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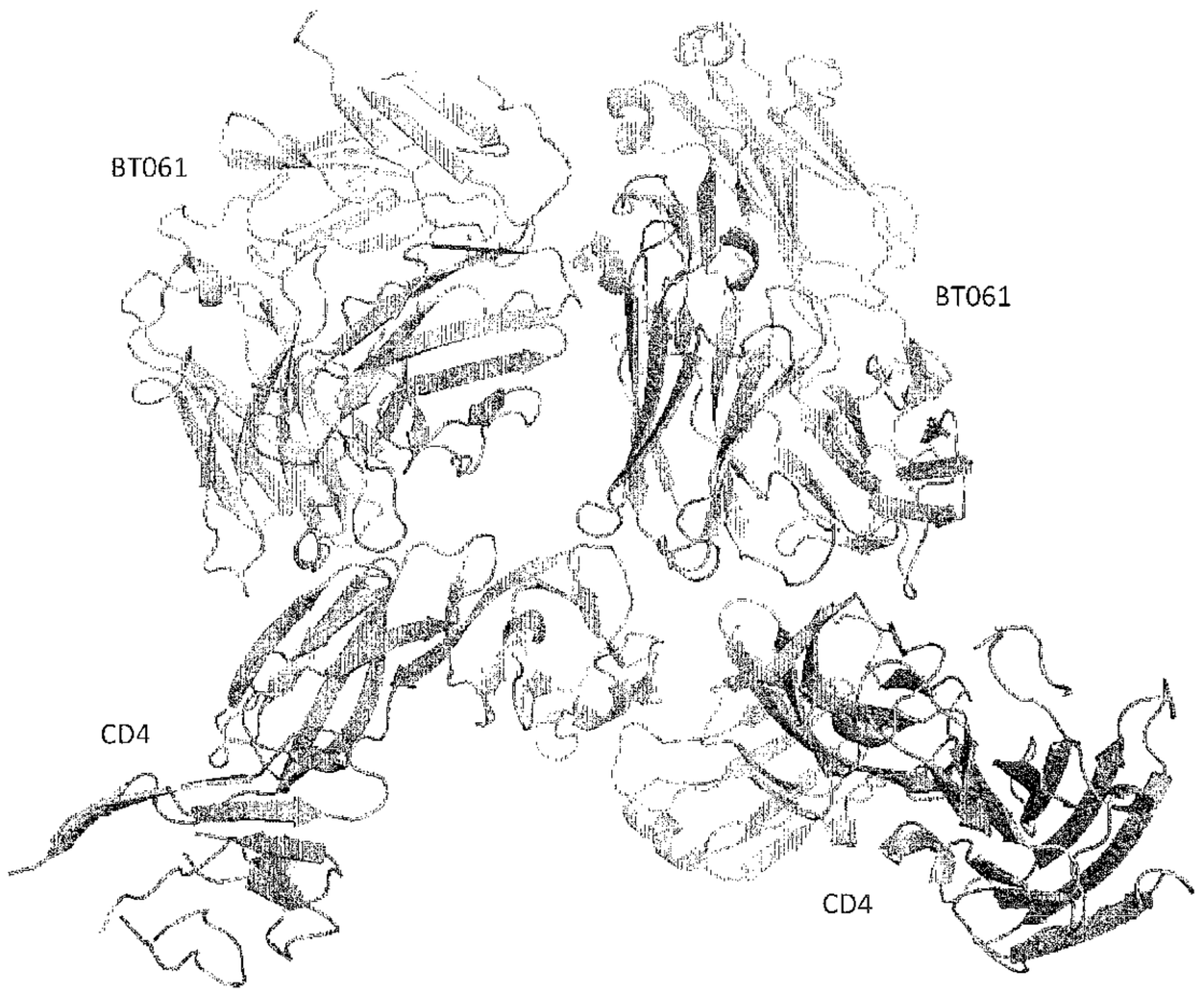

FIGURE 3

(57) Abrégé/Abstract:
Provided are methods of screening to identify molecules capable of binding to CD4 and capable of activating CD4+CD25+ regulatory T cells. Further provided are antibodies and antibody fragments capable of activating CD4+CD25+ regulatory T cells and methods and uses involving the antibodies and fragments thereof.

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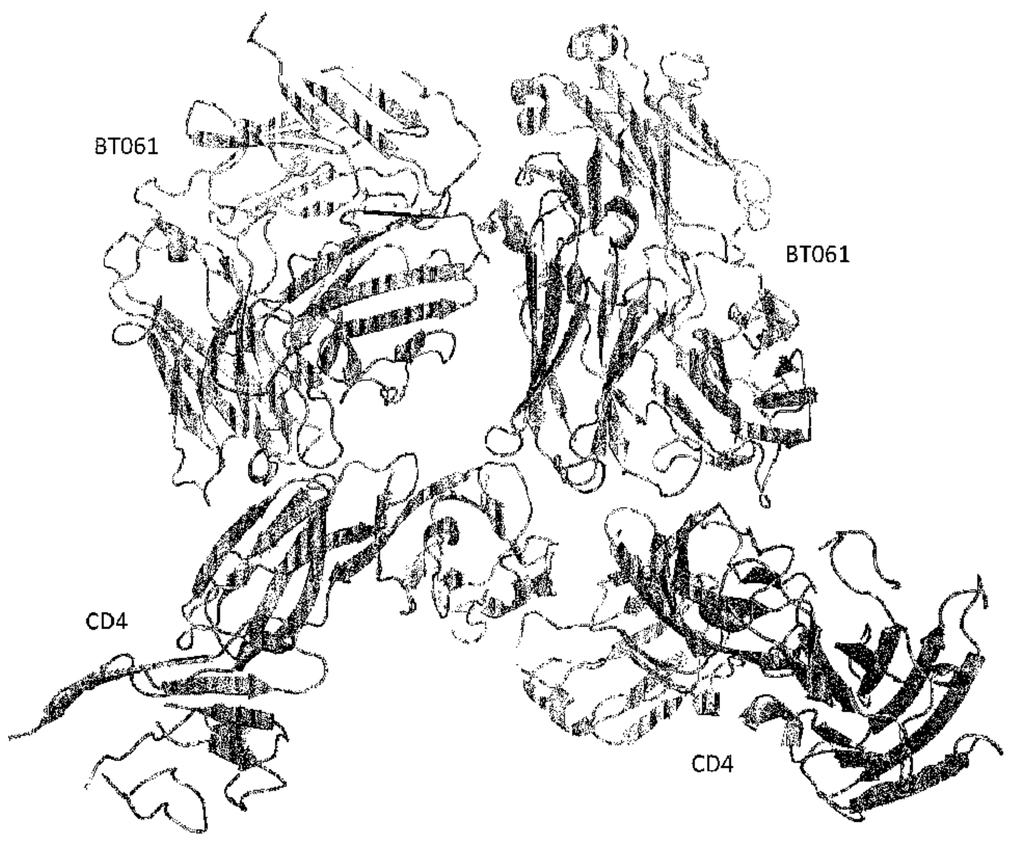

FIGURE 3

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AGENTS FOR TREATING DISEASE

Field of the invention

The present invention is concerned with agents for the treatment of disease, and specifically treatment via the activation of CD4+CD25+ regulatory T cells through the T-cell surface receptor CD4. The invention involves screening methods for identifying such agents, agents capable of the activation of CD4+CD25+ regulatory T cells and their use in the treatment of disease, in particular autoimmune diseases, as well as in methods performed in vitro.

Background art

T-cells belong to the lymphocytes and are responsible for a number of key functions in the immune system. In mammals, T-cells (thymocytes) differentiate in the thymus gland from hematopoietic progenitor cells formed in bone marrow. Part of the differentiation process is the expression of characteristic surface receptors, mainly the glycoproteins CD4 and CD8. T-cells expressing CD4, so-called CD4+ T-cells, bind MHC class II complexes (Reinerz and Schlossman, Cell 19, 821-827 (1980); Reinerz et al., PNAS USA 77, 1588-1592 (1980)), while CD8+ T-cells bind MHC class I complexes (Fitch, Microbiol. Rev. 50, 50-69 (1986)). T-cells are released into blood and lymph.

CD4 positive cells can differentiate into T helper subpopulations (Th1 and Th2), but also into regulatory T-cells. Regulatory T-cells can be further divided into subclasses, the thymus derived (nTreg) inducible ones (iTregs) being the most evaluated.

Although there are other Treg subpopulations, such as for example Tr1 or Th3, the present invention refers to CD4 positive thymus derived Tregs (nTregs) and inducible Tregs, both expressing the transcription factor Foxp3. As a major difference Foxp3 is stably and permanently expressed in nTregs confirming the irreversible Treg phenotype, whereas inducible Tregs display inducible or transient Foxp3 expression, which is reversible.

Tregs secrete immunomodulatory cytokines such as IL-10, TGF beta or IL-35 and exert suppressive activity on effector T-cells via several mechanisms, for example via suppression of the production of

proinflammatory cytokines, direct cell-cell contact and modulating the activation state or function on antigen presenting cells (APC) (Shevach et al., Immunity (2009) 30; 636-645). A main characteristic of CD4 positive CD25 Treg cells is their anergic phenotype, meaning that they do not proliferate upon TCR stimulation, which can be restored by the addition of exogenous IL-2.

A prominent role for Tregs comprises maintaining homeostasis concerning immune responses and self tolerance. Treg dysfunction is correlated with autoimmune diseases.

Commonly, regulatory T-cells can be isolated via the surface receptor glycoproteins CD4, CD25, and characterized by intracellular staining of FOXP3. A further surface protein represents CD127 (IL-7 R), which is downregulated in Treg cells, and can be used for further purification of Tregs. Additionally, expression of CD39 (endonucleotidase) (Borselino et al., Blood (2007) 110, 1225-1232) or GARP (glycoprotein A repetitions predominant (GARP, or LRRC32) (Wang et al., PNAS (2009) 106, 32. 13439-13444).

Human CD4 is encoded on chromosome 12 and belongs to the immunoglobulin (Ig) superfamily. Its natural function as a T-cell surface receptor is related to T-cell activation by binding of MHC class II complexes. In addition, CD4 can bind the HIV-1 gp120 protein, the P4HB/CDI protein, and human herpes virus HHV-7 capsid proteins. Interactions with the HIV-1 gp120 and Vpu proteins also have been reported. CD4 has 458 amino acids. The peptide sequence is shown in Figure 1.

The UniProt entry P01730 provides the domain structure of CD4 as shown below in Table 1, and in Figure 6. The first 25 amino acids are a signal peptide, which is cleaved off in the biologically active form. Positions 26 through 396 constitute the extracellular domain, which is followed by the transmembrane region, positions 397 through 418. Asn_{296} and Asn_{325} are known glycosylation sites (König et al., J. Biol. Chem. 263, 9502-9507 (1988); Carr et al., J. Biol. Chem. 264, 21286-21295 (1989)).

The last part, positions 419 through 458, is the cytoplasmic domain. Here is the binding site for the Tyrosine protein kinase LCK ($p56^{lck}$) (Rudd et al., PNAS USA 85, 5190-5194 (1988); Veillette et al., Cell 55, 301 (1988)), which is part of the signaling pathway activated by ligands binding to CD4.

Table 1 Table showing the domain structure of CD4 (according to UniProt P01730)

Feature	Positions	Length	Description
Signal peptide	1 - 25	25	
Chain	26 - 458	433	T-cell surface glycoprotein CD4
Topological domain	26 - 396	371	Extracellular
Transmembrane region	397 - 418	22	Potential
Topological domain	419 - 458	40	Cytoplasmic (potential)
Domain	26 - 125	100	Ig-like V-type
Domain	126 - 203	78	Ig-like C2-type 1
Domain	204 - 317	78	Ig-like C2-type 2
Domain	318 - 374	78	Ig-like C2-type 3
Region	427 - 455	29	HIV-1 Vpu-susceptibility domain
Glycosylation site	296	1	NeuAc(a2-3)Gal(b1-4)GlcNAc(b1-2)Man(a1-3)[Gal(b1-4)GlcNAc(b1-2)Man(a1-6)]Man(b1-4)GlcNAc(b1-4)GlcNAc
Glycosylation site	325	1	NeuAc(a2-3)Gal(b1-4)GlcNAc(b1-2)Man(a1-3)[Gal(b1-4)GlcNAc(b1-2)Man(a1-6)]Man(b1-4)GlcNAc(b1-4)GlcNAc
Disulfide bond	41 ↔ 109		
Disulfide bond	155 ↔ 184		
Disulfide bond	328 ↔ 370		
Lipidation site	419	1	S-palmitoyl cysteine
Lipidation site	422	1	S-palmitoyl cysteine

The extracellular part comprises 4 immunoglobulin-like domains. The first one, the N-terminal domain, comprising positions 26 through 125 is an Ig-like V-type domain. Based on the homology to antibodies, it has three homologues of antigen-complementary-determining regions, CDR1, CDR2, and CDR3 (Ashkenazi et al., PNAS USA 87, 7150-7154 (1990)) (see Figure 6). The CDR1 and CDR2 spans are involved in the binding of class II MHC molecules (Moebius et al., PNAS USA 89, 12008-120012 (1992)), the gp120 HIV-1 envelope protein (Moebius et al., J. Exp. Med. 176, 507-517 (1992)) and anti-CD4 antibodies (Lanza et al., PNAS USA 90, 11683-11687 (1993)). Phe_{68} of CDR2 plays a key role for recognition and binding of class II MHC molecules and the gp120 HIV-1 envelope protein (Sharma et al., Biochemistry 44, 16192-16202 (2005)). All known ligands of CD4 bind to the N-terminal Ig-like V-type domain.

The mechanism of how regulatory T cells work is not fully clear. $CD4^+CD25^+$ Tregs inhibit polyclonal and antigen-specific T cell activation. The suppression can be mediated e.g. by a cell contact-dependent mechanism that requires activation of $CD4^+CD25^+$ Tregs via the TCR but Tregs do not show a proliferative response upon TCR activation or stimulation with mitogenic antibodies (anergic) (Shevach, Nature Rev. Immunol 2 : 389 (2002). Once stimulated, they are competent to

suppress in an antigen-independent manner the response of CD4+ T cells and CD8+ T cells as well as inhibit B-cell activation and clonal expansion.

The ability of CD4+CD25+ regulatory T cells to have a controlling influence on immune system activity has meant that they have been recognized as a potential target for treating diseases, such as autoimmune diseases, where it is desirable to exert a control on the immune system.

Autoimmunity is the failure of an organism to recognise its own constituent parts (down to sub-molecular levels) as "self", which results in an immune response against its own cells and tissues. Any disease that results from such an aberrant immune response is termed an autoimmune disease. Autoimmune diseases include multiple sclerosis (MS), rheumatoid arthritis (RA), psoriasis, psoriatic arthritis, colitis ulcerosa, Crohn's disease, Type I Diabetes Mellitus (T1D), myasthenia gravis (MG), autoimmune polyglandular syndrome type II (APS-II), Hashimoto's thyroiditis (HT), systemic lupus erythematosus (SLE), Sjörgens Syndrome and autoimmune lymphoproliferative syndrome (ALS).

Autoimmune disease occurs when T cells recognise and react to 'self' molecules, that is, molecules produced by the cells of the host. Activation of 'autoreactive' T cells by presentation of autoantigens processed by antigen presenting cells (APC) leads to their clonal expansion and migration to the specific tissues, where they induce inflammation and tissue destruction.

Suppression of these T effector cell function by using immunosuppressive drugs is a principal therapeutic strategy that has been used successfully to treat autoimmune diseases. However these drugs induce general immune suppression due to their poor selectivity, resulting in inhibition of not only the harmful functions of the immune system, but also useful ones. As a consequence, several risks like infection, cancer and drug toxicity may occur.

It is generally agreed that $CD4^+$ T cells play a major part in initiating and maintaining autoimmunity. Accordingly, it has been proposed to use mAbs against $CD4^+$ T cells surface molecules, and in particular anti-CD4 mAbs, as immunosuppressive agents. Although numerous clinical studies confirmed the potential interest of this approach, they also raised several issues to be addressed in order to make anti-CD4 mAbs more suitable for use in routine clinical practice.

Several different mechanisms of action for CD4 mAbs have been proposed including: (1) antagonism of CD4-MHC II interactions resulting in inhibition of T cell activation, (2) CD4 receptor modulation as determined by a decrease in cell surface expression of CD4, (3) partial signaling through the CD4 receptor in the absence of T cell receptor cross-linking which can suppress subsequent T cell activation and trigger CD4 T cell apoptotic death, (4) Fc-mediated complement-dependent cytotoxicity (CDC) or antibody-dependent cellular cytotoxicity (ADCC) leading to CD4 T cell depletion, and (5) stimulation of regulatory T cells.

Several anti-CD4 antibodies targeting T cells have been in clinical development (Schulze-Koops et al., J Rheumatol. 25(11): 2065-76 (1998); Mason et al., J Rheumatol. 29(2): 220-9 (2002); Choy et al., Rheumatology 39(10): 1139-46 (2000); Herzyk et al., Infect Immun. 69(2): 1032-43 (2001); Kon et al., Eur Respir J. 18(1): 45-52 (2001); Mourad et al., Transplantation 65(5): 632-41 (1998); Skov et al., Arch Dermatol. 139(11): 1433-9 (2003); Jabado et al., J Immunol. 158(1): 94-103 (1997)) mainly aiming at CD4 cell depletion with only a few CD4 antibodies having been attributed to the other mechanisms like TRX-1, TNX-355, IDEC-151, OKTcdr4A.

The approach of using agents aimed at the activation of regulatory T cells for the therapy of autoimmune diseases has proven to be extremely difficult. Activation of Tregs via the TCR using the agonistic anti-CD3 antibody OKT-3 (Abramowicz et al, N Engl. J Med. 1992 Sep 3;327(10):736) or via the co-stimulatory molecule CD28 using the superagonistic anti-CD28 antibody TGN 1412 lead to complete depletion of regulatory T cell population as well as other conventional T cells and the systemic induction and release of excessive amounts of pro-inflammatory cytokines including IFN-γ, TNF-α, IL-1 and IL-2, resulting in a clinically apparent cytokine release syndrome (CRS) in humans (Suntharalingam et al, N Engl. J Med. 2006 Sep 7;355(10):1018-28).

However, recently humanized anti-CD4 antibodies have been described in WO2004/083247 which are capable of activating CD4+CD25+ regulatory T cells. The antibodies described in WO2004/083247 are humanized versions of the mouse antibody, mB-F5, a murine IgG1 anti-human CD4 described by Racadot et al. (Clin. Exp. Rheum., 10, 365-374 (1992)). The epitope of mB-F5

was reported by Racadot et al., as spanning the Ig-like C2 type 1 and type 2 domains of human CD4 from amino acid 162 to amino acid 232 as shown in Figure 6.

Subsequent clinical trials reported in WO2009/112502, WO2009/121690, WO2009/124815 and in WO2010/034590, using one of these antibodies, designated BT061 (a humanized monoclonal IgG1), has resulted in the successful treatment of patients suffering from psoriasis and rheumatoid arthritis, providing proof that these antibodies are capable of treating autoimmune diseases safely and with good efficacy.

The promising clinical results achieved has increased the interest in providing further therapeutic agents having similar properties. It is therefore the aim of the present invention to provide screening methods for identifying such agents, and to provide further therapeutic agents.

Accordingly the present invention provides a method for screening for a molecule capable of binding to CD4 comprising:

(a) providing one or more candidate molecules;

(b) determining whether the one or more candidate molecules is capable of binding to one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168 and amino acids 185 to 192; and

(c) selecting a molecule determined in step (b) to be capable of binding to CD4.

The present inventors have unexpectedly found that the humanized antibody BT061 binds to a domain of CD4 which was previously unrecognized as a ligand binding site. This finding is particularly surprising given what was known in the art as the epitope for the murine antibody, mB-F5, from which BT061 was derived. The present inventors have also established the residues of BT061 that are involved in binding the CD4 molecule and have surprisingly found that not all of the CDRs of BT061 are involved in CD4 binding.

The identification of the binding region, and details of the mechanism of binding, has enabled the development of further screening methods, and of antibodies and antibody fragments capable of activating CD4+CD25+ regulatory T cells.

Accordingly, the present invention also provides a method for screening for an antibody or antibody fragment capable of binding with CD4 comprising:

(a) providing an antibody or antibody fragment comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

(b) determining whether the antibody or antibody fragment is capable of binding to CD4, and

(c) selecting the antibody or antibody fragment determined in step (b) to be capable of binding to CD4,

wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

Still further the present invention provides an antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells comprising an antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

and wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

The invention will be illustrated by way of example only, with reference to the following Figures, in which:

Figure 1 shows the peptide sequence (SEQ ID No: 1) and disulphide bridges of human CD4 (UniProt ID P01730).

Figure 2A shows the peptide sequence (SEQ ID No: 2) of the light chain of the humanized antibody BT-061. The residues of the CDRs are shown with boxes (CDR1: SEQ ID No: 4, CDR2: SEQ ID No: 5 and CDR3: SEQ ID No: 6). Residues surrounded by dashed frames are not represented by the crystal structure.

Figure 2B shows the peptide sequence (SEQ ID No: 3) of the heavy chain of the humanized antibody BT-061.The residues of the CDRs are shown with boxes (CDR 1: SEQ ID No: 7, CDR2: SEQ ID No: 8 and CDR 3: SEQ ID No: 9). Residues surrounded by dashed frames are not represented by the crystal structure.

Figure 3 provides a representation of the asymmetric unit of CD4-BT061 crystal structure.

Figure 4 provides a representation of the CD4-BT061 crystal structure superimposed with a crystal structure of a CD4 complex with a class II MHC molecule (PDB code 1JL4).

Figure 5 provides a representation of the CD4-BT061 crystal structure superimposed with a crystal structure of a complex of CD4 with the gp120 HIV-1 protein (PDB code 2NY1). The latter, in addition, is bound to the antibody 17b.

Figure 6 shows the peptide sequence (SEQ ID No: 1) and domain structure of human CD4 (Uniprot ID P01730).

Figure 7 provides a representation of the BT061 binding site on the surface of CD4. All amino acids shown are part of the Ig-like C2-type 1 domain, which follows the N-terminal Ig-like V-type domain.

Figure 8 provides the BT061 amino acid light chain sequence (SEQ ID No: 2). Amino acids involved in binding to CD4 are marked by rounded frames.

Figure 9 provides the BT061 amino acid heavy chain sequence (SEQ ID No: 3). Amino acids involved in binding to CD4 are marked by rounded frames.

Figure 10 provides a representation of the BT061 binding site on surface of CD4. Amino acids forming the binding pocket for Tyr_{105} of the BT061 heavy chain are circled.

Figure 11 provides a representation of the BT061 binding site on surface of CD4. Amino acids forming the binding pocket for Arg_{104} to Asp_{106} of the BT061 heavy chain are circled.

Figure 12 provides a representation of the BT061 binding site on surface of CD4. Amino acids forming the binding pocket for Tyr_{34} of the BT061 light chain are circled.

Detailed description of the invention

Screening methods

The present invention provides methods for screening for one or more molecules capable of binding to CD4, and preferably human CD4. As indicated above, the information provided herein describes the interaction between CD4 and antibody BT061, which is capable of activating CD4+CD25+ regulatory T cells. In particular, BT-061 binds to both T helper and regulatory Tcells and selectively activates regulatory T cells without activation of T helper cells. The knowledge of the structures of BT061 and how these interact with the extracellular region of CD4 provides a means to design and produce agents with similar properties to BT061 in terms of CD4 binding and selective activation of regulatory T cells.

In a first aspect the present invention provides a method for screening for a molecule capable of binding to CD4 comprising: (a) providing one or more candidate molecules; and (b) determining whether the one or more candidate molecules is capable of binding to one or more of the following regions or amino acids of human CD4: amino acids 148 to 154, amino acids 164 to 168 and amino acids amino acids 185, 187, 189, 190 and 192; (c) selecting a molecule determined in step (b) to be capable of binding to CD4. More particularly, the regions of human CD4 are amino acids 148 to 154, amino acids 164 to 168 and amino acids 185 to 192.

In one embodiment steps (a) to (c) can be completed on a computer system and the interaction between CD4 and one or more candidate molecules modeled, based on the information provided herein regarding the interaction between BT061 and human CD4, i.e. the screening is conducted via computer assisted molecule design. In particular, a three dimensional structural model of CD4, and in particular, the extracellular region thereof, is generated in the computer system by interaction of the amino acids sequence for at least part of CD4 and software known to the person skilled in the art, for example Discovery Studio (Accelrys®) or Benchware 3D Explorer (Tripos). These programs further allow the inputting of, or de novo generation of, sequence and/or structural information on one or more candidate molecules. The ability of a candidate molecule to bind to the regions of CD4 identified as being important for BT061 binding (which are discussed further below) can then be examined.

In particular, the method for screening for a molecule capable of binding to CD4 can comprise as steps (a) and (b): (i) entering into a computer system or program an amino acid sequence from CD4 comprising at least amino acids 148 to 154, 164 to 168 and acids 185, 187, 189, 190 and 192; (ii) generating a three-dimensional model of the polypeptide or peptide encoded by the amino acid sequence; (iii) generating or entering the three dimensional structure of one or more candidate molecules; and (iv) simulating the interaction between the amino acid sequences of CD4 and a candidate molecule to determine whether the candidate molecule is capable of binding to CD4 via amino acids 148 to 154, 164 to 168 and acids 185, 187, 189, 190 and 192.

The selection of candidate molecules can further be restricted by considering the features of the CD4-BT061 interaction described below in Example 1. In particular, candidate molecules can be restricted to those that bind to the regions of CD4 without salt bridges and/or those that include one or more components which are accommodated in one or more of the binding pockets on the surface of CD4 involving:

(i) amino acids residues S152, V153, Q154, Q164, G165, T185, V186, L187 and K192 of CD4 (as shown in Figure 10);

(ii) amino acid residues S150, S152, G165 and G166 of CD4 (as shown in Figure 11); and/or

(iii) amino acid residue S150, P151, S152 and K167 (as shown in Figure 12).

The method of this computer implemented embodiment can further comprise a step (d) in which the molecule selected in step (c) is produced. For example, where the selected molecule is a peptide the amino acid sequence of the peptide is taken from the computer and the peptide is manufactured in vitro. Thereafter, the activity of the selected molecule can be assessed in vitro, by contacting the selected molecule with a peptide or polypeptide comprising the relevant regions/amino acids of CD4, or by contacting the selected molecule with a cell expressing CD4. These in vitro steps are described further below in relation to the embodiment of the first aspect in which steps (a) to (c) are conducted in vitro.

In particular, as an alternative to the computer assisted embodiment described above, steps (a) to (c) of the method of screening may be conducted in vitro, and step (b) can comprise contacting one or more candidate molecules with the relevant regions/amino acids of CD4 and determining whether the candidate molecule is able to bind to one or more of these regions. An example of this embodiment comprises a method for screening for one or more molecules capable of binding to CD4 comprising: (a) contacting the one or more molecules with a peptide comprising one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168, and amino acids 185 to 192; and (b) detecting whether the one or more molecules binds to the one or more regions of the peptide,
wherein the molecule does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

The method of the present invention preferably comprises screening a library of molecules. In particular, the library can be a phage display library prepared according to methods known in the art. The library may be a peptide library reflecting a systematic combination of different amino acids/peptides in large number. Usually, a peptide library is synthesized on solid phase, mostly on resin, which can be made as flat surface or beads (solid phase peptide synthesis). This library can be used for protein-protein interactions, drug discovery, purification of proteins and variation in the antibody recognition sequence to generate antibody variants with different affinities.

Further libraries besides the phage display include yeast display, bacterial display, mRNA display, ribosomal and polysomal display. Ribosome display comprises a process which results in translated proteins that are associated with their mRNA progenitor which is used, as a complex, to bind to an

immobilized ligand in a selection step. mRNA display results in translated peptides or proteins that are associated with their mRNA progenitor via a puromycin linkage.

Bacterial display represent a library technology of polypeptides displayed on the surface of bacteria can be screened using flow cytometry or iterative selection procedures (biopanning).

In the yeast display (Abbott) technique, a protein of interest is displayed as a fusion to the Aga2p protein on the surface of yeast. The Aga2p protein is naturally used by yeast to mediate cell-cell contacts during yeast cell mating. As such, display of a protein via Aga2p projects the protein away from the cell surface, minimizing potential interactions with other molecules on the yeast cell wall. The use of magnetic separation and flow cytometry in conjunction with a yeast display library is a highly effective method to isolate high affinity protein ligands against nearly any receptor through directed evolution.

Polysome display comprises very large library of peptides displayed on bacterial polysomes (Mattheakis et al., 1994). MULTIPIN® peptide technology can also be used to generate the libraries (Tribbick et al., J Immunl. Methods (2002) 267: 27-35).

In the in vitro contacting step the selected molecule or a candidate molecule can be contacted with a peptide or polypeptide comprising one or more of the following regions or amino acids (the "relevant regions/amino acids of CD4") of human CD4: amino acids 148 to 154, amino acids 164 to 168 and amino acids 185, 187, 189, 190 and 192, wherein the amino acids are numbered as shown in Figure 6. Preferably the regions of human CD4 are: amino acids 148 to 154, amino acids 164 to 168 and amino acids 185 to 192. More preferably, the peptide or polypeptide comprises all of these regions. Still more preferably the peptide or polypeptide further comprises at least one of the following amino acids of human CD4: Lys26, Arg156, Arg159, Lys161 and Lys192. Most preferably the peptide or polypeptide comprises the Ig-like C2-type 1 domain of human CD4 (*i.e.* amino acids 126 to 205) and optionally also the Ig-like V-type domain. In particular, D1 of CD4 is utilized to stabilize the epitope. Accordingly, where the peptide or polypeptide is to be used in a competitive binding assay, the use of D1 is preferred. However, it is noted that one or two amino acids from these regions may be removed. It is preferred that the peptide is less than 50 amino acids in length and more preferably less than 20 amino acids in length.

The peptides may be natural peptides, for example those made by enzymatic cleavage of CD4 or directly by host cell expression, or they may be synthetic peptides. The peptides may also be modified, for example via PEGylation, phosphorylation, amydation, acetylation, labeling with Biotin, or fluorescent dyes such as FITC, or labeling with isotopes. Further modifications might use techniques like the "Multiple antigen peptide application". With such a technology one can produce high-titer anti-peptide antibodies and synthetic peptide vaccines. This system utilizes the α- and ε-amino groups of lysine to form a backbone to which multiple peptide chains can be attached. Depending on the number of lysine tiers, different numbers of peptide branches can be synthesized. This eliminates the need to conjugate the antigen to a protein carrier (Briand et al., J Immunol Methods (1992). 156; 2: pp 255-265).

As indicated above, the methods of the present invention are preferably performed with peptides sequences from human CD4. However, they can equally be performed with homologous regions of CD4 proteins of other mammals, or other molecules containing the Ig-like C2-type 1 domain.

The step of contacting the one or more molecules, selected molecule or candidate molecule with a peptide and the step of detecting whether the one or more molecules binds to the one or more regions of the peptide, can be conducted according to methods known in the art. In particular, in one embodiment of the invention the peptide is a linear peptide which is spotted or fixed onto a membrane. During the contacting step, the molecules which are able to bind to the CD4 peptide sequence become trapped.

In an alternative embodiment peptides are created which can mimic the conformation of the wild-type human CD4 epitope. This can be done by structure-based molecular design methods known in the art.

The following display methods are mentioned which can be used for screening:

To screen for linear epitopes an epitope mapping technique can be used. Amino acid sequence representing parts of the target epitope (e.g. 10 – 15 amino acids), which overlap by one amino acid, are spotted onto a membrane (e.g. cellulose). Subsequently it is possible to screen for proteins, or

peptides recognizing the spotted amino acid sequence. Several rounds of selection can be done with different stringency conditions to select high affinity binders.

To screen for discontinuous epitopes techniques such as phage display have been developed. Contemporary standard libraries of linear or cyclic peptides have a diversity of approximately 10^9 independent clones, meaning libraries with up to seven randomized positions can theoretically guarantee comprehensive coverage of the potential sequence repertoire. In vitro translation systems result in peptide libraries with a higher diversity since coupling of the peptide with its mRNA is achieved in a cell-free system involving small particles of RNA/peptide/ribosome or only mRNA/peptide complexes. Further libraries include polysomal or ribosomal display (Mattheakis et al., PNAS 1994; 91(19):9022-6) or the PROfusion technology (Roberts and Szostak, PNAS (1997) 94(23):12297-302). The latter technology comprises a covalent fusion between an mRNA and the peptide or protein that it encodes can be generated by in vitro translation of synthetic mRNAs that carry puromycin, a peptidyl acceptor antibiotic, at their 3' end.

Minicell display (Patent No. US 7,125,679) is also possible, which includes the preparation of peptides for screening that are expressed on the outer surface containing oligonucleotide library. Similarly. Flitrix (Invitrogen Corp.) random peptide library which uses the bacterial flagellar protein FliC and thioredoxin can also be used.

Further, as well as the above mentioned display methods, mass spectrometry or Solid Phase Epitope Recovery (SPHERE) (Genzyme) can also be utilized (Lawendowski et al., J Immunol., (2002) 169: 2414-2421).

In one embodiment detection of binding comprises performing X-ray crystallography or NMR. In particular, molecules can be selected which bind to the peptide without a salt bridge, using methods of X-ray crystallography which are known in the art.

Alternatively, or in addition, the method of the first aspect can comprise contacting the selected molecule or candidate molecule with a cell expressing CD4, and in particular a CD4+CD25+ regulatory T cell. This can be done in particular to determine the ability of the selected molecule or candidate molecule to modulate the activity of, and in particular activate CD4+ CD25+ regulatory T

cells (preferably selectively activate T regs cells without activation of T helper cells), or to determine the ability of the selected molecule or candidate molecule to reduce, or down modulate, CD4 receptor expression, in particular on specific lymphocyte populations in an in vitro culture of PBMC (peripheral blood mononuclear cells). In these embodiments it is preferred that the selected molecule or the candidate molecule are antibodies or antibody fragments, and in particular those of the IgG1 type, as discussed further below.

For the modulation assay, Treg can, in general, be isolated using commercially available isolation kits (magnetic beads isolation) sorting for CD25, CD27, CD62L and/or CD127 and additional intracellular staining for FoxP3. Tregs are negative for CD127, positive for CD25 and Foxp3. CD39, a cell surface associated ectonucleotidase, can be also used to purify Treg with strong suppressor functions (Mandapathil et al., J Immunol. Methods (2009). 346 (1-2), 55-63). Commercially available kits may use a combination of negative selection of CD4+ followed by positive isolation of CD25 positive resulting in a CD4 CD25 positive cell population. These cells can be further processed. CD25 and the transcription factor Foxp3 are expression markers associated with suppressive function of Tregs. Although intracellular staining with Foxp3 confirms the regulatory phenotype, due to the intracellular staining the cells are not viable for further therapeutic use. Foxp3 is commonly used as an intracellular marker of activated Tregs/functionally active Tregs.

Further, due to the fact that BT061, and the molecule being screened for, binds to an epitope which is distinct from that bound by other commercially available antibodies, one can purify Tregs with commercially available isolation kits (magnetic bead isolation) and additionally another CD4 antibody (e.g.SK-3 OKT4), which are non-competing for the BT061 binding site on CD4 and subsequently assay for activation of Tregs with the candidate molecule or selected molecule.

The ability of the candidate molecule to activate Tregs can be assayed by examining the Treg suppressive activity, after contact with the candidate molecule, by co-culturing Tregs with CD4 positive CD25 negative effector T-cells. Activated Tregs are able to inhibit proliferation of CD4+ CD25- effector T-cells, which can be labeled with CFSE (assessment of cell expansion via CFSE dilution assay). Alternatively the proliferation of effector cells can be determined by [3H] Thymidine incorporation.

More particularly, suppressive capacity can be assayed by for example a mixed lymphocyte reaction (MLR). Cell division of effector T-cell can be inhibited by the suppressive action of Tregs. For this naive autologous CD4+ CD25- T responder cells are stimulated with irradiated allogenic stimulator PBMCs. Tregs or conventional T cells are titrated into the culture and proliferation can be assessed by Thymidine incorporation.

Activation of Treg can also be assayed through determination of cyclic AMP production (as described in WO 2008/092905).

Cytokines affected by activated Tregs in a co-culture can also be measured to determine the activity of these cells towards effector cells. For example, Tregs exert their suppressive activity also via IL-2 consumption which results in proliferation inhibition of T effector cells. IL-4 or IFN gamma can be also determined in the co-culture assay and are reduced in case of activated Tregs. Furthermore surface activation markers on T effector cells, such as CD25, are reduced when Treg cells are activated and exert suppressive activity.

Additionally, determination of cell death (via factors such as Bim) in effector cells (which can be also CD4 positive) induced by activated Tregs in co-culture represents a further method to examine whether Tregs are activated (Pandiyan et al., Nature Immunol. (2007) 8 1353-1362).

Since Tregs represent only a small proportion in the blood (2-10%), several expansion strategies are known. For example following TCR stimulation with an anti-CD3 and costimulation with anti-CD28 and rapamycin can be used to increase the number of T-cells . Rapamycin promotes the selective survival of Tregs, but not Teffector cells.

Several polyclonal expansion protocols are available e.g. Following positive selection for CD4/CD25 Treg cells can be expanded polyclonally in vitro by using anti-CD3 and anti-CD28 antibody (for stimulation) in combination with IL-2 and/or IL-15 able to increase Treg numbers while preserving suppressive capacity (Earle et al., Clin. Immunol. (2005) 115: 3–9).

In relation to modulation of CD4 expression, it is noted that by adding anti-CD4 antibodies, the expression of CD4 receptors on cell surfaces can be reduced. This feature can be used as basis for a

potency assay to determine the degree of CD4 binding. In particular, in this assay the step of contacting can comprise (i) incubating the candidate or selected molecule with peripheral blood mononuclear cells (PBMC) from human donor blood at 37°C; (ii) staining the incubated cells with an anti-CD4 labeled antibody which does not compete with BT061 for CD4 binding; and (iii) detecting the quantity of staining, to determine the occupation of CD4 receptors , and therefore the quantity of CD4 molecules present on the cell surfaces.

More specifically, this assay involves isolating PBMC (i.e. lymphocytes and monocytes) from human donor blood, which are then incubated with various concentrations of the candidate or selected molecule (preferably an antibody or antibody fragment) at 37°C. After incubation for 3 hours, the cells are stained by adding fluorochrome-labelled antibodies, such as phycoerythrin anti-CD4, which bind to a different epitope on CD4 to that bound by BT061. These staining antibodies label CD4 receptors on specific lymphocyte populations. As the BT061 epitope and the fluorochrome-labelled CD4 antibody used recognise different epitopes on the CD4 molecule and do not compete, this technique enables the quantity of CD4 receptors on the cell surface to be determined, independently of binding of CD4 by the candidate or selected molecule. The measurement is performed in a flow cytometer in which the antibody-labelled cells pass through a laser beam and are stimulated. When stimulated by the laser beam, the stained cells fluoresce in proportion to the bound antibody, and the light emitted is captured by the flow cytometer and then evaluated using the software known in the art, e.g. FlowJo software (Tree Star, Inc). Using the software (such as Parallel Line Assay software, Stegmann Systems) it is then possible to calculate a relative activity (potency) for the sample in relation to the standard run in parallel.

In a further embodiment of this aspect of the invention the contacting step can comprise contacting the CD4 peptide or polypeptide (preferably comprising D1 and D2 of CD4) or cell expressing CD4, and the candidate/selected molecule with a competitor antibody or antibody fragment having the heavy and light chain variable domains of BT061 to determine if the candidate/selected molecule is able to block binding of the competitor antibody or antibody fragment to CD4.

The one or more candidate molecules in the first aspect may be a peptide or a non-peptide. In particular, the one or more molecules may be a mimotope, a peptidomimetic, a small molecule, a recognition protein based on a natural or engineered lipocalin, an oligonucleotide, an siRNA, a

DARPin, a fibronectin, an affibody, a Kunitz-type inhibitor, a peptide aptamer, a ribozyme, a toxin, a camelid, an antibody, an antibody fragment or an antibody-derived molecule.

Mimotopes are peptides mimicking protein, carbohydrates or lipid epitopes and can be generated by phage display technology. When selected by antibodies, they represent exclusively B-cell epitopes and are devoid of antigen/allergen-specific T-cell epitopes. Coupled to carriers or presented in a multiple antigenic peptide form mimotopes achieve immunogenicity and induce epitope-specific antibody responses upon vaccination.

A peptidomimetic is a small protein-like chain designed to mimic a peptide. They typically arise from modification of an existing peptide in order to alter the molecule's properties. For example, they may arise from modifications to change the molecule's stability or biological activity. These modifications involve changes to the peptide that will not occur naturally (such as altered backbones and the incorporation of non-natural amino acids).

An example of peptidomimetics were those designed and synthesized with the purpose of binding to target proteins in order to induce cancer cells into a form of programmed cell death called apoptosis. Essentially these work by mimicking key interactions that activate apoptotic pathway in the cell.

A foldamer is a discrete chain molecule or oligomer that adopts a secondary structure stabilized by non-covalent interactions (Gellman, Acc. Chem. Res (1998) 31 (4): 173–180; Hill et al., Chem. Rev. (2001) 101 (12): 3893–4012). They are artificial molecules that mimic the ability of proteins, nucleic acids, and polysaccharides to fold into well-defined conformations, such as helices and β-sheets. Foldamers have been demonstrated to display a number of interesting supramolecular properties including molecular self-assembly, molecular recognition, and host-guest chemistry. They are studied as models of biological molecules and have been shown to display antimicrobial activity. They also have great potential application to the development of new functional materials.

A small molecule is a low molecular weight organic compound which is by definition not a polymer. The upper molecular weight limit for a small molecule is approximately 800 Daltons which allows for the possibility to rapidly diffuse across cell membranes so that they can reach intracellular sites of action. A small molecule exerts high affinity to a biopolymer such as protein, nucleic acid, or polysaccharide and in addition alters the activity or function of the biopolymer.

DARPins (Designed Ankyrin Repeat Proteins) are artificial proteins which are also able to recognize an antigen or antigenic structures. They are structurally derived from Ankyrin Proteins, are about 14 kDa (166 amino acid) and consist of three repeat motifs. They display a comparable affinity to antigens as antibodies. (Stumpp et al., Drug Discov. Today (2008) 13, Nr. 15-16, S. 695–701).

The Affibody® molecules are small and robust high affinity protein molecules that can be engineered to bind specifically to a large number of target proteins.

The term "camelid" refers to antibodies produced by camelids and comprising a heavy chain homodimer, and derivatives of these molecules (Muyldermans et al., Veterinary Immunology and Immunopathology, 128; 1-3; pp.178-183 (2009)).

It is preferred that the candidate molecule is an antibody or an antibody fragment. The phrase "an antibody, an antibody fragment or an antibody-derived molecule" covers monoclonal antibodies, polyclonal antibodies, multi-specific antibodies and antibody fragments. The term "antibody fragment" includes, in particular, fragments comprising Fab, Fab', $F(ab)'_2$, Fv and scFv fragments and dia-or tribodies. Preferably these are based on humanized or human antibodies. More preferably the antibody comprises a constant region/domain, i.e. an Fc portion. Where the antibody comprises a human constant region, this constant region can be selected among constant domains from any class of immunoglobulins, including IgM, IgG, IgD, IgA and IgE, and any isotype including IgG1, IgG2, IgG3 and IgG4. Preferred constant regions are selected among constant domains of IgG, in particular IgG1.

The Fc portions of different Ig subclasses are bound by cellular FcR that are specific for individual subclasses. Three different FcR classes are known that bind IgG isotypes with discrete affinities, CD16, CD32 and CD64. Diverse patterns of FcγR are expressed by various different immune cells such as monocytes, B cells, natural killer (NK) cells and others. The present inventors have found in vitro that the ability of the constant region of the antibody BT061 to bind Fc receptors (FcR) is critical for the ability of the antibody to cause CD4 down modulation in T cells. In particular, in vitro studies indicate that of the Fcγ receptors, Fcγ1 receptor, which is mainly expressed on

monocytes, is primarily involved; the presence of monocytes in a culture of PBMC is necessary and sufficient to confer CD4 down modulation in BT061-treated T cells.

Accordingly, in an embodiment of the invention the candidate molecule is capable of binding to an Fc receptor, preferably FcγRI (i.e. CD64) and most preferably comprises the Fc portion of an IgG1 antibody. In addition, or alternatively, the candidate molecule is capable of binding to monocytes via an Fc receptor.

In this aspect of the present invention the molecule being screened is not an antibody or antibody fragment which comprises CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain. These CDR sequences are shown in Figures 2A and 2B. In a preferred embodiment the molecule being screened is not the murine B-F5 molecule described by Racadot et al. (Clin. Exp. Rheum., 10, 365-374 (1992)).

In a preferred embodiment of the first aspect of the invention where the one or more candidate molecules are antibodies or antibody fragments, the antibodies or antibody fragments comprise CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110.

Alternatively, the candidate molecule is an antibody or antibody fragment comprising V domains having at least 70%, at least 80%, at least 85%, more preferably at least 90% sequence identity with the V domains of BT061 (i.e. SEQ ID No: 2 and SEQ ID No: 3) and comprising the sequence motif SGYSY (SEQ ID No: 10) in CDR1 of the light chain V domain, the sequence motif LASILE (SEQ ID No: 11) in CDR2 of the light chain V domain and the sequence motif SYY/F/HRYD (SEQ ID No: 13) in CDR3 of the heavy chain V domain.

In this method the one or more molecules screened are a set of candidate molecules defined by their similarity to the antibody BT061 and those residues within BT061 which the present inventors have identified as being important in the interaction between the BT061 antibody and the CD4. In particular, this method is preferably one which identifies molecules having approximately equivalent or better binding affinity/specificity and Treg activation activity compared to BT061.

The peptide sequences of the light chain and heavy chain of the humanized antibody BT061 are shown in Figures 2A and 2B, respectively. The CDRs of the light and heavy chain are marked on these Figures. Herein the amino acid residues within these CDRs are identified by residue type and number, in which the number represents the position of the amino acid within the variable region of the light or heavy chain BT061 antibody as represented in Figures 2A and 2B. The use of residue type and number has been done for the purpose of clearly identifying the amino acid residue of the BT061 CDR which is being referred to. However, it will be appreciated that the number of the residue is not intended to limit the residue to being in that position in the candidate antibody or fragment being screened in the method. For example, in an antibody of this embodiment Ser32 may be at position 31 within a light chain CDR1 if a non-essential amino acid residue has been deleted from the section 1 to 30 of the light chain.

In a preferred embodiment the amino acid substitutions in the sequence of CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of the BT061 heavy chain are selected from those set out in Table 4 and Table 5 below. More preferably the antibody or antibody fragment comprises a light chain comprising Tyr53 or Phe53 and a heavy chain comprising Ser28 (as shown in Table 7 in Example 1). Alternatively, or in addition, the antibody or antibody fragment comprises a light chain containing Asp64, and/or the antibody or antibody fragment comprises a heavy chain having at least one of Asp31 and Glu56 (as shown in Table 8, in Example 1). The antibody or antibody fragment may further comprise the CDR3 of BT061 light chain and/or the CDR2 of BT061 heavy chain optionally with amino acid substitutions in the sequences of these CDRs wherein the substitutions are selected from those set out in Table 4 and Table 5.

Candidate antibody or antibody fragments for use in the screening methods can be generated by mutating the known sequence of BT061. In particular, where these mutations are within the CDRs

they can be targeted mutations to ensure that the amino acids recited above are retained, or the desired substitutions are made.

Where step (a) of the screening method is performed in vitro, targeted mutagenesis can be used to cause amino acid exchange in the defined positions within the CDRs. Through knowing the corresponding DNA sequence of the amino acids one can create a library of specific mutants containing a range of desired amino acid substitutions. Where steps (a) to (c) of the screening method are to be performed in a computer system, the three dimensional structure of the candidate antibodies or antibody fragments can be generated by inputting the amino acid sequence in a manner similar to that indicated above in relation to CD4.

Table 4 Table showing sequence variations of the BT061 light chain CDRs

	Position	BT061 sequence	Isosteric Variations					
CDR1	24	Arg 24	Lys	Gln	Asn			
	25	Ala 25	Gly					
	26	Ser 26	Thr					
	27	Lys 27	Arg	Glu				
	28	Ser 28	Gly	Pro				
	29	Val 29	Ala	Ile				
	30	Ser 30						
	31	Thr 31	Ser	Asn	Gln	Asp		
	32	Ser 32						
	33	Gly 33						
	34	Tyr 34						
	35	Ser 35						
	36	Tyr 36						
	37	Ile 37	Val	Leu				
	38	Tyr 38						

	Position	BT061 sequence	Isosteric Variations					
CDR2	54	Leu 54						
	55	Ala 55						
	56	Ser 56						
	57	Ile 57						
	58	Leu 58						
	59	Glu 59						
	60	Ser 60	Asn	Gln	Thr	Glu	Asp	

Table 4 continued Table showing sequence variations of the BT061 light chain CDRs

	Position	BT061 sequence	Isosteric Variations					
CDR3	93	Gln 93						
	94	His 94						
	95	Ser 95						
	96	Arg 96	Lys					
	97	Glu 97	Asp	Arg				
	98	Leu 98	Gly	Ile				
	99	Pro 99						
	100	Trp 100						
	101	Thr 101	Ser					

Table 5 Table showing sequence variations of the BT061 heavy chain CDRs.

	Position	BT061 sequence	Isosteric Variations					
CDR1	31	Asp 31	Glu	Thr	Cys	Pro	Met	Tyr
	32	Cys 32	Ser	Ala	Gly	Val		
	33	Arg 33	Lys	Ser	Thr	Glu		
	34	Met 34	Ile	Leu	Ala	Val		
	35	Tyr 35						

	Position	BT061 sequence	Isosteric Variations				
CDR2	51	Ile 51	Ala	Val	Gly		
	52	Ser 52	Asp	Gly	Ala	Thr	
	53	Val 53	Ser	Gly	Thr	Ile	
	54	Lys 54	Arg	Tyr			
	55	Ser 55	Asn	Gln	Thr	Glu	
	56	Glu 56	Asp	Arg			
	57	Asn 57	Asp	Tyr	Gln	Glu	
	58	Tyr 58	His	Lys			
	59	Gly 59	Ser				
	60	Ala 60	Ser	Thr			
	61	Asn 61	Gln	Asp			
	62	Tyr 62	Phe	His			
	63	Ala 63	Gly	Ser			
	64	Glu 64	Asp	Gln	Asn	Arg	
	65	Ser 65	Gly	Ala	Asn		
	66	Val 66	Ile	Ala	Ser	Gly	
	67	Arg 67	Lys	Gln	Tyr	His	Glu
	68	Gly 68					

Table 5 continued Table showing sequence variations of the BT061 heavy chain CDRs.

	Position	BT061 sequence	Isosteric Variations				
CDR3	101	Ser 101					
	102	Tyr 102					
	103	Tyr 103	Phe	His			
	104	Arg 104					
	105	Tyr 105					
	106	Asp 106					
	107	Val 107	Ile	Pro	Asp	Thr	Glu
	108	Gly 108	Ala				
	109	Ala 109	Ser				
	110	Trp 110	Phe	His	Tyr		
	111	Phe 111					
	112	Ala 112	Ser				
	113	Tyr 113	Phe	His	Asn		

Isosteric variations are those which do not cause steric effects, i.e. they do not change the conformation of the antibody in any way.

In a second aspect the present invention provides a method for screening for a candidate molecule, which is an antibody or antibody fragment, that is capable of binding with CD4 comprising: (a) providing an antibody or antibody fragment comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

(b) determining whether the antibody or antibody fragment is capable of binding to CD4, and (c) selecting the antibody or antibody fragment determined in step (b) to be capable of binding to CD4, wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

In one embodiment, steps (a) to (c) of the screening method according to the second aspect of the present invention can be performed in a computer system in a manner similar to that described above in relation to the first aspect of the invention. In particular, a number of BT061 variants can be generated in silico based on information provided herein on the residues important for the interaction of BT061 with its CD4 epitope, and the interaction of these variants with CD4 simulated.

In this embodiment the method can further comprise a step in which the candidate antibody or antibody fragment is contacted with a cell expressing CD4.

In an alternative embodiment to that performed in a computer system, steps (a) to (c) of the screening method according to the second aspect of the invention can be performed in vitro and step (b) can comprise contacting the candidate antibody or antibody fragment with a cell expressing CD4. Preferably the ability to bind CD4 is determined based on the ability of the candidate to activate CD4+CD25+ regulatory T cells.

In particular, this aspect of the present invention can be a method for screening for an antibody or antibody fragment capable of activating CD4+CD25+regulatory T cells which comprises:

(a) contacting one or more antibody or antibody fragments with CD4+CD25+ regulatory T cells;

(b) assessing the ability of the antibody or antibody fragment to activate said CD4+CD25+ regulatory T cells; and

(c) identifying an antibody or antibody fragment which activates the CD4+CD25+ regulatory T cells,

wherein the antibody or antibody fragment comprise CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

and wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

It is noted that the description of the embodiments and preferred features provided above in relation to the screening method according to the first aspect of the present invention also apply to the screening method according to the second aspect of the present invention.

These aspects of the invention may both further comprise production of the selected molecule, and in particular the selected antibody or antibody fragment, in order for their further use or downstream analysis.

Accordingly, the invention further provides a method for producing a therapeutic composition and therapeutic compositions obtainable by the method. In particular, the method comprises:

(a) selecting a molecule determined as being capable of activating CD4+CD25+ regulatory T cells using the method according the screening methods described above: and

(b) producing a therapeutic composition comprising the molecule.

In particular, the therapeutic composition can be manufactured by combining the molecule with one or more pharmaceutically acceptable carriers or diluents.

Antibodies and antibody fragments

The work of the present inventors has allowed the identification of the features of BT061 which are important for their interaction with, and activation of, CD4+ CD25+ regulatory T cells. This has led to the identification of specific mutants/variants of the BT061 antibody which will be capable of activating CD4+CD25+ regulatory T cells.

Accordingly, in a third aspect the present invention provides an antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

and wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

Alternatively, the third aspect provides an antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32 or Pro32; Gly33 or Ala33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54, Ile54 or Thr54; and Ile57, Leu57; Val57 or Thr57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

and wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

As discussed above, the peptide sequences of the light chain and heavy chain of the humanized antibody BT061 are shown in Figures 2A and 2B, respectively. The CDRs of the light and heavy chain are marked on these Figures. As discussed above, the amino acid residues within these CDRs are identified by residue type and number, in which the number represents the position of the amino acid within the variable region of the light or heavy chain BT061 antibody as represented in Figures 2A and 2B. The use of residue type and number has been done for the purpose of clearly identifying the amino acid residue of the BT061 CDR which is being referred to. However, it will be appreciated that the number of the residue is not intended to limit the residue to being in that position in the antibody, or fragment, of the invention. For example, in an antibody of the invention Ser32 may be at position 31 within a light chain CDR1 if a non-essential amino acid residue has been deleted from the section 1 to 30 of the light chain.

In a preferred embodiment the amino acid substitutions in the sequence of CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of the BT061 heavy chain are selected from those set out in Table 4 and Table 5 above. More preferably the antibody or antibody fragment comprises a light chain comprising Tyr53 or Phe53 and a heavy chain comprising Ser28. Alternatively, or in addition, the antibody or antibody fragment comprises a light chain containing Asp64, and/or the antibody or antibody fragment comprises a heavy chain having at least one of amino acids indicated in Table 8 of Example 1 to be important for interaction. In particular, the heavy chain comprises Asp31 and/or Glu56. The antibody or antibody fragment may further comprise the CDR3 of BT061 light chain and/or the CDR2 of BT061 heavy chain optionally with amino acid substitutions in the sequences of these CDRs wherein the substitutions are selected from those set out in Table 4 and Table 5.

In particular, recognition and binding of the CD4 epitope by the BT061 antibody is based on a particular constitution and conformation of the three complementarity determining areas CDR1, CDR2, and CDR3. Even though only CDR1 and CDR2 of the light chain and CDR1 and CDR3 of the heavy chain are in direct contact with CD4, all six CDRs are very densely packed and mutually support each other's conformation. As a consequence, many positions in the CDRs do not tolerate any amino acid substitution without significant loss of affinity and potency of BT061. In some positions, however, substitutions do not destabilize the structure.

Examples of such conservative substitutions are given in Tables 4 and 5. In these tables the sequence variations have been selected such that the overall interaction network is preserved. The syntax of attractive as well as repulsive interactions is maintained. Directed polar interactions can be inverted, e.g. donor-acceptor pair of hydrogen bridges, the ionic partners of salt bridges, or loci of the partners of dipole-quadrupole interactions can be switched.

In further embodiments the antibody or antibody fragment comprises the sequence (SEQ ID No: 14):

```
        10         20         30         40         50         60
DIVMTQSPDS LAVSLGERAT INCXXXXXXS XSGYSYXYWY QQKPGQPPKL LIYLASILEX
        70         80         90        100        110        120
GVPDRFSGSG SGTDFTLTIS SLQAEDVAVY YCQHSXXXPW XFGQGTKVEI KRTVAAPSVF
```

```
       130         140         150         160         170         180
IFPPSDEQLK SGTASVVCLL NNFYPREAKV QWKVDNALQS GNSQESVTEQ DSKDSTYSLS
       190         200         210       218
STLTLSKADY EKHKVYACEV THQGLSSPVT KSFNRGEC
```

wherein the amino acids at positions 24 to 29, 31, 37, 60, 96 to 98 and 101 marked as "X" are selected from those shown at the corresponding positions in Table 4,

and further comprising the sequence (SEQ ID No: 15):

```
        10          20          30          40          50          60
EEQLVESGGG LVKPGGSLRL SCAASGFSFS XXXXYWLRQA PGKGLEWIGV XXXXXXXXXX
        70          80          90         100         110         120
XXXXXXXGRF TISRDDSKNT VYLQMNSLKT EDTAVYYCSA SYXRYDXXXX FXXWGQGTLV
       130         140         150         160         170         180
TVSSASTKGP SVFPLAPSSK STSGGTAALG CLVKDYFPEP VTVSWNSGAL TSGVHTFPAV
       190         200         210         220         230         240
LQSSGLYSLS SVVTVPSSSL GTQTYICNVN HKPSNTKVDK KVEPKSCDKT HTCPPCPAPE
       250         260         270         280         290         300
LLGGPSVFLF PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE
       310         320         330         340         350         360
EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP REPQVYTLPP
       370         380         390         400         410         420
SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPVLDSDGS FFLYSKLTVD
       430         440         450  454
KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGK
```

wherein the amino acids at positions 31 to 34, 51 to 67, 103, 107 to 110, 111 and 112 marked as "X" are selected from those shown at the corresponding positions in Table 5.

In particular, specific amino acid motifs within CDR1 and CDR2 of the light chain and within CDR3 of the heavy chain of BT061 are important for CD4 binding. Accordingly, the antibody or antibody fragment may comprise SGYSY (SEQ ID No: 10) from CDR1 of BT061 light chain and/or the sequence LASILE (SEQ ID No: 11) from CDR2 of BT061 light chain and/or the sequence YYRYD (SEQ ID No: 12) from CDR3 of BT061 heavy chain.

Further, the antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells may have V domains that are at least 80% identical, more preferably at least 90% identical to the V domains of the antibody BT061, the V domains comprising:

(i) the sequence motif SGYSY (SEQ ID No: 10) in CDR1 of the light chain V domain;

(ii) the sequence motif LASILE (SEQ ID No: 11) in CDR2 of the light chain V domain; and

(iii) the sequence motif SYXRYD where X is Y, F or H (SEQ ID No: 13) in CDR3 of the heavy chain V domain,

with the proviso that the antibody or antibody fragment does not comprise V domains that are 100% identical to the V domains of the antibody BT061.

In specific embodiments of the third aspect of the present invention the antibody or antibody fragment comprises the CDR sequence of BT061 light chain and the CDR sequences of BT061 heavy chain with a single amino acid substitution wherein the substitution is:

(i) A63G in the heavy chain;

(ii) R33K in the heavy chain; or

(iii) L98I in the light chain.

or the antibody or antibody fragment comprising the CDR sequences of BT061 light chain and the CDR sequences of BT061 heavy chain and a double amino acid substitution wherein the substitutions are:

(i) R33K and A63G in the heavy chain; or

(ii) L98I in the light chain and R33K in the heavy chain.

In these specific embodiments of the invention the antibody or antibody fragment may further comprising the remaining variable domain sequences of BT061 heavy and light chains.

The antibodies or fragments thereof of the present invention can, in particular, be manufactured by mutagenesis of the polynucleotide sequence known to encode the variable domains of the murine B-F5 antibody and the BT061 antibody (as described in WO2004/083247).

It is noted that the definitions and preferred embodiments for antibody and antibody fragments described above in relation to the first and second aspects of the present invention also apply to the third aspect of the invention. In particular, the antibodies and fragments are preferably IgG1 antibodies, and/or preferably comprise an Fc portion such that the antibody or antibody fragment is capable of binding to an Fc receptor, preferably FcγRI (i.e. CD64). Most preferably the antibody or antibody fragment comprises the Fc portion of an IgG1 antibody. In addition, or alternatively, the antibody or antibody fragment is capable of binding to monocytes via an Fc receptor.

Further, the present invention provides an isolated peptide comprising less than 50 amino acids of human CD4 protein and including one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168, and amino acids 185 to 192. Preferably, the isolated peptide comprises two of these regions, more preferably three. In addition or alternatively the isolated peptide comprises less than 30 amino acids, and most preferably the isolated peptide comprises less than 20 amino acids.

Further, the present invention provides a mimotope peptide of the isolated peptide described above.

The present invention also includes nucleic acids encoding the antibody or antibody fragment described herein. The nucleic acid can be RNA or DNA but is preferably DNA, and most preferably encodes the V domain of the H chain or of the L chain of the antibodies or fragments. The polynucleotide may be fused with a polynucleotide coding for the constant region of a human H or L chain, for the purpose of expressing the complete H and L chains.

The invention also makes use of expression cassettes, wherein a polynucleotide as described above is linked to appropriate control sequences to allow the regulation of its transcription and translation in a chosen host cell. Further embodiments are recombinant vectors comprising a polynucleotide or an expression cassette as described above.

The polynucleotide as described above can be linked within an expression vector to appropriate control sequences allowing the regulation of its transcription and translation in a chosen host cell. These recombinant DNA constructs can be obtained and introduced into host cells by the well known techniques of recombinant DNA and genetic engineering.

Useful host cells can be prokaryotic or eukaryotic cells. Among suitable eukaryotic cells are plant cells, cells of yeast such as *Saccharomyces*, cells of insects such as *Drosophila*, or *Spodoptera*, and mammalian cells such as HeLa, CHO, 3T3, C127, BHK, COS, *etc*. The antibodies or fragments described herein can be obtained by culturing a host cell containing an expression vector comprising a nucleic acid sequence encoding said antibody under conditions suitable for the expression thereof and recovering said antibody from the host cell culture.

According to the present invention the host cell can also be a hybridoma obtained by fusing a cell producing an antibody of the present invention with a myeloma cell.

The antibody or antibody fragment has medical and non-medical uses as described further below.

In view of the medical use, the antibody or antibody fragment described herein can be formulated in a pharmaceutical composition. In particular, a pharmaceutical composition of the present invention comprises the antibody or antibody fragment and a pharmaceutically-acceptable carrier or diluent.

Still further, the antibody or antibody fragment can further comprise a label. Techniques of antibody labeling are well known in the art. Accordingly, by way of example only, the antibody can be labeled with a fluorescent label, such as GFP or a fluorescent dye (e.g. FITC, high performance dyLight), a radioactive isotope, biotin, HRP, *etc*

Uses of antibodies and epitopes

The present invention further provides methods of treatment using the antibody or antibody fragment of the present invention. Since the antibody or antibody fragment is capable of selectively activating CD4+CD25+ regulatory T cells it has particular use in therapy. The present invention provides a method of treating a subject suffering from or preventing a subject suffering from an autoimmune disease or transplant rejection comprising administering to said subject an antibody or antibody fragment according to the present invention. Similarly, the present invention also provides an antibody or antibody fragment as described herein for use in medicine, and specifically for use in the treatment of autoimmune disease or transplant rejection. Accordingly, the present invention

provides the use of an antibody or antibody fragment as described herein for the manufacture of a medicament for use in treating an autoimmune disease or transplant rejection. Suitable medical uses and methods of treatment are those as described for BT061 in WO2009/112502, WO2009/121690, WO2009/124815 and WO2010/034590, whose disclosures are incorporated herein by reference.

In a preferred embodiment the autoimmune disease is selected from psoriasis, rheumatoid arthritis, multiple sclerosis, type-1 diabetes, inflammatory bowel disease, Crohn's disease, autoimmune thyreoditis, autoimmune myasthenia gravis, systemic lupus erythematosus, ulcerative colitis, atopic dermatitis, myocarditis and transplant-related diseases such as graft-versus host or host-versus graft reactions, or general organ tolerance issues. The treatment of psoriasis and rheumatoid arthritis is particularly preferred.

The present invention further provides a method of treating a subject suffering from or preventing a subject suffering from an autoimmune disease or transplant rejection comprising removing a sample comprising CD4+ CD25+ regulatory T cells from the subject, contacting the sample with an antibody or antibody fragment as described herein to activate CD4+ CD25+ regulatory T cells and administering the activated cells to the subject. Such a method may additionally include an in vitro step of increasing the number of Treg cells. This can be done using the expansion strategies described herein (Peters et al., 2008).

Similarly, the present invention provides activated CD4+CD25+ regulatory T cells, which have been activated in vitro using the antibody or antibody fragment of the present invention. These activated T regulatory cells can be for use in medicine, and in particular for use in the treatment of autoimmune disease or transplant rejection. Similarly, the present invention provides use of CD4+CD25+ regulatory T cells activated using the antibody or antibody fragment of the present invention for the manufacture of a medicament for use in the treatment of autoimmune disease or transplant rejection.

Patients with an autoimmune disease such as rheumatoid arthritis display Tregs which have a lower suppressive capacity, which might be due to pro-inflammatory cytokines, such as TNF alpha. The present invention includes a method for screening, isolating or/and activating Tregs from patients suffering from an autoimmune disease and may display (but not necessarily) a disabled population

of Tregs. The specific binding mode of the antibody and fragments thereof of the present invention enables the antibody not only to bind to CD4 but more importantly to activate Tregs. Isolation of Tregs may occur using BT061 or the antibody or antibody fragment of the present invention. In case that an activation step will follow, CD4 selection has to occur by a CD4 antibody which does not compete with BT061 for binding to CD4. Alternatively an expansion strategy can be included before the activation step.

In the present invention Tregs might be isolated using BT061 and/or the antibody or antibody fragment of the present invention and transferred back to the patient in "Treg cell based immmunotherapy". Alternatively, Tregs might be stimulated directly by administering into a patient either intravenously or subcutaneously.

Treg based immunotherapy is of great public interest to induce tolerance in autoimmune diseases or transplants. Several approaches exist to generate inducible Tregs (Tregs) in vitro such as the use of retinoic acid inducing FoxP3 expression or co-culturing with bone marrow derived DCs in addition to stimulation with anti-CD3 and anti-CD28 antibodies. For example, PCT Application No. PCT/US2009/054631 refers to a method of purification of FoxP3 Tregs for the treatment of autoimmune diseases ("Treg based immunotherapy") using LAP and CD121b.

Therapeutic applications require large amounts of Tregs and these cells should retain their regulatory phenotype. This is at present only achieved by selecting natural Tregs. Inducible Tregs generated by vitro methods have the disadvantage that they might revert their phenotype into effector cells, causing an unpredictable risk for the patients.

However, BT061 has been demonstrated to activate Tregs in a mixed lymphocyte reaction (WO 2009112502 A1). This is due to the specific unexpected binding mode to CD4 described herein.

***In vitro* uses**

The antibody and antibody fragments and isolated peptides of the present invention also have a number of *in vitro* uses. In particular, the antibody or antibody fragment described herein can be

used for activating CD4+ CD25+ regulatory T cells *in vitro*, or for identifying CD4+ CD25+ regulatory T cells *in vitro*.

More specifically, the antibody or antibody fragment of the present invention can be used in a method for screening for the presence of CD4+ CD25+ T regulatory cells in a sample. Such a method can comprise the step of contacting a labeled antibody or antibody fragment with the sample, washing the sample to remove unbound antibody and detecting the presence of the label in the sample.

In particular, in such a method of screening the CD4+ CD25+ T regulatory cells are activated CD4+ CD25+ T regulatory cells. The sample is preferably a blood sample taken from a subject suffering from an autoimmune disease.

The present invention also describes a kit for isolating CD4+ CD25+ regulatory T cells comprising magnetic beads coated with the antibody or antibody fragment described herein. The kit may further comprise a second anti-CD25 antibody and/or anti-CD4+ antibody. Additional antibodies to carry out further selection steps, e.g. positive selection for CD39, a negative selection step for CD127, depletion of CD19 positive cells, can also be included. LAP (latency associated peptide), GARP or CD121b (Il-1 receptor type 2) can be used further for characterization of Treg phenotype.

Following Treg isolation, cells isolated with the antibody or antibody fragment of the present invention can be also cryopreserved (Peters et al., PLoS One (2008) 3; 9: e 3161).

Still further, the present invention provides an *in vitro* method for the activation of CD4+ CD25+ regulatory T cells comprising contacting the cells with the antibody or antibody fragments described herein. Methods for assessing the suppressive capacity of activated Tregs comprise (beside the above mentioned MLR), MLR assays determining the activation state of effector T-cells via cytokine release or expressing of activation markers on T effector cells (such as the proliferation and cytokine assay described in WO 2009112592 A1, which is incorporated herein by reference). Such methods may additionally comprise a first step of isolating the CD4+CD25+ regulatory T cells. If such a step is completed with an antibody this antibody should be a non-competing CD4 antibody (e.g. OKT4 or SK3). This allows the cells to be activated in the main step with the antibody or

fragment thereof of the present invention, which binds to a distinct epitope on CD4. In another scenario cells might be isolated using other surface expression markers of Tregs, which are distinct from CD4 such as CD25 or CD39, or by negative selection via CD127.

The antibody of the present invention has been described earlier as being capable of stimulating Tregs, which can be confirmed by co-culture with T effector cells. Tregs are able to suppress the proliferation of CD8 positive T cells by inhibiting the production of Il-2 and IFN gamma by alloreactive CD8 positive T-cells. In addition it has been demonstrated (WO 2009112592) that pre activated CD4+ CD25+ Tregs render suppressed CD8+ cells unable to express CD25 upon re-stimulation.

The invention will now be described further in relation to the following specific embodiments.

Examples

EXAMPLE 1 Crystal Structure of CD4 Complexed with BT061

A crystal structure of human CD4 complexed with the BT061 Fab fragment was obtained by x-ray diffraction.

Crystallization procedure of BT061 (Fab):CD4

Recombinant human CD4 has been produced using conventional methods: Different constructs of CD4 were cloned by standard procedures into vectors for heterologous expression in insect cells followed by purification via NiNTA. The Fab fragment of BT061 was cleaved from the intact antibody using the protease papain and purified by protein A. Subsequently the Fab fragment was further purified by size exclusion chromatography.

The CD4-Fab complex was formed by mixing the purified proteins, with a molar excess of CD4 and further purification by size exclusion chromatography.

Crystals of the CD4:BT061 complex were prepared by the method of co-crystallisation, meaning that the purified complex was used in crystallisation trials employing both, a standard screen with

approximately 1200 different conditions, as well as crystallisation conditions identified using literature data. Conditions initially obtained have been optimised using standard strategies, systematically varying parameters critically influencing crystallisation, such as temperature, protein concentration, drop ratio, and others. These conditions were also refined by systematically varying pH or precipitant concentrations.

Crystals were flash-frozen and measured at a temperature of 100 K.

The X-ray Diffraction data of the CD4:BT061 complex were collected at the SWISS LIGHT SOURCE (SLS, Villigen, Switzerland) using cryogenic conditions. The structure was solved and refined to a final resolution of 2.9 A.

The crystals belong to space group P21 with two complexes in the asymmetric unit. Data were processed using the programmes XDS and XSCALE. Data collection statistics are summarised in Table 6 below.

Table 6 Statistics of data collection and processing

Complex	**CD4:BT061**
X-ray source	PX (SLS[1])
Wavelength [Å]	1.0000
Detector	PILATUS 6M
Temperature [K]	100
Space group	P 2_1
Cell: a; b; c [Å]	110.18; 78.94; 132.85
α; β; γ [°]	90.0; 94.8; 90.0
Resolution [Å] [2]	2.88 (3.15-2.99)
Unique reflections [2]	50962 (6585)
Multiplicity [2]	2.9 (2.8)
Completeness [%] [2]	98.2 (98.3)
R_{sym}[%] [2, 3]	8.4 (44.3)
R_{meas} [%] [2, 4]	10.3 (54.7)
$I / \sigma I$ [2]	- (-)
mean(I)/sigma [2,5]	11.60 (2.72)

[1] SWISS LIGHT SOURCE (SLS, Villigen, Switzerland)
[2] Numbers in brackets correspond to the resolution bin with R_{sym} = 44.3 %.

The phase information necessary to determine and analyse the structure was obtained by molecular replacement. Published models of CD4 and a Fab fragment were used as a search model.

Subsequent model building and refinement was performed according to standard protocols with the software packages CCP4 and COOT. The asymmetric unit (as shown Figure 3) consists of two such complexes with an overall RMS resolution of 2.9Å.

In the crystal structure the signal peptides are absent from the CD4 molecule and the peptide chains only comprise the Ig-like V-type domain, the Ig-like C2-type 1 domain, and part of the Ig-like C2-type 2 domain. The exact chains in the crystal structure reach from amino acid residue 26 through to residue 258, as shown in Figure 1 in which the amino acids not represented by the crystal structure are marked inside a dashed frame. Accordingly, the CD4 molecules only have the first two disulphide brides, one between Cys_{41} and Cys_{109}, and another one between Cys_{155} and Cys_{184}.

The light chains of the two BT061 units in the crystal structure reach from position 1 through to position 215 in one unit, and from 1 through only 182 in the other unit, as shown in Figure 2A. There are two disulphide bridges in the BT061 light chains, $Cys_{23} - Cys_{92}$ and $Cys_{138} - Cys_{198}$.

The heavy chains of the two BT061 units in the crystal structure reach from position 2 through 219 in one unit, as shown in Figure 2B, and from position 2 through 220 in the other unit. Also in the heavy chains there are two disulphide bridges, one between Cys_{22} and Cys_{98}, and another one between Cys_{151} and Cys_{207}.

Analysis of the crystal structure shows that in contrast to other known ligands of CD4, binding of BT061 involves the Ig-like C2-type 1 domain, only. This constitutes an entirely new binding mode, documented by the crystal structure given in the Appendix.

As shown in Figure 3 BT061 does not bind to the N-terminal domain of CD4, there is the possibility of concurrent binding of BT061 and a class II MHC molecule, or a gp120 HIV-1 envelope protein (as shown in Figures 4 and 5).

Detailed analysis of the crystal structure reveals the interacting amino acids of both, CD4 and BT061. Selection was based on a distance criterion. Taking into account the resolution of the crystal structure, all CD4 amino acids having non-hydrogen atoms within a sphere of radius d = 4.5Å around any non-hydrogen atom of an BT061 amino acid have been selected as interacting partners. Radius d has been selected as the typical distance of a non-bonded interaction, 3Å, extended by half the crystal structure resolution of 2.9Å (d= 3Å + ½ × 2.9Å = 4.45Å).

Hence, the crystal structure shows that the binding site on the surface of CD4 consists of a cluster of 7 consecutive amino acids (Gly_{148} through Gln_{154}), a cluster of 6 consecutive amino acids (Gln_{164} through Thr_{168}), plus Thr_{185}, Leu_{187}, Asn_{189}, Gln_{190}, and Lys_{192}, as shown in Figure 7.

Table 7 below shows the matrix of interacting partners of CD4 and BT061. There are only few pure 1:1 interactions; most of the listed amino acids of both, CD4 and BT061 interact with more than one partner. The interactions are mainly hydrogen bonds, complemented by van-der-Waals contacts and polar interactions.

In the top row of Table 7 the amino acids of CD4 that interact with amino acids of BT061 are shown. On the left margin the amino acids of BT061 interacting with CD4 are given. Each "x" corresponds to at least one interaction. Since there are only few 1:1 interaction pairings, pattern extended in rows or columns are found. Ser_{150} and Pro_{151} of CD4 interact with both, the light and the heavy chain of BT061. Val_{186}, which is an important part of the binding pocket for Tyr_{105} of the BT061 heavy chain is not listed here, because there are no direct interactions with amino acids of BT061. All the interactions identified are either hydrogen bonds, polar interactions, van-der-Waals contacts, or combinations of these types of interaction. Identification of the interacting amino acids is based on the crystal structure given in the appendix. A distance criterion was applied, taking into account all amino acids which have at least one non-hydrogen atom closer than d=4.5Å to a non-hydrogen atom of the other molecular partner. Roughly speaking, d corresponds to the typical distance for a non-covalent interaction of 3Å augmented by half the overall resolution of the crystal structure (2.9Å).

			CD4	Gly 148	Ser 149	Ser 150	Pro 151	Ser 152	Val 153	Gln 154	Gln 164	Gly 165	Gly 166	Lys 167	Thr 168	Thr 185	Leu 187	Asn 189	Gln 190	Lys 192
BT061	Light chain	Ser 32											x	x	x					
		Gly 33												x						
		Tyr 34			x	x														
		Tyr 53			x															
		Leu 54			x															
		Ile 57	x	x																
	Heavy chain	Ser 28																	x	
		Asp 31																	x	
		Tyr 102																x	x	
		Tyr 103									x						x			
		Arg 104			x	x	x										x			
		Tyr 105					x	x	x		x					x	x			x
		Asp 106					x					x								
		Trp 110			x															

Table 7 Table showing the interacting amino acids of CD4 and BT061.

Figure 7 shows the CD4 amino acids of the BT061 binding site as a schematic representation of their relative orientation. Besides the amino acids fulfilling directly the above mentioned distance criterion, a number of amino acids are available for additional interactions with BT061 upon moderate changes of conformation of both, BT061 and CD4. Those amino acids, Arg_{156}, Gln_{188}, Asn_{189}, Gln_{190}, and Lys_{192} are likely to be involved in the mechanism of signal transduction of CD4.

BT061 binds with both, the light and the heavy chain to CD4. The respective amino acids of the light chain are shown in Figure 8. The amino acids of heavy chain involved in binding to CD4 are shown in Figure 9.

Tyr_{105} of the BT061 heavy chain plays a very important role for the interaction with CD4. Its side chain perfectly fits into a pocket on the surface of CD4 (Figure 10).

Even though salt bridges are typical elements of interaction between antibodies no salt bridges between CD4 and BT061 exist in the crystal structure. Interestingly, BT061 shows a number of intramolecular salt bridges. One of them, formed between Arg_{104} and Asp_{106}, confers polar interactions with a pocket on the surface of CD4 (Figure 11). The formation of the intramolecular salt bridges can be influenced by substances with buffer activity, which in turn can induce conformational changes of BT061 and the complex with CD4, thus contributing to signal transduction of CD4.

The other very important residue for the interaction with CD4 is Tyr_{34} of the BT061 light chain. Much like Tyr_{105} of the heavy chain, Tyr_{34} accommodates in a pocket on the surface of CD4 (Figure 12).

Comparing the crystal structure of the complex of CD4 with BT061 with crystal structures of the CD4 complexes with a class II MHC molecule, and with the gp120 HIV-1 envelope protein it can immediately be seen that BT061 is bound to an entirely different part of the CD4 surface. With respect to the other ligands of CD4, BT061 binds on the opposite side of the extracellular part of CD4 (Figures 4 and 5) and does not interfere with the binding sites of other ligands.

The CD4 amino acids Lys_{26}, Arg_{156}, Lys_{161}, and Lys_{192} are available for additional interactions with charge complementary amino acids of BT061 as indicated in Table 8 shown below.

		CD4	Lys 26	Arg 156	Arg 159	Lys 161	Lys 192
BT061	Light chain	Asp 64	x				
	Heavy chain	Asp 31		x			x
		Glu 56		x		x	

Table 8. Additional Interactions between CD4 and BT061

In the top row of Table 8 the amino acids of CD4 that can form salt bridges with amino acids of BT061 are shown. On the left margin the possible salt bridge partner amino acids of BT061 are given. Each "x" corresponds to a possible salt bridge. The pairs indicated do not match the distance criterion of d=4.5Å mentioned above. However, a series of moderate conformational changes in both, CD4 and BT061 can result in the formation of the indicated salt bridges. For BT061, a shift of the sequence stretches Ser_{56} to Gly_{68} of light chain, and Ser_{25} to Cys_{32}, as well as Ser_{52} to Gly_{59} of the heavy chain allows forming the salt bridges with Asp_{31} and Glu_{56} of CD4.

EXAMPLE 2 Creating and testing mutants of BT061

BT061 variable domain mutants were manufactured by introduction of specific mutations into the nucleotide sequences encoding the variable domains of BT061 and expression of the mutated amino acid sequence and therefore antibody or antibody fragments, using standard techniques for DNA manipulation and antibody production.

The following BT061 variants were made:

(1) six variants having one mutation each in all 6 CDRs : the mutations in CDR1, CDR2 and CDR3 of the light chain are G33A, A55G and L98I, respectively; the mutations in CDR1, CDR2 and CDR3 of the heavy chain are R33K, A63G, and S101T, respectively;

(2) one variant having two mutations in one variable domain: R33K and A63G in the heavy chain variable domain; and

(3) three variants having parallel mutation of both heavy and light chain (e.g. combinations of heavy and light chain variants from part (1): light chain L98I with heavy chain R33K; light chain A55G with heavy chain R33K; and light chain G33A with heavy chain R33K.

The ability of the BT061 variants to activate CD4+CD25+ regulatory T cells was determined by in vitro assay. A negative control of an antibody which does not bind to CD4 was used. The BT061 variant having a mutation in the heavy chain CDR3 (Y105W) was also created as a negative control;

based on the results obtained in example 1, it was predicted that this amino acid was critical to BT061 binding. As positive controls, an antibody produced from the the master light and heavy chain sequence was used, as well as a sample from BT061 produced for clinical trials.

In vitro assay:

The induction of suppressive capacity of CD4+ CD25+ regulatory T cells (Tregs) from healthy donors by variants of the antibody BT061 was assessed in allogeneic mixed lymphocytes reactions (indirect co-culture).

CD4+ CD25+ regulatory T cells were freshly isolated from a first donor (donor A). PBMCs were obtained from EDTA-blood by density gradient centrifugation. Tregs, responder T cells (Tresp) and APCs were immunomagnetically separated from PBMCs as previously described (Haas et al., J Immunol. 2007 Jul 15; 179(2):1322-30). Tregs were pre-incubated with or without plate-bound antibody for 2 days. The number and phenotype of Tregs was determined by six colour flow cytometry as previously described (Haas et al., 2007). Pre-incubated Tregs were transferred to responder T cells (second donor B) in the presence of T-cell depleted and irradiated PBMCs (first donor A). After stimulation, [^{3}H] thymidine was added and proliferation of responder T cells was measured after five days.

Results:

The results of the in vitro assay are shown below in Table 9. The percentage inhibition of responder T cell inhibition was measured three times for each variant and an average was taken.

Variant	% Inh1	% Inh2	% Inh3	Avg.	Std.dev.
LC master HC master	27,7%	25,4%	25,9%	**26,3%**	1,0%
BT61 Lot 52690	26,7%	24,1%	27,8%	**26,2%**	1,6%
LC master HC A63G	33,1%	25,5%	19,5%	**26,0%**	5,6%
LC master HC R33K-A63G	15,7%	21,5%	21,9%	**19,7%**	2,8%
LC L98I HC R33K	9,2%	24,3%	24,6%	**19,4%**	7,2%
LC master HC R33K	19,8%	18,8%	15,0%	**17,9%**	2,1%
HC master LC L98I	12,2%	8,4%	18,2%	**12,9%**	4,0%
LC A55G HC R33K	12,1%	6,4%	19,3%	**12,6%**	5,3%
LC G33A HC R33K	6,5%	7,9%	9,0%	**7,8%**	1,0%
Negative control	3,0%	7,0%	5,2%	**5,1%**	1,6%
LC master HC Y105W	5,3%	2,0%	7,0%	**4,8%**	2,0%
LC master HC S101T	3,1%	-3,6%	0,0%	**-0,2%**	2,7%

Table 9. Results from in vitro assay with BT061 variants

As predicted the knockout mutant of LC master HC Y105W did not bind CD4 and was unable to activate regulatory T cells. Further the results indicate that single positions within the heavy chain can be mutated at least according to the substitutions set out in Table 5 (single variants HC R33K, A63G and double variants HC R33K and A63G retained activity). Further, as predicted by the crystal structure work, the residues surrounding Tyr34 in the light chain which make up a loop also appear to be crucial for binding.

APPENDIX

```
HEADER    BIOTEST AG                                              09 APR 2009
TITLE     FAB FRAGMENT OF BT061 IN COMPLEX WITH CD4
COMPND    MOL_ID: 1;
COMPND   2 MOLECULE: FAB FRAGMENT;
COMPND   3 CHAIN: A;
COMPND   4 FRAGMENT: CD4
SOURCE    MOL_ID: 1;
SOURCE   2 SYNTHETIC: YES;
SOURCE   3 ORGANISM_SCIENTIFIC: HOMO SAPIENS
SOURCE   4 ORGANISM_COMMON: HUMAN
KEYWDS    FAB FRAGMENT, CD4
EXPDTA    X-RAY DIFFRACTION
REMARK   2
REMARK   2 RESOLUTION: 2.9 ANGSTROMS.
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : REFMAC 5.2.0005
REMARK   3   AUTHORS     : MURSHUDOV,VAGIN,DODSON
REMARK   3
REMARK   3    REFINEMENT TARGET : MAXIMUM LIKELIHOOD
REMARK   3
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) :   2.88
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) :  49.27
REMARK   3   DATA CUTOFF            (SIGMA(F)) : NONE
REMARK   3   COMPLETENESS FOR RANGE        (%) : 100.00
REMARK   3   NUMBER OF REFLECTIONS             :   49941
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD           : THROUGHOUT
REMARK   3   FREE R VALUE TEST SET SELECTION   : RANDOM
REMARK   3   R VALUE     (WORKING + TEST SET) : 0.23152
REMARK   3   R VALUE            (WORKING SET) :  0.23041
REMARK   3   FREE R VALUE                      :  0.28740
REMARK   3   FREE R VALUE TEST SET SIZE   (%) :  2.0
REMARK   3   FREE R VALUE TEST SET COUNT       :  1020
REMARK   3
REMARK   3  FIT IN THE HIGHEST RESOLUTION BIN.
REMARK   3   TOTAL NUMBER OF BINS USED           :      20
REMARK   3   BIN RESOLUTION RANGE HIGH           :   2.880
REMARK   3   BIN RESOLUTION RANGE LOW            :   2.955
REMARK   3   REFLECTION IN BIN     (WORKING SET) :    3636
REMARK   3   BIN COMPLETENESS (WORKING+TEST) (%) :  100.00
REMARK   3   BIN R VALUE           (WORKING SET) :   0.376
REMARK   3   BIN FREE R VALUE SET COUNT          :      75
REMARK   3   BIN FREE R VALUE                    :   0.371
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   ALL ATOMS                   :    10284
REMARK   3
REMARK   3  B VALUES.
REMARK   3   FROM WILSON PLOT           (A**2) : NULL
REMARK   3   MEAN B VALUE      (OVERALL, A**2) :  52.022
REMARK   3   OVERALL ANISOTROPIC B VALUE.
REMARK   3    B11 (A**2) :   -1.61
REMARK   3    B22 (A**2) :    3.33
REMARK   3    B33 (A**2) :   -1.44
REMARK   3    B12 (A**2) :    0.00
REMARK   3    B13 (A**2) :    1.69
REMARK   3    B23 (A**2) :    0.00
```

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REMARK   3
REMARK   3  ESTIMATED OVERALL COORDINATE ERROR.
REMARK   3   ESU BASED ON R VALUE                            (A):   0.722
REMARK   3   ESU BASED ON FREE R VALUE                       (A):   0.378
REMARK   3   ESU BASED ON MAXIMUM LIKELIHOOD                 (A):   0.295
REMARK   3   ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2):  33.905
REMARK   3
REMARK   3 CORRELATION COEFFICIENTS.
REMARK   3   CORRELATION COEFFICIENT FO-FC      :   0.912
REMARK   3   CORRELATION COEFFICIENT FO-FC FREE :   0.876
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES         COUNT    RMS    WEIGHT
REMARK   3   BOND LENGTHS REFINED ATOMS         (A): 10456 ; 0.009 ; 0.022
REMARK   3   BOND LENGTHS OTHERS                (A):  9324 ; 0.001 ; 0.020
REMARK   3   BOND ANGLES REFINED ATOMS   (DEGREES): 14158 ; 1.228 ; 1.961
REMARK   3   BOND ANGLES OTHERS          (DEGREES): 21862 ; 0.727 ; 3.000
REMARK   3   TORSION ANGLES, PERIOD 1    (DEGREES):  1306 ; 7.017 ; 5.000
REMARK   3   TORSION ANGLES, PERIOD 2    (DEGREES):   424 ;35.372 ;24.858
REMARK   3   TORSION ANGLES, PERIOD 3    (DEGREES):  1818 ;18.316 ;15.000
REMARK   3   TORSION ANGLES, PERIOD 4    (DEGREES):    41 ;16.414 ;15.000
REMARK   3   CHIRAL-CENTER RESTRAINTS       (A**3):  1602 ; 0.069 ; 0.200
REMARK   3   GENERAL PLANES REFINED ATOMS       (A): 11455 ; 0.003 ; 0.020
REMARK   3   GENERAL PLANES OTHERS              (A):  1996 ; 0.001 ; 0.020
REMARK   3   NON-BONDED CONTACTS REFINED ATOMS (A):  1858 ; 0.192 ; 0.200
REMARK   3   NON-BONDED CONTACTS OTHERS        (A):  9611 ; 0.173 ; 0.200
REMARK   3   NON-BONDED TORSION REFINED ATOMS  (A):  4911 ; 0.180 ; 0.200
REMARK   3   NON-BONDED TORSION OTHERS         (A):  6795 ; 0.083 ; 0.200
REMARK   3   H-BOND (X...Y) REFINED ATOMS      (A):   238 ; 0.216 ; 0.200
REMARK   3   H-BOND (X...Y) OTHERS             (A):     2 ; 0.093 ; 0.200
REMARK   3   SYMMETRY VDW REFINED ATOMS        (A):    14 ; 0.169 ; 0.200
REMARK   3   SYMMETRY VDW OTHERS               (A):    58 ; 0.166 ; 0.200
REMARK   3   SYMMETRY H-BOND REFINED ATOMS     (A):     4 ; 0.117 ; 0.200
REMARK   3
REMARK   3  ISOTROPIC THERMAL FACTOR RESTRAINTS.     COUNT   RMS    WEIGHT
REMARK   3   MAIN-CHAIN BOND REFINED ATOMS  (A**2):  8442 ; 1.414 ; 2.000
REMARK   3   MAIN-CHAIN BOND OTHER ATOMS    (A**2):  2703 ; 0.279 ; 2.000
REMARK   3   MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 10593 ; 1.907 ; 3.000
REMARK   3   SIDE-CHAIN BOND REFINED ATOMS  (A**2):  4611 ; 2.821 ; 4.000
REMARK   3   SIDE-CHAIN ANGLE REFINED ATOMS (A**2):  3565 ; 4.196 ; 6.000
REMARK   3
REMARK   3  NCS RESTRAINTS STATISTICS
REMARK   3   NUMBER OF DIFFERENT NCS GROUPS :   4
REMARK   3
REMARK   3  NCS GROUP NUMBER                 :   1
REMARK   3     CHAIN NAMES                   : L A
REMARK   3     NUMBER OF COMPONENTS NCS GROUP :    1
REMARK   3       COMPONENT C  SSSEQI  TO  C   SSSEQI   CODE
REMARK   3           1     L      1       L     118      4
REMARK   3           1     A      1       A     118      4
REMARK   3                   GROUP CHAIN         COUNT   RMS     WEIGHT
REMARK   3   MEDIUM POSITIONAL  1    L    (A):   1730 ;  0.35 ;  0.50
REMARK   3   MEDIUM THERMAL     1    L (A**2):   1730 ;  0.41 ;  2.00
REMARK   3
REMARK   3  NCS GROUP NUMBER                 :   2
REMARK   3     CHAIN NAMES                   : L A
REMARK   3     NUMBER OF COMPONENTS NCS GROUP :    1
REMARK   3       COMPONENT C  SSSEQI  TO  C   SSSEQI   CODE
REMARK   3           1     L    119       L     222      4
REMARK   3           1     A    119       A     222      4
REMARK   3                   GROUP CHAIN         COUNT   RMS     WEIGHT
REMARK   3   MEDIUM POSITIONAL  2    L    (A):    478 ;  0.40 ;  0.50
REMARK   3   MEDIUM THERMAL     2    L (A**2):    478 ;  0.30 ;  2.00
REMARK   3
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REMARK   3  NCS GROUP NUMBER                    :   3
REMARK   3     CHAIN NAMES                          : H B
REMARK   3     NUMBER OF COMPONENTS NCS GROUP :    1
REMARK   3       COMPONENT C  SSSEQI  TO  C   SSSEQI   CODE
REMARK   3           1     H      1       H     114      4
REMARK   3           1     B      1       B     114      4
REMARK   3                    GROUP CHAIN          COUNT   RMS      WEIGHT
REMARK   3   MEDIUM POSITIONAL  3    H    (A):    1679 ;  0.41 ;  0.50
REMARK   3   MEDIUM THERMAL     3    H (A**2):    1679 ;  0.46 ;  2.00
REMARK   3
REMARK   3  NCS GROUP NUMBER                    :   4
REMARK   3     CHAIN NAMES                          : H B
REMARK   3     NUMBER OF COMPONENTS NCS GROUP :    1
REMARK   3       COMPONENT C  SSSEQI  TO  C   SSSEQI   CODE
REMARK   3           1     H    115       H     222      4
REMARK   3           1     B    115       B     222      4
REMARK   3                    GROUP CHAIN          COUNT   RMS      WEIGHT
REMARK   3   MEDIUM POSITIONAL  4    H    (A):    1062 ;  0.33 ;  0.50
REMARK   3   MEDIUM THERMAL     4    H (A**2):    1062 ;  0.33 ;  2.00
REMARK   3
REMARK   3
REMARK   3  TLS DETAILS
REMARK   3   NUMBER OF TLS GROUPS  :    6
REMARK   3   ATOM RECORD CONTAINS RESIDUAL B FACTORS ONLY
REMARK   3
REMARK   3   TLS GROUP :      1
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    L     1        L   118
REMARK   3    ORIGIN FOR THE GROUP (A):
REMARK   3    T TENSOR
REMARK   3      T11:   2.0000 T22:   0.0000
REMARK   3      T33:   0.0000 T12:   0.0000
REMARK   3      T13:   0.0000 T23:   0.0000
REMARK   3    L TENSOR
REMARK   3      L11:   0.0000 L22: 119.0000
REMARK   3      L33:   0.0000 L12: 222.0000
REMARK   3      L13:   0.0000 L23:   0.0000
REMARK   3    S TENSOR
REMARK   3      S11:   0.0000 S12:   0.0000 S13:   0.0000
REMARK   3      S21:   0.0000 S22:   0.0000 S23:   0.0000
REMARK   3      S31:   0.0000 S32:   0.0000 S33:   0.0000
REMARK   3
REMARK   3   TLS GROUP :      2
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    H     1        H   118
REMARK   3    ORIGIN FOR THE GROUP (A):
REMARK   3    T TENSOR
REMARK   3      T11:   4.0000 T22:   0.0000
REMARK   3      T33:   0.0000 T12:   0.0000
REMARK   3      T13:   0.0000 T23:   0.0000
REMARK   3    L TENSOR
REMARK   3      L11:   0.0000 L22: 119.0000
REMARK   3      L33:   0.0000 L12: 222.0000
REMARK   3      L13:   0.0000 L23:   0.0000
REMARK   3    S TENSOR
REMARK   3      S11:   0.0000 S12:   0.0000 S13:   0.0000
REMARK   3      S21:   0.0000 S22:   0.0000 S23:   0.0000
REMARK   3      S31:   0.0000 S32:   0.0000 S33:   0.0000
REMARK   3
REMARK   3   TLS GROUP :      3
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
```

```
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   A     1        A   114
REMARK   3    ORIGIN FOR THE GROUP (A):
REMARK   3    T TENSOR
REMARK   3      T11:   6.0000 T22:   0.0000
REMARK   3      T33:   0.0000 T12:   0.0000
REMARK   3      T13:   0.0000 T23:   0.0000
REMARK   3    L TENSOR
REMARK   3      L11:   0.0000 L22: 115.0000
REMARK   3      L33:   0.0000 L12: 222.0000
REMARK   3      L13:   0.0000 L23:   0.0000
REMARK   3    S TENSOR
REMARK   3      S11:   0.0000 S12:   0.0000 S13:   0.0000
REMARK   3      S21:   0.0000 S22:   0.0000 S23:   0.0000
REMARK   3      S31:   0.0000 S32:   0.0000 S33:   0.0000
REMARK   3
REMARK   3   TLS GROUP :      4
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   B     1        B   114
REMARK   3    ORIGIN FOR THE GROUP (A):
REMARK   3    T TENSOR
REMARK   3      T11:   8.0000 T22:   0.0000
REMARK   3      T33:   0.0000 T12:   0.0000
REMARK   3      T13:   0.0000 T23:   0.0000
REMARK   3    L TENSOR
REMARK   3      L11:   0.0000 L22: 115.0000
REMARK   3      L33:   0.0000 L12: 222.0000
REMARK   3      L13:   0.0000 L23:   0.0000
REMARK   3    S TENSOR
REMARK   3      S11:   0.0000 S12:   0.0000 S13:   0.0000
REMARK   3      S21:   0.0000 S22:   0.0000 S23:   0.0000
REMARK   3      S31:   0.0000 S32:   0.0000 S33:   0.0000
REMARK   3
REMARK   3   TLS GROUP :      5
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   C     1        C   180
REMARK   3    ORIGIN FOR THE GROUP (A):
REMARK   3    T TENSOR
REMARK   3      T11:  10.0000 T22:   0.0000
REMARK   3      T33:   0.0000 T12:   0.0000
REMARK   3      T13:   0.0000 T23:   0.0000
REMARK   3    L TENSOR
REMARK   3      L11:   0.0000 L22:   1.0000
REMARK   3      L33:   0.0000 L12: 180.0000
REMARK   3      L13:   0.0000 L23:   0.0000
REMARK   3    S TENSOR
REMARK   3      S11:   0.0000 S12:   0.0000 S13:   0.0000
REMARK   3      S21:   0.0000 S22:   0.0000 S23:   0.0000
REMARK   3      S31:   0.0000 S32:   0.0000 S33:   0.0000
REMARK   3
REMARK   3   TLS GROUP :      6
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   C   181        C   380
REMARK   3    ORIGIN FOR THE GROUP (A):
REMARK   3    T TENSOR
REMARK   3      T11:  12.0000 T22:   0.0000
REMARK   3      T33:   0.0000 T12:   0.0000
REMARK   3      T13:   0.0000 T23:   0.0000
REMARK   3    L TENSOR
REMARK   3      L11:   0.0000 L22: 181.0000
```

```
REMARK   3      L33:   0.0000 L12: 380.0000
REMARK   3      L13:   0.0000 L23:   0.0000
REMARK   3    S TENSOR
REMARK   3      S11:   0.0000 S12:   0.0000 S13:   0.0000
REMARK   3      S21:   0.0000 S22:   0.0000 S23:   0.0000
REMARK   3      S31:   0.0000 S32:   0.0000 S33:   0.0000
REMARK   3
REMARK   3   ATOM RECORD CONTAINS RESIDUAL B FACTORS ONLY
REMARK   3
REMARK   3   TLS GROUP :     1
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   L     1        L   118
REMARK   3    ORIGIN FOR THE GROUP (A):  34.0774   4.1630  34.7010
REMARK   3    T TENSOR
REMARK   3      T11:  -0.0925 T22:  -0.0085
REMARK   3      T33:  -0.0772 T12:   0.0721
REMARK   3      T13:   0.1030 T23:   0.1518
REMARK   3    L TENSOR
REMARK   3      L11:   2.1122 L22:   0.7711
REMARK   3      L33:   4.9967 L12:  -0.5661
REMARK   3      L13:   0.1050 L23:  -0.3455
REMARK   3    S TENSOR
REMARK   3      S11:  -0.0080 S12:   0.5079 S13:   0.2345
REMARK   3      S21:  -0.4260 S22:  -0.2376 S23:  -0.3549
REMARK   3      S31:   0.3135 S32:   0.8283 S33:   0.2455
REMARK   3
REMARK   3   TLS GROUP :     2
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   L   119        L   222
REMARK   3    ORIGIN FOR THE GROUP (A):  21.6146  -3.8126   1.1893
REMARK   3    T TENSOR
REMARK   3      T11:   0.4726 T22:   0.2750
REMARK   3      T33:  -0.0808 T12:  -0.0116
REMARK   3      T13:   0.1752 T23:  -0.0339
REMARK   3    L TENSOR
REMARK   3      L11:   6.9206 L22:   1.9549
REMARK   3      L33:   9.3382 L12:  -1.0476
REMARK   3      L13:   4.6283 L23:   0.1643
REMARK   3    S TENSOR
REMARK   3      S11:  -0.3330 S12:   1.0733 S13:  -0.2008
REMARK   3      S21:  -0.5473 S22:  -0.0661 S23:   0.0016
REMARK   3      S31:   0.3697 S32:   0.4209 S33:   0.3991
REMARK   3
REMARK   3   TLS GROUP :     3
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   H     1        H   118
REMARK   3    ORIGIN FOR THE GROUP (A):  12.9034   6.8440  41.4571
REMARK   3    T TENSOR
REMARK   3      T11:  -0.1425 T22:  -0.2315
REMARK   3      T33:  -0.1588 T12:   0.0165
REMARK   3      T13:   0.0200 T23:  -0.0215
REMARK   3    L TENSOR
REMARK   3      L11:   2.6891 L22:   1.4103
REMARK   3      L33:   2.8991 L12:  -0.9097
REMARK   3      L13:   0.3158 L23:   0.1940
REMARK   3    S TENSOR
REMARK   3      S11:  -0.0860 S12:   0.1826 S13:  -0.0201
REMARK   3      S21:  -0.0986 S22:  -0.1525 S23:   0.3016
REMARK   3      S31:   0.2526 S32:  -0.1665 S33:   0.2385
REMARK   3
```

```
REMARK   3   TLS GROUP :      4
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   H   119         H   222
REMARK   3    ORIGIN FOR THE GROUP (A):  10.0696  -4.9768  15.4814
REMARK   3    T TENSOR
REMARK   3      T11:   0.3487 T22:   0.1930
REMARK   3      T33:  -0.0301 T12:  -0.0884
REMARK   3      T13:   0.0902 T23:   0.0141
REMARK   3    L TENSOR
REMARK   3      L11:   4.9078 L22:   0.9490
REMARK   3      L33:   2.3693 L12:   0.1356
REMARK   3      L13:  -1.4071 L23:   0.9275
REMARK   3    S TENSOR
REMARK   3      S11:  -0.5914 S12:  -0.3320 S13:  -0.7844
REMARK   3      S21:  -0.5500 S22:   0.2083 S23:   0.0456
REMARK   3      S31:   0.8546 S32:  -0.5341 S33:   0.3830
REMARK   3
REMARK   3   TLS GROUP :      5
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   A     1         A   114
REMARK   3    ORIGIN FOR THE GROUP (A): -15.4841  -4.3916  40.7560
REMARK   3    T TENSOR
REMARK   3      T11:   0.0309 T22:  -0.0078
REMARK   3      T33:  -0.0631 T12:  -0.1474
REMARK   3      T13:  -0.0713 T23:   0.0966
REMARK   3    L TENSOR
REMARK   3      L11:   2.9713 L22:   2.0240
REMARK   3      L33:   4.0886 L12:   1.7325
REMARK   3      L13:   0.6998 L23:  -0.4779
REMARK   3    S TENSOR
REMARK   3      S11:  -0.5589 S12:   0.9646 S13:   0.4929
REMARK   3      S21:  -0.3574 S22:   0.2963 S23:   0.1246
REMARK   3      S31:  -0.6789 S32:   0.3641 S33:   0.2626
REMARK   3
REMARK   3   TLS GROUP :      6
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   A   115         A   222
REMARK   3    ORIGIN FOR THE GROUP (A): -18.4640  -5.6643  13.2181
REMARK   3    T TENSOR
REMARK   3      T11:   0.3721 T22:   0.5165
REMARK   3      T33:   0.1442 T12:  -0.1750
REMARK   3      T13:  -0.1099 T23:   0.3085
REMARK   3    L TENSOR
REMARK   3      L11:   7.9687 L22:   9.9652
REMARK   3      L33:   6.7758 L12:   8.8789
REMARK   3      L13:   3.4153 L23:   4.4245
REMARK   3    S TENSOR
REMARK   3      S11:  -0.5121 S12:  -0.1151 S13:   0.2897
REMARK   3      S21:  -0.6527 S22:   0.0754 S23:   0.2830
REMARK   3      S31:  -0.1875 S32:   0.5151 S33:   0.4367
REMARK   3
REMARK   3   TLS GROUP :      7
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   B     1         B   114
REMARK   3    ORIGIN FOR THE GROUP (A): -26.6676 -23.2278  44.1916
REMARK   3    T TENSOR
REMARK   3      T11:  -0.1839 T22:  -0.0790
REMARK   3      T33:  -0.0886 T12:  -0.0213
REMARK   3      T13:   0.0625 T23:  -0.1009
```

```
REMARK   3    L TENSOR
REMARK   3      L11:   3.0455 L22:   1.4373
REMARK   3      L33:   2.6154 L12:   0.5832
REMARK   3      L13:   1.1863 L23:   0.0809
REMARK   3    S TENSOR
REMARK   3      S11:  -0.1089 S12:   0.5431 S13:  -0.7596
REMARK   3      S21:  -0.1800 S22:   0.1339 S23:  -0.1796
REMARK   3      S31:   0.1077 S32:   0.0582 S33:  -0.0250
REMARK   3
REMARK   3   TLS GROUP :     8
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   B   115        B   222
REMARK   3    ORIGIN FOR THE GROUP (A): -25.1927 -22.6544  15.6984
REMARK   3    T TENSOR
REMARK   3      T11:   0.1708 T22:   0.8383
REMARK   3      T33:  -0.1174 T12:  -0.1954
REMARK   3      T13:   0.0466 T23:  -0.1825
REMARK   3    L TENSOR
REMARK   3      L11:   0.6073 L22:   3.3530
REMARK   3      L33:   3.8016 L12:   1.4235
REMARK   3      L13:   0.2857 L23:   0.4225
REMARK   3    S TENSOR
REMARK   3      S11:  -0.4259 S12:   0.6847 S13:   0.0804
REMARK   3      S21:  -0.7985 S22:   0.3366 S23:  -0.0886
REMARK   3      S31:   0.2684 S32:   0.4004 S33:   0.0893
REMARK   3
REMARK   3   TLS GROUP :     9
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   C     1        C   180
REMARK   3    ORIGIN FOR THE GROUP (A):  35.7158  -7.3606  65.7332
REMARK   3    T TENSOR
REMARK   3      T11:  -0.1452 T22:  -0.0687
REMARK   3      T33:  -0.0721 T12:   0.0065
REMARK   3      T13:  -0.0658 T23:   0.0456
REMARK   3    L TENSOR
REMARK   3      L11:   1.1034 L22:   4.2466
REMARK   3      L33:   1.1325 L12:  -0.2671
REMARK   3      L13:  -0.3798 L23:   1.1165
REMARK   3    S TENSOR
REMARK   3      S11:   0.0853 S12:  -0.1113 S13:  -0.1585
REMARK   3      S21:   0.0004 S22:  -0.0963 S23:  -0.2630
REMARK   3      S31:   0.0304 S32:   0.1813 S33:   0.0109
REMARK   3
REMARK   3   TLS GROUP :    10
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   D     1        D   180
REMARK   3    ORIGIN FOR THE GROUP (A):   1.4791 -18.6629  63.8831
REMARK   3    T TENSOR
REMARK   3      T11:  -0.0882 T22:  -0.2158
REMARK   3      T33:  -0.0033 T12:  -0.0591
REMARK   3      T13:  -0.0712 T23:   0.0506
REMARK   3    L TENSOR
REMARK   3      L11:   4.1627 L22:   0.6887
REMARK   3      L33:   1.6928 L12:  -0.5821
REMARK   3      L13:  -1.3565 L23:  -0.0674
REMARK   3    S TENSOR
REMARK   3      S11:   0.0942 S12:   0.0481 S13:  -0.1530
REMARK   3      S21:   0.0632 S22:  -0.0674 S23:  -0.1425
REMARK   3      S31:  -0.0044 S32:   0.1570 S33:  -0.0268
REMARK   3
```

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REMARK   3   TLS GROUP :    11
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   C   181        C   380
REMARK   3    ORIGIN FOR THE GROUP (A):  36.5001  36.1209  86.2248
REMARK   3    T TENSOR
REMARK   3      T11:   0.0149 T22:   0.0474
REMARK   3      T33:   0.0512 T12:  -0.0859
REMARK   3      T13:  -0.0012 T23:   0.0006
REMARK   3    L TENSOR
REMARK   3      L11:   0.4991 L22:   4.2729
REMARK   3      L33:   2.2884 L12:   0.0613
REMARK   3      L13:  -0.0422 L23:   1.6006
REMARK   3    S TENSOR
REMARK   3      S11:   0.0700 S12:  -0.1894 S13:   0.3339
REMARK   3      S21:   0.3199 S22:  -0.1636 S23:   0.0538
REMARK   3      S31:  -0.4706 S32:  -0.0348 S33:   0.0936
REMARK   3
REMARK   3   TLS GROUP :    12
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS        C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :   D   181        D   380
REMARK   3    ORIGIN FOR THE GROUP (A): -22.0680  -7.2511  94.0538
REMARK   3    T TENSOR
REMARK   3      T11:   0.3324 T22:  -0.0300
REMARK   3      T33:   0.1241 T12:  -0.0639
REMARK   3      T13:  -0.0093 T23:  -0.1280
REMARK   3    L TENSOR
REMARK   3      L11:   3.2904 L22:   1.2480
REMARK   3      L33:   5.3741 L12:  -0.6499
REMARK   3      L13:  -3.1202 L23:   1.5523
REMARK   3    S TENSOR
REMARK   3      S11:   0.2251 S12:  -0.5588 S13:   0.4970
REMARK   3      S21:   0.6434 S22:  -0.2477 S23:  -0.0135
REMARK   3      S31:  -0.3232 S32:   0.0394 S33:   0.0226
REMARK   3
REMARK   3
REMARK   3  BULK SOLVENT MODELLING.
REMARK   3   METHOD USED : BABINET MODEL WITH MASK
REMARK   3   PARAMETERS FOR MASK CALCULATION
REMARK   3   VDW PROBE RADIUS    :   1.20
REMARK   3   ION PROBE RADIUS    :   0.80
REMARK   3   SHRINKAGE RADIUS    :   0.80
REMARK   3
REMARK   3  OTHER REFINEMENT REMARKS:
REMARK   3  HYDROGENS HAVE BEEN ADDED IN THE RIDING POSITIONS
REMARK   3
REMARK 200
REMARK 200  EXPERIMENTAL DETAILS
REMARK 200  EXPERIMENT TYPE                : X-RAY DIFFRACTION
REMARK 200  DATE OF DATA COLLECTION        : NULL
REMARK 200  TEMPERATURE           (KELVIN) : 100
REMARK 200  PH                             : NULL
REMARK 200  NUMBER OF CRYSTALS USED        : 1
REMARK 200
REMARK 200  SYNCHROTRON              (Y/N) : Y
REMARK 200  RADIATION SOURCE               : SLS
REMARK 200  BEAMLINE                       : PX
REMARK 200  X-RAY GENERATOR MODEL          : NULL
REMARK 200  MONOCHROMATIC OR LAUE    (M/L) : M
REMARK 200  WAVELENGTH OR RANGE        (A) : 1.0000
REMARK 200  MONOCHROMATOR                  : NULL
REMARK 200  OPTICS                         : NULL
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REMARK 200
REMARK 200  DETECTOR TYPE                      : PILATUS 6M
REMARK 200  DETECTOR MANUFACTURER              : DECTRIS
REMARK 200  INTENSITY-INTEGRATION SOFTWARE     : XDS
REMARK 200  DATA SCALING SOFTWARE              : XSCALE
REMARK 200
REMARK 200  NUMBER OF UNIQUE REFLECTIONS       : 50962
REMARK 200  RESOLUTION RANGE HIGH      (A)     : 2.88
REMARK 200  RESOLUTION RANGE LOW       (A)     : 49.27
REMARK 200  REJECTION CRITERIA  (SIGMA(I))     : 0.0
REMARK 200
REMARK 200 OVERALL.
REMARK 200  COMPLETENESS FOR RANGE     (%)     : 98.2
REMARK 200  DATA REDUNDANCY                    : 2.9
REMARK 200  R MERGE                    (I)     : 8.40
REMARK 200  R SYM                      (I)     : NULL
REMARK 200  <I/SIGMA(I)> FOR THE DATA SET      : NULL
REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.88
REMARK 200  HIGHEST RESOLUTION SHELL, RANGE LOW  (A) : 2.99
REMARK 200  COMPLETENESS FOR SHELL     (%)     : 97.2
REMARK 200  DATA REDUNDANCY IN SHELL           : 2.9
REMARK 200  R MERGE FOR SHELL          (I)     : 71.00
REMARK 200  R SYM FOR SHELL            (I)     : NULL
REMARK 200  <I/SIGMA(I)> FOR SHELL             : NULL
REMARK 200
REMARK 200 DIFFRACTION PROTOCOL: SINGLE WAVELENGTH
REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: OTHER
REMARK 200 SOFTWARE USED: NULL
REMARK 200 STARTING MODEL: NONE
REMARK 200
REMARK 200 REMARK: NONE
REMARK 280
REMARK 280 CRYSTAL
REMARK 280 SOLVENT CONTENT, VS   (%): 80.54
REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 6.32
REMARK 280
REMARK 280 CRYSTALLIZATION CONDITIONS: NULL
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 1 21 1
REMARK 290
REMARK 290      SYMOP   SYMMETRY
REMARK 290     NNNMMM   OPERATOR
REMARK 290       1555   X,Y,Z
REMARK 290       2555   -X,Y+1/2,-Z
REMARK 290
REMARK 290      WHERE NNN -> OPERATOR NUMBER
REMARK 290            MMM -> TRANSLATION VECTOR
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
REMARK 290 RELATED MOLECULES.
REMARK 290 REMARK: NULL
REMARK 500
REMARK 500 GEOMETRY AND STEREOCHEMISTRY
REMARK 500 SUBTOPIC: COVALENT BOND ANGLES
REMARK 500
REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
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REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
REMARK 500
REMARK 500 STANDARD TABLE:
REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)
REMARK 500
REMARK 500 EXPECTED VALUES: ENGH AND HUBER, 1991
REMARK 500
REMARK 500 REMARK: NULL
SSBOND   1 CYS L   23    CYS L   92
SSBOND   2 CYS L  138    CYS L  198
SSBOND   3 CYS H   22    CYS H   98
SSBOND   4 CYS H  151    CYS H  207
SSBOND   5 CYS A   23    CYS A   92
SSBOND   6 CYS B   22    CYS B   98
SSBOND   7 CYS B  151    CYS B  207
SSBOND   8 CYS C   41    CYS C  109
SSBOND   9 CYS C  155    CYS C  184
SSBOND  10 CYS D   41    CYS D  109
SSBOND  11 CYS D  155    CYS D  184
CISPEP   1 SER L    7    PRO L    8          0.00
CISPEP   2 LEU L   98    PRO L   99          0.00
CISPEP   3 TYR L  144    PRO L  145          0.00
LINK             PRO H 137                 LEU H 149                 gap
CISPEP   4 PHE H  157    PRO H  158          0.00
CISPEP   5 GLU H  159    PRO H  160          0.00
LINK             VAL H 192                 CYS H 207                 gap
CISPEP   6 SER A    7    PRO A    8          0.00
CISPEP   7 LEU A   98    PRO A   99          0.00
LINK             VAL A 119                 VAL A 137                 gap
CISPEP   8 TYR A  144    PRO A  145          0.00
LINK             ARG A 146                 SER A 160                 gap
LINK             LEU B 135                 GLY B 150                 gap
CISPEP   9 PHE B  157    PRO B  158          0.00
CISPEP  10 GLU B  159    PRO B  160          0.00
LINK             VAL B 192                 CYS B 207                 gap
CISPEP  11 ASP C  269    PRO C  270          0.00
CISPEP  12 LEU C  278    PRO C  279          0.00
LINK             THR C 320                 VAL C 330                 gap
LINK             LYS C 337                 ARG C 354                 gap
LINK             VAL C 358                 GLN C 369                 gap
LINK             TYR D 212                 GLU D 220                 gap
LINK             LEU D 238                 TRP D 251                 gap
LINK             LYS D 264                 PRO D 270                 gap
CISPEP  13 LEU D  278    PRO D  279          0.00
LINK             LEU D 282                 ASN D 296                 gap
CRYST1  110.180   78.940  132.850  90.00  94.83  90.00 P 1 21 1
SCALE1      0.009076  0.000000  0.000767        0.00000
SCALE2      0.000000  0.012668  0.000000        0.00000
SCALE3      0.000000  0.000000  0.007554        0.00000
ATOM      1  N   ASP L   1      25.380  23.459  40.132  1.00 63.38           N
ATOM      2  CA  ASP L   1      25.701  22.022  39.898  1.00 63.63           C
ATOM      4  CB  ASP L   1      25.152  21.571  38.537  1.00 65.02           C
ATOM      7  CG  ASP L   1      23.658  21.304  38.570  1.00 68.49           C
ATOM      8  OD1 ASP L   1      23.196  20.423  37.797  1.00 66.99           O
ATOM      9  OD2 ASP L   1      22.958  21.976  39.373  1.00 66.85           O
ATOM     10  C   ASP L   1      27.193  21.736  39.943  1.00 61.99           C
ATOM     11  O   ASP L   1      28.013  22.646  39.993  1.00 62.03           O
ATOM     15  N   ILE L   2      27.518  20.449  39.938  1.00 60.78           N
ATOM     16  CA  ILE L   2      28.867  19.976  39.683  1.00 60.23           C
ATOM     18  CB  ILE L   2      29.363  19.040  40.806  1.00 59.25           C
ATOM     20  CG1 ILE L   2      29.357  19.783  42.139  1.00 60.29           C
ATOM     23  CD1 ILE L   2      30.101  19.074  43.258  1.00 61.36           C
ATOM     27  CG2 ILE L   2      30.776  18.548  40.510  1.00 60.46           C
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ATOM     31  C   ILE L   2      28.856  19.221  38.356  1.00 59.29           C
ATOM     32  O   ILE L   2      28.034  18.319  38.159  1.00 59.02           O
ATOM     34  N   VAL L   3      29.774  19.582  37.458  1.00 57.94           N
ATOM     35  CA  VAL L   3      29.889  18.928  36.151  1.00 57.13           C
ATOM     37  CB  VAL L   3      30.134  19.933  35.026  1.00 56.55           C
ATOM     39  CG1 VAL L   3      30.245  19.203  33.680  1.00 57.32           C
ATOM     43  CG2 VAL L   3      29.025  20.976  34.993  1.00 56.20           C
ATOM     47  C   VAL L   3      31.017  17.899  36.101  1.00 56.43           C
ATOM     48  O   VAL L   3      32.192  18.234  36.238  1.00 55.47           O
ATOM     50  N   MET L   4      30.627  16.648  35.876  1.00 56.71           N
ATOM     51  CA  MET L   4      31.553  15.549  35.670  1.00 55.20           C
ATOM     53  CB  MET L   4      30.915  14.247  36.126  1.00 55.10           C
ATOM     56  CG  MET L   4      30.512  14.258  37.561  1.00 55.51           C
ATOM     59  SD  MET L   4      31.956  14.143  38.626  1.00 59.57           S
ATOM     60  CE  MET L   4      31.566  15.426  39.802  1.00 62.32           C
ATOM     64  C   MET L   4      31.900  15.446  34.187  1.00 54.82           C
ATOM     65  O   MET L   4      31.045  15.149  33.351  1.00 54.44           O
ATOM     67  N   THR L   5      33.162  15.694  33.871  1.00 53.54           N
ATOM     68  CA  THR L   5      33.659  15.576  32.520  1.00 53.71           C
ATOM     70  CB  THR L   5      34.503  16.793  32.181  1.00 53.53           C
ATOM     72  OG1 THR L   5      33.683  17.966  32.261  1.00 54.63           O
ATOM     74  CG2 THR L   5      35.102  16.677  30.796  1.00 53.09           C
ATOM     78  C   THR L   5      34.518  14.330  32.433  1.00 54.11           C
ATOM     79  O   THR L   5      35.487  14.195  33.166  1.00 54.88           O
ATOM     81  N   GLN L   6      34.150  13.413  31.547  1.00 55.17           N
ATOM     82  CA  GLN L   6      34.957  12.215  31.300  1.00 54.24           C
ATOM     84  CB  GLN L   6      34.063  11.008  31.063  1.00 54.16           C
ATOM     87  CG  GLN L   6      33.285  10.641  32.287  1.00 55.97           C
ATOM     90  CD  GLN L   6      32.500   9.387  32.109  1.00 53.56           C
ATOM     91  OE1 GLN L   6      31.370   9.289  32.581  1.00 51.02           O
ATOM     92  NE2 GLN L   6      33.087   8.409  31.423  1.00 52.33           N
ATOM     95  C   GLN L   6      35.902  12.380  30.114  1.00 53.83           C
ATOM     96  O   GLN L   6      35.716  13.242  29.266  1.00 53.74           O
ATOM     98  N   SER L   7      36.907  11.522  30.052  1.00 53.31           N
ATOM     99  CA  SER L   7      37.941  11.649  29.050  1.00 52.92           C
ATOM    101  CB  SER L   7      38.860  12.803  29.451  1.00 51.79           C
ATOM    104  OG  SER L   7      40.157  12.650  28.914  1.00 55.05           O
ATOM    106  C   SER L   7      38.716  10.326  28.934  1.00 52.77           C
ATOM    107  O   SER L   7      39.139   9.776  29.949  1.00 52.30           O
ATOM    109  N   PRO L   8      38.872   9.788  27.705  1.00 52.09           N
ATOM    110  CA  PRO L   8      38.334  10.230  26.423  1.00 50.67           C
ATOM    112  CB  PRO L   8      39.185   9.461  25.419  1.00 50.52           C
ATOM    115  CG  PRO L   8      39.483   8.200  26.096  1.00 51.62           C
ATOM    118  CD  PRO L   8      39.694   8.575  27.542  1.00 52.48           C
ATOM    121  C   PRO L   8      36.879   9.840  26.255  1.00 50.37           C
ATOM    122  O   PRO L   8      36.318   9.191  27.130  1.00 49.80           O
ATOM    123  N   ASP L   9      36.289  10.232  25.127  1.00 51.41           N
ATOM    124  CA  ASP L   9      34.908   9.893  24.800  1.00 51.96           C
ATOM    126  CB  ASP L   9      34.356  10.828  23.724  1.00 51.80           C
ATOM    129  CG  ASP L   9      34.053  12.218  24.259  1.00 54.57           C
ATOM    130  OD1 ASP L   9      33.314  12.333  25.258  1.00 58.63           O
ATOM    131  OD2 ASP L   9      34.538  13.206  23.676  1.00 58.36           O
ATOM    132  C   ASP L   9      34.792   8.450  24.339  1.00 52.42           C
ATOM    133  O   ASP L   9      33.896   7.734  24.768  1.00 53.87           O
ATOM    135  N   SER L  10      35.692   8.024  23.464  1.00 52.69           N
ATOM    136  CA  SER L  10      35.696   6.648  22.988  1.00 54.38           C
ATOM    138  CB  SER L  10      35.133   6.564  21.577  1.00 55.07           C
ATOM    141  OG  SER L  10      35.899   7.345  20.677  1.00 59.21           O
ATOM    143  C   SER L  10      37.101   6.078  23.023  1.00 55.27           C
ATOM    144  O   SER L  10      38.079   6.816  23.066  1.00 55.84           O
ATOM    146  N   LEU L  11      37.193   4.757  22.991  1.00 56.01           N
ATOM    147  CA  LEU L  11      38.438   4.086  23.304  1.00 55.98           C
ATOM    149  CB  LEU L  11      38.651   4.118  24.819  1.00 56.96           C
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ATOM	152	CG	LEU	L	11	39.813	3.304	25.387	1.00	57.49	C
ATOM	154	CD1	LEU	L	11	41.134	3.780	24.769	1.00	59.64	C
ATOM	158	CD2	LEU	L	11	39.828	3.382	26.917	1.00	56.04	C
ATOM	162	C	LEU	L	11	38.412	2.646	22.831	1.00	56.18	C
ATOM	163	O	LEU	L	11	37.454	1.920	23.085	1.00	57.30	O
ATOM	165	N	ALA	L	12	39.477	2.241	22.151	1.00	55.92	N
ATOM	166	CA	ALA	L	12	39.660	0.860	21.753	1.00	56.55	C
ATOM	168	CB	ALA	L	12	39.599	0.732	20.243	1.00	57.50	C
ATOM	172	C	ALA	L	12	41.011	0.397	22.252	1.00	57.38	C
ATOM	173	O	ALA	L	12	41.979	1.152	22.203	1.00	59.18	O
ATOM	175	N	VAL	L	13	41.079	-0.840	22.731	1.00	56.85	N
ATOM	176	CA	VAL	L	13	42.357	-1.448	23.090	1.00	56.67	C
ATOM	178	CB	VAL	L	13	42.770	-1.087	24.551	1.00	57.06	C
ATOM	180	CG1	VAL	L	13	42.256	-2.121	25.547	1.00	57.39	C
ATOM	184	CG2	VAL	L	13	44.293	-0.921	24.674	1.00	58.38	C
ATOM	188	C	VAL	L	13	42.254	-2.960	22.872	1.00	56.89	C
ATOM	189	O	VAL	L	13	41.146	-3.501	22.845	1.00	57.82	O
ATOM	191	N	SER	L	14	43.395	-3.631	22.703	1.00	55.08	N
ATOM	192	CA	SER	L	14	43.404	-5.051	22.348	1.00	53.83	C
ATOM	194	CB	SER	L	14	44.764	-5.459	21.799	1.00	54.07	C
ATOM	197	OG	SER	L	14	45.058	-4.758	20.602	1.00	56.13	O
ATOM	199	C	SER	L	14	43.054	-5.914	23.544	1.00	53.30	C
ATOM	200	O	SER	L	14	43.113	-5.448	24.689	1.00	53.10	O
ATOM	202	N	LEU	L	15	42.683	-7.168	23.273	1.00	52.90	N
ATOM	203	CA	LEU	L	15	42.353	-8.125	24.343	1.00	52.23	C
ATOM	205	CB	LEU	L	15	42.037	-9.531	23.800	1.00	51.58	C
ATOM	208	CG	LEU	L	15	40.609	-10.098	23.763	1.00	49.56	C
ATOM	210	CD1	LEU	L	15	40.642	-11.575	24.161	1.00	45.14	C
ATOM	214	CD2	LEU	L	15	39.621	-9.369	24.663	1.00	52.95	C
ATOM	218	C	LEU	L	15	43.503	-8.242	25.325	1.00	51.62	C
ATOM	219	O	LEU	L	15	44.663	-8.288	24.928	1.00	53.26	O
ATOM	221	N	GLY	L	16	43.177	-8.294	26.606	1.00	51.58	N
ATOM	222	CA	GLY	L	16	44.181	-8.502	27.636	1.00	51.94	C
ATOM	225	C	GLY	L	16	45.024	-7.285	27.951	1.00	51.47	C
ATOM	226	O	GLY	L	16	45.996	-7.399	28.686	1.00	51.96	O
ATOM	228	N	GLU	L	17	44.640	-6.120	27.430	1.00	51.42	N
ATOM	229	CA	GLU	L	17	45.424	-4.895	27.593	1.00	52.11	C
ATOM	231	CB	GLU	L	17	45.699	-4.290	26.219	1.00	51.96	C
ATOM	234	CG	GLU	L	17	47.012	-3.531	26.116	1.00	52.88	C
ATOM	237	CD	GLU	L	17	47.389	-3.222	24.675	1.00	54.10	C
ATOM	238	OE1	GLU	L	17	46.480	-2.925	23.865	1.00	54.55	O
ATOM	239	OE2	GLU	L	17	48.596	-3.278	24.350	1.00	55.90	O
ATOM	240	C	GLU	L	17	44.716	-3.874	28.497	1.00	52.53	C
ATOM	241	O	GLU	L	17	43.513	-3.986	28.759	1.00	52.88	O
ATOM	243	N	ARG	L	18	45.464	-2.877	28.969	1.00	52.79	N
ATOM	244	CA	ARG	L	18	44.907	-1.838	29.845	1.00	52.48	C
ATOM	246	CB	ARG	L	18	46.022	-1.030	30.522	1.00	52.23	C
ATOM	249	CG	ARG	L	18	45.527	-0.108	31.648	1.00	55.11	C
ATOM	252	CD	ARG	L	18	46.640	0.740	32.240	1.00	56.70	C
ATOM	255	NE	ARG	L	18	47.354	0.049	33.311	1.00	62.41	N
ATOM	257	CZ	ARG	L	18	48.601	0.324	33.698	1.00	65.36	C
ATOM	258	NH1	ARG	L	18	49.306	1.287	33.102	1.00	64.22	N
ATOM	261	NH2	ARG	L	18	49.155	-0.377	34.686	1.00	63.92	N
ATOM	264	C	ARG	L	18	43.960	-0.877	29.114	1.00	51.24	C
ATOM	265	O	ARG	L	18	44.192	-0.498	27.970	1.00	49.77	O
ATOM	267	N	ALA	L	19	42.884	-0.504	29.802	1.00	51.67	N
ATOM	268	CA	ALA	L	19	41.957	0.526	29.348	1.00	52.18	C
ATOM	270	CB	ALA	L	19	40.611	-0.078	28.990	1.00	52.39	C
ATOM	274	C	ALA	L	19	41.800	1.496	30.492	1.00	51.75	C
ATOM	275	O	ALA	L	19	41.690	1.084	31.640	1.00	53.75	O
ATOM	277	N	THR	L	20	41.793	2.782	30.187	1.00	51.92	N
ATOM	278	CA	THR	L	20	41.799	3.792	31.232	1.00	52.69	C
ATOM	280	CB	THR	L	20	43.236	4.258	31.501	1.00	51.99	C

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ATOM    282  OG1 THR L  20      43.952   3.180  32.108  1.00 52.75           O
ATOM    284  CG2 THR L  20      43.280   5.469  32.422  1.00 51.10           C
ATOM    288  C   THR L  20      40.882   4.957  30.869  1.00 53.68           C
ATOM    289  O   THR L  20      40.926   5.469  29.748  1.00 53.88           O
ATOM    291  N   ILE L  21      40.040   5.349  31.826  1.00 54.16           N
ATOM    292  CA  ILE L  21      39.089   6.430  31.632  1.00 54.15           C
ATOM    294  CB  ILE L  21      37.652   5.930  31.697  1.00 54.03           C
ATOM    296  CG1 ILE L  21      37.488   4.668  30.849  1.00 52.98           C
ATOM    299  CD1 ILE L  21      36.156   4.011  30.996  1.00 53.32           C
ATOM    303  CG2 ILE L  21      36.700   7.048  31.256  1.00 53.86           C
ATOM    307  C   ILE L  21      39.247   7.452  32.727  1.00 54.75           C
ATOM    308  O   ILE L  21      39.315   7.100  33.897  1.00 57.16           O
ATOM    310  N   ASN L  22      39.286   8.719  32.350  1.00 55.21           N
ATOM    311  CA  ASN L  22      39.362   9.788  33.321  1.00 55.96           C
ATOM    313  CB  ASN L  22      40.346  10.856  32.882  1.00 56.21           C
ATOM    316  CG  ASN L  22      41.769  10.434  33.093  1.00 58.98           C
ATOM    317  OD1 ASN L  22      42.676  11.260  33.078  1.00 62.63           O
ATOM    318  ND2 ASN L  22      41.982   9.136  33.295  1.00 60.66           N
ATOM    321  C   ASN L  22      38.021  10.422  33.538  1.00 57.66           C
ATOM    322  O   ASN L  22      37.162  10.415  32.658  1.00 59.39           O
ATOM    324  N   CYS L  23      37.859  10.968  34.735  1.00 58.38           N
ATOM    325  CA  CYS L  23      36.694  11.737  35.085  1.00 56.40           C
ATOM    327  CB  CYS L  23      35.699  10.860  35.814  1.00 57.46           C
ATOM    330  SG  CYS L  23      34.170  11.702  36.051  1.00 64.01           S
ATOM    332  C   CYS L  23      37.131  12.882  35.976  1.00 54.72           C
ATOM    333  O   CYS L  23      37.849  12.667  36.942  1.00 53.36           O
ATOM    335  N   ARG L  24      36.725  14.098  35.632  1.00 55.34           N
ATOM    336  CA  ARG L  24      37.128  15.280  36.382  1.00 55.30           C
ATOM    338  CB  ARG L  24      38.003  16.193  35.535  1.00 54.44           C
ATOM    341  CG  ARG L  24      38.513  17.408  36.314  1.00 58.14           C
ATOM    344  CD  ARG L  24      39.648  18.128  35.612  1.00 62.00           C
ATOM    347  NE  ARG L  24      40.875  17.326  35.557  1.00 67.28           N
ATOM    349  CZ  ARG L  24      42.021  17.732  35.007  1.00 70.82           C
ATOM    350  NH1 ARG L  24      42.126  18.934  34.446  1.00 73.39           N
ATOM    353  NH2 ARG L  24      43.075  16.926  35.013  1.00 72.54           N
ATOM    356  C   ARG L  24      35.893  16.020  36.801  1.00 54.29           C
ATOM    357  O   ARG L  24      34.916  16.024  36.062  1.00 57.57           O
ATOM    359  N   ALA L  25      35.939  16.662  37.965  1.00 52.05           N
ATOM    360  CA  ALA L  25      34.769  17.329  38.539  1.00 50.95           C
ATOM    362  CB  ALA L  25      34.510  16.759  39.909  1.00 51.27           C
ATOM    366  C   ALA L  25      34.982  18.837  38.636  1.00 49.44           C
ATOM    367  O   ALA L  25      36.085  19.255  38.948  1.00 49.36           O
ATOM    369  N   SER L  26      33.929  19.633  38.398  1.00 48.83           N
ATOM    370  CA  SER L  26      33.973  21.115  38.500  1.00 48.35           C
ATOM    372  CB  SER L  26      32.568  21.730  38.505  1.00 47.36           C
ATOM    375  OG  SER L  26      31.646  20.947  37.787  1.00 51.82           O
ATOM    377  C   SER L  26      34.664  21.621  39.759  1.00 48.75           C
ATOM    378  O   SER L  26      35.474  22.555  39.699  1.00 50.06           O
ATOM    380  N   LYS L  27      34.304  21.040  40.902  1.00 48.88           N
ATOM    381  CA  LYS L  27      34.964  21.353  42.163  1.00 50.43           C
ATOM    383  CB  LYS L  27      34.161  22.366  42.978  1.00 52.16           C
ATOM    386  CG  LYS L  27      32.749  21.981  43.368  1.00 54.56           C
ATOM    389  CD  LYS L  27      31.967  23.255  43.735  1.00 54.52           C
ATOM    392  CE  LYS L  27      30.692  22.965  44.503  1.00 57.35           C
ATOM    395  NZ  LYS L  27      29.707  24.077  44.335  1.00 58.07           N
ATOM    399  C   LYS L  27      35.230  20.087  42.940  1.00 49.45           C
ATOM    400  O   LYS L  27      34.836  19.017  42.508  1.00 47.81           O
ATOM    402  N   SER L  28      35.939  20.202  44.059  1.00 51.44           N
ATOM    403  CA  SER L  28      36.385  19.020  44.799  1.00 51.83           C
ATOM    405  CB  SER L  28      37.304  19.379  45.964  1.00 52.23           C
ATOM    408  OG  SER L  28      37.520  18.241  46.785  1.00 52.48           O
ATOM    410  C   SER L  28      35.202  18.272  45.347  1.00 53.06           C
ATOM    411  O   SER L  28      34.250  18.877  45.839  1.00 54.62           O
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ATOM	413	N	VAL	L	29	35.293	16.951	45.292	1.00	52.94	N
ATOM	414	CA	VAL	L	29	34.186	16.089	45.637	1.00	53.18	C
ATOM	416	CB	VAL	L	29	33.727	15.308	44.367	1.00	53.28	C
ATOM	418	CG1	VAL	L	29	32.363	14.688	44.550	1.00	56.43	C
ATOM	422	CG2	VAL	L	29	34.735	14.247	43.974	1.00	54.81	C
ATOM	426	C	VAL	L	29	34.616	15.181	46.799	1.00	53.03	C
ATOM	427	O	VAL	L	29	34.156	14.046	46.916	1.00	53.62	O
ATOM	429	N	SER	L	30	35.471	15.719	47.674	1.00	54.25	N
ATOM	430	CA	SER	L	30	36.098	14.962	48.770	1.00	54.15	C
ATOM	432	CB	SER	L	30	37.602	14.803	48.511	1.00	54.60	C
ATOM	435	OG	SER	L	30	37.880	14.092	47.317	1.00	55.08	O
ATOM	437	C	SER	L	30	35.940	15.634	50.142	1.00	54.40	C
ATOM	438	O	SER	L	30	36.454	16.730	50.360	1.00	54.45	O
ATOM	440	N	THR	L	31	35.253	14.962	51.063	1.00	54.06	N
ATOM	441	CA	THR	L	31	35.161	15.389	52.467	1.00	53.25	C
ATOM	443	CB	THR	L	31	33.993	16.393	52.726	1.00	53.03	C
ATOM	445	OG1	THR	L	31	33.060	16.367	51.636	1.00	54.02	O
ATOM	447	CG2	THR	L	31	34.517	17.807	52.899	1.00	54.14	C
ATOM	451	C	THR	L	31	34.986	14.190	53.406	1.00	52.65	C
ATOM	452	O	THR	L	31	34.466	13.141	53.019	1.00	50.65	O
ATOM	454	N	SER	L	32	35.418	14.381	54.648	1.00	53.64	N
ATOM	455	CA	SER	L	32	35.372	13.357	55.704	1.00	54.12	C
ATOM	457	CB	SER	L	32	33.956	13.228	56.262	1.00	52.79	C
ATOM	460	OG	SER	L	32	33.037	13.102	55.212	1.00	55.88	O
ATOM	462	C	SER	L	32	35.954	11.993	55.288	1.00	53.54	C
ATOM	463	O	SER	L	32	35.331	10.943	55.451	1.00	52.41	O
ATOM	465	N	GLY	L	33	37.169	12.032	54.757	1.00	53.81	N
ATOM	466	CA	GLY	L	33	37.924	10.822	54.469	1.00	54.19	C
ATOM	469	C	GLY	L	33	37.477	10.089	53.231	1.00	53.03	C
ATOM	470	O	GLY	L	33	37.937	8.978	52.970	1.00	55.58	O
ATOM	472	N	TYR	L	34	36.597	10.715	52.462	1.00	52.53	N
ATOM	473	CA	TYR	L	34	36.006	10.089	51.286	1.00	53.45	C
ATOM	475	CB	TYR	L	34	34.537	9.740	51.539	1.00	53.20	C
ATOM	478	CG	TYR	L	34	34.264	8.550	52.431	1.00	52.50	C
ATOM	479	CD1	TYR	L	34	34.930	7.355	52.253	1.00	49.83	C
ATOM	481	CE1	TYR	L	34	34.638	6.248	53.039	1.00	53.40	C
ATOM	483	CZ	TYR	L	34	33.669	6.329	54.011	1.00	52.05	C
ATOM	484	OH	TYR	L	34	33.407	5.234	54.783	1.00	52.72	O
ATOM	486	CE2	TYR	L	34	32.968	7.499	54.205	1.00	53.91	C
ATOM	488	CD2	TYR	L	34	33.258	8.601	53.405	1.00	58.63	C
ATOM	490	C	TYR	L	34	36.051	11.021	50.081	1.00	53.06	C
ATOM	491	O	TYR	L	34	36.016	12.249	50.224	1.00	51.85	O
ATOM	493	N	SER	L	35	36.142	10.412	48.902	1.00	52.09	N
ATOM	494	CA	SER	L	35	35.819	11.066	47.653	1.00	51.97	C
ATOM	496	CB	SER	L	35	36.920	10.862	46.622	1.00	50.03	C
ATOM	499	OG	SER	L	35	38.115	11.519	47.001	1.00	49.98	O
ATOM	501	C	SER	L	35	34.529	10.410	47.181	1.00	53.64	C
ATOM	502	O	SER	L	35	34.509	9.202	46.887	1.00	53.53	O
ATOM	504	N	TYR	L	36	33.453	11.196	47.114	1.00	54.08	N
ATOM	505	CA	TYR	L	36	32.147	10.663	46.743	1.00	55.43	C
ATOM	507	CB	TYR	L	36	31.035	11.506	47.366	1.00	56.93	C
ATOM	510	CG	TYR	L	36	31.100	11.479	48.876	1.00	57.15	C
ATOM	511	CD1	TYR	L	36	30.536	10.427	49.583	1.00	55.21	C
ATOM	513	CE1	TYR	L	36	30.599	10.375	50.960	1.00	57.63	C
ATOM	515	CZ	TYR	L	36	31.254	11.369	51.661	1.00	57.30	C
ATOM	516	OH	TYR	L	36	31.303	11.278	53.034	1.00	55.65	O
ATOM	518	CE2	TYR	L	36	31.845	12.429	50.983	1.00	55.89	C
ATOM	520	CD2	TYR	L	36	31.767	12.476	49.593	1.00	55.45	C
ATOM	522	C	TYR	L	36	32.015	10.539	45.227	1.00	56.47	C
ATOM	523	O	TYR	L	36	31.304	11.304	44.580	1.00	58.30	O
ATOM	525	N	ILE	L	37	32.729	9.547	44.692	1.00	56.72	N
ATOM	526	CA	ILE	L	37	32.740	9.187	43.276	1.00	55.37	C
ATOM	528	CB	ILE	L	37	34.157	9.351	42.692	1.00	55.42	C

ATOM	530	CG1	ILE	L	37	34.521	10.838	42.602	1.00	59.90	C
ATOM	533	CD1	ILE	L	37	33.833	11.599	41.482	1.00	61.86	C
ATOM	537	CG2	ILE	L	37	34.297	8.689	41.324	1.00	54.24	C
ATOM	541	C	ILE	L	37	32.309	7.727	43.128	1.00	54.15	C
ATOM	542	O	ILE	L	37	32.612	6.887	43.982	1.00	51.17	O
ATOM	544	N	TYR	L	38	31.598	7.437	42.042	1.00	54.32	N
ATOM	545	CA	TYR	L	38	31.138	6.080	41.746	1.00	55.44	C
ATOM	547	CB	TYR	L	38	29.694	5.907	42.252	1.00	55.24	C
ATOM	550	CG	TYR	L	38	29.481	6.629	43.574	1.00	54.93	C
ATOM	551	CD1	TYR	L	38	29.636	5.971	44.778	1.00	55.24	C
ATOM	553	CE1	TYR	L	38	29.487	6.632	45.990	1.00	54.82	C
ATOM	555	CZ	TYR	L	38	29.182	7.979	46.006	1.00	57.34	C
ATOM	556	OH	TYR	L	38	29.022	8.642	47.205	1.00	55.61	O
ATOM	558	CE2	TYR	L	38	29.039	8.665	44.815	1.00	56.07	C
ATOM	560	CD2	TYR	L	38	29.197	7.993	43.611	1.00	54.45	C
ATOM	562	C	TYR	L	38	31.272	5.838	40.236	1.00	56.25	C
ATOM	563	O	TYR	L	38	31.170	6.790	39.454	1.00	57.66	O
ATOM	565	N	TRP	L	39	31.551	4.590	39.837	1.00	55.93	N
ATOM	566	CA	TRP	L	39	31.650	4.209	38.416	1.00	54.81	C
ATOM	568	CB	TRP	L	39	33.042	3.682	38.053	1.00	54.09	C
ATOM	571	CG	TRP	L	39	34.154	4.656	38.199	1.00	54.18	C
ATOM	572	CD1	TRP	L	39	34.902	4.880	39.319	1.00	55.84	C
ATOM	574	NE1	TRP	L	39	35.843	5.846	39.073	1.00	54.26	N
ATOM	576	CE2	TRP	L	39	35.723	6.262	37.775	1.00	50.74	C
ATOM	577	CD2	TRP	L	39	34.671	5.528	37.192	1.00	52.46	C
ATOM	578	CE3	TRP	L	39	34.341	5.769	35.854	1.00	55.28	C
ATOM	580	CZ3	TRP	L	39	35.066	6.718	35.147	1.00	55.11	C
ATOM	582	CH2	TRP	L	39	36.110	7.429	35.753	1.00	55.77	C
ATOM	584	CZ2	TRP	L	39	36.451	7.218	37.066	1.00	54.51	C
ATOM	586	C	TRP	L	39	30.644	3.114	38.059	1.00	56.62	C
ATOM	587	O	TRP	L	39	30.502	2.111	38.782	1.00	55.41	O
ATOM	589	N	TYR	L	40	29.987	3.303	36.913	1.00	56.41	N
ATOM	590	CA	TYR	L	40	29.020	2.352	36.396	1.00	54.40	C
ATOM	592	CB	TYR	L	40	27.649	3.006	36.294	1.00	53.71	C
ATOM	595	CG	TYR	L	40	27.197	3.584	37.609	1.00	54.69	C
ATOM	596	CD1	TYR	L	40	26.392	2.846	38.469	1.00	54.76	C
ATOM	598	CE1	TYR	L	40	25.988	3.371	39.694	1.00	54.40	C
ATOM	600	CZ	TYR	L	40	26.393	4.646	40.068	1.00	51.99	C
ATOM	601	OH	TYR	L	40	25.991	5.148	41.287	1.00	51.85	O
ATOM	603	CE2	TYR	L	40	27.196	5.394	39.233	1.00	51.58	C
ATOM	605	CD2	TYR	L	40	27.597	4.865	38.010	1.00	53.46	C
ATOM	607	C	TYR	L	40	29.442	1.827	35.032	1.00	54.01	C
ATOM	608	O	TYR	L	40	30.164	2.482	34.284	1.00	52.13	O
ATOM	610	N	GLN	L	41	28.990	0.618	34.737	1.00	54.63	N
ATOM	611	CA	GLN	L	41	29.155	0.025	33.434	1.00	54.67	C
ATOM	613	CB	GLN	L	41	29.875	-1.308	33.557	1.00	55.57	C
ATOM	616	CG	GLN	L	41	30.049	-2.048	32.229	1.00	53.36	C
ATOM	619	CD	GLN	L	41	30.362	-3.499	32.453	1.00	53.70	C
ATOM	620	OE1	GLN	L	41	29.614	-4.195	33.147	1.00	52.72	O
ATOM	621	NE2	GLN	L	41	31.475	-3.970	31.888	1.00	51.10	N
ATOM	624	C	GLN	L	41	27.777	-0.209	32.858	1.00	54.05	C
ATOM	625	O	GLN	L	41	26.922	-0.806	33.517	1.00	51.69	O
ATOM	627	N	GLN	L	42	27.572	0.264	31.631	1.00	53.51	N
ATOM	628	CA	GLN	L	42	26.314	0.057	30.930	1.00	54.34	C
ATOM	630	CB	GLN	L	42	25.576	1.373	30.724	1.00	53.62	C
ATOM	633	CG	GLN	L	42	24.115	1.187	30.355	1.00	53.29	C
ATOM	636	CD	GLN	L	42	23.380	2.504	30.159	1.00	53.05	C
ATOM	637	OE1	GLN	L	42	23.968	3.514	29.770	1.00	50.26	O
ATOM	638	NE2	GLN	L	42	22.085	2.494	30.428	1.00	52.99	N
ATOM	641	C	GLN	L	42	26.557	-0.621	29.587	1.00	55.48	C
ATOM	642	O	GLN	L	42	27.129	-0.025	28.665	1.00	53.27	O
ATOM	644	N	LYS	L	43	26.130	-1.883	29.516	1.00	56.31	N
ATOM	645	CA	LYS	L	43	26.078	-2.649	28.276	1.00	56.15	C

ATOM	647	CB	LYS	L	43	26.250	-4.164	28.556	1.00	55.36	C
ATOM	650	CG	LYS	L	43	27.711	-4.598	28.760	1.00	53.71	C
ATOM	653	CD	LYS	L	43	27.913	-5.546	29.935	1.00	55.52	C
ATOM	656	CE	LYS	L	43	27.712	-7.011	29.574	1.00	59.61	C
ATOM	659	NZ	LYS	L	43	28.948	-7.681	29.059	1.00	57.53	N
ATOM	663	C	LYS	L	43	24.734	-2.357	27.589	1.00	56.42	C
ATOM	664	O	LYS	L	43	23.745	-2.067	28.268	1.00	53.62	O
ATOM	666	N	PRO	L	44	24.692	-2.452	26.243	1.00	57.78	N
ATOM	667	CA	PRO	L	44	23.492	-2.110	25.457	1.00	58.18	C
ATOM	669	CB	PRO	L	44	23.914	-2.391	24.006	1.00	58.48	C
ATOM	672	CG	PRO	L	44	25.394	-2.517	24.022	1.00	59.46	C
ATOM	675	CD	PRO	L	44	25.793	-2.941	25.392	1.00	57.45	C
ATOM	678	C	PRO	L	44	22.281	-2.969	25.816	1.00	58.75	C
ATOM	679	O	PRO	L	44	22.401	-4.195	25.904	1.00	59.48	O
ATOM	680	N	GLY	L	45	21.136	-2.323	26.025	1.00	59.04	N
ATOM	681	CA	GLY	L	45	19.893	-3.011	26.401	1.00	58.61	C
ATOM	684	C	GLY	L	45	19.766	-3.393	27.873	1.00	59.15	C
ATOM	685	O	GLY	L	45	18.936	-4.240	28.227	1.00	58.77	O
ATOM	687	N	GLN	L	46	20.570	-2.764	28.734	1.00	59.18	N
ATOM	688	CA	GLN	L	46	20.612	-3.111	30.159	1.00	57.60	C
ATOM	690	CB	GLN	L	46	21.792	-4.048	30.456	1.00	59.08	C
ATOM	693	CG	GLN	L	46	21.709	-5.463	29.846	1.00	59.83	C
ATOM	696	CD	GLN	L	46	22.903	-6.341	30.225	1.00	58.60	C
ATOM	697	OE1	GLN	L	46	23.706	-5.988	31.088	1.00	60.97	O
ATOM	698	NE2	GLN	L	46	23.021	-7.485	29.574	1.00	60.99	N
ATOM	701	C	GLN	L	46	20.764	-1.878	31.037	1.00	56.58	C
ATOM	702	O	GLN	L	46	21.336	-0.865	30.616	1.00	56.23	O
ATOM	704	N	PRO	L	47	20.274	-1.964	32.278	1.00	55.72	N
ATOM	705	CA	PRO	L	47	20.547	-0.897	33.233	1.00	55.56	C
ATOM	707	CB	PRO	L	47	19.786	-1.332	34.485	1.00	54.62	C
ATOM	710	CG	PRO	L	47	19.575	-2.795	34.316	1.00	56.19	C
ATOM	713	CD	PRO	L	47	19.454	-3.036	32.860	1.00	55.23	C
ATOM	716	C	PRO	L	47	22.037	-0.821	33.542	1.00	55.18	C
ATOM	717	O	PRO	L	47	22.740	-1.821	33.402	1.00	53.89	O
ATOM	718	N	PRO	L	48	22.523	0.361	33.952	1.00	55.70	N
ATOM	719	CA	PRO	L	48	23.916	0.464	34.380	1.00	54.77	C
ATOM	721	CB	PRO	L	48	24.098	1.966	34.653	1.00	55.21	C
ATOM	724	CG	PRO	L	48	22.909	2.646	34.076	1.00	54.15	C
ATOM	727	CD	PRO	L	48	21.816	1.653	34.027	1.00	54.85	C
ATOM	730	C	PRO	L	48	24.207	-0.363	35.645	1.00	54.20	C
ATOM	731	O	PRO	L	48	23.395	-0.392	36.571	1.00	54.36	O
ATOM	732	N	LYS	L	49	25.365	-1.014	35.668	1.00	53.47	N
ATOM	733	CA	LYS	L	49	25.785	-1.850	36.787	1.00	52.96	C
ATOM	735	CB	LYS	L	49	26.279	-3.192	36.251	1.00	51.47	C
ATOM	738	CG	LYS	L	49	27.192	-3.954	37.162	1.00	53.42	C
ATOM	741	CD	LYS	L	49	27.500	-5.331	36.599	1.00	55.24	C
ATOM	744	CE	LYS	L	49	28.178	-6.217	37.636	1.00	58.11	C
ATOM	747	NZ	LYS	L	49	28.617	-7.519	37.073	1.00	60.19	N
ATOM	751	C	LYS	L	49	26.876	-1.114	37.555	1.00	52.05	C
ATOM	752	O	LYS	L	49	27.752	-0.520	36.956	1.00	53.68	O
ATOM	754	N	LEU	L	50	26.820	-1.140	38.880	1.00	52.75	N
ATOM	755	CA	LEU	L	50	27.820	-0.452	39.697	1.00	52.69	C
ATOM	757	CB	LEU	L	50	27.339	-0.263	41.136	1.00	50.73	C
ATOM	760	CG	LEU	L	50	28.370	0.307	42.123	1.00	52.58	C
ATOM	762	CD1	LEU	L	50	28.665	1.778	41.846	1.00	53.41	C
ATOM	766	CD2	LEU	L	50	27.902	0.138	43.556	1.00	53.16	C
ATOM	770	C	LEU	L	50	29.090	-1.258	39.725	1.00	54.47	C
ATOM	771	O	LEU	L	50	29.051	-2.478	39.870	1.00	58.94	O
ATOM	773	N	LEU	L	51	30.219	-0.573	39.618	1.00	54.92	N
ATOM	774	CA	LEU	L	51	31.510	-1.224	39.711	1.00	54.54	C
ATOM	776	CB	LEU	L	51	32.375	-0.838	38.516	1.00	55.15	C
ATOM	779	CG	LEU	L	51	31.728	-1.006	37.149	1.00	55.63	C
ATOM	781	CD1	LEU	L	51	32.640	-0.455	36.054	1.00	55.55	C

ATOM	785	CD2	LEU	L	51	31.406	-2.475	36.924	1.00	56.89	C
ATOM	789	C	LEU	L	51	32.213	-0.812	40.985	1.00	54.28	C
ATOM	790	O	LEU	L	51	32.670	-1.653	41.759	1.00	54.65	O
ATOM	792	N	ILE	L	52	32.316	0.496	41.185	1.00	54.53	N
ATOM	793	CA	ILE	L	52	33.220	1.047	42.178	1.00	54.82	C
ATOM	795	CB	ILE	L	52	34.519	1.569	41.507	1.00	54.75	C
ATOM	797	CG1	ILE	L	52	35.289	0.370	40.943	1.00	57.46	C
ATOM	800	CD1	ILE	L	52	36.673	0.673	40.438	1.00	58.45	C
ATOM	804	CG2	ILE	L	52	35.380	2.374	42.503	1.00	54.63	C
ATOM	808	C	ILE	L	52	32.516	2.165	42.896	1.00	54.44	C
ATOM	809	O	ILE	L	52	31.845	2.987	42.258	1.00	55.52	O
ATOM	811	N	TYR	L	53	32.665	2.198	44.217	1.00	52.02	N
ATOM	812	CA	TYR	L	53	32.032	3.238	45.010	1.00	51.95	C
ATOM	814	CB	TYR	L	53	30.764	2.719	45.712	1.00	50.42	C
ATOM	817	CG	TYR	L	53	30.967	1.600	46.698	1.00	50.94	C
ATOM	818	CD1	TYR	L	53	31.235	0.307	46.276	1.00	55.87	C
ATOM	820	CE1	TYR	L	53	31.407	-0.733	47.193	1.00	52.11	C
ATOM	822	CZ	TYR	L	53	31.304	-0.477	48.536	1.00	49.69	C
ATOM	823	OH	TYR	L	53	31.480	-1.495	49.450	1.00	51.98	O
ATOM	825	CE2	TYR	L	53	31.030	0.796	48.975	1.00	52.89	C
ATOM	827	CD2	TYR	L	53	30.861	1.824	48.060	1.00	55.48	C
ATOM	829	C	TYR	L	53	33.005	3.879	45.993	1.00	52.42	C
ATOM	830	O	TYR	L	53	33.951	3.247	46.467	1.00	51.02	O
ATOM	832	N	LEU	L	54	32.750	5.156	46.271	1.00	53.74	N
ATOM	833	CA	LEU	L	54	33.614	5.992	47.098	1.00	52.49	C
ATOM	835	CB	LEU	L	54	33.585	5.540	48.567	1.00	53.60	C
ATOM	838	CG	LEU	L	54	32.180	5.580	49.210	1.00	55.04	C
ATOM	840	CD1	LEU	L	54	32.172	4.913	50.550	1.00	57.98	C
ATOM	844	CD2	LEU	L	54	31.673	7.004	49.372	1.00	59.12	C
ATOM	848	C	LEU	L	54	34.999	5.963	46.482	1.00	52.10	C
ATOM	849	O	LEU	L	54	36.005	5.752	47.154	1.00	53.39	O
ATOM	851	N	ALA	L	55	35.011	6.134	45.164	1.00	51.42	N
ATOM	852	CA	ALA	L	55	36.227	6.322	44.385	1.00	51.30	C
ATOM	854	CB	ALA	L	55	37.083	7.447	44.977	1.00	50.70	C
ATOM	858	C	ALA	L	55	37.070	5.065	44.175	1.00	51.24	C
ATOM	859	O	ALA	L	55	37.636	4.884	43.082	1.00	51.52	O
ATOM	861	N	SER	L	56	37.182	4.209	45.192	1.00	49.46	N
ATOM	862	CA	SER	L	56	38.076	3.058	45.070	1.00	48.46	C
ATOM	864	CB	SER	L	56	39.380	3.391	45.750	1.00	45.78	C
ATOM	867	OG	SER	L	56	39.173	3.416	47.136	1.00	54.02	O
ATOM	869	C	SER	L	56	37.590	1.701	45.585	1.00	45.99	C
ATOM	870	O	SER	L	56	38.285	0.731	45.387	1.00	43.02	O
ATOM	872	N	ILE	L	57	36.424	1.613	46.219	1.00	46.73	N
ATOM	873	CA	ILE	L	57	35.975	0.337	46.785	1.00	48.73	C
ATOM	875	CB	ILE	L	57	35.035	0.517	48.001	1.00	48.71	C
ATOM	877	CG1	ILE	L	57	35.658	1.431	49.061	1.00	46.23	C
ATOM	880	CD1	ILE	L	57	34.633	2.004	50.033	1.00	47.63	C
ATOM	884	CG2	ILE	L	57	34.711	-0.831	48.638	1.00	46.23	C
ATOM	888	C	ILE	L	57	35.263	-0.492	45.719	1.00	50.97	C
ATOM	889	O	ILE	L	57	34.290	-0.038	45.117	1.00	54.06	O
ATOM	891	N	LEU	L	58	35.757	-1.711	45.504	1.00	52.60	N
ATOM	892	CA	LEU	L	58	35.239	-2.614	44.471	1.00	52.11	C
ATOM	894	CB	LEU	L	58	36.251	-3.749	44.215	1.00	51.36	C
ATOM	897	CG	LEU	L	58	35.855	-4.852	43.215	1.00	53.01	C
ATOM	899	CD1	LEU	L	58	35.603	-4.276	41.810	1.00	52.83	C
ATOM	903	CD2	LEU	L	58	36.895	-5.968	43.155	1.00	51.72	C
ATOM	907	C	LEU	L	58	33.910	-3.224	44.910	1.00	52.58	C
ATOM	908	O	LEU	L	58	33.845	-3.879	45.946	1.00	51.89	O
ATOM	910	N	GLU	L	59	32.859	-3.019	44.123	1.00	52.83	N
ATOM	911	CA	GLU	L	59	31.572	-3.654	44.406	1.00	54.04	C
ATOM	913	CB	GLU	L	59	30.503	-3.169	43.416	1.00	53.52	C
ATOM	916	CG	GLU	L	59	29.182	-3.929	43.421	1.00	55.28	C
ATOM	919	CD	GLU	L	59	28.447	-3.865	44.737	1.00	56.48	C

ATOM	920	OE1	GLU	L	59	29.054	-4.202	45.765	1.00	62.78	O
ATOM	921	OE2	GLU	L	59	27.251	-3.508	44.747	1.00	51.37	O
ATOM	922	C	GLU	L	59	31.731	-5.182	44.357	1.00	54.60	C
ATOM	923	O	GLU	L	59	32.406	-5.706	43.476	1.00	54.40	O
ATOM	925	N	SER	L	60	31.126	-5.897	45.302	1.00	54.98	N
ATOM	926	CA	SER	L	60	31.310	-7.346	45.343	1.00	56.20	C
ATOM	928	CB	SER	L	60	30.816	-7.948	46.654	1.00	55.93	C
ATOM	931	OG	SER	L	60	29.428	-7.786	46.784	1.00	61.09	O
ATOM	933	C	SER	L	60	30.612	-7.982	44.148	1.00	56.93	C
ATOM	934	O	SER	L	60	29.554	-7.514	43.718	1.00	58.44	O
ATOM	936	N	GLY	L	61	31.242	-9.019	43.599	1.00	55.93	N
ATOM	937	CA	GLY	L	61	30.791	-9.643	42.362	1.00	56.18	C
ATOM	940	C	GLY	L	61	31.531	-9.138	41.137	1.00	57.25	C
ATOM	941	O	GLY	L	61	31.611	-9.831	40.119	1.00	58.16	O
ATOM	943	N	VAL	L	62	32.078	-7.931	41.231	1.00	56.14	N
ATOM	944	CA	VAL	L	62	32.753	-7.324	40.108	1.00	54.63	C
ATOM	946	CB	VAL	L	62	32.793	-5.810	40.256	1.00	55.58	C
ATOM	948	CG1	VAL	L	62	33.562	-5.168	39.093	1.00	55.66	C
ATOM	952	CG2	VAL	L	62	31.363	-5.271	40.332	1.00	55.35	C
ATOM	956	C	VAL	L	62	34.164	-7.854	40.031	1.00	53.37	C
ATOM	957	O	VAL	L	62	34.857	-7.854	41.034	1.00	51.85	O
ATOM	959	N	PRO	L	63	34.592	-8.315	38.838	1.00	55.14	N
ATOM	960	CA	PRO	L	63	35.972	-8.764	38.607	1.00	54.76	C
ATOM	962	CB	PRO	L	63	36.043	-8.909	37.080	1.00	54.50	C
ATOM	965	CG	PRO	L	63	34.656	-9.189	36.661	1.00	53.15	C
ATOM	968	CD	PRO	L	63	33.763	-8.463	37.622	1.00	55.43	C
ATOM	971	C	PRO	L	63	37.023	-7.760	39.082	1.00	54.42	C
ATOM	972	O	PRO	L	63	36.939	-6.572	38.758	1.00	52.19	O
ATOM	973	N	ASP	L	64	38.022	-8.245	39.815	1.00	55.17	N
ATOM	974	CA	ASP	L	64	39.014	-7.358	40.429	1.00	56.09	C
ATOM	976	CB	ASP	L	64	39.777	-8.076	41.563	1.00	56.48	C
ATOM	979	CG	ASP	L	64	40.622	-9.238	41.070	1.00	60.55	C
ATOM	980	OD1	ASP	L	64	40.635	-9.506	39.846	1.00	63.87	O
ATOM	981	OD2	ASP	L	64	41.281	-9.885	41.918	1.00	63.35	O
ATOM	982	C	ASP	L	64	39.989	-6.707	39.429	1.00	55.97	C
ATOM	983	O	ASP	L	64	40.889	-5.976	39.844	1.00	56.53	O
ATOM	985	N	ARG	L	65	39.820	-6.959	38.130	1.00	55.08	N
ATOM	986	CA	ARG	L	65	40.575	-6.212	37.119	1.00	54.31	C
ATOM	988	CB	ARG	L	65	40.439	-6.834	35.728	1.00	52.42	C
ATOM	991	CG	ARG	L	65	39.017	-7.000	35.212	1.00	54.44	C
ATOM	994	CD	ARG	L	65	39.026	-7.328	33.713	1.00	54.08	C
ATOM	997	NE	ARG	L	65	37.712	-7.686	33.170	1.00	54.88	N
ATOM	999	CZ	ARG	L	65	37.099	-8.857	33.364	1.00	54.31	C
ATOM	1000	NH1	ARG	L	65	37.643	-9.801	34.128	1.00	55.55	N
ATOM	1003	NH2	ARG	L	65	35.912	-9.083	32.812	1.00	51.57	N
ATOM	1006	C	ARG	L	65	40.142	-4.742	37.114	1.00	54.34	C
ATOM	1007	O	ARG	L	65	40.948	-3.841	36.830	1.00	54.86	O
ATOM	1009	N	PHE	L	66	38.872	-4.514	37.437	1.00	53.05	N
ATOM	1010	CA	PHE	L	66	38.350	-3.163	37.606	1.00	53.28	C
ATOM	1012	CB	PHE	L	66	36.818	-3.168	37.667	1.00	52.13	C
ATOM	1015	CG	PHE	L	66	36.171	-3.510	36.361	1.00	51.63	C
ATOM	1016	CD1	PHE	L	66	36.048	-2.557	35.367	1.00	54.90	C
ATOM	1018	CE1	PHE	L	66	35.467	-2.873	34.132	1.00	54.83	C
ATOM	1020	CZ	PHE	L	66	35.001	-4.155	33.895	1.00	54.18	C
ATOM	1022	CE2	PHE	L	66	35.125	-5.120	34.879	1.00	53.41	C
ATOM	1024	CD2	PHE	L	66	35.713	-4.795	36.107	1.00	55.89	C
ATOM	1026	C	PHE	L	66	38.924	-2.543	38.870	1.00	53.24	C
ATOM	1027	O	PHE	L	66	38.996	-3.196	39.904	1.00	56.75	O
ATOM	1029	N	SER	L	67	39.353	-1.290	38.775	1.00	52.30	N
ATOM	1030	CA	SER	L	67	39.835	-0.552	39.934	1.00	51.60	C
ATOM	1032	CB	SER	L	67	41.269	-0.950	40.274	1.00	50.46	C
ATOM	1035	OG	SER	L	67	42.206	-0.173	39.561	1.00	50.17	O
ATOM	1037	C	SER	L	67	39.770	0.949	39.672	1.00	52.16	C

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ATOM   1038  O   SER L  67      39.894   1.387  38.524  1.00 53.02           O
ATOM   1040  N   GLY L  68      39.593   1.720  40.747  1.00 50.97           N
ATOM   1041  CA  GLY L  68      39.509   3.164  40.666  1.00 50.80           C
ATOM   1044  C   GLY L  68      40.435   3.896  41.620  1.00 50.07           C
ATOM   1045  O   GLY L  68      40.438   3.624  42.797  1.00 49.95           O
ATOM   1047  N   SER L  69      41.211   4.840  41.096  1.00 50.99           N
ATOM   1048  CA  SER L  69      42.014   5.742  41.908  1.00 51.86           C
ATOM   1050  CB  SER L  69      43.482   5.696  41.460  1.00 53.01           C
ATOM   1053  OG  SER L  69      43.613   5.878  40.055  1.00 58.20           O
ATOM   1055  C   SER L  69      41.504   7.178  41.796  1.00 52.61           C
ATOM   1056  O   SER L  69      40.693   7.507  40.922  1.00 51.85           O
ATOM   1058  N   GLY L  70      41.990   8.029  42.693  1.00 53.58           N
ATOM   1059  CA  GLY L  70      41.774   9.462  42.591  1.00 54.01           C
ATOM   1062  C   GLY L  70      41.381  10.140  43.883  1.00 55.34           C
ATOM   1063  O   GLY L  70      40.934   9.500  44.832  1.00 56.33           O
ATOM   1065  N   SER L  71      41.550  11.456  43.910  1.00 55.88           N
ATOM   1066  CA  SER L  71      41.042  12.264  44.998  1.00 54.92           C
ATOM   1068  CB  SER L  71      42.030  12.304  46.154  1.00 53.23           C
ATOM   1071  OG  SER L  71      42.895  13.411  46.004  1.00 55.47           O
ATOM   1073  C   SER L  71      40.809  13.678  44.516  1.00 55.33           C
ATOM   1074  O   SER L  71      41.396  14.127  43.526  1.00 51.70           O
ATOM   1076  N   GLY L  72      39.958  14.376  45.259  1.00 57.11           N
ATOM   1077  CA  GLY L  72      39.703  15.780  45.026  1.00 56.11           C
ATOM   1080  C   GLY L  72      38.845  15.924  43.805  1.00 56.31           C
ATOM   1081  O   GLY L  72      37.622  15.848  43.887  1.00 55.82           O
ATOM   1083  N   THR L  73      39.506  16.101  42.666  1.00 56.80           N
ATOM   1084  CA  THR L  73      38.834  16.488  41.434  1.00 55.61           C
ATOM   1086  CB  THR L  73      39.063  17.975  41.191  1.00 53.26           C
ATOM   1088  OG1 THR L  73      38.041  18.470  40.323  1.00 56.96           O
ATOM   1090  CG2 THR L  73      40.459  18.239  40.604  1.00 54.07           C
ATOM   1094  C   THR L  73      39.220  15.665  40.184  1.00 56.76           C
ATOM   1095  O   THR L  73      38.537  15.751  39.160  1.00 57.24           O
ATOM   1097  N   ASP L  74      40.301  14.883  40.268  1.00 57.91           N
ATOM   1098  CA  ASP L  74      40.699  13.944  39.206  1.00 56.78           C
ATOM   1100  CB  ASP L  74      42.155  14.184  38.788  1.00 56.63           C
ATOM   1103  CG  ASP L  74      42.380  15.589  38.276  1.00 62.56           C
ATOM   1104  OD1 ASP L  74      41.382  16.236  37.885  1.00 67.01           O
ATOM   1105  OD2 ASP L  74      43.543  16.058  38.276  1.00 69.21           O
ATOM   1106  C   ASP L  74      40.524  12.506  39.679  1.00 54.43           C
ATOM   1107  O   ASP L  74      41.003  12.145  40.752  1.00 52.01           O
ATOM   1109  N   PHE L  75      39.830  11.705  38.871  1.00 53.34           N
ATOM   1110  CA  PHE L  75      39.566  10.303  39.179  1.00 54.81           C
ATOM   1112  CB  PHE L  75      38.153  10.143  39.747  1.00 54.75           C
ATOM   1115  CG  PHE L  75      37.943  10.945  40.993  1.00 55.33           C
ATOM   1116  CD1 PHE L  75      38.329  10.436  42.229  1.00 53.87           C
ATOM   1118  CE1 PHE L  75      38.190  11.192  43.379  1.00 55.62           C
ATOM   1120  CZ  PHE L  75      37.674  12.474  43.299  1.00 58.22           C
ATOM   1122  CE2 PHE L  75      37.306  13.002  42.061  1.00 56.85           C
ATOM   1124  CD2 PHE L  75      37.447  12.242  40.923  1.00 54.25           C
ATOM   1126  C   PHE L  75      39.778   9.442  37.952  1.00 55.41           C
ATOM   1127  O   PHE L  75      39.706   9.936  36.827  1.00 57.09           O
ATOM   1129  N   THR L  76      40.075   8.160  38.171  1.00 56.45           N
ATOM   1130  CA  THR L  76      40.349   7.236  37.071  1.00 56.24           C
ATOM   1132  CB  THR L  76      41.850   7.129  36.813  1.00 55.71           C
ATOM   1134  OG1 THR L  76      42.326   8.371  36.292  1.00 58.96           O
ATOM   1136  CG2 THR L  76      42.149   6.039  35.803  1.00 56.70           C
ATOM   1140  C   THR L  76      39.811   5.834  37.314  1.00 55.99           C
ATOM   1141  O   THR L  76      40.001   5.282  38.392  1.00 54.19           O
ATOM   1143  N   LEU L  77      39.144   5.282  36.296  1.00 56.24           N
ATOM   1144  CA  LEU L  77      38.793   3.861  36.240  1.00 56.68           C
ATOM   1146  CB  LEU L  77      37.398   3.643  35.652  1.00 57.76           C
ATOM   1149  CG  LEU L  77      36.938   2.191  35.464  1.00 56.37           C
ATOM   1151  CD1 LEU L  77      36.778   1.512  36.825  1.00 57.33           C
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ATOM	1155	CD2	LEU	L	77	35.629	2.131	34.679	1.00	55.93	C
ATOM	1159	C	LEU	L	77	39.798	3.151	35.354	1.00	57.54	C
ATOM	1160	O	LEU	L	77	39.987	3.527	34.190	1.00	57.34	O
ATOM	1162	N	THR	L	78	40.421	2.115	35.913	1.00	57.49	N
ATOM	1163	CA	THR	L	78	41.395	1.305	35.207	1.00	56.32	C
ATOM	1165	CB	THR	L	78	42.728	1.237	35.996	1.00	56.02	C
ATOM	1167	OG1	THR	L	78	42.882	2.421	36.795	1.00	56.83	O
ATOM	1169	CG2	THR	L	78	43.919	1.090	35.050	1.00	54.58	C
ATOM	1173	C	THR	L	78	40.822	-0.099	35.047	1.00	55.35	C
ATOM	1174	O	THR	L	78	40.325	-0.686	36.009	1.00	52.97	O
ATOM	1176	N	ILE	L	79	40.862	-0.614	33.824	1.00	56.31	N
ATOM	1177	CA	ILE	L	79	40.559	-2.019	33.563	1.00	57.74	C
ATOM	1179	CB	ILE	L	79	39.515	-2.182	32.437	1.00	57.50	C
ATOM	1181	CG1	ILE	L	79	38.312	-1.279	32.681	1.00	58.13	C
ATOM	1184	CD1	ILE	L	79	37.322	-1.310	31.537	1.00	59.88	C
ATOM	1188	CG2	ILE	L	79	39.043	-3.629	32.344	1.00	58.10	C
ATOM	1192	C	ILE	L	79	41.862	-2.732	33.174	1.00	57.37	C
ATOM	1193	O	ILE	L	79	42.293	-2.666	32.025	1.00	57.31	O
ATOM	1195	N	SER	L	80	42.492	-3.394	34.142	1.00	57.69	N
ATOM	1196	CA	SER	L	80	43.743	-4.124	33.900	1.00	58.45	C
ATOM	1198	CB	SER	L	80	44.406	-4.469	35.236	1.00	60.09	C
ATOM	1201	OG	SER	L	80	43.535	-5.250	36.052	1.00	61.16	O
ATOM	1203	C	SER	L	80	43.466	-5.414	33.129	1.00	57.69	C
ATOM	1204	O	SER	L	80	42.903	-6.347	33.683	1.00	60.35	O
ATOM	1206	N	SER	L	81	43.863	-5.480	31.866	1.00	55.77	N
ATOM	1207	CA	SER	L	81	43.448	-6.579	30.983	1.00	56.09	C
ATOM	1209	CB	SER	L	81	43.730	-7.954	31.600	1.00	55.99	C
ATOM	1212	OG	SER	L	81	43.447	-8.988	30.672	1.00	57.68	O
ATOM	1214	C	SER	L	81	41.965	-6.478	30.593	1.00	56.33	C
ATOM	1215	O	SER	L	81	41.072	-6.848	31.365	1.00	55.73	O
ATOM	1217	N	LEU	L	82	41.717	-5.984	29.381	1.00	55.01	N
ATOM	1218	CA	LEU	L	82	40.366	-5.842	28.868	1.00	54.17	C
ATOM	1220	CB	LEU	L	82	40.338	-4.758	27.789	1.00	53.78	C
ATOM	1223	CG	LEU	L	82	38.957	-4.295	27.329	1.00	53.78	C
ATOM	1225	CD1	LEU	L	82	38.201	-3.652	28.482	1.00	56.84	C
ATOM	1229	CD2	LEU	L	82	39.076	-3.328	26.174	1.00	52.87	C
ATOM	1233	C	LEU	L	82	39.868	-7.170	28.297	1.00	53.85	C
ATOM	1234	O	LEU	L	82	40.520	-7.756	27.437	1.00	52.59	O
ATOM	1236	N	GLN	L	83	38.725	-7.644	28.790	1.00	53.69	N
ATOM	1237	CA	GLN	L	83	38.078	-8.838	28.248	1.00	53.93	C
ATOM	1239	CB	GLN	L	83	37.446	-9.687	29.357	1.00	54.98	C
ATOM	1242	CG	GLN	L	83	38.363	-10.000	30.530	1.00	53.38	C
ATOM	1245	CD	GLN	L	83	39.648	-10.627	30.088	1.00	52.37	C
ATOM	1246	OE1	GLN	L	83	39.654	-11.708	29.496	1.00	51.82	O
ATOM	1247	NE2	GLN	L	83	40.754	-9.944	30.354	1.00	51.44	N
ATOM	1250	C	GLN	L	83	37.002	-8.431	27.261	1.00	53.94	C
ATOM	1251	O	GLN	L	83	36.553	-7.283	27.255	1.00	53.65	O
ATOM	1253	N	ALA	L	84	36.579	-9.389	26.443	1.00	54.11	N
ATOM	1254	CA	ALA	L	84	35.666	-9.110	25.338	1.00	54.22	C
ATOM	1256	CB	ALA	L	84	35.546	-10.315	24.420	1.00	53.53	C
ATOM	1260	C	ALA	L	84	34.285	-8.669	25.803	1.00	54.33	C
ATOM	1261	O	ALA	L	84	33.653	-7.865	25.129	1.00	54.33	O
ATOM	1263	N	GLU	L	85	33.811	-9.193	26.934	1.00	55.23	N
ATOM	1264	CA	GLU	L	85	32.492	-8.790	27.459	1.00	55.73	C
ATOM	1266	CB	GLU	L	85	31.920	-9.806	28.463	1.00	56.15	C
ATOM	1269	CG	GLU	L	85	32.596	-9.858	29.826	1.00	57.31	C
ATOM	1272	CD	GLU	L	85	33.534	-11.041	29.972	1.00	62.41	C
ATOM	1273	OE1	GLU	L	85	34.372	-11.272	29.069	1.00	68.87	O
ATOM	1274	OE2	GLU	L	85	33.433	-11.741	30.999	1.00	60.61	O
ATOM	1275	C	GLU	L	85	32.502	-7.397	28.085	1.00	55.79	C
ATOM	1276	O	GLU	L	85	31.454	-6.760	28.161	1.00	57.71	O
ATOM	1278	N	ASP	L	86	33.677	-6.929	28.508	1.00	54.50	N
ATOM	1279	CA	ASP	L	86	33.827	-5.597	29.099	1.00	54.34	C

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ATOM   1281  CB  ASP L  86      35.249  -5.401  29.609  1.00 53.96           C
ATOM   1284  CG  ASP L  86      35.595  -6.355  30.708  1.00 56.40           C
ATOM   1285  OD1 ASP L  86      34.724  -6.610  31.562  1.00 64.93           O
ATOM   1286  OD2 ASP L  86      36.733  -6.857  30.728  1.00 58.96           O
ATOM   1287  C   ASP L  86      33.476  -4.445  28.153  1.00 54.52           C
ATOM   1288  O   ASP L  86      33.398  -3.285  28.576  1.00 54.01           O
ATOM   1290  N   VAL L  87      33.273  -4.760  26.877  1.00 54.56           N
ATOM   1291  CA  VAL L  87      32.835  -3.771  25.904  1.00 53.80           C
ATOM   1293  CB  VAL L  87      32.765  -4.375  24.477  1.00 53.26           C
ATOM   1295  CG1 VAL L  87      31.578  -5.327  24.328  1.00 54.94           C
ATOM   1299  CG2 VAL L  87      32.715  -3.280  23.444  1.00 55.38           C
ATOM   1303  C   VAL L  87      31.496  -3.157  26.354  1.00 52.87           C
ATOM   1304  O   VAL L  87      30.475  -3.841  26.512  1.00 50.81           O
ATOM   1306  N   ALA L  88      31.539  -1.853  26.591  1.00 52.72           N
ATOM   1307  CA  ALA L  88      30.429  -1.151  27.203  1.00 52.43           C
ATOM   1309  CB  ALA L  88      30.253  -1.623  28.628  1.00 51.93           C
ATOM   1313  C   ALA L  88      30.665   0.360  27.174  1.00 53.06           C
ATOM   1314  O   ALA L  88      31.712   0.835  26.701  1.00 53.38           O
ATOM   1316  N   VAL L  89      29.670   1.103  27.656  1.00 52.34           N
ATOM   1317  CA  VAL L  89      29.796   2.526  27.901  1.00 51.67           C
ATOM   1319  CB  VAL L  89      28.554   3.296  27.406  1.00 50.95           C
ATOM   1321  CG1 VAL L  89      28.652   4.761  27.771  1.00 52.81           C
ATOM   1325  CG2 VAL L  89      28.397   3.147  25.910  1.00 49.54           C
ATOM   1329  C   VAL L  89      29.939   2.671  29.406  1.00 51.58           C
ATOM   1330  O   VAL L  89      29.047   2.274  30.150  1.00 54.46           O
ATOM   1332  N   TYR L  90      31.062   3.221  29.854  1.00 51.52           N
ATOM   1333  CA  TYR L  90      31.337   3.371  31.287  1.00 52.57           C
ATOM   1335  CB  TYR L  90      32.797   2.993  31.593  1.00 51.47           C
ATOM   1338  CG  TYR L  90      33.051   1.510  31.450  1.00 50.52           C
ATOM   1339  CD1 TYR L  90      33.177   0.923  30.199  1.00 49.13           C
ATOM   1341  CE1 TYR L  90      33.379  -0.434  30.060  1.00 47.35           C
ATOM   1343  CZ  TYR L  90      33.454  -1.223  31.179  1.00 50.51           C
ATOM   1344  OH  TYR L  90      33.656  -2.579  31.067  1.00 51.12           O
ATOM   1346  CE2 TYR L  90      33.326  -0.664  32.436  1.00 51.36           C
ATOM   1348  CD2 TYR L  90      33.123   0.691  32.563  1.00 52.08           C
ATOM   1350  C   TYR L  90      31.017   4.800  31.735  1.00 52.63           C
ATOM   1351  O   TYR L  90      31.328   5.757  31.026  1.00 51.70           O
ATOM   1353  N   TYR L  91      30.395   4.931  32.908  1.00 53.91           N
ATOM   1354  CA  TYR L  91      29.901   6.223  33.403  1.00 55.09           C
ATOM   1356  CB  TYR L  91      28.380   6.213  33.507  1.00 54.71           C
ATOM   1359  CG  TYR L  91      27.641   6.358  32.204  1.00 54.89           C
ATOM   1360  CD1 TYR L  91      27.461   7.605  31.624  1.00 48.90           C
ATOM   1362  CE1 TYR L  91      26.765   7.739  30.446  1.00 49.97           C
ATOM   1364  CZ  TYR L  91      26.234   6.620  29.841  1.00 53.05           C
ATOM   1365  OH  TYR L  91      25.543   6.738  28.664  1.00 53.94           O
ATOM   1367  CE2 TYR L  91      26.399   5.369  30.402  1.00 54.39           C
ATOM   1369  CD2 TYR L  91      27.091   5.245  31.572  1.00 53.31           C
ATOM   1371  C   TYR L  91      30.426   6.628  34.777  1.00 56.54           C
ATOM   1372  O   TYR L  91      30.550   5.811  35.689  1.00 58.18           O
ATOM   1374  N   CYS L  92      30.617   7.932  34.919  1.00 58.34           N
ATOM   1375  CA  CYS L  92      31.134   8.568  36.109  1.00 57.04           C
ATOM   1377  CB  CYS L  92      32.105   9.636  35.634  1.00 59.10           C
ATOM   1380  SG  CYS L  92      33.016  10.328  36.933  1.00 67.16           S
ATOM   1382  C   CYS L  92      30.003   9.246  36.883  1.00 56.04           C
ATOM   1383  O   CYS L  92      29.027   9.666  36.277  1.00 55.74           O
ATOM   1385  N   GLN L  93      30.132   9.382  38.203  1.00 56.50           N
ATOM   1386  CA  GLN L  93      29.059   9.990  39.034  1.00 55.53           C
ATOM   1388  CB  GLN L  93      27.924   8.993  39.245  1.00 55.82           C
ATOM   1391  CG  GLN L  93      26.676   9.548  39.958  1.00 57.20           C
ATOM   1394  CD  GLN L  93      26.391   8.920  41.317  1.00 54.95           C
ATOM   1395  OE1 GLN L  93      26.866   7.832  41.633  1.00 56.37           O
ATOM   1396  NE2 GLN L  93      25.590   9.602  42.118  1.00 51.50           N
ATOM   1399  C   GLN L  93      29.556  10.425  40.392  1.00 54.46           C
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ATOM	1400	O	GLN	L	93	30.358	9.728	41.004	1.00	57.26	O
ATOM	1402	N	HIS	L	94	29.057	11.557	40.873	1.00	52.91	N
ATOM	1403	CA	HIS	L	94	29.462	12.089	42.177	1.00	53.90	C
ATOM	1405	CB	HIS	L	94	30.100	13.471	42.020	1.00	54.57	C
ATOM	1408	CG	HIS	L	94	29.098	14.584	42.006	1.00	54.75	C
ATOM	1409	ND1	HIS	L	94	28.735	15.275	43.141	1.00	54.59	N
ATOM	1411	CE1	HIS	L	94	27.801	16.157	42.835	1.00	59.25	C
ATOM	1413	NE2	HIS	L	94	27.536	16.057	41.545	1.00	57.68	N
ATOM	1415	CD2	HIS	L	94	28.326	15.072	41.006	1.00	57.78	C
ATOM	1417	C	HIS	L	94	28.270	12.245	43.108	1.00	53.25	C
ATOM	1418	O	HIS	L	94	27.114	12.181	42.681	1.00	53.22	O
ATOM	1420	N	SER	L	95	28.553	12.512	44.377	1.00	53.15	N
ATOM	1421	CA	SER	L	95	27.498	12.890	45.310	1.00	53.23	C
ATOM	1423	CB	SER	L	95	26.858	11.636	45.923	1.00	52.60	C
ATOM	1426	OG	SER	L	95	27.766	10.992	46.812	1.00	49.79	O
ATOM	1428	C	SER	L	95	27.990	13.815	46.420	1.00	52.80	C
ATOM	1429	O	SER	L	95	27.553	13.695	47.551	1.00	56.31	O
ATOM	1431	N	ARG	L	96	28.895	14.734	46.125	1.00	52.61	N
ATOM	1432	CA	ARG	L	96	29.294	15.716	47.141	1.00	53.47	C
ATOM	1434	CB	ARG	L	96	30.408	16.624	46.612	1.00	53.66	C
ATOM	1437	CG	ARG	L	96	30.862	17.705	47.579	1.00	52.95	C
ATOM	1440	CD	ARG	L	96	31.613	17.142	48.764	1.00	52.49	C
ATOM	1443	NE	ARG	L	96	31.892	18.199	49.731	1.00	53.39	N
ATOM	1445	CZ	ARG	L	96	31.053	18.604	50.685	1.00	53.34	C
ATOM	1446	NH1	ARG	L	96	29.860	18.041	50.847	1.00	58.89	N
ATOM	1449	NH2	ARG	L	96	31.417	19.579	51.502	1.00	52.87	N
ATOM	1452	C	ARG	L	96	28.091	16.562	47.590	1.00	52.41	C
ATOM	1453	O	ARG	L	96	27.918	16.836	48.768	1.00	51.51	O
ATOM	1455	N	GLU	L	97	27.269	16.966	46.638	1.00	52.07	N
ATOM	1456	CA	GLU	L	97	26.111	17.784	46.920	1.00	53.05	C
ATOM	1458	CB	GLU	L	97	26.489	19.267	46.838	1.00	54.44	C
ATOM	1461	CG	GLU	L	97	27.058	19.715	45.483	1.00	56.59	C
ATOM	1464	CD	GLU	L	97	27.644	21.116	45.533	1.00	58.43	C
ATOM	1465	OE1	GLU	L	97	28.282	21.450	46.554	1.00	66.43	O
ATOM	1466	OE2	GLU	L	97	27.479	21.886	44.553	1.00	65.22	O
ATOM	1467	C	GLU	L	97	25.064	17.454	45.883	1.00	51.91	C
ATOM	1468	O	GLU	L	97	25.316	16.638	44.997	1.00	51.93	O
ATOM	1470	N	LEU	L	98	23.898	18.083	45.986	1.00	50.34	N
ATOM	1471	CA	LEU	L	98	22.882	17.940	44.954	1.00	50.49	C
ATOM	1473	CB	LEU	L	98	21.472	17.987	45.536	1.00	49.48	C
ATOM	1476	CG	LEU	L	98	20.804	16.641	45.764	1.00	51.33	C
ATOM	1478	CD1	LEU	L	98	21.548	15.886	46.827	1.00	56.91	C
ATOM	1482	CD2	LEU	L	98	19.358	16.837	46.171	1.00	52.44	C
ATOM	1486	C	LEU	L	98	23.050	19.041	43.928	1.00	49.66	C
ATOM	1487	O	LEU	L	98	23.513	20.137	44.274	1.00	51.20	O
ATOM	1489	N	PRO	L	99	22.670	18.760	42.661	1.00	48.26	N
ATOM	1490	CA	PRO	L	99	22.170	17.476	42.177	1.00	49.09	C
ATOM	1492	CB	PRO	L	99	21.466	17.835	40.865	1.00	49.32	C
ATOM	1495	CG	PRO	L	99	21.617	19.295	40.678	1.00	46.87	C
ATOM	1498	CD	PRO	L	99	22.699	19.752	41.579	1.00	47.57	C
ATOM	1501	C	PRO	L	99	23.263	16.452	41.889	1.00	49.51	C
ATOM	1502	O	PRO	L	99	24.367	16.799	41.485	1.00	50.96	O
ATOM	1503	N	TRP	L	100	22.925	15.188	42.088	1.00	50.14	N
ATOM	1504	CA	TRP	L	100	23.827	14.090	41.797	1.00	49.90	C
ATOM	1506	CB	TRP	L	100	23.315	12.817	42.465	1.00	49.58	C
ATOM	1509	CG	TRP	L	100	23.201	12.960	43.949	1.00	52.10	C
ATOM	1510	CD1	TRP	L	100	24.033	13.666	44.770	1.00	56.37	C
ATOM	1512	NE1	TRP	L	100	23.630	13.554	46.074	1.00	55.05	N
ATOM	1514	CE2	TRP	L	100	22.519	12.758	46.117	1.00	52.25	C
ATOM	1515	CD2	TRP	L	100	22.223	12.365	44.797	1.00	53.05	C
ATOM	1516	CE3	TRP	L	100	21.127	11.533	44.570	1.00	54.95	C
ATOM	1518	CZ3	TRP	L	100	20.376	11.137	45.641	1.00	55.55	C
ATOM	1520	CH2	TRP	L	100	20.692	11.550	46.944	1.00	54.45	C

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ATOM   1522  CZ2 TRP L 100      21.756  12.362  47.197  1.00 49.52           C
ATOM   1524  C   TRP L 100      23.961  13.919  40.279  1.00 49.78           C
ATOM   1525  O   TRP L 100      23.036  13.459  39.607  1.00 48.93           O
ATOM   1527  N   THR L 101      25.113  14.320  39.748  1.00 49.38           N
ATOM   1528  CA  THR L 101      25.311  14.404  38.303  1.00 48.66           C
ATOM   1530  CB  THR L 101      25.717  15.819  37.855  1.00 46.87           C
ATOM   1532  OG1 THR L 101      26.804  16.309  38.655  1.00 46.30           O
ATOM   1534  CG2 THR L 101      24.540  16.739  38.016  1.00 44.92           C
ATOM   1538  C   THR L 101      26.329  13.400  37.827  1.00 47.78           C
ATOM   1539  O   THR L 101      27.192  12.968  38.579  1.00 47.20           O
ATOM   1541  N   PHE L 102      26.197  13.037  36.561  1.00 47.97           N
ATOM   1542  CA  PHE L 102      26.962  11.966  35.960  1.00 48.82           C
ATOM   1544  CB  PHE L 102      26.021  11.021  35.207  1.00 49.42           C
ATOM   1547  CG  PHE L 102      25.300  10.039  36.076  1.00 46.67           C
ATOM   1548  CD1 PHE L 102      25.742   8.720  36.164  1.00 47.15           C
ATOM   1550  CE1 PHE L 102      25.085   7.800  36.936  1.00 46.15           C
ATOM   1552  CZ  PHE L 102      23.965   8.174  37.638  1.00 50.19           C
ATOM   1554  CE2 PHE L 102      23.498   9.488  37.551  1.00 53.10           C
ATOM   1556  CD2 PHE L 102      24.168  10.407  36.761  1.00 47.98           C
ATOM   1558  C   PHE L 102      27.926  12.571  34.956  1.00 49.48           C
ATOM   1559  O   PHE L 102      27.792  13.739  34.592  1.00 51.35           O
ATOM   1561  N   GLY L 103      28.882  11.774  34.495  1.00 49.86           N
ATOM   1562  CA  GLY L 103      29.714  12.143  33.351  1.00 50.55           C
ATOM   1565  C   GLY L 103      28.962  11.813  32.080  1.00 51.42           C
ATOM   1566  O   GLY L 103      27.832  11.324  32.142  1.00 54.44           O
ATOM   1568  N   GLN L 104      29.570  12.071  30.925  1.00 51.70           N
ATOM   1569  CA  GLN L 104      28.886  11.861  29.639  1.00 51.67           C
ATOM   1571  CB  GLN L 104      29.305  12.921  28.598  1.00 52.35           C
ATOM   1574  CG  GLN L 104      30.581  12.630  27.784  1.00 52.79           C
ATOM   1577  CD  GLN L 104      31.854  12.921  28.543  1.00 53.59           C
ATOM   1578  OE1 GLN L 104      31.841  13.166  29.753  1.00 53.39           O
ATOM   1579  NE2 GLN L 104      32.968  12.903  27.831  1.00 51.28           N
ATOM   1582  C   GLN L 104      29.098  10.449  29.096  1.00 51.16           C
ATOM   1583  O   GLN L 104      28.619  10.111  28.015  1.00 50.46           O
ATOM   1585  N   GLY L 105      29.818   9.629  29.852  1.00 52.46           N
ATOM   1586  CA  GLY L 105      30.071   8.249  29.470  1.00 52.57           C
ATOM   1589  C   GLY L 105      31.240   8.128  28.517  1.00 52.29           C
ATOM   1590  O   GLY L 105      31.511   9.045  27.734  1.00 52.99           O
ATOM   1592  N   THR L 106      31.928   6.990  28.590  1.00 52.25           N
ATOM   1593  CA  THR L 106      33.051   6.688  27.709  1.00 52.43           C
ATOM   1595  CB  THR L 106      34.391   6.741  28.477  1.00 52.12           C
ATOM   1597  OG1 THR L 106      34.638   8.078  28.934  1.00 49.34           O
ATOM   1599  CG2 THR L 106      35.551   6.290  27.595  1.00 52.62           C
ATOM   1603  C   THR L 106      32.855   5.300  27.102  1.00 52.40           C
ATOM   1604  O   THR L 106      32.718   4.323  27.828  1.00 53.01           O
ATOM   1606  N   LYS L 107      32.851   5.226  25.775  1.00 53.39           N
ATOM   1607  CA  LYS L 107      32.646   3.972  25.057  1.00 54.31           C
ATOM   1609  CB  LYS L 107      32.114   4.244  23.647  1.00 55.17           C
ATOM   1612  CG  LYS L 107      31.300   3.111  23.024  1.00 55.52           C
ATOM   1615  CD  LYS L 107      30.815   3.508  21.617  1.00 57.87           C
ATOM   1618  CE  LYS L 107      29.491   2.835  21.229  1.00 60.84           C
ATOM   1621  NZ  LYS L 107      28.967   3.298  19.891  1.00 58.55           N
ATOM   1625  C   LYS L 107      33.965   3.240  24.963  1.00 54.57           C
ATOM   1626  O   LYS L 107      34.946   3.775  24.450  1.00 53.85           O
ATOM   1628  N   VAL L 108      33.992   2.015  25.466  1.00 55.85           N
ATOM   1629  CA  VAL L 108      35.201   1.204  25.429  1.00 55.48           C
ATOM   1631  CB  VAL L 108      35.516   0.622  26.821  1.00 54.97           C
ATOM   1633  CG1 VAL L 108      36.545  -0.498  26.735  1.00 54.29           C
ATOM   1637  CG2 VAL L 108      36.006   1.738  27.744  1.00 54.20           C
ATOM   1641  C   VAL L 108      34.976   0.101  24.428  1.00 54.93           C
ATOM   1642  O   VAL L 108      33.910  -0.506  24.417  1.00 55.37           O
ATOM   1644  N   GLU L 109      35.980  -0.151  23.593  1.00 55.63           N
ATOM   1645  CA  GLU L 109      35.896  -1.185  22.553  1.00 56.24           C
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ATOM	1647	CB	GLU	L	109	35.520	-0.553	21.213	1.00	55.87	C
ATOM	1650	CG	GLU	L	109	34.026	-0.230	21.125	1.00	59.28	C
ATOM	1653	CD	GLU	L	109	33.636	0.546	19.880	1.00	59.04	C
ATOM	1654	OE1	GLU	L	109	34.493	1.271	19.333	1.00	65.40	O
ATOM	1655	OE2	GLU	L	109	32.463	0.435	19.458	1.00	63.24	O
ATOM	1656	C	GLU	L	109	37.172	-2.022	22.421	1.00	55.96	C
ATOM	1657	O	GLU	L	109	38.209	-1.708	23.011	1.00	56.62	O
ATOM	1659	N	ILE	L	110	37.070	-3.103	21.655	1.00	55.26	N
ATOM	1660	CA	ILE	L	110	38.171	-4.044	21.471	1.00	54.84	C
ATOM	1662	CB	ILE	L	110	37.676	-5.520	21.615	1.00	53.97	C
ATOM	1664	CG1	ILE	L	110	37.964	-6.046	23.018	1.00	53.00	C
ATOM	1667	CD1	ILE	L	110	37.208	-5.335	24.077	1.00	57.14	C
ATOM	1671	CG2	ILE	L	110	38.358	-6.449	20.626	1.00	57.07	C
ATOM	1675	C	ILE	L	110	38.851	-3.823	20.118	1.00	55.03	C
ATOM	1676	O	ILE	L	110	38.176	-3.633	19.100	1.00	55.16	O
ATOM	1678	N	LYS	L	111	40.184	-3.840	20.117	1.00	54.09	N
ATOM	1679	CA	LYS	L	111	40.950	-3.865	18.873	1.00	53.75	C
ATOM	1681	CB	LYS	L	111	42.302	-3.150	19.010	1.00	54.21	C
ATOM	1684	CG	LYS	L	111	42.196	-1.626	18.941	1.00	55.69	C
ATOM	1687	CD	LYS	L	111	43.542	-0.952	18.674	1.00	55.59	C
ATOM	1690	CE	LYS	L	111	43.376	0.573	18.529	1.00	57.45	C
ATOM	1693	NZ	LYS	L	111	44.562	1.256	17.911	1.00	56.32	N
ATOM	1697	C	LYS	L	111	41.126	-5.322	18.458	1.00	52.96	C
ATOM	1698	O	LYS	L	111	41.512	-6.174	19.257	1.00	53.46	O
ATOM	1700	N	ARG	L	112	40.838	-5.589	17.193	1.00	52.44	N
ATOM	1701	CA	ARG	L	112	40.702	-6.940	16.682	1.00	51.40	C
ATOM	1703	CB	ARG	L	112	39.212	-7.243	16.523	1.00	51.98	C
ATOM	1706	CG	ARG	L	112	38.787	-8.647	16.869	1.00	50.47	C
ATOM	1709	CD	ARG	L	112	37.574	-9.048	16.036	1.00	49.48	C
ATOM	1712	NE	ARG	L	112	37.957	-9.432	14.678	1.00	43.18	N
ATOM	1714	CZ	ARG	L	112	38.354	-10.652	14.317	1.00	42.39	C
ATOM	1715	NH1	ARG	L	112	38.422	-11.634	15.200	1.00	43.28	N
ATOM	1718	NH2	ARG	L	112	38.683	-10.900	13.057	1.00	45.12	N
ATOM	1721	C	ARG	L	112	41.396	-7.011	15.325	1.00	50.66	C
ATOM	1722	O	ARG	L	112	41.635	-5.982	14.692	1.00	49.67	O
ATOM	1724	N	THR	L	113	41.721	-8.220	14.878	1.00	50.47	N
ATOM	1725	CA	THR	L	113	42.254	-8.408	13.525	1.00	50.41	C
ATOM	1727	CB	THR	L	113	42.738	-9.851	13.293	1.00	50.23	C
ATOM	1729	OG1	THR	L	113	41.649	-10.765	13.472	1.00	51.99	O
ATOM	1731	CG2	THR	L	113	43.850	-10.209	14.262	1.00	50.47	C
ATOM	1735	C	THR	L	113	41.162	-8.082	12.511	1.00	50.13	C
ATOM	1736	O	THR	L	113	39.978	-8.076	12.852	1.00	50.91	O
ATOM	1738	N	VAL	L	114	41.544	-7.796	11.272	1.00	49.57	N
ATOM	1739	CA	VAL	L	114	40.553	-7.403	10.271	1.00	49.63	C
ATOM	1741	CB	VAL	L	114	41.199	-6.691	9.050	1.00	48.73	C
ATOM	1743	CG1	VAL	L	114	40.183	-6.488	7.936	1.00	47.74	C
ATOM	1747	CG2	VAL	L	114	41.777	-5.345	9.476	1.00	47.63	C
ATOM	1751	C	VAL	L	114	39.722	-8.622	9.848	1.00	49.92	C
ATOM	1752	O	VAL	L	114	40.269	-9.675	9.507	1.00	49.67	O
ATOM	1754	N	ALA	L	115	38.399	-8.462	9.906	1.00	49.86	N
ATOM	1755	CA	ALA	L	115	37.451	-9.497	9.507	1.00	49.19	C
ATOM	1757	CB	ALA	L	115	36.633	-9.947	10.698	1.00	49.31	C
ATOM	1761	C	ALA	L	115	36.535	-8.963	8.419	1.00	48.76	C
ATOM	1762	O	ALA	L	115	35.754	-8.039	8.654	1.00	47.41	O
ATOM	1764	N	ALA	L	116	36.638	-9.550	7.228	1.00	49.59	N
ATOM	1765	CA	ALA	L	116	35.802	-9.165	6.097	1.00	49.37	C
ATOM	1767	CB	ALA	L	116	36.165	-9.975	4.873	1.00	48.28	C
ATOM	1771	C	ALA	L	116	34.340	-9.383	6.461	1.00	50.11	C
ATOM	1772	O	ALA	L	116	34.035	-10.246	7.282	1.00	50.77	O
ATOM	1774	N	PRO	L	117	33.428	-8.588	5.879	1.00	50.29	N
ATOM	1775	CA	PRO	L	117	32.023	-8.851	6.133	1.00	50.04	C
ATOM	1777	CB	PRO	L	117	31.356	-7.489	5.893	1.00	49.53	C
ATOM	1780	CG	PRO	L	117	32.410	-6.599	5.286	1.00	49.57	C

ATOM	1783	CD	PRO	L	117	33.601	-7.442	4.976	1.00 50.58	C
ATOM	1786	C	PRO	L	117	31.499	-9.885	5.152	1.00 50.47	C
ATOM	1787	O	PRO	L	117	31.836	-9.837	3.972	1.00 50.01	O
ATOM	1788	N	SER	L	118	30.703	-10.825	5.648	1.00 51.10	N
ATOM	1789	CA	SER	L	118	29.962	-11.740	4.792	1.00 50.63	C
ATOM	1791	CB	SER	L	118	29.693	-13.059	5.513	1.00 51.05	C
ATOM	1794	OG	SER	L	118	29.183	-12.832	6.820	1.00 49.77	O
ATOM	1796	C	SER	L	118	28.648	-11.060	4.431	1.00 51.04	C
ATOM	1797	O	SER	L	118	27.859	-10.717	5.317	1.00 50.74	O
ATOM	1799	N	VAL	L	119	28.427	-10.865	3.131	1.00 51.04	N
ATOM	1800	CA	VAL	L	119	27.300	-10.084	2.624	1.00 50.67	C
ATOM	1802	CB	VAL	L	119	27.745	-9.151	1.460	1.00 50.02	C
ATOM	1804	CG1	VAL	L	119	26.568	-8.317	0.946	1.00 47.92	C
ATOM	1808	CG2	VAL	L	119	28.897	-8.251	1.903	1.00 48.89	C
ATOM	1812	C	VAL	L	119	26.179	-10.983	2.113	1.00 50.98	C
ATOM	1813	O	VAL	L	119	26.434	-11.980	1.434	1.00 51.69	O
ATOM	1815	N	PHE	L	120	24.942	-10.612	2.429	1.00 51.17	N
ATOM	1816	CA	PHE	L	120	23.757	-11.283	1.903	1.00 53.08	C
ATOM	1818	CB	PHE	L	120	23.068	-12.106	3.002	1.00 53.27	C
ATOM	1821	CG	PHE	L	120	23.970	-13.113	3.687	1.00 54.14	C
ATOM	1822	CD1	PHE	L	120	24.866	-12.714	4.675	1.00 54.71	C
ATOM	1824	CE1	PHE	L	120	25.690	-13.636	5.313	1.00 51.45	C
ATOM	1826	CZ	PHE	L	120	25.613	-14.973	4.982	1.00 51.35	C
ATOM	1828	CE2	PHE	L	120	24.718	-15.390	4.007	1.00 53.76	C
ATOM	1830	CD2	PHE	L	120	23.900	-14.462	3.366	1.00 54.90	C
ATOM	1832	C	PHE	L	120	22.795	-10.215	1.383	1.00 53.98	C
ATOM	1833	O	PHE	L	120	22.800	-9.093	1.884	1.00 54.86	O
ATOM	1835	N	ILE	L	121	21.982	-10.550	0.381	1.00 55.74	N
ATOM	1836	CA	ILE	L	121	20.916	-9.645	-0.083	1.00 56.42	C
ATOM	1838	CB	ILE	L	121	21.187	-9.069	-1.491	1.00 56.16	C
ATOM	1840	CG1	ILE	L	121	20.244	-7.894	-1.776	1.00 55.98	C
ATOM	1843	CD1	ILE	L	121	20.615	-7.095	-3.018	1.00 56.25	C
ATOM	1847	CG2	ILE	L	121	21.056	-10.145	-2.569	1.00 56.85	C
ATOM	1851	C	ILE	L	121	19.565	-10.348	-0.068	1.00 57.75	C
ATOM	1852	O	ILE	L	121	19.470	-11.535	-0.373	1.00 58.73	O
ATOM	1854	N	PHE	L	122	18.529	-9.597	0.295	1.00 59.21	N
ATOM	1855	CA	PHE	L	122	17.187	-10.135	0.468	1.00 59.29	C
ATOM	1857	CB	PHE	L	122	16.779	-10.070	1.939	1.00 61.07	C
ATOM	1860	CG	PHE	L	122	17.673	-10.862	2.847	1.00 62.37	C
ATOM	1861	CD1	PHE	L	122	17.561	-12.242	2.912	1.00 63.05	C
ATOM	1863	CE1	PHE	L	122	18.381	-12.983	3.744	1.00 63.87	C
ATOM	1865	CZ	PHE	L	122	19.331	-12.341	4.526	1.00 63.53	C
ATOM	1867	CE2	PHE	L	122	19.456	-10.960	4.468	1.00 62.76	C
ATOM	1869	CD2	PHE	L	122	18.630	-10.228	3.630	1.00 62.86	C
ATOM	1871	C	PHE	L	122	16.202	-9.325	-0.354	1.00 59.29	C
ATOM	1872	O	PHE	L	122	16.111	-8.107	-0.187	1.00 59.29	O
ATOM	1874	N	PRO	L	123	15.455	-9.995	-1.242	1.00 58.87	N
ATOM	1875	CA	PRO	L	123	14.453	-9.272	-2.013	1.00 58.89	C
ATOM	1877	CB	PRO	L	123	14.165	-10.219	-3.182	1.00 59.19	C
ATOM	1880	CG	PRO	L	123	14.450	-11.582	-2.653	1.00 59.45	C
ATOM	1883	CD	PRO	L	123	15.483	-11.434	-1.567	1.00 59.04	C
ATOM	1886	C	PRO	L	123	13.201	-9.027	-1.168	1.00 58.28	C
ATOM	1887	O	PRO	L	123	12.977	-9.745	-0.196	1.00 58.56	O
ATOM	1888	N	PRO	L	124	12.394	-8.013	-1.522	1.00 57.89	N
ATOM	1889	CA	PRO	L	124	11.140	-7.784	-0.798	1.00 58.13	C
ATOM	1891	CB	PRO	L	124	10.569	-6.532	-1.471	1.00 58.19	C
ATOM	1894	CG	PRO	L	124	11.211	-6.493	-2.808	1.00 57.53	C
ATOM	1897	CD	PRO	L	124	12.586	-7.031	-2.600	1.00 57.38	C
ATOM	1900	C	PRO	L	124	10.160	-8.947	-0.950	1.00 58.10	C
ATOM	1901	O	PRO	L	124	10.000	-9.475	-2.051	1.00 58.38	O
ATOM	1902	N	SER	L	125	9.509	-9.331	0.145	1.00 57.47	N
ATOM	1903	CA	SER	L	125	8.545	-10.428	0.119	1.00 57.48	C
ATOM	1905	CB	SER	L	125	8.179	-10.849	1.541	1.00 57.88	C

ATOM	1908	OG	SER	L	125	7.590	-9.772	2.243	1.00 60.56	O
ATOM	1910	C	SER	L	125	7.282	-10.035	-0.643	1.00 56.61	C
ATOM	1911	O	SER	L	125	6.920	-8.859	-0.700	1.00 55.29	O
ATOM	1913	N	ASP	L	126	6.619	-11.031	-1.228	1.00 56.62	N
ATOM	1914	CA	ASP	L	126	5.383	-10.800	-1.974	1.00 56.49	C
ATOM	1916	CB	ASP	L	126	4.930	-12.075	-2.697	1.00 55.78	C
ATOM	1919	CG	ASP	L	126	5.773	-12.383	-3.921	1.00 54.08	C
ATOM	1920	OD1	ASP	L	126	5.370	-13.253	-4.720	1.00 53.82	O
ATOM	1921	OD2	ASP	L	126	6.837	-11.753	-4.093	1.00 51.90	O
ATOM	1922	C	ASP	L	126	4.283	-10.292	-1.055	1.00 56.62	C
ATOM	1923	O	ASP	L	126	3.468	-9.462	-1.457	1.00 57.02	O
ATOM	1925	N	GLU	L	127	4.272	-10.786	0.179	1.00 56.79	N
ATOM	1926	CA	GLU	L	127	3.324	-10.323	1.190	1.00 56.91	C
ATOM	1928	CB	GLU	L	127	3.597	-11.020	2.531	1.00 56.92	C
ATOM	1931	CG	GLU	L	127	3.247	-12.521	2.526	1.00 57.47	C
ATOM	1934	CD	GLU	L	127	4.302	-13.404	3.187	1.00 56.55	C
ATOM	1935	OE1	GLU	L	127	3.923	-14.371	3.883	1.00 51.13	O
ATOM	1936	OE2	GLU	L	127	5.510	-13.142	3.000	1.00 55.50	O
ATOM	1937	C	GLU	L	127	3.365	-8.796	1.346	1.00 57.23	C
ATOM	1938	O	GLU	L	127	2.312	-8.153	1.413	1.00 57.81	O
ATOM	1940	N	GLN	L	128	4.574	-8.225	1.376	1.00 56.33	N
ATOM	1941	CA	GLN	L	128	4.756	-6.777	1.559	1.00 55.91	C
ATOM	1943	CB	GLN	L	128	6.225	-6.431	1.833	1.00 55.96	C
ATOM	1946	CG	GLN	L	128	6.441	-4.959	2.208	1.00 55.23	C
ATOM	1949	CD	GLN	L	128	7.893	-4.555	2.254	1.00 53.28	C
ATOM	1950	OE1	GLN	L	128	8.782	-5.361	2.000	1.00 50.86	O
ATOM	1951	NE2	GLN	L	128	8.142	-3.293	2.576	1.00 48.52	N
ATOM	1954	C	GLN	L	128	4.291	-5.974	0.355	1.00 55.73	C
ATOM	1955	O	GLN	L	128	3.665	-4.925	0.502	1.00 55.43	O
ATOM	1957	N	LEU	L	129	4.627	-6.457	-0.833	1.00 56.19	N
ATOM	1958	CA	LEU	L	129	4.290	-5.754	-2.064	1.00 56.62	C
ATOM	1960	CB	LEU	L	129	4.842	-6.515	-3.273	1.00 56.91	C
ATOM	1963	CG	LEU	L	129	6.373	-6.569	-3.353	1.00 57.38	C
ATOM	1965	CD1	LEU	L	129	6.849	-7.667	-4.293	1.00 57.69	C
ATOM	1969	CD2	LEU	L	129	6.932	-5.219	-3.780	1.00 58.52	C
ATOM	1973	C	LEU	L	129	2.778	-5.581	-2.168	1.00 56.69	C
ATOM	1974	O	LEU	L	129	2.284	-4.496	-2.483	1.00 56.09	O
ATOM	1976	N	LYS	L	130	2.051	-6.651	-1.860	1.00 56.77	N
ATOM	1977	CA	LYS	L	130	0.594	-6.615	-1.833	1.00 56.47	C
ATOM	1979	CB	LYS	L	130	0.030	-7.960	-1.355	1.00 56.00	C
ATOM	1982	CG	LYS	L	130	0.195	-9.078	-2.389	1.00 55.88	C
ATOM	1985	CD	LYS	L	130	-0.185	-10.451	-1.853	1.00 55.79	C
ATOM	1988	CE	LYS	L	130	-0.033	-11.517	-2.930	1.00 53.50	C
ATOM	1991	NZ	LYS	L	130	-0.372	-12.874	-2.429	1.00 52.48	N
ATOM	1995	C	LYS	L	130	0.073	-5.458	-0.979	1.00 56.78	C
ATOM	1996	O	LYS	L	130	-0.971	-4.892	-1.290	1.00 56.99	O
ATOM	1998	N	SER	L	131	0.805	-5.096	0.077	1.00 57.09	N
ATOM	1999	CA	SER	L	131	0.450	-3.927	0.895	1.00 57.34	C
ATOM	2001	CB	SER	L	131	1.197	-3.927	2.235	1.00 57.08	C
ATOM	2004	OG	SER	L	131	2.458	-3.296	2.125	1.00 56.21	O
ATOM	2006	C	SER	L	131	0.690	-2.605	0.151	1.00 57.77	C
ATOM	2007	O	SER	L	131	0.009	-1.620	0.419	1.00 58.13	O
ATOM	2009	N	GLY	L	132	1.658	-2.581	-0.766	1.00 58.05	N
ATOM	2010	CA	GLY	L	132	1.823	-1.449	-1.686	1.00 58.27	C
ATOM	2013	C	GLY	L	132	3.159	-0.715	-1.674	1.00 58.75	C
ATOM	2014	O	GLY	L	132	3.303	0.305	-2.352	1.00 58.07	O
ATOM	2016	N	THR	L	133	4.131	-1.204	-0.902	1.00 59.16	N
ATOM	2017	CA	THR	L	133	5.503	-0.665	-0.943	1.00 59.08	C
ATOM	2019	CB	THR	L	133	5.770	0.352	0.177	1.00 58.61	C
ATOM	2021	OG1	THR	L	133	5.641	-0.299	1.448	1.00 59.73	O
ATOM	2023	CG2	THR	L	133	4.815	1.543	0.086	1.00 58.69	C
ATOM	2027	C	THR	L	133	6.543	-1.770	-0.802	1.00 58.73	C
ATOM	2028	O	THR	L	133	6.257	-2.824	-0.235	1.00 59.65	O

ATOM	2030	N	ALA	L	134	7.751	-1.505	-1.296	1.00 57.63	N
ATOM	2031	CA	ALA	L	134	8.834	-2.483	-1.270	1.00 58.37	C
ATOM	2033	CB	ALA	L	134	9.291	-2.793	-2.685	1.00 58.84	C
ATOM	2037	C	ALA	L	134	10.021	-2.011	-0.425	1.00 58.96	C
ATOM	2038	O	ALA	L	134	10.439	-0.851	-0.512	1.00 59.55	O
ATOM	2040	N	SER	L	135	10.547	-2.927	0.391	1.00 58.21	N
ATOM	2041	CA	SER	L	135	11.784	-2.717	1.133	1.00 57.20	C
ATOM	2043	CB	SER	L	135	11.523	-2.746	2.644	1.00 57.71	C
ATOM	2046	OG	SER	L	135	11.108	-1.476	3.121	1.00 58.76	O
ATOM	2048	C	SER	L	135	12.768	-3.816	0.761	1.00 55.71	C
ATOM	2049	O	SER	L	135	12.458	-4.992	0.929	1.00 55.68	O
ATOM	2051	N	VAL	L	136	13.938	-3.434	0.248	1.00 54.44	N
ATOM	2052	CA	VAL	L	136	15.007	-4.393	-0.057	1.00 54.20	C
ATOM	2054	CB	VAL	L	136	15.438	-4.351	-1.568	1.00 54.24	C
ATOM	2056	CG1	VAL	L	136	16.023	-3.009	-1.974	1.00 52.66	C
ATOM	2060	CG2	VAL	L	136	16.421	-5.471	-1.884	1.00 55.76	C
ATOM	2064	C	VAL	L	136	16.183	-4.182	0.912	1.00 53.60	C
ATOM	2065	O	VAL	L	136	16.612	-3.050	1.158	1.00 53.72	O
ATOM	2067	N	VAL	L	137	16.687	-5.284	1.465	1.00 53.30	N
ATOM	2068	CA	VAL	L	137	17.637	-5.243	2.581	1.00 53.45	C
ATOM	2070	CB	VAL	L	137	17.087	-6.015	3.804	1.00 52.01	C
ATOM	2072	CG1	VAL	L	137	18.072	-5.978	4.961	1.00 50.63	C
ATOM	2076	CG2	VAL	L	137	15.749	-5.450	4.228	1.00 51.67	C
ATOM	2080	C	VAL	L	137	18.981	-5.854	2.200	1.00 54.41	C
ATOM	2081	O	VAL	L	137	19.038	-6.880	1.521	1.00 55.20	O
ATOM	2083	N	CYS	L	138	20.056	-5.212	2.647	1.00 55.76	N
ATOM	2084	CA	CYS	L	138	21.406	-5.736	2.491	1.00 54.89	C
ATOM	2086	CB	CYS	L	138	22.298	-4.729	1.779	1.00 55.45	C
ATOM	2089	SG	CYS	L	138	23.884	-5.436	1.297	1.00 59.37	S
ATOM	2091	C	CYS	L	138	21.963	-5.996	3.868	1.00 54.85	C
ATOM	2092	O	CYS	L	138	21.772	-5.184	4.768	1.00 55.84	O
ATOM	2094	N	LEU	L	139	22.654	-7.120	4.032	1.00 54.78	N
ATOM	2095	CA	LEU	L	139	23.214	-7.519	5.331	1.00 54.82	C
ATOM	2097	CB	LEU	L	139	22.598	-8.853	5.771	1.00 54.03	C
ATOM	2100	CG	LEU	L	139	23.274	-9.583	6.933	1.00 53.90	C
ATOM	2102	CD1	LEU	L	139	23.385	-8.660	8.139	1.00 51.76	C
ATOM	2106	CD2	LEU	L	139	22.516	-10.861	7.269	1.00 52.76	C
ATOM	2110	C	LEU	L	139	24.737	-7.651	5.245	1.00 55.59	C
ATOM	2111	O	LEU	L	139	25.232	-8.375	4.384	1.00 57.06	O
ATOM	2113	N	LEU	L	140	25.472	-6.955	6.117	1.00 55.07	N
ATOM	2114	CA	LEU	L	140	26.923	-7.155	6.247	1.00 54.32	C
ATOM	2116	CB	LEU	L	140	27.699	-5.849	6.110	1.00 53.60	C
ATOM	2119	CG	LEU	L	140	27.248	-4.885	5.018	1.00 52.60	C
ATOM	2121	CD1	LEU	L	140	28.239	-3.728	4.865	1.00 51.63	C
ATOM	2125	CD2	LEU	L	140	27.074	-5.584	3.713	1.00 52.71	C
ATOM	2129	C	LEU	L	140	27.196	-7.772	7.604	1.00 54.65	C
ATOM	2130	O	LEU	L	140	27.284	-7.070	8.606	1.00 55.51	O
ATOM	2132	N	ASN	L	141	27.337	-9.091	7.625	1.00 54.62	N
ATOM	2133	CA	ASN	L	141	27.370	-9.837	8.872	1.00 54.74	C
ATOM	2135	CB	ASN	L	141	26.737	-11.214	8.658	1.00 54.71	C
ATOM	2138	CG	ASN	L	141	26.514	-11.960	9.945	1.00 52.97	C
ATOM	2139	OD1	ASN	L	141	26.712	-13.163	10.008	1.00 51.47	O
ATOM	2140	ND2	ASN	L	141	26.097	-11.250	10.981	1.00 56.80	N
ATOM	2143	C	ASN	L	141	28.787	-9.985	9.428	1.00 55.57	C
ATOM	2144	O	ASN	L	141	29.748	-10.164	8.663	1.00 55.86	O
ATOM	2146	N	ASN	L	142	28.886	-9.877	10.758	1.00 55.10	N
ATOM	2147	CA	ASN	L	142	30.111	-10.118	11.538	1.00 54.03	C
ATOM	2149	CB	ASN	L	142	30.220	-11.612	11.876	1.00 52.77	C
ATOM	2152	CG	ASN	L	142	29.186	-12.063	12.904	1.00 52.49	C
ATOM	2153	OD1	ASN	L	142	28.338	-11.286	13.337	1.00 52.77	O
ATOM	2154	ND2	ASN	L	142	29.263	-13.326	13.305	1.00 53.29	N
ATOM	2157	C	ASN	L	142	31.413	-9.619	10.902	1.00 54.05	C
ATOM	2158	O	ASN	L	142	32.076	-10.367	10.187	1.00 55.04	O

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ATOM   2160  N   PHE L 143      31.777  -8.363  11.171  1.00 54.33           N
ATOM   2161  CA  PHE L 143      32.999  -7.774  10.601  1.00 54.32           C
ATOM   2163  CB  PHE L 143      32.690  -7.096   9.265  1.00 55.46           C
ATOM   2166  CG  PHE L 143      31.807  -5.882   9.378  1.00 55.14           C
ATOM   2167  CD1 PHE L 143      32.360  -4.627   9.589  1.00 56.14           C
ATOM   2169  CE1 PHE L 143      31.555  -3.499   9.684  1.00 56.42           C
ATOM   2171  CZ  PHE L 143      30.176  -3.616   9.554  1.00 56.54           C
ATOM   2173  CE2 PHE L 143      29.610  -4.863   9.331  1.00 56.80           C
ATOM   2175  CD2 PHE L 143      30.425  -5.990   9.243  1.00 56.14           C
ATOM   2177  C   PHE L 143      33.692  -6.778  11.525  1.00 54.20           C
ATOM   2178  O   PHE L 143      33.065  -6.204  12.418  1.00 55.01           O
ATOM   2180  N   TYR L 144      34.989  -6.585  11.295  1.00 53.47           N
ATOM   2181  CA  TYR L 144      35.779  -5.605  12.028  1.00 53.67           C
ATOM   2183  CB  TYR L 144      36.611  -6.275  13.125  1.00 53.71           C
ATOM   2186  CG  TYR L 144      37.268  -5.270  14.034  1.00 53.86           C
ATOM   2187  CD1 TYR L 144      38.530  -4.755  13.749  1.00 54.17           C
ATOM   2189  CE1 TYR L 144      39.121  -3.807  14.577  1.00 52.92           C
ATOM   2191  CZ  TYR L 144      38.438  -3.360  15.694  1.00 53.53           C
ATOM   2192  OH  TYR L 144      38.990  -2.425  16.533  1.00 54.86           O
ATOM   2194  CE2 TYR L 144      37.181  -3.848  15.983  1.00 54.32           C
ATOM   2196  CD2 TYR L 144      36.604  -4.793  15.154  1.00 54.65           C
ATOM   2198  C   TYR L 144      36.708  -4.890  11.060  1.00 54.69           C
ATOM   2199  O   TYR L 144      37.288  -5.540  10.188  1.00 54.08           O
ATOM   2201  N   PRO L 145      36.865  -3.555  11.203  1.00 56.43           N
ATOM   2202  CA  PRO L 145      36.252  -2.625  12.167  1.00 57.34           C
ATOM   2204  CB  PRO L 145      37.319  -1.532  12.325  1.00 57.48           C
ATOM   2207  CG  PRO L 145      38.198  -1.630  11.084  1.00 57.29           C
ATOM   2210  CD  PRO L 145      37.772  -2.838  10.288  1.00 56.61           C
ATOM   2213  C   PRO L 145      34.927  -2.047  11.657  1.00 57.75           C
ATOM   2214  O   PRO L 145      34.408  -2.526  10.647  1.00 57.75           O
ATOM   2215  N   ARG L 146      34.384  -1.038  12.342  1.00 57.84           N
ATOM   2216  CA  ARG L 146      33.047  -0.538  12.004  1.00 58.28           C
ATOM   2218  CB  ARG L 146      32.482   0.417  13.079  1.00 58.97           C
ATOM   2221  CG  ARG L 146      30.938   0.508  13.054  1.00 59.22           C
ATOM   2224  CD  ARG L 146      30.342   1.588  13.972  1.00 60.35           C
ATOM   2227  NE  ARG L 146      30.340   1.200  15.392  1.00 65.96           N
ATOM   2229  CZ  ARG L 146      29.422   1.566  16.303  1.00 66.50           C
ATOM   2230  NH1 ARG L 146      28.378   2.333  15.975  1.00 66.24           N
ATOM   2233  NH2 ARG L 146      29.540   1.151  17.566  1.00 62.60           N
ATOM   2236  C   ARG L 146      33.001   0.115  10.622  1.00 57.81           C
ATOM   2237  O   ARG L 146      32.230  -0.321   9.778  1.00 57.22           O
ATOM   2239  N   GLU L 147      33.828   1.132  10.377  1.00 58.64           N
ATOM   2240  CA  GLU L 147      33.737   1.912   9.124  1.00 58.71           C
ATOM   2242  CB  GLU L 147      34.991   2.771   8.901  1.00 59.53           C
ATOM   2245  CG  GLU L 147      34.971   4.126   9.628  1.00 62.23           C
ATOM   2248  CD  GLU L 147      35.156   5.322   8.686  1.00 66.41           C
ATOM   2249  OE1 GLU L 147      35.624   5.143   7.537  1.00 63.81           O
ATOM   2250  OE2 GLU L 147      34.822   6.453   9.101  1.00 71.32           O
ATOM   2251  C   GLU L 147      33.495   1.024   7.902  1.00 57.91           C
ATOM   2252  O   GLU L 147      34.181   0.018   7.724  1.00 57.97           O
ATOM   2254  N   ALA L 148      32.513   1.388   7.074  1.00 57.47           N
ATOM   2255  CA  ALA L 148      32.159   0.575   5.895  1.00 57.40           C
ATOM   2257  CB  ALA L 148      31.487  -0.723   6.326  1.00 57.19           C
ATOM   2261  C   ALA L 148      31.259   1.308   4.910  1.00 56.76           C
ATOM   2262  O   ALA L 148      30.408   2.104   5.304  1.00 56.64           O
ATOM   2264  N   LYS L 149      31.443   1.003   3.628  1.00 56.80           N
ATOM   2265  CA  LYS L 149      30.663   1.602   2.554  1.00 57.51           C
ATOM   2267  CB  LYS L 149      31.605   2.128   1.460  1.00 57.49           C
ATOM   2270  CG  LYS L 149      30.924   2.854   0.280  1.00 56.81           C
ATOM   2273  CD  LYS L 149      31.212   4.358   0.274  1.00 56.29           C
ATOM   2276  CE  LYS L 149      30.764   5.022  -1.034  1.00 57.19           C
ATOM   2279  NZ  LYS L 149      31.501   6.292  -1.339  1.00 53.54           N
ATOM   2283  C   LYS L 149      29.697   0.563   1.972  1.00 58.12           C
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ATOM   2284  O   LYS L 149      30.122  -0.479   1.466  1.00 58.40           O
ATOM   2286  N   VAL L 150      28.401   0.848   2.074  1.00 57.96           N
ATOM   2287  CA  VAL L 150      27.376   0.114   1.337  1.00 58.18           C
ATOM   2289  CB  VAL L 150      26.215  -0.328   2.264  1.00 58.19           C
ATOM   2291  CG1 VAL L 150      24.997  -0.773   1.465  1.00 58.61           C
ATOM   2295  CG2 VAL L 150      26.671  -1.450   3.162  1.00 57.44           C
ATOM   2299  C   VAL L 150      26.872   1.031   0.221  1.00 58.47           C
ATOM   2300  O   VAL L 150      26.562   2.197   0.462  1.00 59.48           O
ATOM   2302  N   GLN L 151      26.813   0.507  -1.000  1.00 58.94           N
ATOM   2303  CA  GLN L 151      26.348   1.278  -2.148  1.00 57.56           C
ATOM   2305  CB  GLN L 151      27.503   1.532  -3.125  1.00 59.31           C
ATOM   2308  CG  GLN L 151      27.396   2.851  -3.907  1.00 61.39           C
ATOM   2311  CD  GLN L 151      27.697   4.095  -3.057  1.00 66.79           C
ATOM   2312  OE1 GLN L 151      27.803   5.202  -3.585  1.00 66.18           O
ATOM   2313  NE2 GLN L 151      27.835   3.913  -1.740  1.00 68.31           N
ATOM   2316  C   GLN L 151      25.224   0.532  -2.849  1.00 56.33           C
ATOM   2317  O   GLN L 151      25.377  -0.639  -3.201  1.00 55.81           O
ATOM   2319  N   TRP L 152      24.098   1.213  -3.045  1.00 54.22           N
ATOM   2320  CA  TRP L 152      22.950   0.625  -3.727  1.00 53.68           C
ATOM   2322  CB  TRP L 152      21.648   1.180  -3.155  1.00 53.40           C
ATOM   2325  CG  TRP L 152      21.233   0.523  -1.879  1.00 52.23           C
ATOM   2326  CD1 TRP L 152      21.240   1.076  -0.634  1.00 51.07           C
ATOM   2328  NE1 TRP L 152      20.794   0.165   0.288  1.00 52.84           N
ATOM   2330  CE2 TRP L 152      20.489  -1.008  -0.355  1.00 54.44           C
ATOM   2331  CD2 TRP L 152      20.753  -0.817  -1.725  1.00 50.08           C
ATOM   2332  CE3 TRP L 152      20.525  -1.877  -2.612  1.00 50.38           C
ATOM   2334  CZ3 TRP L 152      20.037  -3.079  -2.110  1.00 51.18           C
ATOM   2336  CH2 TRP L 152      19.778  -3.240  -0.742  1.00 52.04           C
ATOM   2338  CZ2 TRP L 152      19.995  -2.220   0.153  1.00 54.12           C
ATOM   2340  C   TRP L 152      22.991   0.875  -5.228  1.00 53.15           C
ATOM   2341  O   TRP L 152      23.531   1.882  -5.690  1.00 52.79           O
ATOM   2343  N   LYS L 153      22.404  -0.053  -5.978  1.00 53.15           N
ATOM   2344  CA  LYS L 153      22.346   0.031  -7.432  1.00 53.18           C
ATOM   2346  CB  LYS L 153      23.557  -0.673  -8.051  1.00 53.70           C
ATOM   2349  CG  LYS L 153      24.873   0.100  -7.936  1.00 55.50           C
ATOM   2352  CD  LYS L 153      26.052  -0.682  -8.519  1.00 55.28           C
ATOM   2355  CE  LYS L 153      27.224   0.234  -8.863  1.00 56.21           C
ATOM   2358  NZ  LYS L 153      28.422  -0.504  -9.376  1.00 56.19           N
ATOM   2362  C   LYS L 153      21.063  -0.615  -7.950  1.00 52.54           C
ATOM   2363  O   LYS L 153      20.824  -1.806  -7.731  1.00 50.96           O
ATOM   2365  N   VAL L 154      20.232   0.184  -8.614  1.00 52.66           N
ATOM   2366  CA  VAL L 154      19.081  -0.328  -9.355  1.00 52.24           C
ATOM   2368  CB  VAL L 154      17.738   0.298  -8.896  1.00 52.32           C
ATOM   2370  CG1 VAL L 154      16.572  -0.510  -9.434  1.00 53.43           C
ATOM   2374  CG2 VAL L 154      17.653   0.382  -7.384  1.00 53.10           C
ATOM   2378  C   VAL L 154      19.328   0.032 -10.807  1.00 51.53           C
ATOM   2379  O   VAL L 154      19.328   1.211 -11.154  1.00 51.98           O
ATOM   2381  N   ASP L 155      19.555  -0.978 -11.646  1.00 51.01           N
ATOM   2382  CA  ASP L 155      19.963  -0.759 -13.035  1.00 51.37           C
ATOM   2384  CB  ASP L 155      18.781  -0.282 -13.892  1.00 50.97           C
ATOM   2387  CG  ASP L 155      17.664  -1.309 -13.992  1.00 50.99           C
ATOM   2388  OD1 ASP L 155      17.870  -2.481 -13.619  1.00 53.87           O
ATOM   2389  OD2 ASP L 155      16.568  -0.937 -14.459  1.00 50.60           O
ATOM   2390  C   ASP L 155      21.113   0.257 -13.111  1.00 51.64           C
ATOM   2391  O   ASP L 155      20.938   1.362 -13.631  1.00 52.33           O
ATOM   2393  N   ASN L 156      22.268  -0.114 -12.551  1.00 51.53           N
ATOM   2394  CA  ASN L 156      23.492   0.712 -12.576  1.00 50.82           C
ATOM   2396  CB  ASN L 156      24.104   0.732 -13.990  1.00 51.40           C
ATOM   2399  CG  ASN L 156      24.537  -0.645 -14.472  1.00 52.43           C
ATOM   2400  OD1 ASN L 156      24.242  -1.661 -13.844  1.00 55.43           O
ATOM   2401  ND2 ASN L 156      25.240  -0.680 -15.602  1.00 51.24           N
ATOM   2404  C   ASN L 156      23.320   2.160 -12.092  1.00 50.40           C
ATOM   2405  O   ASN L 156      24.190   2.999 -12.340  1.00 51.06           O
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ATOM	2407	N	ALA	L	157	22.214	2.451	-11.408	1.00	49.53	N
ATOM	2408	CA	ALA	L	157	21.925	3.804	-10.944	1.00	48.75	C
ATOM	2410	CB	ALA	L	157	20.508	4.206	-11.317	1.00	48.22	C
ATOM	2414	C	ALA	L	157	22.139	3.888	-9.430	1.00	48.32	C
ATOM	2415	O	ALA	L	157	21.503	3.166	-8.657	1.00	47.52	O
ATOM	2417	N	LEU	L	158	23.058	4.759	-9.021	1.00	47.40	N
ATOM	2418	CA	LEU	L	158	23.330	4.994	-7.610	1.00	47.17	C
ATOM	2420	CB	LEU	L	158	24.492	5.986	-7.434	1.00	46.49	C
ATOM	2423	CG	LEU	L	158	24.748	6.565	-6.037	1.00	45.89	C
ATOM	2425	CD1	LEU	L	158	24.997	5.451	-5.035	1.00	46.28	C
ATOM	2429	CD2	LEU	L	158	25.913	7.549	-6.052	1.00	44.85	C
ATOM	2433	C	LEU	L	158	22.077	5.528	-6.935	1.00	47.55	C
ATOM	2434	O	LEU	L	158	21.603	6.618	-7.254	1.00	46.05	O
ATOM	2436	N	GLN	L	159	21.533	4.741	-6.013	1.00	49.28	N
ATOM	2437	CA	GLN	L	159	20.472	5.216	-5.133	1.00	48.82	C
ATOM	2439	CB	GLN	L	159	19.651	4.048	-4.581	1.00	49.37	C
ATOM	2442	CG	GLN	L	159	19.097	3.118	-5.657	1.00	52.12	C
ATOM	2445	CD	GLN	L	159	18.509	3.864	-6.848	1.00	54.32	C
ATOM	2446	OE1	GLN	L	159	18.903	3.636	-7.986	1.00	60.88	O
ATOM	2447	NE2	GLN	L	159	17.572	4.767	-6.585	1.00	57.08	N
ATOM	2450	C	GLN	L	159	21.130	5.993	-4.009	1.00	47.54	C
ATOM	2451	O	GLN	L	159	22.099	5.528	-3.418	1.00	46.19	O
ATOM	2453	N	SER	L	160	20.629	7.192	-3.741	1.00	47.41	N
ATOM	2454	CA	SER	L	160	21.212	8.031	-2.710	1.00	48.52	C
ATOM	2456	CB	SER	L	160	22.254	8.969	-3.322	1.00	48.45	C
ATOM	2459	OG	SER	L	160	23.003	9.634	-2.318	1.00	46.22	O
ATOM	2461	C	SER	L	160	20.130	8.823	-1.983	1.00	49.43	C
ATOM	2462	O	SER	L	160	19.366	9.578	-2.606	1.00	50.03	O
ATOM	2464	N	GLY	L	161	20.076	8.636	-0.663	1.00	49.49	N
ATOM	2465	CA	GLY	L	161	19.109	9.308	0.198	1.00	49.44	C
ATOM	2468	C	GLY	L	161	18.032	8.357	0.668	1.00	49.96	C
ATOM	2469	O	GLY	L	161	17.681	8.346	1.846	1.00	51.28	O
ATOM	2471	N	ASN	L	162	17.525	7.542	-0.255	1.00	50.03	N
ATOM	2472	CA	ASN	L	162	16.399	6.632	0.013	1.00	49.79	C
ATOM	2474	CB	ASN	L	162	15.590	6.382	-1.277	1.00	49.15	C
ATOM	2477	CG	ASN	L	162	16.409	5.740	-2.391	1.00	47.76	C
ATOM	2478	OD1	ASN	L	162	15.871	5.419	-3.452	1.00	48.43	O
ATOM	2479	ND2	ASN	L	162	17.706	5.559	-2.163	1.00	45.16	N
ATOM	2482	C	ASN	L	162	16.752	5.294	0.673	1.00	50.25	C
ATOM	2483	O	ASN	L	162	16.049	4.302	0.466	1.00	51.32	O
ATOM	2485	N	SER	L	163	17.823	5.260	1.465	1.00	49.85	N
ATOM	2486	CA	SER	L	163	18.153	4.063	2.234	1.00	50.83	C
ATOM	2488	CB	SER	L	163	19.187	3.198	1.504	1.00	51.81	C
ATOM	2491	OG	SER	L	163	20.504	3.455	1.971	1.00	52.20	O
ATOM	2493	C	SER	L	163	18.703	4.450	3.587	1.00	51.11	C
ATOM	2494	O	SER	L	163	19.406	5.450	3.697	1.00	52.65	O
ATOM	2496	N	GLN	L	164	18.400	3.650	4.605	1.00	50.62	N
ATOM	2497	CA	GLN	L	164	18.932	3.884	5.944	1.00	51.13	C
ATOM	2499	CB	GLN	L	164	17.890	4.551	6.852	1.00	50.47	C
ATOM	2502	CG	GLN	L	164	16.469	4.025	6.735	1.00	50.21	C
ATOM	2505	CD	GLN	L	164	15.444	4.939	7.416	1.00	50.71	C
ATOM	2506	OE1	GLN	L	164	15.783	5.749	8.291	1.00	45.21	O
ATOM	2507	NE2	GLN	L	164	14.181	4.810	7.010	1.00	48.25	N
ATOM	2510	C	GLN	L	164	19.496	2.608	6.565	1.00	52.13	C
ATOM	2511	O	GLN	L	164	19.087	1.496	6.229	1.00	53.65	O
ATOM	2513	N	GLU	L	165	20.461	2.778	7.459	1.00	52.75	N
ATOM	2514	CA	GLU	L	165	21.192	1.650	7.995	1.00	53.30	C
ATOM	2516	CB	GLU	L	165	22.575	1.550	7.351	1.00	54.18	C
ATOM	2519	CG	GLU	L	165	23.491	2.736	7.593	1.00	55.28	C
ATOM	2522	CD	GLU	L	165	24.625	2.819	6.573	1.00	56.57	C
ATOM	2523	OE1	GLU	L	165	24.447	2.363	5.415	1.00	55.10	O
ATOM	2524	OE2	GLU	L	165	25.694	3.362	6.929	1.00	59.92	O
ATOM	2525	C	GLU	L	165	21.326	1.678	9.501	1.00	52.77	C

ATOM	2526	O	GLU	L	165	21.321	2.730	10.133	1.00	51.98	O
ATOM	2528	N	SER	L	166	21.449	0.483	10.056	1.00	53.19	N
ATOM	2529	CA	SER	L	166	21.531	0.279	11.483	1.00	54.36	C
ATOM	2531	CB	SER	L	166	20.221	-0.321	12.005	1.00	54.68	C
ATOM	2534	OG	SER	L	166	20.280	-0.576	13.397	1.00	55.03	O
ATOM	2536	C	SER	L	166	22.696	-0.666	11.719	1.00	54.89	C
ATOM	2537	O	SER	L	166	23.051	-1.459	10.836	1.00	54.89	O
ATOM	2539	N	VAL	L	167	23.293	-0.573	12.903	1.00	54.47	N
ATOM	2540	CA	VAL	L	167	24.500	-1.330	13.203	1.00	54.81	C
ATOM	2542	CB	VAL	L	167	25.770	-0.492	12.891	1.00	55.11	C
ATOM	2544	CG1	VAL	L	167	25.720	0.876	13.583	1.00	56.53	C
ATOM	2548	CG2	VAL	L	167	27.037	-1.250	13.266	1.00	56.23	C
ATOM	2552	C	VAL	L	167	24.488	-1.790	14.650	1.00	54.84	C
ATOM	2553	O	VAL	L	167	24.076	-1.044	15.538	1.00	56.13	O
ATOM	2555	N	THR	L	168	24.916	-3.028	14.882	1.00	55.33	N
ATOM	2556	CA	THR	L	168	24.980	-3.565	16.241	1.00	55.31	C
ATOM	2558	CB	THR	L	168	24.971	-5.111	16.273	1.00	55.44	C
ATOM	2560	OG1	THR	L	168	26.006	-5.625	15.424	1.00	55.55	O
ATOM	2562	CG2	THR	L	168	23.618	-5.655	15.831	1.00	55.37	C
ATOM	2566	C	THR	L	168	26.236	-3.078	16.945	1.00	55.40	C
ATOM	2567	O	THR	L	168	27.163	-2.533	16.328	1.00	54.29	O
ATOM	2569	N	GLU	L	169	26.252	-3.266	18.255	1.00	55.10	N
ATOM	2570	CA	GLU	L	169	27.441	-2.977	19.021	1.00	55.62	C
ATOM	2572	CB	GLU	L	169	27.093	-2.753	20.496	1.00	56.82	C
ATOM	2575	CG	GLU	L	169	26.233	-1.508	20.728	1.00	59.20	C
ATOM	2578	CD	GLU	L	169	26.990	-0.208	20.486	1.00	61.22	C
ATOM	2579	OE1	GLU	L	169	27.626	-0.065	19.418	1.00	62.62	O
ATOM	2580	OE2	GLU	L	169	26.944	0.674	21.370	1.00	63.58	O
ATOM	2581	C	GLU	L	169	28.433	-4.112	18.853	1.00	54.99	C
ATOM	2582	O	GLU	L	169	28.114	-5.178	18.308	1.00	54.03	O
ATOM	2584	N	GLN	L	170	29.652	-3.865	19.303	1.00	54.11	N
ATOM	2585	CA	GLN	L	170	30.684	-4.874	19.224	1.00	53.03	C
ATOM	2587	CB	GLN	L	170	31.979	-4.392	19.883	1.00	51.58	C
ATOM	2590	CG	GLN	L	170	33.223	-4.813	19.137	1.00	51.46	C
ATOM	2593	CD	GLN	L	170	34.485	-4.253	19.745	1.00	52.07	C
ATOM	2594	OE1	GLN	L	170	34.439	-3.524	20.742	1.00	49.88	O
ATOM	2595	NE2	GLN	L	170	35.630	-4.590	19.152	1.00	46.95	N
ATOM	2598	C	GLN	L	170	30.144	-6.114	19.919	1.00	52.15	C
ATOM	2599	O	GLN	L	170	29.643	-6.026	21.042	1.00	50.29	O
ATOM	2601	N	ASP	L	171	30.211	-7.255	19.237	1.00	52.42	N
ATOM	2602	CA	ASP	L	171	29.774	-8.507	19.834	1.00	52.53	C
ATOM	2604	CB	ASP	L	171	29.965	-9.676	18.871	1.00	51.89	C
ATOM	2607	CG	ASP	L	171	29.331	-10.959	19.380	1.00	52.53	C
ATOM	2608	OD1	ASP	L	171	30.060	-11.948	19.596	1.00	50.33	O
ATOM	2609	OD2	ASP	L	171	28.102	-10.981	19.581	1.00	55.53	O
ATOM	2610	C	ASP	L	171	30.576	-8.737	21.109	1.00	53.44	C
ATOM	2611	O	ASP	L	171	31.779	-8.472	21.149	1.00	54.47	O
ATOM	2613	N	SER	L	172	29.899	-9.204	22.153	1.00	53.54	N
ATOM	2614	CA	SER	L	172	30.549	-9.528	23.417	1.00	52.97	C
ATOM	2616	CB	SER	L	172	29.492	-9.784	24.489	1.00	52.34	C
ATOM	2619	OG	SER	L	172	28.735	-10.939	24.176	1.00	50.12	O
ATOM	2621	C	SER	L	172	31.463	-10.752	23.307	1.00	53.20	C
ATOM	2622	O	SER	L	172	32.451	-10.846	24.029	1.00	53.94	O
ATOM	2624	N	LYS	L	173	31.130	-11.682	22.410	1.00	54.24	N
ATOM	2625	CA	LYS	L	173	31.874	-12.948	22.269	1.00	54.74	C
ATOM	2627	CB	LYS	L	173	30.917	-14.117	21.952	1.00	54.91	C
ATOM	2630	CG	LYS	L	173	30.235	-14.727	23.197	1.00	56.21	C
ATOM	2633	CD	LYS	L	173	29.281	-15.895	22.862	1.00	56.16	C
ATOM	2636	CE	LYS	L	173	27.807	-15.456	22.793	1.00	56.39	C
ATOM	2639	NZ	LYS	L	173	26.865	-16.573	22.464	1.00	55.49	N
ATOM	2643	C	LYS	L	173	33.019	-12.899	21.240	1.00	55.61	C
ATOM	2644	O	LYS	L	173	34.143	-13.294	21.562	1.00	56.17	O
ATOM	2646	N	ASP	L	174	32.742	-12.427	20.019	1.00	55.43	N

ATOM	2647	CA	ASP	L	174	33.746	-12.427	18.937	1.00	54.22	C
ATOM	2649	CB	ASP	L	174	33.286	-13.348	17.794	1.00	54.45	C
ATOM	2652	CG	ASP	L	174	32.373	-12.651	16.793	1.00	57.15	C
ATOM	2653	OD1	ASP	L	174	31.531	-11.820	17.198	1.00	59.32	O
ATOM	2654	OD2	ASP	L	174	32.505	-12.944	15.583	1.00	60.82	O
ATOM	2655	C	ASP	L	174	34.146	-11.022	18.416	1.00	53.53	C
ATOM	2656	O	ASP	L	174	34.848	-10.903	17.405	1.00	53.00	O
ATOM	2658	N	SER	L	175	33.695	-9.973	19.108	1.00	53.42	N
ATOM	2659	CA	SER	L	175	34.211	-8.596	18.929	1.00	52.83	C
ATOM	2661	CB	SER	L	175	35.713	-8.567	19.235	1.00	52.50	C
ATOM	2664	OG	SER	L	175	36.013	-9.360	20.373	1.00	51.82	O
ATOM	2666	C	SER	L	175	33.949	-7.948	17.557	1.00	51.62	C
ATOM	2667	O	SER	L	175	34.665	-7.033	17.151	1.00	49.10	O
ATOM	2669	N	THR	L	176	32.901	-8.401	16.880	1.00	51.67	N
ATOM	2670	CA	THR	L	176	32.591	-7.963	15.529	1.00	52.24	C
ATOM	2672	CB	THR	L	176	32.355	-9.170	14.617	1.00	52.18	C
ATOM	2674	OG1	THR	L	176	31.345	-10.007	15.192	1.00	52.78	O
ATOM	2676	CG2	THR	L	176	33.639	-9.974	14.444	1.00	53.91	C
ATOM	2680	C	THR	L	176	31.330	-7.116	15.498	1.00	52.64	C
ATOM	2681	O	THR	L	176	30.546	-7.110	16.451	1.00	52.97	O
ATOM	2683	N	TYR	L	177	31.146	-6.404	14.390	1.00	52.05	N
ATOM	2684	CA	TYR	L	177	29.936	-5.636	14.155	1.00	52.18	C
ATOM	2686	CB	TYR	L	177	30.280	-4.207	13.731	1.00	52.28	C
ATOM	2689	CG	TYR	L	177	31.123	-3.476	14.741	1.00	50.99	C
ATOM	2690	CD1	TYR	L	177	30.535	-2.826	15.813	1.00	53.06	C
ATOM	2692	CE1	TYR	L	177	31.296	-2.161	16.762	1.00	52.96	C
ATOM	2694	CZ	TYR	L	177	32.666	-2.140	16.639	1.00	53.33	C
ATOM	2695	OH	TYR	L	177	33.414	-1.478	17.591	1.00	52.32	O
ATOM	2697	CE2	TYR	L	177	33.282	-2.787	15.575	1.00	52.90	C
ATOM	2699	CD2	TYR	L	177	32.507	-3.452	14.638	1.00	51.48	C
ATOM	2701	C	TYR	L	177	29.129	-6.316	13.069	1.00	52.44	C
ATOM	2702	O	TYR	L	177	29.671	-7.081	12.271	1.00	52.38	O
ATOM	2704	N	SER	L	178	27.832	-6.041	13.050	1.00	52.19	N
ATOM	2705	CA	SER	L	178	26.975	-6.447	11.947	1.00	52.95	C
ATOM	2707	CB	SER	L	178	26.069	-7.599	12.362	1.00	53.30	C
ATOM	2710	OG	SER	L	178	26.832	-8.717	12.776	1.00	52.50	O
ATOM	2712	C	SER	L	178	26.158	-5.242	11.523	1.00	53.54	C
ATOM	2713	O	SER	L	178	25.941	-4.335	12.323	1.00	54.29	O
ATOM	2715	N	LEU	L	179	25.706	-5.234	10.269	1.00	54.64	N
ATOM	2716	CA	LEU	L	179	25.068	-4.045	9.676	1.00	55.24	C
ATOM	2718	CB	LEU	L	179	26.134	-3.110	9.076	1.00	55.63	C
ATOM	2721	CG	LEU	L	179	25.724	-1.776	8.435	1.00	53.31	C
ATOM	2723	CD1	LEU	L	179	26.905	-0.836	8.428	1.00	52.32	C
ATOM	2727	CD2	LEU	L	179	25.209	-1.941	7.020	1.00	52.03	C
ATOM	2731	C	LEU	L	179	24.033	-4.401	8.609	1.00	55.66	C
ATOM	2732	O	LEU	L	179	24.249	-5.293	7.779	1.00	55.17	O
ATOM	2734	N	SER	L	180	22.915	-3.680	8.649	1.00	55.32	N
ATOM	2735	CA	SER	L	180	21.857	-3.796	7.663	1.00	53.86	C
ATOM	2737	CB	SER	L	180	20.564	-4.282	8.317	1.00	53.72	C
ATOM	2740	OG	SER	L	180	20.049	-3.313	9.219	1.00	52.78	O
ATOM	2742	C	SER	L	180	21.623	-2.430	7.038	1.00	53.33	C
ATOM	2743	O	SER	L	180	21.507	-1.435	7.742	1.00	52.83	O
ATOM	2745	N	SER	L	181	21.576	-2.402	5.711	1.00	53.68	N
ATOM	2746	CA	SER	L	181	21.180	-1.231	4.942	1.00	52.42	C
ATOM	2748	CB	SER	L	181	22.240	-0.925	3.877	1.00	52.92	C
ATOM	2751	OG	SER	L	181	21.837	0.122	3.010	1.00	53.65	O
ATOM	2753	C	SER	L	181	19.850	-1.582	4.290	1.00	51.14	C
ATOM	2754	O	SER	L	181	19.709	-2.670	3.726	1.00	49.09	O
ATOM	2756	N	THR	L	182	18.872	-0.680	4.380	1.00	50.15	N
ATOM	2757	CA	THR	L	182	17.566	-0.920	3.762	1.00	50.23	C
ATOM	2759	CB	THR	L	182	16.461	-1.088	4.807	1.00	49.71	C
ATOM	2761	OG1	THR	L	182	16.864	-2.069	5.767	1.00	48.24	O
ATOM	2763	CG2	THR	L	182	15.150	-1.527	4.142	1.00	49.34	C

ATOM	2767	C	THR	L	182	17.160	0.193	2.811	1.00	48.67	C
ATOM	2768	O	THR	L	182	17.108	1.352	3.197	1.00	44.88	O
ATOM	2770	N	LEU	L	183	16.866	-0.201	1.571	1.00	50.93	N
ATOM	2771	CA	LEU	L	183	16.392	0.696	0.512	1.00	51.96	C
ATOM	2773	CB	LEU	L	183	17.008	0.278	-0.822	1.00	51.13	C
ATOM	2776	CG	LEU	L	183	16.652	1.052	-2.091	1.00	51.40	C
ATOM	2778	CD1	LEU	L	183	17.427	2.356	-2.178	1.00	51.77	C
ATOM	2782	CD2	LEU	L	183	16.941	0.193	-3.303	1.00	51.95	C
ATOM	2786	C	LEU	L	183	14.871	0.624	0.415	1.00	51.99	C
ATOM	2787	O	LEU	L	183	14.291	-0.452	0.518	1.00	50.98	O
ATOM	2789	N	THR	L	184	14.236	1.769	0.192	1.00	54.25	N
ATOM	2790	CA	THR	L	184	12.777	1.873	0.233	1.00	55.46	C
ATOM	2792	CB	THR	L	184	12.338	2.678	1.477	1.00	56.62	C
ATOM	2794	OG1	THR	L	184	13.184	2.343	2.586	1.00	57.44	O
ATOM	2796	CG2	THR	L	184	10.883	2.378	1.843	1.00	56.53	C
ATOM	2800	C	THR	L	184	12.243	2.549	-1.032	1.00	56.07	C
ATOM	2801	O	THR	L	184	12.634	3.675	-1.346	1.00	56.07	O
ATOM	2803	N	LEU	L	185	11.366	1.849	-1.757	1.00	56.92	N
ATOM	2804	CA	LEU	L	185	10.762	2.369	-2.997	1.00	57.75	C
ATOM	2806	CB	LEU	L	185	11.253	1.588	-4.215	1.00	58.07	C
ATOM	2809	CG	LEU	L	185	12.739	1.270	-4.323	1.00	61.99	C
ATOM	2811	CD1	LEU	L	185	12.994	0.556	-5.651	1.00	61.55	C
ATOM	2815	CD2	LEU	L	185	13.605	2.537	-4.182	1.00	65.29	C
ATOM	2819	C	LEU	L	185	9.251	2.245	-2.978	1.00	57.44	C
ATOM	2820	O	LEU	L	185	8.691	1.457	-2.215	1.00	57.24	O
ATOM	2822	N	SER	L	186	8.594	3.005	-3.845	1.00	57.30	N
ATOM	2823	CA	SER	L	186	7.167	2.816	-4.076	1.00	58.49	C
ATOM	2825	CB	SER	L	186	6.544	4.052	-4.740	1.00	58.90	C
ATOM	2828	OG	SER	L	186	7.098	4.296	-6.022	1.00	58.65	O
ATOM	2830	C	SER	L	186	6.958	1.579	-4.951	1.00	58.87	C
ATOM	2831	O	SER	L	186	7.773	1.289	-5.835	1.00	58.94	O
ATOM	2833	N	LYS	L	187	5.871	0.853	-4.690	1.00	58.84	N
ATOM	2834	CA	LYS	L	187	5.470	-0.293	-5.514	1.00	58.71	C
ATOM	2836	CB	LYS	L	187	3.960	-0.565	-5.364	1.00	59.52	C
ATOM	2839	CG	LYS	L	187	3.036	0.684	-5.440	1.00	58.94	C
ATOM	2842	CD	LYS	L	187	1.740	0.409	-6.220	1.00	58.51	C
ATOM	2845	CE	LYS	L	187	1.980	0.425	-7.730	1.00	56.51	C
ATOM	2848	NZ	LYS	L	187	0.818	-0.065	-8.500	1.00	55.30	N
ATOM	2852	C	LYS	L	187	5.813	-0.114	-7.001	1.00	58.68	C
ATOM	2853	O	LYS	L	187	6.413	-0.997	-7.614	1.00	58.00	O
ATOM	2855	N	ALA	L	188	5.445	1.042	-7.557	1.00	58.37	N
ATOM	2856	CA	ALA	L	188	5.601	1.322	-8.983	1.00	57.88	C
ATOM	2858	CB	ALA	L	188	4.815	2.576	-9.366	1.00	57.08	C
ATOM	2862	C	ALA	L	188	7.069	1.486	-9.357	1.00	57.89	C
ATOM	2863	O	ALA	L	188	7.530	0.906	-10.343	1.00	56.89	O
ATOM	2865	N	ASP	L	189	7.797	2.269	-8.560	1.00	58.23	N
ATOM	2866	CA	ASP	L	189	9.216	2.533	-8.816	1.00	57.62	C
ATOM	2868	CB	ASP	L	189	9.774	3.565	-7.822	1.00	57.08	C
ATOM	2871	CG	ASP	L	189	9.154	4.956	-8.001	1.00	59.38	C
ATOM	2872	OD1	ASP	L	189	7.976	5.040	-8.407	1.00	62.30	O
ATOM	2873	OD2	ASP	L	189	9.835	5.970	-7.728	1.00	60.32	O
ATOM	2874	C	ASP	L	189	10.028	1.235	-8.788	1.00	57.16	C
ATOM	2875	O	ASP	L	189	11.018	1.101	-9.516	1.00	56.54	O
ATOM	2877	N	TYR	L	190	9.587	0.278	-7.970	1.00	56.48	N
ATOM	2878	CA	TYR	L	190	10.200	-1.050	-7.921	1.00	56.08	C
ATOM	2880	CB	TYR	L	190	9.757	-1.801	-6.659	1.00	55.94	C
ATOM	2883	CG	TYR	L	190	10.393	-3.170	-6.508	1.00	56.42	C
ATOM	2884	CD1	TYR	L	190	11.645	-3.318	-5.916	1.00	54.49	C
ATOM	2886	CE1	TYR	L	190	12.234	-4.576	-5.780	1.00	54.37	C
ATOM	2888	CZ	TYR	L	190	11.569	-5.703	-6.241	1.00	54.25	C
ATOM	2889	OH	TYR	L	190	12.148	-6.947	-6.113	1.00	53.12	O
ATOM	2891	CE2	TYR	L	190	10.325	-5.581	-6.833	1.00	54.89	C
ATOM	2893	CD2	TYR	L	190	9.743	-4.319	-6.965	1.00	56.09	C

ATOM	2895	C	TYR	L	190	9.869	-1.879	-9.168	1.00	55.03	C
ATOM	2896	O	TYR	L	190	10.770	-2.327	-9.879	1.00	54.57	O
ATOM	2898	N	GLU	L	191	8.577	-2.074	-9.425	1.00	54.94	N
ATOM	2899	CA	GLU	L	191	8.106	-2.881	-10.562	1.00	54.92	C
ATOM	2901	CB	GLU	L	191	6.616	-2.629	-10.815	1.00	54.51	C
ATOM	2904	CG	GLU	L	191	5.679	-3.328	-9.839	1.00	54.43	C
ATOM	2907	CD	GLU	L	191	4.256	-2.776	-9.894	1.00	55.51	C
ATOM	2908	OE1	GLU	L	191	3.731	-2.563	-11.008	1.00	52.00	O
ATOM	2909	OE2	GLU	L	191	3.659	-2.553	-8.819	1.00	59.15	O
ATOM	2910	C	GLU	L	191	8.882	-2.617	-11.855	1.00	55.01	C
ATOM	2911	O	GLU	L	191	9.134	-3.545	-12.626	1.00	54.87	O
ATOM	2913	N	LYS	L	192	9.250	-1.353	-12.076	1.00	54.95	N
ATOM	2914	CA	LYS	L	192	9.967	-0.920	-13.283	1.00	54.67	C
ATOM	2916	CB	LYS	L	192	10.267	0.584	-13.214	1.00	54.20	C
ATOM	2919	CG	LYS	L	192	9.045	1.485	-13.303	1.00	54.04	C
ATOM	2922	CD	LYS	L	192	9.440	2.936	-13.570	1.00	54.63	C
ATOM	2925	CE	LYS	L	192	8.286	3.894	-13.307	1.00	55.33	C
ATOM	2928	NZ	LYS	L	192	7.975	3.990	-11.849	1.00	57.07	N
ATOM	2932	C	LYS	L	192	11.284	-1.658	-13.550	1.00	54.85	C
ATOM	2933	O	LYS	L	192	11.530	-2.125	-14.669	1.00	54.13	O
ATOM	2935	N	HIS	L	193	12.122	-1.761	-12.524	1.00	54.78	N
ATOM	2936	CA	HIS	L	193	13.516	-2.156	-12.715	1.00	55.43	C
ATOM	2938	CB	HIS	L	193	14.414	-1.237	-11.897	1.00	55.85	C
ATOM	2941	CG	HIS	L	193	14.109	0.216	-12.099	1.00	56.95	C
ATOM	2942	ND1	HIS	L	193	14.181	0.824	-13.335	1.00	55.07	N
ATOM	2944	CE1	HIS	L	193	13.847	2.097	-13.216	1.00	56.78	C
ATOM	2946	NE2	HIS	L	193	13.555	2.335	-11.949	1.00	56.59	N
ATOM	2948	CD2	HIS	L	193	13.705	1.174	-11.230	1.00	55.90	C
ATOM	2950	C	HIS	L	193	13.773	-3.621	-12.386	1.00	55.24	C
ATOM	2951	O	HIS	L	193	12.971	-4.261	-11.711	1.00	55.40	O
ATOM	2953	N	LYS	L	194	14.893	-4.142	-12.883	1.00	55.20	N
ATOM	2954	CA	LYS	L	194	15.186	-5.571	-12.815	1.00	55.83	C
ATOM	2956	CB	LYS	L	194	15.388	-6.135	-14.222	1.00	55.21	C
ATOM	2959	CG	LYS	L	194	15.712	-7.623	-14.244	1.00	54.79	C
ATOM	2962	CD	LYS	L	194	15.212	-8.306	-15.509	1.00	55.94	C
ATOM	2965	CE	LYS	L	194	13.725	-8.643	-15.422	1.00	55.81	C
ATOM	2968	NZ	LYS	L	194	13.258	-9.413	-16.613	1.00	52.91	N
ATOM	2972	C	LYS	L	194	16.403	-5.882	-11.950	1.00	56.71	C
ATOM	2973	O	LYS	L	194	16.323	-6.726	-11.052	1.00	56.77	O
ATOM	2975	N	VAL	L	195	17.527	-5.221	-12.232	1.00	57.29	N
ATOM	2976	CA	VAL	L	195	18.760	-5.426	-11.462	1.00	57.20	C
ATOM	2978	CB	VAL	L	195	20.017	-4.910	-12.214	1.00	56.95	C
ATOM	2980	CG1	VAL	L	195	21.264	-4.968	-11.317	1.00	55.76	C
ATOM	2984	CG2	VAL	L	195	20.242	-5.710	-13.487	1.00	57.16	C
ATOM	2988	C	VAL	L	195	18.666	-4.720	-10.112	1.00	57.79	C
ATOM	2989	O	VAL	L	195	18.367	-3.527	-10.047	1.00	58.39	O
ATOM	2991	N	TYR	L	196	18.912	-5.474	-9.043	1.00	57.72	N
ATOM	2992	CA	TYR	L	196	19.020	-4.922	-7.699	1.00	57.74	C
ATOM	2994	CB	TYR	L	196	17.791	-5.289	-6.865	1.00	57.31	C
ATOM	2997	CG	TYR	L	196	16.614	-4.418	-7.220	1.00	57.57	C
ATOM	2998	CD1	TYR	L	196	15.773	-4.750	-8.277	1.00	58.23	C
ATOM	3000	CE1	TYR	L	196	14.703	-3.934	-8.628	1.00	57.87	C
ATOM	3002	CZ	TYR	L	196	14.478	-2.764	-7.927	1.00	57.41	C
ATOM	3003	OH	TYR	L	196	13.425	-1.951	-8.269	1.00	57.51	O
ATOM	3005	CE2	TYR	L	196	15.310	-2.408	-6.880	1.00	57.56	C
ATOM	3007	CD2	TYR	L	196	16.374	-3.232	-6.537	1.00	56.51	C
ATOM	3009	C	TYR	L	196	20.297	-5.449	-7.075	1.00	58.27	C
ATOM	3010	O	TYR	L	196	20.447	-6.657	-6.909	1.00	58.76	O
ATOM	3012	N	ALA	L	197	21.211	-4.531	-6.748	1.00	58.60	N
ATOM	3013	CA	ALA	L	197	22.565	-4.872	-6.305	1.00	58.40	C
ATOM	3015	CB	ALA	L	197	23.549	-4.628	-7.437	1.00	59.04	C
ATOM	3019	C	ALA	L	197	23.000	-4.082	-5.069	1.00	58.97	C
ATOM	3020	O	ALA	L	197	22.730	-2.881	-4.951	1.00	58.74	O

ATOM	3022	N	CYS	L	198	23.686	-4.770	-4.159	1.00 58.92	N
ATOM	3023	CA	CYS	L	198	24.255	-4.149	-2.970	1.00 58.33	C
ATOM	3025	CB	CYS	L	198	23.729	-4.828	-1.699	1.00 58.04	C
ATOM	3028	SG	CYS	L	198	24.536	-4.228	-0.198	1.00 60.24	S
ATOM	3030	C	CYS	L	198	25.777	-4.258	-3.035	1.00 58.31	C
ATOM	3031	O	CYS	L	198	26.338	-5.317	-2.755	1.00 59.22	O
ATOM	3033	N	GLU	L	199	26.438	-3.161	-3.401	1.00 57.62	N
ATOM	3034	CA	GLU	L	199	27.897	-3.131	-3.520	1.00 56.85	C
ATOM	3036	CB	GLU	L	199	28.321	-2.162	-4.627	1.00 58.52	C
ATOM	3039	CG	GLU	L	199	29.835	-1.997	-4.819	1.00 58.08	C
ATOM	3042	CD	GLU	L	199	30.172	-1.011	-5.924	1.00 58.08	C
ATOM	3043	OE1	GLU	L	199	29.237	-0.417	-6.507	1.00 57.49	O
ATOM	3044	OE2	GLU	L	199	31.372	-0.830	-6.214	1.00 62.44	O
ATOM	3045	C	GLU	L	199	28.533	-2.731	-2.192	1.00 54.23	C
ATOM	3046	O	GLU	L	199	28.288	-1.643	-1.679	1.00 51.14	O
ATOM	3048	N	VAL	L	200	29.365	-3.619	-1.660	1.00 53.99	N
ATOM	3049	CA	VAL	L	200	29.944	-3.454	-0.334	1.00 54.70	C
ATOM	3051	CB	VAL	L	200	29.566	-4.623	0.588	1.00 54.98	C
ATOM	3053	CG1	VAL	L	200	30.293	-4.515	1.931	1.00 53.68	C
ATOM	3057	CG2	VAL	L	200	28.056	-4.668	0.780	1.00 55.59	C
ATOM	3061	C	VAL	L	200	31.451	-3.394	-0.424	1.00 54.23	C
ATOM	3062	O	VAL	L	200	32.065	-4.194	-1.120	1.00 54.92	O
ATOM	3064	N	THR	L	201	32.035	-2.462	0.320	1.00 53.64	N
ATOM	3065	CA	THR	L	201	33.462	-2.191	0.263	1.00 53.08	C
ATOM	3067	CB	THR	L	201	33.784	-0.993	-0.669	1.00 52.20	C
ATOM	3069	OG1	THR	L	201	34.574	-0.028	0.034	1.00 49.12	O
ATOM	3071	CG2	THR	L	201	32.506	-0.314	-1.187	1.00 51.65	C
ATOM	3075	C	THR	L	201	33.993	-1.946	1.673	1.00 53.49	C
ATOM	3076	O	THR	L	201	33.421	-1.162	2.433	1.00 51.44	O
ATOM	3078	N	HIS	L	202	35.097	-2.620	1.998	1.00 55.44	N
ATOM	3079	CA	HIS	L	202	35.626	-2.679	3.358	1.00 55.07	C
ATOM	3081	CB	HIS	L	202	34.893	-3.782	4.121	1.00 56.07	C
ATOM	3084	CG	HIS	L	202	35.118	-3.758	5.599	1.00 56.86	C
ATOM	3085	ND1	HIS	L	202	35.185	-4.906	6.358	1.00 58.23	N
ATOM	3087	CE1	HIS	L	202	35.384	-4.585	7.623	1.00 63.59	C
ATOM	3089	NE2	HIS	L	202	35.454	-3.269	7.711	1.00 66.38	N
ATOM	3091	CD2	HIS	L	202	35.290	-2.727	6.459	1.00 59.85	C
ATOM	3093	C	HIS	L	202	37.131	-2.958	3.375	1.00 54.78	C
ATOM	3094	O	HIS	L	202	37.687	-3.510	2.427	1.00 54.71	O
ATOM	3096	N	GLN	L	203	37.776	-2.566	4.470	1.00 55.38	N
ATOM	3097	CA	GLN	L	203	39.191	-2.850	4.721	1.00 54.85	C
ATOM	3099	CB	GLN	L	203	39.525	-2.454	6.163	1.00 55.05	C
ATOM	3102	CG	GLN	L	203	41.007	-2.434	6.502	1.00 54.46	C
ATOM	3105	CD	GLN	L	203	41.269	-1.875	7.885	1.00 53.29	C
ATOM	3106	OE1	GLN	L	203	40.338	-1.593	8.637	1.00 57.10	O
ATOM	3107	NE2	GLN	L	203	42.538	-1.711	8.229	1.00 49.23	N
ATOM	3110	C	GLN	L	203	39.564	-4.320	4.493	1.00 54.95	C
ATOM	3111	O	GLN	L	203	40.635	-4.615	3.962	1.00 54.35	O
ATOM	3113	N	GLY	L	204	38.675	-5.230	4.894	1.00 55.44	N
ATOM	3114	CA	GLY	L	204	38.931	-6.673	4.828	1.00 54.77	C
ATOM	3117	C	GLY	L	204	38.742	-7.345	3.477	1.00 54.51	C
ATOM	3118	O	GLY	L	204	39.022	-8.536	3.341	1.00 54.11	O
ATOM	3120	N	LEU	L	205	38.258	-6.595	2.486	1.00 54.73	N
ATOM	3121	CA	LEU	L	205	38.124	-7.087	1.109	1.00 54.23	C
ATOM	3123	CB	LEU	L	205	36.699	-6.850	0.582	1.00 54.64	C
ATOM	3126	CG	LEU	L	205	35.499	-7.332	1.416	1.00 56.74	C
ATOM	3128	CD1	LEU	L	205	34.249	-6.519	1.087	1.00 58.06	C
ATOM	3132	CD2	LEU	L	205	35.234	-8.821	1.220	1.00 55.58	C
ATOM	3136	C	LEU	L	205	39.127	-6.356	0.214	1.00 53.26	C
ATOM	3137	O	LEU	L	205	39.269	-5.137	0.304	1.00 53.34	O
ATOM	3139	N	SER	L	206	39.821	-7.100	-0.641	1.00 52.19	N
ATOM	3140	CA	SER	L	206	40.758	-6.501	-1.598	1.00 51.87	C
ATOM	3142	CB	SER	L	206	41.622	-7.582	-2.254	1.00 51.36	C

ATOM	3145	OG	SER L 206	40.855	-8.730	-2.575	1.00	49.90		O
ATOM	3147	C	SER L 206	40.027	-5.684	-2.666	1.00	51.02		C
ATOM	3148	O	SER L 206	40.561	-4.696	-3.167	1.00	49.33		O
ATOM	3150	N	SER L 207	38.811	-6.113	-3.005	1.00	51.49		N
ATOM	3151	CA	SER L 207	37.929	-5.394	-3.930	1.00	52.61		C
ATOM	3153	CB	SER L 207	37.900	-6.089	-5.288	1.00	51.42		C
ATOM	3156	OG	SER L 207	38.982	-6.983	-5.412	1.00	50.93		O
ATOM	3158	C	SER L 207	36.516	-5.380	-3.354	1.00	54.16		C
ATOM	3159	O	SER L 207	36.223	-6.133	-2.427	1.00	56.06		O
ATOM	3161	N	PRO L 208	35.626	-4.538	-3.906	1.00	54.93		N
ATOM	3162	CA	PRO L 208	34.249	-4.559	-3.416	1.00	54.53		C
ATOM	3164	CB	PRO L 208	33.649	-3.278	-3.997	1.00	54.14		C
ATOM	3167	CG	PRO L 208	34.428	-3.025	-5.226	1.00	55.93		C
ATOM	3170	CD	PRO L 208	35.819	-3.541	-4.973	1.00	55.59		C
ATOM	3173	C	PRO L 208	33.461	-5.792	-3.876	1.00	55.09		C
ATOM	3174	O	PRO L 208	33.719	-6.342	-4.951	1.00	54.84		O
ATOM	3175	N	VAL L 209	32.518	-6.213	-3.037	1.00	56.28		N
ATOM	3176	CA	VAL L 209	31.626	-7.329	-3.320	1.00	56.34		C
ATOM	3178	CB	VAL L 209	31.488	-8.255	-2.089	1.00	56.85		C
ATOM	3180	CG1	VAL L 209	30.517	-9.395	-2.371	1.00	57.34		C
ATOM	3184	CG2	VAL L 209	32.852	-8.799	-1.670	1.00	57.07		C
ATOM	3188	C	VAL L 209	30.262	-6.747	-3.662	1.00	56.83		C
ATOM	3189	O	VAL L 209	29.897	-5.688	-3.151	1.00	56.98		O
ATOM	3191	N	THR L 210	29.516	-7.438	-4.523	1.00	57.27		N
ATOM	3192	CA	THR L 210	28.193	-6.979	-4.959	1.00	57.11		C
ATOM	3194	CB	THR L 210	28.281	-6.236	-6.327	1.00	57.73		C
ATOM	3196	OG1	THR L 210	29.064	-5.046	-6.175	1.00	59.95		O
ATOM	3198	CG2	THR L 210	26.896	-5.848	-6.855	1.00	57.29		C
ATOM	3202	C	THR L 210	27.198	-8.143	-5.051	1.00	56.72		C
ATOM	3203	O	THR L 210	27.092	-8.797	-6.090	1.00	56.88		O
ATOM	3205	N	LYS L 211	26.479	-8.398	-3.958	1.00	55.82		N
ATOM	3206	CA	LYS L 211	25.370	-9.358	-3.978	1.00	55.38		C
ATOM	3208	CB	LYS L 211	25.107	-9.956	-2.587	1.00	55.13		C
ATOM	3211	CG	LYS L 211	25.494	-11.445	-2.441	1.00	56.34		C
ATOM	3214	CD	LYS L 211	27.009	-11.694	-2.368	1.00	57.34		C
ATOM	3217	CE	LYS L 211	27.667	-11.925	-3.737	1.00	58.85		C
ATOM	3220	NZ	LYS L 211	27.153	-13.124	-4.467	1.00	59.52		N
ATOM	3224	C	LYS L 211	24.113	-8.702	-4.563	1.00	54.52		C
ATOM	3225	O	LYS L 211	23.800	-7.549	-4.264	1.00	52.98		O
ATOM	3227	N	SER L 212	23.406	-9.451	-5.406	1.00	54.59		N
ATOM	3228	CA	SER L 212	22.364	-8.887	-6.257	1.00	54.55		C
ATOM	3230	CB	SER L 212	23.016	-8.276	-7.490	1.00	54.31		C
ATOM	3233	OG	SER L 212	23.769	-9.253	-8.179	1.00	53.91		O
ATOM	3235	C	SER L 212	21.351	-9.928	-6.715	1.00	54.64		C
ATOM	3236	O	SER L 212	21.641	-11.127	-6.717	1.00	54.46		O
ATOM	3238	N	PHE L 213	20.170	-9.466	-7.122	1.00	54.88		N
ATOM	3239	CA	PHE L 213	19.120	-10.369	-7.606	1.00	54.74		C
ATOM	3241	CB	PHE L 213	18.186	-10.776	-6.461	1.00	55.51		C
ATOM	3244	CG	PHE L 213	17.297	-9.663	-5.958	1.00	56.79		C
ATOM	3245	CD1	PHE L 213	16.051	-9.438	-6.528	1.00	56.38		C
ATOM	3247	CE1	PHE L 213	15.221	-8.421	-6.063	1.00	55.82		C
ATOM	3249	CZ	PHE L 213	15.628	-7.628	-5.008	1.00	55.42		C
ATOM	3251	CE2	PHE L 213	16.867	-7.849	-4.422	1.00	57.19		C
ATOM	3253	CD2	PHE L 213	17.693	-8.863	-4.897	1.00	57.95		C
ATOM	3255	C	PHE L 213	18.303	-9.786	-8.753	1.00	54.51		C
ATOM	3256	O	PHE L 213	18.350	-8.582	-9.013	1.00	55.25		O
ATOM	3258	N	ASN L 214	17.562	-10.669	-9.426	1.00	53.54		N
ATOM	3259	CA	ASN L 214	16.636	-10.307	-10.499	1.00	52.36		C
ATOM	3261	CB	ASN L 214	17.158	-10.830	-11.848	1.00	53.00		C
ATOM	3264	CG	ASN L 214	18.501	-10.238	-12.242	1.00	51.37		C
ATOM	3265	OD1	ASN L 214	18.974	-9.257	-11.659	1.00	45.19		O
ATOM	3266	ND2	ASN L 214	19.118	-10.833	-13.261	1.00	48.36		N
ATOM	3269	C	ASN L 214	15.221	-10.853	-10.196	1.00	51.48		C

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ATOM   3270  O   ASN L 214      14.630 -10.487  -9.184  1.00 51.07           O
ATOM   3272  N   ARG L 215      14.683 -11.721 -11.058  1.00 51.10           N
ATOM   3273  CA  ARG L 215      13.342 -12.286 -10.879  1.00 50.13           C
ATOM   3275  CB  ARG L 215      12.269 -11.313 -11.388  1.00 50.15           C
ATOM   3278  CG  ARG L 215      11.837 -10.215 -10.400  1.00 48.63           C
ATOM   3281  CD  ARG L 215      12.491  -8.850 -10.667  1.00 50.31           C
ATOM   3284  NE  ARG L 215      11.646  -7.745 -10.197  1.00 51.54           N
ATOM   3286  CZ  ARG L 215      10.960  -6.898 -10.974  1.00 52.47           C
ATOM   3287  NH1 ARG L 215      11.003  -6.976 -12.306  1.00 48.09           N
ATOM   3290  NH2 ARG L 215      10.224  -5.946 -10.407  1.00 51.46           N
ATOM   3293  C   ARG L 215      13.221 -13.618 -11.623  1.00 47.98           C
ATOM   3294  O   ARG L 215      13.342 -14.686 -11.027  1.00 45.06           O
ATOM   3296  N   GLU H   2      18.755  -9.742  45.341  1.00 56.61           N
ATOM   3297  CA  GLU H   2      18.462  -8.275  45.177  1.00 58.49           C
ATOM   3299  CB  GLU H   2      19.732  -7.423  45.229  1.00 58.68           C
ATOM   3302  CG  GLU H   2      20.202  -7.083  46.631  1.00 62.61           C
ATOM   3305  CD  GLU H   2      21.482  -7.799  47.043  1.00 67.23           C
ATOM   3306  OE1 GLU H   2      21.816  -8.863  46.460  1.00 64.18           O
ATOM   3307  OE2 GLU H   2      22.153  -7.282  47.967  1.00 70.83           O
ATOM   3308  C   GLU H   2      17.780  -7.990  43.863  1.00 58.26           C
ATOM   3309  O   GLU H   2      18.380  -8.172  42.806  1.00 60.92           O
ATOM   3313  N   GLN H   3      16.547  -7.507  43.933  1.00 56.73           N
ATOM   3314  CA  GLN H   3      15.727  -7.340  42.747  1.00 56.52           C
ATOM   3316  CB  GLN H   3      14.787  -8.532  42.573  1.00 57.42           C
ATOM   3319  CG  GLN H   3      15.473  -9.832  42.190  1.00 61.67           C
ATOM   3322  CD  GLN H   3      14.760 -10.546  41.052  1.00 67.16           C
ATOM   3323  OE1 GLN H   3      14.535  -9.964  39.985  1.00 66.35           O
ATOM   3324  NE2 GLN H   3      14.407 -11.814  41.270  1.00 68.91           N
ATOM   3327  C   GLN H   3      14.899  -6.081  42.836  1.00 56.35           C
ATOM   3328  O   GLN H   3      14.308  -5.789  43.881  1.00 58.04           O
ATOM   3330  N   LEU H   4      14.879  -5.332  41.739  1.00 54.56           N
ATOM   3331  CA  LEU H   4      13.946  -4.246  41.558  1.00 53.97           C
ATOM   3333  CB  LEU H   4      14.676  -2.909  41.550  1.00 53.64           C
ATOM   3336  CG  LEU H   4      15.263  -2.479  42.897  1.00 54.63           C
ATOM   3338  CD1 LEU H   4      16.194  -1.298  42.717  1.00 56.96           C
ATOM   3342  CD2 LEU H   4      14.182  -2.121  43.876  1.00 55.34           C
ATOM   3346  C   LEU H   4      13.241  -4.493  40.237  1.00 53.83           C
ATOM   3347  O   LEU H   4      13.875  -4.524  39.190  1.00 52.85           O
ATOM   3349  N   VAL H   5      11.933  -4.713  40.294  1.00 54.49           N
ATOM   3350  CA  VAL H   5      11.143  -4.951  39.101  1.00 54.69           C
ATOM   3352  CB  VAL H   5      10.267  -6.208  39.252  1.00 54.27           C
ATOM   3354  CG1 VAL H   5       9.321  -6.347  38.059  1.00 51.60           C
ATOM   3358  CG2 VAL H   5      11.137  -7.447  39.403  1.00 52.80           C
ATOM   3362  C   VAL H   5      10.252  -3.752  38.861  1.00 55.02           C
ATOM   3363  O   VAL H   5       9.437  -3.422  39.717  1.00 57.50           O
ATOM   3365  N   GLU H   6      10.398  -3.127  37.695  1.00 54.85           N
ATOM   3366  CA  GLU H   6       9.617  -1.945  37.318  1.00 55.62           C
ATOM   3368  CB  GLU H   6      10.446  -1.017  36.429  1.00 56.41           C
ATOM   3371  CG  GLU H   6      11.417  -0.136  37.185  1.00 58.95           C
ATOM   3374  CD  GLU H   6      12.278   0.686  36.253  1.00 61.09           C
ATOM   3375  OE1 GLU H   6      11.732   1.630  35.639  1.00 66.14           O
ATOM   3376  OE2 GLU H   6      13.488   0.385  36.135  1.00 64.83           O
ATOM   3377  C   GLU H   6       8.326  -2.289  36.580  1.00 55.06           C
ATOM   3378  O   GLU H   6       8.244  -3.302  35.875  1.00 53.72           O
ATOM   3380  N   SER H   7       7.329  -1.420  36.752  1.00 55.54           N
ATOM   3381  CA  SER H   7       6.017  -1.562  36.125  1.00 55.81           C
ATOM   3383  CB  SER H   7       5.046  -2.276  37.068  1.00 54.71           C
ATOM   3386  OG  SER H   7       5.521  -3.561  37.436  1.00 51.44           O
ATOM   3388  C   SER H   7       5.462  -0.179  35.774  1.00 57.33           C
ATOM   3389  O   SER H   7       5.658   0.783  36.521  1.00 57.12           O
ATOM   3391  N   GLY H   8       4.750  -0.105  34.649  1.00 58.14           N
ATOM   3392  CA  GLY H   8       4.306   1.159  34.062  1.00 57.37           C
ATOM   3395  C   GLY H   8       5.145   1.481  32.836  1.00 58.01           C
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ATOM   3396  O   GLY H   8       6.054   0.731  32.475  1.00 58.79           O
ATOM   3398  N   GLY H   9       4.844   2.604  32.192  1.00 57.77           N
ATOM   3399  CA  GLY H   9       5.608   3.053  31.028  1.00 56.11           C
ATOM   3402  C   GLY H   9       4.769   2.983  29.773  1.00 55.34           C
ATOM   3403  O   GLY H   9       3.687   2.407  29.787  1.00 56.26           O
ATOM   3405  N   GLY H  10       5.267   3.574  28.690  1.00 54.03           N
ATOM   3406  CA  GLY H  10       4.579   3.548  27.405  1.00 52.92           C
ATOM   3409  C   GLY H  10       4.240   4.935  26.908  1.00 52.43           C
ATOM   3410  O   GLY H  10       4.818   5.928  27.360  1.00 52.36           O
ATOM   3412  N   LEU H  11       3.289   4.994  25.977  1.00 51.79           N
ATOM   3413  CA  LEU H  11       2.924   6.236  25.295  1.00 50.93           C
ATOM   3415  CB  LEU H  11       2.307   5.910  23.925  1.00 51.75           C
ATOM   3418  CG  LEU H  11       1.987   7.022  22.911  1.00 51.71           C
ATOM   3420  CD1 LEU H  11       3.132   8.017  22.730  1.00 50.18           C
ATOM   3424  CD2 LEU H  11       1.605   6.397  21.575  1.00 49.22           C
ATOM   3428  C   LEU H  11       1.958   7.076  26.126  1.00 49.59           C
ATOM   3429  O   LEU H  11       1.003   6.558  26.708  1.00 47.51           O
ATOM   3431  N   VAL H  12       2.231   8.376  26.181  1.00 50.70           N
ATOM   3432  CA  VAL H  12       1.328   9.354  26.796  1.00 51.32           C
ATOM   3434  CB  VAL H  12       1.680   9.660  28.253  1.00 51.22           C
ATOM   3436  CG1 VAL H  12       1.292   8.503  29.149  1.00 56.15           C
ATOM   3440  CG2 VAL H  12       3.164   9.983  28.401  1.00 54.78           C
ATOM   3444  C   VAL H  12       1.381  10.660  26.033  1.00 50.66           C
ATOM   3445  O   VAL H  12       2.434  11.057  25.530  1.00 51.00           O
ATOM   3447  N   LYS H  13       0.232  11.317  25.945  1.00 50.88           N
ATOM   3448  CA  LYS H  13       0.142  12.621  25.305  1.00 51.70           C
ATOM   3450  CB  LYS H  13      -1.325  12.980  25.040  1.00 52.29           C
ATOM   3453  CG  LYS H  13      -1.902  12.304  23.802  1.00 51.28           C
ATOM   3456  CD  LYS H  13      -3.423  12.333  23.790  1.00 52.82           C
ATOM   3459  CE  LYS H  13      -3.984  12.401  22.377  1.00 55.83           C
ATOM   3462  NZ  LYS H  13      -3.195  11.584  21.423  1.00 57.61           N
ATOM   3466  C   LYS H  13       0.834  13.687  26.175  1.00 51.36           C
ATOM   3467  O   LYS H  13       0.913  13.537  27.393  1.00 49.24           O
ATOM   3469  N   PRO H  14       1.390  14.740  25.545  1.00 51.89           N
ATOM   3470  CA  PRO H  14       1.950  15.847  26.328  1.00 51.17           C
ATOM   3472  CB  PRO H  14       2.458  16.817  25.251  1.00 50.70           C
ATOM   3475  CG  PRO H  14       2.688  15.960  24.054  1.00 50.32           C
ATOM   3478  CD  PRO H  14       1.586  14.949  24.098  1.00 51.84           C
ATOM   3481  C   PRO H  14       0.908  16.519  27.219  1.00 49.57           C
ATOM   3482  O   PRO H  14      -0.220  16.746  26.786  1.00 50.07           O
ATOM   3483  N   GLY H  15       1.292  16.811  28.457  1.00 49.10           N
ATOM   3484  CA  GLY H  15       0.380  17.376  29.457  1.00 50.81           C
ATOM   3487  C   GLY H  15      -0.372  16.329  30.257  1.00 51.04           C
ATOM   3488  O   GLY H  15      -1.115  16.659  31.190  1.00 50.77           O
ATOM   3490  N   GLY H  16      -0.173  15.065  29.886  1.00 52.18           N
ATOM   3491  CA  GLY H  16      -0.841  13.939  30.517  1.00 52.36           C
ATOM   3494  C   GLY H  16      -0.041  13.363  31.665  1.00 53.40           C
ATOM   3495  O   GLY H  16       0.891  13.996  32.177  1.00 52.35           O
ATOM   3497  N   SER H  17      -0.413  12.143  32.049  1.00 55.01           N
ATOM   3498  CA  SER H  17       0.021  11.542  33.305  1.00 54.42           C
ATOM   3500  CB  SER H  17      -1.057  11.724  34.379  1.00 54.25           C
ATOM   3503  OG  SER H  17      -0.966  13.005  34.960  1.00 56.38           O
ATOM   3505  C   SER H  17       0.291  10.071  33.153  1.00 54.71           C
ATOM   3506  O   SER H  17      -0.162   9.432  32.206  1.00 55.94           O
ATOM   3508  N   LEU H  18       1.001   9.535  34.133  1.00 56.53           N
ATOM   3509  CA  LEU H  18       1.470   8.163  34.108  1.00 55.73           C
ATOM   3511  CB  LEU H  18       2.472   8.001  32.975  1.00 55.68           C
ATOM   3514  CG  LEU H  18       3.170   6.673  32.760  1.00 59.03           C
ATOM   3516  CD1 LEU H  18       2.195   5.476  32.790  1.00 64.04           C
ATOM   3520  CD2 LEU H  18       3.907   6.751  31.424  1.00 59.16           C
ATOM   3524  C   LEU H  18       2.148   7.911  35.438  1.00 56.06           C
ATOM   3525  O   LEU H  18       2.808   8.807  35.988  1.00 55.85           O
ATOM   3527  N   ARG H  19       1.965   6.715  35.979  1.00 56.64           N
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ATOM	3528	CA	ARG	H	19	2.626	6.344	37.221	1.00 56.43	C
ATOM	3530	CB	ARG	H	19	1.612	6.041	38.319	1.00 56.80	C
ATOM	3533	CG	ARG	H	19	2.217	6.081	39.716	1.00 58.31	C
ATOM	3536	CD	ARG	H	19	1.362	5.365	40.734	1.00 61.31	C
ATOM	3539	NE	ARG	H	19	1.337	3.920	40.503	1.00 67.58	N
ATOM	3541	CZ	ARG	H	19	0.699	3.041	41.276	1.00 70.39	C
ATOM	3542	NH1	ARG	H	19	0.033	3.450	42.356	1.00 69.73	N
ATOM	3545	NH2	ARG	H	19	0.730	1.743	40.971	1.00 69.82	N
ATOM	3548	C	ARG	H	19	3.505	5.130	37.006	1.00 55.52	C
ATOM	3549	O	ARG	H	19	3.079	4.128	36.416	1.00 56.01	O
ATOM	3551	N	LEU	H	20	4.739	5.236	37.481	1.00 54.58	N
ATOM	3552	CA	LEU	H	20	5.632	4.098	37.531	1.00 55.42	C
ATOM	3554	CB	LEU	H	20	7.043	4.463	37.043	1.00 55.00	C
ATOM	3557	CG	LEU	H	20	7.138	5.242	35.725	1.00 55.68	C
ATOM	3559	CD1	LEU	H	20	8.580	5.646	35.434	1.00 58.29	C
ATOM	3563	CD2	LEU	H	20	6.554	4.446	34.561	1.00 55.92	C
ATOM	3567	C	LEU	H	20	5.673	3.616	38.963	1.00 54.49	C
ATOM	3568	O	LEU	H	20	5.455	4.382	39.891	1.00 55.30	O
ATOM	3570	N	SER	H	21	5.936	2.332	39.126	1.00 56.12	N
ATOM	3571	CA	SER	H	21	6.166	1.746	40.428	1.00 56.93	C
ATOM	3573	CB	SER	H	21	4.907	1.045	40.921	1.00 57.53	C
ATOM	3576	OG	SER	H	21	4.584	-0.051	40.081	1.00 60.54	O
ATOM	3578	C	SER	H	21	7.309	0.750	40.288	1.00 58.71	C
ATOM	3579	O	SER	H	21	7.715	0.398	39.169	1.00 59.16	O
ATOM	3581	N	CYS	H	22	7.811	0.285	41.425	1.00 59.31	N
ATOM	3582	CA	CYS	H	22	8.981	-0.567	41.442	1.00 56.83	C
ATOM	3584	CB	CYS	H	22	10.227	0.308	41.431	1.00 59.46	C
ATOM	3587	SG	CYS	H	22	11.797	-0.553	41.533	1.00 65.61	S
ATOM	3589	C	CYS	H	22	8.927	-1.433	42.683	1.00 55.37	C
ATOM	3590	O	CYS	H	22	8.959	-0.926	43.802	1.00 53.14	O
ATOM	3592	N	ALA	H	23	8.798	-2.742	42.473	1.00 55.34	N
ATOM	3593	CA	ALA	H	23	8.735	-3.712	43.563	1.00 53.47	C
ATOM	3595	CB	ALA	H	23	7.811	-4.829	43.212	1.00 53.08	C
ATOM	3599	C	ALA	H	23	10.129	-4.258	43.833	1.00 52.42	C
ATOM	3600	O	ALA	H	23	10.822	-4.679	42.908	1.00 50.73	O
ATOM	3602	N	ALA	H	24	10.518	-4.246	45.108	1.00 52.07	N
ATOM	3603	CA	ALA	H	24	11.829	-4.693	45.552	1.00 51.43	C
ATOM	3605	CB	ALA	H	24	12.466	-3.626	46.466	1.00 51.29	C
ATOM	3609	C	ALA	H	24	11.704	-5.998	46.309	1.00 50.38	C
ATOM	3610	O	ALA	H	24	10.778	-6.162	47.107	1.00 49.98	O
ATOM	3612	N	SER	H	25	12.638	-6.915	46.069	1.00 50.32	N
ATOM	3613	CA	SER	H	25	12.796	-8.098	46.925	1.00 50.66	C
ATOM	3615	CB	SER	H	25	12.191	-9.335	46.269	1.00 50.25	C
ATOM	3618	OG	SER	H	25	13.117	-9.930	45.384	1.00 50.11	O
ATOM	3620	C	SER	H	25	14.274	-8.338	47.167	1.00 50.55	C
ATOM	3621	O	SER	H	25	15.113	-7.773	46.466	1.00 49.47	O
ATOM	3623	N	GLY	H	26	14.588	-9.170	48.160	1.00 50.83	N
ATOM	3624	CA	GLY	H	26	15.965	-9.604	48.400	1.00 50.46	C
ATOM	3627	C	GLY	H	26	16.773	-8.832	49.428	1.00 50.67	C
ATOM	3628	O	GLY	H	26	17.641	-9.409	50.055	1.00 51.46	O
ATOM	3630	N	PHE	H	27	16.509	-7.534	49.598	1.00 52.07	N
ATOM	3631	CA	PHE	H	27	17.244	-6.692	50.565	1.00 50.72	C
ATOM	3633	CB	PHE	H	27	18.154	-5.700	49.825	1.00 50.11	C
ATOM	3636	CG	PHE	H	27	17.418	-4.738	48.957	1.00 50.40	C
ATOM	3637	CD1	PHE	H	27	17.043	-5.092	47.668	1.00 51.35	C
ATOM	3639	CE1	PHE	H	27	16.363	-4.197	46.848	1.00 48.63	C
ATOM	3641	CZ	PHE	H	27	16.050	-2.941	47.321	1.00 50.70	C
ATOM	3643	CE2	PHE	H	27	16.426	-2.568	48.601	1.00 50.42	C
ATOM	3645	CD2	PHE	H	27	17.104	-3.469	49.416	1.00 52.69	C
ATOM	3647	C	PHE	H	27	16.301	-5.966	51.539	1.00 49.97	C
ATOM	3648	O	PHE	H	27	15.099	-6.212	51.537	1.00 48.25	O
ATOM	3650	N	SER	H	28	16.857	-5.095	52.385	1.00 51.01	N
ATOM	3651	CA	SER	H	28	16.082	-4.395	53.417	1.00 50.58	C

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ATOM   3653  CB  SER H  28      16.892  -4.261  54.708  1.00 51.28           C
ATOM   3656  OG  SER H  28      16.076  -3.756  55.757  1.00 52.89           O
ATOM   3658  C   SER H  28      15.612  -3.024  52.943  1.00 49.79           C
ATOM   3659  O   SER H  28      16.250  -1.986  53.193  1.00 48.90           O
ATOM   3661  N   PHE H  29      14.472  -3.047  52.266  1.00 49.18           N
ATOM   3662  CA  PHE H  29      13.891  -1.875  51.626  1.00 50.01           C
ATOM   3664  CB  PHE H  29      12.496  -2.230  51.131  1.00 48.32           C
ATOM   3667  CG  PHE H  29      11.828  -1.151  50.327  1.00 48.58           C
ATOM   3668  CD1 PHE H  29      12.051  -1.046  48.972  1.00 47.02           C
ATOM   3670  CE1 PHE H  29      11.428  -0.069  48.227  1.00 45.47           C
ATOM   3672  CZ  PHE H  29      10.555   0.794  48.824  1.00 48.47           C
ATOM   3674  CE2 PHE H  29      10.304   0.696  50.183  1.00 47.66           C
ATOM   3676  CD2 PHE H  29      10.938  -0.269  50.924  1.00 47.81           C
ATOM   3678  C   PHE H  29      13.836  -0.677  52.563  1.00 50.10           C
ATOM   3679  O   PHE H  29      14.166   0.423  52.168  1.00 49.59           O
ATOM   3681  N   SER H  30      13.451  -0.905  53.811  1.00 52.28           N
ATOM   3682  CA  SER H  30      13.308   0.187  54.768  1.00 54.39           C
ATOM   3684  CB  SER H  30      12.611  -0.285  56.038  1.00 54.51           C
ATOM   3687  OG  SER H  30      11.244   0.062  55.986  1.00 60.29           O
ATOM   3689  C   SER H  30      14.622   0.839  55.142  1.00 55.97           C
ATOM   3690  O   SER H  30      14.633   1.979  55.575  1.00 58.83           O
ATOM   3692  N   ASP H  31      15.725   0.120  54.986  1.00 57.11           N
ATOM   3693  CA  ASP H  31      17.050   0.679  55.274  1.00 57.16           C
ATOM   3695  CB  ASP H  31      17.986  -0.438  55.773  1.00 57.00           C
ATOM   3698  CG  ASP H  31      17.502  -1.068  57.085  1.00 58.67           C
ATOM   3699  OD1 ASP H  31      17.234  -0.317  58.043  1.00 63.08           O
ATOM   3700  OD2 ASP H  31      17.384  -2.310  57.167  1.00 58.40           O
ATOM   3701  C   ASP H  31      17.672   1.401  54.057  1.00 57.43           C
ATOM   3702  O   ASP H  31      18.842   1.792  54.101  1.00 55.59           O
ATOM   3704  N   CYS H  32      16.896   1.594  52.989  1.00 56.14           N
ATOM   3705  CA  CYS H  32      17.442   2.115  51.750  1.00 57.19           C
ATOM   3707  CB  CYS H  32      17.338   1.047  50.664  1.00 57.68           C
ATOM   3710  SG  CYS H  32      18.330  -0.413  51.027  1.00 60.48           S
ATOM   3712  C   CYS H  32      16.779   3.403  51.269  1.00 57.32           C
ATOM   3713  O   CYS H  32      15.572   3.595  51.407  1.00 56.26           O
ATOM   3715  N   ARG H  33      17.592   4.295  50.716  1.00 58.05           N
ATOM   3716  CA  ARG H  33      17.075   5.390  49.915  1.00 59.05           C
ATOM   3718  CB  ARG H  33      18.127   6.483  49.699  1.00 60.10           C
ATOM   3721  CG  ARG H  33      18.419   7.317  50.911  1.00 61.65           C
ATOM   3724  CD  ARG H  33      19.060   8.657  50.536  1.00 63.60           C
ATOM   3727  NE  ARG H  33      19.339   9.429  51.748  1.00 66.43           N
ATOM   3729  CZ  ARG H  33      20.535   9.583  52.312  1.00 66.37           C
ATOM   3730  NH1 ARG H  33      21.632   9.065  51.772  1.00 71.77           N
ATOM   3733  NH2 ARG H  33      20.639  10.291  53.426  1.00 68.04           N
ATOM   3736  C   ARG H  33      16.685   4.807  48.567  1.00 58.44           C
ATOM   3737  O   ARG H  33      17.428   4.004  48.000  1.00 58.55           O
ATOM   3739  N   MET H  34      15.521   5.202  48.065  1.00 56.95           N
ATOM   3740  CA  MET H  34      15.090   4.804  46.745  1.00 56.14           C
ATOM   3742  CB  MET H  34      13.629   4.351  46.770  1.00 56.70           C
ATOM   3745  CG  MET H  34      13.337   3.183  47.740  1.00 58.76           C
ATOM   3748  SD  MET H  34      14.315   1.675  47.451  1.00 58.81           S
ATOM   3749  CE  MET H  34      13.826   1.233  45.797  1.00 60.09           C
ATOM   3753  C   MET H  34      15.291   6.000  45.834  1.00 54.94           C
ATOM   3754  O   MET H  34      15.118   7.140  46.250  1.00 55.91           O
ATOM   3756  N   TYR H  35      15.700   5.737  44.600  1.00 54.70           N
ATOM   3757  CA  TYR H  35      15.919   6.792  43.624  1.00 55.83           C
ATOM   3759  CB  TYR H  35      17.406   6.942  43.276  1.00 56.48           C
ATOM   3762  CG  TYR H  35      18.380   6.794  44.427  1.00 57.63           C
ATOM   3763  CD1 TYR H  35      18.827   7.899  45.132  1.00 54.66           C
ATOM   3765  CE1 TYR H  35      19.727   7.767  46.157  1.00 54.12           C
ATOM   3767  CZ  TYR H  35      20.198   6.522  46.491  1.00 55.23           C
ATOM   3768  OH  TYR H  35      21.087   6.378  47.517  1.00 55.85           O
ATOM   3770  CE2 TYR H  35      19.775   5.413  45.813  1.00 58.29           C
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ATOM	3772	CD2	TYR	H	35	18.881	5.550	44.779	1.00 57.08	C
ATOM	3774	C	TYR	H	35	15.182	6.475	42.338	1.00 55.62	C
ATOM	3775	O	TYR	H	35	14.958	5.304	42.015	1.00 53.71	O
ATOM	3777	N	TRP	H	36	14.811	7.533	41.613	1.00 55.28	N
ATOM	3778	CA	TRP	H	36	14.484	7.414	40.206	1.00 55.09	C
ATOM	3780	CB	TRP	H	36	13.076	7.920	39.909	1.00 55.00	C
ATOM	3783	CG	TRP	H	36	12.005	7.017	40.432	1.00 55.14	C
ATOM	3784	CD1	TRP	H	36	11.352	7.141	41.611	1.00 54.77	C
ATOM	3786	NE1	TRP	H	36	10.437	6.132	41.760	1.00 55.42	N
ATOM	3788	CE2	TRP	H	36	10.487	5.323	40.656	1.00 56.93	C
ATOM	3789	CD2	TRP	H	36	11.469	5.850	39.795	1.00 55.90	C
ATOM	3790	CE3	TRP	H	36	11.718	5.204	38.577	1.00 54.80	C
ATOM	3792	CZ3	TRP	H	36	10.987	4.076	38.263	1.00 53.18	C
ATOM	3794	CH2	TRP	H	36	10.014	3.573	39.141	1.00 55.17	C
ATOM	3796	CZ2	TRP	H	36	9.748	4.181	40.339	1.00 55.56	C
ATOM	3798	C	TRP	H	36	15.518	8.170	39.380	1.00 55.00	C
ATOM	3799	O	TRP	H	36	15.969	9.259	39.753	1.00 56.65	O
ATOM	3801	N	LEU	H	37	15.906	7.559	38.270	1.00 54.61	N
ATOM	3802	CA	LEU	H	37	16.780	8.178	37.280	1.00 54.88	C
ATOM	3804	CB	LEU	H	37	18.220	7.663	37.386	1.00 54.64	C
ATOM	3807	CG	LEU	H	37	18.783	7.212	38.736	1.00 54.68	C
ATOM	3809	CD1	LEU	H	37	20.234	7.604	38.853	1.00 53.68	C
ATOM	3813	CD2	LEU	H	37	18.635	5.705	38.917	1.00 55.23	C
ATOM	3817	C	LEU	H	37	16.219	7.864	35.886	1.00 54.80	C
ATOM	3818	O	LEU	H	37	15.391	6.948	35.728	1.00 53.49	O
ATOM	3820	N	ARG	H	38	16.667	8.631	34.889	1.00 53.19	N
ATOM	3821	CA	ARG	H	38	16.189	8.473	33.524	1.00 53.67	C
ATOM	3823	CB	ARG	H	38	15.041	9.436	33.227	1.00 54.81	C
ATOM	3826	CG	ARG	H	38	15.461	10.895	33.059	1.00 55.37	C
ATOM	3829	CD	ARG	H	38	14.294	11.769	32.632	1.00 52.74	C
ATOM	3832	NE	ARG	H	38	14.603	13.177	32.842	1.00 53.44	N
ATOM	3834	CZ	ARG	H	38	13.768	14.174	32.571	1.00 51.46	C
ATOM	3835	NH1	ARG	H	38	12.556	13.927	32.099	1.00 54.21	N
ATOM	3838	NH2	ARG	H	38	14.146	15.428	32.794	1.00 47.99	N
ATOM	3841	C	ARG	H	38	17.297	8.679	32.510	1.00 53.96	C
ATOM	3842	O	ARG	H	38	18.345	9.266	32.812	1.00 53.44	O
ATOM	3844	N	GLN	H	39	17.026	8.203	31.299	1.00 53.60	N
ATOM	3845	CA	GLN	H	39	17.998	8.180	30.212	1.00 53.28	C
ATOM	3847	CB	GLN	H	39	18.878	6.932	30.337	1.00 52.42	C
ATOM	3850	CG	GLN	H	39	19.753	6.609	29.129	1.00 51.84	C
ATOM	3853	CD	GLN	H	39	20.733	5.489	29.426	1.00 50.24	C
ATOM	3854	OE1	GLN	H	39	20.371	4.476	30.024	1.00 48.74	O
ATOM	3855	NE2	GLN	H	39	21.983	5.677	29.033	1.00 36.18	N
ATOM	3858	C	GLN	H	39	17.249	8.207	28.877	1.00 53.61	C
ATOM	3859	O	GLN	H	39	16.462	7.304	28.571	1.00 53.97	O
ATOM	3861	N	ALA	H	40	17.488	9.259	28.100	1.00 53.97	N
ATOM	3862	CA	ALA	H	40	16.848	9.433	26.796	1.00 54.45	C
ATOM	3864	CB	ALA	H	40	16.897	10.908	26.385	1.00 54.42	C
ATOM	3868	C	ALA	H	40	17.510	8.543	25.726	1.00 54.55	C
ATOM	3869	O	ALA	H	40	18.671	8.140	25.882	1.00 54.41	O
ATOM	3871	N	PRO	H	41	16.774	8.225	24.639	1.00 53.53	N
ATOM	3872	CA	PRO	H	41	17.395	7.361	23.643	1.00 53.62	C
ATOM	3874	CB	PRO	H	41	16.354	7.291	22.515	1.00 52.51	C
ATOM	3877	CG	PRO	H	41	15.076	7.676	23.139	1.00 54.06	C
ATOM	3880	CD	PRO	H	41	15.412	8.627	24.249	1.00 53.29	C
ATOM	3883	C	PRO	H	41	18.684	8.015	23.168	1.00 53.95	C
ATOM	3884	O	PRO	H	41	18.679	9.210	22.857	1.00 54.39	O
ATOM	3885	N	GLY	H	42	19.781	7.260	23.180	1.00 52.90	N
ATOM	3886	CA	GLY	H	42	21.064	7.759	22.713	1.00 52.60	C
ATOM	3889	C	GLY	H	42	21.788	8.724	23.638	1.00 53.38	C
ATOM	3890	O	GLY	H	42	22.838	9.236	23.270	1.00 56.12	O
ATOM	3892	N	LYS	H	43	21.267	8.960	24.839	1.00 53.22	N
ATOM	3893	CA	LYS	H	43	21.878	9.921	25.771	1.00 53.86	C

ATOM	3895	CB	LYS	H	43	20.853	11.003	26.128	1.00	55.45	C
ATOM	3898	CG	LYS	H	43	21.004	12.300	25.356	1.00	57.82	C
ATOM	3901	CD	LYS	H	43	21.144	12.083	23.846	1.00	61.25	C
ATOM	3904	CE	LYS	H	43	21.021	13.402	23.092	1.00	62.25	C
ATOM	3907	NZ	LYS	H	43	19.853	14.216	23.574	1.00	64.79	N
ATOM	3911	C	LYS	H	43	22.460	9.274	27.047	1.00	53.34	C
ATOM	3912	O	LYS	H	43	22.428	8.052	27.201	1.00	54.25	O
ATOM	3914	N	GLY	H	44	23.008	10.102	27.938	1.00	50.96	N
ATOM	3915	CA	GLY	H	44	23.567	9.640	29.201	1.00	52.62	C
ATOM	3918	C	GLY	H	44	22.519	9.464	30.286	1.00	53.64	C
ATOM	3919	O	GLY	H	44	21.330	9.362	30.003	1.00	55.33	O
ATOM	3921	N	LEU	H	45	22.966	9.440	31.539	1.00	55.02	N
ATOM	3922	CA	LEU	H	45	22.087	9.189	32.691	1.00	55.09	C
ATOM	3924	CB	LEU	H	45	22.784	8.240	33.690	1.00	55.16	C
ATOM	3927	CG	LEU	H	45	22.784	6.710	33.461	1.00	54.66	C
ATOM	3929	CD1	LEU	H	45	22.710	6.332	32.014	1.00	58.85	C
ATOM	3933	CD2	LEU	H	45	24.002	6.033	34.107	1.00	55.72	C
ATOM	3937	C	LEU	H	45	21.720	10.511	33.381	1.00	55.25	C
ATOM	3938	O	LEU	H	45	22.527	11.438	33.428	1.00	54.95	O
ATOM	3940	N	GLU	H	46	20.504	10.592	33.914	1.00	55.05	N
ATOM	3941	CA	GLU	H	46	20.095	11.745	34.717	1.00	55.03	C
ATOM	3943	CB	GLU	H	46	19.177	12.655	33.903	1.00	54.16	C
ATOM	3946	CG	GLU	H	46	18.809	13.958	34.619	1.00	56.93	C
ATOM	3949	CD	GLU	H	46	17.682	14.733	33.958	1.00	57.58	C
ATOM	3950	OE1	GLU	H	46	17.159	14.286	32.914	1.00	60.12	O
ATOM	3951	OE2	GLU	H	46	17.322	15.798	34.499	1.00	58.36	O
ATOM	3952	C	GLU	H	46	19.382	11.317	36.008	1.00	55.43	C
ATOM	3953	O	GLU	H	46	18.308	10.716	35.958	1.00	57.18	O
ATOM	3955	N	TRP	H	47	19.963	11.630	37.161	1.00	53.89	N
ATOM	3956	CA	TRP	H	47	19.242	11.444	38.424	1.00	53.72	C
ATOM	3958	CB	TRP	H	47	20.182	11.565	39.635	1.00	52.58	C
ATOM	3961	CG	TRP	H	47	19.435	11.666	40.879	1.00	50.71	C
ATOM	3962	CD1	TRP	H	47	18.956	10.642	41.637	1.00	50.80	C
ATOM	3964	NE1	TRP	H	47	18.274	11.135	42.718	1.00	48.04	N
ATOM	3966	CE2	TRP	H	47	18.285	12.503	42.656	1.00	51.75	C
ATOM	3967	CD2	TRP	H	47	19.009	12.867	41.507	1.00	53.78	C
ATOM	3968	CE3	TRP	H	47	19.177	14.224	41.216	1.00	52.61	C
ATOM	3970	CZ3	TRP	H	47	18.617	15.154	42.062	1.00	51.30	C
ATOM	3972	CH2	TRP	H	47	17.886	14.762	43.184	1.00	50.32	C
ATOM	3974	CZ2	TRP	H	47	17.714	13.445	43.500	1.00	53.66	C
ATOM	3976	C	TRP	H	47	18.119	12.486	38.512	1.00	53.45	C
ATOM	3977	O	TRP	H	47	18.337	13.670	38.220	1.00	54.17	O
ATOM	3979	N	ILE	H	48	16.924	12.056	38.906	1.00	53.21	N
ATOM	3980	CA	ILE	H	48	15.785	12.981	38.988	1.00	53.31	C
ATOM	3982	CB	ILE	H	48	14.741	12.734	37.881	1.00	51.93	C
ATOM	3984	CG1	ILE	H	48	14.315	11.266	37.851	1.00	51.93	C
ATOM	3987	CD1	ILE	H	48	13.205	10.986	36.853	1.00	54.53	C
ATOM	3991	CG2	ILE	H	48	15.290	13.171	36.542	1.00	53.73	C
ATOM	3995	C	ILE	H	48	15.028	12.975	40.297	1.00	53.62	C
ATOM	3996	O	ILE	H	48	14.338	13.948	40.607	1.00	53.55	O
ATOM	3998	N	GLY	H	49	15.116	11.883	41.049	1.00	54.16	N
ATOM	3999	CA	GLY	H	49	14.315	11.749	42.262	1.00	53.84	C
ATOM	4002	C	GLY	H	49	14.977	10.899	43.324	1.00	54.20	C
ATOM	4003	O	GLY	H	49	15.670	9.919	43.022	1.00	55.43	O
ATOM	4005	N	VAL	H	50	14.750	11.289	44.572	1.00	53.42	N
ATOM	4006	CA	VAL	H	50	15.205	10.542	45.721	1.00	54.34	C
ATOM	4008	CB	VAL	H	50	16.579	11.083	46.218	1.00	54.61	C
ATOM	4010	CG1	VAL	H	50	16.465	12.522	46.717	1.00	53.17	C
ATOM	4014	CG2	VAL	H	50	17.151	10.175	47.300	1.00	54.06	C
ATOM	4018	C	VAL	H	50	14.150	10.628	46.840	1.00	55.50	C
ATOM	4019	O	VAL	H	50	13.432	11.635	46.945	1.00	54.71	O
ATOM	4021	N	ILE	H	51	14.067	9.567	47.653	1.00	54.88	N
ATOM	4022	CA	ILE	H	51	13.206	9.525	48.850	1.00	53.35	C

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ATOM   4024  CB  ILE H  51      11.815   8.922  48.542  1.00 52.77           C
ATOM   4026  CG1 ILE H  51      10.865   9.075  49.736  1.00 53.45           C
ATOM   4029  CD1 ILE H  51       9.419   8.785  49.378  1.00 51.87           C
ATOM   4033  CG2 ILE H  51      11.925   7.456  48.142  1.00 54.42           C
ATOM   4037  C   ILE H  51      13.919   8.724  49.943  1.00 53.48           C
ATOM   4038  O   ILE H  51      14.509   7.685  49.667  1.00 53.93           O
ATOM   4040  N   SER H  52      13.868   9.222  51.177  1.00 53.39           N
ATOM   4041  CA  SER H  52      14.720   8.725  52.261  1.00 52.60           C
ATOM   4043  CB  SER H  52      15.337   9.910  53.029  1.00 52.57           C
ATOM   4046  OG  SER H  52      16.207   9.490  54.078  1.00 50.59           O
ATOM   4048  C   SER H  52      13.969   7.823  53.227  1.00 52.36           C
ATOM   4049  O   SER H  52      12.773   7.610  53.102  1.00 54.55           O
ATOM   4051  N   VAL H  53      14.695   7.310  54.207  1.00 52.51           N
ATOM   4052  CA  VAL H  53      14.135   6.431  55.223  1.00 52.84           C
ATOM   4054  CB  VAL H  53      15.272   5.667  55.964  1.00 53.27           C
ATOM   4056  CG1 VAL H  53      16.249   6.620  56.672  1.00 54.13           C
ATOM   4060  CG2 VAL H  53      16.036   4.814  54.990  1.00 52.80           C
ATOM   4064  C   VAL H  53      13.217   7.158  56.230  1.00 53.50           C
ATOM   4065  O   VAL H  53      13.110   8.397  56.241  1.00 52.19           O
ATOM   4067  N   LYS H  54      12.545   6.361  57.060  1.00 54.84           N
ATOM   4068  CA  LYS H  54      11.631   6.861  58.088  1.00 54.42           C
ATOM   4070  CB  LYS H  54      11.018   5.685  58.846  1.00 54.08           C
ATOM   4073  CG  LYS H  54       9.967   6.062  59.887  1.00 56.89           C
ATOM   4076  CD  LYS H  54      10.081   5.197  61.154  1.00 57.07           C
ATOM   4079  CE  LYS H  54       8.962   5.500  62.151  1.00 57.48           C
ATOM   4082  NZ  LYS H  54       8.849   4.444  63.192  1.00 58.62           N
ATOM   4086  C   LYS H  54      12.335   7.797  59.076  1.00 53.83           C
ATOM   4087  O   LYS H  54      11.767   8.800  59.494  1.00 52.64           O
ATOM   4089  N   SER H  55      13.573   7.485  59.444  1.00 55.82           N
ATOM   4090  CA  SER H  55      14.296   8.314  60.414  1.00 56.55           C
ATOM   4092  CB  SER H  55      15.515   7.574  61.001  1.00 56.38           C
ATOM   4095  OG  SER H  55      16.585   7.446  60.077  1.00 60.01           O
ATOM   4097  C   SER H  55      14.674   9.690  59.839  1.00 56.53           C
ATOM   4098  O   SER H  55      15.064  10.577  60.584  1.00 58.47           O
ATOM   4100  N   GLU H  56      14.546   9.870  58.527  1.00 57.07           N
ATOM   4101  CA  GLU H  56      14.610  11.209  57.913  1.00 58.15           C
ATOM   4103  CB  GLU H  56      15.557  11.211  56.708  1.00 57.35           C
ATOM   4106  CG  GLU H  56      17.022  11.218  57.083  1.00 58.37           C
ATOM   4109  CD  GLU H  56      17.899  11.848  56.006  1.00 62.26           C
ATOM   4110  OE1 GLU H  56      17.802  11.443  54.820  1.00 58.50           O
ATOM   4111  OE2 GLU H  56      18.690  12.754  56.358  1.00 71.61           O
ATOM   4112  C   GLU H  56      13.210  11.716  57.502  1.00 57.12           C
ATOM   4113  O   GLU H  56      13.074  12.711  56.781  1.00 53.66           O
ATOM   4115  N   ASN H  57      12.188  11.026  58.001  1.00 57.56           N
ATOM   4116  CA  ASN H  57      10.781  11.347  57.756  1.00 57.52           C
ATOM   4118  CB  ASN H  57      10.403  12.689  58.390  1.00 56.72           C
ATOM   4121  CG  ASN H  57      10.492  12.653  59.895  1.00 55.01           C
ATOM   4122  OD1 ASN H  57       9.794  11.894  60.551  1.00 56.76           O
ATOM   4123  ND2 ASN H  57      11.366  13.457  60.444  1.00 51.60           N
ATOM   4126  C   ASN H  57      10.425  11.308  56.284  1.00 58.12           C
ATOM   4127  O   ASN H  57       9.737  12.204  55.773  1.00 59.67           O
ATOM   4129  N   TYR H  58      10.906  10.273  55.600  1.00 56.23           N
ATOM   4130  CA  TYR H  58      10.567  10.075  54.199  1.00 55.76           C
ATOM   4132  CB  TYR H  58       9.114   9.597  54.095  1.00 56.09           C
ATOM   4135  CG  TYR H  58       8.885   8.332  54.868  1.00 55.13           C
ATOM   4136  CD1 TYR H  58       9.609   7.189  54.566  1.00 57.73           C
ATOM   4138  CE1 TYR H  58       9.433   6.020  55.271  1.00 61.32           C
ATOM   4140  CZ  TYR H  58       8.519   5.977  56.302  1.00 60.40           C
ATOM   4141  OH  TYR H  58       8.358   4.795  56.987  1.00 57.92           O
ATOM   4143  CE2 TYR H  58       7.784   7.103  56.627  1.00 56.82           C
ATOM   4145  CD2 TYR H  58       7.975   8.274  55.908  1.00 55.38           C
ATOM   4147  C   TYR H  58      10.791  11.338  53.371  1.00 54.33           C
ATOM   4148  O   TYR H  58      10.063  11.604  52.420  1.00 55.27           O
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ATOM	4150	N	GLY	H	59	11.814	12.103	53.739	1.00	53.44	N
ATOM	4151	CA	GLY	H	59	12.173	13.319	53.032	1.00	53.86	C
ATOM	4154	C	GLY	H	59	12.521	13.029	51.583	1.00	53.68	C
ATOM	4155	O	GLY	H	59	13.165	12.020	51.282	1.00	52.58	O
ATOM	4157	N	ALA	H	60	12.080	13.913	50.689	1.00	52.83	N
ATOM	4158	CA	ALA	H	60	12.232	13.701	49.262	1.00	52.99	C
ATOM	4160	CB	ALA	H	60	10.890	13.456	48.633	1.00	53.67	C
ATOM	4164	C	ALA	H	60	12.882	14.898	48.633	1.00	51.87	C
ATOM	4165	O	ALA	H	60	12.797	15.989	49.191	1.00	52.10	O
ATOM	4167	N	ASN	H	61	13.540	14.678	47.486	1.00	52.93	N
ATOM	4168	CA	ASN	H	61	14.198	15.752	46.711	1.00	53.25	C
ATOM	4170	CB	ASN	H	61	15.607	16.027	47.251	1.00	51.65	C
ATOM	4173	CG	ASN	H	61	15.936	17.513	47.317	1.00	55.58	C
ATOM	4174	OD1	ASN	H	61	16.572	17.976	48.270	1.00	58.39	O
ATOM	4175	ND2	ASN	H	61	15.503	18.268	46.311	1.00	50.08	N
ATOM	4178	C	ASN	H	61	14.250	15.418	45.208	1.00	54.37	C
ATOM	4179	O	ASN	H	61	14.214	14.254	44.822	1.00	56.21	O
ATOM	4181	N	TYR	H	62	14.321	16.448	44.366	1.00	54.90	N
ATOM	4182	CA	TYR	H	62	14.248	16.282	42.912	1.00	53.39	C
ATOM	4184	CB	TYR	H	62	12.856	16.731	42.457	1.00	51.38	C
ATOM	4187	CG	TYR	H	62	11.762	15.994	43.186	1.00	51.30	C
ATOM	4188	CD1	TYR	H	62	11.241	16.483	44.385	1.00	45.49	C
ATOM	4190	CE1	TYR	H	62	10.251	15.788	45.064	1.00	47.65	C
ATOM	4192	CZ	TYR	H	62	9.781	14.581	44.548	1.00	49.19	C
ATOM	4193	OH	TYR	H	62	8.807	13.882	45.202	1.00	48.16	O
ATOM	4195	CE2	TYR	H	62	10.285	14.078	43.371	1.00	49.98	C
ATOM	4197	CD2	TYR	H	62	11.278	14.777	42.701	1.00	51.03	C
ATOM	4199	C	TYR	H	62	15.316	17.054	42.118	1.00	53.24	C
ATOM	4200	O	TYR	H	62	15.916	18.008	42.612	1.00	52.50	O
ATOM	4202	N	ALA	H	63	15.541	16.627	40.879	1.00	53.98	N
ATOM	4203	CA	ALA	H	63	16.221	17.462	39.884	1.00	55.25	C
ATOM	4205	CB	ALA	H	63	16.659	16.617	38.708	1.00	54.70	C
ATOM	4209	C	ALA	H	63	15.286	18.602	39.407	1.00	56.77	C
ATOM	4210	O	ALA	H	63	14.079	18.406	39.239	1.00	56.91	O
ATOM	4212	N	GLU	H	64	15.836	19.789	39.168	1.00	56.51	N
ATOM	4213	CA	GLU	H	64	14.994	20.932	38.802	1.00	56.86	C
ATOM	4215	CB	GLU	H	64	15.802	22.237	38.752	1.00	57.10	C
ATOM	4218	CG	GLU	H	64	16.589	22.572	40.018	1.00	56.07	C
ATOM	4221	CD	GLU	H	64	15.771	22.446	41.281	1.00	54.00	C
ATOM	4222	OE1	GLU	H	64	16.361	22.118	42.329	1.00	53.38	O
ATOM	4223	OE2	GLU	H	64	14.546	22.667	41.223	1.00	52.25	O
ATOM	4224	C	GLU	H	64	14.249	20.764	37.477	1.00	56.81	C
ATOM	4225	O	GLU	H	64	13.353	21.540	37.183	1.00	59.92	O
ATOM	4227	N	SER	H	65	14.623	19.780	36.672	1.00	55.43	N
ATOM	4228	CA	SER	H	65	13.892	19.501	35.445	1.00	55.11	C
ATOM	4230	CB	SER	H	65	14.669	18.527	34.574	1.00	54.51	C
ATOM	4233	OG	SER	H	65	14.942	17.329	35.277	1.00	56.31	O
ATOM	4235	C	SER	H	65	12.517	18.913	35.713	1.00	56.54	C
ATOM	4236	O	SER	H	65	11.627	19.048	34.878	1.00	60.25	O
ATOM	4238	N	VAL	H	66	12.352	18.268	36.870	1.00	55.56	N
ATOM	4239	CA	VAL	H	66	11.148	17.498	37.186	1.00	53.62	C
ATOM	4241	CB	VAL	H	66	11.497	16.020	37.346	1.00	53.48	C
ATOM	4243	CG1	VAL	H	66	12.080	15.482	36.067	1.00	56.93	C
ATOM	4247	CG2	VAL	H	66	12.467	15.813	38.485	1.00	54.82	C
ATOM	4251	C	VAL	H	66	10.353	17.949	38.433	1.00	53.53	C
ATOM	4252	O	VAL	H	66	9.247	17.447	38.676	1.00	52.87	O
ATOM	4254	N	ARG	H	67	10.888	18.893	39.207	1.00	52.02	N
ATOM	4255	CA	ARG	H	67	10.225	19.323	40.428	1.00	51.19	C
ATOM	4257	CB	ARG	H	67	11.082	20.301	41.212	1.00	49.41	C
ATOM	4260	CG	ARG	H	67	10.703	20.369	42.673	1.00	49.96	C
ATOM	4263	CD	ARG	H	67	11.358	21.550	43.380	1.00	54.84	C
ATOM	4266	NE	ARG	H	67	12.801	21.393	43.493	1.00	56.17	N
ATOM	4268	CZ	ARG	H	67	13.408	20.610	44.377	1.00	59.32	C

ATOM	4269	NH1	ARG	H	67	14.730	20.534	44.359	1.00	64.31	N
ATOM	4272	NH2	ARG	H	67	12.716	19.912	45.274	1.00	55.70	N
ATOM	4275	C	ARG	H	67	8.891	19.969	40.122	1.00	51.27	C
ATOM	4276	O	ARG	H	67	8.801	20.857	39.268	1.00	52.23	O
ATOM	4278	N	GLY	H	68	7.862	19.510	40.832	1.00	52.42	N
ATOM	4279	CA	GLY	H	68	6.503	20.039	40.711	1.00	52.66	C
ATOM	4282	C	GLY	H	68	5.699	19.349	39.622	1.00	53.68	C
ATOM	4283	O	GLY	H	68	4.521	19.673	39.409	1.00	55.43	O
ATOM	4285	N	ARG	H	69	6.346	18.419	38.919	1.00	52.71	N
ATOM	4286	CA	ARG	H	69	5.698	17.625	37.881	1.00	53.37	C
ATOM	4288	CB	ARG	H	69	6.392	17.866	36.547	1.00	53.70	C
ATOM	4291	CG	ARG	H	69	6.292	19.303	36.063	1.00	51.13	C
ATOM	4294	CD	ARG	H	69	7.483	19.685	35.184	1.00	53.14	C
ATOM	4297	NE	ARG	H	69	7.428	19.013	33.886	1.00	56.05	N
ATOM	4299	CZ	ARG	H	69	8.304	18.120	33.425	1.00	53.79	C
ATOM	4300	NH1	ARG	H	69	9.377	17.763	34.117	1.00	50.39	N
ATOM	4303	NH2	ARG	H	69	8.110	17.588	32.232	1.00	51.24	N
ATOM	4306	C	ARG	H	69	5.752	16.146	38.221	1.00	53.87	C
ATOM	4307	O	ARG	H	69	4.798	15.407	37.991	1.00	55.13	O
ATOM	4309	N	PHE	H	70	6.893	15.720	38.748	1.00	54.83	N
ATOM	4310	CA	PHE	H	70	7.119	14.337	39.137	1.00	54.86	C
ATOM	4312	CB	PHE	H	70	8.495	13.875	38.625	1.00	53.83	C
ATOM	4315	CG	PHE	H	70	8.574	13.666	37.117	1.00	53.73	C
ATOM	4316	CD1	PHE	H	70	7.621	14.190	36.245	1.00	55.06	C
ATOM	4318	CE1	PHE	H	70	7.708	13.992	34.883	1.00	52.84	C
ATOM	4320	CZ	PHE	H	70	8.751	13.282	34.358	1.00	49.93	C
ATOM	4322	CE2	PHE	H	70	9.711	12.761	35.199	1.00	55.26	C
ATOM	4324	CD2	PHE	H	70	9.624	12.957	36.573	1.00	54.83	C
ATOM	4326	C	PHE	H	70	7.085	14.284	40.657	1.00	56.58	C
ATOM	4327	O	PHE	H	70	7.650	15.152	41.325	1.00	60.03	O
ATOM	4329	N	THR	H	71	6.424	13.281	41.215	1.00	56.18	N
ATOM	4330	CA	THR	H	71	6.453	13.076	42.657	1.00	56.15	C
ATOM	4332	CB	THR	H	71	5.082	13.333	43.264	1.00	57.19	C
ATOM	4334	OG1	THR	H	71	4.725	14.704	43.054	1.00	59.72	O
ATOM	4336	CG2	THR	H	71	5.068	13.010	44.759	1.00	55.03	C
ATOM	4340	C	THR	H	71	6.865	11.649	42.972	1.00	57.89	C
ATOM	4341	O	THR	H	71	6.399	10.705	42.330	1.00	58.11	O
ATOM	4343	N	ILE	H	72	7.727	11.504	43.977	1.00	58.52	N
ATOM	4344	CA	ILE	H	72	8.215	10.198	44.434	1.00	56.69	C
ATOM	4346	CB	ILE	H	72	9.763	10.185	44.490	1.00	57.00	C
ATOM	4348	CG1	ILE	H	72	10.293	8.757	44.597	1.00	60.26	C
ATOM	4351	CD1	ILE	H	72	11.817	8.686	44.564	1.00	60.94	C
ATOM	4355	CG2	ILE	H	72	10.289	11.024	45.643	1.00	58.10	C
ATOM	4359	C	ILE	H	72	7.612	9.864	45.799	1.00	53.96	C
ATOM	4360	O	ILE	H	72	7.488	10.734	46.647	1.00	55.60	O
ATOM	4362	N	SER	H	73	7.207	8.613	45.994	1.00	53.36	N
ATOM	4363	CA	SER	H	73	6.670	8.160	47.284	1.00	53.31	C
ATOM	4365	CB	SER	H	73	5.154	8.279	47.301	1.00	51.35	C
ATOM	4368	OG	SER	H	73	4.614	7.733	46.124	1.00	55.02	O
ATOM	4370	C	SER	H	73	7.094	6.725	47.552	1.00	52.52	C
ATOM	4371	O	SER	H	73	7.775	6.106	46.728	1.00	53.63	O
ATOM	4373	N	ARG	H	74	6.725	6.195	48.710	1.00	51.43	N
ATOM	4374	CA	ARG	H	74	7.070	4.812	49.010	1.00	52.90	C
ATOM	4376	CB	ARG	H	74	8.498	4.728	49.566	1.00	53.14	C
ATOM	4379	CG	ARG	H	74	8.693	5.350	50.950	1.00	52.48	C
ATOM	4382	CD	ARG	H	74	10.188	5.505	51.302	1.00	53.69	C
ATOM	4385	NE	ARG	H	74	10.863	4.218	51.487	1.00	54.77	N
ATOM	4387	CZ	ARG	H	74	12.183	4.060	51.565	1.00	57.39	C
ATOM	4388	NH1	ARG	H	74	13.000	5.105	51.483	1.00	60.70	N
ATOM	4391	NH2	ARG	H	74	12.692	2.848	51.714	1.00	59.30	N
ATOM	4394	C	ARG	H	74	6.111	4.152	49.977	1.00	52.64	C
ATOM	4395	O	ARG	H	74	5.481	4.820	50.791	1.00	53.87	O
ATOM	4397	N	ASP	H	75	6.020	2.830	49.883	1.00	52.49	N

ATOM	4398	CA	ASP	H	75	5.254	2.028	50.829	1.00	52.32	C
ATOM	4400	CB	ASP	H	75	4.044	1.429	50.125	1.00	51.92	C
ATOM	4403	CG	ASP	H	75	3.049	0.833	51.089	1.00	53.70	C
ATOM	4404	OD1	ASP	H	75	3.464	0.322	52.152	1.00	51.27	O
ATOM	4405	OD2	ASP	H	75	1.844	0.873	50.774	1.00	56.20	O
ATOM	4406	C	ASP	H	75	6.139	0.924	51.418	1.00	52.67	C
ATOM	4407	O	ASP	H	75	6.259	-0.160	50.838	1.00	52.67	O
ATOM	4409	N	ASP	H	76	6.758	1.202	52.568	1.00	52.46	N
ATOM	4410	CA	ASP	H	76	7.703	0.264	53.184	1.00	52.19	C
ATOM	4412	CB	ASP	H	76	8.272	0.836	54.489	1.00	52.72	C
ATOM	4415	CG	ASP	H	76	9.379	1.863	54.264	1.00	53.94	C
ATOM	4416	OD1	ASP	H	76	9.929	1.939	53.146	1.00	53.65	O
ATOM	4417	OD2	ASP	H	76	9.723	2.582	55.224	1.00	54.29	O
ATOM	4418	C	ASP	H	76	7.052	-1.100	53.442	1.00	53.19	C
ATOM	4419	O	ASP	H	76	7.680	-2.142	53.256	1.00	53.58	O
ATOM	4421	N	SER	H	77	5.782	-1.091	53.842	1.00	54.06	N
ATOM	4422	CA	SER	H	77	5.055	-2.330	54.139	1.00	52.40	C
ATOM	4424	CB	SER	H	77	3.737	-2.015	54.843	1.00	49.84	C
ATOM	4427	OG	SER	H	77	2.786	-1.555	53.906	1.00	49.87	O
ATOM	4429	C	SER	H	77	4.795	-3.203	52.896	1.00	51.23	C
ATOM	4430	O	SER	H	77	4.546	-4.406	53.028	1.00	50.69	O
ATOM	4432	N	LYS	H	78	4.837	-2.598	51.710	1.00	50.63	N
ATOM	4433	CA	LYS	H	78	4.704	-3.336	50.444	1.00	52.65	C
ATOM	4435	CB	LYS	H	78	3.556	-2.753	49.598	1.00	52.68	C
ATOM	4438	CG	LYS	H	78	2.167	-3.315	49.926	1.00	58.32	C
ATOM	4441	CD	LYS	H	78	1.083	-2.835	48.937	1.00	58.24	C
ATOM	4444	CE	LYS	H	78	0.847	-1.321	49.052	1.00	65.58	C
ATOM	4447	NZ	LYS	H	78	-0.474	-0.849	48.507	1.00	65.69	N
ATOM	4451	C	LYS	H	78	6.006	-3.293	49.641	1.00	51.77	C
ATOM	4452	O	LYS	H	78	5.987	-3.500	48.436	1.00	49.77	O
ATOM	4454	N	ASN	H	79	7.126	-3.020	50.317	1.00	52.69	N
ATOM	4455	CA	ASN	H	79	8.454	-2.872	49.687	1.00	52.41	C
ATOM	4457	CB	ASN	H	79	9.226	-4.205	49.718	1.00	51.45	C
ATOM	4460	CG	ASN	H	79	9.598	-4.638	51.134	1.00	52.85	C
ATOM	4461	OD1	ASN	H	79	10.001	-3.824	51.958	1.00	55.11	O
ATOM	4462	ND2	ASN	H	79	9.456	-5.926	51.419	1.00	55.23	N
ATOM	4465	C	ASN	H	79	8.438	-2.292	48.261	1.00	53.98	C
ATOM	4466	O	ASN	H	79	9.052	-2.860	47.349	1.00	55.36	O
ATOM	4468	N	THR	H	80	7.767	-1.146	48.090	1.00	53.60	N
ATOM	4469	CA	THR	H	80	7.587	-0.522	46.771	1.00	52.30	C
ATOM	4471	CB	THR	H	80	6.134	-0.719	46.280	1.00	53.91	C
ATOM	4473	OG1	THR	H	80	5.827	-2.120	46.225	1.00	52.33	O
ATOM	4475	CG2	THR	H	80	5.914	-0.074	44.893	1.00	54.14	C
ATOM	4479	C	THR	H	80	7.868	0.980	46.765	1.00	51.52	C
ATOM	4480	O	THR	H	80	7.515	1.690	47.700	1.00	52.39	O
ATOM	4482	N	VAL	H	81	8.475	1.465	45.687	1.00	52.20	N
ATOM	4483	CA	VAL	H	81	8.656	2.903	45.475	1.00	51.81	C
ATOM	4485	CB	VAL	H	81	10.150	3.283	45.354	1.00	52.16	C
ATOM	4487	CG1	VAL	H	81	10.811	2.602	44.172	1.00	51.14	C
ATOM	4491	CG2	VAL	H	81	10.323	4.805	45.275	1.00	53.07	C
ATOM	4495	C	VAL	H	81	7.903	3.308	44.218	1.00	51.61	C
ATOM	4496	O	VAL	H	81	7.889	2.561	43.248	1.00	53.26	O
ATOM	4498	N	TYR	H	82	7.279	4.487	44.245	1.00	52.19	N
ATOM	4499	CA	TYR	H	82	6.498	4.991	43.114	1.00	52.06	C
ATOM	4501	CB	TYR	H	82	5.083	5.299	43.552	1.00	50.72	C
ATOM	4504	CG	TYR	H	82	4.404	4.144	44.218	1.00	50.09	C
ATOM	4505	CD1	TYR	H	82	3.833	3.127	43.469	1.00	48.59	C
ATOM	4507	CE1	TYR	H	82	3.203	2.069	44.084	1.00	49.96	C
ATOM	4509	CZ	TYR	H	82	3.145	2.025	45.465	1.00	48.45	C
ATOM	4510	OH	TYR	H	82	2.524	0.983	46.107	1.00	51.38	O
ATOM	4512	CE2	TYR	H	82	3.706	3.024	46.217	1.00	47.82	C
ATOM	4514	CD2	TYR	H	82	4.323	4.074	45.598	1.00	46.84	C
ATOM	4516	C	TYR	H	82	7.082	6.259	42.529	1.00	52.74	C

ATOM	4517	O	TYR	H	82	7.774	6.997	43.226	1.00	53.39	O
ATOM	4519	N	LEU	H	83	6.806	6.493	41.245	1.00	52.93	N
ATOM	4520	CA	LEU	H	83	7.028	7.793	40.627	1.00	54.16	C
ATOM	4522	CB	LEU	H	83	8.197	7.775	39.650	1.00	54.70	C
ATOM	4525	CG	LEU	H	83	8.521	9.122	38.990	1.00	54.80	C
ATOM	4527	CD1	LEU	H	83	9.090	10.097	40.007	1.00	57.34	C
ATOM	4531	CD2	LEU	H	83	9.497	8.937	37.821	1.00	58.27	C
ATOM	4535	C	LEU	H	83	5.775	8.205	39.891	1.00	54.10	C
ATOM	4536	O	LEU	H	83	5.322	7.509	38.991	1.00	53.76	O
ATOM	4538	N	GLN	H	84	5.233	9.351	40.285	1.00	55.40	N
ATOM	4539	CA	GLN	H	84	4.024	9.905	39.705	1.00	55.25	C
ATOM	4541	CB	GLN	H	84	3.123	10.470	40.808	1.00	54.66	C
ATOM	4544	CG	GLN	H	84	1.861	11.151	40.325	1.00	55.13	C
ATOM	4547	CD	GLN	H	84	0.886	10.190	39.690	1.00	57.62	C
ATOM	4548	OE1	GLN	H	84	0.420	9.238	40.325	1.00	60.12	O
ATOM	4549	NE2	GLN	H	84	0.572	10.428	38.423	1.00	58.65	N
ATOM	4552	C	GLN	H	84	4.458	11.001	38.748	1.00	55.58	C
ATOM	4553	O	GLN	H	84	5.028	12.007	39.160	1.00	56.38	O
ATOM	4555	N	MET	H	85	4.196	10.793	37.467	1.00	56.10	N
ATOM	4556	CA	MET	H	85	4.655	11.708	36.446	1.00	56.22	C
ATOM	4558	CB	MET	H	85	5.404	10.931	35.374	1.00	56.39	C
ATOM	4561	CG	MET	H	85	6.554	10.126	35.912	1.00	55.02	C
ATOM	4564	SD	MET	H	85	7.564	9.425	34.599	1.00	55.69	S
ATOM	4565	CE	MET	H	85	6.437	8.181	34.006	1.00	65.06	C
ATOM	4569	C	MET	H	85	3.476	12.461	35.840	1.00	57.09	C
ATOM	4570	O	MET	H	85	2.667	11.877	35.100	1.00	56.63	O
ATOM	4572	N	ASN	H	86	3.392	13.752	36.172	1.00	55.80	N
ATOM	4573	CA	ASN	H	86	2.342	14.645	35.688	1.00	54.96	C
ATOM	4575	CB	ASN	H	86	1.591	15.252	36.872	1.00	54.56	C
ATOM	4578	CG	ASN	H	86	0.807	14.223	37.657	1.00	54.97	C
ATOM	4579	OD1	ASN	H	86	0.563	13.118	37.180	1.00	58.89	O
ATOM	4580	ND2	ASN	H	86	0.403	14.584	38.867	1.00	48.38	N
ATOM	4583	C	ASN	H	86	2.912	15.769	34.824	1.00	55.55	C
ATOM	4584	O	ASN	H	86	4.109	16.065	34.885	1.00	57.17	O
ATOM	4586	N	SER	H	87	2.048	16.390	34.023	1.00	54.90	N
ATOM	4587	CA	SER	H	87	2.438	17.509	33.169	1.00	54.23	C
ATOM	4589	CB	SER	H	87	2.870	18.711	34.011	1.00	53.82	C
ATOM	4592	OG	SER	H	87	1.885	19.061	34.958	1.00	52.89	O
ATOM	4594	C	SER	H	87	3.569	17.106	32.246	1.00	53.30	C
ATOM	4595	O	SER	H	87	4.558	17.818	32.098	1.00	53.56	O
ATOM	4597	N	LEU	H	88	3.419	15.954	31.620	1.00	53.53	N
ATOM	4598	CA	LEU	H	88	4.496	15.411	30.811	1.00	55.13	C
ATOM	4600	CB	LEU	H	88	4.195	13.969	30.411	1.00	55.58	C
ATOM	4603	CG	LEU	H	88	4.303	13.013	31.602	1.00	56.69	C
ATOM	4605	CD1	LEU	H	88	3.719	11.652	31.255	1.00	59.85	C
ATOM	4609	CD2	LEU	H	88	5.742	12.880	32.063	1.00	53.31	C
ATOM	4613	C	LEU	H	88	4.797	16.264	29.582	1.00	55.36	C
ATOM	4614	O	LEU	H	88	3.910	16.647	28.826	1.00	55.54	O
ATOM	4616	N	LYS	H	89	6.075	16.571	29.430	1.00	56.89	N
ATOM	4617	CA	LYS	H	89	6.593	17.291	28.289	1.00	56.73	C
ATOM	4619	CB	LYS	H	89	7.677	18.282	28.745	1.00	56.42	C
ATOM	4622	CG	LYS	H	89	7.183	19.408	29.666	1.00	56.90	C
ATOM	4625	CD	LYS	H	89	8.360	20.143	30.348	1.00	59.61	C
ATOM	4628	CE	LYS	H	89	8.042	21.628	30.672	1.00	62.83	C
ATOM	4631	NZ	LYS	H	89	7.226	21.848	31.909	1.00	64.95	N
ATOM	4635	C	LYS	H	89	7.181	16.257	27.333	1.00	56.57	C
ATOM	4636	O	LYS	H	89	7.568	15.159	27.751	1.00	55.89	O
ATOM	4638	N	THR	H	90	7.243	16.609	26.052	1.00	56.34	N
ATOM	4639	CA	THR	H	90	7.896	15.761	25.050	1.00	55.88	C
ATOM	4641	CB	THR	H	90	7.869	16.378	23.610	1.00	55.65	C
ATOM	4643	OG1	THR	H	90	9.055	15.993	22.913	1.00	59.72	O
ATOM	4645	CG2	THR	H	90	7.788	17.903	23.608	1.00	56.91	C
ATOM	4649	C	THR	H	90	9.332	15.374	25.438	1.00	54.81	C

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ATOM   4650  O   THR H  90       9.747  14.239  25.218  1.00 53.84           O
ATOM   4652  N   GLU H  91      10.068  16.300  26.047  1.00 55.64           N
ATOM   4653  CA  GLU H  91      11.484  16.056  26.429  1.00 56.87           C
ATOM   4655  CB  GLU H  91      12.257  17.364  26.706  1.00 57.54           C
ATOM   4658  CG  GLU H  91      11.434  18.554  27.241  1.00 64.21           C
ATOM   4661  CD  GLU H  91      10.746  19.361  26.125  1.00 69.95           C
ATOM   4662  OE1 GLU H  91      11.348  19.508  25.042  1.00 70.88           O
ATOM   4663  OE2 GLU H  91       9.608  19.850  26.327  1.00 71.83           O
ATOM   4664  C   GLU H  91      11.683  15.078  27.594  1.00 57.19           C
ATOM   4665  O   GLU H  91      12.819  14.729  27.924  1.00 58.19           O
ATOM   4667  N   ASP H  92      10.592  14.629  28.209  1.00 57.31           N
ATOM   4668  CA  ASP H  92      10.663  13.575  29.213  1.00 55.45           C
ATOM   4670  CB  ASP H  92       9.405  13.567  30.070  1.00 56.63           C
ATOM   4673  CG  ASP H  92       9.185  14.859  30.815  1.00 56.78           C
ATOM   4674  OD1 ASP H  92      10.104  15.341  31.507  1.00 53.91           O
ATOM   4675  OD2 ASP H  92       8.053  15.371  30.736  1.00 57.74           O
ATOM   4676  C   ASP H  92      10.796  12.188  28.584  1.00 54.42           C
ATOM   4677  O   ASP H  92      10.985  11.207  29.306  1.00 53.82           O
ATOM   4679  N   THR H  93      10.660  12.077  27.263  1.00 52.40           N
ATOM   4680  CA  THR H  93      10.750  10.762  26.650  1.00 53.62           C
ATOM   4682  CB  THR H  93      10.605  10.793  25.129  1.00 51.83           C
ATOM   4684  OG1 THR H  93       9.224  10.943  24.787  1.00 55.50           O
ATOM   4686  CG2 THR H  93      11.088   9.509  24.524  1.00 51.40           C
ATOM   4690  C   THR H  93      12.086  10.158  27.040  1.00 54.49           C
ATOM   4691  O   THR H  93      13.130  10.748  26.788  1.00 56.62           O
ATOM   4693  N   ALA H  94      12.041   8.995  27.681  1.00 55.02           N
ATOM   4694  CA  ALA H  94      13.245   8.322  28.147  1.00 54.50           C
ATOM   4696  CB  ALA H  94      13.992   9.207  29.138  1.00 55.34           C
ATOM   4700  C   ALA H  94      12.905   6.993  28.799  1.00 54.91           C
ATOM   4701  O   ALA H  94      11.755   6.733  29.151  1.00 56.76           O
ATOM   4703  N   VAL H  95      13.923   6.154  28.954  1.00 54.19           N
ATOM   4704  CA  VAL H  95      13.817   4.972  29.787  1.00 53.16           C
ATOM   4706  CB  VAL H  95      14.904   3.945  29.443  1.00 51.92           C
ATOM   4708  CG1 VAL H  95      14.937   2.804  30.472  1.00 52.53           C
ATOM   4712  CG2 VAL H  95      14.657   3.397  28.063  1.00 50.97           C
ATOM   4716  C   VAL H  95      13.958   5.430  31.227  1.00 53.10           C
ATOM   4717  O   VAL H  95      14.866   6.198  31.536  1.00 53.44           O
ATOM   4719  N   TYR H  96      13.059   4.963  32.094  1.00 52.44           N
ATOM   4720  CA  TYR H  96      13.074   5.335  33.510  1.00 52.33           C
ATOM   4722  CB  TYR H  96      11.703   5.872  33.940  1.00 51.22           C
ATOM   4725  CG  TYR H  96      11.478   7.299  33.484  1.00 49.91           C
ATOM   4726  CD1 TYR H  96      11.312   7.602  32.137  1.00 50.04           C
ATOM   4728  CE1 TYR H  96      11.124   8.904  31.715  1.00 50.07           C
ATOM   4730  CZ  TYR H  96      11.104   9.924  32.648  1.00 49.82           C
ATOM   4731  OH  TYR H  96      10.933  11.231  32.255  1.00 48.27           O
ATOM   4733  CE2 TYR H  96      11.264   9.642  33.988  1.00 49.93           C
ATOM   4735  CD2 TYR H  96      11.450   8.343  34.395  1.00 50.15           C
ATOM   4737  C   TYR H  96      13.492   4.151  34.369  1.00 52.95           C
ATOM   4738  O   TYR H  96      13.086   3.024  34.111  1.00 51.55           O
ATOM   4740  N   TYR H  97      14.302   4.440  35.391  1.00 54.42           N
ATOM   4741  CA  TYR H  97      14.959   3.445  36.240  1.00 53.98           C
ATOM   4743  CB  TYR H  97      16.467   3.553  36.036  1.00 53.03           C
ATOM   4746  CG  TYR H  97      16.998   2.998  34.744  1.00 50.86           C
ATOM   4747  CD1 TYR H  97      17.041   1.639  34.527  1.00 50.22           C
ATOM   4749  CE1 TYR H  97      17.529   1.126  33.352  1.00 53.55           C
ATOM   4751  CZ  TYR H  97      18.017   1.977  32.380  1.00 54.65           C
ATOM   4752  OH  TYR H  97      18.512   1.448  31.218  1.00 54.65           O
ATOM   4754  CE2 TYR H  97      18.010   3.335  32.576  1.00 52.02           C
ATOM   4756  CD2 TYR H  97      17.505   3.837  33.760  1.00 53.12           C
ATOM   4758  C   TYR H  97      14.683   3.725  37.733  1.00 55.90           C
ATOM   4759  O   TYR H  97      14.844   4.855  38.177  1.00 57.82           O
ATOM   4761  N   CYS H  98      14.278   2.717  38.508  1.00 55.79           N
ATOM   4762  CA  CYS H  98      14.275   2.856  39.968  1.00 55.82           C
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ATOM	4764	CB	CYS	H	98	13.126	2.101	40.654	1.00	54.75	C
ATOM	4767	SG	CYS	H	98	12.996	0.403	40.142	1.00	68.78	S
ATOM	4769	C	CYS	H	98	15.603	2.306	40.412	1.00	55.31	C
ATOM	4770	O	CYS	H	98	16.133	1.390	39.783	1.00	56.26	O
ATOM	4772	N	SER	H	99	16.165	2.884	41.464	1.00	54.18	N
ATOM	4773	CA	SER	H	99	17.404	2.367	42.023	1.00	53.10	C
ATOM	4775	CB	SER	H	99	18.616	3.118	41.509	1.00	53.02	C
ATOM	4778	OG	SER	H	99	19.783	2.461	41.947	1.00	49.61	O
ATOM	4780	C	SER	H	99	17.358	2.490	43.505	1.00	52.12	C
ATOM	4781	O	SER	H	99	16.516	3.193	44.031	1.00	53.03	O
ATOM	4783	N	ALA	H	100	18.282	1.816	44.174	1.00	52.50	N
ATOM	4784	CA	ALA	H	100	18.261	1.732	45.628	1.00	52.90	C
ATOM	4786	CB	ALA	H	100	17.339	0.585	46.067	1.00	52.69	C
ATOM	4790	C	ALA	H	100	19.660	1.526	46.205	1.00	54.07	C
ATOM	4791	O	ALA	H	100	20.464	0.762	45.642	1.00	55.42	O
ATOM	4793	N	SER	H	101	19.939	2.212	47.319	1.00	54.31	N
ATOM	4794	CA	SER	H	101	21.122	1.943	48.152	1.00	52.63	C
ATOM	4796	CB	SER	H	101	22.304	2.818	47.736	1.00	53.45	C
ATOM	4799	OG	SER	H	101	22.061	4.188	48.003	1.00	47.14	O
ATOM	4801	C	SER	H	101	20.820	2.153	49.638	1.00	53.12	C
ATOM	4802	O	SER	H	101	19.904	2.895	50.007	1.00	51.79	O
ATOM	4804	N	TYR	H	102	21.611	1.493	50.482	1.00	54.90	N
ATOM	4805	CA	TYR	H	102	21.468	1.578	51.947	1.00	52.96	C
ATOM	4807	CB	TYR	H	102	22.464	0.633	52.627	1.00	52.10	C
ATOM	4810	CG	TYR	H	102	22.006	-0.797	52.615	1.00	55.07	C
ATOM	4811	CD1	TYR	H	102	20.940	-1.193	53.410	1.00	54.91	C
ATOM	4813	CE1	TYR	H	102	20.491	-2.507	53.419	1.00	54.68	C
ATOM	4815	CZ	TYR	H	102	21.102	-3.454	52.627	1.00	54.77	C
ATOM	4816	OH	TYR	H	102	20.611	-4.741	52.691	1.00	56.57	O
ATOM	4818	CE2	TYR	H	102	22.172	-3.102	51.811	1.00	52.66	C
ATOM	4820	CD2	TYR	H	102	22.625	-1.765	51.815	1.00	57.72	C
ATOM	4822	C	TYR	H	102	21.662	3.007	52.469	1.00	51.08	C
ATOM	4823	O	TYR	H	102	22.641	3.653	52.147	1.00	48.10	O
ATOM	4825	N	TYR	H	103	20.714	3.488	53.267	1.00	52.21	N
ATOM	4826	CA	TYR	H	103	20.837	4.781	53.924	1.00	52.09	C
ATOM	4828	CB	TYR	H	103	19.742	4.958	54.983	1.00	50.42	C
ATOM	4831	CG	TYR	H	103	19.961	6.180	55.868	1.00	51.64	C
ATOM	4832	CD1	TYR	H	103	19.505	7.442	55.471	1.00	55.51	C
ATOM	4834	CE1	TYR	H	103	19.708	8.564	56.249	1.00	47.49	C
ATOM	4836	CZ	TYR	H	103	20.389	8.450	57.422	1.00	47.70	C
ATOM	4837	OH	TYR	H	103	20.590	9.574	58.175	1.00	52.37	O
ATOM	4839	CE2	TYR	H	103	20.869	7.216	57.846	1.00	50.51	C
ATOM	4841	CD2	TYR	H	103	20.650	6.087	57.068	1.00	45.38	C
ATOM	4843	C	TYR	H	103	22.207	4.933	54.594	1.00	54.36	C
ATOM	4844	O	TYR	H	103	22.695	4.023	55.260	1.00	56.44	O
ATOM	4846	N	ARG	H	104	22.810	6.103	54.413	1.00	55.01	N
ATOM	4847	CA	ARG	H	104	24.032	6.471	55.113	1.00	52.47	C
ATOM	4849	CB	ARG	H	104	25.154	6.712	54.105	1.00	51.34	C
ATOM	4852	CG	ARG	H	104	25.431	5.571	53.177	1.00	48.98	C
ATOM	4855	CD	ARG	H	104	26.500	5.962	52.181	1.00	53.59	C
ATOM	4858	NE	ARG	H	104	27.759	6.218	52.870	1.00	59.16	N
ATOM	4860	CZ	ARG	H	104	28.588	5.266	53.288	1.00	56.60	C
ATOM	4861	NH1	ARG	H	104	28.310	3.989	53.064	1.00	60.42	N
ATOM	4864	NH2	ARG	H	104	29.699	5.592	53.932	1.00	58.88	N
ATOM	4867	C	ARG	H	104	23.805	7.761	55.896	1.00	51.92	C
ATOM	4868	O	ARG	H	104	22.878	8.523	55.604	1.00	49.09	O
ATOM	4870	N	TYR	H	105	24.672	8.006	56.876	1.00	53.28	N
ATOM	4871	CA	TYR	H	105	24.710	9.292	57.579	1.00	53.37	C
ATOM	4873	CB	TYR	H	105	25.341	9.130	58.969	1.00	54.72	C
ATOM	4876	CG	TYR	H	105	24.659	8.197	59.964	1.00	51.95	C
ATOM	4877	CD1	TYR	H	105	23.344	8.398	60.366	1.00	55.79	C
ATOM	4879	CE1	TYR	H	105	22.734	7.557	61.330	1.00	54.92	C
ATOM	4881	CZ	TYR	H	105	23.454	6.527	61.888	1.00	53.31	C

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ATOM   4882  OH  TYR H 105      22.870   5.700  62.804  1.00 56.11           O
ATOM   4884  CE2 TYR H 105      24.764   6.310  61.512  1.00 54.94           C
ATOM   4886  CD2 TYR H 105      25.365   7.151  60.562  1.00 55.89           C
ATOM   4888  C   TYR H 105      25.517  10.346  56.787  1.00 53.19           C
ATOM   4889  O   TYR H 105      25.500  11.519  57.126  1.00 55.29           O
ATOM   4891  N   ASP H 106      26.245   9.891  55.765  1.00 54.09           N
ATOM   4892  CA  ASP H 106      27.063  10.709  54.846  1.00 53.00           C
ATOM   4894  CB  ASP H 106      27.798   9.766  53.872  1.00 53.09           C
ATOM   4897  CG  ASP H 106      29.014   9.177  54.422  1.00 54.22           C
ATOM   4898  OD1 ASP H 106      29.776   8.637  53.613  1.00 54.29           O
ATOM   4899  OD2 ASP H 106      29.233   9.265  55.639  1.00 64.11           O
ATOM   4900  C   ASP H 106      26.277  11.592  53.899  1.00 54.00           C
ATOM   4901  O   ASP H 106      25.058  11.556  53.861  1.00 59.96           O
ATOM   4903  N   VAL H 107      27.020  12.328  53.075  1.00 53.17           N
ATOM   4904  CA  VAL H 107      26.528  12.882  51.822  1.00 51.23           C
ATOM   4906  CB  VAL H 107      27.299  14.164  51.419  1.00 51.31           C
ATOM   4908  CG1 VAL H 107      27.340  15.164  52.583  1.00 50.27           C
ATOM   4912  CG2 VAL H 107      28.710  13.843  50.917  1.00 53.04           C
ATOM   4916  C   VAL H 107      26.647  11.829  50.709  1.00 51.93           C
ATOM   4917  O   VAL H 107      26.268  12.070  49.557  1.00 50.89           O
ATOM   4919  N   GLY H 108      27.211  10.677  51.060  1.00 52.61           N
ATOM   4920  CA  GLY H 108      27.216   9.480  50.226  1.00 52.18           C
ATOM   4923  C   GLY H 108      25.843   8.997  49.798  1.00 52.13           C
ATOM   4924  O   GLY H 108      25.001   8.680  50.639  1.00 54.07           O
ATOM   4926  N   ALA H 109      25.631   8.972  48.482  1.00 50.43           N
ATOM   4927  CA  ALA H 109      24.467   8.357  47.862  1.00 49.42           C
ATOM   4929  CB  ALA H 109      23.346   9.340  47.756  1.00 48.70           C
ATOM   4933  C   ALA H 109      24.852   7.856  46.474  1.00 49.64           C
ATOM   4934  O   ALA H 109      25.498   8.573  45.708  1.00 49.95           O
ATOM   4936  N   TRP H 110      24.460   6.621  46.158  1.00 51.19           N
ATOM   4937  CA  TRP H 110      24.741   6.028  44.850  1.00 51.18           C
ATOM   4939  CB  TRP H 110      26.165   5.497  44.814  1.00 51.84           C
ATOM   4942  CG  TRP H 110      26.467   4.314  45.676  1.00 52.98           C
ATOM   4943  CD1 TRP H 110      26.327   2.998  45.340  1.00 54.46           C
ATOM   4945  NE1 TRP H 110      26.759   2.202  46.371  1.00 54.88           N
ATOM   4947  CE2 TRP H 110      27.207   2.998  47.389  1.00 48.87           C
ATOM   4948  CD2 TRP H 110      27.041   4.334  46.985  1.00 52.18           C
ATOM   4949  CE3 TRP H 110      27.415   5.351  47.859  1.00 52.85           C
ATOM   4951  CZ3 TRP H 110      27.942   5.010  49.078  1.00 53.94           C
ATOM   4953  CH2 TRP H 110      28.104   3.672  49.447  1.00 51.64           C
ATOM   4955  CZ2 TRP H 110      27.739   2.655  48.616  1.00 48.54           C
ATOM   4957  C   TRP H 110      23.737   4.950  44.457  1.00 52.28           C
ATOM   4958  O   TRP H 110      22.784   4.695  45.197  1.00 53.53           O
ATOM   4960  N   PHE H 111      23.944   4.331  43.291  1.00 51.09           N
ATOM   4961  CA  PHE H 111      22.916   3.485  42.675  1.00 50.65           C
ATOM   4963  CB  PHE H 111      22.488   4.117  41.340  1.00 50.25           C
ATOM   4966  CG  PHE H 111      22.282   5.612  41.448  1.00 49.04           C
ATOM   4967  CD1 PHE H 111      21.319   6.129  42.291  1.00 51.73           C
ATOM   4969  CE1 PHE H 111      21.149   7.495  42.429  1.00 51.55           C
ATOM   4971  CZ  PHE H 111      21.944   8.357  41.737  1.00 50.40           C
ATOM   4973  CE2 PHE H 111      22.919   7.861  40.912  1.00 51.14           C
ATOM   4975  CD2 PHE H 111      23.092   6.493  40.777  1.00 49.18           C
ATOM   4977  C   PHE H 111      23.408   2.041  42.566  1.00 50.05           C
ATOM   4978  O   PHE H 111      24.051   1.647  41.607  1.00 47.70           O
ATOM   4980  N   ALA H 112      23.101   1.264  43.597  1.00 50.93           N
ATOM   4981  CA  ALA H 112      23.694  -0.047  43.781  1.00 52.55           C
ATOM   4983  CB  ALA H 112      23.730  -0.390  45.248  1.00 52.52           C
ATOM   4987  C   ALA H 112      22.926  -1.109  43.022  1.00 54.37           C
ATOM   4988  O   ALA H 112      23.525  -1.917  42.311  1.00 55.53           O
ATOM   4990  N   TYR H 113      21.605  -1.109  43.205  1.00 55.46           N
ATOM   4991  CA  TYR H 113      20.693  -2.020  42.515  1.00 54.22           C
ATOM   4993  CB  TYR H 113      19.841  -2.817  43.511  1.00 57.01           C
ATOM   4996  CG  TYR H 113      20.528  -3.137  44.809  1.00 59.26           C
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ATOM   4997  CD1 TYR H 113      21.598  -4.025  44.852  1.00 61.30           C
ATOM   4999  CE1 TYR H 113      22.234  -4.333  46.053  1.00 60.62           C
ATOM   5001  CZ  TYR H 113      21.798  -3.738  47.223  1.00 63.36           C
ATOM   5002  OH  TYR H 113      22.433  -4.021  48.409  1.00 67.49           O
ATOM   5004  CE2 TYR H 113      20.734  -2.854  47.205  1.00 60.66           C
ATOM   5006  CD2 TYR H 113      20.106  -2.558  46.001  1.00 61.94           C
ATOM   5008  C   TYR H 113      19.768  -1.207  41.624  1.00 52.67           C
ATOM   5009  O   TYR H 113      19.360  -0.097  41.973  1.00 51.12           O
ATOM   5011  N   TRP H 114      19.413  -1.789  40.491  1.00 51.26           N
ATOM   5012  CA  TRP H 114      18.654  -1.098  39.470  1.00 52.96           C
ATOM   5014  CB  TRP H 114      19.516  -0.908  38.228  1.00 53.95           C
ATOM   5017  CG  TRP H 114      20.589   0.070  38.419  1.00 53.77           C
ATOM   5018  CD1 TRP H 114      21.685  -0.081  39.182  1.00 52.61           C
ATOM   5020  NE1 TRP H 114      22.457   1.048  39.123  1.00 57.47           N
ATOM   5022  CE2 TRP H 114      21.855   1.960  38.301  1.00 57.60           C
ATOM   5023  CD2 TRP H 114      20.667   1.378  37.841  1.00 57.75           C
ATOM   5024  CE3 TRP H 114      19.852   2.106  36.967  1.00 55.44           C
ATOM   5026  CZ3 TRP H 114      20.251   3.369  36.591  1.00 55.64           C
ATOM   5028  CH2 TRP H 114      21.445   3.924  37.067  1.00 55.42           C
ATOM   5030  CZ2 TRP H 114      22.259   3.236  37.920  1.00 56.16           C
ATOM   5032  C   TRP H 114      17.443  -1.888  39.051  1.00 53.33           C
ATOM   5033  O   TRP H 114      17.467  -3.114  39.040  1.00 54.38           O
ATOM   5035  N   GLY H 115      16.390  -1.165  38.679  1.00 53.62           N
ATOM   5036  CA  GLY H 115      15.269  -1.742  37.967  1.00 50.08           C
ATOM   5039  C   GLY H 115      15.730  -2.006  36.552  1.00 50.47           C
ATOM   5040  O   GLY H 115      16.763  -1.481  36.115  1.00 49.63           O
ATOM   5042  N   GLN H 116      14.958  -2.818  35.834  1.00 50.79           N
ATOM   5043  CA  GLN H 116      15.284  -3.206  34.462  1.00 48.84           C
ATOM   5045  CB  GLN H 116      14.426  -4.401  34.035  1.00 48.23           C
ATOM   5048  CG  GLN H 116      12.972  -4.094  33.619  1.00 50.59           C
ATOM   5051  CD  GLN H 116      11.966  -4.161  34.765  1.00 55.01           C
ATOM   5052  OE1 GLN H 116      12.343  -4.196  35.942  1.00 56.76           O
ATOM   5053  NE2 GLN H 116      10.674  -4.176  34.424  1.00 46.00           N
ATOM   5056  C   GLN H 116      15.106  -2.069  33.454  1.00 48.66           C
ATOM   5057  O   GLN H 116      15.481  -2.215  32.284  1.00 48.67           O
ATOM   5059  N   GLY H 117      14.512  -0.960  33.901  1.00 47.82           N
ATOM   5060  CA  GLY H 117      14.163   0.149  33.025  1.00 47.97           C
ATOM   5063  C   GLY H 117      12.816  -0.040  32.340  1.00 47.94           C
ATOM   5064  O   GLY H 117      12.427  -1.177  32.024  1.00 47.46           O
ATOM   5066  N   THR H 118      12.111   1.075  32.111  1.00 47.47           N
ATOM   5067  CA  THR H 118      10.911   1.093  31.261  1.00 48.10           C
ATOM   5069  CB  THR H 118       9.619   0.852  32.078  1.00 49.92           C
ATOM   5071  OG1 THR H 118       8.500   0.736  31.188  1.00 53.21           O
ATOM   5073  CG2 THR H 118       9.366   1.980  33.097  1.00 48.82           C
ATOM   5077  C   THR H 118      10.785   2.397  30.472  1.00 48.24           C
ATOM   5078  O   THR H 118      10.965   3.489  31.020  1.00 51.02           O
ATOM   5080  N   LEU H 119      10.461   2.276  29.187  1.00 49.10           N
ATOM   5081  CA  LEU H 119      10.445   3.423  28.261  1.00 48.79           C
ATOM   5083  CB  LEU H 119      10.652   2.953  26.815  1.00 47.98           C
ATOM   5086  CG  LEU H 119      10.711   4.035  25.728  1.00 48.73           C
ATOM   5088  CD1 LEU H 119      11.952   4.892  25.873  1.00 50.29           C
ATOM   5092  CD2 LEU H 119      10.674   3.408  24.360  1.00 47.50           C
ATOM   5096  C   LEU H 119       9.157   4.241  28.352  1.00 49.28           C
ATOM   5097  O   LEU H 119       8.055   3.704  28.236  1.00 48.59           O
ATOM   5099  N   VAL H 120       9.318   5.548  28.553  1.00 49.87           N
ATOM   5100  CA  VAL H 120       8.206   6.488  28.527  1.00 49.43           C
ATOM   5102  CB  VAL H 120       8.222   7.432  29.740  1.00 48.77           C
ATOM   5104  CG1 VAL H 120       6.952   8.280  29.774  1.00 47.34           C
ATOM   5108  CG2 VAL H 120       8.344   6.634  31.017  1.00 51.75           C
ATOM   5112  C   VAL H 120       8.327   7.305  27.257  1.00 48.47           C
ATOM   5113  O   VAL H 120       9.391   7.837  26.960  1.00 46.71           O
ATOM   5115  N   THR H 121       7.235   7.391  26.508  1.00 49.08           N
ATOM   5116  CA  THR H 121       7.230   8.126  25.253  1.00 50.28           C
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ATOM	5118	CB	THR	H	121	7.036	7.190	24.057	1.00 49.88	C
ATOM	5120	OG1	THR	H	121	8.009	6.141	24.111	1.00 52.48	O
ATOM	5122	CG2	THR	H	121	7.202	7.949	22.772	1.00 50.04	C
ATOM	5126	C	THR	H	121	6.138	9.183	25.274	1.00 50.24	C
ATOM	5127	O	THR	H	121	4.951	8.868	25.238	1.00 49.85	O
ATOM	5129	N	VAL	H	122	6.557	10.442	25.356	1.00 51.36	N
ATOM	5130	CA	VAL	H	122	5.629	11.563	25.361	1.00 50.98	C
ATOM	5132	CB	VAL	H	122	6.113	12.694	26.276	1.00 50.97	C
ATOM	5134	CG1	VAL	H	122	5.019	13.776	26.393	1.00 54.22	C
ATOM	5138	CG2	VAL	H	122	6.500	12.140	27.637	1.00 48.86	C
ATOM	5142	C	VAL	H	122	5.495	12.073	23.926	1.00 50.50	C
ATOM	5143	O	VAL	H	122	6.457	12.578	23.348	1.00 50.93	O
ATOM	5145	N	SER	H	123	4.311	11.919	23.351	1.00 49.36	N
ATOM	5146	CA	SER	H	123	4.106	12.238	21.948	1.00 50.02	C
ATOM	5148	CB	SER	H	123	4.747	11.172	21.074	1.00 50.11	C
ATOM	5151	OG	SER	H	123	4.358	11.332	19.727	1.00 50.26	O
ATOM	5153	C	SER	H	123	2.630	12.332	21.615	1.00 50.86	C
ATOM	5154	O	SER	H	123	1.784	11.868	22.380	1.00 51.80	O
ATOM	5156	N	SER	H	124	2.327	12.953	20.479	1.00 51.04	N
ATOM	5157	CA	SER	H	124	0.946	13.049	20.001	1.00 51.63	C
ATOM	5159	CB	SER	H	124	0.691	14.405	19.340	1.00 51.59	C
ATOM	5162	OG	SER	H	124	0.880	15.454	20.278	1.00 53.09	O
ATOM	5164	C	SER	H	124	0.620	11.935	19.027	1.00 51.16	C
ATOM	5165	O	SER	H	124	-0.554	11.669	18.770	1.00 52.25	O
ATOM	5167	N	ALA	H	125	1.661	11.290	18.497	1.00 51.66	N
ATOM	5168	CA	ALA	H	125	1.514	10.276	17.454	1.00 52.03	C
ATOM	5170	CB	ALA	H	125	2.876	9.893	16.879	1.00 50.83	C
ATOM	5174	C	ALA	H	125	0.797	9.049	18.002	1.00 52.57	C
ATOM	5175	O	ALA	H	125	0.989	8.672	19.157	1.00 53.54	O
ATOM	5177	N	SER	H	126	-0.040	8.443	17.166	1.00 53.66	N
ATOM	5178	CA	SER	H	126	-0.878	7.333	17.590	1.00 53.99	C
ATOM	5180	CB	SER	H	126	-2.092	7.182	16.662	1.00 54.29	C
ATOM	5183	OG	SER	H	126	-2.543	8.446	16.187	1.00 56.55	O
ATOM	5185	C	SER	H	126	-0.063	6.048	17.610	1.00 54.14	C
ATOM	5186	O	SER	H	126	0.919	5.908	16.872	1.00 53.05	O
ATOM	5188	N	THR	H	127	-0.475	5.122	18.471	1.00 54.72	N
ATOM	5189	CA	THR	H	127	0.147	3.807	18.552	1.00 54.76	C
ATOM	5191	CB	THR	H	127	-0.336	3.026	19.821	1.00 54.51	C
ATOM	5193	OG1	THR	H	127	0.498	3.377	20.933	1.00 57.82	O
ATOM	5195	CG2	THR	H	127	-0.275	1.504	19.638	1.00 55.20	C
ATOM	5199	C	THR	H	127	-0.130	3.043	17.247	1.00 54.70	C
ATOM	5200	O	THR	H	127	-1.238	3.093	16.713	1.00 54.82	O
ATOM	5202	N	LYS	H	128	0.894	2.358	16.743	1.00 54.60	N
ATOM	5203	CA	LYS	H	128	0.817	1.628	15.482	1.00 54.47	C
ATOM	5205	CB	LYS	H	128	1.498	2.452	14.385	1.00 54.89	C
ATOM	5208	CG	LYS	H	128	0.750	2.547	13.060	1.00 56.98	C
ATOM	5211	CD	LYS	H	128	1.116	1.443	12.065	1.00 59.81	C
ATOM	5214	CE	LYS	H	128	0.059	0.341	12.025	1.00 62.15	C
ATOM	5217	NZ	LYS	H	128	0.349	-0.698	10.986	1.00 61.29	N
ATOM	5221	C	LYS	H	128	1.513	0.274	15.667	1.00 54.39	C
ATOM	5222	O	LYS	H	128	2.680	0.220	16.073	1.00 55.32	O
ATOM	5224	N	GLY	H	129	0.788	-0.813	15.405	1.00 53.07	N
ATOM	5225	CA	GLY	H	129	1.356	-2.153	15.482	1.00 52.52	C
ATOM	5228	C	GLY	H	129	2.272	-2.381	14.295	1.00 53.52	C
ATOM	5229	O	GLY	H	129	2.113	-1.738	13.259	1.00 54.78	O
ATOM	5231	N	PRO	H	130	3.249	-3.288	14.432	1.00 53.18	N
ATOM	5232	CA	PRO	H	130	4.123	-3.569	13.303	1.00 51.86	C
ATOM	5234	CB	PRO	H	130	5.320	-4.254	13.955	1.00 52.61	C
ATOM	5237	CG	PRO	H	130	4.738	-4.961	15.128	1.00 53.44	C
ATOM	5240	CD	PRO	H	130	3.602	-4.094	15.615	1.00 53.56	C
ATOM	5243	C	PRO	H	130	3.464	-4.506	12.310	1.00 51.39	C
ATOM	5244	O	PRO	H	130	2.349	-4.970	12.540	1.00 50.84	O
ATOM	5245	N	SER	H	131	4.166	-4.764	11.212	1.00 51.24	N

ATOM	5246	CA	SER	H	131	3.730	-5.690	10.184	1.00	51.19	C
ATOM	5248	CB	SER	H	131	3.213	-4.915	8.975	1.00	51.90	C
ATOM	5251	OG	SER	H	131	2.876	-3.586	9.343	1.00	54.06	O
ATOM	5253	C	SER	H	131	4.963	-6.486	9.810	1.00	51.56	C
ATOM	5254	O	SER	H	131	5.942	-5.916	9.327	1.00	53.23	O
ATOM	5256	N	VAL	H	132	4.930	-7.793	10.041	1.00	50.73	N
ATOM	5257	CA	VAL	H	132	6.133	-8.604	9.925	1.00	51.25	C
ATOM	5259	CB	VAL	H	132	6.152	-9.686	11.011	1.00	51.00	C
ATOM	5261	CG1	VAL	H	132	7.345	-10.632	10.830	1.00	52.31	C
ATOM	5265	CG2	VAL	H	132	6.188	-9.028	12.390	1.00	50.95	C
ATOM	5269	C	VAL	H	132	6.250	-9.230	8.536	1.00	52.46	C
ATOM	5270	O	VAL	H	132	5.284	-9.813	8.041	1.00	53.84	O
ATOM	5272	N	PHE	H	133	7.428	-9.096	7.914	1.00	52.65	N
ATOM	5273	CA	PHE	H	133	7.707	-9.687	6.594	1.00	52.17	C
ATOM	5275	CB	PHE	H	133	7.969	-8.609	5.538	1.00	52.59	C
ATOM	5278	CG	PHE	H	133	6.910	-7.544	5.473	1.00	53.24	C
ATOM	5279	CD1	PHE	H	133	5.643	-7.835	4.994	1.00	54.08	C
ATOM	5281	CE1	PHE	H	133	4.662	-6.844	4.931	1.00	55.48	C
ATOM	5283	CZ	PHE	H	133	4.949	-5.543	5.355	1.00	54.52	C
ATOM	5285	CE2	PHE	H	133	6.209	-5.241	5.825	1.00	54.83	C
ATOM	5287	CD2	PHE	H	133	7.186	-6.239	5.882	1.00	56.63	C
ATOM	5289	C	PHE	H	133	8.918	-10.617	6.661	1.00	51.93	C
ATOM	5290	O	PHE	H	133	9.834	-10.390	7.455	1.00	51.06	O
ATOM	5292	N	PRO	H	134	8.919	-11.681	5.835	1.00	52.34	N
ATOM	5293	CA	PRO	H	134	10.043	-12.604	5.795	1.00	52.10	C
ATOM	5295	CB	PRO	H	134	9.427	-13.869	5.206	1.00	51.71	C
ATOM	5298	CG	PRO	H	134	8.381	-13.369	4.299	1.00	51.88	C
ATOM	5301	CD	PRO	H	134	7.846	-12.102	4.915	1.00	52.55	C
ATOM	5304	C	PRO	H	134	11.174	-12.121	4.902	1.00	52.32	C
ATOM	5305	O	PRO	H	134	10.939	-11.720	3.759	1.00	51.87	O
ATOM	5306	N	LEU	H	135	12.388	-12.158	5.443	1.00	52.14	N
ATOM	5307	CA	LEU	H	135	13.596	-12.021	4.654	1.00	52.42	C
ATOM	5309	CB	LEU	H	135	14.631	-11.190	5.416	1.00	52.10	C
ATOM	5312	CG	LEU	H	135	14.162	-9.791	5.852	1.00	52.50	C
ATOM	5314	CD1	LEU	H	135	15.200	-9.132	6.751	1.00	50.35	C
ATOM	5318	CD2	LEU	H	135	13.847	-8.891	4.653	1.00	51.15	C
ATOM	5322	C	LEU	H	135	14.113	-13.436	4.354	1.00	53.24	C
ATOM	5323	O	LEU	H	135	15.104	-13.885	4.928	1.00	53.43	O
ATOM	5325	N	ALA	H	136	13.420	-14.141	3.460	1.00	53.42	N
ATOM	5326	CA	ALA	H	136	13.774	-15.519	3.110	1.00	53.65	C
ATOM	5328	CB	ALA	H	136	12.647	-16.165	2.289	1.00	53.57	C
ATOM	5332	C	ALA	H	136	15.103	-15.584	2.344	1.00	54.09	C
ATOM	5333	O	ALA	H	136	15.536	-14.579	1.778	1.00	53.45	O
ATOM	5335	N	PRO	H	137	15.758	-16.768	2.329	1.00	54.99	N
ATOM	5336	CA	PRO	H	137	16.987	-16.954	1.540	1.00	54.30	C
ATOM	5338	CB	PRO	H	137	17.382	-18.412	1.832	1.00	54.19	C
ATOM	5341	CG	PRO	H	137	16.133	-19.065	2.312	1.00	55.25	C
ATOM	5344	CD	PRO	H	137	15.397	-17.999	3.062	1.00	54.79	C
ATOM	5347	C	PRO	H	137	16.768	-16.751	0.044	1.00	53.70	C
ATOM	5348	O	PRO	H	137	17.609	-17.150	-0.759	1.00	54.54	O
ATOM	5349	N	LEU	H	149	19.007	-15.644	6.377	1.00	46.99	N
ATOM	5350	CA	LEU	H	149	17.577	-15.368	6.508	1.00	48.77	C
ATOM	5352	CB	LEU	H	149	16.769	-16.672	6.471	1.00	49.04	C
ATOM	5355	CG	LEU	H	149	16.823	-17.619	7.684	1.00	47.39	C
ATOM	5357	CD1	LEU	H	149	15.953	-17.140	8.854	1.00	47.18	C
ATOM	5361	CD2	LEU	H	149	16.415	-19.030	7.269	1.00	47.12	C
ATOM	5365	C	LEU	H	149	17.233	-14.576	7.779	1.00	50.43	C
ATOM	5366	O	LEU	H	149	18.015	-14.548	8.740	1.00	50.30	O
ATOM	5368	N	GLY	H	150	16.045	-13.959	7.777	1.00	51.43	N
ATOM	5369	CA	GLY	H	150	15.605	-13.104	8.880	1.00	51.42	C
ATOM	5372	C	GLY	H	150	14.151	-12.655	8.827	1.00	51.75	C
ATOM	5373	O	GLY	H	150	13.316	-13.295	8.197	1.00	50.93	O
ATOM	5375	N	CYS	H	151	13.878	-11.532	9.496	1.00	53.64	N

ATOM	5376	CA	CYS	H	151	12.529	-10.982	9.702	1.00	54.19	C
ATOM	5378	CB	CYS	H	151	12.042	-11.333	11.110	1.00	54.88	C
ATOM	5381	SG	CYS	H	151	10.798	-12.603	11.183	1.00	60.09	S
ATOM	5383	C	CYS	H	151	12.527	-9.454	9.593	1.00	54.57	C
ATOM	5384	O	CYS	H	151	13.247	-8.784	10.333	1.00	54.96	O
ATOM	5386	N	LEU	H	152	11.698	-8.898	8.716	1.00	54.14	N
ATOM	5387	CA	LEU	H	152	11.592	-7.444	8.593	1.00	53.95	C
ATOM	5389	CB	LEU	H	152	11.585	-7.039	7.118	1.00	54.15	C
ATOM	5392	CG	LEU	H	152	11.440	-5.543	6.833	1.00	53.66	C
ATOM	5394	CD1	LEU	H	152	12.388	-4.729	7.709	1.00	51.76	C
ATOM	5398	CD2	LEU	H	152	11.674	-5.254	5.360	1.00	52.94	C
ATOM	5402	C	LEU	H	152	10.348	-6.895	9.292	1.00	53.79	C
ATOM	5403	O	LEU	H	152	9.239	-7.018	8.779	1.00	53.53	O
ATOM	5405	N	VAL	H	153	10.547	-6.270	10.450	1.00	54.57	N
ATOM	5406	CA	VAL	H	153	9.450	-5.703	11.249	1.00	54.88	C
ATOM	5408	CB	VAL	H	153	9.752	-5.781	12.777	1.00	55.19	C
ATOM	5410	CG1	VAL	H	153	8.507	-5.449	13.583	1.00	57.25	C
ATOM	5414	CG2	VAL	H	153	10.276	-7.157	13.167	1.00	55.23	C
ATOM	5418	C	VAL	H	153	9.266	-4.237	10.871	1.00	54.80	C
ATOM	5419	O	VAL	H	153	10.080	-3.403	11.257	1.00	55.94	O
ATOM	5421	N	LYS	H	154	8.204	-3.909	10.138	1.00	54.35	N
ATOM	5422	CA	LYS	H	154	8.077	-2.561	9.574	1.00	54.32	C
ATOM	5424	CB	LYS	H	154	7.939	-2.639	8.046	1.00	53.57	C
ATOM	5427	CG	LYS	H	154	8.284	-1.329	7.332	1.00	54.14	C
ATOM	5430	CD	LYS	H	154	8.017	-1.395	5.832	1.00	54.01	C
ATOM	5433	CE	LYS	H	154	7.848	-0.003	5.215	1.00	52.46	C
ATOM	5436	NZ	LYS	H	154	9.110	0.785	5.227	1.00	53.22	N
ATOM	5440	C	LYS	H	154	6.929	-1.729	10.169	1.00	54.37	C
ATOM	5441	O	LYS	H	154	5.906	-2.271	10.591	1.00	53.67	O
ATOM	5443	N	ASP	H	155	7.141	-0.407	10.201	1.00	54.97	N
ATOM	5444	CA	ASP	H	155	6.102	0.610	10.466	1.00	54.72	C
ATOM	5446	CB	ASP	H	155	5.071	0.640	9.319	1.00	55.06	C
ATOM	5449	CG	ASP	H	155	5.623	1.239	8.026	1.00	57.44	C
ATOM	5450	OD1	ASP	H	155	6.609	2.012	8.083	1.00	59.72	O
ATOM	5451	OD2	ASP	H	155	5.054	0.939	6.945	1.00	57.21	O
ATOM	5452	C	ASP	H	155	5.372	0.480	11.812	1.00	54.47	C
ATOM	5453	O	ASP	H	155	4.239	0.007	11.862	1.00	55.92	O
ATOM	5455	N	TYR	H	156	5.999	0.932	12.891	1.00	53.14	N
ATOM	5456	CA	TYR	H	156	5.372	0.832	14.202	1.00	53.82	C
ATOM	5458	CB	TYR	H	156	5.726	-0.512	14.833	1.00	53.59	C
ATOM	5461	CG	TYR	H	156	7.155	-0.623	15.313	1.00	54.20	C
ATOM	5462	CD1	TYR	H	156	8.131	-1.255	14.545	1.00	53.44	C
ATOM	5464	CE1	TYR	H	156	9.444	-1.365	15.002	1.00	53.05	C
ATOM	5466	CZ	TYR	H	156	9.780	-0.833	16.243	1.00	55.08	C
ATOM	5467	OH	TYR	H	156	11.062	-0.918	16.741	1.00	57.00	O
ATOM	5469	CE2	TYR	H	156	8.825	-0.205	17.012	1.00	53.99	C
ATOM	5471	CD2	TYR	H	156	7.527	-0.107	16.549	1.00	55.19	C
ATOM	5473	C	TYR	H	156	5.716	1.986	15.157	1.00	54.11	C
ATOM	5474	O	TYR	H	156	6.721	2.691	14.984	1.00	53.40	O
ATOM	5476	N	PHE	H	157	4.861	2.164	16.165	1.00	54.32	N
ATOM	5477	CA	PHE	H	157	5.008	3.237	17.154	1.00	54.59	C
ATOM	5479	CB	PHE	H	157	4.508	4.556	16.573	1.00	54.71	C
ATOM	5482	CG	PHE	H	157	4.879	5.745	17.387	1.00	52.98	C
ATOM	5483	CD1	PHE	H	157	6.082	6.397	17.169	1.00	53.25	C
ATOM	5485	CE1	PHE	H	157	6.437	7.503	17.922	1.00	55.80	C
ATOM	5487	CZ	PHE	H	157	5.582	7.970	18.925	1.00	55.72	C
ATOM	5489	CE2	PHE	H	157	4.376	7.325	19.147	1.00	56.54	C
ATOM	5491	CD2	PHE	H	157	4.032	6.213	18.374	1.00	55.21	C
ATOM	5493	C	PHE	H	157	4.225	2.926	18.432	1.00	54.76	C
ATOM	5494	O	PHE	H	157	3.140	2.351	18.375	1.00	55.93	O
ATOM	5496	N	PRO	H	158	4.784	3.266	19.598	1.00	55.16	N
ATOM	5497	CA	PRO	H	158	6.124	3.745	19.872	1.00	55.88	C
ATOM	5499	CB	PRO	H	158	5.985	4.360	21.268	1.00	55.39	C

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ATOM   5502  CG  PRO H 158       4.988   3.528  21.915  1.00 54.26           C
ATOM   5505  CD  PRO H 158       4.000   3.155  20.841  1.00 56.33           C
ATOM   5508  C   PRO H 158       7.076   2.564  19.916  1.00 56.55           C
ATOM   5509  O   PRO H 158       6.733   1.480  19.454  1.00 56.07           O
ATOM   5510  N   GLU H 159       8.268   2.782  20.457  1.00 56.52           N
ATOM   5511  CA  GLU H 159       9.156   1.689  20.798  1.00 55.94           C
ATOM   5513  CB  GLU H 159      10.574   2.224  21.030  1.00 56.82           C
ATOM   5516  CG  GLU H 159      11.320   2.633  19.770  1.00 56.39           C
ATOM   5519  CD  GLU H 159      12.266   1.559  19.284  1.00 60.65           C
ATOM   5520  OE1 GLU H 159      13.453   1.884  19.064  1.00 62.67           O
ATOM   5521  OE2 GLU H 159      11.832   0.391  19.139  1.00 63.04           O
ATOM   5522  C   GLU H 159       8.593   1.061  22.073  1.00 55.33           C
ATOM   5523  O   GLU H 159       7.690   1.635  22.686  1.00 55.74           O
ATOM   5525  N   PRO H 160       9.098  -0.125  22.467  1.00 53.85           N
ATOM   5526  CA  PRO H 160      10.004  -1.007  21.746  1.00 52.78           C
ATOM   5528  CB  PRO H 160      10.924  -1.496  22.858  1.00 52.15           C
ATOM   5531  CG  PRO H 160      10.013  -1.591  24.054  1.00 52.29           C
ATOM   5534  CD  PRO H 160       8.825  -0.668  23.810  1.00 53.50           C
ATOM   5537  C   PRO H 160       9.298  -2.204  21.123  1.00 52.45           C
ATOM   5538  O   PRO H 160       8.115  -2.454  21.391  1.00 51.11           O
ATOM   5539  N   VAL H 161      10.041  -2.930  20.294  1.00 52.65           N
ATOM   5540  CA  VAL H 161       9.637  -4.244  19.803  1.00 52.85           C
ATOM   5542  CB  VAL H 161       9.481  -4.254  18.265  1.00 53.15           C
ATOM   5544  CG1 VAL H 161       9.358  -5.673  17.732  1.00 54.39           C
ATOM   5548  CG2 VAL H 161       8.278  -3.433  17.846  1.00 54.62           C
ATOM   5552  C   VAL H 161      10.744  -5.208  20.191  1.00 53.06           C
ATOM   5553  O   VAL H 161      11.919  -4.851  20.132  1.00 54.73           O
ATOM   5555  N   THR H 162      10.378  -6.421  20.589  1.00 52.31           N
ATOM   5556  CA  THR H 162      11.365  -7.453  20.858  1.00 52.49           C
ATOM   5558  CB  THR H 162      11.239  -7.974  22.277  1.00 52.92           C
ATOM   5560  OG1 THR H 162       9.893  -8.409  22.503  1.00 56.03           O
ATOM   5562  CG2 THR H 162      11.589  -6.881  23.266  1.00 52.72           C
ATOM   5566  C   THR H 162      11.172  -8.598  19.884  1.00 52.24           C
ATOM   5567  O   THR H 162      10.049  -8.861  19.448  1.00 51.87           O
ATOM   5569  N   VAL H 163      12.276  -9.262  19.544  1.00 52.59           N
ATOM   5570  CA  VAL H 163      12.278 -10.397  18.611  1.00 52.64           C
ATOM   5572  CB  VAL H 163      12.914 -10.023  17.259  1.00 51.61           C
ATOM   5574  CG1 VAL H 163      12.349 -10.910  16.156  1.00 52.12           C
ATOM   5578  CG2 VAL H 163      12.684  -8.561  16.934  1.00 51.50           C
ATOM   5582  C   VAL H 163      13.077 -11.570  19.180  1.00 52.73           C
ATOM   5583  O   VAL H 163      14.023 -11.370  19.935  1.00 52.59           O
ATOM   5585  N   SER H 164      12.706 -12.789  18.809  1.00 53.15           N
ATOM   5586  CA  SER H 164      13.407 -13.981  19.292  1.00 53.63           C
ATOM   5588  CB  SER H 164      12.991 -14.308  20.726  1.00 54.08           C
ATOM   5591  OG  SER H 164      11.600 -14.575  20.804  1.00 54.40           O
ATOM   5593  C   SER H 164      13.068 -15.151  18.399  1.00 53.97           C
ATOM   5594  O   SER H 164      11.940 -15.246  17.925  1.00 55.13           O
ATOM   5596  N   TRP H 165      14.028 -16.048  18.187  1.00 54.13           N
ATOM   5597  CA  TRP H 165      13.863 -17.128  17.209  1.00 54.37           C
ATOM   5599  CB  TRP H 165      15.104 -17.243  16.319  1.00 53.74           C
ATOM   5602  CG  TRP H 165      15.227 -16.085  15.383  1.00 52.17           C
ATOM   5603  CD1 TRP H 165      15.778 -14.864  15.653  1.00 50.28           C
ATOM   5605  NE1 TRP H 165      15.692 -14.053  14.549  1.00 51.40           N
ATOM   5607  CE2 TRP H 165      15.070 -14.740  13.538  1.00 52.68           C
ATOM   5608  CD2 TRP H 165      14.758 -16.025  14.031  1.00 53.23           C
ATOM   5609  CE3 TRP H 165      14.113 -16.937  13.183  1.00 52.56           C
ATOM   5611  CZ3 TRP H 165      13.805 -16.537  11.880  1.00 51.23           C
ATOM   5613  CH2 TRP H 165      14.124 -15.251  11.424  1.00 51.34           C
ATOM   5615  CZ2 TRP H 165      14.756 -14.342  12.232  1.00 51.54           C
ATOM   5617  C   TRP H 165      13.559 -18.450  17.886  1.00 54.67           C
ATOM   5618  O   TRP H 165      14.261 -18.855  18.814  1.00 55.34           O
ATOM   5620  N   ASN H 166      12.503 -19.108  17.414  1.00 54.61           N
ATOM   5621  CA  ASN H 166      12.048 -20.369  17.985  1.00 55.19           C
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ATOM	5623	CB	ASN	H	166	13.069	-21.484	17.723	1.00 55.05	C
ATOM	5626	CG	ASN	H	166	13.551	-21.508	16.286	1.00 55.74	C
ATOM	5627	OD1	ASN	H	166	13.259	-20.600	15.503	1.00 57.20	O
ATOM	5628	ND2	ASN	H	166	14.304	-22.545	15.933	1.00 54.79	N
ATOM	5631	C	ASN	H	166	11.774	-20.231	19.479	1.00 55.45	C
ATOM	5632	O	ASN	H	166	12.207	-21.058	20.276	1.00 56.31	O
ATOM	5634	N	SER	H	167	11.070	-19.162	19.843	1.00 56.10	N
ATOM	5635	CA	SER	H	167	10.640	-18.914	21.225	1.00 56.38	C
ATOM	5637	CB	SER	H	167	9.587	-19.947	21.633	1.00 56.14	C
ATOM	5640	OG	SER	H	167	8.594	-20.058	20.628	1.00 58.09	O
ATOM	5642	C	SER	H	167	11.787	-18.884	22.242	1.00 56.39	C
ATOM	5643	O	SER	H	167	11.624	-19.324	23.379	1.00 56.24	O
ATOM	5645	N	GLY	H	168	12.935	-18.349	21.827	1.00 56.67	N
ATOM	5646	CA	GLY	H	168	14.110	-18.236	22.696	1.00 56.47	C
ATOM	5649	C	GLY	H	168	15.189	-19.290	22.472	1.00 56.51	C
ATOM	5650	O	GLY	H	168	16.337	-19.085	22.879	1.00 56.55	O
ATOM	5652	N	ALA	H	169	14.836	-20.399	21.811	1.00 56.03	N
ATOM	5653	CA	ALA	H	169	15.723	-21.579	21.688	1.00 55.57	C
ATOM	5655	CB	ALA	H	169	14.903	-22.822	21.329	1.00 54.96	C
ATOM	5659	C	ALA	H	169	16.880	-21.424	20.697	1.00 55.09	C
ATOM	5660	O	ALA	H	169	17.771	-22.269	20.654	1.00 54.27	O
ATOM	5662	N	LEU	H	170	16.850	-20.359	19.900	1.00 54.95	N
ATOM	5663	CA	LEU	H	170	17.897	-20.063	18.927	1.00 54.71	C
ATOM	5665	CB	LEU	H	170	17.330	-20.216	17.510	1.00 54.56	C
ATOM	5668	CG	LEU	H	170	18.010	-19.512	16.328	1.00 55.49	C
ATOM	5670	CD1	LEU	H	170	19.522	-19.754	16.291	1.00 56.23	C
ATOM	5674	CD2	LEU	H	170	17.354	-19.965	15.031	1.00 55.06	C
ATOM	5678	C	LEU	H	170	18.408	-18.640	19.166	1.00 54.84	C
ATOM	5679	O	LEU	H	170	17.719	-17.669	18.836	1.00 55.29	O
ATOM	5681	N	THR	H	171	19.606	-18.519	19.740	1.00 54.01	N
ATOM	5682	CA	THR	H	171	20.159	-17.211	20.120	1.00 53.50	C
ATOM	5684	CB	THR	H	171	20.488	-17.149	21.617	1.00 53.39	C
ATOM	5686	OG1	THR	H	171	21.473	-18.142	21.930	1.00 53.51	O
ATOM	5688	CG2	THR	H	171	19.228	-17.355	22.465	1.00 52.71	C
ATOM	5692	C	THR	H	171	21.433	-16.842	19.377	1.00 52.81	C
ATOM	5693	O	THR	H	171	21.532	-15.747	18.843	1.00 51.22	O
ATOM	5695	N	SER	H	172	22.410	-17.745	19.367	1.00 53.12	N
ATOM	5696	CA	SER	H	172	23.724	-17.446	18.787	1.00 53.23	C
ATOM	5698	CB	SER	H	172	24.791	-18.436	19.288	1.00 53.49	C
ATOM	5701	OG	SER	H	172	24.888	-19.583	18.459	1.00 53.14	O
ATOM	5703	C	SER	H	172	23.662	-17.425	17.251	1.00 53.04	C
ATOM	5704	O	SER	H	172	23.128	-18.347	16.622	1.00 52.57	O
ATOM	5706	N	GLY	H	173	24.219	-16.369	16.662	1.00 52.83	N
ATOM	5707	CA	GLY	H	173	24.089	-16.111	15.231	1.00 53.02	C
ATOM	5710	C	GLY	H	173	23.077	-15.012	14.956	1.00 53.10	C
ATOM	5711	O	GLY	H	173	23.185	-14.303	13.961	1.00 52.33	O
ATOM	5713	N	VAL	H	174	22.090	-14.872	15.839	1.00 53.83	N
ATOM	5714	CA	VAL	H	174	21.074	-13.829	15.703	1.00 54.56	C
ATOM	5716	CB	VAL	H	174	19.909	-14.004	16.720	1.00 54.65	C
ATOM	5718	CG1	VAL	H	174	18.953	-12.816	16.674	1.00 53.10	C
ATOM	5722	CG2	VAL	H	174	19.154	-15.302	16.457	1.00 56.10	C
ATOM	5726	C	VAL	H	174	21.691	-12.454	15.922	1.00 55.19	C
ATOM	5727	O	VAL	H	174	22.483	-12.263	16.848	1.00 54.90	O
ATOM	5729	N	HIS	H	175	21.318	-11.517	15.049	1.00 55.07	N
ATOM	5730	CA	HIS	H	175	21.626	-10.101	15.204	1.00 53.78	C
ATOM	5732	CB	HIS	H	175	22.630	-9.647	14.146	1.00 55.18	C
ATOM	5735	CG	HIS	H	175	24.013	-10.175	14.355	1.00 56.38	C
ATOM	5736	ND1	HIS	H	175	24.871	-9.660	15.303	1.00 56.74	N
ATOM	5738	CE1	HIS	H	175	26.018	-10.312	15.253	1.00 58.40	C
ATOM	5740	NE2	HIS	H	175	25.936	-11.228	14.304	1.00 58.07	N
ATOM	5742	CD2	HIS	H	175	24.693	-11.162	13.725	1.00 55.44	C
ATOM	5744	C	HIS	H	175	20.344	-9.310	15.025	1.00 52.26	C
ATOM	5745	O	HIS	H	175	19.908	-9.074	13.896	1.00 52.01	O

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ATOM   5747  N   THR H 176      19.726  -8.919  16.131  1.00 50.96           N
ATOM   5748  CA  THR H 176      18.593  -8.005  16.071  1.00 50.96           C
ATOM   5750  CB  THR H 176      17.641  -8.207  17.247  1.00 50.09           C
ATOM   5752  OG1 THR H 176      17.200  -9.569  17.260  1.00 49.15           O
ATOM   5754  CG2 THR H 176      16.435  -7.272  17.144  1.00 48.81           C
ATOM   5758  C   THR H 176      19.140  -6.584  16.058  1.00 50.24           C
ATOM   5759  O   THR H 176      19.942  -6.218  16.923  1.00 49.54           O
ATOM   5761  N   PHE H 177      18.721  -5.798  15.066  1.00 50.40           N
ATOM   5762  CA  PHE H 177      19.301  -4.472  14.839  1.00 50.56           C
ATOM   5764  CB  PHE H 177      19.302  -4.126  13.352  1.00 49.81           C
ATOM   5767  CG  PHE H 177      20.236  -4.974  12.534  1.00 48.87           C
ATOM   5768  CD1 PHE H 177      19.775  -6.109  11.876  1.00 47.29           C
ATOM   5770  CE1 PHE H 177      20.640  -6.896  11.125  1.00 49.15           C
ATOM   5772  CZ  PHE H 177      21.986  -6.545  11.015  1.00 48.85           C
ATOM   5774  CE2 PHE H 177      22.456  -5.409  11.661  1.00 49.17           C
ATOM   5776  CD2 PHE H 177      21.583  -4.632  12.418  1.00 49.41           C
ATOM   5778  C   PHE H 177      18.556  -3.395  15.602  1.00 50.98           C
ATOM   5779  O   PHE H 177      17.347  -3.500  15.792  1.00 51.24           O
ATOM   5781  N   PRO H 178      19.281  -2.353  16.050  1.00 52.21           N
ATOM   5782  CA  PRO H 178      18.612  -1.172  16.589  1.00 51.10           C
ATOM   5784  CB  PRO H 178      19.745  -0.146  16.741  1.00 50.08           C
ATOM   5787  CG  PRO H 178      20.984  -0.911  16.801  1.00 50.78           C
ATOM   5790  CD  PRO H 178      20.752  -2.225  16.087  1.00 52.81           C
ATOM   5793  C   PRO H 178      17.586  -0.657  15.596  1.00 51.37           C
ATOM   5794  O   PRO H 178      17.849  -0.631  14.392  1.00 53.28           O
ATOM   5795  N   ALA H 179      16.425  -0.260  16.092  1.00 51.75           N
ATOM   5796  CA  ALA H 179      15.386   0.271  15.230  1.00 52.20           C
ATOM   5798  CB  ALA H 179      14.126   0.544  16.021  1.00 53.05           C
ATOM   5802  C   ALA H 179      15.853   1.541  14.541  1.00 52.48           C
ATOM   5803  O   ALA H 179      16.837   2.172  14.949  1.00 50.37           O
ATOM   5805  N   VAL H 180      15.137   1.893  13.481  1.00 52.84           N
ATOM   5806  CA  VAL H 180      15.411   3.103  12.739  1.00 53.15           C
ATOM   5808  CB  VAL H 180      16.018   2.787  11.373  1.00 52.57           C
ATOM   5810  CG1 VAL H 180      16.049   4.022  10.507  1.00 53.76           C
ATOM   5814  CG2 VAL H 180      17.418   2.223  11.543  1.00 54.03           C
ATOM   5818  C   VAL H 180      14.125   3.893  12.578  1.00 52.96           C
ATOM   5819  O   VAL H 180      13.071   3.338  12.301  1.00 53.63           O
ATOM   5821  N   LEU H 181      14.234   5.200  12.752  1.00 53.47           N
ATOM   5822  CA  LEU H 181      13.091   6.078  12.664  1.00 54.62           C
ATOM   5824  CB  LEU H 181      13.286   7.260  13.606  1.00 53.92           C
ATOM   5827  CG  LEU H 181      12.173   8.295  13.667  1.00 53.57           C
ATOM   5829  CD1 LEU H 181      10.804   7.646  13.619  1.00 56.77           C
ATOM   5833  CD2 LEU H 181      12.330   9.105  14.930  1.00 54.91           C
ATOM   5837  C   LEU H 181      12.908   6.546  11.228  1.00 55.19           C
ATOM   5838  O   LEU H 181      13.681   7.361  10.721  1.00 55.15           O
ATOM   5840  N   GLN H 182      11.892   6.006  10.567  1.00 56.48           N
ATOM   5841  CA  GLN H 182      11.571   6.408   9.198  1.00 57.31           C
ATOM   5843  CB  GLN H 182      10.562   5.436   8.568  1.00 56.69           C
ATOM   5846  CG  GLN H 182      11.143   4.041   8.305  1.00 56.48           C
ATOM   5849  CD  GLN H 182      10.089   2.935   8.250  1.00 59.11           C
ATOM   5850  OE1 GLN H 182       9.146   2.918   9.044  1.00 64.81           O
ATOM   5851  NE2 GLN H 182      10.265   1.990   7.329  1.00 55.62           N
ATOM   5854  C   GLN H 182      11.032   7.842   9.200  1.00 58.24           C
ATOM   5855  O   GLN H 182      10.706   8.391  10.263  1.00 57.97           O
ATOM   5857  N   SER H 183      10.957   8.454   8.020  1.00 57.77           N
ATOM   5858  CA  SER H 183      10.542   9.852   7.924  1.00 57.23           C
ATOM   5860  CB  SER H 183      10.719  10.378   6.511  1.00 55.75           C
ATOM   5863  OG  SER H 183       9.603  10.023   5.738  1.00 57.78           O
ATOM   5865  C   SER H 183       9.090   9.993   8.347  1.00 57.27           C
ATOM   5866  O   SER H 183       8.704  10.997   8.938  1.00 59.06           O
ATOM   5868  N   SER H 184       8.303   8.962   8.059  1.00 57.26           N
ATOM   5869  CA  SER H 184       6.907   8.872   8.487  1.00 57.21           C
ATOM   5871  CB  SER H 184       6.339   7.542   8.015  1.00 57.40           C
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ATOM	5874	OG	SER	H	184	7.181	6.483	8.434	1.00 57.06	O
ATOM	5876	C	SER	H	184	6.684	8.964	10.001	1.00 57.94	C
ATOM	5877	O	SER	H	184	5.545	9.107	10.446	1.00 58.79	O
ATOM	5879	N	GLY	H	185	7.750	8.854	10.793	1.00 57.97	N
ATOM	5880	CA	GLY	H	185	7.628	8.854	12.252	1.00 57.40	C
ATOM	5883	C	GLY	H	185	7.417	7.461	12.829	1.00 57.11	C
ATOM	5884	O	GLY	H	185	7.483	7.265	14.039	1.00 58.00	O
ATOM	5886	N	LEU	H	186	7.154	6.490	11.964	1.00 57.04	N
ATOM	5887	CA	LEU	H	186	7.085	5.105	12.372	1.00 56.45	C
ATOM	5889	CB	LEU	H	186	6.257	4.300	11.376	1.00 55.19	C
ATOM	5892	CG	LEU	H	186	4.829	4.795	11.146	1.00 53.58	C
ATOM	5894	CD1	LEU	H	186	4.129	3.972	10.075	1.00 53.03	C
ATOM	5898	CD2	LEU	H	186	4.039	4.755	12.446	1.00 54.82	C
ATOM	5902	C	LEU	H	186	8.499	4.554	12.438	1.00 56.74	C
ATOM	5903	O	LEU	H	186	9.391	5.013	11.723	1.00 55.76	O
ATOM	5905	N	TYR	H	187	8.697	3.580	13.318	1.00 57.41	N
ATOM	5906	CA	TYR	H	187	9.970	2.886	13.424	1.00 57.88	C
ATOM	5908	CB	TYR	H	187	10.238	2.471	14.868	1.00 59.35	C
ATOM	5911	CG	TYR	H	187	10.617	3.620	15.767	1.00 62.62	C
ATOM	5912	CD1	TYR	H	187	11.901	4.153	15.731	1.00 63.67	C
ATOM	5914	CE1	TYR	H	187	12.260	5.210	16.559	1.00 62.88	C
ATOM	5916	CZ	TYR	H	187	11.333	5.743	17.431	1.00 60.29	C
ATOM	5917	OH	TYR	H	187	11.712	6.786	18.234	1.00 62.21	O
ATOM	5919	CE2	TYR	H	187	10.048	5.236	17.490	1.00 60.31	C
ATOM	5921	CD2	TYR	H	187	9.695	4.178	16.662	1.00 63.69	C
ATOM	5923	C	TYR	H	187	9.958	1.648	12.548	1.00 58.14	C
ATOM	5924	O	TYR	H	187	8.899	1.185	12.130	1.00 59.34	O
ATOM	5926	N	SER	H	188	11.145	1.115	12.285	1.00 57.39	N
ATOM	5927	CA	SER	H	188	11.293	-0.161	11.611	1.00 56.96	C
ATOM	5929	CB	SER	H	188	11.241	0.037	10.108	1.00 57.73	C
ATOM	5932	OG	SER	H	188	11.937	-1.002	9.451	1.00 60.59	O
ATOM	5934	C	SER	H	188	12.618	-0.788	12.003	1.00 56.89	C
ATOM	5935	O	SER	H	188	13.582	-0.075	12.283	1.00 58.30	O
ATOM	5937	N	LEU	H	189	12.659	-2.118	12.033	1.00 55.93	N
ATOM	5938	CA	LEU	H	189	13.890	-2.850	12.336	1.00 56.36	C
ATOM	5940	CB	LEU	H	189	14.096	-2.967	13.855	1.00 56.13	C
ATOM	5943	CG	LEU	H	189	13.239	-3.899	14.722	1.00 55.37	C
ATOM	5945	CD1	LEU	H	189	13.532	-5.378	14.521	1.00 55.17	C
ATOM	5949	CD2	LEU	H	189	13.455	-3.554	16.182	1.00 56.81	C
ATOM	5953	C	LEU	H	189	13.931	-4.236	11.680	1.00 57.58	C
ATOM	5954	O	LEU	H	189	12.971	-4.670	11.035	1.00 59.39	O
ATOM	5956	N	SER	H	190	15.060	-4.920	11.843	1.00 57.17	N
ATOM	5957	CA	SER	H	190	15.222	-6.278	11.341	1.00 55.83	C
ATOM	5959	CB	SER	H	190	16.051	-6.275	10.057	1.00 55.58	C
ATOM	5962	OG	SER	H	190	15.542	-5.322	9.144	1.00 55.88	O
ATOM	5964	C	SER	H	190	15.904	-7.144	12.381	1.00 55.29	C
ATOM	5965	O	SER	H	190	16.632	-6.650	13.245	1.00 55.43	O
ATOM	5967	N	SER	H	191	15.647	-8.440	12.299	1.00 55.26	N
ATOM	5968	CA	SER	H	191	16.392	-9.420	13.062	1.00 55.03	C
ATOM	5970	CB	SER	H	191	15.520	-10.066	14.127	1.00 54.46	C
ATOM	5973	OG	SER	H	191	16.321	-10.813	15.017	1.00 51.63	O
ATOM	5975	C	SER	H	191	16.914	-10.470	12.098	1.00 55.74	C
ATOM	5976	O	SER	H	191	16.236	-10.831	11.132	1.00 55.17	O
ATOM	5978	N	VAL	H	192	18.112	-10.969	12.380	1.00 56.08	N
ATOM	5979	CA	VAL	H	192	18.844	-11.790	11.430	1.00 54.96	C
ATOM	5981	CB	VAL	H	192	19.663	-10.854	10.508	1.00 53.98	C
ATOM	5983	CG1	VAL	H	192	21.127	-11.276	10.402	1.00 53.64	C
ATOM	5987	CG2	VAL	H	192	18.999	-10.750	9.140	1.00 53.30	C
ATOM	5991	C	VAL	H	192	19.711	-12.838	12.138	1.00 55.11	C
ATOM	5992	O	VAL	H	192	19.478	-14.047	12.017	1.00 55.73	O
ATOM	5994	N	CYS	H	207	10.632	-17.018	14.378	1.00 55.43	N
ATOM	5995	CA	CYS	H	207	10.729	-15.566	14.521	1.00 56.24	C
ATOM	5997	CB	CYS	H	207	10.796	-14.899	13.152	1.00 56.42	C

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ATOM   6000  SG  CYS H 207      10.656 -13.085  13.167  1.00 57.75           S
ATOM   6002  C   CYS H 207       9.539 -15.008  15.285  1.00 56.52           C
ATOM   6003  O   CYS H 207       8.453 -14.868  14.723  1.00 56.56           O
ATOM   6005  N   ASN H 208       9.761 -14.676  16.557  1.00 57.08           N
ATOM   6006  CA  ASN H 208       8.695 -14.254  17.472  1.00 56.60           C
ATOM   6008  CB  ASN H 208       8.783 -15.025  18.791  1.00 55.66           C
ATOM   6011  CG  ASN H 208       8.787 -16.517  18.592  1.00 53.76           C
ATOM   6012  OD1 ASN H 208       9.796 -17.178  18.823  1.00 51.70           O
ATOM   6013  ND2 ASN H 208       7.663 -17.058  18.149  1.00 49.89           N
ATOM   6016  C   ASN H 208       8.767 -12.765  17.762  1.00 56.85           C
ATOM   6017  O   ASN H 208       9.413 -12.339  18.721  1.00 57.67           O
ATOM   6019  N   VAL H 209       8.105 -11.976  16.924  1.00 56.05           N
ATOM   6020  CA  VAL H 209       8.006 -10.541  17.149  1.00 56.06           C
ATOM   6022  CB  VAL H 209       7.655  -9.797  15.837  1.00 55.08           C
ATOM   6024  CG1 VAL H 209       7.410  -8.313  16.086  1.00 54.24           C
ATOM   6028  CG2 VAL H 209       8.772  -9.984  14.815  1.00 54.17           C
ATOM   6032  C   VAL H 209       6.969 -10.285  18.251  1.00 56.23           C
ATOM   6033  O   VAL H 209       6.042 -11.074  18.438  1.00 56.87           O
ATOM   6035  N   ASN H 210       7.151  -9.198  18.994  1.00 56.35           N
ATOM   6036  CA  ASN H 210       6.243  -8.837  20.071  1.00 56.02           C
ATOM   6038  CB  ASN H 210       6.656  -9.595  21.332  1.00 56.52           C
ATOM   6041  CG  ASN H 210       5.617  -9.532  22.429  1.00 57.82           C
ATOM   6042  OD1 ASN H 210       4.434  -9.302  22.179  1.00 62.49           O
ATOM   6043  ND2 ASN H 210       6.058  -9.751  23.661  1.00 60.77           N
ATOM   6046  C   ASN H 210       6.277  -7.322  20.302  1.00 55.82           C
ATOM   6047  O   ASN H 210       7.320  -6.780  20.665  1.00 56.48           O
ATOM   6049  N   HIS H 211       5.155  -6.644  20.049  1.00 55.43           N
ATOM   6050  CA  HIS H 211       5.041  -5.189  20.237  1.00 55.23           C
ATOM   6052  CB  HIS H 211       4.803  -4.472  18.910  1.00 55.50           C
ATOM   6055  CG  HIS H 211       4.696  -2.978  19.031  1.00 56.91           C
ATOM   6056  ND1 HIS H 211       5.665  -2.209  19.639  1.00 58.04           N
ATOM   6058  CE1 HIS H 211       5.311  -0.937  19.588  1.00 55.70           C
ATOM   6060  NE2 HIS H 211       4.151  -0.848  18.962  1.00 55.60           N
ATOM   6062  CD2 HIS H 211       3.747  -2.110  18.601  1.00 57.37           C
ATOM   6064  C   HIS H 211       3.892  -4.899  21.180  1.00 55.66           C
ATOM   6065  O   HIS H 211       2.745  -4.762  20.760  1.00 56.02           O
ATOM   6067  N   LYS H 212       4.214  -4.792  22.462  1.00 56.17           N
ATOM   6068  CA  LYS H 212       3.198  -4.730  23.507  1.00 55.44           C
ATOM   6070  CB  LYS H 212       3.837  -4.961  24.880  1.00 55.30           C
ATOM   6073  CG  LYS H 212       4.241  -6.417  25.068  1.00 56.91           C
ATOM   6076  CD  LYS H 212       5.050  -6.679  26.329  1.00 57.02           C
ATOM   6079  CE  LYS H 212       5.528  -8.128  26.343  1.00 57.36           C
ATOM   6082  NZ  LYS H 212       5.745  -8.644  27.711  1.00 58.76           N
ATOM   6086  C   LYS H 212       2.332  -3.470  23.496  1.00 54.93           C
ATOM   6087  O   LYS H 212       1.142  -3.559  23.786  1.00 56.04           O
ATOM   6089  N   PRO H 213       2.902  -2.300  23.148  1.00 54.30           N
ATOM   6090  CA  PRO H 213       2.045  -1.103  23.109  1.00 53.96           C
ATOM   6092  CB  PRO H 213       2.941  -0.045  22.453  1.00 52.86           C
ATOM   6095  CG  PRO H 213       4.322  -0.486  22.782  1.00 53.71           C
ATOM   6098  CD  PRO H 213       4.298  -1.985  22.793  1.00 53.61           C
ATOM   6101  C   PRO H 213       0.756  -1.308  22.305  1.00 53.55           C
ATOM   6102  O   PRO H 213      -0.318  -0.951  22.784  1.00 53.75           O
ATOM   6103  N   SER H 214       0.877  -1.894  21.111  1.00 52.97           N
ATOM   6104  CA  SER H 214      -0.274  -2.218  20.260  1.00 52.11           C
ATOM   6106  CB  SER H 214       0.141  -2.171  18.787  1.00 51.61           C
ATOM   6109  OG  SER H 214       0.941  -3.290  18.451  1.00 48.22           O
ATOM   6111  C   SER H 214      -0.871  -3.602  20.576  1.00 51.53           C
ATOM   6112  O   SER H 214      -1.894  -3.988  20.003  1.00 49.67           O
ATOM   6114  N   ASN H 215      -0.219  -4.333  21.482  1.00 50.52           N
ATOM   6115  CA  ASN H 215      -0.587  -5.697  21.824  1.00 50.79           C
ATOM   6117  CB  ASN H 215      -1.947  -5.724  22.530  1.00 50.96           C
ATOM   6120  CG  ASN H 215      -2.207  -7.030  23.260  1.00 49.61           C
ATOM   6121  OD1 ASN H 215      -1.329  -7.563  23.943  1.00 43.81           O
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ATOM   6122  ND2 ASN H 215      -3.418  -7.549  23.118  1.00 44.87           N
ATOM   6125  C   ASN H 215      -0.566  -6.596  20.584  1.00 50.66           C
ATOM   6126  O   ASN H 215      -1.523  -7.311  20.291  1.00 49.48           O
ATOM   6128  N   THR H 216       0.546  -6.534  19.858  1.00 51.75           N
ATOM   6129  CA  THR H 216       0.783  -7.383  18.695  1.00 52.28           C
ATOM   6131  CB  THR H 216       1.427  -6.596  17.533  1.00 52.32           C
ATOM   6133  OG1 THR H 216       0.564  -5.525  17.130  1.00 54.18           O
ATOM   6135  CG2 THR H 216       1.688  -7.504  16.338  1.00 50.91           C
ATOM   6139  C   THR H 216       1.734  -8.503  19.088  1.00 53.09           C
ATOM   6140  O   THR H 216       2.838  -8.253  19.579  1.00 54.22           O
ATOM   6142  N   LYS H 217       1.291  -9.736  18.882  1.00 53.84           N
ATOM   6143  CA  LYS H 217       2.140 -10.900  19.049  1.00 53.18           C
ATOM   6145  CB  LYS H 217       1.735 -11.689  20.301  1.00 54.58           C
ATOM   6148  CG  LYS H 217       2.588 -12.925  20.601  1.00 56.14           C
ATOM   6151  CD  LYS H 217       4.077 -12.657  20.389  1.00 59.75           C
ATOM   6154  CE  LYS H 217       4.965 -13.729  21.000  1.00 59.59           C
ATOM   6157  NZ  LYS H 217       6.397 -13.496  20.640  1.00 57.35           N
ATOM   6161  C   LYS H 217       1.989 -11.748  17.798  1.00 52.45           C
ATOM   6162  O   LYS H 217       0.918 -12.300  17.550  1.00 52.10           O
ATOM   6164  N   VAL H 218       3.059 -11.833  17.012  1.00 50.92           N
ATOM   6165  CA  VAL H 218       3.043 -12.569  15.753  1.00 51.32           C
ATOM   6167  CB  VAL H 218       2.928 -11.605  14.542  1.00 51.04           C
ATOM   6169  CG1 VAL H 218       3.798 -10.388  14.743  1.00 53.14           C
ATOM   6173  CG2 VAL H 218       3.278 -12.301  13.223  1.00 50.80           C
ATOM   6177  C   VAL H 218       4.287 -13.452  15.637  1.00 51.09           C
ATOM   6178  O   VAL H 218       5.373 -13.061  16.067  1.00 50.45           O
ATOM   6180  N   ASP H 219       4.101 -14.645  15.062  1.00 51.30           N
ATOM   6181  CA  ASP H 219       5.170 -15.634  14.887  1.00 51.12           C
ATOM   6183  CB  ASP H 219       4.891 -16.894  15.734  1.00 51.20           C
ATOM   6186  CG  ASP H 219       4.837 -16.610  17.252  1.00 51.57           C
ATOM   6187  OD1 ASP H 219       5.390 -15.582  17.706  1.00 51.74           O
ATOM   6188  OD2 ASP H 219       4.251 -17.434  17.998  1.00 47.82           O
ATOM   6189  C   ASP H 219       5.293 -16.020  13.409  1.00 50.40           C
ATOM   6190  O   ASP H 219       6.351 -15.865  12.791  1.00 48.83           O
ATOM   6192  N   ASP A   1     -34.411  -5.350  50.267  1.00 62.89           N
ATOM   6193  CA  ASP A   1     -33.058  -5.496  49.658  1.00 62.67           C
ATOM   6195  CB  ASP A   1     -33.165  -5.591  48.131  1.00 63.84           C
ATOM   6198  CG  ASP A   1     -34.000  -6.776  47.659  1.00 67.09           C
ATOM   6199  OD1 ASP A   1     -34.688  -7.402  48.504  1.00 66.69           O
ATOM   6200  OD2 ASP A   1     -33.971  -7.068  46.432  1.00 65.56           O
ATOM   6201  C   ASP A   1     -32.150  -4.313  49.999  1.00 61.98           C
ATOM   6202  O   ASP A   1     -32.607  -3.283  50.484  1.00 61.81           O
ATOM   6206  N   ILE A   2     -30.855  -4.493  49.766  1.00 60.61           N
ATOM   6207  CA  ILE A   2     -29.931  -3.385  49.582  1.00 59.42           C
ATOM   6209  CB  ILE A   2     -28.597  -3.603  50.327  1.00 58.74           C
ATOM   6211  CG1 ILE A   2     -28.849  -3.911  51.803  1.00 60.40           C
ATOM   6214  CD1 ILE A   2     -27.599  -3.849  52.685  1.00 61.03           C
ATOM   6218  CG2 ILE A   2     -27.723  -2.376  50.230  1.00 59.49           C
ATOM   6222  C   ILE A   2     -29.693  -3.318  48.077  1.00 58.25           C
ATOM   6223  O   ILE A   2     -29.661  -4.351  47.403  1.00 57.52           O
ATOM   6225  N   VAL A   3     -29.548  -2.107  47.549  1.00 57.16           N
ATOM   6226  CA  VAL A   3     -29.382  -1.901  46.112  1.00 56.68           C
ATOM   6228  CB  VAL A   3     -30.429  -0.887  45.575  1.00 55.38           C
ATOM   6230  CG1 VAL A   3     -29.871   0.533  45.508  1.00 58.42           C
ATOM   6234  CG2 VAL A   3     -30.923  -1.313  44.218  1.00 54.30           C
ATOM   6238  C   VAL A   3     -27.939  -1.469  45.805  1.00 56.42           C
ATOM   6239  O   VAL A   3     -27.361  -0.677  46.544  1.00 56.80           O
ATOM   6241  N   MET A   4     -27.366  -2.015  44.730  1.00 55.69           N
ATOM   6242  CA  MET A   4     -25.977  -1.755  44.352  1.00 54.40           C
ATOM   6244  CB  MET A   4     -25.188  -3.062  44.257  1.00 55.52           C
ATOM   6247  CG  MET A   4     -25.150  -3.850  45.542  1.00 57.44           C
ATOM   6250  SD  MET A   4     -24.211  -3.014  46.833  1.00 59.92           S
ATOM   6251  CE  MET A   4     -25.341  -3.183  48.192  1.00 63.07           C
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ATOM	6255	C	MET	A	4	-25.930	-1.058	43.008	1.00 53.29	C
ATOM	6256	O	MET	A	4	-26.354	-1.611	41.996	1.00 52.73	O
ATOM	6258	N	THR	A	5	-25.396	0.155	42.999	1.00 52.96	N
ATOM	6259	CA	THR	A	5	-25.404	0.983	41.805	1.00 54.17	C
ATOM	6261	CB	THR	A	5	-26.084	2.344	42.084	1.00 53.75	C
ATOM	6263	OG1	THR	A	5	-27.384	2.129	42.650	1.00 54.50	O
ATOM	6265	CG2	THR	A	5	-26.206	3.151	40.808	1.00 51.76	C
ATOM	6269	C	THR	A	5	-23.984	1.230	41.327	1.00 54.59	C
ATOM	6270	O	THR	A	5	-23.268	2.047	41.900	1.00 56.57	O
ATOM	6272	N	GLN	A	6	-23.567	0.515	40.288	1.00 54.82	N
ATOM	6273	CA	GLN	A	6	-22.250	0.747	39.716	1.00 53.99	C
ATOM	6275	CB	GLN	A	6	-21.759	-0.456	38.916	1.00 54.48	C
ATOM	6278	CG	GLN	A	6	-21.411	-1.646	39.772	1.00 54.04	C
ATOM	6281	CD	GLN	A	6	-20.882	-2.784	38.949	1.00 53.42	C
ATOM	6282	OE1	GLN	A	6	-21.480	-3.855	38.903	1.00 53.23	O
ATOM	6283	NE2	GLN	A	6	-19.763	-2.556	38.273	1.00 53.75	N
ATOM	6286	C	GLN	A	6	-22.328	1.968	38.833	1.00 54.63	C
ATOM	6287	O	GLN	A	6	-23.404	2.320	38.338	1.00 55.98	O
ATOM	6289	N	SER	A	7	-21.176	2.605	38.640	1.00 54.86	N
ATOM	6290	CA	SER	A	7	-21.079	3.872	37.925	1.00 52.70	C
ATOM	6292	CB	SER	A	7	-21.507	5.002	38.864	1.00 51.79	C
ATOM	6295	OG	SER	A	7	-20.677	6.136	38.726	1.00 55.10	O
ATOM	6297	C	SER	A	7	-19.634	4.073	37.471	1.00 51.64	C
ATOM	6298	O	SER	A	7	-18.734	3.985	38.292	1.00 51.21	O
ATOM	6300	N	PRO	A	8	-19.396	4.318	36.169	1.00 51.31	N
ATOM	6301	CA	PRO	A	8	-20.311	4.405	35.038	1.00 51.31	C
ATOM	6303	CB	PRO	A	8	-19.504	5.193	34.013	1.00 51.28	C
ATOM	6306	CG	PRO	A	8	-18.107	4.767	34.259	1.00 51.39	C
ATOM	6309	CD	PRO	A	8	-18.002	4.546	35.745	1.00 51.55	C
ATOM	6312	C	PRO	A	8	-20.652	3.029	34.480	1.00 51.44	C
ATOM	6313	O	PRO	A	8	-20.041	2.038	34.881	1.00 52.24	O
ATOM	6314	N	ASP	A	9	-21.616	2.982	33.561	1.00 51.77	N
ATOM	6315	CA	ASP	A	9	-22.070	1.726	32.961	1.00 52.74	C
ATOM	6317	CB	ASP	A	9	-23.361	1.935	32.150	1.00 52.67	C
ATOM	6320	CG	ASP	A	9	-24.619	1.938	33.022	1.00 55.81	C
ATOM	6321	OD1	ASP	A	9	-24.841	0.965	33.793	1.00 56.53	O
ATOM	6322	OD2	ASP	A	9	-25.396	2.913	32.914	1.00 57.39	O
ATOM	6323	C	ASP	A	9	-20.998	1.124	32.065	1.00 53.19	C
ATOM	6324	O	ASP	A	9	-20.723	-0.073	32.140	1.00 54.60	O
ATOM	6326	N	SER	A	10	-20.411	1.964	31.219	1.00 53.70	N
ATOM	6327	CA	SER	A	10	-19.372	1.558	30.281	1.00 55.01	C
ATOM	6329	CB	SER	A	10	-19.858	1.711	28.842	1.00 55.57	C
ATOM	6332	OG	SER	A	10	-21.249	1.977	28.793	1.00 60.63	O
ATOM	6334	C	SER	A	10	-18.159	2.455	30.473	1.00 56.39	C
ATOM	6335	O	SER	A	10	-18.296	3.657	30.737	1.00 56.62	O
ATOM	6337	N	LEU	A	11	-16.974	1.876	30.321	1.00 56.64	N
ATOM	6338	CA	LEU	A	11	-15.742	2.626	30.481	1.00 56.45	C
ATOM	6340	CB	LEU	A	11	-15.107	2.333	31.846	1.00 57.19	C
ATOM	6343	CG	LEU	A	11	-13.760	3.026	32.092	1.00 57.84	C
ATOM	6345	CD1	LEU	A	11	-13.862	4.552	31.927	1.00 59.14	C
ATOM	6349	CD2	LEU	A	11	-13.227	2.665	33.459	1.00 57.21	C
ATOM	6353	C	LEU	A	11	-14.782	2.266	29.365	1.00 56.22	C
ATOM	6354	O	LEU	A	11	-14.583	1.095	29.062	1.00 56.51	O
ATOM	6356	N	ALA	A	12	-14.197	3.285	28.751	1.00 56.13	N
ATOM	6357	CA	ALA	A	12	-13.225	3.081	27.703	1.00 56.48	C
ATOM	6359	CB	ALA	A	12	-13.791	3.520	26.383	1.00 56.72	C
ATOM	6363	C	ALA	A	12	-11.979	3.876	28.059	1.00 57.47	C
ATOM	6364	O	ALA	A	12	-12.067	5.022	28.510	1.00 58.00	O
ATOM	6366	N	VAL	A	13	-10.820	3.250	27.882	1.00 57.30	N
ATOM	6367	CA	VAL	A	13	-9.556	3.864	28.247	1.00 56.51	C
ATOM	6369	CB	VAL	A	13	-9.416	3.927	29.802	1.00 56.78	C
ATOM	6371	CG1	VAL	A	13	-8.584	2.759	30.351	1.00 57.74	C
ATOM	6375	CG2	VAL	A	13	-8.838	5.263	30.259	1.00 58.51	C

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ATOM   6379  C   VAL A  13      -8.407   3.087  27.594  1.00 56.26           C
ATOM   6380  O   VAL A  13      -8.499   1.869  27.413  1.00 56.31           O
ATOM   6382  N   SER A  14      -7.337   3.796  27.239  1.00 54.96           N
ATOM   6383  CA  SER A  14      -6.213   3.202  26.504  1.00 54.21           C
ATOM   6385  CB  SER A  14      -5.243   4.293  26.033  1.00 54.54           C
ATOM   6388  OG  SER A  14      -5.831   5.115  25.042  1.00 55.88           O
ATOM   6390  C   SER A  14      -5.433   2.177  27.323  1.00 52.87           C
ATOM   6391  O   SER A  14      -5.550   2.126  28.543  1.00 51.72           O
ATOM   6393  N   LEU A  15      -4.629   1.371  26.630  1.00 52.43           N
ATOM   6394  CA  LEU A  15      -3.735   0.405  27.280  1.00 52.14           C
ATOM   6396  CB  LEU A  15      -2.943  -0.414  26.242  1.00 51.79           C
ATOM   6399  CG  LEU A  15      -3.565  -1.665  25.605  1.00 49.60           C
ATOM   6401  CD1 LEU A  15      -2.507  -2.445  24.837  1.00 45.32           C
ATOM   6405  CD2 LEU A  15      -4.215  -2.565  26.644  1.00 52.34           C
ATOM   6409  C   LEU A  15      -2.756   1.101  28.222  1.00 51.43           C
ATOM   6410  O   LEU A  15      -2.328   2.226  27.975  1.00 51.94           O
ATOM   6412  N   GLY A  16      -2.414   0.423  29.310  1.00 51.71           N
ATOM   6413  CA  GLY A  16      -1.516   0.978  30.315  1.00 52.44           C
ATOM   6416  C   GLY A  16      -2.109   2.106  31.147  1.00 52.76           C
ATOM   6417  O   GLY A  16      -1.501   2.534  32.136  1.00 53.41           O
ATOM   6419  N   GLU A  17      -3.298   2.574  30.766  1.00 52.43           N
ATOM   6420  CA  GLU A  17      -3.942   3.714  31.413  1.00 52.43           C
ATOM   6422  CB  GLU A  17      -4.888   4.401  30.419  1.00 52.30           C
ATOM   6425  CG  GLU A  17      -5.165   5.874  30.679  1.00 53.08           C
ATOM   6428  CD  GLU A  17      -5.608   6.614  29.418  1.00 54.16           C
ATOM   6429  OE1 GLU A  17      -6.464   6.083  28.671  1.00 52.55           O
ATOM   6430  OE2 GLU A  17      -5.087   7.726  29.173  1.00 55.19           O
ATOM   6431  C   GLU A  17      -4.699   3.256  32.661  1.00 52.05           C
ATOM   6432  O   GLU A  17      -5.048   2.081  32.803  1.00 51.50           O
ATOM   6434  N   ARG A  18      -4.944   4.192  33.568  1.00 52.76           N
ATOM   6435  CA  ARG A  18      -5.617   3.885  34.824  1.00 52.69           C
ATOM   6437  CB  ARG A  18      -5.244   4.921  35.890  1.00 52.82           C
ATOM   6440  CG  ARG A  18      -6.057   4.835  37.167  1.00 54.81           C
ATOM   6443  CD  ARG A  18      -5.311   5.391  38.364  1.00 57.22           C
ATOM   6446  NE  ARG A  18      -6.232   5.823  39.418  1.00 61.94           N
ATOM   6448  CZ  ARG A  18      -6.736   7.054  39.534  1.00 64.92           C
ATOM   6449  NH1 ARG A  18      -7.568   7.332  40.535  1.00 63.87           N
ATOM   6452  NH2 ARG A  18      -6.418   8.016  38.663  1.00 63.06           N
ATOM   6455  C   ARG A  18      -7.126   3.846  34.607  1.00 51.84           C
ATOM   6456  O   ARG A  18      -7.671   4.634  33.825  1.00 50.14           O
ATOM   6458  N   ALA A  19      -7.794   2.930  35.303  1.00 50.97           N
ATOM   6459  CA  ALA A  19      -9.232   2.775  35.168  1.00 52.04           C
ATOM   6461  CB  ALA A  19      -9.542   1.633  34.229  1.00 52.55           C
ATOM   6465  C   ALA A  19      -9.895   2.545  36.518  1.00 52.46           C
ATOM   6466  O   ALA A  19      -9.438   1.725  37.314  1.00 54.85           O
ATOM   6468  N   THR A  20     -10.988   3.262  36.755  1.00 52.38           N
ATOM   6469  CA  THR A  20     -11.682   3.234  38.030  1.00 52.68           C
ATOM   6471  CB  THR A  20     -11.642   4.618  38.677  1.00 52.17           C
ATOM   6473  OG1 THR A  20     -10.299   4.882  39.094  1.00 53.12           O
ATOM   6475  CG2 THR A  20     -12.587   4.709  39.886  1.00 51.87           C
ATOM   6479  C   THR A  20     -13.121   2.807  37.819  1.00 53.77           C
ATOM   6480  O   THR A  20     -13.714   3.140  36.796  1.00 54.57           O
ATOM   6482  N   ILE A  21     -13.666   2.055  38.776  1.00 53.63           N
ATOM   6483  CA  ILE A  21     -15.078   1.694  38.771  1.00 54.12           C
ATOM   6485  CB  ILE A  21     -15.312   0.215  38.397  1.00 54.52           C
ATOM   6487  CG1 ILE A  21     -14.723  -0.085  37.011  1.00 53.22           C
ATOM   6490  CD1 ILE A  21     -14.581  -1.556  36.724  1.00 53.52           C
ATOM   6494  CG2 ILE A  21     -16.825  -0.123  38.428  1.00 52.99           C
ATOM   6498  C   ILE A  21     -15.642   1.952  40.150  1.00 54.97           C
ATOM   6499  O   ILE A  21     -15.121   1.447  41.143  1.00 57.00           O
ATOM   6501  N   ASN A  22     -16.722   2.725  40.189  1.00 55.69           N
ATOM   6502  CA  ASN A  22     -17.374   3.130  41.425  1.00 56.19           C
ATOM   6504  CB  ASN A  22     -17.885   4.574  41.297  1.00 56.94           C
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ATOM	6507	CG	ASN A	22	-17.326	5.483	42.355	1.00	58.56	C
ATOM	6508	OD1	ASN A	22	-17.781	5.482	43.502	1.00	60.89	O
ATOM	6509	ND2	ASN A	22	-16.327	6.273	41.977	1.00	59.32	N
ATOM	6512	C	ASN A	22	-18.544	2.199	41.699	1.00	56.65	C
ATOM	6513	O	ASN A	22	-19.209	1.750	40.768	1.00	58.28	O
ATOM	6515	N	CYS A	23	-18.803	1.925	42.972	1.00	57.08	N
ATOM	6516	CA	CYS A	23	-19.936	1.101	43.362	1.00	56.36	C
ATOM	6518	CB	CYS A	23	-19.491	-0.362	43.491	1.00	56.50	C
ATOM	6521	SG	CYS A	23	-20.630	-1.402	44.393	1.00	62.63	S
ATOM	6523	C	CYS A	23	-20.547	1.643	44.658	1.00	55.22	C
ATOM	6524	O	CYS A	23	-19.828	1.883	45.626	1.00	54.61	O
ATOM	6526	N	ARG A	24	-21.865	1.860	44.660	1.00	55.40	N
ATOM	6527	CA	ARG A	24	-22.569	2.419	45.822	1.00	55.68	C
ATOM	6529	CB	ARG A	24	-23.126	3.801	45.499	1.00	56.07	C
ATOM	6532	CG	ARG A	24	-23.595	4.537	46.745	1.00	57.94	C
ATOM	6535	CD	ARG A	24	-24.590	5.617	46.447	1.00	61.37	C
ATOM	6538	NE	ARG A	24	-24.492	6.684	47.437	1.00	68.16	N
ATOM	6540	CZ	ARG A	24	-23.520	7.595	47.469	1.00	71.66	C
ATOM	6541	NH1	ARG A	24	-22.534	7.580	46.574	1.00	73.60	N
ATOM	6544	NH2	ARG A	24	-23.523	8.528	48.409	1.00	73.88	N
ATOM	6547	C	ARG A	24	-23.727	1.542	46.314	1.00	54.23	C
ATOM	6548	O	ARG A	24	-24.450	0.970	45.508	1.00	55.74	O
ATOM	6550	N	ALA A	25	-23.912	1.494	47.638	1.00	52.44	N
ATOM	6551	CA	ALA A	25	-24.962	0.703	48.297	1.00	51.11	C
ATOM	6553	CB	ALA A	25	-24.324	-0.161	49.370	1.00	50.89	C
ATOM	6557	C	ALA A	25	-26.056	1.600	48.918	1.00	49.83	C
ATOM	6558	O	ALA A	25	-25.788	2.755	49.242	1.00	49.35	O
ATOM	6560	N	SER A	26	-27.274	1.071	49.087	1.00	49.01	N
ATOM	6561	CA	SER A	26	-28.400	1.832	49.681	1.00	48.88	C
ATOM	6563	CB	SER A	26	-29.728	1.065	49.615	1.00	46.84	C
ATOM	6566	OG	SER A	26	-29.680	-0.006	48.714	1.00	49.73	O
ATOM	6568	C	SER A	26	-28.161	2.111	51.143	1.00	48.80	C
ATOM	6569	O	SER A	26	-28.505	3.176	51.651	1.00	48.99	O
ATOM	6571	N	LYS A	27	-27.626	1.099	51.816	1.00	49.72	N
ATOM	6572	CA	LYS A	27	-27.365	1.113	53.243	1.00	50.92	C
ATOM	6574	CB	LYS A	27	-28.191	0.021	53.952	1.00	52.36	C
ATOM	6577	CG	LYS A	27	-29.471	0.520	54.631	1.00	54.84	C
ATOM	6580	CD	LYS A	27	-30.459	-0.614	54.982	1.00	55.28	C
ATOM	6583	CE	LYS A	27	-29.811	-1.810	55.703	1.00	58.27	C
ATOM	6586	NZ	LYS A	27	-30.839	-2.772	56.233	1.00	58.20	N
ATOM	6590	C	LYS A	27	-25.896	0.818	53.416	1.00	49.94	C
ATOM	6591	O	LYS A	27	-25.240	0.347	52.485	1.00	48.23	O
ATOM	6593	N	SER A	28	-25.388	1.080	54.616	1.00	52.04	N
ATOM	6594	CA	SER A	28	-24.003	0.771	54.941	1.00	52.27	C
ATOM	6596	CB	SER A	28	-23.594	1.359	56.287	1.00	52.57	C
ATOM	6599	OG	SER A	28	-22.310	0.879	56.662	1.00	55.08	O
ATOM	6601	C	SER A	28	-23.849	-0.724	54.997	1.00	52.92	C
ATOM	6602	O	SER A	28	-24.727	-1.409	55.523	1.00	54.03	O
ATOM	6604	N	VAL A	29	-22.733	-1.206	54.448	1.00	53.35	N
ATOM	6605	CA	VAL A	29	-22.382	-2.627	54.442	1.00	53.35	C
ATOM	6607	CB	VAL A	29	-22.083	-3.120	52.992	1.00	53.96	C
ATOM	6609	CG1	VAL A	29	-20.827	-2.481	52.424	1.00	55.20	C
ATOM	6613	CG2	VAL A	29	-23.248	-2.838	52.078	1.00	55.72	C
ATOM	6617	C	VAL A	29	-21.179	-2.888	55.369	1.00	53.13	C
ATOM	6618	O	VAL A	29	-20.337	-3.725	55.097	1.00	53.14	O
ATOM	6620	N	SER A	30	-21.110	-2.173	56.485	1.00	55.25	N
ATOM	6621	CA	SER A	30	-19.919	-2.210	57.329	1.00	54.74	C
ATOM	6623	CB	SER A	30	-19.150	-0.888	57.190	1.00	54.89	C
ATOM	6626	OG	SER A	30	-18.834	-0.622	55.828	1.00	55.23	O
ATOM	6628	C	SER A	30	-20.249	-2.486	58.801	1.00	54.12	C
ATOM	6629	O	SER A	30	-20.890	-1.670	59.445	1.00	54.38	O
ATOM	6631	N	THR A	31	-19.838	-3.657	59.295	1.00	53.64	N
ATOM	6632	CA	THR A	31	-19.766	-3.965	60.733	1.00	53.55	C

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ATOM   6634  CB  THR A  31     -21.041  -4.675  61.274  1.00 53.52           C
ATOM   6636  OG1 THR A  31     -21.744  -5.300  60.193  1.00 53.91           O
ATOM   6638  CG2 THR A  31     -21.977  -3.690  61.993  1.00 53.02           C
ATOM   6642  C   THR A  31     -18.555  -4.869  61.010  1.00 53.72           C
ATOM   6643  O   THR A  31     -18.047  -5.548  60.112  1.00 53.44           O
ATOM   6645  N   SER A  32     -18.106  -4.868  62.259  1.00 53.57           N
ATOM   6646  CA  SER A  32     -16.932  -5.638  62.692  1.00 53.74           C
ATOM   6648  CB  SER A  32     -17.252  -7.130  62.755  1.00 52.83           C
ATOM   6651  OG  SER A  32     -18.435  -7.346  63.496  1.00 56.13           O
ATOM   6653  C   SER A  32     -15.694  -5.373  61.823  1.00 53.92           C
ATOM   6654  O   SER A  32     -15.058  -6.295  61.308  1.00 54.25           O
ATOM   6656  N   GLY A  33     -15.362  -4.092  61.673  1.00 54.78           N
ATOM   6657  CA  GLY A  33     -14.157  -3.675  60.958  1.00 54.44           C
ATOM   6660  C   GLY A  33     -14.032  -4.386  59.635  1.00 54.01           C
ATOM   6661  O   GLY A  33     -12.944  -4.815  59.253  1.00 55.52           O
ATOM   6663  N   TYR A  34     -15.170  -4.530  58.961  1.00 53.14           N
ATOM   6664  CA  TYR A  34     -15.244  -5.167  57.661  1.00 52.80           C
ATOM   6666  CB  TYR A  34     -15.715  -6.611  57.793  1.00 53.20           C
ATOM   6669  CG  TYR A  34     -14.664  -7.634  58.102  1.00 52.44           C
ATOM   6670  CD1 TYR A  34     -13.507  -7.724  57.346  1.00 51.21           C
ATOM   6672  CE1 TYR A  34     -12.557  -8.700  57.616  1.00 54.76           C
ATOM   6674  CZ  TYR A  34     -12.774  -9.610  58.637  1.00 53.21           C
ATOM   6675  OH  TYR A  34     -11.839 -10.571  58.906  1.00 53.19           O
ATOM   6677  CE2 TYR A  34     -13.919  -9.549  59.393  1.00 54.25           C
ATOM   6679  CD2 TYR A  34     -14.862  -8.570  59.118  1.00 57.68           C
ATOM   6681  C   TYR A  34     -16.261  -4.432  56.813  1.00 51.48           C
ATOM   6682  O   TYR A  34     -17.321  -4.049  57.304  1.00 49.85           O
ATOM   6684  N   SER A  35     -15.938  -4.235  55.544  1.00 50.36           N
ATOM   6685  CA  SER A  35     -16.916  -3.762  54.606  1.00 51.65           C
ATOM   6687  CB  SER A  35     -16.390  -2.575  53.821  1.00 50.96           C
ATOM   6690  OG  SER A  35     -16.136  -1.489  54.702  1.00 50.03           O
ATOM   6692  C   SER A  35     -17.232  -4.944  53.723  1.00 52.86           C
ATOM   6693  O   SER A  35     -16.390  -5.399  52.959  1.00 53.24           O
ATOM   6695  N   TYR A  36     -18.450  -5.457  53.869  1.00 54.35           N
ATOM   6696  CA  TYR A  36     -18.875  -6.664  53.189  1.00 55.09           C
ATOM   6698  CB  TYR A  36     -20.046  -7.277  53.946  1.00 55.65           C
ATOM   6701  CG  TYR A  36     -19.615  -7.768  55.323  1.00 58.22           C
ATOM   6702  CD1 TYR A  36     -18.954  -8.995  55.480  1.00 56.18           C
ATOM   6704  CE1 TYR A  36     -18.555  -9.446  56.736  1.00 56.58           C
ATOM   6706  CZ  TYR A  36     -18.795  -8.665  57.854  1.00 56.60           C
ATOM   6707  OH  TYR A  36     -18.397  -9.096  59.101  1.00 54.95           O
ATOM   6709  CE2 TYR A  36     -19.437  -7.441  57.723  1.00 56.91           C
ATOM   6711  CD2 TYR A  36     -19.838  -6.998  56.462  1.00 56.88           C
ATOM   6713  C   TYR A  36     -19.189  -6.399  51.717  1.00 56.74           C
ATOM   6714  O   TYR A  36     -20.360  -6.314  51.315  1.00 58.41           O
ATOM   6716  N   ILE A  37     -18.110  -6.270  50.933  1.00 56.11           N
ATOM   6717  CA  ILE A  37     -18.155  -5.894  49.511  1.00 55.20           C
ATOM   6719  CB  ILE A  37     -17.755  -4.408  49.294  1.00 54.78           C
ATOM   6721  CG1 ILE A  37     -18.826  -3.479  49.851  1.00 58.08           C
ATOM   6724  CD1 ILE A  37     -20.089  -3.396  48.995  1.00 61.32           C
ATOM   6728  CG2 ILE A  37     -17.547  -4.081  47.806  1.00 54.99           C
ATOM   6732  C   ILE A  37     -17.181  -6.759  48.733  1.00 54.28           C
ATOM   6733  O   ILE A  37     -16.086  -7.045  49.197  1.00 51.48           O
ATOM   6735  N   TYR A  38     -17.577  -7.160  47.534  1.00 54.21           N
ATOM   6736  CA  TYR A  38     -16.772  -8.069  46.737  1.00 55.52           C
ATOM   6738  CB  TYR A  38     -17.335  -9.484  46.899  1.00 56.13           C
ATOM   6741  CG  TYR A  38     -17.734  -9.751  48.331  1.00 53.82           C
ATOM   6742  CD1 TYR A  38     -16.800 -10.179  49.249  1.00 56.52           C
ATOM   6744  CE1 TYR A  38     -17.136 -10.402  50.559  1.00 54.97           C
ATOM   6746  CZ  TYR A  38     -18.421 -10.179  50.968  1.00 55.92           C
ATOM   6747  OH  TYR A  38     -18.746 -10.407  52.278  1.00 57.07           O
ATOM   6749  CE2 TYR A  38     -19.372  -9.739  50.077  1.00 53.57           C
ATOM   6751  CD2 TYR A  38     -19.021  -9.517  48.772  1.00 51.57           C
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ATOM   6753  C   TYR A  38     -16.798  -7.601  45.290  1.00 55.89           C
ATOM   6754  O   TYR A  38     -17.738  -6.915  44.896  1.00 57.00           O
ATOM   6756  N   TRP A  39     -15.764  -7.943  44.515  1.00 55.58           N
ATOM   6757  CA  TRP A  39     -15.670  -7.535  43.101  1.00 55.14           C
ATOM   6759  CB  TRP A  39     -14.585  -6.481  42.881  1.00 53.93           C
ATOM   6762  CG  TRP A  39     -14.865  -5.137  43.472  1.00 54.45           C
ATOM   6763  CD1 TRP A  39     -14.481  -4.691  44.699  1.00 55.89           C
ATOM   6765  NE1 TRP A  39     -14.903  -3.397  44.887  1.00 54.96           N
ATOM   6767  CE2 TRP A  39     -15.561  -2.977  43.765  1.00 49.30           C
ATOM   6768  CD2 TRP A  39     -15.559  -4.049  42.850  1.00 51.41           C
ATOM   6769  CE3 TRP A  39     -16.177  -3.876  41.610  1.00 53.35           C
ATOM   6771  CZ3 TRP A  39     -16.766  -2.659  41.327  1.00 54.21           C
ATOM   6773  CH2 TRP A  39     -16.752  -1.613  42.261  1.00 54.27           C
ATOM   6775  CZ2 TRP A  39     -16.154  -1.755  43.482  1.00 52.84           C
ATOM   6777  C   TRP A  39     -15.372  -8.720  42.192  1.00 55.86           C
ATOM   6778  O   TRP A  39     -14.481  -9.524  42.466  1.00 56.12           O
ATOM   6780  N   TYR A  40     -16.099  -8.794  41.083  1.00 55.71           N
ATOM   6781  CA  TYR A  40     -15.950  -9.885  40.151  1.00 54.20           C
ATOM   6783  CB  TYR A  40     -17.236 -10.677  40.105  1.00 53.85           C
ATOM   6786  CG  TYR A  40     -17.621 -11.220  41.452  1.00 53.84           C
ATOM   6787  CD1 TYR A  40     -17.003 -12.350  41.960  1.00 52.48           C
ATOM   6789  CE1 TYR A  40     -17.341 -12.857  43.177  1.00 51.31           C
ATOM   6791  CZ  TYR A  40     -18.309 -12.240  43.922  1.00 52.90           C
ATOM   6792  OH  TYR A  40     -18.644 -12.744  45.154  1.00 53.71           O
ATOM   6794  CE2 TYR A  40     -18.938 -11.109  43.448  1.00 54.72           C
ATOM   6796  CD2 TYR A  40     -18.591 -10.606  42.218  1.00 53.75           C
ATOM   6798  C   TYR A  40     -15.604  -9.392  38.765  1.00 54.49           C
ATOM   6799  O   TYR A  40     -15.945  -8.274  38.387  1.00 54.57           O
ATOM   6801  N   GLN A  41     -14.908 -10.245  38.021  1.00 55.19           N
ATOM   6802  CA  GLN A  41     -14.630 -10.023  36.610  1.00 54.66           C
ATOM   6804  CB  GLN A  41     -13.134 -10.155  36.356  1.00 54.91           C
ATOM   6807  CG  GLN A  41     -12.718 -10.065  34.891  1.00 54.62           C
ATOM   6810  CD  GLN A  41     -11.217 -10.069  34.731  1.00 53.29           C
ATOM   6811  OE1 GLN A  41     -10.549 -11.071  34.995  1.00 50.58           O
ATOM   6812  NE2 GLN A  41     -10.674  -8.942  34.310  1.00 52.61           N
ATOM   6815  C   GLN A  41     -15.368 -11.101  35.832  1.00 54.45           C
ATOM   6816  O   GLN A  41     -15.259 -12.277  36.181  1.00 53.70           O
ATOM   6818  N   GLN A  42     -16.123 -10.704  34.803  1.00 53.94           N
ATOM   6819  CA  GLN A  42     -16.718 -11.669  33.868  1.00 54.62           C
ATOM   6821  CB  GLN A  42     -18.245 -11.740  34.003  1.00 54.68           C
ATOM   6824  CG  GLN A  42     -18.860 -12.891  33.170  1.00 53.39           C
ATOM   6827  CD  GLN A  42     -20.365 -13.000  33.293  1.00 51.05           C
ATOM   6828  OE1 GLN A  42     -21.074 -12.000  33.336  1.00 48.41           O
ATOM   6829  NE2 GLN A  42     -20.859 -14.225  33.336  1.00 49.52           N
ATOM   6832  C   GLN A  42     -16.346 -11.360  32.416  1.00 55.58           C
ATOM   6833  O   GLN A  42     -16.720 -10.306  31.882  1.00 55.08           O
ATOM   6835  N   LYS A  43     -15.626 -12.294  31.789  1.00 55.46           N
ATOM   6836  CA  LYS A  43     -15.292 -12.209  30.366  1.00 55.65           C
ATOM   6838  CB  LYS A  43     -13.932 -12.839  30.086  1.00 54.68           C
ATOM   6841  CG  LYS A  43     -12.775 -12.062  30.668  1.00 54.75           C
ATOM   6844  CD  LYS A  43     -11.503 -12.885  30.686  1.00 55.94           C
ATOM   6847  CE  LYS A  43     -10.375 -12.126  31.358  1.00 58.33           C
ATOM   6850  NZ  LYS A  43      -9.035 -12.660  31.001  1.00 57.56           N
ATOM   6854  C   LYS A  43     -16.347 -12.935  29.549  1.00 56.58           C
ATOM   6855  O   LYS A  43     -16.790 -14.023  29.929  1.00 57.00           O
ATOM   6857  N   PRO A  44     -16.740 -12.357  28.406  1.00 57.55           N
ATOM   6858  CA  PRO A  44     -17.830 -12.946  27.623  1.00 57.67           C
ATOM   6860  CB  PRO A  44     -17.746 -12.218  26.277  1.00 58.27           C
ATOM   6863  CG  PRO A  44     -16.494 -11.352  26.338  1.00 59.33           C
ATOM   6866  CD  PRO A  44     -16.175 -11.155  27.771  1.00 57.79           C
ATOM   6869  C   PRO A  44     -17.649 -14.450  27.435  1.00 58.24           C
ATOM   6870  O   PRO A  44     -16.535 -14.906  27.170  1.00 59.17           O
ATOM   6871  N   GLY A  45     -18.730 -15.206  27.607  1.00 58.29           N
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ATOM	6872	CA	GLY	A	45	-18.689	-16.661	27.482	1.00	58.14	C
ATOM	6875	C	GLY	A	45	-18.251	-17.423	28.727	1.00	58.93	C
ATOM	6876	O	GLY	A	45	-18.321	-18.655	28.745	1.00	58.45	O
ATOM	6878	N	GLN	A	46	-17.829	-16.715	29.780	1.00	58.95	N
ATOM	6879	CA	GLN	A	46	-17.197	-17.370	30.944	1.00	58.13	C
ATOM	6881	CB	GLN	A	46	-15.761	-16.887	31.082	1.00	57.66	C
ATOM	6884	CG	GLN	A	46	-14.876	-17.334	29.967	1.00	57.84	C
ATOM	6887	CD	GLN	A	46	-13.556	-16.649	30.013	1.00	58.02	C
ATOM	6888	OE1	GLN	A	46	-13.096	-16.241	31.074	1.00	59.99	O
ATOM	6889	NE2	GLN	A	46	-12.933	-16.500	28.858	1.00	62.54	N
ATOM	6892	C	GLN	A	46	-17.893	-17.159	32.288	1.00	57.25	C
ATOM	6893	O	GLN	A	46	-18.670	-16.216	32.456	1.00	56.93	O
ATOM	6895	N	PRO	A	47	-17.597	-18.035	33.263	1.00	56.40	N
ATOM	6896	CA	PRO	A	47	-18.057	-17.725	34.613	1.00	56.63	C
ATOM	6898	CB	PRO	A	47	-17.583	-18.928	35.452	1.00	56.08	C
ATOM	6901	CG	PRO	A	47	-16.489	-19.565	34.647	1.00	56.71	C
ATOM	6904	CD	PRO	A	47	-16.862	-19.312	33.208	1.00	56.14	C
ATOM	6907	C	PRO	A	47	-17.395	-16.451	35.108	1.00	55.38	C
ATOM	6908	O	PRO	A	47	-16.299	-16.119	34.660	1.00	55.28	O
ATOM	6909	N	PRO	A	48	-18.068	-15.720	35.999	1.00	54.95	N
ATOM	6910	CA	PRO	A	48	-17.354	-14.666	36.712	1.00	54.76	C
ATOM	6912	CB	PRO	A	48	-18.432	-14.047	37.617	1.00	55.39	C
ATOM	6915	CG	PRO	A	48	-19.744	-14.474	37.009	1.00	55.42	C
ATOM	6918	CD	PRO	A	48	-19.495	-15.784	36.356	1.00	53.86	C
ATOM	6921	C	PRO	A	48	-16.195	-15.218	37.547	1.00	54.08	C
ATOM	6922	O	PRO	A	48	-16.126	-16.416	37.839	1.00	53.70	O
ATOM	6923	N	LYS	A	49	-15.308	-14.319	37.940	1.00	54.11	N
ATOM	6924	CA	LYS	A	49	-14.078	-14.662	38.626	1.00	53.40	C
ATOM	6926	CB	LYS	A	49	-12.924	-14.574	37.616	1.00	53.57	C
ATOM	6929	CG	LYS	A	49	-11.519	-14.593	38.178	1.00	54.85	C
ATOM	6932	CD	LYS	A	49	-10.495	-14.468	37.056	1.00	54.92	C
ATOM	6935	CE	LYS	A	49	-9.116	-14.072	37.583	1.00	58.10	C
ATOM	6938	NZ	LYS	A	49	-8.308	-13.354	36.545	1.00	59.59	N
ATOM	6942	C	LYS	A	49	-13.917	-13.654	39.743	1.00	51.86	C
ATOM	6943	O	LYS	A	49	-14.029	-12.458	39.508	1.00	51.35	O
ATOM	6945	N	LEU	A	50	-13.682	-14.133	40.959	1.00	53.13	N
ATOM	6946	CA	LEU	A	50	-13.545	-13.245	42.122	1.00	53.31	C
ATOM	6948	CB	LEU	A	50	-13.620	-14.020	43.441	1.00	51.20	C
ATOM	6951	CG	LEU	A	50	-13.397	-13.212	44.724	1.00	51.81	C
ATOM	6953	CD1	LEU	A	50	-14.486	-12.193	44.949	1.00	53.08	C
ATOM	6957	CD2	LEU	A	50	-13.322	-14.132	45.921	1.00	53.48	C
ATOM	6961	C	LEU	A	50	-12.225	-12.528	42.057	1.00	54.02	C
ATOM	6962	O	LEU	A	50	-11.183	-13.162	41.943	1.00	56.64	O
ATOM	6964	N	LEU	A	51	-12.276	-11.207	42.155	1.00	54.52	N
ATOM	6965	CA	LEU	A	51	-11.071	-10.397	42.184	1.00	55.06	C
ATOM	6967	CB	LEU	A	51	-11.276	-9.123	41.358	1.00	56.57	C
ATOM	6970	CG	LEU	A	51	-11.540	-9.333	39.867	1.00	55.21	C
ATOM	6972	CD1	LEU	A	51	-11.735	-7.987	39.175	1.00	54.74	C
ATOM	6976	CD2	LEU	A	51	-10.409	-10.130	39.247	1.00	54.47	C
ATOM	6980	C	LEU	A	51	-10.712	-10.014	43.603	1.00	53.83	C
ATOM	6981	O	LEU	A	51	-9.638	-10.356	44.104	1.00	52.66	O
ATOM	6983	N	ILE	A	52	-11.628	-9.292	44.234	1.00	53.69	N
ATOM	6984	CA	ILE	A	52	-11.381	-8.680	45.521	1.00	54.72	C
ATOM	6986	CB	ILE	A	52	-11.218	-7.150	45.370	1.00	55.20	C
ATOM	6988	CG1	ILE	A	52	-10.026	-6.877	44.444	1.00	57.47	C
ATOM	6991	CD1	ILE	A	52	-9.359	-5.528	44.627	1.00	58.35	C
ATOM	6995	CG2	ILE	A	52	-11.043	-6.456	46.750	1.00	55.97	C
ATOM	6999	C	ILE	A	52	-12.518	-9.029	46.459	1.00	53.90	C
ATOM	7000	O	ILE	A	52	-13.674	-9.081	46.048	1.00	55.25	O
ATOM	7002	N	TYR	A	53	-12.183	-9.283	47.719	1.00	52.27	N
ATOM	7003	CA	TYR	A	53	-13.179	-9.683	48.691	1.00	51.84	C
ATOM	7005	CB	TYR	A	53	-13.201	-11.209	48.844	1.00	50.98	C
ATOM	7008	CG	TYR	A	53	-11.973	-11.804	49.485	1.00	50.18	C

ATOM	7009	CD1	TYR	A	53	-10.886	-12.204	48.721	1.00	52.88	C
ATOM	7011	CE1	TYR	A	53	-9.771	-12.740	49.311	1.00	50.55	C
ATOM	7013	CZ	TYR	A	53	-9.738	-12.895	50.678	1.00	51.51	C
ATOM	7014	OH	TYR	A	53	-8.636	-13.418	51.302	1.00	53.71	O
ATOM	7016	CE2	TYR	A	53	-10.797	-12.498	51.452	1.00	53.37	C
ATOM	7018	CD2	TYR	A	53	-11.899	-11.958	50.857	1.00	53.24	C
ATOM	7020	C	TYR	A	53	-12.952	-8.978	50.023	1.00	52.24	C
ATOM	7021	O	TYR	A	53	-11.810	-8.709	50.417	1.00	50.39	O
ATOM	7023	N	LEU	A	54	-14.070	-8.693	50.693	1.00	51.91	N
ATOM	7024	CA	LEU	A	54	-14.142	-7.791	51.839	1.00	51.34	C
ATOM	7026	CB	LEU	A	54	-13.530	-8.446	53.072	1.00	53.03	C
ATOM	7029	CG	LEU	A	54	-14.257	-9.740	53.462	1.00	55.48	C
ATOM	7031	CD1	LEU	A	54	-13.459	-10.524	54.486	1.00	56.22	C
ATOM	7035	CD2	LEU	A	54	-15.664	-9.444	53.983	1.00	58.34	C
ATOM	7039	C	LEU	A	54	-13.532	-6.425	51.529	1.00	51.04	C
ATOM	7040	O	LEU	A	54	-12.740	-5.887	52.296	1.00	53.31	O
ATOM	7042	N	ALA	A	55	-13.920	-5.888	50.373	1.00	51.41	N
ATOM	7043	CA	ALA	A	55	-13.646	-4.503	49.947	1.00	51.08	C
ATOM	7045	CB	ALA	A	55	-13.919	-3.508	51.088	1.00	49.76	C
ATOM	7049	C	ALA	A	55	-12.258	-4.270	49.347	1.00	51.09	C
ATOM	7050	O	ALA	A	55	-12.118	-3.509	48.369	1.00	49.89	O
ATOM	7052	N	SER	A	56	-11.246	-4.915	49.932	1.00	49.94	N
ATOM	7053	CA	SER	A	56	-9.855	-4.603	49.608	1.00	48.78	C
ATOM	7055	CB	SER	A	56	-9.346	-3.566	50.594	1.00	46.21	C
ATOM	7058	OG	SER	A	56	-9.611	-4.007	51.902	1.00	52.26	O
ATOM	7060	C	SER	A	56	-8.874	-5.777	49.567	1.00	46.29	C
ATOM	7061	O	SER	A	56	-7.741	-5.593	49.124	1.00	44.20	O
ATOM	7063	N	ILE	A	57	-9.277	-6.972	49.986	1.00	46.78	N
ATOM	7064	CA	ILE	A	57	-8.342	-8.101	49.975	1.00	48.96	C
ATOM	7066	CB	ILE	A	57	-8.703	-9.197	50.987	1.00	48.05	C
ATOM	7068	CG1	ILE	A	57	-8.893	-8.610	52.390	1.00	48.51	C
ATOM	7071	CD1	ILE	A	57	-9.619	-9.541	53.371	1.00	49.13	C
ATOM	7075	CG2	ILE	A	57	-7.615	-10.239	51.019	1.00	46.24	C
ATOM	7079	C	ILE	A	57	-8.281	-8.733	48.588	1.00	50.59	C
ATOM	7080	O	ILE	A	57	-9.301	-9.163	48.049	1.00	52.03	O
ATOM	7082	N	LEU	A	58	-7.074	-8.800	48.034	1.00	50.85	N
ATOM	7083	CA	LEU	A	58	-6.845	-9.365	46.707	1.00	51.56	C
ATOM	7085	CB	LEU	A	58	-5.473	-8.913	46.196	1.00	50.88	C
ATOM	7088	CG	LEU	A	58	-5.054	-9.229	44.764	1.00	50.99	C
ATOM	7090	CD1	LEU	A	58	-6.046	-8.664	43.744	1.00	52.86	C
ATOM	7094	CD2	LEU	A	58	-3.665	-8.674	44.530	1.00	51.73	C
ATOM	7098	C	LEU	A	58	-6.904	-10.897	46.745	1.00	53.01	C
ATOM	7099	O	LEU	A	58	-6.243	-11.534	47.571	1.00	52.97	O
ATOM	7101	N	GLU	A	59	-7.699	-11.490	45.861	1.00	53.69	N
ATOM	7102	CA	GLU	A	59	-7.753	-12.941	45.770	1.00	54.08	C
ATOM	7104	CB	GLU	A	59	-8.912	-13.381	44.868	1.00	54.86	C
ATOM	7107	CG	GLU	A	59	-9.010	-14.896	44.584	1.00	57.29	C
ATOM	7110	CD	GLU	A	59	-9.437	-15.736	45.791	1.00	60.28	C
ATOM	7111	OE1	GLU	A	59	-9.639	-15.172	46.882	1.00	62.11	O
ATOM	7112	OE2	GLU	A	59	-9.585	-16.973	45.635	1.00	59.47	O
ATOM	7113	C	GLU	A	59	-6.410	-13.436	45.237	1.00	54.90	C
ATOM	7114	O	GLU	A	59	-5.736	-12.742	44.469	1.00	53.94	O
ATOM	7116	N	SER	A	60	-6.013	-14.632	45.658	1.00	56.06	N
ATOM	7117	CA	SER	A	60	-4.727	-15.176	45.237	1.00	56.26	C
ATOM	7119	CB	SER	A	60	-4.332	-16.402	46.075	1.00	55.50	C
ATOM	7122	OG	SER	A	60	-4.715	-17.609	45.446	1.00	58.42	O
ATOM	7124	C	SER	A	60	-4.814	-15.511	43.749	1.00	56.72	C
ATOM	7125	O	SER	A	60	-5.868	-15.936	43.271	1.00	57.74	O
ATOM	7127	N	GLY	A	61	-3.722	-15.287	43.022	1.00	56.44	N
ATOM	7128	CA	GLY	A	61	-3.703	-15.481	41.571	1.00	56.26	C
ATOM	7131	C	GLY	A	61	-4.197	-14.284	40.767	1.00	56.56	C
ATOM	7132	O	GLY	A	61	-4.145	-14.292	39.544	1.00	57.60	O
ATOM	7134	N	VAL	A	62	-4.679	-13.247	41.441	1.00	56.92	N

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ATOM   7135  CA  VAL A  62      -5.113 -12.039  40.753  1.00 55.52           C
ATOM   7137  CB  VAL A  62      -6.345 -11.413  41.432  1.00 56.32           C
ATOM   7139  CG1 VAL A  62      -6.833 -10.187  40.647  1.00 56.97           C
ATOM   7143  CG2 VAL A  62      -7.456 -12.453  41.555  1.00 54.97           C
ATOM   7147  C   VAL A  62      -3.959 -11.047  40.758  1.00 53.94           C
ATOM   7148  O   VAL A  62      -3.345 -10.829  41.797  1.00 51.87           O
ATOM   7150  N   PRO A  63      -3.637 -10.477  39.587  1.00 54.41           N
ATOM   7151  CA  PRO A  63      -2.656  -9.408  39.462  1.00 54.10           C
ATOM   7153  CB  PRO A  63      -2.759  -9.015  37.986  1.00 54.17           C
ATOM   7156  CG  PRO A  63      -3.230 -10.228  37.301  1.00 53.64           C
ATOM   7159  CD  PRO A  63      -4.166 -10.881  38.269  1.00 56.16           C
ATOM   7162  C   PRO A  63      -2.944  -8.195  40.352  1.00 54.03           C
ATOM   7163  O   PRO A  63      -4.086  -7.750  40.449  1.00 50.84           O
ATOM   7164  N   ASP A  64      -1.883  -7.657  40.955  1.00 55.52           N
ATOM   7165  CA  ASP A  64      -1.972  -6.565  41.941  1.00 56.14           C
ATOM   7167  CB  ASP A  64      -0.768  -6.594  42.906  1.00 57.41           C
ATOM   7170  CG  ASP A  64       0.494  -7.131  42.257  1.00 59.16           C
ATOM   7171  OD1 ASP A  64       0.572  -8.359  42.044  1.00 63.24           O
ATOM   7172  OD2 ASP A  64       1.403  -6.336  41.964  1.00 61.08           O
ATOM   7173  C   ASP A  64      -2.134  -5.164  41.330  1.00 56.14           C
ATOM   7174  O   ASP A  64      -2.122  -4.159  42.046  1.00 55.96           O
ATOM   7176  N   ARG A  65      -2.293  -5.084  40.013  1.00 55.75           N
ATOM   7177  CA  ARG A  65      -2.857  -3.871  39.422  1.00 54.91           C
ATOM   7179  CB  ARG A  65      -2.768  -3.869  37.890  1.00 52.92           C
ATOM   7182  CG  ARG A  65      -3.238  -5.140  37.206  1.00 53.78           C
ATOM   7185  CD  ARG A  65      -3.464  -4.930  35.707  1.00 54.01           C
ATOM   7188  NE  ARG A  65      -2.866  -6.013  34.918  1.00 55.33           N
ATOM   7190  CZ  ARG A  65      -3.466  -7.149  34.569  1.00 53.08           C
ATOM   7191  NH1 ARG A  65      -4.712  -7.385  34.918  1.00 58.22           N
ATOM   7194  NH2 ARG A  65      -2.817  -8.057  33.859  1.00 50.59           N
ATOM   7197  C   ARG A  65      -4.310  -3.707  39.900  1.00 55.59           C
ATOM   7198  O   ARG A  65      -4.839  -2.593  39.895  1.00 57.22           O
ATOM   7200  N   PHE A  66      -4.937  -4.809  40.329  1.00 54.50           N
ATOM   7201  CA  PHE A  66      -6.304  -4.775  40.860  1.00 53.47           C
ATOM   7203  CB  PHE A  66      -7.025  -6.106  40.638  1.00 53.02           C
ATOM   7206  CG  PHE A  66      -7.353  -6.388  39.207  1.00 52.34           C
ATOM   7207  CD1 PHE A  66      -8.426  -5.763  38.597  1.00 54.62           C
ATOM   7209  CE1 PHE A  66      -8.736  -6.027  37.261  1.00 55.04           C
ATOM   7211  CZ  PHE A  66      -7.971  -6.926  36.541  1.00 53.88           C
ATOM   7213  CE2 PHE A  66      -6.898  -7.555  37.148  1.00 52.38           C
ATOM   7215  CD2 PHE A  66      -6.594  -7.286  38.467  1.00 55.32           C
ATOM   7217  C   PHE A  66      -6.330  -4.457  42.345  1.00 52.53           C
ATOM   7218  O   PHE A  66      -5.888  -5.262  43.167  1.00 53.67           O
ATOM   7220  N   SER A  67      -6.879  -3.292  42.673  1.00 51.14           N
ATOM   7221  CA  SER A  67      -7.042  -2.869  44.050  1.00 51.37           C
ATOM   7223  CB  SER A  67      -6.077  -1.735  44.363  1.00 50.33           C
ATOM   7226  OG  SER A  67      -6.054  -0.799  43.298  1.00 55.07           O
ATOM   7228  C   SER A  67      -8.470  -2.406  44.281  1.00 51.76           C
ATOM   7229  O   SER A  67      -9.132  -1.929  43.360  1.00 52.61           O
ATOM   7231  N   GLY A  68      -8.931  -2.561  45.519  1.00 51.87           N
ATOM   7232  CA  GLY A  68     -10.273  -2.167  45.929  1.00 51.41           C
ATOM   7235  C   GLY A  68     -10.196  -1.332  47.192  1.00 51.27           C
ATOM   7236  O   GLY A  68      -9.432  -1.650  48.092  1.00 50.99           O
ATOM   7238  N   SER A  69     -10.981  -0.260  47.256  1.00 51.77           N
ATOM   7239  CA  SER A  69     -10.959   0.650  48.391  1.00 52.17           C
ATOM   7241  CB  SER A  69     -10.138   1.864  48.024  1.00 50.86           C
ATOM   7244  OG  SER A  69     -10.575   2.340  46.777  1.00 59.28           O
ATOM   7246  C   SER A  69     -12.382   1.049  48.788  1.00 53.47           C
ATOM   7247  O   SER A  69     -13.348   0.465  48.298  1.00 55.90           O
ATOM   7249  N   GLY A  70     -12.509   2.006  49.709  1.00 54.20           N
ATOM   7250  CA  GLY A  70     -13.807   2.514  50.139  1.00 53.73           C
ATOM   7253  C   GLY A  70     -14.384   1.787  51.341  1.00 54.85           C
ATOM   7254  O   GLY A  70     -13.969   0.677  51.669  1.00 56.68           O
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ATOM   7256  N   SER A  71     -15.356   2.427  51.989  1.00 54.91           N
ATOM   7257  CA  SER A  71     -16.000   1.913  53.191  1.00 54.12           C
ATOM   7259  CB  SER A  71     -15.161   2.242  54.422  1.00 53.07           C
ATOM   7262  OG  SER A  71     -15.441   3.559  54.890  1.00 57.24           O
ATOM   7264  C   SER A  71     -17.379   2.545  53.367  1.00 55.67           C
ATOM   7265  O   SER A  71     -17.686   3.581  52.771  1.00 55.30           O
ATOM   7267  N   GLY A  72     -18.189   1.941  54.232  1.00 57.09           N
ATOM   7268  CA  GLY A  72     -19.520   2.452  54.532  1.00 55.83           C
ATOM   7271  C   GLY A  72     -20.460   2.161  53.381  1.00 57.35           C
ATOM   7272  O   GLY A  72     -21.050   1.073  53.303  1.00 59.43           O
ATOM   7274  N   THR A  73     -20.574   3.120  52.469  1.00 55.93           N
ATOM   7275  CA  THR A  73     -21.540   3.030  51.390  1.00 54.91           C
ATOM   7277  CB  THR A  73     -22.703   4.005  51.659  1.00 53.72           C
ATOM   7279  OG1 THR A  73     -23.872   3.536  50.984  1.00 58.09           O
ATOM   7281  CG2 THR A  73     -22.369   5.433  51.220  1.00 52.98           C
ATOM   7285  C   THR A  73     -20.958   3.236  49.985  1.00 55.23           C
ATOM   7286  O   THR A  73     -21.652   3.020  48.991  1.00 56.02           O
ATOM   7288  N   ASP A  74     -19.692   3.642  49.908  1.00 56.51           N
ATOM   7289  CA  ASP A  74     -19.025   3.942  48.639  1.00 56.04           C
ATOM   7291  CB  ASP A  74     -18.639   5.423  48.556  1.00 55.46           C
ATOM   7294  CG  ASP A  74     -19.844   6.352  48.540  1.00 61.93           C
ATOM   7295  OD1 ASP A  74     -19.639   7.577  48.680  1.00 68.46           O
ATOM   7296  OD2 ASP A  74     -20.993   5.880  48.381  1.00 67.34           O
ATOM   7297  C   ASP A  74     -17.767   3.107  48.533  1.00 54.94           C
ATOM   7298  O   ASP A  74     -16.970   3.067  49.468  1.00 52.69           O
ATOM   7300  N   PHE A  75     -17.595   2.443  47.390  1.00 54.87           N
ATOM   7301  CA  PHE A  75     -16.428   1.604  47.141  1.00 55.21           C
ATOM   7303  CB  PHE A  75     -16.782   0.146  47.387  1.00 55.21           C
ATOM   7306  CG  PHE A  75     -17.312  -0.082  48.744  1.00 52.92           C
ATOM   7307  CD1 PHE A  75     -16.460  -0.417  49.765  1.00 52.09           C
ATOM   7309  CE1 PHE A  75     -16.937  -0.591  51.044  1.00 56.53           C
ATOM   7311  CZ  PHE A  75     -18.289  -0.390  51.321  1.00 58.39           C
ATOM   7313  CE2 PHE A  75     -19.154  -0.030  50.298  1.00 56.60           C
ATOM   7315  CD2 PHE A  75     -18.657   0.131  49.019  1.00 54.00           C
ATOM   7317  C   PHE A  75     -15.904   1.784  45.745  1.00 55.28           C
ATOM   7318  O   PHE A  75     -16.603   2.291  44.872  1.00 56.32           O
ATOM   7320  N   THR A  76     -14.661   1.367  45.546  1.00 56.75           N
ATOM   7321  CA  THR A  76     -13.986   1.540  44.266  1.00 56.78           C
ATOM   7323  CB  THR A  76     -13.141   2.821  44.276  1.00 55.69           C
ATOM   7325  OG1 THR A  76     -13.948   3.914  44.720  1.00 57.58           O
ATOM   7327  CG2 THR A  76     -12.597   3.122  42.892  1.00 55.81           C
ATOM   7331  C   THR A  76     -13.072   0.363  43.931  1.00 56.89           C
ATOM   7332  O   THR A  76     -12.251  -0.053  44.756  1.00 55.38           O
ATOM   7334  N   LEU A  77     -13.235  -0.169  42.722  1.00 56.38           N
ATOM   7335  CA  LEU A  77     -12.234  -1.043  42.127  1.00 56.83           C
ATOM   7337  CB  LEU A  77     -12.893  -2.085  41.230  1.00 57.48           C
ATOM   7340  CG  LEU A  77     -11.940  -3.084  40.571  1.00 56.79           C
ATOM   7342  CD1 LEU A  77     -11.533  -4.145  41.568  1.00 56.56           C
ATOM   7346  CD2 LEU A  77     -12.587  -3.712  39.346  1.00 57.61           C
ATOM   7350  C   LEU A  77     -11.308  -0.175  41.288  1.00 56.72           C
ATOM   7351  O   LEU A  77     -11.775   0.701  40.565  1.00 57.99           O
ATOM   7353  N   THR A  78     -10.004  -0.414  41.374  1.00 56.10           N
ATOM   7354  CA  THR A  78      -9.041   0.313  40.552  1.00 55.74           C
ATOM   7356  CB  THR A  78      -8.213   1.289  41.404  1.00 54.03           C
ATOM   7358  OG1 THR A  78      -9.085   2.273  41.958  1.00 53.94           O
ATOM   7360  CG2 THR A  78      -7.172   1.996  40.570  1.00 54.92           C
ATOM   7364  C   THR A  78      -8.121  -0.657  39.806  1.00 55.53           C
ATOM   7365  O   THR A  78      -7.576  -1.595  40.404  1.00 52.71           O
ATOM   7367  N   ILE A  79      -7.977  -0.423  38.497  1.00 55.87           N
ATOM   7368  CA  ILE A  79      -6.981  -1.110  37.668  1.00 57.16           C
ATOM   7370  CB  ILE A  79      -7.603  -1.777  36.408  1.00 57.32           C
ATOM   7372  CG1 ILE A  79      -8.932  -2.461  36.740  1.00 57.61           C
ATOM   7375  CD1 ILE A  79      -9.640  -3.041  35.524  1.00 58.33           C
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ATOM   7379  CG2 ILE A  79      -6.610  -2.779  35.789  1.00 56.93           C
ATOM   7383  C   ILE A  79      -5.921  -0.106  37.213  1.00 56.44           C
ATOM   7384  O   ILE A  79      -6.125   0.637  36.249  1.00 57.25           O
ATOM   7386  N   SER A  80      -4.793  -0.083  37.911  1.00 57.15           N
ATOM   7387  CA  SER A  80      -3.686   0.812  37.559  1.00 58.14           C
ATOM   7389  CB  SER A  80      -2.757   1.013  38.755  1.00 59.15           C
ATOM   7392  OG  SER A  80      -2.139  -0.213  39.116  1.00 59.69           O
ATOM   7394  C   SER A  80      -2.901   0.190  36.426  1.00 57.23           C
ATOM   7395  O   SER A  80      -2.210  -0.800  36.631  1.00 59.05           O
ATOM   7397  N   SER A  81      -2.999   0.761  35.238  1.00 55.34           N
ATOM   7398  CA  SER A  81      -2.395   0.150  34.060  1.00 56.22           C
ATOM   7400  CB  SER A  81      -0.949  -0.300  34.348  1.00 55.71           C
ATOM   7403  OG  SER A  81      -0.171  -0.335  33.169  1.00 56.15           O
ATOM   7405  C   SER A  81      -3.274  -1.012  33.557  1.00 55.92           C
ATOM   7406  O   SER A  81      -3.194  -2.132  34.052  1.00 55.71           O
ATOM   7408  N   LEU A  82      -4.116  -0.720  32.569  1.00 54.92           N
ATOM   7409  CA  LEU A  82      -5.085  -1.677  32.040  1.00 54.27           C
ATOM   7411  CB  LEU A  82      -6.288  -0.921  31.487  1.00 53.66           C
ATOM   7414  CG  LEU A  82      -7.345  -1.788  30.812  1.00 54.67           C
ATOM   7416  CD1 LEU A  82      -8.290  -2.386  31.864  1.00 56.13           C
ATOM   7420  CD2 LEU A  82      -8.110  -0.980  29.774  1.00 54.60           C
ATOM   7424  C   LEU A  82      -4.495  -2.506  30.912  1.00 53.85           C
ATOM   7425  O   LEU A  82      -4.050  -1.950  29.914  1.00 53.85           O
ATOM   7427  N   GLN A  83      -4.530  -3.829  31.044  1.00 53.85           N
ATOM   7428  CA  GLN A  83      -4.055  -4.716  29.975  1.00 54.02           C
ATOM   7430  CB  GLN A  83      -3.403  -5.979  30.540  1.00 53.64           C
ATOM   7433  CG  GLN A  83      -2.419  -5.723  31.659  1.00 53.69           C
ATOM   7436  CD  GLN A  83      -1.535  -4.528  31.408  1.00 52.02           C
ATOM   7437  OE1 GLN A  83      -0.933  -4.395  30.339  1.00 50.05           O
ATOM   7438  NE2 GLN A  83      -1.462  -3.636  32.392  1.00 49.57           N
ATOM   7441  C   GLN A  83      -5.186  -5.113  29.043  1.00 54.44           C
ATOM   7442  O   GLN A  83      -6.362  -4.903  29.350  1.00 55.00           O
ATOM   7444  N   ALA A  84      -4.808  -5.699  27.908  1.00 53.86           N
ATOM   7445  CA  ALA A  84      -5.759  -6.107  26.885  1.00 54.10           C
ATOM   7447  CB  ALA A  84      -5.022  -6.624  25.656  1.00 53.64           C
ATOM   7451  C   ALA A  84      -6.728  -7.164  27.408  1.00 54.54           C
ATOM   7452  O   ALA A  84      -7.925  -7.109  27.108  1.00 53.93           O
ATOM   7454  N   GLU A  85      -6.215  -8.102  28.208  1.00 55.06           N
ATOM   7455  CA  GLU A  85      -7.039  -9.191  28.750  1.00 55.56           C
ATOM   7457  CB  GLU A  85      -6.190 -10.452  28.996  1.00 56.05           C
ATOM   7460  CG  GLU A  85      -5.453 -10.532  30.340  1.00 57.21           C
ATOM   7463  CD  GLU A  85      -4.196  -9.679  30.405  1.00 63.04           C
ATOM   7464  OE1 GLU A  85      -3.691  -9.227  29.344  1.00 68.17           O
ATOM   7465  OE2 GLU A  85      -3.708  -9.473  31.537  1.00 59.53           O
ATOM   7466  C   GLU A  85      -7.843  -8.804  30.008  1.00 55.93           C
ATOM   7467  O   GLU A  85      -8.433  -9.674  30.669  1.00 55.78           O
ATOM   7469  N   ASP A  86      -7.866  -7.508  30.331  1.00 55.50           N
ATOM   7470  CA  ASP A  86      -8.756  -6.975  31.373  1.00 55.34           C
ATOM   7472  CB  ASP A  86      -8.094  -5.793  32.097  1.00 55.33           C
ATOM   7475  CG  ASP A  86      -6.767  -6.168  32.737  1.00 56.50           C
ATOM   7476  OD1 ASP A  86      -6.478  -7.378  32.813  1.00 62.79           O
ATOM   7477  OD2 ASP A  86      -6.010  -5.263  33.163  1.00 57.49           O
ATOM   7478  C   ASP A  86     -10.104  -6.547  30.779  1.00 54.55           C
ATOM   7479  O   ASP A  86     -11.024  -6.167  31.507  1.00 54.08           O
ATOM   7481  N   VAL A  87     -10.220  -6.611  29.458  1.00 53.82           N
ATOM   7482  CA  VAL A  87     -11.446  -6.211  28.789  1.00 53.67           C
ATOM   7484  CB  VAL A  87     -11.226  -6.076  27.246  1.00 53.52           C
ATOM   7486  CG1 VAL A  87     -11.322  -7.423  26.532  1.00 54.55           C
ATOM   7490  CG2 VAL A  87     -12.189  -5.081  26.652  1.00 53.97           C
ATOM   7494  C   VAL A  87     -12.524  -7.221  29.194  1.00 52.94           C
ATOM   7495  O   VAL A  87     -12.381  -8.421  28.960  1.00 51.45           O
ATOM   7497  N   ALA A  88     -13.567  -6.722  29.861  1.00 53.57           N
ATOM   7498  CA  ALA A  88     -14.594  -7.563  30.505  1.00 52.41           C
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ATOM	7500	CB	ALA	A	88	-13.940	-8.539	31.490	1.00	51.52	C
ATOM	7504	C	ALA	A	88	-15.632	-6.696	31.234	1.00	52.14	C
ATOM	7505	O	ALA	A	88	-15.485	-5.475	31.329	1.00	51.35	O
ATOM	7507	N	VAL	A	89	-16.685	-7.334	31.741	1.00	53.01	N
ATOM	7508	CA	VAL	A	89	-17.688	-6.654	32.573	1.00	52.63	C
ATOM	7510	CB	VAL	A	89	-19.114	-7.097	32.208	1.00	51.69	C
ATOM	7512	CG1	VAL	A	89	-20.134	-6.425	33.113	1.00	52.60	C
ATOM	7516	CG2	VAL	A	89	-19.407	-6.766	30.742	1.00	49.94	C
ATOM	7520	C	VAL	A	89	-17.411	-6.918	34.059	1.00	52.90	C
ATOM	7521	O	VAL	A	89	-17.124	-8.049	34.444	1.00	55.74	O
ATOM	7523	N	TYR	A	90	-17.498	-5.870	34.881	1.00	52.72	N
ATOM	7524	CA	TYR	A	90	-17.139	-5.941	36.303	1.00	52.61	C
ATOM	7526	CB	TYR	A	90	-16.036	-4.927	36.603	1.00	51.58	C
ATOM	7529	CG	TYR	A	90	-14.706	-5.298	35.992	1.00	52.00	C
ATOM	7530	CD1	TYR	A	90	-14.322	-4.801	34.746	1.00	50.13	C
ATOM	7532	CE1	TYR	A	90	-13.102	-5.150	34.182	1.00	48.99	C
ATOM	7534	CZ	TYR	A	90	-12.256	-6.008	34.865	1.00	50.14	C
ATOM	7535	OH	TYR	A	90	-11.043	-6.366	34.335	1.00	51.47	O
ATOM	7537	CE2	TYR	A	90	-12.615	-6.512	36.092	1.00	51.56	C
ATOM	7539	CD2	TYR	A	90	-13.834	-6.159	36.652	1.00	51.85	C
ATOM	7541	C	TYR	A	90	-18.328	-5.684	37.230	1.00	52.79	C
ATOM	7542	O	TYR	A	90	-19.021	-4.675	37.101	1.00	53.04	O
ATOM	7544	N	TYR	A	91	-18.537	-6.593	38.178	1.00	54.01	N
ATOM	7545	CA	TYR	A	91	-19.675	-6.534	39.103	1.00	54.80	C
ATOM	7547	CB	TYR	A	91	-20.503	-7.823	38.999	1.00	53.92	C
ATOM	7550	CG	TYR	A	91	-21.130	-8.084	37.645	1.00	54.43	C
ATOM	7551	CD1	TYR	A	91	-22.388	-7.586	37.333	1.00	50.63	C
ATOM	7553	CE1	TYR	A	91	-22.978	-7.832	36.096	1.00	50.12	C
ATOM	7555	CZ	TYR	A	91	-22.309	-8.588	35.155	1.00	52.43	C
ATOM	7556	OH	TYR	A	91	-22.892	-8.831	33.934	1.00	53.15	O
ATOM	7558	CE2	TYR	A	91	-21.054	-9.100	35.435	1.00	54.13	C
ATOM	7560	CD2	TYR	A	91	-20.471	-8.848	36.681	1.00	54.93	C
ATOM	7562	C	TYR	A	91	-19.210	-6.376	40.554	1.00	55.26	C
ATOM	7563	O	TYR	A	91	-18.219	-6.979	40.950	1.00	55.07	O
ATOM	7565	N	CYS	A	92	-19.925	-5.568	41.340	1.00	56.72	N
ATOM	7566	CA	CYS	A	92	-19.740	-5.557	42.799	1.00	56.96	C
ATOM	7568	CB	CYS	A	92	-19.608	-4.140	43.392	1.00	55.92	C
ATOM	7571	SG	CYS	A	92	-21.050	-3.071	43.241	1.00	63.17	S
ATOM	7573	C	CYS	A	92	-20.898	-6.307	43.433	1.00	57.25	C
ATOM	7574	O	CYS	A	92	-21.929	-6.541	42.797	1.00	56.74	O
ATOM	7576	N	GLN	A	93	-20.715	-6.679	44.693	1.00	56.62	N
ATOM	7577	CA	GLN	A	93	-21.663	-7.523	45.393	1.00	56.15	C
ATOM	7579	CB	GLN	A	93	-21.379	-8.986	45.037	1.00	57.98	C
ATOM	7582	CG	GLN	A	93	-22.295	-10.036	45.683	1.00	58.17	C
ATOM	7585	CD	GLN	A	93	-21.580	-10.882	46.714	1.00	56.58	C
ATOM	7586	OE1	GLN	A	93	-20.509	-11.433	46.447	1.00	55.72	O
ATOM	7587	NE2	GLN	A	93	-22.174	-11.003	47.894	1.00	53.83	N
ATOM	7590	C	GLN	A	93	-21.493	-7.275	46.879	1.00	56.63	C
ATOM	7591	O	GLN	A	93	-20.373	-7.026	47.336	1.00	59.58	O
ATOM	7593	N	HIS	A	94	-22.598	-7.313	47.621	1.00	55.54	N
ATOM	7594	CA	HIS	A	94	-22.579	-7.114	49.072	1.00	54.51	C
ATOM	7596	CB	HIS	A	94	-23.499	-5.950	49.449	1.00	54.63	C
ATOM	7599	CG	HIS	A	94	-24.944	-6.329	49.558	1.00	53.37	C
ATOM	7600	ND1	HIS	A	94	-25.520	-6.729	50.743	1.00	54.18	N
ATOM	7602	CE1	HIS	A	94	-26.795	-7.008	50.542	1.00	57.87	C
ATOM	7604	NE2	HIS	A	94	-27.068	-6.801	49.267	1.00	56.34	N
ATOM	7606	CD2	HIS	A	94	-25.925	-6.381	48.629	1.00	56.76	C
ATOM	7608	C	HIS	A	94	-23.044	-8.396	49.770	1.00	53.97	C
ATOM	7609	O	HIS	A	94	-23.712	-9.220	49.148	1.00	54.58	O
ATOM	7611	N	SER	A	95	-22.698	-8.567	51.048	1.00	53.62	N
ATOM	7612	CA	SER	A	95	-23.309	-9.635	51.857	1.00	53.91	C
ATOM	7614	CB	SER	A	95	-22.408	-10.880	51.916	1.00	52.95	C
ATOM	7617	OG	SER	A	95	-21.462	-10.790	52.959	1.00	52.57	O

ATOM	7619	C	SER	A	95	-23.744	-9.218	53.275	1.00	53.46	C
ATOM	7620	O	SER	A	95	-23.901	-10.066	54.145	1.00	55.35	O
ATOM	7622	N	ARG	A	96	-24.000	-7.927	53.466	1.00	52.66	N
ATOM	7623	CA	ARG	A	96	-24.400	-7.369	54.752	1.00	52.63	C
ATOM	7625	CB	ARG	A	96	-24.627	-5.861	54.610	1.00	53.08	C
ATOM	7628	CG	ARG	A	96	-24.999	-5.168	55.909	1.00	52.58	C
ATOM	7631	CD	ARG	A	96	-23.848	-5.201	56.891	1.00	52.12	C
ATOM	7634	NE	ARG	A	96	-24.241	-4.734	58.219	1.00	53.82	N
ATOM	7636	CZ	ARG	A	96	-24.848	-5.478	59.142	1.00	51.83	C
ATOM	7637	NH1	ARG	A	96	-25.172	-6.742	58.896	1.00	57.15	N
ATOM	7640	NH2	ARG	A	96	-25.135	-4.952	60.321	1.00	49.85	N
ATOM	7643	C	ARG	A	96	-25.661	-7.996	55.326	1.00	52.29	C
ATOM	7644	O	ARG	A	96	-25.788	-8.152	56.536	1.00	51.71	O
ATOM	7646	N	GLU	A	97	-26.609	-8.315	54.454	1.00	52.96	N
ATOM	7647	CA	GLU	A	97	-27.821	-9.034	54.846	1.00	53.56	C
ATOM	7649	CB	GLU	A	97	-28.880	-8.047	55.339	1.00	53.02	C
ATOM	7652	CG	GLU	A	97	-29.345	-7.073	54.253	1.00	58.84	C
ATOM	7655	CD	GLU	A	97	-30.179	-5.913	54.775	1.00	59.30	C
ATOM	7656	OE1	GLU	A	97	-29.786	-5.305	55.796	1.00	65.24	O
ATOM	7657	OE2	GLU	A	97	-31.216	-5.600	54.139	1.00	64.70	O
ATOM	7658	C	GLU	A	97	-28.325	-9.822	53.632	1.00	52.14	C
ATOM	7659	O	GLU	A	97	-27.807	-9.672	52.530	1.00	53.56	O
ATOM	7661	N	LEU	A	98	-29.315	-10.672	53.832	1.00	50.29	N
ATOM	7662	CA	LEU	A	98	-30.009	-11.282	52.706	1.00	51.31	C
ATOM	7664	CB	LEU	A	98	-30.608	-12.631	53.113	1.00	50.51	C
ATOM	7667	CG	LEU	A	98	-29.833	-13.898	52.731	1.00	51.04	C
ATOM	7669	CD1	LEU	A	98	-28.413	-13.809	53.106	1.00	56.07	C
ATOM	7673	CD2	LEU	A	98	-30.444	-15.092	53.411	1.00	53.98	C
ATOM	7677	C	LEU	A	98	-31.101	-10.320	52.226	1.00	50.17	C
ATOM	7678	O	LEU	A	98	-31.675	-9.604	53.038	1.00	55.19	O
ATOM	7680	N	PRO	A	99	-31.386	-10.278	50.917	1.00	47.74	N
ATOM	7681	CA	PRO	A	99	-30.712	-10.973	49.831	1.00	49.71	C
ATOM	7683	CB	PRO	A	99	-31.673	-10.808	48.655	1.00	48.71	C
ATOM	7686	CG	PRO	A	99	-32.405	-9.597	48.940	1.00	46.65	C
ATOM	7689	CD	PRO	A	99	-32.524	-9.489	50.425	1.00	45.81	C
ATOM	7692	C	PRO	A	99	-29.355	-10.366	49.478	1.00	51.03	C
ATOM	7693	O	PRO	A	99	-29.139	-9.155	49.638	1.00	51.72	O
ATOM	7694	N	TRP	A	100	-28.459	-11.229	49.007	1.00	50.96	N
ATOM	7695	CA	TRP	A	100	-27.146	-10.831	48.527	1.00	50.00	C
ATOM	7697	CB	TRP	A	100	-26.174	-12.012	48.639	1.00	50.47	C
ATOM	7700	CG	TRP	A	100	-25.953	-12.494	50.040	1.00	50.98	C
ATOM	7701	CD1	TRP	A	100	-25.847	-11.729	51.151	1.00	54.01	C
ATOM	7703	NE1	TRP	A	100	-25.616	-12.512	52.253	1.00	54.49	N
ATOM	7705	CE2	TRP	A	100	-25.562	-13.822	51.861	1.00	49.41	C
ATOM	7706	CD2	TRP	A	100	-25.770	-13.850	50.469	1.00	52.99	C
ATOM	7707	CE3	TRP	A	100	-25.763	-15.087	49.809	1.00	55.37	C
ATOM	7709	CZ3	TRP	A	100	-25.561	-16.243	50.562	1.00	56.13	C
ATOM	7711	CH2	TRP	A	100	-25.364	-16.175	51.957	1.00	54.04	C
ATOM	7713	CZ2	TRP	A	100	-25.369	-14.977	52.616	1.00	48.69	C
ATOM	7715	C	TRP	A	100	-27.257	-10.352	47.071	1.00	48.92	C
ATOM	7716	O	TRP	A	100	-27.376	-11.155	46.147	1.00	48.02	O
ATOM	7718	N	THR	A	101	-27.224	-9.040	46.868	1.00	48.80	N
ATOM	7719	CA	THR	A	101	-27.430	-8.471	45.533	1.00	48.58	C
ATOM	7721	CB	THR	A	101	-28.487	-7.372	45.566	1.00	47.16	C
ATOM	7723	OG1	THR	A	101	-28.111	-6.378	46.531	1.00	49.81	O
ATOM	7725	CG2	THR	A	101	-29.840	-7.962	45.940	1.00	44.07	C
ATOM	7729	C	THR	A	101	-26.138	-7.948	44.869	1.00	48.42	C
ATOM	7730	O	THR	A	101	-25.174	-7.547	45.540	1.00	46.67	O
ATOM	7732	N	PHE	A	102	-26.141	-7.990	43.539	1.00	47.33	N
ATOM	7733	CA	PHE	A	102	-25.065	-7.461	42.728	1.00	48.71	C
ATOM	7735	CB	PHE	A	102	-24.836	-8.375	41.530	1.00	49.22	C
ATOM	7738	CG	PHE	A	102	-24.308	-9.735	41.871	1.00	48.06	C
ATOM	7739	CD1	PHE	A	102	-22.948	-9.990	41.839	1.00	47.28	C

ATOM	7741	CE1	PHE	A	102	-22.459	-11.242	42.114	1.00 47.72	C
ATOM	7743	CZ	PHE	A	102	-23.320	-12.274	42.410	1.00 49.08	C
ATOM	7745	CE2	PHE	A	102	-24.672	-12.045	42.429	1.00 52.29	C
ATOM	7747	CD2	PHE	A	102	-25.165	-10.776	42.151	1.00 50.38	C
ATOM	7749	C	PHE	A	102	-25.392	-6.054	42.183	1.00 48.86	C
ATOM	7750	O	PHE	A	102	-26.530	-5.583	42.243	1.00 46.85	O
ATOM	7752	N	GLY	A	103	-24.373	-5.393	41.651	1.00 50.32	N
ATOM	7753	CA	GLY	A	103	-24.561	-4.175	40.865	1.00 51.64	C
ATOM	7756	C	GLY	A	103	-24.857	-4.527	39.417	1.00 52.58	C
ATOM	7757	O	GLY	A	103	-24.665	-5.672	39.009	1.00 53.77	O
ATOM	7759	N	GLN	A	104	-25.307	-3.547	38.634	1.00 51.82	N
ATOM	7760	CA	GLN	A	104	-25.784	-3.819	37.275	1.00 51.41	C
ATOM	7762	CB	GLN	A	104	-26.653	-2.660	36.755	1.00 51.48	C
ATOM	7765	CG	GLN	A	104	-25.918	-1.472	36.086	1.00 54.19	C
ATOM	7768	CD	GLN	A	104	-25.046	-0.637	37.035	1.00 54.97	C
ATOM	7769	OE1	GLN	A	104	-25.432	-0.328	38.165	1.00 52.40	O
ATOM	7770	NE2	GLN	A	104	-23.870	-0.249	36.552	1.00 53.59	N
ATOM	7773	C	GLN	A	104	-24.658	-4.168	36.288	1.00 51.25	C
ATOM	7774	O	GLN	A	104	-24.925	-4.495	35.128	1.00 51.06	O
ATOM	7776	N	GLY	A	105	-23.410	-4.097	36.746	1.00 52.04	N
ATOM	7777	CA	GLY	A	105	-22.253	-4.457	35.920	1.00 53.02	C
ATOM	7780	C	GLY	A	105	-21.667	-3.266	35.187	1.00 52.44	C
ATOM	7781	O	GLY	A	105	-22.410	-2.394	34.746	1.00 54.03	O
ATOM	7783	N	THR	A	106	-20.338	-3.222	35.069	1.00 52.03	N
ATOM	7784	CA	THR	A	106	-19.651	-2.143	34.341	1.00 52.72	C
ATOM	7786	CB	THR	A	106	-18.836	-1.204	35.291	1.00 52.36	C
ATOM	7788	OG1	THR	A	106	-19.726	-0.394	36.070	1.00 49.16	O
ATOM	7790	CG2	THR	A	106	-17.921	-0.278	34.499	1.00 51.63	C
ATOM	7794	C	THR	A	106	-18.729	-2.726	33.265	1.00 52.67	C
ATOM	7795	O	THR	A	106	-17.800	-3.476	33.563	1.00 52.64	O
ATOM	7797	N	LYS	A	107	-18.997	-2.356	32.019	1.00 53.56	N
ATOM	7798	CA	LYS	A	107	-18.216	-2.797	30.865	1.00 54.50	C
ATOM	7800	CB	LYS	A	107	-19.056	-2.633	29.584	1.00 55.33	C
ATOM	7803	CG	LYS	A	107	-18.694	-3.555	28.426	1.00 55.32	C
ATOM	7806	CD	LYS	A	107	-19.661	-3.351	27.255	1.00 57.23	C
ATOM	7809	CE	LYS	A	107	-19.892	-4.643	26.463	1.00 59.97	C
ATOM	7812	NZ	LYS	A	107	-20.999	-4.524	25.456	1.00 58.78	N
ATOM	7816	C	LYS	A	107	-16.937	-1.960	30.763	1.00 54.40	C
ATOM	7817	O	LYS	A	107	-16.979	-0.728	30.828	1.00 53.19	O
ATOM	7819	N	VAL	A	108	-15.804	-2.637	30.606	1.00 54.82	N
ATOM	7820	CA	VAL	A	108	-14.511	-1.969	30.472	1.00 55.05	C
ATOM	7822	CB	VAL	A	108	-13.567	-2.356	31.613	1.00 54.32	C
ATOM	7824	CG1	VAL	A	108	-12.180	-1.740	31.403	1.00 54.65	C
ATOM	7828	CG2	VAL	A	108	-14.159	-1.908	32.934	1.00 54.76	C
ATOM	7832	C	VAL	A	108	-13.879	-2.342	29.139	1.00 55.39	C
ATOM	7833	O	VAL	A	108	-13.765	-3.524	28.815	1.00 56.54	O
ATOM	7835	N	GLU	A	109	-13.461	-1.330	28.380	1.00 55.65	N
ATOM	7836	CA	GLU	A	109	-13.000	-1.520	27.010	1.00 55.70	C
ATOM	7838	CB	GLU	A	109	-14.096	-1.111	26.023	1.00 55.49	C
ATOM	7841	CG	GLU	A	109	-15.315	-2.019	26.060	1.00 57.22	C
ATOM	7844	CD	GLU	A	109	-16.368	-1.649	25.026	1.00 59.67	C
ATOM	7845	OE1	GLU	A	109	-17.384	-2.374	24.913	1.00 65.87	O
ATOM	7846	OE2	GLU	A	109	-16.187	-0.641	24.314	1.00 65.28	O
ATOM	7847	C	GLU	A	109	-11.735	-0.738	26.727	1.00 54.66	C
ATOM	7848	O	GLU	A	109	-11.360	0.158	27.483	1.00 54.68	O
ATOM	7850	N	ILE	A	110	-11.092	-1.095	25.619	1.00 54.72	N
ATOM	7851	CA	ILE	A	110	-9.846	-0.474	25.179	1.00 54.28	C
ATOM	7853	CB	ILE	A	110	-8.905	-1.525	24.520	1.00 53.48	C
ATOM	7855	CG1	ILE	A	110	-8.066	-2.224	25.588	1.00 53.77	C
ATOM	7858	CD1	ILE	A	110	-8.881	-3.021	26.591	1.00 58.37	C
ATOM	7862	CG2	ILE	A	110	-7.955	-0.889	23.512	1.00 55.60	C
ATOM	7866	C	ILE	A	110	-10.124	0.675	24.210	1.00 53.88	C
ATOM	7867	O	ILE	A	110	-10.812	0.493	23.211	1.00 53.96	O

ATOM	7869	N	LYS A 111	-9.601	1.859	24.529	1.00	53.81		N
ATOM	7870	CA	LYS A 111	-9.520	2.957	23.566	1.00	53.70		C
ATOM	7872	CB	LYS A 111	-9.334	4.321	24.247	1.00	54.81		C
ATOM	7875	CG	LYS A 111	-10.597	5.186	24.332	1.00	55.76		C
ATOM	7878	CD	LYS A 111	-10.225	6.673	24.356	1.00	54.86		C
ATOM	7881	CE	LYS A 111	-11.443	7.572	24.436	1.00	56.09		C
ATOM	7884	NZ	LYS A 111	-11.130	8.946	23.941	1.00	56.07		N
ATOM	7888	C	LYS A 111	-8.353	2.674	22.622	1.00	52.73		C
ATOM	7889	O	LYS A 111	-7.286	2.224	23.040	1.00	52.75		O
ATOM	7891	N	ARG A 112	-8.564	2.970	21.349	1.00	52.16		N
ATOM	7892	CA	ARG A 112	-7.737	2.438	20.279	1.00	51.34		C
ATOM	7894	CB	ARG A 112	-8.366	1.124	19.796	1.00	51.68		C
ATOM	7897	CG	ARG A 112	-7.402	0.056	19.307	1.00	50.70		C
ATOM	7900	CD	ARG A 112	-8.101	-0.871	18.306	1.00	49.45		C
ATOM	7903	NE	ARG A 112	-8.000	-0.347	16.947	1.00	43.37		N
ATOM	7905	CZ	ARG A 112	-7.017	-0.634	16.096	1.00	42.48		C
ATOM	7906	NH1	ARG A 112	-6.042	-1.475	16.420	1.00	43.80		N
ATOM	7909	NH2	ARG A 112	-7.016	-0.084	14.896	1.00	45.43		N
ATOM	7912	C	ARG A 112	-7.694	3.438	19.130	1.00	50.60		C
ATOM	7913	O	ARG A 112	-8.498	4.370	19.071	1.00	49.78		O
ATOM	7915	N	THR A 113	-6.761	3.245	18.210	1.00	50.40		N
ATOM	7916	CA	THR A 113	-6.773	4.017	16.978	1.00	50.07		C
ATOM	7918	CB	THR A 113	-5.461	3.877	16.187	1.00	49.90		C
ATOM	7920	OG1	THR A 113	-5.318	2.529	15.726	1.00	51.67		O
ATOM	7922	CG2	THR A 113	-4.261	4.250	17.053	1.00	50.19		C
ATOM	7926	C	THR A 113	-7.939	3.511	16.138	1.00	49.54		C
ATOM	7927	O	THR A 113	-8.385	2.377	16.300	1.00	48.69		O
ATOM	7929	N	VAL A 114	-8.434	4.366	15.254	1.00	49.70		N
ATOM	7930	CA	VAL A 114	-9.531	4.005	14.377	1.00	49.23		C
ATOM	7932	CB	VAL A 114	-10.137	5.246	13.694	1.00	48.83		C
ATOM	7934	CG1	VAL A 114	-11.138	4.839	12.602	1.00	48.71		C
ATOM	7938	CG2	VAL A 114	-10.793	6.150	14.726	1.00	47.21		C
ATOM	7942	C	VAL A 114	-9.026	3.029	13.318	1.00	49.85		C
ATOM	7943	O	VAL A 114	-7.996	3.270	12.679	1.00	49.97		O
ATOM	7945	N	ALA A 115	-9.758	1.927	13.161	1.00	50.08		N
ATOM	7946	CA	ALA A 115	-9.490	0.922	12.138	1.00	49.55		C
ATOM	7948	CB	ALA A 115	-9.220	-0.438	12.781	1.00	48.81		C
ATOM	7952	C	ALA A 115	-10.706	0.833	11.230	1.00	49.65		C
ATOM	7953	O	ALA A 115	-11.824	0.691	11.723	1.00	49.77		O
ATOM	7955	N	ALA A 116	-10.488	0.920	9.917	1.00	49.56		N
ATOM	7956	CA	ALA A 116	-11.565	0.786	8.935	1.00	49.41		C
ATOM	7958	CB	ALA A 116	-11.090	1.241	7.563	1.00	48.58		C
ATOM	7962	C	ALA A 116	-12.057	-0.663	8.864	1.00	50.01		C
ATOM	7963	O	ALA A 116	-11.254	-1.595	8.956	1.00	49.43		O
ATOM	7965	N	PRO A 117	-13.382	-0.860	8.710	1.00	50.75		N
ATOM	7966	CA	PRO A 117	-13.883	-2.212	8.464	1.00	50.58		C
ATOM	7968	CB	PRO A 117	-15.382	-2.104	8.759	1.00	50.21		C
ATOM	7971	CG	PRO A 117	-15.719	-0.667	8.592	1.00	49.70		C
ATOM	7974	CD	PRO A 117	-14.465	0.141	8.756	1.00	50.74		C
ATOM	7977	C	PRO A 117	-13.672	-2.625	7.012	1.00	51.44		C
ATOM	7978	O	PRO A 117	-14.023	-1.872	6.102	1.00	50.88		O
ATOM	7979	N	SER A 118	-13.084	-3.797	6.799	1.00	51.74		N
ATOM	7980	CA	SER A 118	-13.089	-4.407	5.479	1.00	50.75		C
ATOM	7982	CB	SER A 118	-12.096	-5.571	5.408	1.00	50.93		C
ATOM	7985	OG	SER A 118	-10.764	-5.122	5.578	1.00	50.05		O
ATOM	7987	C	SER A 118	-14.511	-4.906	5.266	1.00	51.06		C
ATOM	7988	O	SER A 118	-15.121	-5.420	6.204	1.00	51.50		O
ATOM	7990	N	VAL A 119	-15.041	-4.730	4.053	1.00	50.99		N
ATOM	7991	CA	VAL A 119	-16.410	-5.150	3.722	1.00	49.93		C
ATOM	7993	CB	VAL A 119	-17.306	-3.929	3.399	1.00	49.47		C
ATOM	7995	CG1	VAL A 119	-18.764	-4.355	3.228	1.00	47.94		C
ATOM	7999	CG2	VAL A 119	-17.177	-2.859	4.497	1.00	48.88		C
ATOM	8003	C	VAL A 119	-16.418	-6.133	2.548	1.00	49.26		C

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ATOM   8004  O   VAL A 119     -16.619  -7.338   2.728  1.00 48.94           O
ATOM   8006  N   VAL A 137     -26.350 -11.364   3.345  1.00 52.92           N
ATOM   8007  CA  VAL A 137     -25.473 -11.254   4.508  1.00 53.45           C
ATOM   8009  CB  VAL A 137     -24.879 -12.620   4.906  1.00 52.41           C
ATOM   8011  CG1 VAL A 137     -23.918 -12.468   6.093  1.00 50.85           C
ATOM   8015  CG2 VAL A 137     -25.990 -13.602   5.241  1.00 52.25           C
ATOM   8019  C   VAL A 137     -24.315 -10.284   4.276  1.00 53.76           C
ATOM   8020  O   VAL A 137     -23.485 -10.509   3.401  1.00 54.18           O
ATOM   8022  N   CYS A 138     -24.252  -9.233   5.091  1.00 54.63           N
ATOM   8023  CA  CYS A 138     -23.176  -8.246   5.022  1.00 54.74           C
ATOM   8025  CB  CYS A 138     -23.751  -6.836   5.120  1.00 55.44           C
ATOM   8028  SG  CYS A 138     -22.624  -5.571   4.524  1.00 56.29           S
ATOM   8030  C   CYS A 138     -22.171  -8.457   6.147  1.00 55.03           C
ATOM   8031  O   CYS A 138     -22.554  -8.786   7.268  1.00 56.14           O
ATOM   8033  N   LEU A 139     -20.890  -8.256   5.848  1.00 54.31           N
ATOM   8034  CA  LEU A 139     -19.826  -8.442   6.830  1.00 53.98           C
ATOM   8036  CB  LEU A 139     -18.983  -9.663   6.469  1.00 53.28           C
ATOM   8039  CG  LEU A 139     -17.700  -9.830   7.293  1.00 53.23           C
ATOM   8041  CD1 LEU A 139     -18.030  -9.996   8.772  1.00 51.68           C
ATOM   8045  CD2 LEU A 139     -16.892 -11.000   6.782  1.00 52.53           C
ATOM   8049  C   LEU A 139     -18.914  -7.226   6.903  1.00 54.68           C
ATOM   8050  O   LEU A 139     -18.308  -6.845   5.904  1.00 56.02           O
ATOM   8052  N   LEU A 140     -18.804  -6.637   8.090  1.00 54.60           N
ATOM   8053  CA  LEU A 140     -17.828  -5.576   8.349  1.00 54.27           C
ATOM   8055  CB  LEU A 140     -18.487  -4.378   9.045  1.00 54.07           C
ATOM   8058  CG  LEU A 140     -19.584  -3.624   8.280  1.00 52.55           C
ATOM   8060  CD1 LEU A 140     -20.827  -4.478   8.019  1.00 51.87           C
ATOM   8064  CD2 LEU A 140     -19.961  -2.385   9.053  1.00 52.40           C
ATOM   8068  C   LEU A 140     -16.749  -6.175   9.237  1.00 54.38           C
ATOM   8069  O   LEU A 140     -17.044  -6.627  10.343  1.00 55.50           O
ATOM   8071  N   ASN A 141     -15.506  -6.189   8.762  1.00 54.13           N
ATOM   8072  CA  ASN A 141     -14.439  -6.912   9.455  1.00 54.40           C
ATOM   8074  CB  ASN A 141     -13.759  -7.887   8.484  1.00 54.36           C
ATOM   8077  CG  ASN A 141     -13.104  -9.081   9.185  1.00 53.38           C
ATOM   8078  OD1 ASN A 141     -12.731 -10.048   8.530  1.00 51.81           O
ATOM   8079  ND2 ASN A 141     -12.964  -9.019  10.504  1.00 55.85           N
ATOM   8082  C   ASN A 141     -13.395  -5.990  10.102  1.00 55.01           C
ATOM   8083  O   ASN A 141     -12.799  -5.139   9.433  1.00 55.64           O
ATOM   8085  N   ASN A 142     -13.206  -6.180  11.411  1.00 54.47           N
ATOM   8086  CA  ASN A 142     -12.149  -5.547  12.213  1.00 53.54           C
ATOM   8088  CB  ASN A 142     -10.787  -6.176  11.889  1.00 52.77           C
ATOM   8091  CG  ASN A 142     -10.739  -7.670  12.205  1.00 52.05           C
ATOM   8092  OD1 ASN A 142     -11.202  -8.112  13.256  1.00 51.93           O
ATOM   8093  ND2 ASN A 142     -10.185  -8.451  11.288  1.00 51.89           N
ATOM   8096  C   ASN A 142     -12.095  -4.024  12.130  1.00 53.21           C
ATOM   8097  O   ASN A 142     -11.225  -3.457  11.475  1.00 54.01           O
ATOM   8099  N   PHE A 143     -13.030  -3.374  12.823  1.00 54.16           N
ATOM   8100  CA  PHE A 143     -13.115  -1.909  12.864  1.00 54.45           C
ATOM   8102  CB  PHE A 143     -14.330  -1.421  12.072  1.00 55.13           C
ATOM   8105  CG  PHE A 143     -15.656  -1.852  12.649  1.00 54.31           C
ATOM   8106  CD1 PHE A 143     -16.322  -1.050  13.563  1.00 55.41           C
ATOM   8108  CE1 PHE A 143     -17.550  -1.440  14.095  1.00 55.65           C
ATOM   8110  CZ  PHE A 143     -18.123  -2.642  13.708  1.00 55.84           C
ATOM   8112  CE2 PHE A 143     -17.469  -3.451  12.792  1.00 55.98           C
ATOM   8114  CD2 PHE A 143     -16.243  -3.051  12.264  1.00 55.54           C
ATOM   8116  C   PHE A 143     -13.192  -1.366  14.288  1.00 54.61           C
ATOM   8117  O   PHE A 143     -13.381  -2.124  15.243  1.00 54.71           O
ATOM   8119  N   TYR A 144     -13.047  -0.048  14.417  1.00 54.02           N
ATOM   8120  CA  TYR A 144     -13.157   0.619  15.716  1.00 54.45           C
ATOM   8122  CB  TYR A 144     -11.862   0.444  16.533  1.00 53.86           C
ATOM   8125  CG  TYR A 144     -11.971   0.974  17.951  1.00 54.68           C
ATOM   8126  CD1 TYR A 144     -11.704   2.313  18.237  1.00 55.07           C
ATOM   8128  CE1 TYR A 144     -11.823   2.811  19.528  1.00 52.91           C
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ATOM	8130	CZ	TYR A 144	-12.214	1.970	20.547	1.00	53.28		C
ATOM	8131	OH	TYR A 144	-12.329	2.469	21.822	1.00	55.54		O
ATOM	8133	CE2	TYR A 144	-12.489	0.637	20.293	1.00	53.44		C
ATOM	8135	CD2	TYR A 144	-12.367	0.145	19.002	1.00	54.46		C
ATOM	8137	C	TYR A 144	-13.458	2.108	15.518	1.00	55.01		C
ATOM	8138	O	TYR A 144	-12.868	2.735	14.637	1.00	55.16		O
ATOM	8140	N	PRO A 145	-14.368	2.685	16.332	1.00	55.73		N
ATOM	8141	CA	PRO A 145	-15.161	2.107	17.412	1.00	56.70		C
ATOM	8143	CB	PRO A 145	-15.390	3.309	18.333	1.00	56.28		C
ATOM	8146	CG	PRO A 145	-15.447	4.472	17.417	1.00	55.85		C
ATOM	8149	CD	PRO A 145	-14.665	4.121	16.174	1.00	55.75		C
ATOM	8152	C	PRO A 145	-16.492	1.517	16.917	1.00	57.75		C
ATOM	8153	O	PRO A 145	-16.688	1.363	15.709	1.00	58.63		O
ATOM	8154	N	ARG A 146	-17.388	1.192	17.848	1.00	58.22		N
ATOM	8155	CA	ARG A 146	-18.698	0.625	17.525	1.00	58.14		C
ATOM	8157	CB	ARG A 146	-19.180	-0.236	18.699	1.00	58.94		C
ATOM	8160	CG	ARG A 146	-20.125	-1.365	18.309	1.00	60.14		C
ATOM	8163	CD	ARG A 146	-20.915	-1.924	19.508	1.00	61.01		C
ATOM	8166	NE	ARG A 146	-20.064	-2.473	20.570	1.00	64.92		N
ATOM	8168	CZ	ARG A 146	-20.469	-3.339	21.502	1.00	64.17		C
ATOM	8169	NH1	ARG A 146	-21.721	-3.785	21.519	1.00	65.11		N
ATOM	8172	NH2	ARG A 146	-19.611	-3.774	22.420	1.00	62.06		N
ATOM	8175	C	ARG A 146	-19.726	1.722	17.227	1.00	56.33		C
ATOM	8176	O	ARG A 146	-19.790	2.254	16.122	1.00	54.77		O
ATOM	8178	N	SER A 160	-36.742	-0.105	5.921	1.00	47.65		N
ATOM	8179	CA	SER A 160	-36.853	-1.554	5.872	1.00	48.11		C
ATOM	8181	CB	SER A 160	-35.716	-2.138	5.035	1.00	47.68		C
ATOM	8184	OG	SER A 160	-35.706	-1.600	3.728	1.00	46.12		O
ATOM	8186	C	SER A 160	-36.801	-2.152	7.273	1.00	48.80		C
ATOM	8187	O	SER A 160	-36.028	-1.701	8.114	1.00	49.61		O
ATOM	8189	N	GLY A 161	-37.626	-3.166	7.516	1.00	49.18		N
ATOM	8190	CA	GLY A 161	-37.570	-3.947	8.754	1.00	49.41		C
ATOM	8193	C	GLY A 161	-37.327	-5.418	8.458	1.00	49.98		C
ATOM	8194	O	GLY A 161	-37.954	-6.290	9.060	1.00	50.56		O
ATOM	8196	N	ASN A 162	-36.405	-5.686	7.532	1.00	50.18		N
ATOM	8197	CA	ASN A 162	-36.124	-7.045	7.036	1.00	49.88		C
ATOM	8199	CB	ASN A 162	-36.604	-7.178	5.583	1.00	48.98		C
ATOM	8202	CG	ASN A 162	-36.151	-6.017	4.705	1.00	47.85		C
ATOM	8203	OD1	ASN A 162	-34.971	-5.662	4.674	1.00	48.45		O
ATOM	8204	ND2	ASN A 162	-37.093	-5.414	3.997	1.00	46.18		N
ATOM	8207	C	ASN A 162	-34.637	-7.415	7.150	1.00	50.21		C
ATOM	8208	O	ASN A 162	-34.149	-8.318	6.461	1.00	50.61		O
ATOM	8210	N	SER A 163	-33.930	-6.710	8.028	1.00	50.15		N
ATOM	8211	CA	SER A 163	-32.514	-6.947	8.262	1.00	50.83		C
ATOM	8213	CB	SER A 163	-31.660	-5.957	7.466	1.00	51.23		C
ATOM	8216	OG	SER A 163	-31.782	-4.635	7.975	1.00	50.65		O
ATOM	8218	C	SER A 163	-32.217	-6.788	9.743	1.00	51.26		C
ATOM	8219	O	SER A 163	-32.763	-5.896	10.392	1.00	52.28		O
ATOM	8221	N	GLN A 164	-31.349	-7.649	10.264	1.00	50.89		N
ATOM	8222	CA	GLN A 164	-30.905	-7.576	11.659	1.00	51.71		C
ATOM	8224	CB	GLN A 164	-31.667	-8.593	12.522	1.00	51.48		C
ATOM	8227	CG	GLN A 164	-31.821	-9.978	11.880	1.00	51.08		C
ATOM	8230	CD	GLN A 164	-32.641	-10.939	12.710	1.00	49.96		C
ATOM	8231	OE1	GLN A 164	-33.117	-10.596	13.790	1.00	46.20		O
ATOM	8232	NE2	GLN A 164	-32.812	-12.156	12.206	1.00	47.01		N
ATOM	8235	C	GLN A 164	-29.392	-7.816	11.712	1.00	53.01		C
ATOM	8236	O	GLN A 164	-28.825	-8.434	10.807	1.00	54.44		O
ATOM	8238	N	GLU A 165	-28.730	-7.323	12.752	1.00	53.17		N
ATOM	8239	CA	GLU A 165	-27.273	-7.427	12.807	1.00	53.68		C
ATOM	8241	CB	GLU A 165	-26.621	-6.082	12.460	1.00	54.11		C
ATOM	8244	CG	GLU A 165	-27.462	-4.861	12.792	1.00	55.35		C
ATOM	8247	CD	GLU A 165	-26.721	-3.563	12.526	1.00	55.26		C
ATOM	8248	OE1	GLU A 165	-25.626	-3.379	13.095	1.00	54.38		O

ATOM	8249	OE2	GLU	A	165	-27.236	-2.724	11.759	1.00 57.24	O
ATOM	8250	C	GLU	A	165	-26.745	-7.959	14.134	1.00 52.96	C
ATOM	8251	O	GLU	A	165	-27.397	-7.832	15.165	1.00 52.13	O
ATOM	8253	N	SER	A	166	-25.564	-8.572	14.083	1.00 53.53	N
ATOM	8254	CA	SER	A	166	-24.878	-9.080	15.280	1.00 54.46	C
ATOM	8256	CB	SER	A	166	-24.863	-10.612	15.298	1.00 54.98	C
ATOM	8259	OG	SER	A	166	-24.240	-11.106	16.475	1.00 53.82	O
ATOM	8261	C	SER	A	166	-23.448	-8.552	15.333	1.00 54.86	C
ATOM	8262	O	SER	A	166	-22.759	-8.503	14.309	1.00 55.52	O
ATOM	8264	N	VAL	A	167	-23.010	-8.181	16.535	1.00 54.69	N
ATOM	8265	CA	VAL	A	167	-21.699	-7.567	16.753	1.00 54.47	C
ATOM	8267	CB	VAL	A	167	-21.848	-6.073	17.172	1.00 54.48	C
ATOM	8269	CG1	VAL	A	167	-22.861	-5.898	18.303	1.00 54.93	C
ATOM	8273	CG2	VAL	A	167	-20.500	-5.469	17.555	1.00 55.79	C
ATOM	8277	C	VAL	A	167	-20.898	-8.361	17.798	1.00 54.48	C
ATOM	8278	O	VAL	A	167	-21.455	-8.820	18.795	1.00 54.42	O
ATOM	8280	N	THR	A	168	-19.598	-8.534	17.556	1.00 55.27	N
ATOM	8281	CA	THR	A	168	-18.714	-9.250	18.492	1.00 55.17	C
ATOM	8283	CB	THR	A	168	-17.457	-9.839	17.785	1.00 55.15	C
ATOM	8285	OG1	THR	A	168	-16.790	-8.812	17.036	1.00 55.27	O
ATOM	8287	CG2	THR	A	168	-17.832	-10.990	16.860	1.00 54.96	C
ATOM	8291	C	THR	A	168	-18.221	-8.341	19.618	1.00 55.08	C
ATOM	8292	O	THR	A	168	-18.278	-7.111	19.517	1.00 54.83	O
ATOM	8294	N	GLU	A	169	-17.733	-8.967	20.686	1.00 55.14	N
ATOM	8295	CA	GLU	A	169	-16.988	-8.264	21.733	1.00 55.30	C
ATOM	8297	CB	GLU	A	169	-16.850	-9.140	22.981	1.00 55.53	C
ATOM	8300	CG	GLU	A	169	-18.177	-9.504	23.636	1.00 57.81	C
ATOM	8303	CD	GLU	A	169	-18.696	-8.433	24.581	1.00 60.48	C
ATOM	8304	OE1	GLU	A	169	-18.468	-7.232	24.330	1.00 62.19	O
ATOM	8305	OE2	GLU	A	169	-19.348	-8.798	25.582	1.00 63.26	O
ATOM	8306	C	GLU	A	169	-15.600	-7.886	21.207	1.00 55.10	C
ATOM	8307	O	GLU	A	169	-15.083	-8.525	20.290	1.00 56.12	O
ATOM	8309	N	GLN	A	170	-15.006	-6.847	21.787	1.00 53.52	N
ATOM	8310	CA	GLN	A	170	-13.671	-6.387	21.394	1.00 52.45	C
ATOM	8312	CB	GLN	A	170	-13.160	-5.354	22.405	1.00 52.40	C
ATOM	8315	CG	GLN	A	170	-12.549	-4.110	21.796	1.00 51.45	C
ATOM	8318	CD	GLN	A	170	-12.176	-3.075	22.841	1.00 51.48	C
ATOM	8319	OE1	GLN	A	170	-12.497	-3.218	24.024	1.00 49.48	O
ATOM	8320	NE2	GLN	A	170	-11.490	-2.024	22.409	1.00 48.24	N
ATOM	8323	C	GLN	A	170	-12.700	-7.572	21.308	1.00 51.71	C
ATOM	8324	O	GLN	A	170	-12.640	-8.401	22.220	1.00 50.99	O
ATOM	8326	N	ASP	A	171	-11.954	-7.651	20.209	1.00 51.94	N
ATOM	8327	CA	ASP	A	171	-11.039	-8.770	19.956	1.00 52.82	C
ATOM	8329	CB	ASP	A	171	-10.508	-8.685	18.517	1.00 52.66	C
ATOM	8332	CG	ASP	A	171	-9.890	-9.991	18.027	1.00 52.81	C
ATOM	8333	OD1	ASP	A	171	-9.208	-10.685	18.811	1.00 50.99	O
ATOM	8334	OD2	ASP	A	171	-10.073	-10.309	16.832	1.00 55.51	O
ATOM	8335	C	ASP	A	171	-9.866	-8.779	20.948	1.00 53.35	C
ATOM	8336	O	ASP	A	171	-9.300	-7.727	21.252	1.00 53.94	O
ATOM	8338	N	SER	A	172	-9.491	-9.969	21.424	1.00 53.69	N
ATOM	8339	CA	SER	A	172	-8.437	-10.121	22.450	1.00 53.40	C
ATOM	8341	CB	SER	A	172	-8.504	-11.513	23.092	1.00 52.64	C
ATOM	8344	OG	SER	A	172	-8.211	-12.525	22.143	1.00 50.98	O
ATOM	8346	C	SER	A	172	-7.010	-9.873	21.943	1.00 53.76	C
ATOM	8347	O	SER	A	172	-6.064	-9.888	22.735	1.00 53.69	O
ATOM	8349	N	LYS	A	173	-6.853	-9.666	20.635	1.00 54.72	N
ATOM	8350	CA	LYS	A	173	-5.566	-9.281	20.054	1.00 54.91	C
ATOM	8352	CB	LYS	A	173	-5.212	-10.179	18.861	1.00 55.00	C
ATOM	8355	CG	LYS	A	173	-4.851	-11.607	19.240	1.00 55.63	C
ATOM	8358	CD	LYS	A	173	-4.326	-12.380	18.041	1.00 54.81	C
ATOM	8361	CE	LYS	A	173	-4.517	-13.870	18.212	1.00 54.73	C
ATOM	8364	NZ	LYS	A	173	-4.018	-14.612	17.028	1.00 54.59	N
ATOM	8368	C	LYS	A	173	-5.584	-7.815	19.620	1.00 55.44	C

ATOM	8369	O	LYS A 173	-4.912	-6.975	20.224	1.00	56.78		O
ATOM	8371	N	ASP A 174	-6.371	-7.508	18.592	1.00	54.48		N
ATOM	8372	CA	ASP A 174	-6.323	-6.189	17.953	1.00	53.90		C
ATOM	8374	CB	ASP A 174	-6.367	-6.333	16.419	1.00	54.32		C
ATOM	8377	CG	ASP A 174	-7.598	-7.076	15.920	1.00	55.74		C
ATOM	8378	OD1	ASP A 174	-8.095	-7.970	16.627	1.00	58.47		O
ATOM	8379	OD2	ASP A 174	-8.060	-6.781	14.802	1.00	59.46		O
ATOM	8380	C	ASP A 174	-7.392	-5.203	18.440	1.00	53.26		C
ATOM	8381	O	ASP A 174	-7.563	-4.141	17.841	1.00	53.00		O
ATOM	8383	N	SER A 175	-8.094	-5.544	19.522	1.00	52.51		N
ATOM	8384	CA	SER A 175	-9.109	-4.664	20.123	1.00	52.19		C
ATOM	8386	CB	SER A 175	-8.430	-3.523	20.881	1.00	51.48		C
ATOM	8389	OG	SER A 175	-7.405	-4.015	21.710	1.00	50.96		O
ATOM	8391	C	SER A 175	-10.098	-4.078	19.107	1.00	51.93		C
ATOM	8392	O	SER A 175	-10.425	-2.886	19.168	1.00	50.08		O
ATOM	8394	N	THR A 176	-10.568	-4.920	18.185	1.00	52.18		N
ATOM	8395	CA	THR A 176	-11.485	-4.490	17.120	1.00	52.77		C
ATOM	8397	CB	THR A 176	-10.864	-4.662	15.714	1.00	52.54		C
ATOM	8399	OG1	THR A 176	-10.547	-6.042	15.491	1.00	54.57		O
ATOM	8401	CG2	THR A 176	-9.608	-3.816	15.559	1.00	53.68		C
ATOM	8405	C	THR A 176	-12.802	-5.258	17.144	1.00	52.28		C
ATOM	8406	O	THR A 176	-12.895	-6.338	17.718	1.00	52.14		O
ATOM	8408	N	TYR A 177	-13.809	-4.679	16.497	1.00	52.77		N
ATOM	8409	CA	TYR A 177	-15.143	-5.267	16.413	1.00	53.30		C
ATOM	8411	CB	TYR A 177	-16.212	-4.228	16.792	1.00	53.44		C
ATOM	8414	CG	TYR A 177	-16.077	-3.644	18.190	1.00	52.52		C
ATOM	8415	CD1	TYR A 177	-16.263	-4.434	19.317	1.00	51.79		C
ATOM	8417	CE1	TYR A 177	-16.146	-3.901	20.592	1.00	52.84		C
ATOM	8419	CZ	TYR A 177	-15.855	-2.561	20.751	1.00	52.74		C
ATOM	8420	OH	TYR A 177	-15.740	-2.029	22.010	1.00	51.71		O
ATOM	8422	CE2	TYR A 177	-15.680	-1.752	19.651	1.00	53.28		C
ATOM	8424	CD2	TYR A 177	-15.795	-2.293	18.378	1.00	53.10		C
ATOM	8426	C	TYR A 177	-15.425	-5.785	14.998	1.00	53.07		C
ATOM	8427	O	TYR A 177	-14.957	-5.211	14.018	1.00	52.16		O
ATOM	8429	N	SER A 178	-16.180	-6.880	14.912	1.00	53.72		N
ATOM	8430	CA	SER A 178	-16.719	-7.389	13.648	1.00	53.81		C
ATOM	8432	CB	SER A 178	-16.131	-8.761	13.302	1.00	53.62		C
ATOM	8435	OG	SER A 178	-14.794	-8.646	12.846	1.00	52.54		O
ATOM	8437	C	SER A 178	-18.234	-7.487	13.778	1.00	54.33		C
ATOM	8438	O	SER A 178	-18.761	-7.673	14.876	1.00	54.29		O
ATOM	8440	N	LEU A 179	-18.928	-7.372	12.652	1.00	54.92		N
ATOM	8441	CA	LEU A 179	-20.377	-7.195	12.657	1.00	55.07		C
ATOM	8443	CB	LEU A 179	-20.692	-5.692	12.767	1.00	55.89		C
ATOM	8446	CG	LEU A 179	-22.136	-5.172	12.675	1.00	54.50		C
ATOM	8448	CD1	LEU A 179	-22.265	-3.878	13.485	1.00	53.09		C
ATOM	8452	CD2	LEU A 179	-22.590	-4.957	11.224	1.00	52.26		C
ATOM	8456	C	LEU A 179	-21.017	-7.792	11.400	1.00	55.70		C
ATOM	8457	O	LEU A 179	-20.570	-7.521	10.277	1.00	56.43		O
ATOM	8459	N	SER A 180	-22.062	-8.596	11.596	1.00	55.16		N
ATOM	8460	CA	SER A 180	-22.848	-9.144	10.485	1.00	54.15		C
ATOM	8462	CB	SER A 180	-22.985	-10.668	10.614	1.00	54.76		C
ATOM	8465	OG	SER A 180	-23.683	-11.046	11.797	1.00	53.36		O
ATOM	8467	C	SER A 180	-24.234	-8.504	10.442	1.00	53.39		C
ATOM	8468	O	SER A 180	-24.947	-8.505	11.439	1.00	53.06		O
ATOM	8470	N	SER A 181	-24.592	-7.938	9.293	1.00	53.50		N
ATOM	8471	CA	SER A 181	-25.956	-7.467	9.040	1.00	52.75		C
ATOM	8473	CB	SER A 181	-25.960	-6.000	8.621	1.00	52.81		C
ATOM	8476	OG	SER A 181	-27.293	-5.552	8.453	1.00	52.98		O
ATOM	8478	C	SER A 181	-26.581	-8.325	7.943	1.00	51.46		C
ATOM	8479	O	SER A 181	-26.160	-8.258	6.788	1.00	50.02		O
ATOM	8481	N	THR A 182	-27.585	-9.118	8.317	1.00	50.26		N
ATOM	8482	CA	THR A 182	-28.130	-10.183	7.471	1.00	49.62		C
ATOM	8484	CB	THR A 182	-28.230	-11.499	8.285	1.00	49.53		C

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ATOM   8486  OG1 THR A 182     -26.922 -11.879   8.732  1.00 48.74           O
ATOM   8488  CG2 THR A 182     -28.835 -12.636   7.463  1.00 49.54           C
ATOM   8492  C   THR A 182     -29.496  -9.818   6.895  1.00 47.65           C
ATOM   8493  O   THR A 182     -30.334  -9.249   7.584  1.00 45.40           O
ATOM   8495  N   GLU B   2     -10.619 -25.043  44.227  1.00 57.08           N
ATOM   8496  CA  GLU B   2     -10.247 -25.315  42.812  1.00 58.19           C
ATOM   8498  CB  GLU B   2      -9.263 -26.489  42.721  1.00 58.76           C
ATOM   8501  CG  GLU B   2      -7.890 -26.169  43.263  1.00 61.44           C
ATOM   8504  CD  GLU B   2      -6.782 -26.549  42.304  1.00 65.00           C
ATOM   8505  OE1 GLU B   2      -6.864 -26.192  41.106  1.00 62.53           O
ATOM   8506  OE2 GLU B   2      -5.816 -27.197  42.749  1.00 69.73           O
ATOM   8507  C   GLU B   2     -11.445 -25.567  41.894  1.00 58.94           C
ATOM   8508  O   GLU B   2     -11.996 -24.629  41.316  1.00 62.34           O
ATOM   8512  N   GLN B   3     -11.857 -26.829  41.792  1.00 57.51           N
ATOM   8513  CA  GLN B   3     -12.697 -27.301  40.695  1.00 56.95           C
ATOM   8515  CB  GLN B   3     -12.164 -28.657  40.217  1.00 59.45           C
ATOM   8518  CG  GLN B   3     -11.163 -28.600  39.065  1.00 62.13           C
ATOM   8521  CD  GLN B   3     -11.856 -28.624  37.717  1.00 65.49           C
ATOM   8522  OE1 GLN B   3     -11.426 -29.315  36.799  1.00 65.20           O
ATOM   8523  NE2 GLN B   3     -12.956 -27.884  37.603  1.00 68.30           N
ATOM   8526  C   GLN B   3     -14.169 -27.462  41.073  1.00 56.52           C
ATOM   8527  O   GLN B   3     -14.493 -28.179  42.024  1.00 57.38           O
ATOM   8529  N   LEU B   4     -15.049 -26.787  40.332  1.00 55.34           N
ATOM   8530  CA  LEU B   4     -16.489 -27.070  40.366  1.00 54.52           C
ATOM   8532  CB  LEU B   4     -17.298 -25.874  40.847  1.00 53.96           C
ATOM   8535  CG  LEU B   4     -17.243 -25.570  42.343  1.00 55.82           C
ATOM   8537  CD1 LEU B   4     -17.456 -24.082  42.582  1.00 57.87           C
ATOM   8541  CD2 LEU B   4     -18.255 -26.389  43.121  1.00 55.41           C
ATOM   8545  C   LEU B   4     -16.932 -27.430  38.965  1.00 54.14           C
ATOM   8546  O   LEU B   4     -17.100 -26.561  38.109  1.00 51.87           O
ATOM   8548  N   VAL B   5     -17.082 -28.725  38.721  1.00 54.92           N
ATOM   8549  CA  VAL B   5     -17.660 -29.186  37.475  1.00 55.15           C
ATOM   8551  CB  VAL B   5     -16.917 -30.432  36.881  1.00 54.37           C
ATOM   8553  CG1 VAL B   5     -17.087 -31.674  37.735  1.00 54.00           C
ATOM   8557  CG2 VAL B   5     -17.388 -30.706  35.461  1.00 54.09           C
ATOM   8561  C   VAL B   5     -19.146 -29.400  37.756  1.00 55.56           C
ATOM   8562  O   VAL B   5     -19.533 -29.729  38.877  1.00 56.25           O
ATOM   8564  N   GLU B   6     -19.960 -29.210  36.725  1.00 56.11           N
ATOM   8565  CA  GLU B   6     -21.390 -28.975  36.863  1.00 56.43           C
ATOM   8567  CB  GLU B   6     -21.649 -27.482  36.654  1.00 57.11           C
ATOM   8570  CG  GLU B   6     -22.951 -26.943  37.183  1.00 57.87           C
ATOM   8573  CD  GLU B   6     -23.194 -25.525  36.691  1.00 61.03           C
ATOM   8574  OE1 GLU B   6     -22.325 -24.652  36.915  1.00 64.83           O
ATOM   8575  OE2 GLU B   6     -24.244 -25.291  36.059  1.00 67.42           O
ATOM   8576  C   GLU B   6     -22.107 -29.799  35.798  1.00 55.21           C
ATOM   8577  O   GLU B   6     -21.562 -30.010  34.716  1.00 54.09           O
ATOM   8579  N   SER B   7     -23.318 -30.259  36.098  1.00 55.29           N
ATOM   8580  CA  SER B   7     -24.021 -31.203  35.218  1.00 55.46           C
ATOM   8582  CB  SER B   7     -23.842 -32.643  35.722  1.00 54.36           C
ATOM   8585  OG  SER B   7     -22.474 -32.978  35.905  1.00 51.02           O
ATOM   8587  C   SER B   7     -25.507 -30.891  35.125  1.00 56.51           C
ATOM   8588  O   SER B   7     -26.108 -30.385  36.083  1.00 57.60           O
ATOM   8590  N   GLY B   8     -26.092 -31.196  33.970  1.00 56.40           N
ATOM   8591  CA  GLY B   8     -27.522 -30.986  33.728  1.00 56.69           C
ATOM   8594  C   GLY B   8     -27.799 -29.744  32.903  1.00 57.21           C
ATOM   8595  O   GLY B   8     -26.883 -28.991  32.568  1.00 58.60           O
ATOM   8597  N   GLY B   9     -29.067 -29.539  32.560  1.00 57.00           N
ATOM   8598  CA  GLY B   9     -29.489 -28.322  31.870  1.00 56.00           C
ATOM   8601  C   GLY B   9     -30.020 -28.553  30.474  1.00 54.36           C
ATOM   8602  O   GLY B   9     -29.999 -29.669  29.965  1.00 53.60           O
ATOM   8604  N   GLY B  10     -30.494 -27.473  29.863  1.00 53.60           N
ATOM   8605  CA  GLY B  10     -31.076 -27.513  28.532  1.00 52.66           C
ATOM   8608  C   GLY B  10     -32.545 -27.157  28.551  1.00 52.35           C
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ATOM	8609	O	GLY	B	10	-33.019	-26.454	29.451	1.00	52.72	O
ATOM	8611	N	LEU	B	11	-33.268	-27.676	27.561	1.00	52.28	N
ATOM	8612	CA	LEU	B	11	-34.657	-27.285	27.281	1.00	51.37	C
ATOM	8614	CB	LEU	B	11	-34.945	-27.495	25.788	1.00	50.49	C
ATOM	8617	CG	LEU	B	11	-36.305	-27.092	25.221	1.00	50.40	C
ATOM	8619	CD1	LEU	B	11	-36.770	-25.732	25.714	1.00	50.55	C
ATOM	8623	CD2	LEU	B	11	-36.229	-27.104	23.713	1.00	49.33	C
ATOM	8627	C	LEU	B	11	-35.689	-28.041	28.129	1.00	50.09	C
ATOM	8628	O	LEU	B	11	-35.608	-29.258	28.279	1.00	48.56	O
ATOM	8630	N	VAL	B	12	-36.643	-27.304	28.696	1.00	51.19	N
ATOM	8631	CA	VAL	B	12	-37.828	-27.895	29.354	1.00	52.09	C
ATOM	8633	CB	VAL	B	12	-37.734	-27.909	30.890	1.00	51.33	C
ATOM	8635	CG1	VAL	B	12	-36.587	-28.792	31.361	1.00	55.61	C
ATOM	8639	CG2	VAL	B	12	-37.589	-26.499	31.417	1.00	54.73	C
ATOM	8643	C	VAL	B	12	-39.084	-27.106	29.028	1.00	51.94	C
ATOM	8644	O	VAL	B	12	-39.020	-25.921	28.711	1.00	54.02	O
ATOM	8646	N	LYS	B	13	-40.228	-27.764	29.135	1.00	51.40	N
ATOM	8647	CA	LYS	B	13	-41.496	-27.076	29.018	1.00	51.60	C
ATOM	8649	CB	LYS	B	13	-42.591	-28.079	28.666	1.00	52.55	C
ATOM	8652	CG	LYS	B	13	-42.497	-28.541	27.218	1.00	51.71	C
ATOM	8655	CD	LYS	B	13	-43.403	-29.713	26.932	1.00	53.42	C
ATOM	8658	CE	LYS	B	13	-44.022	-29.609	25.535	1.00	57.86	C
ATOM	8661	NZ	LYS	B	13	-43.026	-29.251	24.488	1.00	60.17	N
ATOM	8665	C	LYS	B	13	-41.819	-26.296	30.310	1.00	51.77	C
ATOM	8666	O	LYS	B	13	-41.368	-26.677	31.404	1.00	50.24	O
ATOM	8668	N	PRO	B	14	-42.560	-25.174	30.180	1.00	51.25	N
ATOM	8669	CA	PRO	B	14	-43.053	-24.450	31.345	1.00	50.84	C
ATOM	8671	CB	PRO	B	14	-43.947	-23.368	30.739	1.00	50.58	C
ATOM	8674	CG	PRO	B	14	-43.419	-23.163	29.392	1.00	51.33	C
ATOM	8677	CD	PRO	B	14	-42.959	-24.509	28.930	1.00	51.92	C
ATOM	8680	C	PRO	B	14	-43.876	-25.361	32.230	1.00	50.15	C
ATOM	8681	O	PRO	B	14	-44.657	-26.166	31.722	1.00	48.51	O
ATOM	8682	N	GLY	B	15	-43.680	-25.245	33.539	1.00	49.84	N
ATOM	8683	CA	GLY	B	15	-44.306	-26.149	34.496	1.00	50.35	C
ATOM	8686	C	GLY	B	15	-43.468	-27.389	34.719	1.00	50.13	C
ATOM	8687	O	GLY	B	15	-43.669	-28.109	35.693	1.00	49.66	O
ATOM	8689	N	GLY	B	16	-42.513	-27.628	33.824	1.00	51.34	N
ATOM	8690	CA	GLY	B	16	-41.660	-28.798	33.892	1.00	51.56	C
ATOM	8693	C	GLY	B	16	-40.668	-28.748	35.033	1.00	51.79	C
ATOM	8694	O	GLY	B	16	-40.675	-27.832	35.860	1.00	50.14	O
ATOM	8696	N	SER	B	17	-39.800	-29.749	35.056	1.00	53.70	N
ATOM	8697	CA	SER	B	17	-38.873	-29.950	36.152	1.00	54.04	C
ATOM	8699	CB	SER	B	17	-39.341	-31.118	37.016	1.00	53.95	C
ATOM	8702	OG	SER	B	17	-39.022	-30.879	38.371	1.00	57.07	O
ATOM	8704	C	SER	B	17	-37.479	-30.228	35.628	1.00	54.29	C
ATOM	8705	O	SER	B	17	-37.301	-30.568	34.457	1.00	54.05	O
ATOM	8707	N	LEU	B	18	-36.497	-30.088	36.514	1.00	56.13	N
ATOM	8708	CA	LEU	B	18	-35.094	-30.239	36.147	1.00	55.96	C
ATOM	8710	CB	LEU	B	18	-34.684	-29.083	35.248	1.00	55.43	C
ATOM	8713	CG	LEU	B	18	-33.469	-29.297	34.377	1.00	57.88	C
ATOM	8715	CD1	LEU	B	18	-33.559	-30.610	33.593	1.00	62.27	C
ATOM	8719	CD2	LEU	B	18	-33.357	-28.112	33.446	1.00	59.37	C
ATOM	8723	C	LEU	B	18	-34.186	-30.257	37.372	1.00	56.02	C
ATOM	8724	O	LEU	B	18	-34.433	-29.546	38.358	1.00	56.21	O
ATOM	8726	N	ARG	B	19	-33.131	-31.061	37.310	1.00	55.91	N
ATOM	8727	CA	ARG	B	19	-32.171	-31.131	38.404	1.00	56.28	C
ATOM	8729	CB	ARG	B	19	-32.180	-32.513	39.056	1.00	56.33	C
ATOM	8732	CG	ARG	B	19	-31.287	-32.611	40.286	1.00	57.91	C
ATOM	8735	CD	ARG	B	19	-31.716	-33.730	41.210	1.00	60.36	C
ATOM	8738	NE	ARG	B	19	-30.588	-34.523	41.690	1.00	66.71	N
ATOM	8740	CZ	ARG	B	19	-29.875	-35.367	40.938	1.00	68.93	C
ATOM	8741	NH1	ARG	B	19	-30.131	-35.517	39.646	1.00	71.03	N
ATOM	8744	NH2	ARG	B	19	-28.880	-36.060	41.474	1.00	67.69	N

ATOM	8747	C	ARG	B	19	-30.772	-30.776	37.921	1.00	55.07	C
ATOM	8748	O	ARG	B	19	-30.311	-31.277	36.898	1.00	55.74	O
ATOM	8750	N	LEU	B	20	-30.124	-29.880	38.659	1.00	54.38	N
ATOM	8751	CA	LEU	B	20	-28.742	-29.520	38.430	1.00	55.17	C
ATOM	8753	CB	LEU	B	20	-28.600	-28.003	38.338	1.00	55.06	C
ATOM	8756	CG	LEU	B	20	-29.485	-27.251	37.349	1.00	53.99	C
ATOM	8758	CD1	LEU	B	20	-29.205	-25.762	37.431	1.00	59.86	C
ATOM	8762	CD2	LEU	B	20	-29.234	-27.724	35.955	1.00	57.03	C
ATOM	8766	C	LEU	B	20	-27.898	-30.045	39.589	1.00	55.45	C
ATOM	8767	O	LEU	B	20	-28.297	-29.971	40.750	1.00	56.96	O
ATOM	8769	N	SER	B	21	-26.736	-30.589	39.268	1.00	56.77	N
ATOM	8770	CA	SER	B	21	-25.786	-31.031	40.280	1.00	57.56	C
ATOM	8772	CB	SER	B	21	-25.630	-32.559	40.261	1.00	58.44	C
ATOM	8775	OG	SER	B	21	-25.331	-33.044	38.964	1.00	61.05	O
ATOM	8777	C	SER	B	21	-24.470	-30.330	40.000	1.00	58.45	C
ATOM	8778	O	SER	B	21	-24.350	-29.591	39.022	1.00	59.84	O
ATOM	8780	N	CYS	B	22	-23.486	-30.556	40.860	1.00	59.72	N
ATOM	8781	CA	CYS	B	22	-22.234	-29.823	40.790	1.00	57.37	C
ATOM	8783	CB	CYS	B	22	-22.471	-28.404	41.314	1.00	59.22	C
ATOM	8786	SG	CYS	B	22	-21.015	-27.363	41.431	1.00	66.17	S
ATOM	8788	C	CYS	B	22	-21.172	-30.549	41.606	1.00	55.34	C
ATOM	8789	O	CYS	B	22	-21.183	-30.503	42.826	1.00	54.96	O
ATOM	8791	N	ALA	B	23	-20.269	-31.245	40.927	1.00	54.59	N
ATOM	8792	CA	ALA	B	23	-19.203	-31.985	41.605	1.00	53.62	C
ATOM	8794	CB	ALA	B	23	-18.717	-33.133	40.725	1.00	53.08	C
ATOM	8798	C	ALA	B	23	-18.040	-31.062	41.979	1.00	51.29	C
ATOM	8799	O	ALA	B	23	-17.522	-30.341	41.127	1.00	49.95	O
ATOM	8801	N	ALA	B	24	-17.637	-31.099	43.249	1.00	50.12	N
ATOM	8802	CA	ALA	B	24	-16.557	-30.248	43.769	1.00	51.29	C
ATOM	8804	CB	ALA	B	24	-17.019	-29.529	45.015	1.00	50.63	C
ATOM	8808	C	ALA	B	24	-15.278	-31.031	44.076	1.00	51.65	C
ATOM	8809	O	ALA	B	24	-15.298	-32.250	44.275	1.00	52.72	O
ATOM	8811	N	SER	B	25	-14.161	-30.322	44.125	1.00	51.28	N
ATOM	8812	CA	SER	B	25	-12.893	-30.948	44.491	1.00	51.56	C
ATOM	8814	CB	SER	B	25	-12.464	-31.936	43.426	1.00	51.06	C
ATOM	8817	OG	SER	B	25	-12.485	-31.294	42.169	1.00	54.28	O
ATOM	8819	C	SER	B	25	-11.800	-29.910	44.650	1.00	51.41	C
ATOM	8820	O	SER	B	25	-11.938	-28.767	44.197	1.00	50.73	O
ATOM	8822	N	GLY	B	26	-10.710	-30.327	45.284	1.00	50.89	N
ATOM	8823	CA	GLY	B	26	-9.582	-29.446	45.538	1.00	51.21	C
ATOM	8826	C	GLY	B	26	-9.792	-28.487	46.696	1.00	51.63	C
ATOM	8827	O	GLY	B	26	-9.025	-27.543	46.850	1.00	54.29	O
ATOM	8829	N	PHE	B	27	-10.822	-28.712	47.510	1.00	51.25	N
ATOM	8830	CA	PHE	B	27	-11.032	-27.918	48.732	1.00	50.85	C
ATOM	8832	CB	PHE	B	27	-11.564	-26.505	48.420	1.00	50.94	C
ATOM	8835	CG	PHE	B	27	-12.918	-26.490	47.771	1.00	49.96	C
ATOM	8836	CD1	PHE	B	27	-13.042	-26.584	46.395	1.00	50.30	C
ATOM	8838	CE1	PHE	B	27	-14.275	-26.584	45.791	1.00	49.66	C
ATOM	8840	CZ	PHE	B	27	-15.421	-26.480	46.562	1.00	52.41	C
ATOM	8842	CE2	PHE	B	27	-15.313	-26.384	47.937	1.00	52.69	C
ATOM	8844	CD2	PHE	B	27	-14.062	-26.386	48.534	1.00	52.95	C
ATOM	8846	C	PHE	B	27	-11.964	-28.625	49.711	1.00	50.71	C
ATOM	8847	O	PHE	B	27	-12.604	-29.626	49.383	1.00	49.79	O
ATOM	8849	N	SER	B	28	-12.037	-28.093	50.921	1.00	51.23	N
ATOM	8850	CA	SER	B	28	-12.810	-28.732	51.963	1.00	51.26	C
ATOM	8852	CB	SER	B	28	-12.317	-28.294	53.343	1.00	51.82	C
ATOM	8855	OG	SER	B	28	-12.676	-29.267	54.315	1.00	56.76	O
ATOM	8857	C	SER	B	28	-14.295	-28.421	51.766	1.00	51.01	C
ATOM	8858	O	SER	B	28	-14.767	-27.321	52.085	1.00	50.89	O
ATOM	8860	N	PHE	B	29	-15.020	-29.401	51.232	1.00	49.80	N
ATOM	8861	CA	PHE	B	29	-16.424	-29.226	50.894	1.00	50.56	C
ATOM	8863	CB	PHE	B	29	-16.922	-30.445	50.129	1.00	48.59	C
ATOM	8866	CG	PHE	B	29	-18.296	-30.281	49.564	1.00	48.64	C

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ATOM   8867  CD1 PHE B  29     -18.499 -29.536  48.408  1.00 48.66           C
ATOM   8869  CE1 PHE B  29     -19.767 -29.381  47.881  1.00 45.83           C
ATOM   8871  CZ  PHE B  29     -20.841 -29.976  48.510  1.00 48.48           C
ATOM   8873  CE2 PHE B  29     -20.644 -30.732  49.657  1.00 46.72           C
ATOM   8875  CD2 PHE B  29     -19.384 -30.876  50.178  1.00 45.58           C
ATOM   8877  C   PHE B  29     -17.270 -29.001  52.145  1.00 50.93           C
ATOM   8878  O   PHE B  29     -18.035 -28.036  52.227  1.00 51.03           O
ATOM   8880  N   SER B  30     -17.111 -29.896  53.113  1.00 52.75           N
ATOM   8881  CA  SER B  30     -17.761 -29.786  54.420  1.00 54.67           C
ATOM   8883  CB  SER B  30     -17.106 -30.743  55.416  1.00 54.82           C
ATOM   8886  OG  SER B  30     -16.120 -31.537  54.777  1.00 62.14           O
ATOM   8888  C   SER B  30     -17.679 -28.375  55.009  1.00 56.32           C
ATOM   8889  O   SER B  30     -18.636 -27.918  55.635  1.00 58.67           O
ATOM   8891  N   ASP B  31     -16.537 -27.705  54.815  1.00 55.95           N
ATOM   8892  CA  ASP B  31     -16.261 -26.399  55.437  1.00 56.09           C
ATOM   8894  CB  ASP B  31     -14.766 -26.260  55.691  1.00 55.87           C
ATOM   8897  CG  ASP B  31     -14.270 -27.238  56.715  1.00 56.33           C
ATOM   8898  OD1 ASP B  31     -14.667 -27.110  57.883  1.00 60.60           O
ATOM   8899  OD2 ASP B  31     -13.483 -28.136  56.368  1.00 57.54           O
ATOM   8900  C   ASP B  31     -16.752 -25.194  54.629  1.00 56.83           C
ATOM   8901  O   ASP B  31     -16.520 -24.037  55.019  1.00 54.50           O
ATOM   8903  N   CYS B  32     -17.449 -25.471  53.527  1.00 56.79           N
ATOM   8904  CA  CYS B  32     -17.879 -24.441  52.606  1.00 57.15           C
ATOM   8906  CB  CYS B  32     -17.375 -24.770  51.212  1.00 56.78           C
ATOM   8909  SG  CYS B  32     -15.670 -24.337  51.018  1.00 62.87           S
ATOM   8911  C   CYS B  32     -19.379 -24.302  52.558  1.00 57.47           C
ATOM   8912  O   CYS B  32     -20.100 -25.295  52.661  1.00 57.32           O
ATOM   8914  N   ARG B  33     -19.837 -23.059  52.419  1.00 58.33           N
ATOM   8915  CA  ARG B  33     -21.210 -22.776  52.020  1.00 59.05           C
ATOM   8917  CB  ARG B  33     -21.611 -21.320  52.318  1.00 59.99           C
ATOM   8920  CG  ARG B  33     -21.955 -21.018  53.781  1.00 61.46           C
ATOM   8923  CD  ARG B  33     -22.959 -19.840  53.914  1.00 63.66           C
ATOM   8926  NE  ARG B  33     -23.243 -19.502  55.316  1.00 65.64           N
ATOM   8928  CZ  ARG B  33     -22.510 -18.677  56.073  1.00 66.84           C
ATOM   8929  NH1 ARG B  33     -21.434 -18.058  55.592  1.00 70.69           N
ATOM   8932  NH2 ARG B  33     -22.854 -18.466  57.332  1.00 66.86           N
ATOM   8935  C   ARG B  33     -21.235 -23.015  50.529  1.00 58.50           C
ATOM   8936  O   ARG B  33     -20.234 -22.734  49.853  1.00 59.17           O
ATOM   8938  N   MET B  34     -22.349 -23.554  50.023  1.00 57.59           N
ATOM   8939  CA  MET B  34     -22.551 -23.730  48.575  1.00 57.08           C
ATOM   8941  CB  MET B  34     -22.892 -25.185  48.246  1.00 56.43           C
ATOM   8944  CG  MET B  34     -21.795 -26.188  48.589  1.00 59.03           C
ATOM   8947  SD  MET B  34     -20.187 -25.877  47.796  1.00 55.54           S
ATOM   8948  CE  MET B  34     -20.597 -26.020  46.063  1.00 58.54           C
ATOM   8952  C   MET B  34     -23.667 -22.804  48.108  1.00 56.49           C
ATOM   8953  O   MET B  34     -24.628 -22.581  48.850  1.00 57.23           O
ATOM   8955  N   TYR B  35     -23.535 -22.266  46.892  1.00 55.09           N
ATOM   8956  CA  TYR B  35     -24.489 -21.283  46.355  1.00 55.50           C
ATOM   8958  CB  TYR B  35     -23.839 -19.904  46.252  1.00 56.01           C
ATOM   8961  CG  TYR B  35     -23.056 -19.483  47.468  1.00 56.77           C
ATOM   8962  CD1 TYR B  35     -23.701 -18.927  48.564  1.00 55.10           C
ATOM   8964  CE1 TYR B  35     -23.006 -18.536  49.686  1.00 52.25           C
ATOM   8966  CZ  TYR B  35     -21.652 -18.685  49.719  1.00 54.90           C
ATOM   8967  OH  TYR B  35     -20.987 -18.280  50.842  1.00 57.35           O
ATOM   8969  CE2 TYR B  35     -20.972 -19.232  48.642  1.00 57.56           C
ATOM   8971  CD2 TYR B  35     -21.678 -19.629  47.522  1.00 55.05           C
ATOM   8973  C   TYR B  35     -24.941 -21.656  44.964  1.00 54.79           C
ATOM   8974  O   TYR B  35     -24.202 -22.305  44.248  1.00 56.20           O
ATOM   8976  N   TRP B  36     -26.141 -21.232  44.574  1.00 54.86           N
ATOM   8977  CA  TRP B  36     -26.541 -21.236  43.160  1.00 54.98           C
ATOM   8979  CB  TRP B  36     -27.751 -22.131  42.898  1.00 54.48           C
ATOM   8982  CG  TRP B  36     -27.408 -23.582  42.976  1.00 55.86           C
ATOM   8983  CD1 TRP B  36     -27.541 -24.395  44.064  1.00 54.37           C
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ATOM	8985	NE1	TRP	B	36	-27.105	-25.662	43.761	1.00	56.03	N
ATOM	8987	CE2	TRP	B	36	-26.673	-25.689	42.460	1.00	57.33	C
ATOM	8988	CD2	TRP	B	36	-26.846	-24.396	41.932	1.00	56.78	C
ATOM	8989	CE3	TRP	B	36	-26.486	-24.158	40.599	1.00	56.68	C
ATOM	8991	CZ3	TRP	B	36	-25.970	-25.208	39.843	1.00	54.32	C
ATOM	8993	CH2	TRP	B	36	-25.807	-26.481	40.398	1.00	55.83	C
ATOM	8995	CZ2	TRP	B	36	-26.155	-26.744	41.700	1.00	57.22	C
ATOM	8997	C	TRP	B	36	-26.827	-19.806	42.714	1.00	55.54	C
ATOM	8998	O	TRP	B	36	-27.441	-19.026	43.441	1.00	55.81	O
ATOM	9000	N	LEU	B	37	-26.344	-19.464	41.523	1.00	55.47	N
ATOM	9001	CA	LEU	B	37	-26.583	-18.159	40.935	1.00	54.90	C
ATOM	9003	CB	LEU	B	37	-25.330	-17.290	41.024	1.00	55.21	C
ATOM	9006	CG	LEU	B	37	-24.711	-17.145	42.408	1.00	54.85	C
ATOM	9008	CD1	LEU	B	37	-23.591	-18.143	42.567	1.00	54.81	C
ATOM	9012	CD2	LEU	B	37	-24.186	-15.745	42.607	1.00	55.66	C
ATOM	9016	C	LEU	B	37	-26.967	-18.341	39.484	1.00	53.45	C
ATOM	9017	O	LEU	B	37	-26.745	-19.405	38.912	1.00	53.70	O
ATOM	9019	N	ARG	B	38	-27.539	-17.308	38.884	1.00	51.89	N
ATOM	9020	CA	ARG	B	38	-27.839	-17.386	37.474	1.00	53.70	C
ATOM	9022	CB	ARG	B	38	-29.251	-17.929	37.253	1.00	54.93	C
ATOM	9025	CG	ARG	B	38	-30.344	-16.976	37.662	1.00	54.15	C
ATOM	9028	CD	ARG	B	38	-31.695	-17.639	37.583	1.00	52.86	C
ATOM	9031	NE	ARG	B	38	-32.709	-16.776	38.171	1.00	55.65	N
ATOM	9033	CZ	ARG	B	38	-34.008	-17.040	38.179	1.00	52.73	C
ATOM	9034	NH1	ARG	B	38	-34.467	-18.163	37.654	1.00	56.57	N
ATOM	9037	NH2	ARG	B	38	-34.845	-16.184	38.737	1.00	50.56	N
ATOM	9040	C	ARG	B	38	-27.664	-16.056	36.769	1.00	53.95	C
ATOM	9041	O	ARG	B	38	-27.407	-15.024	37.404	1.00	52.49	O
ATOM	9043	N	GLN	B	39	-27.805	-16.115	35.444	1.00	53.23	N
ATOM	9044	CA	GLN	B	39	-27.607	-14.973	34.570	1.00	53.43	C
ATOM	9046	CB	GLN	B	39	-26.111	-14.763	34.335	1.00	52.16	C
ATOM	9049	CG	GLN	B	39	-25.794	-13.536	33.524	1.00	51.85	C
ATOM	9052	CD	GLN	B	39	-24.324	-13.418	33.196	1.00	52.08	C
ATOM	9053	OE1	GLN	B	39	-23.727	-14.341	32.626	1.00	50.41	O
ATOM	9054	NE2	GLN	B	39	-23.729	-12.271	33.539	1.00	40.20	N
ATOM	9057	C	GLN	B	39	-28.349	-15.181	33.237	1.00	52.91	C
ATOM	9058	O	GLN	B	39	-27.919	-15.955	32.384	1.00	50.90	O
ATOM	9060	N	ALA	B	40	-29.467	-14.479	33.081	1.00	53.76	N
ATOM	9061	CA	ALA	B	40	-30.296	-14.578	31.886	1.00	53.31	C
ATOM	9063	CB	ALA	B	40	-31.648	-13.975	32.141	1.00	54.55	C
ATOM	9067	C	ALA	B	40	-29.624	-13.845	30.748	1.00	53.53	C
ATOM	9068	O	ALA	B	40	-28.959	-12.840	30.987	1.00	54.11	O
ATOM	9070	N	PRO	B	41	-29.840	-14.308	29.501	1.00	53.44	N
ATOM	9071	CA	PRO	B	41	-29.039	-13.847	28.366	1.00	53.05	C
ATOM	9073	CB	PRO	B	41	-29.725	-14.505	27.163	1.00	52.72	C
ATOM	9076	CG	PRO	B	41	-30.438	-15.665	27.719	1.00	52.85	C
ATOM	9079	CD	PRO	B	41	-30.885	-15.257	29.074	1.00	52.51	C
ATOM	9082	C	PRO	B	41	-29.014	-12.324	28.215	1.00	52.17	C
ATOM	9083	O	PRO	B	41	-30.066	-11.689	28.111	1.00	50.43	O
ATOM	9084	N	GLY	B	42	-27.810	-11.758	28.234	1.00	52.35	N
ATOM	9085	CA	GLY	B	42	-27.619	-10.316	28.112	1.00	53.15	C
ATOM	9088	C	GLY	B	42	-27.682	-9.540	29.420	1.00	54.04	C
ATOM	9089	O	GLY	B	42	-27.270	-8.384	29.467	1.00	55.99	O
ATOM	9091	N	LYS	B	43	-28.191	-10.159	30.482	1.00	53.44	N
ATOM	9092	CA	LYS	B	43	-28.391	-9.473	31.752	1.00	53.87	C
ATOM	9094	CB	LYS	B	43	-29.770	-9.812	32.310	1.00	55.93	C
ATOM	9097	CG	LYS	B	43	-30.905	-9.683	31.306	1.00	57.94	C
ATOM	9100	CD	LYS	B	43	-30.919	-8.333	30.608	1.00	60.93	C
ATOM	9103	CE	LYS	B	43	-32.143	-8.187	29.724	1.00	61.33	C
ATOM	9106	NZ	LYS	B	43	-32.168	-9.225	28.660	1.00	63.96	N
ATOM	9110	C	LYS	B	43	-27.309	-9.851	32.762	1.00	53.65	C
ATOM	9111	O	LYS	B	43	-26.430	-10.645	32.462	1.00	54.42	O
ATOM	9113	N	GLY	B	44	-27.380	-9.276	33.958	1.00	52.36	N

ATOM	9114	CA	GLY	B	44	-26.357	-9.474	34.968	1.00 53.12	C
ATOM	9117	C	GLY	B	44	-26.629	-10.664	35.861	1.00 54.61	C
ATOM	9118	O	GLY	B	44	-27.464	-11.508	35.551	1.00 57.61	O
ATOM	9120	N	LEU	B	45	-25.932	-10.701	36.992	1.00 55.46	N
ATOM	9121	CA	LEU	B	45	-25.900	-11.853	37.885	1.00 54.85	C
ATOM	9123	CB	LEU	B	45	-24.515	-11.947	38.530	1.00 54.97	C
ATOM	9126	CG	LEU	B	45	-23.403	-12.727	37.833	1.00 54.76	C
ATOM	9128	CD1	LEU	B	45	-23.460	-12.538	36.350	1.00 60.04	C
ATOM	9132	CD2	LEU	B	45	-22.040	-12.316	38.390	1.00 55.62	C
ATOM	9136	C	LEU	B	45	-26.940	-11.742	39.002	1.00 56.15	C
ATOM	9137	O	LEU	B	45	-27.078	-10.691	39.634	1.00 56.57	O
ATOM	9139	N	GLU	B	46	-27.639	-12.843	39.265	1.00 55.98	N
ATOM	9140	CA	GLU	B	46	-28.593	-12.919	40.362	1.00 55.75	C
ATOM	9142	CB	GLU	B	46	-30.002	-13.171	39.810	1.00 55.04	C
ATOM	9145	CG	GLU	B	46	-31.140	-13.062	40.842	1.00 56.99	C
ATOM	9148	CD	GLU	B	46	-32.483	-13.590	40.324	1.00 59.02	C
ATOM	9149	OE1	GLU	B	46	-32.580	-13.917	39.121	1.00 62.34	O
ATOM	9150	OE2	GLU	B	46	-33.442	-13.671	41.119	1.00 60.17	O
ATOM	9151	C	GLU	B	46	-28.184	-14.059	41.300	1.00 56.63	C
ATOM	9152	O	GLU	B	46	-27.946	-15.190	40.848	1.00 58.14	O
ATOM	9154	N	TRP	B	47	-28.087	-13.759	42.597	1.00 54.97	N
ATOM	9155	CA	TRP	B	47	-27.993	-14.812	43.608	1.00 54.73	C
ATOM	9157	CB	TRP	B	47	-27.452	-14.298	44.947	1.00 53.01	C
ATOM	9160	CG	TRP	B	47	-27.611	-15.321	45.990	1.00 51.23	C
ATOM	9161	CD1	TRP	B	47	-26.851	-16.446	46.163	1.00 51.35	C
ATOM	9163	NE1	TRP	B	47	-27.335	-17.187	47.215	1.00 49.44	N
ATOM	9165	CE2	TRP	B	47	-28.437	-16.552	47.725	1.00 51.97	C
ATOM	9166	CD2	TRP	B	47	-28.643	-15.378	46.966	1.00 51.78	C
ATOM	9167	CE3	TRP	B	47	-29.723	-14.550	47.281	1.00 51.58	C
ATOM	9169	CZ3	TRP	B	47	-30.555	-14.915	48.320	1.00 51.38	C
ATOM	9171	CH2	TRP	B	47	-30.325	-16.083	49.059	1.00 49.92	C
ATOM	9173	CZ2	TRP	B	47	-29.276	-16.914	48.775	1.00 52.11	C
ATOM	9175	C	TRP	B	47	-29.385	-15.390	43.827	1.00 54.17	C
ATOM	9176	O	TRP	B	47	-30.326	-14.628	44.030	1.00 55.25	O
ATOM	9178	N	ILE	B	48	-29.504	-16.722	43.811	1.00 54.39	N
ATOM	9179	CA	ILE	B	48	-30.800	-17.393	43.988	1.00 53.47	C
ATOM	9181	CB	ILE	B	48	-31.279	-18.055	42.681	1.00 52.77	C
ATOM	9183	CG1	ILE	B	48	-30.381	-19.235	42.295	1.00 53.12	C
ATOM	9186	CD1	ILE	B	48	-30.981	-20.127	41.226	1.00 54.34	C
ATOM	9190	CG2	ILE	B	48	-31.332	-17.013	41.570	1.00 53.53	C
ATOM	9194	C	ILE	B	48	-30.891	-18.423	45.111	1.00 52.30	C
ATOM	9195	O	ILE	B	48	-31.997	-18.798	45.507	1.00 53.16	O
ATOM	9197	N	GLY	B	49	-29.768	-18.895	45.633	1.00 52.45	N
ATOM	9198	CA	GLY	B	49	-29.852	-19.812	46.763	1.00 53.11	C
ATOM	9201	C	GLY	B	49	-28.557	-20.165	47.446	1.00 52.97	C
ATOM	9202	O	GLY	B	49	-27.521	-20.253	46.802	1.00 54.06	O
ATOM	9204	N	VAL	B	50	-28.632	-20.403	48.754	1.00 53.18	N
ATOM	9205	CA	VAL	B	50	-27.471	-20.855	49.523	1.00 53.84	C
ATOM	9207	CB	VAL	B	50	-26.856	-19.717	50.363	1.00 53.71	C
ATOM	9209	CG1	VAL	B	50	-27.902	-19.066	51.260	1.00 55.07	C
ATOM	9213	CG2	VAL	B	50	-25.682	-20.236	51.203	1.00 52.34	C
ATOM	9217	C	VAL	B	50	-27.850	-21.991	50.459	1.00 55.14	C
ATOM	9218	O	VAL	B	50	-28.969	-22.016	50.971	1.00 56.13	O
ATOM	9220	N	ILE	B	51	-26.908	-22.919	50.666	1.00 55.41	N
ATOM	9221	CA	ILE	B	51	-27.008	-23.967	51.695	1.00 53.53	C
ATOM	9223	CB	ILE	B	51	-27.197	-25.352	51.072	1.00 52.94	C
ATOM	9225	CG1	ILE	B	51	-27.559	-26.383	52.146	1.00 53.13	C
ATOM	9228	CD1	ILE	B	51	-28.330	-27.584	51.604	1.00 52.90	C
ATOM	9232	CG2	ILE	B	51	-25.949	-25.784	50.309	1.00 54.26	C
ATOM	9236	C	ILE	B	51	-25.740	-23.971	52.552	1.00 54.39	C
ATOM	9237	O	ILE	B	51	-24.636	-23.956	52.015	1.00 57.35	O
ATOM	9239	N	SER	B	52	-25.899	-24.003	53.874	1.00 53.14	N
ATOM	9240	CA	SER	B	52	-24.781	-23.839	54.801	1.00 52.08	C

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ATOM   9242  CB  SER B  52     -25.221 -22.962  55.975  1.00 51.15           C
ATOM   9245  OG  SER B  52     -24.131 -22.645  56.820  1.00 50.26           O
ATOM   9247  C   SER B  52     -24.247 -25.192  55.305  1.00 53.46           C
ATOM   9248  O   SER B  52     -24.642 -26.256  54.819  1.00 54.16           O
ATOM   9250  N   VAL B  53     -23.357 -25.135  56.293  1.00 52.86           N
ATOM   9251  CA  VAL B  53     -22.594 -26.295  56.742  1.00 52.66           C
ATOM   9253  CB  VAL B  53     -21.214 -25.846  57.268  1.00 53.38           C
ATOM   9255  CG1 VAL B  53     -21.344 -24.855  58.444  1.00 54.96           C
ATOM   9259  CG2 VAL B  53     -20.422 -25.216  56.139  1.00 51.78           C
ATOM   9263  C   VAL B  53     -23.343 -27.137  57.783  1.00 54.05           C
ATOM   9264  O   VAL B  53     -24.492 -26.853  58.105  1.00 54.07           O
ATOM   9266  N   LYS B  54     -22.698 -28.186  58.288  1.00 54.87           N
ATOM   9267  CA  LYS B  54     -23.329 -29.084  59.262  1.00 54.71           C
ATOM   9269  CB  LYS B  54     -22.444 -30.307  59.510  1.00 54.04           C
ATOM   9272  CG  LYS B  54     -23.055 -31.376  60.395  1.00 55.17           C
ATOM   9275  CD  LYS B  54     -21.987 -32.332  60.885  1.00 56.41           C
ATOM   9278  CE  LYS B  54     -22.578 -33.563  61.554  1.00 57.98           C
ATOM   9281  NZ  LYS B  54     -21.517 -34.593  61.796  1.00 59.34           N
ATOM   9285  C   LYS B  54     -23.595 -28.385  60.587  1.00 53.88           C
ATOM   9286  O   LYS B  54     -24.588 -28.659  61.245  1.00 53.59           O
ATOM   9288  N   SER B  55     -22.699 -27.490  60.978  1.00 55.35           N
ATOM   9289  CA  SER B  55     -22.815 -26.779  62.255  1.00 56.38           C
ATOM   9291  CB  SER B  55     -21.518 -26.019  62.561  1.00 57.30           C
ATOM   9294  OG  SER B  55     -20.700 -25.901  61.402  1.00 61.19           O
ATOM   9296  C   SER B  55     -24.022 -25.839  62.296  1.00 56.69           C
ATOM   9297  O   SER B  55     -24.580 -25.602  63.358  1.00 56.87           O
ATOM   9299  N   GLU B  56     -24.418 -25.313  61.138  1.00 57.23           N
ATOM   9300  CA  GLU B  56     -25.676 -24.582  61.009  1.00 57.48           C
ATOM   9302  CB  GLU B  56     -25.498 -23.388  60.055  1.00 57.50           C
ATOM   9305  CG  GLU B  56     -24.838 -22.151  60.682  1.00 58.69           C
ATOM   9308  CD  GLU B  56     -25.187 -20.859  59.924  1.00 61.99           C
ATOM   9309  OE1 GLU B  56     -25.070 -20.837  58.682  1.00 60.54           O
ATOM   9310  OE2 GLU B  56     -25.583 -19.863  60.566  1.00 70.96           O
ATOM   9311  C   GLU B  56     -26.847 -25.484  60.539  1.00 56.68           C
ATOM   9312  O   GLU B  56     -27.827 -24.984  59.991  1.00 56.23           O
ATOM   9314  N   ASN B  57     -26.754 -26.797  60.769  1.00 56.37           N
ATOM   9315  CA  ASN B  57     -27.807 -27.757  60.386  1.00 56.82           C
ATOM   9317  CB  ASN B  57     -29.083 -27.556  61.237  1.00 57.35           C
ATOM   9320  CG  ASN B  57     -28.819 -27.574  62.739  1.00 55.98           C
ATOM   9321  OD1 ASN B  57     -28.299 -28.552  63.285  1.00 58.87           O
ATOM   9322  ND2 ASN B  57     -29.217 -26.505  63.419  1.00 49.56           N
ATOM   9325  C   ASN B  57     -28.190 -27.711  58.891  1.00 57.60           C
ATOM   9326  O   ASN B  57     -29.367 -27.807  58.532  1.00 57.42           O
ATOM   9328  N   TYR B  58     -27.198 -27.552  58.023  1.00 57.86           N
ATOM   9329  CA  TYR B  58     -27.428 -27.504  56.570  1.00 56.14           C
ATOM   9331  CB  TYR B  58     -27.682 -28.910  56.038  1.00 55.95           C
ATOM   9334  CG  TYR B  58     -26.587 -29.893  56.375  1.00 55.36           C
ATOM   9335  CD1 TYR B  58     -25.282 -29.670  55.960  1.00 55.28           C
ATOM   9337  CE1 TYR B  58     -24.276 -30.570  56.257  1.00 59.89           C
ATOM   9339  CZ  TYR B  58     -24.570 -31.719  56.982  1.00 60.17           C
ATOM   9340  OH  TYR B  58     -23.574 -32.620  57.288  1.00 56.52           O
ATOM   9342  CE2 TYR B  58     -25.863 -31.959  57.408  1.00 56.62           C
ATOM   9344  CD2 TYR B  58     -26.862 -31.050  57.101  1.00 55.43           C
ATOM   9346  C   TYR B  58     -28.573 -26.568  56.175  1.00 54.78           C
ATOM   9347  O   TYR B  58     -29.306 -26.817  55.209  1.00 54.62           O
ATOM   9349  N   GLY B  59     -28.710 -25.481  56.926  1.00 54.25           N
ATOM   9350  CA  GLY B  59     -29.779 -24.509  56.700  1.00 54.82           C
ATOM   9353  C   GLY B  59     -29.661 -23.869  55.334  1.00 53.54           C
ATOM   9354  O   GLY B  59     -28.552 -23.694  54.836  1.00 53.40           O
ATOM   9356  N   ALA B  60     -30.805 -23.529  54.738  1.00 53.00           N
ATOM   9357  CA  ALA B  60     -30.864 -22.996  53.373  1.00 52.32           C
ATOM   9359  CB  ALA B  60     -31.502 -24.016  52.448  1.00 51.71           C
ATOM   9363  C   ALA B  60     -31.644 -21.693  53.320  1.00 51.58           C
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ATOM	9364	O	ALA	B	60	-32.417	-21.382	54.220	1.00	53.08	O
ATOM	9366	N	ASN	B	61	-31.441	-20.931	52.256	1.00	51.85	N
ATOM	9367	CA	ASN	B	61	-32.195	-19.704	52.030	1.00	52.22	C
ATOM	9369	CB	ASN	B	61	-31.624	-18.552	52.873	1.00	52.98	C
ATOM	9372	CG	ASN	B	61	-32.717	-17.666	53.500	1.00	55.92	C
ATOM	9373	OD1	ASN	B	61	-32.621	-17.260	54.658	1.00	59.75	O
ATOM	9374	ND2	ASN	B	61	-33.747	-17.378	52.742	1.00	49.51	N
ATOM	9377	C	ASN	B	61	-32.155	-19.372	50.541	1.00	53.18	C
ATOM	9378	O	ASN	B	61	-31.187	-19.708	49.846	1.00	55.85	O
ATOM	9380	N	TYR	B	62	-33.207	-18.716	50.061	1.00	52.93	N
ATOM	9381	CA	TYR	B	62	-33.451	-18.542	48.634	1.00	52.14	C
ATOM	9383	CB	TYR	B	62	-34.603	-19.448	48.199	1.00	50.84	C
ATOM	9386	CG	TYR	B	62	-34.363	-20.911	48.494	1.00	49.79	C
ATOM	9387	CD1	TYR	B	62	-34.676	-21.454	49.733	1.00	42.10	C
ATOM	9389	CE1	TYR	B	62	-34.444	-22.775	50.009	1.00	44.59	C
ATOM	9391	CZ	TYR	B	62	-33.892	-23.591	49.034	1.00	49.21	C
ATOM	9392	OH	TYR	B	62	-33.662	-24.923	49.286	1.00	49.24	O
ATOM	9394	CE2	TYR	B	62	-33.571	-23.078	47.798	1.00	49.63	C
ATOM	9396	CD2	TYR	B	62	-33.807	-21.746	47.532	1.00	50.35	C
ATOM	9398	C	TYR	B	62	-33.822	-17.109	48.322	1.00	52.40	C
ATOM	9399	O	TYR	B	62	-34.206	-16.347	49.199	1.00	49.96	O
ATOM	9401	N	ALA	B	63	-33.686	-16.748	47.057	1.00	54.42	N
ATOM	9402	CA	ALA	B	63	-34.194	-15.482	46.568	1.00	54.68	C
ATOM	9404	CB	ALA	B	63	-33.541	-15.119	45.257	1.00	54.68	C
ATOM	9408	C	ALA	B	63	-35.682	-15.669	46.382	1.00	55.78	C
ATOM	9409	O	ALA	B	63	-36.134	-16.765	46.070	1.00	55.96	O
ATOM	9411	N	GLU	B	64	-36.438	-14.592	46.558	1.00	57.66	N
ATOM	9412	CA	GLU	B	64	-37.899	-14.659	46.523	1.00	56.77	C
ATOM	9414	CB	GLU	B	64	-38.514	-13.367	47.084	1.00	56.49	C
ATOM	9417	CG	GLU	B	64	-38.081	-12.997	48.511	1.00	54.77	C
ATOM	9420	CD	GLU	B	64	-38.364	-14.086	49.544	1.00	55.72	C
ATOM	9421	OE1	GLU	B	64	-39.184	-15.000	49.284	1.00	55.18	O
ATOM	9422	OE2	GLU	B	64	-37.742	-14.046	50.627	1.00	55.25	O
ATOM	9423	C	GLU	B	64	-38.475	-14.949	45.134	1.00	56.79	C
ATOM	9424	O	GLU	B	64	-39.633	-15.339	45.016	1.00	59.39	O
ATOM	9426	N	SER	B	65	-37.683	-14.775	44.083	1.00	56.67	N
ATOM	9427	CA	SER	B	65	-38.166	-15.095	42.740	1.00	56.33	C
ATOM	9429	CB	SER	B	65	-37.318	-14.388	41.674	1.00	55.40	C
ATOM	9432	OG	SER	B	65	-36.086	-15.050	41.467	1.00	52.67	O
ATOM	9434	C	SER	B	65	-38.163	-16.609	42.495	1.00	56.91	C
ATOM	9435	O	SER	B	65	-38.684	-17.078	41.489	1.00	59.57	O
ATOM	9437	N	VAL	B	66	-37.589	-17.365	43.422	1.00	55.11	N
ATOM	9438	CA	VAL	B	66	-37.310	-18.779	43.207	1.00	53.81	C
ATOM	9440	CB	VAL	B	66	-35.810	-18.913	42.895	1.00	54.11	C
ATOM	9442	CG1	VAL	B	66	-35.076	-19.720	43.946	1.00	58.69	C
ATOM	9446	CG2	VAL	B	66	-35.591	-19.450	41.503	1.00	53.52	C
ATOM	9450	C	VAL	B	66	-37.748	-19.701	44.372	1.00	52.72	C
ATOM	9451	O	VAL	B	66	-37.892	-20.910	44.190	1.00	50.48	O
ATOM	9453	N	ARG	B	67	-37.973	-19.117	45.549	1.00	52.58	N
ATOM	9454	CA	ARG	B	67	-38.397	-19.840	46.755	1.00	51.78	C
ATOM	9456	CB	ARG	B	67	-38.478	-18.861	47.935	1.00	50.98	C
ATOM	9459	CG	ARG	B	67	-38.942	-19.441	49.267	1.00	52.10	C
ATOM	9462	CD	ARG	B	67	-39.295	-18.353	50.288	1.00	53.07	C
ATOM	9465	NE	ARG	B	67	-38.205	-18.050	51.211	1.00	56.20	N
ATOM	9467	CZ	ARG	B	67	-37.204	-17.209	50.958	1.00	60.91	C
ATOM	9468	NH1	ARG	B	67	-37.121	-16.579	49.798	1.00	69.43	N
ATOM	9471	NH2	ARG	B	67	-36.264	-16.989	51.858	1.00	54.63	N
ATOM	9474	C	ARG	B	67	-39.740	-20.514	46.548	1.00	51.61	C
ATOM	9475	O	ARG	B	67	-40.662	-19.918	45.994	1.00	52.70	O
ATOM	9477	N	GLY	B	68	-39.838	-21.760	46.999	1.00	52.22	N
ATOM	9478	CA	GLY	B	68	-41.040	-22.571	46.817	1.00	51.72	C
ATOM	9481	C	GLY	B	68	-41.021	-23.390	45.541	1.00	52.26	C
ATOM	9482	O	GLY	B	68	-41.893	-24.240	45.340	1.00	55.36	O

ATOM	9484	N	ARG	B	69	-40.044	-23.142	44.671	1.00 51.46	N
ATOM	9485	CA	ARG	B	69	-39.971	-23.827	43.379	1.00 52.71	C
ATOM	9487	CB	ARG	B	69	-40.192	-22.832	42.241	1.00 53.50	C
ATOM	9490	CG	ARG	B	69	-41.606	-22.293	42.200	1.00 51.31	C
ATOM	9493	CD	ARG	B	69	-41.877	-21.449	40.975	1.00 52.31	C
ATOM	9496	NE	ARG	B	69	-40.846	-20.441	40.752	1.00 55.92	N
ATOM	9498	CZ	ARG	B	69	-40.002	-20.412	39.721	1.00 51.70	C
ATOM	9499	NH1	ARG	B	69	-40.047	-21.326	38.767	1.00 49.27	N
ATOM	9502	NH2	ARG	B	69	-39.119	-19.435	39.635	1.00 46.31	N
ATOM	9505	C	ARG	B	69	-38.648	-24.533	43.186	1.00 53.27	C
ATOM	9506	O	ARG	B	69	-38.609	-25.664	42.709	1.00 55.74	O
ATOM	9508	N	PHE	B	70	-37.565	-23.844	43.523	1.00 54.04	N
ATOM	9509	CA	PHE	B	70	-36.230	-24.410	43.467	1.00 54.35	C
ATOM	9511	CB	PHE	B	70	-35.240	-23.406	42.886	1.00 53.43	C
ATOM	9514	CG	PHE	B	70	-35.491	-23.036	41.441	1.00 55.01	C
ATOM	9515	CD1	PHE	B	70	-36.716	-23.262	40.817	1.00 52.51	C
ATOM	9517	CE1	PHE	B	70	-36.912	-22.898	39.497	1.00 52.41	C
ATOM	9519	CZ	PHE	B	70	-35.905	-22.289	38.788	1.00 49.52	C
ATOM	9521	CE2	PHE	B	70	-34.689	-22.046	39.391	1.00 53.29	C
ATOM	9523	CD2	PHE	B	70	-34.483	-22.417	40.706	1.00 55.29	C
ATOM	9525	C	PHE	B	70	-35.798	-24.759	44.883	1.00 55.98	C
ATOM	9526	O	PHE	B	70	-36.134	-24.040	45.843	1.00 57.10	O
ATOM	9528	N	THR	B	71	-35.046	-25.856	45.004	1.00 56.70	N
ATOM	9529	CA	THR	B	71	-34.500	-26.311	46.284	1.00 56.44	C
ATOM	9531	CB	THR	B	71	-35.271	-27.527	46.796	1.00 56.36	C
ATOM	9533	OG1	THR	B	71	-36.640	-27.166	47.016	1.00 57.34	O
ATOM	9535	CG2	THR	B	71	-34.660	-28.047	48.098	1.00 55.70	C
ATOM	9539	C	THR	B	71	-33.017	-26.688	46.165	1.00 57.57	C
ATOM	9540	O	THR	B	71	-32.606	-27.292	45.169	1.00 56.61	O
ATOM	9542	N	ILE	B	72	-32.229	-26.334	47.190	1.00 58.19	N
ATOM	9543	CA	ILE	B	72	-30.821	-26.747	47.287	1.00 57.13	C
ATOM	9545	CB	ILE	B	72	-29.888	-25.635	47.795	1.00 57.16	C
ATOM	9547	CG1	ILE	B	72	-30.201	-24.315	47.142	1.00 60.50	C
ATOM	9550	CD1	ILE	B	72	-29.264	-23.249	47.597	1.00 62.72	C
ATOM	9554	CG2	ILE	B	72	-28.412	-25.953	47.491	1.00 57.36	C
ATOM	9558	C	ILE	B	72	-30.679	-27.864	48.289	1.00 54.97	C
ATOM	9559	O	ILE	B	72	-31.323	-27.846	49.331	1.00 55.85	O
ATOM	9561	N	SER	B	73	-29.812	-28.820	47.973	1.00 53.85	N
ATOM	9562	CA	SER	B	73	-29.405	-29.849	48.920	1.00 53.27	C
ATOM	9564	CB	SER	B	73	-30.334	-31.055	48.839	1.00 51.63	C
ATOM	9567	OG	SER	B	73	-30.422	-31.532	47.506	1.00 55.19	O
ATOM	9569	C	SER	B	73	-27.976	-30.252	48.593	1.00 52.79	C
ATOM	9570	O	SER	B	73	-27.455	-29.921	47.519	1.00 52.93	O
ATOM	9572	N	ARG	B	74	-27.348	-30.969	49.518	1.00 51.93	N
ATOM	9573	CA	ARG	B	74	-25.943	-31.305	49.393	1.00 51.59	C
ATOM	9575	CB	ARG	B	74	-25.108	-30.273	50.136	1.00 50.64	C
ATOM	9578	CG	ARG	B	74	-25.368	-30.224	51.630	1.00 49.70	C
ATOM	9581	CD	ARG	B	74	-24.673	-29.044	52.284	1.00 53.08	C
ATOM	9584	NE	ARG	B	74	-23.217	-29.088	52.125	1.00 54.58	N
ATOM	9586	CZ	ARG	B	74	-22.418	-28.029	52.210	1.00 57.86	C
ATOM	9587	NH1	ARG	B	74	-22.916	-26.820	52.450	1.00 60.01	N
ATOM	9590	NH2	ARG	B	74	-21.109	-28.176	52.039	1.00 61.08	N
ATOM	9593	C	ARG	B	74	-25.631	-32.683	49.939	1.00 52.07	C
ATOM	9594	O	ARG	B	74	-26.329	-33.202	50.810	1.00 52.51	O
ATOM	9596	N	ASP	B	75	-24.569	-33.272	49.413	1.00 52.35	N
ATOM	9597	CA	ASP	B	75	-24.046	-34.514	49.934	1.00 51.94	C
ATOM	9599	CB	ASP	B	75	-24.294	-35.638	48.937	1.00 50.84	C
ATOM	9602	CG	ASP	B	75	-24.053	-37.002	49.533	1.00 52.31	C
ATOM	9603	OD1	ASP	B	75	-23.303	-37.086	50.530	1.00 50.83	O
ATOM	9604	OD2	ASP	B	75	-24.621	-37.987	49.008	1.00 53.27	O
ATOM	9605	C	ASP	B	75	-22.550	-34.329	50.217	1.00 52.87	C
ATOM	9606	O	ASP	B	75	-21.706	-34.446	49.317	1.00 52.64	O
ATOM	9608	N	ASP	B	76	-22.226	-34.028	51.472	1.00 52.56	N

ATOM	9609	CA	ASP	B	76	-20.828	-33.858	51.871	1.00	52.98	C
ATOM	9611	CB	ASP	B	76	-20.722	-33.459	53.350	1.00	52.94	C
ATOM	9614	CG	ASP	B	76	-21.218	-32.046	53.622	1.00	54.99	C
ATOM	9615	OD1	ASP	B	76	-21.386	-31.259	52.662	1.00	52.49	O
ATOM	9616	OD2	ASP	B	76	-21.441	-31.724	54.813	1.00	56.04	O
ATOM	9617	C	ASP	B	76	-19.979	-35.114	51.600	1.00	53.20	C
ATOM	9618	O	ASP	B	76	-18.778	-35.011	51.300	1.00	52.44	O
ATOM	9620	N	SER	B	77	-20.599	-36.289	51.698	1.00	52.38	N
ATOM	9621	CA	SER	B	77	-19.895	-37.539	51.416	1.00	52.35	C
ATOM	9623	CB	SER	B	77	-20.690	-38.740	51.919	1.00	51.38	C
ATOM	9626	OG	SER	B	77	-21.713	-39.071	51.000	1.00	50.69	O
ATOM	9628	C	SER	B	77	-19.607	-37.726	49.925	1.00	51.61	C
ATOM	9629	O	SER	B	77	-18.793	-38.558	49.570	1.00	51.60	O
ATOM	9631	N	LYS	B	78	-20.289	-36.981	49.058	1.00	52.03	N
ATOM	9632	CA	LYS	B	78	-20.003	-37.013	47.619	1.00	53.43	C
ATOM	9634	CB	LYS	B	78	-21.240	-37.511	46.848	1.00	53.95	C
ATOM	9637	CG	LYS	B	78	-21.445	-39.026	46.955	1.00	57.91	C
ATOM	9640	CD	LYS	B	78	-22.436	-39.586	45.932	1.00	57.80	C
ATOM	9643	CE	LYS	B	78	-23.887	-39.403	46.376	1.00	65.44	C
ATOM	9646	NZ	LYS	B	78	-24.870	-40.098	45.483	1.00	64.81	N
ATOM	9650	C	LYS	B	78	-19.507	-35.658	47.073	1.00	52.27	C
ATOM	9651	O	LYS	B	78	-19.393	-35.480	45.866	1.00	49.95	O
ATOM	9653	N	ASN	B	79	-19.187	-34.724	47.971	1.00	52.77	N
ATOM	9654	CA	ASN	B	79	-18.720	-33.383	47.604	1.00	52.21	C
ATOM	9656	CB	ASN	B	79	-17.231	-33.416	47.241	1.00	49.93	C
ATOM	9659	CG	ASN	B	79	-16.335	-33.377	48.464	1.00	51.60	C
ATOM	9660	OD1	ASN	B	79	-16.767	-33.666	49.578	1.00	53.74	O
ATOM	9661	ND2	ASN	B	79	-15.080	-33.004	48.262	1.00	54.23	N
ATOM	9664	C	ASN	B	79	-19.550	-32.739	46.494	1.00	52.81	C
ATOM	9665	O	ASN	B	79	-19.016	-32.212	45.524	1.00	55.10	O
ATOM	9667	N	THR	B	80	-20.864	-32.775	46.653	1.00	52.23	N
ATOM	9668	CA	THR	B	80	-21.765	-32.401	45.577	1.00	51.61	C
ATOM	9670	CB	THR	B	80	-22.325	-33.657	44.898	1.00	52.29	C
ATOM	9672	OG1	THR	B	80	-21.240	-34.462	44.422	1.00	49.01	O
ATOM	9674	CG2	THR	B	80	-23.238	-33.292	43.736	1.00	52.69	C
ATOM	9678	C	THR	B	80	-22.926	-31.575	46.101	1.00	50.80	C
ATOM	9679	O	THR	B	80	-23.485	-31.884	47.151	1.00	50.17	O
ATOM	9681	N	VAL	B	81	-23.285	-30.526	45.367	1.00	50.84	N
ATOM	9682	CA	VAL	B	81	-24.454	-29.720	45.712	1.00	52.11	C
ATOM	9684	CB	VAL	B	81	-24.060	-28.280	46.065	1.00	51.35	C
ATOM	9686	CG1	VAL	B	81	-23.434	-27.559	44.864	1.00	53.00	C
ATOM	9690	CG2	VAL	B	81	-25.268	-27.525	46.603	1.00	51.31	C
ATOM	9694	C	VAL	B	81	-25.482	-29.762	44.575	1.00	52.11	C
ATOM	9695	O	VAL	B	81	-25.107	-29.781	43.406	1.00	53.31	O
ATOM	9697	N	TYR	B	82	-26.767	-29.798	44.925	1.00	51.73	N
ATOM	9698	CA	TYR	B	82	-27.840	-29.960	43.930	1.00	53.05	C
ATOM	9700	CB	TYR	B	82	-28.661	-31.238	44.187	1.00	51.60	C
ATOM	9703	CG	TYR	B	82	-27.877	-32.528	44.256	1.00	50.27	C
ATOM	9704	CD1	TYR	B	82	-27.556	-33.229	43.105	1.00	49.45	C
ATOM	9706	CE1	TYR	B	82	-26.841	-34.430	43.164	1.00	48.96	C
ATOM	9708	CZ	TYR	B	82	-26.456	-34.942	44.390	1.00	49.17	C
ATOM	9709	OH	TYR	B	82	-25.747	-36.122	44.449	1.00	51.97	O
ATOM	9711	CE2	TYR	B	82	-26.773	-34.266	45.552	1.00	48.85	C
ATOM	9713	CD2	TYR	B	82	-27.488	-33.067	45.480	1.00	48.53	C
ATOM	9715	C	TYR	B	82	-28.817	-28.790	43.957	1.00	53.68	C
ATOM	9716	O	TYR	B	82	-29.086	-28.230	45.025	1.00	53.44	O
ATOM	9718	N	LEU	B	83	-29.359	-28.447	42.786	1.00	53.66	N
ATOM	9719	CA	LEU	B	83	-30.510	-27.540	42.687	1.00	54.91	C
ATOM	9721	CB	LEU	B	83	-30.124	-26.220	42.031	1.00	55.04	C
ATOM	9724	CG	LEU	B	83	-31.220	-25.153	41.963	1.00	54.30	C
ATOM	9726	CD1	LEU	B	83	-31.369	-24.472	43.283	1.00	56.42	C
ATOM	9730	CD2	LEU	B	83	-30.880	-24.129	40.903	1.00	58.69	C
ATOM	9734	C	LEU	B	83	-31.645	-28.194	41.892	1.00	55.59	C

ATOM	9735	O	LEU	B	83	-31.608	-28.229	40.660	1.00	54.62	O
ATOM	9737	N	GLN	B	84	-32.639	-28.713	42.617	1.00	56.31	N
ATOM	9738	CA	GLN	B	84	-33.860	-29.249	42.033	1.00	55.50	C
ATOM	9740	CB	GLN	B	84	-34.578	-30.146	43.050	1.00	55.99	C
ATOM	9743	CG	GLN	B	84	-35.857	-30.834	42.548	1.00	55.42	C
ATOM	9746	CD	GLN	B	84	-35.587	-31.896	41.500	1.00	56.92	C
ATOM	9747	OE1	GLN	B	84	-34.722	-32.760	41.667	1.00	55.45	O
ATOM	9748	NE2	GLN	B	84	-36.332	-31.834	40.409	1.00	59.02	N
ATOM	9751	C	GLN	B	84	-34.737	-28.063	41.667	1.00	56.02	C
ATOM	9752	O	GLN	B	84	-35.104	-27.273	42.527	1.00	55.65	O
ATOM	9754	N	MET	B	85	-35.048	-27.928	40.383	1.00	57.32	N
ATOM	9755	CA	MET	B	85	-35.857	-26.819	39.892	1.00	56.07	C
ATOM	9757	CB	MET	B	85	-35.164	-26.145	38.705	1.00	55.29	C
ATOM	9760	CG	MET	B	85	-33.773	-25.651	39.030	1.00	54.69	C
ATOM	9763	SD	MET	B	85	-32.923	-24.798	37.686	1.00	55.74	S
ATOM	9764	CE	MET	B	85	-32.627	-26.160	36.572	1.00	64.07	C
ATOM	9768	C	MET	B	85	-37.211	-27.371	39.473	1.00	56.77	C
ATOM	9769	O	MET	B	85	-37.298	-28.211	38.563	1.00	55.53	O
ATOM	9771	N	ASN	B	86	-38.259	-26.917	40.157	1.00	55.85	N
ATOM	9772	CA	ASN	B	86	-39.625	-27.314	39.832	1.00	54.92	C
ATOM	9774	CB	ASN	B	86	-40.265	-28.020	41.020	1.00	53.97	C
ATOM	9777	CG	ASN	B	86	-39.564	-29.313	41.376	1.00	55.14	C
ATOM	9778	OD1	ASN	B	86	-38.758	-29.837	40.602	1.00	62.05	O
ATOM	9779	ND2	ASN	B	86	-39.861	-29.836	42.555	1.00	48.25	N
ATOM	9782	C	ASN	B	86	-40.461	-26.113	39.441	1.00	55.08	C
ATOM	9783	O	ASN	B	86	-40.068	-24.977	39.703	1.00	56.57	O
ATOM	9785	N	SER	B	87	-41.603	-26.378	38.804	1.00	54.35	N
ATOM	9786	CA	SER	B	87	-42.563	-25.345	38.413	1.00	53.73	C
ATOM	9788	CB	SER	B	87	-43.197	-24.694	39.659	1.00	53.16	C
ATOM	9791	OG	SER	B	87	-43.769	-25.650	40.542	1.00	50.56	O
ATOM	9793	C	SER	B	87	-41.890	-24.287	37.537	1.00	54.03	C
ATOM	9794	O	SER	B	87	-42.020	-23.087	37.776	1.00	55.01	O
ATOM	9796	N	LEU	B	88	-41.168	-24.734	36.520	1.00	53.64	N
ATOM	9797	CA	LEU	B	88	-40.330	-23.823	35.749	1.00	54.98	C
ATOM	9799	CB	LEU	B	88	-39.379	-24.603	34.834	1.00	55.57	C
ATOM	9802	CG	LEU	B	88	-38.251	-25.274	35.613	1.00	56.38	C
ATOM	9804	CD1	LEU	B	88	-37.610	-26.381	34.813	1.00	57.26	C
ATOM	9808	CD2	LEU	B	88	-37.213	-24.236	36.068	1.00	54.65	C
ATOM	9812	C	LEU	B	88	-41.127	-22.817	34.931	1.00	55.40	C
ATOM	9813	O	LEU	B	88	-41.974	-23.192	34.126	1.00	57.09	O
ATOM	9815	N	LYS	B	89	-40.844	-21.538	35.161	1.00	57.08	N
ATOM	9816	CA	LYS	B	89	-41.357	-20.438	34.340	1.00	56.55	C
ATOM	9818	CB	LYS	B	89	-41.600	-19.193	35.203	1.00	55.69	C
ATOM	9821	CG	LYS	B	89	-42.761	-19.321	36.163	1.00	55.59	C
ATOM	9824	CD	LYS	B	89	-42.532	-18.509	37.434	1.00	58.84	C
ATOM	9827	CE	LYS	B	89	-43.827	-18.307	38.216	1.00	61.73	C
ATOM	9830	NZ	LYS	B	89	-44.545	-19.585	38.493	1.00	63.76	N
ATOM	9834	C	LYS	B	89	-40.371	-20.095	33.213	1.00	56.57	C
ATOM	9835	O	LYS	B	89	-39.182	-20.443	33.266	1.00	54.37	O
ATOM	9837	N	THR	B	90	-40.891	-19.402	32.203	1.00	56.99	N
ATOM	9838	CA	THR	B	90	-40.110	-18.979	31.036	1.00	56.12	C
ATOM	9840	CB	THR	B	90	-41.011	-18.347	29.916	1.00	55.05	C
ATOM	9842	OG1	THR	B	90	-40.211	-17.544	29.051	1.00	59.38	O
ATOM	9844	CG2	THR	B	90	-42.119	-17.466	30.484	1.00	56.71	C
ATOM	9848	C	THR	B	90	-38.943	-18.051	31.421	1.00	55.29	C
ATOM	9849	O	THR	B	90	-37.840	-18.188	30.892	1.00	54.64	O
ATOM	9851	N	GLU	B	91	-39.167	-17.140	32.364	1.00	56.38	N
ATOM	9852	CA	GLU	B	91	-38.101	-16.212	32.795	1.00	57.43	C
ATOM	9854	CB	GLU	B	91	-38.669	-14.971	33.512	1.00	58.33	C
ATOM	9857	CG	GLU	B	91	-39.371	-15.239	34.842	1.00	64.12	C
ATOM	9860	CD	GLU	B	91	-40.824	-15.645	34.683	1.00	70.42	C
ATOM	9861	OE1	GLU	B	91	-41.286	-15.821	33.523	1.00	70.14	O
ATOM	9862	OE2	GLU	B	91	-41.499	-15.784	35.731	1.00	70.97	O

ATOM	9863	C	GLU	B	91	-36.978	-16.851	33.639	1.00	56.22	C
ATOM	9864	O	GLU	B	91	-35.985	-16.202	33.926	1.00	56.66	O
ATOM	9866	N	ASP	B	92	-37.126	-18.115	34.025	1.00	56.07	N
ATOM	9867	CA	ASP	B	92	-36.012	-18.861	34.611	1.00	55.37	C
ATOM	9869	CB	ASP	B	92	-36.458	-20.245	35.103	1.00	56.00	C
ATOM	9872	CG	ASP	B	92	-37.489	-20.180	36.228	1.00	56.68	C
ATOM	9873	OD1	ASP	B	92	-37.443	-19.252	37.057	1.00	54.69	O
ATOM	9874	OD2	ASP	B	92	-38.343	-21.080	36.291	1.00	55.56	O
ATOM	9875	C	ASP	B	92	-34.893	-19.045	33.592	1.00	55.02	C
ATOM	9876	O	ASP	B	92	-33.745	-19.273	33.975	1.00	56.48	O
ATOM	9878	N	THR	B	93	-35.229	-18.969	32.301	1.00	53.61	N
ATOM	9879	CA	THR	B	93	-34.240	-19.095	31.230	1.00	54.02	C
ATOM	9881	CB	THR	B	93	-34.794	-18.615	29.864	1.00	53.54	C
ATOM	9883	OG1	THR	B	93	-35.888	-19.450	29.460	1.00	54.04	O
ATOM	9885	CG2	THR	B	93	-33.721	-18.663	28.791	1.00	51.70	C
ATOM	9889	C	THR	B	93	-32.993	-18.298	31.588	1.00	54.58	C
ATOM	9890	O	THR	B	93	-33.043	-17.074	31.704	1.00	56.03	O
ATOM	9892	N	ALA	B	94	-31.890	-19.009	31.795	1.00	54.48	N
ATOM	9893	CA	ALA	B	94	-30.639	-18.398	32.213	1.00	53.89	C
ATOM	9895	CB	ALA	B	94	-30.812	-17.734	33.549	1.00	54.78	C
ATOM	9899	C	ALA	B	94	-29.551	-19.453	32.305	1.00	54.97	C
ATOM	9900	O	ALA	B	94	-29.835	-20.654	32.289	1.00	57.34	O
ATOM	9902	N	VAL	B	95	-28.303	-19.000	32.395	1.00	54.16	N
ATOM	9903	CA	VAL	B	95	-27.167	-19.888	32.656	1.00	52.86	C
ATOM	9905	CB	VAL	B	95	-25.848	-19.336	32.055	1.00	51.41	C
ATOM	9907	CG1	VAL	B	95	-24.635	-20.044	32.630	1.00	51.86	C
ATOM	9911	CG2	VAL	B	95	-25.858	-19.474	30.549	1.00	49.75	C
ATOM	9915	C	VAL	B	95	-27.054	-19.984	34.163	1.00	53.07	C
ATOM	9916	O	VAL	B	95	-26.937	-18.958	34.828	1.00	54.33	O
ATOM	9918	N	TYR	B	96	-27.105	-21.201	34.704	1.00	53.08	N
ATOM	9919	CA	TYR	B	96	-27.027	-21.399	36.160	1.00	53.07	C
ATOM	9921	CB	TYR	B	96	-28.024	-22.463	36.605	1.00	51.09	C
ATOM	9924	CG	TYR	B	96	-29.449	-21.980	36.555	1.00	49.90	C
ATOM	9925	CD1	TYR	B	96	-30.114	-21.836	35.344	1.00	48.90	C
ATOM	9927	CE1	TYR	B	96	-31.406	-21.386	35.298	1.00	48.16	C
ATOM	9929	CZ	TYR	B	96	-32.063	-21.082	36.478	1.00	49.56	C
ATOM	9930	OH	TYR	B	96	-33.364	-20.634	36.452	1.00	49.14	O
ATOM	9932	CE2	TYR	B	96	-31.422	-21.218	37.688	1.00	48.55	C
ATOM	9934	CD2	TYR	B	96	-30.129	-21.660	37.719	1.00	49.45	C
ATOM	9936	C	TYR	B	96	-25.605	-21.786	36.573	1.00	54.19	C
ATOM	9937	O	TYR	B	96	-24.992	-22.657	35.945	1.00	54.08	O
ATOM	9939	N	TYR	B	97	-25.089	-21.128	37.614	1.00	53.45	N
ATOM	9940	CA	TYR	B	97	-23.738	-21.374	38.126	1.00	53.72	C
ATOM	9942	CB	TYR	B	97	-22.932	-20.071	38.162	1.00	53.06	C
ATOM	9945	CG	TYR	B	97	-22.673	-19.409	36.815	1.00	52.93	C
ATOM	9946	CD1	TYR	B	97	-21.601	-19.805	36.006	1.00	50.63	C
ATOM	9948	CE1	TYR	B	97	-21.355	-19.193	34.790	1.00	50.03	C
ATOM	9950	CZ	TYR	B	97	-22.176	-18.172	34.374	1.00	52.12	C
ATOM	9951	OH	TYR	B	97	-21.957	-17.551	33.176	1.00	53.65	O
ATOM	9953	CE2	TYR	B	97	-23.232	-17.755	35.155	1.00	52.35	C
ATOM	9955	CD2	TYR	B	97	-23.472	-18.367	36.371	1.00	51.39	C
ATOM	9957	C	TYR	B	97	-23.824	-21.899	39.549	1.00	55.05	C
ATOM	9958	O	TYR	B	97	-24.636	-21.391	40.324	1.00	57.89	O
ATOM	9960	N	CYS	B	98	-23.019	-22.909	39.898	1.00	54.63	N
ATOM	9961	CA	CYS	B	98	-22.827	-23.276	41.309	1.00	55.19	C
ATOM	9963	CB	CYS	B	98	-22.713	-24.790	41.528	1.00	54.48	C
ATOM	9966	SG	CYS	B	98	-21.534	-25.613	40.472	1.00	68.35	S
ATOM	9968	C	CYS	B	98	-21.579	-22.571	41.798	1.00	54.49	C
ATOM	9969	O	CYS	B	98	-20.642	-22.367	41.026	1.00	55.68	O
ATOM	9971	N	SER	B	99	-21.564	-22.175	43.066	1.00	53.13	N
ATOM	9972	CA	SER	B	99	-20.394	-21.490	43.627	1.00	53.77	C
ATOM	9974	CB	SER	B	99	-20.594	-19.965	43.597	1.00	53.95	C
ATOM	9977	OG	SER	B	99	-19.434	-19.277	44.022	1.00	49.57	O

ATOM	9979	C	SER	B	99	-20.113	-21.972	45.042	1.00 52.56	C
ATOM	9980	O	SER	B	99	-20.932	-22.659	45.637	1.00 53.56	O
ATOM	9982	N	ALA	B	100	-18.950	-21.617	45.576	1.00 52.16	N
ATOM	9983	CA	ALA	B	100	-18.620	-21.956	46.955	1.00 52.43	C
ATOM	9985	CB	ALA	B	100	-18.032	-23.345	47.004	1.00 52.84	C
ATOM	9989	C	ALA	B	100	-17.668	-20.949	47.619	1.00 53.04	C
ATOM	9990	O	ALA	B	100	-16.899	-20.255	46.945	1.00 52.36	O
ATOM	9992	N	SER	B	101	-17.756	-20.870	48.947	1.00 53.97	N
ATOM	9993	CA	SER	B	101	-16.791	-20.137	49.786	1.00 52.83	C
ATOM	9995	CB	SER	B	101	-17.125	-18.648	49.854	1.00 54.11	C
ATOM	9998	OG	SER	B	101	-18.316	-18.425	50.589	1.00 46.21	O
ATOM	10000	C	SER	B	101	-16.822	-20.701	51.193	1.00 52.47	C
ATOM	10001	O	SER	B	101	-17.836	-21.237	51.612	1.00 53.65	O
ATOM	10003	N	TYR	B	102	-15.730	-20.544	51.932	1.00 52.80	N
ATOM	10004	CA	TYR	B	102	-15.628	-21.122	53.265	1.00 51.97	C
ATOM	10006	CB	TYR	B	102	-14.222	-20.916	53.833	1.00 52.49	C
ATOM	10009	CG	TYR	B	102	-13.183	-21.826	53.220	1.00 54.73	C
ATOM	10010	CD1	TYR	B	102	-12.084	-21.318	52.538	1.00 50.64	C
ATOM	10012	CE1	TYR	B	102	-11.143	-22.161	51.985	1.00 52.41	C
ATOM	10014	CZ	TYR	B	102	-11.303	-23.533	52.102	1.00 53.41	C
ATOM	10015	OH	TYR	B	102	-10.394	-24.418	51.559	1.00 53.51	O
ATOM	10017	CE2	TYR	B	102	-12.387	-24.048	52.770	1.00 53.95	C
ATOM	10019	CD2	TYR	B	102	-13.313	-23.205	53.320	1.00 56.68	C
ATOM	10021	C	TYR	B	102	-16.666	-20.543	54.227	1.00 51.78	C
ATOM	10022	O	TYR	B	102	-16.870	-19.331	54.287	1.00 50.00	O
ATOM	10024	N	TYR	B	103	-17.332	-21.415	54.978	1.00 51.38	N
ATOM	10025	CA	TYR	B	103	-18.215	-20.959	56.037	1.00 52.05	C
ATOM	10027	CB	TYR	B	103	-18.696	-22.141	56.886	1.00 51.00	C
ATOM	10030	CG	TYR	B	103	-19.436	-21.711	58.120	1.00 49.10	C
ATOM	10031	CD1	TYR	B	103	-20.698	-21.163	58.034	1.00 53.66	C
ATOM	10033	CE1	TYR	B	103	-21.377	-20.747	59.166	1.00 49.68	C
ATOM	10035	CZ	TYR	B	103	-20.777	-20.859	60.388	1.00 46.64	C
ATOM	10036	OH	TYR	B	103	-21.439	-20.449	61.520	1.00 51.79	O
ATOM	10038	CE2	TYR	B	103	-19.526	-21.394	60.487	1.00 50.57	C
ATOM	10040	CD2	TYR	B	103	-18.863	-21.815	59.358	1.00 46.30	C
ATOM	10042	C	TYR	B	103	-17.476	-19.958	56.922	1.00 54.26	C
ATOM	10043	O	TYR	B	103	-16.319	-20.191	57.294	1.00 58.94	O
ATOM	10045	N	ARG	B	104	-18.133	-18.846	57.244	1.00 53.89	N
ATOM	10046	CA	ARG	B	104	-17.620	-17.890	58.233	1.00 52.36	C
ATOM	10048	CB	ARG	B	104	-17.416	-16.517	57.591	1.00 51.34	C
ATOM	10051	CG	ARG	B	104	-16.383	-16.520	56.488	1.00 51.26	C
ATOM	10054	CD	ARG	B	104	-16.401	-15.220	55.742	1.00 53.11	C
ATOM	10057	NE	ARG	B	104	-16.093	-14.115	56.633	1.00 55.60	N
ATOM	10059	CZ	ARG	B	104	-14.873	-13.650	56.861	1.00 54.62	C
ATOM	10060	NH1	ARG	B	104	-13.831	-14.178	56.247	1.00 57.54	N
ATOM	10063	NH2	ARG	B	104	-14.701	-12.636	57.699	1.00 57.92	N
ATOM	10066	C	ARG	B	104	-18.588	-17.770	59.402	1.00 51.58	C
ATOM	10067	O	ARG	B	104	-19.765	-18.069	59.270	1.00 49.33	O
ATOM	10069	N	TYR	B	105	-18.096	-17.319	60.548	1.00 53.11	N
ATOM	10070	CA	TYR	B	105	-18.973	-17.062	61.691	1.00 53.34	C
ATOM	10072	CB	TYR	B	105	-18.178	-16.993	62.986	1.00 54.09	C
ATOM	10075	CG	TYR	B	105	-17.639	-18.301	63.486	1.00 53.00	C
ATOM	10076	CD1	TYR	B	105	-18.422	-19.447	63.478	1.00 54.00	C
ATOM	10078	CE1	TYR	B	105	-17.937	-20.631	63.962	1.00 54.01	C
ATOM	10080	CZ	TYR	B	105	-16.662	-20.682	64.478	1.00 53.68	C
ATOM	10081	OH	TYR	B	105	-16.192	-21.872	64.948	1.00 57.62	O
ATOM	10083	CE2	TYR	B	105	-15.863	-19.560	64.514	1.00 53.46	C
ATOM	10085	CD2	TYR	B	105	-16.355	-18.378	64.025	1.00 55.08	C
ATOM	10087	C	TYR	B	105	-19.740	-15.754	61.565	1.00 54.37	C
ATOM	10088	O	TYR	B	105	-20.695	-15.543	62.306	1.00 58.57	O
ATOM	10090	N	ASP	B	106	-19.314	-14.870	60.667	1.00 52.73	N
ATOM	10091	CA	ASP	B	106	-19.924	-13.560	60.547	1.00 52.30	C
ATOM	10093	CB	ASP	B	106	-18.844	-12.463	60.565	1.00 53.61	C

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ATOM  10096  CG  ASP B 106     -18.021 -12.388  59.269  1.00 54.59           C
ATOM  10097  OD1 ASP B 106     -18.312 -13.140  58.311  1.00 53.22           O
ATOM  10098  OD2 ASP B 106     -17.074 -11.568  59.222  1.00 54.25           O
ATOM  10099  C   ASP B 106     -20.805 -13.445  59.309  1.00 54.57           C
ATOM  10100  O   ASP B 106     -21.054 -14.415  58.583  1.00 58.76           O
ATOM  10102  N   VAL B 107     -21.248 -12.225  59.061  1.00 54.02           N
ATOM  10103  CA  VAL B 107     -22.125 -11.899  57.947  1.00 52.17           C
ATOM  10105  CB  VAL B 107     -22.685 -10.488  58.246  1.00 51.49           C
ATOM  10107  CG1 VAL B 107     -23.697 -10.585  59.361  1.00 52.19           C
ATOM  10111  CG2 VAL B 107     -23.302  -9.837  57.068  1.00 56.32           C
ATOM  10115  C   VAL B 107     -21.441 -12.024  56.547  1.00 52.08           C
ATOM  10116  O   VAL B 107     -22.039 -11.719  55.520  1.00 50.75           O
ATOM  10118  N   GLY B 108     -20.202 -12.506  56.497  1.00 52.12           N
ATOM  10119  CA  GLY B 108     -19.478 -12.612  55.233  1.00 52.33           C
ATOM  10122  C   GLY B 108     -19.911 -13.769  54.345  1.00 52.52           C
ATOM  10123  O   GLY B 108     -19.943 -14.926  54.782  1.00 54.48           O
ATOM  10125  N   ALA B 109     -20.251 -13.463  53.097  1.00 50.38           N
ATOM  10126  CA  ALA B 109     -20.533 -14.504  52.105  1.00 50.55           C
ATOM  10128  CB  ALA B 109     -21.955 -14.975  52.225  1.00 50.23           C
ATOM  10132  C   ALA B 109     -20.251 -13.999  50.686  1.00 51.08           C
ATOM  10133  O   ALA B 109     -20.675 -12.897  50.290  1.00 51.57           O
ATOM  10135  N   TRP B 110     -19.510 -14.787  49.922  1.00 51.10           N
ATOM  10136  CA  TRP B 110     -19.153 -14.376  48.568  1.00 51.34           C
ATOM  10138  CB  TRP B 110     -17.991 -13.378  48.584  1.00 50.07           C
ATOM  10141  CG  TRP B 110     -16.712 -13.934  49.046  1.00 52.07           C
ATOM  10142  CD1 TRP B 110     -15.805 -14.622  48.297  1.00 54.76           C
ATOM  10144  NE1 TRP B 110     -14.719 -14.971  49.065  1.00 54.63           N
ATOM  10146  CE2 TRP B 110     -14.908 -14.502  50.339  1.00 50.63           C
ATOM  10147  CD2 TRP B 110     -16.156 -13.839  50.364  1.00 54.61           C
ATOM  10148  CE3 TRP B 110     -16.594 -13.267  51.568  1.00 55.01           C
ATOM  10150  CZ3 TRP B 110     -15.776 -13.373  52.692  1.00 55.26           C
ATOM  10152  CH2 TRP B 110     -14.540 -14.041  52.629  1.00 51.97           C
ATOM  10154  CZ2 TRP B 110     -14.093 -14.611  51.467  1.00 48.32           C
ATOM  10156  C   TRP B 110     -18.875 -15.608  47.720  1.00 51.67           C
ATOM  10157  O   TRP B 110     -19.025 -16.739  48.191  1.00 54.15           O
ATOM  10159  N   PHE B 111     -18.505 -15.392  46.468  1.00 49.72           N
ATOM  10160  CA  PHE B 111     -18.537 -16.454  45.488  1.00 50.72           C
ATOM  10162  CB  PHE B 111     -19.567 -16.075  44.418  1.00 51.31           C
ATOM  10165  CG  PHE B 111     -20.890 -15.600  45.011  1.00 51.22           C
ATOM  10166  CD1 PHE B 111     -21.367 -14.316  44.770  1.00 51.31           C
ATOM  10168  CE1 PHE B 111     -22.568 -13.887  45.332  1.00 53.15           C
ATOM  10170  CZ  PHE B 111     -23.300 -14.742  46.165  1.00 52.64           C
ATOM  10172  CE2 PHE B 111     -22.827 -16.017  46.418  1.00 51.14           C
ATOM  10174  CD2 PHE B 111     -21.628 -16.435  45.847  1.00 51.50           C
ATOM  10176  C   PHE B 111     -17.127 -16.718  44.953  1.00 51.07           C
ATOM  10177  O   PHE B 111     -16.697 -16.131  43.960  1.00 49.39           O
ATOM  10179  N   ALA B 112     -16.423 -17.627  45.636  1.00 51.90           N
ATOM  10180  CA  ALA B 112     -14.972 -17.785  45.494  1.00 52.28           C
ATOM  10182  CB  ALA B 112     -14.369 -18.279  46.807  1.00 52.43           C
ATOM  10186  C   ALA B 112     -14.562 -18.706  44.349  1.00 54.01           C
ATOM  10187  O   ALA B 112     -13.589 -18.423  43.642  1.00 54.86           O
ATOM  10189  N   TYR B 113     -15.277 -19.816  44.187  1.00 54.23           N
ATOM  10190  CA  TYR B 113     -15.046 -20.741  43.071  1.00 54.55           C
ATOM  10192  CB  TYR B 113     -14.529 -22.095  43.591  1.00 57.92           C
ATOM  10195  CG  TYR B 113     -13.599 -21.915  44.769  1.00 59.49           C
ATOM  10196  CD1 TYR B 113     -12.394 -21.228  44.629  1.00 59.51           C
ATOM  10198  CE1 TYR B 113     -11.555 -21.029  45.712  1.00 59.73           C
ATOM  10200  CZ  TYR B 113     -11.924 -21.508  46.961  1.00 62.35           C
ATOM  10201  OH  TYR B 113     -11.107 -21.307  48.051  1.00 65.57           O
ATOM  10203  CE2 TYR B 113     -13.112 -22.190  47.125  1.00 61.64           C
ATOM  10205  CD2 TYR B 113     -13.947 -22.383  46.033  1.00 63.21           C
ATOM  10207  C   TYR B 113     -16.357 -20.874  42.306  1.00 54.00           C
ATOM  10208  O   TYR B 113     -17.426 -20.586  42.869  1.00 54.33           O
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ATOM	10210	N	TRP	B	114	-16.283	-21.260	41.029	1.00 50.42	N
ATOM	10211	CA	TRP	B	114	-17.471	-21.300	40.176	1.00 51.94	C
ATOM	10213	CB	TRP	B	114	-17.543	-20.046	39.296	1.00 53.17	C
ATOM	10216	CG	TRP	B	114	-17.786	-18.763	40.023	1.00 53.22	C
ATOM	10217	CD1	TRP	B	114	-16.930	-18.132	40.868	1.00 53.88	C
ATOM	10219	NE1	TRP	B	114	-17.499	-16.975	41.346	1.00 57.40	N
ATOM	10221	CE2	TRP	B	114	-18.742	-16.826	40.791	1.00 58.34	C
ATOM	10222	CD2	TRP	B	114	-18.959	-17.938	39.948	1.00 57.89	C
ATOM	10223	CE3	TRP	B	114	-20.178	-18.038	39.262	1.00 56.51	C
ATOM	10225	CZ3	TRP	B	114	-21.126	-17.026	39.429	1.00 55.40	C
ATOM	10227	CH2	TRP	B	114	-20.877	-15.929	40.278	1.00 54.29	C
ATOM	10229	CZ2	TRP	B	114	-19.697	-15.814	40.967	1.00 55.22	C
ATOM	10231	C	TRP	B	114	-17.482	-22.501	39.261	1.00 51.60	C
ATOM	10232	O	TRP	B	114	-16.434	-22.951	38.831	1.00 54.50	O
ATOM	10234	N	GLY	B	115	-18.671	-23.002	38.939	1.00 51.17	N
ATOM	10235	CA	GLY	B	115	-18.827	-23.991	37.874	1.00 50.06	C
ATOM	10238	C	GLY	B	115	-18.732	-23.314	36.522	1.00 49.72	C
ATOM	10239	O	GLY	B	115	-18.733	-22.088	36.451	1.00 50.08	O
ATOM	10241	N	GLN	B	116	-18.657	-24.103	35.450	1.00 48.81	N
ATOM	10242	CA	GLN	B	116	-18.618	-23.544	34.085	1.00 48.45	C
ATOM	10244	CB	GLN	B	116	-18.281	-24.582	32.986	1.00 49.52	C
ATOM	10247	CG	GLN	B	116	-17.847	-25.990	33.413	1.00 52.27	C
ATOM	10250	CD	GLN	B	116	-19.019	-26.866	33.840	1.00 53.91	C
ATOM	10251	OE1	GLN	B	116	-19.926	-27.143	33.054	1.00 53.87	O
ATOM	10252	NE2	GLN	B	116	-19.002	-27.301	35.093	1.00 48.40	N
ATOM	10255	C	GLN	B	116	-19.952	-22.909	33.723	1.00 46.90	C
ATOM	10256	O	GLN	B	116	-20.043	-22.171	32.740	1.00 44.48	O
ATOM	10258	N	GLY	B	117	-20.985	-23.233	34.504	1.00 47.53	N
ATOM	10259	CA	GLY	B	117	-22.349	-22.806	34.230	1.00 47.80	C
ATOM	10262	C	GLY	B	117	-22.985	-23.749	33.237	1.00 47.66	C
ATOM	10263	O	GLY	B	117	-22.282	-24.502	32.570	1.00 49.32	O
ATOM	10265	N	THR	B	118	-24.313	-23.727	33.138	1.00 48.93	N
ATOM	10266	CA	THR	B	118	-25.018	-24.482	32.085	1.00 48.76	C
ATOM	10268	CB	THR	B	118	-25.210	-25.981	32.464	1.00 48.89	C
ATOM	10270	OG1	THR	B	118	-25.548	-26.734	31.291	1.00 53.32	O
ATOM	10272	CG2	THR	B	118	-26.274	-26.165	33.519	1.00 46.00	C
ATOM	10276	C	THR	B	118	-26.351	-23.835	31.727	1.00 48.20	C
ATOM	10277	O	THR	B	118	-27.108	-23.424	32.604	1.00 51.12	O
ATOM	10279	N	LEU	B	119	-26.629	-23.742	30.433	1.00 48.41	N
ATOM	10280	CA	LEU	B	119	-27.837	-23.082	29.954	1.00 48.50	C
ATOM	10282	CB	LEU	B	119	-27.752	-22.797	28.450	1.00 47.16	C
ATOM	10285	CG	LEU	B	119	-28.871	-21.914	27.879	1.00 48.41	C
ATOM	10287	CD1	LEU	B	119	-28.763	-20.489	28.376	1.00 50.05	C
ATOM	10291	CD2	LEU	B	119	-28.854	-21.927	26.373	1.00 48.50	C
ATOM	10295	C	LEU	B	119	-29.071	-23.931	30.250	1.00 49.81	C
ATOM	10296	O	LEU	B	119	-29.124	-25.120	29.897	1.00 48.20	O
ATOM	10298	N	VAL	B	120	-30.044	-23.300	30.916	1.00 50.44	N
ATOM	10299	CA	VAL	B	120	-31.374	-23.871	31.149	1.00 49.07	C
ATOM	10301	CB	VAL	B	120	-31.696	-23.910	32.634	1.00 48.16	C
ATOM	10303	CG1	VAL	B	120	-33.125	-24.369	32.865	1.00 47.73	C
ATOM	10307	CG2	VAL	B	120	-30.711	-24.804	33.347	1.00 50.96	C
ATOM	10311	C	VAL	B	120	-32.394	-22.990	30.446	1.00 48.51	C
ATOM	10312	O	VAL	B	120	-32.524	-21.814	30.774	1.00 47.70	O
ATOM	10314	N	THR	B	121	-33.109	-23.568	29.485	1.00 49.00	N
ATOM	10315	CA	THR	B	121	-34.019	-22.825	28.627	1.00 49.43	C
ATOM	10317	CB	THR	B	121	-33.644	-22.974	27.128	1.00 50.87	C
ATOM	10319	OG1	THR	B	121	-32.226	-22.823	26.946	1.00 54.94	O
ATOM	10321	CG2	THR	B	121	-34.391	-21.944	26.283	1.00 50.14	C
ATOM	10325	C	THR	B	121	-35.409	-23.381	28.802	1.00 49.73	C
ATOM	10326	O	THR	B	121	-35.670	-24.532	28.455	1.00 49.51	O
ATOM	10328	N	VAL	B	122	-36.306	-22.560	29.335	1.00 50.80	N
ATOM	10329	CA	VAL	B	122	-37.697	-22.951	29.521	1.00 49.91	C
ATOM	10331	CB	VAL	B	122	-38.254	-22.403	30.852	1.00 51.14	C

ATOM	10333	CG1	VAL	B	122	-39.628	-23.022	31.162	1.00	53.69	C
ATOM	10337	CG2	VAL	B	122	-37.264	-22.651	32.004	1.00	49.84	C
ATOM	10341	C	VAL	B	122	-38.514	-22.410	28.352	1.00	48.98	C
ATOM	10342	O	VAL	B	122	-38.596	-21.198	28.168	1.00	48.36	O
ATOM	10344	N	SER	B	123	-39.097	-23.311	27.562	1.00	49.19	N
ATOM	10345	CA	SER	B	123	-39.938	-22.948	26.404	1.00	49.47	C
ATOM	10347	CB	SER	B	123	-39.063	-22.518	25.225	1.00	50.02	C
ATOM	10350	OG	SER	B	123	-39.798	-22.400	24.021	1.00	47.49	O
ATOM	10352	C	SER	B	123	-40.804	-24.120	25.974	1.00	49.56	C
ATOM	10353	O	SER	B	123	-40.503	-25.268	26.290	1.00	49.63	O
ATOM	10355	N	SER	B	124	-41.881	-23.832	25.252	1.00	50.64	N
ATOM	10356	CA	SER	B	124	-42.711	-24.892	24.666	1.00	51.03	C
ATOM	10358	CB	SER	B	124	-44.201	-24.604	24.887	1.00	50.91	C
ATOM	10361	OG	SER	B	124	-44.578	-23.356	24.346	1.00	51.52	O
ATOM	10363	C	SER	B	124	-42.401	-25.118	23.174	1.00	51.23	C
ATOM	10364	O	SER	B	124	-42.993	-25.990	22.531	1.00	51.97	O
ATOM	10366	N	ALA	B	125	-41.465	-24.339	22.635	1.00	51.66	N
ATOM	10367	CA	ALA	B	125	-40.969	-24.535	21.272	1.00	51.70	C
ATOM	10369	CB	ALA	B	125	-40.193	-23.310	20.824	1.00	51.31	C
ATOM	10373	C	ALA	B	125	-40.072	-25.771	21.211	1.00	52.38	C
ATOM	10374	O	ALA	B	125	-39.141	-25.901	22.004	1.00	53.23	O
ATOM	10376	N	SER	B	126	-40.338	-26.674	20.269	1.00	53.10	N
ATOM	10377	CA	SER	B	126	-39.575	-27.926	20.184	1.00	53.58	C
ATOM	10379	CB	SER	B	126	-40.368	-29.007	19.440	1.00	53.05	C
ATOM	10382	OG	SER	B	126	-41.300	-28.435	18.542	1.00	56.47	O
ATOM	10384	C	SER	B	126	-38.166	-27.747	19.586	1.00	54.18	C
ATOM	10385	O	SER	B	126	-37.827	-26.702	19.016	1.00	52.27	O
ATOM	10387	N	THR	B	127	-37.359	-28.793	19.739	1.00	54.57	N
ATOM	10388	CA	THR	B	127	-35.938	-28.748	19.441	1.00	54.14	C
ATOM	10390	CB	THR	B	127	-35.205	-29.901	20.166	1.00	54.37	C
ATOM	10392	OG1	THR	B	127	-35.526	-29.864	21.563	1.00	58.43	O
ATOM	10394	CG2	THR	B	127	-33.697	-29.796	20.009	1.00	55.13	C
ATOM	10398	C	THR	B	127	-35.703	-28.831	17.941	1.00	53.64	C
ATOM	10399	O	THR	B	127	-36.071	-29.816	17.313	1.00	55.32	O
ATOM	10401	N	LYS	B	128	-35.087	-27.793	17.378	1.00	53.39	N
ATOM	10402	CA	LYS	B	128	-34.868	-27.684	15.938	1.00	54.12	C
ATOM	10404	CB	LYS	B	128	-35.488	-26.374	15.421	1.00	55.29	C
ATOM	10407	CG	LYS	B	128	-36.405	-26.501	14.176	1.00	57.14	C
ATOM	10410	CD	LYS	B	128	-35.818	-25.867	12.899	1.00	60.15	C
ATOM	10413	CE	LYS	B	128	-35.289	-26.900	11.908	1.00	60.15	C
ATOM	10416	NZ	LYS	B	128	-34.401	-26.272	10.887	1.00	58.48	N
ATOM	10420	C	LYS	B	128	-33.373	-27.708	15.644	1.00	53.97	C
ATOM	10421	O	LYS	B	128	-32.579	-27.153	16.402	1.00	56.83	O
ATOM	10423	N	GLY	B	129	-32.999	-28.365	14.550	1.00	52.74	N
ATOM	10424	CA	GLY	B	129	-31.609	-28.460	14.123	1.00	52.53	C
ATOM	10427	C	GLY	B	129	-31.348	-27.524	12.957	1.00	53.65	C
ATOM	10428	O	GLY	B	129	-32.216	-27.344	12.096	1.00	55.42	O
ATOM	10430	N	PRO	B	130	-30.134	-26.955	12.887	1.00	52.88	N
ATOM	10431	CA	PRO	B	130	-29.880	-25.847	11.978	1.00	51.85	C
ATOM	10433	CB	PRO	B	130	-28.570	-25.274	12.503	1.00	52.02	C
ATOM	10436	CG	PRO	B	130	-27.857	-26.454	13.040	1.00	52.63	C
ATOM	10439	CD	PRO	B	130	-28.915	-27.348	13.616	1.00	53.25	C
ATOM	10442	C	PRO	B	130	-29.694	-26.297	10.543	1.00	50.96	C
ATOM	10443	O	PRO	B	130	-29.504	-27.483	10.293	1.00	49.72	O
ATOM	10444	N	SER	B	131	-29.770	-25.341	9.620	1.00	50.80	N
ATOM	10445	CA	SER	B	131	-29.361	-25.546	8.238	1.00	51.40	C
ATOM	10447	CB	SER	B	131	-30.365	-24.945	7.254	1.00	51.80	C
ATOM	10450	OG	SER	B	131	-31.597	-25.637	7.266	1.00	53.81	O
ATOM	10452	C	SER	B	131	-28.041	-24.829	8.079	1.00	51.38	C
ATOM	10453	O	SER	B	131	-27.904	-23.685	8.514	1.00	52.12	O
ATOM	10455	N	VAL	B	132	-27.075	-25.498	7.459	1.00	50.81	N
ATOM	10456	CA	VAL	B	132	-25.760	-24.914	7.260	1.00	51.30	C
ATOM	10458	CB	VAL	B	132	-24.634	-25.875	7.699	1.00	50.80	C

ATOM	10460	CG1	VAL	B	132	-23.266	-25.228	7.489	1.00	51.91	C
ATOM	10464	CG2	VAL	B	132	-24.818	-26.263	9.154	1.00	51.85	C
ATOM	10468	C	VAL	B	132	-25.581	-24.529	5.800	1.00	51.62	C
ATOM	10469	O	VAL	B	132	-25.290	-25.378	4.961	1.00	52.48	O
ATOM	10471	N	PHE	B	133	-25.764	-23.245	5.505	1.00	52.30	N
ATOM	10472	CA	PHE	B	133	-25.522	-22.713	4.163	1.00	52.24	C
ATOM	10474	CB	PHE	B	133	-26.550	-21.636	3.821	1.00	52.74	C
ATOM	10477	CG	PHE	B	133	-27.970	-22.097	3.952	1.00	53.46	C
ATOM	10478	CD1	PHE	B	133	-28.580	-22.807	2.929	1.00	54.14	C
ATOM	10480	CE1	PHE	B	133	-29.889	-23.236	3.048	1.00	53.90	C
ATOM	10482	CZ	PHE	B	133	-30.605	-22.962	4.198	1.00	53.29	C
ATOM	10484	CE2	PHE	B	133	-30.012	-22.259	5.226	1.00	54.94	C
ATOM	10486	CD2	PHE	B	133	-28.697	-21.829	5.102	1.00	56.08	C
ATOM	10488	C	PHE	B	133	-24.113	-22.124	4.077	1.00	52.45	C
ATOM	10489	O	PHE	B	133	-23.610	-21.578	5.062	1.00	53.33	O
ATOM	10491	N	PRO	B	134	-23.472	-22.227	2.899	1.00	51.97	N
ATOM	10492	CA	PRO	B	134	-22.132	-21.683	2.723	1.00	51.57	C
ATOM	10494	CB	PRO	B	134	-21.638	-22.420	1.480	1.00	52.22	C
ATOM	10497	CG	PRO	B	134	-22.869	-22.623	0.665	1.00	50.46	C
ATOM	10500	CD	PRO	B	134	-23.975	-22.851	1.658	1.00	52.33	C
ATOM	10503	C	PRO	B	134	-22.165	-20.175	2.464	1.00	51.61	C
ATOM	10504	O	PRO	B	134	-23.246	-19.605	2.290	1.00	51.20	O
ATOM	10505	N	LEU	B	135	-20.989	-19.545	2.442	1.00	51.72	N
ATOM	10506	CA	LEU	B	135	-20.849	-18.131	2.060	1.00	51.73	C
ATOM	10508	CB	LEU	B	135	-20.709	-17.249	3.302	1.00	51.84	C
ATOM	10511	CG	LEU	B	135	-21.907	-17.206	4.258	1.00	50.97	C
ATOM	10513	CD1	LEU	B	135	-21.518	-16.558	5.576	1.00	49.13	C
ATOM	10517	CD2	LEU	B	135	-23.079	-16.472	3.628	1.00	49.92	C
ATOM	10521	C	LEU	B	135	-19.642	-17.923	1.144	1.00	51.94	C
ATOM	10522	O	LEU	B	135	-19.785	-17.582	-0.036	1.00	51.14	O
ATOM	10524	N	GLY	B	150	-17.257	-18.194	4.805	1.00	50.98	N
ATOM	10525	CA	GLY	B	150	-17.955	-18.404	6.068	1.00	51.58	C
ATOM	10528	C	GLY	B	150	-19.010	-19.500	6.050	1.00	51.76	C
ATOM	10529	O	GLY	B	150	-19.250	-20.138	5.029	1.00	51.44	O
ATOM	10531	N	CYS	B	151	-19.636	-19.715	7.203	1.00	53.60	N
ATOM	10532	CA	CYS	B	151	-20.713	-20.692	7.351	1.00	54.06	C
ATOM	10534	CB	CYS	B	151	-20.242	-21.878	8.193	1.00	55.07	C
ATOM	10537	SG	CYS	B	151	-19.457	-23.203	7.250	1.00	58.07	S
ATOM	10539	C	CYS	B	151	-21.934	-20.045	8.007	1.00	54.00	C
ATOM	10540	O	CYS	B	151	-21.836	-19.455	9.082	1.00	52.58	O
ATOM	10542	N	LEU	B	152	-23.080	-20.155	7.345	1.00	54.08	N
ATOM	10543	CA	LEU	B	152	-24.332	-19.644	7.884	1.00	54.21	C
ATOM	10545	CB	LEU	B	152	-25.193	-19.028	6.775	1.00	54.31	C
ATOM	10548	CG	LEU	B	152	-26.653	-18.648	7.066	1.00	53.56	C
ATOM	10550	CD1	LEU	B	152	-26.873	-18.037	8.452	1.00	50.58	C
ATOM	10554	CD2	LEU	B	152	-27.135	-17.700	5.974	1.00	53.72	C
ATOM	10558	C	LEU	B	152	-25.060	-20.794	8.551	1.00	54.49	C
ATOM	10559	O	LEU	B	152	-25.333	-21.814	7.919	1.00	53.81	O
ATOM	10561	N	VAL	B	153	-25.348	-20.620	9.837	1.00	54.89	N
ATOM	10562	CA	VAL	B	153	-26.092	-21.592	10.615	1.00	55.00	C
ATOM	10564	CB	VAL	B	153	-25.368	-21.915	11.934	1.00	55.96	C
ATOM	10566	CG1	VAL	B	153	-25.982	-23.146	12.593	1.00	57.04	C
ATOM	10570	CG2	VAL	B	153	-23.865	-22.118	11.683	1.00	55.95	C
ATOM	10574	C	VAL	B	153	-27.465	-20.984	10.888	1.00	55.09	C
ATOM	10575	O	VAL	B	153	-27.587	-20.031	11.665	1.00	55.00	O
ATOM	10577	N	LYS	B	154	-28.489	-21.539	10.238	1.00	54.89	N
ATOM	10578	CA	LYS	B	154	-29.812	-20.923	10.195	1.00	54.47	C
ATOM	10580	CB	LYS	B	154	-30.191	-20.627	8.743	1.00	53.92	C
ATOM	10583	CG	LYS	B	154	-31.503	-19.884	8.617	1.00	54.64	C
ATOM	10586	CD	LYS	B	154	-31.628	-19.138	7.310	1.00	53.53	C
ATOM	10589	CE	LYS	B	154	-32.944	-18.382	7.259	1.00	52.78	C
ATOM	10592	NZ	LYS	B	154	-33.058	-17.372	8.345	1.00	53.36	N
ATOM	10596	C	LYS	B	154	-30.906	-21.777	10.850	1.00	54.58	C

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ATOM  10597  O   LYS B 154     -30.892 -23.003  10.743  1.00 53.65           O
ATOM  10599  N   ASP B 155     -31.838 -21.099  11.526  1.00 54.82           N
ATOM  10600  CA  ASP B 155     -33.038 -21.706  12.110  1.00 54.65           C
ATOM  10602  CB  ASP B 155     -34.035 -22.075  11.008  1.00 55.54           C
ATOM  10605  CG  ASP B 155     -34.593 -20.859  10.287  1.00 57.21           C
ATOM  10606  OD1 ASP B 155     -34.802 -19.812  10.934  1.00 59.60           O
ATOM  10607  OD2 ASP B 155     -34.832 -20.958   9.065  1.00 58.84           O
ATOM  10608  C   ASP B 155     -32.765 -22.929  12.977  1.00 54.95           C
ATOM  10609  O   ASP B 155     -32.877 -24.067  12.504  1.00 54.96           O
ATOM  10611  N   TYR B 156     -32.417 -22.682  14.241  1.00 54.53           N
ATOM  10612  CA  TYR B 156     -32.275 -23.744  15.244  1.00 54.05           C
ATOM  10614  CB  TYR B 156     -30.817 -24.189  15.391  1.00 54.00           C
ATOM  10617  CG  TYR B 156     -29.877 -23.147  15.979  1.00 55.08           C
ATOM  10618  CD1 TYR B 156     -29.226 -22.230  15.159  1.00 54.02           C
ATOM  10620  CE1 TYR B 156     -28.362 -21.279  15.685  1.00 52.80           C
ATOM  10622  CZ  TYR B 156     -28.135 -21.236  17.042  1.00 53.30           C
ATOM  10623  OH  TYR B 156     -27.276 -20.288  17.538  1.00 55.28           O
ATOM  10625  CE2 TYR B 156     -28.761 -22.137  17.888  1.00 53.76           C
ATOM  10627  CD2 TYR B 156     -29.624 -23.093  17.353  1.00 55.51           C
ATOM  10629  C   TYR B 156     -32.798 -23.297  16.595  1.00 54.11           C
ATOM  10630  O   TYR B 156     -32.922 -22.106  16.862  1.00 54.77           O
ATOM  10632  N   PHE B 157     -33.092 -24.270  17.445  1.00 54.54           N
ATOM  10633  CA  PHE B 157     -33.561 -24.013  18.802  1.00 54.76           C
ATOM  10635  CB  PHE B 157     -35.047 -23.645  18.789  1.00 54.48           C
ATOM  10638  CG  PHE B 157     -35.577 -23.162  20.117  1.00 54.78           C
ATOM  10639  CD1 PHE B 157     -35.537 -21.814  20.451  1.00 55.46           C
ATOM  10641  CE1 PHE B 157     -36.044 -21.358  21.680  1.00 55.34           C
ATOM  10643  CZ  PHE B 157     -36.593 -22.252  22.580  1.00 54.44           C
ATOM  10645  CE2 PHE B 157     -36.646 -23.597  22.261  1.00 56.51           C
ATOM  10647  CD2 PHE B 157     -36.144 -24.050  21.026  1.00 56.92           C
ATOM  10649  C   PHE B 157     -33.324 -25.300  19.588  1.00 55.42           C
ATOM  10650  O   PHE B 157     -33.478 -26.383  19.039  1.00 57.32           O
ATOM  10652  N   PRO B 158     -32.883 -25.199  20.848  1.00 55.16           N
ATOM  10653  CA  PRO B 158     -32.460 -24.025  21.604  1.00 55.61           C
ATOM  10655  CB  PRO B 158     -32.567 -24.512  23.049  1.00 56.14           C
ATOM  10658  CG  PRO B 158     -32.202 -25.956  22.955  1.00 55.07           C
ATOM  10661  CD  PRO B 158     -32.786 -26.429  21.653  1.00 54.87           C
ATOM  10664  C   PRO B 158     -31.012 -23.633  21.298  1.00 55.52           C
ATOM  10665  O   PRO B 158     -30.384 -24.213  20.422  1.00 55.39           O
ATOM  10666  N   GLU B 159     -30.494 -22.644  22.017  1.00 56.01           N
ATOM  10667  CA  GLU B 159     -29.056 -22.412  22.066  1.00 55.50           C
ATOM  10669  CB  GLU B 159     -28.759 -21.113  22.811  1.00 55.51           C
ATOM  10672  CG  GLU B 159     -29.104 -19.859  22.047  1.00 57.18           C
ATOM  10675  CD  GLU B 159     -27.952 -19.375  21.194  1.00 61.22           C
ATOM  10676  OE1 GLU B 159     -27.540 -18.209  21.369  1.00 63.05           O
ATOM  10677  OE2 GLU B 159     -27.447 -20.165  20.363  1.00 62.01           O
ATOM  10678  C   GLU B 159     -28.407 -23.575  22.815  1.00 55.02           C
ATOM  10679  O   GLU B 159     -29.092 -24.305  23.538  1.00 56.36           O
ATOM  10681  N   PRO B 160     -27.084 -23.744  22.679  1.00 53.60           N
ATOM  10682  CA  PRO B 160     -26.167 -23.063  21.803  1.00 52.61           C
ATOM  10684  CB  PRO B 160     -24.990 -22.789  22.733  1.00 51.90           C
ATOM  10687  CG  PRO B 160     -24.969 -23.998  23.654  1.00 52.09           C
ATOM  10690  CD  PRO B 160     -26.343 -24.645  23.578  1.00 54.16           C
ATOM  10693  C   PRO B 160     -25.693 -23.925  20.641  1.00 52.11           C
ATOM  10694  O   PRO B 160     -25.957 -25.128  20.587  1.00 50.42           O
ATOM  10695  N   VAL B 161     -24.989 -23.278  19.721  1.00 53.03           N
ATOM  10696  CA  VAL B 161     -24.278 -23.947  18.647  1.00 52.97           C
ATOM  10698  CB  VAL B 161     -24.822 -23.531  17.260  1.00 52.23           C
ATOM  10700  CG1 VAL B 161     -23.858 -23.891  16.149  1.00 53.59           C
ATOM  10704  CG2 VAL B 161     -26.153 -24.195  17.006  1.00 54.81           C
ATOM  10708  C   VAL B 161     -22.818 -23.559  18.771  1.00 53.12           C
ATOM  10709  O   VAL B 161     -22.501 -22.440  19.179  1.00 53.70           O
ATOM  10711  N   THR B 162     -21.938 -24.495  18.434  1.00 52.95           N
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ATOM  10712  CA  THR B 162     -20.509 -24.234  18.386  1.00 52.79           C
ATOM  10714  CB  THR B 162     -19.732 -25.158  19.341  1.00 52.78           C
ATOM  10716  OG1 THR B 162     -19.589 -26.459  18.754  1.00 56.12           O
ATOM  10718  CG2 THR B 162     -20.461 -25.277  20.676  1.00 52.34           C
ATOM  10722  C   THR B 162     -20.029 -24.448  16.959  1.00 52.48           C
ATOM  10723  O   THR B 162     -20.527 -25.322  16.249  1.00 52.28           O
ATOM  10725  N   VAL B 163     -19.066 -23.635  16.546  1.00 52.43           N
ATOM  10726  CA  VAL B 163     -18.519 -23.701  15.207  1.00 51.71           C
ATOM  10728  CB  VAL B 163     -18.977 -22.506  14.343  1.00 50.84           C
ATOM  10730  CG1 VAL B 163     -18.816 -22.837  12.873  1.00 50.88           C
ATOM  10734  CG2 VAL B 163     -20.421 -22.129  14.641  1.00 50.99           C
ATOM  10738  C   VAL B 163     -16.998 -23.685  15.293  1.00 51.91           C
ATOM  10739  O   VAL B 163     -16.417 -22.849  15.983  1.00 50.40           O
ATOM  10741  N   SER B 164     -16.366 -24.623  14.594  1.00 53.30           N
ATOM  10742  CA  SER B 164     -14.915 -24.645  14.434  1.00 53.24           C
ATOM  10744  CB  SER B 164     -14.309 -25.834  15.184  1.00 53.81           C
ATOM  10747  OG  SER B 164     -14.376 -27.024  14.415  1.00 54.22           O
ATOM  10749  C   SER B 164     -14.576 -24.726  12.951  1.00 53.06           C
ATOM  10750  O   SER B 164     -15.450 -24.994  12.124  1.00 53.23           O
ATOM  10752  N   TRP B 165     -13.310 -24.485  12.620  1.00 53.53           N
ATOM  10753  CA  TRP B 165     -12.838 -24.590  11.240  1.00 54.03           C
ATOM  10755  CB  TRP B 165     -12.416 -23.215  10.701  1.00 53.15           C
ATOM  10758  CG  TRP B 165     -13.602 -22.329  10.439  1.00 52.43           C
ATOM  10759  CD1 TRP B 165     -14.224 -21.497  11.334  1.00 51.83           C
ATOM  10761  NE1 TRP B 165     -15.292 -20.868  10.734  1.00 51.54           N
ATOM  10763  CE2 TRP B 165     -15.386 -21.294   9.435  1.00 52.27           C
ATOM  10764  CD2 TRP B 165     -14.336 -22.218   9.212  1.00 52.52           C
ATOM  10765  CE3 TRP B 165     -14.208 -22.807   7.944  1.00 52.13           C
ATOM  10767  CZ3 TRP B 165     -15.114 -22.455   6.946  1.00 51.05           C
ATOM  10769  CH2 TRP B 165     -16.145 -21.527   7.196  1.00 51.97           C
ATOM  10771  CZ2 TRP B 165     -16.299 -20.941   8.433  1.00 52.34           C
ATOM  10773  C   TRP B 165     -11.707 -25.611  11.150  1.00 54.86           C
ATOM  10774  O   TRP B 165     -10.758 -25.571  11.941  1.00 55.61           O
ATOM  10776  N   ASN B 166     -11.839 -26.535  10.196  1.00 54.82           N
ATOM  10777  CA  ASN B 166     -10.924 -27.665  10.043  1.00 54.89           C
ATOM  10779  CB  ASN B 166      -9.587 -27.186   9.465  1.00 54.64           C
ATOM  10782  CG  ASN B 166      -9.735 -26.565   8.084  1.00 55.47           C
ATOM  10783  OD1 ASN B 166     -10.793 -26.653   7.462  1.00 57.53           O
ATOM  10784  ND2 ASN B 166      -8.670 -25.938   7.597  1.00 54.29           N
ATOM  10787  C   ASN B 166     -10.714 -28.440  11.350  1.00 55.57           C
ATOM  10788  O   ASN B 166      -9.596 -28.836  11.674  1.00 56.25           O
ATOM  10790  N   SER B 167     -11.803 -28.649  12.090  1.00 56.35           N
ATOM  10791  CA  SER B 167     -11.769 -29.335  13.386  1.00 56.44           C
ATOM  10793  CB  SER B 167     -11.582 -30.843  13.192  1.00 56.83           C
ATOM  10796  OG  SER B 167     -12.694 -31.411  12.524  1.00 59.25           O
ATOM  10798  C   SER B 167     -10.681 -28.787  14.309  1.00 56.60           C
ATOM  10799  O   SER B 167      -9.582 -29.337  14.386  1.00 56.11           O
ATOM  10801  N   GLY B 168     -10.987 -27.685  14.989  1.00 56.94           N
ATOM  10802  CA  GLY B 168     -10.068 -27.079  15.946  1.00 56.24           C
ATOM  10805  C   GLY B 168      -8.907 -26.322  15.319  1.00 56.00           C
ATOM  10806  O   GLY B 168      -8.587 -25.219  15.752  1.00 56.18           O
ATOM  10808  N   ALA B 169      -8.276 -26.907  14.304  1.00 55.35           N
ATOM  10809  CA  ALA B 169      -7.036 -26.363  13.746  1.00 55.70           C
ATOM  10811  CB  ALA B 169      -6.641 -27.128  12.471  1.00 54.85           C
ATOM  10815  C   ALA B 169      -7.107 -24.857  13.468  1.00 55.84           C
ATOM  10816  O   ALA B 169      -6.441 -24.064  14.141  1.00 55.07           O
ATOM  10818  N   LEU B 170      -7.930 -24.477  12.493  1.00 55.93           N
ATOM  10819  CA  LEU B 170      -7.988 -23.098  12.003  1.00 55.07           C
ATOM  10821  CB  LEU B 170      -8.675 -23.077  10.633  1.00 54.39           C
ATOM  10824  CG  LEU B 170      -8.881 -21.726   9.955  1.00 55.49           C
ATOM  10826  CD1 LEU B 170      -7.600 -20.904   9.982  1.00 56.43           C
ATOM  10830  CD2 LEU B 170      -9.366 -21.930   8.527  1.00 54.96           C
ATOM  10834  C   LEU B 170      -8.700 -22.159  12.990  1.00 54.79           C
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ATOM	10835	O	LEU	B	170	-9.921	-21.993	12.934	1.00	54.70	O
ATOM	10837	N	THR	B	171	-7.919	-21.552	13.886	1.00	54.41	N
ATOM	10838	CA	THR	B	171	-8.439	-20.655	14.931	1.00	53.99	C
ATOM	10840	CB	THR	B	171	-7.620	-20.756	16.262	1.00	54.29	C
ATOM	10842	OG1	THR	B	171	-6.212	-20.826	15.973	1.00	54.71	O
ATOM	10844	CG2	THR	B	171	-8.039	-21.971	17.085	1.00	53.13	C
ATOM	10848	C	THR	B	171	-8.420	-19.188	14.508	1.00	53.64	C
ATOM	10849	O	THR	B	171	-9.437	-18.497	14.609	1.00	52.66	O
ATOM	10851	N	SER	B	172	-7.255	-18.717	14.058	1.00	53.25	N
ATOM	10852	CA	SER	B	172	-7.043	-17.292	13.799	1.00	53.18	C
ATOM	10854	CB	SER	B	172	-5.549	-16.974	13.670	1.00	53.75	C
ATOM	10857	OG	SER	B	172	-5.068	-17.268	12.366	1.00	53.04	O
ATOM	10859	C	SER	B	172	-7.782	-16.833	12.543	1.00	52.72	C
ATOM	10860	O	SER	B	172	-7.923	-17.594	11.585	1.00	51.57	O
ATOM	10862	N	GLY	B	173	-8.245	-15.583	12.571	1.00	52.76	N
ATOM	10863	CA	GLY	B	173	-9.048	-15.001	11.496	1.00	53.18	C
ATOM	10866	C	GLY	B	173	-10.546	-15.149	11.726	1.00	54.24	C
ATOM	10867	O	GLY	B	173	-11.343	-14.422	11.124	1.00	54.13	O
ATOM	10869	N	VAL	B	174	-10.925	-16.077	12.607	1.00	54.26	N
ATOM	10870	CA	VAL	B	174	-12.318	-16.467	12.786	1.00	54.61	C
ATOM	10872	CB	VAL	B	174	-12.425	-17.841	13.519	1.00	55.14	C
ATOM	10874	CG1	VAL	B	174	-13.874	-18.157	13.936	1.00	53.49	C
ATOM	10878	CG2	VAL	B	174	-11.861	-18.954	12.639	1.00	56.13	C
ATOM	10882	C	VAL	B	174	-13.089	-15.404	13.567	1.00	55.82	C
ATOM	10883	O	VAL	B	174	-12.572	-14.845	14.541	1.00	55.91	O
ATOM	10885	N	HIS	B	175	-14.319	-15.131	13.123	1.00	55.64	N
ATOM	10886	CA	HIS	B	175	-15.271	-14.306	13.879	1.00	53.98	C
ATOM	10888	CB	HIS	B	175	-15.350	-12.882	13.313	1.00	54.89	C
ATOM	10891	CG	HIS	B	175	-14.168	-12.028	13.654	1.00	55.41	C
ATOM	10892	ND1	HIS	B	175	-13.902	-11.606	14.939	1.00	56.66	N
ATOM	10894	CE1	HIS	B	175	-12.803	-10.871	14.941	1.00	58.66	C
ATOM	10896	NE2	HIS	B	175	-12.349	-10.797	13.702	1.00	58.90	N
ATOM	10898	CD2	HIS	B	175	-13.185	-11.512	12.877	1.00	56.60	C
ATOM	10900	C	HIS	B	175	-16.651	-14.960	13.872	1.00	52.07	C
ATOM	10901	O	HIS	B	175	-17.406	-14.827	12.913	1.00	52.28	O
ATOM	10903	N	THR	B	176	-16.959	-15.679	14.945	1.00	50.90	N
ATOM	10904	CA	THR	B	176	-18.259	-16.310	15.116	1.00	50.65	C
ATOM	10906	CB	THR	B	176	-18.135	-17.652	15.848	1.00	49.92	C
ATOM	10908	OG1	THR	B	176	-17.176	-18.475	15.165	1.00	50.40	O
ATOM	10910	CG2	THR	B	176	-19.475	-18.371	15.896	1.00	49.15	C
ATOM	10914	C	THR	B	176	-19.168	-15.358	15.885	1.00	49.46	C
ATOM	10915	O	THR	B	176	-18.838	-14.912	16.975	1.00	48.82	O
ATOM	10917	N	PHE	B	177	-20.312	-15.044	15.293	1.00	49.87	N
ATOM	10918	CA	PHE	B	177	-21.176	-13.992	15.800	1.00	50.35	C
ATOM	10920	CB	PHE	B	177	-21.945	-13.342	14.642	1.00	49.43	C
ATOM	10923	CG	PHE	B	177	-21.070	-12.582	13.700	1.00	48.44	C
ATOM	10924	CD1	PHE	B	177	-20.562	-13.183	12.559	1.00	48.42	C
ATOM	10926	CE1	PHE	B	177	-19.739	-12.480	11.697	1.00	48.71	C
ATOM	10928	CZ	PHE	B	177	-19.414	-11.165	11.977	1.00	48.09	C
ATOM	10930	CE2	PHE	B	177	-19.909	-10.563	13.113	1.00	47.31	C
ATOM	10932	CD2	PHE	B	177	-20.730	-11.267	13.967	1.00	48.42	C
ATOM	10934	C	PHE	B	177	-22.160	-14.508	16.845	1.00	50.87	C
ATOM	10935	O	PHE	B	177	-22.620	-15.653	16.763	1.00	49.53	O
ATOM	10937	N	PRO	B	178	-22.485	-13.658	17.838	1.00	51.19	N
ATOM	10938	CA	PRO	B	178	-23.611	-13.934	18.713	1.00	50.97	C
ATOM	10940	CB	PRO	B	178	-23.845	-12.600	19.421	1.00	49.54	C
ATOM	10943	CG	PRO	B	178	-22.546	-11.938	19.420	1.00	50.84	C
ATOM	10946	CD	PRO	B	178	-21.801	-12.405	18.202	1.00	51.45	C
ATOM	10949	C	PRO	B	178	-24.832	-14.308	17.892	1.00	51.79	C
ATOM	10950	O	PRO	B	178	-25.114	-13.670	16.870	1.00	51.45	O
ATOM	10951	N	ALA	B	179	-25.543	-15.343	18.325	1.00	52.55	N
ATOM	10952	CA	ALA	B	179	-26.758	-15.743	17.638	1.00	52.43	C
ATOM	10954	CB	ALA	B	179	-27.279	-17.070	18.169	1.00	53.11	C

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ATOM  10958  C   ALA B 179     -27.789 -14.645  17.815  1.00 52.27           C
ATOM  10959  O   ALA B 179     -27.708 -13.856  18.754  1.00 51.59           O
ATOM  10961  N   VAL B 180     -28.735 -14.598  16.885  1.00 52.97           N
ATOM  10962  CA  VAL B 180     -29.787 -13.596  16.871  1.00 53.18           C
ATOM  10964  CB  VAL B 180     -29.653 -12.712  15.617  1.00 52.02           C
ATOM  10966  CG1 VAL B 180     -30.919 -11.934  15.343  1.00 53.61           C
ATOM  10970  CG2 VAL B 180     -28.484 -11.765  15.788  1.00 53.87           C
ATOM  10974  C   VAL B 180     -31.122 -14.330  16.895  1.00 54.16           C
ATOM  10975  O   VAL B 180     -31.280 -15.363  16.242  1.00 55.58           O
ATOM  10977  N   LEU B 181     -32.078 -13.820  17.662  1.00 53.82           N
ATOM  10978  CA  LEU B 181     -33.393 -14.423  17.674  1.00 54.37           C
ATOM  10980  CB  LEU B 181     -34.050 -14.301  19.044  1.00 54.04           C
ATOM  10983  CG  LEU B 181     -35.393 -15.025  19.231  1.00 53.59           C
ATOM  10985  CD1 LEU B 181     -35.511 -16.323  18.446  1.00 53.80           C
ATOM  10989  CD2 LEU B 181     -35.626 -15.296  20.708  1.00 54.14           C
ATOM  10993  C   LEU B 181     -34.237 -13.755  16.606  1.00 55.94           C
ATOM  10994  O   LEU B 181     -34.463 -12.546  16.644  1.00 56.27           O
ATOM  10996  N   GLN B 182     -34.681 -14.553  15.639  1.00 56.99           N
ATOM  10997  CA  GLN B 182     -35.534 -14.076  14.563  1.00 56.96           C
ATOM  10999  CB  GLN B 182     -35.501 -15.068  13.394  1.00 56.74           C
ATOM  11002  CG  GLN B 182     -34.139 -15.166  12.715  1.00 56.72           C
ATOM  11005  CD  GLN B 182     -33.890 -16.517  12.071  1.00 57.96           C
ATOM  11006  OE1 GLN B 182     -33.863 -16.640  10.845  1.00 62.10           O
ATOM  11007  NE2 GLN B 182     -33.702 -17.537  12.895  1.00 55.29           N
ATOM  11010  C   GLN B 182     -36.959 -13.898  15.090  1.00 58.09           C
ATOM  11011  O   GLN B 182     -37.246 -14.218  16.255  1.00 57.07           O
ATOM  11013  N   SER B 183     -37.841 -13.374  14.234  1.00 57.94           N
ATOM  11014  CA  SER B 183     -39.255 -13.215  14.577  1.00 57.43           C
ATOM  11016  CB  SER B 183     -39.954 -12.272  13.593  1.00 57.09           C
ATOM  11019  OG  SER B 183     -40.108 -12.869  12.318  1.00 57.50           O
ATOM  11021  C   SER B 183     -39.965 -14.569  14.603  1.00 57.57           C
ATOM  11022  O   SER B 183     -40.976 -14.727  15.290  1.00 57.40           O
ATOM  11024  N   SER B 184     -39.425 -15.537  13.857  1.00 58.06           N
ATOM  11025  CA  SER B 184     -39.964 -16.905  13.809  1.00 57.73           C
ATOM  11027  CB  SER B 184     -39.379 -17.666  12.605  1.00 57.67           C
ATOM  11030  OG  SER B 184     -37.958 -17.609  12.579  1.00 56.30           O
ATOM  11032  C   SER B 184     -39.720 -17.698  15.104  1.00 57.79           C
ATOM  11033  O   SER B 184     -40.263 -18.790  15.279  1.00 57.78           O
ATOM  11035  N   GLY B 185     -38.908 -17.153  16.007  1.00 57.52           N
ATOM  11036  CA  GLY B 185     -38.628 -17.802  17.280  1.00 57.44           C
ATOM  11039  C   GLY B 185     -37.419 -18.718  17.222  1.00 57.41           C
ATOM  11040  O   GLY B 185     -37.057 -19.320  18.228  1.00 58.57           O
ATOM  11042  N   LEU B 186     -36.785 -18.812  16.054  1.00 57.04           N
ATOM  11043  CA  LEU B 186     -35.582 -19.628  15.870  1.00 56.95           C
ATOM  11045  CB  LEU B 186     -35.674 -20.413  14.553  1.00 56.42           C
ATOM  11048  CG  LEU B 186     -37.010 -21.124  14.292  1.00 54.96           C
ATOM  11050  CD1 LEU B 186     -36.956 -21.958  13.014  1.00 52.21           C
ATOM  11054  CD2 LEU B 186     -37.401 -21.989  15.489  1.00 54.82           C
ATOM  11058  C   LEU B 186     -34.314 -18.755  15.883  1.00 57.67           C
ATOM  11059  O   LEU B 186     -34.372 -17.549  15.613  1.00 57.57           O
ATOM  11061  N   TYR B 187     -33.175 -19.371  16.202  1.00 58.06           N
ATOM  11062  CA  TYR B 187     -31.894 -18.670  16.243  1.00 57.81           C
ATOM  11064  CB  TYR B 187     -31.019 -19.189  17.382  1.00 59.04           C
ATOM  11067  CG  TYR B 187     -31.534 -18.780  18.730  1.00 61.73           C
ATOM  11068  CD1 TYR B 187     -31.416 -17.467  19.160  1.00 63.16           C
ATOM  11070  CE1 TYR B 187     -31.902 -17.073  20.393  1.00 62.08           C
ATOM  11072  CZ  TYR B 187     -32.519 -17.996  21.206  1.00 60.34           C
ATOM  11073  OH  TYR B 187     -32.993 -17.596  22.429  1.00 62.56           O
ATOM  11075  CE2 TYR B 187     -32.655 -19.310  20.801  1.00 60.08           C
ATOM  11077  CD2 TYR B 187     -32.168 -19.694  19.568  1.00 63.07           C
ATOM  11079  C   TYR B 187     -31.159 -18.823  14.930  1.00 58.28           C
ATOM  11080  O   TYR B 187     -31.404 -19.766  14.171  1.00 58.80           O
ATOM  11082  N   SER B 188     -30.254 -17.882  14.677  1.00 58.08           N
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ATOM	11083	CA	SER	B	188	-29.443	-17.870	13.465	1.00 57.89	C
ATOM	11085	CB	SER	B	188	-30.237	-17.265	12.299	1.00 58.09	C
ATOM	11088	OG	SER	B	188	-29.429	-17.130	11.146	1.00 58.62	O
ATOM	11090	C	SER	B	188	-28.161	-17.073	13.712	1.00 58.02	C
ATOM	11091	O	SER	B	188	-28.202	-15.983	14.297	1.00 58.64	O
ATOM	11093	N	LEU	B	189	-27.030	-17.630	13.282	1.00 56.99	N
ATOM	11094	CA	LEU	B	189	-25.739	-16.958	13.402	1.00 56.45	C
ATOM	11096	CB	LEU	B	189	-25.023	-17.360	14.705	1.00 56.10	C
ATOM	11099	CG	LEU	B	189	-24.424	-18.773	14.886	1.00 55.79	C
ATOM	11101	CD1	LEU	B	189	-23.070	-18.949	14.183	1.00 55.76	C
ATOM	11105	CD2	LEU	B	189	-24.276	-19.121	16.374	1.00 55.78	C
ATOM	11109	C	LEU	B	189	-24.875	-17.277	12.190	1.00 57.46	C
ATOM	11110	O	LEU	B	189	-25.180	-18.190	11.415	1.00 58.38	O
ATOM	11112	N	SER	B	190	-23.805	-16.503	12.032	1.00 56.80	N
ATOM	11113	CA	SER	B	190	-22.800	-16.763	11.021	1.00 55.83	C
ATOM	11115	CB	SER	B	190	-22.747	-15.619	10.013	1.00 55.86	C
ATOM	11118	OG	SER	B	190	-23.635	-15.867	8.938	1.00 55.59	O
ATOM	11120	C	SER	B	190	-21.438	-16.944	11.666	1.00 55.69	C
ATOM	11121	O	SER	B	190	-21.196	-16.468	12.770	1.00 55.67	O
ATOM	11123	N	SER	B	191	-20.566	-17.663	10.964	1.00 56.15	N
ATOM	11124	CA	SER	B	191	-19.149	-17.770	11.305	1.00 55.29	C
ATOM	11126	CB	SER	B	191	-18.817	-19.177	11.814	1.00 55.19	C
ATOM	11129	OG	SER	B	191	-17.557	-19.211	12.463	1.00 52.68	O
ATOM	11131	C	SER	B	191	-18.360	-17.444	10.036	1.00 55.60	C
ATOM	11132	O	SER	B	191	-18.728	-17.875	8.943	1.00 55.41	O
ATOM	11134	N	VAL	B	192	-17.288	-16.676	10.181	1.00 55.17	N
ATOM	11135	CA	VAL	B	192	-16.591	-16.131	9.029	1.00 54.48	C
ATOM	11137	CB	VAL	B	192	-17.286	-14.828	8.565	1.00 53.82	C
ATOM	11139	CG1	VAL	B	192	-16.980	-13.665	9.518	1.00 52.71	C
ATOM	11143	CG2	VAL	B	192	-16.897	-14.491	7.137	1.00 53.89	C
ATOM	11147	C	VAL	B	192	-15.117	-15.875	9.342	1.00 54.97	C
ATOM	11148	O	VAL	B	192	-14.650	-16.163	10.448	1.00 55.22	O
ATOM	11150	N	CYS	B	207	-16.049	-25.963	7.676	1.00 54.86	N
ATOM	11151	CA	CYS	B	207	-16.419	-25.637	9.056	1.00 56.53	C
ATOM	11153	CB	CYS	B	207	-17.285	-24.369	9.099	1.00 56.31	C
ATOM	11156	SG	CYS	B	207	-19.022	-24.617	8.655	1.00 58.00	S
ATOM	11158	C	CYS	B	207	-17.154	-26.805	9.724	1.00 56.35	C
ATOM	11159	O	CYS	B	207	-17.791	-27.615	9.048	1.00 56.18	O
ATOM	11161	N	ASN	B	208	-17.044	-26.889	11.048	1.00 56.47	N
ATOM	11162	CA	ASN	B	208	-17.747	-27.902	11.840	1.00 56.52	C
ATOM	11164	CB	ASN	B	208	-16.786	-28.635	12.797	1.00 56.78	C
ATOM	11167	CG	ASN	B	208	-15.723	-29.443	12.078	1.00 54.16	C
ATOM	11168	OD1	ASN	B	208	-15.494	-29.263	10.887	1.00 51.91	O
ATOM	11169	ND2	ASN	B	208	-15.068	-30.345	12.808	1.00 48.76	N
ATOM	11172	C	ASN	B	208	-18.821	-27.242	12.685	1.00 56.17	C
ATOM	11173	O	ASN	B	208	-18.540	-26.794	13.797	1.00 56.49	O
ATOM	11175	N	VAL	B	209	-20.045	-27.178	12.175	1.00 55.42	N
ATOM	11176	CA	VAL	B	209	-21.166	-26.722	12.998	1.00 55.89	C
ATOM	11178	CB	VAL	B	209	-22.338	-26.194	12.141	1.00 55.09	C
ATOM	11180	CG1	VAL	B	209	-23.559	-25.895	13.007	1.00 53.33	C
ATOM	11184	CG2	VAL	B	209	-21.909	-24.955	11.367	1.00 53.58	C
ATOM	11188	C	VAL	B	209	-21.607	-27.885	13.895	1.00 56.01	C
ATOM	11189	O	VAL	B	209	-21.630	-29.037	13.459	1.00 56.65	O
ATOM	11191	N	ASN	B	210	-21.925	-27.581	15.150	1.00 56.29	N
ATOM	11192	CA	ASN	B	210	-22.360	-28.596	16.112	1.00 56.44	C
ATOM	11194	CB	ASN	B	210	-21.183	-29.037	16.993	1.00 56.72	C
ATOM	11197	CG	ASN	B	210	-21.601	-30.009	18.092	1.00 57.71	C
ATOM	11198	OD1	ASN	B	210	-21.491	-31.226	17.943	1.00 61.62	O
ATOM	11199	ND2	ASN	B	210	-22.091	-29.470	19.198	1.00 61.75	N
ATOM	11202	C	ASN	B	210	-23.501	-28.066	16.976	1.00 56.60	C
ATOM	11203	O	ASN	B	210	-23.357	-27.019	17.613	1.00 57.84	O
ATOM	11205	N	HIS	B	211	-24.620	-28.796	17.000	1.00 55.66	N
ATOM	11206	CA	HIS	B	211	-25.807	-28.392	17.756	1.00 56.04	C

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ATOM  11208  CB  HIS B 211     -26.929 -27.966  16.796  1.00 55.63           C
ATOM  11211  CG  HIS B 211     -28.188 -27.528  17.482  1.00 56.30           C
ATOM  11212  ND1 HIS B 211     -28.188 -26.697  18.582  1.00 57.16           N
ATOM  11214  CE1 HIS B 211     -29.433 -26.482  18.966  1.00 55.91           C
ATOM  11216  NE2 HIS B 211     -30.241 -27.133  18.149  1.00 55.11           N
ATOM  11218  CD2 HIS B 211     -29.487 -27.797  17.215  1.00 54.92           C
ATOM  11220  C   HIS B 211     -26.257 -29.529  18.680  1.00 56.66           C
ATOM  11221  O   HIS B 211     -27.142 -30.323  18.341  1.00 57.63           O
ATOM  11223  N   LYS B 212     -25.646 -29.587  19.861  1.00 56.14           N
ATOM  11224  CA  LYS B 212     -25.885 -30.680  20.807  1.00 55.28           C
ATOM  11226  CB  LYS B 212     -25.077 -30.473  22.090  1.00 54.88           C
ATOM  11229  CG  LYS B 212     -23.642 -30.927  21.951  1.00 56.58           C
ATOM  11232  CD  LYS B 212     -22.683 -30.153  22.846  1.00 56.60           C
ATOM  11235  CE  LYS B 212     -21.232 -30.476  22.470  1.00 57.54           C
ATOM  11238  NZ  LYS B 212     -20.252 -29.606  23.168  1.00 59.75           N
ATOM  11242  C   LYS B 212     -27.353 -30.926  21.143  1.00 54.35           C
ATOM  11243  O   LYS B 212     -27.778 -32.075  21.153  1.00 54.94           O
ATOM  11245  N   PRO B 213     -28.127 -29.859  21.424  1.00 54.43           N
ATOM  11246  CA  PRO B 213     -29.548 -30.017  21.764  1.00 53.34           C
ATOM  11248  CB  PRO B 213     -30.072 -28.580  21.733  1.00 52.85           C
ATOM  11251  CG  PRO B 213     -28.905 -27.756  22.105  1.00 54.65           C
ATOM  11254  CD  PRO B 213     -27.716 -28.441  21.487  1.00 54.93           C
ATOM  11257  C   PRO B 213     -30.357 -30.876  20.798  1.00 53.66           C
ATOM  11258  O   PRO B 213     -31.285 -31.559  21.228  1.00 54.84           O
ATOM  11259  N   SER B 214     -30.023 -30.829  19.509  1.00 53.19           N
ATOM  11260  CA  SER B 214     -30.718 -31.623  18.505  1.00 51.84           C
ATOM  11262  CB  SER B 214     -31.213 -30.723  17.372  1.00 52.17           C
ATOM  11265  OG  SER B 214     -30.219 -30.578  16.372  1.00 49.60           O
ATOM  11267  C   SER B 214     -29.824 -32.709  17.921  1.00 51.68           C
ATOM  11268  O   SER B 214     -30.157 -33.280  16.881  1.00 50.86           O
ATOM  11270  N   ASN B 215     -28.693 -32.990  18.571  1.00 51.08           N
ATOM  11271  CA  ASN B 215     -27.734 -33.986  18.065  1.00 51.21           C
ATOM  11273  CB  ASN B 215     -28.305 -35.398  18.265  1.00 51.21           C
ATOM  11276  CG  ASN B 215     -27.589 -36.160  19.348  1.00 51.03           C
ATOM  11277  OD1 ASN B 215     -27.975 -36.125  20.526  1.00 42.90           O
ATOM  11278  ND2 ASN B 215     -26.519 -36.846  18.959  1.00 48.48           N
ATOM  11281  C   ASN B 215     -27.314 -33.784  16.598  1.00 50.17           C
ATOM  11282  O   ASN B 215     -27.053 -34.746  15.887  1.00 47.72           O
ATOM  11284  N   THR B 216     -27.226 -32.529  16.170  1.00 50.54           N
ATOM  11285  CA  THR B 216     -26.949 -32.199  14.782  1.00 51.78           C
ATOM  11287  CB  THR B 216     -27.861 -31.051  14.300  1.00 51.31           C
ATOM  11289  OG1 THR B 216     -29.231 -31.446  14.428  1.00 51.33           O
ATOM  11291  CG2 THR B 216     -27.567 -30.676  12.849  1.00 49.41           C
ATOM  11295  C   THR B 216     -25.497 -31.793  14.576  1.00 53.65           C
ATOM  11296  O   THR B 216     -25.179 -30.605  14.568  1.00 55.97           O
ATOM  11298  N   LYS B 217     -24.614 -32.779  14.416  1.00 54.64           N
ATOM  11299  CA  LYS B 217     -23.261 -32.518  13.904  1.00 53.77           C
ATOM  11301  CB  LYS B 217     -22.290 -33.680  14.186  1.00 55.54           C
ATOM  11304  CG  LYS B 217     -21.547 -33.608  15.529  1.00 56.86           C
ATOM  11307  CD  LYS B 217     -20.019 -33.579  15.321  1.00 59.77           C
ATOM  11310  CE  LYS B 217     -19.232 -33.967  16.583  1.00 59.68           C
ATOM  11313  NZ  LYS B 217     -19.541 -33.154  17.804  1.00 57.76           N
ATOM  11317  C   LYS B 217     -23.371 -32.314  12.403  1.00 52.56           C
ATOM  11318  O   LYS B 217     -24.271 -32.868  11.771  1.00 52.15           O
ATOM  11320  N   VAL B 218     -22.460 -31.521  11.843  1.00 51.64           N
ATOM  11321  CA  VAL B 218     -22.422 -31.266  10.395  1.00 51.59           C
ATOM  11323  CB  VAL B 218     -23.644 -30.411   9.924  1.00 51.11           C
ATOM  11325  CG1 VAL B 218     -23.941 -29.302  10.916  1.00 52.27           C
ATOM  11329  CG2 VAL B 218     -23.440 -29.849   8.514  1.00 51.13           C
ATOM  11333  C   VAL B 218     -21.102 -30.600   9.986  1.00 51.07           C
ATOM  11334  O   VAL B 218     -20.607 -29.703  10.678  1.00 50.95           O
ATOM  11336  N   ASP B 219     -20.545 -31.063   8.865  1.00 51.19           N
ATOM  11337  CA  ASP B 219     -19.296 -30.543   8.311  1.00 51.13           C
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ATOM  11339  CB  ASP B 219     -18.227 -31.643   8.275  1.00 50.74           C
ATOM  11342  CG  ASP B 219     -17.914 -32.205   9.649  1.00 50.73           C
ATOM  11343  OD1 ASP B 219     -18.449 -33.279   9.992  1.00 50.08           O
ATOM  11344  OD2 ASP B 219     -17.138 -31.572  10.390  1.00 48.77           O
ATOM  11345  C   ASP B 219     -19.534 -30.014   6.899  1.00 51.08           C
ATOM  11346  O   ASP B 219     -19.593 -30.788   5.942  1.00 50.93           O
ATOM  11348  N   LYS B 220     -19.689 -28.697   6.775  1.00 51.69           N
ATOM  11349  CA  LYS B 220     -19.817 -28.042   5.464  1.00 51.82           C
ATOM  11351  CB  LYS B 220     -20.766 -26.833   5.555  1.00 51.81           C
ATOM  11354  CG  LYS B 220     -20.751 -25.871   4.357  1.00 51.08           C
ATOM  11357  CD  LYS B 220     -21.316 -26.491   3.090  1.00 51.47           C
ATOM  11360  CE  LYS B 220     -22.839 -26.556   3.120  1.00 50.51           C
ATOM  11363  NZ  LYS B 220     -23.408 -26.913   1.786  1.00 47.07           N
ATOM  11367  C   LYS B 220     -18.436 -27.613   4.980  1.00 52.28           C
ATOM  11368  O   LYS B 220     -17.534 -27.376   5.790  1.00 52.85           O
ATOM  11370  N   LYS C  26      28.164 -13.137  51.471  1.00 60.01           N
ATOM  11371  CA  LYS C  26      29.169 -13.369  52.563  1.00 59.98           C
ATOM  11373  CB  LYS C  26      30.565 -12.872  52.150  1.00 60.63           C
ATOM  11376  CG  LYS C  26      31.654 -13.161  53.179  1.00 58.50           C
ATOM  11379  CD  LYS C  26      32.994 -13.488  52.532  1.00 60.70           C
ATOM  11382  CE  LYS C  26      33.823 -12.249  52.201  1.00 63.05           C
ATOM  11385  NZ  LYS C  26      35.179 -12.625  51.670  1.00 61.96           N
ATOM  11389  C   LYS C  26      28.736 -12.699  53.867  1.00 59.05           C
ATOM  11390  O   LYS C  26      28.399 -11.512  53.886  1.00 58.89           O
ATOM  11394  N   LYS C  27      28.748 -13.467  54.953  1.00 57.05           N
ATOM  11395  CA  LYS C  27      28.266 -12.976  56.224  1.00 55.84           C
ATOM  11397  CB  LYS C  27      28.153 -14.119  57.221  1.00 55.53           C
ATOM  11400  CG  LYS C  27      27.478 -13.719  58.526  1.00 58.17           C
ATOM  11403  CD  LYS C  27      27.092 -14.934  59.391  1.00 58.02           C
ATOM  11406  CE  LYS C  27      25.952 -14.596  60.370  1.00 62.26           C
ATOM  11409  NZ  LYS C  27      24.573 -14.553  59.739  1.00 67.83           N
ATOM  11413  C   LYS C  27      29.219 -11.907  56.733  1.00 56.17           C
ATOM  11414  O   LYS C  27      30.427 -12.127  56.786  1.00 60.04           O
ATOM  11416  N   VAL C  28      28.675 -10.746  57.083  1.00 54.84           N
ATOM  11417  CA  VAL C  28      29.463  -9.623  57.596  1.00 51.88           C
ATOM  11419  CB  VAL C  28      29.184  -8.356  56.767  1.00 50.96           C
ATOM  11421  CG1 VAL C  28      29.497  -7.086  57.541  1.00 54.32           C
ATOM  11425  CG2 VAL C  28      29.992  -8.395  55.481  1.00 53.31           C
ATOM  11429  C   VAL C  28      29.162  -9.397  59.086  1.00 50.48           C
ATOM  11430  O   VAL C  28      28.006  -9.408  59.496  1.00 49.04           O
ATOM  11432  N   VAL C  29      30.204  -9.191  59.889  1.00 48.62           N
ATOM  11433  CA  VAL C  29      30.038  -8.995  61.325  1.00 48.51           C
ATOM  11435  CB  VAL C  29      30.320 -10.315  62.063  1.00 47.93           C
ATOM  11437  CG1 VAL C  29      30.342 -10.127  63.598  1.00 47.74           C
ATOM  11441  CG2 VAL C  29      29.290 -11.342  61.645  1.00 45.01           C
ATOM  11445  C   VAL C  29      30.923  -7.854  61.849  1.00 48.33           C
ATOM  11446  O   VAL C  29      32.099  -7.792  61.525  1.00 51.32           O
ATOM  11448  N   LEU C  30      30.349  -6.968  62.664  1.00 47.56           N
ATOM  11449  CA  LEU C  30      31.028  -5.753  63.103  1.00 48.48           C
ATOM  11451  CB  LEU C  30      30.105  -4.559  62.958  1.00 46.33           C
ATOM  11454  CG  LEU C  30      29.439  -4.407  61.599  1.00 48.81           C
ATOM  11456  CD1 LEU C  30      28.714  -3.095  61.584  1.00 50.91           C
ATOM  11460  CD2 LEU C  30      30.445  -4.468  60.459  1.00 53.26           C
ATOM  11464  C   LEU C  30      31.465  -5.825  64.544  1.00 50.16           C
ATOM  11465  O   LEU C  30      30.711  -6.301  65.381  1.00 53.16           O
ATOM  11467  N   GLY C  31      32.671  -5.337  64.839  1.00 50.43           N
ATOM  11468  CA  GLY C  31      33.162  -5.274  66.215  1.00 51.69           C
ATOM  11471  C   GLY C  31      33.683  -3.894  66.561  1.00 52.83           C
ATOM  11472  O   GLY C  31      34.135  -3.173  65.682  1.00 54.58           O
ATOM  11474  N   LYS C  32      33.606  -3.517  67.836  1.00 53.59           N
ATOM  11475  CA  LYS C  32      34.333  -2.340  68.334  1.00 55.03           C
ATOM  11477  CB  LYS C  32      33.679  -1.722  69.582  1.00 57.09           C
ATOM  11480  CG  LYS C  32      32.264  -1.227  69.410  1.00 57.40           C
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ATOM	11483	CD	LYS	C	32	31.542	-1.099	70.753	1.00	58.52	C
ATOM	11486	CE	LYS	C	32	32.280	-0.194	71.735	1.00	60.64	C
ATOM	11489	NZ	LYS	C	32	31.338	0.582	72.579	1.00	62.18	N
ATOM	11493	C	LYS	C	32	35.752	-2.729	68.732	1.00	54.41	C
ATOM	11494	O	LYS	C	32	35.966	-3.763	69.391	1.00	51.25	O
ATOM	11496	N	LYS	C	33	36.704	-1.879	68.342	1.00	53.74	N
ATOM	11497	CA	LYS	C	33	38.079	-1.907	68.851	1.00	53.62	C
ATOM	11499	CB	LYS	C	33	38.753	-0.584	68.493	1.00	52.86	C
ATOM	11502	CG	LYS	C	33	40.175	-0.401	68.966	1.00	53.21	C
ATOM	11505	CD	LYS	C	33	40.697	0.950	68.448	1.00	54.88	C
ATOM	11508	CE	LYS	C	33	42.126	1.230	68.873	1.00	56.32	C
ATOM	11511	NZ	LYS	C	33	42.898	1.847	67.763	1.00	59.96	N
ATOM	11515	C	LYS	C	33	38.095	-2.113	70.364	1.00	52.83	C
ATOM	11516	O	LYS	C	33	37.467	-1.352	71.102	1.00	52.70	O
ATOM	11518	N	GLY	C	34	38.769	-3.167	70.819	1.00	52.99	N
ATOM	11519	CA	GLY	C	34	38.898	-3.452	72.257	1.00	53.22	C
ATOM	11522	C	GLY	C	34	37.936	-4.485	72.827	1.00	52.44	C
ATOM	11523	O	GLY	C	34	38.268	-5.188	73.781	1.00	50.64	O
ATOM	11525	N	ASP	C	35	36.742	-4.586	72.257	1.00	53.38	N
ATOM	11526	CA	ASP	C	35	35.770	-5.574	72.719	1.00	54.95	C
ATOM	11528	CB	ASP	C	35	34.368	-5.274	72.165	1.00	56.98	C
ATOM	11531	CG	ASP	C	35	33.727	-4.056	72.806	1.00	63.61	C
ATOM	11532	OD1	ASP	C	35	34.421	-3.325	73.557	1.00	70.58	O
ATOM	11533	OD2	ASP	C	35	32.523	-3.830	72.547	1.00	72.74	O
ATOM	11534	C	ASP	C	35	36.188	-6.968	72.301	1.00	52.79	C
ATOM	11535	O	ASP	C	35	37.206	-7.153	71.653	1.00	52.66	O
ATOM	11537	N	THR	C	36	35.404	-7.953	72.700	1.00	52.25	N
ATOM	11538	CA	THR	C	36	35.542	-9.270	72.130	1.00	53.63	C
ATOM	11540	CB	THR	C	36	35.588	-10.390	73.201	1.00	53.74	C
ATOM	11542	OG1	THR	C	36	34.273	-10.880	73.433	1.00	55.27	O
ATOM	11544	CG2	THR	C	36	36.191	-9.900	74.515	1.00	54.22	C
ATOM	11548	C	THR	C	36	34.373	-9.493	71.173	1.00	54.02	C
ATOM	11549	O	THR	C	36	33.337	-8.825	71.266	1.00	53.73	O
ATOM	11551	N	VAL	C	37	34.557	-10.415	70.238	1.00	54.25	N
ATOM	11552	CA	VAL	C	37	33.502	-10.784	69.310	1.00	54.17	C
ATOM	11554	CB	VAL	C	37	33.690	-10.133	67.929	1.00	53.80	C
ATOM	11556	CG1	VAL	C	37	35.001	-10.564	67.299	1.00	56.09	C
ATOM	11560	CG2	VAL	C	37	32.510	-10.467	67.004	1.00	54.53	C
ATOM	11564	C	VAL	C	37	33.499	-12.290	69.177	1.00	54.74	C
ATOM	11565	O	VAL	C	37	34.540	-12.929	69.362	1.00	54.93	O
ATOM	11567	N	GLU	C	38	32.326	-12.846	68.878	1.00	55.08	N
ATOM	11568	CA	GLU	C	38	32.159	-14.281	68.700	1.00	54.83	C
ATOM	11570	CB	GLU	C	38	31.117	-14.816	69.684	1.00	55.08	C
ATOM	11573	CG	GLU	C	38	30.929	-16.326	69.617	1.00	57.61	C
ATOM	11576	CD	GLU	C	38	30.170	-16.914	70.808	1.00	60.50	C
ATOM	11577	OE1	GLU	C	38	30.197	-16.329	71.920	1.00	67.06	O
ATOM	11578	OE2	GLU	C	38	29.550	-17.986	70.623	1.00	70.26	O
ATOM	11579	C	GLU	C	38	31.734	-14.567	67.267	1.00	53.48	C
ATOM	11580	O	GLU	C	38	30.671	-14.137	66.835	1.00	54.35	O
ATOM	11582	N	LEU	C	39	32.578	-15.273	66.524	1.00	51.18	N
ATOM	11583	CA	LEU	C	39	32.232	-15.688	65.183	1.00	50.96	C
ATOM	11585	CB	LEU	C	39	33.442	-15.564	64.262	1.00	51.16	C
ATOM	11588	CG	LEU	C	39	34.228	-14.243	64.260	1.00	56.33	C
ATOM	11590	CD1	LEU	C	39	35.338	-14.271	63.195	1.00	55.53	C
ATOM	11594	CD2	LEU	C	39	33.316	-13.030	64.047	1.00	58.88	C
ATOM	11598	C	LEU	C	39	31.728	-17.141	65.255	1.00	51.32	C
ATOM	11599	O	LEU	C	39	32.482	-18.054	65.607	1.00	50.22	O
ATOM	11601	N	THR	C	40	30.452	-17.351	64.934	1.00	49.60	N
ATOM	11602	CA	THR	C	40	29.842	-18.664	65.100	1.00	48.53	C
ATOM	11604	CB	THR	C	40	28.295	-18.599	65.232	1.00	47.90	C
ATOM	11606	OG1	THR	C	40	27.721	-18.140	64.013	1.00	49.16	O
ATOM	11608	CG2	THR	C	40	27.879	-17.660	66.343	1.00	49.93	C
ATOM	11612	C	THR	C	40	30.193	-19.581	63.952	1.00	45.05	C

ATOM	11613	O	THR	C	40	30.483	-19.144	62.859	1.00	42.59	O
ATOM	11615	N	CYS	C	41	30.185	-20.868	64.233	1.00	46.96	N
ATOM	11616	CA	CYS	C	41	30.311	-21.876	63.206	1.00	46.67	C
ATOM	11618	CB	CYS	C	41	31.772	-22.189	62.931	1.00	47.21	C
ATOM	11621	SG	CYS	C	41	32.041	-23.392	61.602	1.00	51.63	S
ATOM	11623	C	CYS	C	41	29.590	-23.098	63.736	1.00	46.73	C
ATOM	11624	O	CYS	C	41	30.068	-23.759	64.656	1.00	48.14	O
ATOM	11626	N	THR	C	42	28.412	-23.360	63.192	1.00	44.51	N
ATOM	11627	CA	THR	C	42	27.601	-24.442	63.668	1.00	45.24	C
ATOM	11629	CB	THR	C	42	26.185	-23.975	63.991	1.00	45.83	C
ATOM	11631	OG1	THR	C	42	26.251	-22.803	64.806	1.00	47.28	O
ATOM	11633	CG2	THR	C	42	25.410	-25.059	64.732	1.00	44.75	C
ATOM	11637	C	THR	C	42	27.557	-25.476	62.577	1.00	46.40	C
ATOM	11638	O	THR	C	42	27.142	-25.184	61.455	1.00	47.68	O
ATOM	11640	N	ALA	C	43	27.992	-26.683	62.910	1.00	46.08	N
ATOM	11641	CA	ALA	C	43	27.946	-27.780	61.981	1.00	47.28	C
ATOM	11643	CB	ALA	C	43	28.871	-28.877	62.440	1.00	47.90	C
ATOM	11647	C	ALA	C	43	26.520	-28.299	61.854	1.00	47.86	C
ATOM	11648	O	ALA	C	43	25.673	-28.014	62.699	1.00	46.45	O
ATOM	11650	N	SER	C	44	26.272	-29.060	60.788	1.00	49.88	N
ATOM	11651	CA	SER	C	44	24.988	-29.714	60.563	1.00	51.53	C
ATOM	11653	CB	SER	C	44	24.991	-30.481	59.241	1.00	52.86	C
ATOM	11656	OG	SER	C	44	24.590	-29.632	58.181	1.00	59.29	O
ATOM	11658	C	SER	C	44	24.640	-30.664	61.685	1.00	51.75	C
ATOM	11659	O	SER	C	44	23.523	-30.652	62.176	1.00	53.82	O
ATOM	11661	N	GLN	C	45	25.599	-31.485	62.088	1.00	52.81	N
ATOM	11662	CA	GLN	C	45	25.367	-32.476	63.134	1.00	54.12	C
ATOM	11664	CB	GLN	C	45	26.247	-33.695	62.887	1.00	55.04	C
ATOM	11667	CG	GLN	C	45	25.933	-34.407	61.572	1.00	55.90	C
ATOM	11670	CD	GLN	C	45	27.048	-35.325	61.108	1.00	55.97	C
ATOM	11671	OE1	GLN	C	45	28.232	-35.050	61.325	1.00	64.59	O
ATOM	11672	NE2	GLN	C	45	26.676	-36.419	60.452	1.00	59.45	N
ATOM	11675	C	GLN	C	45	25.664	-31.889	64.506	1.00	54.60	C
ATOM	11676	O	GLN	C	45	26.526	-31.023	64.626	1.00	56.59	O
ATOM	11678	N	LYS	C	46	24.953	-32.362	65.533	1.00	54.27	N
ATOM	11679	CA	LYS	C	46	25.227	-31.980	66.924	1.00	54.48	C
ATOM	11681	CB	LYS	C	46	23.968	-32.086	67.794	1.00	54.52	C
ATOM	11684	CG	LYS	C	46	22.783	-31.267	67.365	1.00	52.41	C
ATOM	11687	CD	LYS	C	46	21.924	-30.866	68.572	1.00	54.77	C
ATOM	11690	CE	LYS	C	46	21.458	-32.064	69.406	1.00	57.20	C
ATOM	11693	NZ	LYS	C	46	20.435	-31.672	70.427	1.00	56.68	N
ATOM	11697	C	LYS	C	46	26.303	-32.886	67.536	1.00	54.76	C
ATOM	11698	O	LYS	C	46	26.115	-33.467	68.603	1.00	53.95	O
ATOM	11700	N	LYS	C	47	27.431	-32.999	66.858	1.00	56.37	N
ATOM	11701	CA	LYS	C	47	28.505	-33.874	67.280	1.00	56.39	C
ATOM	11703	CB	LYS	C	47	28.653	-35.010	66.261	1.00	56.71	C
ATOM	11706	CG	LYS	C	47	29.576	-36.134	66.686	1.00	57.86	C
ATOM	11709	CD	LYS	C	47	29.487	-37.345	65.752	1.00	58.87	C
ATOM	11712	CE	LYS	C	47	30.158	-38.579	66.391	1.00	62.40	C
ATOM	11715	NZ	LYS	C	47	29.723	-39.892	65.808	1.00	62.09	N
ATOM	11719	C	LYS	C	47	29.761	-33.015	67.360	1.00	56.23	C
ATOM	11720	O	LYS	C	47	29.801	-31.925	66.786	1.00	55.56	O
ATOM	11722	N	SER	C	48	30.766	-33.480	68.096	1.00	56.31	N
ATOM	11723	CA	SER	C	48	32.079	-32.832	68.102	1.00	56.56	C
ATOM	11725	CB	SER	C	48	32.761	-33.040	69.452	1.00	57.19	C
ATOM	11728	OG	SER	C	48	33.877	-32.182	69.593	1.00	61.69	O
ATOM	11730	C	SER	C	48	32.947	-33.401	66.967	1.00	55.96	C
ATOM	11731	O	SER	C	48	33.245	-34.588	66.950	1.00	55.51	O
ATOM	11733	N	ILE	C	49	33.326	-32.559	66.009	1.00	55.40	N
ATOM	11734	CA	ILE	C	49	34.099	-33.003	64.849	1.00	54.42	C
ATOM	11736	CB	ILE	C	49	33.361	-32.770	63.506	1.00	55.01	C
ATOM	11738	CG1	ILE	C	49	31.858	-33.008	63.637	1.00	55.05	C
ATOM	11741	CD1	ILE	C	49	31.500	-34.398	64.102	1.00	61.71	C

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ATOM  11745  CG2 ILE C  49      33.979 -33.638  62.392  1.00 56.17           C
ATOM  11749  C   ILE C  49      35.362 -32.182  64.778  1.00 53.51           C
ATOM  11750  O   ILE C  49      35.442 -31.136  65.418  1.00 52.65           O
ATOM  11752  N   GLN C  50      36.331 -32.660  63.991  1.00 53.17           N
ATOM  11753  CA  GLN C  50      37.566 -31.925  63.699  1.00 52.52           C
ATOM  11755  CB  GLN C  50      38.513 -32.783  62.851  1.00 52.60           C
ATOM  11758  CG  GLN C  50      39.904 -32.186  62.617  1.00 54.35           C
ATOM  11761  CD  GLN C  50      40.876 -32.469  63.759  1.00 59.17           C
ATOM  11762  OE1 GLN C  50      41.207 -33.626  64.041  1.00 62.37           O
ATOM  11763  NE2 GLN C  50      41.346 -31.411  64.411  1.00 57.50           N
ATOM  11766  C   GLN C  50      37.252 -30.628  62.957  1.00 50.99           C
ATOM  11767  O   GLN C  50      36.667 -30.653  61.875  1.00 50.10           O
ATOM  11769  N   PHE C  51      37.631 -29.500  63.547  1.00 49.43           N
ATOM  11770  CA  PHE C  51      37.421 -28.218  62.906  1.00 51.04           C
ATOM  11772  CB  PHE C  51      36.202 -27.512  63.508  1.00 51.97           C
ATOM  11775  CG  PHE C  51      36.476 -26.821  64.814  1.00 52.93           C
ATOM  11776  CD1 PHE C  51      36.221 -27.461  66.016  1.00 55.61           C
ATOM  11778  CE1 PHE C  51      36.471 -26.819  67.231  1.00 55.44           C
ATOM  11780  CZ  PHE C  51      36.985 -25.524  67.238  1.00 53.11           C
ATOM  11782  CE2 PHE C  51      37.240 -24.878  66.041  1.00 50.74           C
ATOM  11784  CD2 PHE C  51      36.977 -25.520  64.840  1.00 50.87           C
ATOM  11786  C   PHE C  51      38.662 -27.349  63.033  1.00 50.80           C
ATOM  11787  O   PHE C  51      39.440 -27.512  63.976  1.00 50.32           O
ATOM  11789  N   HIS C  52      38.846 -26.449  62.064  1.00 50.35           N
ATOM  11790  CA  HIS C  52      39.877 -25.414  62.131  1.00 51.58           C
ATOM  11792  CB  HIS C  52      41.092 -25.721  61.239  1.00 54.29           C
ATOM  11795  CG  HIS C  52      41.352 -27.177  61.032  1.00 61.03           C
ATOM  11796  ND1 HIS C  52      42.530 -27.782  61.420  1.00 64.68           N
ATOM  11798  CE1 HIS C  52      42.485 -29.065  61.103  1.00 69.28           C
ATOM  11800  NE2 HIS C  52      41.319 -29.313  60.529  1.00 71.55           N
ATOM  11802  CD2 HIS C  52      40.595 -28.147  60.466  1.00 64.78           C
ATOM  11804  C   HIS C  52      39.303 -24.101  61.648  1.00 49.52           C
ATOM  11805  O   HIS C  52      38.661 -24.047  60.606  1.00 45.19           O
ATOM  11807  N   TRP C  53      39.564 -23.041  62.398  1.00 50.33           N
ATOM  11808  CA  TRP C  53      39.377 -21.692  61.901  1.00 50.90           C
ATOM  11810  CB  TRP C  53      39.007 -20.760  63.037  1.00 50.92           C
ATOM  11813  CG  TRP C  53      37.574 -20.747  63.361  1.00 52.00           C
ATOM  11814  CD1 TRP C  53      36.930 -21.525  64.281  1.00 50.78           C
ATOM  11816  NE1 TRP C  53      35.598 -21.206  64.309  1.00 50.62           N
ATOM  11818  CE2 TRP C  53      35.357 -20.200  63.409  1.00 52.10           C
ATOM  11819  CD2 TRP C  53      36.585 -19.884  62.794  1.00 51.07           C
ATOM  11820  CE3 TRP C  53      36.619 -18.874  61.828  1.00 51.36           C
ATOM  11822  CZ3 TRP C  53      35.429 -18.217  61.505  1.00 52.54           C
ATOM  11824  CH2 TRP C  53      34.218 -18.557  62.138  1.00 50.79           C
ATOM  11826  CZ2 TRP C  53      34.164 -19.537  63.090  1.00 51.23           C
ATOM  11828  C   TRP C  53      40.684 -21.215  61.288  1.00 50.71           C
ATOM  11829  O   TRP C  53      41.751 -21.492  61.837  1.00 49.29           O
ATOM  11831  N   LYS C  54      40.606 -20.502  60.164  1.00 51.43           N
ATOM  11832  CA  LYS C  54      41.786 -19.846  59.592  1.00 54.01           C
ATOM  11834  CB  LYS C  54      42.523 -20.771  58.615  1.00 54.33           C
ATOM  11837  CG  LYS C  54      41.668 -21.433  57.559  1.00 57.34           C
ATOM  11840  CD  LYS C  54      42.530 -22.177  56.525  1.00 59.68           C
ATOM  11843  CE  LYS C  54      43.137 -23.468  57.082  1.00 65.29           C
ATOM  11846  NZ  LYS C  54      44.174 -23.216  58.126  1.00 64.51           N
ATOM  11850  C   LYS C  54      41.465 -18.499  58.944  1.00 53.86           C
ATOM  11851  O   LYS C  54      40.311 -18.213  58.620  1.00 54.20           O
ATOM  11853  N   ASN C  55      42.492 -17.661  58.793  1.00 53.28           N
ATOM  11854  CA  ASN C  55      42.309 -16.338  58.195  1.00 52.70           C
ATOM  11856  CB  ASN C  55      43.340 -15.327  58.710  1.00 52.32           C
ATOM  11859  CG  ASN C  55      44.748 -15.578  58.175  1.00 56.98           C
ATOM  11860  OD1 ASN C  55      44.954 -16.362  57.243  1.00 62.48           O
ATOM  11861  ND2 ASN C  55      45.726 -14.908  58.770  1.00 52.08           N
ATOM  11864  C   ASN C  55      42.361 -16.476  56.685  1.00 52.05           C
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ATOM	11865	O	ASN	C	55	42.626	-17.565	56.178	1.00	53.34	O
ATOM	11867	N	SER	C	56	42.107	-15.378	55.977	1.00	51.78	N
ATOM	11868	CA	SER	C	56	41.969	-15.402	54.520	1.00	50.44	C
ATOM	11870	CB	SER	C	56	41.379	-14.088	54.002	1.00	52.03	C
ATOM	11873	OG	SER	C	56	42.232	-12.986	54.269	1.00	47.78	O
ATOM	11875	C	SER	C	56	43.280	-15.681	53.808	1.00	49.37	C
ATOM	11876	O	SER	C	56	43.266	-16.096	52.660	1.00	49.39	O
ATOM	11878	N	ASN	C	57	44.407	-15.451	54.480	1.00	48.93	N
ATOM	11879	CA	ASN	C	57	45.716	-15.845	53.942	1.00	48.85	C
ATOM	11881	CB	ASN	C	57	46.818	-14.913	54.464	1.00	46.84	C
ATOM	11884	CG	ASN	C	57	48.106	-15.016	53.666	1.00	47.55	C
ATOM	11885	OD1	ASN	C	57	48.100	-15.441	52.507	1.00	41.91	O
ATOM	11886	ND2	ASN	C	57	49.226	-14.631	54.290	1.00	40.76	N
ATOM	11889	C	ASN	C	57	46.057	-17.310	54.255	1.00	49.15	C
ATOM	11890	O	ASN	C	57	47.199	-17.725	54.094	1.00	49.21	O
ATOM	11892	N	GLN	C	58	45.061	-18.085	54.698	1.00	49.87	N
ATOM	11893	CA	GLN	C	58	45.193	-19.533	54.929	1.00	49.83	C
ATOM	11895	CB	GLN	C	58	45.604	-20.260	53.637	1.00	51.88	C
ATOM	11898	CG	GLN	C	58	44.591	-20.107	52.509	1.00	57.51	C
ATOM	11901	CD	GLN	C	58	43.262	-20.740	52.868	1.00	63.74	C
ATOM	11902	OE1	GLN	C	58	43.185	-21.955	53.077	1.00	70.68	O
ATOM	11903	NE2	GLN	C	58	42.215	-19.919	52.976	1.00	60.17	N
ATOM	11906	C	GLN	C	58	46.136	-19.887	56.074	1.00	48.57	C
ATOM	11907	O	GLN	C	58	46.795	-20.919	56.049	1.00	48.86	O
ATOM	11909	N	ILE	C	59	46.171	-19.028	57.083	1.00	47.49	N
ATOM	11910	CA	ILE	C	59	46.969	-19.247	58.275	1.00	47.89	C
ATOM	11912	CB	ILE	C	59	47.631	-17.929	58.699	1.00	46.22	C
ATOM	11914	CG1	ILE	C	59	48.799	-17.640	57.752	1.00	48.38	C
ATOM	11917	CD1	ILE	C	59	49.292	-16.207	57.795	1.00	51.54	C
ATOM	11921	CG2	ILE	C	59	48.118	-17.981	60.146	1.00	46.49	C
ATOM	11925	C	ILE	C	59	46.080	-19.816	59.382	1.00	47.68	C
ATOM	11926	O	ILE	C	59	45.030	-19.252	59.694	1.00	47.67	O
ATOM	11928	N	LYS	C	60	46.496	-20.934	59.969	1.00	48.47	N
ATOM	11929	CA	LYS	C	60	45.711	-21.585	61.023	1.00	50.47	C
ATOM	11931	CB	LYS	C	60	46.325	-22.940	61.414	1.00	52.15	C
ATOM	11934	CG	LYS	C	60	46.128	-24.058	60.372	1.00	55.65	C
ATOM	11937	CD	LYS	C	60	47.158	-25.182	60.533	1.00	56.86	C
ATOM	11940	CE	LYS	C	60	46.864	-26.390	59.628	1.00	60.51	C
ATOM	11943	NZ	LYS	C	60	45.893	-27.364	60.218	1.00	59.92	N
ATOM	11947	C	LYS	C	60	45.616	-20.693	62.255	1.00	49.45	C
ATOM	11948	O	LYS	C	60	46.640	-20.319	62.834	1.00	49.71	O
ATOM	11950	N	ILE	C	61	44.391	-20.342	62.643	1.00	48.86	N
ATOM	11951	CA	ILE	C	61	44.159	-19.597	63.884	1.00	49.70	C
ATOM	11953	CB	ILE	C	61	42.869	-18.756	63.846	1.00	49.40	C
ATOM	11955	CG1	ILE	C	61	42.859	-17.792	62.645	1.00	55.67	C
ATOM	11958	CD1	ILE	C	61	43.969	-16.746	62.640	1.00	60.68	C
ATOM	11962	CG2	ILE	C	61	42.694	-18.019	65.173	1.00	47.13	C
ATOM	11966	C	ILE	C	61	44.044	-20.575	65.053	1.00	49.52	C
ATOM	11967	O	ILE	C	61	44.846	-20.539	65.995	1.00	49.21	O
ATOM	11969	N	LEU	C	62	43.031	-21.433	64.992	1.00	49.01	N
ATOM	11970	CA	LEU	C	62	42.840	-22.452	66.001	1.00	48.54	C
ATOM	11972	CB	LEU	C	62	42.273	-21.854	67.304	1.00	49.35	C
ATOM	11975	CG	LEU	C	62	40.911	-21.151	67.410	1.00	49.77	C
ATOM	11977	CD1	LEU	C	62	39.740	-22.087	67.148	1.00	55.73	C
ATOM	11981	CD2	LEU	C	62	40.772	-20.551	68.803	1.00	49.08	C
ATOM	11985	C	LEU	C	62	41.978	-23.611	65.521	1.00	47.29	C
ATOM	11986	O	LEU	C	62	41.242	-23.524	64.530	1.00	43.42	O
ATOM	11988	N	GLY	C	63	42.105	-24.712	66.242	1.00	47.91	N
ATOM	11989	CA	GLY	C	63	41.293	-25.883	66.000	1.00	49.38	C
ATOM	11992	C	GLY	C	63	41.284	-26.752	67.230	1.00	49.12	C
ATOM	11993	O	GLY	C	63	41.922	-26.428	68.227	1.00	48.47	O
ATOM	11995	N	ASN	C	64	40.547	-27.852	67.158	1.00	49.67	N
ATOM	11996	CA	ASN	C	64	40.516	-28.815	68.243	1.00	50.30	C

ATOM	11998	CB	ASN	C	64	39.090	-29.278	68.522	1.00	51.03	C
ATOM	12001	CG	ASN	C	64	38.447	-29.982	67.332	1.00	53.00	C
ATOM	12002	OD1	ASN	C	64	37.229	-30.141	67.292	1.00	52.75	O
ATOM	12003	ND2	ASN	C	64	39.257	-30.399	66.363	1.00	51.45	N
ATOM	12006	C	ASN	C	64	41.389	-30.014	67.936	1.00	51.71	C
ATOM	12007	O	ASN	C	64	41.810	-30.222	66.795	1.00	54.54	O
ATOM	12009	N	GLN	C	65	41.673	-30.779	68.981	1.00	51.60	N
ATOM	12010	CA	GLN	C	65	42.219	-32.120	68.858	1.00	50.36	C
ATOM	12012	CB	GLN	C	65	43.735	-32.119	68.999	1.00	51.11	C
ATOM	12015	CG	GLN	C	65	44.467	-32.563	67.748	1.00	53.84	C
ATOM	12018	CD	GLN	C	65	45.705	-33.364	68.068	1.00	52.74	C
ATOM	12019	OE1	GLN	C	65	45.986	-33.649	69.231	1.00	53.47	O
ATOM	12020	NE2	GLN	C	65	46.447	-33.748	67.035	1.00	60.86	N
ATOM	12023	C	GLN	C	65	41.589	-32.919	69.968	1.00	48.91	C
ATOM	12024	O	GLN	C	65	42.148	-33.020	71.054	1.00	50.08	O
ATOM	12026	N	GLY	C	66	40.400	-33.447	69.704	1.00	47.30	N
ATOM	12027	CA	GLY	C	66	39.597	-34.060	70.746	1.00	47.50	C
ATOM	12030	C	GLY	C	66	38.984	-32.964	71.589	1.00	47.01	C
ATOM	12031	O	GLY	C	66	38.156	-32.197	71.091	1.00	49.82	O
ATOM	12033	N	SER	C	67	39.395	-32.881	72.855	1.00	46.08	N
ATOM	12034	CA	SER	C	67	38.905	-31.842	73.769	1.00	46.10	C
ATOM	12036	CB	SER	C	67	38.529	-32.450	75.114	1.00	44.60	C
ATOM	12039	OG	SER	C	67	39.682	-32.937	75.756	1.00	45.61	O
ATOM	12041	C	SER	C	67	39.924	-30.725	73.996	1.00	46.42	C
ATOM	12042	O	SER	C	67	39.612	-29.734	74.653	1.00	44.76	O
ATOM	12044	N	PHE	C	68	41.135	-30.890	73.465	1.00	47.67	N
ATOM	12045	CA	PHE	C	68	42.190	-29.894	73.630	1.00	46.14	C
ATOM	12047	CB	PHE	C	68	43.585	-30.532	73.555	1.00	46.58	C
ATOM	12050	CG	PHE	C	68	43.782	-31.729	74.459	1.00	45.25	C
ATOM	12051	CD1	PHE	C	68	43.144	-31.822	75.690	1.00	42.29	C
ATOM	12053	CE1	PHE	C	68	43.345	-32.925	76.509	1.00	45.51	C
ATOM	12055	CZ	PHE	C	68	44.203	-33.948	76.105	1.00	48.47	C
ATOM	12057	CE2	PHE	C	68	44.854	-33.861	74.883	1.00	46.46	C
ATOM	12059	CD2	PHE	C	68	44.646	-32.755	74.074	1.00	46.23	C
ATOM	12061	C	PHE	C	68	42.060	-28.866	72.521	1.00	45.92	C
ATOM	12062	O	PHE	C	68	41.804	-29.227	71.376	1.00	46.72	O
ATOM	12064	N	LEU	C	69	42.238	-27.592	72.868	1.00	44.98	N
ATOM	12065	CA	LEU	C	69	42.315	-26.508	71.887	1.00	43.95	C
ATOM	12067	CB	LEU	C	69	41.911	-25.192	72.543	1.00	43.59	C
ATOM	12070	CG	LEU	C	69	41.955	-23.900	71.725	1.00	42.68	C
ATOM	12072	CD1	LEU	C	69	40.875	-23.875	70.643	1.00	43.98	C
ATOM	12076	CD2	LEU	C	69	41.794	-22.710	72.655	1.00	43.54	C
ATOM	12080	C	LEU	C	69	43.740	-26.374	71.363	1.00	44.13	C
ATOM	12081	O	LEU	C	69	44.700	-26.472	72.129	1.00	44.01	O
ATOM	12083	N	THR	C	70	43.872	-26.145	70.061	1.00	44.55	N
ATOM	12084	CA	THR	C	70	45.177	-25.928	69.432	1.00	45.70	C
ATOM	12086	CB	THR	C	70	45.547	-27.096	68.492	1.00	45.37	C
ATOM	12088	OG1	THR	C	70	44.538	-27.258	67.484	1.00	50.25	O
ATOM	12090	CG2	THR	C	70	45.659	-28.392	69.281	1.00	46.74	C
ATOM	12094	C	THR	C	70	45.194	-24.580	68.689	1.00	45.58	C
ATOM	12095	O	THR	C	70	44.170	-24.093	68.225	1.00	41.96	O
ATOM	12097	N	LYS	C	71	46.366	-23.968	68.612	1.00	47.29	N
ATOM	12098	CA	LYS	C	71	46.482	-22.610	68.115	1.00	49.01	C
ATOM	12100	CB	LYS	C	71	46.656	-21.637	69.290	1.00	48.87	C
ATOM	12103	CG	LYS	C	71	45.527	-21.721	70.320	1.00	51.79	C
ATOM	12106	CD	LYS	C	71	45.729	-20.796	71.513	1.00	51.26	C
ATOM	12109	CE	LYS	C	71	44.727	-19.663	71.535	1.00	54.67	C
ATOM	12112	NZ	LYS	C	71	44.920	-18.739	72.704	1.00	53.55	N
ATOM	12116	C	LYS	C	71	47.664	-22.517	67.170	1.00	49.45	C
ATOM	12117	O	LYS	C	71	48.778	-22.844	67.546	1.00	52.94	O
ATOM	12119	N	GLY	C	72	47.417	-22.082	65.942	1.00	50.42	N
ATOM	12120	CA	GLY	C	72	48.480	-21.863	64.970	1.00	52.01	C
ATOM	12123	C	GLY	C	72	49.279	-20.592	65.234	1.00	53.24	C

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ATOM  12124  O   GLY C  72      49.119 -19.953  66.282  1.00 52.05           O
ATOM  12126  N   PRO C  73      50.145 -20.209  64.277  1.00 55.29           N
ATOM  12127  CA  PRO C  73      51.111 -19.144  64.492  1.00 56.96           C
ATOM  12129  CB  PRO C  73      52.349 -19.682  63.768  1.00 57.24           C
ATOM  12132  CG  PRO C  73      51.760 -20.496  62.593  1.00 57.57           C
ATOM  12135  CD  PRO C  73      50.296 -20.776  62.924  1.00 55.20           C
ATOM  12138  C   PRO C  73      50.679 -17.812  63.893  1.00 57.99           C
ATOM  12139  O   PRO C  73      51.506 -17.088  63.338  1.00 57.92           O
ATOM  12140  N   SER C  74      49.397 -17.485  63.999  1.00 59.72           N
ATOM  12141  CA  SER C  74      48.945 -16.159  63.608  1.00 62.22           C
ATOM  12143  CB  SER C  74      47.426 -16.122  63.404  1.00 62.70           C
ATOM  12146  OG  SER C  74      46.735 -16.009  64.635  1.00 64.56           O
ATOM  12148  C   SER C  74      49.372 -15.191  64.704  1.00 63.86           C
ATOM  12149  O   SER C  74      49.746 -15.619  65.799  1.00 65.56           O
ATOM  12151  N   LYS C  75      49.333 -13.894  64.405  1.00 65.11           N
ATOM  12152  CA  LYS C  75      49.570 -12.864  65.424  1.00 65.91           C
ATOM  12154  CB  LYS C  75      49.800 -11.484  64.787  1.00 67.46           C
ATOM  12157  CG  LYS C  75      51.264 -11.222  64.374  1.00 69.39           C
ATOM  12160  CD  LYS C  75      51.624  -9.727  64.412  1.00 69.10           C
ATOM  12163  CE  LYS C  75      50.724  -8.870  63.504  1.00 68.97           C
ATOM  12166  NZ  LYS C  75      51.058  -7.414  63.608  1.00 67.31           N
ATOM  12170  C   LYS C  75      48.410 -12.795  66.416  1.00 64.56           C
ATOM  12171  O   LYS C  75      48.538 -12.234  67.497  1.00 65.96           O
ATOM  12173  N   LEU C  76      47.290 -13.391  66.043  1.00 63.47           N
ATOM  12174  CA  LEU C  76      46.102 -13.423  66.873  1.00 64.07           C
ATOM  12176  CB  LEU C  76      44.911 -13.842  65.999  1.00 63.13           C
ATOM  12179  CG  LEU C  76      43.567 -13.140  66.168  1.00 64.68           C
ATOM  12181  CD1 LEU C  76      43.696 -11.710  66.667  1.00 67.11           C
ATOM  12185  CD2 LEU C  76      42.834 -13.158  64.846  1.00 64.16           C
ATOM  12189  C   LEU C  76      46.244 -14.388  68.064  1.00 65.87           C
ATOM  12190  O   LEU C  76      45.465 -14.306  69.020  1.00 67.90           O
ATOM  12192  N   ASN C  77      47.252 -15.269  68.011  1.00 64.59           N
ATOM  12193  CA  ASN C  77      47.359 -16.442  68.889  1.00 61.96           C
ATOM  12195  CB  ASN C  77      48.829 -16.865  69.053  1.00 62.45           C
ATOM  12198  CG  ASN C  77      48.981 -18.257  69.689  1.00 63.63           C
ATOM  12199  OD1 ASN C  77      48.095 -18.736  70.402  1.00 61.38           O
ATOM  12200  ND2 ASN C  77      50.111 -18.904  69.426  1.00 60.68           N
ATOM  12203  C   ASN C  77      46.713 -16.292  70.260  1.00 60.33           C
ATOM  12204  O   ASN C  77      45.728 -16.963  70.571  1.00 60.02           O
ATOM  12206  N   ASP C  78      47.264 -15.406  71.074  1.00 59.78           N
ATOM  12207  CA  ASP C  78      46.886 -15.344  72.484  1.00 59.37           C
ATOM  12209  CB  ASP C  78      47.933 -14.574  73.307  1.00 60.96           C
ATOM  12212  CG  ASP C  78      48.142 -13.139  72.817  1.00 68.22           C
ATOM  12213  OD1 ASP C  78      47.528 -12.745  71.794  1.00 74.99           O
ATOM  12214  OD2 ASP C  78      48.931 -12.407  73.451  1.00 70.19           O
ATOM  12215  C   ASP C  78      45.496 -14.760  72.696  1.00 56.69           C
ATOM  12216  O   ASP C  78      44.914 -14.967  73.749  1.00 57.54           O
ATOM  12218  N   ARG C  79      44.959 -14.049  71.706  1.00 55.44           N
ATOM  12219  CA  ARG C  79      43.624 -13.439  71.833  1.00 55.03           C
ATOM  12221  CB  ARG C  79      43.627 -12.036  71.230  1.00 54.51           C
ATOM  12224  CG  ARG C  79      44.768 -11.182  71.759  1.00 54.43           C
ATOM  12227  CD  ARG C  79      44.593  -9.700  71.522  1.00 52.55           C
ATOM  12230  NE  ARG C  79      45.095  -9.286  70.212  1.00 53.43           N
ATOM  12232  CZ  ARG C  79      44.361  -9.177  69.106  1.00 48.10           C
ATOM  12233  NH1 ARG C  79      43.072  -9.453  69.118  1.00 46.25           N
ATOM  12236  NH2 ARG C  79      44.926  -8.782  67.979  1.00 50.99           N
ATOM  12239  C   ARG C  79      42.473 -14.273  71.251  1.00 54.28           C
ATOM  12240  O   ARG C  79      41.306 -13.936  71.457  1.00 52.66           O
ATOM  12242  N   ALA C  80      42.801 -15.356  70.545  1.00 54.83           N
ATOM  12243  CA  ALA C  80      41.790 -16.283  70.020  1.00 55.71           C
ATOM  12245  CB  ALA C  80      42.296 -16.985  68.778  1.00 55.69           C
ATOM  12249  C   ALA C  80      41.424 -17.321  71.060  1.00 55.74           C
ATOM  12250  O   ALA C  80      42.289 -17.745  71.823  1.00 56.62           O
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ATOM  12252  N   ASP C  81      40.147 -17.715  71.077  1.00 55.46           N
ATOM  12253  CA  ASP C  81      39.658 -18.824  71.902  1.00 55.03           C
ATOM  12255  CB  ASP C  81      39.338 -18.347  73.328  1.00 55.68           C
ATOM  12258  CG  ASP C  81      39.621 -19.416  74.395  1.00 59.76           C
ATOM  12259  OD1 ASP C  81      39.527 -20.630  74.092  1.00 69.94           O
ATOM  12260  OD2 ASP C  81      39.943 -19.041  75.545  1.00 65.85           O
ATOM  12261  C   ASP C  81      38.405 -19.446  71.268  1.00 54.83           C
ATOM  12262  O   ASP C  81      37.948 -19.001  70.212  1.00 52.87           O
ATOM  12264  N   SER C  82      37.866 -20.481  71.911  1.00 53.85           N
ATOM  12265  CA  SER C  82      36.600 -21.077  71.500  1.00 54.26           C
ATOM  12267  CB  SER C  82      36.856 -22.356  70.703  1.00 53.01           C
ATOM  12270  OG  SER C  82      35.686 -22.766  70.020  1.00 48.51           O
ATOM  12272  C   SER C  82      35.741 -21.351  72.737  1.00 54.89           C
ATOM  12273  O   SER C  82      36.020 -20.811  73.801  1.00 53.62           O
ATOM  12275  N   ARG C  83      34.686 -22.155  72.590  1.00 57.39           N
ATOM  12276  CA  ARG C  83      33.909 -22.651  73.738  1.00 58.61           C
ATOM  12278  CB  ARG C  83      32.495 -22.086  73.729  1.00 59.21           C
ATOM  12281  CG  ARG C  83      32.444 -20.636  74.096  1.00 62.88           C
ATOM  12284  CD  ARG C  83      31.035 -20.086  73.991  1.00 65.60           C
ATOM  12287  NE  ARG C  83      30.976 -18.734  74.525  1.00 68.85           N
ATOM  12289  CZ  ARG C  83      31.002 -18.435  75.823  1.00 72.92           C
ATOM  12290  NH1 ARG C  83      31.079 -19.388  76.756  1.00 72.34           N
ATOM  12293  NH2 ARG C  83      30.950 -17.164  76.194  1.00 73.93           N
ATOM  12296  C   ARG C  83      33.839 -24.165  73.722  1.00 57.52           C
ATOM  12297  O   ARG C  83      32.949 -24.745  73.099  1.00 57.14           O
ATOM  12299  N   ARG C  84      34.771 -24.796  74.427  1.00 57.71           N
ATOM  12300  CA  ARG C  84      34.871 -26.264  74.461  1.00 58.06           C
ATOM  12302  CB  ARG C  84      36.059 -26.707  75.336  1.00 56.96           C
ATOM  12305  CG  ARG C  84      37.400 -26.156  74.852  1.00 57.30           C
ATOM  12308  CD  ARG C  84      38.611 -26.749  75.562  1.00 56.98           C
ATOM  12311  NE  ARG C  84      38.487 -26.721  77.021  1.00 57.55           N
ATOM  12313  CZ  ARG C  84      38.165 -27.766  77.787  1.00 53.66           C
ATOM  12314  NH1 ARG C  84      37.933 -28.959  77.249  1.00 53.42           N
ATOM  12317  NH2 ARG C  84      38.073 -27.617  79.108  1.00 51.09           N
ATOM  12320  C   ARG C  84      33.567 -26.929  74.929  1.00 57.61           C
ATOM  12321  O   ARG C  84      33.255 -28.056  74.537  1.00 56.95           O
ATOM  12323  N   SER C  85      32.805 -26.224  75.759  1.00 57.66           N
ATOM  12324  CA  SER C  85      31.504 -26.707  76.187  1.00 58.22           C
ATOM  12326  CB  SER C  85      30.854 -25.700  77.136  1.00 57.05           C
ATOM  12329  OG  SER C  85      31.486 -24.440  77.018  1.00 56.63           O
ATOM  12331  C   SER C  85      30.628 -26.970  74.966  1.00 59.49           C
ATOM  12332  O   SER C  85      30.105 -28.067  74.795  1.00 62.80           O
ATOM  12334  N   LEU C  86      30.530 -25.983  74.086  1.00 59.43           N
ATOM  12335  CA  LEU C  86      29.652 -26.067  72.916  1.00 59.07           C
ATOM  12337  CB  LEU C  86      29.493 -24.677  72.289  1.00 60.30           C
ATOM  12340  CG  LEU C  86      29.013 -23.547  73.201  1.00 61.10           C
ATOM  12342  CD1 LEU C  86      28.992 -22.214  72.435  1.00 62.00           C
ATOM  12346  CD2 LEU C  86      27.652 -23.888  73.780  1.00 59.65           C
ATOM  12350  C   LEU C  86      30.090 -27.052  71.815  1.00 57.92           C
ATOM  12351  O   LEU C  86      29.343 -27.261  70.860  1.00 57.94           O
ATOM  12353  N   TRP C  87      31.276 -27.647  71.941  1.00 56.42           N
ATOM  12354  CA  TRP C  87      31.819 -28.542  70.902  1.00 56.36           C
ATOM  12356  CB  TRP C  87      33.262 -28.955  71.242  1.00 53.05           C
ATOM  12359  CG  TRP C  87      34.266 -27.856  71.027  1.00 49.88           C
ATOM  12360  CD1 TRP C  87      34.011 -26.574  70.624  1.00 49.46           C
ATOM  12362  NE1 TRP C  87      35.173 -25.860  70.554  1.00 50.06           N
ATOM  12364  CE2 TRP C  87      36.214 -26.670  70.923  1.00 51.72           C
ATOM  12365  CD2 TRP C  87      35.677 -27.934  71.232  1.00 49.41           C
ATOM  12366  CE3 TRP C  87      36.545 -28.953  71.637  1.00 48.38           C
ATOM  12368  CZ3 TRP C  87      37.892 -28.682  71.720  1.00 48.78           C
ATOM  12370  CH2 TRP C  87      38.397 -27.415  71.405  1.00 49.18           C
ATOM  12372  CZ2 TRP C  87      37.578 -26.398  71.008  1.00 49.49           C
ATOM  12374  C   TRP C  87      30.964 -29.781  70.666  1.00 56.44           C
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ATOM	12375	O	TRP	C	87	30.622	-30.106	69.521	1.00	56.65	O
ATOM	12377	N	ASP	C	88	30.627	-30.466	71.752	1.00	57.30	N
ATOM	12378	CA	ASP	C	88	29.741	-31.628	71.698	1.00	57.07	C
ATOM	12380	CB	ASP	C	88	29.238	-31.981	73.101	1.00	58.07	C
ATOM	12383	CG	ASP	C	88	30.359	-32.068	74.125	1.00	61.73	C
ATOM	12384	OD1	ASP	C	88	30.513	-33.143	74.743	1.00	63.87	O
ATOM	12385	OD2	ASP	C	88	31.087	-31.061	74.306	1.00	65.80	O
ATOM	12386	C	ASP	C	88	28.548	-31.338	70.786	1.00	57.36	C
ATOM	12387	O	ASP	C	88	28.242	-32.114	69.876	1.00	58.34	O
ATOM	12389	N	GLN	C	89	27.914	-30.188	71.011	1.00	55.42	N
ATOM	12390	CA	GLN	C	89	26.702	-29.809	70.292	1.00	54.39	C
ATOM	12392	CB	GLN	C	89	25.920	-28.778	71.117	1.00	54.91	C
ATOM	12395	CG	GLN	C	89	25.355	-29.367	72.410	1.00	58.10	C
ATOM	12398	CD	GLN	C	89	24.678	-30.737	72.191	1.00	66.71	C
ATOM	12399	OE1	GLN	C	89	23.583	-30.817	71.625	1.00	72.60	O
ATOM	12400	NE2	GLN	C	89	25.341	-31.815	72.625	1.00	62.85	N
ATOM	12403	C	GLN	C	89	26.902	-29.324	68.852	1.00	52.31	C
ATOM	12404	O	GLN	C	89	25.933	-28.969	68.195	1.00	49.09	O
ATOM	12406	N	GLY	C	90	28.140	-29.330	68.360	1.00	52.74	N
ATOM	12407	CA	GLY	C	90	28.442	-28.926	66.981	1.00	52.64	C
ATOM	12410	C	GLY	C	90	28.722	-27.442	66.755	1.00	52.34	C
ATOM	12411	O	GLY	C	90	28.834	-27.003	65.613	1.00	53.04	O
ATOM	12413	N	ASN	C	91	28.839	-26.669	67.831	1.00	51.54	N
ATOM	12414	CA	ASN	C	91	29.204	-25.257	67.741	1.00	50.86	C
ATOM	12416	CB	ASN	C	91	28.387	-24.426	68.738	1.00	51.53	C
ATOM	12419	CG	ASN	C	91	27.044	-24.010	68.180	1.00	52.68	C
ATOM	12420	OD1	ASN	C	91	26.975	-23.418	67.106	1.00	53.48	O
ATOM	12421	ND2	ASN	C	91	25.967	-24.335	68.891	1.00	58.97	N
ATOM	12424	C	ASN	C	91	30.690	-25.062	67.997	1.00	50.03	C
ATOM	12425	O	ASN	C	91	31.192	-25.424	69.057	1.00	50.42	O
ATOM	12427	N	PHE	C	92	31.383	-24.475	67.023	1.00	50.70	N
ATOM	12428	CA	PHE	C	92	32.838	-24.291	67.079	1.00	50.26	C
ATOM	12430	CB	PHE	C	92	33.505	-25.135	65.992	1.00	51.29	C
ATOM	12433	CG	PHE	C	92	32.976	-26.540	65.909	1.00	53.12	C
ATOM	12434	CD1	PHE	C	92	33.031	-27.384	67.015	1.00	52.44	C
ATOM	12436	CE1	PHE	C	92	32.532	-28.680	66.951	1.00	54.20	C
ATOM	12438	CZ	PHE	C	92	31.978	-29.147	65.771	1.00	56.26	C
ATOM	12440	CE2	PHE	C	92	31.915	-28.311	64.658	1.00	55.76	C
ATOM	12442	CD2	PHE	C	92	32.411	-27.016	64.732	1.00	54.62	C
ATOM	12444	C	PHE	C	92	33.212	-22.821	66.899	1.00	49.64	C
ATOM	12445	O	PHE	C	92	33.858	-22.468	65.926	1.00	47.94	O
ATOM	12447	N	PRO	C	93	32.790	-21.952	67.836	1.00	49.91	N
ATOM	12448	CA	PRO	C	93	33.041	-20.515	67.700	1.00	48.95	C
ATOM	12450	CB	PRO	C	93	32.271	-19.916	68.880	1.00	48.64	C
ATOM	12453	CG	PRO	C	93	32.208	-21.002	69.874	1.00	50.23	C
ATOM	12456	CD	PRO	C	93	32.045	-22.255	69.071	1.00	49.54	C
ATOM	12459	C	PRO	C	93	34.509	-20.104	67.807	1.00	48.69	C
ATOM	12460	O	PRO	C	93	35.252	-20.647	68.625	1.00	47.80	O
ATOM	12461	N	LEU	C	94	34.905	-19.149	66.970	1.00	47.68	N
ATOM	12462	CA	LEU	C	94	36.141	-18.413	67.153	1.00	47.35	C
ATOM	12464	CB	LEU	C	94	36.734	-17.993	65.811	1.00	47.54	C
ATOM	12467	CG	LEU	C	94	37.947	-17.060	65.785	1.00	44.95	C
ATOM	12469	CD1	LEU	C	94	39.010	-17.545	66.720	1.00	46.78	C
ATOM	12473	CD2	LEU	C	94	38.501	-16.986	64.380	1.00	45.52	C
ATOM	12477	C	LEU	C	94	35.758	-17.193	67.943	1.00	47.76	C
ATOM	12478	O	LEU	C	94	34.848	-16.467	67.544	1.00	49.08	O
ATOM	12480	N	ILE	C	95	36.424	-16.990	69.076	1.00	48.89	N
ATOM	12481	CA	ILE	C	95	36.196	-15.830	69.931	1.00	49.35	C
ATOM	12483	CB	ILE	C	95	35.779	-16.251	71.352	1.00	49.40	C
ATOM	12485	CG1	ILE	C	95	34.377	-16.871	71.334	1.00	49.70	C
ATOM	12488	CD1	ILE	C	95	34.099	-17.771	72.528	1.00	50.42	C
ATOM	12492	CG2	ILE	C	95	35.830	-15.051	72.301	1.00	48.17	C
ATOM	12496	C	ILE	C	95	37.481	-15.047	70.033	1.00	49.05	C

ATOM	12497	O	ILE	C	95	38.464	-15.539	70.575	1.00	52.28	O
ATOM	12499	N	ILE	C	96	37.464	-13.820	69.542	1.00	49.49	N
ATOM	12500	CA	ILE	C	96	38.635	-12.960	69.587	1.00	51.44	C
ATOM	12502	CB	ILE	C	96	38.871	-12.309	68.219	1.00	51.82	C
ATOM	12504	CG1	ILE	C	96	39.147	-13.405	67.175	1.00	53.58	C
ATOM	12507	CD1	ILE	C	96	38.880	-12.987	65.737	1.00	50.22	C
ATOM	12511	CG2	ILE	C	96	40.026	-11.307	68.285	1.00	49.59	C
ATOM	12515	C	ILE	C	96	38.453	-11.888	70.662	1.00	52.26	C
ATOM	12516	O	ILE	C	96	37.537	-11.072	70.574	1.00	48.81	O
ATOM	12518	N	LYS	C	97	39.346	-11.899	71.655	1.00	55.67	N
ATOM	12519	CA	LYS	C	97	39.336	-10.941	72.777	1.00	58.16	C
ATOM	12521	CB	LYS	C	97	40.023	-11.537	74.022	1.00	59.75	C
ATOM	12524	CG	LYS	C	97	39.806	-13.056	74.261	1.00	66.39	C
ATOM	12527	CD	LYS	C	97	41.097	-13.770	74.749	1.00	66.00	C
ATOM	12530	CE	LYS	C	97	41.082	-15.278	74.423	1.00	66.98	C
ATOM	12533	NZ	LYS	C	97	42.370	-15.967	74.749	1.00	63.46	N
ATOM	12537	C	LYS	C	97	40.120	-9.694	72.371	1.00	57.90	C
ATOM	12538	O	LYS	C	97	41.092	-9.805	71.616	1.00	58.73	O
ATOM	12540	N	ASN	C	98	39.725	-8.524	72.868	1.00	55.01	N
ATOM	12541	CA	ASN	C	98	40.537	-7.309	72.695	1.00	56.09	C
ATOM	12543	CB	ASN	C	98	41.855	-7.411	73.477	1.00	56.23	C
ATOM	12546	CG	ASN	C	98	41.650	-7.488	74.980	1.00	64.42	C
ATOM	12547	OD1	ASN	C	98	42.620	-7.553	75.737	1.00	73.67	O
ATOM	12548	ND2	ASN	C	98	40.391	-7.478	75.425	1.00	76.01	N
ATOM	12551	C	ASN	C	98	40.854	-6.997	71.238	1.00	54.18	C
ATOM	12552	O	ASN	C	98	41.997	-7.118	70.798	1.00	53.05	O
ATOM	12554	N	LEU	C	99	39.840	-6.564	70.506	1.00	52.80	N
ATOM	12555	CA	LEU	C	99	39.943	-6.439	69.065	1.00	53.17	C
ATOM	12557	CB	LEU	C	99	38.549	-6.345	68.442	1.00	52.14	C
ATOM	12560	CG	LEU	C	99	37.763	-7.658	68.493	1.00	49.63	C
ATOM	12562	CD1	LEU	C	99	36.258	-7.425	68.480	1.00	50.11	C
ATOM	12566	CD2	LEU	C	99	38.185	-8.592	67.365	1.00	47.55	C
ATOM	12570	C	LEU	C	99	40.788	-5.255	68.623	1.00	53.85	C
ATOM	12571	O	LEU	C	99	40.670	-4.155	69.170	1.00	54.38	O
ATOM	12573	N	LYS	C	100	41.641	-5.511	67.630	1.00	54.72	N
ATOM	12574	CA	LYS	C	100	42.381	-4.478	66.906	1.00	55.03	C
ATOM	12576	CB	LYS	C	100	43.879	-4.809	66.862	1.00	53.16	C
ATOM	12579	CG	LYS	C	100	44.446	-5.120	68.235	1.00	57.21	C
ATOM	12582	CD	LYS	C	100	45.951	-5.258	68.269	1.00	56.55	C
ATOM	12585	CE	LYS	C	100	46.397	-5.802	69.623	1.00	54.62	C
ATOM	12588	NZ	LYS	C	100	47.884	-5.823	69.749	1.00	61.43	N
ATOM	12592	C	LYS	C	100	41.815	-4.372	65.491	1.00	56.37	C
ATOM	12593	O	LYS	C	100	41.201	-5.322	64.979	1.00	56.17	O
ATOM	12595	N	ILE	C	101	42.032	-3.215	64.866	1.00	56.50	N
ATOM	12596	CA	ILE	C	101	41.509	-2.943	63.531	1.00	55.45	C
ATOM	12598	CB	ILE	C	101	41.833	-1.489	63.057	1.00	55.19	C
ATOM	12600	CG1	ILE	C	101	40.871	-0.465	63.668	1.00	54.74	C
ATOM	12603	CD1	ILE	C	101	40.566	-0.635	65.131	1.00	54.39	C
ATOM	12607	CG2	ILE	C	101	41.694	-1.359	61.538	1.00	56.87	C
ATOM	12611	C	ILE	C	101	42.058	-3.980	62.553	1.00	54.95	C
ATOM	12612	O	ILE	C	101	41.334	-4.454	61.683	1.00	54.33	O
ATOM	12614	N	GLU	C	102	43.324	-4.356	62.725	1.00	55.84	N
ATOM	12615	CA	GLU	C	102	43.979	-5.315	61.814	1.00	56.73	C
ATOM	12617	CB	GLU	C	102	45.506	-5.336	61.987	1.00	58.00	C
ATOM	12620	CG	GLU	C	102	45.998	-5.602	63.400	1.00	64.70	C
ATOM	12623	CD	GLU	C	102	46.065	-4.338	64.258	1.00	73.67	C
ATOM	12624	OE1	GLU	C	102	45.506	-3.283	63.850	1.00	74.00	O
ATOM	12625	OE2	GLU	C	102	46.674	-4.410	65.351	1.00	78.25	O
ATOM	12626	C	GLU	C	102	43.439	-6.738	61.897	1.00	55.16	C
ATOM	12627	O	GLU	C	102	43.764	-7.553	61.048	1.00	56.66	O
ATOM	12629	N	ASP	C	103	42.625	-7.039	62.902	1.00	53.48	N
ATOM	12630	CA	ASP	C	103	41.923	-8.320	62.942	1.00	52.84	C
ATOM	12632	CB	ASP	C	103	41.302	-8.555	64.316	1.00	52.09	C

ATOM	12635	CG	ASP	C	103	42.343	-8.645	65.420	1.00	52.06	C
ATOM	12636	OD1	ASP	C	103	43.532	-8.926	65.128	1.00	45.27	O
ATOM	12637	OD2	ASP	C	103	41.965	-8.426	66.586	1.00	47.52	O
ATOM	12638	C	ASP	C	103	40.838	-8.384	61.872	1.00	51.90	C
ATOM	12639	O	ASP	C	103	40.330	-9.462	61.556	1.00	47.95	O
ATOM	12641	N	SER	C	104	40.472	-7.229	61.323	1.00	52.59	N
ATOM	12642	CA	SER	C	104	39.541	-7.201	60.211	1.00	53.58	C
ATOM	12644	CB	SER	C	104	39.267	-5.774	59.765	1.00	52.91	C
ATOM	12647	OG	SER	C	104	38.857	-4.998	60.868	1.00	55.45	O
ATOM	12649	C	SER	C	104	40.116	-8.013	59.052	1.00	54.73	C
ATOM	12650	O	SER	C	104	41.226	-7.739	58.576	1.00	54.05	O
ATOM	12652	N	ASP	C	105	39.334	-9.006	58.626	1.00	54.20	N
ATOM	12653	CA	ASP	C	105	39.711	-9.976	57.613	1.00	51.83	C
ATOM	12655	CB	ASP	C	105	40.834	-10.857	58.168	1.00	52.72	C
ATOM	12658	CG	ASP	C	105	41.569	-11.648	57.094	1.00	54.56	C
ATOM	12659	OD1	ASP	C	105	41.063	-11.799	55.963	1.00	51.16	O
ATOM	12660	OD2	ASP	C	105	42.675	-12.135	57.402	1.00	57.46	O
ATOM	12661	C	ASP	C	105	38.472	-10.832	57.341	1.00	50.25	C
ATOM	12662	O	ASP	C	105	37.481	-10.733	58.053	1.00	47.82	O
ATOM	12664	N	THR	C	106	38.508	-11.663	56.311	1.00	51.72	N
ATOM	12665	CA	THR	C	106	37.584	-12.791	56.258	1.00	50.98	C
ATOM	12667	CB	THR	C	106	37.240	-13.207	54.842	1.00	50.93	C
ATOM	12669	OG1	THR	C	106	36.247	-12.319	54.329	1.00	54.88	O
ATOM	12671	CG2	THR	C	106	36.672	-14.618	54.820	1.00	54.12	C
ATOM	12675	C	THR	C	106	38.215	-13.964	56.994	1.00	49.63	C
ATOM	12676	O	THR	C	106	39.396	-14.260	56.810	1.00	48.56	O
ATOM	12678	N	TYR	C	107	37.403	-14.614	57.821	1.00	47.37	N
ATOM	12679	CA	TYR	C	107	37.806	-15.780	58.583	1.00	48.49	C
ATOM	12681	CB	TYR	C	107	37.531	-15.521	60.061	1.00	46.75	C
ATOM	12684	CG	TYR	C	107	38.492	-14.538	60.692	1.00	45.97	C
ATOM	12685	CD1	TYR	C	107	38.156	-13.201	60.838	1.00	46.31	C
ATOM	12687	CE1	TYR	C	107	39.030	-12.308	61.413	1.00	43.07	C
ATOM	12689	CZ	TYR	C	107	40.260	-12.744	61.842	1.00	38.51	C
ATOM	12690	OH	TYR	C	107	41.138	-11.866	62.410	1.00	39.85	O
ATOM	12692	CE2	TYR	C	107	40.620	-14.062	61.708	1.00	42.91	C
ATOM	12694	CD2	TYR	C	107	39.739	-14.950	61.141	1.00	44.33	C
ATOM	12696	C	TYR	C	107	37.040	-17.023	58.098	1.00	49.31	C
ATOM	12697	O	TYR	C	107	35.852	-16.943	57.757	1.00	50.98	O
ATOM	12699	N	ILE	C	108	37.719	-18.165	58.069	1.00	48.86	N
ATOM	12700	CA	ILE	C	108	37.170	-19.380	57.450	1.00	50.48	C
ATOM	12702	CB	ILE	C	108	37.996	-19.833	56.211	1.00	49.66	C
ATOM	12704	CG1	ILE	C	108	38.380	-18.639	55.331	1.00	49.00	C
ATOM	12707	CD1	ILE	C	108	39.364	-18.987	54.240	1.00	49.70	C
ATOM	12711	CG2	ILE	C	108	37.205	-20.837	55.385	1.00	48.20	C
ATOM	12715	C	ILE	C	108	37.092	-20.553	58.427	1.00	51.00	C
ATOM	12716	O	ILE	C	108	38.063	-20.881	59.094	1.00	50.60	O
ATOM	12718	N	CYS	C	109	35.928	-21.189	58.484	1.00	53.24	N
ATOM	12719	CA	CYS	C	109	35.703	-22.307	59.364	1.00	54.78	C
ATOM	12721	CB	CYS	C	109	34.418	-22.111	60.143	1.00	53.67	C
ATOM	12724	SG	CYS	C	109	34.102	-23.412	61.332	1.00	56.28	S
ATOM	12726	C	CYS	C	109	35.624	-23.553	58.507	1.00	57.51	C
ATOM	12727	O	CYS	C	109	34.681	-23.734	57.736	1.00	57.78	O
ATOM	12729	N	GLU	C	110	36.645	-24.392	58.649	1.00	61.09	N
ATOM	12730	CA	GLU	C	110	36.827	-25.600	57.864	1.00	63.08	C
ATOM	12732	CB	GLU	C	110	38.312	-25.678	57.432	1.00	64.52	C
ATOM	12735	CG	GLU	C	110	38.649	-26.539	56.182	1.00	65.80	C
ATOM	12738	CD	GLU	C	110	40.165	-26.558	55.829	1.00	68.32	C
ATOM	12739	OE1	GLU	C	110	40.902	-25.606	56.192	1.00	70.02	O
ATOM	12740	OE2	GLU	C	110	40.616	-27.535	55.176	1.00	72.71	O
ATOM	12741	C	GLU	C	110	36.435	-26.799	58.746	1.00	64.18	C
ATOM	12742	O	GLU	C	110	36.989	-26.967	59.835	1.00	64.29	O
ATOM	12744	N	VAL	C	111	35.481	-27.616	58.294	1.00	65.46	N
ATOM	12745	CA	VAL	C	111	35.103	-28.842	59.029	1.00	67.28	C

ATOM	12747	CB	VAL	C	111	33.592	-28.943	59.253	1.00	67.09	C
ATOM	12749	CG1	VAL	C	111	32.827	-28.804	57.929	1.00	71.87	C
ATOM	12753	CG2	VAL	C	111	33.150	-27.890	60.269	1.00	62.06	C
ATOM	12757	C	VAL	C	111	35.687	-30.118	58.385	1.00	70.68	C
ATOM	12758	O	VAL	C	111	36.897	-30.356	58.527	1.00	74.31	O
ATOM	12760	N	GLU	C	112	34.875	-30.953	57.723	1.00	70.85	N
ATOM	12761	CA	GLU	C	112	35.412	-32.098	56.967	1.00	70.44	C
ATOM	12763	CB	GLU	C	112	34.302	-33.088	56.544	1.00	72.33	C
ATOM	12766	CG	GLU	C	112	33.117	-32.488	55.740	1.00	76.96	C
ATOM	12769	CD	GLU	C	112	31.783	-32.493	56.496	1.00	83.20	C
ATOM	12770	OE1	GLU	C	112	31.267	-33.595	56.799	1.00	82.70	O
ATOM	12771	OE2	GLU	C	112	31.239	-31.394	56.764	1.00	83.34	O
ATOM	12772	C	GLU	C	112	36.208	-31.542	55.776	1.00	69.64	C
ATOM	12773	O	GLU	C	112	37.237	-30.902	55.974	1.00	68.45	O
ATOM	12775	N	ASP	C	113	35.750	-31.761	54.550	1.00	69.24	N
ATOM	12776	CA	ASP	C	113	36.288	-31.019	53.421	1.00	68.90	C
ATOM	12778	CB	ASP	C	113	36.375	-31.920	52.173	1.00	70.79	C
ATOM	12781	CG	ASP	C	113	35.010	-32.440	51.699	1.00	75.31	C
ATOM	12782	OD1	ASP	C	113	34.967	-33.039	50.597	1.00	74.76	O
ATOM	12783	OD2	ASP	C	113	33.993	-32.263	52.416	1.00	77.85	O
ATOM	12784	C	ASP	C	113	35.488	-29.731	53.144	1.00	67.66	C
ATOM	12785	O	ASP	C	113	35.714	-29.080	52.130	1.00	68.60	O
ATOM	12787	N	GLN	C	114	34.581	-29.351	54.050	1.00	66.10	N
ATOM	12788	CA	GLN	C	114	33.674	-28.212	53.822	1.00	64.38	C
ATOM	12790	CB	GLN	C	114	32.254	-28.566	54.275	1.00	64.59	C
ATOM	12793	CG	GLN	C	114	31.610	-29.698	53.477	1.00	64.96	C
ATOM	12796	CD	GLN	C	114	31.648	-29.456	51.981	1.00	64.44	C
ATOM	12797	OE1	GLN	C	114	32.238	-30.237	51.230	1.00	69.81	O
ATOM	12798	NE2	GLN	C	114	31.041	-28.357	51.542	1.00	58.73	N
ATOM	12801	C	GLN	C	114	34.140	-26.926	54.508	1.00	62.41	C
ATOM	12802	O	GLN	C	114	34.875	-26.978	55.491	1.00	62.74	O
ATOM	12804	N	LYS	C	115	33.707	-25.781	53.976	1.00	59.25	N
ATOM	12805	CA	LYS	C	115	34.153	-24.466	54.454	1.00	58.31	C
ATOM	12807	CB	LYS	C	115	35.215	-23.882	53.522	1.00	58.36	C
ATOM	12810	CG	LYS	C	115	36.517	-24.629	53.525	1.00	61.04	C
ATOM	12813	CD	LYS	C	115	37.409	-24.182	52.387	1.00	61.58	C
ATOM	12816	CE	LYS	C	115	38.614	-25.107	52.219	1.00	62.86	C
ATOM	12819	NZ	LYS	C	115	39.216	-24.941	50.868	1.00	62.77	N
ATOM	12823	C	LYS	C	115	33.012	-23.475	54.513	1.00	55.16	C
ATOM	12824	O	LYS	C	115	32.016	-23.631	53.817	1.00	54.49	O
ATOM	12826	N	GLU	C	116	33.202	-22.434	55.315	1.00	53.47	N
ATOM	12827	CA	GLU	C	116	32.199	-21.395	55.545	1.00	53.55	C
ATOM	12829	CB	GLU	C	116	31.223	-21.864	56.623	1.00	51.70	C
ATOM	12832	CG	GLU	C	116	30.510	-20.767	57.366	1.00	53.11	C
ATOM	12835	CD	GLU	C	116	29.298	-21.269	58.117	1.00	54.70	C
ATOM	12836	OE1	GLU	C	116	29.472	-21.756	59.251	1.00	50.98	O
ATOM	12837	OE2	GLU	C	116	28.169	-21.160	57.575	1.00	61.27	O
ATOM	12838	C	GLU	C	116	32.906	-20.100	55.966	1.00	52.91	C
ATOM	12839	O	GLU	C	116	33.875	-20.146	56.713	1.00	50.94	O
ATOM	12841	N	GLU	C	117	32.417	-18.955	55.494	1.00	53.45	N
ATOM	12842	CA	GLU	C	117	33.135	-17.684	55.652	1.00	54.09	C
ATOM	12844	CB	GLU	C	117	33.458	-17.091	54.277	1.00	53.32	C
ATOM	12847	CG	GLU	C	117	34.366	-17.962	53.438	1.00	54.45	C
ATOM	12850	CD	GLU	C	117	34.934	-17.245	52.227	1.00	56.38	C
ATOM	12851	OE1	GLU	C	117	34.742	-16.012	52.092	1.00	60.16	O
ATOM	12852	OE2	GLU	C	117	35.586	-17.927	51.407	1.00	57.41	O
ATOM	12853	C	GLU	C	117	32.375	-16.635	56.453	1.00	53.34	C
ATOM	12854	O	GLU	C	117	31.165	-16.477	56.280	1.00	53.72	O
ATOM	12856	N	VAL	C	118	33.098	-15.910	57.311	1.00	52.42	N
ATOM	12857	CA	VAL	C	118	32.570	-14.709	57.956	1.00	53.21	C
ATOM	12859	CB	VAL	C	118	32.438	-14.861	59.483	1.00	54.38	C
ATOM	12861	CG1	VAL	C	118	31.290	-13.987	59.994	1.00	55.42	C
ATOM	12865	CG2	VAL	C	118	32.209	-16.302	59.877	1.00	57.17	C

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ATOM  12869  C   VAL C 118      33.525 -13.564  57.717  1.00 52.25           C
ATOM  12870  O   VAL C 118      34.717 -13.733  57.916  1.00 55.22           O
ATOM  12872  N   GLN C 119      33.013 -12.415  57.287  1.00 51.56           N
ATOM  12873  CA  GLN C 119      33.826 -11.208  57.171  1.00 52.32           C
ATOM  12875  CB  GLN C 119      33.404 -10.353  55.980  1.00 52.94           C
ATOM  12878  CG  GLN C 119      34.306  -9.138  55.680  1.00 54.41           C
ATOM  12881  CD  GLN C 119      33.673  -8.152  54.668  1.00 58.73           C
ATOM  12882  OE1 GLN C 119      33.008  -8.557  53.706  1.00 67.09           O
ATOM  12883  NE2 GLN C 119      33.876  -6.856  54.899  1.00 65.24           N
ATOM  12886  C   GLN C 119      33.644 -10.422  58.442  1.00 51.96           C
ATOM  12887  O   GLN C 119      32.522 -10.058  58.792  1.00 50.71           O
ATOM  12889  N   LEU C 120      34.758 -10.192  59.136  1.00 52.15           N
ATOM  12890  CA  LEU C 120      34.803  -9.365  60.333  1.00 50.35           C
ATOM  12892  CB  LEU C 120      35.768  -9.954  61.350  1.00 47.65           C
ATOM  12895  CG  LEU C 120      35.959  -9.089  62.597  1.00 48.62           C
ATOM  12897  CD1 LEU C 120      34.628  -8.828  63.304  1.00 41.97           C
ATOM  12901  CD2 LEU C 120      36.966  -9.735  63.541  1.00 49.72           C
ATOM  12905  C   LEU C 120      35.282  -7.967  59.973  1.00 51.47           C
ATOM  12906  O   LEU C 120      36.336  -7.804  59.349  1.00 52.89           O
ATOM  12908  N   LEU C 121      34.517  -6.960  60.369  1.00 50.82           N
ATOM  12909  CA  LEU C 121      34.991  -5.593  60.292  1.00 52.00           C
ATOM  12911  CB  LEU C 121      34.101  -4.758  59.361  1.00 53.51           C
ATOM  12914  CG  LEU C 121      33.904  -5.313  57.943  1.00 51.77           C
ATOM  12916  CD1 LEU C 121      33.007  -4.396  57.146  1.00 50.39           C
ATOM  12920  CD2 LEU C 121      35.229  -5.512  57.232  1.00 49.89           C
ATOM  12924  C   LEU C 121      35.004  -5.012  61.696  1.00 52.38           C
ATOM  12925  O   LEU C 121      33.953  -4.858  62.310  1.00 53.44           O
ATOM  12927  N   VAL C 122      36.198  -4.711  62.207  1.00 53.37           N
ATOM  12928  CA  VAL C 122      36.356  -4.034  63.500  1.00 53.90           C
ATOM  12930  CB  VAL C 122      37.611  -4.500  64.228  1.00 53.89           C
ATOM  12932  CG1 VAL C 122      37.757  -3.765  65.569  1.00 52.63           C
ATOM  12936  CG2 VAL C 122      37.580  -6.012  64.410  1.00 56.49           C
ATOM  12940  C   VAL C 122      36.493  -2.532  63.293  1.00 54.43           C
ATOM  12941  O   VAL C 122      37.331  -2.101  62.500  1.00 55.12           O
ATOM  12943  N   PHE C 123      35.686  -1.751  64.013  1.00 54.82           N
ATOM  12944  CA  PHE C 123      35.684  -0.292  63.889  1.00 56.06           C
ATOM  12946  CB  PHE C 123      34.286   0.234  63.544  1.00 56.94           C
ATOM  12949  CG  PHE C 123      33.877  -0.018  62.126  1.00 53.01           C
ATOM  12950  CD1 PHE C 123      34.573   0.568  61.078  1.00 55.73           C
ATOM  12952  CE1 PHE C 123      34.209   0.331  59.758  1.00 58.17           C
ATOM  12954  CZ  PHE C 123      33.138  -0.490  59.482  1.00 56.84           C
ATOM  12956  CE2 PHE C 123      32.434  -1.073  60.525  1.00 58.38           C
ATOM  12958  CD2 PHE C 123      32.804  -0.833  61.837  1.00 51.88           C
ATOM  12960  C   PHE C 123      36.135   0.355  65.171  1.00 57.02           C
ATOM  12961  O   PHE C 123      35.908  -0.172  66.250  1.00 57.02           O
ATOM  12963  N   GLY C 124      36.778   1.507  65.040  1.00 59.18           N
ATOM  12964  CA  GLY C 124      37.255   2.262  66.188  1.00 60.08           C
ATOM  12967  C   GLY C 124      36.881   3.722  66.047  1.00 61.27           C
ATOM  12968  O   GLY C 124      36.670   4.219  64.934  1.00 57.87           O
ATOM  12970  N   LEU C 125      36.801   4.403  67.186  1.00 63.32           N
ATOM  12971  CA  LEU C 125      36.464   5.818  67.233  1.00 64.26           C
ATOM  12973  CB  LEU C 125      35.060   5.986  67.810  1.00 65.00           C
ATOM  12976  CG  LEU C 125      34.523   7.414  67.873  1.00 65.30           C
ATOM  12978  CD1 LEU C 125      34.674   8.084  66.512  1.00 65.34           C
ATOM  12982  CD2 LEU C 125      33.070   7.418  68.341  1.00 64.50           C
ATOM  12986  C   LEU C 125      37.485   6.545  68.103  1.00 64.66           C
ATOM  12987  O   LEU C 125      37.717   6.143  69.230  1.00 66.76           O
ATOM  12989  N   THR C 126      38.077   7.615  67.582  1.00 64.70           N
ATOM  12990  CA  THR C 126      39.171   8.308  68.261  1.00 66.19           C
ATOM  12992  CB  THR C 126      40.550   7.724  67.837  1.00 65.47           C
ATOM  12994  OG1 THR C 126      41.511   8.780  67.721  1.00 67.12           O
ATOM  12996  CG2 THR C 126      40.479   7.036  66.502  1.00 66.34           C
ATOM  13000  C   THR C 126      39.193   9.837  68.035  1.00 67.79           C
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ATOM	13001	O	THR	C	126	39.015	10.317	66.907	1.00	68.05	O
ATOM	13003	N	ALA	C	127	39.432	10.584	69.117	1.00	68.20	N
ATOM	13004	CA	ALA	C	127	39.708	12.021	69.040	1.00	68.54	C
ATOM	13006	CB	ALA	C	127	39.517	12.678	70.404	1.00	66.69	C
ATOM	13010	C	ALA	C	127	41.132	12.268	68.537	1.00	69.70	C
ATOM	13011	O	ALA	C	127	42.056	11.533	68.882	1.00	69.66	O
ATOM	13013	N	ASN	C	128	41.307	13.310	67.726	1.00	71.66	N
ATOM	13014	CA	ASN	C	128	42.642	13.728	67.280	1.00	72.32	C
ATOM	13016	CB	ASN	C	128	42.549	14.719	66.112	1.00	73.36	C
ATOM	13019	CG	ASN	C	128	41.821	14.129	64.898	1.00	75.66	C
ATOM	13020	OD1	ASN	C	128	40.979	13.230	65.033	1.00	74.10	O
ATOM	13021	ND2	ASN	C	128	42.140	14.637	63.711	1.00	70.84	N
ATOM	13024	C	ASN	C	128	43.422	14.337	68.441	1.00	72.77	C
ATOM	13025	O	ASN	C	128	44.572	13.977	68.672	1.00	73.63	O
ATOM	13027	N	SER	C	129	42.778	15.243	69.176	1.00	73.54	N
ATOM	13028	CA	SER	C	129	43.343	15.808	70.408	1.00	72.84	C
ATOM	13030	CB	SER	C	129	42.825	17.236	70.626	1.00	74.19	C
ATOM	13033	OG	SER	C	129	42.779	17.967	69.413	1.00	76.55	O
ATOM	13035	C	SER	C	129	42.975	14.936	71.614	1.00	71.58	C
ATOM	13036	O	SER	C	129	42.510	13.810	71.463	1.00	72.40	O
ATOM	13038	N	ASP	C	130	43.198	15.468	72.812	1.00	71.16	N
ATOM	13039	CA	ASP	C	130	42.730	14.850	74.053	1.00	69.49	C
ATOM	13041	CB	ASP	C	130	43.382	15.546	75.265	1.00	70.05	C
ATOM	13044	CG	ASP	C	130	43.197	14.783	76.576	1.00	71.63	C
ATOM	13045	OD1	ASP	C	130	42.504	13.740	76.599	1.00	73.08	O
ATOM	13046	OD2	ASP	C	130	43.753	15.242	77.599	1.00	72.89	O
ATOM	13047	C	ASP	C	130	41.198	14.954	74.116	1.00	68.54	C
ATOM	13048	O	ASP	C	130	40.596	15.819	73.470	1.00	69.62	O
ATOM	13050	N	THR	C	131	40.582	14.052	74.876	1.00	65.67	N
ATOM	13051	CA	THR	C	131	39.136	14.034	75.078	1.00	61.78	C
ATOM	13053	CB	THR	C	131	38.667	12.615	75.546	1.00	60.74	C
ATOM	13055	OG1	THR	C	131	37.349	12.355	75.069	1.00	61.20	O
ATOM	13057	CG2	THR	C	131	38.714	12.438	77.073	1.00	58.94	C
ATOM	13061	C	THR	C	131	38.749	15.147	76.068	1.00	59.98	C
ATOM	13062	O	THR	C	131	37.696	15.770	75.928	1.00	58.13	O
ATOM	13064	N	HIS	C	132	39.622	15.395	77.050	1.00	58.56	N
ATOM	13065	CA	HIS	C	132	39.476	16.513	77.990	1.00	57.41	C
ATOM	13067	CB	HIS	C	132	40.223	16.234	79.302	1.00	59.02	C
ATOM	13070	CG	HIS	C	132	39.864	14.925	79.943	1.00	61.69	C
ATOM	13071	ND1	HIS	C	132	40.534	13.750	79.668	1.00	65.34	N
ATOM	13073	CE1	HIS	C	132	40.009	12.767	80.375	1.00	60.86	C
ATOM	13075	NE2	HIS	C	132	39.021	13.261	81.099	1.00	62.30	N
ATOM	13077	CD2	HIS	C	132	38.915	14.609	80.855	1.00	59.02	C
ATOM	13079	C	HIS	C	132	40.025	17.779	77.333	1.00	55.34	C
ATOM	13080	O	HIS	C	132	41.202	17.846	77.008	1.00	57.95	O
ATOM	13082	N	LEU	C	133	39.179	18.787	77.162	1.00	53.02	N
ATOM	13083	CA	LEU	C	133	39.434	19.851	76.197	1.00	50.98	C
ATOM	13085	CB	LEU	C	133	38.708	19.471	74.921	1.00	50.94	C
ATOM	13088	CG	LEU	C	133	39.339	19.853	73.596	1.00	55.43	C
ATOM	13090	CD1	LEU	C	133	40.569	18.968	73.285	1.00	57.77	C
ATOM	13094	CD2	LEU	C	133	38.279	19.745	72.495	1.00	53.54	C
ATOM	13098	C	LEU	C	133	38.912	21.197	76.688	1.00	48.12	C
ATOM	13099	O	LEU	C	133	37.886	21.241	77.346	1.00	49.92	O
ATOM	13101	N	LEU	C	134	39.598	22.290	76.368	1.00	45.02	N
ATOM	13102	CA	LEU	C	134	39.136	23.634	76.772	1.00	44.51	C
ATOM	13104	CB	LEU	C	134	40.233	24.694	76.620	1.00	42.50	C
ATOM	13107	CG	LEU	C	134	41.098	24.970	77.850	1.00	41.84	C
ATOM	13109	CD1	LEU	C	134	41.712	23.689	78.383	1.00	41.05	C
ATOM	13113	CD2	LEU	C	134	42.168	26.005	77.527	1.00	43.34	C
ATOM	13117	C	LEU	C	134	37.927	24.090	75.972	1.00	44.51	C
ATOM	13118	O	LEU	C	134	37.749	23.701	74.824	1.00	43.86	O
ATOM	13120	N	GLN	C	135	37.113	24.947	76.578	1.00	46.00	N
ATOM	13121	CA	GLN	C	135	35.953	25.515	75.898	1.00	45.14	C

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ATOM  13123  CB  GLN C 135      35.086  26.294  76.880  1.00 44.72           C
ATOM  13126  CG  GLN C 135      33.868  26.907  76.226  1.00 46.28           C
ATOM  13129  CD  GLN C 135      32.920  27.494  77.227  1.00 45.70           C
ATOM  13130  OE1 GLN C 135      31.768  27.060  77.324  1.00 53.66           O
ATOM  13131  NE2 GLN C 135      33.392  28.481  77.988  1.00 28.37           N
ATOM  13134  C   GLN C 135      36.350  26.428  74.732  1.00 43.60           C
ATOM  13135  O   GLN C 135      37.233  27.287  74.863  1.00 42.29           O
ATOM  13137  N   GLY C 136      35.672  26.242  73.605  1.00 42.19           N
ATOM  13138  CA  GLY C 136      35.973  26.982  72.387  1.00 44.99           C
ATOM  13141  C   GLY C 136      36.978  26.289  71.478  1.00 45.49           C
ATOM  13142  O   GLY C 136      37.163  26.714  70.340  1.00 44.08           O
ATOM  13144  N   GLN C 137      37.639  25.241  71.979  1.00 46.91           N
ATOM  13145  CA  GLN C 137      38.539  24.421  71.160  1.00 47.59           C
ATOM  13147  CB  GLN C 137      39.455  23.527  72.014  1.00 46.17           C
ATOM  13150  CG  GLN C 137      40.366  24.241  72.991  1.00 42.61           C
ATOM  13153  CD  GLN C 137      41.387  25.092  72.305  1.00 47.64           C
ATOM  13154  OE1 GLN C 137      41.485  26.294  72.556  1.00 57.64           O
ATOM  13155  NE2 GLN C 137      42.150  24.486  71.416  1.00 51.71           N
ATOM  13158  C   GLN C 137      37.681  23.531  70.284  1.00 48.99           C
ATOM  13159  O   GLN C 137      36.523  23.276  70.588  1.00 50.44           O
ATOM  13161  N   SER C 138      38.254  23.054  69.193  1.00 52.18           N
ATOM  13162  CA  SER C 138      37.536  22.187  68.282  1.00 53.77           C
ATOM  13164  CB  SER C 138      37.931  22.500  66.848  1.00 54.12           C
ATOM  13167  OG  SER C 138      37.621  23.846  66.541  1.00 60.63           O
ATOM  13169  C   SER C 138      37.853  20.742  68.615  1.00 55.38           C
ATOM  13170  O   SER C 138      38.875  20.436  69.223  1.00 55.88           O
ATOM  13172  N   LEU C 139      36.960  19.858  68.207  1.00 57.14           N
ATOM  13173  CA  LEU C 139      37.120  18.437  68.415  1.00 57.11           C
ATOM  13175  CB  LEU C 139      36.086  17.970  69.427  1.00 58.66           C
ATOM  13178  CG  LEU C 139      35.830  16.472  69.507  1.00 60.28           C
ATOM  13180  CD1 LEU C 139      37.148  15.751  69.779  1.00 65.64           C
ATOM  13184  CD2 LEU C 139      34.777  16.173  70.583  1.00 59.13           C
ATOM  13188  C   LEU C 139      36.890  17.736  67.089  1.00 57.54           C
ATOM  13189  O   LEU C 139      35.884  17.990  66.423  1.00 57.65           O
ATOM  13191  N   THR C 140      37.819  16.873  66.701  1.00 55.84           N
ATOM  13192  CA  THR C 140      37.641  16.056  65.511  1.00 55.23           C
ATOM  13194  CB  THR C 140      38.803  16.234  64.522  1.00 54.09           C
ATOM  13196  OG1 THR C 140      38.839  17.585  64.062  1.00 49.54           O
ATOM  13198  CG2 THR C 140      38.643  15.300  63.320  1.00 55.04           C
ATOM  13202  C   THR C 140      37.575  14.596  65.925  1.00 55.52           C
ATOM  13203  O   THR C 140      38.542  14.067  66.467  1.00 55.17           O
ATOM  13205  N   LEU C 141      36.436  13.955  65.673  1.00 56.14           N
ATOM  13206  CA  LEU C 141      36.301  12.509  65.856  1.00 56.06           C
ATOM  13208  CB  LEU C 141      34.885  12.138  66.284  1.00 55.13           C
ATOM  13211  CG  LEU C 141      34.393  12.856  67.543  1.00 54.55           C
ATOM  13213  CD1 LEU C 141      33.072  12.277  67.984  1.00 55.40           C
ATOM  13217  CD2 LEU C 141      35.414  12.769  68.678  1.00 55.73           C
ATOM  13221  C   LEU C 141      36.656  11.826  64.555  1.00 56.15           C
ATOM  13222  O   LEU C 141      36.362  12.341  63.479  1.00 57.21           O
ATOM  13224  N   THR C 142      37.316  10.680  64.654  1.00 57.30           N
ATOM  13225  CA  THR C 142      37.834   9.996  63.474  1.00 58.06           C
ATOM  13227  CB  THR C 142      39.313  10.341  63.258  1.00 57.47           C
ATOM  13229  OG1 THR C 142      39.463  11.763  63.254  1.00 61.17           O
ATOM  13231  CG2 THR C 142      39.825   9.791  61.935  1.00 56.93           C
ATOM  13235  C   THR C 142      37.650   8.481  63.599  1.00 58.80           C
ATOM  13236  O   THR C 142      38.083   7.868  64.577  1.00 57.62           O
ATOM  13238  N   LEU C 143      36.976   7.896  62.612  1.00 58.40           N
ATOM  13239  CA  LEU C 143      36.783   6.457  62.565  1.00 58.37           C
ATOM  13241  CB  LEU C 143      35.722   6.080  61.520  1.00 57.10           C
ATOM  13244  CG  LEU C 143      34.273   5.905  61.977  1.00 55.46           C
ATOM  13246  CD1 LEU C 143      33.895   6.843  63.108  1.00 56.46           C
ATOM  13250  CD2 LEU C 143      33.340   6.100  60.799  1.00 57.96           C
ATOM  13254  C   LEU C 143      38.102   5.790  62.214  1.00 58.83           C
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ATOM  13255  O   LEU C 143      38.830   6.280  61.355  1.00 60.93           O
ATOM  13257  N   GLU C 144      38.412   4.693  62.893  1.00 57.52           N
ATOM  13258  CA  GLU C 144      39.456   3.797  62.440  1.00 58.34           C
ATOM  13260  CB  GLU C 144      40.271   3.263  63.603  1.00 58.84           C
ATOM  13263  CG  GLU C 144      40.925   4.355  64.417  1.00 61.40           C
ATOM  13266  CD  GLU C 144      41.677   3.805  65.593  1.00 60.71           C
ATOM  13267  OE1 GLU C 144      42.697   3.121  65.361  1.00 70.68           O
ATOM  13268  OE2 GLU C 144      41.237   4.031  66.742  1.00 60.94           O
ATOM  13269  C   GLU C 144      38.767   2.666  61.719  1.00 58.59           C
ATOM  13270  O   GLU C 144      37.847   2.049  62.259  1.00 60.83           O
ATOM  13272  N   SER C 145      39.234   2.397  60.504  1.00 58.97           N
ATOM  13273  CA  SER C 145      38.552   1.542  59.544  1.00 57.62           C
ATOM  13275  CB  SER C 145      37.951   2.412  58.441  1.00 58.80           C
ATOM  13278  OG  SER C 145      36.697   2.930  58.829  1.00 66.00           O
ATOM  13280  C   SER C 145      39.522   0.592  58.878  1.00 56.23           C
ATOM  13281  O   SER C 145      40.648   0.982  58.555  1.00 57.81           O
ATOM  13283  N   PRO C 146      39.087  -0.649  58.634  1.00 54.08           N
ATOM  13284  CA  PRO C 146      39.866  -1.520  57.764  1.00 53.84           C
ATOM  13286  CB  PRO C 146      39.318  -2.912  58.076  1.00 53.93           C
ATOM  13289  CG  PRO C 146      37.921  -2.677  58.529  1.00 54.99           C
ATOM  13292  CD  PRO C 146      37.883  -1.313  59.161  1.00 53.90           C
ATOM  13295  C   PRO C 146      39.669  -1.159  56.295  1.00 53.49           C
ATOM  13296  O   PRO C 146      38.703  -0.482  55.957  1.00 53.16           O
ATOM  13297  N   PRO C 147      40.562  -1.637  55.416  1.00 55.44           N
ATOM  13298  CA  PRO C 147      40.616  -1.167  54.030  1.00 55.00           C
ATOM  13300  CB  PRO C 147      41.714  -2.038  53.405  1.00 55.62           C
ATOM  13303  CG  PRO C 147      42.539  -2.479  54.534  1.00 57.05           C
ATOM  13306  CD  PRO C 147      41.590  -2.661  55.674  1.00 56.94           C
ATOM  13309  C   PRO C 147      39.320  -1.266  53.215  1.00 54.73           C
ATOM  13310  O   PRO C 147      38.941  -0.298  52.544  1.00 57.19           O
ATOM  13311  N   GLY C 148      38.652  -2.411  53.249  1.00 52.29           N
ATOM  13312  CA  GLY C 148      37.464  -2.595  52.408  1.00 52.17           C
ATOM  13315  C   GLY C 148      36.237  -1.789  52.824  1.00 50.22           C
ATOM  13316  O   GLY C 148      35.320  -1.594  52.040  1.00 46.84           O
ATOM  13318  N   SER C 149      36.237  -1.310  54.062  1.00 50.79           N
ATOM  13319  CA  SER C 149      35.034  -0.845  54.733  1.00 51.54           C
ATOM  13321  CB  SER C 149      35.307  -0.734  56.238  1.00 52.67           C
ATOM  13324  OG  SER C 149      36.156   0.374  56.504  1.00 53.58           O
ATOM  13326  C   SER C 149      34.540   0.504  54.230  1.00 51.45           C
ATOM  13327  O   SER C 149      35.192   1.177  53.433  1.00 52.31           O
ATOM  13329  N   SER C 150      33.400   0.918  54.757  1.00 50.20           N
ATOM  13330  CA  SER C 150      32.718   2.076  54.246  1.00 50.72           C
ATOM  13332  CB  SER C 150      31.914   1.653  53.026  1.00 51.30           C
ATOM  13335  OG  SER C 150      31.170   2.752  52.557  1.00 57.24           O
ATOM  13337  C   SER C 150      31.780   2.701  55.274  1.00 49.72           C
ATOM  13338  O   SER C 150      30.622   2.963  54.966  1.00 49.54           O
ATOM  13340  N   PRO C 151      32.279   2.961  56.492  1.00 47.89           N
ATOM  13341  CA  PRO C 151      31.375   3.391  57.546  1.00 47.74           C
ATOM  13343  CB  PRO C 151      32.236   3.256  58.801  1.00 47.05           C
ATOM  13346  CG  PRO C 151      33.612   3.492  58.314  1.00 46.59           C
ATOM  13349  CD  PRO C 151      33.674   2.879  56.966  1.00 47.73           C
ATOM  13352  C   PRO C 151      30.860   4.827  57.380  1.00 46.51           C
ATOM  13353  O   PRO C 151      31.380   5.591  56.570  1.00 44.35           O
ATOM  13354  N   SER C 152      29.789   5.135  58.107  1.00 47.30           N
ATOM  13355  CA  SER C 152      29.282   6.494  58.285  1.00 49.22           C
ATOM  13357  CB  SER C 152      27.880   6.724  57.679  1.00 49.04           C
ATOM  13360  OG  SER C 152      27.697   6.074  56.434  1.00 56.60           O
ATOM  13362  C   SER C 152      29.148   6.603  59.771  1.00 50.48           C
ATOM  13363  O   SER C 152      29.031   5.591  60.455  1.00 50.84           O
ATOM  13365  N   VAL C 153      29.116   7.828  60.272  1.00 52.23           N
ATOM  13366  CA  VAL C 153      29.083   8.051  61.700  1.00 51.85           C
ATOM  13368  CB  VAL C 153      30.483   8.458  62.225  1.00 50.48           C
ATOM  13370  CG1 VAL C 153      31.040   9.642  61.457  1.00 52.69           C
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ATOM  13374  CG2 VAL C 153      30.433   8.752  63.698  1.00 52.75           C
ATOM  13378  C   VAL C 153      28.024   9.092  62.031  1.00 52.30           C
ATOM  13379  O   VAL C 153      27.772  10.003  61.247  1.00 48.78           O
ATOM  13381  N   GLN C 154      27.380   8.904  63.180  1.00 53.85           N
ATOM  13382  CA  GLN C 154      26.485   9.892  63.751  1.00 54.16           C
ATOM  13384  CB  GLN C 154      25.026   9.537  63.502  1.00 54.93           C
ATOM  13387  CG  GLN C 154      24.088  10.066  64.583  1.00 53.16           C
ATOM  13390  CD  GLN C 154      22.652   9.871  64.241  1.00 50.89           C
ATOM  13391  OE1 GLN C 154      22.007   8.953  64.737  1.00 53.15           O
ATOM  13392  NE2 GLN C 154      22.131  10.735  63.394  1.00 39.18           N
ATOM  13395  C   GLN C 154      26.724   9.934  65.242  1.00 56.50           C
ATOM  13396  O   GLN C 154      26.533   8.935  65.939  1.00 57.26           O
ATOM  13398  N   CYS C 155      27.121  11.100  65.726  1.00 57.78           N
ATOM  13399  CA  CYS C 155      27.325  11.307  67.143  1.00 56.92           C
ATOM  13401  CB  CYS C 155      28.694  11.905  67.380  1.00 57.67           C
ATOM  13404  SG  CYS C 155      29.955  10.746  66.917  1.00 61.13           S
ATOM  13406  C   CYS C 155      26.250  12.214  67.688  1.00 57.19           C
ATOM  13407  O   CYS C 155      25.771  13.133  67.018  1.00 55.37           O
ATOM  13409  N   ARG C 156      25.875  11.932  68.922  1.00 57.40           N
ATOM  13410  CA  ARG C 156      24.841  12.660  69.605  1.00 56.08           C
ATOM  13412  CB  ARG C 156      23.671  11.705  69.799  1.00 56.11           C
ATOM  13415  CG  ARG C 156      22.543  12.210  70.658  1.00 59.89           C
ATOM  13418  CD  ARG C 156      21.253  11.382  70.489  1.00 63.64           C
ATOM  13421  NE  ARG C 156      21.484  10.021  69.980  1.00 68.96           N
ATOM  13423  CZ  ARG C 156      20.962   9.505  68.862  1.00 69.73           C
ATOM  13424  NH1 ARG C 156      20.138  10.201  68.078  1.00 64.69           N
ATOM  13427  NH2 ARG C 156      21.264   8.258  68.527  1.00 75.77           N
ATOM  13430  C   ARG C 156      25.464  13.118  70.926  1.00 54.21           C
ATOM  13431  O   ARG C 156      25.943  12.282  71.697  1.00 52.54           O
ATOM  13433  N   SER C 157      25.514  14.437  71.157  1.00 52.79           N
ATOM  13434  CA  SER C 157      26.035  14.999  72.429  1.00 52.24           C
ATOM  13436  CB  SER C 157      26.209  16.528  72.325  1.00 53.85           C
ATOM  13439  OG  SER C 157      24.962  17.211  72.264  1.00 55.35           O
ATOM  13441  C   SER C 157      25.127  14.648  73.617  1.00 49.81           C
ATOM  13442  O   SER C 157      24.094  14.010  73.455  1.00 50.61           O
ATOM  13444  N   PRO C 158      25.510  15.049  74.828  1.00 47.61           N
ATOM  13445  CA  PRO C 158      24.577  14.786  75.926  1.00 46.50           C
ATOM  13447  CB  PRO C 158      25.363  15.206  77.177  1.00 44.45           C
ATOM  13450  CG  PRO C 158      26.807  15.244  76.732  1.00 47.62           C
ATOM  13453  CD  PRO C 158      26.762  15.661  75.296  1.00 49.56           C
ATOM  13456  C   PRO C 158      23.259  15.558  75.805  1.00 44.87           C
ATOM  13457  O   PRO C 158      22.320  15.281  76.553  1.00 44.21           O
ATOM  13458  N   ARG C 159      23.184  16.503  74.871  1.00 43.29           N
ATOM  13459  CA  ARG C 159      21.946  17.248  74.630  1.00 43.47           C
ATOM  13461  CB  ARG C 159      22.263  18.680  74.225  1.00 38.69           C
ATOM  13464  CG  ARG C 159      22.867  19.454  75.363  1.00 39.57           C
ATOM  13467  CD  ARG C 159      23.619  20.649  74.859  1.00 46.59           C
ATOM  13470  NE  ARG C 159      22.789  21.472  73.985  1.00 52.09           N
ATOM  13472  CZ  ARG C 159      23.241  22.245  72.998  1.00 53.47           C
ATOM  13473  NH1 ARG C 159      22.373  22.943  72.276  1.00 55.12           N
ATOM  13476  NH2 ARG C 159      24.543  22.328  72.722  1.00 50.97           N
ATOM  13479  C   ARG C 159      21.048  16.591  73.593  1.00 42.68           C
ATOM  13480  O   ARG C 159      19.992  17.112  73.276  1.00 41.59           O
ATOM  13482  N   GLY C 160      21.461  15.447  73.064  1.00 44.46           N
ATOM  13483  CA  GLY C 160      20.621  14.708  72.140  1.00 46.94           C
ATOM  13486  C   GLY C 160      20.629  15.230  70.713  1.00 48.82           C
ATOM  13487  O   GLY C 160      19.939  14.673  69.859  1.00 49.55           O
ATOM  13489  N   LYS C 161      21.405  16.285  70.445  1.00 50.66           N
ATOM  13490  CA  LYS C 161      21.554  16.821  69.087  1.00 51.33           C
ATOM  13492  CB  LYS C 161      21.989  18.286  69.118  1.00 52.12           C
ATOM  13495  CG  LYS C 161      20.814  19.259  69.051  1.00 54.16           C
ATOM  13498  CD  LYS C 161      21.059  20.552  69.833  1.00 54.75           C
ATOM  13501  CE  LYS C 161      20.208  21.712  69.279  1.00 60.67           C
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ATOM  13504  NZ  LYS C 161      18.936  21.257  68.624  1.00 62.40           N
ATOM  13508  C   LYS C 161      22.517  15.977  68.246  1.00 52.08           C
ATOM  13509  O   LYS C 161      23.698  15.823  68.577  1.00 51.42           O
ATOM  13511  N   ASN C 162      21.973  15.418  67.165  1.00 53.76           N
ATOM  13512  CA  ASN C 162      22.719  14.558  66.248  1.00 53.27           C
ATOM  13514  CB  ASN C 162      21.762  13.682  65.414  1.00 52.35           C
ATOM  13517  CG  ASN C 162      21.140  12.541  66.232  1.00 54.54           C
ATOM  13518  OD1 ASN C 162      19.929  12.431  66.352  1.00 56.59           O
ATOM  13519  ND2 ASN C 162      21.980  11.697  66.801  1.00 64.74           N
ATOM  13522  C   ASN C 162      23.632  15.371  65.335  1.00 53.02           C
ATOM  13523  O   ASN C 162      23.293  16.464  64.904  1.00 52.72           O
ATOM  13525  N   ILE C 163      24.810  14.825  65.076  1.00 54.51           N
ATOM  13526  CA  ILE C 163      25.796  15.426  64.182  1.00 54.29           C
ATOM  13528  CB  ILE C 163      26.833  16.317  64.956  1.00 55.78           C
ATOM  13530  CG1 ILE C 163      28.259  16.124  64.434  1.00 56.60           C
ATOM  13533  CD1 ILE C 163      29.290  16.963  65.166  1.00 58.16           C
ATOM  13537  CG2 ILE C 163      26.826  16.026  66.463  1.00 59.34           C
ATOM  13541  C   ILE C 163      26.429  14.256  63.430  1.00 52.97           C
ATOM  13542  O   ILE C 163      26.642  13.185  64.011  1.00 52.84           O
ATOM  13544  N   GLN C 164      26.708  14.457  62.144  1.00 51.29           N
ATOM  13545  CA  GLN C 164      26.970  13.348  61.228  1.00 51.18           C
ATOM  13547  CB  GLN C 164      25.715  13.058  60.400  1.00 49.19           C
ATOM  13550  CG  GLN C 164      24.463  12.853  61.257  1.00 49.09           C
ATOM  13553  CD  GLN C 164      23.235  12.547  60.446  1.00 48.60           C
ATOM  13554  OE1 GLN C 164      22.120  12.617  60.949  1.00 45.05           O
ATOM  13555  NE2 GLN C 164      23.429  12.201  59.181  1.00 42.88           N
ATOM  13558  C   GLN C 164      28.143  13.602  60.292  1.00 52.81           C
ATOM  13559  O   GLN C 164      28.612  14.730  60.147  1.00 54.69           O
ATOM  13561  N   GLY C 165      28.605  12.536  59.645  1.00 53.15           N
ATOM  13562  CA  GLY C 165      29.761  12.618  58.765  1.00 51.77           C
ATOM  13565  C   GLY C 165      30.208  11.267  58.257  1.00 50.80           C
ATOM  13566  O   GLY C 165      29.573  10.249  58.541  1.00 50.17           O
ATOM  13568  N   GLY C 166      31.305  11.276  57.501  1.00 49.63           N
ATOM  13569  CA  GLY C 166      31.852  10.072  56.877  1.00 50.14           C
ATOM  13572  C   GLY C 166      32.712   9.269  57.821  1.00 49.13           C
ATOM  13573  O   GLY C 166      32.198   8.633  58.735  1.00 48.51           O
ATOM  13575  N   LYS C 167      34.022   9.287  57.579  1.00 50.12           N
ATOM  13576  CA  LYS C 167      35.004   8.694  58.493  1.00 51.62           C
ATOM  13578  CB  LYS C 167      36.231   8.219  57.716  1.00 51.14           C
ATOM  13581  CG  LYS C 167      35.879   7.157  56.684  1.00 50.23           C
ATOM  13584  CD  LYS C 167      37.022   6.193  56.362  1.00 50.34           C
ATOM  13587  CE  LYS C 167      37.566   6.339  54.943  1.00 53.65           C
ATOM  13590  NZ  LYS C 167      37.725   4.997  54.263  1.00 52.26           N
ATOM  13594  C   LYS C 167      35.414   9.699  59.560  1.00 51.64           C
ATOM  13595  O   LYS C 167      36.056   9.349  60.545  1.00 50.45           O
ATOM  13597  N   THR C 168      35.030  10.951  59.345  1.00 54.51           N
ATOM  13598  CA  THR C 168      35.330  12.037  60.260  1.00 55.70           C
ATOM  13600  CB  THR C 168      36.499  12.885  59.715  1.00 55.88           C
ATOM  13602  OG1 THR C 168      37.732  12.253  60.079  1.00 58.05           O
ATOM  13604  CG2 THR C 168      36.488  14.322  60.268  1.00 56.12           C
ATOM  13608  C   THR C 168      34.105  12.915  60.485  1.00 56.05           C
ATOM  13609  O   THR C 168      33.313  13.156  59.570  1.00 56.23           O
ATOM  13611  N   LEU C 169      33.954  13.360  61.726  1.00 57.16           N
ATOM  13612  CA  LEU C 169      33.083  14.481  62.051  1.00 59.11           C
ATOM  13614  CB  LEU C 169      31.708  14.011  62.551  1.00 60.26           C
ATOM  13617  CG  LEU C 169      31.620  13.203  63.845  1.00 59.74           C
ATOM  13619  CD1 LEU C 169      31.716  14.080  65.070  1.00 63.90           C
ATOM  13623  CD2 LEU C 169      30.319  12.452  63.870  1.00 62.44           C
ATOM  13627  C   LEU C 169      33.790  15.353  63.077  1.00 57.74           C
ATOM  13628  O   LEU C 169      34.628  14.868  63.842  1.00 54.79           O
ATOM  13630  N   SER C 170      33.449  16.638  63.069  1.00 58.40           N
ATOM  13631  CA  SER C 170      34.145  17.635  63.858  1.00 59.45           C
ATOM  13633  CB  SER C 170      35.186  18.324  62.990  1.00 58.68           C
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ATOM	13636	OG	SER	C	170	35.812	19.369	63.719	1.00 66.56	O
ATOM	13638	C	SER	C	170	33.214	18.702	64.395	1.00 59.30	C
ATOM	13639	O	SER	C	170	32.517	19.342	63.623	1.00 61.92	O
ATOM	13641	N	VAL	C	171	33.213	18.902	65.709	1.00 60.36	N
ATOM	13642	CA	VAL	C	171	32.604	20.093	66.304	1.00 61.92	C
ATOM	13644	CB	VAL	C	171	31.946	19.800	67.667	1.00 62.56	C
ATOM	13646	CG1	VAL	C	171	31.675	21.111	68.441	1.00 64.73	C
ATOM	13650	CG2	VAL	C	171	30.664	19.013	67.471	1.00 63.91	C
ATOM	13654	C	VAL	C	171	33.683	21.135	66.527	1.00 62.32	C
ATOM	13655	O	VAL	C	171	34.661	20.861	67.223	1.00 64.51	O
ATOM	13657	N	SER	C	172	33.514	22.320	65.940	1.00 61.27	N
ATOM	13658	CA	SER	C	172	34.406	23.444	66.229	1.00 62.74	C
ATOM	13660	CB	SER	C	172	34.711	24.258	64.971	1.00 62.68	C
ATOM	13663	OG	SER	C	172	33.522	24.736	64.381	1.00 64.10	O
ATOM	13665	C	SER	C	172	33.754	24.326	67.282	1.00 64.49	C
ATOM	13666	O	SER	C	172	32.520	24.449	67.323	1.00 67.37	O
ATOM	13668	N	GLN	C	173	34.572	24.931	68.137	1.00 61.64	N
ATOM	13669	CA	GLN	C	173	34.050	25.722	69.244	1.00 59.97	C
ATOM	13671	CB	GLN	C	173	33.278	26.931	68.723	1.00 61.20	C
ATOM	13674	CG	GLN	C	173	34.083	27.852	67.871	1.00 60.16	C
ATOM	13677	CD	GLN	C	173	33.290	29.058	67.500	1.00 60.41	C
ATOM	13678	OE1	GLN	C	173	32.284	28.956	66.793	1.00 57.88	O
ATOM	13679	NE2	GLN	C	173	33.719	30.219	67.985	1.00 61.41	N
ATOM	13682	C	GLN	C	173	33.156	24.895	70.176	1.00 58.42	C
ATOM	13683	O	GLN	C	173	31.954	25.138	70.301	1.00 57.60	O
ATOM	13685	N	LEU	C	174	33.767	23.927	70.842	1.00 57.29	N
ATOM	13686	CA	LEU	C	174	33.060	23.051	71.770	1.00 55.11	C
ATOM	13688	CB	LEU	C	174	34.032	21.984	72.284	1.00 54.98	C
ATOM	13691	CG	LEU	C	174	33.514	20.660	72.857	1.00 57.86	C
ATOM	13693	CD1	LEU	C	174	32.168	20.248	72.279	1.00 57.73	C
ATOM	13697	CD2	LEU	C	174	34.558	19.548	72.648	1.00 56.96	C
ATOM	13701	C	LEU	C	174	32.479	23.879	72.917	1.00 51.79	C
ATOM	13702	O	LEU	C	174	33.158	24.752	73.442	1.00 53.25	O
ATOM	13704	N	GLU	C	175	31.221	23.617	73.278	1.00 49.51	N
ATOM	13705	CA	GLU	C	175	30.515	24.363	74.339	1.00 47.81	C
ATOM	13707	CB	GLU	C	175	29.102	24.732	73.891	1.00 46.65	C
ATOM	13710	CG	GLU	C	175	29.026	25.677	72.721	1.00 49.04	C
ATOM	13713	CD	GLU	C	175	27.613	25.804	72.179	1.00 51.02	C
ATOM	13714	OE1	GLU	C	175	27.064	24.786	71.716	1.00 58.42	O
ATOM	13715	OE2	GLU	C	175	27.052	26.918	72.210	1.00 57.27	O
ATOM	13716	C	GLU	C	175	30.390	23.562	75.631	1.00 44.63	C
ATOM	13717	O	GLU	C	175	30.128	22.354	75.613	1.00 39.63	O
ATOM	13719	N	LEU	C	176	30.524	24.259	76.756	1.00 44.39	N
ATOM	13720	CA	LEU	C	176	30.380	23.638	78.074	1.00 43.53	C
ATOM	13722	CB	LEU	C	176	30.285	24.706	79.164	1.00 41.00	C
ATOM	13725	CG	LEU	C	176	30.257	24.229	80.617	1.00 41.24	C
ATOM	13727	CD1	LEU	C	176	31.241	23.066	80.863	1.00 39.80	C
ATOM	13731	CD2	LEU	C	176	30.551	25.397	81.560	1.00 38.79	C
ATOM	13735	C	LEU	C	176	29.160	22.729	78.148	1.00 44.00	C
ATOM	13736	O	LEU	C	176	29.223	21.630	78.708	1.00 42.30	O
ATOM	13738	N	GLN	C	177	28.053	23.177	77.565	1.00 45.38	N
ATOM	13739	CA	GLN	C	177	26.797	22.451	77.705	1.00 47.50	C
ATOM	13741	CB	GLN	C	177	25.603	23.315	77.296	1.00 49.76	C
ATOM	13744	CG	GLN	C	177	25.538	23.635	75.807	1.00 55.28	C
ATOM	13747	CD	GLN	C	177	24.236	24.285	75.410	1.00 50.75	C
ATOM	13748	OE1	GLN	C	177	23.259	24.259	76.160	1.00 51.96	O
ATOM	13749	NE2	GLN	C	177	24.215	24.870	74.217	1.00 54.32	N
ATOM	13752	C	GLN	C	177	26.759	21.130	76.960	1.00 47.08	C
ATOM	13753	O	GLN	C	177	25.878	20.313	77.216	1.00 47.81	O
ATOM	13755	N	ASP	C	178	27.698	20.935	76.035	1.00 48.66	N
ATOM	13756	CA	ASP	C	178	27.913	19.638	75.387	1.00 47.73	C
ATOM	13758	CB	ASP	C	178	28.383	19.837	73.947	1.00 49.15	C
ATOM	13761	CG	ASP	C	178	27.313	20.434	73.063	1.00 53.90	C

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ATOM  13762  OD1 ASP C 178      26.238  19.801  72.937  1.00 57.06           O
ATOM  13763  OD2 ASP C 178      27.558  21.522  72.483  1.00 54.50           O
ATOM  13764  C   ASP C 178      28.932  18.768  76.132  1.00 45.84           C
ATOM  13765  O   ASP C 178      29.294  17.700  75.647  1.00 44.87           O
ATOM  13767  N   SER C 179      29.402  19.210  77.298  1.00 44.40           N
ATOM  13768  CA  SER C 179      30.276  18.366  78.102  1.00 44.05           C
ATOM  13770  CB  SER C 179      30.708  19.046  79.381  1.00 39.93           C
ATOM  13773  OG  SER C 179      31.755  18.292  79.959  1.00 35.87           O
ATOM  13775  C   SER C 179      29.553  17.096  78.496  1.00 45.97           C
ATOM  13776  O   SER C 179      28.377  17.139  78.850  1.00 47.73           O
ATOM  13778  N   GLY C 180      30.258  15.973  78.450  1.00 46.96           N
ATOM  13779  CA  GLY C 180      29.717  14.726  78.962  1.00 47.05           C
ATOM  13782  C   GLY C 180      29.989  13.557  78.057  1.00 48.32           C
ATOM  13783  O   GLY C 180      30.950  13.556  77.290  1.00 50.20           O
ATOM  13785  N   THR C 181      29.126  12.556  78.166  1.00 51.42           N
ATOM  13786  CA  THR C 181      29.191  11.357  77.347  1.00 51.57           C
ATOM  13788  CB  THR C 181      28.468  10.176  78.019  1.00 50.15           C
ATOM  13790  OG1 THR C 181      29.088   9.868  79.267  1.00 48.31           O
ATOM  13792  CG2 THR C 181      28.520   8.951  77.136  1.00 52.72           C
ATOM  13796  C   THR C 181      28.484  11.599  76.036  1.00 52.53           C
ATOM  13797  O   THR C 181      27.288  11.889  76.024  1.00 54.75           O
ATOM  13799  N   TRP C 182      29.213  11.458  74.937  1.00 53.02           N
ATOM  13800  CA  TRP C 182      28.601  11.436  73.619  1.00 54.10           C
ATOM  13802  CB  TRP C 182      29.541  12.043  72.586  1.00 55.45           C
ATOM  13805  CG  TRP C 182      29.727  13.504  72.758  1.00 56.76           C
ATOM  13806  CD1 TRP C 182      30.085  14.155  73.898  1.00 60.16           C
ATOM  13808  NE1 TRP C 182      30.149  15.503  73.672  1.00 59.10           N
ATOM  13810  CE2 TRP C 182      29.843  15.745  72.362  1.00 53.99           C
ATOM  13811  CD2 TRP C 182      29.576  14.506  71.756  1.00 55.33           C
ATOM  13812  CE3 TRP C 182      29.224  14.478  70.404  1.00 59.35           C
ATOM  13814  CZ3 TRP C 182      29.164  15.671  69.711  1.00 59.52           C
ATOM  13816  CH2 TRP C 182      29.449  16.890  70.344  1.00 58.91           C
ATOM  13818  CZ2 TRP C 182      29.787  16.943  71.666  1.00 57.26           C
ATOM  13820  C   TRP C 182      28.282   9.986  73.273  1.00 55.33           C
ATOM  13821  O   TRP C 182      28.917   9.065  73.791  1.00 55.48           O
ATOM  13823  N   THR C 183      27.292   9.787  72.410  1.00 55.73           N
ATOM  13824  CA  THR C 183      26.933   8.456  71.952  1.00 55.94           C
ATOM  13826  CB  THR C 183      25.531   8.068  72.443  1.00 57.10           C
ATOM  13828  OG1 THR C 183      25.506   8.113  73.877  1.00 56.95           O
ATOM  13830  CG2 THR C 183      25.143   6.658  71.961  1.00 56.74           C
ATOM  13834  C   THR C 183      26.964   8.447  70.442  1.00 55.99           C
ATOM  13835  O   THR C 183      26.160   9.128  69.814  1.00 58.49           O
ATOM  13837  N   CYS C 184      27.897   7.692  69.862  1.00 55.92           N
ATOM  13838  CA  CYS C 184      28.028   7.604  68.404  1.00 56.60           C
ATOM  13840  CB  CYS C 184      29.453   7.931  67.966  1.00 58.31           C
ATOM  13843  SG  CYS C 184      30.084   9.514  68.543  1.00 65.31           S
ATOM  13845  C   CYS C 184      27.652   6.230  67.846  1.00 55.76           C
ATOM  13846  O   CYS C 184      28.143   5.205  68.309  1.00 56.36           O
ATOM  13848  N   THR C 185      26.790   6.227  66.836  1.00 52.97           N
ATOM  13849  CA  THR C 185      26.487   5.032  66.082  1.00 52.39           C
ATOM  13851  CB  THR C 185      25.005   4.987  65.731  1.00 51.66           C
ATOM  13853  OG1 THR C 185      24.236   5.242  66.904  1.00 55.04           O
ATOM  13855  CG2 THR C 185      24.626   3.640  65.164  1.00 52.45           C
ATOM  13859  C   THR C 185      27.276   5.038  64.782  1.00 52.20           C
ATOM  13860  O   THR C 185      27.112   5.932  63.953  1.00 54.60           O
ATOM  13862  N   VAL C 186      28.145   4.053  64.602  1.00 52.40           N
ATOM  13863  CA  VAL C 186      28.777   3.833  63.299  1.00 51.70           C
ATOM  13865  CB  VAL C 186      30.227   3.320  63.427  1.00 51.97           C
ATOM  13867  CG1 VAL C 186      30.646   2.516  62.219  1.00 52.91           C
ATOM  13871  CG2 VAL C 186      31.174   4.491  63.617  1.00 53.74           C
ATOM  13875  C   VAL C 186      27.890   2.863  62.525  1.00 51.87           C
ATOM  13876  O   VAL C 186      27.232   2.017  63.119  1.00 54.33           O
ATOM  13878  N   LEU C 187      27.870   3.014  61.202  1.00 49.51           N
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ATOM	13879	CA	LEU	C	187	26.944	2.312	60.325	1.00	46.53	C
ATOM	13881	CB	LEU	C	187	25.860	3.285	59.871	1.00	46.55	C
ATOM	13884	CG	LEU	C	187	24.714	2.822	58.980	1.00	45.89	C
ATOM	13886	CD1	LEU	C	187	23.966	1.675	59.621	1.00	49.43	C
ATOM	13890	CD2	LEU	C	187	23.780	3.986	58.754	1.00	42.85	C
ATOM	13894	C	LEU	C	187	27.709	1.783	59.122	1.00	45.36	C
ATOM	13895	O	LEU	C	187	28.382	2.541	58.414	1.00	42.71	O
ATOM	13897	N	GLN	C	188	27.606	0.474	58.917	1.00	44.20	N
ATOM	13898	CA	GLN	C	188	28.295	-0.230	57.846	1.00	45.92	C
ATOM	13900	CB	GLN	C	188	29.492	-0.999	58.428	1.00	44.75	C
ATOM	13903	CG	GLN	C	188	30.114	-2.072	57.560	1.00	40.45	C
ATOM	13906	CD	GLN	C	188	30.611	-1.544	56.240	1.00	34.48	C
ATOM	13907	OE1	GLN	C	188	30.129	-1.937	55.183	1.00	42.07	O
ATOM	13908	NE2	GLN	C	188	31.582	-0.657	56.290	1.00	26.66	N
ATOM	13911	C	GLN	C	188	27.232	-1.148	57.257	1.00	48.74	C
ATOM	13912	O	GLN	C	188	26.934	-2.211	57.827	1.00	49.49	O
ATOM	13914	N	ASN	C	189	26.642	-0.692	56.142	1.00	51.03	N
ATOM	13915	CA	ASN	C	189	25.413	-1.256	55.553	1.00	51.55	C
ATOM	13917	CB	ASN	C	189	25.676	-2.697	55.060	1.00	54.40	C
ATOM	13920	CG	ASN	C	189	26.290	-2.747	53.664	1.00	56.61	C
ATOM	13921	OD1	ASN	C	189	26.306	-1.753	52.937	1.00	57.14	O
ATOM	13922	ND2	ASN	C	189	26.792	-3.920	53.286	1.00	53.90	N
ATOM	13925	C	ASN	C	189	24.175	-1.169	56.489	1.00	52.25	C
ATOM	13926	O	ASN	C	189	24.025	-0.211	57.254	1.00	50.29	O
ATOM	13928	N	GLN	C	190	23.264	-2.133	56.363	1.00	53.26	N
ATOM	13929	CA	GLN	C	190	22.233	-2.430	57.364	1.00	53.65	C
ATOM	13931	CB	GLN	C	190	21.779	-3.893	57.182	1.00	53.30	C
ATOM	13934	CG	GLN	C	190	20.279	-4.140	57.320	1.00	57.71	C
ATOM	13937	CD	GLN	C	190	19.801	-5.469	56.659	1.00	60.12	C
ATOM	13938	OE1	GLN	C	190	20.177	-5.785	55.519	1.00	68.35	O
ATOM	13939	NE2	GLN	C	190	18.948	-6.224	57.371	1.00	54.81	N
ATOM	13942	C	GLN	C	190	22.740	-2.206	58.806	1.00	52.57	C
ATOM	13943	O	GLN	C	190	22.121	-1.475	59.574	1.00	53.06	O
ATOM	13945	N	LYS	C	191	23.893	-2.798	59.130	1.00	51.26	N
ATOM	13946	CA	LYS	C	191	24.366	-2.982	60.520	1.00	50.33	C
ATOM	13948	CB	LYS	C	191	25.378	-4.132	60.557	1.00	51.36	C
ATOM	13951	CG	LYS	C	191	24.881	-5.444	59.999	1.00	51.36	C
ATOM	13954	CD	LYS	C	191	25.973	-6.152	59.210	1.00	52.98	C
ATOM	13957	CE	LYS	C	191	25.556	-7.573	58.849	1.00	56.10	C
ATOM	13960	NZ	LYS	C	191	25.402	-8.412	60.083	1.00	56.31	N
ATOM	13964	C	LYS	C	191	25.035	-1.772	61.192	1.00	48.05	C
ATOM	13965	O	LYS	C	191	25.643	-0.936	60.525	1.00	47.80	O
ATOM	13967	N	LYS	C	192	24.963	-1.733	62.526	1.00	45.81	N
ATOM	13968	CA	LYS	C	192	25.579	-0.672	63.323	1.00	46.03	C
ATOM	13970	CB	LYS	C	192	24.541	0.300	63.897	1.00	44.66	C
ATOM	13973	CG	LYS	C	192	23.234	0.419	63.151	1.00	47.30	C
ATOM	13976	CD	LYS	C	192	22.445	1.606	63.671	1.00	44.85	C
ATOM	13979	CE	LYS	C	192	20.989	1.548	63.286	1.00	45.32	C
ATOM	13982	NZ	LYS	C	192	20.428	2.916	63.195	1.00	43.18	N
ATOM	13986	C	LYS	C	192	26.366	-1.182	64.518	1.00	45.85	C
ATOM	13987	O	LYS	C	192	26.203	-2.301	64.979	1.00	45.34	O
ATOM	13989	N	VAL	C	193	27.184	-0.290	65.051	1.00	48.81	N
ATOM	13990	CA	VAL	C	193	27.940	-0.528	66.270	1.00	49.30	C
ATOM	13992	CB	VAL	C	193	29.374	-1.022	65.933	1.00	47.83	C
ATOM	13994	CG1	VAL	C	193	29.947	-0.279	64.745	1.00	48.63	C
ATOM	13998	CG2	VAL	C	193	30.287	-0.882	67.110	1.00	50.20	C
ATOM	14002	C	VAL	C	193	27.907	0.790	67.077	1.00	49.53	C
ATOM	14003	O	VAL	C	193	27.955	1.865	66.490	1.00	49.16	O
ATOM	14005	N	GLU	C	194	27.784	0.708	68.404	1.00	51.78	N
ATOM	14006	CA	GLU	C	194	27.653	1.912	69.239	1.00	53.26	C
ATOM	14008	CB	GLU	C	194	26.448	1.801	70.179	1.00	53.82	C
ATOM	14011	CG	GLU	C	194	25.765	3.138	70.458	1.00	55.02	C
ATOM	14014	CD	GLU	C	194	24.825	3.092	71.662	1.00	57.08	C

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ATOM  14015  OE1 GLU C 194      25.344   3.124  72.806  1.00 58.59           O
ATOM  14016  OE2 GLU C 194      23.580   3.040  71.462  1.00 52.08           O
ATOM  14017  C   GLU C 194      28.915   2.181  70.055  1.00 53.30           C
ATOM  14018  O   GLU C 194      29.534   1.264  70.578  1.00 53.86           O
ATOM  14020  N   PHE C 195      29.286   3.452  70.146  1.00 54.73           N
ATOM  14021  CA  PHE C 195      30.432   3.900  70.929  1.00 55.20           C
ATOM  14023  CB  PHE C 195      31.439   4.581  70.020  1.00 53.63           C
ATOM  14026  CG  PHE C 195      32.159   3.651  69.097  1.00 53.31           C
ATOM  14027  CD1 PHE C 195      33.329   3.026  69.497  1.00 50.92           C
ATOM  14029  CE1 PHE C 195      34.011   2.185  68.648  1.00 49.87           C
ATOM  14031  CZ  PHE C 195      33.532   1.954  67.373  1.00 53.60           C
ATOM  14033  CE2 PHE C 195      32.368   2.573  66.953  1.00 55.58           C
ATOM  14035  CD2 PHE C 195      31.691   3.428  67.815  1.00 54.78           C
ATOM  14037  C   PHE C 195      29.973   4.920  71.967  1.00 56.05           C
ATOM  14038  O   PHE C 195      29.085   5.721  71.697  1.00 58.22           O
ATOM  14040  N   LYS C 196      30.567   4.896  73.153  1.00 56.59           N
ATOM  14041  CA  LYS C 196      30.411   6.006  74.088  1.00 57.72           C
ATOM  14043  CB  LYS C 196      29.777   5.567  75.404  1.00 56.84           C
ATOM  14046  CG  LYS C 196      28.278   5.340  75.268  1.00 61.21           C
ATOM  14049  CD  LYS C 196      27.572   5.335  76.609  1.00 62.04           C
ATOM  14052  CE  LYS C 196      26.103   5.760  76.490  1.00 63.05           C
ATOM  14055  NZ  LYS C 196      25.589   6.237  77.822  1.00 64.58           N
ATOM  14059  C   LYS C 196      31.761   6.630  74.314  1.00 57.71           C
ATOM  14060  O   LYS C 196      32.777   5.946  74.338  1.00 58.77           O
ATOM  14062  N   ILE C 197      31.774   7.941  74.456  1.00 59.12           N
ATOM  14063  CA  ILE C 197      33.023   8.652  74.595  1.00 61.05           C
ATOM  14065  CB  ILE C 197      33.650   8.914  73.217  1.00 60.77           C
ATOM  14067  CG1 ILE C 197      35.032   9.538  73.361  1.00 62.63           C
ATOM  14070  CD1 ILE C 197      35.667   9.879  72.034  1.00 63.56           C
ATOM  14074  CG2 ILE C 197      32.756   9.795  72.362  1.00 63.71           C
ATOM  14078  C   ILE C 197      32.767   9.938  75.363  1.00 61.22           C
ATOM  14079  O   ILE C 197      31.947  10.761  74.954  1.00 63.17           O
ATOM  14081  N   ASP C 198      33.460  10.078  76.493  1.00 61.92           N
ATOM  14082  CA  ASP C 198      33.315  11.225  77.389  1.00 61.85           C
ATOM  14084  CB  ASP C 198      33.735  10.836  78.812  1.00 61.19           C
ATOM  14087  CG  ASP C 198      32.729   9.908  79.483  1.00 66.39           C
ATOM  14088  OD1 ASP C 198      33.121   9.156  80.403  1.00 63.50           O
ATOM  14089  OD2 ASP C 198      31.538   9.930  79.086  1.00 67.52           O
ATOM  14090  C   ASP C 198      34.150  12.395  76.917  1.00 61.02           C
ATOM  14091  O   ASP C 198      35.350  12.404  77.126  1.00 62.43           O
ATOM  14093  N   ILE C 199      33.514  13.363  76.260  1.00 61.99           N
ATOM  14094  CA  ILE C 199      34.177  14.610  75.885  1.00 62.43           C
ATOM  14096  CB  ILE C 199      33.641  15.220  74.576  1.00 64.37           C
ATOM  14098  CG1 ILE C 199      34.198  14.489  73.354  1.00 69.62           C
ATOM  14101  CD1 ILE C 199      34.269  12.983  73.482  1.00 74.01           C
ATOM  14105  CG2 ILE C 199      34.065  16.681  74.450  1.00 62.51           C
ATOM  14109  C   ILE C 199      33.934  15.591  77.012  1.00 63.20           C
ATOM  14110  O   ILE C 199      32.833  16.146  77.154  1.00 63.65           O
ATOM  14112  N   VAL C 200      34.976  15.776  77.814  1.00 61.56           N
ATOM  14113  CA  VAL C 200      34.967  16.676  78.945  1.00 58.21           C
ATOM  14115  CB  VAL C 200      35.951  16.179  79.992  1.00 56.92           C
ATOM  14117  CG1 VAL C 200      36.215  17.238  81.045  1.00 54.06           C
ATOM  14121  CG2 VAL C 200      35.436  14.887  80.605  1.00 56.77           C
ATOM  14125  C   VAL C 200      35.415  18.041  78.469  1.00 58.15           C
ATOM  14126  O   VAL C 200      36.495  18.158  77.887  1.00 60.20           O
ATOM  14128  N   VAL C 201      34.603  19.072  78.695  1.00 56.11           N
ATOM  14129  CA  VAL C 201      35.046  20.430  78.375  1.00 55.47           C
ATOM  14131  CB  VAL C 201      34.115  21.190  77.381  1.00 54.61           C
ATOM  14133  CG1 VAL C 201      32.718  20.835  77.589  1.00 58.30           C
ATOM  14137  CG2 VAL C 201      34.295  22.711  77.477  1.00 55.72           C
ATOM  14141  C   VAL C 201      35.338  21.198  79.660  1.00 54.91           C
ATOM  14142  O   VAL C 201      34.556  21.184  80.617  1.00 55.55           O
ATOM  14144  N   LEU C 202      36.507  21.833  79.661  1.00 54.19           N
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ATOM	14145	CA	LEU	C	202	37.038	22.547	80.809	1.00 53.61	C
ATOM	14147	CB	LEU	C	202	38.562	22.359	80.883	1.00 55.10	C
ATOM	14150	CG	LEU	C	202	39.088	20.915	80.763	1.00 55.91	C
ATOM	14152	CD1	LEU	C	202	40.534	20.872	80.268	1.00 59.24	C
ATOM	14156	CD2	LEU	C	202	38.970	20.203	82.085	1.00 55.43	C
ATOM	14160	C	LEU	C	202	36.690	24.014	80.603	1.00 50.53	C
ATOM	14161	O	LEU	C	202	36.819	24.509	79.493	1.00 45.58	O
ATOM	14163	N	ALA	C	203	36.248	24.690	81.666	1.00 49.45	N
ATOM	14164	CA	ALA	C	203	35.725	26.049	81.558	1.00 48.94	C
ATOM	14166	CB	ALA	C	203	34.464	26.044	80.695	1.00 49.85	C
ATOM	14170	C	ALA	C	203	35.397	26.661	82.909	1.00 48.75	C
ATOM	14171	O	ALA	C	203	35.269	25.953	83.904	1.00 51.06	O
ATOM	14173	N	PHE	C	204	35.243	27.982	82.931	1.00 46.88	N
ATOM	14174	CA	PHE	C	204	34.678	28.665	84.089	1.00 44.42	C
ATOM	14176	CB	PHE	C	204	34.998	30.164	84.065	1.00 43.59	C
ATOM	14179	CG	PHE	C	204	36.445	30.474	84.271	1.00 41.29	C
ATOM	14180	CD1	PHE	C	204	37.012	30.355	85.529	1.00 41.92	C
ATOM	14182	CE1	PHE	C	204	38.355	30.627	85.735	1.00 41.92	C
ATOM	14184	CZ	PHE	C	204	39.147	31.031	84.671	1.00 40.62	C
ATOM	14186	CE2	PHE	C	204	38.592	31.157	83.406	1.00 41.05	C
ATOM	14188	CD2	PHE	C	204	37.247	30.878	83.209	1.00 40.69	C
ATOM	14190	C	PHE	C	204	33.180	28.472	84.017	1.00 43.70	C
ATOM	14191	O	PHE	C	204	32.628	28.441	82.929	1.00 44.89	O
ATOM	14193	N	GLN	C	205	32.514	28.375	85.161	1.00 41.85	N
ATOM	14194	CA	GLN	C	205	31.058	28.270	85.172	1.00 41.47	C
ATOM	14196	CB	GLN	C	205	30.555	28.033	86.580	1.00 40.99	C
ATOM	14199	CG	GLN	C	205	31.150	26.813	87.223	1.00 40.41	C
ATOM	14202	CD	GLN	C	205	30.457	26.449	88.495	1.00 38.27	C
ATOM	14203	OE1	GLN	C	205	29.376	26.950	88.800	1.00 36.94	O
ATOM	14204	NE2	GLN	C	205	31.076	25.571	89.255	1.00 41.62	N
ATOM	14207	C	GLN	C	205	30.354	29.500	84.606	1.00 42.28	C
ATOM	14208	O	GLN	C	205	29.230	29.407	84.085	1.00 42.60	O
ATOM	14210	N	LYS	C	206	30.999	30.653	84.721	1.00 44.49	N
ATOM	14211	CA	LYS	C	206	30.414	31.897	84.241	1.00 46.15	C
ATOM	14213	CB	LYS	C	206	30.145	32.842	85.421	1.00 48.93	C
ATOM	14216	CG	LYS	C	206	28.766	32.668	86.074	1.00 56.59	C
ATOM	14219	CD	LYS	C	206	27.563	32.894	85.102	1.00 65.83	C
ATOM	14222	CE	LYS	C	206	27.577	34.277	84.394	1.00 70.35	C
ATOM	14225	NZ	LYS	C	206	26.461	34.471	83.403	1.00 63.81	N
ATOM	14229	C	LYS	C	206	31.298	32.573	83.194	1.00 45.29	C
ATOM	14230	O	LYS	C	206	32.529	32.561	83.291	1.00 44.31	O
ATOM	14232	N	ALA	C	207	30.655	33.154	82.185	1.00 43.87	N
ATOM	14233	CA	ALA	C	207	31.370	33.903	81.155	1.00 44.67	C
ATOM	14235	CB	ALA	C	207	30.504	34.090	79.926	1.00 41.97	C
ATOM	14239	C	ALA	C	207	31.762	35.254	81.709	1.00 44.74	C
ATOM	14240	O	ALA	C	207	32.826	35.769	81.420	1.00 43.21	O
ATOM	14242	N	SER	C	208	30.872	35.819	82.511	1.00 47.30	N
ATOM	14243	CA	SER	C	208	31.007	37.180	82.957	1.00 47.65	C
ATOM	14245	CB	SER	C	208	30.285	38.115	81.994	1.00 47.36	C
ATOM	14248	OG	SER	C	208	30.415	39.462	82.420	1.00 53.29	O
ATOM	14250	C	SER	C	208	30.447	37.350	84.358	1.00 48.57	C
ATOM	14251	O	SER	C	208	29.727	36.494	84.891	1.00 50.08	O
ATOM	14253	N	SER	C	209	30.760	38.505	84.917	1.00 49.32	N
ATOM	14254	CA	SER	C	209	30.621	38.769	86.321	1.00 48.98	C
ATOM	14256	CB	SER	C	209	31.751	38.037	87.045	1.00 50.62	C
ATOM	14259	OG	SER	C	209	32.210	38.728	88.188	1.00 59.43	O
ATOM	14261	C	SER	C	209	30.713	40.286	86.491	1.00 47.64	C
ATOM	14262	O	SER	C	209	31.487	40.943	85.799	1.00 47.90	O
ATOM	14264	N	ILE	C	210	29.909	40.844	87.385	1.00 46.95	N
ATOM	14265	CA	ILE	C	210	29.902	42.287	87.597	1.00 47.27	C
ATOM	14267	CB	ILE	C	210	29.042	43.031	86.530	1.00 47.38	C
ATOM	14269	CG1	ILE	C	210	29.102	44.548	86.763	1.00 49.06	C
ATOM	14272	CD1	ILE	C	210	28.607	45.379	85.596	1.00 49.19	C

ATOM	14276	CG2	ILE	C	210	27.597	42.528	86.520	1.00	46.24	C
ATOM	14280	C	ILE	C	210	29.446	42.661	89.009	1.00	46.41	C
ATOM	14281	O	ILE	C	210	28.397	42.225	89.479	1.00	45.11	O
ATOM	14283	N	VAL	C	211	30.246	43.489	89.672	1.00	46.59	N
ATOM	14284	CA	VAL	C	211	29.962	43.879	91.035	1.00	46.30	C
ATOM	14286	CB	VAL	C	211	30.907	43.149	92.044	1.00	46.18	C
ATOM	14288	CG1	VAL	C	211	32.351	43.226	91.608	1.00	47.36	C
ATOM	14292	CG2	VAL	C	211	30.733	43.682	93.460	1.00	48.64	C
ATOM	14296	C	VAL	C	211	29.999	45.403	91.130	1.00	44.55	C
ATOM	14297	O	VAL	C	211	30.917	46.046	90.634	1.00	40.49	O
ATOM	14299	N	TYR	C	212	28.942	45.946	91.730	1.00	45.51	N
ATOM	14300	CA	TYR	C	212	28.722	47.374	91.878	1.00	48.17	C
ATOM	14302	CB	TYR	C	212	27.258	47.732	91.553	1.00	47.46	C
ATOM	14305	CG	TYR	C	212	26.786	47.358	90.148	1.00	48.61	C
ATOM	14306	CD1	TYR	C	212	26.505	48.339	89.196	1.00	47.15	C
ATOM	14308	CE1	TYR	C	212	26.072	48.000	87.912	1.00	46.34	C
ATOM	14310	CZ	TYR	C	212	25.912	46.664	87.572	1.00	48.17	C
ATOM	14311	OH	TYR	C	212	25.487	46.307	86.314	1.00	47.91	O
ATOM	14313	CE2	TYR	C	212	26.180	45.672	88.494	1.00	47.49	C
ATOM	14315	CD2	TYR	C	212	26.612	46.019	89.775	1.00	50.98	C
ATOM	14317	C	TYR	C	212	29.032	47.672	93.340	1.00	49.98	C
ATOM	14318	O	TYR	C	212	28.768	46.819	94.187	1.00	50.87	O
ATOM	14320	N	LYS	C	213	29.570	48.860	93.644	1.00	51.40	N
ATOM	14321	CA	LYS	C	213	30.138	49.127	94.976	1.00	52.57	C
ATOM	14323	CB	LYS	C	213	31.559	48.533	95.041	1.00	53.08	C
ATOM	14326	CG	LYS	C	213	31.822	47.630	96.247	1.00	54.03	C
ATOM	14329	CD	LYS	C	213	30.942	46.381	96.218	1.00	53.27	C
ATOM	14332	CE	LYS	C	213	31.320	45.380	97.282	1.00	54.67	C
ATOM	14335	NZ	LYS	C	213	30.348	44.249	97.333	1.00	55.09	N
ATOM	14339	C	LYS	C	213	30.196	50.612	95.379	1.00	53.57	C
ATOM	14340	O	LYS	C	213	30.429	51.483	94.549	1.00	52.52	O
ATOM	14342	N	LYS	C	214	29.981	50.883	96.666	1.00	55.25	N
ATOM	14343	CA	LYS	C	214	30.251	52.205	97.243	1.00	55.95	C
ATOM	14345	CB	LYS	C	214	29.592	52.366	98.621	1.00	56.83	C
ATOM	14348	CG	LYS	C	214	28.067	52.405	98.612	1.00	58.82	C
ATOM	14351	CD	LYS	C	214	27.471	52.174	100.009	1.00	57.13	C
ATOM	14354	CE	LYS	C	214	25.950	52.033	99.949	1.00	57.89	C
ATOM	14357	NZ	LYS	C	214	25.388	51.233	101.062	1.00	59.14	N
ATOM	14361	C	LYS	C	214	31.756	52.357	97.402	1.00	56.14	C
ATOM	14362	O	LYS	C	214	32.459	51.377	97.661	1.00	55.57	O
ATOM	14364	N	GLU	C	215	32.248	53.584	97.264	1.00	56.42	N
ATOM	14365	CA	GLU	C	215	33.672	53.853	97.440	1.00	56.75	C
ATOM	14367	CB	GLU	C	215	33.974	55.340	97.242	1.00	56.84	C
ATOM	14370	CG	GLU	C	215	35.464	55.690	97.250	1.00	57.52	C
ATOM	14373	CD	GLU	C	215	35.724	57.190	97.290	1.00	59.53	C
ATOM	14374	OE1	GLU	C	215	34.754	57.977	97.260	1.00	65.50	O
ATOM	14375	OE2	GLU	C	215	36.905	57.587	97.355	1.00	65.80	O
ATOM	14376	C	GLU	C	215	34.111	53.421	98.836	1.00	55.85	C
ATOM	14377	O	GLU	C	215	33.486	53.793	99.825	1.00	54.87	O
ATOM	14379	N	GLY	C	216	35.174	52.625	98.900	1.00	55.70	N
ATOM	14380	CA	GLY	C	216	35.746	52.191	100.171	1.00	55.61	C
ATOM	14383	C	GLY	C	216	35.405	50.757	100.525	1.00	55.64	C
ATOM	14384	O	GLY	C	216	36.227	50.060	101.125	1.00	56.14	O
ATOM	14386	N	GLU	C	217	34.197	50.319	100.163	1.00	54.60	N
ATOM	14387	CA	GLU	C	217	33.743	48.962	100.464	1.00	54.10	C
ATOM	14389	CB	GLU	C	217	32.343	48.705	99.891	1.00	54.35	C
ATOM	14392	CG	GLU	C	217	31.191	49.326	100.692	1.00	56.49	C
ATOM	14395	CD	GLU	C	217	29.816	48.763	100.301	1.00	58.03	C
ATOM	14396	OE1	GLU	C	217	29.488	48.746	99.092	1.00	60.23	O
ATOM	14397	OE2	GLU	C	217	29.060	48.337	101.206	1.00	63.81	O
ATOM	14398	C	GLU	C	217	34.716	47.939	99.903	1.00	51.94	C
ATOM	14399	O	GLU	C	217	35.206	48.094	98.791	1.00	49.07	O
ATOM	14401	N	GLN	C	218	35.009	46.912	100.697	1.00	52.70	N

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ATOM  14402  CA  GLN C 218      35.832  45.788 100.254  1.00 52.78           C
ATOM  14404  CB  GLN C 218      36.166  44.864 101.433  1.00 52.99           C
ATOM  14407  CG  GLN C 218      37.024  43.652 101.074  1.00 52.54           C
ATOM  14410  CD  GLN C 218      37.133  42.643 102.201  1.00 51.80           C
ATOM  14411  OE1 GLN C 218      37.783  42.892 103.223  1.00 47.06           O
ATOM  14412  NE2 GLN C 218      36.511  41.485 102.010  1.00 47.09           N
ATOM  14415  C   GLN C 218      35.075  45.019  99.177  1.00 52.58           C
ATOM  14416  O   GLN C 218      33.849  44.915  99.240  1.00 51.73           O
ATOM  14418  N   VAL C 219      35.814  44.487  98.202  1.00 53.06           N
ATOM  14419  CA  VAL C 219      35.235  43.821  97.038  1.00 53.35           C
ATOM  14421  CB  VAL C 219      35.668  44.525  95.756  1.00 52.52           C
ATOM  14423  CG1 VAL C 219      34.956  43.905  94.545  1.00 55.27           C
ATOM  14427  CG2 VAL C 219      35.413  46.025  95.867  1.00 50.71           C
ATOM  14431  C   VAL C 219      35.685  42.368  96.917  1.00 54.20           C
ATOM  14432  O   VAL C 219      36.879  42.095  96.923  1.00 53.66           O
ATOM  14434  N   GLU C 220      34.726  41.448  96.790  1.00 55.43           N
ATOM  14435  CA  GLU C 220      35.018  40.027  96.546  1.00 55.04           C
ATOM  14437  CB  GLU C 220      34.121  39.120  97.396  1.00 55.39           C
ATOM  14440  CG  GLU C 220      34.056  39.469  98.889  1.00 55.85           C
ATOM  14443  CD  GLU C 220      35.313  39.106  99.667  1.00 54.78           C
ATOM  14444  OE1 GLU C 220      35.300  39.287 100.900  1.00 56.96           O
ATOM  14445  OE2 GLU C 220      36.305  38.644  99.068  1.00 50.64           O
ATOM  14446  C   GLU C 220      34.808  39.697  95.072  1.00 55.11           C
ATOM  14447  O   GLU C 220      33.986  40.315  94.403  1.00 55.17           O
ATOM  14449  N   PHE C 221      35.557  38.713  94.587  1.00 55.52           N
ATOM  14450  CA  PHE C 221      35.558  38.316  93.180  1.00 54.61           C
ATOM  14452  CB  PHE C 221      36.736  38.954  92.446  1.00 56.74           C
ATOM  14455  CG  PHE C 221      36.448  40.290  91.824  1.00 57.01           C
ATOM  14456  CD1 PHE C 221      35.319  40.488  91.039  1.00 59.62           C
ATOM  14458  CE1 PHE C 221      35.079  41.707  90.442  1.00 60.01           C
ATOM  14460  CZ  PHE C 221      35.984  42.750  90.607  1.00 62.05           C
ATOM  14462  CE2 PHE C 221      37.126  42.560  91.372  1.00 59.83           C
ATOM  14464  CD2 PHE C 221      37.357  41.333  91.963  1.00 58.66           C
ATOM  14466  C   PHE C 221      35.755  36.814  93.099  1.00 53.59           C
ATOM  14467  O   PHE C 221      36.796  36.311  93.519  1.00 51.58           O
ATOM  14469  N   SER C 222      34.788  36.102  92.534  1.00 54.29           N
ATOM  14470  CA  SER C 222      34.844  34.643  92.515  1.00 54.22           C
ATOM  14472  CB  SER C 222      33.697  34.079  93.341  1.00 52.62           C
ATOM  14475  OG  SER C 222      34.172  33.030  94.157  1.00 54.46           O
ATOM  14477  C   SER C 222      34.803  34.082  91.093  1.00 54.63           C
ATOM  14478  O   SER C 222      34.035  34.562  90.263  1.00 56.26           O
ATOM  14480  N   PHE C 223      35.627  33.066  90.827  1.00 53.95           N
ATOM  14481  CA  PHE C 223      35.737  32.460  89.494  1.00 53.72           C
ATOM  14483  CB  PHE C 223      37.087  32.810  88.867  1.00 55.45           C
ATOM  14486  CG  PHE C 223      37.410  34.261  88.945  1.00 57.79           C
ATOM  14487  CD1 PHE C 223      37.148  35.106  87.885  1.00 59.55           C
ATOM  14489  CE1 PHE C 223      37.439  36.457  87.972  1.00 59.44           C
ATOM  14491  CZ  PHE C 223      37.974  36.972  89.136  1.00 56.41           C
ATOM  14493  CE2 PHE C 223      38.223  36.136  90.195  1.00 57.94           C
ATOM  14495  CD2 PHE C 223      37.940  34.794  90.101  1.00 59.58           C
ATOM  14497  C   PHE C 223      35.567  30.949  89.574  1.00 52.46           C
ATOM  14498  O   PHE C 223      36.512  30.192  89.351  1.00 51.78           O
ATOM  14500  N   PRO C 224      34.351  30.498  89.905  1.00 51.98           N
ATOM  14501  CA  PRO C 224      34.119  29.061  89.983  1.00 51.20           C
ATOM  14503  CB  PRO C 224      32.643  28.960  90.367  1.00 49.21           C
ATOM  14506  CG  PRO C 224      32.063  30.267  89.992  1.00 50.96           C
ATOM  14509  CD  PRO C 224      33.136  31.264  90.215  1.00 51.52           C
ATOM  14512  C   PRO C 224      34.382  28.363  88.651  1.00 49.85           C
ATOM  14513  O   PRO C 224      34.005  28.871  87.588  1.00 48.29           O
ATOM  14514  N   LEU C 225      35.044  27.214  88.735  1.00 49.32           N
ATOM  14515  CA  LEU C 225      35.375  26.409  87.576  1.00 50.30           C
ATOM  14517  CB  LEU C 225      36.752  25.793  87.761  1.00 49.70           C
ATOM  14520  CG  LEU C 225      37.909  26.787  87.649  1.00 50.42           C
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ATOM	14522	CD1	LEU	C	225	39.138	26.257	88.374	1.00	51.05	C
ATOM	14526	CD2	LEU	C	225	38.212	27.098	86.194	1.00	48.90	C
ATOM	14530	C	LEU	C	225	34.353	25.303	87.364	1.00	50.79	C
ATOM	14531	O	LEU	C	225	33.601	24.950	88.269	1.00	51.80	O
ATOM	14533	N	ALA	C	226	34.318	24.774	86.150	1.00	51.03	N
ATOM	14534	CA	ALA	C	226	33.535	23.585	85.868	1.00	51.57	C
ATOM	14536	CB	ALA	C	226	33.521	23.301	84.381	1.00	51.65	C
ATOM	14540	C	ALA	C	226	34.162	22.429	86.627	1.00	50.65	C
ATOM	14541	O	ALA	C	226	35.369	22.275	86.631	1.00	51.36	O
ATOM	14543	N	PHE	C	227	33.345	21.623	87.283	1.00	50.74	N
ATOM	14544	CA	PHE	C	227	33.859	20.562	88.134	1.00	53.88	C
ATOM	14546	CB	PHE	C	227	32.796	19.489	88.341	1.00	50.95	C
ATOM	14549	CG	PHE	C	227	33.324	18.242	88.973	1.00	47.51	C
ATOM	14550	CD1	PHE	C	227	33.177	17.019	88.347	1.00	39.76	C
ATOM	14552	CE1	PHE	C	227	33.668	15.869	88.926	1.00	47.50	C
ATOM	14554	CZ	PHE	C	227	34.329	15.936	90.156	1.00	49.06	C
ATOM	14556	CE2	PHE	C	227	34.489	17.157	90.786	1.00	46.39	C
ATOM	14558	CD2	PHE	C	227	33.993	18.303	90.189	1.00	43.47	C
ATOM	14560	C	PHE	C	227	35.134	19.905	87.595	1.00	57.01	C
ATOM	14561	O	PHE	C	227	36.095	19.703	88.341	1.00	58.36	O
ATOM	14563	N	THR	C	228	35.131	19.562	86.311	1.00	59.43	N
ATOM	14564	CA	THR	C	228	36.256	18.844	85.706	1.00	62.28	C
ATOM	14566	CB	THR	C	228	36.067	18.638	84.201	1.00	63.18	C
ATOM	14568	OG1	THR	C	228	37.332	18.260	83.644	1.00	67.90	O
ATOM	14570	CG2	THR	C	228	35.570	19.918	83.504	1.00	64.97	C
ATOM	14574	C	THR	C	228	37.661	19.457	85.869	1.00	64.19	C
ATOM	14575	O	THR	C	228	38.642	18.712	85.976	1.00	63.72	O
ATOM	14577	N	VAL	C	229	37.756	20.791	85.875	1.00	65.75	N
ATOM	14578	CA	VAL	C	229	39.066	21.494	85.906	1.00	66.45	C
ATOM	14580	CB	VAL	C	229	39.058	22.863	85.068	1.00	68.23	C
ATOM	14582	CG1	VAL	C	229	37.655	23.450	84.889	1.00	67.49	C
ATOM	14586	CG2	VAL	C	229	40.026	23.921	85.637	1.00	67.21	C
ATOM	14590	C	VAL	C	229	39.662	21.680	87.318	1.00	66.08	C
ATOM	14591	O	VAL	C	229	40.829	22.049	87.453	1.00	64.25	O
ATOM	14593	N	GLU	C	230	38.884	21.358	88.350	1.00	67.35	N
ATOM	14594	CA	GLU	C	230	39.255	21.631	89.744	1.00	68.15	C
ATOM	14596	CB	GLU	C	230	38.043	21.422	90.651	1.00	68.56	C
ATOM	14599	CG	GLU	C	230	36.860	22.324	90.385	1.00	70.87	C
ATOM	14602	CD	GLU	C	230	35.747	22.097	91.405	1.00	73.82	C
ATOM	14603	OE1	GLU	C	230	35.631	20.959	91.924	1.00	79.59	O
ATOM	14604	OE2	GLU	C	230	34.993	23.051	91.695	1.00	80.44	O
ATOM	14605	C	GLU	C	230	40.419	20.808	90.324	1.00	67.98	C
ATOM	14606	O	GLU	C	230	40.823	21.055	91.466	1.00	69.49	O
ATOM	14608	N	LYS	C	231	40.941	19.829	89.582	1.00	67.30	N
ATOM	14609	CA	LYS	C	231	42.073	19.017	90.063	1.00	66.42	C
ATOM	14611	CB	LYS	C	231	41.608	17.576	90.295	1.00	67.27	C
ATOM	14614	CG	LYS	C	231	41.010	17.387	91.680	1.00	69.67	C
ATOM	14617	CD	LYS	C	231	40.456	15.988	91.915	1.00	70.79	C
ATOM	14620	CE	LYS	C	231	39.836	15.889	93.324	1.00	74.18	C
ATOM	14623	NZ	LYS	C	231	39.333	14.521	93.669	1.00	74.04	N
ATOM	14627	C	LYS	C	231	43.307	19.074	89.151	1.00	63.49	C
ATOM	14628	O	LYS	C	231	44.230	18.276	89.283	1.00	62.46	O
ATOM	14630	N	LEU	C	232	43.330	20.067	88.270	1.00	61.95	N
ATOM	14631	CA	LEU	C	232	44.328	20.178	87.216	1.00	61.41	C
ATOM	14633	CB	LEU	C	232	43.640	20.603	85.918	1.00	62.35	C
ATOM	14636	CG	LEU	C	232	42.863	19.549	85.129	1.00	61.71	C
ATOM	14638	CD1	LEU	C	232	41.838	18.851	85.987	1.00	68.58	C
ATOM	14642	CD2	LEU	C	232	42.208	20.203	83.930	1.00	62.39	C
ATOM	14646	C	LEU	C	232	45.410	21.207	87.562	1.00	60.34	C
ATOM	14647	O	LEU	C	232	45.138	22.207	88.234	1.00	60.57	O
ATOM	14649	N	THR	C	233	46.632	20.963	87.091	1.00	58.14	N
ATOM	14650	CA	THR	C	233	47.716	21.947	87.215	1.00	57.26	C
ATOM	14652	CB	THR	C	233	49.106	21.312	87.039	1.00	56.18	C

ATOM	14654	OG1	THR	C	233	49.327	20.343	88.075	1.00	56.61	O
ATOM	14656	CG2	THR	C	233	50.187	22.377	87.099	1.00	56.96	C
ATOM	14660	C	THR	C	233	47.542	23.080	86.190	1.00	55.74	C
ATOM	14661	O	THR	C	233	47.146	22.854	85.043	1.00	54.68	O
ATOM	14663	N	GLY	C	234	47.832	24.305	86.606	1.00	53.66	N
ATOM	14664	CA	GLY	C	234	47.617	25.433	85.730	1.00	53.19	C
ATOM	14667	C	GLY	C	234	48.256	26.705	86.212	1.00	51.79	C
ATOM	14668	O	GLY	C	234	48.789	26.773	87.317	1.00	51.14	O
ATOM	14670	N	SER	C	235	48.190	27.711	85.351	1.00	51.72	N
ATOM	14671	CA	SER	C	235	48.648	29.054	85.664	1.00	52.13	C
ATOM	14673	CB	SER	C	235	50.064	29.272	85.132	1.00	52.74	C
ATOM	14676	OG	SER	C	235	50.230	28.636	83.876	1.00	59.91	O
ATOM	14678	C	SER	C	235	47.677	30.048	85.048	1.00	49.69	C
ATOM	14679	O	SER	C	235	47.068	29.767	84.021	1.00	47.18	O
ATOM	14681	N	GLY	C	236	47.527	31.201	85.690	1.00	48.98	N
ATOM	14682	CA	GLY	C	236	46.566	32.191	85.244	1.00	48.93	C
ATOM	14685	C	GLY	C	236	46.867	33.601	85.700	1.00	48.65	C
ATOM	14686	O	GLY	C	236	47.683	33.826	86.586	1.00	48.83	O
ATOM	14688	N	GLU	C	237	46.167	34.550	85.096	1.00	49.66	N
ATOM	14689	CA	GLU	C	237	46.495	35.950	85.231	1.00	50.05	C
ATOM	14691	CB	GLU	C	237	47.498	36.314	84.146	1.00	49.39	C
ATOM	14694	CG	GLU	C	237	48.141	37.671	84.328	1.00	50.62	C
ATOM	14697	CD	GLU	C	237	49.331	37.892	83.410	1.00	49.34	C
ATOM	14698	OE1	GLU	C	237	50.023	38.915	83.596	1.00	43.92	O
ATOM	14699	OE2	GLU	C	237	49.572	37.047	82.515	1.00	46.20	O
ATOM	14700	C	GLU	C	237	45.251	36.820	85.092	1.00	51.27	C
ATOM	14701	O	GLU	C	237	44.408	36.578	84.229	1.00	51.12	O
ATOM	14703	N	LEU	C	238	45.145	37.829	85.952	1.00	52.08	N
ATOM	14704	CA	LEU	C	238	44.088	38.829	85.865	1.00	51.50	C
ATOM	14706	CB	LEU	C	238	43.587	39.180	87.263	1.00	51.30	C
ATOM	14709	CG	LEU	C	238	42.230	39.867	87.446	1.00	52.07	C
ATOM	14711	CD1	LEU	C	238	42.282	40.692	88.707	1.00	48.98	C
ATOM	14715	CD2	LEU	C	238	41.808	40.752	86.297	1.00	57.12	C
ATOM	14719	C	LEU	C	238	44.652	40.078	85.208	1.00	52.61	C
ATOM	14720	O	LEU	C	238	45.466	40.779	85.809	1.00	56.47	O
ATOM	14722	N	TRP	C	239	44.240	40.350	83.975	1.00	52.26	N
ATOM	14723	CA	TRP	C	239	44.584	41.604	83.313	1.00	52.01	C
ATOM	14725	CB	TRP	C	239	44.808	41.387	81.822	1.00	52.69	C
ATOM	14728	CG	TRP	C	239	46.004	40.578	81.512	1.00	52.47	C
ATOM	14729	CD1	TRP	C	239	46.090	39.211	81.472	1.00	51.83	C
ATOM	14731	NE1	TRP	C	239	47.369	38.832	81.136	1.00	51.73	N
ATOM	14733	CE2	TRP	C	239	48.132	39.958	80.952	1.00	52.18	C
ATOM	14734	CD2	TRP	C	239	47.300	41.077	81.182	1.00	51.43	C
ATOM	14735	CE3	TRP	C	239	47.841	42.363	81.058	1.00	49.98	C
ATOM	14737	CZ3	TRP	C	239	49.185	42.492	80.715	1.00	51.19	C
ATOM	14739	CH2	TRP	C	239	49.989	41.362	80.492	1.00	51.43	C
ATOM	14741	CZ2	TRP	C	239	49.482	40.089	80.605	1.00	51.88	C
ATOM	14743	C	TRP	C	239	43.425	42.552	83.499	1.00	51.25	C
ATOM	14744	O	TRP	C	239	42.278	42.146	83.351	1.00	48.99	O
ATOM	14746	N	TRP	C	240	43.727	43.815	83.794	1.00	52.34	N
ATOM	14747	CA	TRP	C	240	42.699	44.814	84.076	1.00	53.06	C
ATOM	14749	CB	TRP	C	240	42.779	45.206	85.545	1.00	53.29	C
ATOM	14752	CG	TRP	C	240	41.596	45.948	85.999	1.00	53.25	C
ATOM	14753	CD1	TRP	C	240	41.419	47.292	85.980	1.00	53.47	C
ATOM	14755	NE1	TRP	C	240	40.186	47.613	86.478	1.00	52.91	N
ATOM	14757	CE2	TRP	C	240	39.536	46.459	86.823	1.00	54.15	C
ATOM	14758	CD2	TRP	C	240	40.399	45.389	86.529	1.00	55.70	C
ATOM	14759	CE3	TRP	C	240	39.972	44.081	86.789	1.00	57.67	C
ATOM	14761	CZ3	TRP	C	240	38.714	43.889	87.331	1.00	55.91	C
ATOM	14763	CH2	TRP	C	240	37.875	44.981	87.614	1.00	56.10	C
ATOM	14765	CZ2	TRP	C	240	38.267	46.268	87.365	1.00	55.23	C
ATOM	14767	C	TRP	C	240	42.844	46.069	83.203	1.00	53.20	C
ATOM	14768	O	TRP	C	240	43.957	46.490	82.914	1.00	52.68	O

ATOM	14770	N	GLN	C	241	41.717	46.659	82.799	1.00	53.23	N
ATOM	14771	CA	GLN	C	241	41.699	47.940	82.072	1.00	54.32	C
ATOM	14773	CB	GLN	C	241	41.372	47.717	80.596	1.00	53.81	C
ATOM	14776	CG	GLN	C	241	41.333	48.994	79.760	1.00	53.12	C
ATOM	14779	CD	GLN	C	241	41.006	48.736	78.296	1.00	53.30	C
ATOM	14780	OE1	GLN	C	241	40.582	47.641	77.923	1.00	46.07	O
ATOM	14781	NE2	GLN	C	241	41.198	49.755	77.458	1.00	51.31	N
ATOM	14784	C	GLN	C	241	40.663	48.872	82.702	1.00	55.22	C
ATOM	14785	O	GLN	C	241	39.470	48.577	82.681	1.00	54.52	O
ATOM	14787	N	ALA	C	242	41.117	50.014	83.213	1.00	56.80	N
ATOM	14788	CA	ALA	C	242	40.366	50.742	84.236	1.00	57.99	C
ATOM	14790	CB	ALA	C	242	41.268	50.929	85.462	1.00	58.03	C
ATOM	14794	C	ALA	C	242	39.716	52.089	83.846	1.00	59.52	C
ATOM	14795	O	ALA	C	242	39.595	52.974	84.699	1.00	61.31	O
ATOM	14797	N	GLU	C	243	39.266	52.242	82.600	1.00	60.54	N
ATOM	14798	CA	GLU	C	243	38.531	53.464	82.173	1.00	61.09	C
ATOM	14800	CB	GLU	C	243	37.263	53.702	83.032	1.00	61.18	C
ATOM	14803	CG	GLU	C	243	36.330	54.792	82.474	1.00	60.52	C
ATOM	14806	CD	GLU	C	243	35.196	55.186	83.421	1.00	61.11	C
ATOM	14807	OE1	GLU	C	243	35.351	56.183	84.171	1.00	57.89	O
ATOM	14808	OE2	GLU	C	243	34.145	54.512	83.401	1.00	59.35	O
ATOM	14809	C	GLU	C	243	39.412	54.727	82.163	1.00	61.71	C
ATOM	14810	O	GLU	C	243	39.424	55.502	83.119	1.00	61.42	O
ATOM	14812	N	ARG	C	244	40.104	54.927	81.044	1.00	62.33	N
ATOM	14813	CA	ARG	C	244	41.129	55.959	80.844	1.00	62.50	C
ATOM	14815	CB	ARG	C	244	41.330	56.908	82.046	1.00	63.30	C
ATOM	14818	CG	ARG	C	244	42.099	56.339	83.272	1.00	64.05	C
ATOM	14821	CD	ARG	C	244	43.612	56.658	83.262	1.00	64.05	C
ATOM	14824	NE	ARG	C	244	43.888	58.096	83.155	1.00	63.61	N
ATOM	14826	CZ	ARG	C	244	44.500	58.705	82.133	1.00	64.13	C
ATOM	14827	NH1	ARG	C	244	44.671	60.022	82.173	1.00	63.73	N
ATOM	14830	NH2	ARG	C	244	44.952	58.030	81.077	1.00	62.98	N
ATOM	14833	C	ARG	C	244	42.424	55.241	80.485	1.00	63.61	C
ATOM	14834	O	ARG	C	244	43.214	55.742	79.682	1.00	66.59	O
ATOM	14836	N	ALA	C	245	42.616	54.059	81.071	1.00	63.14	N
ATOM	14837	CA	ALA	C	245	43.802	53.230	80.846	1.00	62.60	C
ATOM	14839	CB	ALA	C	245	43.623	51.874	81.526	1.00	63.00	C
ATOM	14843	C	ALA	C	245	44.117	53.022	79.370	1.00	61.76	C
ATOM	14844	O	ALA	C	245	45.282	53.082	78.968	1.00	59.83	O
ATOM	14846	N	SER	C	246	43.080	52.748	78.577	1.00	62.06	N
ATOM	14847	CA	SER	C	246	43.225	52.490	77.132	1.00	63.25	C
ATOM	14849	CB	SER	C	246	43.945	53.661	76.438	1.00	63.50	C
ATOM	14852	OG	SER	C	246	45.059	53.215	75.681	1.00	63.10	O
ATOM	14854	C	SER	C	246	43.910	51.152	76.776	1.00	63.94	C
ATOM	14855	O	SER	C	246	43.932	50.763	75.606	1.00	62.97	O
ATOM	14857	N	SER	C	247	44.437	50.456	77.787	1.00	64.20	N
ATOM	14858	CA	SER	C	247	45.252	49.252	77.606	1.00	63.13	C
ATOM	14860	CB	SER	C	247	46.611	49.607	76.978	1.00	62.58	C
ATOM	14863	OG	SER	C	247	47.167	50.782	77.554	1.00	61.80	O
ATOM	14865	C	SER	C	247	45.434	48.549	78.965	1.00	63.42	C
ATOM	14866	O	SER	C	247	45.598	49.215	79.999	1.00	63.66	O
ATOM	14868	N	SER	C	248	45.413	47.214	78.959	1.00	61.92	N
ATOM	14869	CA	SER	C	248	45.346	46.439	80.203	1.00	61.13	C
ATOM	14871	CB	SER	C	248	44.736	45.058	79.948	1.00	61.93	C
ATOM	14874	OG	SER	C	248	45.534	44.305	79.054	1.00	63.11	O
ATOM	14876	C	SER	C	248	46.692	46.264	80.895	1.00	59.90	C
ATOM	14877	O	SER	C	248	47.670	45.897	80.255	1.00	59.40	O
ATOM	14879	N	LYS	C	249	46.727	46.528	82.203	1.00	59.67	N
ATOM	14880	CA	LYS	C	249	47.884	46.206	83.048	1.00	58.19	C
ATOM	14882	CB	LYS	C	249	48.237	47.371	83.990	1.00	57.21	C
ATOM	14885	CG	LYS	C	249	47.360	47.533	85.225	1.00	58.66	C
ATOM	14888	CD	LYS	C	249	47.904	48.649	86.142	1.00	59.90	C
ATOM	14891	CE	LYS	C	249	46.980	48.945	87.333	1.00	59.35	C

ATOM	14894	NZ	LYS C 249	45.554	49.194	86.912	1.00	58.33		N
ATOM	14898	C	LYS C 249	47.618	44.922	83.834	1.00	56.62		C
ATOM	14899	O	LYS C 249	46.466	44.603	84.147	1.00	56.93		O
ATOM	14901	N	SER C 250	48.683	44.183	84.138	1.00	55.39		N
ATOM	14902	CA	SER C 250	48.556	42.921	84.879	1.00	54.20		C
ATOM	14904	CB	SER C 250	49.763	42.000	84.642	1.00	53.70		C
ATOM	14907	OG	SER C 250	49.641	40.785	85.366	1.00	47.84		O
ATOM	14909	C	SER C 250	48.410	43.230	86.360	1.00	52.24		C
ATOM	14910	O	SER C 250	49.211	43.974	86.915	1.00	52.45		O
ATOM	14912	N	TRP C 251	47.379	42.661	86.982	1.00	50.50		N
ATOM	14913	CA	TRP C 251	47.109	42.861	88.406	1.00	49.58		C
ATOM	14915	CB	TRP C 251	45.596	42.900	88.662	1.00	48.98		C
ATOM	14918	CG	TRP C 251	44.996	44.280	88.617	1.00	49.55		C
ATOM	14919	CD1	TRP C 251	45.534	45.402	88.037	1.00	49.34		C
ATOM	14921	NE1	TRP C 251	44.688	46.466	88.200	1.00	47.82		N
ATOM	14923	CE2	TRP C 251	43.574	46.051	88.882	1.00	49.06		C
ATOM	14924	CD2	TRP C 251	43.731	44.678	89.157	1.00	47.03		C
ATOM	14925	CE3	TRP C 251	42.720	44.008	89.856	1.00	48.73		C
ATOM	14927	CZ3	TRP C 251	41.590	44.719	90.248	1.00	49.10		C
ATOM	14929	CH2	TRP C 251	41.463	46.087	89.960	1.00	50.83		C
ATOM	14931	CZ2	TRP C 251	42.442	46.770	89.283	1.00	49.80		C
ATOM	14933	C	TRP C 251	47.757	41.762	89.244	1.00	48.60		C
ATOM	14934	O	TRP C 251	48.449	42.043	90.224	1.00	47.76		O
ATOM	14936	N	ILE C 252	47.540	40.512	88.847	1.00	47.01		N
ATOM	14937	CA	ILE C 252	48.033	39.384	89.615	1.00	45.92		C
ATOM	14939	CB	ILE C 252	47.026	39.030	90.731	1.00	44.48		C
ATOM	14941	CG1	ILE C 252	47.670	38.165	91.809	1.00	44.56		C
ATOM	14944	CD1	ILE C 252	46.904	38.174	93.094	1.00	46.91		C
ATOM	14948	CG2	ILE C 252	45.804	38.358	90.157	1.00	43.65		C
ATOM	14952	C	ILE C 252	48.315	38.177	88.715	1.00	46.47		C
ATOM	14953	O	ILE C 252	47.797	38.076	87.595	1.00	47.24		O
ATOM	14955	N	THR C 253	49.148	37.277	89.230	1.00	45.39		N
ATOM	14956	CA	THR C 253	49.623	36.103	88.519	1.00	44.64		C
ATOM	14958	CB	THR C 253	50.991	36.430	87.863	1.00	44.18		C
ATOM	14960	OG1	THR C 253	50.779	36.916	86.536	1.00	44.41		O
ATOM	14962	CG2	THR C 253	51.914	35.250	87.796	1.00	44.21		C
ATOM	14966	C	THR C 253	49.718	34.988	89.555	1.00	44.74		C
ATOM	14967	O	THR C 253	50.139	35.236	90.689	1.00	43.55		O
ATOM	14969	N	PHE C 254	49.316	33.771	89.181	1.00	45.62		N
ATOM	14970	CA	PHE C 254	49.211	32.672	90.155	1.00	46.51		C
ATOM	14972	CB	PHE C 254	47.912	32.819	90.944	1.00	46.44		C
ATOM	14975	CG	PHE C 254	46.706	32.632	90.106	1.00	44.57		C
ATOM	14976	CD1	PHE C 254	46.226	33.672	89.336	1.00	46.93		C
ATOM	14978	CE1	PHE C 254	45.109	33.492	88.523	1.00	51.75		C
ATOM	14980	CZ	PHE C 254	44.470	32.253	88.478	1.00	47.49		C
ATOM	14982	CE2	PHE C 254	44.959	31.203	89.239	1.00	45.96		C
ATOM	14984	CD2	PHE C 254	46.076	31.396	90.041	1.00	46.05		C
ATOM	14986	C	PHE C 254	49.233	31.268	89.541	1.00	47.34		C
ATOM	14987	O	PHE C 254	48.806	31.071	88.400	1.00	47.65		O
ATOM	14989	N	ASP C 255	49.689	30.293	90.328	1.00	47.51		N
ATOM	14990	CA	ASP C 255	49.701	28.891	89.910	1.00	47.48		C
ATOM	14992	CB	ASP C 255	51.072	28.289	90.158	1.00	48.12		C
ATOM	14995	CG	ASP C 255	52.072	28.695	89.113	1.00	52.79		C
ATOM	14996	OD1	ASP C 255	51.671	29.342	88.121	1.00	55.48		O
ATOM	14997	OD2	ASP C 255	53.262	28.359	89.278	1.00	61.66		O
ATOM	14998	C	ASP C 255	48.653	28.054	90.622	1.00	47.00		C
ATOM	14999	O	ASP C 255	48.396	28.239	91.805	1.00	46.38		O
ATOM	15001	N	LEU C 256	48.058	27.127	89.880	1.00	47.65		N
ATOM	15002	CA	LEU C 256	47.085	26.186	90.418	1.00	47.62		C
ATOM	15004	CB	LEU C 256	45.805	26.227	89.588	1.00	47.25		C
ATOM	15007	CG	LEU C 256	44.667	25.297	90.000	1.00	48.43		C
ATOM	15009	CD1	LEU C 256	44.353	25.465	91.470	1.00	49.72		C
ATOM	15013	CD2	LEU C 256	43.428	25.564	89.159	1.00	46.55		C

ATOM	15017	C	LEU	C	256	47.688	24.785	90.385	1.00 47.74	C
ATOM	15018	O	LEU	C	256	48.224	24.361	89.365	1.00 47.04	O
ATOM	15020	N	LYS	C	257	47.625	24.089	91.515	1.00 49.23	N
ATOM	15021	CA	LYS	C	257	48.102	22.714	91.610	1.00 49.52	C
ATOM	15023	CB	LYS	C	257	49.616	22.682	91.786	1.00 49.85	C
ATOM	15026	CG	LYS	C	257	50.180	21.273	91.835	1.00 51.35	C
ATOM	15029	CD	LYS	C	257	51.472	21.146	91.043	1.00 56.71	C
ATOM	15032	CE	LYS	C	257	51.781	19.682	90.720	1.00 59.11	C
ATOM	15035	NZ	LYS	C	257	53.033	19.521	89.910	1.00 62.57	N
ATOM	15039	C	LYS	C	257	47.439	22.003	92.778	1.00 49.14	C
ATOM	15040	O	LYS	C	257	47.587	22.435	93.922	1.00 49.80	O
ATOM	15042	N	ASN	C	258	46.715	20.925	92.482	1.00 47.65	N
ATOM	15043	CA	ASN	C	258	46.021	20.140	93.503	1.00 51.51	C
ATOM	15045	CB	ASN	C	258	47.027	19.327	94.353	1.00 52.58	C
ATOM	15048	CG	ASN	C	258	47.408	17.987	93.711	1.00 56.47	C
ATOM	15049	OD1	ASN	C	258	47.016	17.680	92.582	1.00 57.19	O
ATOM	15050	ND2	ASN	C	258	48.174	17.184	94.442	1.00 55.28	N
ATOM	15053	C	ASN	C	258	45.123	20.990	94.401	1.00 50.58	C
ATOM	15054	O	ASN	C	258	45.204	20.917	95.619	1.00 49.41	O
ATOM	15056	N	LYS	C	259	44.274	21.802	93.778	1.00 53.21	N
ATOM	15057	CA	LYS	C	259	43.327	22.690	94.485	1.00 53.98	C
ATOM	15059	CB	LYS	C	259	42.461	21.907	95.498	1.00 54.69	C
ATOM	15062	CG	LYS	C	259	41.936	20.542	95.001	1.00 59.35	C
ATOM	15065	CD	LYS	C	259	40.428	20.517	94.664	1.00 66.23	C
ATOM	15068	CE	LYS	C	259	39.543	20.004	95.824	1.00 67.76	C
ATOM	15071	NZ	LYS	C	259	39.204	21.046	96.851	1.00 64.81	N
ATOM	15075	C	LYS	C	259	43.987	23.902	95.181	1.00 53.79	C
ATOM	15076	O	LYS	C	259	43.284	24.840	95.564	1.00 54.56	O
ATOM	15078	N	GLU	C	260	45.316	23.892	95.325	1.00 52.48	N
ATOM	15079	CA	GLU	C	260	46.051	24.958	96.023	1.00 52.41	C
ATOM	15081	CB	GLU	C	260	47.304	24.394	96.716	1.00 52.76	C
ATOM	15084	CG	GLU	C	260	47.064	23.808	98.100	1.00 55.53	C
ATOM	15087	CD	GLU	C	260	48.361	23.501	98.847	1.00 58.26	C
ATOM	15088	OE1	GLU	C	260	48.306	23.278	100.076	1.00 64.23	O
ATOM	15089	OE2	GLU	C	260	49.438	23.482	98.210	1.00 68.33	O
ATOM	15090	C	GLU	C	260	46.465	26.084	95.067	1.00 50.41	C
ATOM	15091	O	GLU	C	260	46.881	25.818	93.943	1.00 51.33	O
ATOM	15093	N	VAL	C	261	46.380	27.331	95.534	1.00 48.09	N
ATOM	15094	CA	VAL	C	261	46.668	28.509	94.713	1.00 46.83	C
ATOM	15096	CB	VAL	C	261	45.421	29.423	94.586	1.00 45.44	C
ATOM	15098	CG1	VAL	C	261	45.711	30.604	93.687	1.00 46.97	C
ATOM	15102	CG2	VAL	C	261	44.240	28.650	94.044	1.00 45.02	C
ATOM	15106	C	VAL	C	261	47.836	29.324	95.289	1.00 45.24	C
ATOM	15107	O	VAL	C	261	47.718	29.920	96.358	1.00 41.26	O
ATOM	15109	N	SER	C	262	48.952	29.335	94.559	1.00 46.20	N
ATOM	15110	CA	SER	C	262	50.138	30.128	94.894	1.00 47.83	C
ATOM	15112	CB	SER	C	262	51.396	29.311	94.621	1.00 47.10	C
ATOM	15115	OG	SER	C	262	51.506	28.252	95.542	1.00 51.61	O
ATOM	15117	C	SER	C	262	50.204	31.391	94.045	1.00 49.15	C
ATOM	15118	O	SER	C	262	50.085	31.304	92.823	1.00 51.69	O
ATOM	15120	N	VAL	C	263	50.436	32.550	94.665	1.00 48.68	N
ATOM	15121	CA	VAL	C	263	50.494	33.810	93.907	1.00 48.91	C
ATOM	15123	CB	VAL	C	263	49.712	34.981	94.607	1.00 48.17	C
ATOM	15125	CG1	VAL	C	263	48.663	34.440	95.578	1.00 46.85	C
ATOM	15129	CG2	VAL	C	263	50.627	35.953	95.327	1.00 51.31	C
ATOM	15133	C	VAL	C	263	51.958	34.168	93.579	1.00 49.79	C
ATOM	15134	O	VAL	C	263	52.799	34.316	94.472	1.00 48.47	O
ATOM	15136	N	LYS	C	264	52.262	34.289	92.291	1.00 50.90	N
ATOM	15137	CA	LYS	C	264	53.635	34.529	91.850	1.00 51.12	C
ATOM	15139	CB	LYS	C	264	53.896	33.805	90.540	1.00 51.57	C
ATOM	15142	CG	LYS	C	264	53.756	32.305	90.607	1.00 55.55	C
ATOM	15145	CD	LYS	C	264	54.067	31.680	89.244	1.00 56.56	C
ATOM	15148	CE	LYS	C	264	53.023	32.050	88.179	1.00 58.78	C

ATOM	15151	NZ	LYS	C	264	53.138	31.219	86.946	1.00	58.89	N
ATOM	15155	C	LYS	C	264	53.967	36.001	91.653	1.00	49.17	C
ATOM	15156	O	LYS	C	264	55.116	36.387	91.786	1.00	48.14	O
ATOM	15158	N	ARG	C	265	52.973	36.810	91.307	1.00	49.03	N
ATOM	15159	CA	ARG	C	265	53.209	38.210	90.960	1.00	50.08	C
ATOM	15161	CB	ARG	C	265	53.455	38.332	89.458	1.00	50.30	C
ATOM	15164	CG	ARG	C	265	54.691	39.104	89.043	1.00	49.45	C
ATOM	15167	CD	ARG	C	265	55.041	38.759	87.605	1.00	49.01	C
ATOM	15170	NE	ARG	C	265	56.273	39.395	87.136	1.00	52.33	N
ATOM	15172	CZ	ARG	C	265	56.916	39.068	86.011	1.00	50.45	C
ATOM	15173	NH1	ARG	C	265	58.028	39.706	85.664	1.00	49.84	N
ATOM	15176	NH2	ARG	C	265	56.455	38.107	85.222	1.00	53.21	N
ATOM	15179	C	ARG	C	265	51.974	38.995	91.339	1.00	50.17	C
ATOM	15180	O	ARG	C	265	50.869	38.489	91.224	1.00	51.12	O
ATOM	15182	N	VAL	C	266	52.156	40.224	91.804	1.00	51.61	N
ATOM	15183	CA	VAL	C	266	51.040	41.033	92.284	1.00	53.46	C
ATOM	15185	CB	VAL	C	266	50.835	40.893	93.811	1.00	54.83	C
ATOM	15187	CG1	VAL	C	266	49.637	41.726	94.278	1.00	56.37	C
ATOM	15191	CG2	VAL	C	266	50.653	39.430	94.207	1.00	58.89	C
ATOM	15195	C	VAL	C	266	51.319	42.484	92.002	1.00	53.73	C
ATOM	15196	O	VAL	C	266	52.465	42.910	92.032	1.00	54.06	O
ATOM	15198	N	THR	C	267	50.268	43.247	91.733	1.00	55.45	N
ATOM	15199	CA	THR	C	267	50.418	44.685	91.566	1.00	55.96	C
ATOM	15201	CB	THR	C	267	49.238	45.339	90.782	1.00	56.37	C
ATOM	15203	OG1	THR	C	267	49.562	46.699	90.459	1.00	54.71	O
ATOM	15205	CG2	THR	C	267	47.946	45.320	91.593	1.00	57.41	C
ATOM	15209	C	THR	C	267	50.539	45.347	92.928	1.00	56.70	C
ATOM	15210	O	THR	C	267	49.844	44.978	93.885	1.00	55.32	O
ATOM	15212	N	GLN	C	268	51.465	46.298	93.001	1.00	57.43	N
ATOM	15213	CA	GLN	C	268	51.418	47.354	94.000	1.00	56.91	C
ATOM	15215	CB	GLN	C	268	52.780	48.060	94.120	1.00	56.93	C
ATOM	15218	CG	GLN	C	268	53.514	48.362	92.784	1.00	56.06	C
ATOM	15221	CD	GLN	C	268	54.714	49.288	92.955	1.00	54.89	C
ATOM	15222	OE1	GLN	C	268	54.943	50.186	92.146	1.00	51.57	O
ATOM	15223	NE2	GLN	C	268	55.481	49.073	94.013	1.00	52.66	N
ATOM	15226	C	GLN	C	268	50.336	48.319	93.518	1.00	57.79	C
ATOM	15227	O	GLN	C	268	50.519	48.967	92.493	1.00	59.74	O
ATOM	15229	N	ASP	C	269	49.200	48.374	94.219	1.00	57.82	N
ATOM	15230	CA	ASP	C	269	48.039	49.205	93.813	1.00	57.20	C
ATOM	15232	CB	ASP	C	269	48.487	50.617	93.397	1.00	56.58	C
ATOM	15235	CG	ASP	C	269	47.428	51.663	93.652	1.00	57.36	C
ATOM	15236	OD1	ASP	C	269	46.776	52.122	92.695	1.00	59.34	O
ATOM	15237	OD2	ASP	C	269	47.242	52.032	94.821	1.00	60.71	O
ATOM	15238	C	ASP	C	269	47.184	48.568	92.683	1.00	55.97	C
ATOM	15239	O	ASP	C	269	47.613	48.507	91.529	1.00	52.98	O
ATOM	15241	N	PRO	C	270	45.984	48.058	93.016	1.00	56.48	N
ATOM	15242	CA	PRO	C	270	45.418	47.872	94.354	1.00	58.21	C
ATOM	15244	CB	PRO	C	270	43.958	47.479	94.078	1.00	57.77	C
ATOM	15247	CG	PRO	C	270	43.956	46.913	92.715	1.00	55.92	C
ATOM	15250	CD	PRO	C	270	45.066	47.595	91.961	1.00	57.28	C
ATOM	15253	C	PRO	C	270	46.142	46.750	95.087	1.00	58.74	C
ATOM	15254	O	PRO	C	270	46.739	45.884	94.444	1.00	58.59	O
ATOM	15255	N	LYS	C	271	46.098	46.767	96.416	1.00	60.62	N
ATOM	15256	CA	LYS	C	271	46.734	45.714	97.208	1.00	61.47	C
ATOM	15258	CB	LYS	C	271	47.033	46.190	98.629	1.00	61.51	C
ATOM	15261	CG	LYS	C	271	48.022	47.357	98.669	1.00	60.55	C
ATOM	15264	CD	LYS	C	271	49.267	47.031	99.497	1.00	61.33	C
ATOM	15267	CE	LYS	C	271	50.385	48.047	99.261	1.00	63.15	C
ATOM	15270	NZ	LYS	C	271	51.744	47.472	99.468	1.00	62.50	N
ATOM	15274	C	LYS	C	271	45.836	44.483	97.195	1.00	62.96	C
ATOM	15275	O	LYS	C	271	44.858	44.395	97.942	1.00	64.70	O
ATOM	15277	N	LEU	C	272	46.196	43.539	96.329	1.00	62.64	N
ATOM	15278	CA	LEU	C	272	45.325	42.439	95.933	1.00	62.58	C

ATOM	15280	CB	LEU	C	272	45.549	42.156	94.438	1.00	63.18	C
ATOM	15283	CG	LEU	C	272	44.366	42.188	93.468	1.00	61.62	C
ATOM	15285	CD1	LEU	C	272	43.627	40.889	93.484	1.00	62.32	C
ATOM	15289	CD2	LEU	C	272	43.421	43.347	93.770	1.00	62.98	C
ATOM	15293	C	LEU	C	272	45.657	41.196	96.752	1.00	62.94	C
ATOM	15294	O	LEU	C	272	46.822	40.800	96.816	1.00	63.09	O
ATOM	15296	N	GLN	C	273	44.647	40.576	97.363	1.00	63.24	N
ATOM	15297	CA	GLN	C	273	44.861	39.377	98.201	1.00	64.03	C
ATOM	15299	CB	GLN	C	273	44.604	39.670	99.694	1.00	63.96	C
ATOM	15302	CG	GLN	C	273	43.360	40.522	100.034	1.00	66.07	C
ATOM	15305	CD	GLN	C	273	43.506	41.289	101.360	1.00	66.75	C
ATOM	15306	OE1	GLN	C	273	44.102	40.789	102.316	1.00	69.08	O
ATOM	15307	NE2	GLN	C	273	42.963	42.509	101.411	1.00	66.69	N
ATOM	15310	C	GLN	C	273	44.029	38.186	97.719	1.00	64.15	C
ATOM	15311	O	GLN	C	273	42.802	38.198	97.804	1.00	66.11	O
ATOM	15313	N	MET	C	274	44.711	37.157	97.218	1.00	63.20	N
ATOM	15314	CA	MET	C	274	44.049	36.003	96.617	1.00	62.63	C
ATOM	15316	CB	MET	C	274	44.845	35.499	95.412	1.00	62.63	C
ATOM	15319	CG	MET	C	274	44.157	34.381	94.641	1.00	63.68	C
ATOM	15322	SD	MET	C	274	44.652	34.271	92.906	1.00	66.50	S
ATOM	15323	CE	MET	C	274	43.761	35.674	92.237	1.00	67.97	C
ATOM	15327	C	MET	C	274	43.880	34.872	97.612	1.00	61.22	C
ATOM	15328	O	MET	C	274	44.754	34.620	98.430	1.00	61.87	O
ATOM	15330	N	GLY	C	275	42.748	34.186	97.521	1.00	60.68	N
ATOM	15331	CA	GLY	C	275	42.475	33.023	98.345	1.00	60.59	C
ATOM	15334	C	GLY	C	275	43.493	31.915	98.151	1.00	60.84	C
ATOM	15335	O	GLY	C	275	44.138	31.798	97.106	1.00	60.35	O
ATOM	15337	N	LYS	C	276	43.603	31.077	99.169	1.00	61.47	N
ATOM	15338	CA	LYS	C	276	44.681	30.095	99.270	1.00	61.21	C
ATOM	15340	CB	LYS	C	276	44.967	29.785	100.748	1.00	62.19	C
ATOM	15343	CG	LYS	C	276	43.720	29.409	101.590	1.00	65.47	C
ATOM	15346	CD	LYS	C	276	43.103	30.615	102.333	1.00	67.04	C
ATOM	15349	CE	LYS	C	276	41.612	30.417	102.632	1.00	66.23	C
ATOM	15352	NZ	LYS	C	276	41.367	29.395	103.692	1.00	59.95	N
ATOM	15356	C	LYS	C	276	44.351	28.807	98.518	1.00	60.48	C
ATOM	15357	O	LYS	C	276	45.243	28.020	98.207	1.00	59.19	O
ATOM	15359	N	LYS	C	277	43.064	28.609	98.234	1.00	59.98	N
ATOM	15360	CA	LYS	C	277	42.549	27.351	97.701	1.00	59.13	C
ATOM	15362	CB	LYS	C	277	42.187	26.416	98.863	1.00	59.67	C
ATOM	15365	CG	LYS	C	277	43.362	25.594	99.395	1.00	62.99	C
ATOM	15368	CD	LYS	C	277	43.094	25.014	100.790	1.00	63.32	C
ATOM	15371	CE	LYS	C	277	43.454	26.007	101.910	1.00	67.77	C
ATOM	15374	NZ	LYS	C	277	43.650	25.350	103.249	1.00	66.56	N
ATOM	15378	C	LYS	C	277	41.329	27.599	96.806	1.00	56.72	C
ATOM	15379	O	LYS	C	277	40.806	28.710	96.753	1.00	57.13	O
ATOM	15381	N	LEU	C	278	40.881	26.571	96.096	1.00	54.32	N
ATOM	15382	CA	LEU	C	278	39.716	26.713	95.227	1.00	52.98	C
ATOM	15384	CB	LEU	C	278	39.525	25.478	94.362	1.00	51.77	C
ATOM	15387	CG	LEU	C	278	40.576	25.328	93.271	1.00	54.79	C
ATOM	15389	CD1	LEU	C	278	40.435	23.980	92.607	1.00	57.28	C
ATOM	15393	CD2	LEU	C	278	40.467	26.454	92.242	1.00	56.60	C
ATOM	15397	C	LEU	C	278	38.469	26.932	96.054	1.00	50.20	C
ATOM	15398	O	LEU	C	278	38.413	26.492	97.202	1.00	48.54	O
ATOM	15400	N	PRO	C	279	37.465	27.624	95.484	1.00	48.92	N
ATOM	15401	CA	PRO	C	279	37.466	28.241	94.163	1.00	48.87	C
ATOM	15403	CB	PRO	C	279	35.991	28.569	93.940	1.00	48.66	C
ATOM	15406	CG	PRO	C	279	35.480	28.845	95.289	1.00	47.76	C
ATOM	15409	CD	PRO	C	279	36.183	27.855	96.174	1.00	48.41	C
ATOM	15412	C	PRO	C	279	38.294	29.529	94.104	1.00	49.11	C
ATOM	15413	O	PRO	C	279	38.301	30.310	95.059	1.00	48.14	O
ATOM	15414	N	LEU	C	280	38.974	29.736	92.976	1.00	48.91	N
ATOM	15415	CA	LEU	C	280	39.736	30.954	92.735	1.00	48.31	C
ATOM	15417	CB	LEU	C	280	40.032	31.141	91.245	1.00	45.56	C

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ATOM  15420  CG  LEU C 280      40.723  30.005  90.488  1.00 45.81           C
ATOM  15422  CD1 LEU C 280      40.958  30.396  89.043  1.00 46.69           C
ATOM  15426  CD2 LEU C 280      42.033  29.620  91.134  1.00 44.94           C
ATOM  15430  C   LEU C 280      38.916  32.122  93.248  1.00 48.75           C
ATOM  15431  O   LEU C 280      37.744  32.272  92.909  1.00 48.16           O
ATOM  15433  N   HIS C 281      39.522  32.937  94.094  1.00 51.52           N
ATOM  15434  CA  HIS C 281      38.776  33.987  94.749  1.00 52.97           C
ATOM  15436  CB  HIS C 281      37.944  33.388  95.882  1.00 55.29           C
ATOM  15439  CG  HIS C 281      37.171  34.401  96.666  1.00 55.78           C
ATOM  15440  ND1 HIS C 281      37.540  34.798  97.932  1.00 57.68           N
ATOM  15442  CE1 HIS C 281      36.676  35.691  98.379  1.00 60.74           C
ATOM  15444  NE2 HIS C 281      35.760  35.890  97.447  1.00 60.85           N
ATOM  15446  CD2 HIS C 281      36.045  35.093  96.365  1.00 59.12           C
ATOM  15448  C   HIS C 281      39.718  35.029  95.295  1.00 53.59           C
ATOM  15449  O   HIS C 281      40.495  34.745  96.199  1.00 54.41           O
ATOM  15451  N   LEU C 282      39.662  36.231  94.740  1.00 54.10           N
ATOM  15452  CA  LEU C 282      40.476  37.311  95.256  1.00 55.59           C
ATOM  15454  CB  LEU C 282      41.479  37.827  94.216  1.00 57.69           C
ATOM  15457  CG  LEU C 282      41.109  38.746  93.043  1.00 61.91           C
ATOM  15459  CD1 LEU C 282      40.456  40.052  93.499  1.00 64.07           C
ATOM  15463  CD2 LEU C 282      40.245  38.068  92.016  1.00 65.90           C
ATOM  15467  C   LEU C 282      39.587  38.411  95.763  1.00 55.77           C
ATOM  15468  O   LEU C 282      38.398  38.461  95.427  1.00 53.36           O
ATOM  15470  N   THR C 283      40.179  39.281  96.586  1.00 56.22           N
ATOM  15471  CA  THR C 283      39.478  40.441  97.127  1.00 56.13           C
ATOM  15473  CB  THR C 283      38.901  40.176  98.553  1.00 56.10           C
ATOM  15475  OG1 THR C 283      38.975  41.369  99.347  1.00 51.35           O
ATOM  15477  CG2 THR C 283      39.633  39.028  99.265  1.00 56.68           C
ATOM  15481  C   THR C 283      40.317  41.721  97.119  1.00 56.00           C
ATOM  15482  O   THR C 283      41.525  41.702  97.367  1.00 55.55           O
ATOM  15484  N   LEU C 284      39.647  42.825  96.797  1.00 56.47           N
ATOM  15485  CA  LEU C 284      40.190  44.152  96.991  1.00 57.17           C
ATOM  15487  CB  LEU C 284      39.660  45.129  95.952  1.00 56.86           C
ATOM  15490  CG  LEU C 284      40.173  45.008  94.524  1.00 58.84           C
ATOM  15492  CD1 LEU C 284      39.788  43.674  93.911  1.00 61.44           C
ATOM  15496  CD2 LEU C 284      39.624  46.161  93.700  1.00 58.80           C
ATOM  15500  C   LEU C 284      39.715  44.618  98.344  1.00 57.25           C
ATOM  15501  O   LEU C 284      38.510  44.690  98.572  1.00 56.00           O
ATOM  15503  N   PRO C 285      40.647  44.941  99.251  1.00 59.41           N
ATOM  15504  CA  PRO C 285      40.234  45.538 100.531  1.00 60.45           C
ATOM  15506  CB  PRO C 285      41.563  45.785 101.268  1.00 60.29           C
ATOM  15509  CG  PRO C 285      42.650  45.570 100.265  1.00 60.05           C
ATOM  15512  CD  PRO C 285      42.104  44.738  99.160  1.00 59.55           C
ATOM  15515  C   PRO C 285      39.435  46.847 100.401  1.00 60.94           C
ATOM  15516  O   PRO C 285      38.739  47.228 101.343  1.00 61.14           O
ATOM  15517  N   GLN C 286      39.500  47.490  99.233  1.00 62.02           N
ATOM  15518  CA  GLN C 286      39.100  48.892  99.067  1.00 63.02           C
ATOM  15520  CB  GLN C 286      40.281  49.809  99.434  1.00 64.74           C
ATOM  15523  CG  GLN C 286      41.704  49.172  99.295  1.00 70.58           C
ATOM  15526  CD  GLN C 286      42.080  48.713  97.865  1.00 75.12           C
ATOM  15527  OE1 GLN C 286      42.483  49.522  97.027  1.00 77.23           O
ATOM  15528  NE2 GLN C 286      41.985  47.408  97.609  1.00 71.67           N
ATOM  15531  C   GLN C 286      38.612  49.227  97.643  1.00 62.97           C
ATOM  15532  O   GLN C 286      39.400  49.249  96.690  1.00 62.71           O
ATOM  15534  N   ALA C 287      37.318  49.499  97.498  1.00 62.09           N
ATOM  15535  CA  ALA C 287      36.791  49.964  96.216  1.00 61.81           C
ATOM  15537  CB  ALA C 287      35.293  49.800  96.159  1.00 62.58           C
ATOM  15541  C   ALA C 287      37.167  51.427  96.013  1.00 61.81           C
ATOM  15542  O   ALA C 287      37.006  52.247  96.919  1.00 60.71           O
ATOM  15544  N   LEU C 288      37.677  51.741  94.825  1.00 61.62           N
ATOM  15545  CA  LEU C 288      38.071  53.107  94.485  1.00 60.16           C
ATOM  15547  CB  LEU C 288      39.554  53.325  94.791  1.00 61.22           C
ATOM  15550  CG  LEU C 288      39.958  53.460  96.260  1.00 64.94           C
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ATOM	15552	CD1	LEU	C	288	41.489	53.510	96.400	1.00	65.46	C
ATOM	15556	CD2	LEU	C	288	39.302	54.701	96.880	1.00	65.41	C
ATOM	15560	C	LEU	C	288	37.814	53.415	93.012	1.00	58.56	C
ATOM	15561	O	LEU	C	288	37.878	52.514	92.168	1.00	58.21	O
ATOM	15563	N	PRO	C	289	37.527	54.692	92.695	1.00	56.06	N
ATOM	15564	CA	PRO	C	289	37.300	55.065	91.305	1.00	55.45	C
ATOM	15566	CB	PRO	C	289	37.254	56.605	91.344	1.00	56.33	C
ATOM	15569	CG	PRO	C	289	37.631	57.008	92.731	1.00	55.40	C
ATOM	15572	CD	PRO	C	289	37.373	55.842	93.603	1.00	56.31	C
ATOM	15575	C	PRO	C	289	38.396	54.575	90.354	1.00	53.92	C
ATOM	15576	O	PRO	C	289	38.083	54.128	89.250	1.00	54.03	O
ATOM	15577	N	GLN	C	290	39.656	54.644	90.781	1.00	52.07	N
ATOM	15578	CA	GLN	C	290	40.785	54.321	89.896	1.00	51.62	C
ATOM	15580	CB	GLN	C	290	42.111	54.860	90.453	1.00	51.09	C
ATOM	15583	CG	GLN	C	290	42.518	54.334	91.836	1.00	50.62	C
ATOM	15586	CD	GLN	C	290	42.359	55.372	92.944	1.00	48.92	C
ATOM	15587	OE1	GLN	C	290	41.281	55.935	93.141	1.00	50.38	O
ATOM	15588	NE2	GLN	C	290	43.436	55.619	93.677	1.00	38.93	N
ATOM	15591	C	GLN	C	290	40.916	52.826	89.565	1.00	51.22	C
ATOM	15592	O	GLN	C	290	41.587	52.462	88.595	1.00	51.06	O
ATOM	15594	N	TYR	C	291	40.276	51.967	90.355	1.00	50.25	N
ATOM	15595	CA	TYR	C	291	40.289	50.529	90.089	1.00	49.57	C
ATOM	15597	CB	TYR	C	291	40.384	49.746	91.397	1.00	51.28	C
ATOM	15600	CG	TYR	C	291	41.530	50.188	92.263	1.00	50.55	C
ATOM	15601	CD1	TYR	C	291	42.804	50.358	91.719	1.00	53.72	C
ATOM	15603	CE1	TYR	C	291	43.866	50.770	92.498	1.00	55.53	C
ATOM	15605	CZ	TYR	C	291	43.664	51.024	93.843	1.00	55.96	C
ATOM	15606	OH	TYR	C	291	44.724	51.428	94.608	1.00	54.10	O
ATOM	15608	CE2	TYR	C	291	42.407	50.866	94.409	1.00	53.50	C
ATOM	15610	CD2	TYR	C	291	41.350	50.445	93.617	1.00	51.86	C
ATOM	15612	C	TYR	C	291	39.067	50.068	89.313	1.00	48.31	C
ATOM	15613	O	TYR	C	291	38.974	48.891	88.970	1.00	46.37	O
ATOM	15615	N	ALA	C	292	38.142	50.991	89.039	1.00	47.83	N
ATOM	15616	CA	ALA	C	292	36.881	50.663	88.368	1.00	47.22	C
ATOM	15618	CB	ALA	C	292	35.852	51.766	88.573	1.00	47.73	C
ATOM	15622	C	ALA	C	292	37.133	50.459	86.897	1.00	45.67	C
ATOM	15623	O	ALA	C	292	37.833	51.244	86.280	1.00	48.25	O
ATOM	15625	N	GLY	C	293	36.550	49.408	86.337	1.00	45.01	N
ATOM	15626	CA	GLY	C	293	36.777	49.063	84.943	1.00	45.06	C
ATOM	15629	C	GLY	C	293	36.457	47.617	84.628	1.00	43.41	C
ATOM	15630	O	GLY	C	293	35.526	47.044	85.188	1.00	44.31	O
ATOM	15632	N	SER	C	294	37.231	47.031	83.724	1.00	43.46	N
ATOM	15633	CA	SER	C	294	36.982	45.670	83.282	1.00	45.43	C
ATOM	15635	CB	SER	C	294	36.201	45.666	81.982	1.00	44.75	C
ATOM	15638	OG	SER	C	294	35.833	44.339	81.659	1.00	45.27	O
ATOM	15640	C	SER	C	294	38.262	44.887	83.067	1.00	45.48	C
ATOM	15641	O	SER	C	294	39.237	45.404	82.518	1.00	43.96	O
ATOM	15643	N	GLY	C	295	38.235	43.626	83.479	1.00	47.01	N
ATOM	15644	CA	GLY	C	295	39.391	42.760	83.350	1.00	49.10	C
ATOM	15647	C	GLY	C	295	39.055	41.414	82.769	1.00	49.83	C
ATOM	15648	O	GLY	C	295	37.922	41.158	82.367	1.00	50.35	O
ATOM	15650	N	ASN	C	296	40.066	40.558	82.716	1.00	52.72	N
ATOM	15651	CA	ASN	C	296	39.915	39.184	82.250	1.00	54.40	C
ATOM	15653	CB	ASN	C	296	40.311	39.046	80.761	1.00	55.45	C
ATOM	15656	CG	ASN	C	296	39.126	39.164	79.808	1.00	60.32	C
ATOM	15657	OD1	ASN	C	296	37.970	39.045	80.220	1.00	69.70	O
ATOM	15658	ND2	ASN	C	296	39.413	39.388	78.519	1.00	56.58	N
ATOM	15661	C	ASN	C	296	40.820	38.299	83.077	1.00	54.20	C
ATOM	15662	O	ASN	C	296	42.043	38.426	83.003	1.00	54.47	O
ATOM	15664	N	LEU	C	297	40.226	37.419	83.873	1.00	54.66	N
ATOM	15665	CA	LEU	C	297	40.972	36.321	84.474	1.00	54.56	C
ATOM	15667	CB	LEU	C	297	40.152	35.637	85.564	1.00	53.85	C
ATOM	15670	CG	LEU	C	297	41.010	34.824	86.531	1.00	54.84	C

ATOM	15672	CD1	LEU	C	297	41.612	35.742	87.598	1.00	55.62	C
ATOM	15676	CD2	LEU	C	297	40.222	33.704	87.181	1.00	56.64	C
ATOM	15680	C	LEU	C	297	41.253	35.334	83.353	1.00	54.66	C
ATOM	15681	O	LEU	C	297	40.333	34.948	82.648	1.00	56.15	O
ATOM	15683	N	THR	C	298	42.509	34.944	83.166	1.00	53.50	N
ATOM	15684	CA	THR	C	298	42.867	34.024	82.086	1.00	52.46	C
ATOM	15686	CB	THR	C	298	43.818	34.682	81.056	1.00	52.13	C
ATOM	15688	OG1	THR	C	298	44.623	35.673	81.703	1.00	58.09	O
ATOM	15690	CG2	THR	C	298	43.037	35.353	79.958	1.00	51.47	C
ATOM	15694	C	THR	C	298	43.555	32.834	82.689	1.00	50.44	C
ATOM	15695	O	THR	C	298	44.479	33.016	83.453	1.00	49.47	O
ATOM	15697	N	LEU	C	299	43.112	31.624	82.345	1.00	51.46	N
ATOM	15698	CA	LEU	C	299	43.686	30.385	82.911	1.00	52.21	C
ATOM	15700	CB	LEU	C	299	42.630	29.640	83.740	1.00	51.12	C
ATOM	15703	CG	LEU	C	299	43.014	28.884	85.016	1.00	51.18	C
ATOM	15705	CD1	LEU	C	299	42.167	27.628	85.149	1.00	52.26	C
ATOM	15709	CD2	LEU	C	299	44.471	28.518	85.085	1.00	54.18	C
ATOM	15713	C	LEU	C	299	44.183	29.443	81.820	1.00	52.74	C
ATOM	15714	O	LEU	C	299	43.394	28.986	80.987	1.00	56.41	O
ATOM	15716	N	ALA	C	300	45.477	29.138	81.821	1.00	50.94	N
ATOM	15717	CA	ALA	C	300	46.000	28.075	80.959	1.00	50.98	C
ATOM	15719	CB	ALA	C	300	47.303	28.479	80.326	1.00	49.38	C
ATOM	15723	C	ALA	C	300	46.171	26.792	81.761	1.00	49.99	C
ATOM	15724	O	ALA	C	300	46.526	26.826	82.931	1.00	48.15	O
ATOM	15726	N	LEU	C	301	45.915	25.661	81.119	1.00	52.33	N
ATOM	15727	CA	LEU	C	301	46.000	24.363	81.777	1.00	52.08	C
ATOM	15729	CB	LEU	C	301	44.660	23.672	81.642	1.00	51.48	C
ATOM	15732	CG	LEU	C	301	43.514	24.413	82.338	1.00	53.12	C
ATOM	15734	CD1	LEU	C	301	42.183	23.764	81.989	1.00	55.00	C
ATOM	15738	CD2	LEU	C	301	43.704	24.452	83.855	1.00	54.54	C
ATOM	15742	C	LEU	C	301	47.130	23.489	81.214	1.00	52.91	C
ATOM	15743	O	LEU	C	301	47.392	23.499	80.006	1.00	53.94	O
ATOM	15745	N	GLU	C	302	47.813	22.756	82.100	1.00	52.53	N
ATOM	15746	CA	GLU	C	302	48.928	21.876	81.701	1.00	51.61	C
ATOM	15748	CB	GLU	C	302	49.450	21.067	82.895	1.00	49.30	C
ATOM	15751	CG	GLU	C	302	50.804	20.385	82.667	1.00	53.13	C
ATOM	15754	CD	GLU	C	302	51.221	19.463	83.823	1.00	53.07	C
ATOM	15755	OE1	GLU	C	302	52.254	19.727	84.471	1.00	48.58	O
ATOM	15756	OE2	GLU	C	302	50.509	18.473	84.086	1.00	57.14	O
ATOM	15757	C	GLU	C	302	48.503	20.930	80.566	1.00	51.69	C
ATOM	15758	O	GLU	C	302	47.457	20.281	80.635	1.00	51.41	O
ATOM	15760	N	ALA	C	303	49.301	20.899	79.504	1.00	51.40	N
ATOM	15761	CA	ALA	C	303	49.089	19.992	78.386	1.00	51.60	C
ATOM	15763	CB	ALA	C	303	49.238	18.545	78.849	1.00	49.45	C
ATOM	15767	C	ALA	C	303	47.749	20.197	77.677	1.00	53.60	C
ATOM	15768	O	ALA	C	303	47.310	19.324	76.935	1.00	55.31	O
ATOM	15770	N	LYS	C	304	47.094	21.334	77.898	1.00	54.59	N
ATOM	15771	CA	LYS	C	304	45.888	21.676	77.150	1.00	54.23	C
ATOM	15773	CB	LYS	C	304	44.696	21.969	78.062	1.00	55.42	C
ATOM	15776	CG	LYS	C	304	44.341	20.880	79.069	1.00	58.77	C
ATOM	15779	CD	LYS	C	304	44.177	19.500	78.445	1.00	65.40	C
ATOM	15782	CE	LYS	C	304	43.549	18.512	79.432	1.00	68.77	C
ATOM	15785	NZ	LYS	C	304	44.119	18.611	80.811	1.00	75.82	N
ATOM	15789	C	LYS	C	304	46.203	22.909	76.341	1.00	54.72	C
ATOM	15790	O	LYS	C	304	46.881	23.817	76.808	1.00	55.64	O
ATOM	15792	N	THR	C	305	45.699	22.932	75.122	1.00	56.26	N
ATOM	15793	CA	THR	C	305	45.961	24.010	74.197	1.00	56.85	C
ATOM	15795	CB	THR	C	305	46.020	23.434	72.747	1.00	57.67	C
ATOM	15797	OG1	THR	C	305	46.833	24.270	71.905	1.00	62.10	O
ATOM	15799	CG2	THR	C	305	44.623	23.253	72.144	1.00	56.44	C
ATOM	15803	C	THR	C	305	44.868	25.072	74.415	1.00	58.13	C
ATOM	15804	O	THR	C	305	43.740	24.733	74.788	1.00	61.03	O
ATOM	15806	N	GLY	C	306	45.210	26.346	74.225	1.00	57.84	N

ATOM	15807	CA	GLY	C	306	44.277	27.454	74.484	1.00 56.97	C
ATOM	15810	C	GLY	C	306	44.309	27.975	75.919	1.00 57.05	C
ATOM	15811	O	GLY	C	306	45.099	27.515	76.750	1.00 58.91	O
ATOM	15813	N	LYS	C	307	43.449	28.950	76.204	1.00 55.87	N
ATOM	15814	CA	LYS	C	307	43.263	29.479	77.559	1.00 55.32	C
ATOM	15816	CB	LYS	C	307	43.977	30.833	77.712	1.00 54.88	C
ATOM	15819	CG	LYS	C	307	45.503	30.764	77.759	1.00 55.79	C
ATOM	15822	CD	LYS	C	307	46.178	31.828	76.862	1.00 55.83	C
ATOM	15825	CE	LYS	C	307	46.583	33.078	77.612	1.00 53.46	C
ATOM	15828	NZ	LYS	C	307	47.798	32.841	78.423	1.00 46.54	N
ATOM	15832	C	LYS	C	307	41.772	29.664	77.863	1.00 54.09	C
ATOM	15833	O	LYS	C	307	41.002	30.086	77.007	1.00 52.18	O
ATOM	15835	N	LEU	C	308	41.374	29.360	79.092	1.00 55.57	N
ATOM	15836	CA	LEU	C	308	40.048	29.748	79.594	1.00 54.38	C
ATOM	15838	CB	LEU	C	308	39.630	28.873	80.766	1.00 51.97	C
ATOM	15841	CG	LEU	C	308	39.722	27.373	80.526	1.00 52.51	C
ATOM	15843	CD1	LEU	C	308	39.420	26.638	81.805	1.00 51.52	C
ATOM	15847	CD2	LEU	C	308	38.771	26.979	79.413	1.00 53.45	C
ATOM	15851	C	LEU	C	308	40.112	31.194	80.070	1.00 54.94	C
ATOM	15852	O	LEU	C	308	41.188	31.696	80.411	1.00 53.89	O
ATOM	15854	N	HIS	C	309	38.963	31.857	80.104	1.00 54.30	N
ATOM	15855	CA	HIS	C	309	38.892	33.193	80.667	1.00 54.34	C
ATOM	15857	CB	HIS	C	309	39.417	34.219	79.675	1.00 54.86	C
ATOM	15860	CG	HIS	C	309	38.779	34.123	78.337	1.00 56.38	C
ATOM	15861	ND1	HIS	C	309	37.620	34.795	78.021	1.00 61.79	N
ATOM	15863	CE1	HIS	C	309	37.276	34.512	76.777	1.00 62.46	C
ATOM	15865	NE2	HIS	C	309	38.170	33.676	76.278	1.00 65.05	N
ATOM	15867	CD2	HIS	C	309	39.120	33.414	77.237	1.00 61.15	C
ATOM	15869	C	HIS	C	309	37.488	33.566	81.112	1.00 54.11	C
ATOM	15870	O	HIS	C	309	36.505	32.971	80.680	1.00 55.91	O
ATOM	15872	N	GLN	C	310	37.422	34.550	82.002	1.00 53.63	N
ATOM	15873	CA	GLN	C	310	36.171	35.055	82.549	1.00 53.49	C
ATOM	15875	CB	GLN	C	310	35.883	34.435	83.921	1.00 51.89	C
ATOM	15878	CG	GLN	C	310	34.777	35.146	84.698	1.00 53.15	C
ATOM	15881	CD	GLN	C	310	34.332	34.402	85.939	1.00 54.86	C
ATOM	15882	OE1	GLN	C	310	34.822	33.311	86.248	1.00 62.77	O
ATOM	15883	NE2	GLN	C	310	33.391	34.992	86.662	1.00 51.39	N
ATOM	15886	C	GLN	C	310	36.329	36.546	82.688	1.00 53.43	C
ATOM	15887	O	GLN	C	310	37.351	36.994	83.202	1.00 57.46	O
ATOM	15889	N	GLU	C	311	35.340	37.317	82.243	1.00 52.22	N
ATOM	15890	CA	GLU	C	311	35.429	38.761	82.361	1.00 53.58	C
ATOM	15892	CB	GLU	C	311	34.816	39.467	81.147	1.00 54.22	C
ATOM	15895	CG	GLU	C	311	33.398	40.014	81.329	1.00 59.50	C
ATOM	15898	CD	GLU	C	311	33.042	41.104	80.318	1.00 58.01	C
ATOM	15899	OE1	GLU	C	311	33.860	41.389	79.413	1.00 57.32	O
ATOM	15900	OE2	GLU	C	311	31.933	41.675	80.434	1.00 62.91	O
ATOM	15901	C	GLU	C	311	34.846	39.250	83.699	1.00 53.73	C
ATOM	15902	O	GLU	C	311	33.908	38.661	84.252	1.00 53.70	O
ATOM	15904	N	VAL	C	312	35.444	40.323	84.215	1.00 53.28	N
ATOM	15905	CA	VAL	C	312	35.098	40.873	85.517	1.00 52.30	C
ATOM	15907	CB	VAL	C	312	36.175	40.622	86.598	1.00 53.43	C
ATOM	15909	CG1	VAL	C	312	35.628	39.717	87.701	1.00 57.05	C
ATOM	15913	CG2	VAL	C	312	37.450	40.058	85.992	1.00 56.18	C
ATOM	15917	C	VAL	C	312	34.939	42.357	85.395	1.00 51.99	C
ATOM	15918	O	VAL	C	312	35.651	43.001	84.624	1.00 51.64	O
ATOM	15920	N	ASN	C	313	34.017	42.892	86.191	1.00 51.65	N
ATOM	15921	CA	ASN	C	313	33.638	44.286	86.119	1.00 49.32	C
ATOM	15923	CB	ASN	C	313	32.438	44.426	85.196	1.00 48.44	C
ATOM	15926	CG	ASN	C	313	32.815	44.221	83.759	1.00 45.89	C
ATOM	15927	OD1	ASN	C	313	32.339	43.308	83.095	1.00 38.92	O
ATOM	15928	ND2	ASN	C	313	33.724	45.049	83.281	1.00 51.95	N
ATOM	15931	C	ASN	C	313	33.344	44.875	87.483	1.00 48.98	C
ATOM	15932	O	ASN	C	313	32.650	44.265	88.303	1.00 46.07	O

ATOM	15934	N	LEU	C	314	33.889	46.070	87.709	1.00	48.99	N
ATOM	15935	CA	LEU	C	314	33.756	46.762	88.980	1.00	47.98	C
ATOM	15937	CB	LEU	C	314	35.114	46.840	89.677	1.00	48.55	C
ATOM	15940	CG	LEU	C	314	35.188	46.913	91.208	1.00	48.14	C
ATOM	15942	CD1	LEU	C	314	33.922	47.434	91.875	1.00	49.00	C
ATOM	15946	CD2	LEU	C	314	36.402	47.749	91.612	1.00	46.00	C
ATOM	15950	C	LEU	C	314	33.246	48.156	88.705	1.00	46.12	C
ATOM	15951	O	LEU	C	314	33.892	48.914	87.986	1.00	44.60	O
ATOM	15953	N	VAL	C	315	32.084	48.476	89.268	1.00	46.55	N
ATOM	15954	CA	VAL	C	315	31.492	49.810	89.165	1.00	48.31	C
ATOM	15956	CB	VAL	C	315	30.033	49.743	88.660	1.00	48.87	C
ATOM	15958	CG1	VAL	C	315	29.352	51.142	88.711	1.00	48.61	C
ATOM	15962	CG2	VAL	C	315	29.979	49.150	87.257	1.00	46.96	C
ATOM	15966	C	VAL	C	315	31.492	50.423	90.550	1.00	48.60	C
ATOM	15967	O	VAL	C	315	31.057	49.773	91.494	1.00	48.35	O
ATOM	15969	N	VAL	C	316	31.978	51.658	90.684	1.00	50.12	N
ATOM	15970	CA	VAL	C	316	31.987	52.322	91.996	1.00	51.50	C
ATOM	15972	CB	VAL	C	316	33.420	52.384	92.641	1.00	50.80	C
ATOM	15974	CG1	VAL	C	316	34.016	53.791	92.611	1.00	51.53	C
ATOM	15978	CG2	VAL	C	316	34.362	51.365	91.993	1.00	48.64	C
ATOM	15982	C	VAL	C	316	31.301	53.696	91.965	1.00	53.36	C
ATOM	15983	O	VAL	C	316	31.335	54.408	90.955	1.00	52.62	O
ATOM	15985	N	MET	C	317	30.678	54.043	93.092	1.00	55.34	N
ATOM	15986	CA	MET	C	317	29.909	55.271	93.242	1.00	55.75	C
ATOM	15988	CB	MET	C	317	28.457	54.914	93.573	1.00	55.48	C
ATOM	15991	CG	MET	C	317	27.571	56.095	93.955	1.00	56.94	C
ATOM	15994	SD	MET	C	317	25.975	55.578	94.619	1.00	59.40	S
ATOM	15995	CE	MET	C	317	25.119	55.060	93.131	1.00	58.37	C
ATOM	15999	C	MET	C	317	30.514	56.104	94.365	1.00	56.25	C
ATOM	16000	O	MET	C	317	30.941	55.552	95.378	1.00	56.82	O
ATOM	16002	N	ARG	C	318	30.555	57.425	94.171	1.00	57.90	N
ATOM	16003	CA	ARG	C	318	30.971	58.400	95.207	1.00	57.97	C
ATOM	16005	CB	ARG	C	318	32.270	59.107	94.775	1.00	57.36	C
ATOM	16008	CG	ARG	C	318	32.761	60.231	95.695	1.00	58.75	C
ATOM	16011	CD	ARG	C	318	33.948	60.981	95.107	1.00	60.71	C
ATOM	16014	NE	ARG	C	318	35.186	60.207	95.163	1.00	63.93	N
ATOM	16016	CZ	ARG	C	318	36.370	60.640	94.729	1.00	65.87	C
ATOM	16017	NH1	ARG	C	318	36.503	61.846	94.182	1.00	67.21	N
ATOM	16020	NH2	ARG	C	318	37.433	59.850	94.833	1.00	66.87	N
ATOM	16023	C	ARG	C	318	29.824	59.409	95.401	1.00	57.93	C
ATOM	16024	O	ARG	C	318	28.942	59.500	94.542	1.00	59.39	O
ATOM	16026	N	ALA	C	319	29.811	60.148	96.513	1.00	56.94	N
ATOM	16027	CA	ALA	C	319	28.779	61.175	96.717	1.00	56.32	C
ATOM	16029	CB	ALA	C	319	27.472	60.512	97.139	1.00	55.67	C
ATOM	16033	C	ALA	C	319	29.149	62.293	97.712	1.00	56.15	C
ATOM	16034	O	ALA	C	319	29.554	62.022	98.843	1.00	54.59	O
ATOM	16036	N	THR	C	320	29.015	63.543	97.256	1.00	56.55	N
ATOM	16037	CA	THR	C	320	28.993	64.741	98.111	1.00	56.45	C
ATOM	16039	CB	THR	C	320	30.386	65.083	98.735	1.00	57.04	C
ATOM	16041	OG1	THR	C	320	30.835	64.004	99.564	1.00	55.35	O
ATOM	16043	CG2	THR	C	320	30.328	66.378	99.589	1.00	56.22	C
ATOM	16047	C	THR	C	320	28.498	65.922	97.261	1.00	57.29	C
ATOM	16048	O	THR	C	320	27.834	66.842	97.751	1.00	58.33	O
ATOM	16050	N	VAL	C	330	29.705	58.049	89.659	1.00	55.06	N
ATOM	16051	CA	VAL	C	330	29.701	56.652	89.240	1.00	56.85	C
ATOM	16053	CB	VAL	C	330	28.305	56.237	88.691	1.00	56.62	C
ATOM	16055	CG1	VAL	C	330	28.388	55.089	87.689	1.00	55.47	C
ATOM	16059	CG2	VAL	C	330	27.390	55.852	89.841	1.00	56.71	C
ATOM	16063	C	VAL	C	330	30.804	56.391	88.208	1.00	57.90	C
ATOM	16064	O	VAL	C	330	30.755	56.915	87.091	1.00	59.13	O
ATOM	16066	N	TRP	C	331	31.788	55.578	88.598	1.00	57.92	N
ATOM	16067	CA	TRP	C	331	32.913	55.208	87.731	1.00	57.68	C
ATOM	16069	CB	TRP	C	331	34.254	55.418	88.452	1.00	58.00	C

ATOM	16072	CG	TRP	C	331	34.369	56.735	89.167	1.00	58.37	C
ATOM	16073	CD1	TRP	C	331	33.790	57.076	90.359	1.00	59.27	C
ATOM	16075	NE1	TRP	C	331	34.120	58.364	90.698	1.00	58.13	N
ATOM	16077	CE2	TRP	C	331	34.930	58.883	89.725	1.00	58.30	C
ATOM	16078	CD2	TRP	C	331	35.112	57.879	88.744	1.00	57.76	C
ATOM	16079	CE3	TRP	C	331	35.910	58.159	87.631	1.00	59.16	C
ATOM	16081	CZ3	TRP	C	331	36.496	59.423	87.531	1.00	59.85	C
ATOM	16083	CH2	TRP	C	331	36.295	60.398	88.526	1.00	59.38	C
ATOM	16085	CZ2	TRP	C	331	35.518	60.147	89.625	1.00	59.26	C
ATOM	16087	C	TRP	C	331	32.768	53.742	87.329	1.00	57.31	C
ATOM	16088	O	TRP	C	331	32.085	52.978	88.005	1.00	56.27	O
ATOM	16090	N	GLY	C	332	33.416	53.357	86.233	1.00	57.45	N
ATOM	16091	CA	GLY	C	332	33.375	51.975	85.751	1.00	57.64	C
ATOM	16094	C	GLY	C	332	32.506	51.791	84.518	1.00	57.59	C
ATOM	16095	O	GLY	C	332	31.910	52.752	84.025	1.00	57.31	O
ATOM	16097	N	PRO	C	333	32.414	50.545	84.018	1.00	58.46	N
ATOM	16098	CA	PRO	C	333	31.732	50.235	82.768	1.00	59.07	C
ATOM	16100	CB	PRO	C	333	32.371	48.904	82.358	1.00	59.60	C
ATOM	16103	CG	PRO	C	333	32.650	48.223	83.648	1.00	59.05	C
ATOM	16106	CD	PRO	C	333	32.967	49.328	84.645	1.00	59.59	C
ATOM	16109	C	PRO	C	333	30.225	50.084	82.942	1.00	59.62	C
ATOM	16110	O	PRO	C	333	29.701	48.973	82.883	1.00	60.90	O
ATOM	16111	N	THR	C	334	29.541	51.201	83.166	1.00	60.47	N
ATOM	16112	CA	THR	C	334	28.085	51.216	83.248	1.00	60.23	C
ATOM	16114	CB	THR	C	334	27.570	52.473	83.979	1.00	59.50	C
ATOM	16116	OG1	THR	C	334	28.134	53.648	83.377	1.00	59.67	O
ATOM	16118	CG2	THR	C	334	27.935	52.432	85.446	1.00	59.63	C
ATOM	16122	C	THR	C	334	27.488	51.245	81.856	1.00	60.60	C
ATOM	16123	O	THR	C	334	28.079	51.811	80.939	1.00	59.82	O
ATOM	16125	N	SER	C	335	26.317	50.634	81.707	1.00	62.05	N
ATOM	16126	CA	SER	C	335	25.449	50.904	80.565	1.00	63.29	C
ATOM	16128	CB	SER	C	335	24.318	49.883	80.516	1.00	63.64	C
ATOM	16131	OG	SER	C	335	23.435	50.161	79.450	1.00	65.85	O
ATOM	16133	C	SER	C	335	24.893	52.339	80.711	1.00	64.34	C
ATOM	16134	O	SER	C	335	24.634	52.793	81.831	1.00	63.83	O
ATOM	16136	N	PRO	C	336	24.720	53.063	79.590	1.00	64.64	N
ATOM	16137	CA	PRO	C	336	24.385	54.496	79.689	1.00	64.48	C
ATOM	16139	CB	PRO	C	336	24.532	54.987	78.239	1.00	64.30	C
ATOM	16142	CG	PRO	C	336	24.291	53.782	77.409	1.00	65.37	C
ATOM	16145	CD	PRO	C	336	24.838	52.621	78.187	1.00	64.06	C
ATOM	16148	C	PRO	C	336	22.981	54.821	80.249	1.00	65.44	C
ATOM	16149	O	PRO	C	336	22.066	55.133	79.479	1.00	66.87	O
ATOM	16150	N	LYS	C	337	22.831	54.758	81.579	1.00	64.56	N
ATOM	16151	CA	LYS	C	337	21.564	55.093	82.266	1.00	62.95	C
ATOM	16153	CB	LYS	C	337	20.710	53.834	82.472	1.00	62.05	C
ATOM	16156	CG	LYS	C	337	20.170	53.233	81.178	1.00	62.02	C
ATOM	16159	CD	LYS	C	337	21.107	52.176	80.566	1.00	61.81	C
ATOM	16162	CE	LYS	C	337	21.019	52.134	79.034	1.00	60.44	C
ATOM	16165	NZ	LYS	C	337	19.635	52.350	78.526	1.00	59.46	N
ATOM	16169	C	LYS	C	337	21.810	55.788	83.615	1.00	61.03	C
ATOM	16170	O	LYS	C	337	20.879	56.051	84.383	1.00	58.00	O
ATOM	16172	N	ARG	C	354	20.546	61.328	83.040	1.00	55.99	N
ATOM	16173	CA	ARG	C	354	20.589	59.985	82.461	1.00	56.57	C
ATOM	16175	CB	ARG	C	354	19.567	59.876	81.322	1.00	57.24	C
ATOM	16178	CG	ARG	C	354	19.072	58.458	81.004	1.00	56.58	C
ATOM	16181	CD	ARG	C	354	18.319	58.462	79.677	1.00	57.64	C
ATOM	16184	NE	ARG	C	354	17.457	57.294	79.483	1.00	59.21	N
ATOM	16186	CZ	ARG	C	354	17.869	56.084	79.098	1.00	62.12	C
ATOM	16187	NH1	ARG	C	354	19.160	55.835	78.874	1.00	63.09	N
ATOM	16190	NH2	ARG	C	354	16.980	55.105	78.944	1.00	60.23	N
ATOM	16193	C	ARG	C	354	21.989	59.617	81.947	1.00	56.42	C
ATOM	16194	O	ARG	C	354	22.176	58.550	81.353	1.00	56.98	O
ATOM	16196	N	GLU	C	355	22.963	60.496	82.181	1.00	55.97	N

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ATOM  16197  CA  GLU C 355      24.348  60.265  81.743  1.00 56.10           C
ATOM  16199  CB  GLU C 355      25.094  61.595  81.495  1.00 56.26           C
ATOM  16202  CG  GLU C 355      24.971  62.665  82.594  1.00 58.07           C
ATOM  16205  CD  GLU C 355      25.775  63.924  82.291  1.00 59.24           C
ATOM  16206  OE1 GLU C 355      26.180  64.108  81.121  1.00 63.00           O
ATOM  16207  OE2 GLU C 355      25.991  64.736  83.223  1.00 59.75           O
ATOM  16208  C   GLU C 355      25.066  59.333  82.739  1.00 55.60           C
ATOM  16209  O   GLU C 355      24.707  58.153  82.826  1.00 56.66           O
ATOM  16211  N   LYS C 356      26.080  59.821  83.458  1.00 53.49           N
ATOM  16212  CA  LYS C 356      26.651  59.066  84.580  1.00 51.84           C
ATOM  16214  CB  LYS C 356      27.597  57.966  84.071  1.00 53.18           C
ATOM  16217  CG  LYS C 356      28.828  58.448  83.315  1.00 54.06           C
ATOM  16220  CD  LYS C 356      29.508  57.283  82.569  1.00 53.29           C
ATOM  16223  CE  LYS C 356      30.107  56.250  83.520  1.00 54.75           C
ATOM  16226  NZ  LYS C 356      30.751  55.123  82.792  1.00 55.37           N
ATOM  16230  C   LYS C 356      27.350  59.955  85.605  1.00 49.04           C
ATOM  16231  O   LYS C 356      28.331  59.548  86.225  1.00 45.89           O
ATOM  16233  N   ALA C 357      26.806  61.159  85.790  1.00 48.50           N
ATOM  16234  CA  ALA C 357      27.351  62.157  86.714  1.00 46.63           C
ATOM  16236  CB  ALA C 357      28.579  62.816  86.112  1.00 45.61           C
ATOM  16240  C   ALA C 357      26.298  63.215  87.034  1.00 45.31           C
ATOM  16241  O   ALA C 357      25.644  63.728  86.128  1.00 45.63           O
ATOM  16243  N   VAL C 358      26.125  63.520  88.320  1.00 44.05           N
ATOM  16244  CA  VAL C 358      25.309  64.657  88.759  1.00 42.95           C
ATOM  16246  CB  VAL C 358      23.887  64.238  89.194  1.00 41.93           C
ATOM  16248  CG1 VAL C 358      23.062  65.487  89.580  1.00 44.44           C
ATOM  16252  CG2 VAL C 358      23.187  63.431  88.093  1.00 39.41           C
ATOM  16256  C   VAL C 358      25.986  65.344  89.938  1.00 41.70           C
ATOM  16257  O   VAL C 358      26.273  64.705  90.950  1.00 40.16           O
ATOM  16259  N   GLN C 369      20.802  59.693  99.692  1.00 58.70           N
ATOM  16260  CA  GLN C 369      20.248  58.830  98.652  1.00 58.80           C
ATOM  16262  CB  GLN C 369      18.712  58.912  98.650  1.00 58.56           C
ATOM  16265  CG  GLN C 369      18.019  57.828  99.472  1.00 58.03           C
ATOM  16268  CD  GLN C 369      17.886  56.511  98.719  1.00 58.02           C
ATOM  16269  OE1 GLN C 369      16.807  55.919  98.665  1.00 56.87           O
ATOM  16270  NE2 GLN C 369      18.981  56.051  98.129  1.00 57.80           N
ATOM  16273  C   GLN C 369      20.805  59.160  97.260  1.00 58.81           C
ATOM  16274  O   GLN C 369      20.224  59.951  96.517  1.00 58.46           O
ATOM  16276  N   CYS C 370      21.934  58.546  96.920  1.00 58.82           N
ATOM  16277  CA  CYS C 370      22.497  58.633  95.577  1.00 58.96           C
ATOM  16279  CB  CYS C 370      23.986  58.982  95.644  1.00 58.34           C
ATOM  16282  SG  CYS C 370      24.823  59.093  94.034  1.00 58.56           S
ATOM  16284  C   CYS C 370      22.299  57.266  94.940  1.00 58.95           C
ATOM  16285  O   CYS C 370      22.869  56.297  95.414  1.00 59.29           O
ATOM  16287  N   LEU C 371      21.487  57.185  93.886  1.00 59.28           N
ATOM  16288  CA  LEU C 371      21.130  55.892  93.290  1.00 60.81           C
ATOM  16290  CB  LEU C 371      19.635  55.612  93.451  1.00 61.08           C
ATOM  16293  CG  LEU C 371      19.071  55.621  94.878  1.00 62.29           C
ATOM  16295  CD1 LEU C 371      18.817  57.048  95.375  1.00 61.30           C
ATOM  16299  CD2 LEU C 371      17.792  54.792  94.941  1.00 61.35           C
ATOM  16303  C   LEU C 371      21.491  55.780  91.810  1.00 61.35           C
ATOM  16304  O   LEU C 371      21.272  56.713  91.035  1.00 60.21           O
ATOM  16306  N   LEU C 372      22.030  54.616  91.434  1.00 62.36           N
ATOM  16307  CA  LEU C 372      22.347  54.292  90.043  1.00 62.61           C
ATOM  16309  CB  LEU C 372      23.659  53.503  89.972  1.00 62.88           C
ATOM  16312  CG  LEU C 372      24.294  53.140  88.618  1.00 62.86           C
ATOM  16314  CD1 LEU C 372      23.871  51.756  88.154  1.00 63.96           C
ATOM  16318  CD2 LEU C 372      24.010  54.179  87.545  1.00 61.39           C
ATOM  16322  C   LEU C 372      21.177  53.500  89.461  1.00 62.81           C
ATOM  16323  O   LEU C 372      20.928  52.364  89.859  1.00 62.23           O
ATOM  16325  N   SER C 373      20.470  54.117  88.515  1.00 64.42           N
ATOM  16326  CA  SER C 373      19.113  53.705  88.144  1.00 64.55           C
ATOM  16328  CB  SER C 373      18.329  54.911  87.605  1.00 64.64           C
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ATOM  16331  OG  SER C 373      17.017  54.536  87.230  1.00 63.48           O
ATOM  16333  C   SER C 373      19.049  52.511  87.180  1.00 65.11           C
ATOM  16334  O   SER C 373      19.255  51.380  87.610  1.00 65.77           O
ATOM  16336  N   ASP C 374      18.795  52.765  85.892  1.00 66.20           N
ATOM  16337  CA  ASP C 374      18.306  51.744  84.933  1.00 66.59           C
ATOM  16339  CB  ASP C 374      19.238  50.520  84.834  1.00 66.84           C
ATOM  16342  CG  ASP C 374      18.656  49.396  83.962  1.00 67.39           C
ATOM  16343  OD1 ASP C 374      17.629  49.613  83.271  1.00 67.44           O
ATOM  16344  OD2 ASP C 374      19.230  48.284  83.976  1.00 67.12           O
ATOM  16345  C   ASP C 374      16.863  51.304  85.253  1.00 67.09           C
ATOM  16346  O   ASP C 374      16.644  50.266  85.898  1.00 66.14           O
ATOM  16348  N   SER C 375      15.897  52.094  84.769  1.00 66.87           N
ATOM  16349  CA  SER C 375      14.466  51.872  85.017  1.00 66.49           C
ATOM  16351  CB  SER C 375      14.014  50.519  84.447  1.00 65.83           C
ATOM  16354  OG  SER C 375      14.576  50.279  83.166  1.00 64.07           O
ATOM  16356  C   SER C 375      14.162  51.980  86.521  1.00 66.91           C
ATOM  16357  O   SER C 375      14.897  52.645  87.258  1.00 66.74           O
ATOM  16359  N   GLY C 376      13.079  51.347  86.973  1.00 67.56           N
ATOM  16360  CA  GLY C 376      12.790  51.242  88.405  1.00 67.85           C
ATOM  16363  C   GLY C 376      13.810  50.390  89.148  1.00 68.64           C
ATOM  16364  O   GLY C 376      13.990  50.545  90.360  1.00 68.85           O
ATOM  16366  N   GLN C 377      14.475  49.493  88.413  1.00 68.94           N
ATOM  16367  CA  GLN C 377      15.485  48.581  88.964  1.00 68.70           C
ATOM  16369  CB  GLN C 377      15.870  47.539  87.901  1.00 67.76           C
ATOM  16372  CG  GLN C 377      16.831  46.447  88.365  1.00 66.43           C
ATOM  16375  CD  GLN C 377      16.306  45.645  89.539  1.00 60.07           C
ATOM  16376  OE1 GLN C 377      15.103  45.434  89.680  1.00 52.17           O
ATOM  16377  NE2 GLN C 377      17.215  45.187  90.389  1.00 59.82           N
ATOM  16380  C   GLN C 377      16.726  49.340  89.446  1.00 69.09           C
ATOM  16381  O   GLN C 377      17.379  50.020  88.659  1.00 69.17           O
ATOM  16383  N   VAL C 378      17.040  49.211  90.736  1.00 69.57           N
ATOM  16384  CA  VAL C 378      18.168  49.919  91.356  1.00 69.61           C
ATOM  16386  CB  VAL C 378      17.785  50.471  92.747  1.00 68.96           C
ATOM  16388  CG1 VAL C 378      18.987  51.135  93.419  1.00 67.72           C
ATOM  16392  CG2 VAL C 378      16.615  51.447  92.628  1.00 67.99           C
ATOM  16396  C   VAL C 378      19.377  49.001  91.510  1.00 69.56           C
ATOM  16397  O   VAL C 378      19.230  47.810  91.768  1.00 67.72           O
ATOM  16399  N   LEU C 379      20.569  49.573  91.353  1.00 70.96           N
ATOM  16400  CA  LEU C 379      21.818  48.824  91.472  1.00 72.24           C
ATOM  16402  CB  LEU C 379      22.551  48.821  90.129  1.00 71.75           C
ATOM  16405  CG  LEU C 379      21.825  48.183  88.943  1.00 70.13           C
ATOM  16407  CD1 LEU C 379      22.418  48.670  87.631  1.00 68.84           C
ATOM  16411  CD2 LEU C 379      21.875  46.669  89.023  1.00 69.36           C
ATOM  16415  C   LEU C 379      22.766  49.354  92.556  1.00 73.37           C
ATOM  16416  O   LEU C 379      23.766  48.701  92.840  1.00 72.68           O
ATOM  16418  N   LEU C 380      22.465  50.513  93.153  1.00 75.64           N
ATOM  16419  CA  LEU C 380      23.341  51.118  94.179  1.00 77.70           C
ATOM  16421  CB  LEU C 380      24.597  51.731  93.519  1.00 77.62           C
ATOM  16424  CG  LEU C 380      25.868  50.880  93.318  1.00 74.95           C
ATOM  16426  CD1 LEU C 380      26.868  51.568  92.394  1.00 71.94           C
ATOM  16430  CD2 LEU C 380      26.525  50.562  94.651  1.00 74.30           C
ATOM  16434  C   LEU C 380      22.640  52.186  95.051  1.00 79.41           C
ATOM  16435  O   LEU C 380      21.567  52.685  94.704  1.00 78.89           O
ATOM  16437  N   GLU C 381      23.263  52.509  96.187  1.00 82.32           N
ATOM  16438  CA  GLU C 381      22.857  53.631  97.051  1.00 83.82           C
ATOM  16440  CB  GLU C 381      21.840  53.174  98.118  1.00 84.66           C
ATOM  16443  CG  GLU C 381      21.539  54.238  99.213  1.00 86.27           C
ATOM  16446  CD  GLU C 381      20.385  53.893 100.145  1.00 88.12           C
ATOM  16447  OE1 GLU C 381      19.818  52.779 100.049  1.00 94.19           O
ATOM  16448  OE2 GLU C 381      20.056  54.758 100.989  1.00 90.42           O
ATOM  16449  C   GLU C 381      24.098  54.259  97.716  1.00 84.49           C
ATOM  16450  O   GLU C 381      25.192  53.713  97.605  1.00 83.91           O
ATOM  16452  N   SER C 382      23.932  55.426  98.352  1.00 86.31           N
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ATOM	16453	CA	SER	C	382	24.911	55.965	99.324	1.00	85.92	C
ATOM	16455	CB	SER	C	382	25.856	56.980	98.665	1.00	86.71	C
ATOM	16458	OG	SER	C	382	26.433	56.470	97.471	1.00	86.98	O
ATOM	16460	C	SER	C	382	24.207	56.625	100.518	1.00	84.88	C
ATOM	16461	O	SER	C	382	23.001	56.886	100.487	1.00	83.67	O
ATOM	16463	N	LYS	D	26	-0.972	-25.299	48.770	1.00	70.07	N
ATOM	16464	CA	LYS	D	26	0.051	-24.786	49.737	1.00	68.39	C
ATOM	16466	CB	LYS	D	26	0.832	-23.618	49.123	1.00	69.11	C
ATOM	16469	CG	LYS	D	26	1.769	-24.038	47.974	1.00	72.87	C
ATOM	16472	CD	LYS	D	26	2.589	-25.283	48.338	1.00	73.86	C
ATOM	16475	CE	LYS	D	26	3.816	-25.450	47.480	1.00	71.75	C
ATOM	16478	NZ	LYS	D	26	4.579	-26.640	47.939	1.00	72.71	N
ATOM	16482	C	LYS	D	26	-0.557	-24.407	51.094	1.00	66.49	C
ATOM	16483	O	LYS	D	26	-1.600	-23.758	51.173	1.00	66.25	O
ATOM	16487	N	LYS	D	27	0.123	-24.833	52.151	1.00	64.50	N
ATOM	16488	CA	LYS	D	27	-0.417	-24.823	53.502	1.00	64.07	C
ATOM	16490	CB	LYS	D	27	0.569	-25.506	54.470	1.00	64.67	C
ATOM	16493	CG	LYS	D	27	0.480	-27.028	54.535	1.00	67.71	C
ATOM	16496	CD	LYS	D	27	0.688	-27.542	55.988	1.00	70.79	C
ATOM	16499	CE	LYS	D	27	-0.572	-27.377	56.894	1.00	73.69	C
ATOM	16502	NZ	LYS	D	27	-1.594	-28.479	56.725	1.00	73.86	N
ATOM	16506	C	LYS	D	27	-0.739	-23.435	54.058	1.00	61.47	C
ATOM	16507	O	LYS	D	27	-0.069	-22.453	53.754	1.00	60.62	O
ATOM	16509	N	VAL	D	28	-1.783	-23.393	54.880	1.00	59.37	N
ATOM	16510	CA	VAL	D	28	-2.031	-22.309	55.807	1.00	58.01	C
ATOM	16512	CB	VAL	D	28	-3.452	-21.751	55.652	1.00	58.42	C
ATOM	16514	CG1	VAL	D	28	-3.819	-20.811	56.804	1.00	61.21	C
ATOM	16518	CG2	VAL	D	28	-3.579	-21.025	54.331	1.00	61.55	C
ATOM	16522	C	VAL	D	28	-1.844	-22.880	57.207	1.00	56.58	C
ATOM	16523	O	VAL	D	28	-2.271	-23.997	57.497	1.00	59.08	O
ATOM	16525	N	VAL	D	29	-1.177	-22.111	58.058	1.00	54.64	N
ATOM	16526	CA	VAL	D	29	-0.961	-22.467	59.449	1.00	53.80	C
ATOM	16528	CB	VAL	D	29	0.498	-22.932	59.693	1.00	53.90	C
ATOM	16530	CG1	VAL	D	29	0.776	-23.135	61.189	1.00	51.83	C
ATOM	16534	CG2	VAL	D	29	0.795	-24.202	58.904	1.00	51.54	C
ATOM	16538	C	VAL	D	29	-1.257	-21.223	60.279	1.00	53.97	C
ATOM	16539	O	VAL	D	29	-0.766	-20.133	59.963	1.00	52.71	O
ATOM	16541	N	LEU	D	30	-2.071	-21.391	61.324	1.00	53.89	N
ATOM	16542	CA	LEU	D	30	-2.430	-20.289	62.212	1.00	53.55	C
ATOM	16544	CB	LEU	D	30	-3.918	-20.339	62.549	1.00	53.06	C
ATOM	16547	CG	LEU	D	30	-4.900	-20.448	61.381	1.00	54.18	C
ATOM	16549	CD1	LEU	D	30	-6.303	-20.192	61.905	1.00	59.32	C
ATOM	16553	CD2	LEU	D	30	-4.590	-19.502	60.227	1.00	54.65	C
ATOM	16557	C	LEU	D	30	-1.627	-20.376	63.493	1.00	53.27	C
ATOM	16558	O	LEU	D	30	-1.193	-21.451	63.880	1.00	52.96	O
ATOM	16560	N	GLY	D	31	-1.429	-19.249	64.159	1.00	53.29	N
ATOM	16561	CA	GLY	D	31	-0.822	-19.271	65.489	1.00	53.17	C
ATOM	16564	C	GLY	D	31	-1.371	-18.159	66.360	1.00	54.11	C
ATOM	16565	O	GLY	D	31	-1.911	-17.167	65.849	1.00	55.12	O
ATOM	16567	N	LYS	D	32	-1.232	-18.323	67.673	1.00	52.40	N
ATOM	16568	CA	LYS	D	32	-1.629	-17.289	68.625	1.00	51.94	C
ATOM	16570	CB	LYS	D	32	-2.201	-17.907	69.908	1.00	51.79	C
ATOM	16573	CG	LYS	D	32	-3.591	-18.450	69.728	1.00	52.03	C
ATOM	16576	CD	LYS	D	32	-3.938	-19.514	70.756	1.00	52.98	C
ATOM	16579	CE	LYS	D	32	-4.253	-18.888	72.094	1.00	56.55	C
ATOM	16582	NZ	LYS	D	32	-4.665	-19.917	73.078	1.00	57.22	N
ATOM	16586	C	LYS	D	32	-0.458	-16.404	68.990	1.00	50.45	C
ATOM	16587	O	LYS	D	32	0.622	-16.907	69.321	1.00	52.17	O
ATOM	16589	N	LYS	D	33	-0.684	-15.094	68.937	1.00	48.86	N
ATOM	16590	CA	LYS	D	33	0.235	-14.097	69.502	1.00	50.09	C
ATOM	16592	CB	LYS	D	33	-0.508	-12.773	69.730	1.00	50.39	C
ATOM	16595	CG	LYS	D	33	0.355	-11.659	70.268	1.00	49.11	C
ATOM	16598	CD	LYS	D	33	-0.438	-10.367	70.469	1.00	50.58	C

ATOM	16601	CE	LYS	D	33	0.404	-9.121	70.104	1.00	53.39	C
ATOM	16604	NZ	LYS	D	33	0.406	-8.081	71.177	1.00	51.91	N
ATOM	16608	C	LYS	D	33	0.786	-14.585	70.834	1.00	49.48	C
ATOM	16609	O	LYS	D	33	0.027	-14.969	71.710	1.00	49.63	O
ATOM	16611	N	GLY	D	34	2.102	-14.586	70.981	1.00	49.59	N
ATOM	16612	CA	GLY	D	34	2.726	-15.016	72.227	1.00	50.05	C
ATOM	16615	C	GLY	D	34	3.196	-16.456	72.219	1.00	50.34	C
ATOM	16616	O	GLY	D	34	4.199	-16.774	72.861	1.00	49.43	O
ATOM	16618	N	ASP	D	35	2.487	-17.331	71.504	1.00	50.76	N
ATOM	16619	CA	ASP	D	35	2.855	-18.748	71.462	1.00	52.67	C
ATOM	16621	CB	ASP	D	35	1.652	-19.614	71.058	1.00	55.52	C
ATOM	16624	CG	ASP	D	35	0.666	-19.839	72.204	1.00	59.08	C
ATOM	16625	OD1	ASP	D	35	0.924	-19.367	73.335	1.00	60.68	O
ATOM	16626	OD2	ASP	D	35	-0.372	-20.496	71.959	1.00	57.54	O
ATOM	16627	C	ASP	D	35	4.015	-19.007	70.506	1.00	52.90	C
ATOM	16628	O	ASP	D	35	4.542	-18.075	69.882	1.00	52.10	O
ATOM	16630	N	THR	D	36	4.412	-20.278	70.404	1.00	52.81	N
ATOM	16631	CA	THR	D	36	5.355	-20.706	69.370	1.00	54.31	C
ATOM	16633	CB	THR	D	36	6.680	-21.345	69.946	1.00	53.67	C
ATOM	16635	OG1	THR	D	36	6.758	-22.730	69.619	1.00	53.00	O
ATOM	16637	CG2	THR	D	36	6.809	-21.155	71.451	1.00	50.20	C
ATOM	16641	C	THR	D	36	4.641	-21.637	68.374	1.00	55.43	C
ATOM	16642	O	THR	D	36	3.597	-22.211	68.684	1.00	56.70	O
ATOM	16644	N	VAL	D	37	5.192	-21.758	67.173	1.00	55.62	N
ATOM	16645	CA	VAL	D	37	4.557	-22.533	66.113	1.00	56.79	C
ATOM	16647	CB	VAL	D	37	3.693	-21.636	65.179	1.00	57.33	C
ATOM	16649	CG1	VAL	D	37	4.497	-20.478	64.613	1.00	55.95	C
ATOM	16653	CG2	VAL	D	37	3.092	-22.452	64.036	1.00	56.59	C
ATOM	16657	C	VAL	D	37	5.630	-23.197	65.284	1.00	58.92	C
ATOM	16658	O	VAL	D	37	6.700	-22.626	65.087	1.00	61.79	O
ATOM	16660	N	GLU	D	38	5.343	-24.395	64.791	1.00	59.07	N
ATOM	16661	CA	GLU	D	38	6.296	-25.128	63.974	1.00	58.43	C
ATOM	16663	CB	GLU	D	38	6.443	-26.554	64.489	1.00	58.79	C
ATOM	16666	CG	GLU	D	38	7.785	-27.159	64.161	1.00	62.23	C
ATOM	16669	CD	GLU	D	38	7.847	-28.632	64.465	1.00	61.22	C
ATOM	16670	OE1	GLU	D	38	8.439	-28.990	65.505	1.00	62.32	O
ATOM	16671	OE2	GLU	D	38	7.298	-29.426	63.665	1.00	66.72	O
ATOM	16672	C	GLU	D	38	5.828	-25.161	62.536	1.00	57.06	C
ATOM	16673	O	GLU	D	38	4.700	-25.561	62.269	1.00	57.08	O
ATOM	16675	N	LEU	D	39	6.690	-24.726	61.619	1.00	56.71	N
ATOM	16676	CA	LEU	D	39	6.435	-24.857	60.177	1.00	56.29	C
ATOM	16678	CB	LEU	D	39	6.842	-23.580	59.439	1.00	55.01	C
ATOM	16681	CG	LEU	D	39	5.910	-22.357	59.491	1.00	55.10	C
ATOM	16683	CD1	LEU	D	39	5.167	-22.201	60.815	1.00	57.18	C
ATOM	16687	CD2	LEU	D	39	6.686	-21.084	59.187	1.00	54.50	C
ATOM	16691	C	LEU	D	39	7.219	-26.066	59.654	1.00	56.51	C
ATOM	16692	O	LEU	D	39	8.417	-26.177	59.893	1.00	57.54	O
ATOM	16694	N	THR	D	40	6.546	-26.986	58.964	1.00	56.72	N
ATOM	16695	CA	THR	D	40	7.193	-28.235	58.538	1.00	56.15	C
ATOM	16697	CB	THR	D	40	6.242	-29.451	58.618	1.00	52.85	C
ATOM	16699	OG1	THR	D	40	4.954	-29.055	58.178	1.00	56.31	O
ATOM	16701	CG2	THR	D	40	6.124	-29.982	60.044	1.00	52.49	C
ATOM	16705	C	THR	D	40	7.763	-28.145	57.124	1.00	56.08	C
ATOM	16706	O	THR	D	40	7.207	-27.487	56.247	1.00	55.50	O
ATOM	16708	N	CYS	D	41	8.895	-28.812	56.934	1.00	58.22	N
ATOM	16709	CA	CYS	D	41	9.509	-28.976	55.631	1.00	57.45	C
ATOM	16711	CB	CYS	D	41	10.559	-27.905	55.416	1.00	58.21	C
ATOM	16714	SG	CYS	D	41	11.141	-27.805	53.737	1.00	63.90	S
ATOM	16716	C	CYS	D	41	10.151	-30.353	55.616	1.00	56.20	C
ATOM	16717	O	CYS	D	41	10.810	-30.730	56.588	1.00	52.79	O
ATOM	16719	N	THR	D	42	9.942	-31.105	54.535	1.00	56.12	N
ATOM	16720	CA	THR	D	42	10.312	-32.528	54.514	1.00	56.46	C
ATOM	16722	CB	THR	D	42	9.088	-33.445	54.715	1.00	54.82	C

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ATOM  16724  OG1 THR D  42       8.125 -32.783  55.532  1.00 53.40           O
ATOM  16726  CG2 THR D  42       9.490 -34.747  55.375  1.00 54.76           C
ATOM  16730  C   THR D  42      10.958 -32.957  53.216  1.00 56.00           C
ATOM  16731  O   THR D  42      10.642 -32.435  52.154  1.00 56.61           O
ATOM  16733  N   ALA D  43      11.854 -33.931  53.326  1.00 56.98           N
ATOM  16734  CA  ALA D  43      12.476 -34.573  52.175  1.00 56.62           C
ATOM  16736  CB  ALA D  43      13.949 -34.867  52.466  1.00 56.05           C
ATOM  16740  C   ALA D  43      11.727 -35.866  51.847  1.00 55.96           C
ATOM  16741  O   ALA D  43      11.087 -36.465  52.713  1.00 55.99           O
ATOM  16743  N   SER D  44      11.797 -36.271  50.585  1.00 55.94           N
ATOM  16744  CA  SER D  44      11.268 -37.558  50.144  1.00 56.44           C
ATOM  16746  CB  SER D  44      11.459 -37.701  48.635  1.00 56.20           C
ATOM  16749  OG  SER D  44      12.711 -37.154  48.241  1.00 53.10           O
ATOM  16751  C   SER D  44      12.007 -38.671  50.873  1.00 56.04           C
ATOM  16752  O   SER D  44      11.390 -39.561  51.451  1.00 53.30           O
ATOM  16754  N   GLN D  45      13.336 -38.590  50.831  1.00 58.20           N
ATOM  16755  CA  GLN D  45      14.216 -39.446  51.625  1.00 59.66           C
ATOM  16757  CB  GLN D  45      15.662 -39.399  51.088  1.00 59.52           C
ATOM  16760  CG  GLN D  45      16.113 -40.648  50.336  1.00 59.58           C
ATOM  16763  CD  GLN D  45      15.594 -40.720  48.908  1.00 61.12           C
ATOM  16764  OE1 GLN D  45      16.353 -41.015  47.987  1.00 63.26           O
ATOM  16765  NE2 GLN D  45      14.301 -40.457  48.716  1.00 57.52           N
ATOM  16768  C   GLN D  45      14.211 -39.040  53.106  1.00 61.15           C
ATOM  16769  O   GLN D  45      14.201 -37.853  53.439  1.00 61.13           O
ATOM  16771  N   LYS D  46      14.213 -40.041  53.984  1.00 62.76           N
ATOM  16772  CA  LYS D  46      14.443 -39.841  55.415  1.00 61.86           C
ATOM  16774  CB  LYS D  46      13.874 -41.028  56.208  1.00 63.45           C
ATOM  16777  CG  LYS D  46      14.158 -41.056  57.718  1.00 64.10           C
ATOM  16780  CD  LYS D  46      14.047 -42.495  58.285  1.00 65.12           C
ATOM  16783  CE  LYS D  46      15.307 -43.340  58.010  1.00 66.80           C
ATOM  16786  NZ  LYS D  46      16.189 -43.537  59.201  1.00 67.16           N
ATOM  16790  C   LYS D  46      15.955 -39.713  55.604  1.00 61.37           C
ATOM  16791  O   LYS D  46      16.646 -40.699  55.895  1.00 59.89           O
ATOM  16793  N   LYS D  47      16.465 -38.502  55.379  1.00 60.22           N
ATOM  16794  CA  LYS D  47      17.882 -38.196  55.597  1.00 58.96           C
ATOM  16796  CB  LYS D  47      18.768 -38.913  54.566  1.00 58.43           C
ATOM  16799  CG  LYS D  47      18.892 -38.229  53.206  1.00 58.50           C
ATOM  16802  CD  LYS D  47      20.154 -38.708  52.466  1.00 59.64           C
ATOM  16805  CE  LYS D  47      21.012 -37.545  51.966  1.00 58.15           C
ATOM  16808  NZ  LYS D  47      22.463 -37.872  51.976  1.00 56.58           N
ATOM  16812  C   LYS D  47      18.133 -36.676  55.597  1.00 57.82           C
ATOM  16813  O   LYS D  47      17.205 -35.893  55.386  1.00 55.11           O
ATOM  16815  N   SER D  48      19.386 -36.277  55.841  1.00 57.37           N
ATOM  16816  CA  SER D  48      19.769 -34.858  55.924  1.00 56.74           C
ATOM  16818  CB  SER D  48      20.745 -34.623  57.082  1.00 56.60           C
ATOM  16821  OG  SER D  48      21.324 -33.327  57.023  1.00 54.06           O
ATOM  16823  C   SER D  48      20.396 -34.351  54.625  1.00 56.51           C
ATOM  16824  O   SER D  48      21.374 -34.904  54.132  1.00 57.70           O
ATOM  16826  N   ILE D  49      19.824 -33.279  54.095  1.00 56.29           N
ATOM  16827  CA  ILE D  49      20.289 -32.646  52.868  1.00 55.70           C
ATOM  16829  CB  ILE D  49      19.423 -33.051  51.652  1.00 55.14           C
ATOM  16831  CG1 ILE D  49      17.946 -32.685  51.896  1.00 54.71           C
ATOM  16834  CD1 ILE D  49      16.973 -33.274  50.903  1.00 54.63           C
ATOM  16838  CG2 ILE D  49      19.584 -34.531  51.369  1.00 53.70           C
ATOM  16842  C   ILE D  49      20.187 -31.146  53.078  1.00 55.75           C
ATOM  16843  O   ILE D  49      19.677 -30.696  54.105  1.00 55.41           O
ATOM  16845  N   GLN D  50      20.663 -30.375  52.110  1.00 55.80           N
ATOM  16846  CA  GLN D  50      20.532 -28.928  52.185  1.00 56.67           C
ATOM  16848  CB  GLN D  50      21.509 -28.205  51.257  1.00 56.80           C
ATOM  16851  CG  GLN D  50      21.608 -28.688  49.830  1.00 59.40           C
ATOM  16854  CD  GLN D  50      23.041 -28.605  49.319  1.00 61.14           C
ATOM  16855  OE1 GLN D  50      23.985 -29.005  50.011  1.00 62.03           O
ATOM  16856  NE2 GLN D  50      23.211 -28.073  48.110  1.00 66.64           N
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ATOM  16859  C   GLN D  50      19.110 -28.457  51.934  1.00 56.30           C
ATOM  16860  O   GLN D  50      18.373 -29.058  51.153  1.00 56.88           O
ATOM  16862  N   PHE D  51      18.749 -27.385  52.639  1.00 56.44           N
ATOM  16863  CA  PHE D  51      17.451 -26.730  52.530  1.00 55.94           C
ATOM  16865  CB  PHE D  51      16.441 -27.440  53.415  1.00 56.79           C
ATOM  16868  CG  PHE D  51      16.728 -27.292  54.879  1.00 58.03           C
ATOM  16869  CD1 PHE D  51      17.545 -28.199  55.532  1.00 53.74           C
ATOM  16871  CE1 PHE D  51      17.826 -28.056  56.880  1.00 55.86           C
ATOM  16873  CZ  PHE D  51      17.296 -26.991  57.592  1.00 57.32           C
ATOM  16875  CE2 PHE D  51      16.482 -26.067  56.945  1.00 59.39           C
ATOM  16877  CD2 PHE D  51      16.203 -26.220  55.596  1.00 59.32           C
ATOM  16879  C   PHE D  51      17.604 -25.293  53.013  1.00 55.25           C
ATOM  16880  O   PHE D  51      18.505 -24.996  53.790  1.00 55.07           O
ATOM  16882  N   HIS D  52      16.722 -24.408  52.572  1.00 56.19           N
ATOM  16883  CA  HIS D  52      16.763 -23.011  53.000  1.00 57.41           C
ATOM  16885  CB  HIS D  52      17.381 -22.122  51.906  1.00 60.64           C
ATOM  16888  CG  HIS D  52      18.869 -22.264  51.761  1.00 65.48           C
ATOM  16889  ND1 HIS D  52      19.500 -22.228  50.536  1.00 65.43           N
ATOM  16891  CE1 HIS D  52      20.805 -22.370  50.711  1.00 74.78           C
ATOM  16893  NE2 HIS D  52      21.042 -22.502  52.005  1.00 72.58           N
ATOM  16895  CD2 HIS D  52      19.849 -22.433  52.684  1.00 71.76           C
ATOM  16897  C   HIS D  52      15.365 -22.512  53.290  1.00 54.41           C
ATOM  16898  O   HIS D  52      14.497 -22.648  52.448  1.00 56.90           O
ATOM  16900  N   TRP D  53      15.150 -21.947  54.474  1.00 52.48           N
ATOM  16901  CA  TRP D  53      13.927 -21.194  54.761  1.00 52.75           C
ATOM  16903  CB  TRP D  53      13.524 -21.317  56.227  1.00 53.44           C
ATOM  16906  CG  TRP D  53      12.823 -22.553  56.599  1.00 52.10           C
ATOM  16907  CD1 TRP D  53      13.330 -23.582  57.314  1.00 54.09           C
ATOM  16909  NE1 TRP D  53      12.376 -24.549  57.498  1.00 55.56           N
ATOM  16911  CE2 TRP D  53      11.216 -24.145  56.896  1.00 56.54           C
ATOM  16912  CD2 TRP D  53      11.460 -22.882  56.328  1.00 54.78           C
ATOM  16913  CE3 TRP D  53      10.422 -22.237  55.650  1.00 57.50           C
ATOM  16915  CZ3 TRP D  53       9.185 -22.874  55.565  1.00 55.10           C
ATOM  16917  CH2 TRP D  53       8.976 -24.132  56.142  1.00 52.76           C
ATOM  16919  CZ2 TRP D  53       9.973 -24.780  56.812  1.00 56.22           C
ATOM  16921  C   TRP D  53      14.133 -19.710  54.488  1.00 50.73           C
ATOM  16922  O   TRP D  53      14.954 -19.074  55.142  1.00 49.83           O
ATOM  16924  N   LYS D  54      13.372 -19.151  53.554  1.00 49.78           N
ATOM  16925  CA  LYS D  54      13.342 -17.702  53.368  1.00 51.35           C
ATOM  16927  CB  LYS D  54      13.936 -17.299  52.015  1.00 52.23           C
ATOM  16930  CG  LYS D  54      13.494 -18.136  50.823  1.00 59.55           C
ATOM  16933  CD  LYS D  54      14.165 -17.674  49.518  1.00 57.29           C
ATOM  16936  CE  LYS D  54      15.659 -18.026  49.465  1.00 60.10           C
ATOM  16939  NZ  LYS D  54      16.260 -17.667  48.137  1.00 60.94           N
ATOM  16943  C   LYS D  54      11.929 -17.171  53.543  1.00 49.66           C
ATOM  16944  O   LYS D  54      10.992 -17.955  53.701  1.00 52.00           O
ATOM  16946  N   ASN D  55      11.777 -15.847  53.566  1.00 48.11           N
ATOM  16947  CA  ASN D  55      10.438 -15.226  53.629  1.00 47.08           C
ATOM  16949  CB  ASN D  55      10.382 -14.060  54.636  1.00 45.61           C
ATOM  16952  CG  ASN D  55      11.364 -12.934  54.328  1.00 45.87           C
ATOM  16953  OD1 ASN D  55      11.766 -12.707  53.185  1.00 51.14           O
ATOM  16954  ND2 ASN D  55      11.749 -12.216  55.367  1.00 42.58           N
ATOM  16957  C   ASN D  55       9.949 -14.803  52.250  1.00 45.23           C
ATOM  16958  O   ASN D  55      10.677 -14.916  51.255  1.00 43.06           O
ATOM  16960  N   SER D  56       8.712 -14.332  52.184  1.00 45.71           N
ATOM  16961  CA  SER D  56       8.129 -13.887  50.918  1.00 47.48           C
ATOM  16963  CB  SER D  56       6.729 -13.336  51.137  1.00 47.80           C
ATOM  16966  OG  SER D  56       6.760 -12.163  51.935  1.00 56.48           O
ATOM  16968  C   SER D  56       8.975 -12.822  50.239  1.00 47.97           C
ATOM  16969  O   SER D  56       8.996 -12.723  49.010  1.00 49.96           O
ATOM  16971  N   ASN D  57       9.681 -12.030  51.039  1.00 48.45           N
ATOM  16972  CA  ASN D  57      10.582 -11.026  50.503  1.00 48.84           C
ATOM  16974  CB  ASN D  57      10.779  -9.912  51.519  1.00 49.41           C
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ATOM	16977	CG	ASN	D	57	11.347	-8.669	50.893	1.00	55.44	C
ATOM	16978	OD1	ASN	D	57	10.792	-8.147	49.915	1.00	61.49	O
ATOM	16979	ND2	ASN	D	57	12.477	-8.195	51.426	1.00	53.54	N
ATOM	16982	C	ASN	D	57	11.947	-11.566	50.054	1.00	49.04	C
ATOM	16983	O	ASN	D	57	12.839	-10.792	49.716	1.00	52.24	O
ATOM	16985	N	GLN	D	58	12.103	-12.887	50.025	1.00	49.96	N
ATOM	16986	CA	GLN	D	58	13.347	-13.534	49.594	1.00	48.57	C
ATOM	16988	CB	GLN	D	58	13.730	-13.128	48.164	1.00	45.71	C
ATOM	16991	CG	GLN	D	58	12.647	-13.412	47.154	1.00	50.64	C
ATOM	16994	CD	GLN	D	58	12.163	-14.845	47.250	1.00	52.50	C
ATOM	16995	OE1	GLN	D	58	12.964	-15.777	47.241	1.00	56.11	O
ATOM	16996	NE2	GLN	D	58	10.854	-15.027	47.379	1.00	52.19	N
ATOM	16999	C	GLN	D	58	14.469	-13.205	50.550	1.00	49.00	C
ATOM	17000	O	GLN	D	58	15.547	-12.836	50.126	1.00	51.30	O
ATOM	17002	N	ILE	D	59	14.216	-13.313	51.846	1.00	48.94	N
ATOM	17003	CA	ILE	D	59	15.280	-13.109	52.808	1.00	50.70	C
ATOM	17005	CB	ILE	D	59	15.011	-11.958	53.781	1.00	51.81	C
ATOM	17007	CG1	ILE	D	59	14.727	-10.656	53.024	1.00	55.07	C
ATOM	17010	CD1	ILE	D	59	13.930	-9.640	53.860	1.00	56.17	C
ATOM	17014	CG2	ILE	D	59	16.220	-11.772	54.702	1.00	49.77	C
ATOM	17018	C	ILE	D	59	15.468	-14.371	53.600	1.00	48.73	C
ATOM	17019	O	ILE	D	59	14.518	-14.910	54.147	1.00	48.05	O
ATOM	17021	N	LYS	D	60	16.714	-14.816	53.667	1.00	48.78	N
ATOM	17022	CA	LYS	D	60	17.053	-16.074	54.300	1.00	48.95	C
ATOM	17024	CB	LYS	D	60	18.524	-16.429	54.029	1.00	49.85	C
ATOM	17027	CG	LYS	D	60	18.798	-17.096	52.692	0.30	46.20	C
ATOM	17030	CD	LYS	D	60	20.124	-17.851	52.722	0.30	46.66	C
ATOM	17033	CE	LYS	D	60	20.077	-19.091	53.641	0.30	44.65	C
ATOM	17036	NZ	LYS	D	60	20.254	-18.797	55.102	0.30	36.58	N
ATOM	17040	C	LYS	D	60	16.799	-15.980	55.798	1.00	48.12	C
ATOM	17041	O	LYS	D	60	17.073	-14.952	56.408	1.00	49.83	O
ATOM	17043	N	ILE	D	61	16.263	-17.048	56.377	1.00	46.84	N
ATOM	17044	CA	ILE	D	61	16.004	-17.101	57.807	1.00	48.02	C
ATOM	17046	CB	ILE	D	61	14.568	-17.543	58.091	1.00	47.34	C
ATOM	17048	CG1	ILE	D	61	13.605	-16.480	57.567	1.00	47.70	C
ATOM	17051	CD1	ILE	D	61	12.185	-16.946	57.481	1.00	51.20	C
ATOM	17055	CG2	ILE	D	61	14.364	-17.778	59.590	1.00	45.19	C
ATOM	17059	C	ILE	D	61	16.983	-18.060	58.442	1.00	47.57	C
ATOM	17060	O	ILE	D	61	17.777	-17.670	59.302	1.00	49.36	O
ATOM	17062	N	LEU	D	62	16.922	-19.312	58.006	1.00	47.97	N
ATOM	17063	CA	LEU	D	62	17.907	-20.315	58.387	1.00	49.02	C
ATOM	17065	CB	LEU	D	62	17.633	-20.815	59.808	1.00	49.88	C
ATOM	17068	CG	LEU	D	62	16.373	-21.658	60.038	1.00	51.80	C
ATOM	17070	CD1	LEU	D	62	16.556	-23.107	59.576	1.00	51.48	C
ATOM	17074	CD2	LEU	D	62	15.986	-21.620	61.522	1.00	54.14	C
ATOM	17078	C	LEU	D	62	17.914	-21.478	57.387	1.00	46.99	C
ATOM	17079	O	LEU	D	62	16.960	-21.645	56.629	1.00	44.87	O
ATOM	17081	N	GLY	D	63	18.977	-22.281	57.398	1.00	45.20	N
ATOM	17082	CA	GLY	D	63	19.095	-23.384	56.454	1.00	45.81	C
ATOM	17085	C	GLY	D	63	20.321	-24.244	56.646	1.00	45.70	C
ATOM	17086	O	GLY	D	63	21.120	-24.004	57.537	1.00	47.29	O
ATOM	17088	N	ASN	D	64	20.461	-25.262	55.808	1.00	46.43	N
ATOM	17089	CA	ASN	D	64	21.592	-26.177	55.877	1.00	47.37	C
ATOM	17091	CB	ASN	D	64	21.072	-27.607	56.017	1.00	46.87	C
ATOM	17094	CG	ASN	D	64	22.184	-28.647	56.095	1.00	47.06	C
ATOM	17095	OD1	ASN	D	64	23.368	-28.346	55.903	1.00	48.32	O
ATOM	17096	ND2	ASN	D	64	21.796	-29.891	56.374	1.00	41.91	N
ATOM	17099	C	ASN	D	64	22.456	-26.023	54.625	1.00	47.39	C
ATOM	17100	O	ASN	D	64	22.122	-26.560	53.587	1.00	43.38	O
ATOM	17102	N	GLN	D	65	23.562	-25.285	54.737	1.00	51.03	N
ATOM	17103	CA	GLN	D	65	24.438	-24.981	53.586	1.00	53.34	C
ATOM	17105	CB	GLN	D	65	25.055	-23.579	53.704	1.00	55.42	C
ATOM	17108	CG	GLN	D	65	24.310	-22.502	52.924	1.00	63.21	C

ATOM	17111	CD	GLN	D	65	24.798	-22.366	51.483	1.00	68.32	C
ATOM	17112	OE1	GLN	D	65	24.951	-23.356	50.765	1.00	70.29	O
ATOM	17113	NE2	GLN	D	65	25.041	-21.128	51.058	1.00	73.15	N
ATOM	17116	C	GLN	D	65	25.541	-26.008	53.425	1.00	53.91	C
ATOM	17117	O	GLN	D	65	26.731	-25.674	53.472	1.00	51.75	O
ATOM	17119	N	GLY	D	66	25.139	-27.257	53.212	1.00	54.62	N
ATOM	17120	CA	GLY	D	66	26.101	-28.329	53.080	1.00	54.56	C
ATOM	17123	C	GLY	D	66	26.970	-28.383	54.319	1.00	54.68	C
ATOM	17124	O	GLY	D	66	28.044	-27.760	54.374	1.00	51.82	O
ATOM	17126	N	SER	D	67	26.464	-29.095	55.324	1.00	54.02	N
ATOM	17127	CA	SER	D	67	27.208	-29.417	56.544	1.00	52.50	C
ATOM	17129	CB	SER	D	67	28.623	-29.922	56.218	1.00	54.69	C
ATOM	17132	OG	SER	D	67	29.527	-28.864	55.946	1.00	57.84	O
ATOM	17134	C	SER	D	67	27.278	-28.304	57.588	1.00	50.53	C
ATOM	17135	O	SER	D	67	27.774	-28.556	58.679	1.00	50.40	O
ATOM	17137	N	PHE	D	68	26.790	-27.097	57.270	1.00	48.69	N
ATOM	17138	CA	PHE	D	68	26.647	-26.012	58.266	1.00	46.25	C
ATOM	17140	CB	PHE	D	68	27.448	-24.781	57.861	1.00	40.88	C
ATOM	17143	CG	PHE	D	68	28.900	-25.032	57.735	1.00	32.87	C
ATOM	17144	CD1	PHE	D	68	29.686	-25.157	58.861	1.00	31.54	C
ATOM	17146	CE1	PHE	D	68	31.042	-25.409	58.749	1.00	35.24	C
ATOM	17148	CZ	PHE	D	68	31.617	-25.535	57.490	1.00	33.93	C
ATOM	17150	CE2	PHE	D	68	30.828	-25.414	56.361	1.00	29.46	C
ATOM	17152	CD2	PHE	D	68	29.483	-25.161	56.490	1.00	27.19	C
ATOM	17154	C	PHE	D	68	25.214	-25.559	58.415	1.00	46.69	C
ATOM	17155	O	PHE	D	68	24.543	-25.334	57.413	1.00	48.40	O
ATOM	17157	N	LEU	D	69	24.753	-25.394	59.655	1.00	46.80	N
ATOM	17158	CA	LEU	D	69	23.548	-24.591	59.901	1.00	46.79	C
ATOM	17160	CB	LEU	D	69	23.087	-24.663	61.360	1.00	46.74	C
ATOM	17163	CG	LEU	D	69	21.998	-23.668	61.820	1.00	45.52	C
ATOM	17165	CD1	LEU	D	69	20.760	-23.686	60.959	1.00	41.15	C
ATOM	17169	CD2	LEU	D	69	21.589	-23.957	63.245	1.00	47.27	C
ATOM	17173	C	LEU	D	69	23.900	-23.161	59.557	1.00	45.81	C
ATOM	17174	O	LEU	D	69	24.979	-22.703	59.891	1.00	47.19	O
ATOM	17176	N	THR	D	70	23.005	-22.469	58.866	1.00	46.57	N
ATOM	17177	CA	THR	D	70	23.187	-21.054	58.576	1.00	47.35	C
ATOM	17179	CB	THR	D	70	23.338	-20.791	57.070	1.00	47.00	C
ATOM	17181	OG1	THR	D	70	22.235	-21.360	56.357	1.00	46.70	O
ATOM	17183	CG2	THR	D	70	24.638	-21.392	56.562	1.00	50.03	C
ATOM	17187	C	THR	D	70	22.034	-20.223	59.087	1.00	47.73	C
ATOM	17188	O	THR	D	70	20.910	-20.692	59.220	1.00	46.85	O
ATOM	17190	N	LYS	D	71	22.342	-18.971	59.375	1.00	50.00	N
ATOM	17191	CA	LYS	D	71	21.350	-17.998	59.771	1.00	50.04	C
ATOM	17193	CB	LYS	D	71	21.643	-17.485	61.181	1.00	51.04	C
ATOM	17196	CG	LYS	D	71	20.584	-17.852	62.195	1.00	52.33	C
ATOM	17199	CD	LYS	D	71	20.433	-19.353	62.415	1.00	50.52	C
ATOM	17202	CE	LYS	D	71	19.581	-19.606	63.664	1.00	50.66	C
ATOM	17205	NZ	LYS	D	71	18.387	-18.706	63.713	1.00	48.48	N
ATOM	17209	C	LYS	D	71	21.375	-16.850	58.786	1.00	49.81	C
ATOM	17210	O	LYS	D	71	22.444	-16.374	58.390	1.00	48.80	O
ATOM	17212	N	GLY	D	72	20.186	-16.411	58.397	1.00	50.56	N
ATOM	17213	CA	GLY	D	72	20.036	-15.260	57.523	1.00	50.17	C
ATOM	17216	C	GLY	D	72	19.851	-14.012	58.345	1.00	49.84	C
ATOM	17217	O	GLY	D	72	19.948	-14.053	59.555	1.00	48.81	O
ATOM	17219	N	PRO	D	73	19.590	-12.883	57.689	1.00	54.03	N
ATOM	17220	CA	PRO	D	73	19.564	-11.653	58.450	1.00	56.41	C
ATOM	17222	CB	PRO	D	73	20.030	-10.613	57.426	1.00	54.90	C
ATOM	17225	CG	PRO	D	73	19.691	-11.191	56.084	1.00	52.53	C
ATOM	17228	CD	PRO	D	73	19.353	-12.643	56.255	1.00	54.44	C
ATOM	17231	C	PRO	D	73	18.206	-11.271	59.009	1.00	57.46	C
ATOM	17232	O	PRO	D	73	18.136	-10.300	59.746	1.00	58.04	O
ATOM	17233	N	SER	D	74	17.145	-12.013	58.702	1.00	60.01	N
ATOM	17234	CA	SER	D	74	15.787	-11.515	58.996	1.00	62.77	C

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ATOM  17236  CB  SER D  74      14.712 -12.548  58.621  1.00 62.96           C
ATOM  17239  OG  SER D  74      14.458 -13.464  59.663  1.00 63.94           O
ATOM  17241  C   SER D  74      15.597 -11.030  60.449  1.00 64.15           C
ATOM  17242  O   SER D  74      16.318 -11.443  61.361  1.00 62.42           O
ATOM  17244  N   LYS D  75      14.625 -10.138  60.636  1.00 66.84           N
ATOM  17245  CA  LYS D  75      14.279  -9.587  61.962  1.00 68.12           C
ATOM  17247  CB  LYS D  75      13.081  -8.642  61.836  1.00 69.75           C
ATOM  17250  CG  LYS D  75      13.321  -7.416  60.932  1.00 74.63           C
ATOM  17253  CD  LYS D  75      12.030  -6.950  60.233  1.00 73.74           C
ATOM  17256  CE  LYS D  75      11.693  -7.826  59.033  1.00 77.18           C
ATOM  17259  NZ  LYS D  75      10.457  -7.378  58.346  1.00 77.76           N
ATOM  17263  C   LYS D  75      13.919 -10.716  62.924  1.00 66.42           C
ATOM  17264  O   LYS D  75      14.211 -10.671  64.112  1.00 66.11           O
ATOM  17266  N   LEU D  76      13.271 -11.720  62.355  1.00 65.63           N
ATOM  17267  CA  LEU D  76      12.923 -12.973  63.002  1.00 66.08           C
ATOM  17269  CB  LEU D  76      12.475 -13.947  61.902  1.00 64.61           C
ATOM  17272  CG  LEU D  76      11.362 -14.952  62.158  1.00 64.39           C
ATOM  17274  CD1 LEU D  76      10.236 -14.368  62.993  1.00 65.34           C
ATOM  17278  CD2 LEU D  76      10.848 -15.416  60.821  1.00 64.63           C
ATOM  17282  C   LEU D  76      14.055 -13.632  63.788  1.00 67.24           C
ATOM  17283  O   LEU D  76      13.810 -14.283  64.803  1.00 68.33           O
ATOM  17285  N   ASN D  77      15.284 -13.438  63.317  1.00 68.57           N
ATOM  17286  CA  ASN D  77      16.424 -14.319  63.616  1.00 68.10           C
ATOM  17288  CB  ASN D  77      17.739 -13.624  63.226  1.00 70.44           C
ATOM  17291  CG  ASN D  77      18.948 -14.524  63.405  1.00 72.93           C
ATOM  17292  OD1 ASN D  77      18.880 -15.725  63.137  1.00 86.20           O
ATOM  17293  ND2 ASN D  77      20.057 -13.952  63.865  1.00 79.02           N
ATOM  17296  C   ASN D  77      16.557 -14.864  65.036  1.00 66.80           C
ATOM  17297  O   ASN D  77      16.778 -16.057  65.228  1.00 66.29           O
ATOM  17299  N   ASP D  78      16.453 -13.986  66.020  1.00 65.64           N
ATOM  17300  CA  ASP D  78      16.637 -14.388  67.414  1.00 65.69           C
ATOM  17302  CB  ASP D  78      16.609 -13.171  68.367  1.00 68.23           C
ATOM  17305  CG  ASP D  78      15.950 -11.923  67.742  1.00 75.84           C
ATOM  17306  OD1 ASP D  78      16.384 -11.495  66.641  1.00 77.97           O
ATOM  17307  OD2 ASP D  78      15.006 -11.366  68.356  1.00 82.19           O
ATOM  17308  C   ASP D  78      15.620 -15.453  67.835  1.00 63.86           C
ATOM  17309  O   ASP D  78      15.970 -16.422  68.498  1.00 66.28           O
ATOM  17311  N   ARG D  79      14.376 -15.298  67.409  1.00 61.25           N
ATOM  17312  CA  ARG D  79      13.315 -16.224  67.789  1.00 59.74           C
ATOM  17314  CB  ARG D  79      11.995 -15.460  67.921  1.00 60.80           C
ATOM  17317  CG  ARG D  79      12.082 -14.278  68.866  1.00 57.42           C
ATOM  17320  CD  ARG D  79      10.792 -13.535  68.954  1.00 51.87           C
ATOM  17323  NE  ARG D  79      10.540 -12.706  67.782  1.00 45.36           N
ATOM  17325  CZ  ARG D  79       9.474 -12.786  66.984  1.00 45.37           C
ATOM  17326  NH1 ARG D  79       8.518 -13.673  67.182  1.00 50.15           N
ATOM  17329  NH2 ARG D  79       9.358 -11.956  65.971  1.00 44.62           N
ATOM  17332  C   ARG D  79      13.126 -17.375  66.801  1.00 60.30           C
ATOM  17333  O   ARG D  79      12.179 -18.156  66.948  1.00 60.79           O
ATOM  17335  N   ALA D  80      14.009 -17.492  65.807  1.00 58.46           N
ATOM  17336  CA  ALA D  80      13.840 -18.492  64.754  1.00 59.12           C
ATOM  17338  CB  ALA D  80      14.048 -17.862  63.398  1.00 59.56           C
ATOM  17342  C   ALA D  80      14.798 -19.651  64.945  1.00 59.62           C
ATOM  17343  O   ALA D  80      15.998 -19.453  65.106  1.00 60.02           O
ATOM  17345  N   ASP D  81      14.266 -20.865  64.904  1.00 60.29           N
ATOM  17346  CA  ASP D  81      15.062 -22.060  65.175  1.00 60.41           C
ATOM  17348  CB  ASP D  81      14.874 -22.462  66.641  1.00 62.39           C
ATOM  17351  CG  ASP D  81      15.973 -21.941  67.541  1.00 68.41           C
ATOM  17352  OD1 ASP D  81      17.160 -22.209  67.247  1.00 73.38           O
ATOM  17353  OD2 ASP D  81      15.647 -21.285  68.557  1.00 78.40           O
ATOM  17354  C   ASP D  81      14.693 -23.248  64.289  1.00 59.67           C
ATOM  17355  O   ASP D  81      13.712 -23.211  63.549  1.00 61.22           O
ATOM  17357  N   SER D  82      15.499 -24.301  64.376  1.00 58.72           N
ATOM  17358  CA  SER D  82      15.156 -25.602  63.817  1.00 57.80           C
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ATOM  17360  CB  SER D  82      15.860 -25.821  62.481  1.00 56.33           C
ATOM  17363  OG  SER D  82      15.184 -26.817  61.740  1.00 50.78           O
ATOM  17365  C   SER D  82      15.551 -26.682  64.813  1.00 57.70           C
ATOM  17366  O   SER D  82      15.729 -26.396  65.997  1.00 56.12           O
ATOM  17368  N   ARG D  83      15.680 -27.918  64.336  1.00 58.91           N
ATOM  17369  CA  ARG D  83      16.119 -29.032  65.172  1.00 59.68           C
ATOM  17371  CB  ARG D  83      14.924 -29.834  65.673  1.00 60.12           C
ATOM  17374  CG  ARG D  83      14.142 -29.177  66.783  1.00 64.04           C
ATOM  17377  CD  ARG D  83      13.154 -30.175  67.390  1.00 68.81           C
ATOM  17380  NE  ARG D  83      11.880 -29.545  67.744  1.00 78.30           N
ATOM  17382  CZ  ARG D  83      10.823 -30.198  68.219  1.00 77.56           C
ATOM  17383  NH1 ARG D  83      10.876 -31.512  68.430  1.00 80.28           N
ATOM  17386  NH2 ARG D  83       9.713 -29.527  68.504  1.00 77.52           N
ATOM  17389  C   ARG D  83      17.017 -29.948  64.370  1.00 58.80           C
ATOM  17390  O   ARG D  83      16.529 -30.726  63.552  1.00 61.64           O
ATOM  17392  N   ARG D  84      18.322 -29.865  64.614  1.00 56.78           N
ATOM  17393  CA  ARG D  84      19.302 -30.633  63.844  1.00 54.30           C
ATOM  17395  CB  ARG D  84      20.715 -30.087  64.072  1.00 52.76           C
ATOM  17398  CG  ARG D  84      20.904 -28.678  63.526  1.00 51.98           C
ATOM  17401  CD  ARG D  84      22.248 -28.092  63.895  1.00 48.11           C
ATOM  17404  NE  ARG D  84      22.330 -27.885  65.335  1.00 42.65           N
ATOM  17406  CZ  ARG D  84      23.441 -27.955  66.058  1.00 31.61           C
ATOM  17407  NH1 ARG D  84      24.608 -28.236  65.498  1.00 35.68           N
ATOM  17410  NH2 ARG D  84      23.373 -27.764  67.364  1.00 29.89           N
ATOM  17413  C   ARG D  84      19.234 -32.120  64.184  1.00 54.47           C
ATOM  17414  O   ARG D  84      19.664 -32.968  63.393  1.00 55.00           O
ATOM  17416  N   SER D  85      18.704 -32.423  65.368  1.00 53.86           N
ATOM  17417  CA  SER D  85      18.418 -33.796  65.762  1.00 52.88           C
ATOM  17419  CB  SER D  85      17.788 -33.820  67.159  1.00 52.10           C
ATOM  17422  OG  SER D  85      16.624 -33.014  67.211  1.00 44.20           O
ATOM  17424  C   SER D  85      17.488 -34.461  64.737  1.00 53.46           C
ATOM  17425  O   SER D  85      17.667 -35.628  64.396  1.00 53.22           O
ATOM  17427  N   LEU D  86      16.523 -33.693  64.228  1.00 53.24           N
ATOM  17428  CA  LEU D  86      15.552 -34.189  63.247  1.00 52.03           C
ATOM  17430  CB  LEU D  86      14.224 -33.431  63.386  1.00 51.29           C
ATOM  17433  CG  LEU D  86      13.619 -33.340  64.787  1.00 49.20           C
ATOM  17435  CD1 LEU D  86      12.214 -32.800  64.702  1.00 47.44           C
ATOM  17439  CD2 LEU D  86      13.630 -34.689  65.486  1.00 50.30           C
ATOM  17443  C   LEU D  86      16.014 -34.104  61.790  1.00 51.46           C
ATOM  17444  O   LEU D  86      15.376 -34.680  60.912  1.00 53.05           O
ATOM  17446  N   TRP D  87      17.098 -33.388  61.511  1.00 49.89           N
ATOM  17447  CA  TRP D  87      17.565 -33.286  60.130  1.00 50.40           C
ATOM  17449  CB  TRP D  87      18.816 -32.411  60.021  1.00 48.30           C
ATOM  17452  CG  TRP D  87      18.540 -30.943  60.244  1.00 48.36           C
ATOM  17453  CD1 TRP D  87      17.376 -30.383  60.693  1.00 48.54           C
ATOM  17455  NE1 TRP D  87      17.513 -29.022  60.793  1.00 49.53           N
ATOM  17457  CE2 TRP D  87      18.780 -28.672  60.411  1.00 43.98           C
ATOM  17458  CD2 TRP D  87      19.458 -29.856  60.060  1.00 43.71           C
ATOM  17459  CE3 TRP D  87      20.780 -29.770  59.624  1.00 44.96           C
ATOM  17461  CZ3 TRP D  87      21.376 -28.528  59.561  1.00 48.05           C
ATOM  17463  CH2 TRP D  87      20.673 -27.365  59.918  1.00 46.51           C
ATOM  17465  CZ2 TRP D  87      19.377 -27.419  60.340  1.00 44.34           C
ATOM  17467  C   TRP D  87      17.830 -34.669  59.571  1.00 50.61           C
ATOM  17468  O   TRP D  87      17.669 -34.890  58.379  1.00 50.87           O
ATOM  17470  N   ASP D  88      18.212 -35.595  60.451  1.00 53.34           N
ATOM  17471  CA  ASP D  88      18.494 -36.991  60.081  1.00 53.92           C
ATOM  17473  CB  ASP D  88      19.123 -37.738  61.260  1.00 54.55           C
ATOM  17476  CG  ASP D  88      20.589 -37.455  61.401  1.00 59.30           C
ATOM  17477  OD1 ASP D  88      21.101 -36.570  60.673  1.00 59.28           O
ATOM  17478  OD2 ASP D  88      21.232 -38.133  62.234  1.00 69.41           O
ATOM  17479  C   ASP D  88      17.287 -37.786  59.610  1.00 53.60           C
ATOM  17480  O   ASP D  88      17.455 -38.845  59.018  1.00 55.99           O
ATOM  17482  N   GLN D  89      16.088 -37.302  59.893  1.00 51.21           N
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ATOM	17483	CA	GLN	D	89	14.887	-37.953	59.425	1.00	52.09	C
ATOM	17485	CB	GLN	D	89	13.964	-38.252	60.611	1.00	52.89	C
ATOM	17488	CG	GLN	D	89	14.633	-38.947	61.791	1.00	55.87	C
ATOM	17491	CD	GLN	D	89	15.023	-40.398	61.500	1.00	65.01	C
ATOM	17492	OE1	GLN	D	89	15.962	-40.664	60.747	1.00	71.22	O
ATOM	17493	NE2	GLN	D	89	14.318	-41.340	62.122	1.00	64.03	N
ATOM	17496	C	GLN	D	89	14.180	-37.071	58.382	1.00	52.21	C
ATOM	17497	O	GLN	D	89	12.944	-37.020	58.343	1.00	51.02	O
ATOM	17499	N	GLY	D	90	14.964	-36.383	57.543	1.00	50.99	N
ATOM	17500	CA	GLY	D	90	14.426	-35.471	56.518	1.00	50.85	C
ATOM	17503	C	GLY	D	90	13.410	-34.456	57.031	1.00	51.11	C
ATOM	17504	O	GLY	D	90	12.399	-34.172	56.377	1.00	49.62	O
ATOM	17506	N	ASN	D	91	13.680	-33.906	58.209	1.00	50.10	N
ATOM	17507	CA	ASN	D	91	12.744	-33.010	58.862	1.00	49.16	C
ATOM	17509	CB	ASN	D	91	12.176	-33.674	60.105	1.00	48.68	C
ATOM	17512	CG	ASN	D	91	10.987	-32.939	60.664	1.00	47.44	C
ATOM	17513	OD1	ASN	D	91	10.008	-33.549	61.065	1.00	41.58	O
ATOM	17514	ND2	ASN	D	91	11.060	-31.620	60.685	1.00	53.16	N
ATOM	17517	C	ASN	D	91	13.456	-31.715	59.210	1.00	49.71	C
ATOM	17518	O	ASN	D	91	14.389	-31.710	60.019	1.00	50.12	O
ATOM	17520	N	PHE	D	92	13.004	-30.626	58.586	1.00	48.98	N
ATOM	17521	CA	PHE	D	92	13.711	-29.357	58.588	1.00	47.76	C
ATOM	17523	CB	PHE	D	92	14.259	-29.065	57.193	1.00	49.53	C
ATOM	17526	CG	PHE	D	92	14.925	-30.240	56.558	1.00	51.11	C
ATOM	17527	CD1	PHE	D	92	15.832	-31.009	57.274	1.00	53.50	C
ATOM	17529	CE1	PHE	D	92	16.440	-32.099	56.697	1.00	54.86	C
ATOM	17531	CZ	PHE	D	92	16.150	-32.440	55.385	1.00	57.58	C
ATOM	17533	CE2	PHE	D	92	15.244	-31.690	54.662	1.00	55.72	C
ATOM	17535	CD2	PHE	D	92	14.639	-30.592	55.250	1.00	55.78	C
ATOM	17537	C	PHE	D	92	12.761	-28.270	59.001	1.00	46.74	C
ATOM	17538	O	PHE	D	92	12.443	-27.391	58.204	1.00	46.60	O
ATOM	17540	N	PRO	D	93	12.319	-28.307	60.262	1.00	46.04	N
ATOM	17541	CA	PRO	D	93	11.266	-27.408	60.661	1.00	46.87	C
ATOM	17543	CB	PRO	D	93	10.712	-28.060	61.925	1.00	48.35	C
ATOM	17546	CG	PRO	D	93	11.861	-28.786	62.509	1.00	46.63	C
ATOM	17549	CD	PRO	D	93	12.796	-29.127	61.388	1.00	46.27	C
ATOM	17552	C	PRO	D	93	11.815	-26.043	60.987	1.00	48.35	C
ATOM	17553	O	PRO	D	93	12.992	-25.913	61.351	1.00	48.65	O
ATOM	17554	N	LEU	D	94	10.959	-25.041	60.826	1.00	48.56	N
ATOM	17555	CA	LEU	D	94	11.221	-23.685	61.269	1.00	47.67	C
ATOM	17557	CB	LEU	D	94	10.887	-22.698	60.160	1.00	46.80	C
ATOM	17560	CG	LEU	D	94	10.929	-21.208	60.495	1.00	47.25	C
ATOM	17562	CD1	LEU	D	94	12.293	-20.835	61.068	1.00	48.22	C
ATOM	17566	CD2	LEU	D	94	10.604	-20.384	59.242	1.00	45.98	C
ATOM	17570	C	LEU	D	94	10.313	-23.454	62.457	1.00	49.54	C
ATOM	17571	O	LEU	D	94	9.080	-23.465	62.310	1.00	48.55	O
ATOM	17573	N	ILE	D	95	10.917	-23.268	63.632	1.00	50.54	N
ATOM	17574	CA	ILE	D	95	10.169	-23.016	64.864	1.00	50.79	C
ATOM	17576	CB	ILE	D	95	10.653	-23.912	66.021	1.00	49.82	C
ATOM	17578	CG1	ILE	D	95	10.956	-25.322	65.511	1.00	50.38	C
ATOM	17581	CD1	ILE	D	95	11.032	-26.388	66.588	1.00	49.96	C
ATOM	17585	CG2	ILE	D	95	9.604	-23.951	67.120	1.00	51.11	C
ATOM	17589	C	ILE	D	95	10.307	-21.546	65.270	1.00	53.06	C
ATOM	17590	O	ILE	D	95	11.423	-20.995	65.279	1.00	56.14	O
ATOM	17592	N	ILE	D	96	9.181	-20.919	65.615	1.00	52.52	N
ATOM	17593	CA	ILE	D	96	9.170	-19.500	65.963	1.00	52.98	C
ATOM	17595	CB	ILE	D	96	8.468	-18.688	64.868	1.00	51.34	C
ATOM	17597	CG1	ILE	D	96	9.101	-19.011	63.512	1.00	50.27	C
ATOM	17600	CD1	ILE	D	96	8.559	-18.211	62.354	1.00	54.15	C
ATOM	17604	CG2	ILE	D	96	8.557	-17.193	65.164	1.00	51.83	C
ATOM	17608	C	ILE	D	96	8.522	-19.241	67.336	1.00	54.32	C
ATOM	17609	O	ILE	D	96	7.325	-19.424	67.491	1.00	55.46	O
ATOM	17611	N	LYS	D	97	9.341	-18.793	68.296	1.00	55.29	N

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ATOM  17612  CA  LYS D  97       8.935 -18.449  69.670  1.00 56.12           C
ATOM  17614  CB  LYS D  97      10.170 -18.334  70.578  1.00 57.63           C
ATOM  17617  CG  LYS D  97      11.124 -19.532  70.601  1.00 62.44           C
ATOM  17620  CD  LYS D  97      12.533 -19.131  71.085  1.00 62.68           C
ATOM  17623  CE  LYS D  97      13.637 -19.851  70.277  1.00 68.50           C
ATOM  17626  NZ  LYS D  97      15.035 -19.394  70.616  1.00 67.47           N
ATOM  17630  C   LYS D  97       8.240 -17.091  69.740  1.00 56.64           C
ATOM  17631  O   LYS D  97       8.506 -16.204  68.924  1.00 54.64           O
ATOM  17633  N   ASN D  98       7.383 -16.916  70.744  1.00 56.52           N
ATOM  17634  CA  ASN D  98       6.769 -15.619  71.011  1.00 55.97           C
ATOM  17636  CB  ASN D  98       7.737 -14.729  71.770  1.00 56.98           C
ATOM  17639  CG  ASN D  98       8.271 -15.388  72.998  1.00 61.78           C
ATOM  17640  OD1 ASN D  98       9.489 -15.509  73.171  1.00 69.09           O
ATOM  17641  ND2 ASN D  98       7.368 -15.844  73.864  1.00 67.30           N
ATOM  17644  C   ASN D  98       6.323 -14.908  69.745  1.00 55.57           C
ATOM  17645  O   ASN D  98       6.728 -13.770  69.467  1.00 57.09           O
ATOM  17647  N   LEU D  99       5.483 -15.591  68.980  1.00 53.56           N
ATOM  17648  CA  LEU D  99       4.948 -15.035  67.756  1.00 52.64           C
ATOM  17650  CB  LEU D  99       3.770 -15.873  67.280  1.00 53.96           C
ATOM  17653  CG  LEU D  99       4.075 -17.191  66.583  1.00 51.73           C
ATOM  17655  CD1 LEU D  99       2.873 -18.088  66.695  1.00 52.25           C
ATOM  17659  CD2 LEU D  99       4.445 -16.943  65.131  1.00 49.58           C
ATOM  17663  C   LEU D  99       4.453 -13.629  67.988  1.00 50.70           C
ATOM  17664  O   LEU D  99       3.723 -13.381  68.943  1.00 50.72           O
ATOM  17666  N   LYS D 100       4.866 -12.717  67.121  1.00 49.61           N
ATOM  17667  CA  LYS D 100       4.215 -11.424  66.997  1.00 50.36           C
ATOM  17669  CB  LYS D 100       5.235 -10.338  66.669  1.00 51.27           C
ATOM  17672  CG  LYS D 100       6.370 -10.242  67.678  1.00 54.97           C
ATOM  17675  CD  LYS D 100       7.345  -9.134  67.337  1.00 51.88           C
ATOM  17678  CE  LYS D 100       8.586  -9.224  68.205  1.00 55.94           C
ATOM  17681  NZ  LYS D 100       9.628  -8.233  67.777  1.00 65.64           N
ATOM  17685  C   LYS D 100       3.167 -11.519  65.884  1.00 50.00           C
ATOM  17686  O   LYS D 100       3.186 -12.460  65.081  1.00 47.49           O
ATOM  17688  N   ILE D 101       2.246 -10.557  65.842  1.00 50.48           N
ATOM  17689  CA  ILE D 101       1.294 -10.491  64.745  1.00 49.48           C
ATOM  17691  CB  ILE D 101       0.272  -9.331  64.879  1.00 51.04           C
ATOM  17693  CG1 ILE D 101      -1.038  -9.808  65.517  1.00 52.16           C
ATOM  17696  CD1 ILE D 101      -0.890 -10.467  66.844  1.00 58.31           C
ATOM  17700  CG2 ILE D 101      -0.102  -8.761  63.501  1.00 52.45           C
ATOM  17704  C   ILE D 101       2.065 -10.336  63.453  1.00 49.70           C
ATOM  17705  O   ILE D 101       1.709 -10.968  62.460  1.00 51.08           O
ATOM  17707  N   GLU D 102       3.124  -9.517  63.467  1.00 48.47           N
ATOM  17708  CA  GLU D 102       3.848  -9.191  62.233  1.00 47.42           C
ATOM  17710  CB  GLU D 102       4.536  -7.815  62.318  1.00 48.71           C
ATOM  17713  CG  GLU D 102       5.879  -7.740  63.067  1.00 56.38           C
ATOM  17716  CD  GLU D 102       5.794  -6.997  64.401  1.00 61.88           C
ATOM  17717  OE1 GLU D 102       4.836  -7.259  65.184  1.00 62.54           O
ATOM  17718  OE2 GLU D 102       6.700  -6.163  64.655  1.00 56.63           O
ATOM  17719  C   GLU D 102       4.819 -10.268  61.729  1.00 46.05           C
ATOM  17720  O   GLU D 102       5.528 -10.030  60.758  1.00 45.71           O
ATOM  17722  N   ASP D 103       4.853 -11.436  62.375  1.00 47.39           N
ATOM  17723  CA  ASP D 103       5.526 -12.626  61.814  1.00 47.66           C
ATOM  17725  CB  ASP D 103       5.779 -13.697  62.887  1.00 47.98           C
ATOM  17728  CG  ASP D 103       6.707 -13.237  63.990  1.00 49.22           C
ATOM  17729  OD1 ASP D 103       7.691 -12.543  63.703  1.00 55.42           O
ATOM  17730  OD2 ASP D 103       6.464 -13.592  65.158  1.00 56.95           O
ATOM  17731  C   ASP D 103       4.683 -13.276  60.715  1.00 48.59           C
ATOM  17732  O   ASP D 103       5.165 -14.165  60.001  1.00 48.20           O
ATOM  17734  N   SER D 104       3.410 -12.877  60.618  1.00 49.63           N
ATOM  17735  CA  SER D 104       2.503 -13.423  59.607  1.00 47.43           C
ATOM  17737  CB  SER D 104       1.097 -12.835  59.724  1.00 46.44           C
ATOM  17740  OG  SER D 104       0.576 -12.950  61.035  1.00 47.73           O
ATOM  17742  C   SER D 104       3.076 -13.096  58.244  1.00 47.63           C
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ATOM	17743	O	SER	D	104	3.334	-11.927	57.925	1.00	49.32	O
ATOM	17745	N	ASP	D	105	3.292	-14.150	57.471	1.00	46.35	N
ATOM	17746	CA	ASP	D	105	3.961	-14.081	56.187	1.00	45.68	C
ATOM	17748	CB	ASP	D	105	5.454	-13.751	56.379	1.00	44.54	C
ATOM	17751	CG	ASP	D	105	6.113	-13.157	55.126	1.00	45.86	C
ATOM	17752	OD1	ASP	D	105	5.564	-13.269	54.003	1.00	40.32	O
ATOM	17753	OD2	ASP	D	105	7.202	-12.567	55.274	1.00	46.39	O
ATOM	17754	C	ASP	D	105	3.802	-15.454	55.504	1.00	45.18	C
ATOM	17755	O	ASP	D	105	3.259	-16.411	56.081	1.00	39.80	O
ATOM	17757	N	THR	D	106	4.250	-15.517	54.261	1.00	45.62	N
ATOM	17758	CA	THR	D	106	4.394	-16.758	53.564	1.00	46.95	C
ATOM	17760	CB	THR	D	106	3.878	-16.656	52.124	1.00	45.75	C
ATOM	17762	OG1	THR	D	106	2.455	-16.789	52.146	1.00	43.96	O
ATOM	17764	CG2	THR	D	106	4.454	-17.747	51.236	1.00	46.64	C
ATOM	17768	C	THR	D	106	5.865	-17.100	53.628	1.00	49.23	C
ATOM	17769	O	THR	D	106	6.714	-16.306	53.231	1.00	53.20	O
ATOM	17771	N	TYR	D	107	6.149	-18.280	54.166	1.00	50.82	N
ATOM	17772	CA	TYR	D	107	7.497	-18.771	54.304	1.00	50.99	C
ATOM	17774	CB	TYR	D	107	7.712	-19.296	55.710	1.00	49.84	C
ATOM	17777	CG	TYR	D	107	7.688	-18.190	56.719	1.00	47.46	C
ATOM	17778	CD1	TYR	D	107	6.502	-17.814	57.335	1.00	48.00	C
ATOM	17780	CE1	TYR	D	107	6.465	-16.776	58.261	1.00	49.53	C
ATOM	17782	CZ	TYR	D	107	7.623	-16.097	58.571	1.00	51.13	C
ATOM	17783	OH	TYR	D	107	7.589	-15.069	59.492	1.00	49.82	O
ATOM	17785	CE2	TYR	D	107	8.822	-16.447	57.953	1.00	51.42	C
ATOM	17787	CD2	TYR	D	107	8.845	-17.487	57.030	1.00	46.99	C
ATOM	17789	C	TYR	D	107	7.709	-19.846	53.271	1.00	53.47	C
ATOM	17790	O	TYR	D	107	6.800	-20.614	52.983	1.00	55.68	O
ATOM	17792	N	ILE	D	108	8.912	-19.873	52.705	1.00	54.50	N
ATOM	17793	CA	ILE	D	108	9.221	-20.712	51.571	1.00	54.69	C
ATOM	17795	CB	ILE	D	108	9.639	-19.874	50.370	1.00	55.47	C
ATOM	17797	CG1	ILE	D	108	8.763	-18.620	50.247	1.00	58.98	C
ATOM	17800	CD1	ILE	D	108	9.438	-17.485	49.470	1.00	59.41	C
ATOM	17804	CG2	ILE	D	108	9.564	-20.713	49.106	1.00	54.90	C
ATOM	17808	C	ILE	D	108	10.393	-21.572	51.946	1.00	54.85	C
ATOM	17809	O	ILE	D	108	11.366	-21.072	52.483	1.00	55.07	O
ATOM	17811	N	CYS	D	109	10.302	-22.861	51.649	1.00	57.10	N
ATOM	17812	CA	CYS	D	109	11.345	-23.814	51.988	1.00	55.92	C
ATOM	17814	CB	CYS	D	109	10.786	-24.891	52.921	1.00	58.35	C
ATOM	17817	SG	CYS	D	109	12.043	-25.973	53.691	1.00	63.70	S
ATOM	17819	C	CYS	D	109	11.873	-24.437	50.708	1.00	54.59	C
ATOM	17820	O	CYS	D	109	11.207	-25.266	50.094	1.00	53.53	O
ATOM	17822	N	GLU	D	110	13.067	-24.026	50.301	1.00	53.89	N
ATOM	17823	CA	GLU	D	110	13.667	-24.522	49.078	1.00	54.43	C
ATOM	17825	CB	GLU	D	110	14.624	-23.488	48.502	1.00	53.55	C
ATOM	17828	CG	GLU	D	110	14.007	-22.109	48.290	1.00	57.55	C
ATOM	17831	CD	GLU	D	110	15.000	-21.092	47.744	1.00	59.72	C
ATOM	17832	OE1	GLU	D	110	16.207	-21.178	48.083	1.00	69.01	O
ATOM	17833	OE2	GLU	D	110	14.571	-20.203	46.976	1.00	62.17	O
ATOM	17834	C	GLU	D	110	14.407	-25.808	49.414	1.00	54.19	C
ATOM	17835	O	GLU	D	110	15.289	-25.802	50.271	1.00	53.94	O
ATOM	17837	N	VAL	D	111	14.035	-26.906	48.756	1.00	54.36	N
ATOM	17838	CA	VAL	D	111	14.659	-28.211	48.988	1.00	55.10	C
ATOM	17840	CB	VAL	D	111	14.183	-28.822	50.327	1.00	53.51	C
ATOM	17842	CG1	VAL	D	111	12.685	-29.136	50.305	1.00	51.44	C
ATOM	17846	CG2	VAL	D	111	14.997	-30.056	50.669	1.00	54.35	C
ATOM	17850	C	VAL	D	111	14.394	-29.194	47.832	1.00	57.12	C
ATOM	17851	O	VAL	D	111	13.244	-29.495	47.522	1.00	58.09	O
ATOM	17853	N	GLU	D	112	15.462	-29.684	47.201	1.00	59.76	N
ATOM	17854	CA	GLU	D	112	15.366	-30.585	46.039	1.00	61.43	C
ATOM	17856	CB	GLU	D	112	14.718	-31.931	46.424	1.00	62.31	C
ATOM	17859	CG	GLU	D	112	15.297	-32.668	47.631	1.00	61.85	C
ATOM	17862	CD	GLU	D	112	14.346	-33.755	48.145	1.00	62.28	C

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ATOM  17863  OE1 GLU D 112      13.305 -33.413  48.754  1.00 60.57           O
ATOM  17864  OE2 GLU D 112      14.632 -34.952  47.939  1.00 62.56           O
ATOM  17865  C   GLU D 112      14.573 -29.964  44.870  1.00 63.64           C
ATOM  17866  O   GLU D 112      13.701 -30.619  44.279  1.00 64.99           O
ATOM  17868  N   ASP D 113      14.867 -28.709  44.535  1.00 64.25           N
ATOM  17869  CA  ASP D 113      14.118 -27.990  43.487  1.00 64.40           C
ATOM  17871  CB  ASP D 113      14.372 -28.605  42.108  1.00 64.94           C
ATOM  17874  CG  ASP D 113      15.826 -28.914  41.881  1.00 67.23           C
ATOM  17875  OD1 ASP D 113      16.661 -28.062  42.245  1.00 69.33           O
ATOM  17876  OD2 ASP D 113      16.134 -30.007  41.357  1.00 72.39           O
ATOM  17877  C   ASP D 113      12.626 -27.993  43.771  1.00 63.70           C
ATOM  17878  O   ASP D 113      11.822 -28.188  42.870  1.00 62.08           O
ATOM  17880  N   GLN D 114      12.280 -27.808  45.042  1.00 65.47           N
ATOM  17881  CA  GLN D 114      10.899 -27.615  45.475  1.00 66.02           C
ATOM  17883  CB  GLN D 114      10.473 -28.703  46.462  1.00 65.08           C
ATOM  17886  CG  GLN D 114      10.479 -30.093  45.884  1.00 64.18           C
ATOM  17889  CD  GLN D 114       9.546 -30.225  44.701  1.00 63.51           C
ATOM  17890  OE1 GLN D 114       9.862 -30.898  43.724  1.00 63.23           O
ATOM  17891  NE2 GLN D 114       8.392 -29.570  44.777  1.00 61.91           N
ATOM  17894  C   GLN D 114      10.801 -26.276  46.169  1.00 66.99           C
ATOM  17895  O   GLN D 114      11.816 -25.649  46.472  1.00 67.91           O
ATOM  17897  N   LYS D 115       9.572 -25.845  46.417  1.00 67.54           N
ATOM  17898  CA  LYS D 115       9.323 -24.680  47.237  1.00 68.05           C
ATOM  17900  CB  LYS D 115       9.155 -23.438  46.354  1.00 67.67           C
ATOM  17903  CG  LYS D 115      10.415 -23.040  45.562  1.00 71.79           C
ATOM  17906  CD  LYS D 115      10.427 -21.540  45.151  1.00 73.30           C
ATOM  17909  CE  LYS D 115      11.334 -20.674  46.061  1.00 78.19           C
ATOM  17912  NZ  LYS D 115      10.941 -19.217  46.127  1.00 75.63           N
ATOM  17916  C   LYS D 115       8.087 -24.929  48.110  1.00 67.97           C
ATOM  17917  O   LYS D 115       6.983 -24.519  47.753  1.00 70.14           O
ATOM  17919  N   GLU D 116       8.277 -25.613  49.243  1.00 66.62           N
ATOM  17920  CA  GLU D 116       7.189 -25.823  50.214  1.00 65.87           C
ATOM  17922  CB  GLU D 116       7.588 -26.693  51.424  1.00 67.20           C
ATOM  17925  CG  GLU D 116       8.674 -27.768  51.232  1.00 72.35           C
ATOM  17928  CD  GLU D 116       8.164 -29.092  50.704  1.00 74.69           C
ATOM  17929  OE1 GLU D 116       8.984 -29.834  50.107  1.00 70.69           O
ATOM  17930  OE2 GLU D 116       6.964 -29.399  50.903  1.00 81.52           O
ATOM  17931  C   GLU D 116       6.791 -24.452  50.745  1.00 64.53           C
ATOM  17932  O   GLU D 116       7.580 -23.816  51.433  1.00 64.43           O
ATOM  17934  N   GLU D 117       5.582 -24.001  50.418  1.00 63.26           N
ATOM  17935  CA  GLU D 117       5.091 -22.683  50.834  1.00 61.06           C
ATOM  17937  CB  GLU D 117       4.436 -21.948  49.665  1.00 60.98           C
ATOM  17940  CG  GLU D 117       5.315 -20.920  48.984  1.00 63.22           C
ATOM  17943  CD  GLU D 117       4.647 -20.310  47.757  1.00 65.19           C
ATOM  17944  OE1 GLU D 117       3.434 -20.558  47.533  1.00 64.15           O
ATOM  17945  OE2 GLU D 117       5.341 -19.587  47.009  1.00 73.03           O
ATOM  17946  C   GLU D 117       4.070 -22.824  51.936  1.00 58.20           C
ATOM  17947  O   GLU D 117       2.997 -23.374  51.724  1.00 58.52           O
ATOM  17949  N   VAL D 118       4.405 -22.317  53.110  1.00 56.15           N
ATOM  17950  CA  VAL D 118       3.475 -22.273  54.213  1.00 55.15           C
ATOM  17952  CB  VAL D 118       4.103 -22.845  55.483  1.00 55.28           C
ATOM  17954  CG1 VAL D 118       3.188 -22.623  56.672  1.00 59.84           C
ATOM  17958  CG2 VAL D 118       4.383 -24.328  55.309  1.00 61.55           C
ATOM  17962  C   VAL D 118       3.115 -20.818  54.453  1.00 52.51           C
ATOM  17963  O   VAL D 118       3.993 -19.973  54.545  1.00 46.39           O
ATOM  17965  N   GLN D 119       1.818 -20.540  54.554  1.00 52.44           N
ATOM  17966  CA  GLN D 119       1.344 -19.240  54.986  1.00 52.03           C
ATOM  17968  CB  GLN D 119       0.089 -18.818  54.236  1.00 50.69           C
ATOM  17971  CG  GLN D 119      -0.631 -17.671  54.922  1.00 53.87           C
ATOM  17974  CD  GLN D 119      -1.306 -16.724  53.962  1.00 55.76           C
ATOM  17975  OE1 GLN D 119      -2.405 -16.997  53.458  1.00 57.45           O
ATOM  17976  NE2 GLN D 119      -0.665 -15.578  53.723  1.00 56.47           N
ATOM  17979  C   GLN D 119       1.059 -19.272  56.478  1.00 50.84           C
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ATOM  17980  O   GLN D 119       0.174 -19.975  56.936  1.00 48.06           O
ATOM  17982  N   LEU D 120       1.818 -18.491  57.232  1.00 52.34           N
ATOM  17983  CA  LEU D 120       1.591 -18.369  58.655  1.00 52.02           C
ATOM  17985  CB  LEU D 120       2.914 -18.234  59.416  1.00 52.51           C
ATOM  17988  CG  LEU D 120       2.787 -17.939  60.914  1.00 50.64           C
ATOM  17990  CD1 LEU D 120       1.981 -19.026  61.621  1.00 47.00           C
ATOM  17994  CD2 LEU D 120       4.156 -17.778  61.533  1.00 52.44           C
ATOM  17998  C   LEU D 120       0.759 -17.132  58.867  1.00 50.99           C
ATOM  17999  O   LEU D 120       1.141 -16.065  58.410  1.00 50.93           O
ATOM  18001  N   LEU D 121      -0.374 -17.300  59.552  1.00 51.58           N
ATOM  18002  CA  LEU D 121      -1.225 -16.205  60.006  1.00 50.99           C
ATOM  18004  CB  LEU D 121      -2.630 -16.346  59.413  1.00 50.35           C
ATOM  18007  CG  LEU D 121      -2.689 -15.954  57.929  1.00 52.37           C
ATOM  18009  CD1 LEU D 121      -3.940 -16.455  57.222  1.00 53.89           C
ATOM  18013  CD2 LEU D 121      -2.587 -14.461  57.789  1.00 56.04           C
ATOM  18017  C   LEU D 121      -1.293 -16.221  61.528  1.00 52.40           C
ATOM  18018  O   LEU D 121      -1.696 -17.243  62.133  1.00 55.35           O
ATOM  18020  N   VAL D 122      -0.901 -15.099  62.139  1.00 50.06           N
ATOM  18021  CA  VAL D 122      -0.848 -14.970  63.596  1.00 51.75           C
ATOM  18023  CB  VAL D 122       0.512 -14.425  64.017  1.00 50.92           C
ATOM  18025  CG1 VAL D 122       0.522 -14.084  65.503  1.00 53.45           C
ATOM  18029  CG2 VAL D 122       1.584 -15.436  63.683  1.00 51.19           C
ATOM  18033  C   VAL D 122      -1.948 -14.055  64.153  1.00 53.51           C
ATOM  18034  O   VAL D 122      -2.012 -12.882  63.782  1.00 57.15           O
ATOM  18036  N   PHE D 123      -2.787 -14.582  65.054  1.00 53.51           N
ATOM  18037  CA  PHE D 123      -3.913 -13.821  65.627  1.00 53.99           C
ATOM  18039  CB  PHE D 123      -5.248 -14.512  65.363  1.00 54.15           C
ATOM  18042  CG  PHE D 123      -5.569 -14.697  63.915  1.00 54.30           C
ATOM  18043  CD1 PHE D 123      -5.834 -13.610  63.111  1.00 49.61           C
ATOM  18045  CE1 PHE D 123      -6.140 -13.780  61.786  1.00 49.05           C
ATOM  18047  CZ  PHE D 123      -6.180 -15.040  61.243  1.00 53.38           C
ATOM  18049  CE2 PHE D 123      -5.919 -16.140  62.033  1.00 54.85           C
ATOM  18051  CD2 PHE D 123      -5.624 -15.967  63.363  1.00 55.54           C
ATOM  18053  C   PHE D 123      -3.813 -13.680  67.131  1.00 55.49           C
ATOM  18054  O   PHE D 123      -3.332 -14.579  67.804  1.00 54.10           O
ATOM  18056  N   GLY D 124      -4.309 -12.557  67.647  1.00 57.23           N
ATOM  18057  CA  GLY D 124      -4.513 -12.364  69.084  1.00 56.46           C
ATOM  18060  C   GLY D 124      -5.910 -11.830  69.380  1.00 56.28           C
ATOM  18061  O   GLY D 124      -6.446 -11.046  68.608  1.00 57.45           O
ATOM  18063  N   LEU D 125      -6.484 -12.254  70.505  1.00 55.86           N
ATOM  18064  CA  LEU D 125      -7.801 -11.808  70.973  1.00 55.02           C
ATOM  18066  CB  LEU D 125      -8.688 -13.024  71.239  1.00 55.80           C
ATOM  18069  CG  LEU D 125     -10.175 -12.762  71.473  1.00 56.79           C
ATOM  18071  CD1 LEU D 125     -10.796 -12.208  70.205  1.00 61.17           C
ATOM  18075  CD2 LEU D 125     -10.888 -14.021  71.887  1.00 55.80           C
ATOM  18079  C   LEU D 125      -7.663 -11.006  72.270  1.00 55.05           C
ATOM  18080  O   LEU D 125      -6.934 -11.397  73.173  1.00 57.75           O
ATOM  18082  N   THR D 126      -8.397  -9.909  72.384  1.00 55.30           N
ATOM  18083  CA  THR D 126      -8.227  -8.988  73.505  1.00 54.22           C
ATOM  18085  CB  THR D 126      -7.120  -7.994  73.183  1.00 53.58           C
ATOM  18087  OG1 THR D 126      -7.204  -6.891  74.083  1.00 61.96           O
ATOM  18089  CG2 THR D 126      -7.258  -7.467  71.759  1.00 53.99           C
ATOM  18093  C   THR D 126      -9.504  -8.204  73.839  1.00 53.09           C
ATOM  18094  O   THR D 126     -10.285  -7.879  72.952  1.00 55.22           O
ATOM  18096  N   ALA D 127      -9.701  -7.888  75.116  1.00 52.00           N
ATOM  18097  CA  ALA D 127     -10.840  -7.073  75.553  1.00 53.40           C
ATOM  18099  CB  ALA D 127     -11.373  -7.588  76.872  1.00 51.75           C
ATOM  18103  C   ALA D 127     -10.469  -5.584  75.683  1.00 54.20           C
ATOM  18104  O   ALA D 127      -9.404  -5.239  76.188  1.00 51.57           O
ATOM  18106  N   ASN D 128     -11.374  -4.712  75.246  1.00 56.15           N
ATOM  18107  CA  ASN D 128     -11.171  -3.262  75.325  1.00 58.00           C
ATOM  18109  CB  ASN D 128     -12.225  -2.518  74.497  1.00 59.23           C
ATOM  18112  CG  ASN D 128     -12.291  -2.998  73.061  1.00 64.71           C
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ATOM	18113	OD1	ASN	D	128	-11.567	-3.919	72.665	1.00	73.27	O
ATOM	18114	ND2	ASN	D	128	-13.168	-2.383	72.272	1.00	63.61	N
ATOM	18117	C	ASN	D	128	-11.237	-2.718	76.741	1.00	58.78	C
ATOM	18118	O	ASN	D	128	-10.745	-1.622	77.001	1.00	60.88	O
ATOM	18120	N	SER	D	129	-11.874	-3.466	77.640	1.00	60.02	N
ATOM	18121	CA	SER	D	129	-12.130	-3.007	79.009	1.00	60.62	C
ATOM	18123	CB	SER	D	129	-13.618	-2.661	79.199	1.00	61.16	C
ATOM	18126	OG	SER	D	129	-14.214	-2.210	77.991	1.00	60.11	O
ATOM	18128	C	SER	D	129	-11.753	-4.095	79.999	1.00	60.55	C
ATOM	18129	O	SER	D	129	-11.497	-5.231	79.623	1.00	60.80	O
ATOM	18131	N	ASP	D	130	-11.736	-3.742	81.274	1.00	60.66	N
ATOM	18132	CA	ASP	D	130	-11.507	-4.729	82.311	1.00	59.83	C
ATOM	18134	CB	ASP	D	130	-11.679	-4.100	83.703	1.00	61.23	C
ATOM	18137	CG	ASP	D	130	-11.121	-4.966	84.826	1.00	62.22	C
ATOM	18138	OD1	ASP	D	130	-10.602	-6.079	84.564	1.00	64.41	O
ATOM	18139	OD2	ASP	D	130	-11.205	-4.515	85.989	1.00	67.18	O
ATOM	18140	C	ASP	D	130	-12.529	-5.828	82.088	1.00	58.25	C
ATOM	18141	O	ASP	D	130	-13.691	-5.531	81.808	1.00	58.54	O
ATOM	18143	N	THR	D	131	-12.078	-7.080	82.182	1.00	57.24	N
ATOM	18144	CA	THR	D	131	-12.936	-8.263	82.022	1.00	55.57	C
ATOM	18146	CB	THR	D	131	-12.107	-9.487	81.621	1.00	53.38	C
ATOM	18148	OG1	THR	D	131	-11.023	-9.652	82.539	1.00	51.04	O
ATOM	18150	CG2	THR	D	131	-11.555	-9.312	80.238	1.00	53.52	C
ATOM	18154	C	THR	D	131	-13.727	-8.614	83.293	1.00	56.21	C
ATOM	18155	O	THR	D	131	-14.560	-9.530	83.278	1.00	56.72	O
ATOM	18157	N	HIS	D	132	-13.441	-7.904	84.386	1.00	55.72	N
ATOM	18158	CA	HIS	D	132	-14.231	-7.967	85.612	1.00	55.30	C
ATOM	18160	CB	HIS	D	132	-13.324	-7.885	86.839	1.00	54.37	C
ATOM	18163	CG	HIS	D	132	-12.323	-8.997	86.932	1.00	53.87	C
ATOM	18164	ND1	HIS	D	132	-11.677	-9.518	85.830	1.00	53.67	N
ATOM	18166	CE1	HIS	D	132	-10.855	-10.477	86.217	1.00	53.49	C
ATOM	18168	NE2	HIS	D	132	-10.935	-10.589	87.531	1.00	47.90	N
ATOM	18170	CD2	HIS	D	132	-11.845	-9.675	88.003	1.00	48.56	C
ATOM	18172	C	HIS	D	132	-15.165	-6.772	85.581	1.00	55.24	C
ATOM	18173	O	HIS	D	132	-14.716	-5.644	85.422	1.00	55.81	O
ATOM	18175	N	LEU	D	133	-16.463	-7.002	85.715	1.00	56.37	N
ATOM	18176	CA	LEU	D	133	-17.423	-5.916	85.520	1.00	57.71	C
ATOM	18178	CB	LEU	D	133	-17.647	-5.664	84.021	1.00	58.30	C
ATOM	18181	CG	LEU	D	133	-17.733	-6.894	83.101	1.00	61.86	C
ATOM	18183	CD1	LEU	D	133	-18.682	-7.954	83.631	1.00	63.60	C
ATOM	18187	CD2	LEU	D	133	-18.151	-6.484	81.692	1.00	59.41	C
ATOM	18191	C	LEU	D	133	-18.752	-6.176	86.211	1.00	58.35	C
ATOM	18192	O	LEU	D	133	-19.010	-7.278	86.690	1.00	59.32	O
ATOM	18194	N	LEU	D	134	-19.592	-5.145	86.239	1.00	57.45	N
ATOM	18195	CA	LEU	D	134	-20.888	-5.206	86.905	1.00	56.42	C
ATOM	18197	CB	LEU	D	134	-21.272	-3.816	87.422	1.00	56.74	C
ATOM	18200	CG	LEU	D	134	-20.602	-3.324	88.715	1.00	57.94	C
ATOM	18202	CD1	LEU	D	134	-20.972	-1.869	88.950	1.00	58.59	C
ATOM	18206	CD2	LEU	D	134	-19.087	-3.487	88.705	1.00	57.62	C
ATOM	18210	C	LEU	D	134	-21.985	-5.767	85.983	1.00	55.19	C
ATOM	18211	O	LEU	D	134	-21.936	-5.619	84.759	1.00	52.52	O
ATOM	18213	N	GLN	D	135	-22.973	-6.411	86.593	1.00	55.25	N
ATOM	18214	CA	GLN	D	135	-24.077	-7.019	85.862	1.00	55.61	C
ATOM	18216	CB	GLN	D	135	-25.138	-7.535	86.830	1.00	54.63	C
ATOM	18219	CG	GLN	D	135	-26.085	-8.545	86.219	1.00	55.78	C
ATOM	18222	CD	GLN	D	135	-26.989	-9.173	87.254	1.00	59.32	C
ATOM	18223	OE1	GLN	D	135	-27.752	-8.478	87.925	1.00	67.47	O
ATOM	18224	NE2	GLN	D	135	-26.902	-10.492	87.403	1.00	65.64	N
ATOM	18227	C	GLN	D	135	-24.720	-6.014	84.932	1.00	55.52	C
ATOM	18228	O	GLN	D	135	-24.922	-4.865	85.302	1.00	55.92	O
ATOM	18230	N	GLY	D	136	-25.042	-6.448	83.721	1.00	56.26	N
ATOM	18231	CA	GLY	D	136	-25.713	-5.583	82.757	1.00	55.42	C
ATOM	18234	C	GLY	D	136	-24.780	-4.745	81.899	1.00	54.75	C

ATOM	18235	O	GLY	D	136	-25.234	-4.094	80.962	1.00	57.84	O
ATOM	18237	N	GLN	D	137	-23.485	-4.746	82.208	1.00	51.86	N
ATOM	18238	CA	GLN	D	137	-22.515	-4.062	81.370	1.00	51.09	C
ATOM	18240	CB	GLN	D	137	-21.275	-3.681	82.177	1.00	49.94	C
ATOM	18243	CG	GLN	D	137	-21.522	-2.546	83.144	1.00	47.82	C
ATOM	18246	CD	GLN	D	137	-20.256	-2.046	83.813	1.00	49.66	C
ATOM	18247	OE1	GLN	D	137	-19.324	-2.808	84.049	1.00	50.76	O
ATOM	18248	NE2	GLN	D	137	-20.227	-0.762	84.141	1.00	52.11	N
ATOM	18251	C	GLN	D	137	-22.135	-4.930	80.163	1.00	51.27	C
ATOM	18252	O	GLN	D	137	-22.430	-6.129	80.126	1.00	50.43	O
ATOM	18254	N	SER	D	138	-21.499	-4.302	79.175	1.00	51.61	N
ATOM	18255	CA	SER	D	138	-21.092	-4.967	77.937	1.00	50.74	C
ATOM	18257	CB	SER	D	138	-21.717	-4.279	76.725	1.00	50.04	C
ATOM	18260	OG	SER	D	138	-23.126	-4.236	76.843	1.00	53.94	O
ATOM	18262	C	SER	D	138	-19.589	-4.941	77.774	1.00	49.32	C
ATOM	18263	O	SER	D	138	-18.960	-3.919	77.967	1.00	49.49	O
ATOM	18265	N	LEU	D	139	-19.026	-6.082	77.413	1.00	51.10	N
ATOM	18266	CA	LEU	D	139	-17.615	-6.199	77.090	1.00	51.33	C
ATOM	18268	CB	LEU	D	139	-17.012	-7.375	77.846	1.00	51.35	C
ATOM	18271	CG	LEU	D	139	-15.514	-7.557	77.618	1.00	52.96	C
ATOM	18273	CD1	LEU	D	139	-14.712	-6.447	78.345	1.00	55.77	C
ATOM	18277	CD2	LEU	D	139	-15.090	-8.948	78.054	1.00	53.61	C
ATOM	18281	C	LEU	D	139	-17.462	-6.449	75.593	1.00	51.20	C
ATOM	18282	O	LEU	D	139	-18.159	-7.301	75.026	1.00	49.61	O
ATOM	18284	N	THR	D	140	-16.541	-5.727	74.960	1.00	50.52	N
ATOM	18285	CA	THR	D	140	-16.297	-5.906	73.533	1.00	50.83	C
ATOM	18287	CB	THR	D	140	-16.548	-4.610	72.684	1.00	51.00	C
ATOM	18289	OG1	THR	D	140	-15.605	-4.555	71.606	1.00	53.65	O
ATOM	18291	CG2	THR	D	140	-16.445	-3.333	73.514	1.00	49.90	C
ATOM	18295	C	THR	D	140	-14.901	-6.462	73.299	1.00	50.83	C
ATOM	18296	O	THR	D	140	-13.904	-5.865	73.714	1.00	51.00	O
ATOM	18298	N	LEU	D	141	-14.850	-7.615	72.633	1.00	51.97	N
ATOM	18299	CA	LEU	D	141	-13.595	-8.269	72.271	1.00	52.74	C
ATOM	18301	CB	LEU	D	141	-13.757	-9.784	72.305	1.00	51.17	C
ATOM	18304	CG	LEU	D	141	-14.179	-10.370	73.646	1.00	48.01	C
ATOM	18306	CD1	LEU	D	141	-14.347	-11.865	73.499	1.00	44.17	C
ATOM	18310	CD2	LEU	D	141	-13.176	-10.026	74.750	1.00	47.63	C
ATOM	18314	C	LEU	D	141	-13.149	-7.855	70.883	1.00	53.26	C
ATOM	18315	O	LEU	D	141	-13.986	-7.583	70.020	1.00	54.40	O
ATOM	18317	N	THR	D	142	-11.832	-7.840	70.670	1.00	53.92	N
ATOM	18318	CA	THR	D	142	-11.238	-7.422	69.386	1.00	55.49	C
ATOM	18320	CB	THR	D	142	-10.629	-6.013	69.492	1.00	54.17	C
ATOM	18322	OG1	THR	D	142	-11.548	-5.162	70.182	1.00	57.68	O
ATOM	18324	CG2	THR	D	142	-10.347	-5.435	68.130	1.00	52.38	C
ATOM	18328	C	THR	D	142	-10.141	-8.376	68.938	1.00	56.34	C
ATOM	18329	O	THR	D	142	-9.446	-8.959	69.762	1.00	58.22	O
ATOM	18331	N	LEU	D	143	-9.995	-8.527	67.626	1.00	56.33	N
ATOM	18332	CA	LEU	D	143	-8.968	-9.388	67.053	1.00	56.03	C
ATOM	18334	CB	LEU	D	143	-9.534	-10.202	65.900	1.00	56.84	C
ATOM	18337	CG	LEU	D	143	-10.257	-11.498	66.244	1.00	60.58	C
ATOM	18339	CD1	LEU	D	143	-11.411	-11.224	67.182	1.00	60.22	C
ATOM	18343	CD2	LEU	D	143	-10.718	-12.189	64.950	1.00	58.03	C
ATOM	18347	C	LEU	D	143	-7.825	-8.560	66.510	1.00	56.02	C
ATOM	18348	O	LEU	D	143	-8.048	-7.626	65.729	1.00	57.30	O
ATOM	18350	N	GLU	D	144	-6.605	-8.899	66.913	1.00	54.80	N
ATOM	18351	CA	GLU	D	144	-5.420	-8.371	66.251	1.00	55.99	C
ATOM	18353	CB	GLU	D	144	-4.266	-8.183	67.241	1.00	55.63	C
ATOM	18356	CG	GLU	D	144	-3.362	-7.002	66.890	1.00	60.69	C
ATOM	18359	CD	GLU	D	144	-2.114	-6.926	67.752	1.00	63.94	C
ATOM	18360	OE1	GLU	D	144	-2.146	-7.458	68.887	1.00	72.09	O
ATOM	18361	OE2	GLU	D	144	-1.106	-6.333	67.292	1.00	69.98	O
ATOM	18362	C	GLU	D	144	-5.069	-9.365	65.144	1.00	54.60	C
ATOM	18363	O	GLU	D	144	-4.844	-10.552	65.412	1.00	56.41	O

ATOM	18365	N	SER	D	145	-5.056	-8.890	63.903	1.00 52.86	N
ATOM	18366	CA	SER	D	145	-4.920	-9.768	62.736	1.00 53.37	C
ATOM	18368	CB	SER	D	145	-6.304	-10.028	62.117	1.00 52.48	C
ATOM	18371	OG	SER	D	145	-6.858	-8.858	61.516	1.00 53.25	O
ATOM	18373	C	SER	D	145	-3.978	-9.148	61.701	1.00 52.37	C
ATOM	18374	O	SER	D	145	-3.958	-7.933	61.554	1.00 54.29	O
ATOM	18376	N	PRO	D	146	-3.210	-9.978	60.968	1.00 51.88	N
ATOM	18377	CA	PRO	D	146	-2.262	-9.416	59.997	1.00 51.04	C
ATOM	18379	CB	PRO	D	146	-1.402	-10.611	59.627	1.00 51.10	C
ATOM	18382	CG	PRO	D	146	-2.321	-11.785	59.786	1.00 50.23	C
ATOM	18385	CD	PRO	D	146	-3.185	-11.453	60.966	1.00 50.99	C
ATOM	18388	C	PRO	D	146	-2.969	-8.894	58.761	1.00 50.82	C
ATOM	18389	O	PRO	D	146	-4.080	-9.315	58.478	1.00 50.19	O
ATOM	18390	N	PRO	D	147	-2.333	-7.976	58.025	1.00 53.17	N
ATOM	18391	CA	PRO	D	147	-2.921	-7.335	56.845	1.00 53.12	C
ATOM	18393	CB	PRO	D	147	-1.728	-6.624	56.223	1.00 53.31	C
ATOM	18396	CG	PRO	D	147	-0.891	-6.266	57.385	1.00 55.28	C
ATOM	18399	CD	PRO	D	147	-0.986	-7.447	58.301	1.00 54.19	C
ATOM	18402	C	PRO	D	147	-3.591	-8.251	55.810	1.00 53.13	C
ATOM	18403	O	PRO	D	147	-4.637	-7.897	55.263	1.00 54.73	O
ATOM	18404	N	GLY	D	148	-3.021	-9.408	55.523	1.00 53.41	N
ATOM	18405	CA	GLY	D	148	-3.678	-10.313	54.567	1.00 55.58	C
ATOM	18408	C	GLY	D	148	-5.009	-10.913	55.038	1.00 55.14	C
ATOM	18409	O	GLY	D	148	-5.930	-11.116	54.251	1.00 50.96	O
ATOM	18411	N	SER	D	149	-5.094	-11.147	56.343	1.00 54.71	N
ATOM	18412	CA	SER	D	149	-6.037	-12.068	56.941	1.00 53.77	C
ATOM	18414	CB	SER	D	149	-5.726	-12.207	58.427	1.00 54.85	C
ATOM	18417	OG	SER	D	149	-6.017	-10.996	59.084	1.00 56.72	O
ATOM	18419	C	SER	D	149	-7.484	-11.671	56.790	1.00 52.08	C
ATOM	18420	O	SER	D	149	-7.798	-10.581	56.317	1.00 50.36	O
ATOM	18422	N	SER	D	150	-8.353	-12.583	57.231	1.00 50.75	N
ATOM	18423	CA	SER	D	150	-9.764	-12.537	56.923	1.00 48.63	C
ATOM	18425	CB	SER	D	150	-9.936	-13.290	55.605	1.00 48.04	C
ATOM	18428	OG	SER	D	150	-11.094	-12.867	54.941	1.00 50.58	O
ATOM	18430	C	SER	D	150	-10.674	-13.168	58.002	1.00 47.91	C
ATOM	18431	O	SER	D	150	-11.739	-13.675	57.675	1.00 47.31	O
ATOM	18433	N	PRO	D	151	-10.292	-13.096	59.294	1.00 46.40	N
ATOM	18434	CA	PRO	D	151	-10.920	-13.946	60.312	1.00 46.91	C
ATOM	18436	CB	PRO	D	151	-10.002	-13.750	61.507	1.00 45.83	C
ATOM	18439	CG	PRO	D	151	-9.565	-12.344	61.370	1.00 46.53	C
ATOM	18442	CD	PRO	D	151	-9.286	-12.207	59.905	1.00 47.48	C
ATOM	18445	C	PRO	D	151	-12.345	-13.588	60.748	1.00 47.44	C
ATOM	18446	O	PRO	D	151	-12.781	-12.453	60.554	1.00 46.11	O
ATOM	18447	N	SER	D	152	-13.038	-14.567	61.343	1.00 47.38	N
ATOM	18448	CA	SER	D	152	-14.302	-14.340	62.069	1.00 49.80	C
ATOM	18450	CB	SER	D	152	-15.513	-14.738	61.218	1.00 49.91	C
ATOM	18453	OG	SER	D	152	-15.484	-16.117	60.872	1.00 57.34	O
ATOM	18455	C	SER	D	152	-14.287	-15.102	63.416	1.00 49.58	C
ATOM	18456	O	SER	D	152	-13.391	-15.889	63.667	1.00 49.21	O
ATOM	18458	N	VAL	D	153	-15.263	-14.859	64.286	1.00 50.80	N
ATOM	18459	CA	VAL	D	153	-15.117	-15.231	65.700	1.00 52.57	C
ATOM	18461	CB	VAL	D	153	-14.724	-14.022	66.570	1.00 51.92	C
ATOM	18463	CG1	VAL	D	153	-14.374	-14.475	67.987	1.00 50.90	C
ATOM	18467	CG2	VAL	D	153	-13.580	-13.278	65.971	1.00 58.01	C
ATOM	18471	C	VAL	D	153	-16.394	-15.718	66.337	1.00 54.01	C
ATOM	18472	O	VAL	D	153	-17.450	-15.115	66.142	1.00 54.00	O
ATOM	18474	N	GLN	D	154	-16.276	-16.761	67.154	1.00 54.05	N
ATOM	18475	CA	GLN	D	154	-17.400	-17.252	67.935	1.00 56.08	C
ATOM	18477	CB	GLN	D	154	-17.918	-18.552	67.327	1.00 55.99	C
ATOM	18480	CG	GLN	D	154	-19.218	-19.058	67.913	1.00 54.19	C
ATOM	18483	CD	GLN	D	154	-19.696	-20.309	67.194	1.00 53.64	C
ATOM	18484	OE1	GLN	D	154	-18.987	-21.308	67.153	1.00 57.94	O
ATOM	18485	NE2	GLN	D	154	-20.884	-20.253	66.611	1.00 37.30	N

ATOM	18488	C	GLN	D	154	-16.949	-17.482	69.369	1.00 57.47	C
ATOM	18489	O	GLN	D	154	-15.963	-18.170	69.589	1.00 59.08	O
ATOM	18491	N	CYS	D	155	-17.646	-16.887	70.334	1.00 58.37	N
ATOM	18492	CA	CYS	D	155	-17.365	-17.138	71.743	1.00 57.77	C
ATOM	18494	CB	CYS	D	155	-17.093	-15.846	72.494	1.00 57.38	C
ATOM	18497	SG	CYS	D	155	-15.687	-14.948	71.865	1.00 62.04	S
ATOM	18499	C	CYS	D	155	-18.541	-17.855	72.359	1.00 58.98	C
ATOM	18500	O	CYS	D	155	-19.691	-17.628	71.973	1.00 60.03	O
ATOM	18502	N	ARG	D	156	-18.235	-18.724	73.316	1.00 59.42	N
ATOM	18503	CA	ARG	D	156	-19.221	-19.569	73.972	1.00 58.07	C
ATOM	18505	CB	ARG	D	156	-18.858	-21.040	73.762	1.00 57.21	C
ATOM	18508	CG	ARG	D	156	-19.934	-22.026	74.198	1.00 60.46	C
ATOM	18511	CD	ARG	D	156	-19.441	-23.477	74.171	1.00 61.19	C
ATOM	18514	NE	ARG	D	156	-18.865	-23.822	72.873	1.00 64.19	N
ATOM	18516	CZ	ARG	D	156	-19.563	-24.033	71.761	1.00 62.39	C
ATOM	18517	NH1	ARG	D	156	-20.881	-23.951	71.755	1.00 66.24	N
ATOM	18520	NH2	ARG	D	156	-18.936	-24.323	70.635	1.00 65.74	N
ATOM	18523	C	ARG	D	156	-19.231	-19.230	75.463	1.00 57.80	C
ATOM	18524	O	ARG	D	156	-18.180	-19.208	76.103	1.00 56.95	O
ATOM	18526	N	SER	D	157	-20.418	-18.962	76.007	1.00 57.05	N
ATOM	18527	CA	SER	D	157	-20.577	-18.702	77.437	1.00 55.35	C
ATOM	18529	CB	SER	D	157	-21.948	-18.081	77.718	1.00 56.54	C
ATOM	18532	OG	SER	D	157	-22.981	-19.056	77.651	1.00 59.97	O
ATOM	18534	C	SER	D	157	-20.454	-19.990	78.237	1.00 52.36	C
ATOM	18535	O	SER	D	157	-20.618	-21.076	77.699	1.00 49.84	O
ATOM	18537	N	PRO	D	158	-20.173	-19.876	79.536	1.00 52.22	N
ATOM	18538	CA	PRO	D	158	-20.259	-21.030	80.431	1.00 52.39	C
ATOM	18540	CB	PRO	D	158	-20.090	-20.396	81.821	1.00 51.88	C
ATOM	18543	CG	PRO	D	158	-19.241	-19.220	81.584	1.00 50.43	C
ATOM	18546	CD	PRO	D	158	-19.688	-18.678	80.243	1.00 53.67	C
ATOM	18549	C	PRO	D	158	-21.575	-21.836	80.353	1.00 50.69	C
ATOM	18550	O	PRO	D	158	-21.617	-22.982	80.799	1.00 48.48	O
ATOM	18551	N	ARG	D	159	-22.635	-21.247	79.804	1.00 50.89	N
ATOM	18552	CA	ARG	D	159	-23.885	-21.981	79.594	1.00 51.66	C
ATOM	18554	CB	ARG	D	159	-25.085	-21.063	79.813	1.00 51.61	C
ATOM	18557	CG	ARG	D	159	-25.122	-20.441	81.202	1.00 52.14	C
ATOM	18560	CD	ARG	D	159	-26.509	-20.012	81.617	1.00 54.01	C
ATOM	18563	NE	ARG	D	159	-27.332	-19.661	80.465	1.00 58.30	N
ATOM	18565	CZ	ARG	D	159	-27.324	-18.491	79.842	1.00 55.15	C
ATOM	18566	NH1	ARG	D	159	-26.559	-17.490	80.264	1.00 55.94	N
ATOM	18569	NH2	ARG	D	159	-28.112	-18.326	78.795	1.00 57.35	N
ATOM	18572	C	ARG	D	159	-23.964	-22.633	78.212	1.00 50.78	C
ATOM	18573	O	ARG	D	159	-24.993	-23.187	77.847	1.00 50.37	O
ATOM	18575	N	GLY	D	160	-22.871	-22.573	77.458	1.00 51.66	N
ATOM	18576	CA	GLY	D	160	-22.768	-23.246	76.177	1.00 51.11	C
ATOM	18579	C	GLY	D	160	-23.488	-22.524	75.061	1.00 51.24	C
ATOM	18580	O	GLY	D	160	-23.803	-23.139	74.045	1.00 52.19	O
ATOM	18582	N	LYS	D	161	-23.752	-21.230	75.239	1.00 51.67	N
ATOM	18583	CA	LYS	D	161	-24.423	-20.425	74.214	1.00 53.02	C
ATOM	18585	CB	LYS	D	161	-25.511	-19.546	74.839	1.00 54.50	C
ATOM	18588	CG	LYS	D	161	-26.675	-20.326	75.482	1.00 57.95	C
ATOM	18591	CD	LYS	D	161	-27.856	-20.517	74.518	1.00 60.42	C
ATOM	18594	CE	LYS	D	161	-29.018	-21.274	75.167	1.00 57.48	C
ATOM	18597	NZ	LYS	D	161	-28.624	-22.645	75.620	1.00 57.99	N
ATOM	18601	C	LYS	D	161	-23.398	-19.562	73.472	1.00 54.00	C
ATOM	18602	O	LYS	D	161	-22.539	-18.925	74.096	1.00 54.45	O
ATOM	18604	N	ASN	D	162	-23.498	-19.543	72.142	1.00 53.68	N
ATOM	18605	CA	ASN	D	162	-22.518	-18.869	71.288	1.00 52.60	C
ATOM	18607	CB	ASN	D	162	-22.308	-19.636	69.985	1.00 51.64	C
ATOM	18610	CG	ASN	D	162	-21.893	-21.064	70.207	1.00 47.38	C
ATOM	18611	OD1	ASN	D	162	-22.541	-21.978	69.722	1.00 39.51	O
ATOM	18612	ND2	ASN	D	162	-20.808	-21.266	70.947	1.00 53.72	N
ATOM	18615	C	ASN	D	162	-22.954	-17.479	70.910	1.00 51.70	C

ATOM	18616	O	ASN	D	162	-24.099	-17.280	70.564	1.00	46.95	O
ATOM	18618	N	ILE	D	163	-22.021	-16.534	70.985	1.00	55.12	N
ATOM	18619	CA	ILE	D	163	-22.137	-15.217	70.362	1.00	54.68	C
ATOM	18621	CB	ILE	D	163	-21.825	-14.094	71.388	1.00	54.18	C
ATOM	18623	CG1	ILE	D	163	-22.932	-13.983	72.426	1.00	56.53	C
ATOM	18626	CD1	ILE	D	163	-22.601	-13.031	73.582	1.00	57.98	C
ATOM	18630	CG2	ILE	D	163	-21.678	-12.736	70.714	1.00	57.91	C
ATOM	18634	C	ILE	D	163	-21.090	-15.193	69.246	1.00	54.27	C
ATOM	18635	O	ILE	D	163	-19.995	-15.728	69.422	1.00	55.73	O
ATOM	18637	N	GLN	D	164	-21.386	-14.571	68.113	1.00	53.58	N
ATOM	18638	CA	GLN	D	164	-20.374	-14.477	67.060	1.00	55.90	C
ATOM	18640	CB	GLN	D	164	-20.562	-15.598	66.020	1.00	56.53	C
ATOM	18643	CG	GLN	D	164	-21.976	-15.837	65.517	1.00	57.92	C
ATOM	18646	CD	GLN	D	164	-22.156	-17.247	64.967	1.00	58.23	C
ATOM	18647	OE1	GLN	D	164	-22.159	-18.227	65.721	1.00	55.68	O
ATOM	18648	NE2	GLN	D	164	-22.309	-17.355	63.649	1.00	58.55	N
ATOM	18651	C	GLN	D	164	-20.224	-13.087	66.401	1.00	55.64	C
ATOM	18652	O	GLN	D	164	-21.046	-12.207	66.591	1.00	55.44	O
ATOM	18654	N	GLY	D	165	-19.127	-12.910	65.664	1.00	56.69	N
ATOM	18655	CA	GLY	D	165	-18.803	-11.644	64.996	1.00	55.85	C
ATOM	18658	C	GLY	D	165	-17.638	-11.740	64.008	1.00	55.76	C
ATOM	18659	O	GLY	D	165	-17.093	-12.828	63.751	1.00	55.67	O
ATOM	18661	N	GLY	D	166	-17.262	-10.594	63.451	1.00	53.91	N
ATOM	18662	CA	GLY	D	166	-16.180	-10.524	62.475	1.00	54.74	C
ATOM	18665	C	GLY	D	166	-14.819	-10.374	63.137	1.00	54.81	C
ATOM	18666	O	GLY	D	166	-14.302	-11.332	63.708	1.00	52.62	O
ATOM	18668	N	LYS	D	167	-14.241	-9.173	63.034	1.00	54.46	N
ATOM	18669	CA	LYS	D	167	-13.034	-8.778	63.785	1.00	53.64	C
ATOM	18671	CB	LYS	D	167	-12.273	-7.697	63.027	1.00	52.66	C
ATOM	18674	CG	LYS	D	167	-11.428	-8.210	61.912	1.00	52.86	C
ATOM	18677	CD	LYS	D	167	-10.998	-7.067	61.034	1.00	53.75	C
ATOM	18680	CE	LYS	D	167	-9.838	-7.468	60.147	1.00	57.67	C
ATOM	18683	NZ	LYS	D	167	-9.606	-6.442	59.094	1.00	59.20	N
ATOM	18687	C	LYS	D	167	-13.386	-8.218	65.162	1.00	54.15	C
ATOM	18688	O	LYS	D	167	-12.541	-7.660	65.858	1.00	55.19	O
ATOM	18690	N	THR	D	168	-14.636	-8.383	65.561	1.00	54.22	N
ATOM	18691	CA	THR	D	168	-15.181	-7.681	66.704	1.00	52.82	C
ATOM	18693	CB	THR	D	168	-15.570	-6.232	66.283	1.00	51.78	C
ATOM	18695	OG1	THR	D	168	-14.506	-5.346	66.634	1.00	46.88	O
ATOM	18697	CG2	THR	D	168	-16.886	-5.737	66.921	1.00	50.02	C
ATOM	18701	C	THR	D	168	-16.386	-8.484	67.123	1.00	53.97	C
ATOM	18702	O	THR	D	168	-17.118	-8.984	66.265	1.00	55.63	O
ATOM	18704	N	LEU	D	169	-16.581	-8.643	68.426	1.00	54.93	N
ATOM	18705	CA	LEU	D	169	-17.872	-9.099	68.932	1.00	55.16	C
ATOM	18707	CB	LEU	D	169	-17.999	-10.636	68.888	1.00	56.29	C
ATOM	18710	CG	LEU	D	169	-17.258	-11.596	69.818	1.00	52.07	C
ATOM	18712	CD1	LEU	D	169	-17.574	-11.393	71.281	1.00	57.77	C
ATOM	18716	CD2	LEU	D	169	-17.651	-12.996	69.441	1.00	55.73	C
ATOM	18720	C	LEU	D	169	-18.126	-8.549	70.321	1.00	54.29	C
ATOM	18721	O	LEU	D	169	-17.196	-8.376	71.096	1.00	53.23	O
ATOM	18723	N	SER	D	170	-19.391	-8.269	70.618	1.00	55.77	N
ATOM	18724	CA	SER	D	170	-19.785	-7.758	71.931	1.00	57.83	C
ATOM	18726	CB	SER	D	170	-20.657	-6.500	71.783	1.00	58.00	C
ATOM	18729	OG	SER	D	170	-21.101	-6.046	73.058	1.00	59.15	O
ATOM	18731	C	SER	D	170	-20.526	-8.802	72.782	1.00	57.44	C
ATOM	18732	O	SER	D	170	-21.492	-9.430	72.339	1.00	56.56	O
ATOM	18734	N	VAL	D	171	-20.060	-8.975	74.012	1.00	57.99	N
ATOM	18735	CA	VAL	D	171	-20.802	-9.722	75.016	1.00	57.84	C
ATOM	18737	CB	VAL	D	171	-19.858	-10.498	75.993	1.00	58.86	C
ATOM	18739	CG1	VAL	D	171	-20.653	-11.499	76.791	1.00	60.80	C
ATOM	18743	CG2	VAL	D	171	-18.706	-11.199	75.247	1.00	57.33	C
ATOM	18747	C	VAL	D	171	-21.577	-8.645	75.767	1.00	56.77	C
ATOM	18748	O	VAL	D	171	-20.987	-7.864	76.507	1.00	55.92	O

ATOM	18750	N	SER	D	172	-22.890	-8.595	75.572	1.00 56.82	N
ATOM	18751	CA	SER	D	172	-23.690	-7.482	76.072	1.00 56.26	C
ATOM	18753	CB	SER	D	172	-24.436	-6.838	74.912	1.00 57.11	C
ATOM	18756	OG	SER	D	172	-25.679	-7.482	74.702	1.00 56.59	O
ATOM	18758	C	SER	D	172	-24.695	-7.874	77.148	1.00 55.50	C
ATOM	18759	O	SER	D	172	-25.156	-9.005	77.188	1.00 55.73	O
ATOM	18761	N	GLN	D	173	-25.060	-6.901	77.984	1.00 56.13	N
ATOM	18762	CA	GLN	D	173	-25.981	-7.108	79.106	1.00 55.53	C
ATOM	18764	CB	GLN	D	173	-27.444	-7.202	78.630	1.00 57.06	C
ATOM	18767	CG	GLN	D	173	-28.321	-5.996	79.001	1.00 60.28	C
ATOM	18770	CD	GLN	D	173	-28.110	-4.790	78.103	1.00 64.40	C
ATOM	18771	OE1	GLN	D	173	-28.261	-3.644	78.536	1.00 65.46	O
ATOM	18772	NE2	GLN	D	173	-27.767	-5.040	76.846	1.00 64.55	N
ATOM	18775	C	GLN	D	173	-25.581	-8.346	79.891	1.00 54.22	C
ATOM	18776	O	GLN	D	173	-26.398	-9.218	80.162	1.00 55.87	O
ATOM	18778	N	LEU	D	174	-24.310	-8.410	80.259	1.00 52.91	N
ATOM	18779	CA	LEU	D	174	-23.783	-9.560	80.979	1.00 51.93	C
ATOM	18781	CB	LEU	D	174	-22.326	-9.320	81.362	1.00 50.97	C
ATOM	18784	CG	LEU	D	174	-21.354	-9.712	80.254	1.00 46.31	C
ATOM	18786	CD1	LEU	D	174	-20.065	-8.945	80.373	1.00 49.23	C
ATOM	18790	CD2	LEU	D	174	-21.096	-11.210	80.299	1.00 43.88	C
ATOM	18794	C	LEU	D	174	-24.592	-9.907	82.224	1.00 51.33	C
ATOM	18795	O	LEU	D	174	-24.772	-9.068	83.105	1.00 51.12	O
ATOM	18797	N	GLU	D	175	-25.070	-11.153	82.269	1.00 51.60	N
ATOM	18798	CA	GLU	D	175	-25.774	-11.722	83.425	1.00 50.66	C
ATOM	18800	CB	GLU	D	175	-26.857	-12.668	82.939	1.00 50.66	C
ATOM	18803	CG	GLU	D	175	-27.846	-12.049	81.972	1.00 51.22	C
ATOM	18806	CD	GLU	D	175	-28.754	-13.087	81.336	1.00 51.50	C
ATOM	18807	OE1	GLU	D	175	-29.535	-12.724	80.442	1.00 62.90	O
ATOM	18808	OE2	GLU	D	175	-28.679	-14.272	81.710	1.00 53.40	O
ATOM	18809	C	GLU	D	175	-24.824	-12.509	84.332	1.00 49.28	C
ATOM	18810	O	GLU	D	175	-23.757	-12.939	83.901	1.00 49.68	O
ATOM	18812	N	LEU	D	176	-25.231	-12.718	85.580	1.00 49.05	N
ATOM	18813	CA	LEU	D	176	-24.399	-13.426	86.570	1.00 49.29	C
ATOM	18815	CB	LEU	D	176	-24.979	-13.255	87.977	1.00 47.46	C
ATOM	18818	CG	LEU	D	176	-24.242	-13.947	89.124	1.00 48.17	C
ATOM	18820	CD1	LEU	D	176	-22.794	-13.504	89.185	1.00 50.38	C
ATOM	18824	CD2	LEU	D	176	-24.944	-13.680	90.454	1.00 49.98	C
ATOM	18828	C	LEU	D	176	-24.252	-14.918	86.243	1.00 49.36	C
ATOM	18829	O	LEU	D	176	-23.218	-15.530	86.531	1.00 48.38	O
ATOM	18831	N	GLN	D	177	-25.286	-15.495	85.637	1.00 49.89	N
ATOM	18832	CA	GLN	D	177	-25.223	-16.873	85.168	1.00 50.51	C
ATOM	18834	CB	GLN	D	177	-26.621	-17.376	84.774	1.00 50.29	C
ATOM	18837	CG	GLN	D	177	-27.297	-16.643	83.600	1.00 52.73	C
ATOM	18840	CD	GLN	D	177	-28.427	-17.463	82.946	1.00 53.51	C
ATOM	18841	OE1	GLN	D	177	-28.711	-17.296	81.754	1.00 44.77	O
ATOM	18842	NE2	GLN	D	177	-29.056	-18.368	83.720	1.00 53.31	N
ATOM	18845	C	GLN	D	177	-24.226	-17.095	84.011	1.00 51.74	C
ATOM	18846	O	GLN	D	177	-24.220	-18.162	83.411	1.00 54.21	O
ATOM	18848	N	ASP	D	178	-23.398	-16.098	83.699	1.00 51.17	N
ATOM	18849	CA	ASP	D	178	-22.345	-16.230	82.691	1.00 49.75	C
ATOM	18851	CB	ASP	D	178	-22.690	-15.383	81.470	1.00 49.64	C
ATOM	18854	CG	ASP	D	178	-23.642	-16.069	80.549	1.00 48.02	C
ATOM	18855	OD1	ASP	D	178	-23.647	-17.320	80.521	1.00 42.77	O
ATOM	18856	OD2	ASP	D	178	-24.372	-15.344	79.846	1.00 48.01	O
ATOM	18857	C	ASP	D	178	-20.966	-15.804	83.182	1.00 50.41	C
ATOM	18858	O	ASP	D	178	-20.039	-15.671	82.371	1.00 50.02	O
ATOM	18860	N	SER	D	179	-20.824	-15.573	84.486	1.00 48.29	N
ATOM	18861	CA	SER	D	179	-19.514	-15.338	85.058	1.00 46.97	C
ATOM	18863	CB	SER	D	179	-19.610	-15.039	86.562	1.00 48.08	C
ATOM	18866	OG	SER	D	179	-18.618	-14.113	86.975	1.00 46.52	O
ATOM	18868	C	SER	D	179	-18.773	-16.636	84.805	1.00 45.33	C
ATOM	18869	O	SER	D	179	-19.289	-17.696	85.103	1.00 44.47	O

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ATOM  18871  N   GLY D 180     -17.601 -16.563  84.197  1.00 45.37           N
ATOM  18872  CA  GLY D 180     -16.788 -17.751  84.000  1.00 46.81           C
ATOM  18875  C   GLY D 180     -15.836 -17.664  82.831  1.00 47.08           C
ATOM  18876  O   GLY D 180     -15.576 -16.591  82.298  1.00 43.84           O
ATOM  18878  N   THR D 181     -15.318 -18.823  82.440  1.00 49.78           N
ATOM  18879  CA  THR D 181     -14.489 -18.922  81.258  1.00 50.28           C
ATOM  18881  CB  THR D 181     -13.657 -20.206  81.265  1.00 50.54           C
ATOM  18883  OG1 THR D 181     -12.930 -20.290  82.494  1.00 53.85           O
ATOM  18885  CG2 THR D 181     -12.676 -20.217  80.089  1.00 50.79           C
ATOM  18889  C   THR D 181     -15.359 -18.927  80.013  1.00 50.94           C
ATOM  18890  O   THR D 181     -16.294 -19.720  79.904  1.00 51.44           O
ATOM  18892  N   TRP D 182     -15.047 -18.025  79.088  1.00 51.77           N
ATOM  18893  CA  TRP D 182     -15.644 -18.023  77.762  1.00 50.98           C
ATOM  18895  CB  TRP D 182     -16.042 -16.615  77.338  1.00 50.58           C
ATOM  18898  CG  TRP D 182     -17.226 -16.064  78.063  1.00 50.41           C
ATOM  18899  CD1 TRP D 182     -17.333 -15.856  79.396  1.00 51.75           C
ATOM  18901  NE1 TRP D 182     -18.562 -15.327  79.694  1.00 53.78           N
ATOM  18903  CE2 TRP D 182     -19.272 -15.170  78.537  1.00 47.89           C
ATOM  18904  CD2 TRP D 182     -18.458 -15.619  77.484  1.00 48.06           C
ATOM  18905  CE3 TRP D 182     -18.959 -15.579  76.176  1.00 50.74           C
ATOM  18907  CZ3 TRP D 182     -20.234 -15.085  75.968  1.00 50.92           C
ATOM  18909  CH2 TRP D 182     -21.020 -14.638  77.046  1.00 51.67           C
ATOM  18911  CZ2 TRP D 182     -20.555 -14.669  78.333  1.00 49.51           C
ATOM  18913  C   TRP D 182     -14.614 -18.563  76.798  1.00 50.96           C
ATOM  18914  O   TRP D 182     -13.423 -18.292  76.952  1.00 51.34           O
ATOM  18916  N   THR D 183     -15.084 -19.326  75.811  1.00 51.16           N
ATOM  18917  CA  THR D 183     -14.224 -19.966  74.828  1.00 51.23           C
ATOM  18919  CB  THR D 183     -14.473 -21.474  74.759  1.00 49.60           C
ATOM  18921  OG1 THR D 183     -14.146 -22.052  76.022  1.00 51.62           O
ATOM  18923  CG2 THR D 183     -13.616 -22.127  73.681  1.00 49.58           C
ATOM  18927  C   THR D 183     -14.467 -19.367  73.463  1.00 51.31           C
ATOM  18928  O   THR D 183     -15.477 -19.642  72.821  1.00 51.31           O
ATOM  18930  N   CYS D 184     -13.520 -18.554  73.022  1.00 52.73           N
ATOM  18931  CA  CYS D 184     -13.556 -18.012  71.683  1.00 54.51           C
ATOM  18933  CB  CYS D 184     -13.089 -16.568  71.701  1.00 54.89           C
ATOM  18936  SG  CYS D 184     -14.059 -15.677  72.890  1.00 61.88           S
ATOM  18938  C   CYS D 184     -12.747 -18.851  70.696  1.00 54.85           C
ATOM  18939  O   CYS D 184     -11.627 -19.284  70.973  1.00 54.27           O
ATOM  18941  N   THR D 185     -13.361 -19.080  69.541  1.00 55.56           N
ATOM  18942  CA  THR D 185     -12.731 -19.745  68.418  1.00 55.00           C
ATOM  18944  CB  THR D 185     -13.581 -20.936  67.996  1.00 54.27           C
ATOM  18946  OG1 THR D 185     -13.714 -21.824  69.111  1.00 52.72           O
ATOM  18948  CG2 THR D 185     -12.957 -21.661  66.827  1.00 54.50           C
ATOM  18952  C   THR D 185     -12.624 -18.737  67.274  1.00 54.26           C
ATOM  18953  O   THR D 185     -13.630 -18.164  66.863  1.00 54.65           O
ATOM  18955  N   VAL D 186     -11.403 -18.511  66.790  1.00 54.25           N
ATOM  18956  CA  VAL D 186     -11.143 -17.616  65.656  1.00 54.15           C
ATOM  18958  CB  VAL D 186      -9.885 -16.759  65.880  1.00 53.88           C
ATOM  18960  CG1 VAL D 186      -9.613 -15.890  64.659  1.00 54.27           C
ATOM  18964  CG2 VAL D 186     -10.032 -15.904  67.135  1.00 54.96           C
ATOM  18968  C   VAL D 186     -10.934 -18.435  64.388  1.00 53.99           C
ATOM  18969  O   VAL D 186     -10.098 -19.339  64.357  1.00 58.08           O
ATOM  18971  N   LEU D 187     -11.668 -18.090  63.340  1.00 52.20           N
ATOM  18972  CA  LEU D 187     -11.724 -18.886  62.121  1.00 52.50           C
ATOM  18974  CB  LEU D 187     -13.188 -19.191  61.782  1.00 53.49           C
ATOM  18977  CG  LEU D 187     -13.543 -20.514  61.106  1.00 50.97           C
ATOM  18979  CD1 LEU D 187     -15.009 -20.458  60.738  1.00 52.54           C
ATOM  18983  CD2 LEU D 187     -12.701 -20.774  59.889  1.00 50.31           C
ATOM  18987  C   LEU D 187     -11.095 -18.114  60.972  1.00 51.90           C
ATOM  18988  O   LEU D 187     -11.479 -16.970  60.713  1.00 51.92           O
ATOM  18990  N   GLN D 188     -10.135 -18.753  60.301  1.00 51.71           N
ATOM  18991  CA  GLN D 188      -9.542 -18.260  59.056  1.00 51.97           C
ATOM  18993  CB  GLN D 188      -8.104 -17.776  59.290  1.00 51.88           C
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ATOM	18996	CG	GLN	D	188	-7.305	-17.428	58.032	1.00	51.87	C
ATOM	18999	CD	GLN	D	188	-7.774	-16.159	57.340	1.00	52.45	C
ATOM	19000	OE1	GLN	D	188	-7.811	-15.086	57.939	1.00	49.99	O
ATOM	19001	NE2	GLN	D	188	-8.109	-16.274	56.060	1.00	51.18	N
ATOM	19004	C	GLN	D	188	-9.580	-19.408	58.049	1.00	51.58	C
ATOM	19005	O	GLN	D	188	-8.986	-20.464	58.271	1.00	51.04	O
ATOM	19007	N	ASN	D	189	-10.275	-19.173	56.942	1.00	52.77	N
ATOM	19008	CA	ASN	D	189	-10.585	-20.195	55.943	1.00	52.62	C
ATOM	19010	CB	ASN	D	189	-9.323	-20.728	55.258	1.00	53.17	C
ATOM	19013	CG	ASN	D	189	-8.532	-19.638	54.566	1.00	52.86	C
ATOM	19014	OD1	ASN	D	189	-9.057	-18.569	54.258	1.00	43.61	O
ATOM	19015	ND2	ASN	D	189	-7.249	-19.903	54.326	1.00	61.59	N
ATOM	19018	C	ASN	D	189	-11.413	-21.280	56.598	1.00	52.19	C
ATOM	19019	O	ASN	D	189	-12.591	-21.048	56.875	1.00	55.59	O
ATOM	19021	N	GLN	D	190	-10.822	-22.446	56.836	1.00	50.92	N
ATOM	19022	CA	GLN	D	190	-11.444	-23.471	57.669	1.00	52.44	C
ATOM	19024	CB	GLN	D	190	-11.651	-24.767	56.883	1.00	53.07	C
ATOM	19027	CG	GLN	D	190	-10.454	-25.730	56.849	1.00	53.28	C
ATOM	19030	CD	GLN	D	190	-9.400	-25.349	55.829	1.00	56.43	C
ATOM	19031	OE1	GLN	D	190	-9.136	-24.168	55.595	1.00	61.17	O
ATOM	19032	NE2	GLN	D	190	-8.786	-26.353	55.217	1.00	59.00	N
ATOM	19035	C	GLN	D	190	-10.619	-23.768	58.907	1.00	52.71	C
ATOM	19036	O	GLN	D	190	-11.057	-24.509	59.769	1.00	53.18	O
ATOM	19038	N	LYS	D	191	-9.416	-23.215	58.975	1.00	53.72	N
ATOM	19039	CA	LYS	D	191	-8.512	-23.477	60.083	1.00	54.18	C
ATOM	19041	CB	LYS	D	191	-7.066	-23.170	59.657	1.00	55.20	C
ATOM	19044	CG	LYS	D	191	-6.186	-24.396	59.362	1.00	57.49	C
ATOM	19047	CD	LYS	D	191	-6.532	-25.122	58.058	1.00	56.87	C
ATOM	19050	CE	LYS	D	191	-5.260	-25.485	57.235	1.00	57.44	C
ATOM	19053	NZ	LYS	D	191	-4.248	-26.381	57.913	1.00	55.07	N
ATOM	19057	C	LYS	D	191	-8.926	-22.639	61.306	1.00	53.32	C
ATOM	19058	O	LYS	D	191	-9.389	-21.514	61.151	1.00	53.16	O
ATOM	19060	N	LYS	D	192	-8.751	-23.186	62.511	1.00	52.86	N
ATOM	19061	CA	LYS	D	192	-9.222	-22.530	63.739	1.00	53.91	C
ATOM	19063	CB	LYS	D	192	-10.485	-23.231	64.289	1.00	54.14	C
ATOM	19066	CG	LYS	D	192	-11.578	-23.484	63.243	1.00	56.41	C
ATOM	19069	CD	LYS	D	192	-12.966	-23.785	63.836	1.00	55.44	C
ATOM	19072	CE	LYS	D	192	-13.208	-25.259	64.121	1.00	57.49	C
ATOM	19075	NZ	LYS	D	192	-14.683	-25.573	64.184	1.00	54.24	N
ATOM	19079	C	LYS	D	192	-8.155	-22.468	64.836	1.00	53.61	C
ATOM	19080	O	LYS	D	192	-7.221	-23.275	64.865	1.00	53.61	O
ATOM	19082	N	VAL	D	193	-8.314	-21.500	65.739	1.00	53.25	N
ATOM	19083	CA	VAL	D	193	-7.480	-21.391	66.932	1.00	52.90	C
ATOM	19085	CB	VAL	D	193	-6.271	-20.508	66.646	1.00	51.67	C
ATOM	19087	CG1	VAL	D	193	-6.695	-19.172	66.048	1.00	56.14	C
ATOM	19091	CG2	VAL	D	193	-5.466	-20.312	67.888	1.00	52.21	C
ATOM	19095	C	VAL	D	193	-8.295	-20.876	68.145	1.00	53.74	C
ATOM	19096	O	VAL	D	193	-9.103	-19.961	68.009	1.00	53.84	O
ATOM	19098	N	GLU	D	194	-8.089	-21.481	69.318	1.00	54.42	N
ATOM	19099	CA	GLU	D	194	-8.884	-21.165	70.516	1.00	54.34	C
ATOM	19101	CB	GLU	D	194	-9.088	-22.400	71.392	1.00	54.97	C
ATOM	19104	CG	GLU	D	194	-10.533	-22.866	71.489	1.00	58.46	C
ATOM	19107	CD	GLU	D	194	-10.708	-24.031	72.459	1.00	59.84	C
ATOM	19108	OE1	GLU	D	194	-9.897	-24.159	73.408	1.00	64.41	O
ATOM	19109	OE2	GLU	D	194	-11.664	-24.818	72.273	1.00	65.48	O
ATOM	19110	C	GLU	D	194	-8.285	-20.090	71.401	1.00	53.11	C
ATOM	19111	O	GLU	D	194	-7.075	-19.979	71.545	1.00	49.11	O
ATOM	19113	N	PHE	D	195	-9.178	-19.318	72.009	1.00	55.14	N
ATOM	19114	CA	PHE	D	195	-8.841	-18.333	73.024	1.00	54.95	C
ATOM	19116	CB	PHE	D	195	-9.022	-16.912	72.479	1.00	53.77	C
ATOM	19119	CG	PHE	D	195	-7.913	-16.471	71.567	1.00	52.09	C
ATOM	19120	CD1	PHE	D	195	-6.778	-15.867	72.077	1.00	49.99	C
ATOM	19122	CE1	PHE	D	195	-5.742	-15.474	71.241	1.00	53.83	C

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ATOM  19124  CZ  PHE D 195      -5.842 -15.673  69.880  1.00 54.06           C
ATOM  19126  CE2 PHE D 195      -6.972 -16.277  69.359  1.00 56.31           C
ATOM  19128  CD2 PHE D 195      -7.998 -16.675  70.202  1.00 52.62           C
ATOM  19130  C   PHE D 195      -9.775 -18.567  74.195  1.00 56.67           C
ATOM  19131  O   PHE D 195     -10.992 -18.571  74.013  1.00 60.11           O
ATOM  19133  N   LYS D 196      -9.222 -18.790  75.386  1.00 56.89           N
ATOM  19134  CA  LYS D 196     -10.038 -18.836  76.594  1.00 55.67           C
ATOM  19136  CB  LYS D 196      -9.568 -19.948  77.514  1.00 56.02           C
ATOM  19139  CG  LYS D 196      -9.764 -21.320  76.892  1.00 57.44           C
ATOM  19142  CD  LYS D 196     -10.317 -22.332  77.867  1.00 55.86           C
ATOM  19145  CE  LYS D 196     -10.967 -23.483  77.118  1.00 60.28           C
ATOM  19148  NZ  LYS D 196     -11.462 -24.566  78.016  1.00 64.78           N
ATOM  19152  C   LYS D 196      -9.954 -17.493  77.278  1.00 54.92           C
ATOM  19153  O   LYS D 196      -8.906 -16.861  77.251  1.00 55.80           O
ATOM  19155  N   ILE D 197     -11.066 -17.036  77.847  1.00 55.38           N
ATOM  19156  CA  ILE D 197     -11.101 -15.771  78.593  1.00 56.16           C
ATOM  19158  CB  ILE D 197     -11.613 -14.609  77.738  1.00 55.35           C
ATOM  19160  CG1 ILE D 197     -10.706 -14.353  76.543  1.00 56.60           C
ATOM  19163  CD1 ILE D 197     -11.281 -13.324  75.585  1.00 59.10           C
ATOM  19167  CG2 ILE D 197     -11.698 -13.339  78.578  1.00 57.87           C
ATOM  19171  C   ILE D 197     -12.043 -15.837  79.790  1.00 56.32           C
ATOM  19172  O   ILE D 197     -13.218 -16.151  79.634  1.00 58.26           O
ATOM  19174  N   ASP D 198     -11.541 -15.487  80.969  1.00 56.33           N
ATOM  19175  CA  ASP D 198     -12.382 -15.371  82.158  1.00 56.33           C
ATOM  19177  CB  ASP D 198     -11.550 -15.677  83.400  1.00 55.36           C
ATOM  19180  CG  ASP D 198     -11.030 -17.106  83.402  1.00 60.37           C
ATOM  19181  OD1 ASP D 198     -11.799 -18.020  83.025  1.00 58.17           O
ATOM  19182  OD2 ASP D 198      -9.852 -17.322  83.769  1.00 69.19           O
ATOM  19183  C   ASP D 198     -13.075 -13.995  82.254  1.00 55.23           C
ATOM  19184  O   ASP D 198     -12.421 -12.956  82.331  1.00 54.15           O
ATOM  19186  N   ILE D 199     -14.405 -14.003  82.206  1.00 56.57           N
ATOM  19187  CA  ILE D 199     -15.201 -12.797  82.397  1.00 57.69           C
ATOM  19189  CB  ILE D 199     -16.273 -12.590  81.301  1.00 60.29           C
ATOM  19191  CG1 ILE D 199     -15.626 -12.451  79.917  1.00 61.74           C
ATOM  19194  CD1 ILE D 199     -16.630 -12.390  78.780  1.00 60.16           C
ATOM  19198  CG2 ILE D 199     -17.113 -11.329  81.614  1.00 59.93           C
ATOM  19202  C   ILE D 199     -15.915 -12.897  83.727  1.00 57.55           C
ATOM  19203  O   ILE D 199     -16.868 -13.663  83.879  1.00 56.29           O
ATOM  19205  N   VAL D 200     -15.451 -12.101  84.681  1.00 57.25           N
ATOM  19206  CA  VAL D 200     -16.000 -12.078  86.019  1.00 55.36           C
ATOM  19208  CB  VAL D 200     -14.883 -11.799  87.032  1.00 55.51           C
ATOM  19210  CG1 VAL D 200     -15.409 -11.884  88.468  1.00 54.19           C
ATOM  19214  CG2 VAL D 200     -13.722 -12.773  86.798  1.00 55.91           C
ATOM  19218  C   VAL D 200     -17.064 -10.982  86.083  1.00 54.74           C
ATOM  19219  O   VAL D 200     -16.771  -9.811  85.834  1.00 55.37           O
ATOM  19221  N   VAL D 201     -18.300 -11.369  86.390  1.00 53.29           N
ATOM  19222  CA  VAL D 201     -19.396 -10.417  86.495  1.00 53.18           C
ATOM  19224  CB  VAL D 201     -20.620 -10.767  85.569  1.00 52.12           C
ATOM  19226  CG1 VAL D 201     -20.939 -12.205  85.598  1.00 55.63           C
ATOM  19230  CG2 VAL D 201     -21.852  -9.967  85.951  1.00 53.67           C
ATOM  19234  C   VAL D 201     -19.783 -10.281  87.960  1.00 53.05           C
ATOM  19235  O   VAL D 201     -20.197 -11.246  88.606  1.00 54.54           O
ATOM  19237  N   LEU D 202     -19.622  -9.064  88.472  1.00 53.67           N
ATOM  19238  CA  LEU D 202     -19.914  -8.743  89.863  1.00 53.57           C
ATOM  19240  CB  LEU D 202     -19.071  -7.558  90.329  1.00 54.33           C
ATOM  19243  CG  LEU D 202     -17.573  -7.621  90.015  1.00 55.39           C
ATOM  19245  CD1 LEU D 202     -16.893  -6.356  90.508  1.00 57.32           C
ATOM  19249  CD2 LEU D 202     -16.942  -8.854  90.640  1.00 55.32           C
ATOM  19253  C   LEU D 202     -21.378  -8.393  89.973  1.00 53.25           C
ATOM  19254  O   LEU D 202     -21.896  -7.634  89.154  1.00 53.35           O
ATOM  19256  N   ALA D 203     -22.044  -8.941  90.983  1.00 53.14           N
ATOM  19257  CA  ALA D 203     -23.487  -8.803  91.100  1.00 51.68           C
ATOM  19259  CB  ALA D 203     -24.159  -9.716  90.112  1.00 51.77           C
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ATOM  19263  C   ALA D 203     -23.964  -9.145  92.482  1.00 50.63           C
ATOM  19264  O   ALA D 203     -23.250  -9.776  93.252  1.00 50.94           O
ATOM  19266  N   PHE D 204     -25.180  -8.715  92.790  1.00 51.21           N
ATOM  19267  CA  PHE D 204     -25.920  -9.279  93.907  1.00 52.04           C
ATOM  19269  CB  PHE D 204     -27.061  -8.350  94.333  1.00 51.17           C
ATOM  19272  CG  PHE D 204     -26.613  -7.128  95.115  1.00 53.91           C
ATOM  19273  CD1 PHE D 204     -26.036  -7.260  96.380  1.00 54.70           C
ATOM  19275  CE1 PHE D 204     -25.637  -6.135  97.110  1.00 50.70           C
ATOM  19277  CZ  PHE D 204     -25.833  -4.867  96.585  1.00 52.31           C
ATOM  19279  CE2 PHE D 204     -26.422  -4.718  95.327  1.00 50.85           C
ATOM  19281  CD2 PHE D 204     -26.812  -5.841  94.608  1.00 53.80           C
ATOM  19283  C   PHE D 204     -26.470 -10.659  93.479  1.00 52.33           C
ATOM  19284  O   PHE D 204     -26.861 -10.855  92.319  1.00 50.22           O
ATOM  19286  N   GLN D 205     -26.499 -11.617  94.407  1.00 53.43           N
ATOM  19287  CA  GLN D 205     -27.111 -12.924  94.120  1.00 54.28           C
ATOM  19289  CB  GLN D 205     -27.053 -13.857  95.335  1.00 53.60           C
ATOM  19292  CG  GLN D 205     -25.652 -14.326  95.670  1.00 53.48           C
ATOM  19295  CD  GLN D 205     -25.592 -15.311  96.816  1.00 49.76           C
ATOM  19296  OE1 GLN D 205     -26.521 -16.081  97.059  1.00 40.19           O
ATOM  19297  NE2 GLN D 205     -24.479 -15.297  97.520  1.00 42.54           N
ATOM  19300  C   GLN D 205     -28.561 -12.740  93.707  1.00 56.68           C
ATOM  19301  O   GLN D 205     -29.081 -13.513  92.898  1.00 57.95           O
ATOM  19303  N   LYS D 206     -29.186 -11.700  94.266  1.00 58.26           N
ATOM  19304  CA  LYS D 206     -30.613 -11.461  94.154  1.00 58.72           C
ATOM  19306  CB  LYS D 206     -31.237 -11.589  95.545  1.00 59.92           C
ATOM  19309  CG  LYS D 206     -32.640 -12.164  95.539  1.00 64.22           C
ATOM  19312  CD  LYS D 206     -32.661 -13.680  95.295  1.00 62.70           C
ATOM  19315  CE  LYS D 206     -34.081 -14.153  95.008  1.00 62.49           C
ATOM  19318  NZ  LYS D 206     -34.322 -15.524  95.512  1.00 64.99           N
ATOM  19322  C   LYS D 206     -30.927 -10.081  93.556  1.00 59.53           C
ATOM  19323  O   LYS D 206     -30.213  -9.105  93.797  1.00 60.41           O
ATOM  19325  N   ALA D 207     -32.010 -10.014  92.787  1.00 58.87           N
ATOM  19326  CA  ALA D 207     -32.402  -8.796  92.081  1.00 58.07           C
ATOM  19328  CB  ALA D 207     -33.087  -9.165  90.786  1.00 58.28           C
ATOM  19332  C   ALA D 207     -33.324  -7.911  92.919  1.00 57.62           C
ATOM  19333  O   ALA D 207     -33.273  -6.683  92.831  1.00 56.63           O
ATOM  19335  N   SER D 208     -34.176  -8.544  93.719  1.00 57.90           N
ATOM  19336  CA  SER D 208     -35.167  -7.834  94.517  1.00 57.38           C
ATOM  19338  CB  SER D 208     -36.352  -7.428  93.639  1.00 58.01           C
ATOM  19341  OG  SER D 208     -37.377  -6.819  94.408  1.00 61.64           O
ATOM  19343  C   SER D 208     -35.666  -8.721  95.647  1.00 57.23           C
ATOM  19344  O   SER D 208     -35.524  -9.945  95.597  1.00 56.70           O
ATOM  19346  N   SER D 209     -36.260  -8.094  96.661  1.00 56.62           N
ATOM  19347  CA  SER D 209     -36.893  -8.826  97.751  1.00 55.04           C
ATOM  19349  CB  SER D 209     -35.844  -9.312  98.746  1.00 54.48           C
ATOM  19352  OG  SER D 209     -35.068  -8.233  99.226  1.00 52.23           O
ATOM  19354  C   SER D 209     -37.939  -7.976  98.460  1.00 55.00           C
ATOM  19355  O   SER D 209     -37.902  -6.745  98.404  1.00 56.00           O
ATOM  19357  N   ILE D 210     -38.862  -8.660  99.134  1.00 54.81           N
ATOM  19358  CA  ILE D 210     -40.025  -8.042  99.785  1.00 52.89           C
ATOM  19360  CB  ILE D 210     -41.270  -8.012  98.829  1.00 52.32           C
ATOM  19362  CG1 ILE D 210     -42.583  -7.896  99.618  1.00 47.17           C
ATOM  19365  CD1 ILE D 210     -43.756  -7.465  98.781  1.00 48.25           C
ATOM  19369  CG2 ILE D 210     -41.289  -9.245  97.913  1.00 53.11           C
ATOM  19373  C   ILE D 210     -40.335  -8.805 101.074  1.00 53.18           C
ATOM  19374  O   ILE D 210     -40.351 -10.039 101.085  1.00 52.55           O
ATOM  19376  N   VAL D 211     -40.586  -8.063 102.152  1.00 53.22           N
ATOM  19377  CA  VAL D 211     -40.730  -8.646 103.489  1.00 52.62           C
ATOM  19379  CB  VAL D 211     -39.474  -8.323 104.352  1.00 53.09           C
ATOM  19381  CG1 VAL D 211     -39.696  -8.653 105.830  1.00 53.12           C
ATOM  19385  CG2 VAL D 211     -38.247  -9.067 103.814  1.00 50.71           C
ATOM  19389  C   VAL D 211     -42.005  -8.155 104.184  1.00 52.33           C
ATOM  19390  O   VAL D 211     -42.456  -7.028 103.960  1.00 51.82           O
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ATOM	19392	N	TYR	D	212	-42.571	-9.025	105.023	1.00 52.90	N
ATOM	19393	CA	TYR	D	212	-43.779	-8.738	105.815	1.00 51.43	C
ATOM	19395	CB	TYR	D	212	-44.965	-9.565	105.297	1.00 49.88	C
ATOM	19398	CG	TYR	D	212	-45.073	-9.663	103.774	1.00 48.56	C
ATOM	19399	CD1	TYR	D	212	-45.818	-8.735	103.051	1.00 46.68	C
ATOM	19401	CE1	TYR	D	212	-45.934	-8.819	101.663	1.00 47.38	C
ATOM	19403	CZ	TYR	D	212	-45.302	-9.838	100.979	1.00 47.61	C
ATOM	19404	OH	TYR	D	212	-45.426	-9.896	99.611	1.00 42.73	O
ATOM	19406	CE2	TYR	D	212	-44.554	-10.782	101.673	1.00 49.03	C
ATOM	19408	CD2	TYR	D	212	-44.445	-10.692	103.068	1.00 46.32	C
ATOM	19410	C	TYR	D	212	-43.535	-9.077	107.287	1.00 50.42	C
ATOM	19411	O	TYR	D	212	-43.717	-8.238	108.175	1.00 52.05	O
ATOM	19413	N	GLU	D	220	-35.213	-7.841	109.543	1.00 59.95	N
ATOM	19414	CA	GLU	D	220	-33.879	-8.124	109.015	1.00 59.74	C
ATOM	19416	CB	GLU	D	220	-33.315	-9.397	109.647	1.00 59.82	C
ATOM	19419	CG	GLU	D	220	-32.987	-9.251	111.125	1.00 61.25	C
ATOM	19422	CD	GLU	D	220	-32.245	-10.450	111.680	1.00 60.21	C
ATOM	19423	OE1	GLU	D	220	-31.459	-10.264	112.631	1.00 60.22	O
ATOM	19424	OE2	GLU	D	220	-32.443	-11.572	111.164	1.00 60.18	O
ATOM	19425	C	GLU	D	220	-33.889	-8.289	107.503	1.00 58.67	C
ATOM	19426	O	GLU	D	220	-34.517	-9.211	106.990	1.00 57.22	O
ATOM	19428	N	PHE	D	221	-33.204	-7.387	106.799	1.00 58.96	N
ATOM	19429	CA	PHE	D	221	-32.934	-7.561	105.367	1.00 58.57	C
ATOM	19431	CB	PHE	D	221	-32.969	-6.227	104.609	1.00 58.00	C
ATOM	19434	CG	PHE	D	221	-34.318	-5.561	104.601	1.00 58.68	C
ATOM	19435	CD1	PHE	D	221	-35.425	-6.215	104.078	1.00 59.95	C
ATOM	19437	CE1	PHE	D	221	-36.672	-5.599	104.068	1.00 60.49	C
ATOM	19439	CZ	PHE	D	221	-36.816	-4.311	104.578	1.00 58.43	C
ATOM	19441	CE2	PHE	D	221	-35.720	-3.651	105.090	1.00 54.01	C
ATOM	19443	CD2	PHE	D	221	-34.481	-4.271	105.099	1.00 55.40	C
ATOM	19445	C	PHE	D	221	-31.572	-8.221	105.177	1.00 57.72	C
ATOM	19446	O	PHE	D	221	-30.665	-8.055	105.992	1.00 56.05	O
ATOM	19448	N	SER	D	222	-31.450	-8.978	104.092	1.00 58.51	N
ATOM	19449	CA	SER	D	222	-30.214	-9.666	103.745	1.00 58.79	C
ATOM	19451	CB	SER	D	222	-30.399	-11.172	103.949	1.00 59.48	C
ATOM	19454	OG	SER	D	222	-29.224	-11.894	103.631	1.00 62.22	O
ATOM	19456	C	SER	D	222	-29.879	-9.350	102.284	1.00 59.36	C
ATOM	19457	O	SER	D	222	-30.756	-9.425	101.426	1.00 61.66	O
ATOM	19459	N	PHE	D	223	-28.623	-8.984	102.008	1.00 58.05	N
ATOM	19460	CA	PHE	D	223	-28.178	-8.624	100.650	1.00 54.78	C
ATOM	19462	CB	PHE	D	223	-27.819	-7.141	100.586	1.00 53.03	C
ATOM	19465	CG	PHE	D	223	-28.917	-6.233	101.035	1.00 54.85	C
ATOM	19466	CD1	PHE	D	223	-29.821	-5.712	100.119	1.00 56.51	C
ATOM	19468	CE1	PHE	D	223	-30.838	-4.861	100.524	1.00 51.18	C
ATOM	19470	CZ	PHE	D	223	-30.959	-4.527	101.853	1.00 50.43	C
ATOM	19472	CE2	PHE	D	223	-30.060	-5.039	102.783	1.00 52.05	C
ATOM	19474	CD2	PHE	D	223	-29.047	-5.888	102.371	1.00 53.39	C
ATOM	19476	C	PHE	D	223	-26.967	-9.448	100.216	1.00 52.76	C
ATOM	19477	O	PHE	D	223	-25.878	-8.909	100.037	1.00 51.25	O
ATOM	19479	N	PRO	D	224	-27.151	-10.764	100.030	1.00 51.69	N
ATOM	19480	CA	PRO	D	224	-26.022	-11.597	99.628	1.00 51.38	C
ATOM	19482	CB	PRO	D	224	-26.621	-13.004	99.599	1.00 51.22	C
ATOM	19485	CG	PRO	D	224	-28.071	-12.789	99.378	1.00 51.52	C
ATOM	19488	CD	PRO	D	224	-28.392	-11.546	100.144	1.00 51.23	C
ATOM	19491	C	PRO	D	224	-25.527	-11.214	98.244	1.00 50.88	C
ATOM	19492	O	PRO	D	224	-26.333	-10.894	97.370	1.00 52.45	O
ATOM	19493	N	LEU	D	225	-24.217	-11.239	98.045	1.00 49.76	N
ATOM	19494	CA	LEU	D	225	-23.653	-10.877	96.750	1.00 49.29	C
ATOM	19496	CB	LEU	D	225	-22.898	-9.538	96.815	1.00 49.61	C
ATOM	19499	CG	LEU	D	225	-22.060	-9.198	98.040	1.00 50.65	C
ATOM	19501	CD1	LEU	D	225	-20.981	-10.259	98.286	1.00 52.33	C
ATOM	19505	CD2	LEU	D	225	-21.462	-7.796	97.869	1.00 49.70	C
ATOM	19509	C	LEU	D	225	-22.788	-11.994	96.201	1.00 46.53	C

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ATOM  19510  O   LEU D 225     -22.506 -12.958  96.902  1.00 43.14           O
ATOM  19512  N   ALA D 226     -22.401 -11.858  94.936  1.00 45.37           N
ATOM  19513  CA  ALA D 226     -21.691 -12.909  94.229  1.00 48.01           C
ATOM  19515  CB  ALA D 226     -21.555 -12.563  92.771  1.00 49.85           C
ATOM  19519  C   ALA D 226     -20.327 -13.140  94.845  1.00 48.44           C
ATOM  19520  O   ALA D 226     -19.714 -12.217  95.368  1.00 50.48           O
ATOM  19522  N   PHE D 227     -19.856 -14.380  94.780  1.00 48.73           N
ATOM  19523  CA  PHE D 227     -18.635 -14.778  95.481  1.00 49.94           C
ATOM  19525  CB  PHE D 227     -18.272 -16.219  95.144  1.00 45.83           C
ATOM  19528  CG  PHE D 227     -16.941 -16.639  95.681  1.00 45.36           C
ATOM  19529  CD1 PHE D 227     -16.726 -16.702  97.054  1.00 38.84           C
ATOM  19531  CE1 PHE D 227     -15.507 -17.093  97.561  1.00 38.85           C
ATOM  19533  CZ  PHE D 227     -14.476 -17.423  96.694  1.00 40.38           C
ATOM  19535  CE2 PHE D 227     -14.672 -17.365  95.324  1.00 40.67           C
ATOM  19537  CD2 PHE D 227     -15.901 -16.972  94.820  1.00 41.54           C
ATOM  19539  C   PHE D 227     -17.450 -13.881  95.146  1.00 52.47           C
ATOM  19540  O   PHE D 227     -16.638 -13.553  96.016  1.00 53.85           O
ATOM  19542  N   THR D 228     -17.371 -13.478  93.883  1.00 54.11           N
ATOM  19543  CA  THR D 228     -16.200 -12.780  93.362  1.00 55.71           C
ATOM  19545  CB  THR D 228     -16.258 -12.767  91.826  1.00 56.84           C
ATOM  19547  OG1 THR D 228     -17.429 -12.061  91.386  1.00 60.35           O
ATOM  19549  CG2 THR D 228     -16.313 -14.218  91.288  1.00 58.07           C
ATOM  19553  C   THR D 228     -16.017 -11.354  93.929  1.00 56.66           C
ATOM  19554  O   THR D 228     -14.903 -10.813  93.931  1.00 55.94           O
ATOM  19556  N   VAL D 229     -17.103 -10.770  94.432  1.00 57.65           N
ATOM  19557  CA  VAL D 229     -17.066  -9.433  95.028  1.00 58.31           C
ATOM  19559  CB  VAL D 229     -18.338  -8.581  94.632  1.00 59.53           C
ATOM  19561  CG1 VAL D 229     -19.633  -9.274  95.010  1.00 59.43           C
ATOM  19565  CG2 VAL D 229     -18.294  -7.171  95.237  1.00 58.88           C
ATOM  19569  C   VAL D 229     -16.863  -9.463  96.553  1.00 58.58           C
ATOM  19570  O   VAL D 229     -16.675  -8.411  97.159  1.00 57.87           O
ATOM  19572  N   GLU D 230     -16.872 -10.652  97.164  1.00 58.66           N
ATOM  19573  CA  GLU D 230     -16.688 -10.780  98.623  1.00 58.69           C
ATOM  19575  CB  GLU D 230     -16.587 -12.249  99.041  1.00 59.30           C
ATOM  19578  CG  GLU D 230     -17.917 -12.993  99.104  1.00 59.66           C
ATOM  19581  CD  GLU D 230     -17.836 -14.286  99.913  1.00 59.55           C
ATOM  19582  OE1 GLU D 230     -16.879 -14.455 100.706  1.00 56.54           O
ATOM  19583  OE2 GLU D 230     -18.741 -15.134  99.754  1.00 62.58           O
ATOM  19584  C   GLU D 230     -15.448 -10.047  99.137  1.00 58.44           C
ATOM  19585  O   GLU D 230     -15.510  -9.310 100.127  1.00 58.12           O
ATOM  19587  N   LYS D 231     -14.327 -10.267  98.458  1.00 58.50           N
ATOM  19588  CA  LYS D 231     -13.040  -9.660  98.832  1.00 58.91           C
ATOM  19590  CB  LYS D 231     -11.896 -10.390  98.108  1.00 59.75           C
ATOM  19593  CG  LYS D 231     -11.933 -10.283  96.568  1.00 63.26           C
ATOM  19596  CD  LYS D 231     -11.281 -11.484  95.868  1.00 61.99           C
ATOM  19599  CE  LYS D 231      -9.782 -11.571  96.160  1.00 63.05           C
ATOM  19602  NZ  LYS D 231      -9.486 -12.136  97.506  1.00 59.26           N
ATOM  19606  C   LYS D 231     -12.967  -8.147  98.552  1.00 57.11           C
ATOM  19607  O   LYS D 231     -12.388  -7.388  99.330  1.00 56.09           O
ATOM  19609  N   LEU D 232     -13.585  -7.734  97.447  1.00 56.22           N
ATOM  19610  CA  LEU D 232     -13.487  -6.370  96.906  1.00 55.70           C
ATOM  19612  CB  LEU D 232     -14.411  -6.222  95.688  1.00 54.72           C
ATOM  19615  CG  LEU D 232     -13.782  -6.484  94.317  1.00 53.00           C
ATOM  19617  CD1 LEU D 232     -12.892  -7.721  94.302  1.00 53.46           C
ATOM  19621  CD2 LEU D 232     -14.865  -6.587  93.261  1.00 53.75           C
ATOM  19625  C   LEU D 232     -13.784  -5.228  97.872  1.00 55.81           C
ATOM  19626  O   LEU D 232     -14.479  -5.399  98.874  1.00 55.92           O
ATOM  19628  N   THR D 233     -13.241  -4.059  97.531  1.00 55.71           N
ATOM  19629  CA  THR D 233     -13.449  -2.830  98.283  1.00 55.68           C
ATOM  19631  CB  THR D 233     -12.124  -2.059  98.484  1.00 55.16           C
ATOM  19633  OG1 THR D 233     -11.240  -2.832  99.304  1.00 55.37           O
ATOM  19635  CG2 THR D 233     -12.355  -0.708  99.150  1.00 55.13           C
ATOM  19639  C   THR D 233     -14.461  -1.956  97.548  1.00 56.35           C
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ATOM  19640  O   THR D 233     -14.484  -1.922  96.315  1.00 58.15           O
ATOM  19642  N   GLY D 234     -15.299  -1.259  98.312  1.00 55.46           N
ATOM  19643  CA  GLY D 234     -16.335  -0.403  97.742  1.00 53.89           C
ATOM  19646  C   GLY D 234     -17.175   0.280  98.805  1.00 52.41           C
ATOM  19647  O   GLY D 234     -16.973   0.056 100.000  1.00 51.52           O
ATOM  19649  N   SER D 235     -18.117   1.112  98.368  1.00 50.70           N
ATOM  19650  CA  SER D 235     -19.027   1.795  99.286  1.00 51.48           C
ATOM  19652  CB  SER D 235     -18.413   3.125  99.755  1.00 51.85           C
ATOM  19655  OG  SER D 235     -17.958   3.920  98.671  1.00 51.16           O
ATOM  19657  C   SER D 235     -20.418   2.002  98.667  1.00 50.36           C
ATOM  19658  O   SER D 235     -20.557   2.020  97.446  1.00 48.75           O
ATOM  19660  N   GLY D 236     -21.438   2.150  99.517  1.00 50.07           N
ATOM  19661  CA  GLY D 236     -22.830   2.221  99.055  1.00 50.59           C
ATOM  19664  C   GLY D 236     -23.830   2.842 100.024  1.00 50.40           C
ATOM  19665  O   GLY D 236     -23.447   3.375 101.071  1.00 48.99           O
ATOM  19667  N   GLU D 237     -25.117   2.778  99.661  1.00 49.95           N
ATOM  19668  CA  GLU D 237     -26.188   3.358 100.483  1.00 50.06           C
ATOM  19670  CB  GLU D 237     -26.135   4.891 100.413  1.00 51.02           C
ATOM  19673  CG  GLU D 237     -26.434   5.461  99.041  1.00 51.07           C
ATOM  19676  CD  GLU D 237     -26.503   6.962  99.049  1.00 49.31           C
ATOM  19677  OE1 GLU D 237     -26.995   7.520  98.052  1.00 51.35           O
ATOM  19678  OE2 GLU D 237     -26.072   7.582 100.046  1.00 47.04           O
ATOM  19679  C   GLU D 237     -27.609   2.885 100.121  1.00 49.51           C
ATOM  19680  O   GLU D 237     -27.807   2.203  99.115  1.00 48.94           O
ATOM  19682  N   LEU D 238     -28.582   3.285 100.951  1.00 48.63           N
ATOM  19683  CA  LEU D 238     -29.997   2.922 100.800  1.00 47.11           C
ATOM  19685  CB  LEU D 238     -30.387   1.929 101.900  1.00 46.77           C
ATOM  19688  CG  LEU D 238     -31.740   1.214 101.808  1.00 46.51           C
ATOM  19690  CD1 LEU D 238     -31.775   0.217 100.665  1.00 48.67           C
ATOM  19694  CD2 LEU D 238     -32.046   0.506 103.111  1.00 44.88           C
ATOM  19698  C   LEU D 238     -30.875   4.171 100.895  1.00 46.43           C
ATOM  19699  O   LEU D 238     -31.580   4.530  99.949  1.00 45.31           O
ATOM  19701  N   TRP D 251     -32.641   5.527 104.561  1.00 50.37           N
ATOM  19702  CA  TRP D 251     -31.384   6.174 104.211  1.00 51.69           C
ATOM  19704  CB  TRP D 251     -31.554   7.699 104.243  1.00 51.63           C
ATOM  19707  CG  TRP D 251     -32.285   8.266 103.072  1.00 52.07           C
ATOM  19708  CD1 TRP D 251     -31.855   8.288 101.783  1.00 54.18           C
ATOM  19710  NE1 TRP D 251     -32.786   8.902 100.977  1.00 54.39           N
ATOM  19712  CE2 TRP D 251     -33.845   9.305 101.746  1.00 54.58           C
ATOM  19713  CD2 TRP D 251     -33.563   8.925 103.080  1.00 54.77           C
ATOM  19714  CE3 TRP D 251     -34.497   9.234 104.083  1.00 56.49           C
ATOM  19716  CZ3 TRP D 251     -35.676   9.900 103.723  1.00 53.81           C
ATOM  19718  CH2 TRP D 251     -35.925  10.260 102.381  1.00 54.06           C
ATOM  19720  CZ2 TRP D 251     -35.025   9.973 101.383  1.00 53.59           C
ATOM  19722  C   TRP D 251     -30.250   5.773 105.167  1.00 52.25           C
ATOM  19723  O   TRP D 251     -30.239   6.208 106.312  1.00 53.10           O
ATOM  19725  N   ILE D 252     -29.314   4.936 104.710  1.00 53.39           N
ATOM  19726  CA  ILE D 252     -28.028   4.730 105.424  1.00 52.95           C
ATOM  19728  CB  ILE D 252     -28.052   3.542 106.480  1.00 52.07           C
ATOM  19730  CG1 ILE D 252     -27.723   2.183 105.847  1.00 51.34           C
ATOM  19733  CD1 ILE D 252     -26.320   1.684 106.165  1.00 51.08           C
ATOM  19737  CG2 ILE D 252     -29.382   3.488 107.262  1.00 51.29           C
ATOM  19741  C   ILE D 252     -26.858   4.583 104.427  1.00 52.71           C
ATOM  19742  O   ILE D 252     -27.076   4.408 103.230  1.00 49.06           O
ATOM  19744  N   THR D 253     -25.631   4.681 104.944  1.00 54.71           N
ATOM  19745  CA  THR D 253     -24.398   4.687 104.137  1.00 56.15           C
ATOM  19747  CB  THR D 253     -23.882   6.144 103.904  1.00 56.24           C
ATOM  19749  OG1 THR D 253     -24.964   7.000 103.515  1.00 55.03           O
ATOM  19751  CG2 THR D 253     -22.817   6.189 102.820  1.00 56.29           C
ATOM  19755  C   THR D 253     -23.295   3.874 104.845  1.00 57.36           C
ATOM  19756  O   THR D 253     -23.275   3.790 106.070  1.00 57.59           O
ATOM  19758  N   PHE D 254     -22.381   3.284 104.073  1.00 58.47           N
ATOM  19759  CA  PHE D 254     -21.344   2.399 104.622  1.00 58.61           C
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ATOM	19761	CB	PHE	D	254	-21.974	1.061	105.015	1.00	59.53	C
ATOM	19764	CG	PHE	D	254	-22.626	0.348	103.864	1.00	59.96	C
ATOM	19765	CD1	PHE	D	254	-21.960	-0.672	103.191	1.00	62.00	C
ATOM	19767	CE1	PHE	D	254	-22.553	-1.329	102.110	1.00	60.92	C
ATOM	19769	CZ	PHE	D	254	-23.824	-0.958	101.688	1.00	60.76	C
ATOM	19771	CE2	PHE	D	254	-24.496	0.068	102.347	1.00	62.46	C
ATOM	19773	CD2	PHE	D	254	-23.894	0.717	103.429	1.00	61.56	C
ATOM	19775	C	PHE	D	254	-20.228	2.138	103.603	1.00	59.14	C
ATOM	19776	O	PHE	D	254	-20.462	2.195	102.392	1.00	58.60	O
ATOM	19778	N	ASP	D	255	-19.025	1.840	104.097	1.00	59.15	N
ATOM	19779	CA	ASP	D	255	-17.902	1.427	103.238	1.00	59.33	C
ATOM	19781	CB	ASP	D	255	-16.601	2.121	103.680	1.00	59.88	C
ATOM	19784	CG	ASP	D	255	-16.630	3.630	103.457	1.00	61.43	C
ATOM	19785	OD1	ASP	D	255	-15.959	4.360	104.219	1.00	64.65	O
ATOM	19786	OD2	ASP	D	255	-17.319	4.093	102.524	1.00	61.56	O
ATOM	19787	C	ASP	D	255	-17.754	-0.105	103.267	1.00	58.94	C
ATOM	19788	O	ASP	D	255	-18.566	-0.794	103.883	1.00	59.47	O
ATOM	19790	N	LEU	D	256	-16.738	-0.636	102.589	1.00	58.57	N
ATOM	19791	CA	LEU	D	256	-16.494	-2.080	102.572	1.00	58.36	C
ATOM	19793	CB	LEU	D	256	-17.392	-2.742	101.514	1.00	59.64	C
ATOM	19796	CG	LEU	D	256	-17.652	-4.255	101.579	1.00	59.62	C
ATOM	19798	CD1	LEU	D	256	-18.794	-4.625	100.639	1.00	57.95	C
ATOM	19802	CD2	LEU	D	256	-16.403	-5.070	101.253	1.00	61.83	C
ATOM	19806	C	LEU	D	256	-15.025	-2.391	102.290	1.00	57.63	C
ATOM	19807	O	LEU	D	256	-14.608	-2.389	101.142	1.00	58.03	O
ATOM	19809	N	LYS	D	257	-14.245	-2.635	103.340	1.00	57.23	N
ATOM	19810	CA	LYS	D	257	-12.860	-3.101	103.199	1.00	58.22	C
ATOM	19812	CB	LYS	D	257	-11.878	-2.333	104.110	1.00	58.63	C
ATOM	19815	CG	LYS	D	257	-12.244	-2.284	105.619	1.00	59.20	C
ATOM	19818	CD	LYS	D	257	-11.267	-1.432	106.449	1.00	57.85	C
ATOM	19821	CE	LYS	D	257	-10.304	-2.277	107.281	1.00	56.77	C
ATOM	19824	NZ	LYS	D	257	-9.670	-3.373	106.496	1.00	57.61	N
ATOM	19828	C	LYS	D	257	-12.874	-4.573	103.550	1.00	59.25	C
ATOM	19829	O	LYS	D	257	-13.511	-4.962	104.533	1.00	59.96	O
ATOM	19831	N	ASN	D	258	-12.186	-5.382	102.742	1.00	59.93	N
ATOM	19832	CA	ASN	D	258	-12.192	-6.855	102.859	1.00	60.28	C
ATOM	19834	CB	ASN	D	258	-10.762	-7.392	103.032	1.00	60.48	C
ATOM	19837	CG	ASN	D	258	-9.912	-6.534	103.955	1.00	62.15	C
ATOM	19838	OD1	ASN	D	258	-10.395	-5.975	104.950	1.00	62.50	O
ATOM	19839	ND2	ASN	D	258	-8.630	-6.431	103.628	1.00	61.36	N
ATOM	19842	C	ASN	D	258	-13.121	-7.449	103.936	1.00	61.13	C
ATOM	19843	O	ASN	D	258	-12.721	-7.646	105.094	1.00	61.04	O
ATOM	19845	N	LYS	D	259	-14.370	-7.701	103.535	1.00	60.67	N
ATOM	19846	CA	LYS	D	259	-15.369	-8.388	104.364	1.00	59.67	C
ATOM	19848	CB	LYS	D	259	-14.845	-9.762	104.817	1.00	60.46	C
ATOM	19851	CG	LYS	D	259	-14.222	-10.634	103.717	1.00	60.39	C
ATOM	19854	CD	LYS	D	259	-15.054	-11.876	103.418	1.00	63.03	C
ATOM	19857	CE	LYS	D	259	-14.284	-12.876	102.557	1.00	63.79	C
ATOM	19860	NZ	LYS	D	259	-13.810	-12.267	101.282	1.00	65.00	N
ATOM	19864	C	LYS	D	259	-15.858	-7.599	105.594	1.00	58.60	C
ATOM	19865	O	LYS	D	259	-16.675	-8.110	106.365	1.00	58.04	O
ATOM	19867	N	GLU	D	260	-15.388	-6.367	105.769	1.00	57.41	N
ATOM	19868	CA	GLU	D	260	-15.715	-5.584	106.958	1.00	58.11	C
ATOM	19870	CB	GLU	D	260	-14.436	-5.189	107.699	1.00	58.58	C
ATOM	19873	CG	GLU	D	260	-13.694	-6.372	108.326	1.00	57.98	C
ATOM	19876	CD	GLU	D	260	-12.214	-6.098	108.524	1.00	57.61	C
ATOM	19877	OE1	GLU	D	260	-11.422	-6.519	107.652	1.00	58.27	O
ATOM	19878	OE2	GLU	D	260	-11.846	-5.452	109.532	1.00	50.23	O
ATOM	19879	C	GLU	D	260	-16.510	-4.352	106.561	1.00	57.37	C
ATOM	19880	O	GLU	D	260	-16.196	-3.716	105.561	1.00	57.22	O
ATOM	19882	N	VAL	D	261	-17.532	-4.024	107.354	1.00	57.46	N
ATOM	19883	CA	VAL	D	261	-18.516	-2.998	106.992	1.00	58.84	C
ATOM	19885	CB	VAL	D	261	-19.905	-3.628	106.734	1.00	59.86	C

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ATOM  19887  CG1 VAL D 261     -20.892  -2.575 106.212  1.00 59.81           C
ATOM  19891  CG2 VAL D 261     -19.795  -4.811 105.764  1.00 60.30           C
ATOM  19895  C   VAL D 261     -18.671  -1.968 108.102  1.00 59.18           C
ATOM  19896  O   VAL D 261     -18.868  -2.338 109.258  1.00 59.42           O
ATOM  19898  N   SER D 262     -18.629  -0.683 107.740  1.00 60.00           N
ATOM  19899  CA  SER D 262     -18.540   0.413 108.720  1.00 60.19           C
ATOM  19901  CB  SER D 262     -17.399   1.363 108.324  1.00 60.71           C
ATOM  19904  OG  SER D 262     -16.147   0.701 108.372  1.00 62.28           O
ATOM  19906  C   SER D 262     -19.858   1.188 108.957  1.00 60.12           C
ATOM  19907  O   SER D 262     -20.755   0.682 109.635  1.00 59.04           O
ATOM  19909  N   VAL D 263     -19.954   2.409 108.418  1.00 60.68           N
ATOM  19910  CA  VAL D 263     -21.081   3.340 108.644  1.00 60.35           C
ATOM  19912  CB  VAL D 263     -21.686   3.248 110.079  1.00 61.17           C
ATOM  19914  CG1 VAL D 263     -20.632   3.592 111.146  1.00 62.38           C
ATOM  19918  CG2 VAL D 263     -22.924   4.153 110.212  1.00 61.75           C
ATOM  19922  C   VAL D 263     -20.611   4.783 108.403  1.00 59.28           C
ATOM  19923  O   VAL D 263     -19.452   5.103 108.658  1.00 58.59           O
ATOM  19925  N   LYS D 264     -21.509   5.643 107.920  1.00 58.75           N
ATOM  19926  CA  LYS D 264     -21.179   7.048 107.660  1.00 59.03           C
ATOM  19928  CB  LYS D 264     -20.917   7.266 106.163  1.00 59.18           C
ATOM  19931  CG  LYS D 264     -20.205   6.100 105.469  1.00 59.90           C
ATOM  19934  CD  LYS D 264     -19.627   6.481 104.105  1.00 59.76           C
ATOM  19937  CE  LYS D 264     -18.284   7.192 104.226  1.00 60.91           C
ATOM  19940  NZ  LYS D 264     -17.578   7.263 102.920  1.00 60.55           N
ATOM  19944  C   LYS D 264     -22.278   7.997 108.154  1.00 57.70           C
ATOM  19945  O   LYS D 264     -23.445   7.617 108.277  1.00 56.11           O
ATOM  19947  N   PRO D 270     -35.407   6.986 112.279  1.00 52.14           N
ATOM  19948  CA  PRO D 270     -35.719   5.757 111.528  1.00 51.34           C
ATOM  19950  CB  PRO D 270     -35.743   6.253 110.079  1.00 50.54           C
ATOM  19953  CG  PRO D 270     -34.703   7.356 110.054  1.00 51.18           C
ATOM  19956  CD  PRO D 270     -34.683   7.971 111.452  1.00 51.93           C
ATOM  19959  C   PRO D 270     -34.663   4.659 111.685  1.00 50.66           C
ATOM  19960  O   PRO D 270     -34.636   3.737 110.887  1.00 51.03           O
ATOM  19961  N   LYS D 271     -33.860   4.733 112.747  1.00 51.49           N
ATOM  19962  CA  LYS D 271     -32.496   4.174 112.765  1.00 51.51           C
ATOM  19964  CB  LYS D 271     -31.701   4.719 113.964  1.00 51.04           C
ATOM  19967  CG  LYS D 271     -31.364   6.212 113.893  1.00 49.35           C
ATOM  19970  CD  LYS D 271     -32.364   7.076 114.659  1.00 45.19           C
ATOM  19973  CE  LYS D 271     -32.011   8.551 114.566  1.00 45.44           C
ATOM  19976  NZ  LYS D 271     -30.663   8.858 115.121  1.00 39.79           N
ATOM  19980  C   LYS D 271     -32.373   2.648 112.742  1.00 51.79           C
ATOM  19981  O   LYS D 271     -32.695   1.970 113.721  1.00 50.08           O
ATOM  19983  N   LEU D 272     -31.875   2.144 111.607  1.00 53.53           N
ATOM  19984  CA  LEU D 272     -31.443   0.751 111.437  1.00 54.28           C
ATOM  19986  CB  LEU D 272     -31.143   0.445 109.949  1.00 55.19           C
ATOM  19989  CG  LEU D 272     -32.233   0.095 108.919  1.00 57.39           C
ATOM  19991  CD1 LEU D 272     -32.691   1.328 108.125  1.00 57.44           C
ATOM  19995  CD2 LEU D 272     -33.420  -0.646 109.553  1.00 60.69           C
ATOM  19999  C   LEU D 272     -30.172   0.467 112.241  1.00 54.31           C
ATOM  20000  O   LEU D 272     -29.619   1.352 112.889  1.00 53.68           O
ATOM  20002  N   GLN D 273     -29.730  -0.787 112.193  1.00 55.02           N
ATOM  20003  CA  GLN D 273     -28.418  -1.192 112.694  1.00 55.43           C
ATOM  20005  CB  GLN D 273     -28.537  -1.885 114.065  1.00 55.59           C
ATOM  20008  CG  GLN D 273     -27.211  -2.393 114.682  1.00 55.17           C
ATOM  20011  CD  GLN D 273     -26.427  -1.319 115.438  1.00 52.93           C
ATOM  20012  OE1 GLN D 273     -26.852  -0.847 116.493  1.00 46.57           O
ATOM  20013  NE2 GLN D 273     -25.264  -0.952 114.907  1.00 52.07           N
ATOM  20016  C   GLN D 273     -27.824  -2.130 111.645  1.00 55.53           C
ATOM  20017  O   GLN D 273     -28.423  -3.156 111.311  1.00 53.97           O
ATOM  20019  N   MET D 274     -26.649  -1.759 111.135  1.00 56.56           N
ATOM  20020  CA  MET D 274     -25.996  -2.452 110.018  1.00 56.36           C
ATOM  20022  CB  MET D 274     -25.139  -1.457 109.232  1.00 56.51           C
ATOM  20025  CG  MET D 274     -24.377  -2.029 108.049  1.00 57.12           C
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ATOM  20028  SD  MET D 274     -25.394  -2.146 106.575  1.00 62.31           S
ATOM  20029  CE  MET D 274     -26.064  -3.793 106.744  1.00 61.34           C
ATOM  20033  C   MET D 274     -25.111  -3.590 110.505  1.00 56.37           C
ATOM  20034  O   MET D 274     -24.346  -3.433 111.458  1.00 56.65           O
ATOM  20036  N   GLY D 275     -25.213  -4.736 109.842  1.00 56.02           N
ATOM  20037  CA  GLY D 275     -24.317  -5.845 110.108  1.00 56.13           C
ATOM  20040  C   GLY D 275     -22.872  -5.409 109.977  1.00 55.95           C
ATOM  20041  O   GLY D 275     -22.506  -4.696 109.042  1.00 56.24           O
ATOM  20043  N   LYS D 276     -22.063  -5.833 110.939  1.00 55.59           N
ATOM  20044  CA  LYS D 276     -20.625  -5.551 110.972  1.00 56.11           C
ATOM  20046  CB  LYS D 276     -20.015  -6.060 112.294  1.00 57.11           C
ATOM  20049  CG  LYS D 276     -20.541  -7.441 112.778  1.00 59.85           C
ATOM  20052  CD  LYS D 276     -21.743  -7.331 113.755  1.00 59.41           C
ATOM  20055  CE  LYS D 276     -22.885  -8.312 113.417  1.00 56.36           C
ATOM  20058  NZ  LYS D 276     -22.535  -9.734 113.671  1.00 53.48           N
ATOM  20062  C   LYS D 276     -19.857  -6.148 109.785  1.00 55.14           C
ATOM  20063  O   LYS D 276     -18.850  -5.585 109.343  1.00 52.28           O
ATOM  20065  N   LYS D 277     -20.339  -7.283 109.277  1.00 56.31           N
ATOM  20066  CA  LYS D 277     -19.621  -8.057 108.259  1.00 57.40           C
ATOM  20068  CB  LYS D 277     -18.921  -9.249 108.927  1.00 57.72           C
ATOM  20071  CG  LYS D 277     -17.927  -8.868 110.022  1.00 57.34           C
ATOM  20074  CD  LYS D 277     -17.523 -10.071 110.859  1.00 57.47           C
ATOM  20077  CE  LYS D 277     -18.669 -10.561 111.737  1.00 58.38           C
ATOM  20080  NZ  LYS D 277     -18.193 -11.388 112.879  1.00 59.61           N
ATOM  20084  C   LYS D 277     -20.542  -8.558 107.133  1.00 56.99           C
ATOM  20085  O   LYS D 277     -21.741  -8.262 107.116  1.00 55.31           O
ATOM  20087  N   LEU D 278     -19.955  -9.299 106.191  1.00 57.67           N
ATOM  20088  CA  LEU D 278     -20.701  -9.944 105.104  1.00 58.46           C
ATOM  20090  CB  LEU D 278     -19.786 -10.222 103.909  1.00 57.52           C
ATOM  20093  CG  LEU D 278     -19.118  -9.015 103.258  1.00 56.25           C
ATOM  20095  CD1 LEU D 278     -18.172  -9.487 102.182  1.00 56.25           C
ATOM  20099  CD2 LEU D 278     -20.146  -8.045 102.688  1.00 55.60           C
ATOM  20103  C   LEU D 278     -21.323 -11.268 105.562  1.00 59.86           C
ATOM  20104  O   LEU D 278     -20.766 -11.941 106.432  1.00 61.13           O
ATOM  20106  N   PRO D 279     -22.480 -11.648 104.982  1.00 60.00           N
ATOM  20107  CA  PRO D 279     -23.243 -10.880 104.006  1.00 60.12           C
ATOM  20109  CB  PRO D 279     -24.357 -11.848 103.593  1.00 59.18           C
ATOM  20112  CG  PRO D 279     -24.513 -12.754 104.738  1.00 58.92           C
ATOM  20115  CD  PRO D 279     -23.133 -12.934 105.284  1.00 60.28           C
ATOM  20118  C   PRO D 279     -23.833  -9.600 104.606  1.00 60.74           C
ATOM  20119  O   PRO D 279     -24.045  -9.517 105.826  1.00 59.77           O
ATOM  20120  N   LEU D 280     -24.067  -8.609 103.747  1.00 60.94           N
ATOM  20121  CA  LEU D 280     -24.668  -7.347 104.167  1.00 61.98           C
ATOM  20123  CB  LEU D 280     -24.756  -6.373 102.990  1.00 61.28           C
ATOM  20126  CG  LEU D 280     -23.447  -5.924 102.340  1.00 59.59           C
ATOM  20128  CD1 LEU D 280     -23.741  -5.124 101.080  1.00 57.60           C
ATOM  20132  CD2 LEU D 280     -22.595  -5.117 103.310  1.00 56.93           C
ATOM  20136  C   LEU D 280     -26.064  -7.627 104.707  1.00 63.30           C
ATOM  20137  O   LEU D 280     -26.843  -8.331 104.060  1.00 63.78           O
ATOM  20139  N   HIS D 281     -26.375  -7.089 105.885  1.00 63.81           N
ATOM  20140  CA  HIS D 281     -27.627  -7.413 106.569  1.00 64.50           C
ATOM  20142  CB  HIS D 281     -27.597  -8.897 106.978  1.00 65.93           C
ATOM  20145  CG  HIS D 281     -28.273  -9.200 108.278  1.00 68.64           C
ATOM  20146  ND1 HIS D 281     -27.635  -9.073 109.495  1.00 71.30           N
ATOM  20148  CE1 HIS D 281     -28.466  -9.416 110.463  1.00 72.61           C
ATOM  20150  NE2 HIS D 281     -29.616  -9.774 109.918  1.00 73.03           N
ATOM  20152  CD2 HIS D 281     -29.519  -9.653 108.552  1.00 71.01           C
ATOM  20154  C   HIS D 281     -27.847  -6.497 107.771  1.00 64.93           C
ATOM  20155  O   HIS D 281     -26.887  -6.139 108.448  1.00 66.37           O
ATOM  20157  N   LEU D 282     -29.100  -6.127 108.044  1.00 65.18           N
ATOM  20158  CA  LEU D 282     -29.414  -5.207 109.165  1.00 64.94           C
ATOM  20160  CB  LEU D 282     -29.504  -3.742 108.675  1.00 64.93           C
ATOM  20163  CG  LEU D 282     -30.179  -3.317 107.364  1.00 59.82           C
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ATOM	20165	CD1	LEU	D	282	-31.439	-4.116	107.110	1.00	58.97	C
ATOM	20169	CD2	LEU	D	282	-29.237	-3.396	106.181	1.00	55.65	C
ATOM	20173	C	LEU	D	282	-30.663	-5.571	109.995	1.00	64.05	C
ATOM	20174	O	LEU	D	282	-30.873	-5.047	111.103	1.00	60.91	O
ATOM	20176	N	ASN	D	296	-34.359	0.575	97.016	1.00	50.09	N
ATOM	20177	CA	ASN	D	296	-33.094	0.452	96.299	1.00	52.29	C
ATOM	20179	CB	ASN	D	296	-32.986	1.533	95.214	1.00	52.45	C
ATOM	20182	CG	ASN	D	296	-33.804	1.211	93.976	1.00	54.86	C
ATOM	20183	OD1	ASN	D	296	-33.879	0.060	93.548	1.00	60.19	O
ATOM	20184	ND2	ASN	D	296	-34.407	2.236	93.383	1.00	54.83	N
ATOM	20187	C	ASN	D	296	-31.865	0.540	97.217	1.00	53.06	C
ATOM	20188	O	ASN	D	296	-31.675	1.540	97.909	1.00	53.59	O
ATOM	20190	N	LEU	D	297	-31.044	-0.512	97.221	1.00	53.69	N
ATOM	20191	CA	LEU	D	297	-29.697	-0.461	97.799	1.00	53.19	C
ATOM	20193	CB	LEU	D	297	-29.409	-1.701	98.647	1.00	53.44	C
ATOM	20196	CG	LEU	D	297	-27.965	-1.842	99.152	1.00	53.87	C
ATOM	20198	CD1	LEU	D	297	-27.598	-0.706	100.107	1.00	56.29	C
ATOM	20202	CD2	LEU	D	297	-27.756	-3.189	99.822	1.00	53.90	C
ATOM	20206	C	LEU	D	297	-28.678	-0.379	96.668	1.00	53.65	C
ATOM	20207	O	LEU	D	297	-28.705	-1.199	95.745	1.00	52.72	O
ATOM	20209	N	THR	D	298	-27.778	0.602	96.748	1.00	53.30	N
ATOM	20210	CA	THR	D	298	-26.740	0.802	95.731	1.00	52.65	C
ATOM	20212	CB	THR	D	298	-26.712	2.261	95.243	1.00	52.96	C
ATOM	20214	OG1	THR	D	298	-26.732	3.144	96.376	1.00	56.56	O
ATOM	20216	CG2	THR	D	298	-27.909	2.547	94.337	1.00	51.36	C
ATOM	20220	C	THR	D	298	-25.354	0.444	96.267	1.00	51.63	C
ATOM	20221	O	THR	D	298	-25.083	0.608	97.462	1.00	50.50	O
ATOM	20223	N	LEU	D	299	-24.489	-0.051	95.378	1.00	50.62	N
ATOM	20224	CA	LEU	D	299	-23.102	-0.371	95.728	1.00	50.11	C
ATOM	20226	CB	LEU	D	299	-22.945	-1.867	96.060	1.00	49.91	C
ATOM	20229	CG	LEU	D	299	-21.560	-2.321	96.554	1.00	50.78	C
ATOM	20231	CD1	LEU	D	299	-21.170	-1.562	97.813	1.00	53.29	C
ATOM	20235	CD2	LEU	D	299	-21.500	-3.822	96.807	1.00	49.65	C
ATOM	20239	C	LEU	D	299	-22.137	0.029	94.608	1.00	48.19	C
ATOM	20240	O	LEU	D	299	-22.326	-0.337	93.447	1.00	46.34	O
ATOM	20242	N	ALA	D	300	-21.109	0.786	94.984	1.00	47.98	N
ATOM	20243	CA	ALA	D	300	-20.029	1.176	94.086	1.00	49.39	C
ATOM	20245	CB	ALA	D	300	-19.774	2.683	94.180	1.00	47.97	C
ATOM	20249	C	ALA	D	300	-18.775	0.398	94.469	1.00	50.12	C
ATOM	20250	O	ALA	D	300	-18.525	0.174	95.652	1.00	51.97	O
ATOM	20252	N	LEU	D	301	-18.000	-0.018	93.469	1.00	50.08	N
ATOM	20253	CA	LEU	D	301	-16.776	-0.784	93.688	1.00	51.34	C
ATOM	20255	CB	LEU	D	301	-16.918	-2.185	93.089	1.00	51.28	C
ATOM	20258	CG	LEU	D	301	-18.125	-2.982	93.590	1.00	52.15	C
ATOM	20260	CD1	LEU	D	301	-18.308	-4.257	92.782	1.00	53.40	C
ATOM	20264	CD2	LEU	D	301	-17.987	-3.295	95.072	1.00	52.51	C
ATOM	20268	C	LEU	D	301	-15.616	-0.063	93.028	1.00	51.47	C
ATOM	20269	O	LEU	D	301	-15.746	0.413	91.904	1.00	51.57	O
ATOM	20271	N	GLU	D	302	-14.478	0.004	93.709	1.00	52.24	N
ATOM	20272	CA	GLU	D	302	-13.358	0.795	93.210	1.00	55.43	C
ATOM	20274	CB	GLU	D	302	-12.157	0.733	94.163	1.00	56.01	C
ATOM	20277	CG	GLU	D	302	-11.478	-0.629	94.254	1.00	58.92	C
ATOM	20280	CD	GLU	D	302	-10.312	-0.636	95.228	1.00	58.20	C
ATOM	20281	OE1	GLU	D	302	-9.570	0.365	95.278	1.00	58.05	O
ATOM	20282	OE2	GLU	D	302	-10.132	-1.647	95.939	1.00	63.10	O
ATOM	20283	C	GLU	D	302	-12.950	0.355	91.808	1.00	56.22	C
ATOM	20284	O	GLU	D	302	-13.007	-0.832	91.485	1.00	56.96	O
ATOM	20286	N	ALA	D	303	-12.569	1.330	90.981	1.00	57.46	N
ATOM	20287	CA	ALA	D	303	-12.082	1.089	89.619	1.00	57.59	C
ATOM	20289	CB	ALA	D	303	-10.791	0.272	89.665	1.00	57.43	C
ATOM	20293	C	ALA	D	303	-13.108	0.406	88.711	1.00	58.66	C
ATOM	20294	O	ALA	D	303	-12.739	-0.287	87.760	1.00	59.28	O
ATOM	20296	N	LYS	D	304	-14.392	0.592	89.001	1.00	59.63	N

ATOM	20297	CA	LYS	D	304	-15.438	-0.130	88.281	1.00 60.18	C
ATOM	20299	CB	LYS	D	304	-15.705	-1.484	88.940	1.00 59.91	C
ATOM	20302	CG	LYS	D	304	-14.534	-2.431	88.804	1.00 59.97	C
ATOM	20305	CD	LYS	D	304	-14.854	-3.829	89.269	1.00 61.17	C
ATOM	20308	CE	LYS	D	304	-13.582	-4.652	89.400	1.00 61.13	C
ATOM	20311	NZ	LYS	D	304	-12.779	-4.644	88.141	1.00 61.23	N
ATOM	20315	C	LYS	D	304	-16.717	0.688	88.167	1.00 60.58	C
ATOM	20316	O	LYS	D	304	-17.590	0.634	89.037	1.00 60.60	O
ATOM	20318	N	THR	D	305	-16.804	1.446	87.075	1.00 61.86	N
ATOM	20319	CA	THR	D	305	-18.008	2.193	86.720	1.00 61.96	C
ATOM	20321	CB	THR	D	305	-17.870	2.912	85.349	1.00 62.82	C
ATOM	20323	OG1	THR	D	305	-17.327	2.007	84.376	1.00 52.48	O
ATOM	20325	CG2	THR	D	305	-16.981	4.167	85.474	1.00 61.48	C
ATOM	20329	C	THR	D	305	-19.231	1.282	86.671	1.00 63.59	C
ATOM	20330	O	THR	D	305	-19.127	0.053	86.502	1.00 66.14	O
ATOM	20332	N	GLY	D	306	-20.391	1.912	86.806	1.00 62.32	N
ATOM	20333	CA	GLY	D	306	-21.633	1.204	87.038	1.00 61.13	C
ATOM	20336	C	GLY	D	306	-21.986	1.308	88.505	1.00 59.96	C
ATOM	20337	O	GLY	D	306	-21.334	2.010	89.277	1.00 57.92	O
ATOM	20339	N	LYS	D	307	-23.027	0.592	88.890	1.00 60.51	N
ATOM	20340	CA	LYS	D	307	-23.532	0.661	90.242	1.00 59.65	C
ATOM	20342	CB	LYS	D	307	-24.377	1.935	90.399	1.00 59.54	C
ATOM	20345	CG	LYS	D	307	-24.531	2.440	91.829	1.00 61.32	C
ATOM	20348	CD	LYS	D	307	-23.604	3.621	92.159	1.00 62.72	C
ATOM	20351	CE	LYS	D	307	-24.082	4.353	93.422	1.00 62.70	C
ATOM	20354	NZ	LYS	D	307	-23.276	5.553	93.777	1.00 61.79	N
ATOM	20358	C	LYS	D	307	-24.368	-0.599	90.479	1.00 58.73	C
ATOM	20359	O	LYS	D	307	-25.383	-0.800	89.803	1.00 59.90	O
ATOM	20361	N	LEU	D	308	-23.938	-1.458	91.402	1.00 56.19	N
ATOM	20362	CA	LEU	D	308	-24.768	-2.601	91.793	1.00 55.13	C
ATOM	20364	CB	LEU	D	308	-24.016	-3.577	92.695	1.00 53.12	C
ATOM	20367	CG	LEU	D	308	-22.843	-4.301	92.045	1.00 51.17	C
ATOM	20369	CD1	LEU	D	308	-22.174	-5.246	93.039	1.00 50.36	C
ATOM	20373	CD2	LEU	D	308	-23.292	-5.048	90.796	1.00 50.21	C
ATOM	20377	C	LEU	D	308	-26.023	-2.086	92.486	1.00 53.53	C
ATOM	20378	O	LEU	D	308	-26.006	-1.055	93.145	1.00 51.81	O
ATOM	20380	N	HIS	D	309	-27.108	-2.824	92.330	1.00 53.59	N
ATOM	20381	CA	HIS	D	309	-28.424	-2.320	92.649	1.00 55.00	C
ATOM	20383	CB	HIS	D	309	-28.987	-1.629	91.395	1.00 56.99	C
ATOM	20386	CG	HIS	D	309	-30.480	-1.511	91.368	1.00 64.50	C
ATOM	20387	ND1	HIS	D	309	-31.286	-2.422	90.719	1.00 69.23	N
ATOM	20389	CE1	HIS	D	309	-32.552	-2.064	90.856	1.00 73.67	C
ATOM	20391	NE2	HIS	D	309	-32.596	-0.949	91.565	1.00 74.96	N
ATOM	20393	CD2	HIS	D	309	-31.313	-0.579	91.895	1.00 72.98	C
ATOM	20395	C	HIS	D	309	-29.307	-3.474	93.123	1.00 53.81	C
ATOM	20396	O	HIS	D	309	-29.231	-4.572	92.583	1.00 52.54	O
ATOM	20398	N	GLN	D	310	-30.115	-3.229	94.154	1.00 54.03	N
ATOM	20399	CA	GLN	D	310	-31.121	-4.201	94.603	1.00 54.20	C
ATOM	20401	CB	GLN	D	310	-30.525	-5.207	95.592	1.00 53.57	C
ATOM	20404	CG	GLN	D	310	-31.569	-6.159	96.165	1.00 51.93	C
ATOM	20407	CD	GLN	D	310	-30.979	-7.313	96.947	1.00 51.98	C
ATOM	20408	OE1	GLN	D	310	-29.793	-7.622	96.840	1.00 51.04	O
ATOM	20409	NE2	GLN	D	310	-31.817	-7.963	97.745	1.00 45.49	N
ATOM	20412	C	GLN	D	310	-32.324	-3.526	95.250	1.00 54.35	C
ATOM	20413	O	GLN	D	310	-32.176	-2.733	96.173	1.00 54.20	O
ATOM	20415	N	GLU	D	311	-33.513	-3.874	94.772	1.00 55.20	N
ATOM	20416	CA	GLU	D	311	-34.751	-3.402	95.378	1.00 56.10	C
ATOM	20418	CB	GLU	D	311	-35.941	-3.694	94.463	1.00 56.72	C
ATOM	20421	CG	GLU	D	311	-36.211	-2.636	93.410	1.00 57.24	C
ATOM	20424	CD	GLU	D	311	-37.690	-2.541	93.072	1.00 57.45	C
ATOM	20425	OE1	GLU	D	311	-38.048	-2.680	91.883	1.00 60.36	O
ATOM	20426	OE2	GLU	D	311	-38.499	-2.346	94.004	1.00 55.98	O
ATOM	20427	C	GLU	D	311	-35.012	-4.050	96.743	1.00 57.13	C

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ATOM  20428  O   GLU D 311     -34.667  -5.212  96.969  1.00 59.32           O
ATOM  20430  N   VAL D 312     -35.628  -3.282  97.642  1.00 56.10           N
ATOM  20431  CA  VAL D 312     -36.108  -3.791  98.925  1.00 54.35           C
ATOM  20433  CB  VAL D 312     -35.258  -3.293 100.107  1.00 55.79           C
ATOM  20435  CG1 VAL D 312     -35.394  -4.253 101.295  1.00 55.16           C
ATOM  20439  CG2 VAL D 312     -33.797  -3.124  99.698  1.00 58.54           C
ATOM  20443  C   VAL D 312     -37.519  -3.274  99.139  1.00 52.65           C
ATOM  20444  O   VAL D 312     -37.829  -2.152  98.747  1.00 51.46           O
ATOM  20446  N   ASN D 313     -38.368  -4.088  99.761  1.00 51.15           N
ATOM  20447  CA  ASN D 313     -39.753  -3.699 100.019  1.00 49.70           C
ATOM  20449  CB  ASN D 313     -40.677  -4.254  98.923  1.00 49.29           C
ATOM  20452  CG  ASN D 313     -40.109  -4.077  97.511  1.00 47.00           C
ATOM  20453  OD1 ASN D 313     -40.574  -3.240  96.738  1.00 43.93           O
ATOM  20454  ND2 ASN D 313     -39.104  -4.872  97.175  1.00 47.81           N
ATOM  20457  C   ASN D 313     -40.223  -4.171 101.403  1.00 48.99           C
ATOM  20458  O   ASN D 313     -39.804  -5.227 101.879  1.00 50.76           O
ATOM  20460  N   LEU D 314     -41.089  -3.384 102.040  1.00 46.64           N
ATOM  20461  CA  LEU D 314     -41.621  -3.715 103.361  1.00 45.22           C
ATOM  20463  CB  LEU D 314     -40.802  -3.006 104.438  1.00 45.62           C
ATOM  20466  CG  LEU D 314     -41.099  -3.282 105.923  1.00 46.54           C
ATOM  20468  CD1 LEU D 314     -40.589  -4.654 106.338  1.00 47.51           C
ATOM  20472  CD2 LEU D 314     -40.489  -2.194 106.823  1.00 43.11           C
ATOM  20476  C   LEU D 314     -43.087  -3.310 103.462  1.00 42.59           C
ATOM  20477  O   LEU D 314     -43.925  -4.084 103.920  1.00 40.19           O
ATOM  20479  O   HOH S   1      23.900   8.091  67.594  1.00 36.83           O
ATOM  20482  O   HOH S   2       5.912   4.439  54.558  1.00 29.49           O
ATOM  20485  O   HOH S   3     -16.003 -21.359  70.559  1.00 31.23           O
ATOM  20488  O   HOH S   4      13.033 -10.043  57.159  1.00 50.76           O
ATOM  20491  O   HOH S   5     -16.929  -1.491  61.333  1.00 38.50           O
ATOM  20494  O   HOH S   6     -22.626  -6.539  63.353  1.00 50.27           O
ATOM  20497  O   HOH S   7      16.630  -9.251  65.143  1.00 45.50           O
ATOM  20500  O   HOH S   8      44.030   7.432  44.731  1.00 37.27           O
ATOM  20503  O   HOH S   9      31.788  -5.318  53.301  1.00 35.07           O
ATOM  20506  O   HOH S  10     -30.206  -7.085  50.788  1.00 46.69           O
ATOM  20509  O   HOH S  11       2.607  -8.285  67.630  1.00 33.72           O
ATOM  20512  O   HOH S  12       2.236   1.490  38.087  1.00 44.75           O
ATOM  20515  O   HOH S  13      37.064 -22.971  76.347  1.00 43.10           O
ATOM  20518  O   HOH S  14      29.806 -11.612  69.475  1.00 31.98           O
ATOM  20521  O   HOH S  15     -15.188   2.660  97.916  1.00 45.05           O
ATOM  20524  O   HOH S  16      -5.607 -22.673  71.013  1.00 41.14           O
ATOM  20527  O   HOH S  17      -0.264   5.022  34.615  1.00 53.08           O
ATOM  20530  O   HOH S  18       5.673   8.372  50.771  1.00 41.06           O
ATOM  20533  O   HOH S  19       8.805  14.650  55.069  1.00 36.37           O
ATOM  20536  O   HOH S  20      -5.379 -16.793  52.803  1.00 34.32           O
ATOM  20539  O   HOH S  21      -6.797 -11.277  35.837  1.00 52.95           O
ATOM  20542  O   HOH S  22      37.201  11.338  80.658  1.00 70.53           O
ATOM  20545  O   HOH S  23      43.835  13.822  42.909  1.00 61.88           O
ATOM  20548  O   HOH S  24      13.385  -2.184  19.956  1.00 45.10           O
ATOM  20551  O   HOH S  25       3.200 -26.115  65.629  1.00 29.75           O
ATOM  20554  O   HOH S  26     -20.435 -19.113  31.054  1.00 30.05           O
ATOM  20557  O   HOH S  27      29.310 -15.968  54.370  1.00 41.89           O
ATOM  20560  O   HOH S  28     -28.905 -11.538  89.618  1.00 44.37           O
ATOM  20563  O   HOH S  29      -6.444 -19.644  75.505  1.00 34.88           O
ATOM  20566  O   HOH S  30      -3.930 -24.054  62.231  1.00 46.15           O
ATOM  20569  O   HOH S  31     -26.525 -18.165  54.874  1.00 32.11           O
ATOM  20572  O   HOH S  32     -16.859 -33.447  52.129  1.00 52.93           O
ATOM  20575  O   HOH S  33      24.707  -2.954  31.853  1.00 37.36           O
ATOM  20578  O   HOH S  34     -37.527  -9.583  49.990  1.00 45.23           O
ATOM  20581  O   HOH S  35     -21.289  -9.902  61.681  1.00 34.17           O
ATOM  20584  O   HOH S  36      18.763   5.020  61.136  1.00 35.70           O
ATOM  20587  O   HOH S  37      31.828 -25.589  50.936  1.00 38.57           O
ATOM  20590  O   HOH S  38      35.516  -4.398  50.634  1.00 85.69           O
ATOM  20593  O   HOH S  39      35.516  -4.398  50.634  1.00 85.69           O
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ATOM 20596 O HOH S 40 -12.682 4.430 47.461 1.00 46.60 O

CLAIMS:

1. A method for screening for a molecule capable of binding to CD4 comprising:

(a) providing one or more candidate molecules;

(b) determining whether the one or more candidate molecules is capable of binding to one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168 and amino acids 185 to 192; and

(c) selecting a molecule determined in step (b) to be capable of binding to CD4.

2. A method according to claim 1 wherein the step (b) further comprises determining whether the one or more candidate molecules binds to at least one of the following amino acid of human CD4: 26, 156, 159, and 161.

3. A method according to claim 1 or claim 2 wherein step (b) comprises determining whether the one or more candidate molecules is capable of binding to CD4 without a salt bridge.

4. A method according to any preceding claim wherein the one or more candidate molecules is an antibody, an antibody derived molecule, a peptide, an oligonucleotide, a siRNA, a mimotope, a peptidomimetic, a foldamer, a small molecule, a recognition protein based on a natural or an engineered lipocalin, a DARPin, a fibronectin, an affibody, a Kunitz-type inhibitor, a peptidic aptamer, a ribozyme, or a toxin.

5. A method according to claim 4 wherein the antibody is a humanized antibody or a camelid antibody.

6. A method according to any preceding claim wherein the one or more candidate molecules are antibodies or antibody fragments comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises: Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110.

7. A method according to claim 6 wherein the amino acid substitutions in the sequence of CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain are selected from those set out in Table 4 and Table 5.

8. A method according to claim 6 or claim 7 wherein the antibody or antibody fragment comprises a light chain comprising Tyr 53 or Phe 53 and a heavy chain comprising Ser 28.

9. A method according to any one of claims 6 to 8 wherein the antibody or antibody fragment comprises a light chain comprising Asp64 and/or a heavy chain comprising Glu 56.

10. A method according to any one of claims 6 to 9 wherein the antibody or antibody fragment further comprises the CDR3 of BT061 light chain and/or the CDR2 of BT061 heavy chain optionally with amino acid substitutions in the sequences of these CDRs wherein the substitutions are selected from those set out in Table 4 and Table 5.

11. A method according to any preceding claim wherein steps (a) to (c) are conducted on a computer system.

12. A method according to claim 11 further comprising a step (d) of producing the molecule selected in step (c).

13. A method according to claim 12 further comprising a step (e) of contacting in vitro the molecule produced in step (d) with a CD4+ cell or with a peptide or polypeptide comprising one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168 and amino acids 185 to 192.

14. A method according to claim 13 wherein step (e) comprises determining whether the molecule produced in step (d):

(i) binds to a peptide comprising one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168, and amino acids 185 to 192;

(ii) activates CD4+CD25+ regulatory T cells; and/or

(iii) reduces CD4 receptor expression on a CD4 expressing cell.

15. A method according to any one of claims 1 to 10 wherein steps (a) to (c) are conducted in vitro and step (b) comprises contacting the one or more candidate molecules with a peptide or polypeptide comprising one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168 and amino acids 185 to 192.

16. A method according to claim 15 wherein the one or more candidate molecules are a library of molecules.

17. A method according to claim 16 wherein the library is a phage display library.

18. A method according to anyone of claims 14 to 17 wherein the step of determining comprises performing X ray crystallography or NMR and selecting a molecule which binds to the peptide or polypeptide without a salt bridge.

19. A method according to any one of claims 15 to 18 further comprising a step (d) of screening a moleculeselected in step (c) for its ability to activate CD4+CD25+ regulatory T cells, and/or a step (e) of screening a molecule selected in step (c) for its ability to reduce CD4 receptor expression on a CD4 expressing cell.

20. A method according to any one of claims 13 to 19 wherein the peptide or the polypeptide is fixed to a membrane or an equivalent suitable surface, or is coupled to a magnetic bead.

21. A method according to any one of claims 13 to 20 wherein the peptide or polypeptide comprises the Ig-like C2-type 1 domain of human CD4 or comprises the Ig-like V-type domain and the Ig-like C2-type 1 domain of human CD4.

22. A method according to any one of claims 13 to 21 wherein the peptide or polypeptide mimics the conformation of the wild-type CD4 epitope.

23. A method according to any one of claims 14 to 22 wherein the contacting step comprises contacting the peptide and the molecule with a competitor antibody or antibody fragment having the heavy and light chain variable domains of BT061 to determine if the candidate or selected molecule is able to block binding of the competitor antibody or antibody fragment to the regions of the peptide or polypeptide.

24. A method for producing a therapeutic composition comprising:

(a) selecting a molecule determined as being capable of activating CD4+CD25+ regulatory T cells using the method of claim 14 or claim 19: and

(b) producing a therapeutic composition comprising the selected molecule.

25. A therapeutic composition obtainable by a method according to claim 24, wherein the molecule does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CD3 of BT061 light chain.

26. A method for screening for an antibody or antibody fragment capable of binding CD4 comprising:

(a) providing an antibody or antibody fragment comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

(b) determining whether the antibody or antibody fragment is capable of binding to CD4, and

(c) selecting the antibody or antibody fragment determined in step (b) to be capable of binding to CD4,

wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

27. A method according to claim 26 wherein the amino acid substitutions in the sequences of CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain are selected from those set out in Table 4 and Table 5.

28. A method according to claim 26 or claim 27 wherein the antibody or antibody fragment comprises a light chain comprising Tyr53 or Phe53 and a heavy chain comprising Ser28.

29. A method according to any one of claims 26 to 28 wherein the antibody or antibody fragment comprises a light chain comprising Asp64 and/or a heavy chain comprising Glu 56.

30. A method according to any one of claims 26 to 29 wherein the antibody or antibody fragment further comprises the CDR3 of BT061 light chain and/or the CDR2 of BT061 heavy chain optionally with amino acid substitutions in the sequences of these CDRs wherein the substitutions are selected from those set out in Table 4 and Table 5.

31. A method according to any one of claims 26 to 30 wherein steps (a) to (c) are conducted on a computer system.

32. A method according to claim 31 further comprising a step (d) of producing the antibody or antibody fragment selected in step (c).

33. A method according to claim 32 further comprising determining whether the antibody or antibody fragment produced in step (d):

(i) activates CD4+CD25+ regulatory T cells;

(ii) binds to one or more of the following regions of CD4: amino acids 148 to 154; amino acids 164 to 168 and amino acids 185 to 192; and/or

(iii) down-regulates expression of CD4 on CD4 expressing cell.

34. A method according to any one of claims 26 to 31 wherein steps (a) to (c) are conducted in vitro.

35. A method according to claim 34 wherein step (b) comprises determining whether the antibody or antibody fragment:

(i) activates CD4+CD25+ regulatory T cells;

(ii) binds to one or more of the following regions of CD4: amino acids 148 to 154; amino acids 164 to 168 and amino acids 185 to 192; and/or

(iii) down-regulates expression of CD4 on CD4 expressing cell.

36. A method according to any one of claims 14, 19, 33 and 35 wherein the CD4 expressing cells are PBMC.

37. A method for producing a therapeutic composition comprising:

(a) selecting the antibody or antibody fragment identified according to claim 33 or 35 as being capable of activating CD4+CD25+ regulatory T cells; and

(b) producing a therapeutic composition comprising the selected molecule.

38. A therapeutic composition obtainable by a method according to claim 37.

39. An antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells comprising CDR1 and CDR2 of BT061 light chain and CDR1 and CDR3 of BT061 heavy chain optionally with amino acid substitutions in the sequences of the CDRs provided:

(i) the light chain CDR1 comprises: Ser32; Gly33; and Tyr 34;

(ii) the light chain CDR2 comprises: Leu54; and Ile57;

(iii) the heavy chain CDR1 comprises Asp31, Glu31, Thr31, Cys31, Pro31, Met31 or Tyr31; and

(iv) the heavy chain CDR3 comprises Tyr103, Phe103 or His103; Arg104; Tyr105; Asp106; and Trp110, Phe110, His 110 or Tyr110,

and wherein the antibody or antibody fragment does not comprise CDR1, CDR2 and CDR3 of BT061 heavy chain and CDR1, CDR2 and CDR3 of BT061 light chain.

40. An antibody or antibody fragment according to claim 39 comprising the sequence:

```
          10          20          30          40          50          60
DIVMTQSPDS LAVSLGERAT INCXXXXXXS XSGYSYXYWY QQKPGQPPKL LIYLASILEX
          70          80          90         100         110         120
GVPDRFSGSG SGTDFTLTIS SLQAEDVAVY YCQHSXXXPW XFGQGTKVEI KRTVAAPSVF
         130         140         150         160         170         180
IFPPSDEQLK SGTASVVCLL NNFYPREAKV QWKVDNALQS GNSQESVTEQ DSKDSTYSLS
         190         200         210      218
STLTLSKADY EKHKVYACEV THQGLSSPVT KSFNRGEC
```

wherein the amino acids at positions 24 to 29, 31, 37, 60, 96 to 98 and 101 are selected from those shown at the corresponding positions in Table 4,

and further comprising the sequence:

```
          10          20          30          40          50          60
EEQLVESGGG LVKPGGSLRL SCAASGFSFS XXXXYWLRQA PGKGLEWIGV XXXXXXXXXX
          70          80          90         100         110         120
XXXXXXXGRF TISRDDSKNT VYLQMNSLKT EDTAVYYCSA SYXRYDXXXX FXXWGQGTLV
         130         140         150         160         170         180
TVSSASTKGP SVFPLAPSSK STSGGTAALG CLVKDYFPEP VTVSWNSGAL TSGVHTFPAV
         190         200         210         220         230         240
LQSSGLYSLS SVVTVPSSSL GTQTYICNVN HKPSNTKVDK KVEPKSCDKT HTCPPCPAPE
         250         260         270         280         290         300
LLGGPSVFLF PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE
         310         320         330         340         350         360
EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP REPQVYTLPP
         370         380         390         400         410         420
SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPVLDSDGS FFLYSKLTVD
         430         440         450  454
KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGK
```

wherein the amino acids at positions 31 to 34, 51 to 67, 103, 107 to 110, 111 and 112 are selected from those shown at the corresponding positions in Table 5.

41. An antibody or antibody fragment according to claim 39 comprising the sequence SGYSY from CDR1 of BT061 light chain and/or the sequence LASILE from CDR2 of BT061 light chain and/or the sequence YYRYD from CDR3 of BT061 heavy chain.

42. An antibody or antibody fragment according to claim 39 wherein the amino acids substitutions in the sequences of the CDRs are isosteric variations

43. An antibody or antibody fragment capable of activating CD4+CD25+ regulatory T cells comprising V domains that are at least 80% identical to the V domains of the antibody BT061, the V domains comprising:

(i) the sequence motif SGYSY in CDR1 of the light chain V domain;

(ii) the sequence motif LASILE in CDR2 of the light chain V domain; and

(iii) the sequence motif SYXRYD in CDR3 of the heavy chain V domain where X is Y, F or H,

with the proviso that the antibody or antibody fragment does not comprise V domains that are 100% identical to the V domains of the antibody BT061.

44. An antibody or antibody fragment according to claim 39 wherein the amino acid substitutions in the sequence of CDR1 and CDR2 of BT061 light chain and/or CDR1 and CDR3 of BT061 heavy chain are selected from those set out in Table 4 and Table 5.

45. An antibody or antibody fragment according to claim 39 or claim 44 wherein the antibody or antibody fragment comprises a light chain comprising Tyr53 or Phe 53 and/or a heavy chain comprising Ser28.

46. An antibody or antibody fragment according to any one of claims 39, 44 or 45 wherein the antibody or antibody fragment comprises a light chain containing Asp64.

47. An antibody or antibody fragment according to any one of claims 39, or 44 to 46 wherein the antibody or antibody fragment comprises a heavy chain comprising Glu 56.

48. An antibody or antibody fragment according to any one of claims 39, or 44 to 47 wherein the antibody or antibody fragment further comprises the CDR3 of BT061 light chain and/or the CDR2

of BT061 heavy chain optionally with amino acid substitutions in the sequences of these CDRs wherein the substitutions are selected from those set out in Table 4 and Table 5.

49. An antibody or antibody fragment according to any one of claims 39 or 44 to 48, comprising the CDR sequences of BT061 light chain and the CDR sequences of BT061 heavy chain with a single amino acid substitution wherein the substitution is:

(i) A63G in the heavy chain;

(ii) R33K in the heavy chain; or

(iii) L98I in the light chain.

50. An antibody or antibody fragment according to any one of claims 39 or 44 to 48, comprising the CDR sequences of BT061 light chain and the CDR sequences of BT061 heavy chain and a double amino acid substitution wherein the substitutions are:

(iv) R33K and A63G in the heavy chain; or

(v) L98I in the light chain and R33K in the heavy chain.

51. An antibody or antibody fragment according to claim 49 and 50 further comprising the remaining variable domain sequences of BT061.

52. An antibody or antibody fragment according to any one of claims 39 to 51, further comprising an Fc receptor capable of binding to CD64.

53. An antibody according to any one of claims 39 to 52 wherein the antibody is an IgG antibody.

54. An isolated peptide comprising less than 50 amino acids of human CD4 protein and including two or three of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168, and amino acids 185 to 192.

55. An isolated peptide comprising less than 20 amino acids of human CD4 protein and including one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168, and amino acids 185 to 192.

56. A mimotope of an isolated peptide comprising less than 50 amino acids of human CD4 protein and including one or more of the following regions of human CD4: amino acids 148 to 154, amino acids 164 to 168, and amino acids 185 to 192.

57. A nucleic acid encoding the antibody or antibody fragment according to any one of claims 39 to 53.

58. A vector comprising the nucleic acid of claim 57.

59. A host cell or hybridoma comprising the nucleic acid of claim 57 or the vector of claim 58.

60. A method for the production of an antibody or antibody fragment according to any one of claims 39 to 53 comprising a step of culturing the host cell according to claim 60 in a culture medium under conditions allowing the expression of the antibody or antibody fragment and separating the antibody or fragment from the culture medium.

61. A pharmaceutical composition comprising the antibody or antibody fragment according to any one of claims 39 to 53 and further comprising a pharmaceutically acceptable carrier.

62. An antibody or antibody fragment according to any one of claims 39 to 53 further comprising a label.

63. An in vitro method for the activation of CD4+CD25+ regulatory T cells comprising contacting the cells with the antibody or antibody fragment according to any one of claims 39 to 53.

64. A method of treating a subject suffering from or preventing a subject suffering from an autoimmune disease or transplant rejection comprising administering to said subject an antibody or antibody fragment according to any one of claims 39 to 53.

65. An antibody or antibody fragment according to any one of claims 39 to 53 for use in medicine.

66. An antibody or antibody fragment for use in medicine according to claim 65 wherein the use is the treatment of an autoimmune disease or transplant rejection.

67. Use of an antibody or antibody fragment according to claim 65 for the manufacture of a medicament for treating autoimmune disease or transplant rejection.

68. Use of an antibody or antibody fragment according to any one of claims 39 to 53 for activating CD4+CD25+ regulatory T cells in vitro.

69. Use of an antibody or antibody fragment according to any one of claims 39 to 53 for identifying CD4+CD25+ regulatory T cells in vitro.

70. Use of the isolated peptide of claim 54 or claim 55 or the mimotope of claim 56 for screening for molecules capable of binding to CD4 and/or activating CD4+CD25+ regulatory T cells.

71. A method of screening for the presence of CD4+CD25+ T regulatory cells in a sample comprising a step of contacting a labeled antibody or antibody fragment according to claim 62 with the sample, washing the sample to remove unbound antibody and detecting the presence of the label in the sample.

72. A method of screening according to claim 71 wherein the CD4+CD25+ T regulatory cells are activated.

73. A method of screening according to claim 71 or claim 72 wherein the sample is a biological sample taken from a subject suffering from an autoimmune disease or from transplant rejection.

74. A method of treating a subject suffering from or preventing a subject suffering from an autoimmune disease or transplant rejection comprising removing a sample comprising CD4+CD25+ regulatory T cells from the subject, contacting the sample with an antibody or antibody fragment

according to any one of claims 39 to 53 to activate CD4+CD25+ regulatory T cells and administering the activated cells to the subject.

75. A CD4+CD25+ regulatory T cell activated with an antibody or antibody fragment according to any one of claims 39 to 53 for use in medicine.

76. A CD4+CD25+ regulatory T cell for use according to claim 75 wherein the use is the treatment of an autoimmune disease.

77. Use of a CD4+CD25+ regulatory T cell activated with an antibody or antibody fragment according to any one of claims 39 to 53 for the manufacture of a medicament for the treatment of an autoimmune disease or transplant rejection.

78. A kit for isolating CD4+CD25+ regulatory T cells comprising magnetic beads coated with the antibody or antibody fragment of any one of claims 39 to 53 and a second anti-CD4 antibody or an anti-CD25 antibody.

```
        10         20         30         40         50         60
MNRGVPFRHL LLVLQLALLP AATQGKKVVL GKKGDTVELT CTASQKKSIQ FHWKNSNQIK

        70         80         90        100        110        120
ILGNQGSFLT KGPSKLNDRA DSRRSLWDQG NFPLIIKNLK IEDSDTYICE VEDQKEEVQL

       130        140        150        160        170        180
LVFGLTANSD THLLQGQSLT LTLESPPGSS PSVQCRSPRG KNIQGGKTLS VSQLELQDSG

       190        200        210        220        230        240
TWTCTVLQNQ KKVEFKIDIV VLAFQKASSI VYKKEGEQVE FSFPLAFTVE KLTGSGELWW

       250        260        270        280        290        300
QAERASSSKS WITFDLKNKE VSVKRVTQDP KLQMGKKLPL HLTLPQALPQ YAGSGNLTLA

       310        320        330        340        350        360
LEAKTGKLHQ EVNLVVMRAT QLQKNLTCEV WGPTSPKLML SLKLENKEAK VSKREKAVWV

       370        380        390        400        410        420
LNPEAGMWQC LLSDSGQVLL ESNIKVLPTW STPVQPMALI VLGGVAGLLL FIGLGIFFCV

       430        440        450
RCRHRRRQAE RMSQIKRLLS EKKTCQCPHR FQKTCSPI
```

not represented by the crystal structure

Figure 1

A. Light chain.

```
          10          20          30          40          50          60
                                  CDR1                              CDR2
DIVMTQSPDS LAVSLGERAT INCRASKSVS TSGYSYIYWY QQKPGQPPKL LIYLASILES

          70          80          90         100         110         120
                                                CDR3
GVPDRFSGSG SGTDFTLTIS SLQAEDVAVY YCQHSRELPW TFGQGTKVEI KRTVAAPSVF

         130         140         150         160         170         180

IFPPSDEQLK SGTASVVCLL NNFYPREAKV QWKVDNALQS GNSQESVTEQ DSKDSTYSLS

         190         200         210

STLTLSKADY EKHKVYACEV THQGLSSPVT KSFNRGEC
```

Figure 2A

B. Heavy chain.

```
          10         20         30         40         50         60
                                CDR1                          CDR2
EEQLVESGGG LVKPGGSLRL SCAASGFSFS DCRMYWLRQA PGKGLEWIGV ISVKSENYGA

          70         80         90        100        110        120
CDR2                                                  CDR3
NYAESVRGRF TISRDDSKNT VYLQMNSLKT EDTAVYYCSA SYYRYDVGAW FAYWGQGTLV

         130        140        150        160        170        180

TVSSASTKGP SVFPLAPSSK STSGGTAALG CLVKDYFPEP VTVSWNSGAL TSGVHTFPAV

         190        200        210        220        230        240

LQSSGLYSLS SVVTVPSSSL GTQTYICNVN HKPSNTKVDK KVEPKSCDKT HTCPPCPAPE

         250        260        270        280        290        300

LLGGPSVFLF PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE

         310        320        330        340        350        360

EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP REPQVYTLPP

         370        380        390        400        410        420

SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPVLDSDGS FFLYSKLTVD

         430        440        450

KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGK
```

[ ] not represented by the crystal structure

Figure 2B

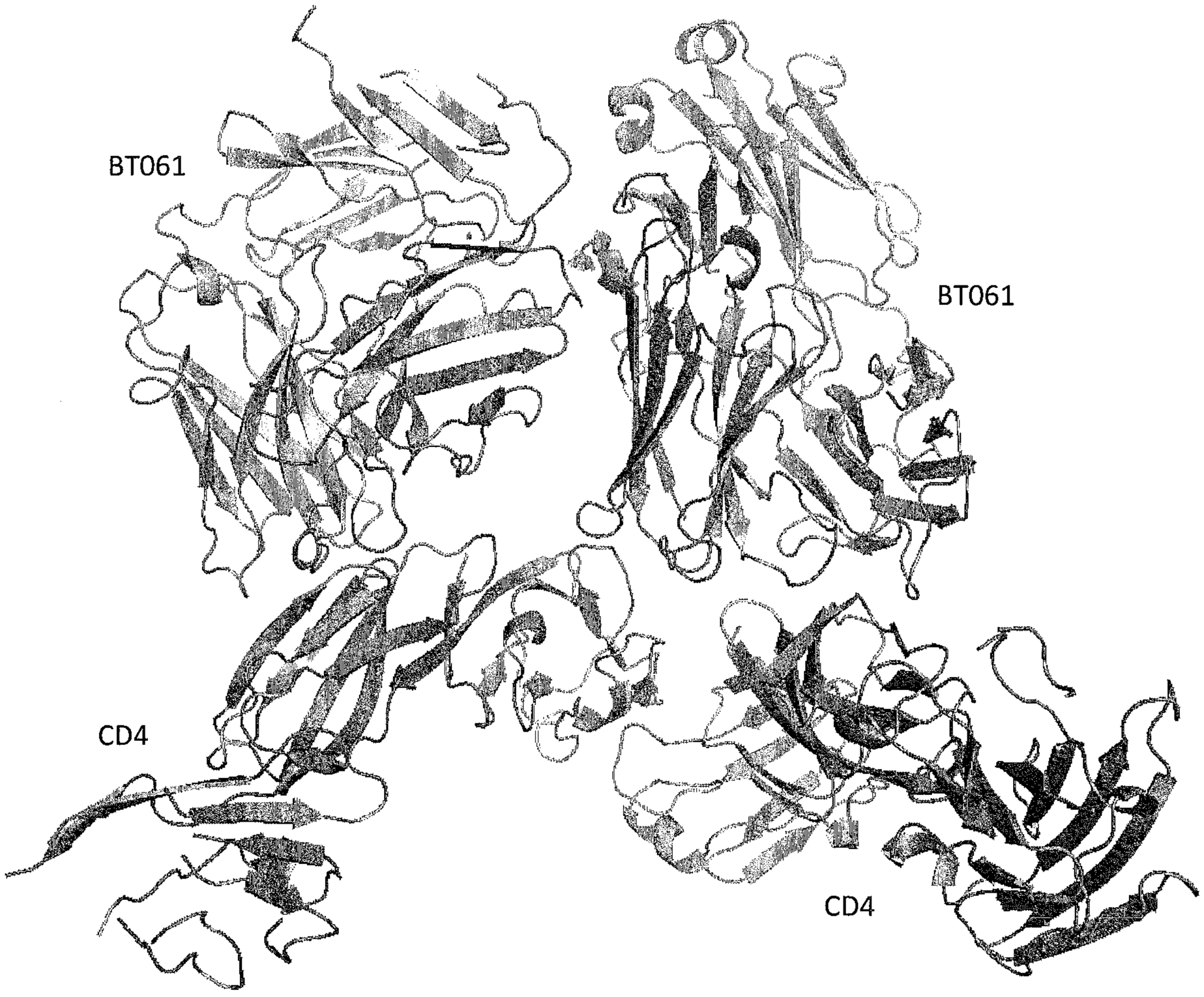


FIGURE 3

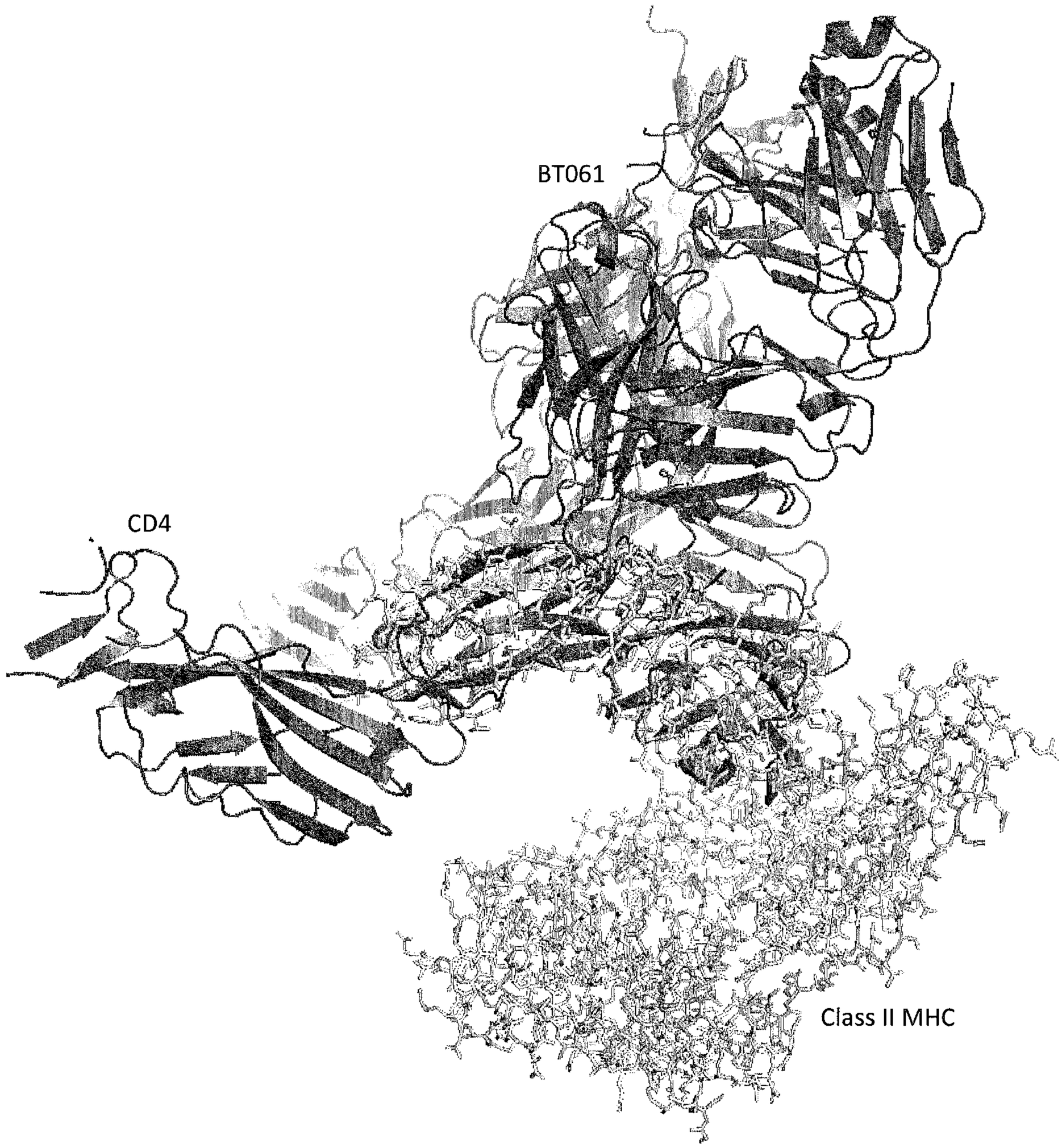


Figure 4

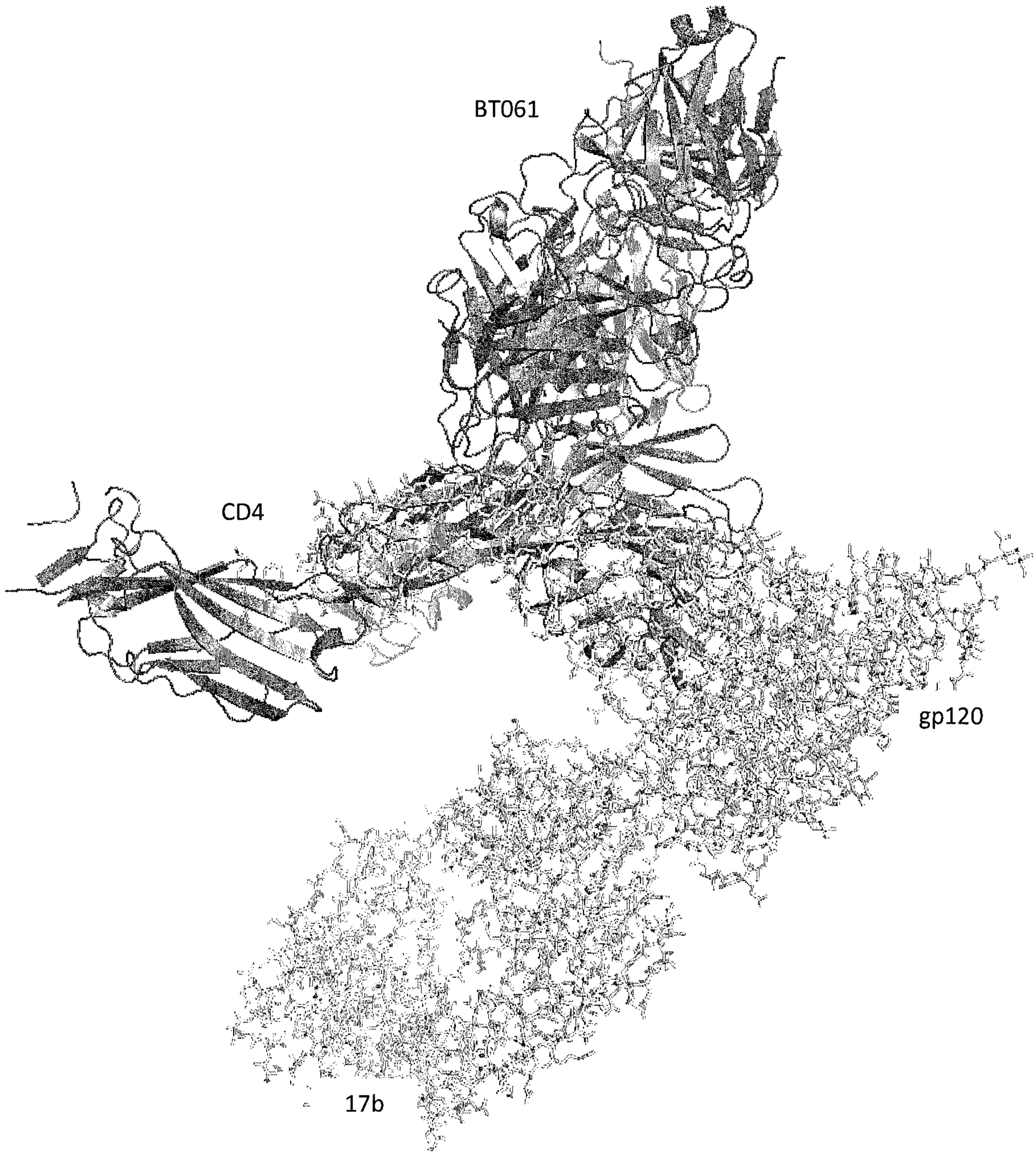


Figure 5

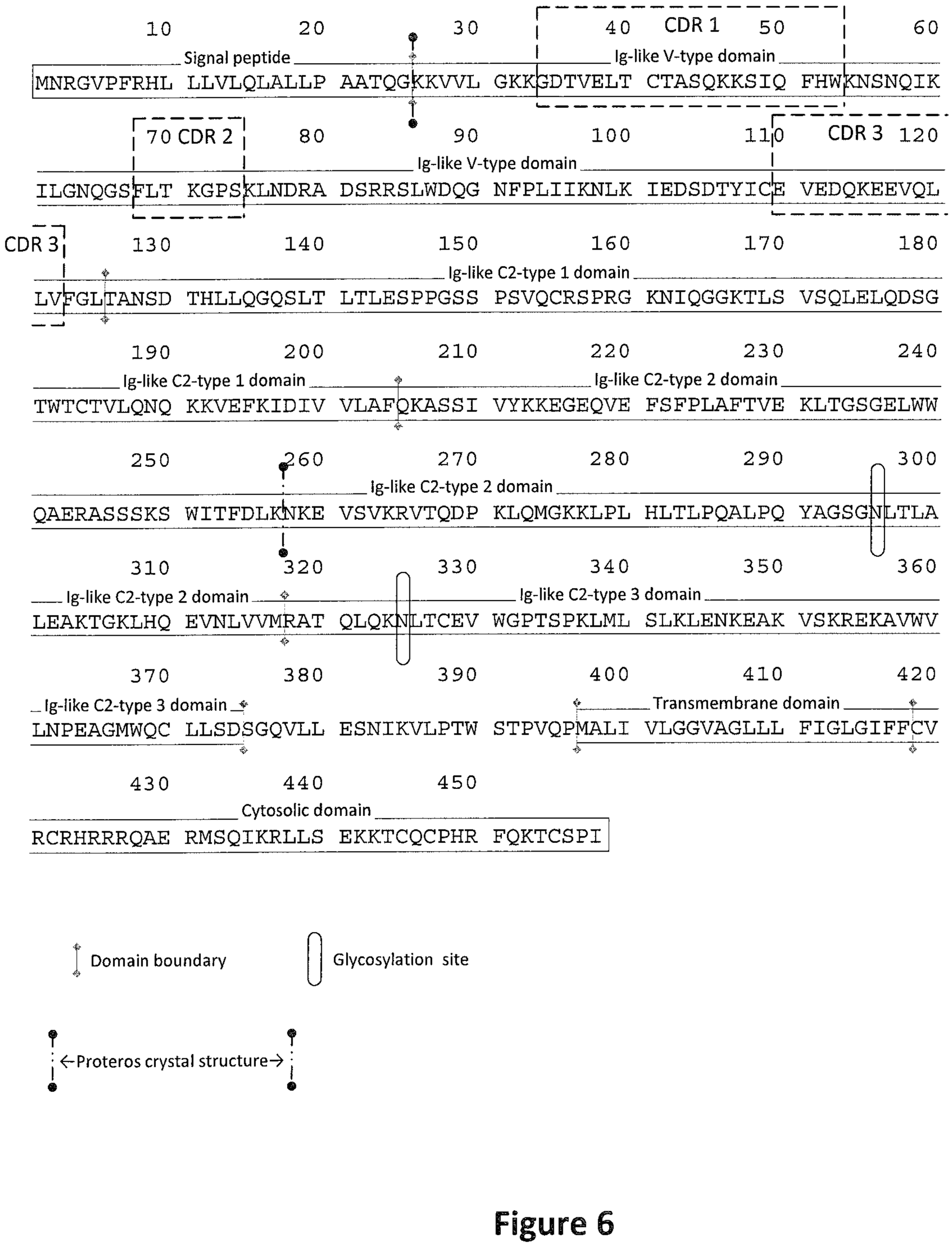
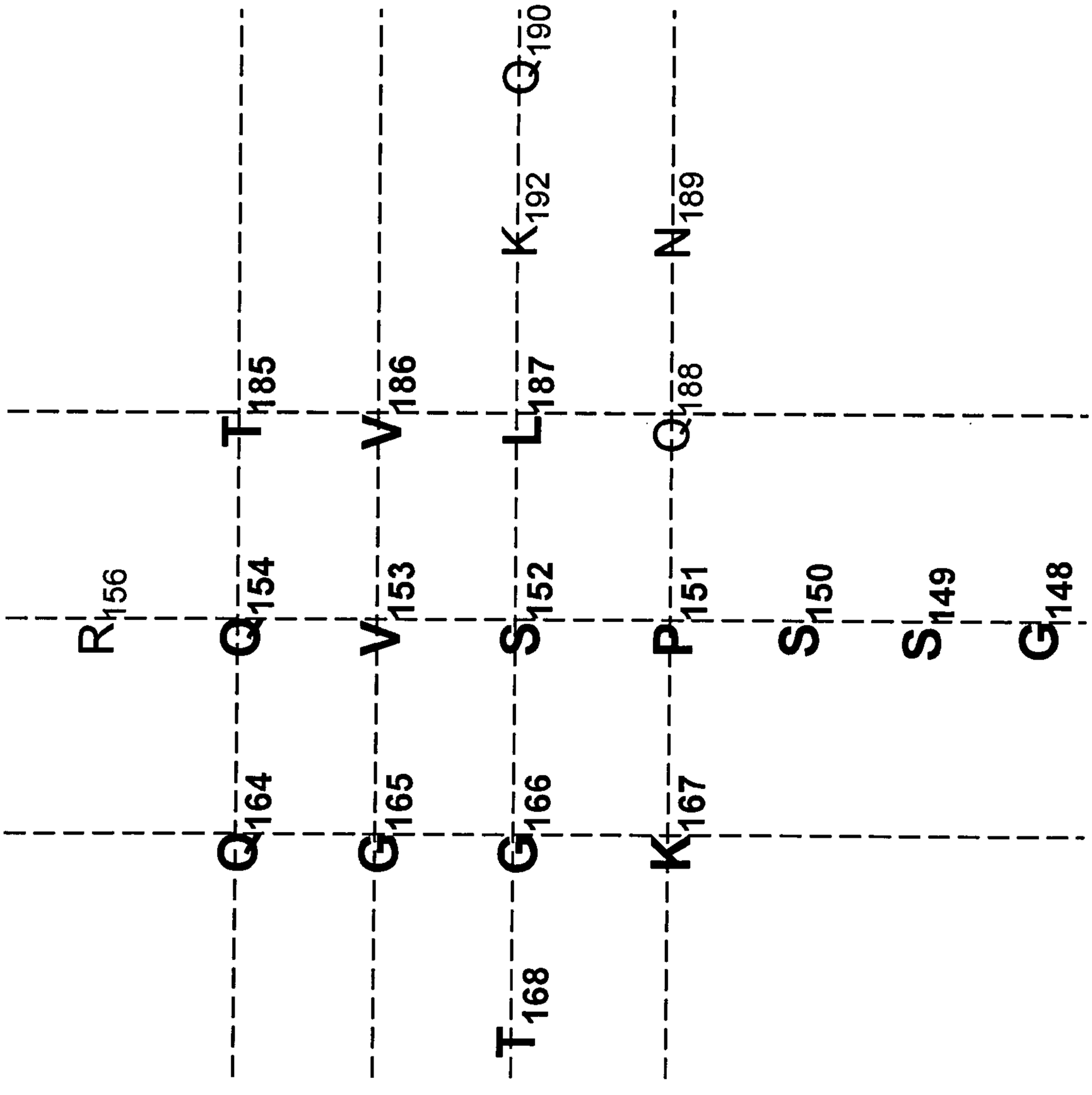

10 20 30 40 CDR 1 50 60
Signal peptide
Ig-like V-type domain
MNRGVPFRHL LLVLQLALLP AATQGKKVVL GKKGDTVELT CTASQKKSIQ FHWKNSNQIK
70 CDR 2 80 90 100 110 CDR 3 120
Ig-like V-type domain
ILGNQGSFLT KGPSKLNDRA DSRRSLWDQG NFPLIIKNLK IEDSDTYICE VEDQKEEVQL
CDR 3 130 140 150 160 170 180
Ig-like C2-type 1 domain
LVFGLTANSD THLLQGQSLT LTLESPPGSS PSVQCRSPRG KNIQGGKTLS VSQLELQDSG
190 200 210 220 230 240
Ig-like C2-type 1 domain
Ig-like C2-type 2 domain
TWTCTVLQNQ KKVEFKIDIV VLAFQKASSI VYKKEGEQVE FSFPLAFTVE KLTGSGELWW
250 260 270 280 290 300
Ig-like C2-type 2 domain
QAERASSSKS WITFDLKNKE VSVKRVTQDP KLQMGKKLPL HLTLPQALPQ YAGSGNLTLA
310 320 330 340 350 360
Ig-like C2-type 2 domain
Ig-like C2-type 3 domain
LEAKTGKLHQ EVNLVVMRAT QLQKNLTCEV WGPTSPKLML SLKLENKEAK VSKREKAVWV
370 380 390 400 410 420
Ig-like C2-type 3 domain
Transmembrane domain
LNPEAGMWQC LLSDSGQVLL ESNIKVLPTW STPVQPMALI VLGGVAGLLL FIGLGIFFCV
430 440 450
Cytosolic domain
RCRHRRRQAE RMSQIKRLLS EKKTCQCPHR FQKTCSPI
Domain boundary
Glycosylation site
←Proteros crystal structure→

Figure 6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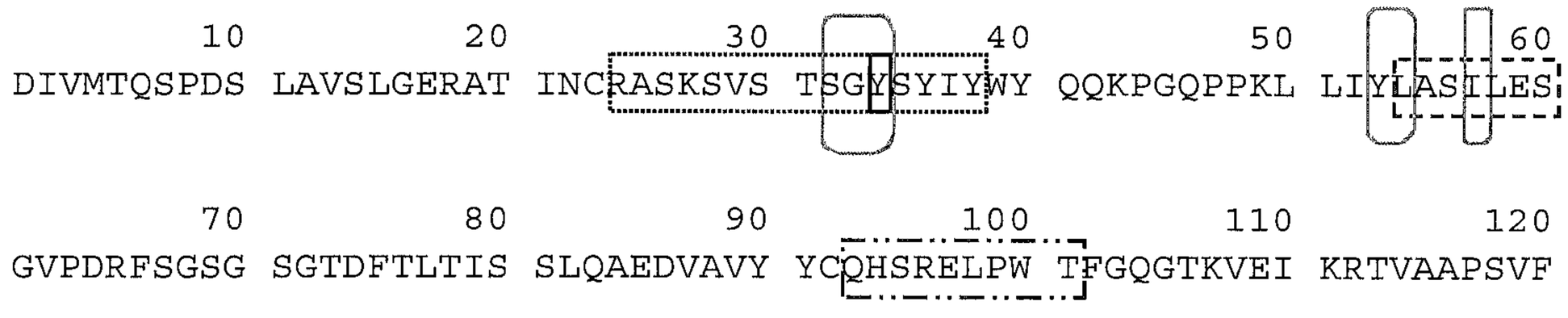
V186
L187
Q188
N189
K192
Q19
R156
Q154
V153
S152
P151
S150
S149
G148
Q164
G165
G166
K167
T168

Figure 7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70 80 90 100 110 120
GVPDRFSGSG SGTDFTLTIS SLQAEDVAVY YCQHSRELPW TFGQGTKVEI KRTVAAPSVF
130 140 150 160 170 180
IFPPSDEQLK SGTASVVCLL NNFYPREAKV QWKVDNALQS GNSQESVTEQ DSKDSTYSLS
190 200 210
STLTLSKADY EKHKVYACEV THQGLSSPVT KSFNRGEC
CDR1
CDR2
CDR3
CD4 binding sites

Figure 8

```
                10                  20                  30                  40                  50                  60
EEQLVESGGG LVKPGGSLRL SCAASGFSFS DCRMYWLRQA PGKGLEWIGV ISVKSENYGA

                70                  80                  90                 100                 110                 120
NYAESVRGRF TISRDDSKNT VYLQMNSLKT EDTAVYYCSA SYYRYDVGAW FAYWGQGTLV

               130                 140                 150                 160                 170                 180
TVSSASTKGP SVFPLAPSSK STSGGTAALG CLVKDYFPEP VTVSWNSGAL TSGVHTFPAV

               190                 200                 210                 220                 230                 240
LQSSGLYSLS SVVTVPSSSL GTQTYICNVN HKPSNTKVDK KVEPKSCDKT HTCPPCPAPE

               250                 260                 270                 280                 290                 300
LLGGPSVFLF PPKPKDTLMI SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE

               310                 320                 330                 340                 350                 360
EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE KTISKAKGQP REPQVYTLPP

               370                 380                 390                 400                 410                 420
SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPVLDSDGS FFLYSKLTVD

               430                 440                 450
KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGK
```

CDR1 CDR2 CDR3

CD4 binding sites

Figure 9

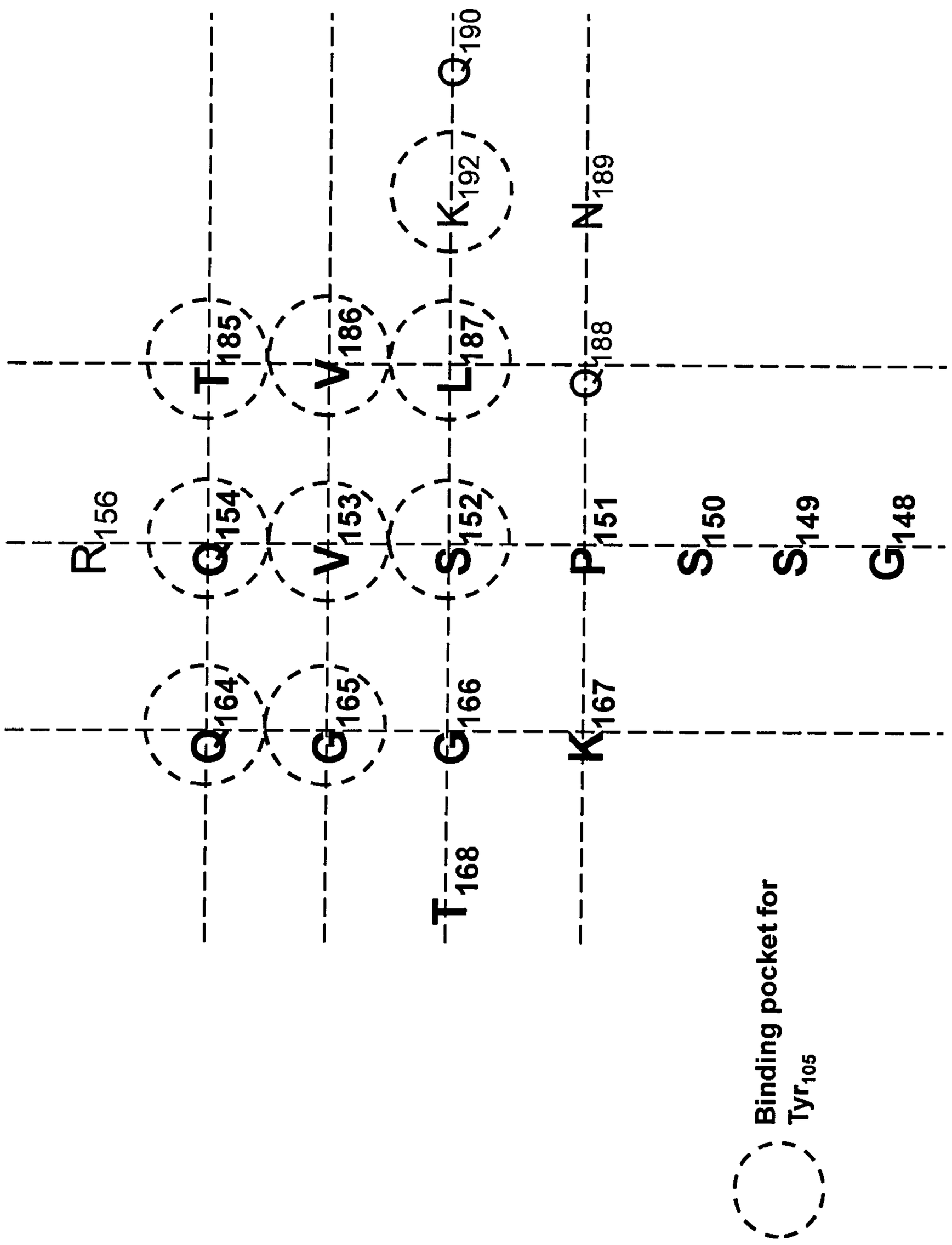
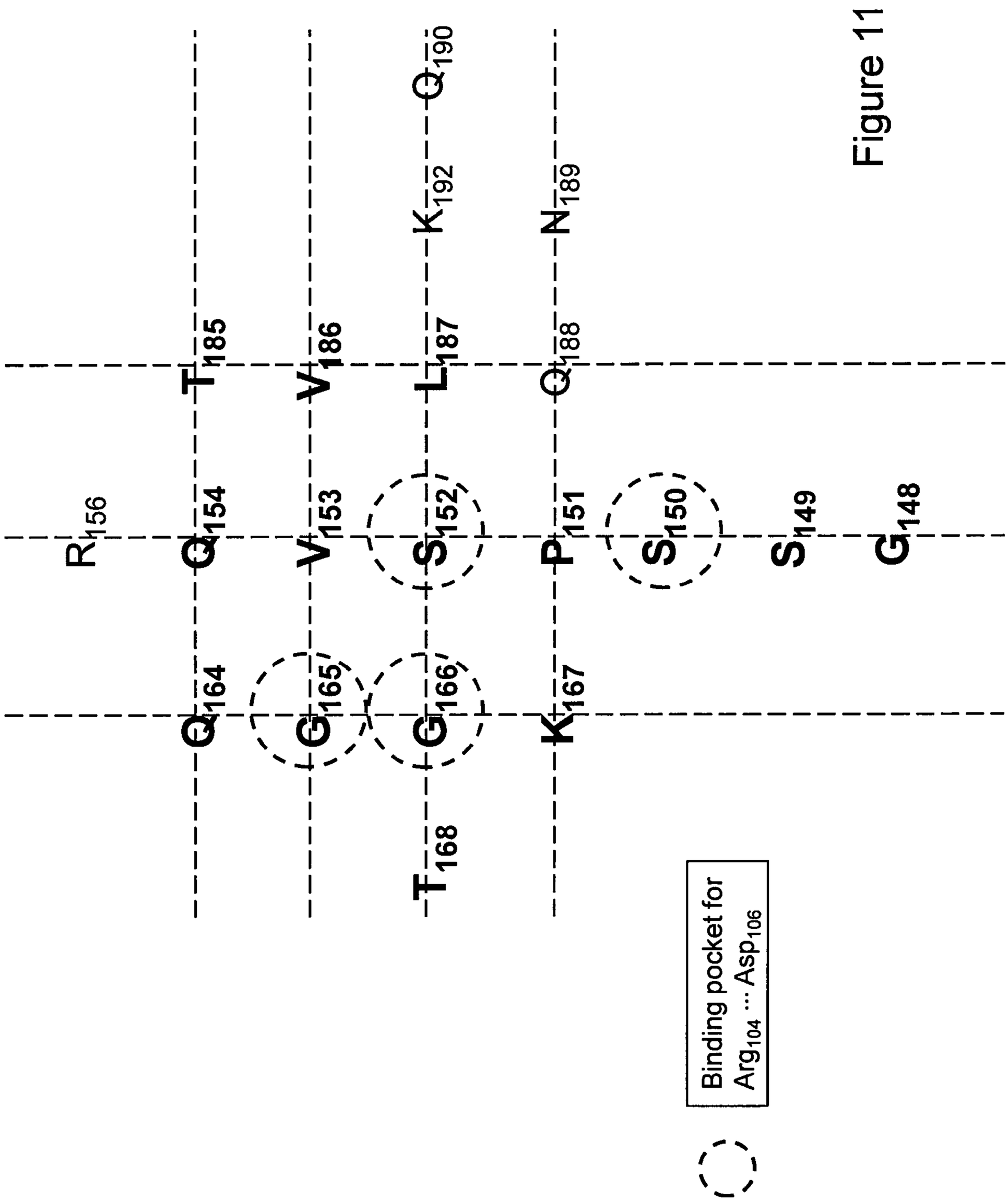

Q 190
K 192
N 189
T 185
V 186
L 187
Q 188
R 156
Q 154
V 153
S 152
P 151
S 150
S 149
G 148
Q 164
G 165
G 166
K 167
T 168
Binding pocket for Tyr 105

Figure 10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V186
L187
Q188
N189
K192
Q193
R156
Q154
V153
S152
P151
S150
S149
G148
Q164
G165
G166
K167
T168
Binding pocket for Arg104 ... Asp106

Figure 11

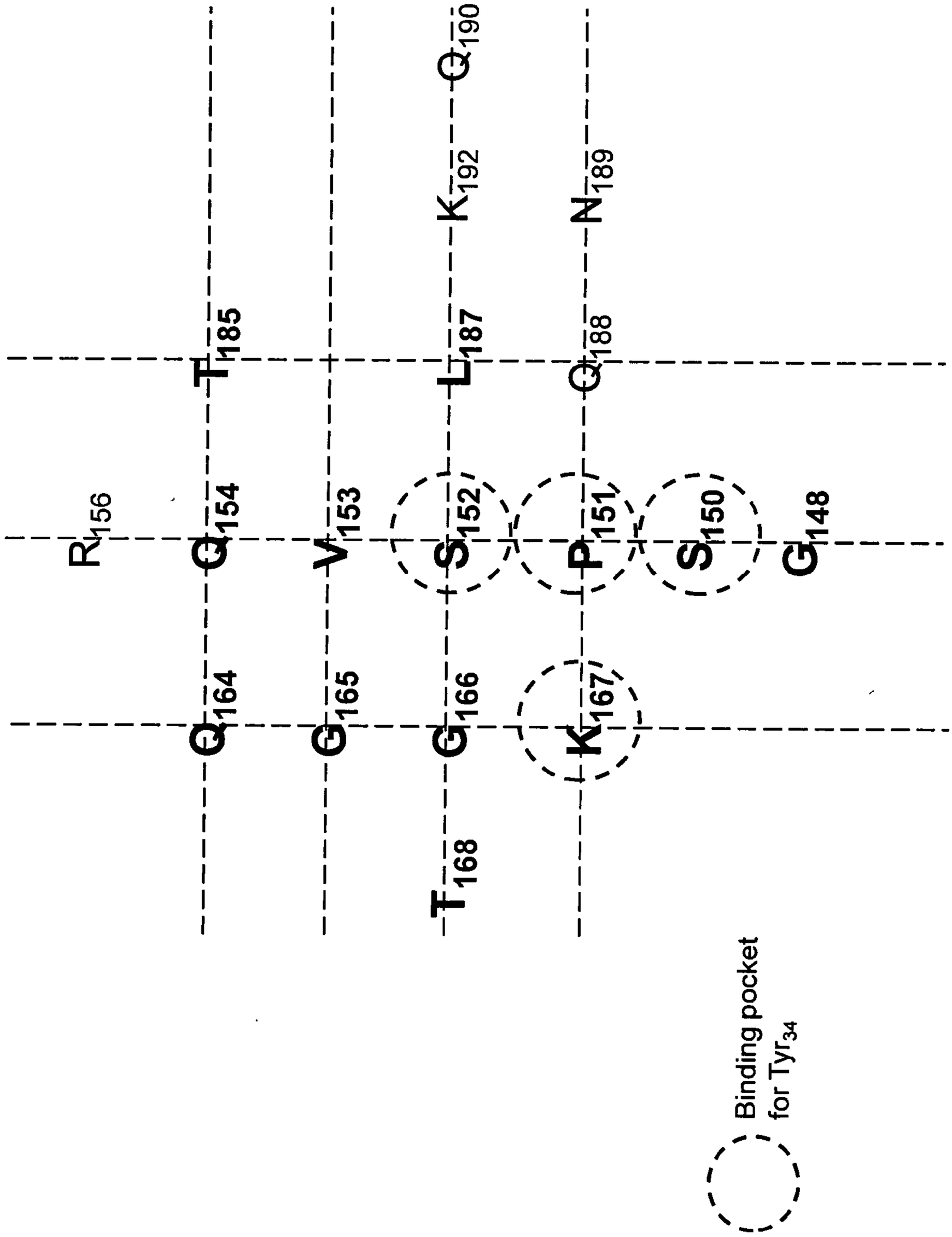
T185
L187
K192
Q189
Q188
R156
Q154
V153
S152
P151
S150
G148
Q164
G165
G166
K167
T168
Binding pocket for Tyr34

Figure 12

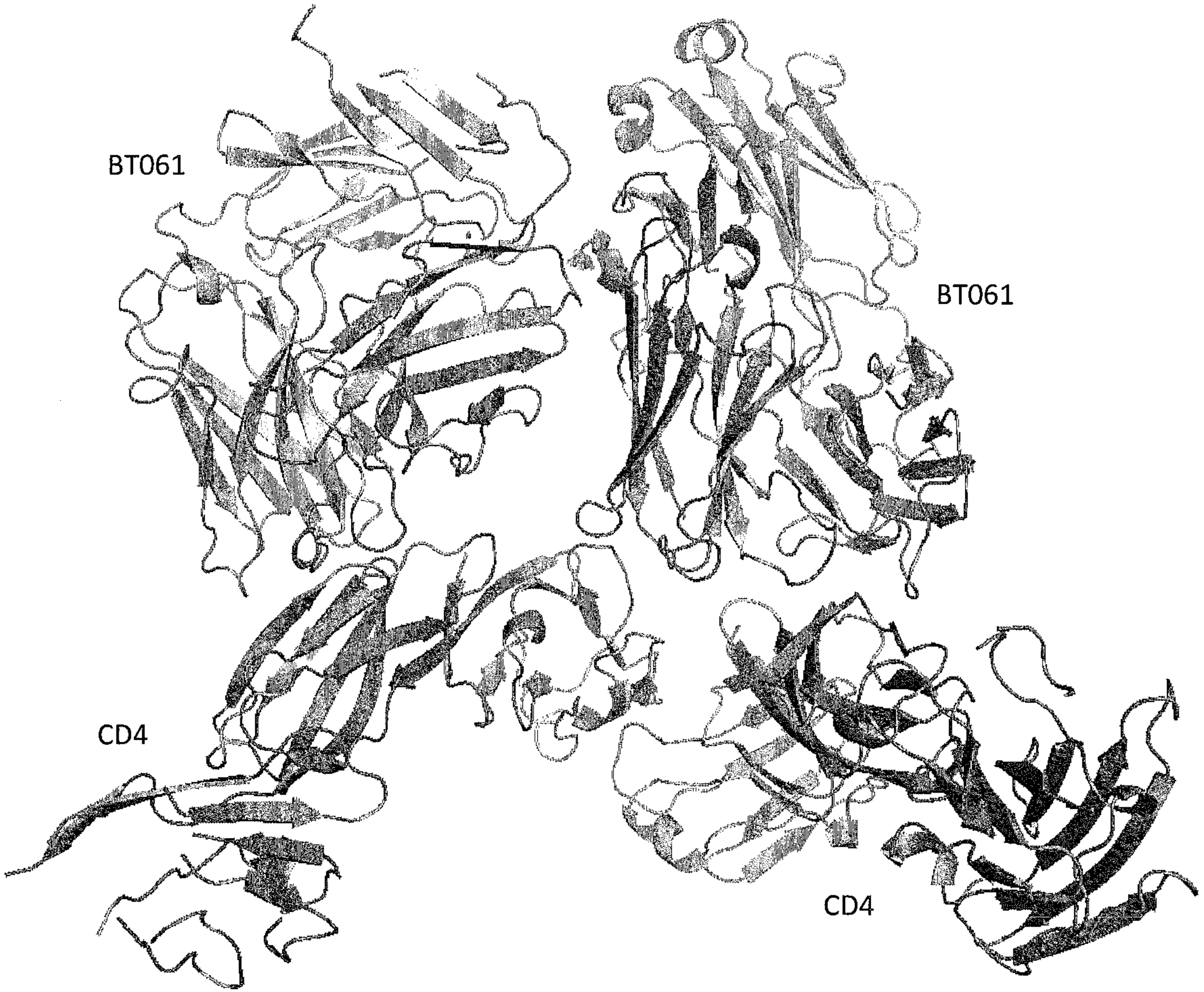

FIGURE 3