.359	61.346	0.201	1.00	44.33	O
ATOM	5573	N	VAL	C	344	-32.569	63.076	-0.525	1.00	44.33	N
ATOM	5574	CA	VAL	C	344	-31.671	64.045	0.051	1.00	44.33	C
ATOM	5575	CB	VAL	C	344	-31.818	65.332	-0.692	1.00	44.33	C
ATOM	5576	CG1	VAL	C	344	-30.828	66.349	-0.176	1.00	44.33	C
ATOM	5577	CG2	VAL	C	344	-31.675	65.057	-2.197	1.00	44.33	C
ATOM	5578	C	VAL	C	344	-32.010	64.256	1.511	1.00	44.33	C
ATOM	5579	O	VAL	C	344	-33.142	64.529	1.863	1.00	44.33	O

- 292 -

ATOM	5580	N	LEU	C	345	-31.046	64.094	2.378	1.00	44.33	N
ATOM	5581	CA	LEU	C	345	-31.330	64.313	3.775	1.00	44.33	C
ATOM	5582	CB	LEU	C	345	-30.256	63.632	4.644	1.00	44.33	C
ATOM	5583	CG	LEU	C	345	-30.452	62.126	4.869	1.00	44.33	C
ATOM	5584	CD1	LEU	C	345	-29.425	61.582	5.807	1.00	44.33	C
ATOM	5585	CD2	LEU	C	345	-31.788	61.932	5.442	1.00	44.33	C
ATOM	5586	C	LEU	C	345	-31.439	65.809	4.052	1.00	44.33	C
ATOM	5587	O	LEU	C	345	-32.277	66.231	4.828	1.00	44.33	O
ATOM	5588	N	GLY	C	346	-30.584	66.590	3.396	1.00	44.33	N
ATOM	5589	CA	GLY	C	346	-30.538	68.036	3.523	1.00	44.33	C
ATOM	5590	C	GLY	C	346	-29.395	68.582	2.675	1.00	44.33	C
ATOM	5591	O	GLY	C	346	-28.449	67.872	2.381	1.00	44.33	O
ATOM	5592	N	LYS	C	347	-29.525	69.845	2.279	1.00	44.33	N
ATOM	5593	CA	LYS	C	347	-28.562	70.592	1.528	1.00	45.63	C
ATOM	5594	CB	LYS	C	347	-29.183	71.085	0.243	1.00	46.46	C
ATOM	5595	CG	LYS	C	347	-29.075	70.172	-0.906	1.00	49.19	C
ATOM	5596	CD	LYS	C	347	-29.890	70.716	-2.048	1.00	51.03	C
ATOM	5597	CE	LYS	C	347	-29.675	69.889	-3.308	1.00	52.58	C
ATOM	5598	NZ	LYS	C	347	-30.667	70.344	-4.316	1.00	53.41	N
ATOM	5599	C	LYS	C	347	-28.287	71.816	2.378	1.00	46.98	C
ATOM	5600	O	LYS	C	347	-29.180	72.300	3.077	1.00	47.95	O
ATOM	5601	N	GLY	C	348	-27.067	72.345	2.296	1.00	48.29	N
ATOM	5602	CA	GLY	C	348	-26.691	73.501	3.111	1.00	49.35	C
ATOM	5603	C	GLY	C	348	-25.208	73.779	3.030	1.00	49.24	C
ATOM	5604	O	GLY	C	348	-24.497	73.251	2.141	1.00	49.37	O
ATOM	5605	N	SER	C	349	-24.726	74.597	3.966	1.00	49.32	N
ATOM	5606	CA	SER	C	349	-23.304	74.907	4.017	1.00	51.07	C
ATOM	5607	CB	SER	C	349	-23.014	75.938	5.069	1.00	50.70	C
ATOM	5608	OG	SER	C	349	-23.844	75.714	6.153	1.00	53.76	O
ATOM	5609	C	SER	C	349	-22.432	73.659	4.195	1.00	49.85	C
ATOM	5610	O	SER	C	349	-21.266	73.646	3.753	1.00	51.55	O
ATOM	5611	N	PHE	C	350	-23.007	72.618	4.811	1.00	48.64	N
ATOM	5612	CA	PHE	C	350	-22.359	71.319	4.963	1.00	47.73	C
ATOM	5613	CB	PHE	C	350	-23.061	70.534	6.031	1.00	46.36	C
ATOM	5614	CG	PHE	C	350	-24.538	70.559	5.902	1.00	47.68	C
ATOM	5615	CD1	PHE	C	350	-25.307	71.347	6.755	1.00	45.75	C
ATOM	5616	CE1	PHE	C	350	-26.700	71.375	6.655	1.00	47.21	C
ATOM	5617	CZ	PHE	C	350	-27.356	70.617	5.652	1.00	45.66	C
ATOM	5618	CE2	PHE	C	350	-26.590	69.842	4.780	1.00	47.42	C
ATOM	5619	CD2	PHE	C	350	-25.172	69.812	4.925	1.00	45.95	C
ATOM	5620	C	PHE	C	350	-22.404	70.521	3.680	1.00	46.16	C
ATOM	5621	O	PHE	C	350	-22.068	69.336	3.661	1.00	44.55	O
ATOM	5622	N	GLY	C	351	-22.839	71.160	2.605	1.00	45.02	N
ATOM	5623	CA	GLY	C	351	-22.966	70.450	1.331	1.00	44.33	C
ATOM	5624	C	GLY	C	351	-24.318	69.753	1.146	1.00	45.41	C
ATOM	5625	O	GLY	C	351	-25.355	70.169	1.700	1.00	45.93	O
ATOM	5626	N	LYS	C	352	-24.314	68.701	0.348	1.00	45.62	N
ATOM	5627	CA	LYS	C	352	-25.511	67.926	0.108	1.00	47.16	C
ATOM	5628	CB	LYS	C	352	-25.633	67.661	-1.394	1.00	47.68	C
ATOM	5629	CG	LYS	C	352	-26.838	66.852	-1.804	1.00	50.36	C
ATOM	5630	CD	LYS	C	352	-26.853	66.601	-3.313	1.00	50.27	C
ATOM	5631	CE	LYS	C	352	-27.068	67.891	-4.131	1.00	54.89	C
ATOM	5632	NZ	LYS	C	352	-26.736	67.723	-5.603	1.00	54.08	N
ATOM	5633	C	LYS	C	352	-25.377	66.611	0.850	1.00	46.42	C
ATOM	5634	O	LYS	C	352	-24.430	65.859	0.600	1.00	46.93	O
ATOM	5635	N	VAL	C	353	-26.295	66.323	1.771	1.00	44.33	N
ATOM	5636	CA	VAL	C	353	-26.279	65.034	2.459	1.00	44.33	C
ATOM	5637	CB	VAL	C	353	-26.407	65.222	3.941	1.00	44.33	C

- 293 -

ATOM	5638	CG1	VAL	C	353	-26.199	63.887	4.680	1.00	44.33	C
ATOM	5639	CG2	VAL	C	353	-25.413	66.289	4.391	1.00	44.33	C
ATOM	5640	C	VAL	C	353	-27.392	64.160	1.939	1.00	44.33	C
ATOM	5641	O	VAL	C	353	-28.550	64.575	1.908	1.00	44.33	O
ATOM	5642	N	MET	C	354	-27.038	62.948	1.536	1.00	44.33	N
ATOM	5643	CA	MET	C	354	-27.939	62.101	0.762	1.00	44.33	C
ATOM	5644	CB	MET	C	354	-27.228	61.775	-0.559	1.00	44.33	C
ATOM	5645	CG	MET	C	354	-28.075	61.169	-1.655	1.00	46.37	C
ATOM	5646	SD	MET	C	354	-28.761	62.464	-2.691	1.00	49.45	S
ATOM	5647	CE	MET	C	354	-27.449	62.665	-3.868	1.00	44.33	C
ATOM	5648	C	MET	C	354	-28.180	60.840	1.562	1.00	44.33	C
ATOM	5649	O	MET	C	354	-27.236	60.237	2.076	1.00	44.33	O
ATOM	5650	N	LEU	C	355	-29.423	60.426	1.707	1.00	44.33	N
ATOM	5651	CA	LEU	C	355	-29.633	59.133	2.351	1.00	44.33	C
ATOM	5652	CB	LEU	C	355	-30.969	59.042	3.050	1.00	44.33	C
ATOM	5653	CG	LEU	C	355	-31.443	57.669	3.534	1.00	44.33	C
ATOM	5654	CD1	LEU	C	355	-30.469	57.093	4.576	1.00	44.33	C
ATOM	5655	CD2	LEU	C	355	-32.859	57.817	4.083	1.00	44.33	C
ATOM	5656	C	LEU	C	355	-29.512	58.054	1.315	1.00	44.33	C
ATOM	5657	O	LEU	C	355	-30.167	58.107	0.266	1.00	44.33	O
ATOM	5658	N	ALA	C	356	-28.657	57.086	1.618	1.00	44.33	N
ATOM	5659	CA	ALA	C	356	-28.376	56.020	0.675	1.00	44.33	C
ATOM	5660	CB	ALA	C	356	-27.077	56.264	-0.060	1.00	44.33	C
ATOM	5661	C	ALA	C	356	-28.368	54.652	1.291	1.00	44.33	C
ATOM	5662	O	ALA	C	356	-28.125	54.465	2.494	1.00	44.33	O
ATOM	5663	N	ASP	C	357	-28.608	53.696	0.411	1.00	48.27	N
ATOM	5664	CA	ASP	C	357	-28.753	52.317	0.769	1.00	51.34	C
ATOM	5665	CB	ASP	C	357	-30.095	51.849	0.234	1.00	54.22	C
ATOM	5666	CG	ASP	C	357	-30.253	50.377	0.310	1.00	57.17	C
ATOM	5667	OD1	ASP	C	357	-29.919	49.781	1.366	1.00	59.47	O
ATOM	5668	OD2	ASP	C	357	-30.718	49.810	-0.693	1.00	59.55	O
ATOM	5669	C	ASP	C	357	-27.601	51.539	0.155	1.00	50.38	C
ATOM	5670	O	ASP	C	357	-27.312	51.690	-1.031	1.00	50.80	O
ATOM	5671	N	ARG	C	358	-26.928	50.731	0.967	1.00	51.78	N
ATOM	5672	CA	ARG	C	358	-25.857	49.873	0.474	1.00	51.15	C
ATOM	5673	CB	ARG	C	358	-24.959	49.441	1.629	1.00	52.03	C
ATOM	5674	CG	ARG	C	358	-23.592	48.939	1.198	1.00	51.96	C
ATOM	5675	CD	ARG	C	358	-22.592	48.956	2.343	1.00	52.48	C
ATOM	5676	NE	ARG	C	358	-21.319	48.284	2.015	1.00	54.26	N
ATOM	5677	CZ	ARG	C	358	-20.458	47.773	2.913	1.00	53.83	C
ATOM	5678	NH1	ARG	C	358	-20.731	47.846	4.230	1.00	54.63	N
ATOM	5679	NH2	ARG	C	358	-19.321	47.196	2.498	1.00	53.29	N
ATOM	5680	C	ARG	C	358	-26.421	48.658	-0.283	1.00	51.90	C
ATOM	5681	O	ARG	C	358	-27.138	47.844	0.279	1.00	50.67	O
ATOM	5682	N	LYS	C	359	-26.095	48.581	-1.570	1.00	52.24	N
ATOM	5683	CA	LYS	C	359	-26.554	47.567	-2.490	1.00	53.27	C
ATOM	5684	CB	LYS	C	359	-25.681	47.667	-3.732	1.00	53.70	C
ATOM	5685	CG	LYS	C	359	-26.052	46.827	-4.914	1.00	54.48	C
ATOM	5686	CD	LYS	C	359	-25.531	47.535	-6.138	1.00	55.18	C
ATOM	5687	CE	LYS	C	359	-26.024	48.995	-6.150	1.00	54.04	C
ATOM	5688	NZ	LYS	C	359	-26.018	49.560	-7.529	1.00	55.08	N
ATOM	5689	C	LYS	C	359	-26.482	46.170	-1.842	1.00	53.00	C
ATOM	5690	O	LYS	C	359	-25.477	45.812	-1.188	1.00	52.15	O
ATOM	5691	N	GLY	C	360	-27.567	45.398	-1.998	1.00	52.43	N
ATOM	5692	CA	GLY	C	360	-27.622	44.045	-1.489	1.00	53.25	C
ATOM	5693	C	GLY	C	360	-27.641	43.947	0.026	1.00	53.58	C
ATOM	5694	O	GLY	C	360	-27.658	42.840	0.574	1.00	54.80	O
ATOM	5695	N	THR	C	361	-27.624	45.077	0.730	1.00	54.64	N

- 294 -

ATOM	5696	CA	THR	C	361	-27.949	45.015	2.173	1.00	54.78	C
ATOM	5697	CB	THR	C	361	-26.730	45.031	3.169	1.00	55.46	C
ATOM	5698	OG1	THR	C	361	-26.672	46.287	3.850	1.00	53.79	O
ATOM	5699	CG2	THR	C	361	-25.413	44.748	2.463	1.00	55.35	C
ATOM	5700	C	THR	C	361	-29.002	45.986	2.649	1.00	55.22	C
ATOM	5701	O	THR	C	361	-29.602	46.756	1.886	1.00	56.79	O
ATOM	5702	N	GLU	C	362	-29.193	45.910	3.953	1.00	54.92	N
ATOM	5703	CA	GLU	C	362	-30.173	46.666	4.684	1.00	55.44	C
ATOM	5704	CB	GLU	C	362	-30.561	45.824	5.912	1.00	57.80	C
ATOM	5705	CG	GLU	C	362	-31.978	46.034	6.453	1.00	60.19	C
ATOM	5706	CD	GLU	C	362	-32.999	45.083	5.815	1.00	61.55	C
ATOM	5707	OE1	GLU	C	362	-33.067	44.999	4.553	1.00	62.19	O
ATOM	5708	OE2	GLU	C	362	-33.724	44.418	6.597	1.00	61.39	O
ATOM	5709	C	GLU	C	362	-29.577	47.979	5.181	1.00	54.96	C
ATOM	5710	O	GLU	C	362	-30.291	48.813	5.742	1.00	55.36	O
ATOM	5711	N	GLU	C	363	-28.272	48.158	5.026	1.00	53.17	N
ATOM	5712	CA	GLU	C	363	-27.650	49.273	5.732	1.00	52.06	C
ATOM	5713	CB	GLU	C	363	-26.186	49.050	6.042	1.00	53.13	C
ATOM	5714	CG	GLU	C	363	-25.890	47.772	6.755	1.00	55.82	C
ATOM	5715	CD	GLU	C	363	-24.500	47.305	6.423	1.00	55.03	C
ATOM	5716	OE1	GLU	C	363	-23.548	47.986	6.841	1.00	56.58	O
ATOM	5717	OE2	GLU	C	363	-24.357	46.281	5.715	1.00	58.06	O
ATOM	5718	C	GLU	C	363	-27.832	50.582	5.029	1.00	48.14	C
ATOM	5719	O	GLU	C	363	-27.626	50.711	3.828	1.00	48.51	O
ATOM	5720	N	LEU	C	364	-28.225	51.546	5.832	1.00	45.28	N
ATOM	5721	CA	LEU	C	364	-28.505	52.863	5.401	1.00	44.33	C
ATOM	5722	CB	LEU	C	364	-29.786	53.296	6.086	1.00	44.33	C
ATOM	5723	CG	LEU	C	364	-31.088	53.249	5.259	1.00	44.63	C
ATOM	5724	CD1	LEU	C	364	-31.262	52.056	4.302	1.00	44.33	C
ATOM	5725	CD2	LEU	C	364	-32.333	53.467	6.182	1.00	44.33	C
ATOM	5726	C	LEU	C	364	-27.337	53.726	5.825	1.00	44.33	C
ATOM	5727	O	LEU	C	364	-26.793	53.536	6.913	1.00	44.33	O
ATOM	5728	N	TYR	C	365	-26.932	54.648	4.948	1.00	44.33	N
ATOM	5729	CA	TYR	C	365	-25.834	55.581	5.232	1.00	44.33	C
ATOM	5730	CB	TYR	C	365	-24.569	55.189	4.464	1.00	44.33	C
ATOM	5731	CG	TYR	C	365	-23.969	53.877	4.887	1.00	44.33	C
ATOM	5732	CD1	TYR	C	365	-24.375	52.697	4.305	1.00	44.96	C
ATOM	5733	CE1	TYR	C	365	-23.843	51.526	4.709	1.00	46.30	C
ATOM	5734	CZ	TYR	C	365	-22.884	51.523	5.718	1.00	44.96	C
ATOM	5735	OH	TYR	C	365	-22.351	50.340	6.139	1.00	45.91	O
ATOM	5736	CE2	TYR	C	365	-22.468	52.671	6.310	1.00	45.29	C
ATOM	5737	CD2	TYR	C	365	-23.005	53.829	5.898	1.00	45.06	C
ATOM	5738	C	TYR	C	365	-26.236	56.969	4.819	1.00	44.33	C
ATOM	5739	O	TYR	C	365	-27.035	57.152	3.879	1.00	44.33	O
ATOM	5740	N	ALA	C	366	-25.692	57.947	5.535	1.00	44.33	N
ATOM	5741	CA	ALA	C	366	-25.756	59.339	5.095	1.00	44.33	C
ATOM	5742	CB	ALA	C	366	-25.961	60.266	6.261	1.00	44.33	C
ATOM	5743	C	ALA	C	366	-24.447	59.653	4.339	1.00	44.33	C
ATOM	5744	O	ALA	C	366	-23.343	59.327	4.789	1.00	44.33	O
ATOM	5745	N	ILE	C	367	-24.587	60.238	3.160	1.00	44.33	N
ATOM	5746	CA	ILE	C	367	-23.436	60.488	2.317	1.00	44.33	C
ATOM	5747	CB	ILE	C	367	-23.452	59.602	1.059	1.00	44.33	C
ATOM	5748	CG1	ILE	C	367	-23.637	58.125	1.479	1.00	44.33	C
ATOM	5749	CD1	ILE	C	367	-23.353	57.093	0.404	1.00	44.33	C
ATOM	5750	CG2	ILE	C	367	-22.174	59.827	0.256	1.00	44.33	C
ATOM	5751	C	ILE	C	367	-23.385	61.923	1.914	1.00	44.33	C
ATOM	5752	O	ILE	C	367	-24.173	62.365	1.089	1.00	44.33	O
ATOM	5753	N	LYS	C	368	-22.466	62.659	2.521	1.00	44.33	N

- 295 -

ATOM	5754	CA	LYS	C	368	-22.258	64.040	2.137	1.00	44.33	C
ATOM	5755	CB	LYS	C	368	-21.475	64.767	3.196	1.00	44.33	C
ATOM	5756	CG	LYS	C	368	-21.002	66.085	2.725	1.00	44.33	C
ATOM	5757	CD	LYS	C	368	-20.072	66.706	3.709	1.00	44.33	C
ATOM	5758	CE	LYS	C	368	-19.439	67.925	3.156	1.00	44.33	C
ATOM	5759	NZ	LYS	C	368	-18.966	68.664	4.321	1.00	44.63	N
ATOM	5760	C	LYS	C	368	-21.519	64.010	0.833	1.00	44.33	C
ATOM	5761	O	LYS	C	368	-20.516	63.287	0.685	1.00	44.33	O
ATOM	5762	N	ILE	C	369	-22.039	64.758	-0.127	1.00	44.33	N
ATOM	5763	CA	ILE	C	369	-21.420	64.861	-1.426	1.00	44.33	C
ATOM	5764	CB	ILE	C	369	-22.371	64.465	-2.469	1.00	44.33	C
ATOM	5765	CG1	ILE	C	369	-22.743	63.012	-2.270	1.00	44.33	C
ATOM	5766	CD1	ILE	C	369	-23.527	62.494	-3.430	1.00	44.33	C
ATOM	5767	CG2	ILE	C	369	-21.798	64.704	-3.841	1.00	44.33	C
ATOM	5768	C	ILE	C	369	-21.018	66.274	-1.696	1.00	44.33	C
ATOM	5769	O	ILE	C	369	-21.814	67.186	-1.508	1.00	44.33	O
ATOM	5770	N	LEU	C	370	-19.770	66.443	-2.139	1.00	44.33	N
ATOM	5771	CA	LEU	C	370	-19.257	67.696	-2.601	1.00	44.33	C
ATOM	5772	CB	LEU	C	370	-18.078	68.032	-1.775	1.00	44.33	C
ATOM	5773	CG	LEU	C	370	-18.456	68.559	-0.417	1.00	44.33	C
ATOM	5774	CD1	LEU	C	370	-17.197	68.702	0.433	1.00	44.33	C
ATOM	5775	CD2	LEU	C	370	-19.164	69.859	-0.562	1.00	44.33	C
ATOM	5776	C	LEU	C	370	-18.795	67.656	-4.040	1.00	44.33	C
ATOM	5777	O	LEU	C	370	-18.236	66.668	-4.499	1.00	44.33	O
ATOM	5778	N	LYS	C	371	-19.020	68.761	-4.755	1.00	44.33	N
ATOM	5779	CA	LYS	C	371	-18.425	68.992	-6.065	1.00	44.33	C
ATOM	5780	CB	LYS	C	371	-19.373	69.823	-6.916	1.00	44.33	C
ATOM	5781	CG	LYS	C	371	-20.165	68.963	-7.916	1.00	44.33	C
ATOM	5782	CD	LYS	C	371	-21.424	69.695	-8.484	1.00	44.33	C
ATOM	5783	CE	LYS	C	371	-21.074	70.765	-9.527	1.00	44.33	C
ATOM	5784	NZ	LYS	C	371	-22.345	71.406	-10.041	1.00	46.27	N
ATOM	5785	C	LYS	C	371	-17.119	69.686	-5.913	1.00	44.33	C
ATOM	5786	O	LYS	C	371	-17.055	70.716	-5.271	1.00	44.33	O
ATOM	5787	N	LYS	C	372	-16.079	69.133	-6.518	1.00	44.33	N
ATOM	5788	CA	LYS	C	372	-14.710	69.677	-6.349	1.00	44.33	C
ATOM	5789	CB	LYS	C	372	-13.659	68.794	-6.991	1.00	44.33	C
ATOM	5790	CG	LYS	C	372	-13.462	67.491	-6.290	1.00	44.33	C
ATOM	5791	CD	LYS	C	372	-12.476	66.647	-7.071	1.00	44.33	C
ATOM	5792	CE	LYS	C	372	-12.224	65.278	-6.409	1.00	44.33	C
ATOM	5793	NZ	LYS	C	372	-11.229	64.404	-7.120	1.00	44.33	N
ATOM	5794	C	LYS	C	372	-14.546	71.094	-6.849	1.00	44.33	C
ATOM	5795	O	LYS	C	372	-14.002	71.943	-6.123	1.00	44.33	O
ATOM	5796	N	ASP	C	373	-15.047	71.362	-8.055	1.00	44.33	N
ATOM	5797	CA	ASP	C	373	-14.973	72.715	-8.588	1.00	44.33	C
ATOM	5798	CB	ASP	C	373	-15.497	72.833	-10.007	1.00	46.57	C
ATOM	5799	CG	ASP	C	373	-16.914	72.364	-10.125	1.00	49.43	C
ATOM	5800	OD1	ASP	C	373	-17.224	71.330	-9.474	1.00	51.25	O
ATOM	5801	OD2	ASP	C	373	-17.735	73.023	-10.832	1.00	52.15	O
ATOM	5802	C	ASP	C	373	-15.653	73.709	-7.671	1.00	44.33	C
ATOM	5803	O	ASP	C	373	-15.122	74.811	-7.465	1.00	44.33	O
ATOM	5804	N	VAL	C	374	-16.785	73.307	-7.082	1.00	44.33	N
ATOM	5805	CA	VAL	C	374	-17.468	74.167	-6.133	1.00	44.33	C
ATOM	5806	CB	VAL	C	374	-18.908	73.719	-5.895	1.00	44.33	C
ATOM	5807	CG1	VAL	C	374	-19.630	74.703	-5.037	1.00	44.33	C
ATOM	5808	CG2	VAL	C	374	-19.605	73.548	-7.214	1.00	44.33	C
ATOM	5809	C	VAL	C	374	-16.645	74.347	-4.855	1.00	44.33	C
ATOM	5810	O	VAL	C	374	-16.415	75.483	-4.428	1.00	44.33	O
ATOM	5811	N	VAL	C	375	-16.148	73.253	-4.293	1.00	44.33	N

- 296 -

ATOM	5812	CA	VAL	C	375	-15.291	73.372	-3.133	1.00	44.33	C
ATOM	5813	CB	VAL	C	375	-14.656	72.019	-2.739	1.00	44.33	C
ATOM	5814	CG1	VAL	C	375	-13.486	72.241	-1.804	1.00	44.33	C
ATOM	5815	CG2	VAL	C	375	-15.692	71.110	-2.076	1.00	44.33	C
ATOM	5816	C	VAL	C	375	-14.186	74.412	-3.397	1.00	44.33	C
ATOM	5817	O	VAL	C	375	-13.910	75.307	-2.561	1.00	44.33	O
ATOM	5818	N	ILE	C	376	-13.586	74.278	-4.579	1.00	44.33	N
ATOM	5819	CA	ILE	C	376	-12.493	75.123	-5.005	1.00	44.33	C
ATOM	5820	CB	ILE	C	376	-11.753	74.527	-6.224	1.00	44.33	C
ATOM	5821	CG1	ILE	C	376	-10.910	73.319	-5.805	1.00	44.33	C
ATOM	5822	CD1	ILE	C	376	-10.468	72.421	-6.932	1.00	44.33	C
ATOM	5823	CG2	ILE	C	376	-10.830	75.543	-6.841	1.00	44.33	C
ATOM	5824	C	ILE	C	376	-12.946	76.536	-5.269	1.00	44.33	C
ATOM	5825	O	ILE	C	376	-12.362	77.423	-4.717	1.00	44.33	O
ATOM	5826	N	GLN	C	377	-13.982	76.745	-6.082	1.00	44.33	N
ATOM	5827	CA	GLN	C	377	-14.617	78.081	-6.260	1.00	44.39	C
ATOM	5828	CB	GLN	C	377	-15.918	78.022	-7.104	1.00	46.48	C
ATOM	5829	CG	GLN	C	377	-15.867	77.433	-8.559	1.00	53.15	C
ATOM	5830	CD	GLN	C	377	-17.296	77.091	-9.213	1.00	53.20	C
ATOM	5831	OE1	GLN	C	377	-18.378	77.055	-8.545	1.00	56.88	O
ATOM	5832	NE2	GLN	C	377	-17.266	76.829	-10.535	1.00	57.20	N
ATOM	5833	C	GLN	C	377	-15.000	78.750	-4.933	1.00	44.33	C
ATOM	5834	O	GLN	C	377	-15.008	79.969	-4.832	1.00	44.33	O
ATOM	5835	N	ASP	C	378	-15.364	77.966	-3.929	1.00	44.33	N
ATOM	5836	CA	ASP	C	378	-15.793	78.563	-2.681	1.00	44.33	C
ATOM	5837	CB	ASP	C	378	-16.877	77.719	-2.056	1.00	44.38	C
ATOM	5838	CG	ASP	C	378	-18.097	77.656	-2.916	1.00	46.30	C
ATOM	5839	OD1	ASP	C	378	-18.134	78.421	-3.937	1.00	46.39	O
ATOM	5840	OD2	ASP	C	378	-18.992	76.840	-2.578	1.00	46.40	O
ATOM	5841	C	ASP	C	378	-14.663	78.748	-1.697	1.00	44.33	C
ATOM	5842	O	ASP	C	378	-14.886	79.132	-0.539	1.00	44.33	O
ATOM	5843	N	ASP	C	379	-13.444	78.471	-2.132	1.00	45.15	N
ATOM	5844	CA	ASP	C	379	-12.325	78.557	-1.220	1.00	45.01	C
ATOM	5845	CB	ASP	C	379	-12.169	79.978	-0.762	1.00	46.60	C
ATOM	5846	CG	ASP	C	379	-11.083	80.660	-1.457	1.00	48.30	C
ATOM	5847	OD1	ASP	C	379	-10.208	79.942	-1.960	1.00	49.05	O
ATOM	5848	OD2	ASP	C	379	-11.096	81.894	-1.494	1.00	48.56	O
ATOM	5849	C	ASP	C	379	-12.469	77.724	0.026	1.00	44.33	C
ATOM	5850	O	ASP	C	379	-12.070	78.167	1.100	1.00	44.33	O
ATOM	5851	N	ASP	C	380	-13.011	76.519	-0.132	1.00	44.33	N
ATOM	5852	CA	ASP	C	380	-13.232	75.602	0.985	1.00	44.33	C
ATOM	5853	CB	ASP	C	380	-14.725	75.314	1.048	1.00	44.77	C
ATOM	5854	CG	ASP	C	380	-15.507	76.546	1.503	1.00	46.57	C
ATOM	5855	OD1	ASP	C	380	-14.940	77.365	2.293	1.00	46.22	O
ATOM	5856	OD2	ASP	C	380	-16.686	76.715	1.070	1.00	45.12	O
ATOM	5857	C	ASP	C	380	-12.362	74.320	1.048	1.00	44.33	C
ATOM	5858	O	ASP	C	380	-12.612	73.430	1.831	1.00	44.33	O
ATOM	5859	N	VAL	C	381	-11.316	74.255	0.241	1.00	44.33	N
ATOM	5860	CA	VAL	C	381	-10.469	73.077	0.202	1.00	44.33	C
ATOM	5861	CB	VAL	C	381	-9.298	73.281	-0.766	1.00	44.33	C
ATOM	5862	CG1	VAL	C	381	-8.214	72.250	-0.533	1.00	44.33	C
ATOM	5863	CG2	VAL	C	381	-9.798	73.189	-2.150	1.00	44.33	C
ATOM	5864	C	VAL	C	381	-9.946	72.711	1.596	1.00	44.33	C
ATOM	5865	O	VAL	C	381	-9.982	71.546	1.994	1.00	44.33	O
ATOM	5866	N	GLU	C	382	-9.486	73.717	2.331	1.00	44.33	N
ATOM	5867	CA	GLU	C	382	-8.839	73.498	3.598	1.00	44.72	C
ATOM	5868	CB	GLU	C	382	-8.284	74.818	4.151	1.00	48.02	C
ATOM	5869	CG	GLU	C	382	-7.472	74.740	5.442	1.00	56.44	C

- 297 -

ATOM	5870	CD	GLU	C	382	-6.638	73.444	5.611	1.00	58.38	C
ATOM	5871	OE1	GLU	C	382	-6.789	72.493	4.778	1.00	59.95	O
ATOM	5872	OE2	GLU	C	382	-5.830	73.387	6.604	1.00	60.40	O
ATOM	5873	C	GLU	C	382	-9.858	72.913	4.529	1.00	44.33	C
ATOM	5874	O	GLU	C	382	-9.676	71.844	5.110	1.00	44.33	O
ATOM	5875	N	CYS	C	383	-10.977	73.598	4.644	1.00	44.33	N
ATOM	5876	CA	CYS	C	383	-11.923	73.183	5.632	1.00	45.49	C
ATOM	5877	CB	CYS	C	383	-12.929	74.303	5.900	1.00	47.16	C
ATOM	5878	SG	CYS	C	383	-13.846	74.671	4.447	1.00	56.72	S
ATOM	5879	C	CYS	C	383	-12.508	71.811	5.242	1.00	44.33	C
ATOM	5880	O	CYS	C	383	-12.881	71.040	6.126	1.00	44.33	O
ATOM	5881	N	THR	C	384	-12.502	71.469	3.953	1.00	44.33	N
ATOM	5882	CA	THR	C	384	-12.940	70.142	3.539	1.00	44.33	C
ATOM	5883	CB	THR	C	384	-13.145	69.970	2.028	1.00	44.33	C
ATOM	5884	OG1	THR	C	384	-14.237	70.765	1.592	1.00	45.98	O
ATOM	5885	CG2	THR	C	384	-13.543	68.566	1.684	1.00	44.33	C
ATOM	5886	C	THR	C	384	-11.973	69.071	4.003	1.00	44.33	C
ATOM	5887	O	THR	C	384	-12.426	67.988	4.378	1.00	44.33	O
ATOM	5888	N	MET	C	385	-10.658	69.331	3.977	1.00	44.33	N
ATOM	5889	CA	MET	C	385	-9.707	68.305	4.391	1.00	44.33	C
ATOM	5890	CB	MET	C	385	-8.302	68.500	3.779	1.00	44.33	C
ATOM	5891	CG	MET	C	385	-8.249	68.529	2.268	1.00	44.33	C
ATOM	5892	SD	MET	C	385	-8.614	67.000	1.395	1.00	44.53	S
ATOM	5893	CE	MET	C	385	-7.350	65.838	1.900	1.00	44.33	C
ATOM	5894	C	MET	C	385	-9.645	68.221	5.915	1.00	44.33	C
ATOM	5895	O	MET	C	385	-9.370	67.176	6.491	1.00	44.33	O
ATOM	5896	N	VAL	C	386	-9.897	69.330	6.573	1.00	44.33	N
ATOM	5897	CA	VAL	C	386	-9.978	69.305	8.008	1.00	44.33	C
ATOM	5898	CB	VAL	C	386	-10.059	70.701	8.569	1.00	44.33	C
ATOM	5899	CG1	VAL	C	386	-10.271	70.649	10.033	1.00	44.33	C
ATOM	5900	CG2	VAL	C	386	-8.813	71.475	8.230	1.00	44.33	C
ATOM	5901	C	VAL	C	386	-11.197	68.457	8.430	1.00	44.33	C
ATOM	5902	O	VAL	C	386	-11.081	67.611	9.330	1.00	44.33	O
ATOM	5903	N	GLU	C	387	-12.343	68.633	7.768	1.00	44.33	N
ATOM	5904	CA	GLU	C	387	-13.519	67.836	8.102	1.00	44.33	C
ATOM	5905	CB	GLU	C	387	-14.690	68.140	7.186	1.00	44.33	C
ATOM	5906	CG	GLU	C	387	-16.006	67.697	7.787	1.00	47.07	C
ATOM	5907	CD	GLU	C	387	-17.228	67.769	6.822	1.00	46.55	C
ATOM	5908	OE1	GLU	C	387	-17.301	68.712	6.010	1.00	51.03	O
ATOM	5909	OE2	GLU	C	387	-18.116	66.880	6.886	1.00	53.52	O
ATOM	5910	C	GLU	C	387	-13.161	66.349	8.046	1.00	44.33	C
ATOM	5911	O	GLU	C	387	-13.504	65.579	8.954	1.00	44.33	O
ATOM	5912	N	LYS	C	388	-12.415	65.969	7.009	1.00	44.33	N
ATOM	5913	CA	LYS	C	388	-12.014	64.604	6.809	1.00	44.33	C
ATOM	5914	CB	LYS	C	388	-11.425	64.413	5.405	1.00	44.33	C
ATOM	5915	CG	LYS	C	388	-10.976	62.991	5.023	1.00	44.33	C
ATOM	5916	CD	LYS	C	388	-9.506	62.721	5.439	1.00	44.33	C
ATOM	5917	CE	LYS	C	388	-8.947	61.402	4.907	1.00	44.33	C
ATOM	5918	NZ	LYS	C	388	-7.457	61.305	5.092	1.00	47.16	N
ATOM	5919	C	LYS	C	388	-11.081	64.194	7.911	1.00	44.33	C
ATOM	5920	O	LYS	C	388	-11.251	63.159	8.494	1.00	44.33	O
ATOM	5921	N	ARG	C	389	-10.111	65.017	8.242	1.00	44.33	N
ATOM	5922	CA	ARG	C	389	-9.194	64.597	9.263	1.00	44.33	C
ATOM	5923	CB	ARG	C	389	-7.970	65.536	9.399	1.00	44.33	C
ATOM	5924	CG	ARG	C	389	-6.935	65.329	8.327	1.00	44.33	C
ATOM	5925	CD	ARG	C	389	-5.709	66.216	8.468	1.00	44.33	C
ATOM	5926	NE	ARG	C	389	-5.876	67.657	8.201	1.00	44.33	N
ATOM	5927	CZ	ARG	C	389	-5.863	68.235	6.992	1.00	44.33	C

- 298 -

ATOM	5928	NH1	ARG	C	389	-5.710	67.494	5.894	1.00	44.33	N
ATOM	5929	NH2	ARG	C	389	-6.040	69.558	6.870	1.00	44.33	N
ATOM	5930	C	ARG	C	389	-9.940	64.438	10.553	1.00	44.33	C
ATOM	5931	O	ARG	C	389	-9.830	63.413	11.192	1.00	44.33	O
ATOM	5932	N	VAL	C	390	-10.731	65.421	10.926	1.00	44.33	N
ATOM	5933	CA	VAL	C	390	-11.438	65.316	12.193	1.00	44.33	C
ATOM	5934	CB	VAL	C	390	-12.276	66.540	12.464	1.00	44.33	C
ATOM	5935	CG1	VAL	C	390	-13.168	66.298	13.654	1.00	44.33	C
ATOM	5936	CG2	VAL	C	390	-11.374	67.748	12.681	1.00	44.33	C
ATOM	5937	C	VAL	C	390	-12.292	64.061	12.265	1.00	44.33	C
ATOM	5938	O	VAL	C	390	-12.245	63.333	13.252	1.00	44.33	O
ATOM	5939	N	LEU	C	391	-13.021	63.780	11.188	1.00	44.33	N
ATOM	5940	CA	LEU	C	391	-13.845	62.582	11.120	1.00	44.33	C
ATOM	5941	CB	LEU	C	391	-14.752	62.588	9.885	1.00	44.33	C
ATOM	5942	CG	LEU	C	391	-15.822	63.672	9.728	1.00	44.33	C
ATOM	5943	CD1	LEU	C	391	-16.413	63.729	8.303	1.00	44.33	C
ATOM	5944	CD2	LEU	C	391	-16.905	63.516	10.756	1.00	45.00	C
ATOM	5945	C	LEU	C	391	-13.026	61.310	11.129	1.00	44.33	C
ATOM	5946	O	LEU	C	391	-13.479	60.305	11.671	1.00	44.33	O
ATOM	5947	N	ALA	C	392	-11.836	61.345	10.531	1.00	44.33	N
ATOM	5948	CA	ALA	C	392	-11.014	60.147	10.395	1.00	44.33	C
ATOM	5949	CB	ALA	C	392	-10.046	60.275	9.296	1.00	44.33	C
ATOM	5950	C	ALA	C	392	-10.304	59.788	11.679	1.00	44.33	C
ATOM	5951	O	ALA	C	392	-9.845	58.656	11.825	1.00	44.33	O
ATOM	5952	N	LEU	C	393	-10.249	60.730	12.616	1.00	44.33	N
ATOM	5953	CA	LEU	C	393	-9.633	60.488	13.918	1.00	44.33	C
ATOM	5954	CB	LEU	C	393	-10.014	61.594	14.887	1.00	44.33	C
ATOM	5955	CG	LEU	C	393	-9.039	62.736	15.161	1.00	46.13	C
ATOM	5956	CD1	LEU	C	393	-8.025	62.948	14.054	1.00	46.70	C
ATOM	5957	CD2	LEU	C	393	-9.870	63.954	15.377	1.00	44.33	C
ATOM	5958	C	LEU	C	393	-9.978	59.148	14.532	1.00	44.33	C
ATOM	5959	O	LEU	C	393	-11.076	58.615	14.340	1.00	44.33	O
ATOM	5960	N	LEU	C	394	-9.037	58.597	15.278	1.00	44.33	N
ATOM	5961	CA	LEU	C	394	-9.244	57.290	15.915	1.00	44.33	C
ATOM	5962	CB	LEU	C	394	-7.929	56.514	16.061	1.00	44.33	C
ATOM	5963	CG	LEU	C	394	-7.152	56.229	14.756	1.00	44.33	C
ATOM	5964	CD1	LEU	C	394	-5.633	56.214	14.986	1.00	45.13	C
ATOM	5965	CD2	LEU	C	394	-7.649	54.956	14.008	1.00	47.18	C
ATOM	5966	C	LEU	C	394	-9.853	57.492	17.278	1.00	44.33	C
ATOM	5967	O	LEU	C	394	-9.770	58.585	17.848	1.00	44.33	O
ATOM	5968	N	ASP	C	395	-10.467	56.436	17.797	1.00	44.33	N
ATOM	5969	CA	ASP	C	395	-10.966	56.421	19.171	1.00	44.46	C
ATOM	5970	CB	ASP	C	395	-9.815	56.490	20.192	1.00	45.41	C
ATOM	5971	CG	ASP	C	395	-8.764	55.407	19.974	1.00	48.94	C
ATOM	5972	OD1	ASP	C	395	-9.141	54.214	19.900	1.00	49.76	O
ATOM	5973	OD2	ASP	C	395	-7.552	55.747	19.888	1.00	49.11	O
ATOM	5974	C	ASP	C	395	-11.959	57.528	19.428	1.00	44.33	C
ATOM	5975	O	ASP	C	395	-12.045	58.043	20.537	1.00	44.33	O
ATOM	5976	N	LYS	C	396	-12.718	57.897	18.400	1.00	44.33	N
ATOM	5977	CA	LYS	C	396	-13.773	58.904	18.572	1.00	44.33	C
ATOM	5978	CB	LYS	C	396	-14.342	59.334	17.211	1.00	44.33	C
ATOM	5979	CG	LYS	C	396	-13.416	60.256	16.349	1.00	44.33	C
ATOM	5980	CD	LYS	C	396	-13.840	60.296	14.884	1.00	44.33	C
ATOM	5981	CE	LYS	C	396	-15.394	60.366	14.733	1.00	44.33	C
ATOM	5982	NZ	LYS	C	396	-15.799	59.648	13.492	1.00	44.95	N
ATOM	5983	C	LYS	C	396	-14.853	58.329	19.439	1.00	44.33	C
ATOM	5984	O	LYS	C	396	-15.275	57.220	19.194	1.00	44.33	O
ATOM	5985	N	PRO	C	397	-15.291	59.060	20.463	1.00	44.33	N

- 299 -

ATOM	5986	CA	PRO	C	397	-16.449	58.666	21.282	1.00	44.33	C
ATOM	5987	CB	PRO	C	397	-16.629	59.860	22.220	1.00	44.33	C
ATOM	5988	CG	PRO	C	397	-15.825	60.900	21.701	1.00	44.33	C
ATOM	5989	CD	PRO	C	397	-14.712	60.323	20.907	1.00	44.33	C
ATOM	5990	C	PRO	C	397	-17.711	58.396	20.419	1.00	44.33	C
ATOM	5991	O	PRO	C	397	-17.733	58.778	19.258	1.00	44.33	O
ATOM	5992	N	PRO	C	398	-18.759	57.747	20.966	1.00	44.33	N
ATOM	5993	CA	PRO	C	398	-19.897	57.422	20.097	1.00	44.33	C
ATOM	5994	CB	PRO	C	398	-20.559	56.269	20.822	1.00	44.33	C
ATOM	5995	CG	PRO	C	398	-20.326	56.592	22.259	1.00	44.33	C
ATOM	5996	CD	PRO	C	398	-19.019	57.338	22.357	1.00	44.33	C
ATOM	5997	C	PRO	C	398	-20.875	58.619	19.929	1.00	44.33	C
ATOM	5998	O	PRO	C	398	-21.813	58.549	19.127	1.00	45.85	O
ATOM	5999	N	PHE	C	399	-20.608	59.721	20.633	1.00	44.33	N
ATOM	6000	CA	PHE	C	399	-21.371	60.954	20.440	1.00	44.33	C
ATOM	6001	CB	PHE	C	399	-21.452	61.769	21.741	1.00	44.33	C
ATOM	6002	CG	PHE	C	399	-21.658	60.915	22.934	1.00	44.33	C
ATOM	6003	CD1	PHE	C	399	-22.772	60.075	23.006	1.00	44.33	C
ATOM	6004	CE1	PHE	C	399	-22.935	59.218	24.056	1.00	44.33	C
ATOM	6005	CZ	PHE	C	399	-21.986	59.198	25.085	1.00	44.33	C
ATOM	6006	CE2	PHE	C	399	-20.862	60.013	25.015	1.00	44.33	C
ATOM	6007	CD2	PHE	C	399	-20.697	60.858	23.931	1.00	44.33	C
ATOM	6008	C	PHE	C	399	-20.915	61.866	19.309	1.00	44.33	C
ATOM	6009	O	PHE	C	399	-21.438	62.964	19.168	1.00	44.33	O
ATOM	6010	N	LEU	C	400	-19.942	61.464	18.517	1.00	44.33	N
ATOM	6011	CA	LEU	C	400	-19.719	62.177	17.310	1.00	44.33	C
ATOM	6012	CB	LEU	C	400	-18.292	62.649	17.229	1.00	44.33	C
ATOM	6013	CG	LEU	C	400	-17.523	63.125	18.444	1.00	44.33	C
ATOM	6014	CD1	LEU	C	400	-16.006	63.167	18.106	1.00	44.33	C
ATOM	6015	CD2	LEU	C	400	-17.991	64.464	18.910	1.00	44.33	C
ATOM	6016	C	LEU	C	400	-20.083	61.253	16.160	1.00	44.33	C
ATOM	6017	O	LEU	C	400	-20.135	60.040	16.328	1.00	44.33	O
ATOM	6018	N	THR	C	401	-20.367	61.812	15.003	1.00	44.33	N
ATOM	6019	CA	THR	C	401	-20.895	61.025	13.915	1.00	44.33	C
ATOM	6020	CB	THR	C	401	-21.460	61.931	12.793	1.00	44.33	C
ATOM	6021	OG1	THR	C	401	-20.547	63.025	12.602	1.00	44.33	O
ATOM	6022	CG2	THR	C	401	-22.854	62.473	13.140	1.00	44.33	C
ATOM	6023	C	THR	C	401	-19.788	60.168	13.343	1.00	44.33	C
ATOM	6024	O	THR	C	401	-18.749	60.676	13.010	1.00	44.33	O
ATOM	6025	N	GLN	C	402	-20.034	58.865	13.227	1.00	44.33	N
ATOM	6026	CA	GLN	C	402	-19.077	57.929	12.647	1.00	44.33	C
ATOM	6027	CB	GLN	C	402	-19.590	56.510	12.753	1.00	44.33	C
ATOM	6028	CG	GLN	C	402	-19.726	55.920	14.149	1.00	44.33	C
ATOM	6029	CD	GLN	C	402	-19.739	54.417	14.084	1.00	44.33	C
ATOM	6030	OE1	GLN	C	402	-18.709	53.778	14.281	1.00	44.33	O
ATOM	6031	NE2	GLN	C	402	-20.886	53.848	13.734	1.00	44.33	N
ATOM	6032	C	GLN	C	402	-18.840	58.152	11.171	1.00	44.33	C
ATOM	6033	O	GLN	C	402	-19.803	58.203	10.372	1.00	44.33	O
ATOM	6034	N	LEU	C	403	-17.574	58.247	10.787	1.00	44.33	N
ATOM	6035	CA	LEU	C	403	-17.253	58.107	9.385	1.00	44.33	C
ATOM	6036	CB	LEU	C	403	-15.937	58.827	9.085	1.00	44.33	C
ATOM	6037	CG	LEU	C	403	-15.168	58.689	7.768	1.00	44.33	C
ATOM	6038	CD1	LEU	C	403	-16.067	59.046	6.600	1.00	44.33	C
ATOM	6039	CD2	LEU	C	403	-14.004	59.665	7.880	1.00	44.33	C
ATOM	6040	C	LEU	C	403	-17.163	56.622	9.024	1.00	44.33	C
ATOM	6041	O	LEU	C	403	-16.433	55.862	9.651	1.00	44.33	O
ATOM	6042	N	HIS	C	404	-17.901	56.199	8.013	1.00	44.33	N
ATOM	6043	CA	HIS	C	404	-17.561	54.927	7.446	1.00	44.33	C

- 300 -

ATOM	6044	CB	HIS	C	404	-18.643	54.351	6.580	1.00	44.33	C
ATOM	6045	CG	HIS	C	404	-18.237	53.065	5.924	1.00	44.33	C
ATOM	6046	ND1	HIS	C	404	-18.351	51.840	6.557	1.00	44.33	N
ATOM	6047	CE1	HIS	C	404	-17.911	50.891	5.748	1.00	44.33	C
ATOM	6048	NE2	HIS	C	404	-17.480	51.458	4.632	1.00	44.33	N
ATOM	6049	CD2	HIS	C	404	-17.672	52.818	4.715	1.00	44.33	C
ATOM	6050	C	HIS	C	404	-16.330	55.000	6.596	1.00	44.33	C
ATOM	6051	O	HIS	C	404	-15.447	54.179	6.730	1.00	44.33	O
ATOM	6052	N	SER	C	405	-16.317	55.927	5.651	1.00	44.33	N
ATOM	6053	CA	SER	C	405	-15.150	56.116	4.819	1.00	44.33	C
ATOM	6054	CB	SER	C	405	-14.912	54.864	3.964	1.00	44.33	C
ATOM	6055	OG	SER	C	405	-15.985	54.688	3.066	1.00	44.33	O
ATOM	6056	C	SER	C	405	-15.335	57.327	3.930	1.00	44.33	C
ATOM	6057	O	SER	C	405	-16.450	57.805	3.780	1.00	44.33	O
ATOM	6058	N	CYS	C	406	-14.209	57.801	3.376	1.00	44.33	N
ATOM	6059	CA	CYS	C	406	-14.119	58.816	2.337	1.00	44.46	C
ATOM	6060	CB	CYS	C	406	-13.035	59.768	2.719	1.00	46.60	C
ATOM	6061	SG	CYS	C	406	-13.365	60.513	4.085	1.00	59.33	S
ATOM	6062	C	CYS	C	406	-13.603	58.238	1.030	1.00	44.33	C
ATOM	6063	O	CYS	C	406	-12.767	57.339	1.037	1.00	44.33	O
ATOM	6064	N	PHE	C	407	-14.030	58.813	-0.092	1.00	44.33	N
ATOM	6065	CA	PHE	C	407	-13.373	58.561	-1.365	1.00	44.33	C
ATOM	6066	CB	PHE	C	407	-13.783	57.219	-1.953	1.00	44.33	C
ATOM	6067	CG	PHE	C	407	-15.254	57.079	-2.190	1.00	44.33	C
ATOM	6068	CD1	PHE	C	407	-15.808	57.377	-3.436	1.00	44.33	C
ATOM	6069	CE1	PHE	C	407	-17.179	57.224	-3.677	1.00	44.33	C
ATOM	6070	CZ	PHE	C	407	-17.991	56.769	-2.692	1.00	44.33	C
ATOM	6071	CE2	PHE	C	407	-17.459	56.449	-1.454	1.00	44.33	C
ATOM	6072	CD2	PHE	C	407	-16.090	56.606	-1.199	1.00	44.33	C
ATOM	6073	C	PHE	C	407	-13.714	59.688	-2.302	1.00	44.33	C
ATOM	6074	O	PHE	C	407	-14.598	60.483	-1.988	1.00	44.33	O
ATOM	6075	N	GLN	C	408	-13.020	59.760	-3.437	1.00	44.33	N
ATOM	6076	CA	GLN	C	408	-13.280	60.800	-4.381	1.00	44.33	C
ATOM	6077	CB	GLN	C	408	-12.147	61.784	-4.366	1.00	44.33	C
ATOM	6078	CG	GLN	C	408	-10.754	61.224	-4.614	1.00	44.33	C
ATOM	6079	CD	GLN	C	408	-9.682	62.324	-4.612	1.00	44.33	C
ATOM	6080	OE1	GLN	C	408	-9.763	63.283	-5.377	1.00	44.33	O
ATOM	6081	NE2	GLN	C	408	-8.697	62.195	-3.724	1.00	44.33	N
ATOM	6082	C	GLN	C	408	-13.473	60.251	-5.765	1.00	44.33	C
ATOM	6083	O	GLN	C	408	-12.957	59.215	-6.077	1.00	44.33	O
ATOM	6084	N	THR	C	409	-14.246	60.924	-6.600	1.00	44.33	N
ATOM	6085	CA	THR	C	409	-14.221	60.621	-8.018	1.00	44.33	C
ATOM	6086	CB	THR	C	409	-15.617	60.580	-8.562	1.00	44.33	C
ATOM	6087	OG1	THR	C	409	-16.252	61.833	-8.291	1.00	44.33	O
ATOM	6088	CG2	THR	C	409	-16.414	59.463	-7.911	1.00	44.33	C
ATOM	6089	C	THR	C	409	-13.399	61.729	-8.710	1.00	44.33	C
ATOM	6090	O	THR	C	409	-12.796	62.559	-8.043	1.00	44.33	O
ATOM	6091	N	VAL	C	410	-13.355	61.774	-10.030	1.00	44.33	N
ATOM	6092	CA	VAL	C	410	-12.647	62.888	-10.634	1.00	44.33	C
ATOM	6093	CB	VAL	C	410	-12.575	62.838	-12.170	1.00	44.33	C
ATOM	6094	CG1	VAL	C	410	-11.223	62.575	-12.626	1.00	44.33	C
ATOM	6095	CG2	VAL	C	410	-13.587	61.871	-12.767	1.00	44.33	C
ATOM	6096	C	VAL	C	410	-13.223	64.255	-10.254	1.00	44.33	C
ATOM	6097	O	VAL	C	410	-12.482	65.212	-10.134	1.00	44.33	O
ATOM	6098	N	ASP	C	411	-14.539	64.327	-10.072	1.00	44.33	N
ATOM	6099	CA	ASP	C	411	-15.274	65.577	-9.955	1.00	44.33	C
ATOM	6100	CB	ASP	C	411	-16.421	65.574	-10.984	1.00	44.33	C
ATOM	6101	CG	ASP	C	411	-17.245	64.305	-10.925	1.00	44.33	C

- 301 -

ATOM	6102	OD1	ASP	C	411	-16.694	63.242	-10.638	1.00	44.33	O
ATOM	6103	OD2	ASP	C	411	-18.454	64.322	-11.127	1.00	45.14	O
ATOM	6104	C	ASP	C	411	-15.828	65.813	-8.548	1.00	44.33	C
ATOM	6105	O	ASP	C	411	-16.106	66.970	-8.172	1.00	44.33	O
ATOM	6106	N	ARG	C	412	-15.993	64.734	-7.774	1.00	44.33	N
ATOM	6107	CA	ARG	C	412	-16.763	64.807	-6.532	1.00	44.33	C
ATOM	6108	CB	ARG	C	412	-18.120	64.137	-6.735	1.00	44.33	C
ATOM	6109	CG	ARG	C	412	-19.126	65.080	-7.367	1.00	44.33	C
ATOM	6110	CD	ARG	C	412	-20.547	64.483	-7.509	1.00	44.33	C
ATOM	6111	NE	ARG	C	412	-20.937	64.113	-8.875	1.00	48.47	N
ATOM	6112	CZ	ARG	C	412	-21.462	64.942	-9.774	1.00	46.84	C
ATOM	6113	NH1	ARG	C	412	-21.651	66.221	-9.482	1.00	51.16	N
ATOM	6114	NH2	ARG	C	412	-21.818	64.483	-10.970	1.00	51.46	N
ATOM	6115	C	ARG	C	412	-16.076	64.188	-5.356	1.00	44.33	C
ATOM	6116	O	ARG	C	412	-15.314	63.276	-5.525	1.00	44.33	O
ATOM	6117	N	LEU	C	413	-16.382	64.675	-4.167	1.00	44.33	N
ATOM	6118	CA	LEU	C	413	-15.916	64.085	-2.919	1.00	44.33	C
ATOM	6119	CB	LEU	C	413	-15.322	65.174	-2.028	1.00	44.33	C
ATOM	6120	CG	LEU	C	413	-14.149	65.988	-2.519	1.00	44.33	C
ATOM	6121	CD1	LEU	C	413	-13.712	66.926	-1.469	1.00	44.33	C
ATOM	6122	CD2	LEU	C	413	-12.987	65.030	-2.955	1.00	44.33	C
ATOM	6123	C	LEU	C	413	-17.098	63.485	-2.209	1.00	44.33	C
ATOM	6124	O	LEU	C	413	-18.152	64.114	-2.176	1.00	44.33	O
ATOM	6125	N	TYR	C	414	-16.940	62.290	-1.637	1.00	44.33	N
ATOM	6126	CA	TYR	C	414	-18.013	61.654	-0.835	1.00	44.33	C
ATOM	6127	CB	TYR	C	414	-18.541	60.368	-1.457	1.00	44.33	C
ATOM	6128	CG	TYR	C	414	-19.006	60.532	-2.856	1.00	44.33	C
ATOM	6129	CD1	TYR	C	414	-20.333	60.785	-3.145	1.00	44.33	C
ATOM	6130	CE1	TYR	C	414	-20.757	60.947	-4.440	1.00	44.33	C
ATOM	6131	CZ	TYR	C	414	-19.826	60.868	-5.466	1.00	44.33	C
ATOM	6132	OH	TYR	C	414	-20.183	61.015	-6.800	1.00	44.33	O
ATOM	6133	CE2	TYR	C	414	-18.498	60.623	-5.179	1.00	44.33	C
ATOM	6134	CD2	TYR	C	414	-18.106	60.452	-3.896	1.00	44.33	C
ATOM	6135	C	TYR	C	414	-17.515	61.271	0.516	1.00	44.33	C
ATOM	6136	O	TYR	C	414	-16.455	60.661	0.608	1.00	44.33	O
ATOM	6137	N	PHE	C	415	-18.289	61.621	1.551	1.00	44.33	N
ATOM	6138	CA	PHE	C	415	-18.092	61.108	2.919	1.00	44.33	C
ATOM	6139	CB	PHE	C	415	-18.108	62.212	3.981	1.00	44.33	C
ATOM	6140	CG	PHE	C	415	-17.065	63.248	3.797	1.00	44.33	C
ATOM	6141	CD1	PHE	C	415	-17.157	64.166	2.771	1.00	44.33	C
ATOM	6142	CE1	PHE	C	415	-16.209	65.124	2.610	1.00	44.33	C
ATOM	6143	CZ	PHE	C	415	-15.130	65.196	3.489	1.00	44.33	C
ATOM	6144	CE2	PHE	C	415	-15.022	64.287	4.509	1.00	44.34	C
ATOM	6145	CD2	PHE	C	415	-15.991	63.319	4.664	1.00	44.33	C
ATOM	6146	C	PHE	C	415	-19.241	60.174	3.195	1.00	44.33	C
ATOM	6147	O	PHE	C	415	-20.405	60.596	3.119	1.00	44.33	O
ATOM	6148	N	VAL	C	416	-18.919	58.922	3.520	1.00	44.33	N
ATOM	6149	CA	VAL	C	416	-19.943	57.957	3.883	1.00	44.33	C
ATOM	6150	CB	VAL	C	416	-19.722	56.582	3.189	1.00	44.33	C
ATOM	6151	CG1	VAL	C	416	-20.938	55.742	3.339	1.00	44.33	C
ATOM	6152	CG2	VAL	C	416	-19.416	56.750	1.699	1.00	44.33	C
ATOM	6153	C	VAL	C	416	-20.056	57.873	5.404	1.00	44.33	C
ATOM	6154	O	VAL	C	416	-19.143	57.445	6.076	1.00	44.33	O
ATOM	6155	N	MET	C	417	-21.181	58.335	5.921	1.00	44.33	N
ATOM	6156	CA	MET	C	417	-21.427	58.454	7.349	1.00	44.33	C
ATOM	6157	CB	MET	C	417	-21.844	59.874	7.653	1.00	45.81	C
ATOM	6158	CG	MET	C	417	-21.090	60.930	6.886	1.00	46.31	C
ATOM	6159	SD	MET	C	417	-19.491	61.252	7.574	1.00	48.63	S

- 302 -

ATOM	6160	CE	MET	C	417	-19.891	61.592	9.309	1.00	44.33	C
ATOM	6161	C	MET	C	417	-22.534	57.502	7.850	1.00	44.33	C
ATOM	6162	O	MET	C	417	-23.377	57.028	7.073	1.00	44.85	O
ATOM	6163	N	GLU	C	418	-22.541	57.248	9.158	1.00	44.33	N
ATOM	6164	CA	GLU	C	418	-23.613	56.484	9.786	1.00	44.33	C
ATOM	6165	CB	GLU	C	418	-23.360	56.287	11.285	1.00	44.33	C
ATOM	6166	CG	GLU	C	418	-23.425	57.548	12.137	1.00	44.33	C
ATOM	6167	CD	GLU	C	418	-22.989	57.331	13.606	1.00	44.93	C
ATOM	6168	OE1	GLU	C	418	-23.314	56.264	14.185	1.00	47.00	O
ATOM	6169	OE2	GLU	C	418	-22.329	58.234	14.196	1.00	45.75	O
ATOM	6170	C	GLU	C	418	-24.910	57.246	9.587	1.00	44.33	C
ATOM	6171	O	GLU	C	418	-24.868	58.451	9.422	1.00	44.33	O
ATOM	6172	N	TYR	C	419	-26.051	56.563	9.574	1.00	44.33	N
ATOM	6173	CA	TYR	C	419	-27.287	57.274	9.420	1.00	44.33	C
ATOM	6174	CB	TYR	C	419	-28.291	56.492	8.578	1.00	44.33	C
ATOM	6175	CG	TYR	C	419	-29.689	57.109	8.482	1.00	44.33	C
ATOM	6176	CD1	TYR	C	419	-29.874	58.478	8.213	1.00	44.33	C
ATOM	6177	CE1	TYR	C	419	-31.157	59.054	8.123	1.00	44.33	C
ATOM	6178	CZ	TYR	C	419	-32.300	58.241	8.264	1.00	44.33	C
ATOM	6179	OH	TYR	C	419	-33.581	58.769	8.152	1.00	44.33	O
ATOM	6180	CE2	TYR	C	419	-32.130	56.874	8.502	1.00	44.33	C
ATOM	6181	CD2	TYR	C	419	-30.826	56.321	8.622	1.00	44.33	C
ATOM	6182	C	TYR	C	419	-27.820	57.518	10.798	1.00	44.33	C
ATOM	6183	O	TYR	C	419	-28.109	56.588	11.495	1.00	44.33	O
ATOM	6184	N	VAL	C	420	-27.931	58.778	11.197	1.00	44.33	N
ATOM	6185	CA	VAL	C	420	-28.416	59.144	12.516	1.00	44.33	C
ATOM	6186	CB	VAL	C	420	-27.667	60.353	13.078	1.00	44.33	C
ATOM	6187	CG1	VAL	C	420	-28.336	60.840	14.352	1.00	44.33	C
ATOM	6188	CG2	VAL	C	420	-26.153	60.080	13.250	1.00	44.33	C
ATOM	6189	C	VAL	C	420	-29.841	59.598	12.323	1.00	44.33	C
ATOM	6190	O	VAL	C	420	-30.076	60.593	11.628	1.00	44.33	O
ATOM	6191	N	ASN	C	421	-30.799	58.905	12.937	1.00	44.33	N
ATOM	6192	CA	ASN	C	421	-32.209	59.113	12.600	1.00	44.33	C
ATOM	6193	CB	ASN	C	421	-32.714	57.901	11.834	1.00	45.76	C
ATOM	6194	CG	ASN	C	421	-32.812	56.659	12.695	1.00	48.25	C
ATOM	6195	OD1	ASN	C	421	-32.178	56.535	13.755	1.00	49.11	O
ATOM	6196	ND2	ASN	C	421	-33.609	55.699	12.221	1.00	47.13	N
ATOM	6197	C	ASN	C	421	-33.190	59.486	13.721	1.00	44.33	C
ATOM	6198	O	ASN	C	421	-34.391	59.324	13.572	1.00	44.33	O
ATOM	6199	N	GLY	C	422	-32.693	59.980	14.838	1.00	44.33	N
ATOM	6200	CA	GLY	C	422	-33.577	60.375	15.918	1.00	44.33	C
ATOM	6201	C	GLY	C	422	-33.937	61.854	15.967	1.00	44.33	C
ATOM	6202	O	GLY	C	422	-34.247	62.348	17.036	1.00	44.33	O
ATOM	6203	N	GLY	C	423	-33.898	62.572	14.848	1.00	44.33	N
ATOM	6204	CA	GLY	C	423	-34.222	64.001	14.848	1.00	44.58	C
ATOM	6205	C	GLY	C	423	-33.188	64.833	15.581	1.00	45.57	C
ATOM	6206	O	GLY	C	423	-32.335	64.287	16.311	1.00	46.39	O
ATOM	6207	N	ASP	C	424	-33.220	66.152	15.393	1.00	45.51	N
ATOM	6208	CA	ASP	C	424	-32.149	66.974	15.970	1.00	46.53	C
ATOM	6209	CB	ASP	C	424	-31.486	67.923	14.938	1.00	49.67	C
ATOM	6210	CG	ASP	C	424	-32.480	68.891	14.304	1.00	51.18	C
ATOM	6211	OD1	ASP	C	424	-33.132	69.650	15.089	1.00	51.17	O
ATOM	6212	OD2	ASP	C	424	-32.616	68.880	13.036	1.00	52.67	O
ATOM	6213	C	ASP	C	424	-32.641	67.717	17.175	1.00	46.78	C
ATOM	6214	O	ASP	C	424	-33.813	67.796	17.411	1.00	44.33	O
ATOM	6215	N	LEU	C	425	-31.736	68.277	17.945	1.00	44.33	N
ATOM	6216	CA	LEU	C	425	-32.100	68.727	19.275	1.00	44.33	C
ATOM	6217	CB	LEU	C	425	-30.856	69.092	20.092	1.00	44.33	C

- 303 -

ATOM	6218	CG	LEU	C	425	-30.290	68.081	21.076	1.00	44.33	C
ATOM	6219	CD1	LEU	C	425	-29.596	68.835	22.205	1.00	44.42	C
ATOM	6220	CD2	LEU	C	425	-31.378	67.116	21.606	1.00	44.33	C
ATOM	6221	C	LEU	C	425	-33.022	69.901	19.224	1.00	44.33	C
ATOM	6222	O	LEU	C	425	-33.833	70.068	20.100	1.00	44.33	O
ATOM	6223	N	MET	C	426	-32.861	70.734	18.212	1.00	44.33	N
ATOM	6224	CA	MET	C	426	-33.735	71.857	18.006	1.00	44.33	C
ATOM	6225	CB	MET	C	426	-33.273	72.630	16.765	1.00	44.92	C
ATOM	6226	CG	MET	C	426	-34.183	73.769	16.372	1.00	45.54	C
ATOM	6227	SD	MET	C	426	-34.108	75.156	17.481	1.00	52.46	S
ATOM	6228	CE	MET	C	426	-35.039	76.308	16.560	1.00	47.40	C
ATOM	6229	C	MET	C	426	-35.194	71.357	17.899	1.00	44.33	C
ATOM	6230	O	MET	C	426	-36.071	71.826	18.626	1.00	44.33	O
ATOM	6231	N	TYR	C	427	-35.426	70.357	17.057	1.00	44.33	N
ATOM	6232	CA	TYR	C	427	-36.746	69.763	16.949	1.00	44.51	C
ATOM	6233	CB	TYR	C	427	-36.708	68.651	15.931	1.00	47.22	C
ATOM	6234	CG	TYR	C	427	-37.973	67.890	15.807	1.00	49.31	C
ATOM	6235	CD1	TYR	C	427	-38.996	68.338	14.973	1.00	49.64	C
ATOM	6236	CE1	TYR	C	427	-40.186	67.625	14.854	1.00	50.18	C
ATOM	6237	CZ	TYR	C	427	-40.333	66.453	15.560	1.00	49.92	C
ATOM	6238	OH	TYR	C	427	-41.481	65.754	15.454	1.00	51.23	O
ATOM	6239	CE2	TYR	C	427	-39.344	65.969	16.375	1.00	50.30	C
ATOM	6240	CD2	TYR	C	427	-38.154	66.692	16.501	1.00	49.22	C
ATOM	6241	C	TYR	C	427	-37.299	69.256	18.278	1.00	44.36	C
ATOM	6242	O	TYR	C	427	-38.399	69.637	18.717	1.00	44.33	O
ATOM	6243	N	HIS	C	428	-36.532	68.400	18.939	1.00	44.33	N
ATOM	6244	CA	HIS	C	428	-36.976	67.820	20.181	1.00	44.33	C
ATOM	6245	CB	HIS	C	428	-35.979	66.828	20.687	1.00	44.33	C
ATOM	6246	CG	HIS	C	428	-35.873	65.631	19.816	1.00	44.33	C
ATOM	6247	ND1	HIS	C	428	-36.978	65.038	19.245	1.00	44.33	N
ATOM	6248	CE1	HIS	C	428	-36.588	64.011	18.515	1.00	44.33	C
ATOM	6249	NE2	HIS	C	428	-35.274	63.920	18.598	1.00	44.33	N
ATOM	6250	CD2	HIS	C	428	-34.803	64.923	19.404	1.00	44.33	C
ATOM	6251	C	HIS	C	428	-37.227	68.831	21.239	1.00	44.33	C
ATOM	6252	O	HIS	C	428	-38.228	68.705	21.950	1.00	44.33	O
ATOM	6253	N	ILE	C	429	-36.340	69.825	21.364	1.00	44.33	N
ATOM	6254	CA	ILE	C	429	-36.618	70.950	22.247	1.00	44.33	C
ATOM	6255	CB	ILE	C	429	-35.568	72.118	22.145	1.00	44.33	C
ATOM	6256	CG1	ILE	C	429	-34.163	71.725	22.604	1.00	44.33	C
ATOM	6257	CD1	ILE	C	429	-33.234	72.949	22.766	1.00	44.33	C
ATOM	6258	CG2	ILE	C	429	-35.902	73.286	23.077	1.00	44.75	C
ATOM	6259	C	ILE	C	429	-38.008	71.486	21.898	1.00	44.33	C
ATOM	6260	O	ILE	C	429	-38.851	71.673	22.775	1.00	44.33	O
ATOM	6261	N	GLN	C	430	-38.279	71.719	20.623	1.00	44.33	N
ATOM	6262	CA	GLN	C	430	-39.544	72.368	20.350	1.00	45.69	C
ATOM	6263	CB	GLN	C	430	-39.602	73.132	19.051	1.00	46.38	C
ATOM	6264	CG	GLN	C	430	-38.816	72.580	17.935	1.00	49.73	C
ATOM	6265	CD	GLN	C	430	-38.532	73.622	16.837	1.00	48.71	C
ATOM	6266	OE1	GLN	C	430	-38.675	74.838	17.033	1.00	49.25	O
ATOM	6267	NE2	GLN	C	430	-38.161	73.129	15.665	1.00	51.48	N
ATOM	6268	C	GLN	C	430	-40.777	71.513	20.587	1.00	46.00	C
ATOM	6269	O	GLN	C	430	-41.856	72.070	20.879	1.00	44.33	O
ATOM	6270	N	GLN	C	431	-40.637	70.179	20.522	1.00	46.89	N
ATOM	6271	CA	GLN	C	431	-41.774	69.325	20.905	1.00	48.20	C
ATOM	6272	CB	GLN	C	431	-41.545	67.782	20.742	1.00	50.11	C
ATOM	6273	CG	GLN	C	431	-40.499	67.172	19.700	1.00	51.34	C
ATOM	6274	CD	GLN	C	431	-40.090	65.628	19.981	1.00	53.64	C
ATOM	6275	OE1	GLN	C	431	-39.775	65.227	21.125	1.00	56.18	O

- 304 -

ATOM	6276	NE2	GLN	C	431	-40.089	64.799	18.916	1.00	54.63	N
ATOM	6277	C	GLN	C	431	-42.180	69.606	22.373	1.00	46.38	C
ATOM	6278	O	GLN	C	431	-43.263	69.201	22.789	1.00	47.22	O
ATOM	6279	N	VAL	C	432	-41.343	70.250	23.192	1.00	45.19	N
ATOM	6280	CA	VAL	C	432	-41.665	70.334	24.651	1.00	44.33	C
ATOM	6281	CB	VAL	C	432	-41.035	69.176	25.528	1.00	44.33	C
ATOM	6282	CG1	VAL	C	432	-41.395	67.761	25.016	1.00	44.33	C
ATOM	6283	CG2	VAL	C	432	-39.521	69.350	25.669	1.00	44.33	C
ATOM	6284	C	VAL	C	432	-41.337	71.650	25.358	1.00	44.33	C
ATOM	6285	O	VAL	C	432	-41.400	71.723	26.604	1.00	44.57	O
ATOM	6286	N	GLY	C	433	-40.995	72.677	24.576	1.00	44.33	N
ATOM	6287	CA	GLY	C	433	-40.639	73.987	25.117	1.00	44.33	C
ATOM	6288	O	GLY	C	433	-39.220	74.051	25.698	1.00	44.33	C
ATOM	6289	C	GLY	C	433	-38.451	74.943	25.342	1.00	44.33	O
ATOM	6290	N	LYS	C	434	-38.884	73.128	26.607	1.00	44.33	N
ATOM	6291	CA	LYS	C	434	-37.540	73.011	27.196	1.00	44.33	C
ATOM	6292	CB	LYS	C	434	-37.327	74.050	28.277	1.00	44.33	C
ATOM	6293	CG	LYS	C	434	-38.083	73.795	29.543	1.00	44.33	C
ATOM	6294	CD	LYS	C	434	-38.333	75.102	30.171	1.00	44.33	C
ATOM	6295	CE	LYS	C	434	-39.539	75.092	31.071	1.00	48.83	C
ATOM	6296	NZ	LYS	C	434	-39.232	74.620	32.464	1.00	48.23	N
ATOM	6297	C	LYS	C	434	-37.395	71.647	27.804	1.00	44.33	C
ATOM	6298	O	LYS	C	434	-38.364	71.037	28.177	1.00	44.33	O
ATOM	6299	N	PHE	C	435	-36.180	71.160	27.912	1.00	44.33	N
ATOM	6300	CA	PHE	C	435	-35.976	69.912	28.643	1.00	44.33	C
ATOM	6301	CB	PHE	C	435	-34.639	69.314	28.218	1.00	44.33	C
ATOM	6302	CG	PHE	C	435	-34.542	69.066	26.753	1.00	44.33	C
ATOM	6303	CD1	PHE	C	435	-35.647	68.689	26.033	1.00	44.33	C
ATOM	6304	CE1	PHE	C	435	-35.575	68.463	24.688	1.00	44.33	C
ATOM	6305	CZ	PHE	C	435	-34.380	68.582	24.017	1.00	44.33	C
ATOM	6306	CE2	PHE	C	435	-33.240	68.938	24.722	1.00	44.33	C
ATOM	6307	CD2	PHE	C	435	-33.328	69.173	26.100	1.00	44.33	C
ATOM	6308	C	PHE	C	435	-36.052	70.035	30.188	1.00	44.33	C
ATOM	6309	O	PHE	C	435	-35.554	71.009	30.771	1.00	46.16	O
ATOM	6310	N	LYS	C	436	-36.642	69.055	30.867	1.00	44.79	N
ATOM	6311	CA	LYS	C	436	-36.503	69.054	32.335	1.00	46.11	C
ATOM	6312	CB	LYS	C	436	-37.449	68.039	33.020	1.00	47.99	C
ATOM	6313	CG	LYS	C	436	-37.665	66.696	32.297	1.00	51.71	C
ATOM	6314	CD	LYS	C	436	-36.376	65.803	32.459	1.00	52.98	C
ATOM	6315	CE	LYS	C	436	-36.619	64.278	32.285	1.00	52.05	C
ATOM	6316	NZ	LYS	C	436	-35.315	63.554	32.157	1.00	56.25	N
ATOM	6317	C	LYS	C	436	-35.016	68.852	32.657	1.00	44.59	C
ATOM	6318	O	LYS	C	436	-34.282	68.251	31.855	1.00	45.29	O
ATOM	6319	N	GLU	C	437	-34.565	69.376	33.790	1.00	44.69	N
ATOM	6320	CA	GLU	C	437	-33.129	69.426	34.099	1.00	46.54	C
ATOM	6321	CB	GLU	C	437	-32.872	69.980	35.503	1.00	47.68	C
ATOM	6322	CG	GLU	C	437	-31.382	70.075	35.846	1.00	49.88	C
ATOM	6323	CD	GLU	C	437	-31.052	70.918	37.093	1.00	50.99	C
ATOM	6324	OE1	GLU	C	437	-31.470	72.111	37.190	1.00	53.04	O
ATOM	6325	OE2	GLU	C	437	-30.322	70.370	37.964	1.00	52.13	O
ATOM	6326	C	GLU	C	437	-32.437	68.071	33.917	1.00	45.25	C
ATOM	6327	O	GLU	C	437	-31.430	67.961	33.221	1.00	45.36	O
ATOM	6328	N	PRO	C	438	-32.983	67.010	34.525	1.00	44.33	N
ATOM	6329	CA	PRO	C	438	-32.302	65.713	34.319	1.00	44.33	C
ATOM	6330	CB	PRO	C	438	-33.337	64.711	34.844	1.00	44.33	C
ATOM	6331	CG	PRO	C	438	-34.035	65.483	35.954	1.00	44.33	C
ATOM	6332	CD	PRO	C	438	-34.157	66.884	35.419	1.00	44.33	C
ATOM	6333	C	PRO	C	438	-31.940	65.395	32.860	1.00	44.33	C

- 305 -

ATOM	6334	O	PRO	C	438	-30.845	64.925	32.560	1.00	44.33	O
ATOM	6335	N	GLN	C	439	-32.876	65.642	31.972	1.00	44.33	N
ATOM	6336	CA	GLN	C	439	-32.650	65.356	30.574	1.00	44.33	C
ATOM	6337	CB	GLN	C	439	-34.010	65.426	29.869	1.00	44.33	C
ATOM	6338	CG	GLN	C	439	-33.937	65.740	28.439	1.00	44.33	C
ATOM	6339	CD	GLN	C	439	-35.252	65.617	27.756	1.00	44.33	C
ATOM	6340	OE1	GLN	C	439	-35.365	64.969	26.735	1.00	44.33	O
ATOM	6341	NE2	GLN	C	439	-36.262	66.242	28.308	1.00	44.33	N
ATOM	6342	C	GLN	C	439	-31.539	66.281	29.950	1.00	44.33	C
ATOM	6343	O	GLN	C	439	-30.597	65.804	29.311	1.00	44.33	O
ATOM	6344	N	ALA	C	440	-31.661	67.587	30.172	1.00	44.33	N
ATOM	6345	CA	ALA	C	440	-30.700	68.543	29.730	1.00	44.33	C
ATOM	6346	CB	ALA	C	440	-31.070	69.839	30.254	1.00	44.33	C
ATOM	6347	C	ALA	C	440	-29.302	68.169	30.236	1.00	44.33	C
ATOM	6348	O	ALA	C	440	-28.305	68.293	29.532	1.00	44.33	O
ATOM	6349	N	VAL	C	441	-29.238	67.702	31.469	1.00	44.33	N
ATOM	6350	CA	VAL	C	441	-28.000	67.313	32.080	1.00	44.33	C
ATOM	6351	CB	VAL	C	441	-28.253	66.880	33.564	1.00	44.33	C
ATOM	6352	CG1	VAL	C	441	-26.931	66.690	34.374	1.00	44.33	C
ATOM	6353	CG2	VAL	C	441	-29.094	67.916	34.277	1.00	44.33	C
ATOM	6354	C	VAL	C	441	-27.390	66.188	31.247	1.00	44.33	C
ATOM	6355	O	VAL	C	441	-26.171	66.203	30.943	1.00	44.33	O
ATOM	6356	N	PHE	C	442	-28.229	65.236	30.863	1.00	44.33	N
ATOM	6357	CA	PHE	C	442	-27.796	64.074	30.109	1.00	44.33	C
ATOM	6358	CB	PHE	C	442	-28.945	63.071	29.991	1.00	44.33	C
ATOM	6359	CG	PHE	C	442	-28.666	61.911	29.081	1.00	44.33	C
ATOM	6360	CD1	PHE	C	442	-28.309	60.676	29.601	1.00	44.33	C
ATOM	6361	CE1	PHE	C	442	-28.036	59.600	28.758	1.00	44.33	C
ATOM	6362	CZ	PHE	C	442	-28.140	59.758	27.364	1.00	44.33	C
ATOM	6363	CE2	PHE	C	442	-28.512	60.991	26.832	1.00	44.33	C
ATOM	6364	CD2	PHE	C	442	-28.773	62.050	27.693	1.00	44.33	C
ATOM	6365	C	PHE	C	442	-27.325	64.542	28.739	1.00	44.33	C
ATOM	6366	O	PHE	C	442	-26.262	64.146	28.249	1.00	44.33	O
ATOM	6367	N	TYR	C	443	-28.092	65.404	28.100	1.00	44.33	N
ATOM	6368	CA	TYR	C	443	-27.613	65.911	26.829	1.00	44.33	C
ATOM	6369	CB	TYR	C	443	-28.661	66.727	26.123	1.00	44.33	C
ATOM	6370	CG	TYR	C	443	-29.840	65.868	25.803	1.00	44.33	C
ATOM	6371	CD1	TYR	C	443	-29.675	64.524	25.539	1.00	44.33	C
ATOM	6372	CE1	TYR	C	443	-30.767	63.699	25.245	1.00	44.33	C
ATOM	6373	CZ	TYR	C	443	-32.028	64.245	25.208	1.00	44.33	C
ATOM	6374	OH	TYR	C	443	-33.112	63.447	24.907	1.00	44.33	O
ATOM	6375	CE2	TYR	C	443	-32.193	65.588	25.472	1.00	44.33	C
ATOM	6376	CD2	TYR	C	443	-31.114	66.386	25.767	1.00	44.33	C
ATOM	6377	C	TYR	C	443	-26.317	66.652	27.020	1.00	44.33	C
ATOM	6378	O	TYR	C	443	-25.343	66.340	26.355	1.00	44.33	O
ATOM	6379	N	ALA	C	444	-26.264	67.568	27.972	1.00	44.33	N
ATOM	6380	CA	ALA	C	444	-25.025	68.317	28.197	1.00	44.33	C
ATOM	6381	CB	ALA	C	444	-25.147	69.305	29.338	1.00	44.33	C
ATOM	6382	C	ALA	C	444	-23.869	67.405	28.470	1.00	44.33	C
ATOM	6383	O	ALA	C	444	-22.753	67.645	28.014	1.00	44.33	O
ATOM	6384	N	ALA	C	445	-24.138	66.371	29.245	1.00	44.33	N
ATOM	6385	CA	ALA	C	445	-23.108	65.427	29.637	1.00	44.33	C
ATOM	6386	CB	ALA	C	445	-23.716	64.437	30.614	1.00	44.33	C
ATOM	6387	C	ALA	C	445	-22.518	64.699	28.426	1.00	44.33	C
ATOM	6388	O	ALA	C	445	-21.316	64.680	28.230	1.00	44.33	O
ATOM	6389	N	GLU	C	446	-23.372	64.116	27.598	1.00	44.33	N
ATOM	6390	CA	GLU	C	446	-22.881	63.407	26.396	1.00	44.33	C
ATOM	6391	CB	GLU	C	446	-23.998	62.635	25.667	1.00	44.33	C

- 306 -

ATOM	6392	CG	GLU	C	446	-24.693	61.654	26.565	1.00	44.33	C
ATOM	6393	CD	GLU	C	446	-25.228	60.495	25.806	1.00	44.33	C
ATOM	6394	OE1	GLU	C	446	-25.876	60.729	24.767	1.00	44.33	O
ATOM	6395	OE2	GLU	C	446	-25.021	59.334	26.229	1.00	44.33	O
ATOM	6396	C	GLU	C	446	-22.106	64.293	25.418	1.00	44.33	C
ATOM	6397	O	GLU	C	446	-21.108	63.872	24.853	1.00	44.33	O
ATOM	6398	N	ILE	C	447	-22.592	65.514	25.235	1.00	44.33	N
ATOM	6399	CA	ILE	C	447	-21.990	66.463	24.343	1.00	44.33	C
ATOM	6400	CB	ILE	C	447	-22.840	67.759	24.271	1.00	44.33	C
ATOM	6401	CG1	ILE	C	447	-24.122	67.557	23.423	1.00	44.33	C
ATOM	6402	CD1	ILE	C	447	-25.225	68.572	23.668	1.00	44.33	C
ATOM	6403	CG2	ILE	C	447	-22.007	68.906	23.747	1.00	44.33	C
ATOM	6404	C	ILE	C	447	-20.590	66.798	24.828	1.00	44.33	C
ATOM	6405	O	ILE	C	447	-19.641	66.755	24.070	1.00	44.33	O
ATOM	6406	N	SER	C	448	-20.456	67.137	26.097	1.00	44.33	N
ATOM	6407	CA	SER	C	448	-19.187	67.548	26.629	1.00	44.33	C
ATOM	6408	CB	SER	C	448	-19.309	67.760	28.126	1.00	44.33	C
ATOM	6409	OG	SER	C	448	-19.222	66.524	28.785	1.00	44.33	O
ATOM	6410	C	SER	C	448	-18.141	66.488	26.329	1.00	44.33	C
ATOM	6411	O	SER	C	448	-16.964	66.790	26.105	1.00	44.33	O
ATOM	6412	N	ILE	C	449	-18.562	65.232	26.301	1.00	44.33	N
ATOM	6413	CA	ILE	C	449	-17.600	64.185	26.034	1.00	44.33	C
ATOM	6414	CB	ILE	C	449	-18.157	62.830	26.332	1.00	44.33	C
ATOM	6415	CG1	ILE	C	449	-18.109	62.697	27.859	1.00	44.33	C
ATOM	6416	CD1	ILE	C	449	-18.394	61.333	28.404	1.00	46.83	C
ATOM	6417	CG2	ILE	C	449	-17.408	61.721	25.533	1.00	44.33	C
ATOM	6418	C	ILE	C	449	-16.970	64.352	24.684	1.00	44.33	C
ATOM	6419	O	ILE	C	449	-15.749	64.344	24.580	1.00	44.33	O
ATOM	6420	N	GLY	C	450	-17.782	64.569	23.661	1.00	44.33	N
ATOM	6421	CA	GLY	C	450	-17.268	64.990	22.345	1.00	44.33	C
ATOM	6422	C	GLY	C	450	-16.299	66.160	22.491	1.00	44.33	C
ATOM	6423	O	GLY	C	450	-15.217	66.145	21.921	1.00	44.33	O
ATOM	6424	N	LEU	C	451	-16.653	67.175	23.272	1.00	44.33	N
ATOM	6425	CA	LEU	C	451	-15.763	68.321	23.382	1.00	44.33	C
ATOM	6426	CB	LEU	C	451	-16.408	69.490	24.114	1.00	44.33	C
ATOM	6427	CG	LEU	C	451	-17.558	70.174	23.365	1.00	44.33	C
ATOM	6428	CD1	LEU	C	451	-17.923	71.479	23.962	1.00	44.33	C
ATOM	6429	CD2	LEU	C	451	-17.156	70.460	21.999	1.00	44.33	C
ATOM	6430	C	LEU	C	451	-14.414	67.944	23.978	1.00	44.33	C
ATOM	6431	O	LEU	C	451	-13.361	68.279	23.429	1.00	44.33	O
ATOM	6432	N	PHE	C	452	-14.429	67.213	25.077	1.00	44.33	N
ATOM	6433	CA	PHE	C	452	-13.187	66.771	25.681	1.00	44.33	C
ATOM	6434	CB	PHE	C	452	-13.495	65.808	26.818	1.00	44.33	C
ATOM	6435	CG	PHE	C	452	-14.404	66.385	27.872	1.00	44.33	C
ATOM	6436	CD1	PHE	C	452	-14.281	67.716	28.267	1.00	44.33	C
ATOM	6437	CE1	PHE	C	452	-15.082	68.241	29.260	1.00	44.33	C
ATOM	6438	CZ	PHE	C	452	-16.050	67.444	29.882	1.00	44.33	C
ATOM	6439	CE2	PHE	C	452	-16.180	66.098	29.490	1.00	44.33	C
ATOM	6440	CD2	PHE	C	452	-15.353	65.589	28.492	1.00	44.33	C
ATOM	6441	C	PHE	C	452	-12.300	66.094	24.669	1.00	44.33	C
ATOM	6442	O	PHE	C	452	-11.128	66.419	24.574	1.00	44.33	O
ATOM	6443	N	PHE	C	453	-12.887	65.170	23.904	1.00	44.33	N
ATOM	6444	CA	PHE	C	453	-12.154	64.382	22.922	1.00	44.33	C
ATOM	6445	CB	PHE	C	453	-13.045	63.390	22.196	1.00	44.33	C
ATOM	6446	CG	PHE	C	453	-12.380	62.728	21.025	1.00	44.33	C
ATOM	6447	CD1	PHE	C	453	-11.423	61.739	21.216	1.00	44.33	C
ATOM	6448	CE1	PHE	C	453	-10.831	61.116	20.124	1.00	44.33	C
ATOM	6449	CZ	PHE	C	453	-11.178	61.498	18.822	1.00	44.33	C

- 307 -

ATOM	6450	CE2	PHE	C	453	-12.095	62.474	18.612	1.00	44.33	C
ATOM	6451	CD2	PHE	C	453	-12.710	63.091	19.712	1.00	44.33	C
ATOM	6452	C	PHE	C	453	-11.548	65.313	21.936	1.00	44.33	C
ATOM	6453	O	PHE	C	453	-10.341	65.328	21.769	1.00	44.33	O
ATOM	6454	N	LEU	C	454	-12.371	66.132	21.308	1.00	44.33	N
ATOM	6455	CA	LEU	C	454	-11.842	67.045	20.310	1.00	44.33	C
ATOM	6456	CB	LEU	C	454	-12.973	67.838	19.675	1.00	44.33	C
ATOM	6457	CG	LEU	C	454	-13.868	67.076	18.692	1.00	44.33	C
ATOM	6458	CD1	LEU	C	454	-14.941	68.010	18.177	1.00	44.33	C
ATOM	6459	CD2	LEU	C	454	-13.070	66.417	17.534	1.00	44.33	C
ATOM	6460	C	LEU	C	454	-10.748	67.977	20.836	1.00	44.33	C
ATOM	6461	O	LEU	C	454	-9.762	68.212	20.165	1.00	44.33	O
ATOM	6462	N	HIS	C	455	-10.928	68.485	22.046	1.00	44.33	N
ATOM	6463	CA	HIS	C	455	-10.023	69.427	22.642	1.00	44.33	C
ATOM	6464	CB	HIS	C	455	-10.686	69.935	23.893	1.00	44.33	C
ATOM	6465	CG	HIS	C	455	-11.825	70.837	23.615	1.00	44.33	C
ATOM	6466	ND1	HIS	C	455	-12.441	71.577	24.595	1.00	44.33	N
ATOM	6467	CE1	HIS	C	455	-13.383	72.325	24.046	1.00	44.33	C
ATOM	6468	NE2	HIS	C	455	-13.388	72.104	22.742	1.00	44.33	N
ATOM	6469	CD2	HIS	C	455	-12.422	71.178	22.448	1.00	44.33	C
ATOM	6470	C	HIS	C	455	-8.665	68.800	22.926	1.00	44.33	C
ATOM	6471	O	HIS	C	455	-7.641	69.397	22.612	1.00	44.33	O
ATOM	6472	N	LYS	C	456	-8.682	67.587	23.496	1.00	44.33	N
ATOM	6473	CA	LYS	C	456	-7.479	66.763	23.768	1.00	45.15	C
ATOM	6474	CB	LYS	C	456	-7.878	65.350	24.249	1.00	44.33	C
ATOM	6475	CG	LYS	C	456	-7.038	64.787	25.407	1.00	51.35	C
ATOM	6476	CD	LYS	C	456	-7.669	63.508	25.998	1.00	50.74	C
ATOM	6477	CE	LYS	C	456	-7.260	62.211	25.171	1.00	53.72	C
ATOM	6478	NZ	LYS	C	456	-8.468	61.357	24.686	1.00	53.83	N
ATOM	6479	C	LYS	C	456	-6.646	66.612	22.514	1.00	44.33	C
ATOM	6480	O	LYS	C	456	-5.423	66.736	22.548	1.00	44.84	O
ATOM	6481	N	ARG	C	457	-7.322	66.341	21.402	1.00	44.33	N
ATOM	6482	CA	ARG	C	457	-6.671	66.240	20.092	1.00	44.78	C
ATOM	6483	CB	ARG	C	457	-7.548	65.472	19.113	1.00	47.27	C
ATOM	6484	CG	ARG	C	457	-7.776	64.004	19.441	1.00	51.81	C
ATOM	6485	CD	ARG	C	457	-6.527	63.239	19.825	1.00	54.93	C
ATOM	6486	NE	ARG	C	457	-6.956	62.201	20.761	1.00	59.20	N
ATOM	6487	CZ	ARG	C	457	-7.552	61.051	20.420	1.00	60.17	C
ATOM	6488	NH1	ARG	C	457	-7.767	60.740	19.132	1.00	61.45	N
ATOM	6489	NH2	ARG	C	457	-7.918	60.197	21.376	1.00	60.76	N
ATOM	6490	C	ARG	C	457	-6.343	67.597	19.437	1.00	45.05	C
ATOM	6491	O	ARG	C	457	-6.038	67.651	18.228	1.00	45.32	O
ATOM	6492	N	GLY	C	458	-6.437	68.690	20.213	1.00	44.33	N
ATOM	6493	CA	GLY	C	458	-6.071	70.035	19.738	1.00	44.33	C
ATOM	6494	C	GLY	C	458	-6.983	70.531	18.632	1.00	44.33	C
ATOM	6495	O	GLY	C	458	-6.555	71.198	17.708	1.00	44.33	O
ATOM	6496	N	ILE	C	459	-8.253	70.180	18.725	1.00	44.33	N
ATOM	6497	CA	ILE	C	459	-9.255	70.634	17.759	1.00	44.33	C
ATOM	6498	CB	ILE	C	459	-10.029	69.466	17.108	1.00	44.33	C
ATOM	6499	CG1	ILE	C	459	-9.177	68.843	16.012	1.00	44.33	C
ATOM	6500	CD1	ILE	C	459	-9.233	67.333	15.961	1.00	44.89	C
ATOM	6501	CG2	ILE	C	459	-11.291	69.954	16.456	1.00	44.33	C
ATOM	6502	C	ILE	C	459	-10.229	71.521	18.454	1.00	44.33	C
ATOM	6503	O	ILE	C	459	-10.605	71.250	19.578	1.00	44.33	O
ATOM	6504	N	ILE	C	460	-10.596	72.598	17.780	1.00	44.33	N
ATOM	6505	CA	ILE	C	460	-11.708	73.435	18.179	1.00	44.33	C
ATOM	6506	CB	ILE	C	460	-11.350	74.885	18.093	1.00	44.33	C
ATOM	6507	CG1	ILE	C	460	-9.998	75.148	18.694	1.00	45.66	C

- 308 -

ATOM	6508	CD1	ILE	C	460	-9.402	76.397	18.083	1.00	44.33	C
ATOM	6509	CG2	ILE	C	460	-12.374	75.724	18.807	1.00	44.81	C
ATOM	6510	C	ILE	C	460	-12.918	73.219	17.208	1.00	44.33	C
ATOM	6511	O	ILE	C	460	-12.756	73.318	15.990	1.00	44.33	O
ATOM	6512	N	TYR	C	461	-14.121	72.955	17.737	1.00	44.33	N
ATOM	6513	CA	TYR	C	461	-15.305	72.707	16.908	1.00	44.33	C
ATOM	6514	CB	TYR	C	461	-16.452	72.216	17.765	1.00	44.33	C
ATOM	6515	CG	TYR	C	461	-17.648	71.711	16.982	1.00	44.33	C
ATOM	6516	CD1	TYR	C	461	-17.491	71.091	15.745	1.00	44.33	C
ATOM	6517	CE1	TYR	C	461	-18.561	70.621	15.039	1.00	44.35	C
ATOM	6518	CZ	TYR	C	461	-19.826	70.745	15.571	1.00	44.45	C
ATOM	6519	OH	TYR	C	461	-20.946	70.266	14.873	1.00	44.33	O
ATOM	6520	CE2	TYR	C	461	-19.977	71.312	16.821	1.00	44.33	C
ATOM	6521	CD2	TYR	C	461	-18.910	71.799	17.503	1.00	44.33	C
ATOM	6522	C	TYR	C	461	-15.768	73.941	16.163	1.00	44.33	C
ATOM	6523	O	TYR	C	461	-15.953	73.931	14.950	1.00	44.33	O
ATOM	6524	N	ARG	C	462	-15.962	75.007	16.916	1.00	44.33	N
ATOM	6525	CA	ARG	C	462	-16.356	76.276	16.360	1.00	44.33	C
ATOM	6526	CB	ARG	C	462	-15.303	76.839	15.408	1.00	44.33	C
ATOM	6527	CG	ARG	C	462	-14.001	77.175	16.178	1.00	44.33	C
ATOM	6528	CD	ARG	C	462	-13.040	78.113	15.465	1.00	44.33	C
ATOM	6529	NE	ARG	C	462	-12.865	77.592	14.129	1.00	44.33	N
ATOM	6530	CZ	ARG	C	462	-12.469	78.297	13.088	1.00	44.41	C
ATOM	6531	NH1	ARG	C	462	-12.175	79.584	13.249	1.00	45.27	N
ATOM	6532	NH2	ARG	C	462	-12.404	77.729	11.892	1.00	44.41	N
ATOM	6533	C	ARG	C	462	-17.757	76.251	15.759	1.00	44.33	C
ATOM	6534	O	ARG	C	462	-18.240	77.240	15.246	1.00	44.33	O
ATOM	6535	N	ASP	C	463	-18.454	75.136	15.866	1.00	44.33	N
ATOM	6536	CA	ASP	C	463	-19.785	75.128	15.325	1.00	44.33	C
ATOM	6537	CB	ASP	C	463	-19.792	74.507	13.934	1.00	45.14	C
ATOM	6538	CG	ASP	C	463	-20.874	75.103	13.039	1.00	47.17	C
ATOM	6539	OD1	ASP	C	463	-21.401	76.153	13.383	1.00	46.75	O
ATOM	6540	OD2	ASP	C	463	-21.227	74.518	11.998	1.00	45.95	O
ATOM	6541	C	ASP	C	463	-20.806	74.471	16.243	1.00	44.33	C
ATOM	6542	O	ASP	C	463	-21.823	73.954	15.810	1.00	44.33	O
ATOM	6543	N	LEU	C	464	-20.546	74.500	17.532	1.00	44.33	N
ATOM	6544	CA	LEU	C	464	-21.504	73.910	18.403	1.00	44.33	C
ATOM	6545	CB	LEU	C	464	-20.914	73.702	19.774	1.00	44.33	C
ATOM	6546	CG	LEU	C	464	-21.885	72.949	20.690	1.00	44.33	C
ATOM	6547	CD1	LEU	C	464	-22.144	71.497	20.251	1.00	44.33	C
ATOM	6548	CD2	LEU	C	464	-21.313	72.998	22.069	1.00	44.33	C
ATOM	6549	C	LEU	C	464	-22.732	74.776	18.442	1.00	44.33	C
ATOM	6550	O	LEU	C	464	-22.663	75.963	18.741	1.00	44.33	O
ATOM	6551	N	LYS	C	465	-23.852	74.153	18.091	1.00	44.33	N
ATOM	6552	CA	LYS	C	465	-25.158	74.794	17.941	1.00	44.33	C
ATOM	6553	CB	LYS	C	465	-25.202	75.602	16.660	1.00	44.33	C
ATOM	6554	CG	LYS	C	465	-25.183	74.799	15.377	1.00	44.33	C
ATOM	6555	CD	LYS	C	465	-24.972	75.751	14.241	1.00	44.74	C
ATOM	6556	CE	LYS	C	465	-24.836	75.087	12.886	1.00	44.33	C
ATOM	6557	NZ	LYS	C	465	-24.677	76.134	11.825	1.00	46.67	N
ATOM	6558	C	LYS	C	465	-26.178	73.689	17.886	1.00	44.33	C
ATOM	6559	O	LYS	C	465	-25.818	72.578	17.564	1.00	44.33	O
ATOM	6560	N	LEU	C	466	-27.442	73.972	18.184	1.00	44.33	N
ATOM	6561	CA	LEU	C	466	-28.502	72.931	18.181	1.00	44.33	C
ATOM	6562	CB	LEU	C	466	-29.815	73.536	18.623	1.00	44.33	C
ATOM	6563	CG	LEU	C	466	-29.882	73.678	20.132	1.00	44.33	C
ATOM	6564	CD1	LEU	C	466	-30.970	74.694	20.565	1.00	44.33	C
ATOM	6565	CD2	LEU	C	466	-30.081	72.270	20.745	1.00	44.33	C

- 309 -

ATOM	6566	C	LEU	C	466	-28.720	72.081	16.921	1.00	44.33	C
ATOM	6567	O	LEU	C	466	-29.010	70.901	17.001	1.00	44.33	O
ATOM	6568	N	ASP	C	467	-28.584	72.699	15.771	1.00	44.33	N
ATOM	6569	CA	ASP	C	467	-28.716	72.007	14.490	1.00	45.22	C
ATOM	6570	CB	ASP	C	467	-28.517	73.002	13.406	1.00	48.76	C
ATOM	6571	CG	ASP	C	467	-29.765	73.564	12.961	1.00	50.05	C
ATOM	6572	OD1	ASP	C	467	-30.766	73.507	13.729	1.00	52.31	O
ATOM	6573	OD2	ASP	C	467	-29.737	74.073	11.822	1.00	52.50	O
ATOM	6574	C	ASP	C	467	-27.693	70.936	14.215	1.00	45.72	C
ATOM	6575	O	ASP	C	467	-27.973	69.951	13.536	1.00	44.85	O
ATOM	6576	N	ASN	C	468	-26.488	71.186	14.712	1.00	44.48	N
ATOM	6577	CA	ASN	C	468	-25.421	70.230	14.621	1.00	44.35	C
ATOM	6578	CB	ASN	C	468	-24.081	70.955	14.785	1.00	44.33	C
ATOM	6579	CG	ASN	C	468	-23.728	71.788	13.550	1.00	44.33	C
ATOM	6580	OD1	ASN	C	468	-24.300	71.602	12.510	1.00	45.06	O
ATOM	6581	ND2	ASN	C	468	-22.773	72.671	13.668	1.00	44.33	N
ATOM	6582	C	ASN	C	468	-25.580	68.969	15.498	1.00	44.33	C
ATOM	6583	O	ASN	C	468	-24.939	67.967	15.236	1.00	44.33	O
ATOM	6584	N	VAL	C	469	-26.486	68.999	16.467	1.00	44.33	N
ATOM	6585	CA	VAL	C	469	-26.623	67.902	17.412	1.00	44.33	C
ATOM	6586	CB	VAL	C	469	-26.580	68.436	18.831	1.00	44.33	C
ATOM	6587	CG1	VAL	C	469	-26.066	67.398	19.736	1.00	44.33	C
ATOM	6588	CG2	VAL	C	469	-25.672	69.579	18.892	1.00	44.33	C
ATOM	6589	C	VAL	C	469	-27.915	67.133	17.183	1.00	44.33	C
ATOM	6590	O	VAL	C	469	-28.987	67.721	17.174	1.00	44.57	O
ATOM	6591	N	MET	C	470	-27.793	65.832	16.976	1.00	44.33	N
ATOM	6592	CA	MET	C	470	-28.924	64.998	16.706	1.00	44.33	C
ATOM	6593	CB	MET	C	470	-28.807	64.290	15.351	1.00	44.79	C
ATOM	6594	CG	MET	C	470	-29.062	65.149	14.098	1.00	46.69	C
ATOM	6595	SD	MET	C	470	-28.575	64.324	12.548	1.00	50.03	S
ATOM	6596	CE	MET	C	470	-26.817	64.120	12.756	1.00	46.11	C
ATOM	6597	C	MET	C	470	-29.005	63.984	17.796	1.00	44.33	C
ATOM	6598	O	MET	C	470	-28.115	63.891	18.632	1.00	44.33	O
ATOM	6599	N	LEU	C	471	-30.101	63.236	17.775	1.00	44.33	N
ATOM	6600	CA	LEU	C	471	-30.263	62.076	18.604	1.00	44.33	C
ATOM	6601	CB	LEU	C	471	-31.572	62.246	19.367	1.00	44.33	C
ATOM	6602	CG	LEU	C	471	-31.726	63.043	20.650	1.00	44.33	C
ATOM	6603	CD1	LEU	C	471	-33.028	62.648	21.331	1.00	44.33	C
ATOM	6604	CD2	LEU	C	471	-30.625	62.699	21.568	1.00	44.33	C
ATOM	6605	C	LEU	C	471	-30.270	60.820	17.703	1.00	44.33	C
ATOM	6606	O	LEU	C	471	-30.816	60.875	16.632	1.00	44.33	O
ATOM	6607	N	ASP	C	472	-29.630	59.725	18.117	1.00	44.33	N
ATOM	6608	CA	ASP	C	472	-29.759	58.454	17.394	1.00	44.33	C
ATOM	6609	CB	ASP	C	472	-28.566	57.503	17.620	1.00	44.33	C
ATOM	6610	CG	ASP	C	472	-28.292	57.215	19.103	1.00	44.33	C
ATOM	6611	OD1	ASP	C	472	-29.224	57.318	19.909	1.00	45.37	O
ATOM	6612	OD2	ASP	C	472	-27.160	56.870	19.491	1.00	46.34	O
ATOM	6613	C	ASP	C	472	-31.065	57.832	17.848	1.00	44.33	C
ATOM	6614	O	ASP	C	472	-31.735	58.370	18.722	1.00	44.33	O
ATOM	6615	N	SER	C	473	-31.408	56.685	17.273	1.00	44.33	N
ATOM	6616	CA	SER	C	473	-32.676	56.054	17.539	1.00	45.44	C
ATOM	6617	CB	SER	C	473	-32.886	54.940	16.569	1.00	44.35	C
ATOM	6618	OG	SER	C	473	-31.784	54.105	16.632	1.00	47.47	O
ATOM	6619	C	SER	C	473	-32.818	55.583	18.973	1.00	45.62	C
ATOM	6620	O	SER	C	473	-33.920	55.426	19.457	1.00	46.44	O
ATOM	6621	N	GLU	C	474	-31.711	55.403	19.674	1.00	47.23	N
ATOM	6622	CA	GLU	C	474	-31.778	55.024	21.085	1.00	48.41	C
ATOM	6623	CB	GLU	C	474	-30.566	54.186	21.481	1.00	49.57	C

- 310 -

ATOM	6624	CG	GLU	C	474	-30.156	53.273	20.331	1.00	54.99	C
ATOM	6625	CD	GLU	C	474	-29.482	51.979	20.755	1.00	55.65	C
ATOM	6626	OE1	GLU	C	474	-29.833	51.417	21.839	1.00	59.37	O
ATOM	6627	OE2	GLU	C	474	-28.603	51.511	19.970	1.00	61.25	O
ATOM	6628	C	GLU	C	474	-31.907	56.246	21.954	1.00	46.09	C
ATOM	6629	O	GLU	C	474	-32.266	56.118	23.133	1.00	46.36	O
ATOM	6630	N	GLY	C	475	-31.630	57.419	21.374	1.00	44.33	N
ATOM	6631	CA	GLY	C	475	-31.829	58.711	22.046	1.00	44.33	C
ATOM	6632	C	GLY	C	475	-30.587	59.293	22.691	1.00	44.33	C
ATOM	6633	O	GLY	C	475	-30.684	60.225	23.502	1.00	44.33	O
ATOM	6634	N	HIS	C	476	-29.423	58.722	22.362	1.00	44.33	N
ATOM	6635	CA	HIS	C	476	-28.107	59.289	22.700	1.00	44.33	C
ATOM	6636	CB	HIS	C	476	-27.035	58.228	22.569	1.00	44.33	C
ATOM	6637	CG	HIS	C	476	-27.162	57.143	23.585	1.00	44.33	C
ATOM	6638	ND1	HIS	C	476	-26.641	57.257	24.855	1.00	44.33	N
ATOM	6639	CE1	HIS	C	476	-26.936	56.166	25.539	1.00	44.33	C
ATOM	6640	NE2	HIS	C	476	-27.623	55.352	24.757	1.00	44.33	N
ATOM	6641	CD2	HIS	C	476	-27.799	55.950	23.537	1.00	44.33	C
ATOM	6642	C	HIS	C	476	-27.702	60.386	21.755	1.00	44.33	C
ATOM	6643	O	HIS	C	476	-28.146	60.421	20.620	1.00	44.33	O
ATOM	6644	N	ILE	C	477	-26.815	61.260	22.193	1.00	44.33	N
ATOM	6645	CA	ILE	C	477	-26.372	62.331	21.314	1.00	44.33	C
ATOM	6646	CB	ILE	C	477	-25.839	63.538	22.084	1.00	44.33	C
ATOM	6647	CG1	ILE	C	477	-26.957	64.572	22.199	1.00	44.33	C
ATOM	6648	CD1	ILE	C	477	-26.994	65.185	23.516	1.00	46.32	C
ATOM	6649	CG2	ILE	C	477	-24.563	64.113	21.384	1.00	44.33	C
ATOM	6650	C	ILE	C	477	-25.381	61.951	20.194	1.00	44.33	C
ATOM	6651	O	ILE	C	477	-24.461	61.141	20.370	1.00	44.33	O
ATOM	6652	N	LYS	C	478	-25.617	62.563	19.034	1.00	44.33	N
ATOM	6653	CA	LYS	C	478	-24.703	62.538	17.905	1.00	44.33	C
ATOM	6654	CB	LYS	C	478	-25.331	61.863	16.688	1.00	44.33	C
ATOM	6655	CG	LYS	C	478	-25.457	60.387	16.773	1.00	44.33	C
ATOM	6656	CD	LYS	C	478	-24.153	59.676	17.167	1.00	44.33	C
ATOM	6657	CE	LYS	C	478	-24.214	58.163	16.861	1.00	44.33	C
ATOM	6658	NZ	LYS	C	478	-22.922	57.513	17.090	1.00	44.33	N
ATOM	6659	C	LYS	C	478	-24.375	63.979	17.534	1.00	44.33	C
ATOM	6660	O	LYS	C	478	-25.247	64.730	17.177	1.00	44.33	O
ATOM	6661	N	ILE	C	479	-23.108	64.377	17.630	1.00	44.33	N
ATOM	6662	CA	ILE	C	479	-22.666	65.652	17.043	1.00	44.33	C
ATOM	6663	CB	ILE	C	479	-21.617	66.339	17.845	1.00	44.33	C
ATOM	6664	CG1	ILE	C	479	-22.124	66.556	19.271	1.00	44.33	C
ATOM	6665	CD1	ILE	C	479	-21.041	66.934	20.263	1.00	44.33	C
ATOM	6666	CG2	ILE	C	479	-21.306	67.640	17.197	1.00	44.33	C
ATOM	6667	C	ILE	C	479	-22.192	65.454	15.617	1.00	44.33	C
ATOM	6668	O	ILE	C	479	-21.575	64.455	15.296	1.00	44.33	O
ATOM	6669	N	ALA	C	480	-22.533	66.415	14.771	1.00	44.33	N
ATOM	6670	CA	ALA	C	480	-22.402	66.281	13.349	1.00	44.33	C
ATOM	6671	CB	ALA	C	480	-23.734	66.059	12.730	1.00	44.33	C
ATOM	6672	C	ALA	C	480	-21.784	67.541	12.813	1.00	44.33	C
ATOM	6673	O	ALA	C	480	-21.558	68.500	13.562	1.00	44.33	O
ATOM	6674	N	ASP	C	481	-21.484	67.522	11.513	1.00	44.33	N
ATOM	6675	CA	ASP	C	481	-20.993	68.690	10.808	1.00	44.33	C
ATOM	6676	CB	ASP	C	481	-22.081	69.731	10.802	1.00	45.28	C
ATOM	6677	CG	ASP	C	481	-21.824	70.797	9.830	1.00	46.67	C
ATOM	6678	OD1	ASP	C	481	-20.678	70.803	9.346	1.00	46.65	O
ATOM	6679	OD2	ASP	C	481	-22.740	71.610	9.551	1.00	48.86	O
ATOM	6680	C	ASP	C	481	-19.718	69.295	11.379	1.00	44.76	C
ATOM	6681	O	ASP	C	481	-19.811	70.211	12.184	1.00	46.30	O

- 311 -

ATOM	6682	N	PHE	C	482	-18.546	68.805	10.931	1.00	44.62	N
ATOM	6683	CA	PHE	C	482	-17.237	69.285	11.411	1.00	44.76	C
ATOM	6684	CB	PHE	C	482	-16.370	68.115	11.870	1.00	44.84	C
ATOM	6685	CG	PHE	C	482	-16.994	67.302	12.930	1.00	45.19	C
ATOM	6686	CD1	PHE	C	482	-17.756	66.186	12.608	1.00	46.79	C
ATOM	6687	CE1	PHE	C	482	-18.362	65.424	13.593	1.00	46.04	C
ATOM	6688	CZ	PHE	C	482	-18.205	65.774	14.922	1.00	45.55	C
ATOM	6689	CE2	PHE	C	482	-17.492	66.911	15.265	1.00	45.85	C
ATOM	6690	CD2	PHE	C	482	-16.879	67.672	14.263	1.00	44.33	C
ATOM	6691	C	PHE	C	482	-16.491	70.111	10.348	1.00	46.50	C
ATOM	6692	O	PHE	C	482	-15.237	70.093	10.262	1.00	48.23	O
ATOM	6693	N	GLY	C	483	-17.260	70.842	9.544	1.00	46.09	N
ATOM	6694	CA	GLY	C	483	-16.693	71.724	8.526	1.00	47.43	C
ATOM	6695	C	GLY	C	483	-16.163	73.094	8.982	1.00	47.47	C
ATOM	6696	O	GLY	C	483	-15.962	73.986	8.144	1.00	49.97	O
ATOM	6697	N	MET	C	484	-15.932	73.283	10.284	1.00	49.23	N
ATOM	6698	CA	MET	C	484	-15.449	74.560	10.776	1.00	50.87	C
ATOM	6699	CB	MET	C	484	-16.597	75.331	11.399	1.00	51.68	C
ATOM	6700	CG	MET	C	484	-16.905	76.579	10.629	1.00	56.52	C
ATOM	6701	SD	MET	C	484	-18.406	77.462	11.111	1.00	61.09	S
ATOM	6702	CE	MET	C	484	-17.944	78.040	12.709	1.00	58.21	C
ATOM	6703	C	MET	C	484	-14.327	74.433	11.789	1.00	46.80	C
ATOM	6704	O	MET	C	484	-13.920	75.428	12.399	1.00	44.70	O
ATOM	6705	N	CYS	C	485	-13.838	73.212	11.985	1.00	44.85	N
ATOM	6706	CA	CYS	C	485	-12.895	72.964	13.036	1.00	44.43	C
ATOM	6707	CB	CYS	C	485	-12.669	71.487	13.182	1.00	44.33	C
ATOM	6708	SG	CYS	C	485	-14.161	70.737	13.612	1.00	46.42	S
ATOM	6709	C	CYS	C	485	-11.603	73.626	12.721	1.00	44.33	C
ATOM	6710	O	CYS	C	485	-11.310	73.899	11.552	1.00	44.33	O
ATOM	6711	N	LYS	C	486	-10.836	73.880	13.775	1.00	44.33	N
ATOM	6712	CA	LYS	C	486	-9.503	74.359	13.647	1.00	45.91	C
ATOM	6713	CB	LYS	C	486	-9.395	75.685	14.390	1.00	45.96	C
ATOM	6714	CG	LYS	C	486	-8.213	76.519	13.975	1.00	47.74	C
ATOM	6715	CD	LYS	C	486	-8.583	77.533	12.904	1.00	49.56	C
ATOM	6716	CE	LYS	C	486	-7.369	78.020	12.076	1.00	50.71	C
ATOM	6717	NZ	LYS	C	486	-7.768	78.943	10.940	1.00	52.93	N
ATOM	6718	C	LYS	C	486	-8.580	73.266	14.232	1.00	46.55	C
ATOM	6719	O	LYS	C	486	-8.800	72.806	15.371	1.00	46.70	O
ATOM	6720	N	GLU	C	487	-7.573	72.839	13.452	1.00	45.03	N
ATOM	6721	CA	GLU	C	487	-6.600	71.820	13.860	1.00	47.14	C
ATOM	6722	CB	GLU	C	487	-6.089	71.158	12.631	1.00	48.48	C
ATOM	6723	CG	GLU	C	487	-6.962	70.120	12.155	1.00	50.77	C
ATOM	6724	CD	GLU	C	487	-6.305	69.342	11.088	1.00	49.90	C
ATOM	6725	OE1	GLU	C	487	-6.000	69.958	10.041	1.00	51.74	O
ATOM	6726	OE2	GLU	C	487	-6.059	68.123	11.310	1.00	52.98	O
ATOM	6727	C	GLU	C	487	-5.397	72.400	14.581	1.00	46.25	C
ATOM	6728	O	GLU	C	487	-5.281	73.616	14.730	1.00	44.33	O
ATOM	6729	N	HIS	C	488	-4.481	71.522	14.992	1.00	46.64	N
ATOM	6730	CA	HIS	C	488	-3.227	71.872	15.741	1.00	47.18	C
ATOM	6731	CB	HIS	C	488	-2.011	72.174	14.828	1.00	46.72	C
ATOM	6732	CG	HIS	C	488	-2.131	71.587	13.463	1.00	49.01	C
ATOM	6733	ND1	HIS	C	488	-2.063	70.231	13.230	1.00	51.75	N
ATOM	6734	CE1	HIS	C	488	-2.255	69.993	11.941	1.00	51.33	C
ATOM	6735	NE2	HIS	C	488	-2.441	71.152	11.328	1.00	51.88	N
ATOM	6736	CD2	HIS	C	488	-2.377	72.163	12.260	1.00	50.34	C
ATOM	6737	C	HIS	C	488	-3.401	72.996	16.735	1.00	46.90	C
ATOM	6738	O	HIS	C	488	-2.548	73.848	16.850	1.00	46.80	O
ATOM	6739	N	MET	C	489	-4.490	72.965	17.461	1.00	46.73	N

- 312 -

ATOM	6740	CA	MET	C	489	-4.799	73.969	18.418	1.00	47.28	C
ATOM	6741	CB	MET	C	489	-6.318	74.207	18.354	1.00	46.98	C
ATOM	6742	CG	MET	C	489	-6.741	74.937	17.111	1.00	47.62	C
ATOM	6743	SD	MET	C	489	-5.814	76.505	17.081	1.00	49.97	S
ATOM	6744	CE	MET	C	489	-5.212	76.405	15.413	1.00	50.09	C
ATOM	6745	C	MET	C	489	-4.352	73.484	19.794	1.00	48.63	C
ATOM	6746	O	MET	C	489	-5.136	73.301	20.709	1.00	44.53	O
ATOM	6747	N	MET	C	490	-3.065	73.259	19.943	1.00	47.83	N
ATOM	6748	CA	MET	C	490	-2.537	72.805	21.204	1.00	49.70	C
ATOM	6749	CB	MET	C	490	-1.241	72.085	20.965	1.00	52.73	C
ATOM	6750	CG	MET	C	490	-1.213	71.275	19.722	1.00	51.86	C
ATOM	6751	SD	MET	C	490	-2.441	70.008	19.742	1.00	58.44	S
ATOM	6752	CE	MET	C	490	-1.886	68.935	21.086	1.00	54.68	C
ATOM	6753	C	MET	C	490	-2.289	73.941	22.200	1.00	51.21	C
ATOM	6754	O	MET	C	490	-2.375	75.121	21.881	1.00	51.70	O
ATOM	6755	N	ASP	C	491	-1.959	73.562	23.420	1.00	51.64	N
ATOM	6756	CA	ASP	C	491	-1.649	74.511	24.474	1.00	52.27	C
ATOM	6757	CB	ASP	C	491	-0.678	73.842	25.451	1.00	53.99	C
ATOM	6758	CG	ASP	C	491	-0.500	74.630	26.723	1.00	55.77	C
ATOM	6759	OD1	ASP	C	491	-1.429	75.401	27.091	1.00	56.69	O
ATOM	6760	OD2	ASP	C	491	0.578	74.477	27.360	1.00	58.74	O
ATOM	6761	C	ASP	C	491	-1.112	75.872	23.983	1.00	50.17	C
ATOM	6762	O	ASP	C	491	0.083	76.007	23.683	1.00	47.36	O
ATOM	6763	N	GLY	C	492	-2.003	76.864	23.871	1.00	46.34	N
ATOM	6764	CA	GLY	C	492	-1.594	78.271	23.605	1.00	44.33	C
ATOM	6765	C	GLY	C	492	-1.698	78.779	22.165	1.00	44.44	C
ATOM	6766	O	GLY	C	492	-1.702	79.987	21.897	1.00	45.26	O
ATOM	6767	N	VAL	C	493	-1.736	77.848	21.220	1.00	44.33	N
ATOM	6768	CA	VAL	C	493	-2.015	78.179	19.844	1.00	44.33	C
ATOM	6769	CB	VAL	C	493	-2.099	76.927	18.993	1.00	44.33	C
ATOM	6770	CG1	VAL	C	493	-2.382	77.294	17.514	1.00	44.33	C
ATOM	6771	CG2	VAL	C	493	-0.848	76.114	19.171	1.00	44.33	C
ATOM	6772	C	VAL	C	493	-3.384	78.844	19.813	1.00	44.33	C
ATOM	6773	O	VAL	C	493	-4.282	78.526	20.610	1.00	44.33	O
ATOM	6774	N	THR	C	494	-3.552	79.741	18.861	1.00	44.33	N
ATOM	6775	CA	THR	C	494	-4.636	80.694	18.897	1.00	45.87	C
ATOM	6776	CB	THR	C	494	-4.168	81.884	19.783	1.00	45.57	C
ATOM	6777	OG1	THR	C	494	-4.963	81.941	20.970	1.00	49.85	O
ATOM	6778	CG2	THR	C	494	-4.161	83.216	19.061	1.00	44.33	C
ATOM	6779	C	THR	C	494	-4.985	81.149	17.466	1.00	46.16	C
ATOM	6780	O	THR	C	494	-4.120	81.148	16.581	1.00	46.03	O
ATOM	6781	N	THR	C	495	-6.233	81.524	17.229	1.00	44.33	N
ATOM	6782	CA	THR	C	495	-6.627	82.167	15.973	1.00	44.33	C
ATOM	6783	CB	THR	C	495	-7.485	81.249	15.106	1.00	46.80	C
ATOM	6784	OG1	THR	C	495	-8.230	80.357	15.951	1.00	50.86	O
ATOM	6785	CG2	THR	C	495	-6.633	80.483	14.150	1.00	51.55	C
ATOM	6786	C	THR	C	495	-7.513	83.389	16.174	1.00	44.33	C
ATOM	6787	O	THR	C	495	-8.090	83.617	17.226	1.00	44.33	O
ATOM	6788	N	ARG	C	496	-7.658	84.149	15.106	1.00	44.33	N
ATOM	6789	CA	ARG	C	496	-8.544	85.298	15.105	1.00	44.85	C
ATOM	6790	CB	ARG	C	496	-7.730	86.555	14.841	1.00	44.69	C
ATOM	6791	CG	ARG	C	496	-7.083	87.051	16.063	1.00	45.85	C
ATOM	6792	CD	ARG	C	496	-6.262	88.220	15.728	1.00	46.90	C
ATOM	6793	NE	ARG	C	496	-7.068	89.423	15.710	1.00	46.65	N
ATOM	6794	CZ	ARG	C	496	-6.704	90.553	15.110	1.00	47.08	C
ATOM	6795	NH1	ARG	C	496	-5.531	90.646	14.450	1.00	45.01	N
ATOM	6796	NH2	ARG	C	496	-7.529	91.602	15.161	1.00	45.18	N
ATOM	6797	C	ARG	C	496	-9.638	85.225	14.047	1.00	45.95	C

- 313 -

ATOM	6798	O	ARG	C	496	-10.285	86.224	13.791	1.00	47.17	O
ATOM	6799	N	GLU	C	497	-9.847	84.075	13.413	1.00	44.96	N
ATOM	6800	CA	GLU	C	497	-10.816	83.997	12.337	1.00	47.04	C
ATOM	6801	CB	GLU	C	497	-10.631	82.713	11.582	1.00	49.43	C
ATOM	6802	CG	GLU	C	497	-11.664	82.440	10.517	1.00	57.69	C
ATOM	6803	CD	GLU	C	497	-11.479	81.046	9.969	1.00	59.72	C
ATOM	6804	OE1	GLU	C	497	-10.449	80.412	10.335	1.00	61.49	O
ATOM	6805	OE2	GLU	C	497	-12.345	80.569	9.207	1.00	62.81	O
ATOM	6806	C	GLU	C	497	-12.216	84.064	12.899	1.00	44.37	C
ATOM	6807	O	GLU	C	497	-12.574	83.257	13.781	1.00	44.33	O
ATOM	6808	N	PHE	C	498	-12.971	85.062	12.431	1.00	45.09	N
ATOM	6809	CA	PHE	C	498	-14.377	85.309	12.778	1.00	45.03	C
ATOM	6810	CB	PHE	C	498	-14.864	86.667	12.218	1.00	45.63	C
ATOM	6811	CG	PHE	C	498	-16.334	86.912	12.428	1.00	48.02	C
ATOM	6812	CD1	PHE	C	498	-16.779	87.709	13.490	1.00	47.30	C
ATOM	6813	CE1	PHE	C	498	-18.142	87.896	13.720	1.00	48.44	C
ATOM	6814	CZ	PHE	C	498	-19.088	87.282	12.888	1.00	47.14	C
ATOM	6815	CE2	PHE	C	498	-18.659	86.479	11.819	1.00	47.18	C
ATOM	6816	CD2	PHE	C	498	-17.286	86.300	11.596	1.00	47.33	C
ATOM	6817	C	PHE	C	498	-15.227	84.246	12.146	1.00	44.84	C
ATOM	6818	O	PHE	C	498	-15.080	83.955	10.978	1.00	44.33	O
ATOM	6819	N	CYS	C	499	-16.213	83.744	12.867	1.00	45.58	N
ATOM	6820	CA	CYS	C	499	-16.628	82.420	12.597	1.00	47.76	C
ATOM	6821	CB	CYS	C	499	-15.376	81.746	13.091	1.00	49.36	C
ATOM	6822	SG	CYS	C	499	-15.155	80.213	12.741	1.00	52.50	S
ATOM	6823	C	CYS	C	499	-17.807	81.954	13.485	1.00	46.27	C
ATOM	6824	O	CYS	C	499	-17.698	82.107	14.709	1.00	46.61	O
ATOM	6825	N	GLY	C	500	-18.893	81.377	12.913	1.00	46.84	N
ATOM	6826	CA	GLY	C	500	-19.936	80.645	13.693	1.00	45.60	C
ATOM	6827	C	GLY	C	500	-21.300	81.298	13.609	1.00	46.57	C
ATOM	6828	O	GLY	C	500	-21.435	82.344	12.975	1.00	47.48	O
ATOM	6829	N	THR	C	501	-22.321	80.696	14.229	1.00	47.69	N
ATOM	6830	CA	THR	C	501	-23.702	81.243	14.206	1.00	47.05	C
ATOM	6831	CB	THR	C	501	-24.705	80.114	14.412	1.00	47.85	C
ATOM	6832	OG1	THR	C	501	-24.564	79.224	13.311	1.00	48.73	O
ATOM	6833	CG2	THR	C	501	-26.139	80.591	14.432	1.00	48.01	C
ATOM	6834	C	THR	C	501	-23.845	82.342	15.266	1.00	46.43	C
ATOM	6835	O	THR	C	501	-23.513	82.109	16.442	1.00	46.86	O
ATOM	6836	N	PRO	C	502	-24.297	83.555	14.875	1.00	44.42	N
ATOM	6837	CA	PRO	C	502	-24.142	84.676	15.781	1.00	44.33	C
ATOM	6838	CB	PRO	C	502	-24.910	85.788	15.118	1.00	44.33	C
ATOM	6839	CG	PRO	C	502	-24.855	85.478	13.806	1.00	44.33	C
ATOM	6840	CD	PRO	C	502	-24.917	84.007	13.647	1.00	44.33	C
ATOM	6841	C	PRO	C	502	-24.646	84.480	17.201	1.00	44.37	C
ATOM	6842	O	PRO	C	502	-23.993	84.914	18.126	1.00	44.33	O
ATOM	6843	N	ASP	C	503	-25.781	83.823	17.397	1.00	44.33	N
ATOM	6844	CA	ASP	C	503	-26.287	83.655	18.738	1.00	44.33	C
ATOM	6845	CB	ASP	C	503	-27.664	82.972	18.728	1.00	44.33	C
ATOM	6846	CG	ASP	C	503	-28.838	83.952	18.441	1.00	44.33	C
ATOM	6847	OD1	ASP	C	503	-29.292	84.087	17.281	1.00	44.33	O
ATOM	6848	OD2	ASP	C	503	-29.340	84.565	19.401	1.00	44.33	O
ATOM	6849	C	ASP	C	503	-25.295	82.877	19.615	1.00	44.33	C
ATOM	6850	O	ASP	C	503	-25.311	83.042	20.841	1.00	44.33	O
ATOM	6851	N	TYR	C	504	-24.421	82.060	19.015	1.00	44.33	N
ATOM	6852	CA	TYR	C	504	-23.584	81.177	19.802	1.00	44.33	C
ATOM	6853	CB	TYR	C	504	-23.576	79.835	19.160	1.00	44.33	C
ATOM	6854	CG	TYR	C	504	-24.877	79.081	19.148	1.00	44.33	C
ATOM	6855	CD1	TYR	C	504	-25.901	79.407	18.282	1.00	44.33	C

- 314 -

ATOM	6856	CE1	TYR	C	504	-27.106	78.641	18.240	1.00	44.33	C
ATOM	6857	CZ	TYR	C	504	-27.242	77.536	19.052	1.00	44.33	C
ATOM	6858	OH	TYR	C	504	-28.367	76.755	19.031	1.00	44.33	O
ATOM	6859	CE2	TYR	C	504	-26.216	77.181	19.904	1.00	44.33	C
ATOM	6860	CD2	TYR	C	504	-25.040	77.952	19.939	1.00	44.33	C
ATOM	6861	C	TYR	C	504	-22.153	81.676	19.951	1.00	44.33	C
ATOM	6862	O	TYR	C	504	-21.319	81.031	20.591	1.00	44.33	O
ATOM	6863	N	ILE	C	505	-21.867	82.836	19.351	1.00	44.33	N
ATOM	6864	CA	ILE	C	505	-20.506	83.369	19.241	1.00	44.33	C
ATOM	6865	CB	ILE	C	505	-20.417	84.364	18.022	1.00	44.33	C
ATOM	6866	CG1	ILE	C	505	-20.483	83.566	16.708	1.00	44.33	C
ATOM	6867	CD1	ILE	C	505	-20.552	84.401	15.413	1.00	44.33	C
ATOM	6868	CG2	ILE	C	505	-19.170	85.293	18.055	1.00	44.33	C
ATOM	6869	C	ILE	C	505	-20.054	83.988	20.555	1.00	44.33	C
ATOM	6870	O	ILE	C	505	-20.713	84.872	21.077	1.00	44.33	O
ATOM	6871	N	ALA	C	506	-18.925	83.517	21.089	1.00	44.33	N
ATOM	6872	CA	ALA	C	506	-18.296	84.132	22.279	1.00	44.33	C
ATOM	6873	CB	ALA	C	506	-17.090	83.307	22.760	1.00	44.33	C
ATOM	6874	C	ALA	C	506	-17.883	85.595	22.075	1.00	44.33	C
ATOM	6875	O	ALA	C	506	-17.631	86.050	20.961	1.00	44.33	O
ATOM	6876	N	PRO	C	507	-17.781	86.333	23.173	1.00	44.33	N
ATOM	6877	CA	PRO	C	507	-17.181	87.675	23.243	1.00	44.33	C
ATOM	6878	CB	PRO	C	507	-16.993	87.871	24.737	1.00	44.33	C
ATOM	6879	CG	PRO	C	507	-18.016	87.018	25.373	1.00	44.33	C
ATOM	6880	CD	PRO	C	507	-18.278	85.867	24.478	1.00	44.33	C
ATOM	6881	C	PRO	C	507	-15.827	87.845	22.552	1.00	44.33	C
ATOM	6882	O	PRO	C	507	-15.623	88.779	21.808	1.00	44.33	O
ATOM	6883	N	GLU	C	508	-14.903	86.946	22.814	1.00	44.33	N
ATOM	6884	CA	GLU	C	508	-13.578	87.038	22.240	1.00	44.33	C
ATOM	6885	CB	GLU	C	508	-12.638	86.018	22.889	1.00	44.33	C
ATOM	6886	CG	GLU	C	508	-12.966	84.590	22.691	1.00	44.33	C
ATOM	6887	CD	GLU	C	508	-13.806	84.043	23.803	1.00	44.33	C
ATOM	6888	OE1	GLU	C	508	-14.451	84.857	24.490	1.00	44.33	O
ATOM	6889	OE2	GLU	C	508	-13.823	82.798	23.982	1.00	44.33	O
ATOM	6890	C	GLU	C	508	-13.525	86.999	20.700	1.00	44.33	C
ATOM	6891	O	GLU	C	508	-12.644	87.607	20.073	1.00	44.33	O
ATOM	6892	N	ILE	C	509	-14.498	86.319	20.102	1.00	44.33	N
ATOM	6893	CA	ILE	C	509	-14.623	86.343	18.656	1.00	44.33	C
ATOM	6894	CB	ILE	C	509	-15.456	85.203	18.119	1.00	44.33	C
ATOM	6895	CG1	ILE	C	509	-15.028	83.903	18.793	1.00	44.33	C
ATOM	6896	CD1	ILE	C	509	-15.478	82.680	18.088	1.00	44.33	C
ATOM	6897	CG2	ILE	C	509	-15.416	85.165	16.550	1.00	44.33	C
ATOM	6898	C	ILE	C	509	-15.139	87.689	18.159	1.00	44.33	C
ATOM	6899	O	ILE	C	509	-14.550	88.250	17.226	1.00	44.33	O
ATOM	6900	N	ILE	C	510	-16.167	88.239	18.795	1.00	44.33	N
ATOM	6901	CA	ILE	C	510	-16.654	89.547	18.386	1.00	44.33	C
ATOM	6902	CB	ILE	C	510	-17.898	89.936	19.156	1.00	44.33	C
ATOM	6903	CG1	ILE	C	510	-19.047	88.978	18.762	1.00	44.33	C
ATOM	6904	CD1	ILE	C	510	-20.106	88.686	19.834	1.00	44.33	C
ATOM	6905	CG2	ILE	C	510	-18.280	91.368	18.870	1.00	44.33	C
ATOM	6906	C	ILE	C	510	-15.571	90.605	18.531	1.00	44.33	C
ATOM	6907	O	ILE	C	510	-15.383	91.457	17.648	1.00	44.33	O
ATOM	6908	N	ALA	C	511	-14.824	90.525	19.626	1.00	44.33	N
ATOM	6909	CA	ALA	C	511	-13.674	91.399	19.830	1.00	44.33	C
ATOM	6910	CB	ALA	C	511	-13.166	91.219	21.206	1.00	44.33	C
ATOM	6911	C	ALA	C	511	-12.531	91.191	18.858	1.00	44.33	C
ATOM	6912	O	ALA	C	511	-11.588	91.977	18.863	1.00	44.33	O
ATOM	6913	N	TYR	C	512	-12.572	90.128	18.054	1.00	44.33	N

- 315 -

ATOM	6914	CA	TYR	C	512	-11.393	89.794	17.244	1.00	44.33	C
ATOM	6915	CB	TYR	C	512	-11.141	90.834	16.113	1.00	46.23	C
ATOM	6916	CG	TYR	C	512	-12.125	90.727	14.957	1.00	45.78	C
ATOM	6917	CD1	TYR	C	512	-11.902	89.839	13.894	1.00	46.08	C
ATOM	6918	CE1	TYR	C	512	-12.828	89.711	12.824	1.00	47.08	C
ATOM	6919	CZ	TYR	C	512	-14.000	90.484	12.827	1.00	46.30	C
ATOM	6920	OH	TYR	C	512	-14.913	90.359	11.778	1.00	47.09	O
ATOM	6921	CE2	TYR	C	512	-14.231	91.370	13.869	1.00	46.93	C
ATOM	6922	CD2	TYR	C	512	-13.288	91.486	14.925	1.00	47.00	C
ATOM	6923	C	TYR	C	512	-10.175	89.592	18.150	1.00	44.33	C
ATOM	6924	O	TYR	C	512	-9.088	89.872	17.780	1.00	44.33	O
ATOM	6925	N	GLN	C	513	-10.408	89.110	19.354	1.00	44.33	N
ATOM	6926	CA	GLN	C	513	-9.369	88.622	20.216	1.00	44.33	C
ATOM	6927	CB	GLN	C	513	-9.892	88.584	21.662	1.00	46.14	C
ATOM	6928	CG	GLN	C	513	-10.016	89.981	22.322	1.00	50.53	C
ATOM	6929	CD	GLN	C	513	-8.752	90.873	22.082	1.00	53.00	C
ATOM	6930	OE1	GLN	C	513	-8.023	91.218	23.021	1.00	54.58	O
ATOM	6931	NE2	GLN	C	513	-8.491	91.214	20.813	1.00	54.05	N
ATOM	6932	C	GLN	C	513	-8.880	87.233	19.743	1.00	44.36	C
ATOM	6933	O	GLN	C	513	-9.668	86.399	19.294	1.00	44.33	O
ATOM	6934	N	PRO	C	514	-7.562	86.989	19.829	1.00	44.33	N
ATOM	6935	CA	PRO	C	514	-7.054	85.660	19.583	1.00	44.33	C
ATOM	6936	CB	PRO	C	514	-5.595	85.807	19.948	1.00	44.33	C
ATOM	6937	CG	PRO	C	514	-5.304	87.232	19.728	1.00	44.33	C
ATOM	6938	CD	PRO	C	514	-6.497	87.929	20.193	1.00	44.33	C
ATOM	6939	C	PRO	C	514	-7.749	84.707	20.559	1.00	44.33	C
ATOM	6940	O	PRO	C	514	-7.945	85.055	21.693	1.00	44.33	O
ATOM	6941	N	TYR	C	515	-8.150	83.533	20.117	1.00	44.33	N
ATOM	6942	CA	TYR	C	515	-8.891	82.644	20.977	1.00	44.33	C
ATOM	6943	CB	TYR	C	515	-10.433	82.839	20.789	1.00	44.33	C
ATOM	6944	CG	TYR	C	515	-10.907	82.497	19.397	1.00	44.33	C
ATOM	6945	CD1	TYR	C	515	-11.085	81.181	19.023	1.00	44.33	C
ATOM	6946	CE1	TYR	C	515	-11.458	80.825	17.738	1.00	44.33	C
ATOM	6947	CZ	TYR	C	515	-11.679	81.791	16.802	1.00	44.33	C
ATOM	6948	OH	TYR	C	515	-12.037	81.388	15.514	1.00	44.33	O
ATOM	6949	CE2	TYR	C	515	-11.521	83.139	17.154	1.00	44.33	C
ATOM	6950	CD2	TYR	C	515	-11.138	83.474	18.458	1.00	44.33	C
ATOM	6951	C	TYR	C	515	-8.460	81.184	20.715	1.00	44.33	C
ATOM	6952	O	TYR	C	515	-7.853	80.883	19.663	1.00	44.33	O
ATOM	6953	N	GLY	C	516	-8.780	80.296	21.672	1.00	44.33	N
ATOM	6954	CA	GLY	C	516	-8.636	78.838	21.510	1.00	44.33	C
ATOM	6955	C	GLY	C	516	-9.940	78.104	21.802	1.00	44.33	C
ATOM	6956	O	GLY	C	516	-11.045	78.598	21.456	1.00	44.33	O
ATOM	6957	N	LYS	C	517	-9.822	76.946	22.454	1.00	44.33	N
ATOM	6958	CA	LYS	C	517	-10.948	76.118	22.806	1.00	44.33	C
ATOM	6959	CB	LYS	C	517	-10.449	74.892	23.566	1.00	45.23	C
ATOM	6960	CG	LYS	C	517	-10.011	75.122	25.053	1.00	51.28	C
ATOM	6961	CD	LYS	C	517	-10.466	73.881	25.911	1.00	53.34	C
ATOM	6962	CE	LYS	C	517	-9.632	73.623	27.183	1.00	54.48	C
ATOM	6963	NZ	LYS	C	517	-8.260	73.101	26.923	1.00	56.20	N
ATOM	6964	C	LYS	C	517	-12.037	76.823	23.606	1.00	44.33	C
ATOM	6965	O	LYS	C	517	-13.163	76.318	23.698	1.00	44.33	O
ATOM	6966	N	SER	C	518	-11.719	77.973	24.182	1.00	44.33	N
ATOM	6967	CA	SER	C	518	-12.664	78.679	25.024	1.00	44.33	C
ATOM	6968	CB	SER	C	518	-12.086	80.039	25.432	1.00	44.33	C
ATOM	6969	OG	SER	C	518	-11.715	80.812	24.304	1.00	45.36	O
ATOM	6970	C	SER	C	518	-14.045	78.864	24.366	1.00	44.33	C
ATOM	6971	O	SER	C	518	-15.082	78.791	25.001	1.00	44.33	O

- 316 -

ATOM	6972	N	VAL	C	519	-14.040	79.107	23.075	1.00	44.33	N
ATOM	6973	CA	VAL	C	519	-15.244	79.479	22.386	1.00	44.33	C
ATOM	6974	CB	VAL	C	519	-14.900	80.095	21.006	1.00	44.33	C
ATOM	6975	CG1	VAL	C	519	-14.134	81.386	21.173	1.00	44.33	C
ATOM	6976	CG2	VAL	C	519	-14.156	79.097	20.131	1.00	44.33	C
ATOM	6977	C	VAL	C	519	-16.230	78.320	22.257	1.00	44.33	C
ATOM	6978	O	VAL	C	519	-17.425	78.548	22.082	1.00	44.33	O
ATOM	6979	N	ASP	C	520	-15.739	77.092	22.326	1.00	44.33	N
ATOM	6980	CA	ASP	C	520	-16.616	75.944	22.266	1.00	44.33	C
ATOM	6981	CB	ASP	C	520	-15.835	74.630	22.187	1.00	44.33	C
ATOM	6982	CG	ASP	C	520	-15.262	74.342	20.819	1.00	44.33	C
ATOM	6983	OD1	ASP	C	520	-15.772	74.837	19.792	1.00	44.33	O
ATOM	6984	OD2	ASP	C	520	-14.266	73.589	20.771	1.00	44.33	O
ATOM	6985	C	ASP	C	520	-17.440	75.900	23.545	1.00	44.33	C
ATOM	6986	O	ASP	C	520	-18.564	75.450	23.542	1.00	44.33	O
ATOM	6987	N	TRP	C	521	-16.841	76.341	24.645	1.00	44.33	N
ATOM	6988	CA	TRP	C	521	-17.446	76.256	25.943	1.00	44.33	C
ATOM	6989	CB	TRP	C	521	-16.383	76.260	27.022	1.00	44.33	C
ATOM	6990	CG	TRP	C	521	-15.640	74.996	27.087	1.00	44.33	C
ATOM	6991	CD1	TRP	C	521	-14.316	74.836	26.959	1.00	44.33	C
ATOM	6992	NE1	TRP	C	521	-13.978	73.511	27.062	1.00	44.33	N
ATOM	6993	CE2	TRP	C	521	-15.105	72.781	27.280	1.00	44.33	C
ATOM	6994	CD2	TRP	C	521	-16.184	73.684	27.298	1.00	44.33	C
ATOM	6995	CE3	TRP	C	521	-17.480	73.183	27.504	1.00	44.33	C
ATOM	6996	CZ3	TRP	C	521	-17.650	71.829	27.657	1.00	44.33	C
ATOM	6997	CH2	TRP	C	521	-16.572	70.964	27.617	1.00	44.33	C
ATOM	6998	CZ2	TRP	C	521	-15.280	71.420	27.446	1.00	44.33	C
ATOM	6999	C	TRP	C	521	-18.443	77.340	26.184	1.00	44.33	C
ATOM	7000	O	TRP	C	521	-19.380	77.148	26.939	1.00	44.33	O
ATOM	7001	N	TRP	C	522	-18.267	78.462	25.511	1.00	44.33	N
ATOM	7002	CA	TRP	C	522	-19.263	79.506	25.519	1.00	44.33	C
ATOM	7003	CB	TRP	C	522	-18.705	80.797	24.938	1.00	44.33	C
ATOM	7004	CG	TRP	C	522	-19.719	81.844	24.707	1.00	44.33	C
ATOM	7005	CD1	TRP	C	522	-20.522	81.967	23.623	1.00	44.33	C
ATOM	7006	NE1	TRP	C	522	-21.309	83.069	23.745	1.00	44.33	N
ATOM	7007	CE2	TRP	C	522	-21.044	83.685	24.934	1.00	44.33	C
ATOM	7008	CD2	TRP	C	522	-20.037	82.942	25.570	1.00	44.33	C
ATOM	7009	CE3	TRP	C	522	-19.574	83.365	26.822	1.00	44.33	C
ATOM	7010	CZ3	TRP	C	522	-20.142	84.486	27.392	1.00	44.33	C
ATOM	7011	CH2	TRP	C	522	-21.156	85.208	26.731	1.00	44.33	C
ATOM	7012	CZ2	TRP	C	522	-21.610	84.830	25.507	1.00	44.33	C
ATOM	7013	C	TRP	C	522	-20.488	78.983	24.767	1.00	44.33	C
ATOM	7014	O	TRP	C	522	-21.575	78.924	25.320	1.00	44.33	O
ATOM	7015	N	ALA	C	523	-20.278	78.540	23.532	1.00	44.33	N
ATOM	7016	CA	ALA	C	523	-21.341	77.963	22.717	1.00	44.33	C
ATOM	7017	CB	ALA	C	523	-20.775	77.364	21.466	1.00	44.33	C
ATOM	7018	C	ALA	C	523	-22.108	76.919	23.505	1.00	44.33	C
ATOM	7019	O	ALA	C	523	-23.340	76.913	23.456	1.00	44.33	O
ATOM	7020	N	TYR	C	524	-21.367	76.066	24.238	1.00	44.33	N
ATOM	7021	CA	TYR	C	524	-21.873	74.977	25.064	1.00	44.33	C
ATOM	7022	CB	TYR	C	524	-20.713	74.285	25.737	1.00	44.33	C
ATOM	7023	CG	TYR	C	524	-21.058	73.077	26.591	1.00	44.33	C
ATOM	7024	CD1	TYR	C	524	-21.205	71.824	26.038	1.00	44.33	C
ATOM	7025	CE1	TYR	C	524	-21.494	70.714	26.850	1.00	44.33	C
ATOM	7026	CZ	TYR	C	524	-21.627	70.868	28.216	1.00	44.33	C
ATOM	7027	OH	TYR	C	524	-21.920	69.793	29.018	1.00	44.33	O
ATOM	7028	CE2	TYR	C	524	-21.463	72.101	28.782	1.00	44.33	C
ATOM	7029	CD2	TYR	C	524	-21.176	73.187	27.983	1.00	44.33	C

- 317 -

ATOM	7030	C	TYR	C	524	-22.815	75.539	26.111	1.00	44.33	C
ATOM	7031	O	TYR	C	524	-23.858	74.948	26.440	1.00	44.33	O
ATOM	7032	N	GLY	C	525	-22.447	76.698	26.629	1.00	44.33	N
ATOM	7033	CA	GLY	C	525	-23.314	77.382	27.545	1.00	44.33	C
ATOM	7034	C	GLY	C	525	-24.557	77.878	26.847	1.00	44.33	C
ATOM	7035	O	GLY	C	525	-25.656	77.680	27.353	1.00	44.33	O
ATOM	7036	N	VAL	C	526	-24.402	78.531	25.706	1.00	44.33	N
ATOM	7037	CA	VAL	C	526	-25.559	79.015	25.006	1.00	44.33	C
ATOM	7038	CB	VAL	C	526	-25.190	79.705	23.653	1.00	44.33	C
ATOM	7039	CG1	VAL	C	526	-26.449	79.965	22.833	1.00	44.33	C
ATOM	7040	CG2	VAL	C	526	-24.403	80.986	23.850	1.00	44.33	C
ATOM	7041	C	VAL	C	526	-26.529	77.830	24.722	1.00	44.33	C
ATOM	7042	O	VAL	C	526	-27.731	77.924	24.848	1.00	44.33	O
ATOM	7043	N	LEU	C	527	-25.962	76.706	24.341	1.00	44.33	N
ATOM	7044	CA	LEU	C	527	-26.739	75.600	23.912	1.00	44.33	C
ATOM	7045	CB	LEU	C	527	-25.839	74.579	23.206	1.00	44.33	C
ATOM	7046	CG	LEU	C	527	-26.666	73.426	22.624	1.00	44.33	C
ATOM	7047	CD1	LEU	C	527	-26.108	72.845	21.317	1.00	44.33	C
ATOM	7048	CD2	LEU	C	527	-26.847	72.353	23.669	1.00	44.33	C
ATOM	7049	C	LEU	C	527	-27.423	75.000	25.131	1.00	44.33	C
ATOM	7050	O	LEU	C	527	-28.616	74.675	25.120	1.00	44.33	O
ATOM	7051	N	LEU	C	528	-26.668	74.835	26.195	1.00	44.33	N
ATOM	7052	CA	LEU	C	528	-27.250	74.373	27.408	1.00	44.33	C
ATOM	7053	CB	LEU	C	528	-26.178	74.351	28.468	1.00	44.33	C
ATOM	7054	CG	LEU	C	528	-26.220	73.275	29.533	1.00	44.33	C
ATOM	7055	CD1	LEU	C	528	-27.387	72.322	29.271	1.00	44.33	C
ATOM	7056	CD2	LEU	C	528	-24.966	72.527	29.494	1.00	44.33	C
ATOM	7057	C	LEU	C	528	-28.369	75.290	27.845	1.00	44.33	C
ATOM	7058	O	LEU	C	528	-29.438	74.834	28.234	1.00	44.33	O
ATOM	7059	N	TYR	C	529	-28.131	76.592	27.813	1.00	44.33	N
ATOM	7060	CA	TYR	C	529	-29.156	77.495	28.299	1.00	44.33	C
ATOM	7061	CB	TYR	C	529	-28.657	78.909	28.315	1.00	44.33	C
ATOM	7062	CG	TYR	C	529	-29.690	79.977	28.618	1.00	44.33	C
ATOM	7063	CD1	TYR	C	529	-30.575	80.440	27.650	1.00	44.33	C
ATOM	7064	CE1	TYR	C	529	-31.484	81.436	27.938	1.00	44.33	C
ATOM	7065	CZ	TYR	C	529	-31.483	81.985	29.184	1.00	44.33	C
ATOM	7066	OH	TYR	C	529	-32.319	82.979	29.519	1.00	44.33	O
ATOM	7067	CE2	TYR	C	529	-30.630	81.566	30.139	1.00	44.33	C
ATOM	7068	CD2	TYR	C	529	-29.734	80.575	29.860	1.00	44.33	C
ATOM	7069	C	TYR	C	529	-30.431	77.359	27.465	1.00	44.33	C
ATOM	7070	O	TYR	C	529	-31.538	77.392	27.996	1.00	44.33	O
ATOM	7071	N	GLU	C	530	-30.267	77.207	26.158	1.00	44.33	N
ATOM	7072	CA	GLU	C	530	-31.386	76.933	25.275	1.00	44.33	C
ATOM	7073	CB	GLU	C	530	-30.926	76.821	23.821	1.00	44.33	C
ATOM	7074	CG	GLU	C	530	-30.585	78.148	23.161	1.00	44.33	C
ATOM	7075	CD	GLU	C	530	-30.178	77.987	21.697	1.00	44.33	C
ATOM	7076	OE1	GLU	C	530	-29.207	77.275	21.421	1.00	44.33	O
ATOM	7077	OE2	GLU	C	530	-30.828	78.550	20.792	1.00	44.33	O
ATOM	7078	C	GLU	C	530	-32.142	75.675	25.713	1.00	44.33	C
ATOM	7079	O	GLU	C	530	-33.342	75.691	25.805	1.00	44.33	O
ATOM	7080	N	MET	C	531	-31.451	74.589	26.015	1.00	44.33	N
ATOM	7081	CA	MET	C	531	-32.133	73.375	26.463	1.00	44.33	C
ATOM	7082	CB	MET	C	531	-31.139	72.258	26.722	1.00	44.33	C
ATOM	7083	CG	MET	C	531	-30.350	71.842	25.524	1.00	44.33	C
ATOM	7084	SD	MET	C	531	-29.792	70.142	25.726	1.00	44.33	S
ATOM	7085	CE	MET	C	531	-28.464	70.331	26.901	1.00	44.33	C
ATOM	7086	C	MET	C	531	-32.938	73.630	27.726	1.00	44.33	C
ATOM	7087	O	MET	C	531	-34.014	73.049	27.960	1.00	44.33	O

- 318 -

ATOM	7088	N	LEU	C	532	-32.419	74.517	28.554	1.00	44.33	N
ATOM	7089	CA	LEU	C	532	-33.010	74.677	29.894	1.00	44.33	C
ATOM	7090	CB	LEU	C	532	-31.976	75.050	30.986	1.00	44.33	C
ATOM	7091	CG	LEU	C	532	-30.959	73.950	31.351	1.00	44.33	C
ATOM	7092	CD1	LEU	C	532	-29.664	74.529	31.976	1.00	44.33	C
ATOM	7093	CD2	LEU	C	532	-31.525	72.791	32.194	1.00	44.33	C
ATOM	7094	C	LEU	C	532	-34.104	75.668	29.899	1.00	44.33	C
ATOM	7095	O	LEU	C	532	-35.032	75.561	30.698	1.00	44.33	O
ATOM	7096	N	ALA	C	533	-33.995	76.653	29.024	1.00	44.33	N
ATOM	7097	CA	ALA	C	533	-34.882	77.784	29.111	1.00	44.33	C
ATOM	7098	CB	ALA	C	533	-34.065	79.016	29.233	1.00	44.33	C
ATOM	7099	C	ALA	C	533	-35.767	77.869	27.912	1.00	44.33	C
ATOM	7100	O	ALA	C	533	-36.662	78.690	27.866	1.00	44.33	O
ATOM	7101	N	GLY	C	534	-35.500	77.019	26.931	1.00	44.33	N
ATOM	7102	CA	GLY	C	534	-36.139	77.136	25.623	1.00	44.33	C
ATOM	7103	C	GLY	C	534	-36.078	78.503	24.949	1.00	44.33	C
ATOM	7104	O	GLY	C	534	-36.858	78.786	24.028	1.00	44.33	O
ATOM	7105	N	GLN	C	535	-35.169	79.354	25.403	1.00	44.34	N
ATOM	7106	CA	GLN	C	535	-34.920	80.642	24.778	1.00	45.36	C
ATOM	7107	CB	GLN	C	535	-35.338	81.767	25.714	1.00	46.04	C
ATOM	7108	CG	GLN	C	535	-36.795	82.014	25.866	1.00	54.29	C
ATOM	7109	CD	GLN	C	535	-37.493	82.444	24.571	1.00	55.61	C
ATOM	7110	OE1	GLN	C	535	-38.708	82.578	24.564	1.00	58.93	O
ATOM	7111	NE2	GLN	C	535	-36.739	82.639	23.476	1.00	57.60	N
ATOM	7112	C	GLN	C	535	-33.414	80.792	24.550	1.00	44.33	C
ATOM	7113	O	GLN	C	535	-32.636	80.069	25.189	1.00	44.33	O
ATOM	7114	N	PRO	C	536	-32.994	81.723	23.658	1.00	44.33	N
ATOM	7115	CA	PRO	C	536	-31.590	82.045	23.578	1.00	44.33	C
ATOM	7116	CB	PRO	C	536	-31.486	82.698	22.201	1.00	44.33	C
ATOM	7117	CG	PRO	C	536	-32.759	83.306	21.973	1.00	44.33	C
ATOM	7118	CD	PRO	C	536	-33.770	82.508	22.686	1.00	44.33	C
ATOM	7119	C	PRO	C	536	-31.226	83.035	24.699	1.00	44.33	C
ATOM	7120	O	PRO	C	536	-32.064	83.851	25.041	1.00	44.33	O
ATOM	7121	N	PRO	C	537	-29.990	82.951	25.263	1.00	44.33	N
ATOM	7122	CA	PRO	C	537	-29.495	83.835	26.323	1.00	44.33	C
ATOM	7123	CB	PRO	C	537	-28.055	83.338	26.556	1.00	44.33	C
ATOM	7124	CG	PRO	C	537	-27.698	82.597	25.363	1.00	44.33	C
ATOM	7125	CD	PRO	C	537	-28.955	81.956	24.910	1.00	44.33	C
ATOM	7126	C	PRO	C	537	-29.462	85.303	25.982	1.00	44.33	C
ATOM	7127	O	PRO	C	537	-29.672	86.126	26.853	1.00	44.33	O
ATOM	7128	N	PHE	C	538	-29.176	85.620	24.727	1.00	44.33	N
ATOM	7129	CA	PHE	C	538	-29.084	87.026	24.288	1.00	44.33	C
ATOM	7130	CB	PHE	C	538	-27.637	87.427	23.951	1.00	44.33	C
ATOM	7131	CG	PHE	C	538	-26.607	86.880	24.914	1.00	44.33	C
ATOM	7132	CD1	PHE	C	538	-26.295	87.560	26.091	1.00	44.33	C
ATOM	7133	CE1	PHE	C	538	-25.362	87.057	26.966	1.00	44.33	C
ATOM	7134	CZ	PHE	C	538	-24.734	85.873	26.676	1.00	44.33	C
ATOM	7135	CE2	PHE	C	538	-25.022	85.185	25.518	1.00	44.33	C
ATOM	7136	CD2	PHE	C	538	-25.941	85.688	24.638	1.00	44.33	C
ATOM	7137	C	PHE	C	538	-30.000	87.299	23.109	1.00	44.33	C
ATOM	7138	O	PHE	C	538	-30.386	86.370	22.369	1.00	44.33	O
ATOM	7139	N	ASP	C	539	-30.329	88.573	22.929	1.00	46.68	N
ATOM	7140	CA	ASP	C	539	-31.186	88.989	21.800	1.00	46.91	C
ATOM	7141	CB	ASP	C	539	-32.601	89.059	22.304	1.00	52.42	C
ATOM	7142	CG	ASP	C	539	-32.642	89.313	23.798	1.00	56.50	C
ATOM	7143	OD1	ASP	C	539	-31.988	90.297	24.224	1.00	57.21	O
ATOM	7144	OD2	ASP	C	539	-33.299	88.524	24.544	1.00	59.55	O
ATOM	7145	C	ASP	C	539	-30.770	90.316	21.139	1.00	45.28	C

- 319 -

ATOM	7146	O	ASP	C	539	-30.052	91.079	21.737	1.00	44.33	O
ATOM	7147	N	GLY	C	540	-31.201	90.556	19.902	1.00	45.19	N
ATOM	7148	CA	GLY	C	540	-30.952	91.802	19.212	1.00	44.44	C
ATOM	7149	C	GLY	C	540	-31.741	91.774	17.937	1.00	46.08	C
ATOM	7150	O	GLY	C	540	-31.998	90.698	17.390	1.00	44.33	O
ATOM	7151	N	GLU	C	541	-32.118	92.960	17.460	1.00	46.93	N
ATOM	7152	CA	GLU	C	541	-32.937	93.103	16.259	1.00	48.04	C
ATOM	7153	CB	GLU	C	541	-33.600	94.488	16.219	1.00	49.23	C
ATOM	7154	CG	GLU	C	541	-34.457	94.778	17.473	1.00	53.91	C
ATOM	7155	CD	GLU	C	541	-35.884	95.257	17.132	1.00	54.20	C
ATOM	7156	OE1	GLU	C	541	-36.792	94.406	16.941	1.00	58.14	O
ATOM	7157	OE2	GLU	C	541	-36.107	96.496	17.062	1.00	57.74	O
ATOM	7158	C	GLU	C	541	-32.148	92.780	15.008	1.00	46.86	C
ATOM	7159	O	GLU	C	541	-32.703	92.365	14.013	1.00	46.01	O
ATOM	7160	N	ASP	C	542	-30.843	92.962	15.076	1.00	44.40	N
ATOM	7161	CA	ASP	C	542	-29.952	92.544	14.014	1.00	44.33	C
ATOM	7162	CB	ASP	C	542	-29.649	93.726	13.097	1.00	44.33	C
ATOM	7163	CG	ASP	C	542	-29.167	94.929	13.854	1.00	44.39	C
ATOM	7164	OD1	ASP	C	542	-28.581	94.781	14.938	1.00	44.33	O
ATOM	7165	OD2	ASP	C	542	-29.358	96.043	13.389	1.00	48.76	O
ATOM	7166	C	ASP	C	542	-28.671	92.003	14.628	1.00	44.33	C
ATOM	7167	O	ASP	C	542	-28.558	91.883	15.854	1.00	44.33	O
ATOM	7168	N	GLU	C	543	-27.694	91.707	13.780	1.00	44.33	N
ATOM	7169	CA	GLU	C	543	-26.509	91.031	14.250	1.00	44.33	C
ATOM	7170	CB	GLU	C	543	-25.699	90.544	13.083	1.00	44.33	C
ATOM	7171	CG	GLU	C	543	-24.488	89.795	13.457	1.00	46.10	C
ATOM	7172	CD	GLU	C	543	-23.838	89.225	12.260	1.00	46.98	C
ATOM	7173	OE1	GLU	C	543	-23.981	89.856	11.183	1.00	47.78	O
ATOM	7174	OE2	GLU	C	543	-23.196	88.157	12.385	1.00	48.78	O
ATOM	7175	C	GLU	C	543	-25.666	91.933	15.142	1.00	44.33	C
ATOM	7176	O	GLU	C	543	-25.094	91.452	16.132	1.00	44.33	O
ATOM	7177	N	ASP	C	544	-25.588	93.229	14.826	1.00	44.33	N
ATOM	7178	CA	ASP	C	544	-24.706	94.114	15.613	1.00	46.68	C
ATOM	7179	CB	ASP	C	544	-24.491	95.522	15.030	1.00	48.99	C
ATOM	7180	CG	ASP	C	544	-24.806	95.620	13.560	1.00	53.73	C
ATOM	7181	OD1	ASP	C	544	-25.475	94.685	13.002	1.00	52.13	O
ATOM	7182	OD2	ASP	C	544	-24.419	96.678	12.979	1.00	53.45	O
ATOM	7183	C	ASP	C	544	-25.328	94.301	16.968	1.00	45.65	C
ATOM	7184	O	ASP	C	544	-24.654	94.476	17.980	1.00	44.33	O
ATOM	7185	N	GLU	C	545	-26.640	94.307	16.971	1.00	44.33	N
ATOM	7186	CA	GLU	C	545	-27.344	94.473	18.210	1.00	44.33	C
ATOM	7187	CB	GLU	C	545	-28.784	94.879	17.911	1.00	44.43	C
ATOM	7188	CG	GLU	C	545	-29.515	95.355	19.113	1.00	50.05	C
ATOM	7189	CD	GLU	C	545	-30.956	95.841	18.824	1.00	48.91	C
ATOM	7190	OE1	GLU	C	545	-31.233	96.378	17.702	1.00	50.72	O
ATOM	7191	OE2	GLU	C	545	-31.799	95.722	19.762	1.00	52.13	O
ATOM	7192	C	GLU	C	545	-27.199	93.199	19.101	1.00	44.33	C
ATOM	7193	O	GLU	C	545	-27.111	93.276	20.333	1.00	44.33	O
ATOM	7194	N	LEU	C	546	-27.142	92.037	18.466	1.00	44.33	N
ATOM	7195	CA	LEU	C	546	-26.971	90.814	19.187	1.00	44.33	C
ATOM	7196	CB	LEU	C	546	-27.118	89.612	18.260	1.00	44.33	C
ATOM	7197	CG	LEU	C	546	-26.877	88.203	18.809	1.00	44.33	C
ATOM	7198	CD1	LEU	C	546	-27.757	87.879	20.001	1.00	44.33	C
ATOM	7199	CD2	LEU	C	546	-27.088	87.193	17.739	1.00	44.33	C
ATOM	7200	C	LEU	C	546	-25.590	90.831	19.774	1.00	44.33	C
ATOM	7201	O	LEU	C	546	-25.384	90.430	20.921	1.00	44.33	O
ATOM	7202	N	PHE	C	547	-24.627	91.271	18.968	1.00	44.33	N
ATOM	7203	CA	PHE	C	547	-23.217	91.300	19.353	1.00	44.33	C

- 320 -

ATOM	7204	CB	PHE	C	547	-22.398	91.830	18.179	1.00	44.33	C
ATOM	7205	CG	PHE	C	547	-22.088	90.790	17.171	1.00	44.33	C
ATOM	7206	CD1	PHE	C	547	-22.528	89.453	17.370	1.00	44.33	C
ATOM	7207	CE1	PHE	C	547	-22.228	88.458	16.487	1.00	44.33	C
ATOM	7208	CZ	PHE	C	547	-21.463	88.781	15.370	1.00	44.33	C
ATOM	7209	CE2	PHE	C	547	-21.008	90.115	15.160	1.00	44.33	C
ATOM	7210	CD2	PHE	C	547	-21.329	91.103	16.062	1.00	44.33	C
ATOM	7211	C	PHE	C	547	-23.001	92.173	20.574	1.00	44.33	C
ATOM	7212	O	PHE	C	547	-22.326	91.795	21.546	1.00	44.33	O
ATOM	7213	N	GLN	C	548	-23.612	93.344	20.520	1.00	44.33	N
ATOM	7214	CA	GLN	C	548	-23.629	94.253	21.637	1.00	44.90	C
ATOM	7215	CB	GLN	C	548	-24.463	95.448	21.281	1.00	47.41	C
ATOM	7216	CG	GLN	C	548	-24.674	96.395	22.412	1.00	53.32	C
ATOM	7217	CD	GLN	C	548	-25.484	97.542	21.897	1.00	53.93	C
ATOM	7218	OE1	GLN	C	548	-25.467	97.786	20.683	1.00	57.12	O
ATOM	7219	NE2	GLN	C	548	-26.235	98.237	22.769	1.00	55.68	N
ATOM	7220	C	GLN	C	548	-24.220	93.599	22.869	1.00	44.33	C
ATOM	7221	O	GLN	C	548	-23.682	93.694	23.974	1.00	44.35	O
ATOM	7222	N	SER	C	549	-25.345	92.938	22.681	1.00	44.33	N
ATOM	7223	CA	SER	C	549	-25.922	92.181	23.765	1.00	44.33	C
ATOM	7224	CB	SER	C	549	-27.206	91.540	23.294	1.00	45.19	C
ATOM	7225	OG	SER	C	549	-27.729	90.774	24.345	1.00	46.37	O
ATOM	7226	C	SER	C	549	-24.958	91.147	24.383	1.00	44.33	C
ATOM	7227	O	SER	C	549	-24.816	91.114	25.591	1.00	44.33	O
ATOM	7228	N	ILE	C	550	-24.292	90.331	23.549	1.00	44.33	N
ATOM	7229	CA	ILE	C	550	-23.303	89.333	23.995	1.00	44.33	C
ATOM	7230	CB	ILE	C	550	-22.824	88.460	22.808	1.00	44.33	C
ATOM	7231	CG1	ILE	C	550	-23.942	87.579	22.317	1.00	44.33	C
ATOM	7232	CD1	ILE	C	550	-23.823	87.265	20.855	1.00	44.33	C
ATOM	7233	CG2	ILE	C	550	-21.609	87.604	23.173	1.00	44.33	C
ATOM	7234	C	ILE	C	550	-22.108	90.028	24.635	1.00	44.33	C
ATOM	7235	O	ILE	C	550	-21.578	89.552	25.622	1.00	44.33	O
ATOM	7236	N	MET	C	551	-21.661	91.136	24.049	1.00	44.33	N
ATOM	7237	CA	MET	C	551	-20.566	91.923	24.632	1.00	44.37	C
ATOM	7238	CB	MET	C	551	-20.213	93.124	23.747	1.00	44.33	C
ATOM	7239	CG	MET	C	551	-19.033	92.935	22.761	1.00	46.33	C
ATOM	7240	SD	MET	C	551	-18.101	91.414	23.048	1.00	49.70	S
ATOM	7241	CE	MET	C	551	-19.203	90.298	22.195	1.00	50.26	C
ATOM	7242	C	MET	C	551	-20.882	92.456	26.038	1.00	44.33	C
ATOM	7243	O	MET	C	551	-19.980	92.523	26.855	1.00	44.33	O
ATOM	7244	N	GLU	C	552	-22.156	92.796	26.316	1.00	44.72	N
ATOM	7245	CA	GLU	C	552	-22.553	93.662	27.455	1.00	45.23	C
ATOM	7246	CB	GLU	C	552	-23.227	94.942	26.943	1.00	47.07	C
ATOM	7247	CG	GLU	C	552	-22.400	95.746	26.001	1.00	49.14	C
ATOM	7248	CD	GLU	C	552	-21.050	96.201	26.580	1.00	48.92	C
ATOM	7249	OE1	GLU	C	552	-20.880	96.304	27.833	1.00	51.04	O
ATOM	7250	OE2	GLU	C	552	-20.149	96.474	25.753	1.00	50.74	O
ATOM	7251	C	GLU	C	552	-23.563	93.074	28.425	1.00	45.78	C
ATOM	7252	O	GLU	C	552	-23.530	93.343	29.626	1.00	45.47	O
ATOM	7253	N	HIS	C	553	-24.515	92.328	27.875	1.00	47.73	N
ATOM	7254	CA	HIS	C	553	-25.703	91.958	28.613	1.00	47.66	C
ATOM	7255	CB	HIS	C	553	-26.868	91.574	27.681	1.00	48.46	C
ATOM	7256	CG	HIS	C	553	-27.975	90.829	28.369	1.00	51.30	C
ATOM	7257	ND1	HIS	C	553	-28.326	89.530	28.036	1.00	52.54	N
ATOM	7258	CE1	HIS	C	553	-29.300	89.119	28.824	1.00	51.54	C
ATOM	7259	NE2	HIS	C	553	-29.604	90.104	29.653	1.00	51.18	N
ATOM	7260	CD2	HIS	C	553	-28.790	91.187	29.390	1.00	51.05	C
ATOM	7261	C	HIS	C	553	-25.400	90.881	29.629	1.00	48.13	C

- 321 -

ATOM	7262	O	HIS	C	553	-24.516	90.035	29.440	1.00	45.66	O
ATOM	7263	N	ASN	C	554	-26.124	90.983	30.741	1.00	49.73	N
ATOM	7264	CA	ASN	C	554	-26.146	90.010	31.819	1.00	52.48	C
ATOM	7265	CB	ASN	C	554	-26.508	90.745	33.108	1.00	55.26	C
ATOM	7266	CG	ASN	C	554	-25.341	90.928	34.016	1.00	57.18	C
ATOM	7267	OD1	ASN	C	554	-24.222	91.303	33.591	1.00	58.62	O
ATOM	7268	ND2	ASN	C	554	-25.585	90.690	35.301	1.00	58.92	N
ATOM	7269	C	ASN	C	554	-27.282	89.028	31.552	1.00	52.15	C
ATOM	7270	O	ASN	C	554	-28.443	89.431	31.548	1.00	54.63	O
ATOM	7271	N	VAL	C	555	-26.981	87.752	31.340	1.00	51.34	N
ATOM	7272	CA	VAL	C	555	-28.014	86.758	31.112	1.00	48.70	C
ATOM	7273	CB	VAL	C	555	-27.399	85.318	31.133	1.00	47.98	C
ATOM	7274	CG1	VAL	C	555	-28.441	84.231	30.980	1.00	46.65	C
ATOM	7275	CG2	VAL	C	555	-26.381	85.147	30.025	1.00	48.60	C
ATOM	7276	C	VAL	C	555	-29.032	86.908	32.227	1.00	49.48	C
ATOM	7277	O	VAL	C	555	-28.648	87.150	33.387	1.00	47.63	O
ATOM	7278	N	SER	C	556	-30.316	86.814	31.886	1.00	48.58	N
ATOM	7279	CA	SER	C	556	-31.323	86.771	32.921	1.00	50.10	C
ATOM	7280	CB	SER	C	556	-32.494	87.739	32.633	1.00	52.44	C
ATOM	7281	OG	SER	C	556	-33.703	87.037	32.384	1.00	57.20	O
ATOM	7282	C	SER	C	556	-31.744	85.318	32.982	1.00	48.23	C
ATOM	7283	O	SER	C	556	-32.004	84.719	31.959	1.00	49.19	O
ATOM	7284	N	TYR	C	557	-31.764	84.750	34.181	1.00	47.55	N
ATOM	7285	CA	TYR	C	557	-32.127	83.328	34.393	1.00	46.11	C
ATOM	7286	CB	TYR	C	557	-31.108	82.630	35.343	1.00	45.72	C
ATOM	7287	CG	TYR	C	557	-29.732	82.462	34.704	1.00	44.33	C
ATOM	7288	CD1	TYR	C	557	-28.714	83.378	34.936	1.00	45.30	C
ATOM	7289	CE1	TYR	C	557	-27.487	83.251	34.310	1.00	44.33	C
ATOM	7290	CZ	TYR	C	557	-27.269	82.204	33.433	1.00	44.33	C
ATOM	7291	OH	TYR	C	557	-26.033	82.056	32.807	1.00	44.33	O
ATOM	7292	CE2	TYR	C	557	-28.268	81.282	33.184	1.00	44.33	C
ATOM	7293	CD2	TYR	C	557	-29.483	81.416	33.808	1.00	44.33	C
ATOM	7294	C	TYR	C	557	-33.536	83.220	34.975	1.00	47.94	C
ATOM	7295	O	TYR	C	557	-33.801	83.785	36.032	1.00	51.81	O
ATOM	7296	N	PRO	C	558	-34.444	82.475	34.326	1.00	45.89	N
ATOM	7297	CA	PRO	C	558	-35.748	82.401	34.992	1.00	47.75	C
ATOM	7298	CB	PRO	C	558	-36.607	81.597	34.026	1.00	45.82	C
ATOM	7299	CG	PRO	C	558	-35.610	80.793	33.272	1.00	46.56	C
ATOM	7300	CD	PRO	C	558	-34.414	81.679	33.097	1.00	45.73	C
ATOM	7301	C	PRO	C	558	-35.647	81.708	36.345	1.00	49.31	C
ATOM	7302	O	PRO	C	558	-34.814	80.829	36.565	1.00	45.64	O
ATOM	7303	N	LYS	C	559	-36.500	82.131	37.258	1.00	50.82	N
ATOM	7304	CA	LYS	C	559	-36.423	81.654	38.624	1.00	52.49	C
ATOM	7305	CB	LYS	C	559	-37.302	82.468	39.577	1.00	55.56	C
ATOM	7306	CG	LYS	C	559	-37.158	83.964	39.362	1.00	56.61	C
ATOM	7307	CD	LYS	C	559	-38.498	84.729	39.495	1.00	56.77	C
ATOM	7308	CE	LYS	C	559	-38.590	85.851	38.428	1.00	58.07	C
ATOM	7309	NZ	LYS	C	559	-39.311	87.100	38.906	1.00	58.42	N
ATOM	7310	C	LYS	C	559	-36.684	80.175	38.731	1.00	52.31	C
ATOM	7311	O	LYS	C	559	-36.275	79.594	39.718	1.00	52.68	O
ATOM	7312	N	SER	C	560	-37.300	79.539	37.735	1.00	50.99	N
ATOM	7313	CA	SER	C	560	-37.522	78.113	37.860	1.00	50.15	C
ATOM	7314	CB	SER	C	560	-38.549	77.623	36.866	1.00	49.64	C
ATOM	7315	OG	SER	C	560	-38.135	77.942	35.565	1.00	52.13	O
ATOM	7316	C	SER	C	560	-36.228	77.276	37.799	1.00	49.87	C
ATOM	7317	O	SER	C	560	-36.264	76.094	38.123	1.00	48.54	O
ATOM	7318	N	LEU	C	561	-35.089	77.869	37.427	1.00	46.38	N
ATOM	7319	CA	LEU	C	561	-33.843	77.093	37.341	1.00	46.55	C

- 322 -

ATOM	7320	CB	LEU	C	561	-32.823	77.807	36.475	1.00	47.70	C
ATOM	7321	CG	LEU	C	561	-32.558	77.460	35.021	1.00	49.75	C
ATOM	7322	CD1	LEU	C	561	-33.733	76.769	34.357	1.00	50.87	C
ATOM	7323	CD2	LEU	C	561	-32.243	78.812	34.411	1.00	49.98	C
ATOM	7324	C	LEU	C	561	-33.187	76.789	38.676	1.00	44.33	C
ATOM	7325	O	LEU	C	561	-33.081	77.670	39.551	1.00	44.33	O
ATOM	7326	N	SER	C	562	-32.702	75.553	38.796	1.00	44.33	N
ATOM	7327	CA	SER	C	562	-31.860	75.126	39.917	1.00	44.33	C
ATOM	7328	CB	SER	C	562	-31.413	73.692	39.694	1.00	44.33	C
ATOM	7329	OG	SER	C	562	-30.209	73.699	38.961	1.00	44.33	O
ATOM	7330	C	SER	C	562	-30.607	75.984	40.093	1.00	44.33	C
ATOM	7331	O	SER	C	562	-30.181	76.654	39.161	1.00	44.33	O
ATOM	7332	N	LYS	C	563	-30.000	75.948	41.274	1.00	44.33	N
ATOM	7333	CA	LYS	C	563	-28.787	76.755	41.510	1.00	44.33	C
ATOM	7334	CB	LYS	C	563	-28.404	76.845	42.999	1.00	44.33	C
ATOM	7335	CG	LYS	C	563	-28.256	75.488	43.674	1.00	44.33	C
ATOM	7336	CD	LYS	C	563	-27.834	75.498	45.132	1.00	44.33	C
ATOM	7337	CE	LYS	C	563	-28.049	74.050	45.594	1.00	44.33	C
ATOM	7338	NZ	LYS	C	563	-27.225	73.576	46.730	1.00	44.33	N
ATOM	7339	C	LYS	C	563	-27.651	76.168	40.697	1.00	44.33	C
ATOM	7340	O	LYS	C	563	-26.770	76.900	40.251	1.00	44.49	O
ATOM	7341	N	GLU	C	564	-27.689	74.851	40.485	1.00	44.33	N
ATOM	7342	CA	GLU	C	564	-26.681	74.187	39.664	1.00	44.33	C
ATOM	7343	CB	GLU	C	564	-26.749	72.657	39.748	1.00	44.33	C
ATOM	7344	CG	GLU	C	564	-26.512	72.088	41.118	1.00	44.33	C
ATOM	7345	CD	GLU	C	564	-27.774	72.123	42.011	1.00	44.33	C
ATOM	7346	OE1	GLU	C	564	-28.942	72.208	41.510	1.00	44.33	O
ATOM	7347	OE2	GLU	C	564	-27.589	72.071	43.244	1.00	44.33	O
ATOM	7348	C	GLU	C	564	-26.793	74.606	38.212	1.00	44.33	C
ATOM	7349	O	GLU	C	564	-25.782	74.814	37.541	1.00	44.33	O
ATOM	7350	N	ALA	C	565	-28.019	74.705	37.712	1.00	44.33	N
ATOM	7351	CA	ALA	C	565	-28.210	75.086	36.316	1.00	44.33	C
ATOM	7352	CB	ALA	C	565	-29.650	75.020	35.929	1.00	44.33	C
ATOM	7353	C	ALA	C	565	-27.672	76.488	36.160	1.00	44.33	C
ATOM	7354	O	ALA	C	565	-26.852	76.742	35.295	1.00	44.33	O
ATOM	7355	N	VAL	C	566	-28.074	77.379	37.054	1.00	44.33	N
ATOM	7356	CA	VAL	C	566	-27.651	78.747	36.951	1.00	44.33	C
ATOM	7357	CB	VAL	C	566	-28.212	79.598	38.069	1.00	44.33	C
ATOM	7358	CG1	VAL	C	566	-27.484	80.935	38.082	1.00	44.33	C
ATOM	7359	CG2	VAL	C	566	-29.695	79.803	37.872	1.00	44.33	C
ATOM	7360	C	VAL	C	566	-26.137	78.813	37.005	1.00	44.33	C
ATOM	7361	O	VAL	C	566	-25.504	79.543	36.201	1.00	44.33	O
ATOM	7362	N	SER	C	567	-25.572	78.025	37.927	1.00	44.33	N
ATOM	7363	CA	SER	C	567	-24.131	78.006	38.200	1.00	44.33	C
ATOM	7364	CB	SER	C	567	-23.806	76.962	39.275	1.00	44.33	C
ATOM	7365	OG	SER	C	567	-22.404	76.936	39.541	1.00	46.85	O
ATOM	7366	C	SER	C	567	-23.321	77.715	36.952	1.00	44.33	C
ATOM	7367	O	SER	C	567	-22.412	78.486	36.573	1.00	44.33	O
ATOM	7368	N	ILE	C	568	-23.689	76.616	36.295	1.00	44.33	N
ATOM	7369	CA	ILE	C	568	-22.986	76.164	35.114	1.00	44.33	C
ATOM	7370	CB	ILE	C	568	-23.388	74.695	34.730	1.00	44.33	C
ATOM	7371	CG1	ILE	C	568	-22.169	73.970	34.149	1.00	44.33	C
ATOM	7372	CD1	ILE	C	568	-22.421	72.647	33.423	1.00	44.33	C
ATOM	7373	CG2	ILE	C	568	-24.676	74.625	33.867	1.00	44.33	C
ATOM	7374	C	ILE	C	568	-23.156	77.183	33.993	1.00	44.33	C
ATOM	7375	O	ILE	C	568	-22.193	77.549	33.346	1.00	44.33	O
ATOM	7376	N	CYS	C	569	-24.374	77.681	33.818	1.00	44.33	N
ATOM	7377	CA	CYS	C	569	-24.605	78.647	32.780	1.00	44.33	C

- 323 -

ATOM	7378	CB	CYS	C	569	-26.096	78.913	32.628	1.00	44.33	C
ATOM	7379	SG	CYS	C	569	-26.958	77.515	31.844	1.00	46.92	S
ATOM	7380	C	CYS	C	569	-23.746	79.903	32.953	1.00	44.33	C
ATOM	7381	O	CYS	C	569	-23.216	80.431	31.973	1.00	44.33	O
ATOM	7382	N	LYS	C	570	-23.573	80.354	34.192	1.00	44.33	N
ATOM	7383	CA	LYS	C	570	-22.714	81.524	34.470	1.00	44.33	C
ATOM	7384	CB	LYS	C	570	-22.899	81.998	35.921	1.00	44.33	C
ATOM	7385	CG	LYS	C	570	-24.363	82.421	36.289	1.00	44.67	C
ATOM	7386	CD	LYS	C	570	-24.413	83.741	37.114	1.00	46.76	C
ATOM	7387	CE	LYS	C	570	-25.758	83.971	37.803	1.00	47.32	C
ATOM	7388	NZ	LYS	C	570	-25.562	84.857	39.001	1.00	50.59	N
ATOM	7389	C	LYS	C	570	-21.242	81.212	34.228	1.00	44.33	C
ATOM	7390	O	LYS	C	570	-20.483	82.038	33.731	1.00	44.33	O
ATOM	7391	N	GLY	C	571	-20.856	79.997	34.590	1.00	44.33	N
ATOM	7392	CA	GLY	C	571	-19.479	79.560	34.427	1.00	44.33	C
ATOM	7393	C	GLY	C	571	-19.108	79.468	32.963	1.00	44.33	C
ATOM	7394	O	GLY	C	571	-18.024	79.926	32.543	1.00	44.33	O
ATOM	7395	N	LEU	C	572	-20.020	78.878	32.201	1.00	44.33	N
ATOM	7396	CA	LEU	C	572	-19.894	78.711	30.772	1.00	44.33	C
ATOM	7397	CB	LEU	C	572	-20.908	77.677	30.283	1.00	44.33	C
ATOM	7398	CG	LEU	C	572	-20.626	76.205	30.641	1.00	44.33	C
ATOM	7399	CD1	LEU	C	572	-21.581	75.213	29.972	1.00	44.33	C
ATOM	7400	CD2	LEU	C	572	-19.208	75.832	30.320	1.00	44.33	C
ATOM	7401	C	LEU	C	572	-20.041	80.019	29.992	1.00	44.33	C
ATOM	7402	O	LEU	C	572	-19.358	80.228	29.002	1.00	44.33	O
ATOM	7403	N	MET	C	573	-20.923	80.904	30.438	1.00	44.33	N
ATOM	7404	CA	MET	C	573	-21.140	82.156	29.738	1.00	44.33	C
ATOM	7405	CB	MET	C	573	-22.623	82.384	29.488	1.00	44.33	C
ATOM	7406	CG	MET	C	573	-23.116	81.464	28.413	1.00	44.33	C
ATOM	7407	SD	MET	C	573	-24.830	81.581	28.048	1.00	44.33	S
ATOM	7408	CE	MET	C	573	-25.552	81.070	29.572	1.00	44.33	C
ATOM	7409	C	MET	C	573	-20.495	83.312	30.435	1.00	44.33	C
ATOM	7410	O	MET	C	573	-21.018	84.412	30.439	1.00	44.33	O
ATOM	7411	N	THR	C	574	-19.336	83.026	31.015	1.00	44.33	N
ATOM	7412	CA	THR	C	574	-18.410	84.004	31.529	1.00	44.33	C
ATOM	7413	CB	THR	C	574	-17.387	83.264	32.431	1.00	44.33	C
ATOM	7414	OG1	THR	C	574	-18.066	82.696	33.567	1.00	44.33	O
ATOM	7415	CG2	THR	C	574	-16.248	84.165	32.884	1.00	44.33	C
ATOM	7416	C	THR	C	574	-17.740	84.652	30.313	1.00	44.33	C
ATOM	7417	O	THR	C	574	-17.153	83.969	29.453	1.00	44.33	O
ATOM	7418	N	LYS	C	575	-17.840	85.967	30.227	1.00	44.33	N
ATOM	7419	CA	LYS	C	575	-17.379	86.674	29.048	1.00	44.33	C
ATOM	7420	CB	LYS	C	575	-17.936	88.091	29.060	1.00	44.33	C
ATOM	7421	CG	LYS	C	575	-19.427	88.138	29.301	1.00	44.33	C
ATOM	7422	CD	LYS	C	575	-19.893	89.511	29.040	1.00	44.33	C
ATOM	7423	CE	LYS	C	575	-21.364	89.588	29.143	1.00	44.33	C
ATOM	7424	NZ	LYS	C	575	-22.025	88.700	28.167	1.00	44.33	N
ATOM	7425	C	LYS	C	575	-15.851	86.680	28.904	1.00	44.33	C
ATOM	7426	O	LYS	C	575	-15.307	86.745	27.802	1.00	44.33	O
ATOM	7427	N	HIS	C	576	-15.135	86.620	30.011	1.00	44.33	N
ATOM	7428	CA	HIS	C	576	-13.685	86.598	29.940	1.00	44.33	C
ATOM	7429	CB	HIS	C	576	-13.159	87.138	31.233	1.00	44.91	C
ATOM	7430	CG	HIS	C	576	-13.033	88.619	31.263	1.00	46.90	C
ATOM	7431	ND1	HIS	C	576	-13.909	89.418	31.956	1.00	45.63	N
ATOM	7432	CE1	HIS	C	576	-13.521	90.674	31.850	1.00	46.64	C
ATOM	7433	NE2	HIS	C	576	-12.427	90.717	31.114	1.00	49.51	N
ATOM	7434	CD2	HIS	C	576	-12.101	89.444	30.734	1.00	47.84	C
ATOM	7435	C	HIS	C	576	-13.174	85.170	29.805	1.00	44.33	C

- 324 -

ATOM	7436	O	HIS	C	576	-13.232	84.425	30.776	1.00	44.33	O
ATOM	7437	N	PRO	C	577	-12.666	84.771	28.624	1.00	44.33	N
ATOM	7438	CA	PRO	C	577	-12.403	83.339	28.450	1.00	44.33	C
ATOM	7439	CB	PRO	C	577	-11.746	83.241	27.071	1.00	44.33	C
ATOM	7440	CG	PRO	C	577	-11.662	84.576	26.530	1.00	44.33	C
ATOM	7441	CD	PRO	C	577	-12.326	85.554	27.428	1.00	44.33	C
ATOM	7442	C	PRO	C	577	-11.486	82.732	29.518	1.00	44.45	C
ATOM	7443	O	PRO	C	577	-11.632	81.549	29.846	1.00	45.85	O
ATOM	7444	N	ALA	C	578	-10.571	83.538	30.061	1.00	44.33	N
ATOM	7445	CA	ALA	C	578	-9.574	83.039	31.006	1.00	45.29	C
ATOM	7446	CB	ALA	C	578	-8.552	84.103	31.347	1.00	45.55	C
ATOM	7447	C	ALA	C	578	-10.245	82.544	32.257	1.00	45.46	C
ATOM	7448	O	ALA	C	578	-9.702	81.651	32.937	1.00	44.33	O
ATOM	7449	N	LYS	C	579	-11.415	83.110	32.567	1.00	44.33	N
ATOM	7450	CA	LYS	C	579	-12.160	82.642	33.742	1.00	44.33	C
ATOM	7451	CB	LYS	C	579	-12.903	83.765	34.451	1.00	44.80	C
ATOM	7452	CG	LYS	C	579	-12.039	84.894	34.918	1.00	48.29	C
ATOM	7453	CD	LYS	C	579	-12.920	85.824	35.835	1.00	48.22	C
ATOM	7454	CE	LYS	C	579	-14.032	86.682	35.079	1.00	50.94	C
ATOM	7455	NZ	LYS	C	579	-13.463	88.132	34.810	1.00	52.84	N
ATOM	7456	C	LYS	C	579	-13.188	81.576	33.398	1.00	44.33	C
ATOM	7457	O	LYS	C	579	-13.758	80.930	34.288	1.00	44.33	O
ATOM	7458	N	ARG	C	580	-13.468	81.418	32.115	1.00	44.33	N
ATOM	7459	CA	ARG	C	580	-14.649	80.662	31.709	1.00	44.33	C
ATOM	7460	CB	ARG	C	580	-14.811	80.722	30.190	1.00	44.33	C
ATOM	7461	CG	ARG	C	580	-16.064	80.030	29.642	1.00	44.33	C
ATOM	7462	CD	ARG	C	580	-16.295	80.341	28.191	1.00	44.33	C
ATOM	7463	NE	ARG	C	580	-16.244	81.770	27.946	1.00	44.33	N
ATOM	7464	CZ	ARG	C	580	-15.660	82.303	26.883	1.00	44.33	C
ATOM	7465	NH1	ARG	C	580	-15.099	81.513	25.972	1.00	44.33	N
ATOM	7466	NH2	ARG	C	580	-15.600	83.623	26.752	1.00	44.33	N
ATOM	7467	C	ARG	C	580	-14.522	79.211	32.172	1.00	44.33	C
ATOM	7468	O	ARG	C	580	-13.424	78.621	32.101	1.00	44.33	O
ATOM	7469	N	LEU	C	581	-15.632	78.634	32.655	1.00	44.33	N
ATOM	7470	CA	LEU	C	581	-15.613	77.215	33.019	1.00	44.33	C
ATOM	7471	CB	LEU	C	581	-16.952	76.734	33.531	1.00	44.33	C
ATOM	7472	CG	LEU	C	581	-17.110	75.247	33.828	1.00	44.33	C
ATOM	7473	CD1	LEU	C	581	-16.276	74.865	35.001	1.00	44.33	C
ATOM	7474	CD2	LEU	C	581	-18.499	74.947	34.180	1.00	44.33	C
ATOM	7475	C	LEU	C	581	-15.216	76.393	31.816	1.00	44.33	C
ATOM	7476	O	LEU	C	581	-15.796	76.560	30.759	1.00	44.33	O
ATOM	7477	N	GLY	C	582	-14.223	75.518	31.969	1.00	44.33	N
ATOM	7478	CA	GLY	C	582	-13.760	74.628	30.898	1.00	44.33	C
ATOM	7479	C	GLY	C	582	-12.422	75.069	30.322	1.00	45.89	C
ATOM	7480	O	GLY	C	582	-11.755	74.301	29.605	1.00	44.33	O
ATOM	7481	N	CYS	C	583	-12.015	76.291	30.678	1.00	46.39	N
ATOM	7482	CA	CYS	C	583	-10.828	76.900	30.121	1.00	47.39	C
ATOM	7483	CB	CYS	C	583	-11.107	78.310	29.661	1.00	47.35	C
ATOM	7484	SG	CYS	C	583	-12.511	78.288	28.601	1.00	50.65	S
ATOM	7485	C	CYS	C	583	-9.635	76.937	31.028	1.00	50.13	C
ATOM	7486	O	CYS	C	583	-8.527	77.220	30.562	1.00	51.57	O
ATOM	7487	N	GLY	C	584	-9.828	76.661	32.305	1.00	50.58	N
ATOM	7488	CA	GLY	C	584	-8.683	76.501	33.205	1.00	55.25	C
ATOM	7489	C	GLY	C	584	-7.689	75.445	32.718	1.00	55.04	C
ATOM	7490	O	GLY	C	584	-7.951	74.748	31.741	1.00	54.99	O
ATOM	7491	N	PRO	C	585	-6.534	75.324	33.390	1.00	54.63	N
ATOM	7492	CA	PRO	C	585	-5.576	74.208	33.166	1.00	54.13	C
ATOM	7493	CB	PRO	C	585	-4.536	74.390	34.285	1.00	54.25	C

- 325 -

ATOM	7494	CG	PRO	C	585	-5.151	75.389	35.262	1.00	55.00	C
ATOM	7495	CD	PRO	C	585	-6.077	76.247	34.443	1.00	54.11	C
ATOM	7496	C	PRO	C	585	-6.237	72.837	33.336	1.00	54.10	C
ATOM	7497	O	PRO	C	585	-5.818	71.855	32.707	1.00	55.00	O
ATOM	7498	N	GLU	C	586	-7.249	72.792	34.206	1.00	51.37	N
ATOM	7499	CA	GLU	C	586	-8.038	71.585	34.473	1.00	48.26	C
ATOM	7500	CB	GLU	C	586	-7.967	71.214	35.953	1.00	48.15	C
ATOM	7501	CG	GLU	C	586	-6.743	70.379	36.262	1.00	51.22	C
ATOM	7502	CD	GLU	C	586	-6.550	70.122	37.758	1.00	52.28	C
ATOM	7503	OE1	GLU	C	586	-6.656	68.948	38.161	1.00	53.73	O
ATOM	7504	OE2	GLU	C	586	-6.306	71.081	38.528	1.00	54.94	O
ATOM	7505	C	GLU	C	586	-9.501	71.761	34.038	1.00	48.56	C
ATOM	7506	O	GLU	C	586	-10.456	71.383	34.786	1.00	45.48	O
ATOM	7507	N	GLY	C	587	-9.674	72.331	32.837	1.00	46.38	N
ATOM	7508	CA	GLY	C	587	-11.008	72.611	32.315	1.00	45.37	C
ATOM	7509	C	GLY	C	587	-11.965	71.405	32.354	1.00	44.81	C
ATOM	7510	O	GLY	C	587	-13.097	71.500	32.881	1.00	44.33	O
ATOM	7511	N	GLU	C	588	-11.494	70.283	31.799	1.00	44.33	N
ATOM	7512	CA	GLU	C	588	-12.287	69.097	31.669	1.00	44.54	C
ATOM	7513	CB	GLU	C	588	-11.521	67.996	30.911	1.00	44.33	C
ATOM	7514	CG	GLU	C	588	-12.224	66.592	30.817	1.00	44.37	C
ATOM	7515	CD	GLU	C	588	-11.490	65.591	29.939	1.00	45.75	C
ATOM	7516	OE1	GLU	C	588	-10.417	65.964	29.419	1.00	46.26	O
ATOM	7517	OE2	GLU	C	588	-11.987	64.459	29.746	1.00	46.22	O
ATOM	7518	C	GLU	C	588	-12.728	68.658	33.066	1.00	44.58	C
ATOM	7519	O	GLU	C	588	-13.940	68.508	33.327	1.00	44.33	O
ATOM	7520	N	ARG	C	589	-11.774	68.484	33.979	1.00	44.33	N
ATOM	7521	CA	ARG	C	589	-12.109	68.149	35.359	1.00	44.33	C
ATOM	7522	CB	ARG	C	589	-10.837	68.085	36.219	1.00	44.33	C
ATOM	7523	CG	ARG	C	589	-10.955	67.265	37.518	1.00	44.33	C
ATOM	7524	CD	ARG	C	589	-9.740	67.485	38.429	1.00	44.33	C
ATOM	7525	NE	ARG	C	589	-9.929	66.877	39.756	1.00	44.33	N
ATOM	7526	CZ	ARG	C	589	-8.954	66.630	40.642	1.00	44.33	C
ATOM	7527	NH1	ARG	C	589	-7.700	66.930	40.344	1.00	44.33	N
ATOM	7528	NH2	ARG	C	589	-9.226	66.084	41.835	1.00	44.33	N
ATOM	7529	C	ARG	C	589	-13.133	69.166	35.901	1.00	44.33	C
ATOM	7530	O	ARG	C	589	-14.162	68.790	36.431	1.00	44.33	O
ATOM	7531	N	ASP	C	590	-12.879	70.450	35.705	1.00	44.33	N
ATOM	7532	CA	ASP	C	590	-13.816	71.477	36.157	1.00	44.33	C
ATOM	7533	CB	ASP	C	590	-13.268	72.811	35.699	1.00	44.33	C
ATOM	7534	CG	ASP	C	590	-12.004	73.111	36.361	1.00	44.33	C
ATOM	7535	OD1	ASP	C	590	-11.582	72.297	37.193	1.00	44.33	O
ATOM	7536	OD2	ASP	C	590	-11.446	74.161	36.084	1.00	44.33	O
ATOM	7537	C	ASP	C	590	-15.298	71.300	35.740	1.00	44.33	C
ATOM	7538	O	ASP	C	590	-16.208	71.377	36.566	1.00	44.33	O
ATOM	7539	N	VAL	C	591	-15.505	71.075	34.447	1.00	44.33	N
ATOM	7540	CA	VAL	C	591	-16.803	70.815	33.920	1.00	44.33	C
ATOM	7541	CB	VAL	C	591	-16.763	70.721	32.362	1.00	44.33	C
ATOM	7542	CG1	VAL	C	591	-18.104	70.223	31.792	1.00	44.33	C
ATOM	7543	CG2	VAL	C	591	-16.349	72.032	31.742	1.00	44.33	C
ATOM	7544	C	VAL	C	591	-17.303	69.486	34.506	1.00	44.33	C
ATOM	7545	O	VAL	C	591	-18.455	69.420	34.962	1.00	45.13	O
ATOM	7546	N	ARG	C	592	-16.466	68.432	34.498	1.00	44.33	N
ATOM	7547	CA	ARG	C	592	-16.974	67.089	34.862	1.00	44.33	C
ATOM	7548	CB	ARG	C	592	-15.940	65.969	34.684	1.00	44.33	C
ATOM	7549	CG	ARG	C	592	-15.450	65.780	33.251	1.00	44.33	C
ATOM	7550	CD	ARG	C	592	-14.202	64.842	33.117	1.00	45.67	C
ATOM	7551	NE	ARG	C	592	-14.613	63.453	32.878	1.00	47.94	N

- 326 -

ATOM	7552	CZ	ARG	C	592	-14.554	62.755	31.729	1.00	47.55	C
ATOM	7553	NH1	ARG	C	592	-14.017	63.233	30.607	1.00	45.75	N
ATOM	7554	NH2	ARG	C	592	-15.023	61.516	31.718	1.00	46.68	N
ATOM	7555	C	ARG	C	592	-17.502	67.122	36.288	1.00	44.33	C
ATOM	7556	O	ARG	C	592	-18.583	66.593	36.598	1.00	44.33	O
ATOM	7557	N	GLU	C	593	-16.756	67.808	37.136	1.00	44.33	N
ATOM	7558	CA	GLU	C	593	-17.046	67.830	38.531	1.00	44.33	C
ATOM	7559	CB	GLU	C	593	-15.755	67.937	39.324	1.00	44.33	C
ATOM	7560	CG	GLU	C	593	-14.987	66.639	39.438	1.00	44.33	C
ATOM	7561	CD	GLU	C	593	-13.554	66.829	39.972	1.00	45.34	C
ATOM	7562	OE1	GLU	C	593	-13.084	67.999	40.172	1.00	46.94	O
ATOM	7563	OE2	GLU	C	593	-12.886	65.776	40.162	1.00	47.45	O
ATOM	7564	C	GLU	C	593	-17.976	68.948	38.902	1.00	44.33	C
ATOM	7565	O	GLU	C	593	-18.263	69.113	40.069	1.00	44.33	O
ATOM	7566	N	HIS	C	594	-18.457	69.734	37.950	1.00	44.33	N
ATOM	7567	CA	HIS	C	594	-19.382	70.773	38.347	1.00	44.33	C
ATOM	7568	CB	HIS	C	594	-19.818	71.591	37.158	1.00	44.33	C
ATOM	7569	CG	HIS	C	594	-20.583	72.810	37.542	1.00	44.33	C
ATOM	7570	ND1	HIS	C	594	-21.929	72.774	37.832	1.00	44.33	N
ATOM	7571	CE1	HIS	C	594	-22.326	73.990	38.165	1.00	44.33	C
ATOM	7572	NE2	HIS	C	594	-21.280	74.802	38.129	1.00	44.33	N
ATOM	7573	CD2	HIS	C	594	-20.179	74.083	37.747	1.00	44.33	C
ATOM	7574	C	HIS	C	594	-20.607	70.169	39.077	1.00	44.33	C
ATOM	7575	O	HIS	C	594	-21.065	69.071	38.711	1.00	44.33	O
ATOM	7576	N	ALA	C	595	-21.130	70.851	40.105	1.00	44.33	N
ATOM	7577	CA	ALA	C	595	-22.324	70.326	40.827	1.00	44.33	C
ATOM	7578	CB	ALA	C	595	-22.771	71.217	41.988	1.00	44.33	C
ATOM	7579	C	ALA	C	595	-23.506	70.065	39.902	1.00	44.33	C
ATOM	7580	O	ALA	C	595	-24.361	69.241	40.209	1.00	44.33	O
ATOM	7581	N	PHE	C	596	-23.575	70.751	38.767	1.00	44.33	N
ATOM	7582	CA	PHE	C	596	-24.649	70.446	37.851	1.00	44.33	C
ATOM	7583	CB	PHE	C	596	-24.612	71.425	36.674	1.00	44.33	C
ATOM	7584	CG	PHE	C	596	-25.591	71.115	35.555	1.00	44.33	C
ATOM	7585	CD1	PHE	C	596	-26.911	71.506	35.638	1.00	44.33	C
ATOM	7586	CE1	PHE	C	596	-27.809	71.225	34.590	1.00	44.33	C
ATOM	7587	CZ	PHE	C	596	-27.367	70.586	33.466	1.00	44.33	C
ATOM	7588	CE2	PHE	C	596	-26.032	70.213	33.372	1.00	44.33	C
ATOM	7589	CD2	PHE	C	596	-25.166	70.478	34.400	1.00	44.33	C
ATOM	7590	C	PHE	C	596	-24.603	68.958	37.429	1.00	44.33	C
ATOM	7591	O	PHE	C	596	-25.625	68.391	37.068	1.00	44.33	O
ATOM	7592	N	PHE	C	597	-23.441	68.310	37.512	1.00	44.33	N
ATOM	7593	CA	PHE	C	597	-23.292	66.932	37.013	1.00	44.33	C
ATOM	7594	CB	PHE	C	597	-22.036	66.780	36.134	1.00	44.33	C
ATOM	7595	CG	PHE	C	597	-22.096	67.546	34.828	1.00	44.33	C
ATOM	7596	CD1	PHE	C	597	-22.877	67.087	33.755	1.00	44.33	C
ATOM	7597	CE1	PHE	C	597	-22.955	67.787	32.568	1.00	44.33	C
ATOM	7598	CZ	PHE	C	597	-22.253	68.943	32.421	1.00	44.33	C
ATOM	7599	CE2	PHE	C	597	-21.473	69.427	33.467	1.00	44.33	C
ATOM	7600	CD2	PHE	C	597	-21.387	68.731	34.668	1.00	44.33	C
ATOM	7601	C	PHE	C	597	-23.221	65.910	38.121	1.00	44.33	C
ATOM	7602	O	PHE	C	597	-22.946	64.737	37.866	1.00	44.33	O
ATOM	7603	N	ARG	C	598	-23.471	66.357	39.344	1.00	44.33	N
ATOM	7604	CA	ARG	C	598	-23.383	65.506	40.530	1.00	44.33	C
ATOM	7605	CB	ARG	C	598	-23.968	66.229	41.738	1.00	44.33	C
ATOM	7606	CG	ARG	C	598	-25.474	66.339	41.692	1.00	44.33	C
ATOM	7607	CD	ARG	C	598	-25.928	67.379	42.655	1.00	44.33	C
ATOM	7608	NE	ARG	C	598	-27.320	67.718	42.459	1.00	44.33	N
ATOM	7609	CZ	ARG	C	598	-27.743	68.548	41.523	1.00	44.33	C

- 327 -

ATOM	7610	NH1	ARG	C	598	-26.870	69.121	40.685	1.00	44.33	N
ATOM	7611	NH2	ARG	C	598	-29.052	68.790	41.428	1.00	44.33	N
ATOM	7612	C	ARG	C	598	-23.997	64.106	40.401	1.00	45.23	C
ATOM	7613	O	ARG	C	598	-23.421	63.151	40.903	1.00	44.86	O
ATOM	7614	N	ARG	C	599	-25.151	63.960	39.757	1.00	46.81	N
ATOM	7615	CA	ARG	C	599	-25.725	62.619	39.660	1.00	48.35	C
ATOM	7616	CB	ARG	C	599	-27.256	62.644	39.608	1.00	51.25	C
ATOM	7617	CG	ARG	C	599	-27.887	63.868	40.175	1.00	54.25	C
ATOM	7618	CD	ARG	C	599	-29.233	63.523	40.753	1.00	57.04	C
ATOM	7619	NE	ARG	C	599	-29.035	63.049	42.118	1.00	61.11	N
ATOM	7620	CZ	ARG	C	599	-30.007	62.746	42.975	1.00	61.96	C
ATOM	7621	NH1	ARG	C	599	-31.289	62.858	42.625	1.00	62.84	N
ATOM	7622	NH2	ARG	C	599	-29.687	62.321	44.198	1.00	62.35	N
ATOM	7623	C	ARG	C	599	-25.162	61.797	38.481	1.00	48.25	C
ATOM	7624	O	ARG	C	599	-25.683	60.731	38.167	1.00	47.97	O
ATOM	7625	N	ILE	C	600	-24.115	62.278	37.818	1.00	46.24	N
ATOM	7626	CA	ILE	C	600	-23.552	61.515	36.679	1.00	47.91	C
ATOM	7627	CB	ILE	C	600	-23.271	62.368	35.394	1.00	48.45	C
ATOM	7628	CG1	ILE	C	600	-24.579	62.475	34.612	1.00	48.62	C
ATOM	7629	CD1	ILE	C	600	-24.878	63.848	34.181	1.00	50.11	C
ATOM	7630	CG2	ILE	C	600	-22.204	61.678	34.479	1.00	47.21	C
ATOM	7631	C	ILE	C	600	-22.372	60.557	36.931	1.00	47.08	C
ATOM	7632	O	ILE	C	600	-21.296	60.941	37.430	1.00	48.89	O
ATOM	7633	N	ASP	C	601	-22.601	59.308	36.539	1.00	47.15	N
ATOM	7634	CA	ASP	C	601	-21.562	58.289	36.455	1.00	46.45	C
ATOM	7635	CB	ASP	C	601	-22.207	56.891	36.591	1.00	47.77	C
ATOM	7636	CG	ASP	C	601	-21.192	55.795	36.816	1.00	47.88	C
ATOM	7637	OD1	ASP	C	601	-19.994	56.065	36.621	1.00	49.24	O
ATOM	7638	OD2	ASP	C	601	-21.577	54.665	37.186	1.00	48.53	O
ATOM	7639	C	ASP	C	601	-20.805	58.431	35.120	1.00	46.64	C
ATOM	7640	O	ASP	C	601	-21.153	57.812	34.091	1.00	46.80	O
ATOM	7641	N	TRP	C	602	-19.766	59.250	35.135	1.00	45.37	N
ATOM	7642	CA	TRP	C	602	-19.067	59.555	33.895	1.00	44.71	C
ATOM	7643	CB	TRP	C	602	-17.917	60.520	34.142	1.00	44.33	C
ATOM	7644	CG	TRP	C	602	-18.394	61.893	34.447	1.00	44.33	C
ATOM	7645	CD1	TRP	C	602	-18.473	62.503	35.678	1.00	44.33	C
ATOM	7646	NE1	TRP	C	602	-18.979	63.792	35.547	1.00	44.33	N
ATOM	7647	CE2	TRP	C	602	-19.244	64.008	34.220	1.00	44.33	C
ATOM	7648	CD2	TRP	C	602	-18.896	62.827	33.504	1.00	44.33	C
ATOM	7649	CE3	TRP	C	602	-19.056	62.797	32.118	1.00	44.33	C
ATOM	7650	CZ3	TRP	C	602	-19.545	63.900	31.486	1.00	44.33	C
ATOM	7651	CH2	TRP	C	602	-19.898	65.058	32.215	1.00	44.33	C
ATOM	7652	CZ2	TRP	C	602	-19.747	65.130	33.590	1.00	44.33	C
ATOM	7653	C	TRP	C	602	-18.604	58.324	33.129	1.00	44.82	C
ATOM	7654	O	TRP	C	602	-18.616	58.348	31.906	1.00	44.33	O
ATOM	7655	N	GLU	C	603	-18.222	57.246	33.815	1.00	45.49	N
ATOM	7656	CA	GLU	C	603	-17.800	56.051	33.070	1.00	48.84	C
ATOM	7657	CB	GLU	C	603	-17.110	54.978	33.931	1.00	51.11	C
ATOM	7658	CG	GLU	C	603	-15.564	54.947	33.721	1.00	54.16	C
ATOM	7659	CD	GLU	C	603	-14.758	54.752	35.039	1.00	53.70	C
ATOM	7660	OE1	GLU	C	603	-15.330	55.001	36.162	1.00	56.08	O
ATOM	7661	OE2	GLU	C	603	-13.555	54.341	34.958	1.00	57.17	O
ATOM	7662	C	GLU	C	603	-18.949	55.483	32.278	1.00	49.28	C
ATOM	7663	O	GLU	C	603	-18.800	55.264	31.088	1.00	48.90	O
ATOM	7664	N	LYS	C	604	-20.090	55.268	32.937	1.00	49.87	N
ATOM	7665	CA	LYS	C	604	-21.238	54.633	32.285	1.00	51.02	C
ATOM	7666	CB	LYS	C	604	-22.320	54.212	33.280	1.00	51.03	C
ATOM	7667	CG	LYS	C	604	-21.894	53.101	34.203	1.00	52.70	C

- 328 -

ATOM	7668	CD	LYS	C	604	-22.938	52.895	35.275	1.00	53.14	C
ATOM	7669	CE	LYS	C	604	-23.785	51.638	35.023	1.00	53.74	C
ATOM	7670	NZ	LYS	C	604	-24.607	51.269	36.239	1.00	52.46	N
ATOM	7671	C	LYS	C	604	-21.779	55.573	31.227	1.00	50.53	C
ATOM	7672	O	LYS	C	604	-22.251	55.125	30.172	1.00	50.41	O
ATOM	7673	N	LEU	C	605	-21.671	56.874	31.494	1.00	50.78	N
ATOM	7674	CA	LEU	C	605	-22.076	57.870	30.519	1.00	51.34	C
ATOM	7675	CB	LEU	C	605	-21.824	59.249	31.072	1.00	50.03	C
ATOM	7676	CG	LEU	C	605	-22.646	60.250	30.301	1.00	50.63	C
ATOM	7677	CD1	LEU	C	605	-23.889	60.636	31.133	1.00	49.07	C
ATOM	7678	CD2	LEU	C	605	-21.769	61.437	29.983	1.00	50.22	C
ATOM	7679	C	LEU	C	605	-21.245	57.683	29.259	1.00	52.64	C
ATOM	7680	O	LEU	C	605	-21.769	57.359	28.192	1.00	52.42	O
ATOM	7681	N	GLU	C	606	-19.935	57.865	29.417	1.00	54.65	N
ATOM	7682	CA	GLU	C	606	-18.953	57.711	28.346	1.00	57.14	C
ATOM	7683	CB	GLU	C	606	-17.583	57.619	28.939	1.00	58.51	C
ATOM	7684	CG	GLU	C	606	-16.719	58.779	28.775	1.00	60.25	C
ATOM	7685	CD	GLU	C	606	-15.774	58.853	29.913	1.00	60.65	C
ATOM	7686	OE1	GLU	C	606	-16.175	59.506	30.890	1.00	60.63	O
ATOM	7687	OE2	GLU	C	606	-14.688	58.221	29.884	1.00	61.49	O
ATOM	7688	C	GLU	C	606	-19.112	56.441	27.571	1.00	57.77	C
ATOM	7689	O	GLU	C	606	-18.772	56.387	26.420	1.00	59.57	O
ATOM	7690	N	ASN	C	607	-19.585	55.397	28.231	1.00	59.44	N
ATOM	7691	CA	ASN	C	607	-19.669	54.075	27.639	1.00	61.04	C
ATOM	7692	CB	ASN	C	607	-19.188	53.015	28.636	1.00	62.26	C
ATOM	7693	CG	ASN	C	607	-17.679	52.902	28.695	1.00	63.99	C
ATOM	7694	OD1	ASN	C	607	-17.021	53.519	29.549	1.00	64.44	O
ATOM	7695	ND2	ASN	C	607	-17.119	52.102	27.785	1.00	64.49	N
ATOM	7696	C	ASN	C	607	-21.090	53.798	27.220	1.00	60.53	C
ATOM	7697	O	ASN	C	607	-21.452	52.651	26.946	1.00	61.68	O
ATOM	7698	N	ARG	C	608	-21.892	54.861	27.207	1.00	60.45	N
ATOM	7699	CA	ARG	C	608	-23.220	54.822	26.635	1.00	60.37	C
ATOM	7700	CB	ARG	C	608	-23.110	54.513	25.141	1.00	60.38	C
ATOM	7701	CG	ARG	C	608	-24.141	55.231	24.374	1.00	60.77	C
ATOM	7702	CD	ARG	C	608	-23.576	55.746	23.147	1.00	60.36	C
ATOM	7703	NE	ARG	C	608	-23.733	54.768	22.091	1.00	60.55	N
ATOM	7704	CZ	ARG	C	608	-24.008	55.104	20.837	1.00	61.84	C
ATOM	7705	NH1	ARG	C	608	-24.178	56.396	20.517	1.00	61.90	N
ATOM	7706	NH2	ARG	C	608	-24.132	54.160	19.905	1.00	62.91	N
ATOM	7707	C	ARG	C	608	-24.112	53.812	27.376	1.00	60.70	C
ATOM	7708	O	ARG	C	608	-24.969	53.120	26.764	1.00	60.86	O
ATOM	7709	N	GLU	C	609	-23.895	53.727	28.693	1.00	59.20	N
ATOM	7710	CA	GLU	C	609	-24.550	52.709	29.520	1.00	59.47	C
ATOM	7711	CB	GLU	C	609	-23.549	51.998	30.451	1.00	60.20	C
ATOM	7712	CG	GLU	C	609	-22.522	51.057	29.747	1.00	63.46	C
ATOM	7713	CD	GLU	C	609	-21.464	50.437	30.697	1.00	63.10	C
ATOM	7714	OE1	GLU	C	609	-21.227	50.961	31.834	1.00	66.03	O
ATOM	7715	OE2	GLU	C	609	-20.859	49.415	30.289	1.00	65.20	O
ATOM	7716	C	GLU	C	609	-25.674	53.292	30.338	1.00	57.11	C
ATOM	7717	O	GLU	C	609	-26.309	52.579	31.090	1.00	57.41	O
ATOM	7718	N	ILE	C	610	-25.936	54.585	30.220	1.00	54.43	N
ATOM	7719	CA	ILE	C	610	-27.037	55.155	30.979	1.00	52.85	C
ATOM	7720	CB	ILE	C	610	-26.686	56.486	31.562	1.00	52.22	C
ATOM	7721	CG1	ILE	C	610	-25.756	56.241	32.739	1.00	52.22	C
ATOM	7722	CD1	ILE	C	610	-24.692	57.258	32.876	1.00	52.01	C
ATOM	7723	CG2	ILE	C	610	-27.935	57.190	32.006	1.00	52.03	C
ATOM	7724	C	ILE	C	610	-28.203	55.275	30.055	1.00	51.96	C
ATOM	7725	O	ILE	C	610	-28.029	55.667	28.916	1.00	51.22	O

- 329 -

ATOM	7726	N	GLN	C	611	-29.381	54.882	30.529	1.00	51.50	N
ATOM	7727	CA	GLN	C	611	-30.624	55.042	29.763	1.00	51.15	C
ATOM	7728	CB	GLN	C	611	-31.847	54.516	30.531	1.00	52.78	C
ATOM	7729	CG	GLN	C	611	-33.137	54.556	29.682	1.00	54.92	C
ATOM	7730	CD	GLN	C	611	-34.183	53.529	30.135	1.00	54.76	C
ATOM	7731	OE1	GLN	C	611	-33.839	52.481	30.719	1.00	57.04	O
ATOM	7732	NE2	GLN	C	611	-35.481	53.821	29.867	1.00	57.21	N
ATOM	7733	C	GLN	C	611	-30.889	56.492	29.405	1.00	49.10	C
ATOM	7734	O	GLN	C	611	-30.918	57.344	30.285	1.00	48.51	O
ATOM	7735	N	PRO	C	612	-31.080	56.780	28.110	1.00	47.29	N
ATOM	7736	CA	PRO	C	612	-31.417	58.159	27.699	1.00	47.33	C
ATOM	7737	CB	PRO	C	612	-31.483	58.091	26.161	1.00	46.53	C
ATOM	7738	CG	PRO	C	612	-30.841	56.844	25.786	1.00	46.55	C
ATOM	7739	CD	PRO	C	612	-30.949	55.883	26.948	1.00	47.06	C
ATOM	7740	C	PRO	C	612	-32.761	58.610	28.261	1.00	47.49	C
ATOM	7741	O	PRO	C	612	-33.606	57.740	28.592	1.00	47.31	O
ATOM	7742	N	PRO	C	613	-32.961	59.944	28.389	1.00	46.76	N
ATOM	7743	CA	PRO	C	613	-34.213	60.493	28.897	1.00	47.33	C
ATOM	7744	CB	PRO	C	613	-34.088	61.997	28.673	1.00	46.68	C
ATOM	7745	CG	PRO	C	613	-32.871	62.181	27.797	1.00	46.38	C
ATOM	7746	CD	PRO	C	613	-31.995	61.009	28.074	1.00	46.43	C
ATOM	7747	C	PRO	C	613	-35.368	59.925	28.133	1.00	48.38	C
ATOM	7748	O	PRO	C	613	-36.353	59.560	28.742	1.00	48.40	O
ATOM	7749	N	PHE	C	614	-35.240	59.787	26.823	1.00	49.45	N
ATOM	7750	CA	PHE	C	614	-36.293	59.119	26.048	1.00	50.05	C
ATOM	7751	CB	PHE	C	614	-37.487	60.057	25.873	1.00	50.28	C
ATOM	7752	CG	PHE	C	614	-37.449	60.836	24.621	1.00	48.59	C
ATOM	7753	CD1	PHE	C	614	-38.278	60.500	23.561	1.00	49.57	C
ATOM	7754	CE1	PHE	C	614	-38.265	61.217	22.358	1.00	48.09	C
ATOM	7755	CZ	PHE	C	614	-37.378	62.264	22.217	1.00	49.08	C
ATOM	7756	CE2	PHE	C	614	-36.534	62.597	23.285	1.00	48.24	C
ATOM	7757	CD2	PHE	C	614	-36.579	61.884	24.477	1.00	49.44	C
ATOM	7758	C	PHE	C	614	-35.833	58.564	24.676	1.00	49.40	C
ATOM	7759	O	PHE	C	614	-34.827	59.002	24.100	1.00	49.63	O
ATOM	7760	N	LYS	C	615	-36.587	57.606	24.157	1.00	48.48	N
ATOM	7761	CA	LYS	C	615	-36.308	57.031	22.851	1.00	48.86	C
ATOM	7762	CB	LYS	C	615	-36.644	55.552	22.842	1.00	51.56	C
ATOM	7763	CG	LYS	C	615	-35.861	54.758	21.855	1.00	51.20	C
ATOM	7764	CD	LYS	C	615	-36.652	53.560	21.380	1.00	53.68	C
ATOM	7765	CE	LYS	C	615	-35.783	52.645	20.566	1.00	53.39	C
ATOM	7766	NZ	LYS	C	615	-34.775	52.032	21.477	1.00	55.95	N
ATOM	7767	C	LYS	C	615	-37.146	57.737	21.800	1.00	49.75	C
ATOM	7768	O	LYS	C	615	-38.366	57.672	21.855	1.00	47.79	O
ATOM	7769	N	PRO	C	616	-36.492	58.415	20.834	1.00	49.23	N
ATOM	7770	CA	PRO	C	616	-37.204	59.147	19.811	1.00	50.75	C
ATOM	7771	CB	PRO	C	616	-36.082	59.758	18.983	1.00	49.62	C
ATOM	7772	CG	PRO	C	616	-34.949	59.831	19.871	1.00	46.29	C
ATOM	7773	CD	PRO	C	616	-35.044	58.556	20.656	1.00	49.09	C
ATOM	7774	C	PRO	C	616	-38.021	58.209	18.963	1.00	53.65	C
ATOM	7775	O	PRO	C	616	-37.825	56.993	18.993	1.00	53.33	O
ATOM	7776	N	LYS	C	617	-38.927	58.777	18.192	1.00	57.85	N
ATOM	7777	CA	LYS	C	617	-39.869	57.992	17.417	1.00	62.43	C
ATOM	7778	CB	LYS	C	617	-41.124	58.840	17.225	1.00	62.80	C
ATOM	7779	CG	LYS	C	617	-41.472	59.626	18.516	1.00	65.39	C
ATOM	7780	CD	LYS	C	617	-42.676	60.578	18.390	1.00	64.98	C
ATOM	7781	CE	LYS	C	617	-43.952	59.875	17.869	1.00	66.35	C
ATOM	7782	NZ	LYS	C	617	-44.253	58.545	18.484	1.00	67.31	N
ATOM	7783	C	LYS	C	617	-39.331	57.382	16.083	1.00	63.81	C

- 330 -

ATOM	7784	O	LYS	C	617	-40.004	56.531	15.455	1.00	64.56	O
ATOM	7785	N	VAL	C	618	-38.108	57.782	15.699	1.00	65.45	N
ATOM	7786	CA	VAL	C	618	-37.417	57.404	14.426	1.00	66.69	C
ATOM	7787	CB	VAL	C	618	-36.843	55.932	14.387	1.00	66.92	C
ATOM	7788	CG1	VAL	C	618	-37.948	54.852	14.464	1.00	68.96	C
ATOM	7789	CG2	VAL	C	618	-36.093	55.725	13.127	1.00	69.11	C
ATOM	7790	C	VAL	C	618	-38.186	57.780	13.143	1.00	67.81	C
ATOM	7791	O	VAL	C	618	-39.161	57.116	12.762	1.00	66.80	O
ATOM	7792	N	PHE	C	626	-45.755	55.540	-2.253	1.00	54.70	N
ATOM	7793	CA	PHE	C	626	-46.158	55.759	-3.644	1.00	54.74	C
ATOM	7794	CB	PHE	C	626	-46.243	54.425	-4.415	1.00	56.53	C
ATOM	7795	CG	PHE	C	626	-46.564	54.572	-5.921	1.00	57.43	C
ATOM	7796	CD1	PHE	C	626	-45.644	55.200	-6.809	1.00	58.35	C
ATOM	7797	CE1	PHE	C	626	-45.911	55.335	-8.184	1.00	57.93	C
ATOM	7798	CZ	PHE	C	626	-47.081	54.833	-8.692	1.00	58.09	C
ATOM	7799	CE2	PHE	C	626	-48.021	54.186	-7.835	1.00	57.83	C
ATOM	7800	CD2	PHE	C	626	-47.759	54.061	-6.451	1.00	57.67	C
ATOM	7801	C	PHE	C	626	-47.509	56.482	-3.707	1.00	53.26	C
ATOM	7802	O	PHE	C	626	-48.400	56.161	-2.916	1.00	52.79	O
ATOM	7803	N	ASP	C	627	-47.575	57.461	-4.642	1.00	49.99	N
ATOM	7804	CA	ASP	C	627	-48.706	58.330	-5.094	1.00	45.93	C
ATOM	7805	CB	ASP	C	627	-48.490	59.760	-4.517	1.00	44.97	C
ATOM	7806	CG	ASP	C	627	-49.240	60.890	-5.306	1.00	44.33	C
ATOM	7807	OD1	ASP	C	627	-49.867	60.611	-6.353	1.00	44.33	O
ATOM	7808	OD2	ASP	C	627	-49.216	62.075	-4.878	1.00	44.33	O
ATOM	7809	C	ASP	C	627	-48.718	58.340	-6.680	1.00	44.33	C
ATOM	7810	O	ASP	C	627	-47.715	58.712	-7.324	1.00	44.61	O
ATOM	7811	N	LYS	C	628	-49.805	57.939	-7.337	1.00	44.33	N
ATOM	7812	CA	LYS	C	628	-49.645	57.714	-8.785	1.00	44.33	C
ATOM	7813	CB	LYS	C	628	-50.418	56.496	-9.284	1.00	44.33	C
ATOM	7814	CG	LYS	C	628	-51.835	56.532	-9.116	1.00	44.33	C
ATOM	7815	CD	LYS	C	628	-52.361	55.157	-9.486	1.00	44.33	C
ATOM	7816	CE	LYS	C	628	-53.858	55.117	-9.426	1.00	44.75	C
ATOM	7817	NZ	LYS	C	628	-54.178	54.484	-10.710	1.00	46.31	N
ATOM	7818	C	LYS	C	628	-49.717	58.911	-9.755	1.00	44.33	C
ATOM	7819	O	LYS	C	628	-49.541	58.767	-10.991	1.00	44.33	O
ATOM	7820	N	PHE	C	629	-49.897	60.081	-9.169	1.00	44.33	N
ATOM	7821	CA	PHE	C	629	-50.054	61.306	-9.923	1.00	44.33	C
ATOM	7822	CB	PHE	C	629	-51.379	62.022	-9.531	1.00	44.33	C
ATOM	7823	CG	PHE	C	629	-52.581	61.131	-9.572	1.00	44.33	C
ATOM	7824	CD1	PHE	C	629	-52.994	60.548	-10.771	1.00	44.33	C
ATOM	7825	CE1	PHE	C	629	-54.109	59.711	-10.803	1.00	44.33	C
ATOM	7826	CZ	PHE	C	629	-54.806	59.440	-9.635	1.00	44.33	C
ATOM	7827	CE2	PHE	C	629	-54.395	59.993	-8.444	1.00	44.33	C
ATOM	7828	CD2	PHE	C	629	-53.283	60.848	-8.413	1.00	44.33	C
ATOM	7829	C	PHE	C	629	-48.851	62.239	-9.791	1.00	44.33	C
ATOM	7830	O	PHE	C	629	-48.761	63.223	-10.528	1.00	44.33	O
ATOM	7831	N	PHE	C	630	-47.931	61.900	-8.883	1.00	44.33	N
ATOM	7832	CA	PHE	C	630	-46.786	62.738	-8.554	1.00	44.33	C
ATOM	7833	CB	PHE	C	630	-47.229	63.812	-7.558	1.00	44.33	C
ATOM	7834	CG	PHE	C	630	-46.116	64.580	-6.972	1.00	44.33	C
ATOM	7835	CD1	PHE	C	630	-45.392	65.483	-7.755	1.00	44.33	C
ATOM	7836	CE1	PHE	C	630	-44.320	66.188	-7.217	1.00	44.33	C
ATOM	7837	CZ	PHE	C	630	-43.962	66.003	-5.839	1.00	44.33	C
ATOM	7838	CE2	PHE	C	630	-44.682	65.115	-5.042	1.00	44.33	C
ATOM	7839	CD2	PHE	C	630	-45.755	64.390	-5.625	1.00	44.33	C
ATOM	7840	C	PHE	C	630	-45.559	61.929	-8.036	1.00	44.33	C
ATOM	7841	O	PHE	C	630	-45.720	60.995	-7.252	1.00	44.33	O

- 331 -

ATOM	7842	N	THR	C	631	-44.346	62.272	-8.489	1.00	44.33	N
ATOM	7843	CA	THR	C	631	-43.079	61.804	-7.840	1.00	44.33	C
ATOM	7844	CB	THR	C	631	-42.292	60.776	-8.671	1.00	44.33	C
ATOM	7845	OG1	THR	C	631	-42.934	60.596	-9.942	1.00	48.20	O
ATOM	7846	CG2	THR	C	631	-42.117	59.455	-7.910	1.00	49.46	C
ATOM	7847	C	THR	C	631	-42.033	62.873	-7.676	1.00	45.83	C
ATOM	7848	O	THR	C	631	-41.915	63.795	-8.502	1.00	47.64	O
ATOM	7849	N	ARG	C	632	-41.191	62.700	-6.675	1.00	46.74	N
ATOM	7850	CA	ARG	C	632	-39.975	63.515	-6.641	1.00	50.35	C
ATOM	7851	CB	ARG	C	632	-39.379	63.528	-5.248	1.00	52.03	C
ATOM	7852	CG	ARG	C	632	-40.347	63.843	-4.174	1.00	56.41	C
ATOM	7853	CD	ARG	C	632	-39.583	63.943	-2.895	1.00	59.18	C
ATOM	7854	NE	ARG	C	632	-40.402	64.532	-1.840	1.00	61.03	N
ATOM	7855	CZ	ARG	C	632	-40.900	65.770	-1.858	1.00	63.28	C
ATOM	7856	NH1	ARG	C	632	-40.693	66.592	-2.899	1.00	63.56	N
ATOM	7857	NH2	ARG	C	632	-41.647	66.169	-0.832	1.00	64.18	N
ATOM	7858	C	ARG	C	632	-38.917	63.024	-7.660	1.00	49.67	C
ATOM	7859	O	ARG	C	632	-38.098	63.810	-8.120	1.00	51.31	O
ATOM	7860	N	GLY	C	633	-38.950	61.727	-7.997	1.00	48.48	N
ATOM	7861	CA	GLY	C	633	-37.984	61.132	-8.924	1.00	47.39	C
ATOM	7862	C	GLY	C	633	-36.674	60.782	-8.218	1.00	47.37	C
ATOM	7863	O	GLY	C	633	-36.389	61.285	-7.112	1.00	47.81	O
ATOM	7864	N	GLN	C	634	-35.864	59.927	-8.845	1.00	45.01	N
ATOM	7865	CA	GLN	C	634	-34.569	59.546	-8.256	1.00	47.16	C
ATOM	7866	CB	GLN	C	634	-33.934	58.415	-9.070	1.00	48.79	C
ATOM	7867	CG	GLN	C	634	-32.700	57.747	-8.379	1.00	54.93	C
ATOM	7868	CD	GLN	C	634	-33.076	56.905	-7.144	1.00	57.07	C
ATOM	7869	OE1	GLN	C	634	-34.150	57.119	-6.527	1.00	58.76	O
ATOM	7870	NE2	GLN	C	634	-32.203	55.934	-6.784	1.00	57.36	N
ATOM	7871	C	GLN	C	634	-33.548	60.719	-8.068	1.00	45.19	C
ATOM	7872	O	GLN	C	634	-33.383	61.589	-8.933	1.00	44.33	O
ATOM	7873	N	PRO	C	635	-32.848	60.749	-6.926	1.00	46.48	N
ATOM	7874	CA	PRO	C	635	-31.724	61.659	-7.001	1.00	45.82	C
ATOM	7875	CB	PRO	C	635	-31.128	61.587	-5.593	1.00	46.13	C
ATOM	7876	CG	PRO	C	635	-32.241	61.022	-4.727	1.00	46.34	C
ATOM	7877	CD	PRO	C	635	-32.942	60.077	-5.617	1.00	46.05	C
ATOM	7878	C	PRO	C	635	-30.738	61.089	-8.040	1.00	48.14	C
ATOM	7879	O	PRO	C	635	-30.359	59.909	-7.983	1.00	49.82	O
ATOM	7880	N	VAL	C	636	-30.374	61.892	-9.023	1.00	47.77	N
ATOM	7881	CA	VAL	C	636	-29.288	61.485	-9.893	1.00	49.55	C
ATOM	7882	CB	VAL	C	636	-29.731	61.232	-11.365	1.00	49.12	C
ATOM	7883	CG1	VAL	C	636	-30.720	60.044	-11.456	1.00	48.34	C
ATOM	7884	CG2	VAL	C	636	-30.315	62.470	-11.945	1.00	48.68	C
ATOM	7885	O	VAL	C	636	-28.116	62.483	-9.823	1.00	48.39	C
ATOM	7886	C	VAL	C	636	-28.156	63.501	-9.074	1.00	48.06	O
ATOM	7887	N	LEU	C	637	-27.076	62.150	-10.596	1.00	47.75	N
ATOM	7888	CA	LEU	C	637	-25.876	62.951	-10.688	1.00	48.40	C
ATOM	7889	CB	LEU	C	637	-24.700	62.223	-10.007	1.00	48.36	C
ATOM	7890	CG	LEU	C	637	-24.343	62.533	-8.529	1.00	51.48	C
ATOM	7891	CD1	LEU	C	637	-25.452	62.398	-7.458	1.00	47.32	C
ATOM	7892	CD2	LEU	C	637	-23.194	61.649	-8.168	1.00	48.26	C
ATOM	7893	C	LEU	C	637	-25.567	63.221	-12.150	1.00	46.77	C
ATOM	7894	O	LEU	C	637	-25.405	62.284	-12.963	1.00	46.16	O
ATOM	7895	N	TPO	C	638	-25.485	64.503	-12.491	1.00	46.42	N
ATOM	7896	CA	TPO	C	638	-25.080	64.874	-13.855	1.00	49.75	C
ATOM	7897	CB	TPO	C	638	-25.489	66.303	-14.176	1.00	52.55	C
ATOM	7898	CG2	TPO	C	638	-25.159	66.643	-15.634	1.00	52.54	C
ATOM	7899	OG1	TPO	C	638	-25.004	67.190	-13.145	1.00	59.10	O

- 332 -

ATOM	7900	P	TPO	C	638	-25.978	67.564	-11.859	1.00	60.73	P
ATOM	7901	O1P	TPO	C	638	-25.769	66.346	-10.892	1.00	59.28	O
ATOM	7902	O2P	TPO	C	638	-25.473	68.857	-11.184	1.00	61.94	O
ATOM	7903	O3P	TPO	C	638	-27.393	67.868	-12.453	1.00	60.67	O
ATOM	7904	C	TPO	C	638	-23.637	64.520	-14.169	1.00	48.77	C
ATOM	7905	O	TPO	C	638	-22.741	64.750	-13.357	1.00	45.07	O
ATOM	7906	N	PRO	C	639	-23.410	63.871	-15.327	1.00	49.66	N
ATOM	7907	CA	PRO	C	639	-22.053	63.634	-15.851	1.00	48.38	C
ATOM	7908	CB	PRO	C	639	-22.254	63.408	-17.367	1.00	50.67	C
ATOM	7909	CG	PRO	C	639	-23.741	63.144	-17.558	1.00	50.87	C
ATOM	7910	CD	PRO	C	639	-24.438	63.236	-16.172	1.00	49.66	C
ATOM	7911	C	PRO	C	639	-21.183	64.829	-15.661	1.00	46.91	C
ATOM	7912	O	PRO	C	639	-21.664	65.965	-15.825	1.00	46.35	O
ATOM	7913	N	PRO	C	640	-19.897	64.578	-15.336	1.00	48.50	N
ATOM	7914	CA	PRO	C	640	-18.914	65.656	-15.034	1.00	48.07	C
ATOM	7915	CB	PRO	C	640	-17.681	64.886	-14.525	1.00	49.60	C
ATOM	7916	CG	PRO	C	640	-17.771	63.478	-15.155	1.00	50.64	C
ATOM	7917	CD	PRO	C	640	-19.283	63.225	-15.302	1.00	48.70	C
ATOM	7918	C	PRO	C	640	-18.614	66.366	-16.345	1.00	46.88	C
ATOM	7919	O	PRO	C	640	-18.456	65.673	-17.344	1.00	45.82	O
ATOM	7920	N	ASP	C	641	-18.611	67.703	-16.374	1.00	45.77	N
ATOM	7921	CA	ASP	C	641	-18.117	68.354	-17.574	1.00	46.42	C
ATOM	7922	CB	ASP	C	641	-18.396	69.830	-17.632	1.00	49.20	C
ATOM	7923	CG	ASP	C	641	-17.560	70.490	-18.718	1.00	53.91	C
ATOM	7924	OD1	ASP	C	641	-17.636	70.064	-19.925	1.00	56.32	O
ATOM	7925	OD2	ASP	C	641	-16.758	71.390	-18.364	1.00	54.16	O
ATOM	7926	C	ASP	C	641	-16.591	68.107	-17.730	1.00	46.09	C
ATOM	7927	O	ASP	C	641	-15.774	68.369	-16.802	1.00	44.33	O
ATOM	7928	N	GLN	C	642	-16.218	67.593	-18.898	1.00	44.77	N
ATOM	7929	CA	GLN	C	642	-14.831	67.321	-19.178	1.00	46.60	C
ATOM	7930	CB	GLN	C	642	-14.648	66.775	-20.579	1.00	50.83	C
ATOM	7931	CG	GLN	C	642	-15.178	65.388	-20.808	1.00	55.09	C
ATOM	7932	CD	GLN	C	642	-14.916	64.429	-19.671	1.00	56.33	C
ATOM	7933	OE1	GLN	C	642	-15.824	63.710	-19.269	1.00	58.48	O
ATOM	7934	NE2	GLN	C	642	-13.683	64.396	-19.154	1.00	57.36	N
ATOM	7935	C	GLN	C	642	-13.981	68.561	-19.035	1.00	45.25	C
ATOM	7936	O	GLN	C	642	-12.895	68.511	-18.501	1.00	44.33	O
ATOM	7937	N	LEU	C	643	-14.459	69.689	-19.496	1.00	44.33	N
ATOM	7938	CA	LEU	C	643	-13.600	70.828	-19.448	1.00	44.33	C
ATOM	7939	CB	LEU	C	643	-14.197	71.976	-20.236	1.00	44.33	C
ATOM	7940	CG	LEU	C	643	-13.269	73.140	-20.540	1.00	44.33	C
ATOM	7941	CD1	LEU	C	643	-12.213	72.804	-21.573	1.00	44.33	C
ATOM	7942	CD2	LEU	C	643	-14.138	74.312	-20.987	1.00	44.33	C
ATOM	7943	C	LEU	C	643	-13.320	71.210	-18.005	1.00	44.33	C
ATOM	7944	O	LEU	C	643	-12.222	71.586	-17.674	1.00	44.33	O
ATOM	7945	N	VAL	C	644	-14.325	71.104	-17.145	1.00	44.33	N
ATOM	7946	CA	VAL	C	644	-14.152	71.410	-15.752	1.00	44.33	C
ATOM	7947	CB	VAL	C	644	-15.502	71.640	-15.066	1.00	44.33	C
ATOM	7948	CG1	VAL	C	644	-15.409	71.680	-13.548	1.00	44.33	C
ATOM	7949	CG2	VAL	C	644	-15.971	72.943	-15.497	1.00	44.33	C
ATOM	7950	C	VAL	C	644	-13.224	70.394	-15.104	1.00	44.33	C
ATOM	7951	O	VAL	C	644	-12.318	70.752	-14.390	1.00	44.33	O
ATOM	7952	N	ILE	C	645	-13.405	69.129	-15.387	1.00	44.33	N
ATOM	7953	CA	ILE	C	645	-12.579	68.151	-14.741	1.00	44.33	C
ATOM	7954	CB	ILE	C	645	-12.986	66.775	-15.147	1.00	44.33	C
ATOM	7955	CG1	ILE	C	645	-14.422	66.514	-14.743	1.00	44.33	C
ATOM	7956	CD1	ILE	C	645	-15.037	65.445	-15.633	1.00	44.33	C
ATOM	7957	CG2	ILE	C	645	-12.116	65.740	-14.465	1.00	44.33	C

- 333 -

ATOM	7958	C	ILE	C	645	-11.143	68.290	-15.162	1.00	44.33	C
ATOM	7959	O	ILE	C	645	-10.205	67.923	-14.431	1.00	44.33	O
ATOM	7960	N	ALA	C	646	-10.964	68.795	-16.369	1.00	44.33	N
ATOM	7961	CA	ALA	C	646	-9.615	68.885	-16.903	1.00	44.33	C
ATOM	7962	CB	ALA	C	646	-9.619	69.023	-18.381	1.00	44.33	C
ATOM	7963	C	ALA	C	646	-8.863	70.015	-16.234	1.00	44.33	C
ATOM	7964	O	ALA	C	646	-7.650	70.088	-16.301	1.00	44.33	O
ATOM	7965	N	ASN	C	647	-9.601	70.857	-15.529	1.00	44.33	N
ATOM	7966	CA	ASN	C	647	-9.058	72.057	-14.987	1.00	44.33	C
ATOM	7967	CB	ASN	C	647	-9.629	73.262	-15.712	1.00	44.33	C
ATOM	7968	CG	ASN	C	647	-9.038	73.422	-17.072	1.00	44.33	C
ATOM	7969	OD1	ASN	C	647	-7.898	73.872	-17.195	1.00	44.33	O
ATOM	7970	ND2	ASN	C	647	-9.767	73.009	-18.099	1.00	44.33	N
ATOM	7971	C	ASN	C	647	-9.220	72.140	-13.513	1.00	44.33	C
ATOM	7972	O	ASN	C	647	-8.958	73.184	-12.932	1.00	44.33	O
ATOM	7973	N	ILE	C	648	-9.610	71.011	-12.922	1.00	44.33	N
ATOM	7974	CA	ILE	C	648	-9.570	70.788	-11.490	1.00	44.33	C
ATOM	7975	CB	ILE	C	648	-10.448	69.544	-11.090	1.00	44.33	C
ATOM	7976	CG1	ILE	C	648	-11.951	69.869	-11.279	1.00	44.33	C
ATOM	7977	CD1	ILE	C	648	-12.910	68.715	-10.963	1.00	44.33	C
ATOM	7978	CG2	ILE	C	648	-10.136	69.070	-9.637	1.00	44.33	C
ATOM	7979	C	ILE	C	648	-8.104	70.589	-11.067	1.00	44.33	C
ATOM	7980	O	ILE	C	648	-7.394	69.769	-11.654	1.00	44.33	O
ATOM	7981	N	ASP	C	649	-7.653	71.345	-10.064	1.00	44.33	N
ATOM	7982	CA	ASP	C	649	-6.418	71.018	-9.347	1.00	44.33	C
ATOM	7983	CB	ASP	C	649	-5.909	72.260	-8.576	1.00	44.33	C
ATOM	7984	CG	ASP	C	649	-4.456	72.121	-8.061	1.00	44.33	C
ATOM	7985	OD1	ASP	C	649	-3.898	71.005	-8.072	1.00	44.33	O
ATOM	7986	OD2	ASP	C	649	-3.878	73.146	-7.638	1.00	44.33	O
ATOM	7987	C	ASP	C	649	-6.626	69.809	-8.398	1.00	44.33	C
ATOM	7988	O	ASP	C	649	-6.995	69.988	-7.229	1.00	44.33	O
ATOM	7989	N	GLN	C	650	-6.393	68.597	-8.898	1.00	44.33	N
ATOM	7990	CA	GLN	C	650	-6.609	67.403	-8.091	1.00	44.33	C
ATOM	7991	CB	GLN	C	650	-6.500	66.092	-8.877	1.00	44.33	C
ATOM	7992	CG	GLN	C	650	-7.446	65.913	-10.055	1.00	44.33	C
ATOM	7993	CD	GLN	C	650	-8.893	65.759	-9.694	1.00	44.33	C
ATOM	7994	OE1	GLN	C	650	-9.226	65.464	-8.568	1.00	44.33	O
ATOM	7995	NE2	GLN	C	650	-9.770	65.977	-10.654	1.00	44.33	N
ATOM	7996	C	GLN	C	650	-5.701	67.325	-6.872	1.00	44.33	C
ATOM	7997	O	GLN	C	650	-6.042	66.653	-5.897	1.00	44.33	O
ATOM	7998	N	SER	C	651	-4.573	68.020	-6.895	1.00	44.33	N
ATOM	7999	CA	SER	C	651	-3.655	67.978	-5.766	1.00	44.33	C
ATOM	8000	CB	SER	C	651	-2.391	68.750	-6.072	1.00	44.33	C
ATOM	8001	OG	SER	C	651	-2.630	70.122	-5.939	1.00	44.33	O
ATOM	8002	C	SER	C	651	-4.309	68.507	-4.476	1.00	44.33	C
ATOM	8003	O	SER	C	651	-3.941	68.106	-3.374	1.00	44.33	O
ATOM	8004	N	ASP	C	652	-5.301	69.381	-4.617	1.00	44.33	N
ATOM	8005	CA	ASP	C	652	-6.108	69.840	-3.494	1.00	44.33	C
ATOM	8006	CB	ASP	C	652	-7.311	70.619	-4.005	1.00	44.33	C
ATOM	8007	CG	ASP	C	652	-6.932	71.934	-4.628	1.00	44.33	C
ATOM	8008	OD1	ASP	C	652	-5.727	72.165	-4.866	1.00	44.33	O
ATOM	8009	OD2	ASP	C	652	-7.836	72.751	-4.891	1.00	44.59	O
ATOM	8010	C	ASP	C	652	-6.615	68.709	-2.613	1.00	44.33	C
ATOM	8011	O	ASP	C	652	-6.812	68.912	-1.413	1.00	44.33	O
ATOM	8012	N	PHE	C	653	-6.810	67.535	-3.209	1.00	44.33	N
ATOM	8013	CA	PHE	C	653	-7.542	66.468	-2.566	1.00	44.33	C
ATOM	8014	CB	PHE	C	653	-8.739	66.137	-3.417	1.00	44.33	C
ATOM	8015	CG	PHE	C	653	-9.577	67.332	-3.724	1.00	44.33	C

- 334 -

ATOM	8016	CD1	PHE	C	653	-9.833	67.698	-5.017	1.00	44.33	C
ATOM	8017	CE1	PHE	C	653	-10.586	68.794	-5.275	1.00	44.33	C
ATOM	8018	CZ	PHE	C	653	-11.085	69.536	-4.255	1.00	44.33	C
ATOM	8019	CE2	PHE	C	653	-10.826	69.191	-2.971	1.00	44.33	C
ATOM	8020	CD2	PHE	C	653	-10.068	68.119	-2.708	1.00	44.33	C
ATOM	8021	C	PHE	C	653	-6.700	65.238	-2.310	1.00	44.33	C
ATOM	8022	O	PHE	C	653	-7.203	64.158	-2.000	1.00	44.33	O
ATOM	8023	N	GLU	C	654	-5.396	65.423	-2.401	1.00	44.33	N
ATOM	8024	CA	GLU	C	654	-4.439	64.397	-2.066	1.00	44.33	C
ATOM	8025	CB	GLU	C	654	-3.070	65.004	-2.144	1.00	44.33	C
ATOM	8026	CG	GLU	C	654	-1.933	64.039	-1.906	1.00	44.33	C
ATOM	8027	CD	GLU	C	654	-0.655	64.793	-1.563	1.00	44.63	C
ATOM	8028	OE1	GLU	C	654	-0.757	65.972	-1.120	1.00	45.92	O
ATOM	8029	OE2	GLU	C	654	0.448	64.223	-1.720	1.00	46.71	O
ATOM	8030	C	GLU	C	654	-4.624	63.772	-0.673	1.00	44.33	C
ATOM	8031	O	GLU	C	654	-4.671	64.463	0.359	1.00	44.33	O
ATOM	8032	N	GLY	C	655	-4.705	62.455	-0.624	1.00	44.33	N
ATOM	8033	CA	GLY	C	655	-4.916	61.827	0.657	1.00	44.33	C
ATOM	8034	C	GLY	C	655	-6.270	62.079	1.268	1.00	44.33	C
ATOM	8035	O	GLY	C	655	-6.417	62.111	2.465	1.00	44.33	O
ATOM	8036	N	PHE	C	656	-7.281	62.232	0.425	1.00	44.33	N
ATOM	8037	CA	PHE	C	656	-8.644	62.297	0.889	1.00	44.33	C
ATOM	8038	CB	PHE	C	656	-9.535	62.746	-0.219	1.00	44.33	C
ATOM	8039	CG	PHE	C	656	-10.905	63.039	0.228	1.00	44.33	C
ATOM	8040	CD1	PHE	C	656	-11.156	64.112	1.047	1.00	44.33	C
ATOM	8041	CE1	PHE	C	656	-12.416	64.391	1.448	1.00	44.33	C
ATOM	8042	CZ	PHE	C	656	-13.455	63.599	1.042	1.00	44.33	C
ATOM	8043	CE2	PHE	C	656	-13.227	62.520	0.251	1.00	44.33	C
ATOM	8044	CD2	PHE	C	656	-11.952	62.238	-0.156	1.00	44.33	C
ATOM	8045	C	PHE	C	656	-9.205	60.989	1.369	1.00	44.33	C
ATOM	8046	O	PHE	C	656	-9.936	60.939	2.317	1.00	44.33	O
ATOM	8047	N	SEP	C	657	-8.914	59.922	0.675	1.00	44.33	N
ATOM	8048	CA	SEP	C	657	-9.643	58.732	0.931	1.00	44.33	C
ATOM	8049	CB	SEP	C	657	-9.434	57.768	-0.182	1.00	44.33	C
ATOM	8050	OG	SEP	C	657	-10.030	58.374	-1.307	1.00	44.33	O
ATOM	8051	P	SEP	C	657	-9.691	57.512	-2.606	1.00	48.92	P
ATOM	8052	O1P	SEP	C	657	-8.176	57.898	-3.052	1.00	44.33	O
ATOM	8053	O2P	SEP	C	657	-10.853	57.703	-3.714	1.00	44.33	O
ATOM	8054	O3P	SEP	C	657	-9.839	55.961	-2.191	1.00	46.79	O
ATOM	8055	C	SEP	C	657	-9.195	58.143	2.192	1.00	44.33	C
ATOM	8056	O	SEP	C	657	-8.079	58.338	2.593	1.00	44.33	O
ATOM	8057	N	TYR	C	658	-10.104	57.440	2.834	1.00	44.33	N
ATOM	8058	CA	TYR	C	658	-9.860	56.777	4.097	1.00	44.33	C
ATOM	8059	CB	TYR	C	658	-9.866	57.793	5.211	1.00	44.33	C
ATOM	8060	CG	TYR	C	658	-9.778	57.221	6.585	1.00	44.33	C
ATOM	8061	CD1	TYR	C	658	-8.569	56.754	7.059	1.00	44.33	C
ATOM	8062	CE1	TYR	C	658	-8.432	56.240	8.334	1.00	44.33	C
ATOM	8063	CZ	TYR	C	658	-9.550	56.197	9.156	1.00	44.33	C
ATOM	8064	OH	TYR	C	658	-9.382	55.684	10.430	1.00	44.46	O
ATOM	8065	CE2	TYR	C	658	-10.799	56.668	8.687	1.00	44.33	C
ATOM	8066	CD2	TYR	C	658	-10.886	57.177	7.413	1.00	44.33	C
ATOM	8067	C	TYR	C	658	-10.988	55.790	4.353	1.00	44.33	C
ATOM	8068	O	TYR	C	658	-12.165	56.073	4.036	1.00	44.33	O
ATOM	8069	N	VAL	C	659	-10.629	54.651	4.943	1.00	44.33	N
ATOM	8070	CA	VAL	C	659	-11.616	53.686	5.387	1.00	44.33	C
ATOM	8071	CB	VAL	C	659	-11.402	52.338	4.695	1.00	44.33	C
ATOM	8072	CG1	VAL	C	659	-12.341	51.284	5.295	1.00	44.33	C
ATOM	8073	CG2	VAL	C	659	-11.591	52.469	3.163	1.00	44.33	C

- 335 -

ATOM	8074	C	VAL	C	659	-11.535	53.483	6.893	1.00	44.33	C
ATOM	8075	O	VAL	C	659	-10.514	53.075	7.399	1.00	44.33	O
ATOM	8076	N	ASN	C	660	-12.604	53.767	7.607	1.00	44.33	N
ATOM	8077	CA	ASN	C	660	-12.649	53.523	9.049	1.00	44.33	C
ATOM	8078	CB	ASN	C	660	-13.940	54.077	9.663	1.00	44.33	C
ATOM	8079	CG	ASN	C	660	-13.886	54.128	11.171	1.00	44.33	C
ATOM	8080	OD1	ASN	C	660	-12.874	53.780	11.793	1.00	44.33	O
ATOM	8081	ND2	ASN	C	660	-14.967	54.575	11.771	1.00	44.33	N
ATOM	8082	C	ASN	C	660	-12.514	52.027	9.425	1.00	44.33	C
ATOM	8083	O	ASN	C	660	-13.446	51.252	9.216	1.00	44.33	O
ATOM	8084	N	PRO	C	661	-11.358	51.621	10.002	1.00	44.61	N
ATOM	8085	CA	PRO	C	661	-11.226	50.185	10.261	1.00	45.53	C
ATOM	8086	CB	PRO	C	661	-9.839	50.059	10.904	1.00	46.35	C
ATOM	8087	CG	PRO	C	661	-9.538	51.424	11.493	1.00	46.31	C
ATOM	8088	CD	PRO	C	661	-10.172	52.373	10.467	1.00	45.19	C
ATOM	8089	C	PRO	C	661	-12.309	49.708	11.244	1.00	47.25	C
ATOM	8090	O	PRO	C	661	-12.842	48.575	11.122	1.00	48.10	O
ATOM	8091	N	GLN	C	662	-12.644	50.569	12.201	1.00	44.97	N
ATOM	8092	CA	GLN	C	662	-13.604	50.169	13.222	1.00	44.33	C
ATOM	8093	CB	GLN	C	662	-12.948	50.033	14.607	1.00	44.33	C
ATOM	8094	CG	GLN	C	662	-12.306	48.645	14.848	1.00	44.33	C
ATOM	8095	CD	GLN	C	662	-13.205	47.433	14.473	1.00	44.33	C
ATOM	8096	OE1	GLN	C	662	-12.806	46.588	13.672	1.00	44.33	O
ATOM	8097	NE2	GLN	C	662	-14.398	47.345	15.059	1.00	44.33	N
ATOM	8098	C	GLN	C	662	-14.974	50.896	13.232	1.00	44.33	C
ATOM	8099	O	GLN	C	662	-15.415	51.449	14.241	1.00	44.33	O
ATOM	8100	N	PHE	C	663	-15.643	50.845	12.085	1.00	44.33	N
ATOM	8101	CA	PHE	C	663	-16.984	51.399	11.954	1.00	44.33	C
ATOM	8102	CB	PHE	C	663	-17.392	51.522	10.491	1.00	44.33	C
ATOM	8103	CG	PHE	C	663	-18.765	52.063	10.309	1.00	44.33	C
ATOM	8104	CD1	PHE	C	663	-19.105	53.318	10.810	1.00	44.33	C
ATOM	8105	CE1	PHE	C	663	-20.398	53.839	10.656	1.00	44.33	C
ATOM	8106	CZ	PHE	C	663	-21.383	53.092	10.002	1.00	44.33	C
ATOM	8107	CE2	PHE	C	663	-21.048	51.816	9.497	1.00	44.33	C
ATOM	8108	CD2	PHE	C	663	-19.735	51.322	9.657	1.00	44.33	C
ATOM	8109	C	PHE	C	663	-17.972	50.500	12.603	1.00	44.33	C
ATOM	8110	O	PHE	C	663	-18.117	49.363	12.178	1.00	44.33	O
ATOM	8111	N	VAL	C	664	-18.690	51.012	13.595	1.00	44.33	N
ATOM	8112	CA	VAL	C	664	-19.676	50.226	14.339	1.00	44.33	C
ATOM	8113	CB	VAL	C	664	-19.923	50.843	15.747	1.00	44.33	C
ATOM	8114	CG1	VAL	C	664	-20.856	49.974	16.518	1.00	44.33	C
ATOM	8115	CG2	VAL	C	664	-18.655	51.051	16.496	1.00	44.33	C
ATOM	8116	C	VAL	C	664	-20.987	50.242	13.581	1.00	44.33	C
ATOM	8117	O	VAL	C	664	-21.659	51.253	13.607	1.00	44.33	O
ATOM	8118	N	HIS	C	665	-21.355	49.167	12.889	1.00	44.33	N
ATOM	8119	CA	HIS	C	665	-22.723	49.062	12.308	1.00	44.33	C
ATOM	8120	CB	HIS	C	665	-22.786	47.872	11.387	1.00	44.33	C
ATOM	8121	CG	HIS	C	665	-21.740	47.917	10.325	1.00	44.33	C
ATOM	8122	ND1	HIS	C	665	-21.968	48.461	9.078	1.00	44.64	N
ATOM	8123	CE1	HIS	C	665	-20.863	48.375	8.357	1.00	44.33	C
ATOM	8124	NE2	HIS	C	665	-19.920	47.823	9.101	1.00	44.33	N
ATOM	8125	CD2	HIS	C	665	-20.437	47.546	10.343	1.00	44.33	C
ATOM	8126	C	HIS	C	665	-23.757	48.987	13.442	1.00	44.33	C
ATOM	8127	O	HIS	C	665	-23.344	48.723	14.564	1.00	44.33	O
ATOM	8128	N	PRO	C	666	-25.068	49.305	13.198	1.00	45.90	N
ATOM	8129	CA	PRO	C	666	-25.980	49.493	14.366	1.00	45.28	C
ATOM	8130	CB	PRO	C	666	-27.310	49.960	13.732	1.00	46.63	C
ATOM	8131	CG	PRO	C	666	-26.905	50.556	12.401	1.00	47.02	C

- 336 -

ATOM	8132	CD	PRO	C	666	-25.797	49.595	11.937	1.00	45.56	C
ATOM	8133	C	PRO	C	666	-26.156	48.293	15.305	1.00	46.19	C
ATOM	8134	O	PRO	C	666	-26.308	47.150	14.852	1.00	46.56	O
ATOM	8135	N	ILE	C	667	-26.110	48.614	16.602	1.00	46.54	N
ATOM	8136	CA	ILE	C	667	-26.055	47.681	17.716	1.00	48.57	C
ATOM	8137	CB	ILE	C	667	-25.764	48.477	19.008	1.00	49.36	C
ATOM	8138	CG1	ILE	C	667	-24.853	49.663	18.720	1.00	50.28	C
ATOM	8139	CD1	ILE	C	667	-23.362	49.300	18.862	1.00	51.68	C
ATOM	8140	CG2	ILE	C	667	-25.127	47.618	20.100	1.00	49.27	C
ATOM	8141	C	ILE	C	667	-27.405	46.993	17.952	1.00	50.10	C
ATOM	8142	O	ILE	C	667	-28.474	47.562	17.656	1.00	48.90	O
ATOM	8143	N	LEU	C	668	-27.378	45.792	18.524	1.00	51.79	N
ATOM	8144	CA	LEU	C	668	-28.580	45.280	19.178	1.00	54.80	C
ATOM	8145	CB	LEU	C	668	-28.396	43.852	19.678	1.00	55.11	C
ATOM	8146	CG	LEU	C	668	-28.403	42.787	18.577	1.00	56.84	C
ATOM	8147	CD1	LEU	C	668	-29.374	41.662	19.014	1.00	55.67	C
ATOM	8148	CD2	LEU	C	668	-28.738	43.385	17.153	1.00	57.23	C
ATOM	8149	C	LEU	C	668	-29.016	46.146	20.341	1.00	57.16	C
ATOM	8150	O	LEU	C	668	-28.329	46.216	21.364	1.00	57.68	O
ATOM	8151	N	GLN	C	669	-30.178	46.776	20.169	1.00	60.27	N
ATOM	8152	CA	GLN	C	669	-30.844	47.607	21.197	1.00	64.02	C
ATOM	8153	CB	GLN	C	669	-32.039	48.314	20.571	1.00	64.62	C
ATOM	8154	CG	GLN	C	669	-31.666	49.249	19.428	1.00	67.12	C
ATOM	8155	CD	GLN	C	669	-32.781	50.267	19.113	1.00	67.21	C
ATOM	8156	OE1	GLN	C	669	-33.965	50.037	19.435	1.00	68.39	O
ATOM	8157	NE2	GLN	C	669	-32.400	51.407	18.483	1.00	67.87	N
ATOM	8158	C	GLN	C	669	-31.285	46.822	22.457	1.00	65.55	C
ATOM	8159	O	GLN	C	669	-31.999	45.812	22.340	1.00	64.54	O
ATOM	8160	N	SER	C	670	-30.864	47.298	23.638	1.00	68.19	N
ATOM	8161	CA	SER	C	670	-30.968	46.535	24.905	1.00	70.89	C
ATOM	8162	CB	SER	C	670	-29.591	46.442	25.599	1.00	71.05	C
ATOM	8163	OG	SER	C	670	-29.551	45.424	26.608	1.00	71.99	O
ATOM	8164	C	SER	C	670	-32.028	47.075	25.888	1.00	72.84	C
ATOM	8165	O	SER	C	670	-32.816	47.958	25.519	1.00	74.12	O
ATOM	8166	N	ALA	C	671	-32.047	46.544	27.120	1.00	74.14	N
ATOM	8167	CA	ALA	C	671	-33.030	46.954	28.142	1.00	74.96	C
ATOM	8168	CB	ALA	C	671	-33.874	45.740	28.630	1.00	75.18	C
ATOM	8169	C	ALA	C	671	-32.401	47.727	29.321	1.00	75.00	C
ATOM	8170	O	ALA	C	671	-31.893	47.143	30.292	1.00	74.58	O
ATOM	8171	N1	LIG	C	1	-30.016	63.901	8.977	1.00	72.84	N
ATOM	8172	C3	LIG	C	1	-29.550	64.964	8.352	1.00	71.08	C
ATOM	8173	C4	LIG	C	1	-28.162	64.919	8.266	1.00	71.44	C
ATOM	8174	C5	LIG	C	1	-27.833	63.649	8.947	1.00	70.95	C
ATOM	8175	C6	LIG	C	1	-29.019	63.143	9.316	1.00	73.77	C
ATOM	8176	C8	LIG	C	1	-26.515	63.048	9.191	1.00	71.46	C
ATOM	8177	C9	LIG	C	1	-25.308	63.607	9.329	1.00	69.48	C
ATOM	8178	C10	LIG	C	1	-24.348	62.531	9.566	1.00	71.26	C
ATOM	8179	N11	LIG	C	1	-24.994	61.360	9.577	1.00	71.27	N
ATOM	8180	C13	LIG	C	1	-26.287	61.602	9.366	1.00	72.34	C
ATOM	8181	O14	LIG	C	1	-27.154	60.752	9.302	1.00	71.18	O
ATOM	8182	O15	LIG	C	1	-23.153	62.703	9.724	1.00	71.76	O
ATOM	8183	C16	LIG	C	1	-24.890	65.044	9.242	1.00	68.73	C
ATOM	8184	N17	LIG	C	1	-25.621	65.944	9.903	1.00	70.87	N
ATOM	8185	C18	LIG	C	1	-25.340	67.242	9.888	1.00	69.15	C
ATOM	8186	N19	LIG	C	1	-24.302	67.664	9.206	1.00	70.13	N
ATOM	8187	C20	LIG	C	1	-23.502	66.835	8.513	1.00	71.69	C
ATOM	8188	C21	LIG	C	1	-23.778	65.470	8.503	1.00	69.68	C
ATOM	8189	C22	LIG	C	1	-22.916	64.657	7.758	1.00	70.02	C

- 337 -

ATOM	8190	C24	LIG	C	1	-21.827	65.187	7.049	1.00	70.52	C
ATOM	8191	C26	LIG	C	1	-21.556	66.549	7.075	1.00	69.22	C
ATOM	8192	C28	LIG	C	1	-22.401	67.369	7.812	1.00	70.14	C
ATOM	8193	N30	LIG	C	1	-26.022	68.121	10.602	1.00	69.25	N
ATOM	8194	C31	LIG	C	1	-26.819	67.660	11.711	1.00	70.69	C
ATOM	8195	C34	LIG	C	1	-28.242	67.577	11.136	1.00	74.67	C
ATOM	8196	N37	LIG	C	1	-28.655	68.904	10.665	1.00	70.89	N
ATOM	8197	C38	LIG	C	1	-27.745	69.543	9.684	1.00	70.31	C
ATOM	8198	C41	LIG	C	1	-26.271	69.472	10.123	1.00	69.71	C
ATOM	8199	C44	LIG	C	1	-30.057	68.839	10.229	1.00	72.84	C
ATOM	8200	C48	LIG	C	1	-27.425	65.904	7.656	1.00	70.68	C
ATOM	8201	C50	LIG	C	1	-28.170	66.951	7.133	1.00	73.19	C
ATOM	8202	C52	LIG	C	1	-29.580	66.993	7.219	1.00	72.37	C
ATOM	8203	C54	LIG	C	1	-30.312	65.984	7.838	1.00	70.53	C
ATOM	8204	OW0	HOH	C	800	-31.900	62.413	12.897	1.00	44.33	O
ATOM	8205	OW0	HOH	C	801	-5.286	68.885	15.297	1.00	44.33	O
ATOM	8206	OW0	HOH	C	802	-26.516	75.946	6.236	1.00	77.13	O
ATOM	8207	OW0	HOH	C	803	-32.966	64.126	10.330	1.00	52.29	O
ATOM	8208	OW0	HOH	C	804	-13.375	77.379	8.009	1.00	58.13	O
ATOM	8209	OW0	HOH	C	805	-19.798	69.867	6.849	1.00	50.20	O
ATOM	8210	OW0	HOH	C	807	-32.717	69.346	-6.232	1.00	63.28	O
ATOM	8211	OW0	HOH	C	808	-10.689	75.117	7.853	1.00	45.91	O
ATOM	8212	OW0	HOH	C	819	-29.882	70.879	11.550	1.00	46.52	O
ATOM	8213	OW0	HOH	C	828	-25.041	72.738	10.336	1.00	44.33	O
ATOM	8214	OW0	HOH	C	830	-7.534	52.017	8.006	1.00	44.33	O
ATOM	8215	OW0	HOH	Z	1	-16.154	69.081	-9.879	1.00	44.33	O
ATOM	8216	OW0	HOH	Z	2	-21.628	47.590	-0.922	1.00	54.29	O
ATOM	8217	OW0	HOH	Z	3	-18.344	75.965	19.020	1.00	44.33	O
ATOM	8218	OW0	HOH	Z	4	-14.494	35.780	21.060	1.00	44.33	O
ATOM	8219	OW0	HOH	Z	5	-19.192	36.279	21.314	1.00	44.33	O
ATOM	8220	OW0	HOH	Z	6	-9.091	13.840	13.865	1.00	44.33	O
ATOM	8221	OW0	HOH	Z	7	-8.990	79.168	24.780	1.00	44.33	O
ATOM	8222	OW0	HOH	Z	8	-3.187	18.315	59.169	1.00	44.33	O
ATOM	8223	OW0	HOH	Z	9	-27.700	83.916	22.426	1.00	44.33	O
ATOM	8224	OW0	HOH	Z	10	-17.060	72.395	12.521	1.00	44.33	O
ATOM	8225	OW0	HOH	Z	11	-8.273	73.558	22.764	1.00	46.41	O
ATOM	8226	OW0	HOH	Z	12	-23.469	84.161	21.924	1.00	44.33	O
ATOM	8227	OW0	HOH	Z	13	-17.534	58.449	16.451	1.00	44.33	O
ATOM	8228	OW0	HOH	Z	14	-4.831	3.266	68.987	1.00	47.38	O
ATOM	8229	OW0	HOH	Z	15	-9.906	20.691	68.380	1.00	44.33	O
ATOM	8230	OW0	HOH	Z	17	-19.973	65.855	38.851	1.00	44.33	O
ATOM	8231	OW0	HOH	Z	18	-31.696	39.717	13.374	1.00	44.33	O
ATOM	8232	OW0	HOH	Z	19	-15.973	55.078	14.716	1.00	44.33	O
ATOM	8233	OW0	HOH	Z	20	-27.002	14.821	48.458	1.00	49.01	O
ATOM	8234	OW0	HOH	Z	21	-15.690	87.640	32.247	1.00	44.33	O
ATOM	8235	OW0	HOH	Z	22	-24.262	27.681	22.174	1.00	44.33	O
ATOM	8236	OW0	HOH	Z	23	-29.932	8.082	24.714	1.00	44.33	O
ATOM	8237	OW0	HOH	Z	24	-12.275	8.085	22.775	1.00	54.69	O
ATOM	8238	OW0	HOH	Z	25	-18.454	80.665	20.255	1.00	44.33	O
ATOM	8239	OW0	HOH	Z	26	-24.572	7.029	46.753	1.00	46.17	O
ATOM	8240	OW0	HOH	Z	28	-17.688	41.163	12.574	1.00	44.33	O
ATOM	8241	OW0	HOH	Z	30	-33.062	60.607	24.604	1.00	44.33	O
ATOM	8242	OW0	HOH	Z	31	-25.940	22.822	27.461	1.00	44.33	O
ATOM	8243	OW0	HOH	Z	32	8.296	38.301	60.214	1.00	55.25	O
ATOM	8244	OW0	HOH	Z	33	-50.659	64.008	-6.031	1.00	44.33	O
ATOM	8245	OW0	HOH	Z	34	-35.763	10.436	43.847	1.00	44.33	O
ATOM	8246	OW0	HOH	Z	35	-33.696	63.835	-11.064	1.00	44.33	O
ATOM	8247	OW0	HOH	Z	36	3.344	4.091	68.399	1.00	61.01	O

- 338 -

ATOM	8248	OW0	HOH	Z	37	-14.312	33.365	55.128	1.00	46.40	O
ATOM	8249	OW0	HOH	Z	38	-7.051	54.379	9.935	1.00	53.99	O
ATOM	8250	OW0	HOH	Z	39	5.102	23.588	79.644	1.00	44.33	O
ATOM	8251	OW0	HOH	Z	40	-1.773	38.621	35.841	1.00	44.33	O
ATOM	8252	OW0	HOH	Z	41	-19.036	61.350	-9.810	1.00	44.33	O
ATOM	8253	OW0	HOH	Z	42	-26.988	94.610	27.247	1.00	53.15	O
ATOM	8254	OW0	HOH	Z	43	5.450	-1.763	62.009	1.00	61.31	O
ATOM	8255	OW0	HOH	Z	44	-12.448	73.428	-13.231	1.00	44.33	O
ATOM	8256	OW0	HOH	Z	45	-22.432	86.418	29.919	1.00	44.33	O
ATOM	8257	OW0	HOH	Z	46	-17.499	91.229	12.401	1.00	49.52	O
ATOM	8258	OW0	HOH	Z	47	-19.557	40.596	15.064	1.00	44.33	O
ATOM	8259	OW0	HOH	Z	48	-8.804	8.548	53.218	1.00	44.33	O
ATOM	8260	OW0	HOH	Z	49	-16.113	22.099	2.032	1.00	50.70	O
ATOM	8261	OW0	HOH	Z	50	-31.871	64.796	-9.354	1.00	44.33	O
ATOM	8262	OW0	HOH	Z	51	30.431	35.006	37.795	1.00	44.33	O
ATOM	8263	OW0	HOH	Z	52	-4.882	40.313	59.933	1.00	46.47	O
ATOM	8264	OW0	HOH	Z	54	-45.872	58.438	-10.317	1.00	44.33	O
ATOM	8265	OW0	HOH	Z	55	3.537	30.434	80.337	1.00	52.36	O
ATOM	8266	OW0	HOH	Z	56	-30.384	25.006	12.239	1.00	44.33	O
ATOM	8267	OW0	HOH	Z	57	-21.261	22.321	1.005	1.00	51.46	O
ATOM	8268	OW0	HOH	Z	58	-4.481	23.168	53.994	1.00	44.33	O
ATOM	8269	OW0	HOH	Z	59	-10.240	1.465	49.291	1.00	53.59	O
ATOM	8270	OW0	HOH	Z	60	-31.221	86.282	28.867	1.00	44.33	O
ATOM	8271	OW0	HOH	Z	61	-22.611	86.477	10.970	1.00	44.33	O
ATOM	8272	OW0	HOH	Z	62	-5.957	73.669	-12.775	1.00	44.33	O
ATOM	8273	OW0	HOH	Z	63	-1.435	22.236	80.598	1.00	48.02	O
ATOM	8274	OW0	HOH	Z	64	-8.766	65.429	-13.701	1.00	44.33	O
ATOM	8275	OW0	HOH	Z	65	-21.085	77.761	17.609	1.00	44.33	O
ATOM	8276	OW0	HOH	Z	66	-9.874	76.531	-0.925	1.00	44.33	O
ATOM	8277	OW0	HOH	Z	67	-9.235	84.863	23.717	1.00	44.33	O
ATOM	8278	OW0	HOH	Z	68	-29.358	65.175	-11.587	1.00	54.04	O
ATOM	8279	OW0	HOH	Z	69	6.563	9.436	60.349	1.00	44.33	O
ATOM	8280	OW0	HOH	Z	70	-11.497	54.059	14.154	1.00	46.91	O
ATOM	8281	OW0	HOH	Z	71	-41.884	69.777	17.420	1.00	63.93	O
ATOM	8282	OW0	HOH	Z	72	-13.515	42.529	50.403	1.00	50.34	O
ATOM	8283	OW0	HOH	Z	73	10.197	21.261	79.686	1.00	53.77	O
ATOM	8284	OW0	HOH	Z	74	-11.967	13.389	64.036	1.00	45.70	O
ATOM	8285	OW0	HOH	Z	75	-14.573	22.138	51.488	1.00	49.00	O
ATOM	8286	OW0	HOH	Z	76	-10.122	67.968	26.722	1.00	44.33	O
ATOM	8287	OW0	HOH	Z	77	-9.720	82.041	23.783	1.00	47.11	O
ATOM	8288	OW0	HOH	Z	78	-20.310	73.282	41.103	1.00	44.33	O
ATOM	8289	OW0	HOH	Z	79	-35.654	73.266	32.399	1.00	44.33	O
ATOM	8290	OW0	HOH	Z	80	-7.304	24.572	31.659	1.00	55.69	O
ATOM	8291	OW0	HOH	Z	81	-33.064	34.403	18.328	1.00	44.33	O
ATOM	8292	OW0	HOH	Z	82	-1.869	22.591	49.797	1.00	59.10	O
ATOM	8293	OW0	HOH	Z	83	-18.361	9.678	16.557	1.00	53.70	O
ATOM	8294	OW0	HOH	Z	84	-5.974	37.311	57.555	1.00	44.33	O
ATOM	8295	OW0	HOH	Z	85	-2.654	29.556	52.225	1.00	47.38	O
ATOM	8296	OW0	HOH	Z	87	-12.729	86.991	15.050	1.00	44.33	O
ATOM	8297	OW0	HOH	Z	88	-16.810	55.380	-7.055	1.00	45.82	O
ATOM	8298	OW0	HOH	Z	89	-2.259	33.838	29.134	1.00	49.34	O
ATOM	8299	OW0	HOH	Z	90	-29.820	37.858	28.477	1.00	44.33	O
ATOM	8300	OW0	HOH	Z	91	-4.700	17.296	14.841	1.00	47.32	O
ATOM	8301	OW0	HOH	Z	92	-12.242	75.196	33.704	1.00	44.33	O
ATOM	8302	OW0	HOH	Z	93	-26.863	96.794	10.970	1.00	62.47	O
ATOM	8303	OW0	HOH	Z	94	11.683	31.348	68.864	1.00	44.33	O
ATOM	8304	OW0	HOH	Z	95	-13.209	75.002	-9.832	1.00	46.98	O
ATOM	8305	OW0	HOH	Z	96	-24.897	57.456	27.920	1.00	46.77	O

- 339 -

ATOM	8306	OW0	HOH	Z	97	-2.342	16.719	19.491	1.00	52.87	O
ATOM	8307	OW0	HOH	Z	98	-8.339	37.635	56.426	1.00	44.33	O
ATOM	8308	OW0	HOH	Z	99	-22.642	17.720	43.214	1.00	44.33	O
ATOM	8309	OW0	HOH	Z	101	-21.655	74.672	41.700	1.00	51.85	O
ATOM	8310	OW0	HOH	Z	102	-6.636	76.642	23.088	1.00	44.33	O
ATOM	8311	OW0	HOH	Z	103	-16.027	57.239	12.734	1.00	44.33	O
ATOM	8312	OW0	HOH	Z	104	3.337	33.832	73.080	1.00	51.88	O
ATOM	8313	OW0	HOH	Z	105	-25.817	78.537	11.096	1.00	48.70	O
ATOM	8314	OW0	HOH	Z	106	-12.001	26.828	31.931	1.00	44.33	O
ATOM	8315	OW0	HOH	Z	107	-31.803	6.236	24.304	1.00	45.62	O
ATOM	8316	OW0	HOH	Z	108	-2.354	23.112	52.793	1.00	56.16	O
ATOM	8317	OW0	HOH	Z	109	-32.012	75.770	43.299	1.00	44.83	O
ATOM	8318	OW0	HOH	Z	110	-7.484	74.791	10.493	1.00	44.33	O
ATOM	8319	OW0	HOH	Z	111	-26.908	1.928	43.139	1.00	44.33	O
ATOM	8320	OW0	HOH	Z	112	17.392	15.853	63.642	1.00	46.89	O
ATOM	8321	OW0	HOH	Z	113	-7.964	53.885	5.658	1.00	44.33	O
ATOM	8322	OW0	HOH	Z	114	-24.753	44.861	18.202	1.00	44.33	O
ATOM	8323	OW0	HOH	Z	115	-8.682	35.760	24.928	1.00	44.98	O
ATOM	8324	OW0	HOH	Z	116	-37.177	17.672	51.023	1.00	148.52	O
ATOM	8325	OW0	HOH	Z	117	-26.570	65.705	37.795	1.00	44.33	O
ATOM	8326	OW0	HOH	Z	118	-11.989	5.675	66.294	1.00	53.73	O
ATOM	8327	OW0	HOH	Z	119	-12.283	10.307	47.510	1.00	45.68	O
ATOM	8328	OW0	HOH	Z	120	-2.886	28.759	18.270	1.00	44.33	O
ATOM	8329	OW0	HOH	Z	121	-24.465	86.887	32.140	1.00	45.18	O
ATOM	8330	OW0	HOH	Z	122	-32.380	79.832	40.324	1.00	44.33	O
ATOM	8331	OW0	HOH	Z	123	-35.819	11.124	21.571	1.00	44.90	O
ATOM	8332	OW0	HOH	Z	124	-37.017	20.395	23.356	1.00	46.83	O
ATOM	8333	OW0	HOH	Z	125	-17.354	-9.911	30.973	1.00	44.33	O
ATOM	8334	OW0	HOH	Z	126	-23.967	19.392	35.794	1.00	49.83	O
ATOM	8335	OW0	HOH	Z	127	24.026	21.540	65.009	1.00	48.10	O
ATOM	8336	OW0	HOH	Z	128	-13.553	57.862	11.534	1.00	44.33	O
ATOM	8337	OW0	HOH	Z	129	-21.330	65.263	10.639	1.00	44.33	O
ATOM	8338	OW0	HOH	Z	130	-31.213	38.020	25.376	1.00	48.67	O
ATOM	8339	OW0	HOH	Z	131	-33.003	31.984	17.209	1.00	44.33	O
ATOM	8340	OW0	HOH	Z	132	-26.108	42.625	11.847	1.00	45.62	O
ATOM	8341	OW0	HOH	Z	133	-31.751	86.033	19.435	1.00	44.33	O
ATOM	8342	OW0	HOH	Z	134	-11.368	11.478	44.888	1.00	45.52	O
ATOM	8343	OW0	HOH	Z	135	-20.572	35.343	46.130	1.00	56.88	O
ATOM	8344	OW0	HOH	Z	136	-21.845	77.660	15.307	1.00	45.84	O
ATOM	8345	OW0	HOH	Z	137	-2.802	13.306	59.464	1.00	44.33	O
ATOM	8346	OW0	HOH	Z	139	-5.041	68.047	-11.249	1.00	44.49	O
ATOM	8347	OW0	HOH	Z	140	-5.848	79.525	22.999	1.00	53.47	O
ATOM	8348	OW0	HOH	Z	141	-9.166	43.248	45.556	1.00	54.92	O
ATOM	8349	OW0	HOH	Z	142	-21.227	38.503	10.731	1.00	44.33	O
ATOM	8350	OW0	HOH	Z	143	-20.743	62.946	37.876	1.00	44.33	O
ATOM	8351	OW0	HOH	Z	145	-11.457	40.597	15.292	1.00	44.33	O
ATOM	8352	OW0	HOH	Z	146	-13.297	71.817	8.660	1.00	44.33	O
ATOM	8353	OW0	HOH	Z	147	-16.299	32.354	31.814	1.00	44.75	O
ATOM	8354	OW0	HOH	Z	148	-11.472	8.155	61.110	1.00	50.52	O
ATOM	8355	OW0	HOH	Z	149	-46.655	65.586	-10.665	1.00	44.33	O
ATOM	8356	OW0	HOH	Z	150	-23.119	41.534	11.499	1.00	54.81	O
ATOM	8357	OW0	HOH	Z	151	-9.027	68.593	33.112	1.00	44.33	O
ATOM	8358	OW0	HOH	Z	152	-13.551	24.929	2.817	1.00	56.01	O
ATOM	8359	OW0	HOH	Z	153	-39.225	67.555	29.392	1.00	50.18	O
ATOM	8360	OW0	HOH	Z	155	14.527	39.374	63.187	1.00	65.13	O
ATOM	8361	OW0	HOH	Z	156	-39.930	79.126	27.513	1.00	48.68	O
ATOM	8362	OW0	HOH	Z	157	-3.996	89.878	18.015	1.00	47.15	O
ATOM	8363	OW0	HOH	Z	158	-26.854	8.186	23.962	1.00	44.33	O

- 340 -

ATOM	8364	OW0	HOH	Z	159	-11.955	22.044	41.811	1.00	46.19	O
ATOM	8365	OW0	HOH	Z	160	-23.317	22.726	29.392	1.00	60.74	O
ATOM	8366	OW0	HOH	Z	161	-34.073	44.693	25.089	1.00	64.38	O
ATOM	8367	OW0	HOH	Z	162	-21.680	84.568	33.574	1.00	44.33	O
ATOM	8368	OW0	HOH	Z	163	-24.879	58.533	36.597	1.00	54.43	O
ATOM	8369	OW0	HOH	Z	164	-22.167	29.293	-0.021	1.00	47.54	O
ATOM	8370	OW0	HOH	Z	165	-11.863	10.667	62.600	1.00	50.51	O
ATOM	8371	OW0	HOH	Z	166	-15.484	17.609	61.154	1.00	44.33	O
ATOM	8372	OW0	HOH	Z	167	3.795	10.974	48.425	1.00	44.33	O
ATOM	8373	OW0	HOH	Z	168	-17.099	14.380	1.526	1.00	55.27	O
ATOM	8374	OW0	HOH	Z	170	-35.987	56.739	-4.462	1.00	44.33	O
ATOM	8375	OW0	HOH	Z	171	-18.575	66.581	9.511	1.00	44.33	O
ATOM	8376	OW0	HOH	Z	172	-35.680	56.762	31.253	1.00	60.66	O
ATOM	8377	OW0	HOH	Z	173	-16.228	70.359	-22.484	1.00	56.85	O
ATOM	8378	OW0	HOH	Z	174	-6.708	7.411	19.463	1.00	51.35	O
ATOM	8379	OW0	HOH	Z	175	7.151	43.400	38.628	1.00	52.70	O
ATOM	8380	OW0	HOH	Z	176	7.271	37.922	72.452	1.00	51.62	O
ATOM	8381	OW0	HOH	Z	177	-13.827	11.170	49.595	1.00	56.47	O
ATOM	8382	OW0	HOH	Z	178	-20.066	46.946	13.697	1.00	44.33	O
ATOM	8383	OW0	HOH	Z	179	-1.720	20.221	48.130	1.00	64.28	O
ATOM	8384	OW0	HOH	Z	180	-5.830	58.683	1.386	1.00	44.33	O
ATOM	8385	OW0	HOH	Z	182	-30.627	2.916	34.839	1.00	44.33	O
ATOM	8386	OW0	HOH	Z	183	-35.207	56.158	10.183	1.00	71.87	O
ATOM	8387	OW0	HOH	Z	184	-29.479	7.993	21.894	1.00	44.33	O
ATOM	8388	OW0	HOH	Z	185	-16.115	32.744	48.735	1.00	51.86	O
ATOM	8389	OW0	HOH	Z	186	2.890	76.959	28.033	1.00	60.69	O
ATOM	8390	OW0	HOH	Z	187	-10.541	41.858	18.620	1.00	59.66	O
ATOM	8391	OW0	HOH	Z	188	-30.854	45.769	18.046	1.00	51.22	O
ATOM	8392	OW0	HOH	Z	189	-12.411	55.118	0.612	1.00	44.33	O
ATOM	8393	OW0	HOH	Z	190	-3.976	14.996	55.451	1.00	54.25	O
ATOM	8394	OW0	HOH	Z	191	-6.362	91.258	19.088	1.00	44.33	O
ATOM	8395	OW0	HOH	Z	192	-7.622	21.401	26.434	1.00	55.98	O
ATOM	8396	OW0	HOH	Z	193	-8.526	18.818	81.143	1.00	54.41	O
ATOM	8397	OW0	HOH	Z	195	-4.004	78.191	24.118	1.00	47.79	O
ATOM	8398	OW0	HOH	Z	196	-8.098	39.236	26.580	1.00	57.65	O
ATOM	8399	OW0	HOH	Z	197	-24.165	43.884	11.738	1.00	53.36	O
ATOM	8400	OW0	HOH	Z	198	-49.874	59.064	-1.763	1.00	44.33	O
ATOM	8401	OW0	HOH	Z	199	-39.365	57.484	25.504	1.00	49.02	O
ATOM	8402	OW0	HOH	Z	200	-16.240	72.342	38.716	1.00	44.33	O
ATOM	8403	OW0	HOH	Z	201	-24.461	75.328	43.096	1.00	45.27	O
ATOM	8404	OW0	HOH	Z	202	-29.832	56.563	14.608	1.00	44.33	O
ATOM	8405	OW0	HOH	Z	205	-7.206	0.544	52.369	1.00	57.31	O
ATOM	8406	OW0	HOH	Z	206	-9.545	87.232	24.753	1.00	53.09	O
ATOM	8407	OW0	HOH	Z	207	-13.695	61.880	25.763	1.00	61.09	O
ATOM	8408	OW0	HOH	Z	208	-24.025	84.134	32.946	1.00	44.33	O
ATOM	8409	OW0	HOH	Z	209	-17.181	4.631	55.371	1.00	44.33	O
ATOM	8410	OW0	HOH	Z	210	-28.264	68.825	37.569	1.00	44.33	O
ATOM	8411	OW0	HOH	Z	211	-36.086	70.259	35.579	1.00	48.50	O
ATOM	8412	OW0	HOH	Z	212	-3.238	8.962	24.452	1.00	69.10	O
ATOM	8413	OW0	HOH	Z	213	-19.244	92.326	29.513	1.00	44.51	O
ATOM	8414	OW0	HOH	Z	214	-1.263	81.058	17.489	1.00	44.33	O
ATOM	8415	OW0	HOH	Z	215	-16.807	21.651	52.685	1.00	48.49	O
ATOM	8416	OW0	HOH	Z	216	-15.520	28.646	55.704	1.00	56.08	O
ATOM	8417	OW0	HOH	Z	217	-38.277	65.846	23.629	1.00	44.87	O
ATOM	8418	OW0	HOH	Z	218	-38.262	78.415	31.756	1.00	46.14	O
ATOM	8419	OW0	HOH	Z	220	11.660	50.744	50.104	1.00	75.98	O
ATOM	8420	OW0	HOH	Z	221	16.616	5.090	73.566	1.00	49.27	O
ATOM	8421	OW0	HOH	Z	222	-19.295	47.332	30.338	1.00	65.76	O

- 341 -

ATOM	8422	OW0	HOH	Z	223	-18.446	78.627	18.006	1.00	44.33	O
ATOM	8423	OW0	HOH	Z	224	-7.329	41.974	30.968	1.00	52.05	O
ATOM	8424	OW0	HOH	Z	225	-17.553	88.611	34.811	1.00	63.58	O
ATOM	8425	OW0	HOH	Z	226	-24.783	73.695	44.975	1.00	46.85	O
ATOM	8426	OW0	HOH	Z	228	-15.609	38.252	42.325	1.00	49.88	O
ATOM	8427	OW0	HOH	Z	229	-12.584	74.678	9.072	1.00	44.33	O
ATOM	8428	OW0	HOH	Z	230	-6.855	41.368	33.496	1.00	44.33	O
ATOM	8429	OW0	HOH	Z	231	-19.361	73.522	5.393	1.00	71.64	O
ATOM	8430	OW0	HOH	Z	232	2.054	9.452	59.909	1.00	44.33	O
ATOM	8431	OW0	HOH	Z	233	-18.944	74.105	-2.011	1.00	58.13	O
ATOM	8432	OW0	HOH	Z	234	-31.144	33.549	9.021	1.00	49.82	O
ATOM	8433	OW0	HOH	Z	235	-9.964	9.266	48.074	1.00	44.33	O
ATOM	8434	OW0	HOH	Z	236	-33.940	18.424	49.902	1.00	44.33	O
ATOM	8435	OW0	HOH	Z	237	11.248	53.988	57.241	1.00	61.68	O
ATOM	8436	OW0	HOH	Z	238	-17.553	73.977	39.235	1.00	44.33	O
ATOM	8437	OW0	HOH	Z	239	-34.582	3.329	30.904	1.00	47.30	O
ATOM	8438	OW0	HOH	Z	240	-35.021	53.511	-3.978	1.00	70.35	O
ATOM	8439	OW0	HOH	Z	241	-4.719	26.108	46.036	1.00	58.03	O
ATOM	8440	OW0	HOH	Z	242	11.675	16.013	76.773	1.00	55.44	O
ATOM	8441	OW0	HOH	Z	243	-14.441	59.212	-11.197	1.00	44.33	O
ATOM	8442	OW0	HOH	Z	244	-26.061	51.207	9.071	1.00	57.31	O
ATOM	8443	OW0	HOH	Z	245	-5.308	31.760	33.177	1.00	47.19	O
ATOM	8444	OW0	HOH	Z	246	-7.351	3.241	42.021	1.00	51.22	O
ATOM	8445	OW0	HOH	Z	247	-16.609	57.814	25.203	1.00	53.74	O
ATOM	8446	OW0	HOH	Z	248	-9.115	28.346	29.497	1.00	44.33	O
ATOM	8447	OW0	HOH	Z	249	-16.965	29.955	64.806	1.00	53.07	O
ATOM	8448	OW0	HOH	Z	250	-10.508	21.158	43.565	1.00	55.11	O
ATOM	8449	OW0	HOH	Z	251	-12.910	44.261	19.491	1.00	63.11	O
ATOM	8450	OW0	HOH	Z	252	-28.112	64.610	-6.668	1.00	50.41	O
ATOM	8451	OW0	HOH	Z	253	-17.602	11.566	9.275	1.00	55.08	O
ATOM	8452	OW0	HOH	Z	254	-23.749	32.353	21.819	1.00	44.33	O
ATOM	8453	OW0	HOH	Z	255	-15.451	55.505	23.639	1.00	64.78	O
ATOM	8454	OW0	HOH	Z	256	-8.757	26.500	31.551	1.00	49.89	O
ATOM	8455	OW0	HOH	Z	257	11.659	20.262	53.742	1.00	44.33	O
ATOM	8456	OW0	HOH	Z	258	-10.779	13.262	26.509	1.00	44.33	O
ATOM	8457	OW0	HOH	Z	259	-21.140	29.030	24.658	1.00	44.33	O
ATOM	8458	OW0	HOH	Z	260	-10.808	37.372	24.430	1.00	44.33	O
ATOM	8459	OW0	HOH	Z	261	-35.264	13.350	26.364	1.00	44.33	O
ATOM	8460	OW0	HOH	Z	263	0.984	4.613	66.401	1.00	44.33	O
ATOM	8461	OW0	HOH	Z	264	-9.151	80.604	27.908	1.00	45.40	O
ATOM	8462	OW0	HOH	Z	265	-0.391	69.384	15.764	1.00	57.55	O
ATOM	8463	OW0	HOH	Z	266	-2.936	15.993	58.017	1.00	44.33	O
ATOM	8464	OW0	HOH	Z	267	-15.031	79.478	-9.347	1.00	53.13	O
ATOM	8465	OW0	HOH	Z	268	-5.812	73.498	38.260	1.00	54.15	O
ATOM	8466	OW0	HOH	Z	269	-19.383	65.628	41.740	1.00	48.40	O
ATOM	8467	OW0	HOH	Z	270	-8.772	57.773	-5.887	1.00	65.58	O
ATOM	8468	OW0	HOH	Z	271	-38.276	15.175	38.314	1.00	60.39	O
ATOM	8469	OW0	HOH	Z	272	-3.399	38.390	63.055	1.00	58.69	O
ATOM	8470	OW0	HOH	Z	273	11.132	39.289	73.574	1.00	68.56	O
ATOM	8471	OW0	HOH	Z	274	-9.176	76.555	1.850	1.00	44.33	O
ATOM	8472	OW0	HOH	Z	275	-6.833	62.926	10.950	1.00	44.33	O
ATOM	8473	OW0	HOH	Z	276	-39.501	18.597	29.640	1.00	68.66	O
ATOM	8474	OW0	HOH	Z	277	-25.372	71.585	-1.686	1.00	57.66	O
ATOM	8475	OW0	HOH	Z	278	-14.579	37.441	49.395	1.00	48.25	O
ATOM	8476	OW0	HOH	Z	279	-18.584	27.048	37.253	1.00	45.23	O
ATOM	8477	OW0	HOH	Z	281	-29.144	62.457	34.023	1.00	48.37	O
ATOM	8478	OW0	HOH	Z	282	-5.325	46.161	61.197	1.00	55.17	O
ATOM	8479	OW0	HOH	Z	283	-11.806	21.757	39.121	1.00	44.33	O

- 342 -

ATOM	8480	OW0	HOH	Z	284	-16.377	37.480	47.295	1.00	58.46	O
ATOM	8481	OW0	HOH	Z	285	10.613	35.066	33.448	1.00	53.87	O
ATOM	8482	OW0	HOH	Z	286	-45.128	58.222	-5.473	1.00	48.61	O
ATOM	8483	OW0	HOH	Z	287	-34.784	10.106	51.588	1.00	44.33	O
ATOM	8484	OW0	HOH	Z	288	25.700	44.244	39.667	1.00	50.83	O
ATOM	8485	OW0	HOH	Z	289	-27.967	55.655	-6.944	1.00	44.33	O
ATOM	8486	OW0	HOH	Z	291	-34.413	72.755	35.062	1.00	44.33	O
ATOM	8487	OW0	HOH	Z	292	-5.454	45.445	53.676	1.00	50.41	O
ATOM	8488	OW0	HOH	Z	293	-30.977	17.804	53.561	1.00	44.33	O
ATOM	8489	OW0	HOH	Z	295	-37.098	11.960	51.596	1.00	51.56	O
ATOM	8490	OW0	HOH	Z	296	-28.972	57.789	-8.694	1.00	52.24	O
ATOM	8491	OW0	HOH	Z	297	12.501	7.330	62.191	1.00	48.09	O
ATOM	8492	OW0	HOH	Z	299	-22.594	46.036	15.280	1.00	44.33	O
ATOM	8493	OW0	HOH	Z	300	19.519	21.298	71.520	1.00	49.69	O
ATOM	8494	OW0	HOH	Z	301	-15.415	51.428	7.608	1.00	44.33	O
ATOM	8495	OW0	HOH	Z	302	6.286	-1.214	58.588	1.00	60.46	O
ATOM	8496	OW0	HOH	Z	303	-24.360	51.510	15.281	1.00	52.24	O
ATOM	8497	OW0	HOH	Z	304	-16.307	48.836	27.411	1.00	68.98	O
ATOM	8498	OW0	HOH	Z	305	0.219	16.686	56.705	1.00	46.26	O
ATOM	8499	OW0	HOH	Z	306	-41.855	31.468	23.249	1.00	61.42	O
ATOM	8500	OW0	HOH	Z	307	-15.120	38.634	45.166	1.00	47.00	O
ATOM	8501	OW0	HOH	Z	308	-23.478	53.503	16.535	1.00	44.33	O
ATOM	8502	OW0	HOH	Z	309	-36.643	19.036	36.645	1.00	44.98	O
ATOM	8503	OW0	HOH	Z	310	-41.270	33.786	21.859	1.00	55.08	O
ATOM	8504	OW0	HOH	Z	311	-34.698	64.088	-2.768	1.00	50.40	O
ATOM	8505	OW0	HOH	Z	312	2.482	35.192	64.968	1.00	50.88	O
ATOM	8506	OW0	HOH	Z	315	-23.659	12.503	51.530	1.00	47.66	O
ATOM	8507	OW0	HOH	Z	317	-12.459	34.748	30.225	1.00	44.33	O
ATOM	8508	OW0	HOH	Z	319	-42.290	68.016	17.967	1.00	48.53	O
ATOM	8509	OW0	HOH	Z	320	-13.944	26.241	25.876	1.00	46.85	O
ATOM	8510	OW0	HOH	Z	321	-9.053	73.456	-9.672	1.00	44.33	O
ATOM	8511	OW0	HOH	Z	322	-44.971	70.845	24.154	1.00	56.77	O
ATOM	8512	OW0	HOH	Z	323	-11.424	3.537	61.442	1.00	61.37	O
ATOM	8513	OW0	HOH	Z	324	-12.043	65.899	43.107	1.00	44.35	O
ATOM	8514	OW0	HOH	Z	325	-9.437	14.138	73.661	1.00	44.33	O
ATOM	8515	OW0	HOH	Z	326	1.279	9.589	48.377	1.00	45.23	O
ATOM	8516	OW0	HOH	Z	327	8.342	17.835	81.613	1.00	47.06	O
ATOM	8517	OW0	HOH	Z	328	9.711	8.554	79.977	1.00	62.28	O
ATOM	8518	OW0	HOH	Z	329	-3.760	3.096	51.397	1.00	47.83	O
ATOM	8519	OW0	HOH	Z	330	-14.952	33.230	28.209	1.00	44.33	O
ATOM	8520	OW0	HOH	Z	331	14.808	38.337	60.146	1.00	54.50	O
ATOM	8521	OW0	HOH	Z	332	-23.184	-4.832	42.684	1.00	66.18	O
ATOM	8522	OW0	HOH	Z	333	-16.380	58.516	-13.403	1.00	52.04	O
ATOM	8523	OW0	HOH	Z	334	3.239	44.179	55.207	1.00	54.57	O
ATOM	8524	OW0	HOH	Z	335	-8.905	46.386	13.628	1.00	53.77	O
ATOM	8525	OW0	HOH	Z	336	-15.684	48.792	9.579	1.00	44.33	O
ATOM	8526	OW0	HOH	Z	337	-6.257	-1.904	69.152	1.00	75.86	O
ATOM	8527	OW0	HOH	Z	338	-14.413	34.152	62.094	1.00	60.15	O
ATOM	8528	OW0	HOH	Z	339	-16.869	71.593	5.022	1.00	65.17	O
ATOM	8529	OW0	HOH	Z	340	-38.370	13.392	49.947	1.00	45.77	O
ATOM	8530	OW0	HOH	Z	341	-30.724	11.258	13.977	1.00	50.29	O
ATOM	8531	OW0	HOH	Z	343	-1.905	68.205	-2.273	1.00	44.33	O
ATOM	8532	OW0	HOH	Z	344	-15.300	34.598	59.336	1.00	44.33	O
ATOM	8533	OW0	HOH	Z	345	-23.546	80.555	39.979	1.00	47.01	O
ATOM	8534	OW0	HOH	Z	346	-10.149	31.454	-1.221	1.00	64.42	O
ATOM	8535	OW0	HOH	Z	347	-5.362	64.440	4.779	1.00	44.33	O
ATOM	8536	OW0	HOH	Z	348	-5.912	60.726	12.307	1.00	53.68	O
ATOM	8537	OW0	HOH	Z	350	-27.921	82.899	15.505	1.00	44.33	O

- 343 -

ATOM	8538	OW0	HOH	Z	351	-16.533	81.634	35.501	1.00	55.10	O
ATOM	8539	OW0	HOH	Z	352	-4.037	13.712	79.812	1.00	52.36	O
ATOM	8540	OW0	HOH	Z	353	-29.321	15.559	12.184	1.00	44.33	O
ATOM	8541	OW0	HOH	Z	354	-22.218	73.907	7.090	1.00	51.53	O
ATOM	8542	OW0	HOH	Z	355	-13.693	88.279	26.476	1.00	59.28	O
ATOM	8543	OW0	HOH	Z	356	-9.472	-0.410	54.054	1.00	65.08	O
ATOM	8544	OW0	HOH	Z	357	-2.032	15.538	49.571	1.00	44.33	O
ATOM	8545	OW0	HOH	Z	358	-35.747	35.859	19.805	1.00	48.30	O
ATOM	8546	OW0	HOH	Z	360	-25.238	53.518	9.121	1.00	47.89	O
ATOM	8547	OW0	HOH	Z	361	-15.745	88.488	36.865	1.00	54.07	O
ATOM	8548	OW0	HOH	Z	362	-3.045	69.357	-10.386	1.00	44.33	O
ATOM	8549	OW0	HOH	Z	363	-26.605	55.255	17.360	1.00	44.33	O
ATOM	8550	OW0	HOH	Z	365	-32.531	41.969	11.575	1.00	58.75	O
ATOM	8551	OW0	HOH	Z	366	-10.641	88.493	28.143	1.00	59.43	O
ATOM	8552	OW0	HOH	Z	367	-5.638	43.068	8.380	1.00	61.30	O
ATOM	8553	OW0	HOH	Z	368	-36.264	81.905	29.025	1.00	59.90	O
ATOM	8554	OW0	HOH	Z	369	-22.948	98.832	21.603	1.00	61.39	O
ATOM	8555	OW0	HOH	Z	372	-20.045	13.106	45.993	1.00	48.79	O
ATOM	8556	OW0	HOH	Z	373	-11.430	76.246	4.014	1.00	48.15	O
ATOM	8557	OW0	HOH	Z	374	-27.168	56.453	14.646	1.00	44.79	O
ATOM	8558	OW0	HOH	Z	375	-34.853	29.305	17.719	1.00	56.75	O
ATOM	8559	OW0	HOH	Z	376	-43.182	15.467	48.664	1.00	50.99	O
ATOM	8560	OW0	HOH	Z	377	-12.048	86.751	16.754	1.00	60.48	O
ATOM	8561	OW0	HOH	Z	378	-14.432	2.437	56.224	1.00	50.06	O
ATOM	8562	OW0	HOH	Z	379	18.411	37.809	66.291	1.00	51.08	O
ATOM	8563	OW0	HOH	Z	380	-11.004	62.354	25.511	1.00	57.26	O
ATOM	8564	OW0	HOH	Z	381	9.842	30.804	75.222	1.00	60.91	O
ATOM	8565	OW0	HOH	Z	382	-5.147	65.148	12.432	1.00	49.04	O
ATOM	8566	OW0	HOH	Z	383	-42.487	74.305	21.545	1.00	44.33	O
ATOM	8567	OW0	HOH	Z	384	-1.150	27.071	49.154	1.00	64.89	O
ATOM	8568	OW0	HOH	Z	385	-13.331	38.313	42.446	1.00	44.33	O
ATOM	8569	OW0	HOH	Z	387	-0.635	39.026	63.085	1.00	71.85	O
ATOM	8570	OW0	HOH	Z	388	-26.194	21.769	51.734	1.00	70.01	O
ATOM	8571	OW0	HOH	Z	389	-18.121	60.081	37.659	1.00	49.72	O
ATOM	8572	OW0	HOH	Z	390	-28.514	4.720	48.433	1.00	44.33	O
ATOM	8573	OW0	HOH	Z	392	-16.375	48.151	16.336	1.00	44.33	O
ATOM	8574	OW0	HOH	Z	393	-23.146	13.926	59.750	1.00	66.83	O
ATOM	8575	OW0	HOH	Z	395	-20.285	71.086	-3.684	1.00	44.33	O
ATOM	8576	OW0	HOH	Z	396	-18.456	43.462	11.412	1.00	52.10	O
ATOM	8577	OW0	HOH	Z	397	-7.634	26.966	8.956	1.00	44.33	O
ATOM	8578	OW0	HOH	Z	398	-23.781	14.087	63.302	1.00	58.98	O
ATOM	8579	OW0	HOH	Z	399	-19.385	29.910	31.997	1.00	56.77	O
ATOM	8580	OW0	HOH	Z	400	-11.276	-7.657	30.931	1.00	51.82	O
ATOM	8581	OW0	HOH	Z	401	-22.178	33.851	32.222	1.00	55.85	O
ATOM	8582	OW0	HOH	Z	402	25.071	42.553	34.775	1.00	64.18	O
ATOM	8583	OW0	HOH	Z	403	-23.474	9.250	20.674	1.00	51.85	O
ATOM	8584	OW0	HOH	Z	404	11.244	48.861	70.123	1.00	55.57	O
ATOM	8585	OW0	HOH	Z	405	-41.135	15.089	49.211	1.00	52.58	O
ATOM	8586	OW0	HOH	Z	406	-4.710	79.270	12.710	1.00	60.46	O
ATOM	8587	OW0	HOH	Z	407	14.419	17.668	72.651	1.00	44.33	O
ATOM	8588	OW0	HOH	Z	408	-30.319	66.644	37.688	1.00	50.88	O
ATOM	8589	OW0	HOH	Z	409	-26.301	-4.394	37.897	1.00	56.30	O
ATOM	8590	OW0	HOH	Z	410	-35.056	91.886	13.469	1.00	44.33	O
ATOM	8591	OW0	HOH	Z	411	-30.057	1.622	38.919	1.00	54.16	O
ATOM	8592	OW0	HOH	Z	412	17.813	9.502	75.162	1.00	71.16	O
ATOM	8593	OW0	HOH	Z	413	-13.594	19.156	63.653	1.00	52.29	O
ATOM	8594	OW0	HOH	Z	414	5.199	7.796	38.808	1.00	69.18	O
ATOM	8595	OW0	HOH	Z	415	-7.783	44.964	3.860	1.00	55.17	O

- 344 -

ATOM	8596	OW0	HOH	Z	417	-1.397	30.652	7.967	1.00	60.95	O
ATOM	8597	OW0	HOH	Z	418	-3.809	70.112	23.192	1.00	51.35	O
ATOM	8598	OW0	HOH	Z	419	-27.204	42.292	33.581	1.00	63.04	O
ATOM	8599	OW0	HOH	Z	420	-5.146	69.386	2.981	1.00	46.98	O
ATOM	8600	OW0	HOH	Z	421	-44.249	68.511	-9.576	1.00	54.25	O
ATOM	8601	OW0	HOH	Z	422	-9.492	24.344	80.390	1.00	59.87	O
ATOM	8602	OW0	HOH	Z	423	-17.016	63.795	41.072	1.00	58.06	O
ATOM	8603	OW0	HOH	Z	424	-9.210	6.976	12.209	1.00	58.77	O
ATOM	8604	OW0	HOH	Z	425	-15.049	60.424	35.083	1.00	52.86	O
ATOM	8605	OW0	HOH	Z	426	-25.827	79.230	40.970	1.00	46.44	O
ATOM	8606	OW0	HOH	Z	427	-2.488	4.139	48.963	1.00	56.94	O
ATOM	8607	OW0	HOH	Z	428	-20.179	61.958	-12.857	1.00	58.08	O
ATOM	8608	OW0	HOH	Z	429	-3.889	27.298	8.084	1.00	61.11	O
ATOM	8609	OW0	HOH	Z	430	-26.544	27.183	2.089	1.00	51.86	O
ATOM	8610	OW0	HOH	Z	432	-5.781	76.075	20.654	1.00	44.33	O
ATOM	8611	OW0	HOH	Z	433	-3.941	36.638	61.388	1.00	48.67	O
ATOM	8612	OW0	HOH	Z	434	-32.801	51.200	28.664	1.00	71.40	O
ATOM	8613	OW0	HOH	Z	435	-27.258	77.751	49.212	1.00	56.93	O
ATOM	8614	OW0	HOH	Z	436	-6.436	61.362	8.560	1.00	44.44	O
ATOM	8615	OW0	HOH	Z	437	-17.129	92.189	14.957	1.00	51.21	O
ATOM	8616	OW0	HOH	Z	438	-21.671	44.175	11.864	1.00	55.63	O
ATOM	8617	OW0	HOH	Z	439	-6.588	59.990	15.187	1.00	44.33	O
ATOM	8618	OW0	HOH	Z	440	-24.322	30.414	1.877	1.00	57.73	O
ATOM	8619	OW0	HOH	Z	441	-22.958	23.178	32.072	1.00	52.55	O
ATOM	8620	OW0	HOH	Z	442	14.185	25.561	75.423	1.00	48.57	O
ATOM	8621	OW0	HOH	Z	443	8.664	7.397	51.170	1.00	64.51	O
ATOM	8622	OW0	HOH	Z	444	5.751	19.777	79.687	1.00	44.33	O
ATOM	8623	OW0	HOH	Z	445	-0.381	5.083	71.084	1.00	44.33	O
ATOM	8624	OW0	HOH	Z	446	-26.579	54.357	20.925	1.00	65.38	O
ATOM	8625	OW0	HOH	Z	448	-20.928	35.854	32.402	1.00	44.33	O
ATOM	8626	OW0	HOH	Z	449	-24.028	44.079	8.893	1.00	62.52	O
ATOM	8627	OW0	HOH	Z	450	-38.745	76.606	23.719	1.00	44.33	O
ATOM	8628	OW0	HOH	Z	451	-13.975	54.411	-3.475	1.00	60.01	O
ATOM	8629	OW0	HOH	Z	452	5.659	35.139	81.467	1.00	61.52	O
ATOM	8630	OW0	HOH	Z	453	4.659	51.267	55.454	1.00	74.92	O
ATOM	8631	OW0	HOH	Z	454	-12.751	10.807	66.090	1.00	61.08	O
ATOM	8632	OW0	HOH	Z	456	-41.621	71.374	14.763	1.00	62.76	O
ATOM	8633	OW0	HOH	Z	457	-8.554	36.920	4.635	1.00	61.25	O
ATOM	8634	OW0	HOH	Z	458	-19.234	54.631	18.308	1.00	56.58	O
ATOM	8635	OW0	HOH	Z	459	-23.598	31.191	32.200	1.00	53.14	O
ATOM	8636	OW0	HOH	Z	460	-20.744	10.671	59.459	1.00	56.97	O
ATOM	8637	OW0	HOH	Z	461	-3.788	13.600	20.933	1.00	51.44	O
ATOM	8638	OW0	HOH	Z	462	-8.660	80.527	-6.019	1.00	61.91	O
ATOM	8639	OW0	HOH	Z	464	8.034	-1.800	69.162	1.00	68.14	O
ATOM	8640	OW0	HOH	Z	465	-17.313	92.057	28.072	1.00	49.07	O
ATOM	8641	OW0	HOH	Z	466	-20.112	14.253	44.009	1.00	48.78	O
ATOM	8642	OW0	HOH	Z	467	-1.292	24.567	47.745	1.00	66.96	O
ATOM	8643	OW0	HOH	Z	468	-28.471	89.340	35.303	1.00	64.13	O
ATOM	8644	OW0	HOH	Z	469	-7.731	36.445	2.177	1.00	60.32	O
ATOM	8645	OW0	HOH	Z	470	-22.447	20.229	41.821	1.00	61.26	O
ATOM	8646	OW0	HOH	Z	471	-36.147	55.970	18.028	1.00	47.46	O
ATOM	8647	OW0	HOH	Z	472	-16.344	13.494	61.912	1.00	50.31	O
ATOM	8648	OW0	HOH	Z	473	-4.969	76.132	30.830	1.00	59.99	O
ATOM	8649	OW0	HOH	Z	474	-17.594	66.926	-21.528	1.00	44.33	O
ATOM	8650	OW0	HOH	Z	476	-50.165	63.625	-13.268	1.00	51.78	O
ATOM	8651	OW0	HOH	Z	478	-5.540	48.648	56.748	1.00	47.39	O
ATOM	8652	OW0	HOH	Z	480	11.514	8.361	77.869	1.00	52.05	O
ATOM	8653	OW0	HOH	Z	481	-3.269	35.976	6.685	1.00	44.69	O

- 345 -

ATOM	8654	OW0	HOH	Z	482	-33.339	72.357	14.019	1.00	50.43	O
ATOM	8655	OW0	HOH	Z	483	2.729	32.418	37.044	1.00	49.98	O
ATOM	8656	OW0	HOH	Z	484	-21.272	45.956	26.989	1.00	57.10	O
ATOM	8657	OW0	HOH	Z	485	-35.891	3.278	28.324	1.00	66.93	O
ATOM	8658	OW0	HOH	Z	486	-8.485	10.816	41.382	1.00	44.33	O
ATOM	8659	OW0	HOH	Z	487	13.014	3.713	56.557	1.00	54.85	O
ATOM	8660	OW0	HOH	Z	488	-23.695	25.222	39.401	1.00	69.51	O
ATOM	8661	OW0	HOH	Z	489	-19.679	5.192	15.730	1.00	68.04	O
ATOM	8662	OW0	HOH	Z	490	-3.663	2.703	72.455	1.00	66.97	O
ATOM	8663	OW0	HOH	Z	491	-5.437	15.856	79.085	1.00	47.20	O
ATOM	8664	OW0	HOH	Z	492	-6.096	58.446	4.729	1.00	58.13	O
ATOM	8665	OW0	HOH	Z	493	-24.873	58.708	20.002	1.00	50.34	O
ATOM	8666	OW0	HOH	Z	494	-8.653	74.504	35.880	1.00	44.33	O
ATOM	8667	OW0	HOH	Z	495	-42.507	23.792	11.773	1.00	52.49	O
ATOM	8668	OW0	HOH	Z	496	-2.461	77.464	13.966	1.00	60.95	O
ATOM	8669	OW0	HOH	Z	498	0.330	27.484	83.409	1.00	63.99	O
ATOM	8670	OW0	HOH	Z	499	-13.511	22.095	2.350	1.00	53.86	O
ATOM	8671	OW0	HOH	Z	500	-9.010	37.365	60.727	1.00	44.33	O
ATOM	8672	OW0	HOH	Z	501	-13.990	56.775	15.377	1.00	45.73	O
ATOM	8673	OW0	HOH	Z	502	-10.648	56.341	12.774	1.00	44.33	O
ATOM	8674	OW0	HOH	Z	503	-13.217	45.902	22.232	1.00	48.70	O
ATOM	8675	OW0	HOH	Z	504	-20.049	13.287	49.513	1.00	61.62	O
ATOM	8676	OW0	HOH	Z	505	-1.334	26.597	19.691	1.00	45.69	O
ATOM	8677	OW0	HOH	Z	506	-43.439	28.146	13.241	1.00	59.76	O
ATOM	8678	OW0	HOH	Z	507	-1.931	71.180	26.536	1.00	62.33	O
ATOM	8679	OW0	HOH	Z	508	-12.678	63.923	-21.904	1.00	69.36	O
ATOM	8680	OW0	HOH	Z	509	12.703	36.641	71.936	1.00	57.06	O
ATOM	8681	OW0	HOH	Z	510	-23.025	18.656	62.260	1.00	47.32	O
ATOM	8682	OW0	HOH	Z	511	-34.803	30.504	30.219	1.00	60.64	O
ATOM	8683	OW0	HOH	Z	512	-26.282	5.887	21.947	1.00	49.74	O
ATOM	8684	OW0	HOH	Z	513	-16.961	3.429	25.842	1.00	53.48	O
ATOM	8685	OW0	HOH	Z	514	-24.725	54.223	13.622	1.00	44.33	O
ATOM	8686	OW0	HOH	Z	515	-15.321	35.780	2.150	1.00	51.35	O
ATOM	8687	OW0	HOH	Z	517	-35.464	25.239	17.901	1.00	54.05	O
ATOM	8688	OW0	HOH	Z	519	-17.831	57.392	36.087	1.00	50.43	O
ATOM	8689	OW0	HOH	Z	520	-3.153	72.551	-4.173	1.00	47.47	O
ATOM	8690	OW0	HOH	Z	521	-22.669	65.580	-7.332	1.00	44.33	O
ATOM	8691	OW0	HOH	Z	522	-30.052	88.017	14.460	1.00	51.70	O
ATOM	8692	OW0	HOH	Z	523	-26.810	59.638	-10.525	1.00	48.50	O
ATOM	8693	OW0	HOH	Z	524	-35.513	23.856	29.517	1.00	60.13	O
ATOM	8694	OW0	HOH	Z	525	-13.984	15.575	1.633	1.00	52.77	O
ATOM	8695	OW0	HOH	Z	526	-29.716	24.667	0.990	1.00	72.99	O
ATOM	8696	OW0	HOH	Z	527	-24.717	21.900	41.623	1.00	54.73	O
ATOM	8697	OW0	HOH	Z	528	18.912	35.970	58.813	1.00	60.71	O
ATOM	8698	OW0	HOH	Z	529	-0.668	27.474	38.800	1.00	44.33	O
ATOM	8699	OW0	HOH	Z	530	-30.634	73.700	4.011	1.00	59.18	O
ATOM	8700	OW0	HOH	Z	531	-10.984	79.012	33.584	1.00	57.59	O
ATOM	8701	OW0	HOH	Z	532	-38.583	84.308	35.630	1.00	62.52	O
ATOM	8702	OW0	HOH	Z	533	-8.855	70.268	30.561	1.00	46.03	O
ATOM	8703	OW0	HOH	Z	534	-7.671	29.510	68.481	1.00	48.16	O
ATOM	8704	OW0	HOH	Z	535	-37.719	25.763	28.584	1.00	56.54	O
ATOM	8705	OW0	HOH	Z	537	-32.194	27.029	47.115	1.00	52.81	O
ATOM	8706	OW0	HOH	Z	538	-13.043	15.153	75.686	1.00	48.22	O
ATOM	8707	OW0	HOH	Z	539	-24.774	71.203	44.829	1.00	44.33	O
ATOM	8708	OW0	HOH	Z	540	-36.887	88.302	23.461	1.00	62.63	O
ATOM	8709	OW0	HOH	Z	541	-38.547	60.995	16.704	1.00	74.99	O
ATOM	8710	OW0	HOH	Z	542	-32.683	37.106	20.106	1.00	44.62	O
ATOM	8711	OW0	HOH	Z	543	-14.807	35.216	56.926	1.00	52.14	O

- 346 -

ATOM	8712	OW0	HOH	Z	544	14.953	22.576	54.186	1.00	67.69	O
ATOM	8713	OW0	HOH	Z	546	-40.110	71.535	31.406	1.00	57.38	O
ATOM	8714	OW0	HOH	Z	547	2.110	27.512	35.122	1.00	65.05	O
ATOM	8715	OW0	HOH	Z	548	9.817	34.335	37.867	1.00	61.45	O
ATOM	8716	OW0	HOH	Z	549	-42.647	62.616	1.575	1.00	61.29	O
ATOM	8717	OW0	HOH	Z	550	-8.281	77.201	9.038	1.00	63.08	O
ATOM	8718	OW0	HOH	Z	551	-13.401	1.462	54.286	1.00	54.20	O
ATOM	8719	OW0	HOH	Z	554	-39.648	26.120	25.551	1.00	69.82	O
ATOM	8720	OW0	HOH	Z	556	-6.725	66.572	-13.228	1.00	44.33	O
ATOM	8721	OW0	HOH	Z	557	-28.038	6.759	16.199	1.00	55.34	O
ATOM	8722	OW0	HOH	Z	559	-25.617	30.333	25.771	1.00	55.76	O
ATOM	8723	OW0	HOH	Z	560	-12.353	78.284	4.181	1.00	54.27	O
ATOM	8724	OW0	HOH	Z	561	-19.943	73.573	8.200	1.00	63.09	O
ATOM	8725	OW0	HOH	Z	562	-36.690	94.615	13.718	1.00	56.35	O
ATOM	8726	OW0	HOH	Z	563	-28.381	67.211	46.052	1.00	65.92	O
ATOM	8727	OW0	HOH	Z	564	-1.180	25.288	80.608	1.00	46.60	O
ATOM	8728	OW0	HOH	Z	565	-57.084	56.813	-10.004	1.00	48.79	O
ATOM	8729	OW0	HOH	Z	566	3.229	16.150	85.255	1.00	46.61	O
ATOM	8730	OW0	HOH	Z	567	-37.808	6.524	35.409	1.00	44.33	O
ATOM	8731	OW0	HOH	Z	568	-8.163	48.487	54.357	1.00	63.58	O
ATOM	8732	OW0	HOH	Z	569	13.861	41.996	64.296	1.00	67.96	O
ATOM	8733	OW0	HOH	Z	570	-25.427	25.601	52.674	1.00	59.12	O
ATOM	8734	OW0	HOH	Z	571	-29.323	21.735	31.027	1.00	47.01	O
ATOM	8735	OW0	HOH	Z	572	-11.884	25.062	75.550	1.00	49.35	O
ATOM	8736	OW0	HOH	Z	573	10.360	29.724	55.514	1.00	64.30	O
ATOM	8737	OW0	HOH	Z	574	-23.119	22.117	0.274	1.00	51.97	O
ATOM	8738	OW0	HOH	Z	575	-12.116	39.210	29.747	1.00	52.33	O
ATOM	8739	OW0	HOH	Z	576	-3.667	39.257	32.624	1.00	64.49	O
ATOM	8740	OW0	HOH	Z	577	-18.009	17.512	77.213	1.00	72.75	O
ATOM	8741	OW0	HOH	Z	580	-42.683	58.610	1.806	1.00	65.54	O
ATOM	8742	OW0	HOH	Z	581	-3.012	0.478	67.755	1.00	55.45	O
ATOM	8743	OW0	HOH	Z	583	-38.283	65.090	26.026	1.00	44.33	O
ATOM	8744	OW0	HOH	Z	584	-20.909	60.748	-14.996	1.00	53.64	O
ATOM	8745	OW0	HOH	Z	585	-11.706	66.230	-18.767	1.00	44.33	O
ATOM	8746	OW0	HOH	Z	586	-10.167	38.960	58.123	1.00	48.06	O
ATOM	8747	OW0	HOH	Z	587	-30.719	65.864	42.671	1.00	66.41	O
ATOM	8748	OW0	HOH	Z	588	-10.769	20.361	84.022	1.00	54.47	O
ATOM	8749	OW0	HOH	Z	590	-18.213	18.905	53.668	1.00	60.20	O
ATOM	8750	OW0	HOH	Z	591	-7.721	54.237	2.958	1.00	54.73	O
ATOM	8751	OW0	HOH	Z	592	-8.241	75.315	-9.684	1.00	44.33	O
ATOM	8752	OW0	HOH	Z	593	-25.114	-2.422	43.938	1.00	60.80	O
ATOM	8753	OW0	HOH	Z	594	7.262	35.361	37.881	1.00	67.76	O
ATOM	8754	OW0	HOH	Z	595	-36.146	8.687	26.359	1.00	50.00	O
ATOM	8755	OW0	HOH	Z	596	-10.891	28.409	76.573	1.00	58.12	O
ATOM	8756	OW0	HOH	Z	598	-35.458	2.721	34.718	1.00	58.29	O
ATOM	8757	OW0	HOH	Z	599	1.786	32.974	83.407	1.00	55.22	O
ATOM	8758	OW0	HOH	Z	600	-38.776	60.935	31.367	1.00	74.92	O
ATOM	8759	OW0	HOH	Z	602	-17.917	28.969	61.931	1.00	52.35	O
ATOM	8760	OW0	HOH	Z	603	-42.737	24.979	22.950	1.00	49.59	O
ATOM	8761	OW0	HOH	Z	604	-15.259	42.424	9.844	1.00	51.70	O
ATOM	8762	OW0	HOH	Z	605	-7.575	25.217	50.635	1.00	49.23	O
ATOM	8763	OW0	HOH	Z	606	-37.208	28.611	19.047	1.00	44.33	O
ATOM	8764	OW0	HOH	Z	607	-30.138	70.977	40.665	1.00	45.55	O
ATOM	8765	OW0	HOH	Z	608	-19.806	67.624	-10.663	1.00	44.33	O
ATOM	8766	OW0	HOH	Z	609	-14.276	51.290	17.694	1.00	57.76	O
ATOM	8767	OW0	HOH	Z	610	-20.601	73.202	-0.605	1.00	60.78	O
ATOM	8768	OW0	HOH	Z	611	-21.822	-4.589	36.198	1.00	51.73	O
ATOM	8769	OW0	HOH	Z	612	-22.130	89.294	32.623	1.00	47.54	O

- 347 -

ATOM	8770	OW0	HOH	Z	613	-35.336	7.268	38.759	1.00	44.33	O
ATOM	8771	OW0	HOH	Z	615	10.314	12.564	82.893	1.00	45.42	O
ATOM	8772	OW0	HOH	Z	616	-16.247	26.046	57.858	1.00	44.33	O
ATOM	8773	OW0	HOH	Z	618	-4.354	59.841	3.016	1.00	65.67	O
ATOM	8774	OW0	HOH	Z	619	-6.649	93.369	12.958	1.00	55.07	O
ATOM	8775	OW0	HOH	Z	620	-33.351	23.958	41.597	1.00	44.33	O
ATOM	8776	OW0	HOH	Z	621	-12.433	37.071	68.583	1.00	68.47	O
ATOM	8777	OW0	HOH	Z	622	-18.555	39.459	10.015	1.00	44.33	O
ATOM	8778	OW0	HOH	Z	623	14.893	34.802	33.938	1.00	54.06	O
ATOM	8779	OW0	HOH	Z	624	-13.085	15.244	50.176	1.00	66.69	O
ATOM	8780	OW0	HOH	Z	625	17.264	22.945	70.252	1.00	53.17	O
ATOM	8781	OW0	HOH	Z	626	-16.393	4.805	46.618	1.00	53.11	O
ATOM	8782	OW0	HOH	Z	627	-27.133	1.299	28.238	1.00	47.25	O
ATOM	8783	OW0	HOH	Z	628	-24.673	49.576	8.539	1.00	49.86	O
ATOM	8784	OW0	HOH	Z	629	-6.889	75.577	-15.047	1.00	44.33	O
ATOM	8785	OW0	HOH	Z	630	-26.273	74.760	9.799	1.00	63.43	O
ATOM	8786	OW0	HOH	Z	631	6.329	12.336	53.877	1.00	44.33	O
ATOM	8787	OW0	HOH	Z	632	1.479	18.214	47.935	1.00	50.24	O
ATOM	8788	OW0	HOH	Z	633	-30.926	36.307	32.459	1.00	45.13	O
ATOM	8789	OW0	HOH	Z	634	-11.117	44.203	3.286	1.00	66.51	O
ATOM	8790	OW0	HOH	Z	635	-36.725	21.046	34.451	1.00	61.17	O
ATOM	8791	OW0	HOH	Z	636	-8.425	21.804	49.124	1.00	46.48	O
ATOM	8792	OW0	HOH	Z	637	-15.598	46.882	23.504	1.00	65.80	O
ATOM	8793	OW0	HOH	Z	639	-1.137	14.585	80.978	1.00	46.21	O
ATOM	8794	OW0	HOH	Z	640	-9.811	86.357	29.423	1.00	44.33	O
ATOM	8795	OW0	HOH	Z	641	-11.616	70.446	27.269	1.00	44.33	O
ATOM	8796	OW0	HOH	Z	642	-2.371	-0.778	65.593	1.00	55.10	O
ATOM	8797	OW0	HOH	Z	643	-15.492	53.217	1.012	1.00	44.33	O
ATOM	8798	OW0	HOH	Z	644	-4.731	43.899	38.565	1.00	60.36	O
ATOM	8799	OW0	HOH	Z	646	-35.250	64.225	-8.975	1.00	52.62	O
ATOM	8800	OW0	HOH	Z	647	19.650	33.173	34.174	1.00	79.77	O
ATOM	8801	OW0	HOH	Z	648	-2.236	24.507	40.229	1.00	55.36	O
ATOM	8802	OW0	HOH	Z	649	-24.363	31.705	4.122	1.00	58.52	O
ATOM	8803	OW0	HOH	Z	650	-6.895	17.864	42.204	1.00	56.76	O
ATOM	8804	OW0	HOH	Z	651	-13.724	15.807	64.001	1.00	44.84	O
ATOM	8805	OW0	HOH	Z	652	10.323	51.724	47.791	1.00	52.37	O
ATOM	8806	OW0	HOH	Z	653	-7.831	13.945	34.975	1.00	44.84	O
ATOM	8807	OW0	HOH	Z	654	-17.670	59.016	-15.580	1.00	62.96	O
ATOM	8808	OW0	HOH	Z	657	-17.112	79.397	15.789	1.00	47.64	O
ATOM	8809	OW0	HOH	Z	658	-23.684	67.633	-5.525	1.00	48.85	O
ATOM	8810	OW0	HOH	Z	659	0.616	47.737	69.726	1.00	59.21	O
ATOM	8811	OW0	HOH	Z	661	-17.683	56.870	-9.661	1.00	52.87	O
ATOM	8812	OW0	HOH	Z	662	-16.372	49.724	19.831	1.00	44.33	O
ATOM	8813	OW0	HOH	Z	663	-16.539	-9.044	38.627	1.00	56.88	O
ATOM	8814	OW0	HOH	Z	664	-18.437	0.454	26.576	1.00	51.21	O
ATOM	8815	OW0	HOH	Z	665	-2.174	29.777	13.755	1.00	63.24	O
ATOM	8816	OW0	HOH	Z	666	18.428	13.182	66.565	1.00	57.55	O
ATOM	8817	OW0	HOH	Z	668	-9.893	39.516	4.307	1.00	57.06	O
ATOM	8818	OW0	HOH	Z	669	-10.836	17.975	82.387	1.00	59.67	O
ATOM	8819	OW0	HOH	Z	671	14.966	19.305	76.610	1.00	61.04	O
ATOM	8820	OW0	HOH	Z	672	-11.126	54.339	-1.442	1.00	46.40	O
ATOM	8821	OW0	HOH	Z	673	4.312	44.787	38.910	1.00	59.35	O
ATOM	8822	OW0	HOH	Z	674	-21.077	67.413	-13.698	1.00	44.94	O
ATOM	8823	OW0	HOH	Z	675	-27.456	-1.107	25.559	1.00	62.03	O
ATOM	8824	OW0	HOH	Z	676	-5.641	71.780	2.258	1.00	64.32	O
ATOM	8825	OW0	HOH	Z	677	-35.970	71.891	13.852	1.00	55.10	O
ATOM	8826	OW0	HOH	Z	678	-34.192	64.651	5.835	1.00	44.33	O
ATOM	8827	OW0	HOH	Z	679	-30.091	31.391	7.891	1.00	53.57	O

- 348 -

ATOM	8828	OW0	HOH	Z	680	-28.982	60.405	32.277	1.00	52.96	O
ATOM	8829	OW0	HOH	Z	682	24.062	43.550	37.755	1.00	49.03	O
ATOM	8830	OW0	HOH	Z	683	-10.016	24.925	77.639	1.00	69.99	O
ATOM	8831	OW0	HOH	Z	684	-17.539	80.286	-0.280	1.00	62.34	O
ATOM	8832	OW0	HOH	Z	685	-2.090	-5.517	60.154	1.00	65.95	O
ATOM	8833	OW0	HOH	Z	687	-24.617	67.937	-9.112	1.00	60.38	O
ATOM	8834	OW0	HOH	Z	688	29.207	37.512	31.007	1.00	56.43	O
ATOM	8835	OW0	HOH	Z	689	9.592	8.089	56.893	1.00	46.38	O
ATOM	8836	OW0	HOH	Z	690	-17.260	71.861	2.427	1.00	49.68	O
ATOM	8837	OW0	HOH	Z	691	-7.049	45.032	42.737	1.00	56.21	O
ATOM	8838	OW0	HOH	Z	692	8.498	50.854	45.710	1.00	73.28	O
ATOM	8839	OW0	HOH	Z	694	-12.973	59.329	24.044	1.00	50.46	O
ATOM	8840	OW0	HOH	Z	695	4.477	17.728	51.857	1.00	57.79	O
ATOM	8841	OW0	HOH	Z	696	2.584	4.600	46.449	1.00	49.21	O
ATOM	8842	OW0	HOH	Z	697	-27.728	59.531	34.246	1.00	57.20	O
ATOM	8843	OW0	HOH	Z	698	-7.394	67.027	36.081	1.00	52.67	O
ATOM	8844	OW0	HOH	Z	699	-12.946	49.224	7.985	1.00	58.29	O
ATOM	8845	OW0	HOH	Z	700	-38.561	14.755	27.018	1.00	50.30	O
ATOM	8846	OW0	HOH	Z	701	-2.066	21.781	82.679	1.00	48.49	O
ATOM	8847	OW0	HOH	Z	702	-3.432	32.767	21.431	1.00	51.54	O
ATOM	8848	OW0	HOH	Z	703	-14.976	27.315	29.418	1.00	49.35	O
ATOM	8849	OW0	HOH	Z	704	20.440	18.065	69.832	1.00	59.03	O
ATOM	8850	OW0	HOH	Z	705	-27.190	59.722	41.276	1.00	66.75	O
ATOM	8851	OW0	HOH	Z	706	-13.078	83.112	0.305	1.00	49.76	O
ATOM	8852	OW0	HOH	Z	707	-16.741	30.951	60.099	1.00	59.00	O
ATOM	8853	OW0	HOH	Z	708	-25.443	44.540	15.169	1.00	48.30	O
ATOM	8854	OW0	HOH	Z	709	-20.183	77.458	38.177	1.00	49.07	O
ATOM	8855	OW0	HOH	Z	711	-6.338	30.993	79.060	1.00	68.78	O
ATOM	8856	OW0	HOH	Z	713	1.073	57.660	-0.686	1.00	58.00	O
ATOM	8857	OW0	HOH	Z	714	-19.671	45.610	6.528	1.00	64.88	O
ATOM	8858	OW0	HOH	Z	715	-19.131	16.829	54.207	1.00	79.81	O
ATOM	8859	OW0	HOH	Z	716	-23.179	69.504	-11.179	1.00	68.65	O
ATOM	8860	OW0	HOH	Z	718	-14.104	41.714	5.933	1.00	58.72	O
ATOM	8861	OW0	HOH	Z	720	-25.686	42.144	29.094	1.00	51.13	O
ATOM	8862	OW0	HOH	Z	721	3.413	-3.192	53.912	1.00	60.93	O
ATOM	8863	OW0	HOH	Z	722	-38.684	67.227	27.389	1.00	55.12	O
ATOM	8864	OW0	HOH	Z	723	-14.408	75.185	37.745	1.00	61.90	O
ATOM	8865	OW0	HOH	Z	724	-38.028	59.153	0.579	1.00	65.08	O
ATOM	8866	OW0	HOH	Z	725	-43.184	69.025	-3.742	1.00	54.02	O
ATOM	8867	OW0	HOH	Z	726	-9.317	65.782	33.134	1.00	62.93	O
ATOM	8868	OW0	HOH	Z	727	-11.106	64.682	34.660	1.00	53.94	O
ATOM	8869	OW0	HOH	Z	728	19.054	4.221	73.441	1.00	56.64	O
ATOM	8870	OW0	HOH	Z	729	-36.668	62.023	-3.490	1.00	57.68	O
ATOM	8871	OW0	HOH	Z	732	-35.109	4.180	25.783	1.00	45.87	O
ATOM	8872	OW0	HOH	Z	734	-6.154	48.932	43.555	1.00	68.96	O
ATOM	8873	OW0	HOH	Z	735	-40.963	63.438	21.783	1.00	48.75	O
ATOM	8874	OW0	HOH	Z	736	0.045	23.379	49.004	1.00	65.05	O
ATOM	8875	OW0	HOH	Z	737	-14.042	53.579	52.678	1.00	54.19	O
ATOM	8876	OW0	HOH	Z	738	6.617	50.224	61.078	1.00	67.40	O
ATOM	8877	OW0	HOH	Z	739	-15.588	46.995	20.035	1.00	53.38	O
ATOM	8878	OW0	HOH	Z	740	-38.619	21.613	41.883	1.00	60.28	O
ATOM	8879	OW0	HOH	Z	741	-17.304	74.821	-12.311	1.00	46.67	O
ATOM	8880	OW0	HOH	Z	742	-2.963	34.820	22.311	1.00	46.31	O
ATOM	8881	OW0	HOH	Z	743	-31.519	18.218	50.469	1.00	54.87	O
ATOM	8882	OW0	HOH	Z	744	-11.645	73.023	-11.318	1.00	44.67	O
ATOM	8883	OW0	HOH	Z	745	-4.164	66.705	37.878	1.00	59.47	O
ATOM	8884	OW0	HOH	Z	746	-17.547	47.110	8.698	1.00	56.07	O
ATOM	8885	OW0	HOH	Z	747	-22.934	9.907	-0.329	1.00	68.28	O

- 349 -

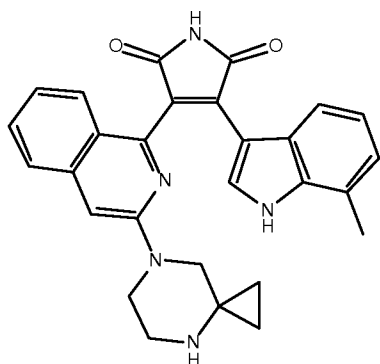
ATOM	8886	OW0	HOH	Z	748	-28.994	-2.064	33.866	1.00	53.91	O
ATOM	8887	OW0	HOH	Z	749	-41.900	68.897	-5.828	1.00	67.05	O
ATOM	8888	OW0	HOH	Z	750	-6.562	41.437	27.839	1.00	49.89	O
ATOM	8889	OW0	HOH	Z	751	-12.612	52.497	50.146	1.00	58.20	O
ATOM	8890	OW0	HOH	Z	752	-28.457	-2.021	31.429	1.00	55.80	O
ATOM	8891	OW0	HOH	Z	753	-6.252	61.257	17.542	1.00	66.06	O
ATOM	8892	OW0	HOH	Z	754	-19.280	81.445	10.305	1.00	49.37	O
ATOM	8893	OW0	HOH	Z	755	-44.283	31.128	17.237	1.00	60.76	O
ATOM	8894	OW0	HOH	Z	757	19.895	14.062	70.596	1.00	58.76	O
ATOM	8895	OW0	HOH	Z	758	-33.692	87.813	35.388	1.00	57.45	O
ATOM	8896	OW0	HOH	Z	759	-5.224	38.073	59.171	1.00	61.58	O
ATOM	8897	OW0	HOH	Z	760	-18.451	61.974	-17.443	1.00	65.26	O
ATOM	8898	OW0	HOH	Z	761	8.056	13.983	88.453	1.00	65.30	O
ATOM	8899	OW0	HOH	Z	762	4.852	25.175	86.493	1.00	60.11	O
ATOM	8900	OW0	HOH	Z	763	-4.715	55.557	11.479	1.00	58.63	O
ATOM	8901	OW0	HOH	Z	764	-9.959	29.857	4.643	1.00	63.63	O
ATOM	8902	OW0	HOH	Z	765	-5.772	41.618	6.455	1.00	67.03	O
ATOM	8903	OW0	HOH	Z	766	0.309	72.342	-4.811	1.00	68.57	O
ATOM	8904	OW0	HOH	Z	768	-9.898	40.766	59.333	1.00	53.03	O
ATOM	8905	OW0	HOH	Z	769	-22.698	9.959	58.082	1.00	52.64	O
ATOM	8906	OW0	HOH	Z	770	3.358	19.640	68.554	1.00	57.21	O
ATOM	8907	OW0	HOH	Z	771	-10.674	40.565	61.433	1.00	44.73	O
ATOM	8908	OW0	HOH	Z	772	5.782	40.941	34.883	1.00	71.39	O
ATOM	8909	OW0	HOH	Z	773	-6.513	69.927	31.177	1.00	53.76	O
ATOM	8910	OW0	HOH	Z	774	24.012	41.025	45.245	1.00	58.30	O
ATOM	8911	OW0	HOH	Z	776	-7.771	38.922	5.511	1.00	70.94	O
ATOM	8912	OW0	HOH	Z	777	-18.299	87.023	32.691	1.00	51.31	O
ATOM	8913	OW0	HOH	Z	778	-38.154	62.873	30.413	1.00	54.76	O
ATOM	8914	OW0	HOH	Z	779	-4.496	75.395	25.012	1.00	69.86	O
ATOM	8915	OW0	HOH	Z	780	-38.753	28.500	15.772	1.00	46.42	O
ATOM	8916	OW0	HOH	Z	781	-31.009	43.619	2.455	1.00	53.13	O
ATOM	8917	OW0	HOH	Z	782	-8.218	42.630	25.198	1.00	52.67	O
ATOM	8918	OW0	HOH	Z	784	-22.461	74.954	9.692	1.00	49.79	O
ATOM	8919	OW0	HOH	Z	785	1.176	31.044	26.031	1.00	81.50	O
ATOM	8920	OW0	HOH	Z	787	-6.453	7.709	22.567	1.00	53.04	O
ATOM	8921	OW0	HOH	Z	788	-32.599	23.707	6.225	1.00	55.24	O
ATOM	8922	OW0	HOH	Z	790	-14.601	49.024	17.429	1.00	52.07	O
ATOM	8923	OW0	HOH	Z	791	-10.607	38.897	26.597	1.00	61.42	O
ATOM	8924	OW0	HOH	Z	793	-20.716	35.125	0.119	1.00	68.91	O
ATOM	8925	OW0	HOH	Z	794	-32.773	73.964	36.423	1.00	44.33	O
ATOM	8926	OW0	HOH	Z	796	0.427	72.250	17.222	1.00	65.79	O
ATOM	8927	OW0	HOH	Z	798	-8.159	29.613	71.561	1.00	65.65	O
ATOM	8928	OW0	HOH	Z	803	-22.472	47.031	-2.870	1.00	70.97	O
ATOM	8929	OW0	HOH	Z	804	-12.217	47.762	52.326	1.00	69.47	O
ATOM	8930	OW0	HOH	Z	806	-17.841	13.276	47.648	1.00	44.33	O
ATOM	8931	OW0	HOH	Z	808	-25.784	41.278	31.532	1.00	48.89	O
ATOM	8932	OW0	HOH	Z	813	-8.246	54.525	0.758	1.00	45.24	O
ATOM	8933	OW0	HOH	Z	814	-40.495	76.140	20.222	1.00	46.97	O
ATOM	8934	OW0	HOH	Z	815	-23.100	-3.985	32.970	1.00	75.52	O
ATOM	8935	OW0	HOH	Z	816	-3.497	25.047	10.131	1.00	67.76	O
ATOM	8936	OW0	HOH	Z	817	-31.134	-1.222	35.248	1.00	61.63	O
ATOM	8937	OW0	HOH	Z	818	-10.459	29.170	-0.975	1.00	69.90	O
ATOM	8938	OW0	HOH	Z	819	-30.625	73.003	9.367	1.00	52.35	O
ATOM	8939	OW0	HOH	Z	820	-12.869	70.640	39.736	1.00	62.75	O
ATOM	8940	OW0	HOH	Z	821	-17.646	84.594	35.966	1.00	48.75	O
ATOM	8941	OW0	HOH	Z	822	-44.120	21.578	26.024	1.00	63.77	O
ATOM	8942	OW0	HOH	Z	826	-7.439	81.642	11.220	1.00	61.12	O
ATOM	8943	OW0	HOH	Z	827	-19.269	73.168	10.856	1.00	53.66	O

- 350 -

ATOM	8944	OW0	HOH	Z	829	-8.326	60.094	-2.169	1.00	44.33	O
ATOM	8945	OW0	HOH	Z	831	-13.081	23.587	37.403	1.00	51.37	O
ATOM	8946	OW0	HOH	Z	832	-16.408	24.550	36.320	1.00	58.53	O
ATOM	8947	OW0	HOH	Z	834	-21.849	22.526	34.011	1.00	52.04	O
ATOM	8948	OW0	HOH	Z	835	-18.202	75.183	2.619	1.00	61.04	O
ATOM	8949	OW0	HOH	Z	836	-6.174	77.972	2.593	1.00	66.27	O
ATOM	8950	OW0	HOH	Z	838	3.002	6.447	70.246	1.00	47.20	O
ATOM	8951	OW0	HOH	Z	839	7.131	2.829	74.660	1.00	52.73	O
ATOM	8952	OW0	HOH	Z	840	8.054	4.615	75.851	1.00	69.93	O
ATOM	8953	OW0	HOH	Z	841	-2.603	3.514	69.338	1.00	55.70	O
ATOM	8954	OW0	HOH	Z	842	-20.227	80.402	37.676	1.00	47.64	O
ATOM	8955	OW0	HOH	Z	843	-17.859	78.246	37.185	1.00	61.21	O
ATOM	8956	OW0	HOH	Z	844	-7.037	44.458	46.566	1.00	47.55	O
ATOM	8957	OW0	HOH	Z	845	-15.483	7.991	22.804	1.00	58.78	O
ATOM	8958	OW0	HOH	Z	846	-16.731	6.802	19.828	1.00	50.15	O
ATOM	8959	OW0	HOH	Z	847	-13.125	6.239	19.667	1.00	73.94	O
ATOM	8960	OW0	HOH	Z	849	-22.298	54.403	18.150	1.00	60.28	O

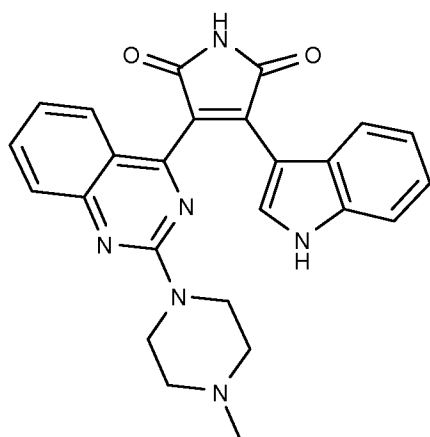
Claims:

1. A crystal comprising PKC alpha kinase catalytic domain and belonging to space group $P2_12_12_1$ with a unit cell dimension of $a = 44.2 \pm 5$ Ångstroms, $b = 101.3 \pm 5$ Ångstroms, $c = 252.0 \pm 5$ Ångstroms.
2. A crystal of the PKC alpha kinase catalytic domain comprising the sequence of SEQ ID NO:1 or a mutant thereof.
3. A crystal of any of claims 1 or 2, wherein the catalytic domain essentially consists of the sequence of SEQ ID. No. 2.
4. A crystal of any of claims 1-3 bound to at least one ligand or low molecular weight compound.
5. A crystal of Claim 4, wherein said ligand is the Compound (I) as defined below:



(I)

6. A crystal of Claim 5, having a three-dimensional structure characterized by the structure coordinates of Table 1.
7. A crystal of Claim 4, wherein said ligand is the Compound (II) as defined below:



(II)

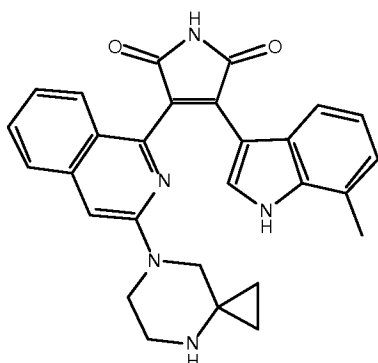
8. A crystal of Claim 7, having a three-dimensional structure characterized by the structure coordinates of Table 2.

9. A computer readable medium comprising data storage material encoded with computer readable data wherein said data comprises the structure coordinates of Table 1 or Table 2.

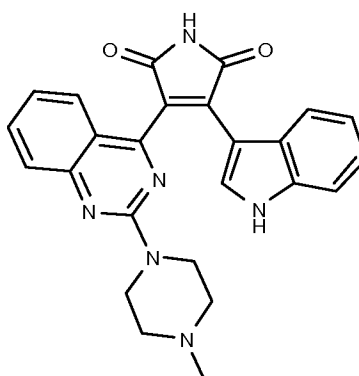
10. A method for making a crystal comprising PKC alpha catalytic domain, said method comprising the steps of:

- (i) expressing a construct comprising a nucleotide sequence encoding PKC alpha catalytic domain for production of a PKC alpha protein;
- (ii) purifying a sufficient amount of the PKC alpha protein produced at step (i) under appropriate conditions for crystallization; and,
- (iii) crystallizing the PKC alpha protein purified at step (ii).

11. The method of Claim 10, wherein in step (i), expression occurs in the presence of an inhibitor, for example in the presence of Compound (I) or Compound (II) as defined below:



(I)



(II)

12. The method of Claim 10 or 11, comprising:

- (i) expressing a construct comprising the nucleotide sequence encoding PKC alpha catalytic domain as shown in SEQ ID NO:2;
- (ii) purifying a sufficient amount of the PKC alpha protein expressed at step (i) over a Ni-NTA column and a size exclusion column at a temperature preferably below 10 °C; and,
- (iii) crystallizing the PKC alpha protein purified at step (b), using hanging drop vapour diffusion with a drop size of 2 µl protein solution plus 1µl reservoir solution.

13. The method of Claim 12, wherein no ATP is added to the protein after purification over the Ni-NTA column.

14. A crystal comprising the PKC alpha catalytic domain obtainable according to any of the methods of Claims 10 to 13.

15. Use of a crystal according to any one of Claims 1 to 9 or 14, for the generation of crystal structure data.

16. A method for determining the three-dimensional structure of a complex comprising the catalytic domain of Conventional PKC, a fragment or homologue thereof bound to at least one ligand comprising:

- (i) obtaining x-ray diffraction data for crystals of the complex,
- (ii) utilizing the atomic coordinates of Table 1 or Table 2 to define the three-dimensional structure of the complex.

17. A method of identifying a ligand that binds to PKC alpha comprising the steps of:

- (i) using the three dimensional structure of the catalytic domain of PKC alpha to select and/or design a potential ligand that binds to PKC alpha,
- (ii) identifying among the potential ligand selected in step (i), those ligands that bind to PKC alpha in an in vitro or cell-based assay.

18. The method of Claim 16, wherein the ligand is selected and/or designed among the potential ligands that virtually bind to the residues lining the ATP binding sites and/or the

hydrophobic motif binding site, according to a computer aided modelling programm.

19. The method of Claim 18, wherein the ligand is selected and/or designed among those that virtually bind to at least one or more amino acids of the ATP binding sites selected from the group consisting of : M343 – L355, L364 – I369, F399 – T409, E418 – L425, D467 – D472 and K478 – F482, and/or at least with one or more amino acids of the regions hydrophobic motif binding sites selected from the group consisting of: Y365 – L393 and H404 – M417.

20. The method of Claim 19, wherein the ligand is selected and/or designed among those that virtually bind to at least one or more amino acids of the ATP binding sites selected from the group consisting of: L345, G346, F350, G351, V353, A366, K368, T401, M417, Y419, V420, M470, A480 and D481, and/or at least with one or more amino acids of the hydrophobic motif binding site selected from the group consisting of: I367, K372, V375, I376, V381, T384, M385, K388, C406, Q408, L413 and F415.

21. A method for selecting a ligand that binds to PKC alpha, comprising:

- a. co-crystallizing or incubating a candidate compound or mix of compounds with PKC alpha under appropriate conditions;
- b. determining by X-ray or NMR methods the amino acids of PKC alpha which interact with the candidate compound; and,
- c. selecting the compound which interacts at least with one or more amino acids of the binding pocket selected among the group consisting of M343 – L355, L364 – I369, F399 – T409, E418 – L425, D467 – D472, K478 – F482, Y365 – L393 and H404 – M417.

22. The method of Claim 21, wherein the ligand is selected and/or designed among those that virtually bind to at least one or more amino acids of the ATP binding sites selected from the group consisting of: L345, G346, F350, G351, V353, A366, K368, T401, M417, Y419, V420, M470, A480 and D481, and/or at least with one or more amino acids of the hydrophobic motif binding sites selected from the group consisting of: I367, K372, V375, I376, V381, T384, M385, K388, C406, Q408, L413 and F415.

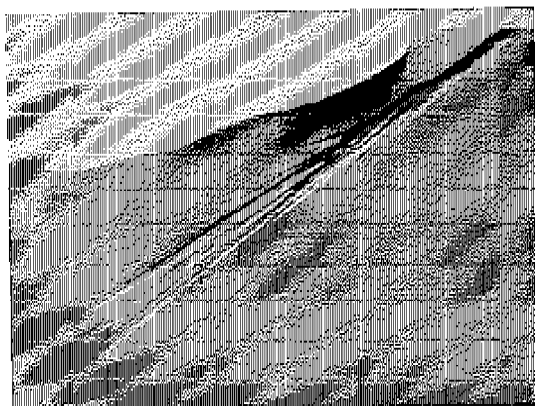
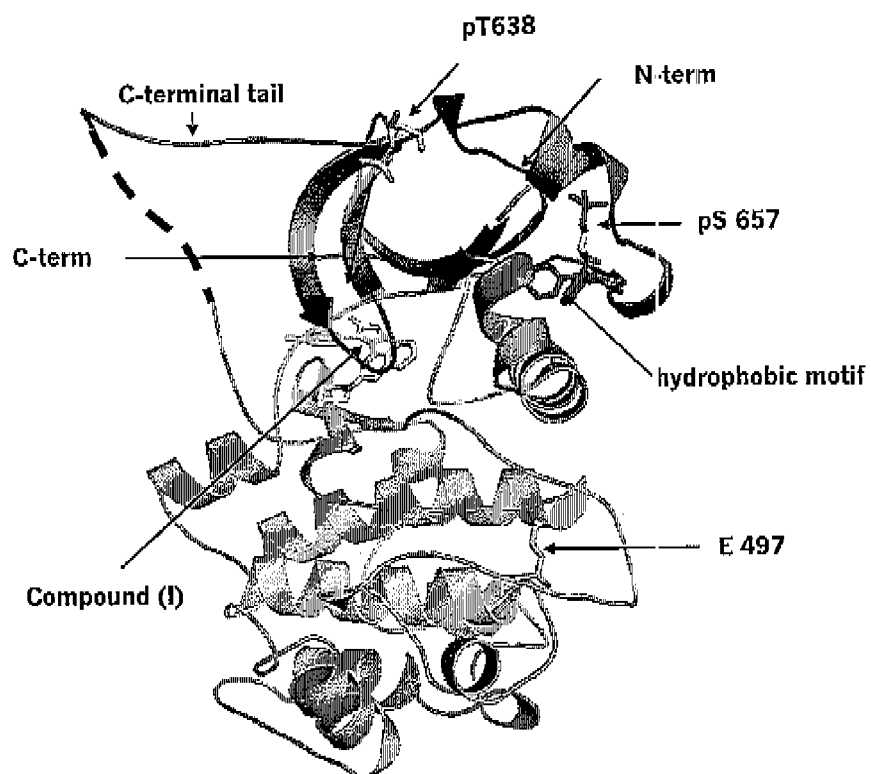
23. A method to design ligand to PKC alpha, wherein said method comprises:

- a. providing a first ligand that binds to one or more amino acids of a first binding region of PKC alpha, for example the ATP binding site;

- 355 -

- b. providing a second ligand that binds to one or more amino acids of a second binding region of PKC alpha, for example the activation loop; and,
- c. linking said first ligand to said second ligand to design a ligand that binds to the first and second binding regions of PKC alpha.

1/5

Figure 1:**Figure 2:**

2/5

Figure 3:

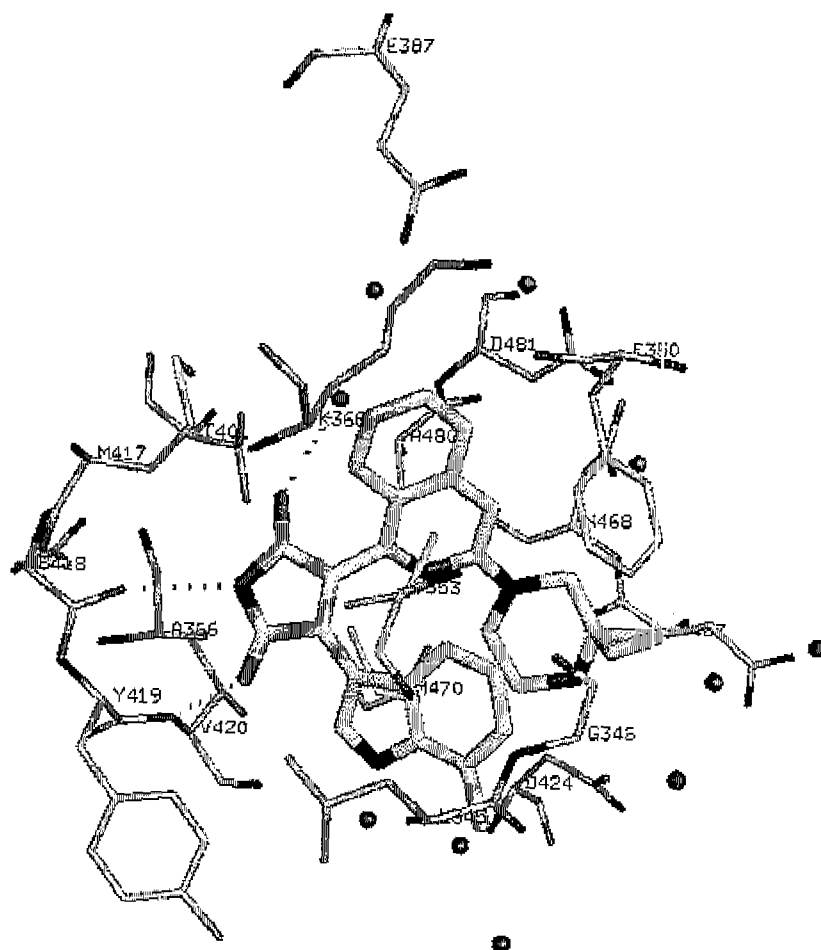


Figure 4:

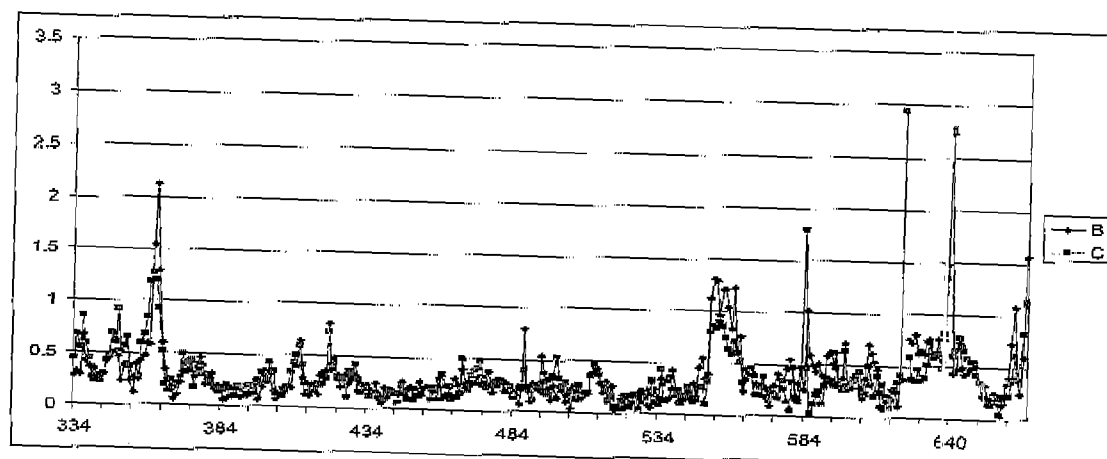
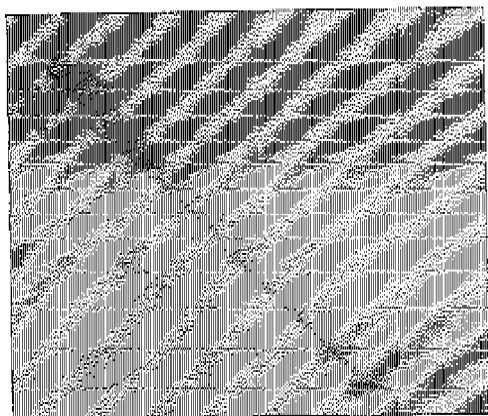
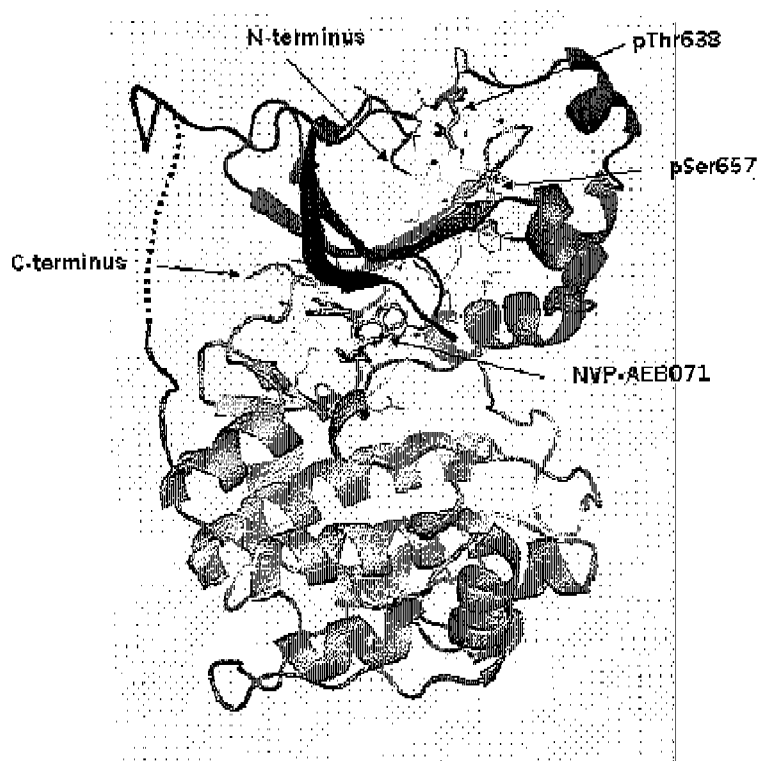


Figure 5:**Figure 6:**

4/5

Figure 7:

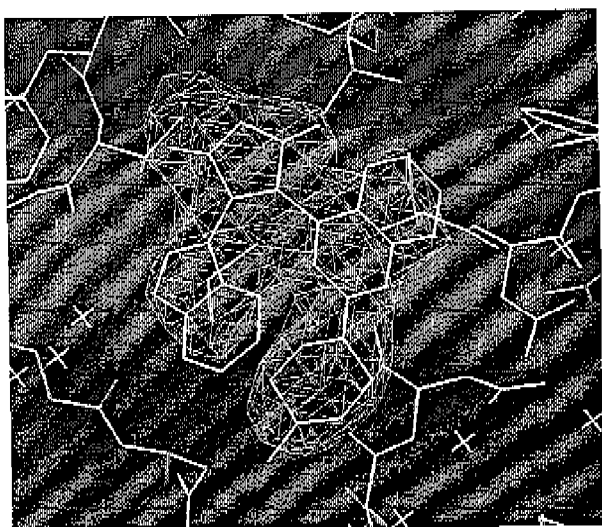
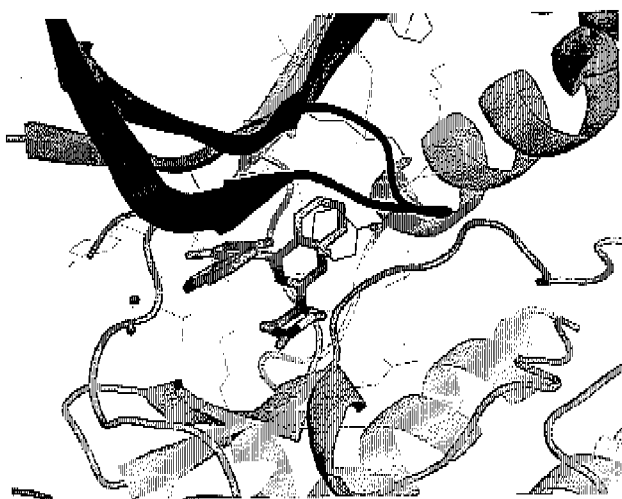


Figure 8:



5/5

Figure 9:

