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(54) Title: CRYSTAL STRUCTURE OF BLOOD COAGULATION FACTOR XIIIa

Figure 1



(57) Abstract: The present invention relates to crystal forms of blood coagulation factor XIIIa, crystal structure information obtained from them, methods of preparing such crystal forms, their use for the identification and / or design of inhibitors of blood coagulation factor XIIIa activity and methods for identifying, optimizing and designing compounds which should have the ability to interact with or inhibit blood coagulation factor XIIIa.



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Crystal structure of blood coagulation factor XIIIa

Specification

5 The present invention relates to crystal forms of blood coagulation factor XIIIa, crystal structure information obtained from them, methods of preparing such crystal forms, their use for the identification and / or design of inhibitors of blood coagulation factor XIIIa activity and methods for identifying, optimizing and designing compounds which should have the ability to interact with or inhibit blood coagulation factor XIIIa.

Background of the invention

10 Thrombotic events are a major cause of morbidity and mortality. Accordingly, remarkable efforts have been undertaken to develop drugs targeting coagulation factors or platelet activation to prevent or to treat thromboembolic events. The new direct acting oral anticoagulants address discrete, central proteases in the clotting cascade like factor IIa (thrombin) or factor Xa providing new therapeutic options.

20 In contrast, coagulation factor XIII (EC 2.3.2.13), also called plasma transglutaminase or fibrin stabilizing factor (FSF), has attracted only minor interest until yet. The human transglutaminase family consists of eight members catalyzing the unique formation of "cross-links" or isopeptide bonds between distinct substrate proteins. Since coagulation factor XIII is the major factor influencing clot maturation and accretion the enzyme is considered a suitable target to potentially achieve a safer and more efficient thrombolysis at even lower dosage of clot dissolving agents and also even for thrombus prevention.

30 Specific inhibitors may be of benefit for patients with a high risk of thrombotic events or to prevent atherosclerosis. Such a therapeutic approach would obviously not interfere with the up-stream factors like thrombin or with the platelet activation and activity.

35 Plasma coagulation factor XIII (pFXIII), is a heterotetrameric proenzyme consisting of two A-subunits providing the transglutaminase activity and two carrier/regulatory B-subunits. Factor XIII derived from platelets or megakaryocytes, also called cellular factor XIII (cFXIII), consists only of the homodimeric A-subunits. Recombinant cellular FXIII A-subunit was the first member of the transglutaminase family which has been crystallized as inactive proenzyme (zymogen) and its structure has been subsequently solved being a dimer.

FXIIIa describes any catalytically active form of FXIII. FXIII can be activated by high calcium-concentrations, i.e. non-proteolytically (FXIIIa°), or by proteolytical cleavage (FXIIIa*) by thrombin and calcium (Ca²⁺) of the propeptide.

5 Even if the structure of inactive coagulation factor XIII was the first member of the transglutaminase family solved by x-ray crystallography lots of questions remained. The active site is buried and the access to the catalytic site is obscured by the activation peptide. Crystallization of FXIII activated by thrombin and calcium was tried. However, it was also failed to provide the crystal structure
10 of fully activated conformation (FXIIIa*) with opened active site and only the crystal structure of inactive cleaved FXIII without conformation change (FXIIIa') was obtained. All experimental attempts failed to illuminate the active conformation so far. Neither proteolytic activation by thrombin nor the addition of calcium led to significant conformational changes being expected essential for catalysis [Weiss et al., FEBS Letters (1998), 423, 291-296; Fox et al. J. Biol. Chem (1999), 274(8),
15 4917-4923].

Very few inhibitors of factor XIIIa have been described so far. For example, a 66 amino acid peptide derived from the salivary gland of the giant Amazon leech
20 Haementeria ghilianii is reported [Finney et al. *Biochem. J.* 1997, 324, pp. 797-805]. The peptide was named Tridegin, according to the Welsh word "triarddeg", meaning thirteen. Further, the pharmaceutical company Merck Sharp and Dohme developed a set of small molecule thioimidazole blockers targeting Factor XIII [Freund et al., *Biochemistry* (1994), 33, 10109-10119]. However in order to
25 successfully develop a drug which inhibits Factor XIIIa in a selective manner (i.e. addressing the other transglutaminases to a significantly lesser extent), an *in silico* screening method based on the crystal structure is desired.

Until now, it is failed to obtain crystal structure of a Factor XIIIa activated by
30 proteolytically or non-proteolytically, because the activated FXIIIa could not be fixed and was not stable enough under the crystallization conditions. Usually in low concentration of FXIII, the activated FXIIIa lost easily its catalytic activity caused by the oxidation of the exposed thiol in the activated conformation (Biochem. J. 1974, 141, 683-691).

35

As no such crystal structure of FXIIIa could be obtained, a three-dimensional structure of FXIIIa was developed by molecular modeling just based on the structural and functional similarity between transglutaminase-2 and FXIII as

disclosed in J. Thromb. Haemost. 2011, 9, 9-20. The calculated modeling structure of FXIIIa is some different from the real structure of FXIIIa and thus can be used limitedly for developing inhibitors of activated FXIIIa. Therefore, it is necessary to obtain crystal structure of FXIIIa activated by proteolytically or non-proteolytically.

Thus, it is the objective of the present invention to provide crystal structure coordinates of blood coagulation factor XIIIa, methods to obtain the crystal form of blood coagulation factor XIIIa as well as methods for designing, identifying and optimizing compounds as inhibitors of blood coagulation factor XIIIa based on the crystal structure and crystal structure coordinates.

The objective of the present invention is solved by the teachings of the independent claims. Further advantageous features, aspects and details of the invention are evident from the dependent claims, the description, the figures, and the examples of the present application.

Brief description of the invention

The present invention provides methods for identifying inhibitors of factor XIIIa as well as methods for preparing crystal forms of blood coagulation factor XIIIa and their crystal structure information. The present invention relates also to the first x-ray crystal structure of FXIIIa in the active conformation. This is achieved by inhibiting FXIII with an inhibitor trapping the active conformation and revealing the binding mode. The active conformation is further characterized by a structural rearrangement of the beta barrel domains rendering the active site accessible. The active site provides data enabling rational drug design based on the use of such structural data.

Blood coagulation factor XIII, also called plasma transglutaminase, has a unique function stabilizing the fibrin clot. The introduction of covalent cross-links between the γ chains and subsequently the α chains of fibrin provides mechanical stability and modulates the visco-elastic properties. Further the plasma transglutaminase decorates the clot with anti-fibrinolytic factors, especially with α 2-antiplasmin. For decades factor XIIIa is considered a suitable target for anti-coagulation in certain risk patients due to the unique mode of action. Targeting factor XIIIa with a direct acting blocker would not impair the thrombin level or the platelet activity avoiding critical bleeding episodes.

The present invention provides the possibility to identify and / or design inhibitors of blood coagulation factor XIIIa and relates to the crystal form of blood coagulation factor XIIIa, the crystal structure information obtained from the crystal form, methods of preparing such a crystal form, its use for the identification and/or design of inhibitors of blood coagulation factor XIIIa activity and the diagnostic and/or pharmaceutical use of those inhibitors of blood coagulation factor XIIIa identified by these methods.

10 Detailed description of the invention

The present invention relates to the active conformation of blood coagulation factor XIIIa also named herein blood coagulation FXIIIa or simply FXIIIa.

Crystal forms of Blood Coagulation Factor XIIIa

15 The present invention is directed to the crystal forms of blood coagulation factor XIIIa characterized as having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_1 = 56 \pm 3 \text{ \AA}$, $b_1 = 80 \pm 3 \text{ \AA}$, $c_1 = 103 \pm 3 \text{ \AA}$, $\alpha_1 = 88 \pm 3^\circ$, $\beta_1 = 77 \pm 3^\circ$ and $\gamma_1 = 82 \pm 3^\circ$; or having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_2 = 57 \pm 3 \text{ \AA}$, $b_2 = 64 \pm 3 \text{ \AA}$, $c_2 = 67 \pm 3 \text{ \AA}$, $\alpha_2 = 76 \pm 3^\circ$, $\beta_2 = 72 \pm 3^\circ$ and $\gamma_2 = 83 \pm 3^\circ$; or
20 having a space group of C2, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_3 = 90 \pm 3 \text{ \AA}$, $b_3 = 65 \pm 3 \text{ \AA}$, $c_3 = 70 \pm 3 \text{ \AA}$, $\alpha_3 = 90 \pm 3^\circ$, $\beta_3 = 96 \pm 3^\circ$ and $\gamma_3 = 90 \pm 3^\circ$.

25 Thus so far three crystal structures of blood coagulation factor XIIIa could be obtained with three different unit cells while always two monomers of coagulation factor XIIIa are present in one unit cell.

The crystal form of blood coagulation factor XIIIa having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_1 = 56 \pm 3 \text{ \AA}$, $b_1 = 80 \pm 3 \text{ \AA}$, $c_1 = 103 \pm 3 \text{ \AA}$, $\alpha_1 = 88 \pm 3^\circ$, $\beta_1 = 77 \pm 3^\circ$ and $\gamma_1 = 82 \pm 3^\circ$ is further characterized by the atomic structure coordinates of figure 6.

35 The term "crystal form" as used herein, refers to a crystal form of the blood coagulation factor XIIIa with or without inhibitor and/or with or without detergents and/or lipids bound to the blood coagulation factor XIIIa.

The crystal forms of blood coagulation factor XIIIa can also be characterized as follows so that the present invention relates to crystal forms of blood coagulation factor XIIIa having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_1 = 56 \text{ \AA} \pm 5\%$, $b_1 = 80 \text{ \AA} \pm 5\%$, $c_1 = 103 \text{ \AA} \pm 5\%$, $\alpha_1 = 88^\circ \pm 5\%$, $\beta_1 = 77^\circ \pm 5\%$ and $\gamma_1 = 82^\circ \pm 5\%$; or
 5 having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_2 = 57 \text{ \AA} \pm 5\%$, $b_2 = 64 \text{ \AA} \pm 5\%$, $c_2 = 67 \text{ \AA} \pm 5\%$, $\alpha_2 = 76^\circ \pm 5\%$, $\beta_2 = 72^\circ \pm 5\%$ and $\gamma_2 = 83^\circ \pm 5\%$; or
 10 having a space group of C2, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_3 = 90 \text{ \AA} \pm 5\%$, $b_3 = 65 \text{ \AA} \pm 5\%$, $c_3 = 70 \text{ \AA} \pm 5\%$, $\alpha_3 = 90^\circ \pm 5\%$, $\beta_3 = 96^\circ \pm 5\%$ and $\gamma_3 = 90^\circ \pm 5\%$.

In other words, the present invention is directed to the crystal forms of blood coagulation factor XIIIa characterized as having a space group of P1, two
 15 monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_1 = 53 \text{ \AA} - 59 \text{ \AA}$, $b_1 = 76 \text{ \AA} - 84 \text{ \AA}$, $c_1 = 98 \text{ \AA} - 108 \text{ \AA}$, $\alpha_1 = 84^\circ - 92^\circ$, $\beta_1 = 73^\circ - 81^\circ$ and $\gamma_1 = 78^\circ - 86^\circ$; or
 having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_2 = 53 \text{ \AA} - 59 \text{ \AA}$, $b_2 = 61 \text{ \AA} - 67 \text{ \AA}$, $c_2 =$
 20 $64 \text{ \AA} - 70 \text{ \AA}$, $\alpha_2 = 72^\circ - 80^\circ$, $\beta_2 = 68^\circ - 76^\circ$ and $\gamma_2 = 79^\circ - 87^\circ$; or
 having a space group of C2, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_3 = 86 \text{ \AA} - 94 \text{ \AA}$, $b_3 = 62 \text{ \AA} - 68 \text{ \AA}$, $c_3 =$
 $66 \text{ \AA} - 74 \text{ \AA}$, $\alpha_3 = 86^\circ - 94^\circ$, $\beta_3 = 92^\circ - 100^\circ$ and $\gamma_3 = 86^\circ - 94^\circ$.

25 The term "unit cell" as used herein refers to the smallest repeating unit that can generate a crystal with only translation operations. The unit cell is the smallest unit of volume that contains all of the structural and symmetry information of a crystal and that by translation can reproduce a pattern in all of space. Structural
 30 information is thereby the pattern (atoms) plus all surrounding space and symmetry information means mirrors, glides, axes, and inversion centers. The translation refers to motion along a cell edge the length of the cell edge. An asymmetric unit is the smallest unit that can be rotated and translated to generate one unit cell using only the symmetry operators allowed by the crystallographic
 35 symmetry. The asymmetric unit may be one molecule or one subunit of a multimeric protein, but it can also be more than one. Hence the asymmetric unit is the smallest unit of volume that contains all of the structural information and that by application of the symmetry operations can reproduce the unit cell. The shape of the unit cell is constrained by the collection of symmetry elements which make-

up the group. For space groups, seven lattice types are possible: triclinic, monoclinic, orthorhombic, tetragonal, hexagonal, rhombic and cubic. In crystallography, space groups are also called the crystallographic or Fedorov groups.

5

The edges of the unit cell define a set of unit vector axes **a**, **b**, and **c**, with the unit cell dimensions as their respective length *a*, *b*, and *c* (figure 7). These vectors need not be at right angles, and the angles between the axes are denoted α as between the **bc**-axes, β between the **ac**-axes, and γ between the **ab**-axes. The different shapes arise depending on restrictions placed on the lengths of the three edges (*a*, *b*, and *c*) and the values of the three angles (α , β , and γ).

10

Active Site of Blood Coagulation Factor XIIIa

15

In the present invention crystal forms of blood coagulation factor XIIIa comprise several interaction sites. Active site refers in general to the site where the enzymatic reaction takes place. The association of ligands or substrates with the active site of their corresponding receptors or enzymes is the basis of many biological mechanisms. Similarly, many drugs exert their biological effects through association with the active site of receptors and enzymes. Such associations may occur with all or part of the active site. An understanding of such associations will lead to the structure based design of drugs having more favourable associations with their target receptor or enzyme, and thus, improved biological effects. Therefore, this information is valuable in rational designing potential inhibitors of important targets. The active sites of blood coagulation factor XIIIa which can be used for drug design are shown in figures 2 – 5 and can be classified as follows:

25

- a) The catalytic center
- b) The hydrophobic pocket
- c) The surface between said catalytic center and hydrophobic pocket
- d) The pocket neighboring the catalytic center

30

All or some of these areas might be used for rational drug design targeting efficacy and selectivity.

35

Thus a significant feature of the present invention resides from the crystal form of blood coagulation factor XIIIa comprising among others four main active sites namely:

- a) a catalytic center
- b) a hydrophobic pocket

- c) a surface between said catalytic center and the hydrophobic pocket
- d) a pocket neighboring the catalytic center

which comprise a certain number of important amino acids.

5 The catalytic center comprises the amino acids Trp279, Cys314, Trp370, His373, Asp396 according to SEQ ID NO: 1. These residues are identified using the program Sybyl. Figure 2 depicts the catalytic center. The aforementioned amino acids might be important in regard to interactions with inhibitors and substrates.

10 The hydrophobic pocket comprises the amino acids Ala341, Met350, Asp351, Ile352, Val360, Tyr365, Asp367, Ser368, Val369, Leu439, His459, Ile460 according to SEQ ID NO: 1. The hydrophobic pocket in detail is shown by figure 3. The aforementioned amino acids might be important in regard to interactions with inhibitors and substrates.

15

The surface between said catalytic center and hydrophobic pocket comprises the amino acids Phe339, His342, Ser368, Val369, Trp370, Asn371, His459 according to SEQ ID NO: 1. Figure 4 shows the surface between said catalytic center and hydrophobic pocket. The aforementioned amino acids might be important in regard to interactions with inhibitors and substrates.

20

The pocket neighboring the catalytic center comprises the amino acids Tyr214, Gly215, Glu216, Asp219, Lys221, Arg223, Asn281, Tyr283, Pro288, Pro289, Gln313, Trp315, Asn371, Tyr372 according to SEQ ID NO: 1. Figure 5 depicts the pocket neighboring the catalytic center in detail. The aforementioned amino acids might be important in regard to interactions with inhibitors and substrates.

25

In a preferred embodiment of the present invention the crystal form of blood coagulation factor XIIIa contains a catalytic center and/or a pocket neighboring the catalytic center, wherein the catalytic center contains the amino acids Trp279, Cys314, Trp370, His373, and Asp396; and the pocket neighboring the catalytic center contains the amino acids Tyr214, Gly215, Glu216, Asp219, Lys221, Arg223, Asn281, Tyr283, Pro288, Pro289, Gln313, Trp315, Asn371, and Tyr372.

30

35 In another preferred embodiment of the present invention the crystal form of blood coagulation factor XIIIa contains or further contains a hydrophobic pocket and a surface between the catalytic center and the hydrophobic pocket, wherein the hydrophobic pocket contains the amino acids Ala341, Met350, Asp351, Ile352,

Val360, Tyr365, Asp367, Ser368, Val369, Leu439, His459, and Ile460; and the surface between the catalytic center and the hydrophobic pocket contains the amino acids Phe339, His342, Ser368, Val369, Trp370, Asn371, and His459.

- 5 A potential inhibitor of blood coagulation factor XIIIa could bind to one or more of these four active sites in order to decrease the activity of blood coagulation factor XIIIa. Thus a method for designing, identifying and/or optimizing compounds which might have the ability to bind to blood coagulation factor XIIIa could be based on the crystal structure coordinates of one, two, three or four of these active
10 sides or on the crystal structure coordinates of the whole crystal.

Methods for crystallizing Blood Coagulation Factor XIIIa

The crystal forms of blood coagulation factor XIIIa as disclosed herein can be obtained by the following crystallization methods.

15

Thus the present invention relates to a method for crystallizing blood coagulation factor XIIIa comprising the steps:

- (a) providing an aqueous solution containing not more than 0.04 mM of blood coagulation factor XIII; and
- 20 (b) mixing an activation agent and an inhibitor with the aqueous solution of step (a) so that a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained; and
- (c) concentrating the solution of step (b); and
- (d) diluting the concentrated solution of step (c) with a buffered precipitant
25 solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by weight and 30% by weight of a precipitating agent so that the final concentration of the inhibited activated blood coagulation factor XIIIa is
30 in the range of 1.0 mg/mL to 10 mg/mL.

The crystallization method starts with providing an aqueous solution of FXIII which is preferably a buffered solution having a pH in the range of 6.5 – 10.0, preferably of 7.0 – 9.5, more preferably 7.5 – 9.0, still more preferably 7.8 – 8.8 and most
35 preferably 8.0 – 8.6. Suitable buffers are disclosed below. The concentration of blood coagulation factor XIII (FXIII) should not exceed 0.04 mM, preferably not 0.02 mM, more preferably not 0.01 mM, still more preferably not 0.005 mM and most preferably should not exceed 0.002 mM in the solution of step (a). Suitable

concentration ranges of FXIII are from 0.005 μM to 0.04 mM, preferably from 0.01 μM to 0.02 mM, more preferably from 0.05 μM to 0.01 mM, still more preferably from 0.1 μM to 5.0 μM and most preferably from 0.5 μM to 2.0 μM . The monomer of the blood coagulation factor XIII (FXIII) has a molecular mass of about 84102 Dalton so that an equivalent concentration of FXIII ranges in the solution of step (a) is preferably from 0,1 mg/mL to 0,3 mg/mL. FXIII refers to the not activated form of blood coagulation factor XIII which is present in solution as a dimer while FXIIIa refers to the activated form of blood coagulation factor XIII.

Thus step (a) of the crystallization methods disclosed herein could also read as follows:

(a) providing an aqueous solution containing 0.005 μM to 0.04 mM of blood coagulation factor XIII;

or

(a) providing a buffered aqueous solution of a pH in the range of 7.0 to 9.5 containing not more than 0.04 mM of blood coagulation factor XIII;

or

(a) providing a buffered aqueous solution of a pH in the range of 7.0 to 9.5 containing 0.005 μM to 0.04 mM of blood coagulation factor XIII.

In step (b) an activation agent and an inhibitor are mixed with the solution of step (a) and preferably a solution and more preferably a buffered solution of an activation agent and an aqueous or organic solution of an inhibitor are combined with the solution of step (a).

The activation agent is a calcium salt which preferably dissociates completely or a mixture of calcium salts which preferably dissociate completely so that a concentration of Ca^{2+} ions in the solution of step (b) containing the FXIIIa is obtained in the range from 25 mM to 500 mM, more preferably from 40 mM to 300 mM, still more preferably from 45 mM to 200 mM and still more preferably from 50 mM to 150 mM Ca^{2+} ions. Since the upper value of the Ca^{2+} ion concentration is not critical or essential, the concentration of the Ca^{2+} ions in the solution of step (b) should be at least 25 mM, preferably at least 40 mM, more preferably at least 45 mM and still more preferably at least 50 mM.

Instead of Ca^{2+} ions a mixture of thrombin and Ca^{2+} ions can be used as activation agent in order to activate the blood coagulation factor XIII. If such a combination is used, the concentration of thrombin in the solution of step (b) is preferably from 500 – 2.000 NIH Units/mL and more preferably from 750 – 1500 NIH Units/mL or

the concentration of thrombin in the solution of step (b) is preferably at least 500 NIH Units/mL and more preferably at least 750 NIH Units/mL and the concentration of Ca^{2+} ions is at least 1 mM, preferably at least 5 mM, more preferably at least 10 mM, still more preferably at least 20 mM and still more preferably at least 30 mM or in other words the concentration should be in the range from 1 mM – 250, preferably 3 mM – 100 mM and more preferably 5 mM – 30 mM. The concentration of thrombin defined as NIH Units is in accordance with the NIH Thrombin Reference Standard.

- 10 Suitable calcium salts are, for instance, CaCl_2 , CaBr_2 , calcium hydroxide, calcium gluconate, calcium gluceptate, calcium gluconate, calcium lactate, calcium malate, calcium fumarate, or mixtures thereof. Preferred is the use of CaCl_2 .

15 The activation agent and/or the inhibitor can be added as dry solid substances to the solution of step (a) but are preferably added as an aqueous solution and more preferably as an buffered aqueous solution containing the activation agent and the inhibitor. It is obvious that also the inhibitor could be added to the solution, preferably buffered solution of the activation agent and the solution, preferably buffered solution of the FXIII is then added to the solution of activation agent and inhibitor. The sequence of addition of the components finally present in the solution of step (b) is not critical. However it is preferred to add the inhibitor dissolved in a small volume of an organic solvent miscible with water or in a water / organic solvent mixture to the solution of the activation agent and thereafter add to this solution the solution of FXIII. Suitable bufferes for these solutions are, for instance, Tris-HCl, and triethanolamine buffer. Preferably the same buffer as for the solution of step (a) is used for step (b). In case the desired pH value is not obtained adjusting the pH by addition of a weak or diluted base or a weak or diluted acid such as ammonium chloride, sodium acetate, sodium hydroxide, or potassium hydroxide, can be performed. By mixing the solution of the activation agent and the inhibitor with the solution of step (a) the concentrations of the solution of step (b) are obtained. Thus the concentration of the Ca^{2+} ions as stated above is the concentration of the solution containing the activation agent, the inhibitor and the FXIII / FXIIIa.

- 35 Step (b) of the crystallization methods disclosed herein could also read as follows:
(b) combining a calcium salt or a mixture of calcium salts as activation agent and an inhibitor with the aqueous solution of step (a) so that a concentration of Ca^{2+} ions from 50 mM to 150 mM and a molar ratio of

inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained or combining a calcium salt or a mixture of calcium salts and thrombin as activation agent and an inhibitor with the aqueous solution of step (a) so that a concentration of Ca^{2+} ions from 5 mM to 30 mM and a concentration of thrombin from 500 – 2.000 NIH Units/mL and a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained;

or

- (b) combining a calcium salt or a mixture of calcium salts as activation agent and an inhibitor with the aqueous solution of step (a) so that a concentration of Ca^{2+} ions of at least 50 mM and a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained or combining a calcium salt or a mixture of calcium salts and thrombin as activation agent and an inhibitor to the aqueous solution of step (a) so that a concentration of Ca^{2+} ions of at least 5 mM and a concentration of thrombin of at least 500 NIH Units/mL and a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained.

Thus a further aspect of the present invention is directed to a method for crystallizing blood coagulation factor XIIIa comprising the steps:

- (a) providing a buffered aqueous solution of a pH in the range of 7.0 to 9.5 containing not more than 0.04 mM of blood coagulation factor XIII; and
- (b) combining at least one calcium salt as activation agent and an inhibitor with the aqueous solution of step (a) to obtain a concentration of Ca^{2+} ions from 50 mM to 150 mM and a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1;
- or combining at least one calcium salt and thrombin as activation agent and an inhibitor with the aqueous solution of step (a) to obtain a concentration of Ca^{2+} ions from 5 mM to 30 mM and a concentration of thrombin from 500 – 2.000 NIH Units/mL and a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1; and
- (c) concentrating the solution of step (b); and
- (d) diluting the concentrated solution of step (c) with a buffered precipitant solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by weight and 30% by weight of a precipitating agent so that a final

concentration of the inhibited activated blood coagulation factor XIIIa of 1.0 mg/mL to 10 mg/mL is obtained.

In other words a further aspect of the present invention is directed to a method for crystallizing blood coagulation factor XIIIa comprising the steps:

- (a) providing a buffered aqueous solution of a pH in the range of 7.0 to 9.5 containing not more than 0.04 mM of blood coagulation factor XIII; and
- (b) combining at least one calcium salt as activation agent and an inhibitor with the aqueous solution of step (a) to obtain a concentration of Ca^{2+} ions of at least 50 mM and a molar ratio of inhibitor to blood coagulation factor XIII of at least 10:1;
or combining at least one calcium salt and thrombin as activation agent and an inhibitor with the aqueous solution of step (a) to obtain a concentration of Ca^{2+} ions of at least 5 mM and a concentration of thrombin of at least 500 NIH Units/mL and a molar ratio of inhibitor to blood coagulation factor XIII of at least 10:1; and
- (c) concentrating the solution of step (b); and
- (d) diluting the concentrated solution of step (c) with a buffered precipitant solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by weight and 30% by weight of a precipitating agent so that a final concentration of the inhibited activated blood coagulation factor XIIIa of 1.0 mg/mL to 10 mg/mL is obtained.

The inhibitor is added to the solution of step (a) in an amount so that a molar ratio of inhibitor to blood coagulation factor XIII (not the activated form) is in the range from 2:1 to 100:1, preferably 5:1 to 75:1 and more preferably of 10:1 to 50:1 is obtained in the solution of step (b).

A single substantially pure inhibitor should be used having a purity of preferably above 90%. The use of mixtures of inhibitors is not preferred. Furthermore, if a solution of the inhibitor is added to the buffered aqueous solution of step (a), only relative small volumes should be added so that the concentrations defined for the blood coagulation factor XIII and the Ca^{2+} ions preferably remain still within the defined ranges. Suitable solvents for the inhibitor are water, DMSO, acetone, THF, DMF, methanol, ethanol or mixtures thereof. In case organic solvents are used, only small amount should be used such as 1 μL to 20 μL per mL of the

solution obtained in step (b). The pH of the solution of step (b) containing the FXIII/FXIIIa, the inhibitor and the activation agent is in the range of 6.5 – 10.0, preferably of 7.0 – 9.5, more preferably 7.5 – 9.0, still more preferably 7.8 – 8.8 and most preferably 8.0 – 8.6.

5

After mixing an activation agent and an inhibitor or preferably a solution of an activation agent and a solution of an inhibitor with the aqueous solution of step (a), the obtained solution in step (b) is preferably smoothly stirred at room temperature and atmospheric pressure several hours or over night and preferably under
10 exclusion of light.

Concerning the inhibitor used in step (b) reversible or irreversible inhibitors leading to reversible or irreversible inhibition of blood coagulation factor XIIIa could be used. The few known inhibitors as mentioned herein could be used. Further
15 examples of suitable inhibitors are compounds with a functional group which is able to form a covalent bond with a thiol group of an amino acid of blood coagulation factor XIIIa. Such compounds are irreversible inhibitors which usually covalently bind and thereby modify the enzyme permanently, and inhibition can therefore not be reversed. Reversible inhibitors have inhibition of enzyme activity
20 in which the inhibiting molecular entity can associate and dissociate from the protein's active site. Covalent reversible inhibitors inactivate blood coagulation factor XIIIa probably by reacting with the active site cysteine thiol, resulting in the formation of a hemi-thioacetal, ketal or similar tetrahedral intermediate, the nature of which depends on the warhead. Reversible inhibitors of blood coagulation
25 factor XIIIa contain reactive functional groups such as aldehydes, ketones, α -keto ketones, α -keto esters, α -keto amides, imines and hydrazones. Irreversible inhibitors of blood coagulation factor XIIIa contain reactive functional groups such as nitrogen mustards, haloalkanes, alkenes, Michael acceptors, phenyl sulfonates, or fluorophosphonates. These electrophilic groups react with amino acid side
30 chains to form covalent adducts. The residues modified are those with side chains containing nucleophiles such as hydroxyl (–OH) or sulfhydryl groups (–SH). These include the amino acids serine, cysteine, threonine or tyrosine. Preferred inhibitors of blood coagulation factor XIIIa as disclosed in the present invention have Michael acceptors such as α,β -unsaturated carbonyl moieties. The blood
35 coagulation factor XIIIa has cysteine (Cys314) in catalytic center which could covalently add to the Michael acceptor. Such irreversible inhibitors preferably contain a peptidic or peptidomimetic backbone for recognizing at least one of the active sites of blood coagulation factor XIIIa and a side chain preferably attached

to the alpha carbon atom of an amino acid or amino acid analogue of the peptidic or peptidomimetic backbone with the Michael acceptor moiety.

Examples of such inhibitors are compounds of the general formula (I)

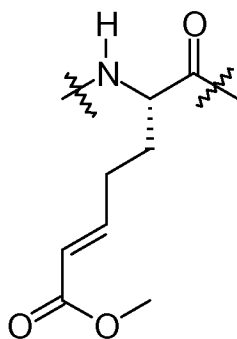
5



wherein

R^1 represents Ac-Asp or 4-oxopyrrolidine-2-carboxyl;

R^2 represents



;

10 and R^3 represents Nle or Ile.

In a preferred embodiment of the present invention an inhibitor **1** (compound **4**) is used, wherein R^1 is Ac-Asp and R^3 is Nle. The crystal form of blood coagulation factor XIIIa is characterized as having a space group of P1 and two monomers of coagulation factor XIIIa in the asymmetric unit, with the unit cell dimension of
 15 $a = 56.8 \text{ \AA}$, $b = 80.5 \text{ \AA}$, $c = 102.8 \text{ \AA}$, $\alpha = 88.1^\circ$, $\beta = 76.7^\circ$ and $\gamma = 82.0^\circ$ or having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a = 56.6 \text{ \AA}$, $b = 64.2 \text{ \AA}$, $c = 67.1 \text{ \AA}$, $\alpha = 76.4^\circ$ and $\beta = 71.7^\circ$ and $\gamma = 82.8^\circ$.

20

In another preferred embodiment of the present invention another inhibitor **2** (compound **7**) is used, wherein R^1 is 4-oxopyrrolidine-2-carboxyl and R^3 is Ile. The crystal form of blood coagulation factor XIIIa is characterized as having a space group of C2 and two monomers of coagulation factor XIIIa in the asymmetric unit with the unit cell dimension of $a = 90.2 \text{ \AA}$, $b = 64.8 \text{ \AA}$, $c = 70.4 \text{ \AA}$,
 25 $\alpha = 90.0^\circ$ and $\beta = 95.8^\circ$ and $\gamma = 90.0^\circ$.

One crystal form of blood coagulation factor XIIIa is characterized by the atomic structure coordinates of figure 6 as set forth below.

30

The crystal form of the invention can be obtained by techniques well-known in the art of protein crystallography, including batch, liquid bridge, free interface diffusion, dialysis, vapor diffusion and hanging or sitting drop method.

- 5 Another aspect of the present invention is directed to a method for crystallizing blood coagulation factor XIIIa comprising the steps:
- (a) providing an aqueous solution containing 0.005 μ M to 0.04 mM of blood coagulation factor XIIIa; and
 - 10 (b) activating the blood coagulation factor XIII and mixing an inhibitor with the aqueous solution of step (a) at the molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1; and
 - (c) concentrating the solution of step (b) to a concentration of inhibited activated blood coagulation factor XIIIa of 2.0 mg/mL to 20 mg/mL; and
 - 15 (d) diluting the concentrated solution of step (c) with a buffered precipitant solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by weight and 30% by weight of a precipitating agent so that a final concentration of the inhibited activated blood coagulation factor XIIIa of
 - 20 1.0 mg/mL to 10 mg/mL is obtained.

Activation of FXIII can be achieved by means of Ca^{2+} ions or by means of thrombin in combination with Ca^{2+} ions.

- 25 A further aspect of the present invention is directed to a method for crystallizing blood coagulation factor XIIIa comprising the steps:
- (a) providing a buffered aqueous solution of a pH in the range of 7.0 to 9.5 containing not more than 0.04 mM of blood coagulation factor XIII; and
 - 30 (b) mixing a solution of a calcium salt or a solution of a calcium salt and thrombin as activation agent and an inhibitor with the aqueous solution of step (a) in order to obtain the molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1; and
 - (c) concentrating the solution of step (b) to a concentration of inhibited activated blood coagulation factor XIIIa of 2.0 mg/mL to 20 mg/mL; and
 - 35 (d) diluting the concentrated solution of step (c) with a buffered precipitant solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by

weight and 30% by weight of a precipitating agent so that a final concentration of the inhibited activated blood coagulation factor XIIIa of 1.0 mg/mL to 10 mg/mL is obtained.

5 Preferably step (b) reads as follows:

- (b) mixing a buffered solution of a calcium salt or a buffered solution of a calcium salt and thrombin as activation agent and an inhibitor with the aqueous solution of step (a) so that a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained;

10

After the activation of FXIII to FXIIIa and inhibition of FXIIIa in step (b), the solution obtained in step (b) is then concentrated preferably by evaporation of water. After the concentration of the solution in step (c) a purification step can advantageously be included. Thus step (c) may actually consist of two steps, namely concentration of the solution and purification of the concentrated solution. The purification might be preferred in order to remove an excess of thrombin (if used) and/or inhibitor. Suitable purification methods such as chromatography, gel permeation chromatography and the like are well known to a skilled person. Moreover after the purification step dilution of the purified solution containing the inhibited FXIIIa might be necessary so that the purified solution is diluted with a dilution buffer solution before the buffered precipitant solution is added.

15

20

Thus in all crystallization methods disclosed herein, step (c) could read as follows:

25

- (c) concentrating the solution of step (b) and purification of the concentrated solution;

or

- (c) concentrating the solution of step (b) and purification of the concentrated solution to a concentration of inhibited activated blood coagulation factor XIIIa of 2.0 mg/mL to 20 mg/mL;

30

or

- (c) concentrating the solution of step (b) and purification of the concentrated solution and dilution of the purified solution with water or an aqueous buffer solution;

or

35

- (c) concentrating the solution of step (b) and purification of the concentrated solution to a concentration of inhibited activated blood coagulation factor XIIIa of 2.0 mg/mL to 20 mg/mL and dilution of the purified solution with water or an aqueous buffer solution;

The aqueous buffer solution for dilution contains one of the buffers disclosed herein and preferably a Tris-HCl buffer and has preferably a pH from 7.0 to 9.0, more preferably from 7.5 to 8.5.

- 5 After the concentration step (c) or the concentration and purification step (c) the concentration of the inhibited activated blood coagulation factor XIIIa should be in the range of 2.0 mg/mL to 20 mg/mL. This is the concentration of the activated and inhibited FXIIIa at the end of step (c) before dilution with the buffered precipitant solution of step (d) and before dilution with an aqueous buffer solution.
- 10 The concentration of the activated and inhibited FXIIIa in the concentrated solution of step (c) or during the concentration in step (c) or after the concentration and purification step (c) could be determined, for instance, by the Bradford protein assay which is described in example 13.
- 15 In step (d) a buffered precipitant solution of at least one small organic amphiphilic molecule and/or at least one inorganic salt and/or at least one precipitating agent (also called precipitant) is added to the mixture of step (c). Preferably 2 μ L of the concentrated and optionally purified solution of step (c) or the concentrated, purified and diluted solution of step (c) is diluted with 1.0 to 3.0 μ L, preferably with
- 20 1.4 to 2.6 μ L and more preferably with 1.8 to 2.2 μ L of the buffered precipitant solution.

- Preferably, the small organic amphiphilic molecule is selected from the group comprising or consisting of glycerol, ethylene glycol, butyl ether, benzamidine,
- 25 dioxane, ethanol, isopropanol, butanol, pentanol, methyl pentanediol, pentanediol, hexanediol, heptanetriol, dithiothreitol, MES, Tris, Tris-HCl, Bis-Tris, imidazole, bicine, trimethylamine N-oxide, succinic acid, DL-malic acid, CHES, CAPS, glycine, CAPSO, ADA, MOPS, Bis-Tris propane, SPG, MIB, PCB, MMT, N-[2-hydroxyethyl]piperazine-N'-[2-ethanesulfonic acid] (HEPES), TRIS and sucrose.
- 30 Preferred is glycerol as small organic amphiphilic molecule.

- The term "at least one small organic amphiphilic molecule" means that mixtures of the afore-mentioned small organic amphiphilic molecules could be used. In case mixtures of small organic amphiphilic molecules are used, the amount used refers
- 35 to the total amount of all small organic amphiphilic molecules together. The amount used of all small organic amphiphilic molecules together in the buffered precipitant solution is between 1% by weight and 50% by weight, preferably between 5% by weight and 30% by weight, and more preferably between 10% by

weight and 20% of the small organic amphiphilic molecule or the mixture of small organic amphiphilic molecules in regard to the total weight of the buffered precipitant solution.

- 5 Moreover at least one inorganic salt is used in an amount of 10 mM and 600 mM, preferably 20 mM and 500 mM, more preferably 30 mM and 400 mM, more preferably 40 mM and 300 mM and most preferably 50 mM and 200 mM. In case more than one inorganic salt is used, the afore-mentioned concentration refers to the concentration of all inorganic salts together and not to the concentration of
10 each single salt used in the mixture of inorganic salts.

Preferably, inorganic salts are selected from the group comprising or consisting of ammonium chloride, ammonium sulfate, ammonium acetate, ammonium fluoride, ammonium bromide, ammonium iodide, ammonium nitride, cadmium chloride,
15 cadmium sulfate, calcium chloride, calcium acetate, cesium chloride, cesium sulfate, cobalt chloride, ferric chloride, lithium acetate, lithium chloride, lithium nitrate, lithium sulfate, magnesium acetate, magnesium formate, magnesium nitrate, nickel chloride, potassium acetate, potassium bromide, potassium fluoride, potassium formate, potassium iodide, potassium nitrate, potassium thiocyanate,
20 potassium/sodium tartrate, sodium acetate, sodium bromide, sodium fluoride, sodium iodide, sodium nitrate, sodium sulfate, sodium thiocyanate, zinc chloride, zinc sulfate, zinc acetate, magnesium chloride, sodium chloride, sodium cacodylate, sodium hydroxide, potassium chloride, potassium hydroxide, potassium sulfate, sodium acetate, sodium tartrate, ammonium formate, di-ammonium tartrate, sodium malonate, di-sodium tartrate, sodium succinate, and
25 sodium succinate. A preferred inorganic salt is ammonium sulfate or sodium cacodylate or a mixture thereof.

In theory, the at least one precipitating agent competes with the protein solutes for
30 water, thus leading to supersaturation of the proteins. Crystals can normally only grow from supersaturated states, and thus they can grow from precipitates. Salts, polymers, and organic solvents are suitable precipitating agents which are used in an amount of 5% by weight and 50% by weight, preferably between 10% by weight and 40% by weight, and more preferably between 15% by weight and 35%,
35 and most preferably between 20% by weight and 30% of the precipitating agent or the mixture of precipitating agents in regard to the total weight of the buffered precipitant solution.

The precipitating agent used in the buffered precipitant solution of step (d) may preferably be selected from the group consisting of or comprising: 2-methyl-2,4 pentanediol, glycerol, sodium fluoride, calcium chloride, ammonium sulfate, lithium or sodium sulfate, lithium chloride, sodium or potassium chloride, sodium or ammonium acetate, ammonium chloride, cetyltrimethyl ammonium salt, polyethylene glycol (PEG), jeffamine, MPD, pentaerythritol propoxylate, pentaerythritol ethoxylate, sodium polyacrylate, hexandiol, isopropanol, ethanol, tert-butanol, dioxane, ethylene imine polymer, ethylene glycol, propanediol, polyacrylic acid, polyvinylpyrrolidone, 2-ethoxyethanol, butandiol, or mixtures thereof. PEG is a polyether compound with the structure of PEG is $\text{HO-CH}_2\text{-(CH}_2\text{-O-CH}_2\text{)}_n\text{-CH}_2\text{-OH}$. PEG has tended to refer to oligomers and polymers with a molecular mass below 20,000 g/mol. Most preferred as the precipitant used in the method for crystallizing of the present invention is PEG, preferably having molecular weights range from PEG200 to PEG20,000, more preferably having molecular weights range from PEG 1,000 to PEG 18,000, yet more preferably having molecular weights range from PEG 5,000 to PEG 15,000 and most preferably having molecular weights range from PEG 7,000 to PEG 10,000. Organic solvents, like isopropanol or 1,3-propanediol may also be part of the reservoir solution. PEG is a very preferred precipitating agent which is preferably used in an amount of 20 – 30 % by weight of the buffered precipitant solution.

The hanging drop or the sitting drop methods are used for crystallization. “The hanging drop vapor diffusion” technique is the most popular method for the crystallization of macromolecules. The principle of vapor diffusion is straightforward. A drop composed of a mixture of sample and reagent is placed in vapor equilibration with a liquid reservoir of reagent. Typically the drop contains a lower reagent concentration than the reservoir. To achieve equilibrium, water vapor leaves the drop and eventually ends up in the reservoir. As water leaves the drop, the sample undergoes an increase in relative supersaturation. Both the sample and reagent increase in concentration as water leaves the drop for the reservoir. Equilibration is reached when the reagent concentration in the drop is approximately the same as that in the reservoir.

Thus another aspect of the present invention is directed to a method for crystallizing blood coagulation factor XIIIa comprising the steps:

- (a) providing a buffered aqueous solution of a pH in the range of 7.0 to 9.5 containing not more than 0.04 mM of blood coagulation factor XIII; and

- (b) mixing a solution of at least one calcium salt as activation agent and an inhibitor with the aqueous solution of step (a) to obtain a concentration of Ca^{2+} ions of at least 50 mM and a molar ratio of inhibitor to blood coagulation factor XIII of at least 10:1;
- 5 or mixing a solution of at least one calcium salt and thrombin as activation agent and an inhibitor with the aqueous solution of step (a) to obtain a concentration of Ca^{2+} ions of at least 5 mM and a concentration of thrombin of at least 500 NIH Units/mL and a molar ratio of inhibitor to blood coagulation factor XIII of at least 10:1; and
- 10 (c) concentrating the solution of step (b) to a concentration of inhibited activated blood coagulation factor XIIIa of 2.0 mg/mL to 20 mg/mL; and
- (d) diluting the concentrated solution of step (c) with a buffered precipitant solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by weight and 30% by weight of PEG so that a final concentration of the inhibited activated blood coagulation factor XIIIa of 1.0 mg/mL to 10 mg/mL is obtained.
- 15

Step (c) may comprise a purification and also an optional dilution step. If an aqueous buffer solution is used to dilute the concentrated and purified solution of step (c) preferably the same buffer as used in step (a) and/or (b) is used again which is preferably a Tris-HCl buffer of a pH between 7.0 and 9.0. The buffered precipitant solution is preferably prepared at room temperature and under atmospheric pressure which is then added to the concentrated or concentrated and purified or to the concentrated, purified and diluted solution of step (c).

20

25

The following buffers could be used in step (a) for preparing the buffered aqueous solution as well as in step (b) if the inhibitor and/or the activation agent is added as a buffered aqueous solution and in step (d) for preparing the buffered precipitant solution:

30

Table 1: Buffers:

effective pH range	pKa 25°C	buffer
5.0-7.4	6.27	cacodylate
5.5-6.5	5.64	succinate (pK2)
5.5-6.7	6.10	MES
5.5-7.2	6.24	maleate (pK2)
5.5-7.4	1.70, 6.04, 9.09	histidine
5.8-7.2	6.46	bis-tris
6.0-12.0	9.50	ethanolamine

6.0-7.2	6.59	ADA
6.1-7.5	6.78	ACES
6.1-7.5	6.76	PIPES
6.2-7.6	6.87	MOPSO
6.2-7.8	6.95	imidazole
6.3-9.5	6.80, 9.00	BIS-TRIS propane
6.4-7.8	7.09	BES
6.5-7.9	7.14	MOPS
6.8-8.2	7.48	HEPES
6.8-8.2	7.40	TES
6.9-8.3	7.60	MOBS
7.0-8.2	7.52	DIPSO
7.0-8.2	7.61	TAPSO
7.0-8.3	7.76	triethanolamine (TEA)
7.1-8.5	7.85	HEPPSO
7.2-8.5	7.78	POPSO

Preferred are the buffers having an effective pH range of from 6.0 to 9.5, and more preferred of from 7.0 to 8.5. The effective pH range for each buffer can be defined as $pK_a - 1$ to $pK_a + 1$, where K_a is the ionization constant for the weak acid in the buffer and $pK_a = -\log K$. Thus buffers are preferred having a pK_a from 7.0 to 8.0.

The buffered aqueous solutions of step (a), (b) and (d) of the crystallization method are preferably prepared at room temperature and under atmospheric pressure.

Preferably these aqueous solutions should not contain substances which denature the blood coagulation factor XIII or its activated and inhibited form. The solutions of step (a) and (b) should not contain substances which complex calcium or form slightly water soluble calcium salts. Thus these aqueous solutions should, for instance, not contain substances such as complexing agents, EDTA, EGTA, sulfides, citrates, phosphates, carbonates, hydrogen peroxide, acrylamide, acrylates, metacrylates, which might interact or denature blood coagulation factor XIIIa or its activated and inhibited form or might form hardly water soluble calcium salts.

However detergents or at least one detergent might be present in these solutions. Preferred detergents are selected from the group comprising nonionic detergents or sugar-containing detergents such as n-octyl- β -D-glucopyranoside (β -OG), n-octanoylsucrose, DDM (dodecyl maltoside), alkyl oligooxyethylenes, C_8E_5 , and polydisperse polyoxyethylene, Triton and zwitterionic detergents (amphotheric detergents) comprising sulfobetaines such as zwittergent, and betaines, and

cationic detergents comprising alkyldimethylamine oxides, such as lauryldimethylamine oxide (LDAO), and the CHAPS series such as CHAPS. Preferably, the detergent is a cationic detergent. More preferably the detergent is CHAPS.

- 5 The term “at least one detergent” means that mixtures of the afore-mentioned detergents could be used. In case mixtures of detergents are used, the amount used refers to the total amount of all detergents together. The amount used of all detergents together in the buffered thrombin solution is preferably between 1 mM and 50 mM, preferably between 1 mM and 30 mM, and more preferably between 1
10 mM and 10 mM of the detergent or the mixture of detergents in regard to the total volume of the buffered thrombin solution.

The complete crystallization method is performed at room temperature under atmospheric pressure. Enclosure of light could be advantageous.

- 15 Another important aspect of the present invention is directed to the crystal forms of blood coagulation factor XIIIa obtainable by any one of the methods for crystallizing blood coagulation factor XIIIa as disclosed in the present invention.

- Such crystal form of blood coagulation factor XIIIa is preferably characterized by a
20 space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimensions of $a_1 = 56 \pm 3 \text{ \AA}$, $b_1 = 80 \pm 3 \text{ \AA}$, $c_1 = 103 \pm 3 \text{ \AA}$, $\alpha_1 = 88 \pm 3^\circ$, $\beta_1 = 77 \pm 3^\circ$ and $\gamma_1 = 82 \pm 3^\circ$; or

- by a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_2 = 57 \pm 3 \text{ \AA}$, $b_2 = 64 \pm 3 \text{ \AA}$,
25 $c_2 = 67 \pm 3 \text{ \AA}$, $\alpha_2 = 76 \pm 3^\circ$, $\beta_2 = 72 \pm 3^\circ$ and $\gamma_2 = 83 \pm 3^\circ$; or

- by a space group of C2, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_3 = 90 \pm 3 \text{ \AA}$, $b_3 = 65 \pm 3 \text{ \AA}$,
 $c_3 = 70 \pm 3 \text{ \AA}$, $\alpha_3 = 90 \pm 3^\circ$, $\beta_3 = 96 \pm 3^\circ$ and $\gamma_3 = 90 \pm 3^\circ$.

- 30 However due to small rearrangements of the spatial packing of the protein molecules in the solid state which do not affect the overall packing of the protein molecules in the crystal, the crystal symmetry may change and another space group and deviating lattice constants can be consistent with a conserved packing.

- 35 Such deviated crystal structures of blood coagulation factor XIIIa are also subject matter of the present invention. These deviated crystal structures have a different space group (different from P1), but have preferably two monomers of coagulation factor XIIIa in the asymmetric unit and have preferably unit cell dimensions

- of $a_1 = 56 \pm 9 \text{ \AA}$, $b_1 = 80 \pm 9 \text{ \AA}$, $c_1 = 103 \pm 9 \text{ \AA}$,
 $\alpha_1 = 88 \pm 9^\circ$, $\beta_1 = 77 \pm 9^\circ$ and $\gamma_1 = 82 \pm 9^\circ$; or
 of $a_2 = 57 \pm 9 \text{ \AA}$, $b_2 = 64 \pm 9 \text{ \AA}$, $c_2 = 67 \pm 9 \text{ \AA}$,
 $\alpha_2 = 76 \pm 9^\circ$, $\beta_2 = 72 \pm 9^\circ$ and $\gamma_2 = 83 \pm 9^\circ$; or
 5 of $a_3 = 90 \pm 9 \text{ \AA}$, $b_3 = 65 \pm 9 \text{ \AA}$, $c_3 = 70 \pm 9 \text{ \AA}$,
 $\alpha_3 = 90 \pm 9^\circ$, $\beta_3 = 96 \pm 9^\circ$ and $\gamma_3 = 90 \pm 9^\circ$;
 and more preferably unit cell dimensions
 of $a_1 = 56 \pm 6 \text{ \AA}$, $b_1 = 80 \pm 6 \text{ \AA}$, $c_1 = 103 \pm 6 \text{ \AA}$,
 $\alpha_1 = 88 \pm 6^\circ$, $\beta_1 = 77 \pm 6^\circ$ and $\gamma_1 = 82 \pm 6^\circ$; or
 10 of $a_2 = 57 \pm 6 \text{ \AA}$, $b_2 = 64 \pm 6 \text{ \AA}$, $c_2 = 67 \pm 6 \text{ \AA}$,
 $\alpha_2 = 76 \pm 6^\circ$, $\beta_2 = 72 \pm 6^\circ$ and $\gamma_2 = 83 \pm 6^\circ$; or
 of $a_3 = 90 \pm 6 \text{ \AA}$, $b_3 = 65 \pm 6 \text{ \AA}$, $c_3 = 70 \pm 6 \text{ \AA}$,
 $\alpha_3 = 90 \pm 6^\circ$, $\beta_3 = 96 \pm 6^\circ$ and $\gamma_3 = 90 \pm 6^\circ$;
 and still more preferably unit cell dimensions
 15 of $a_1 = 56 \pm 3 \text{ \AA}$, $b_1 = 80 \pm 3 \text{ \AA}$, $c_1 = 103 \pm 3 \text{ \AA}$,
 $\alpha_1 = 88 \pm 3^\circ$, $\beta_1 = 77 \pm 3^\circ$ and $\gamma_1 = 82 \pm 3^\circ$; or
 of $a_2 = 57 \pm 3 \text{ \AA}$, $b_2 = 64 \pm 3 \text{ \AA}$, $c_2 = 67 \pm 3 \text{ \AA}$,
 $\alpha_2 = 76 \pm 3^\circ$, $\beta_2 = 72 \pm 3^\circ$ and $\gamma_2 = 83 \pm 3^\circ$; or
 of $a_3 = 90 \pm 3 \text{ \AA}$, $b_3 = 65 \pm 3 \text{ \AA}$, $c_3 = 70 \pm 3 \text{ \AA}$,
 20 $\alpha_3 = 90 \pm 3^\circ$, $\beta_3 = 96 \pm 3^\circ$ and $\gamma_3 = 90 \pm 3^\circ$.

Rational Drug Design by use of structure of Blood Coagulation Factor XIIIa

- Further important aspects of the invention are related to the use of the crystal
 forms of blood coagulation factor XIIIa for the determination of the three-
 25 dimensional structure of blood coagulation factor XIIIa and for the identification,
 optimization and/or design of inhibitors of blood coagulation factor XIIIa.

- Knowing the exact positions of the atoms of the amino acids in the active sides
 and especially in the catalytic center provides the possibility to design suitable
 30 inhibitors, identify suitable inhibitors e.g. from a compound library or optimize a
 known suitable inhibitor by increasing the inhibitory potential. Design,
 identification and optimization of suitable inhibitors can be performed with standard
 computer based methods and software programs well known in the art.
- 35 A variety of commercially available software programs are available for conducting
 the analysis and comparison of data in the computer-based system. One skilled
 in the art will readily recognize which of the available algorithms or implementing
 software packages for conducting computer analyses can be utilized or adapted

for use in the computer-based system. A target structural motif or target motif refers to any rationally selected sequence or combination of sequences in which the sequence(s) are chosen based on a three-dimensional configuration or electron density map which is formed upon the folding of the target motif. There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzymatic active sites, structural subdomains, epitopes, functional domains and signal sequences. A variety of structural formats for the input and output means can be used to input and output the information in the computer-based systems of the present invention.

A variety of comparing means can be used to compare a target sequence or target motif with the data storage means to identify structural motifs or interpret electron density maps derived in part from the atomic coordinate/x-ray diffraction data. One skilled in the art can readily recognize any one of the publicly available computer modeling programs that can be used.

Suitable software that can be used to view, analyze, design, and/or model a protein comprise MOLOC (Roche,1985), FRED, MAIN, FlexX, Gold, XtalView, Alchemy TM, LabVision TM, Sybyl TM, Molcadd TM, Leapfrog TM, Matchmaker TM , Genefold TM and Sitel TM (available from Tripos Inc., St. Louis, MO.); Quanta TM, Cerius2 TM, X-Plor TM, CNS TM, Catalyst TM , Modeller TM, ChemX TM, Ludi TM, Insight TM, Discover TM, Cameleon TM and Iditis TM (available from Accelrys Inc., Princeton NJ); Rasmol TM (available from Glaxo Research and Development, Greenford, Middlesex, U.K.); MOE TM (available from Chemical Computing Group, Montreal, Quebec, Canada); Maestro TM (available from Schrödinger Inc.); COOT / CCP4; Midas/MidasPlus TM (available from UCSF, San Francisco, CA); JyMol, Pymol (Schrödinger LLC); Jmol (freeware on the internet); VRML, (webviewer- freeware on the internet); Chime (MDL - freeware on the internet); AutoDock (available from The Scripps Research Institute); MOIL (available from University of Illinois, Urbana-Champaign, IL); MacroModel TM and GRASP TM (available from Columbia University, New York, NY); Ribbon TM (available from University of Alabama, Tuscaloosa, Alabama); NAOMI TM (available from Oxford University, Oxford, UK); Explorer Eyechem TM (available from Silicon Graphics Inc., Mountain View, CA.); Univision TM (available from Cray Research Inc., Seattle WA); Molscript TM and O (available from Uppsala University, Uppsala, Sweden); Chem 3D TM and Protein Expert TM (available from Cambridge Scientific); and upgraded versions thereof.

Thus in a further aspect the present invention is related to methods for designing, identifying and optimizing inhibitors of blood coagulation factor XIIIa by applying the crystal form and the related structure coordinates of the crystal form or at least of one of the active sides in order to design, identify or optimize inhibitors by means of computer based methods or software programs.

The atomic coordinate/x-ray diffraction data may be used to create a physical model which can then be used to design molecular models of compounds that should have the ability or property to inhibit and/or interact with the determined active sites or other structural or functional domains or subdomains of coagulation factor XIIIa such as the catalytic center, the hydrophobic pocket, the surface between said catalytic center and hydrophobic pocket and/or the pocket neighboring the catalytic center. Alternatively, the atomic coordinate/x-ray diffraction data of the complex may be represented as atomic model output data on computer readable media which can be used in a computer modeling system to calculate different molecules expected to inhibit and/or interact with the determined active sites, or other structural or functional domains or subdomains of the coagulation factor XIIIa. For example, computer analysis of the data allows one to calculate the three-dimensional interaction of the coagulation factor XIIIa and the compound to confirm that the compound binds to, or changes the conformation of, particular domain(s) or subdomain(s) of coagulation factor XIIIa. Compounds identified from the analysis of the physical or computer model can then be synthesized and tested for biological activity with an appropriate assay.

Thus the present invention is also directed to a method for designing a compound that interacts with or inhibits blood coagulation factor XIIIa, comprising the steps of

- (a) generating a three-dimensional model of blood coagulation factor XIIIa using the structure coordinates as listed in figure 6; and
- (b) employing said three-dimensional model to design a compound that should have the ability to interact with or inhibit blood coagulation factor XIIIa.

The generation of a three-dimensional model of blood coagulation factor XIIIa in accordance with step (a) of said method could also involve the application of a root mean square deviation so that a preferred method comprises the following steps:

- (a) generating a three-dimensional model of blood coagulation factor XIIIa using the structure coordinates as listed in figure 6 and a root mean

- square deviation from the backbone atoms or from the alpha carbon backbone atoms of said amino acids of not more than 3.0 Å; and
- (b) employing said three-dimensional model to design a compound that should have the ability to interact with or inhibit blood coagulation factor XIIIa.

The term “root mean square deviation” means the square root of the arithmetic mean of the squares of the deviations from the mean. It is a way to express the deviation or variation from a trend or object. For purposes of this invention, the “root mean square deviation” defines the variation in the backbone of a protein from the backbone of FXIIIa, an active site, a binding pocket, or a portion thereof, as defined by the structure coordinates of FXIIIa described herein. It would be apparent to the skilled person that calculation of root mean square deviation involves a standard error.

A preferred embodiment of the present invention refers to the methods disclosed herein, wherein the root mean square deviation from the backbone atoms of said amino acids of not more than 2.0 Å and more preferably not more than 1.0 Å. The interaction of the selected compound with the blood coagulation factor XIIIa leads most preferably to inhibition.

The term “compound” as used herein preferably refers to a small chemical molecule but could also refer to a fragment of a molecule such as a fragment of an antibody.

The above method refers to the design of a compound on the basis of the crystal structure coordinates of a crystal form of FXIIIa which should have the ability to interact with or preferably inhibit blood coagulation factor XIIIa.. Such a designed compound could be a completely novel compound, thus not existing before or could be a derivative of a known compound, for instance, derived by scaffold hopping. In order to verify the inhibitory activity of the compound, actual synthesis of the compound is desired with subsequent testing of the compound in a suitable assay in order to determine the inhibitory activity of FXIIIa. Example 10 provides a suitable assay for testing the inhibitory effect of potential inhibitors of FXIIIa.

Thus the above method preferably further comprises the step of

- (c) obtaining the designed compound; and
- (d) contacting the obtained designed compound with blood coagulation factor XIIIa in order to determine the inhibitory effect on blood coagulation factor XIIIa.

For screening purposes of a compound library in order to identify an inhibitor of FXIIIa or for optimization of a known inhibitor of FXIIIa in order to increase the inhibitory potential of this known inhibitor, the following method for identifying and/or optimizing a compound that inhibits or should inhibit blood coagulation factor XIIIa is provided, comprising the steps of

- (a) generating a three-dimensional model of blood coagulation factor XIIIa using the structure coordinates as listed in figure 6; and
- (b) employing said three-dimensional model to identify or optimize a compound that should have the ability to inhibit FXIIIa.

The compounds obtained in accordance with step (c) above or the compounds of the compound library preferably contain a peptidic or peptidomimetic backbone for recognizing at least one of the active sites of blood coagulation factor XIIIa and contain a warhead which preferably replaces a carboxy group of an amino acid side chain or a side chain of an amino acid analogue of the peptidic or peptidomimetic backbone or which is derived from a carboxy group of an amino acid side chain or a side chain of an amino acid analogue of the peptidic or peptidomimetic backbone. The side chain containing the warhead is preferably attached to the alpha carbon atom of an amino acid or amino acid analogue of the peptidic or peptidomimetic backbone. The warhead is a functional group which can react with a thiol group of Cys314 and form a reversible or irreversible covalent bond.

The peptidic backbone consists of at least two amino acids linked through an amide bond and has between 2 and 20 amino acids, preferably between 3 and 10 amino acids linked through an amide bond. The peptidomimetic backbone consists of at least one amino acid and at least one amino acid analogue or has between 1 and 16 amino acids and between 1 and 4 amino acid analogues, preferably between 1 and 10 amino acids and between 1 and 3 amino acid analogues, more preferably between 1 and 8 amino acids and between 1 and 2 amino acid analogues. The peptidic backbone contains at least one amide bond in the peptidic or peptidomimetic backbone or has between 1 and 18, preferably between 1 and 14, more preferably between 2 and 10 amide bonds in the peptidic or peptidomimetic backbone.

These compounds form a reversible or irreversible covalent bond with a sulfur atom (SG) of Cys314 and one or two hydrogen bonds through a heteroatom A1 (preferably N or O) to an amine group (H-N(H)-) of Trp279 (i.e. to the hydrogen of the amine (H-N-) of the indole of Trp279) and/or the backbone amide group of Cys314 (i.e. to the hydrogen of the amide group of Cys314) and/or another

hydrogen bond through a heteroatom A2 (preferably N or O) to His373 (i.e. to the hydrogen of the amine (H-N-) of the imidazole of His373) and/or another hydrogen bond through a hydrogenatom A3 (preferably H-N or H-O) to the side chain carboxyl group of Asp396 (i.e. preferably to carboxylate(O_2C^-) of Asp396) and/or
5 hydrophobic interaction with Trp279 and Trp370 (i.e. a hydrophobic tunnel formed by Trp279 and Trp370) and/or hydrophilic interaction with a negatively charged pocket formed by Glu216, Asp219 and Tyr372 and/or a tight network of strong hydrogen bonds between the surface residues Arg223, Tyr283, Gln313, Asn371, and Tyr372 and preferably comprises an alkyl, alkenyl, alkynyl, cycloalkyl,
10 cycloalkenyl, or cycloalkdienyl residue for an hydrophobic interaction with Trp279 and Trp370. Important and preferred is at least one hydrogen bond of the compound through an N or O atom with the hydrogen of the amino group of Trp279 of FXIIIa and a hydrogen bond of the compound through an N or O atom with the hydrogen of the nitrogen atom of the imidazole moiety of His373 of FXIIIa
15 and a hydrogen bond of the compound through an amino or hydroxy group with the side chain carboxyl group of Asp396 of FXIIIa.

Moreover said compound contains between 10 and 120, preferably between 20 and 100 and more preferably between 30 and 80 carbon atoms and preferably 1 to 10 nitrogen atoms and preferably 5 to 15 oxygen atoms. In addition said
20 compound contains a functional group reacting with the thiol group of Cys314 as a warhead.

Said warhead is selected from a group consisting of aldehyde, hemiacetal, nitrile, azide, ketone, α -ketoaldehyde, α -ketoester, α -ketoamide, keto-heterocycle containing at least one nitrogen atom, α -haloketone, oxirane, hydrazone,
25 semicarbazone, a cyclic or acyclic Michael acceptor such as α,β -unsaturated ketone/ester/amide, vinyl sulfone and maleic imide, wherein said warhead is able to form a reversible or irreversible covalent bond with the thiol group of Cys314.

Compounds designed based on the crystal structure coordinates of a crystal
30 structure of FXIIIa should have the ability to interact with or preferably inhibit blood coagulation factor XIIIa and therefore better suited for the treatment of FXIIIa-associated diseases.

Also in this method, step (a) could involve the root mean square deviation and
35 thus read as follows:

- (a) generating a three-dimensional model of blood coagulation factor XIIIa using the structure coordinates as listed in figure 6, wherein the root mean square deviation of the backbone atoms of the blood coagulation factor XIIIa amino acid residues is not more than 3 Å.

In case an inhibitor is identified from a compound library or in case a known inhibitor is optimized by theoretical chemical modifications, testing of the actual compound is desired in order to verify the inhibitory effect and to continue the optimization process. Thus preferably the above method for identifying and/or

(c) obtaining the identified or optimized compound; and

(d) contacting the identified or optimized compound with blood coagulation factor XIIIa in order to determine the inhibitory effect on blood coagulation factor XIIIa.

It is not necessary to use all the structure coordinates as listed in figure 6, it might also be sufficient to use a selected set of structure coordinates as presented in figure 6. Thus only the structure coordinates of the catalytic center, the hydrophobic pocket, the surface between said catalytic center and hydrophobic pocket and/or the pocket neighboring the catalytic center could be used. Moreover it might also not to be necessary to generate a three-dimensional model of the complete blood coagulation factor XIIIa. It could also be sufficient to generate a model of one, two, three or all four active sides of FXIIIa and more preferably to generate a model of the catalytic center of FXIIIa.

Thus another aspect of the present invention is directed to a method for designing, identifying or optimizing a compound which should have the ability to inhibit FXIIIa, wherein the three-dimensional model of the catalytic center and/or of the pocket neighboring the catalytic center and/or of the hydrophobic pocket and/or of the surface between the catalytic center and the hydrophobic pocket of the blood coagulation factor XIIIa is generated by using the structure coordinates as listed in figure 6 and wherein said three-dimensional model is employed to design, identify or optimize a compound that should have the ability to interact with or bind to the catalytic center, the pocket neighboring the catalytic center, the hydrophobic pocket and/or respectively the surface between the catalytic center and the hydrophobic pocket. Such a compound should have the ability to inhibit FXIIIa.

In some instances it may be particularly advantageous to delete and / or exchange and/or add amino acids or even complete domains to the native Factor XIII. This may be particularly interesting with regard to at least one of the beta barrel domains. However, since the catalytic domain is the central element of the present invention the structure of the active site is the major claim and the

prerequisite of the structure based drug design. Basically, we also claim shorter variants of Factor XIII comprising the amino acids necessary to form at least the active site.

5 **Biological Activities of Blood Coagulation Factor XIIIa Inhibitors**

Kinetic data of the inhibitor 1 (compound **4**) and inhibitor 2 (compound **7**) using the commercial fluorogenic assay kit F001 (Zedira) show an IC₅₀ of about 0.11 and 0.08 µM respectively.

- 10 Subsequently, selectivity of the blocker for the active site cysteine was confirmed. Coagulation factor XIII has nine free cysteine residues per subunit; none of them forms disulfide bonds. The inhibited factor XIIIa was digested by trypsin and the fragments were analyzed using mass spectrometry. As expected, only Cys314 reacts with the inhibitor since the active site thiol is most nucleophilic due to the
- 15 catalytic triade.

The following abbreviations are used for the common and modified amino acids referred to herein.

Abbreviation	Amino acid
Ala	Alanine
Arg	Arginine
Asn	Asparagine
Asp	Aspartic acid (Aspartate)
Cys	Cysteine
Gln	Glutamine
Glu	Glutamic acid (Glutamate)
Gly	Glycine
His	Histidine
Ile	Isoleucine
Leu	Leucine
Lys	Lysine
Met	Methionine
Nle	Norleucine
Phe	Phenylalanine
Pro	Proline
Ser	Serine
Sec	Selenocysteine
Thr	Threonine
Trp	Tryptophan
Tyr	Tyrosine
Val	Valine

Description of the figures

Figure 1: A Ribon diagram of the overall fold of blood coagulation factor XIIIa with inhibitor 1 which is identical to compound 4. The following abbreviations are used:

“Atom type” refers to the element whose coordinates are measured. The first letter in the column defines the element. “Resid” refers to the amino acid residue identity in the molecular model. “#” refers to the sequence number of amino acid residue. “X, Y, Z” define the atomic position of the element measured. “B” is a thermal factor that measures movement of the atom around its atomic center. “Occ” is an occupancy factor that refers to the fraction of the molecules in which each atom occupies the position specified by the coordinates. A value “1” indicates that each atom has the same conformation, i.e., the same position, in the molecules. “Mol” refers to the molecule in the asymmetric unit.

Figure 2: A detailed representation of the catalytic site of blood coagulation factor XIIIa showing the essential amino acids Trp279, Cys314, Trp370, His373, Asp396.

Figure 3: A detailed representation of the hydrophobic pocket of blood coagulation factor XIIIa showing the essential amino acids Ala341, Met350, Asp351, Ile352, Val360, Tyr365, Asp367, Ser368, Val369, Leu439, His459, Ile460.

Figure 4: A detailed representation of the pocket neighboring the catalytic center of blood coagulation factor XIIIa showing the essential amino acids Phe339, His342, Ser368, Val369, Trp370, Asn371, His459.

Figure 5: A detailed representation of the surface between catalytic site and hydrophobic pocket of blood coagulation factor XIIIa showing the essential amino acids Tyr214, Gly215, Glu216, Asp219, Lys221, Arg223, Asn281, Tyr283, Pro288, Pro289, Gln313, Trp315, Asn371, Tyr372.

Figure 6: The atomic structure coordinates for blood coagulation factor XIIIa having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a = 56.8 \text{ \AA}$, $b = 80.5 \text{ \AA}$, $c = 102.8 \text{ \AA}$, $\alpha = 88.1^\circ$, $\beta = 76.7^\circ$ and $\gamma = 82.0^\circ$ as derived by X-ray diffraction.

Figure 7: (a) Component of a crystal. The asymmetric unit is that part of the crystal that shows no symmetry. A symmetry operator (for example, a

C2 axis) generates the lattice motif. Repeating this motif by translation generates the corner of the unit cell, which is the basic repeating unit of the crystal lattice; (b) unit cell definition.

5 The following examples are included to demonstrate preferred embodiments of the invention. It should be appreciated by those of skill in the art that the techniques disclosed in the examples which follow represent techniques discovered by the inventor to function well in the practice of the invention, and thus can be considered to constitute preferred modes for its practice. However, those of skill in
10 the art should, in light of the present disclosure, appreciate that many changes can be made in the specific embodiments which are disclosed and still obtain a like or similar result without departing from the spirit and scope of the invention. Further modifications and alternative embodiments of various aspects of the invention will be apparent to those skilled in the art in view of this description. Accordingly, this description is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the general manner of carrying out the invention. It is to be understood that the forms of the invention shown and described herein are to be taken as examples of embodiments. Elements and materials may be substituted for those illustrated and described herein, parts and
15 processes may be reversed, and certain features of the invention may be utilized independently, all as would be apparent to one skilled in the art after having the benefit of this description of the invention. Changes may be made in the elements described herein without departing from the spirit and scope of the invention as described in the following claims.

25

EXAMPLES

Abbreviations used in the present description have the following meanings:

30	2CT	2-Chlorotrityl
	ACN	Acetonitrile
	Boc	tert-Butyloxycarbonyl
	DIPEA	N,N-Diisopropylethylamine
	DMF	Dimethylformamide
35	DMSO	Dimethyl sulfoxide
	Fmoc	Fluorenylmethyloxycarbonyl
	HATU	2-(7-Aza-1H-benzotriazole-1-yl)-1,1,3,3-tetramethyluronium hexafluorophosphate

	HOBt	Hydroxybenzotriazole
	MAP	Michael acceptor pharmacophore
	OtBu	tert-butyl ester
	TBTU	O-(Benzotriazol-1-yl)-N,N,N',N'-tetramethyluronium tetrafluoroborate
5	THF	Tetrahydrofuran

PREPARATIVE EXAMPLES

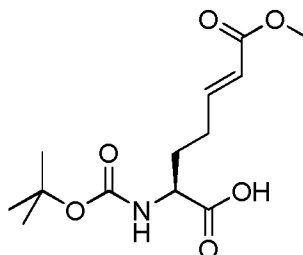
10 General considerations

NMR spectra were recorded on a Bruker DRX 500 (DMSO-d₆, 500 MHz). The following abbreviations were used to explain the multiplicities: s) singlet, d) doublet, t) triplet, m) multiplet, bs) broad singlet. ESI mass spectra were recorded on a Shimadzu LCMS-2020. Characterization of the purity of the compounds by
15 LC-analysis: Merck-Hitachi LaChrom L-7100, Phenomenex Kinetex C18 column (2.6 µm, 3.0x100 mm), gradient from 16%B to 76%B with 4%/min, 0.6 ml/min (A-eluent: 0.01% TFA in water, B-eluent: 0.01% TFA in ACN/H₂O 9/1, 40°C), UV detection at 214 nm. Preparative HPLC was carried out on a Varian ProStar system: Phenomenex Synergi Max-RP 80A column (4 µm, 21.2x250 mm), 8
20 ml/min, varying gradients (A-eluent: 0.01% TFA in water, B-eluent: 0.01% TFA in ACN/H₂O 9/1, room temperature), UV detection at varying wave lengths. Column chromatography was performed using silica gel 60 from Macherey-Nagel (0.04-0.063 mm). Alumina sheets from Merck, coated with silica gel 60 F254 were used for thin-layer chromatography (TLC) using UV light as a visualizing agent and
25 ninhydrine staining respectively.

All reagents were used as obtained from the supplier. All reactions were carried out under argon or nitrogen atmosphere.

30 The solid phase reactions were performed in a 250 ml flask equipped with a glass frit (por. 1) and a receiving flask with vacuum connection at room temperature. The peptide sequences were built by standard Fmoc solid-phase peptide synthesis (reactions in DMF, coupling with TBTU/HOBt/DIPEA, deprotection with piperidine). Cleavage from the resin was accomplished by using 95% TFA / 2.5 % water / 2.5
35 % triisopropylsilane). Coupling reactions to primary amines were monitored by the Kaiser test, couplings to secondary amines by the chloranil test.^[1] H-Pro-2CT-resin as starting material was purchased from Iris Biotech GmbH. All amino acids and coupling reagents were purchased from GL Biochem except Ac-Asp(OtBu)-OH (Bachem).

Example 01: Preparation of (S,E)-2-(tert-Butoxycarbonylamino)-7-methoxy-7-oxohept-5-enoic acid, Boc-MAP-OH (compound 1)



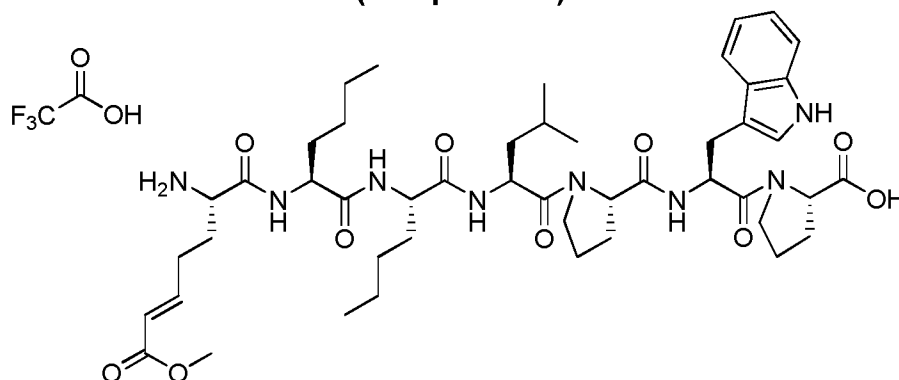
5

Chemical Formula: C₁₃H₂₁NO₆

Molecular Weight: 287.31

The synthesis of compound **1** was reported earlier.

Example 02: Preparation of (S)-1-((S)-2-((S)-1-((8S,11S,14S,17S,E)-8-Amino-11,14-dibutyl-17-isobutyl-3,9,12,15-tetraoxo-2-oxa-10,13,16-triazaoctadec-4-ene)pyrrolidine-2-carboxamido)-3-(1H-indol-3-yl)propanoyl)pyrrolidine-2-carboxylic acid trifluoroacetate (compound 2)



15

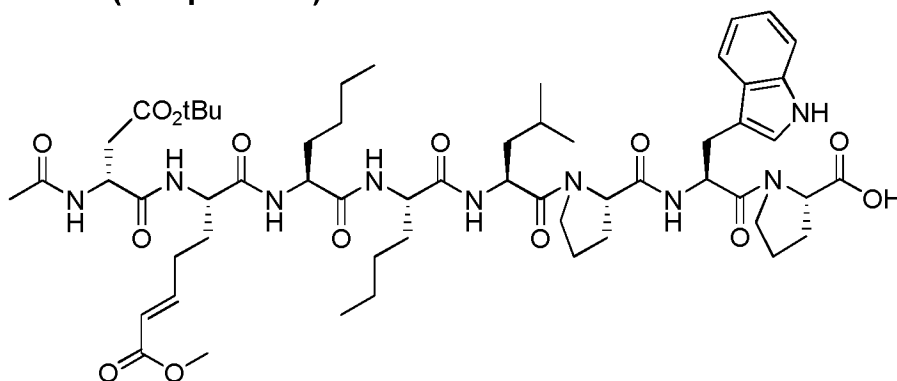
Chemical Formula: C₄₉H₇₁F₃N₈O₁₂

Molecular Weight: 1021.13

Compound **2** was synthesized by standard Fmoc solid-phase peptide synthesis as described above by using 2.00 g (1.50 mmol) H-Pro-2CT-resin (0.75 mmol/g) and 2.37 g (4.50 mmol) Fmoc-Trp(Boc)-OH, 1.52 g (4.50 mmol) Fmoc-Pro-OH, 1.59 g (4.50 mmol) Fmoc-Leu-OH, 1.59 g (4.50 mmol) Fmoc-Nle-OH (twice), 0.86 g (3.00 mmol) Boc-MAP-OH (**1**). For each coupling step TBTU (2.94 or 1.96 eq), HOBT (3 or 2 eq) and DIPEA (7 or 5 eq) were used, depending on the amount of used amino acid.

Compound **2** was obtained as a pale yellow solid (1.24 g, 1.21 mmol, 81%) and used without further purification.

Example 03: Preparation of (S)-1-((S)-2-((S)-1-((6R,9S,12S,15S,18S)-6-acetamido-12,15-dibutyl-9-((E)-5-methoxy-5-oxopent-3-enyl)-2,2,20-trimethyl-4,7,10,13,16-pentaoxo-3-oxa-8,11,14,17-tetraazahenicosanecarbonyl)pyrrolidine-2-carboxamido)-3-(1H-indol-3-yl)propanoyl)pyrrolidine-2-carboxylic acid (compound 3)

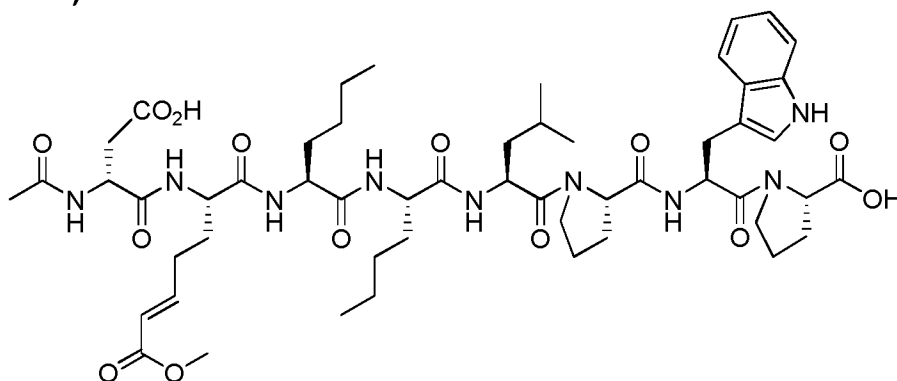


Chemical Formula: C₅₇H₈₅N₉O₁₄

Molecular Weight: 1120.34

- 1.24 g (1.21 mmol) **2** were dissolved in 10 ml DMF. To this solution 280 mg (1.21 mmol) Ac-Asp(OtBu)-OH, 460 mg (1.21 mmol) HATU and 617 μ l (3.63 mmol) DIPEA in 10 ml DMF were added. The resulting solution was set to pH 8.0 (DIPEA) and stirred at room temperature overnight. The solvent was removed under reduced pressure and the residue was purified by preparative HPLC (gradient from 50%B to 90%B with 1%/min, 220 nm). Compound **3** was obtained as a pale yellow solid (387 mg, 0.35 mmol, 28%). ESI-MS: 1120.9 [M+H]⁺

Example 04: Preparation of (S)-1-((S)-2-((S)-1-((4R,7S,10S,13S,16S)-10,13-dibutyl-4-(carboxymethyl)-7-((E)-5-methoxy-5-oxopent-3-enyl)-18-methyl-2,5,8,11,14-pentaoxo-3,6,9,12,15-pentaazanonadecanecarbonyl)pyrrolidine-2-carboxamido)-3-(1H-indol-3-yl)propanoyl)pyrrolidine-2-carboxylic acid (compound 4)



Chemical Formula: C₅₃H₇₇N₉O₁₄

Molecular Weight: 1064.23

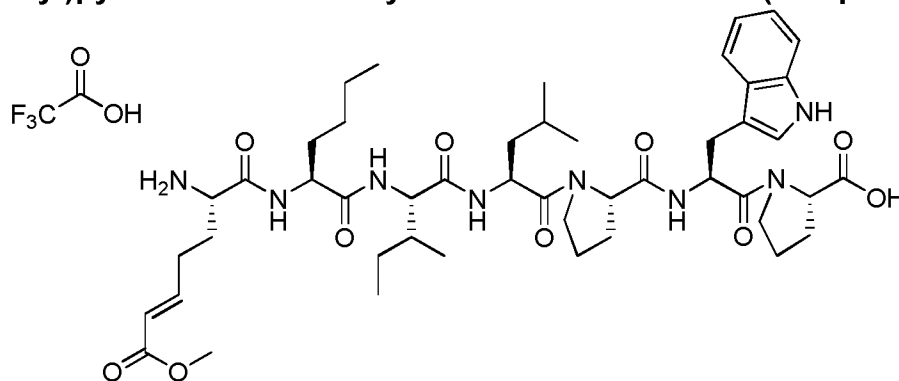
224 mg (0.20 mmol) **3** and 300 µl triisopropylsilane were dissolved in 30 ml dichloromethane. 15 ml TFA were added. The resulting solution was stirred for 3 h at room temperature before the solvent was removed under reduced pressure. The residue was purified by preparative HPLC (gradient from 40%B to 75%B with 1%/min, 254 nm).

Compound **4** was obtained as a colourless solid (154 mg, 0.14 mmol, 72%).

ESI-MS: 1064.8 [M+H]⁺

¹H-NMR (DMSO-d₆, 500 MHz): δ[ppm] = 0.82 (m, 2xNle-CH₃), 0.83, 0.86 (m, Leu-CH₃), 1.22 (m, 2xNle-γ-CH₂), 1.22 (m, 2xNle-δ-CH₂), 1.36, 1.40 (m, Leu-β-CH₂), 1.44, 1.59 (m, 2xNle-β-CH₂), 1.58 (m, Leu-γ-CH), 1.60, 1.80 (m, MAP-β-CH₂), 1.77, 1.80, 1.94, 2.10 (m, 2xPro-β-CH₂), 1.80 (m, 2xPro-γ-CH₂), 1.84 (s, Acetyl-3H), 2.17 (m, MAP-γ-CH), 2.48, 2.64 (m, Asp-CH₂), 2.90, 3.10 (m, Trp-β-CH₂), 3.26, 3.42, 3.53, 3.59 (m, 2xPro-δ-CH₃), 3.64 (m, MAP-CH₃), 4.19, 4.23 (m, 2xNle-CH), 4.22 (m, MAP-α-CH), 4.22, 4.33 (m, 2xPro-CH), 4.49 (m, Leu-α-CH), 4.53 (m, Asp-CH, ³J_{αH-βH1} = 5.59 Hz, ³J_{αH-βH2} = 8.02 Hz), 4.69 (m, Trp-CH), 5.83 (d, MAP-ε-CH, J = 15.57 Hz), 6.87 (dt, MAP-δ-CH, J = 6.90, 15.75 Hz), 6.95-7.57 (5xTrp-Ar-CH), 7.72, 7.94 (d, 2xNle-NH, J = 8.12, 8.82 Hz), 7.87 (d, MAP-NH, J = 8.00 Hz), 7.87 (d, Leu-NH, J = 8.00 Hz), 7.96 (d, Trp-NH, J = 8.47 Hz), 8.18 (d, Asp-NH, J = 7.69 Hz), 12.34 (bs, Asp-COOH).

Example 05: Preparation of (S)-1-((S)-2-((S)-1-((8S,11S,14S,17S,E)-8-Amino-14-sec-butyl-11-butyl-17-isobutyl-3,9,12,15-tetraoxo-2-oxa-10,13,16-triazaoctadec-4-ene)pyrrolidine-2-carboxamido)-3-(1H-indol-3-yl)propanoyl)pyrrolidine-2-carboxylic acid trifluoroacetate (compound 5)

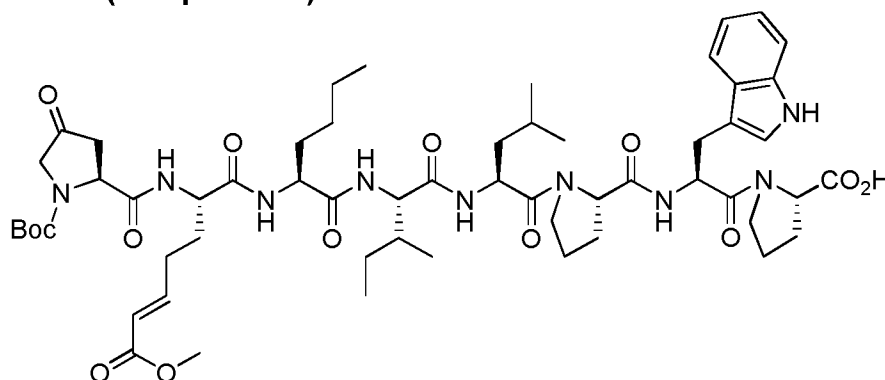
Chemical Formula: C₄₉H₇₁F₃N₈O₁₂

Molecular Weight: 1021.13

Compound **5** was synthesized by standard Fmoc solid-phase peptide synthesis as described above by using 500 mg (0.30 mmol) H-Pro-2CT-resin (0.75 mmol/g) and 474 mg (0.90 mmol) Fmoc-Trp(Boc)-OH, 304 mg (0.90 mmol) Fmoc-Pro-OH, 318 mg (0.90 mmol) Fmoc-Leu-OH, 318 mg (0.90 mmol) Fmoc-Ile-OH, 318 mg (0.90 mmol) Fmoc-Nle-OH, 172 mg (0.60 mmol) Boc-MAP-OH (**1**). For each coupling step TBTU (2.94 or 1.96 eq), HOBt (3 or 2 eq) and DIPEA (7 or 5 eq) were used, depending on the amount of used amino acid.

Compound **5** was obtained as a white solid (221 mg, 0.22 mmol, 72%) and used without further purification.

Example 06: Preparation of (S)-1-((S)-2-((S)-1-((8S,11S,14S,17S,E)-8-((S)-1-(tert-butoxycarbonyl)-4-oxopyrrolidine-2-carboxamido)-14-sec-butyl-11-butyl-17-isobutyl-3,9,12,15-tetraoxo-2-oxa-10,13,16-triazaoctadec-4-ene)pyrrolidine-2-carboxamido)-3-(1H-indol-3-yl)propanoyl)pyrrolidine-2-carboxylic acid (compound **6)**



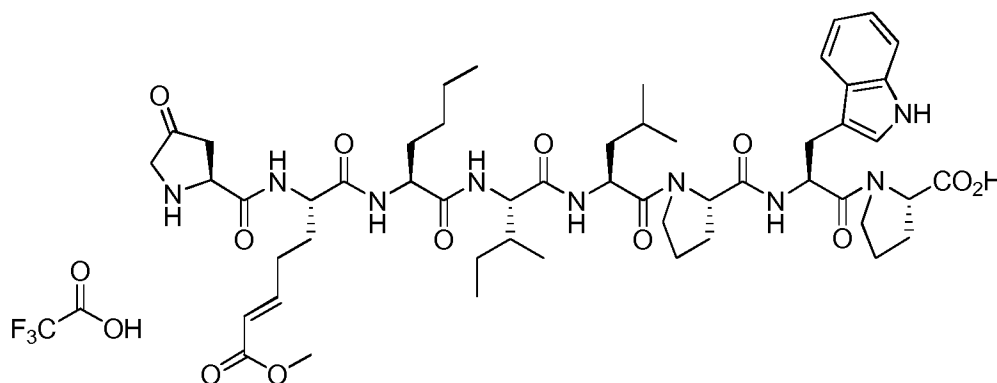
Chemical Formula: C₅₇H₈₃N₉O₁₄

Molecular Weight: 1118,32

35.4 mg (0.15 mmol) N-Boc-4-oxo-L-proline, 57 mg (0.15 mmol) HATU and 51 μ l (0.30 mmol) DIPEA were dissolved in 1.5 ml DMF. To this solution 153 mg (0.15 mmol) **5** in 1.5 ml DMF were added. The resulting solution was set to pH 8.0 (DIPEA) and stirred at room temperature overnight. The solvent was removed under reduced pressure and the residue was purified by preparative HPLC (gradient from 50%B to 90%B with 1%/min, 220 nm).

Compound **6** was obtained as a white solid (100 mg, 89 μ mol, 60%).

Example 07: Preparation of (S)-1-((S)-2-((S)-1-((8S,11S,14S,17S,E)-14-sec-butyl-11-butyl-17-isobutyl-3,9,12,15-tetraoxo-8-((S)-4-oxopyrrolidine-2-carboxamido)-2-oxa-10,13,16-triazaoctadec-4-ene)pyrrolidine-2-carboxamido)-3-(1H-indol-3-yl)propanoyl)pyrrolidine-2-carboxylic acid trifluoroacetate (compound 7)



Chemical Formula: C₅₄H₇₆F₃N₉O₁₄

Molecular Weight: 1132,23

100 mg (89 μ mol) **6** were dissolved in 5 ml dichloromethane. 5 ml TFA were added. The resulting solution was stirred for 3 h at room temperature before the solvent was removed under reduced pressure. The residue was purified by preparative HPLC (gradient from 30%B to 90%B with 1%/min, 230 nm).

Compound **7** was obtained as a white solid (56 mg, 49 μ mol, 56%).

ESI-MS: 1040.8 [M+Na]⁺

BIOCHEMICAL EXPERIMENTS

Example 08: Crystallization of blood coagulation Factor XIIIa in the absence of thrombin

As used herein, the term "FXIII-A₂" refers to the dimer (dimeric form) of the not activated blood coagulation factor XIII. It is known to a skilled person that the dimeric form of blood coagulation factor XIII is the stable conformation under physiologic conditions.

Protein production and purification

The coding sequence of blood coagulation factor XIII (A subunit) was amplified by PCR from cDNA clone MGC:34260 IMAGE:5222962 (Genebank BC027963) and cloned into the pFASTBac™ vector. Recombinant production of His₆-FXIII-A₂ was performed using the baculovirus system (Bac-to-Bac, Invitrogen) according to the manufacturer. Recombinant FXIII-A₂ was purified by immobilized metal affinity chromatography (IMAC) and subsequent anion exchange chromatography. The purified and concentrated His₆-FXIII-A₂ (7.4 mg/ml) was stored in 10 mM Tris-HCl buffer pH 8.0, 300 mM NaCl, 15% (v/v) glycerol.

Factor XIIIa activation and inhibition

Activation of blood coagulation factor XIII was performed by high concentrations of calcium instead of thrombin. However activation by thrombin is feasible also and is claimed accordingly. A solution of purified His₆-FXIII-A₂ (0.2 mg/mL) in 10 mM Tris-HCl pH 8.0, 300 mM NaCl, 15% (v/v) glycerol containing 100 mM Ca²⁺ was mixed with the inhibitor 1 (compound 4) or 2 (compound 7) at a molar ratio of 1 : 25. The mixture was slightly stirred and incubated at room temperature for 1 h. The inhibited His₆-FXIIIa [inhibitor 1 or 2] complex was concentrated using centrifugal concentrators (Vivaspin® 20, 30 kDa cut-off). This solution was applied to a Superdex75pg HiLoad column equilibrated with 10 mM Tris-HCl pH 8.0, 300 mM NaCl, 15% (v/v) glycerol containing 3 mM CaCl₂. The eluted protein was subsequently concentrated to 9.7 mg/mL using said centrifugal concentrators again. The inhibited blood coagulation factor XIIIa was stored at -80°C prior to crystallization.

His₆-FXIIIa[inhibitor (I)] crystallization

Protein crystals were grown at room temperature using the hanging drop vapour diffusion method. Crystallization was achieved by mixing 2 µl protein solutions with 2 µl precipitation solution (170 mM ammonium sulphate, 85 mM sodium cacodylate pH 6.5, 25.5% (w/v) PEG 8,000, 15% (v/v) glycerol). Crystals appeared after one to two weeks.

Example 09: Crystallization of blood coagulation Factor XIIIa in the presence of thrombin

Protein production and purification

Recombinant FXIII-A₂ was purified by immobilized metal affinity chromatography (IMAC) and subsequent anion exchange chromatography. The purified His₆-FXIII-A₂ (30ml; 1.65 mg/ml) was stored in 50 mM Tris-HCl buffer pH 7.4, 300 mM NaCl, 15% (v/v) glycerol at 4°C until activation.

Factor XIIIa activation by thrombin and subsequent inhibition

Activation of said 30ml of recombinant coagulation factor XIII was performed by thrombin. The His₆-FXIII-A₂ solution was diluted with 220 ml of 50 mM Tris-HCl buffer pH 7.4, 300 mM NaCl, 15% (v/v) glycerol, 3 mM Calciumchloride and 2.5 mM CHAPS.

Thrombin (1,250 NIH Units) in 1.25 ml of 50 mM Tris-HCl buffer pH 7.4, 300 mM NaCl, 15% (v/v) glycerol, 3 mM Calciumchloride and 2.5 mM CHAPS was added and the mixture was incubated at 25°C for 150 minutes.

Thrombin was inactivated by adding 10 µl PPACK (Phe-Pro-Arg-chloromethylketone) with a concentration of 1.33 mg/ml. The activated FXIIIa was subsequently inhibited adding Inhibitor (I) (10 mg in 200µl DMSO) and reaction of 45 minutes at 25 °C.

The FXIIIa[Inhibitor(I)] complex was concentrated using centrifugal concentrators (Vivaspin® 20, 30 kDa cut-off). This solution was applied to a Superdex75pg HiLoad column equilibrated with 10 mM Tris-HCl pH 8.0, 300 mM NaCl, 15% (v/v) glycerol containing 3 mM CaCl₂. The eluted protein was subsequently concentrated to 10.7 mg/mL using said centrifugal concentrators again. The inhibited blood coagulation factor XIIIa was stored at -80°C prior to crystallization. Protein crystals were grown by above-mentioned method.in example 08.

Example 10: Measurement of crystal

For X-ray diffraction measurement a single crystal of blood coagulation factor XIIIa complex was selected after removal of small satellites on the surface and frozen in liquid nitrogen. A dataset consisting of 400 images with 0.5 degree rotation and a wavelength of 0.91841 Å was collected at BL14.2 operated at the BESSY II electron storage ring and processed with a resolution to 1.98 Å in P1 symmetry using the program HKL2000. The structure was determined by molecular replacement with the CCP4 program Phaser. The molecular replacement model was divided into four subunits. The β-sandwich domain and the two β-barrel domains of the inactive form of factor XIII (PDB ID: 1F13) were used. For the

catalytic domain a homology model based on the active form of transglutaminase 2 (PDB ID: 2Q3Z) was generated with the program Modeller. The appropriate sequence alignment was performed by taking the secondary structure parts with PROMALS into account.

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Subsequently a significant improvement of the obtained starting model was achieved by automated methods implemented in ARP/wARP. The model was manually further improved with Coot and refined with Phenix. At the beginning of the refinement a simulated annealing step was performed. The structure was refined with coordinates, individual B-factors, occupancies, TLS groups, optimized X-ray/stereochemistry weight and optimized X-ray/ADP weight. The ligand was minimized by using the Tripos Force Field implemented in Sybyl. The ligand restraints were created with Monomer Library Sketcher implemented in the CCP4 Program Suite.

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Table 1.

Data collection and refinement statistics	
Data Collection	
Wavelength (Å)	0.91841
Space group	P 1
Resolution ¹ (Å)	50.00 – 1.98 (2.03 – 1.98)
Unique reflections ¹	119138 (7864)
Completeness (%) ¹	97.1 (95.8)
Redundancy	2.2 (2.1)
R _{merge} (%) ¹	8.4 (36.3)
<I/σ> ¹	10.0 (2.0)
Unit Cell (Å,°)	a = 56.8, b = 80.5, c = 102.8 α = 88.1, β = 76.7, γ = 82.0
Matthews coefficient (Å ³ /Da)	2.7
Solvent content (%)	54.8
Refinement	
R _{cryst} (%)	16.9
R _{free} (%)	20.6
Protein residues	
Molecule 1	695
Molecule 2	698
Ligand atoms	

Molecule 1	74
Molecule 2	74
Water molecules	920
Glycerol molecules	9
Sulfate molecules	1
Calcium atoms	6
Average B-factor ($\text{\AA}^2$)	
Protein	
Molecule 1	27.3
Molecule 2	27.9
Ligand	
Molecule 1	35.3
Molecule 2	38.9
Water	29.7
Calcium	21.9
Glycerol	34.7
Sulfate	35.5
R.m.s. deviations from ideality	
Bond lengths ($\text{\AA}$)	0.010
Bond angles ($^\circ$)	1.247
Ramachandran Plot ² (%)	
Most favoured	90.0 (1107 residues)
Allowed	9.8 (120 residues)
Disallowed	0.2 (3 residues)

¹ numbers in brackets refer to the highest resolution shell

² according to Procheck^[1]

[1] R. A. Laskowski, M. W. Macarthur, D. S. Moss, J. M. Thornton, Procheck - a Program to Check the Stereochemical Quality of Protein Structures. J Appl Crystallogr 26, 283-291 (1993).

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Example 11: Fluorogenic assay F001

The fluorogenic assay kit F001 (Zedira) is ready to use. Briefly, recombinant factor XIII (Zedira, product number T027) or human blood derived factor XIII (T007) is reconstituted in water. The enzymatic activity is measured in a suitable buffer (e.g. TRIS buffer pH 7.5 containing calcium chloride, sodium chloride, poly ethylene glycol (PEG), glycine methyl ester, clot inhibitor peptide GPRP-amide) after activation by thrombin. Factor XIIIa cleaves a dark quenching molecule from the side chain of the modified peptide incorporating glycine methyl ester (so called iso-

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peptidase activity). Subsequently, the fluorescence of an N-terminal coupled dye increases and can be monitored on-line (excitation wavelength 313 nm; emission wavelength 418 nm). The inhibitor of interest can be added after the activation of Factor XIII by thrombin is completed. The IC_{50} value represents the inhibitor concentration leading to a 50% inhibition of FXIIIa activity.

Example 12: Use of blood factor XIIIa coordinates in drug design

Based on computational methods like docking, two options have been identified potentially improving ligands. One option would be the introduction of a methyl group of the indole moiety to enhance the hydrophobic surface of the ligand or increasing rigidity by introduction a ring system like pyridine.

Example 13: Bradford Protein Assay

1. Prepare dye reagent by diluting 1 part Dye Reagent Concentrate with 4 parts deionized water (18.2 MΩ*cm).
Filter through Whatman #1 filter (or equivalent) to remove particulates. This diluted reagent may be used for approximately 1 weeks when kept at room temperature.
2. Add 1.0 mL of diluted dye reagent to each tube. Use in all steps low bind test tubes (Eppendorf Protein LoBind® Tube Nr.: 0030 079.221).
3. Prepare five dilutions of a BSA protein standard. The linear range of the assay for BSA is 0.05 to 0.5 mg/mL.
4. Pipet 20 µL of each standard and sample solution into 1 mL of dye reagent and vortex. Protein solutions are normally assayed in duplicate. Use buffer or water as a control.
5. Incubate at room temperature for at least 15 minutes. Absorbance will increase over time; samples should incubate at room temperature for no more than 1 hour.
6. Measure absorbance at 595 nm.

Claims

- 5 1. Crystal form of blood coagulation factor XIIIa characterized as having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_1 = 56 \pm 3 \text{ \AA}$, $b_1 = 80 \pm 3 \text{ \AA}$, $c_1 = 103 \pm 3 \text{ \AA}$, $\alpha_1 = 88 \pm 3^\circ$, $\beta_1 = 77 \pm 3^\circ$ and $\gamma_1 = 82 \pm 3^\circ$; or
10 having a space group of P1, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_2 = 57 \pm 3 \text{ \AA}$, $b_2 = 64 \pm 3 \text{ \AA}$, $c_2 = 67 \pm 3 \text{ \AA}$, $\alpha_2 = 76 \pm 3^\circ$, $\beta_2 = 72 \pm 3^\circ$ and $\gamma_2 = 83 \pm 3^\circ$; or
having a space group of C2, two monomers of coagulation factor XIIIa in the asymmetric unit and unit cell dimension of $a_3 = 90 \pm 3 \text{ \AA}$, $b_3 = 65 \pm 3 \text{ \AA}$, $c_3 = 70 \pm 3 \text{ \AA}$, $\alpha_3 = 90 \pm 3^\circ$, $\beta_3 = 96 \pm 3^\circ$ and $\gamma_3 = 90 \pm 3^\circ$.
- 15 2. Crystal form of blood coagulation factor XIIIa according to claim 1, characterized by the atomic structure coordinates of figure 6.
- 20 3. Crystal form of blood coagulation factor XIIIa according to claim 1 or 2 containing a catalytic center and/or a pocket neighboring the catalytic center, wherein the catalytic center contains the amino acids Trp279, Cys314, Trp370, His373, and Asp396; and the pocket neighboring the catalytic center contains the amino acids Tyr214, Gly215, Glu216, Asp219, Lys221, Arg223, Asn281, Tyr283, Pro288, Pro289, Gln313, Trp315, Asn371, and Tyr372.
- 25 4. Crystal form of blood coagulation factor XIIIa according to claim 3 further containing a hydrophobic pocket and a surface between the catalytic center and the hydrophobic pocket,
wherein the hydrophobic pocket contains the amino acids Ala341, Met350,
30 Asp351, Ile352, Val360, Tyr365, Asp367, Ser368, Val369, Leu439, His459, and Ile460; and the surface between the catalytic center and the hydrophobic pocket contains the amino acids Phe339, His342, Ser368, Val369, Trp370, Asn371, and His459.
- 35 5. Method for crystallizing blood coagulation factor XIIIa comprising the steps:
(a) providing an aqueous solution containing not more than 0.04 mM of blood coagulation factor XIII; and

- (b) mixing an activation agent and an inhibitor with the aqueous solution of step (a) so that a molar ratio of inhibitor to blood coagulation factor XIII from 10:1 to 50:1 is obtained; and
- (c) concentrating the solution of step (b); and
- 5 (d) diluting the concentrated solution of step (c) with a buffered precipitant solution containing between 10% by weight and 20% by weight of at least one small organic amphiphilic molecule and/or between 50 mM and 200 mM of at least one inorganic salt and/or between 20% by weight and 30% by weight of a precipitating agent so that the final
- 10 concentration of the inhibited activated blood coagulation factor XIIIa is in the range of 1.0 mg/mL to 10 mg/mL.
6. Method according to claim 5, wherein the aqueous solution of step (a) is a buffered aqueous solution of a pH in the range of 7.0 to 9.5.
- 15 7. Method according to claim 5, wherein the activation agent of step (b) is Ca^{2+} in a concentration of at least 50 mM or the activation agent of step (b) is a combination of Ca^{2+} in a concentration of at least 5 mM and thrombin in a concentration of at least 500 NIH Units/mL.
- 20 8. Method according to claim 5, wherein the precipitating agent of step (d) is PEG.
9. Crystal form of blood coagulation factor XIIIa obtainable by a method
- 25 according to any one of the claims 5 – 8.
10. Use of the crystal form according to any one of the claims 1 – 4 and 9 for the determination of the three-dimensional structure of blood coagulation factor XIIIa and for the identification and/or design of inhibitors of blood coagulation
- 30 factor XIIIa.
11. Method for designing a compound that interacts with or inhibits blood coagulation factor XIIIa, comprising the steps of
- (a) generating a three-dimensional model of blood coagulation factor XIIIa
- 35 using the structure coordinates as listed in figure 6; and
- (b) employing said three-dimensional model to design a compound that should have the ability to interact with or inhibit blood coagulation factor XIIIa.

12. Method according to claim 11, further comprising the steps of
(c) obtaining the designed compound; and
(d) contacting the obtained designed compound with blood coagulation factor XIIIa in order to determine the inhibitory effect on blood coagulation factor XIIIa.
13. Method for identifying and/or optimizing a compound that inhibits blood coagulation factor XIIIa, comprising the steps of
(a) generating a three-dimensional model of blood coagulation factor XIIIa using the structure coordinates as listed in figure 6; and
(b) employing said three-dimensional model to identify or optimize a compound that should have the ability to inhibit blood coagulation factor XIIIa.
14. Method according to claim 13, further comprising the steps of
(c) obtaining the identified or optimized compound; and
(d) contacting the identified or optimized compound with blood coagulation factor XIIIa in order to determine the inhibitory effect on blood coagulation factor XIIIa.
15. Method according to claim 11 or 13, wherein the three-dimensional model of the catalytic center and/or of the pocket neighboring the catalytic center and/or of the hydrophobic pocket and/or of the surface between the catalytic center and the hydrophobic pocket of the blood coagulation factor XIIIa is generated by using the structure coordinates as listed in figure 6 and wherein said three-dimensional model is employed to design, identify or optimize a compound that should have the ability to interact with or bind to the catalytic center, the pocket neighboring the catalytic center, the hydrophobic pocket and/or respectively the surface between the catalytic center and the hydrophobic pocket.

Figure 1



Figure 2

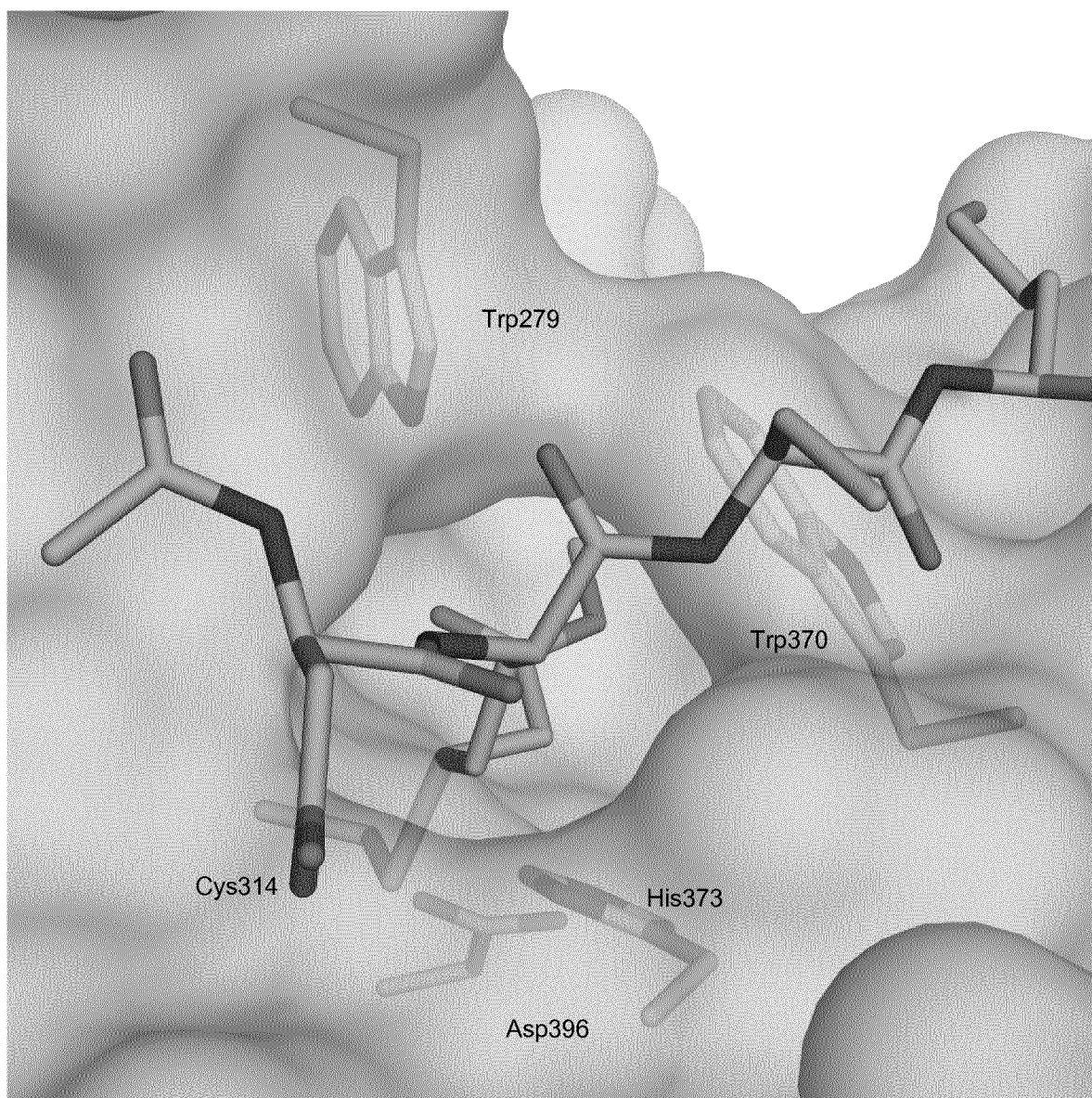


Figure 3

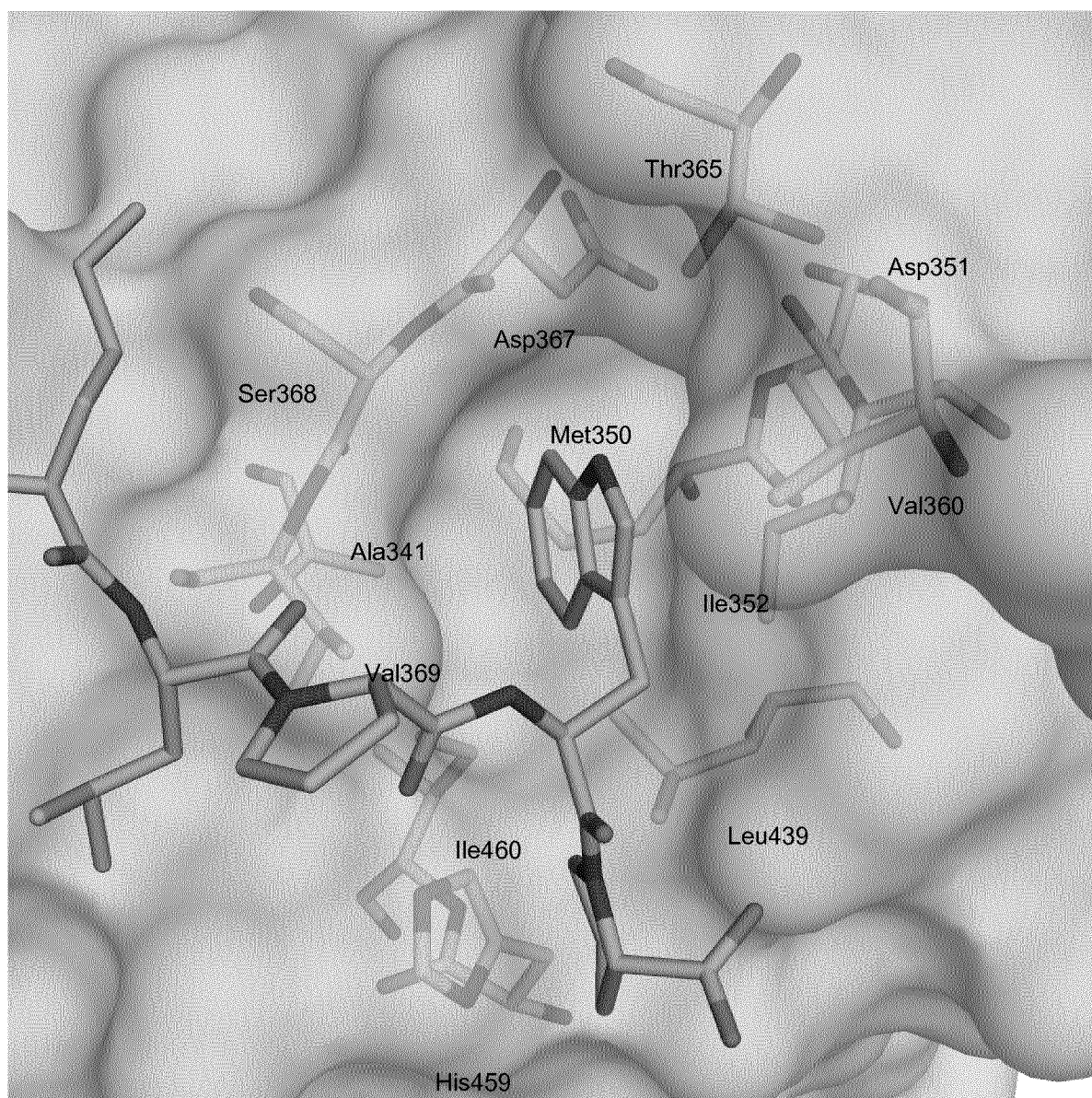


Figure 4

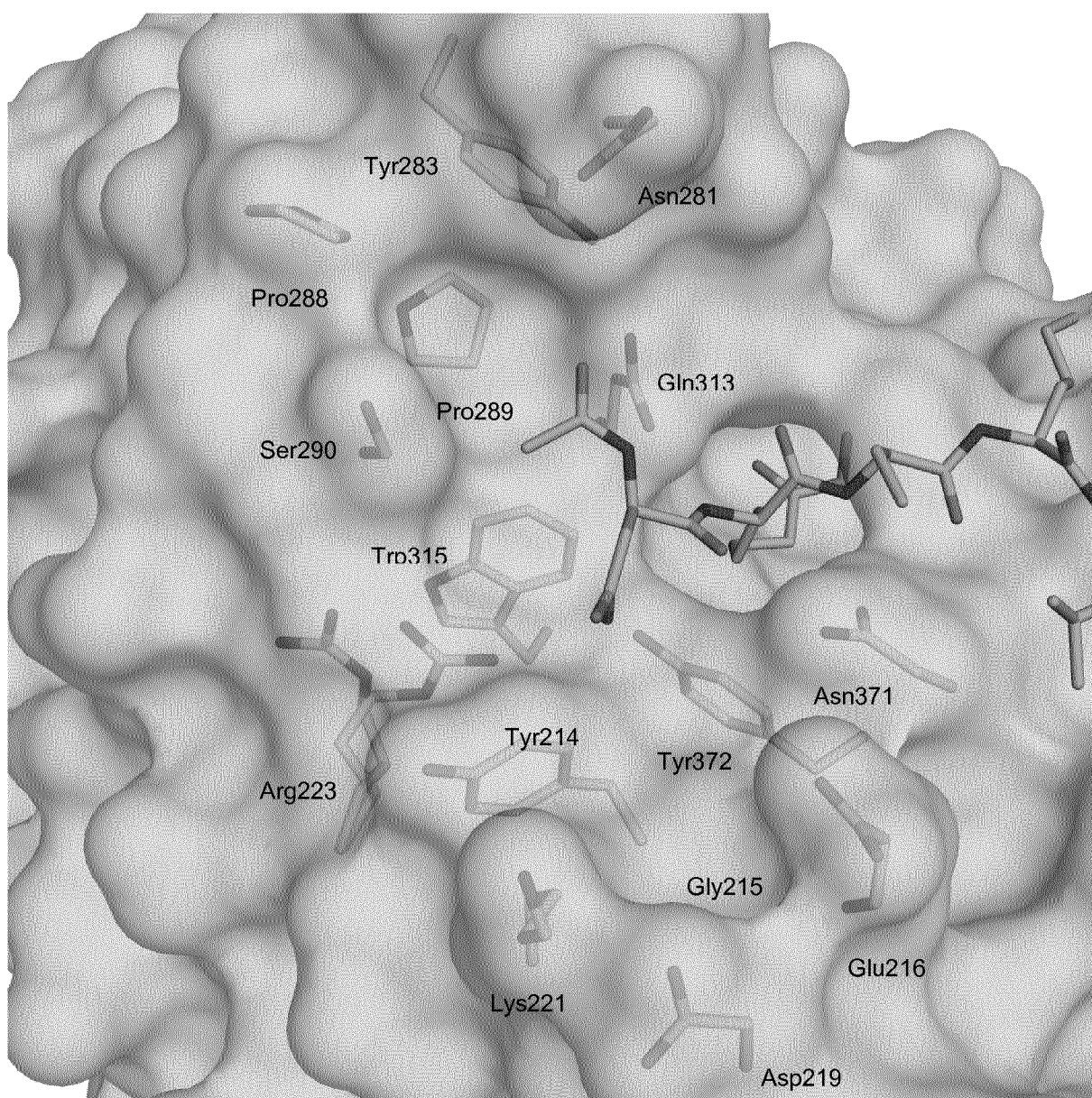


Figure 5

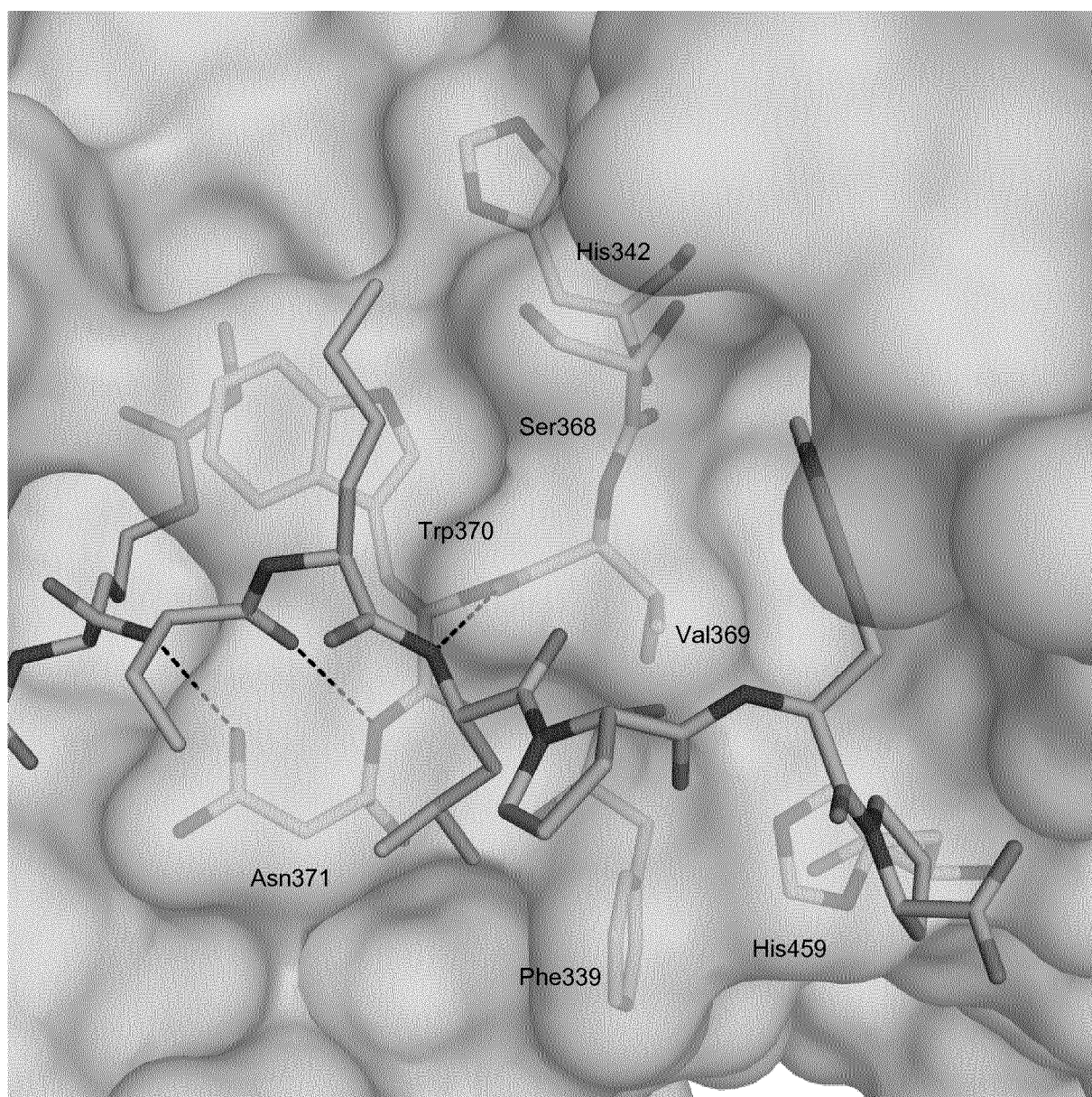


Figure 6

	ATOM	Type	Resid	#	X	Y	Z	Occ	B	MoI		
ATOM	1	O	PRO	A	15	51.085	70.298	-31.265	1.00	38.19	A	O
ATOM	2	N	PRO	A	15	52.142	71.636	-33.273	1.00	53.07	A	N
ATOM	3	CA	PRO	A	15	52.474	72.109	-31.924	1.00	51.76	A	C
ATOM	4	C	PRO	A	15	51.900	71.141	-30.894	1.00	43.85	A	C
ATOM	5	CB	PRO	A	15	51.768	73.477	-31.841	1.00	53.96	A	C
ATOM	6	CG	PRO	A	15	51.409	73.831	-33.268	1.00	55.63	A	C
ATOM	7	CD	PRO	A	15	51.151	72.507	-33.924	1.00	54.79	A	C
ATOM	8	N	PRO	A	16	52.333	71.246	-29.627	1.00	41.60	A	N
ATOM	9	CA	PRO	A	16	51.871	70.313	-28.592	1.00	38.80	A	C
ATOM	10	CB	PRO	A	16	52.558	70.830	-27.325	1.00	39.13	A	C
ATOM	11	CG	PRO	A	16	53.790	71.534	-27.834	1.00	42.74	A	C
ATOM	12	CD	PRO	A	16	53.375	72.162	-29.128	1.00	44.02	A	C
ATOM	13	C	PRO	A	16	50.350	70.323	-28.408	1.00	34.52	A	C
ATOM	14	O	PRO	A	16	49.725	71.382	-28.383	1.00	36.24	A	O
ATOM	15	N	ASN	A	17	49.762	69.141	-28.292	1.00	29.70	A	N
ATOM	16	CA	ASN	A	17	48.328	69.025	-28.020	1.00	23.53	A	C
ATOM	17	CB	ASN	A	17	47.749	67.831	-28.774	1.00	21.98	A	C
ATOM	18	CG	ASN	A	17	46.207	67.815	-28.790	1.00	23.81	A	C
ATOM	19	OD1	ASN	A	17	45.547	68.851	-28.705	1.00	22.82	A	O
ATOM	20	ND2	ASN	A	17	45.643	66.629	-28.911	1.00	21.30	A	N
ATOM	21	C	ASN	A	17	48.176	68.891	-26.507	1.00	23.78	A	C
ATOM	22	O	ASN	A	17	47.945	67.800	-25.988	1.00	20.48	A	O
ATOM	23	N	ASN	A	18	48.343	70.017	-25.802	1.00	23.20	A	N
ATOM	24	CA	ASN	A	18	48.430	70.016	-24.344	1.00	24.55	A	C
ATOM	25	CB	ASN	A	18	49.779	70.581	-23.873	1.00	26.73	A	C
ATOM	26	CG	ASN	A	18	50.034	72.004	-24.365	1.00	30.72	A	C
ATOM	27	OD1	ASN	A	18	51.181	72.457	-24.406	1.00	31.94	A	O
ATOM	28	ND2	ASN	A	18	48.973	72.709	-24.733	1.00	30.15	A	N
ATOM	29	C	ASN	A	18	47.293	70.729	-23.614	1.00	22.08	A	C
ATOM	30	O	ASN	A	18	47.455	71.128	-22.459	1.00	22.09	A	O
ATOM	31	N	SER	A	19	46.156	70.894	-24.285	1.00	16.98	A	N
ATOM	32	CA	SER	A	19	45.017	71.568	-23.660	1.00	18.71	A	C
ATOM	33	CB	SER	A	19	44.942	73.042	-24.082	1.00	22.22	A	C
ATOM	34	OG	SER	A	19	43.719	73.599	-23.631	1.00	20.47	A	O
ATOM	35	C	SER	A	19	43.710	70.900	-23.992	1.00	18.42	A	C
ATOM	36	O	SER	A	19	43.308	70.842	-25.165	1.00	22.11	A	O
ATOM	37	N	ASN	A	20	43.051	70.384	-22.958	1.00	17.01	A	N
ATOM	38	CA	ASN	A	20	41.748	69.770	-23.092	1.00	16.75	A	C
ATOM	39	CB	ASN	A	20	41.352	69.091	-21.774	1.00	18.14	A	C
ATOM	40	CG	ASN	A	20	40.245	68.042	-21.951	1.00	19.81	A	C
ATOM	41	OD1	ASN	A	20	40.101	67.147	-21.126	1.00	17.50	A	O
ATOM	42	ND2	ASN	A	20	39.448	68.170	-23.015	1.00	18.14	A	N
ATOM	43	C	ASN	A	20	40.713	70.839	-23.483	1.00	19.76	A	C
ATOM	44	O	ASN	A	20	39.789	70.571	-24.253	1.00	18.99	A	O
ATOM	45	N	ALA	A	21	40.896	72.049	-22.963	1.00	16.14	A	N
ATOM	46	CA	ALA	A	21	39.956	73.145	-23.217	1.00	16.80	A	C
ATOM	47	CB	ALA	A	21	40.254	74.336	-22.316	1.00	18.42	A	C
ATOM	48	C	ALA	A	21	39.928	73.566	-24.682	1.00	20.40	A	C
ATOM	49	O	ALA	A	21	38.882	73.930	-25.201	1.00	24.85	A	O
ATOM	50	N	ALA	A	22	41.075	73.514	-25.353	1.00	22.31	A	N
ATOM	51	CA	ALA	A	22	41.140	73.915	-26.754	1.00	22.91	A	C
ATOM	52	CB	ALA	A	22	42.582	74.126	-27.186	1.00	22.29	A	C
ATOM	53	C	ALA	A	22	40.459	72.883	-27.648	1.00	23.34	A	C
ATOM	54	O	ALA	A	22	40.327	71.701	-27.295	1.00	20.13	A	O
ATOM	55	N	GLU	A	23	39.992	73.325	-28.805	1.00	23.82	A	N
ATOM	56	CA	GLU	A	23	39.350	72.366	-29.691	1.00	26.57	A	C
ATOM	57	CB	GLU	A	23	37.869	72.156	-29.323	1.00	27.40	A	C
ATOM	58	CG	GLU	A	23	37.069	73.398	-28.983	1.00	33.34	A	C
ATOM	59	CD	GLU	A	23	35.601	73.079	-28.697	1.00	32.65	A	C
ATOM	60	OE1	GLU	A	23	34.791	73.131	-29.644	1.00	33.70	A	O
ATOM	61	OE2	GLU	A	23	35.257	72.761	-27.537	1.00	29.47	A	O
ATOM	62	C	GLU	A	23	39.531	72.731	-31.150	1.00	28.60	A	C
ATOM	63	O	GLU	A	23	39.655	73.912	-31.493	1.00	27.98	A	O
ATOM	64	N	ASP	A	24	39.601	71.713	-32.002	1.00	27.53	A	N
ATOM	65	CA	ASP	A	24	39.583	71.965	-33.435	1.00	32.24	A	C
ATOM	66	CB	ASP	A	24	40.500	71.003	-34.217	1.00	33.20	A	C
ATOM	67	CG	ASP	A	24	40.105	69.523	-34.076	1.00	33.80	A	C
ATOM	68	OD1	ASP	A	24	39.461	69.140	-33.072	1.00	30.97	A	O
ATOM	69	OD2	ASP	A	24	40.471	68.734	-34.983	1.00	32.87	A	O
ATOM	70	C	ASP	A	24	38.146	71.964	-33.957	1.00	33.85	A	C
ATOM	71	O	ASP	A	24	37.205	71.628	-33.232	1.00	31.23	A	O
ATOM	72	N	ASP	A	25	37.987	72.371	-35.210	1.00	36.07	A	N

ATOM	73	CA	ASP	A	25	36.677	72.492	-35.833	1.00	34.79	A	C
ATOM	74	CB	ASP	A	25	36.575	73.861	-36.515	1.00	39.54	A	C
ATOM	75	CG	ASP	A	25	35.165	74.206	-36.963	1.00	41.32	A	C
ATOM	76	OD1	ASP	A	25	35.014	75.250	-37.629	1.00	45.68	A	O
ATOM	77	OD2	ASP	A	25	34.219	73.454	-36.658	1.00	38.89	A	O
ATOM	78	C	ASP	A	25	36.563	71.388	-36.864	1.00	29.22	A	C
ATOM	79	O	ASP	A	25	37.131	71.495	-37.946	1.00	32.38	A	O
ATOM	80	N	LEU	A	26	35.841	70.320	-36.544	1.00	24.37	A	N
ATOM	81	CA	LEU	A	26	35.714	69.227	-37.502	1.00	20.91	A	C
ATOM	82	CB	LEU	A	26	35.386	67.907	-36.816	1.00	16.10	A	C
ATOM	83	CG	LEU	A	26	36.540	67.180	-36.124	1.00	21.84	A	C
ATOM	84	CD1	LEU	A	26	36.749	67.756	-34.734	1.00	21.89	A	C
ATOM	85	CD2	LEU	A	26	36.239	65.700	-36.044	1.00	24.03	A	C
ATOM	86	C	LEU	A	26	34.667	69.554	-38.560	1.00	23.73	A	C
ATOM	87	O	LEU	A	26	33.559	69.963	-38.238	1.00	26.57	A	O
ATOM	88	N	PRO	A	27	35.032	69.392	-39.830	1.00	25.08	A	N
ATOM	89	CA	PRO	A	27	34.120	69.626	-40.955	1.00	26.56	A	C
ATOM	90	CB	PRO	A	27	34.914	69.107	-42.157	1.00	25.45	A	C
ATOM	91	CG	PRO	A	27	36.329	69.198	-41.751	1.00	26.56	A	C
ATOM	92	CD	PRO	A	27	36.356	68.923	-40.274	1.00	25.60	A	C
ATOM	93	C	PRO	A	27	32.844	68.804	-40.823	1.00	26.85	A	C
ATOM	94	O	PRO	A	27	32.919	67.657	-40.408	1.00	25.34	A	O
ATOM	95	N	THR	A	28	31.700	69.386	-41.168	1.00	27.00	A	N
ATOM	96	CA	THR	A	28	30.448	68.640	-41.188	1.00	26.06	A	C
ATOM	97	CB	THR	A	28	29.237	69.520	-40.836	1.00	24.37	A	C
ATOM	98	OG1	THR	A	28	29.239	70.677	-41.675	1.00	25.22	A	O
ATOM	99	CG2	THR	A	28	29.287	69.933	-39.373	1.00	25.33	A	C
ATOM	100	C	THR	A	28	30.208	68.052	-42.574	1.00	24.68	A	C
ATOM	101	O	THR	A	28	29.589	66.994	-42.712	1.00	19.22	A	O
ATOM	102	N	VAL	A	29	30.693	68.740	-43.606	1.00	22.04	A	N
ATOM	103	CA	VAL	A	29	30.609	68.206	-44.963	1.00	23.48	A	C
ATOM	104	CB	VAL	A	29	29.790	69.119	-45.881	1.00	26.19	A	C
ATOM	105	CG1	VAL	A	29	29.634	68.490	-47.271	1.00	28.78	A	C
ATOM	106	CG2	VAL	A	29	28.445	69.379	-45.271	1.00	25.45	A	C
ATOM	107	C	VAL	A	29	32.007	68.069	-45.522	1.00	26.07	A	C
ATOM	108	O	VAL	A	29	32.530	68.990	-46.142	1.00	28.83	A	O
ATOM	109	N	GLU	A	30	32.617	66.910	-45.305	1.00	24.15	A	N
ATOM	110	CA	GLU	A	30	34.041	66.766	-45.559	1.00	24.16	A	C
ATOM	111	CB	GLU	A	30	34.690	65.935	-44.428	1.00	22.42	A	C
ATOM	112	CG	GLU	A	30	36.219	65.914	-44.422	1.00	24.27	A	C
ATOM	113	CD	GLU	A	30	36.780	65.045	-43.303	1.00	27.66	A	C
ATOM	114	OE1	GLU	A	30	36.942	65.570	-42.195	1.00	26.89	A	O
ATOM	115	OE2	GLU	A	30	37.027	63.830	-43.515	1.00	28.49	A	O
ATOM	116	C	GLU	A	30	34.296	66.167	-46.947	1.00	24.72	A	C
ATOM	117	O	GLU	A	30	34.803	65.049	-47.059	1.00	24.56	A	O
ATOM	118	N	LEU	A	31	33.943	66.920	-47.994	1.00	21.60	A	N
ATOM	119	CA	LEU	A	31	34.072	66.448	-49.373	1.00	23.35	A	C
ATOM	120	CB	LEU	A	31	33.484	67.458	-50.358	1.00	23.39	A	C
ATOM	121	CG	LEU	A	31	32.032	67.797	-50.066	1.00	33.54	A	C
ATOM	122	CD1	LEU	A	31	31.524	68.819	-51.069	1.00	33.06	A	C
ATOM	123	CD2	LEU	A	31	31.173	66.529	-50.080	1.00	30.85	A	C
ATOM	124	C	LEU	A	31	35.528	66.197	-49.721	1.00	25.81	A	C
ATOM	125	O	LEU	A	31	36.424	66.858	-49.192	1.00	24.37	A	O
ATOM	126	N	GLN	A	32	35.754	65.240	-50.611	1.00	22.94	A	N
ATOM	127	CA	GLN	A	32	37.095	64.880	-51.038	1.00	23.44	A	C
ATOM	128	CB	GLN	A	32	37.425	63.450	-50.570	1.00	24.12	A	C
ATOM	129	CG	GLN	A	32	37.330	63.254	-49.064	1.00	26.40	A	C
ATOM	130	CD	GLN	A	32	38.429	63.985	-48.310	1.00	32.17	A	C
ATOM	131	OE1	GLN	A	32	39.594	63.587	-48.340	1.00	34.84	A	O
ATOM	132	NE2	GLN	A	32	38.062	65.059	-47.627	1.00	32.19	A	N
ATOM	133	C	GLN	A	32	37.157	64.970	-52.547	1.00	24.63	A	C
ATOM	134	O	GLN	A	32	36.230	64.545	-53.232	1.00	26.36	A	O
ATOM	135	N	GLY	A	33	38.240	65.522	-53.080	1.00	25.60	A	N
ATOM	136	CA	GLY	A	33	38.388	65.625	-54.517	1.00	26.87	A	C
ATOM	137	C	GLY	A	33	37.482	66.706	-55.093	1.00	27.45	A	C
ATOM	138	O	GLY	A	33	37.015	67.583	-54.360	1.00	27.47	A	O
ATOM	139	N	VAL	A	34	37.225	66.630	-56.395	1.00	28.43	A	N
ATOM	140	CA	VAL	A	34	36.403	67.620	-57.079	1.00	29.20	A	C
ATOM	141	CB	VAL	A	34	37.085	68.103	-58.375	1.00	30.82	A	C
ATOM	142	CG1	VAL	A	34	36.207	69.127	-59.129	1.00	31.77	A	C
ATOM	143	CG2	VAL	A	34	38.457	68.691	-58.054	1.00	31.42	A	C
ATOM	144	C	VAL	A	34	35.002	67.068	-57.325	1.00	28.77	A	C
ATOM	145	O	VAL	A	34	34.704	66.516	-58.374	1.00	29.36	A	O
ATOM	146	N	VAL	A	35	34.157	67.215	-56.314	1.00	27.83	A	N
ATOM	147	CA	VAL	A	35	32.809	66.675	-56.316	1.00	27.42	A	C
ATOM	148	CB	VAL	A	35	32.238	66.692	-54.870	1.00	26.26	A	C
ATOM	149	CG1	VAL	A	35	30.788	66.262	-54.833	1.00	26.08	A	C

ATOM	150	CG2	VAL	A	35	33.110	65.830	-53.930	1.00	25.25	A	C
ATOM	151	C	VAL	A	35	31.926	67.476	-57.277	1.00	29.40	A	C
ATOM	152	O	VAL	A	35	31.854	68.699	-57.183	1.00	29.04	A	O
ATOM	153	N	PRO	A	36	31.269	66.788	-58.226	1.00	31.14	A	N
ATOM	154	CA	PRO	A	36	30.433	67.501	-59.207	1.00	32.85	A	C
ATOM	155	CB	PRO	A	36	29.861	66.379	-60.071	1.00	32.26	A	C
ATOM	156	CG	PRO	A	36	30.771	65.176	-59.819	1.00	29.63	A	C
ATOM	157	CD	PRO	A	36	31.218	65.326	-58.401	1.00	28.51	A	C
ATOM	158	C	PRO	A	36	29.285	68.281	-58.561	1.00	34.66	A	C
ATOM	159	O	PRO	A	36	28.724	67.843	-57.552	1.00	31.08	A	O
ATOM	160	N	ARG	A	37	28.952	69.440	-59.128	1.00	36.33	A	N
ATOM	161	CA	ARG	A	37	27.762	70.170	-58.697	1.00	38.09	A	C
ATOM	162	C	ARG	A	37	26.536	69.268	-58.877	1.00	38.49	A	C
ATOM	163	O	ARG	A	37	26.466	68.463	-59.811	1.00	36.54	A	O
ATOM	164	CB	ARG	A	37	27.599	71.469	-59.500	1.00	39.24	A	C
ATOM	165	N	GLY	A	38	25.579	69.376	-57.967	1.00	37.73	A	N
ATOM	166	CA	GLY	A	38	24.347	68.637	-58.130	1.00	37.04	A	C
ATOM	167	C	GLY	A	38	24.467	67.231	-57.605	1.00	38.62	A	C
ATOM	168	O	GLY	A	38	23.631	66.371	-57.895	1.00	38.60	A	O
ATOM	169	N	VAL	A	39	25.520	66.985	-56.827	1.00	35.32	A	N
ATOM	170	CA	VAL	A	39	25.602	65.735	-56.110	1.00	34.40	A	C
ATOM	171	C	VAL	A	39	24.402	65.741	-55.163	1.00	33.86	A	C
ATOM	172	O	VAL	A	39	23.987	66.811	-54.686	1.00	29.87	A	O
ATOM	173	CB	VAL	A	39	26.935	65.621	-55.335	1.00	30.84	A	C
ATOM	174	CG1	VAL	A	39	27.050	66.709	-54.223	1.00	26.47	A	C
ATOM	175	CG2	VAL	A	39	27.071	64.267	-54.754	1.00	29.98	A	C
ATOM	176	N	ASN	A	40	23.814	64.575	-54.926	1.00	34.63	A	N
ATOM	177	CA	ASN	A	40	22.695	64.493	-53.994	1.00	42.02	A	C
ATOM	178	CB	ASN	A	40	21.409	63.996	-54.675	1.00	47.43	A	C
ATOM	179	CG	ASN	A	40	20.226	63.915	-53.706	1.00	46.24	A	C
ATOM	180	OD1	ASN	A	40	20.198	64.603	-52.688	1.00	39.12	A	O
ATOM	181	ND2	ASN	A	40	19.248	63.070	-54.025	1.00	49.07	A	N
ATOM	182	C	ASN	A	40	23.023	63.632	-52.786	1.00	40.50	A	C
ATOM	183	O	ASN	A	40	23.078	62.406	-52.871	1.00	45.92	A	O
ATOM	184	N	LEU	A	41	23.220	64.289	-51.652	1.00	37.17	A	N
ATOM	185	CA	LEU	A	41	23.627	63.602	-50.431	1.00	33.45	A	C
ATOM	186	CB	LEU	A	41	24.429	64.561	-49.531	1.00	30.92	A	C
ATOM	187	CG	LEU	A	41	25.710	65.051	-50.214	1.00	23.84	A	C
ATOM	188	CD1	LEU	A	41	26.567	65.853	-49.276	1.00	24.54	A	C
ATOM	189	CD2	LEU	A	41	26.505	63.868	-50.767	1.00	23.52	A	C
ATOM	190	C	LEU	A	41	22.431	62.996	-49.697	1.00	32.02	A	C
ATOM	191	O	LEU	A	41	22.590	62.357	-48.653	1.00	28.76	A	O
ATOM	192	N	GLN	A	42	21.242	63.169	-50.276	1.00	35.38	A	N
ATOM	193	CA	GLN	A	42	19.996	62.636	-49.705	1.00	35.43	A	C
ATOM	194	CB	GLN	A	42	18.765	63.023	-50.540	1.00	34.33	A	C
ATOM	195	C	GLN	A	42	20.004	61.121	-49.508	1.00	31.01	A	C
ATOM	196	O	GLN	A	42	19.343	60.631	-48.600	1.00	28.19	A	O
ATOM	197	N	GLU	A	43	20.747	60.397	-50.346	1.00	31.72	A	N
ATOM	198	CA	GLU	A	43	20.830	58.932	-50.246	1.00	34.10	A	C
ATOM	199	CB	GLU	A	43	21.600	58.328	-51.429	1.00	34.48	A	C
ATOM	200	C	GLU	A	43	21.466	58.447	-48.947	1.00	30.12	A	C
ATOM	201	O	GLU	A	43	21.311	57.289	-48.571	1.00	34.15	A	O
ATOM	202	N	PHE	A	44	22.186	59.319	-48.260	1.00	24.02	A	N
ATOM	203	CA	PHE	A	44	22.955	58.882	-47.100	1.00	23.64	A	C
ATOM	204	CB	PHE	A	44	24.374	59.453	-47.180	1.00	25.84	A	C
ATOM	205	CG	PHE	A	44	24.998	59.256	-48.530	1.00	27.72	A	C
ATOM	206	CD1	PHE	A	44	25.414	57.995	-48.930	1.00	25.52	A	C
ATOM	207	CE1	PHE	A	44	25.965	57.800	-50.182	1.00	28.59	A	C
ATOM	208	CZ	PHE	A	44	26.085	58.865	-51.063	1.00	26.72	A	C
ATOM	209	CE2	PHE	A	44	25.661	60.124	-50.681	1.00	26.80	A	C
ATOM	210	CD2	PHE	A	44	25.113	60.315	-49.419	1.00	28.52	A	C
ATOM	211	C	PHE	A	44	22.284	59.207	-45.775	1.00	25.44	A	C
ATOM	212	O	PHE	A	44	21.494	60.134	-45.693	1.00	24.31	A	O
ATOM	213	N	LEU	A	45	22.596	58.436	-44.739	1.00	22.25	A	N
ATOM	214	CA	LEU	A	45	22.037	58.691	-43.423	1.00	22.11	A	C
ATOM	215	CB	LEU	A	45	22.534	57.653	-42.422	1.00	23.41	A	C
ATOM	216	CG	LEU	A	45	22.098	56.197	-42.596	1.00	25.41	A	C
ATOM	217	CD1	LEU	A	45	22.788	55.337	-41.498	1.00	21.54	A	C
ATOM	218	CD2	LEU	A	45	20.580	56.082	-42.527	1.00	23.43	A	C
ATOM	219	C	LEU	A	45	22.465	60.042	-42.905	1.00	27.01	A	C
ATOM	220	O	LEU	A	45	23.595	60.461	-43.107	1.00	20.81	A	O
ATOM	221	N	ASN	A	46	21.559	60.724	-42.229	1.00	26.70	A	N
ATOM	222	CA	ASN	A	46	21.975	61.792	-41.357	1.00	25.74	A	C
ATOM	223	CB	ASN	A	46	21.605	63.176	-41.911	1.00	27.94	A	C
ATOM	224	CG	ASN	A	46	20.126	63.361	-42.090	1.00	30.86	A	C
ATOM	225	OD1	ASN	A	46	19.586	63.212	-43.201	1.00	30.77	A	O
ATOM	226	ND2	ASN	A	46	19.447	63.707	-40.996	1.00	33.19	A	N

ATOM	227	C	ASN	A	46	21.413	61.542	-39.964	1.00	24.52	A	C
ATOM	228	O	ASN	A	46	20.400	60.860	-39.807	1.00	22.77	A	O
ATOM	229	N	VAL	A	47	22.101	62.059	-38.956	1.00	21.53	A	N
ATOM	230	CA	VAL	A	47	21.684	61.852	-37.590	1.00	21.67	A	C
ATOM	231	CB	VAL	A	47	22.898	61.992	-36.651	1.00	21.88	A	C
ATOM	232	CG1	VAL	A	47	22.475	61.967	-35.174	1.00	20.04	A	C
ATOM	233	CG2	VAL	A	47	23.911	60.899	-36.949	1.00	23.58	A	C
ATOM	234	C	VAL	A	47	20.644	62.919	-37.243	1.00	25.61	A	C
ATOM	235	O	VAL	A	47	20.870	64.117	-37.471	1.00	27.68	A	O
ATOM	236	N	THR	A	48	19.512	62.489	-36.696	1.00	23.55	A	N
ATOM	237	CA	THR	A	48	18.487	63.429	-36.251	1.00	26.73	A	C
ATOM	238	CB	THR	A	48	17.064	62.909	-36.548	1.00	28.08	A	C
ATOM	239	OG1	THR	A	48	16.777	61.792	-35.700	1.00	27.52	A	O
ATOM	240	CG2	THR	A	48	16.942	62.471	-37.994	1.00	28.23	A	C
ATOM	241	C	THR	A	48	18.622	63.683	-34.744	1.00	26.97	A	C
ATOM	242	O	THR	A	48	18.180	64.715	-34.231	1.00	26.20	A	O
ATOM	243	N	SER	A	49	19.235	62.740	-34.038	1.00	23.76	A	N
ATOM	244	CA	SER	A	49	19.298	62.831	-32.590	1.00	28.94	A	C
ATOM	245	CB	SER	A	49	17.902	62.625	-31.992	1.00	34.19	A	C
ATOM	246	OG	SER	A	49	17.939	62.871	-30.602	1.00	40.44	A	O
ATOM	247	C	SER	A	49	20.292	61.835	-31.979	1.00	25.96	A	C
ATOM	248	O	SER	A	49	20.471	60.727	-32.496	1.00	25.91	A	O
ATOM	249	N	VAL	A	50	20.948	62.241	-30.891	1.00	22.92	A	N
ATOM	250	CA	VAL	A	50	21.838	61.340	-30.170	1.00	23.81	A	C
ATOM	251	CB	VAL	A	50	23.305	61.822	-30.249	1.00	21.37	A	C
ATOM	252	CG1	VAL	A	50	24.209	60.992	-29.343	1.00	19.75	A	C
ATOM	253	CG2	VAL	A	50	23.798	61.820	-31.710	1.00	20.67	A	C
ATOM	254	C	VAL	A	50	21.407	61.315	-28.714	1.00	27.56	A	C
ATOM	255	O	VAL	A	50	21.256	62.368	-28.114	1.00	31.43	A	O
ATOM	256	N	HIS	A	51	21.174	60.129	-28.151	1.00	23.47	A	N
ATOM	257	CA	HIS	A	51	20.827	60.041	-26.734	1.00	24.46	A	C
ATOM	258	CB	HIS	A	51	19.503	59.300	-26.520	1.00	25.48	A	C
ATOM	259	CG	HIS	A	51	18.396	59.729	-27.439	1.00	30.53	A	C
ATOM	260	ND1	HIS	A	51	17.575	60.806	-27.168	1.00	34.93	A	N
ATOM	261	CE1	HIS	A	51	16.684	60.933	-28.142	1.00	36.88	A	C
ATOM	262	NE2	HIS	A	51	16.892	59.975	-29.030	1.00	32.63	A	N
ATOM	263	CD2	HIS	A	51	17.961	59.211	-28.617	1.00	31.08	A	C
ATOM	264	C	HIS	A	51	21.943	59.329	-25.959	1.00	24.78	A	C
ATOM	265	O	HIS	A	51	22.369	58.241	-26.348	1.00	22.02	A	O
ATOM	266	N	LEU	A	52	22.400	59.930	-24.864	1.00	18.29	A	N
ATOM	267	CA	LEU	A	52	23.473	59.330	-24.064	1.00	19.53	A	C
ATOM	268	CB	LEU	A	52	24.538	60.372	-23.687	1.00	18.27	A	C
ATOM	269	CG	LEU	A	52	25.199	61.089	-24.859	1.00	21.81	A	C
ATOM	270	CD1	LEU	A	52	26.388	61.949	-24.392	1.00	18.64	A	C
ATOM	271	CD2	LEU	A	52	25.614	60.063	-25.909	1.00	20.26	A	C
ATOM	272	C	LEU	A	52	22.988	58.663	-22.780	1.00	18.99	A	C
ATOM	273	O	LEU	A	52	23.809	58.134	-22.032	1.00	17.60	A	O
ATOM	274	N	PHE	A	53	21.684	58.739	-22.505	1.00	19.83	A	N
ATOM	275	CA	PHE	A	53	21.111	58.149	-21.297	1.00	20.02	A	C
ATOM	276	CB	PHE	A	53	21.073	56.626	-21.406	1.00	20.38	A	C
ATOM	277	CG	PHE	A	53	20.331	56.125	-22.611	1.00	25.87	A	C
ATOM	278	CD1	PHE	A	53	18.979	56.419	-22.784	1.00	28.24	A	C
ATOM	279	CE1	PHE	A	53	18.279	55.948	-23.905	1.00	33.01	A	C
ATOM	280	CZ	PHE	A	53	18.938	55.169	-24.856	1.00	31.89	A	C
ATOM	281	CE2	PHE	A	53	20.289	54.874	-24.686	1.00	29.70	A	C
ATOM	282	CD2	PHE	A	53	20.972	55.349	-23.558	1.00	25.37	A	C
ATOM	283	C	PHE	A	53	21.956	58.554	-20.117	1.00	21.59	A	C
ATOM	284	O	PHE	A	53	22.438	57.708	-19.366	1.00	21.37	A	O
ATOM	285	N	LYS	A	54	22.182	59.860	-19.995	1.00	24.28	A	N
ATOM	286	CA	LYS	A	54	23.191	60.371	-19.085	1.00	23.78	A	C
ATOM	287	CB	LYS	A	54	23.985	61.507	-19.749	1.00	22.19	A	C
ATOM	288	CG	LYS	A	54	23.160	62.750	-20.129	1.00	21.36	A	C
ATOM	289	CD	LYS	A	54	24.086	63.780	-20.780	1.00	22.43	A	C
ATOM	290	CE	LYS	A	54	23.318	64.954	-21.350	1.00	26.30	A	C
ATOM	291	NZ	LYS	A	54	22.740	65.793	-20.283	1.00	27.53	A	N
ATOM	292	C	LYS	A	54	22.647	60.842	-17.750	1.00	23.58	A	C
ATOM	293	O	LYS	A	54	23.393	61.408	-16.965	1.00	19.86	A	O
ATOM	294	N	GLU	A	55	21.365	60.611	-17.480	1.00	25.47	A	N
ATOM	295	CA	GLU	A	55	20.811	61.012	-16.191	1.00	28.31	A	C
ATOM	296	CB	GLU	A	55	19.300	60.776	-16.128	1.00	31.81	A	C
ATOM	297	CG	GLU	A	55	18.461	61.595	-17.109	1.00	36.33	A	C
ATOM	298	CD	GLU	A	55	18.603	63.101	-16.924	1.00	41.41	A	C
ATOM	299	OE1	GLU	A	55	18.798	63.572	-15.778	1.00	37.23	A	O
ATOM	300	OE2	GLU	A	55	18.512	63.820	-17.942	1.00	47.96	A	O
ATOM	301	C	GLU	A	55	21.501	60.271	-15.037	1.00	28.30	A	C
ATOM	302	O	GLU	A	55	21.914	59.123	-15.173	1.00	27.52	A	O
ATOM	303	N	ARG	A	56	21.598	60.933	-13.894	1.00	25.33	A	N

ATOM	304	CA	ARG	A	56	22.326	60.391	-12.765	1.00	26.87	A	C
ATOM	305	CB	ARG	A	56	22.599	61.518	-11.756	1.00	27.67	A	C
ATOM	306	CG	ARG	A	56	23.558	62.569	-12.328	1.00	26.61	A	C
ATOM	307	CD	ARG	A	56	23.635	63.828	-11.475	1.00	27.80	A	C
ATOM	308	NE	ARG	A	56	24.050	63.503	-10.119	1.00	30.34	A	N
ATOM	309	CZ	ARG	A	56	24.077	64.374	-9.114	1.00	31.95	A	C
ATOM	310	NH1	ARG	A	56	23.702	65.626	-9.313	1.00	31.87	A	N
ATOM	311	NH2	ARG	A	56	24.479	63.990	-7.908	1.00	32.36	A	N
ATOM	312	C	ARG	A	56	21.667	59.153	-12.129	1.00	27.37	A	C
ATOM	313	O	ARG	A	56	22.325	58.384	-11.418	1.00	27.61	A	O
ATOM	314	N	TRP	A	57	20.380	58.960	-12.398	1.00	29.58	A	N
ATOM	315	CA	TRP	A	57	19.662	57.761	-11.965	1.00	30.79	A	C
ATOM	316	CB	TRP	A	57	18.169	58.071	-11.740	1.00	33.81	A	C
ATOM	317	CG	TRP	A	57	17.520	58.839	-12.866	1.00	32.57	A	C
ATOM	318	CD1	TRP	A	57	17.287	60.188	-12.910	1.00	32.62	A	C
ATOM	319	NE1	TRP	A	57	16.676	60.525	-14.094	1.00	32.56	A	N
ATOM	320	CE2	TRP	A	57	16.510	59.393	-14.847	1.00	31.68	A	C
ATOM	321	CD2	TRP	A	57	17.029	58.311	-14.108	1.00	31.94	A	C
ATOM	322	CE3	TRP	A	57	16.973	57.030	-14.664	1.00	32.42	A	C
ATOM	323	CZ3	TRP	A	57	16.421	56.874	-15.912	1.00	33.28	A	C
ATOM	324	CH2	TRP	A	57	15.920	57.966	-16.625	1.00	34.18	A	C
ATOM	325	CZ2	TRP	A	57	15.955	59.231	-16.111	1.00	32.54	A	C
ATOM	326	C	TRP	A	57	19.765	56.595	-12.950	1.00	31.22	A	C
ATOM	327	O	TRP	A	57	19.364	55.482	-12.625	1.00	32.24	A	O
ATOM	328	N	ASP	A	58	20.276	56.842	-14.154	1.00	30.55	A	N
ATOM	329	CA	ASP	A	58	20.256	55.813	-15.209	1.00	31.23	A	C
ATOM	330	CB	ASP	A	58	20.115	56.458	-16.592	1.00	27.31	A	C
ATOM	331	CG	ASP	A	58	19.423	55.551	-17.587	1.00	29.23	A	C
ATOM	332	OD1	ASP	A	58	19.425	54.316	-17.381	1.00	29.14	A	O
ATOM	333	OD2	ASP	A	58	18.889	56.068	-18.584	1.00	27.71	A	O
ATOM	334	C	ASP	A	58	21.475	54.874	-15.163	1.00	29.40	A	C
ATOM	335	O	ASP	A	58	22.410	55.110	-14.403	1.00	23.83	A	O
ATOM	336	N	THR	A	59	21.470	53.812	-15.972	1.00	28.37	A	N
ATOM	337	CA	THR	A	59	22.451	52.733	-15.775	1.00	25.29	A	C
ATOM	338	CB	THR	A	59	22.064	51.431	-16.520	1.00	26.51	A	C
ATOM	339	OG1	THR	A	59	22.118	51.664	-17.928	1.00	24.55	A	O
ATOM	340	CG2	THR	A	59	20.666	50.966	-16.112	1.00	25.65	A	C
ATOM	341	C	THR	A	59	23.893	53.082	-16.120	1.00	21.52	A	C
ATOM	342	O	THR	A	59	24.813	52.523	-15.522	1.00	22.59	A	O
ATOM	343	N	ASN	A	60	24.100	53.987	-17.072	1.00	18.72	A	N
ATOM	344	CA	ASN	A	60	25.451	54.433	-17.411	1.00	17.22	A	C
ATOM	345	CB	ASN	A	60	25.421	55.482	-18.538	1.00	16.73	A	C
ATOM	346	CG	ASN	A	60	25.265	54.867	-19.943	1.00	21.68	A	C
ATOM	347	OD1	ASN	A	60	25.436	53.654	-20.137	1.00	19.50	A	O
ATOM	348	ND2	ASN	A	60	24.960	55.723	-20.933	1.00	16.85	A	N
ATOM	349	C	ASN	A	60	26.200	54.998	-16.176	1.00	18.48	A	C
ATOM	350	O	ASN	A	60	27.249	54.483	-15.786	1.00	16.60	A	O
ATOM	351	N	LYS	A	61	25.659	56.054	-15.578	1.00	17.19	A	N
ATOM	352	CA	LYS	A	61	26.333	56.728	-14.463	1.00	16.15	A	C
ATOM	353	CB	LYS	A	61	25.719	58.104	-14.205	1.00	19.03	A	C
ATOM	354	CG	LYS	A	61	26.078	59.122	-15.295	1.00	20.02	A	C
ATOM	355	CD	LYS	A	61	25.815	60.554	-14.857	1.00	21.64	A	C
ATOM	356	CE	LYS	A	61	26.522	61.564	-15.769	1.00	20.72	A	C
ATOM	357	NZ	LYS	A	61	26.297	62.987	-15.340	1.00	15.61	A	N
ATOM	358	C	LYS	A	61	26.353	55.865	-13.192	1.00	16.63	A	C
ATOM	359	O	LYS	A	61	27.329	55.850	-12.483	1.00	15.94	A	O
ATOM	360	N	VAL	A	62	25.284	55.114	-12.950	1.00	23.52	A	N
ATOM	361	CA	VAL	A	62	25.223	54.201	-11.814	1.00	20.87	A	C
ATOM	362	CB	VAL	A	62	23.811	53.617	-11.665	1.00	22.91	A	C
ATOM	363	CG1	VAL	A	62	23.766	52.444	-10.662	1.00	23.64	A	C
ATOM	364	CG2	VAL	A	62	22.849	54.711	-11.238	1.00	22.67	A	C
ATOM	365	C	VAL	A	62	26.286	53.100	-11.929	1.00	21.63	A	C
ATOM	366	O	VAL	A	62	27.091	52.899	-11.013	1.00	22.02	A	O
ATOM	367	N	ASP	A	63	26.330	52.442	-13.075	1.00	18.11	A	N
ATOM	368	CA	ASP	A	63	27.222	51.316	-13.279	1.00	21.63	A	C
ATOM	369	CB	ASP	A	63	26.813	50.497	-14.517	1.00	23.17	A	C
ATOM	370	CG	ASP	A	63	25.560	49.664	-14.300	1.00	28.02	A	C
ATOM	371	OD1	ASP	A	63	25.086	49.539	-13.146	1.00	29.06	A	O
ATOM	372	OD2	ASP	A	63	25.050	49.111	-15.307	1.00	27.40	A	O
ATOM	373	C	ASP	A	63	28.662	51.783	-13.431	1.00	19.14	A	C
ATOM	374	O	ASP	A	63	29.598	51.039	-13.114	1.00	20.61	A	O
ATOM	375	N	HIS	A	64	28.849	53.017	-13.906	1.00	17.19	A	N
ATOM	376	CA	HIS	A	64	30.187	53.585	-14.008	1.00	17.38	A	C
ATOM	377	CB	HIS	A	64	30.327	54.505	-15.231	1.00	15.22	A	C
ATOM	378	CG	HIS	A	64	30.382	53.759	-16.528	1.00	15.00	A	C
ATOM	379	ND1	HIS	A	64	31.540	53.636	-17.266	1.00	14.58	A	N
ATOM	380	CE1	HIS	A	64	31.298	52.896	-18.336	1.00	15.29	A	C

ATOM	381	NE2	HIS	A	64	30.028	52.531	-18.315	1.00	16.59	A	N
ATOM	382	CD2	HIS	A	64	29.431	53.054	-17.194	1.00	15.28	A	C
ATOM	383	C	HIS	A	64	30.642	54.308	-12.731	1.00	15.64	A	C
ATOM	384	O	HIS	A	64	31.711	54.855	-12.708	1.00	17.68	A	O
ATOM	385	N	HIS	A	65	29.835	54.285	-11.678	1.00	16.67	A	N
ATOM	386	CA	HIS	A	65	30.208	54.938	-10.421	1.00	16.85	A	C
ATOM	387	CB	HIS	A	65	31.380	54.199	-9.744	1.00	14.14	A	C
ATOM	388	CG	HIS	A	65	31.182	52.716	-9.675	1.00	17.68	A	C
ATOM	389	ND1	HIS	A	65	31.572	51.866	-10.690	1.00	20.15	A	N
ATOM	390	CE1	HIS	A	65	31.259	50.620	-10.363	1.00	22.10	A	C
ATOM	391	NE2	HIS	A	65	30.665	50.637	-9.185	1.00	20.71	A	N
ATOM	392	CD2	HIS	A	65	30.597	51.936	-8.735	1.00	19.78	A	C
ATOM	393	C	HIS	A	65	30.540	56.417	-10.645	1.00	18.27	A	C
ATOM	394	O	HIS	A	65	31.540	56.915	-10.142	1.00	18.31	A	O
ATOM	395	N	THR	A	66	29.718	57.098	-11.443	1.00	16.51	A	N
ATOM	396	CA	THR	A	66	29.908	58.521	-11.708	1.00	16.34	A	C
ATOM	397	CB	THR	A	66	30.321	58.746	-13.173	1.00	16.85	A	C
ATOM	398	OG1	THR	A	66	29.311	58.202	-14.021	1.00	13.58	A	O
ATOM	399	CG2	THR	A	66	31.630	58.050	-13.487	1.00	16.12	A	C
ATOM	400	C	THR	A	66	28.629	59.313	-11.456	1.00	18.08	A	C
ATOM	401	O	THR	A	66	28.527	60.491	-11.821	1.00	17.59	A	O
ATOM	402	N	ASP	A	67	27.653	58.668	-10.831	1.00	15.39	A	N
ATOM	403	CA	ASP	A	67	26.349	59.288	-10.567	1.00	16.52	A	C
ATOM	404	CB	ASP	A	67	25.360	58.207	-10.105	1.00	18.40	A	C
ATOM	405	CG	ASP	A	67	25.867	57.454	-8.889	1.00	23.30	A	C
ATOM	406	OD1	ASP	A	67	26.967	56.875	-8.972	1.00	22.14	A	O
ATOM	407	OD2	ASP	A	67	25.204	57.489	-7.837	1.00	30.02	A	O
ATOM	408	C	ASP	A	67	26.408	60.412	-9.512	1.00	16.65	A	C
ATOM	409	O	ASP	A	67	25.472	61.203	-9.368	1.00	18.63	A	O
ATOM	410	N	LYS	A	68	27.505	60.482	-8.774	1.00	15.87	A	N
ATOM	411	CA	LYS	A	68	27.619	61.483	-7.716	1.00	19.91	A	C
ATOM	412	CB	LYS	A	68	28.520	60.992	-6.577	1.00	23.61	A	C
ATOM	413	CG	LYS	A	68	27.998	59.723	-5.909	1.00	28.04	A	C
ATOM	414	CD	LYS	A	68	28.366	59.639	-4.438	1.00	30.83	A	C
ATOM	415	CE	LYS	A	68	29.831	59.387	-4.237	1.00	31.62	A	C
ATOM	416	NZ	LYS	A	68	30.196	59.356	-2.767	1.00	32.19	A	N
ATOM	417	C	LYS	A	68	28.058	62.858	-8.221	1.00	19.32	A	C
ATOM	418	O	LYS	A	68	27.773	63.844	-7.573	1.00	19.68	A	O
ATOM	419	N	TYR	A	69	28.727	62.929	-9.376	1.00	17.60	A	N
ATOM	420	CA	TYR	A	69	29.178	64.220	-9.883	1.00	17.54	A	C
ATOM	421	CB	TYR	A	69	30.001	64.078	-11.160	1.00	14.85	A	C
ATOM	422	CG	TYR	A	69	31.348	63.419	-10.992	1.00	15.39	A	C
ATOM	423	CD1	TYR	A	69	32.495	64.181	-10.758	1.00	14.97	A	C
ATOM	424	CE1	TYR	A	69	33.728	63.580	-10.611	1.00	16.17	A	C
ATOM	425	CZ	TYR	A	69	33.826	62.196	-10.698	1.00	15.98	A	C
ATOM	426	OH	TYR	A	69	35.054	61.576	-10.539	1.00	14.36	A	O
ATOM	427	CE2	TYR	A	69	32.697	61.425	-10.935	1.00	15.35	A	C
ATOM	428	CD2	TYR	A	69	31.475	62.038	-11.078	1.00	14.91	A	C
ATOM	429	C	TYR	A	69	27.997	65.136	-10.179	1.00	19.97	A	C
ATOM	430	O	TYR	A	69	26.982	64.693	-10.691	1.00	16.21	A	O
ATOM	431	N	AGLU	A	70	28.188	66.394	-9.787	0.50	18.85	A	N
ATOM	432	C	AGLU	A	70	27.789	68.027	-11.448	0.50	21.96	A	C
ATOM	433	O	AGLU	A	70	28.327	69.128	-11.539	0.50	24.01	A	O
ATOM	434	CA	AGLU	A	70	27.315	67.497	-10.112	0.50	19.50	A	C
ATOM	435	CB	AGLU	A	70	27.433	68.589	-9.055	0.50	19.26	A	C
ATOM	436	CG	AGLU	A	70	27.113	68.125	-7.648	0.50	21.73	A	C
ATOM	437	CD	AGLU	A	70	26.864	69.285	-6.698	0.50	25.79	A	C
ATOM	438	OE1AGLU	A	70	27.739	70.179	-6.590	0.50	26.67	A	O	
ATOM	439	OE2AGLU	A	70	25.784	69.308	-6.071	0.50	27.57	A	O	
ATOM	440	N	BGLU	A	70	28.098	66.435	-9.918	0.50	18.70	A	N
ATOM	441	C	BGLU	A	70	26.750	67.705	-11.638	0.50	21.94	A	C
ATOM	442	O	BGLU	A	70	25.811	68.390	-12.015	0.50	23.05	A	O
ATOM	443	CA	BGLU	A	70	26.931	67.301	-10.155	0.50	19.85	A	C
ATOM	444	CB	BGLU	A	70	26.949	68.508	-9.216	0.50	20.73	A	C
ATOM	445	CG	BGLU	A	70	26.699	68.143	-7.740	0.50	23.51	A	C
ATOM	446	CD	BGLU	A	70	25.257	67.699	-7.445	0.50	29.35	A	C
ATOM	447	OE1BGLU	A	70	24.309	68.229	-8.077	0.50	30.28	A	O	
ATOM	448	OE2BGLU	A	70	25.072	66.818	-6.567	0.50	31.25	A	O	
ATOM	449	N	ASN	A	71	27.639	67.194	-12.468	1.00	25.16	A	N
ATOM	450	CA	ASN	A	71	27.823	67.588	-13.845	1.00	25.05	A	C
ATOM	451	CB	ASN	A	71	29.214	67.118	-14.277	1.00	23.82	A	C
ATOM	452	CG	ASN	A	71	29.701	67.798	-15.533	1.00	27.54	A	C
ATOM	453	OD1	ASN	A	71	29.038	67.758	-16.572	1.00	24.84	A	O
ATOM	454	ND2	ASN	A	71	30.879	68.429	-15.452	1.00	26.49	A	N
ATOM	455	C	ASN	A	71	26.756	66.907	-14.679	1.00	27.10	A	C
ATOM	456	O	ASN	A	71	26.516	65.714	-14.526	1.00	27.32	A	O
ATOM	457	N	ASN	A	72	26.088	67.647	-15.552	1.00	23.73	A	N

ATOM	458	CA	ASN	A	72	24.991	67.031	-16.290	1.00	27.07	A	C
ATOM	459	CB	ASN	A	72	23.833	68.011	-16.480	1.00	28.06	A	C
ATOM	460	CG	ASN	A	72	24.097	69.020	-17.557	1.00	33.47	A	C
ATOM	461	OD1	ASN	A	72	25.225	69.189	-18.011	1.00	35.10	A	O
ATOM	462	ND2	ASN	A	72	23.052	69.717	-17.969	1.00	38.23	A	N
ATOM	463	C	ASN	A	72	25.402	66.355	-17.601	1.00	26.61	A	C
ATOM	464	O	ASN	A	72	24.563	65.821	-18.324	1.00	28.66	A	O
ATOM	465	N	LYS	A	73	26.693	66.382	-17.909	1.00	15.75	A	N
ATOM	466	CA	LYS	A	73	27.201	65.652	-19.062	1.00	18.99	A	C
ATOM	467	CB	LYS	A	73	28.517	66.249	-19.561	1.00	14.29	A	C
ATOM	468	CG	LYS	A	73	28.421	67.723	-19.990	1.00	19.27	A	C
ATOM	469	CD	LYS	A	73	27.350	67.926	-21.049	1.00	21.70	A	C
ATOM	470	CE	LYS	A	73	27.203	69.421	-21.434	1.00	32.21	A	C
ATOM	471	NZ	LYS	A	73	27.169	70.318	-20.256	1.00	32.37	A	N
ATOM	472	C	LYS	A	73	27.405	64.184	-18.709	1.00	18.75	A	C
ATOM	473	O	LYS	A	73	27.537	63.828	-17.534	1.00	18.91	A	O
ATOM	474	N	LEU	A	74	27.435	63.341	-19.731	1.00	17.00	A	N
ATOM	475	CA	LEU	A	74	27.803	61.947	-19.553	1.00	16.75	A	C
ATOM	476	CB	LEU	A	74	27.711	61.173	-20.891	1.00	14.48	A	C
ATOM	477	CG	LEU	A	74	27.990	59.654	-20.797	1.00	15.72	A	C
ATOM	478	CD1	LEU	A	74	26.925	58.948	-19.950	1.00	14.62	A	C
ATOM	479	CD2	LEU	A	74	28.095	58.959	-22.184	1.00	13.74	A	C
ATOM	480	C	LEU	A	74	29.226	61.838	-19.007	1.00	14.50	A	C
ATOM	481	O	LEU	A	74	30.158	62.463	-19.531	1.00	14.28	A	O
ATOM	482	N	ILE	A	75	29.375	61.042	-17.954	1.00	12.91	A	N
ATOM	483	CA	ILE	A	75	30.687	60.722	-17.391	1.00	14.79	A	C
ATOM	484	CB	ILE	A	75	30.864	61.330	-15.998	1.00	14.75	A	C
ATOM	485	CG1	ILE	A	75	30.588	62.850	-16.045	1.00	16.78	A	C
ATOM	486	CD1	ILE	A	75	30.547	63.521	-14.637	1.00	13.50	A	C
ATOM	487	CG2	ILE	A	75	32.269	61.002	-15.461	1.00	11.45	A	C
ATOM	488	C	ILE	A	75	30.763	59.224	-17.248	1.00	15.03	A	C
ATOM	489	O	ILE	A	75	29.875	58.620	-16.658	1.00	14.90	A	O
ATOM	490	N	VAL	A	76	31.813	58.633	-17.811	1.00	13.13	A	N
ATOM	491	CA	VAL	A	76	32.022	57.207	-17.742	1.00	13.79	A	C
ATOM	492	CB	VAL	A	76	31.754	56.513	-19.097	1.00	16.57	A	C
ATOM	493	CG1	VAL	A	76	30.264	56.609	-19.453	1.00	16.75	A	C
ATOM	494	CG2	VAL	A	76	32.656	57.122	-20.216	1.00	11.55	A	C
ATOM	495	C	VAL	A	76	33.464	56.948	-17.389	1.00	12.34	A	C
ATOM	496	O	VAL	A	76	34.294	57.851	-17.423	1.00	12.73	A	O
ATOM	497	N	ARG	A	77	33.744	55.695	-17.074	1.00	12.51	A	N
ATOM	498	CA	ARG	A	77	35.086	55.260	-16.771	1.00	14.49	A	C
ATOM	499	CB	ARG	A	77	35.114	54.579	-15.385	1.00	14.68	A	C
ATOM	500	CG	ARG	A	77	34.848	55.592	-14.232	1.00	16.78	A	C
ATOM	501	CD	ARG	A	77	34.803	54.917	-12.857	1.00	18.50	A	C
ATOM	502	NE	ARG	A	77	34.215	55.755	-11.805	1.00	17.90	A	N
ATOM	503	CZ	ARG	A	77	34.882	56.664	-11.088	1.00	18.01	A	C
ATOM	504	NH1	ARG	A	77	36.181	56.897	-11.307	1.00	12.58	A	N
ATOM	505	NH2	ARG	A	77	34.242	57.363	-10.154	1.00	15.34	A	N
ATOM	506	C	ARG	A	77	35.599	54.365	-17.877	1.00	14.83	A	C
ATOM	507	O	ARG	A	77	34.852	53.548	-18.461	1.00	12.74	A	O
ATOM	508	N	ARG	A	78	36.885	54.515	-18.168	1.00	14.10	A	N
ATOM	509	CA	ARG	A	78	37.498	53.823	-19.299	1.00	17.55	A	C
ATOM	510	CB	ARG	A	78	38.927	54.358	-19.522	1.00	10.86	A	C
ATOM	511	CG	ARG	A	78	39.920	53.941	-18.417	1.00	10.90	A	C
ATOM	512	CD	ARG	A	78	41.201	54.757	-18.518	1.00	17.05	A	C
ATOM	513	NE	ARG	A	78	42.238	54.309	-17.586	1.00	20.17	A	N
ATOM	514	CZ	ARG	A	78	43.539	54.502	-17.774	1.00	17.35	A	C
ATOM	515	NH1	ARG	A	78	43.962	55.173	-18.851	1.00	12.52	A	N
ATOM	516	NH2	ARG	A	78	44.411	54.039	-16.882	1.00	11.26	A	N
ATOM	517	C	ARG	A	78	37.508	52.279	-19.141	1.00	15.74	A	C
ATOM	518	O	ARG	A	78	37.528	51.725	-18.023	1.00	16.47	A	O
ATOM	519	N	GLY	A	79	37.459	51.585	-20.271	1.00	12.33	A	N
ATOM	520	CA	GLY	A	79	37.562	50.143	-20.277	1.00	13.16	A	C
ATOM	521	C	GLY	A	79	36.267	49.467	-19.914	1.00	19.08	A	C
ATOM	522	O	GLY	A	79	36.252	48.265	-19.689	1.00	18.72	A	O
ATOM	523	N	GLN	A	80	35.174	50.228	-19.878	1.00	16.39	A	N
ATOM	524	CA	GLN	A	80	33.879	49.660	-19.503	1.00	19.02	A	C
ATOM	525	CB	GLN	A	80	33.494	50.129	-18.102	1.00	17.95	A	C
ATOM	526	CG	GLN	A	80	32.177	49.588	-17.538	1.00	20.26	A	C
ATOM	527	CD	GLN	A	80	32.032	50.010	-16.079	1.00	21.81	A	C
ATOM	528	OE1	GLN	A	80	33.037	50.289	-15.418	1.00	22.14	A	O
ATOM	529	NE2	GLN	A	80	30.799	50.093	-15.585	1.00	17.95	A	N
ATOM	530	C	GLN	A	80	32.827	50.124	-20.503	1.00	17.00	A	C
ATOM	531	O	GLN	A	80	32.896	51.243	-21.003	1.00	14.75	A	O
ATOM	532	N	SER	A	81	31.858	49.277	-20.794	1.00	15.46	A	N
ATOM	533	CA	SER	A	81	30.901	49.647	-21.823	1.00	21.66	A	C
ATOM	534	CB	SER	A	81	30.384	48.402	-22.564	1.00	23.01	A	C

ATOM	535	OG	SER	A	81	29.567	47.635	-21.726	1.00	25.51	A	O
ATOM	536	C	SER	A	81	29.753	50.543	-21.320	1.00	19.37	A	C
ATOM	537	O	SER	A	81	29.382	50.506	-20.150	1.00	17.66	A	O
ATOM	538	N	PHE	A	82	29.206	51.356	-22.217	1.00	17.79	A	N
ATOM	539	CA	PHE	A	82	28.066	52.201	-21.883	1.00	17.69	A	C
ATOM	540	CB	PHE	A	82	28.493	53.630	-21.433	1.00	18.09	A	C
ATOM	541	CG	PHE	A	82	29.338	54.388	-22.449	1.00	16.34	A	C
ATOM	542	CD1	PHE	A	82	30.703	54.154	-22.548	1.00	16.33	A	C
ATOM	543	CE1	PHE	A	82	31.476	54.836	-23.470	1.00	15.71	A	C
ATOM	544	CZ	PHE	A	82	30.893	55.778	-24.301	1.00	13.69	A	C
ATOM	545	CE2	PHE	A	82	29.511	56.016	-24.221	1.00	14.24	A	C
ATOM	546	CD2	PHE	A	82	28.756	55.334	-23.298	1.00	14.13	A	C
ATOM	547	C	PHE	A	82	27.137	52.247	-23.076	1.00	20.27	A	C
ATOM	548	O	PHE	A	82	27.554	51.983	-24.202	1.00	20.81	A	O
ATOM	549	N	TYR	A	83	25.870	52.554	-22.817	1.00	17.30	A	N
ATOM	550	CA	TYR	A	83	24.859	52.611	-23.864	1.00	18.09	A	C
ATOM	551	CB	TYR	A	83	23.534	52.100	-23.327	1.00	24.43	A	C
ATOM	552	CG	TYR	A	83	23.535	50.624	-23.008	1.00	28.05	A	C
ATOM	553	CD1	TYR	A	83	23.668	49.684	-24.014	1.00	29.45	A	C
ATOM	554	CE1	TYR	A	83	23.654	48.316	-23.730	1.00	34.66	A	C
ATOM	555	CZ	TYR	A	83	23.532	47.893	-22.421	1.00	36.50	A	C
ATOM	556	OH	TYR	A	83	23.533	46.549	-22.132	1.00	38.01	A	O
ATOM	557	CE2	TYR	A	83	23.426	48.818	-21.396	1.00	37.69	A	C
ATOM	558	CD2	TYR	A	83	23.427	50.177	-21.693	1.00	32.14	A	C
ATOM	559	C	TYR	A	83	24.652	54.020	-24.400	1.00	23.20	A	C
ATOM	560	O	TYR	A	83	24.658	54.995	-23.635	1.00	20.39	A	O
ATOM	561	N	VAL	A	84	24.472	54.119	-25.720	1.00	19.95	A	N
ATOM	562	CA	VAL	A	84	23.978	55.344	-26.360	1.00	19.95	A	C
ATOM	563	CB	VAL	A	84	25.093	56.201	-26.995	1.00	18.46	A	C
ATOM	564	CG1	VAL	A	84	26.231	56.472	-25.996	1.00	19.07	A	C
ATOM	565	CG2	VAL	A	84	25.627	55.553	-28.246	1.00	17.50	A	C
ATOM	566	C	VAL	A	84	22.962	54.957	-27.429	1.00	23.05	A	C
ATOM	567	O	VAL	A	84	22.853	53.789	-27.793	1.00	21.25	A	O
ATOM	568	N	GLN	A	85	22.189	55.935	-27.895	1.00	27.67	A	N
ATOM	569	CA	GLN	A	85	21.235	55.699	-28.963	1.00	27.02	A	C
ATOM	570	CB	GLN	A	85	19.810	55.599	-28.427	1.00	28.39	A	C
ATOM	571	CG	GLN	A	85	18.771	55.370	-29.522	1.00	32.46	A	C
ATOM	572	CD	GLN	A	85	17.374	55.234	-28.974	1.00	38.45	A	C
ATOM	573	OE1	GLN	A	85	17.107	54.367	-28.138	1.00	41.31	A	O
ATOM	574	NE2	GLN	A	85	16.465	56.087	-29.445	1.00	41.27	A	N
ATOM	575	C	GLN	A	85	21.341	56.792	-30.021	1.00	26.02	A	C
ATOM	576	O	GLN	A	85	21.402	57.998	-29.715	1.00	23.92	A	O
ATOM	577	N	ILE	A	86	21.384	56.346	-31.270	1.00	21.46	A	N
ATOM	578	CA	ILE	A	86	21.500	57.244	-32.388	1.00	22.99	A	C
ATOM	579	CB	ILE	A	86	22.701	56.873	-33.265	1.00	23.85	A	C
ATOM	580	CG1	ILE	A	86	23.981	56.910	-32.430	1.00	26.56	A	C
ATOM	581	CD1	ILE	A	86	25.235	56.798	-33.236	1.00	25.70	A	C
ATOM	582	CG2	ILE	A	86	22.780	57.802	-34.483	1.00	20.74	A	C
ATOM	583	C	ILE	A	86	20.227	57.117	-33.195	1.00	25.32	A	C
ATOM	584	O	ILE	A	86	19.854	56.010	-33.602	1.00	22.03	A	O
ATOM	585	N	ASP	A	87	19.532	58.233	-33.405	1.00	25.95	A	N
ATOM	586	CA	ASP	A	87	18.344	58.206	-34.266	1.00	26.93	A	C
ATOM	587	CB	ASP	A	87	17.230	59.112	-33.723	1.00	29.66	A	C
ATOM	588	CG	ASP	A	87	16.792	58.731	-32.322	1.00	34.75	A	C
ATOM	589	OD1	ASP	A	87	16.950	57.556	-31.942	1.00	34.71	A	O
ATOM	590	OD2	ASP	A	87	16.295	59.614	-31.587	1.00	38.45	A	O
ATOM	591	C	ASP	A	87	18.751	58.678	-35.650	1.00	22.95	A	C
ATOM	592	O	ASP	A	87	19.344	59.742	-35.782	1.00	22.27	A	O
ATOM	593	N	PHE	A	88	18.444	57.898	-36.685	1.00	23.56	A	N
ATOM	594	CA	PHE	A	88	18.801	58.306	-38.040	1.00	25.12	A	C
ATOM	595	CB	PHE	A	88	19.499	57.164	-38.791	1.00	24.77	A	C
ATOM	596	CG	PHE	A	88	20.887	56.848	-38.307	1.00	21.75	A	C
ATOM	597	CD1	PHE	A	88	21.947	57.691	-38.594	1.00	21.34	A	C
ATOM	598	CE1	PHE	A	88	23.243	57.390	-38.175	1.00	19.68	A	C
ATOM	599	CZ	PHE	A	88	23.478	56.213	-37.470	1.00	22.98	A	C
ATOM	600	CE2	PHE	A	88	22.426	55.363	-37.186	1.00	23.73	A	C
ATOM	601	CD2	PHE	A	88	21.139	55.679	-37.599	1.00	24.66	A	C
ATOM	602	C	PHE	A	88	17.585	58.758	-38.863	1.00	28.75	A	C
ATOM	603	O	PHE	A	88	16.423	58.518	-38.499	1.00	26.05	A	O
ATOM	604	N	SER	A	89	17.866	59.369	-40.007	1.00	24.72	A	N
ATOM	605	CA	SER	A	89	16.825	59.872	-40.887	1.00	26.02	A	C
ATOM	606	CB	SER	A	89	17.468	60.674	-42.010	1.00	25.69	A	C
ATOM	607	OG	SER	A	89	18.567	59.947	-42.534	1.00	24.70	A	O
ATOM	608	C	SER	A	89	15.986	58.728	-41.474	1.00	31.80	A	C
ATOM	609	O	SER	A	89	14.811	58.905	-41.780	1.00	28.63	A	O
ATOM	610	N	ARG	A	90	16.611	57.561	-41.629	1.00	29.65	A	N
ATOM	611	CA	ARG	A	90	15.927	56.340	-42.056	1.00	27.85	A	C

ATOM	612	CB	ARG	A	90	15.955	56.204	-43.589	1.00	29.17	A	C
ATOM	613	CG	ARG	A	90	17.346	56.151	-44.201	1.00	27.00	A	C
ATOM	614	CD	ARG	A	90	17.344	55.672	-45.681	1.00	27.63	A	C
ATOM	615	NE	ARG	A	90	18.678	55.868	-46.237	1.00	26.50	A	N
ATOM	616	CZ	ARG	A	90	19.723	55.098	-45.956	1.00	29.17	A	C
ATOM	617	NH1	ARG	A	90	19.568	54.042	-45.178	1.00	28.27	A	N
ATOM	618	NH2	ARG	A	90	20.924	55.377	-46.459	1.00	26.17	A	N
ATOM	619	C	ARG	A	90	16.651	55.177	-41.360	1.00	27.19	A	C
ATOM	620	O	ARG	A	90	17.734	55.380	-40.834	1.00	25.83	A	O
ATOM	621	N	PRO	A	91	16.065	53.963	-41.348	1.00	28.29	A	N
ATOM	622	CA	PRO	A	91	16.769	52.907	-40.600	1.00	28.70	A	C
ATOM	623	CB	PRO	A	91	15.841	51.693	-40.726	1.00	29.47	A	C
ATOM	624	CG	PRO	A	91	14.481	52.287	-41.063	1.00	30.87	A	C
ATOM	625	CD	PRO	A	91	14.801	53.472	-41.933	1.00	30.12	A	C
ATOM	626	C	PRO	A	91	18.157	52.581	-41.150	1.00	27.75	A	C
ATOM	627	O	PRO	A	91	18.332	52.461	-42.362	1.00	26.80	A	O
ATOM	628	N	TYR	A	92	19.140	52.490	-40.249	1.00	25.41	A	N
ATOM	629	CA	TYR	A	92	20.476	52.053	-40.617	1.00	24.48	A	C
ATOM	630	CB	TYR	A	92	21.375	51.943	-39.380	1.00	23.41	A	C
ATOM	631	CG	TYR	A	92	22.698	51.249	-39.629	1.00	22.78	A	C
ATOM	632	CD1	TYR	A	92	23.670	51.818	-40.439	1.00	25.64	A	C
ATOM	633	CE1	TYR	A	92	24.894	51.175	-40.659	1.00	25.52	A	C
ATOM	634	CZ	TYR	A	92	25.135	49.935	-40.067	1.00	25.30	A	C
ATOM	635	OH	TYR	A	92	26.331	49.260	-40.262	1.00	21.80	A	O
ATOM	636	CE2	TYR	A	92	24.187	49.374	-39.250	1.00	24.50	A	C
ATOM	637	CD2	TYR	A	92	22.977	50.022	-39.043	1.00	25.45	A	C
ATOM	638	C	TYR	A	92	20.388	50.698	-41.311	1.00	29.16	A	C
ATOM	639	O	TYR	A	92	19.762	49.765	-40.800	1.00	26.51	A	O
ATOM	640	N	ASP	A	93	21.004	50.617	-42.485	1.00	27.60	A	N
ATOM	641	CA	ASP	A	93	21.047	49.388	-43.285	1.00	26.39	A	C
ATOM	642	CB	ASP	A	93	20.284	49.594	-44.586	1.00	27.36	A	C
ATOM	643	CG	ASP	A	93	20.181	48.319	-45.417	1.00	30.34	A	C
ATOM	644	OD1	ASP	A	93	20.895	47.333	-45.141	1.00	29.98	A	O
ATOM	645	OD2	ASP	A	93	19.387	48.322	-46.360	1.00	30.59	A	O
ATOM	646	C	ASP	A	93	22.505	49.041	-43.588	1.00	25.60	A	C
ATOM	647	O	ASP	A	93	23.136	49.680	-44.432	1.00	25.05	A	O
ATOM	648	N	PRO	A	94	23.045	48.019	-42.897	1.00	25.72	A	N
ATOM	649	CA	PRO	A	94	24.454	47.632	-43.016	1.00	27.18	A	C
ATOM	650	CB	PRO	A	94	24.563	46.394	-42.111	1.00	29.97	A	C
ATOM	651	CG	PRO	A	94	23.423	46.521	-41.169	1.00	34.31	A	C
ATOM	652	CD	PRO	A	94	22.312	47.098	-42.013	1.00	31.48	A	C
ATOM	653	C	PRO	A	94	24.876	47.276	-44.435	1.00	25.66	A	C
ATOM	654	O	PRO	A	94	26.047	47.464	-44.765	1.00	25.01	A	O
ATOM	655	N	ARG	A	95	23.957	46.773	-45.259	1.00	26.96	A	N
ATOM	656	CA	ARG	A	95	24.278	46.539	-46.661	1.00	27.57	A	C
ATOM	657	CB	ARG	A	95	23.125	45.828	-47.399	1.00	29.22	A	C
ATOM	658	C	ARG	A	95	24.670	47.812	-47.419	1.00	29.47	A	C
ATOM	659	O	ARG	A	95	25.462	47.746	-48.348	1.00	32.28	A	O
ATOM	660	N	ARG	A	96	24.133	48.968	-47.037	1.00	26.00	A	N
ATOM	661	CA	ARG	A	96	24.359	50.168	-47.834	1.00	25.47	A	C
ATOM	662	CB	ARG	A	96	23.045	50.652	-48.451	1.00	29.25	A	C
ATOM	663	CG	ARG	A	96	22.063	51.190	-47.430	1.00	32.13	A	C
ATOM	664	CD	ARG	A	96	20.719	51.626	-48.061	1.00	33.12	A	C
ATOM	665	NE	ARG	A	96	20.743	52.993	-48.576	1.00	34.49	A	N
ATOM	666	CZ	ARG	A	96	19.669	53.650	-49.034	1.00	37.36	A	C
ATOM	667	NH1	ARG	A	96	18.469	53.078	-49.026	1.00	34.47	A	N
ATOM	668	NH2	ARG	A	96	19.783	54.900	-49.481	1.00	38.41	A	N
ATOM	669	C	ARG	A	96	24.979	51.323	-47.075	1.00	26.97	A	C
ATOM	670	O	ARG	A	96	25.468	52.263	-47.696	1.00	25.47	A	O
ATOM	671	N	ASP	A	97	24.919	51.270	-45.744	1.00	24.79	A	N
ATOM	672	CA	ASP	A	97	25.316	52.396	-44.886	1.00	22.39	A	C
ATOM	673	CB	ASP	A	97	24.209	52.722	-43.878	1.00	22.46	A	C
ATOM	674	CG	ASP	A	97	22.898	53.128	-44.533	1.00	24.84	A	C
ATOM	675	OD1	ASP	A	97	22.921	53.813	-45.578	1.00	26.32	A	O
ATOM	676	OD2	ASP	A	97	21.835	52.775	-43.977	1.00	24.11	A	O
ATOM	677	C	ASP	A	97	26.574	52.033	-44.092	1.00	21.57	A	C
ATOM	678	O	ASP	A	97	26.737	50.894	-43.663	1.00	21.91	A	O
ATOM	679	N	LEU	A	98	27.443	53.011	-43.873	1.00	20.63	A	N
ATOM	680	CA	LEU	A	98	28.638	52.824	-43.058	1.00	19.88	A	C
ATOM	681	CB	LEU	A	98	29.850	52.538	-43.940	1.00	20.02	A	C
ATOM	682	CG	LEU	A	98	31.166	52.328	-43.173	1.00	23.39	A	C
ATOM	683	CD1	LEU	A	98	31.109	51.032	-42.353	1.00	20.45	A	C
ATOM	684	CD2	LEU	A	98	32.359	52.321	-44.125	1.00	23.52	A	C
ATOM	685	C	LEU	A	98	28.876	54.092	-42.258	1.00	18.93	A	C
ATOM	686	O	LEU	A	98	28.888	55.199	-42.820	1.00	18.80	A	O
ATOM	687	N	PHE	A	99	29.048	53.937	-40.948	1.00	18.37	A	N
ATOM	688	CA	PHE	A	99	29.288	55.068	-40.078	1.00	17.54	A	C

ATOM	689	CB	PHE	A	99	27.969	55.688	-39.607	1.00	20.09	A	C
ATOM	690	CG	PHE	A	99	27.295	54.937	-38.479	1.00	19.96	A	C
ATOM	691	CD1	PHE	A	99	26.430	53.896	-38.740	1.00	20.16	A	C
ATOM	692	CE1	PHE	A	99	25.785	53.224	-37.711	1.00	22.24	A	C
ATOM	693	CZ	PHE	A	99	26.017	53.585	-36.402	1.00	20.83	A	C
ATOM	694	CE2	PHE	A	99	26.887	54.620	-36.123	1.00	21.63	A	C
ATOM	695	CD2	PHE	A	99	27.516	55.299	-37.156	1.00	21.94	A	C
ATOM	696	C	PHE	A	99	30.142	54.628	-38.900	1.00	20.86	A	C
ATOM	697	O	PHE	A	99	30.287	53.440	-38.653	1.00	20.32	A	O
ATOM	698	N	ARG	A	100	30.716	55.599	-38.198	1.00	16.20	A	N
ATOM	699	CA	ARG	A	100	31.502	55.324	-37.009	1.00	21.38	A	C
ATOM	700	C	ARG	A	100	31.250	56.471	-36.034	1.00	23.51	A	C
ATOM	701	O	ARG	A	100	30.860	57.566	-36.448	1.00	24.82	A	O
ATOM	702	CB	ARG	A	100	32.995	55.195	-37.376	1.00	20.39	A	C
ATOM	703	CG	ARG	A	100	33.807	56.431	-37.132	1.00	27.11	A	C
ATOM	704	CD	ARG	A	100	34.851	56.766	-38.212	1.00	29.82	A	C
ATOM	705	NE	ARG	A	100	35.816	55.716	-38.516	1.00	30.52	A	N
ATOM	706	CZ	ARG	A	100	37.093	55.939	-38.841	1.00	28.46	A	C
ATOM	707	NH1	ARG	A	100	37.585	57.176	-38.874	1.00	25.25	A	N
ATOM	708	NH2	ARG	A	100	37.889	54.920	-39.123	1.00	27.92	A	N
ATOM	709	N	VAL	A	101	31.415	56.216	-34.737	1.00	20.87	A	N
ATOM	710	CA	VAL	A	101	31.431	57.288	-33.744	1.00	17.26	A	C
ATOM	711	CB	VAL	A	101	30.884	56.794	-32.386	1.00	16.97	A	C
ATOM	712	CG1	VAL	A	101	30.996	57.880	-31.288	1.00	13.50	A	C
ATOM	713	CG2	VAL	A	101	29.441	56.342	-32.548	1.00	16.76	A	C
ATOM	714	C	VAL	A	101	32.873	57.758	-33.599	1.00	18.13	A	C
ATOM	715	O	VAL	A	101	33.807	56.986	-33.836	1.00	19.26	A	O
ATOM	716	N	GLU	A	102	33.046	59.026	-33.238	1.00	17.64	A	N
ATOM	717	CA	GLU	A	102	34.357	59.624	-33.048	1.00	19.02	A	C
ATOM	718	CB	GLU	A	102	34.631	60.651	-34.153	1.00	17.71	A	C
ATOM	719	CG	GLU	A	102	34.737	60.049	-35.550	1.00	15.81	A	C
ATOM	720	CD	GLU	A	102	34.685	61.098	-36.654	1.00	17.41	A	C
ATOM	721	OE1	GLU	A	102	33.886	62.050	-36.553	1.00	18.53	A	O
ATOM	722	OE2	GLU	A	102	35.446	60.962	-37.630	1.00	18.51	A	O
ATOM	723	C	GLU	A	102	34.387	60.323	-31.690	1.00	18.65	A	C
ATOM	724	O	GLU	A	102	33.431	61.000	-31.313	1.00	17.78	A	O
ATOM	725	N	TYR	A	103	35.468	60.128	-30.945	1.00	17.76	A	N
ATOM	726	CA	TYR	A	103	35.744	60.957	-29.766	1.00	17.39	A	C
ATOM	727	CB	TYR	A	103	35.872	60.087	-28.519	1.00	18.03	A	C
ATOM	728	CG	TYR	A	103	34.549	59.518	-28.103	1.00	17.50	A	C
ATOM	729	CD1	TYR	A	103	33.599	60.320	-27.485	1.00	15.64	A	C
ATOM	730	CE1	TYR	A	103	32.377	59.809	-27.107	1.00	13.75	A	C
ATOM	731	CZ	TYR	A	103	32.082	58.485	-27.374	1.00	15.02	A	C
ATOM	732	OH	TYR	A	103	30.854	57.968	-27.004	1.00	15.52	A	O
ATOM	733	CE2	TYR	A	103	33.008	57.676	-27.996	1.00	12.16	A	C
ATOM	734	CD2	TYR	A	103	34.220	58.188	-28.378	1.00	13.42	A	C
ATOM	735	C	TYR	A	103	37.027	61.716	-30.004	1.00	15.48	A	C
ATOM	736	O	TYR	A	103	38.010	61.140	-30.469	1.00	15.95	A	O
ATOM	737	N	VAL	A	104	37.016	63.014	-29.691	1.00	13.39	A	N
ATOM	738	CA	VAL	A	104	38.084	63.904	-30.096	1.00	14.67	A	C
ATOM	739	CB	VAL	A	104	37.619	64.758	-31.297	1.00	16.29	A	C
ATOM	740	CG1	VAL	A	104	38.669	65.765	-31.682	1.00	18.33	A	C
ATOM	741	CG2	VAL	A	104	37.247	63.846	-32.486	1.00	15.97	A	C
ATOM	742	C	VAL	A	104	38.460	64.819	-28.926	1.00	15.19	A	C
ATOM	743	O	VAL	A	104	37.584	65.331	-28.228	1.00	13.76	A	O
ATOM	744	N	ILE	A	105	39.754	64.999	-28.694	1.00	16.42	A	N
ATOM	745	CA	ILE	A	105	40.193	65.863	-27.590	1.00	17.41	A	C
ATOM	746	CB	ILE	A	105	40.530	65.012	-26.328	1.00	14.84	A	C
ATOM	747	CG1	ILE	A	105	40.742	65.885	-25.068	1.00	13.18	A	C
ATOM	748	CD1	ILE	A	105	40.756	65.015	-23.762	1.00	12.29	A	C
ATOM	749	CG2	ILE	A	105	41.729	64.143	-26.582	1.00	12.90	A	C
ATOM	750	C	ILE	A	105	41.355	66.772	-27.981	1.00	16.75	A	C
ATOM	751	O	ILE	A	105	42.312	66.340	-28.629	1.00	18.21	A	O
ATOM	752	N	GLY	A	106	41.278	68.039	-27.575	1.00	15.69	A	N
ATOM	753	CA	GLY	A	106	42.341	68.977	-27.858	1.00	15.79	A	C
ATOM	754	C	GLY	A	106	42.237	69.695	-29.187	1.00	18.55	A	C
ATOM	755	O	GLY	A	106	41.366	69.400	-30.018	1.00	21.03	A	O
ATOM	756	N	ARG	A	107	43.131	70.649	-29.391	1.00	17.23	A	N
ATOM	757	CA	ARG	A	107	43.126	71.438	-30.619	1.00	18.87	A	C
ATOM	758	CB	ARG	A	107	43.823	72.789	-30.400	1.00	20.25	A	C
ATOM	759	C	ARG	A	107	43.797	70.700	-31.777	1.00	23.22	A	C
ATOM	760	O	ARG	A	107	43.531	70.996	-32.940	1.00	21.15	A	O
ATOM	761	N	TYR	A	108	44.673	69.748	-31.454	1.00	25.21	A	N
ATOM	762	CA	TYR	A	108	45.466	69.063	-32.468	1.00	27.30	A	C
ATOM	763	CB	TYR	A	108	46.918	69.506	-32.380	1.00	29.86	A	C
ATOM	764	CG	TYR	A	108	47.104	71.002	-32.480	1.00	33.86	A	C
ATOM	765	CD1	TYR	A	108	47.043	71.650	-33.709	1.00	36.16	A	C

ATOM	766	CE1	TYR	A	108	47.226	73.035	-33.801	1.00	40.72	A	C
ATOM	767	CZ	TYR	A	108	47.466	73.766	-32.652	1.00	41.77	A	C
ATOM	768	OH	TYR	A	108	47.646	75.127	-32.730	1.00	44.34	A	O
ATOM	769	CE2	TYR	A	108	47.532	73.141	-31.425	1.00	38.96	A	C
ATOM	770	CD2	TYR	A	108	47.350	71.768	-31.344	1.00	36.52	A	C
ATOM	771	C	TYR	A	108	45.366	67.534	-32.355	1.00	27.15	A	C
ATOM	772	O	TYR	A	108	46.375	66.838	-32.161	1.00	28.27	A	O
ATOM	773	N	PRO	A	109	44.146	67.008	-32.488	1.00	24.63	A	N
ATOM	774	CA	PRO	A	109	43.980	65.571	-32.268	1.00	25.35	A	C
ATOM	775	CB	PRO	A	109	42.458	65.392	-32.254	1.00	23.01	A	C
ATOM	776	CG	PRO	A	109	41.941	66.504	-33.067	1.00	28.98	A	C
ATOM	777	CD	PRO	A	109	42.888	67.662	-32.895	1.00	25.69	A	C
ATOM	778	C	PRO	A	109	44.622	64.739	-33.380	1.00	26.53	A	C
ATOM	779	O	PRO	A	109	44.630	65.136	-34.551	1.00	26.15	A	O
ATOM	780	N	GLN	A	110	45.190	63.605	-32.987	1.00	24.73	A	N
ATOM	781	CA	GLN	A	110	45.791	62.668	-33.929	1.00	28.44	A	C
ATOM	782	CB	GLN	A	110	47.306	62.841	-33.995	1.00	33.89	A	C
ATOM	783	CG	GLN	A	110	47.754	64.046	-34.760	1.00	38.36	A	C
ATOM	784	CD	GLN	A	110	49.252	64.073	-34.916	1.00	42.78	A	C
ATOM	785	OE1	GLN	A	110	49.788	63.610	-35.923	1.00	43.54	A	O
ATOM	786	NE2	GLN	A	110	49.943	64.601	-33.910	1.00	43.46	A	N
ATOM	787	C	GLN	A	110	45.481	61.248	-33.500	1.00	21.78	A	C
ATOM	788	O	GLN	A	110	45.598	60.893	-32.322	1.00	16.83	A	O
ATOM	789	N	GLU	A	111	45.077	60.441	-34.467	1.00	20.13	A	N
ATOM	790	CA	GLU	A	111	44.743	59.061	-34.192	1.00	20.45	A	C
ATOM	791	CB	GLU	A	111	44.291	58.357	-35.484	1.00	22.51	A	C
ATOM	792	CG	GLU	A	111	43.811	56.965	-35.242	1.00	23.98	A	C
ATOM	793	CD	GLU	A	111	42.995	56.419	-36.398	1.00	26.92	A	C
ATOM	794	OE1	GLU	A	111	42.682	57.187	-37.330	1.00	28.35	A	O
ATOM	795	OE2	GLU	A	111	42.662	55.221	-36.350	1.00	28.03	A	O
ATOM	796	C	GLU	A	111	45.920	58.331	-33.533	1.00	20.67	A	C
ATOM	797	O	GLU	A	111	45.730	57.662	-32.515	1.00	22.34	A	O
ATOM	798	N	ASN	A	112	47.133	58.490	-34.066	1.00	22.11	A	N
ATOM	799	CA	ASN	A	112	48.292	57.784	-33.487	1.00	27.76	A	C
ATOM	800	CB	ASN	A	112	49.473	57.655	-34.473	1.00	31.89	A	C
ATOM	801	CG	ASN	A	112	50.080	59.002	-34.885	1.00	38.83	A	C
ATOM	802	OD1	ASN	A	112	49.854	60.035	-34.254	1.00	37.95	A	O
ATOM	803	ND2	ASN	A	112	50.861	58.982	-35.966	1.00	43.26	A	N
ATOM	804	C	ASN	A	112	48.757	58.321	-32.117	1.00	29.59	A	C
ATOM	805	O	ASN	A	112	49.690	57.794	-31.502	1.00	28.03	A	O
ATOM	806	N	LYS	A	113	48.081	59.356	-31.633	1.00	27.78	A	N
ATOM	807	CA	LYS	A	113	48.353	59.877	-30.303	1.00	26.70	A	C
ATOM	808	C	LYS	A	113	47.245	59.533	-29.314	1.00	25.04	A	C
ATOM	809	O	LYS	A	113	47.347	59.850	-28.142	1.00	26.09	A	O
ATOM	810	CB	LYS	A	113	48.525	61.392	-30.367	1.00	30.24	A	C
ATOM	811	CG	LYS	A	113	49.946	61.841	-30.248	1.00	37.15	A	C
ATOM	812	CD	LYS	A	113	50.831	61.165	-31.261	1.00	41.80	A	C
ATOM	813	CE	LYS	A	113	52.261	61.568	-31.008	1.00	44.04	A	C
ATOM	814	NZ	LYS	A	113	52.270	63.020	-30.701	1.00	45.57	A	N
ATOM	815	N	GLY	A	114	46.179	58.905	-29.783	1.00	23.50	A	N
ATOM	816	CA	GLY	A	114	45.050	58.612	-28.919	1.00	21.22	A	C
ATOM	817	C	GLY	A	114	44.067	59.765	-28.746	1.00	16.42	A	C
ATOM	818	O	GLY	A	114	43.109	59.654	-27.985	1.00	16.55	A	O
ATOM	819	N	THR	A	115	44.265	60.855	-29.476	1.00	16.87	A	N
ATOM	820	CA	THR	A	115	43.422	62.050	-29.292	1.00	17.95	A	C
ATOM	821	CB	THR	A	115	44.275	63.335	-29.145	1.00	16.74	A	C
ATOM	822	OG1	THR	A	115	45.245	63.400	-30.197	1.00	19.65	A	O
ATOM	823	CG2	THR	A	115	45.004	63.336	-27.793	1.00	13.09	A	C
ATOM	824	C	THR	A	115	42.337	62.236	-30.383	1.00	18.94	A	C
ATOM	825	O	THR	A	115	41.414	63.048	-30.235	1.00	14.94	A	O
ATOM	826	N	TYR	A	116	42.470	61.500	-31.481	1.00	17.78	A	N
ATOM	827	CA	TYR	A	116	41.322	61.250	-32.350	1.00	18.12	A	C
ATOM	828	CB	TYR	A	116	41.574	61.674	-33.807	1.00	17.33	A	C
ATOM	829	CG	TYR	A	116	40.509	61.176	-34.779	1.00	16.96	A	C
ATOM	830	CD1	TYR	A	116	39.328	61.892	-34.989	1.00	18.55	A	C
ATOM	831	CE1	TYR	A	116	38.332	61.421	-35.883	1.00	18.63	A	C
ATOM	832	CZ	TYR	A	116	38.536	60.226	-36.568	1.00	19.97	A	C
ATOM	833	OH	TYR	A	116	37.576	59.735	-37.456	1.00	18.89	A	O
ATOM	834	CE2	TYR	A	116	39.708	59.496	-36.359	1.00	19.95	A	C
ATOM	835	CD2	TYR	A	116	40.685	59.972	-35.479	1.00	20.22	A	C
ATOM	836	C	TYR	A	116	41.073	59.739	-32.252	1.00	16.97	A	C
ATOM	837	O	TYR	A	116	41.956	58.947	-32.564	1.00	16.06	A	O
ATOM	838	N	ILE	A	117	39.887	59.359	-31.786	1.00	12.65	A	N
ATOM	839	CA	ILE	A	117	39.546	57.957	-31.566	1.00	12.64	A	C
ATOM	840	CB	ILE	A	117	39.191	57.693	-30.101	1.00	12.14	A	C
ATOM	841	CG1	ILE	A	117	40.290	58.252	-29.167	1.00	18.00	A	C
ATOM	842	CD1	ILE	A	117	39.964	58.168	-27.669	1.00	15.09	A	C

ATOM	843	CG2	ILE	A	117	38.982	56.193	-29.866	1.00	12.49	A	C
ATOM	844	C	ILE	A	117	38.334	57.587	-32.419	1.00	15.73	A	C
ATOM	845	O	ILE	A	117	37.213	57.991	-32.112	1.00	15.65	A	O
ATOM	846	N	PRO	A	118	38.560	56.829	-33.498	1.00	16.58	A	N
ATOM	847	CA	PRO	A	118	37.453	56.320	-34.315	1.00	19.33	A	C
ATOM	848	CB	PRO	A	118	38.155	55.876	-35.602	1.00	21.09	A	C
ATOM	849	CG	PRO	A	118	39.519	55.465	-35.175	1.00	20.56	A	C
ATOM	850	CD	PRO	A	118	39.877	56.404	-34.015	1.00	19.06	A	C
ATOM	851	C	PRO	A	118	36.863	55.109	-33.598	1.00	19.93	A	C
ATOM	852	O	PRO	A	118	37.625	54.292	-33.076	1.00	19.69	A	O
ATOM	853	N	VAL	A	119	35.541	55.028	-33.500	1.00	15.76	A	N
ATOM	854	CA	VAL	A	119	34.912	53.880	-32.883	1.00	14.06	A	C
ATOM	855	CB	VAL	A	119	34.012	54.269	-31.701	1.00	13.70	A	C
ATOM	856	CG1	VAL	A	119	33.511	53.023	-30.970	1.00	14.12	A	C
ATOM	857	CG2	VAL	A	119	34.766	55.177	-30.721	1.00	13.00	A	C
ATOM	858	C	VAL	A	119	34.073	53.150	-33.933	1.00	14.81	A	C
ATOM	859	O	VAL	A	119	32.962	53.577	-34.244	1.00	19.53	A	O
ATOM	860	N	PRO	A	120	34.602	52.047	-34.471	1.00	15.90	A	N
ATOM	861	CA	PRO	A	120	33.908	51.292	-35.526	1.00	20.48	A	C
ATOM	862	CB	PRO	A	120	34.942	50.234	-35.927	1.00	20.12	A	C
ATOM	863	CG	PRO	A	120	35.730	50.011	-34.661	1.00	18.63	A	C
ATOM	864	CD	PRO	A	120	35.866	51.403	-34.081	1.00	16.85	A	C
ATOM	865	C	PRO	A	120	32.671	50.592	-34.992	1.00	20.61	A	C
ATOM	866	O	PRO	A	120	32.641	50.201	-33.826	1.00	16.60	A	O
ATOM	867	N	ILE	A	121	31.664	50.414	-35.840	1.00	21.74	A	N
ATOM	868	CA	ILE	A	121	30.507	49.638	-35.446	1.00	20.88	A	C
ATOM	869	CB	ILE	A	121	29.229	50.091	-36.172	1.00	24.10	A	C
ATOM	870	CG1	ILE	A	121	29.052	51.611	-36.071	1.00	24.76	A	C
ATOM	871	CD1	ILE	A	121	28.927	52.152	-34.678	1.00	24.61	A	C
ATOM	872	CG2	ILE	A	121	28.020	49.319	-35.651	1.00	28.10	A	C
ATOM	873	C	ILE	A	121	30.808	48.177	-35.764	1.00	22.13	A	C
ATOM	874	O	ILE	A	121	31.016	47.826	-36.915	1.00	20.45	A	O
ATOM	875	N	VAL	A	122	30.840	47.339	-34.732	1.00	22.47	A	N
ATOM	876	CA	VAL	A	122	31.337	45.971	-34.863	1.00	22.66	A	C
ATOM	877	CB	VAL	A	122	32.542	45.732	-33.916	1.00	25.13	A	C
ATOM	878	CG1	VAL	A	122	33.695	46.637	-34.264	1.00	19.07	A	C
ATOM	879	CG2	VAL	A	122	32.135	45.933	-32.431	1.00	19.70	A	C
ATOM	880	C	VAL	A	122	30.275	44.928	-34.527	1.00	21.64	A	C
ATOM	881	O	VAL	A	122	29.318	45.225	-33.814	1.00	22.30	A	O
ATOM	882	N	SER	A	123	30.452	43.699	-35.019	1.00	22.90	A	N
ATOM	883	CA	SER	A	123	29.568	42.600	-34.629	1.00	24.30	A	C
ATOM	884	CB	SER	A	123	29.825	41.349	-35.483	1.00	25.82	A	C
ATOM	885	OG	SER	A	123	29.497	41.596	-36.826	1.00	33.20	A	O
ATOM	886	C	SER	A	123	29.725	42.217	-33.150	1.00	27.43	A	C
ATOM	887	O	SER	A	123	28.732	41.980	-32.448	1.00	26.56	A	O
ATOM	888	N	GLU	A	124	30.969	42.116	-32.688	1.00	23.77	A	N
ATOM	889	CA	GLU	A	124	31.226	41.750	-31.291	1.00	23.77	A	C
ATOM	890	CB	GLU	A	124	31.636	40.272	-31.155	1.00	34.95	A	C
ATOM	891	CG	GLU	A	124	30.645	39.263	-31.754	1.00	40.75	A	C
ATOM	892	CD	GLU	A	124	29.278	39.264	-31.062	1.00	44.87	A	C
ATOM	893	OE1	GLU	A	124	29.175	39.776	-29.925	1.00	45.72	A	O
ATOM	894	OE2	GLU	A	124	28.302	38.748	-31.658	1.00	46.15	A	O
ATOM	895	C	GLU	A	124	32.320	42.628	-30.711	1.00	23.66	A	C
ATOM	896	O	GLU	A	124	33.362	42.823	-31.343	1.00	24.33	A	O
ATOM	897	N	LEU	A	125	32.085	43.148	-29.509	1.00	23.70	A	N
ATOM	898	CA	LEU	A	125	33.097	43.940	-28.817	1.00	25.96	A	C
ATOM	899	CB	LEU	A	125	32.554	44.465	-27.492	1.00	24.41	A	C
ATOM	900	CG	LEU	A	125	31.400	45.460	-27.619	1.00	26.15	A	C
ATOM	901	CD1	LEU	A	125	30.853	45.793	-26.240	1.00	31.96	A	C
ATOM	902	CD2	LEU	A	125	31.840	46.740	-28.361	1.00	21.77	A	C
ATOM	903	C	LEU	A	125	34.310	43.060	-28.572	1.00	26.08	A	C
ATOM	904	O	LEU	A	125	34.156	41.877	-28.315	1.00	26.37	A	O
ATOM	905	N	GLN	A	126	35.506	43.630	-28.694	1.00	22.90	A	N
ATOM	906	CA	GLN	A	126	36.738	42.869	-28.488	1.00	25.66	A	C
ATOM	907	CB	GLN	A	126	37.698	43.060	-29.661	1.00	28.57	A	C
ATOM	908	CG	GLN	A	126	37.102	42.718	-31.013	1.00	33.51	A	C
ATOM	909	CD	GLN	A	126	37.027	41.237	-31.209	1.00	42.49	A	C
ATOM	910	OE1	GLN	A	126	38.052	40.567	-31.276	1.00	46.85	A	O
ATOM	911	NE2	GLN	A	126	35.811	40.703	-31.280	1.00	46.48	A	N
ATOM	912	C	GLN	A	126	37.413	43.358	-27.226	1.00	24.48	A	C
ATOM	913	O	GLN	A	126	37.490	44.576	-26.981	1.00	20.63	A	O
ATOM	914	N	SER	A	127	37.909	42.416	-26.434	1.00	24.38	A	N
ATOM	915	CA	SER	A	127	38.585	42.751	-25.180	1.00	30.17	A	C
ATOM	916	C	SER	A	127	39.630	43.872	-25.311	1.00	24.56	A	C
ATOM	917	O	SER	A	127	40.541	43.798	-26.131	1.00	27.15	A	O
ATOM	918	CB	SER	A	127	39.247	41.494	-24.605	1.00	35.97	A	C
ATOM	919	OG	SER	A	127	39.822	41.800	-23.356	1.00	38.59	A	O

ATOM	920	N	GLY	A	128	39.494	44.919	-24.510	1.00	25.40	A	N
ATOM	921	CA	GLY	A	128	40.485	45.982	-24.510	1.00	25.82	A	C
ATOM	922	C	GLY	A	128	40.389	46.977	-25.664	1.00	26.38	A	C
ATOM	923	O	GLY	A	128	41.110	47.969	-25.681	1.00	24.70	A	O
ATOM	924	N	LYS	A	129	39.511	46.729	-26.634	1.00	23.52	A	N
ATOM	925	CA	LYS	A	129	39.474	47.577	-27.833	1.00	20.24	A	C
ATOM	926	CB	LYS	A	129	39.584	46.698	-29.091	1.00	25.16	A	C
ATOM	927	C	LYS	A	129	38.248	48.498	-27.920	1.00	21.08	A	C
ATOM	928	O	LYS	A	129	37.128	48.125	-27.520	1.00	18.59	A	O
ATOM	929	N	TRP	A	130	38.469	49.714	-28.431	1.00	19.24	A	N
ATOM	930	CA	TRP	A	130	37.368	50.597	-28.758	1.00	17.74	A	C
ATOM	931	CB	TRP	A	130	37.897	51.912	-29.311	1.00	15.90	A	C
ATOM	932	CG	TRP	A	130	38.233	52.965	-28.288	1.00	13.88	A	C
ATOM	933	CD1	TRP	A	130	39.478	53.313	-27.841	1.00	14.05	A	C
ATOM	934	NE1	TRP	A	130	39.381	54.345	-26.930	1.00	15.12	A	N
ATOM	935	CE2	TRP	A	130	38.058	54.692	-26.795	1.00	14.41	A	C
ATOM	936	CD2	TRP	A	130	37.307	53.835	-27.630	1.00	12.45	A	C
ATOM	937	CE3	TRP	A	130	35.913	53.973	-27.668	1.00	17.91	A	C
ATOM	938	CZ3	TRP	A	130	35.317	54.939	-26.886	1.00	14.17	A	C
ATOM	939	CH2	TRP	A	130	36.097	55.795	-26.063	1.00	17.73	A	C
ATOM	940	CZ2	TRP	A	130	37.462	55.674	-25.999	1.00	15.31	A	C
ATOM	941	C	TRP	A	130	36.505	49.936	-29.837	1.00	20.47	A	C
ATOM	942	O	TRP	A	130	37.026	49.442	-30.843	1.00	20.82	A	O
ATOM	943	N	GLY	A	131	35.197	49.927	-29.607	1.00	18.12	A	N
ATOM	944	CA	GLY	A	131	34.242	49.462	-30.594	1.00	18.83	A	C
ATOM	945	C	GLY	A	131	32.858	49.751	-30.068	1.00	15.86	A	C
ATOM	946	O	GLY	A	131	32.684	50.008	-28.879	1.00	18.22	A	O
ATOM	947	N	ALA	A	132	31.879	49.736	-30.952	1.00	16.37	A	N
ATOM	948	CA	ALA	A	132	30.483	49.908	-30.565	1.00	17.91	A	C
ATOM	949	CB	ALA	A	132	29.995	51.280	-31.019	1.00	16.81	A	C
ATOM	950	C	ALA	A	132	29.645	48.801	-31.200	1.00	20.50	A	C
ATOM	951	O	ALA	A	132	29.714	48.581	-32.409	1.00	21.45	A	O
ATOM	952	N	LYS	A	133	28.855	48.096	-30.393	1.00	22.39	A	N
ATOM	953	CA	LYS	A	133	27.985	47.054	-30.918	1.00	23.51	A	C
ATOM	954	CB	LYS	A	133	28.121	45.752	-30.110	1.00	26.03	A	C
ATOM	955	CG	LYS	A	133	27.120	44.637	-30.502	1.00	30.09	A	C
ATOM	956	CD	LYS	A	133	27.309	43.399	-29.600	1.00	34.26	A	C
ATOM	957	CE	LYS	A	133	26.343	42.263	-29.944	1.00	38.62	A	C
ATOM	958	NZ	LYS	A	133	26.383	41.959	-31.392	1.00	41.33	A	N
ATOM	959	C	LYS	A	133	26.529	47.509	-30.899	1.00	25.08	A	C
ATOM	960	O	LYS	A	133	26.057	48.041	-29.891	1.00	21.84	A	O
ATOM	961	N	ILE	A	134	25.821	47.278	-32.005	1.00	21.46	A	N
ATOM	962	CA	ILE	A	134	24.371	47.457	-32.036	1.00	27.76	A	C
ATOM	963	CB	ILE	A	134	23.832	47.437	-33.472	1.00	27.89	A	C
ATOM	964	CG1	ILE	A	134	24.398	48.617	-34.266	1.00	29.60	A	C
ATOM	965	CD1	ILE	A	134	23.839	48.713	-35.696	1.00	33.88	A	C
ATOM	966	CG2	ILE	A	134	22.305	47.454	-33.463	1.00	28.45	A	C
ATOM	967	C	ILE	A	134	23.641	46.376	-31.240	1.00	28.60	A	C
ATOM	968	O	ILE	A	134	23.698	45.190	-31.563	1.00	30.44	A	O
ATOM	969	N	VAL	A	135	22.933	46.787	-30.203	1.00	23.91	A	N
ATOM	970	CA	VAL	A	135	22.295	45.822	-29.323	1.00	25.27	A	C
ATOM	971	CB	VAL	A	135	22.693	46.051	-27.863	1.00	27.90	A	C
ATOM	972	CG1	VAL	A	135	24.177	45.800	-27.687	1.00	28.36	A	C
ATOM	973	CG2	VAL	A	135	22.341	47.474	-27.453	1.00	26.41	A	C
ATOM	974	C	VAL	A	135	20.783	45.877	-29.410	1.00	28.22	A	C
ATOM	975	O	VAL	A	135	20.108	45.017	-28.840	1.00	28.21	A	O
ATOM	976	N	MET	A	136	20.252	46.885	-30.106	1.00	27.10	A	N
ATOM	977	C	MET	A	136	18.514	47.931	-31.475	1.00	35.69	A	C
ATOM	978	O	MET	A	136	19.190	48.942	-31.645	1.00	33.10	A	O
ATOM	979	CA	MET	A	136	18.813	46.977	-30.334	1.00	31.82	A	C
ATOM	980	CB	MET	A	136	18.069	47.405	-29.063	1.00	32.64	A	C
ATOM	981	N	ARG	A	137	17.513	47.586	-32.278	1.00	40.25	A	N
ATOM	982	CA	ARG	A	137	17.063	48.445	-33.366	1.00	43.34	A	C
ATOM	983	C	ARG	A	137	15.556	48.573	-33.333	1.00	47.47	A	C
ATOM	984	O	ARG	A	137	14.837	47.574	-33.415	1.00	50.87	A	O
ATOM	985	CB	ARG	A	137	17.437	47.855	-34.714	1.00	45.75	A	C
ATOM	986	CG	ARG	A	137	18.797	47.219	-34.778	1.00	49.86	A	C
ATOM	987	CD	ARG	A	137	18.926	46.609	-36.141	1.00	52.69	A	C
ATOM	988	NE	ARG	A	137	18.479	47.594	-37.113	1.00	53.51	A	N
ATOM	989	CZ	ARG	A	137	19.284	48.186	-37.982	1.00	52.20	A	C
ATOM	990	NH1	ARG	A	137	20.569	47.850	-38.009	1.00	53.16	A	N
ATOM	991	NH2	ARG	A	137	18.804	49.098	-38.825	1.00	47.05	A	N
ATOM	992	N	GLU	A	138	15.075	49.804	-33.235	1.00	45.62	A	N
ATOM	993	CA	GLU	A	138	13.645	50.066	-33.299	1.00	45.65	A	C
ATOM	994	CB	GLU	A	138	13.094	50.359	-31.902	1.00	46.73	A	C
ATOM	995	C	GLU	A	138	13.392	51.245	-34.239	1.00	41.39	A	C
ATOM	996	O	GLU	A	138	13.864	52.354	-33.983	1.00	36.31	A	O

ATOM	997	N	ASP	A	139	12.662	50.989	-35.324	1.00	40.66	A	N
ATOM	998	CA	ASP	A	139	12.347	52.006	-36.329	1.00	39.24	A	C
ATOM	999	CB	ASP	A	139	11.410	53.073	-35.759	1.00	41.17	A	C
ATOM	1000	C	ASP	A	139	13.606	52.642	-36.921	1.00	35.79	A	C
ATOM	1001	O	ASP	A	139	14.387	51.976	-37.601	1.00	33.59	A	O
ATOM	1002	N	ARG	A	140	13.810	53.928	-36.658	1.00	30.26	A	N
ATOM	1003	CA	ARG	A	140	14.970	54.621	-37.218	1.00	33.31	A	C
ATOM	1004	CB	ARG	A	140	14.580	56.017	-37.723	1.00	36.01	A	C
ATOM	1005	C	ARG	A	140	16.145	54.727	-36.245	1.00	29.56	A	C
ATOM	1006	O	ARG	A	140	17.164	55.356	-36.563	1.00	26.88	A	O
ATOM	1007	N	SER	A	141	16.010	54.109	-35.070	1.00	28.49	A	N
ATOM	1008	CA	SER	A	141	17.037	54.213	-34.029	1.00	27.19	A	C
ATOM	1009	CB	SER	A	141	16.391	54.478	-32.667	1.00	32.46	A	C
ATOM	1010	OG	SER	A	141	15.560	55.619	-32.711	1.00	39.22	A	O
ATOM	1011	C	SER	A	141	17.917	52.968	-33.911	1.00	25.79	A	C
ATOM	1012	O	SER	A	141	17.475	51.861	-34.191	1.00	26.39	A	O
ATOM	1013	N	VAL	A	142	19.161	53.157	-33.471	1.00	27.93	A	N
ATOM	1014	CA	VAL	A	142	19.980	52.022	-33.068	1.00	27.98	A	C
ATOM	1015	CB	VAL	A	142	21.126	51.726	-34.071	1.00	24.47	A	C
ATOM	1016	CG1	VAL	A	142	20.575	51.307	-35.417	1.00	27.93	A	C
ATOM	1017	CG2	VAL	A	142	22.038	52.914	-34.236	1.00	22.42	A	C
ATOM	1018	C	VAL	A	142	20.541	52.302	-31.673	1.00	27.49	A	C
ATOM	1019	O	VAL	A	142	21.020	53.406	-31.406	1.00	27.97	A	O
ATOM	1020	N	ARG	A	143	20.444	51.318	-30.781	1.00	27.23	A	N
ATOM	1021	CA	ARG	A	143	21.112	51.403	-29.487	1.00	26.77	A	C
ATOM	1022	CB	ARG	A	143	20.307	50.723	-28.382	1.00	26.62	A	C
ATOM	1023	CG	ARG	A	143	20.962	50.916	-27.008	1.00	28.04	A	C
ATOM	1024	CD	ARG	A	143	20.031	50.555	-25.853	1.00	33.27	A	C
ATOM	1025	NE	ARG	A	143	18.771	51.288	-25.925	1.00	37.78	A	N
ATOM	1026	CZ	ARG	A	143	17.748	51.111	-25.095	1.00	39.09	A	C
ATOM	1027	NH1	ARG	A	143	17.831	50.215	-24.125	1.00	38.26	A	N
ATOM	1028	NH2	ARG	A	143	16.637	51.832	-25.246	1.00	41.90	A	N
ATOM	1029	C	ARG	A	143	22.478	50.746	-29.593	1.00	26.41	A	C
ATOM	1030	O	ARG	A	143	22.582	49.592	-30.026	1.00	28.79	A	O
ATOM	1031	N	LEU	A	144	23.512	51.483	-29.210	1.00	20.57	A	N
ATOM	1032	CA	LEU	A	144	24.888	50.970	-29.236	1.00	19.84	A	C
ATOM	1033	CB	LEU	A	144	25.825	51.969	-29.912	1.00	18.63	A	C
ATOM	1034	CG	LEU	A	144	25.571	52.436	-31.344	1.00	19.41	A	C
ATOM	1035	CD1	LEU	A	144	26.622	53.472	-31.741	1.00	17.23	A	C
ATOM	1036	CD2	LEU	A	144	25.642	51.244	-32.271	1.00	20.34	A	C
ATOM	1037	C	LEU	A	144	25.424	50.722	-27.830	1.00	22.65	A	C
ATOM	1038	O	LEU	A	144	25.201	51.523	-26.925	1.00	23.10	A	O
ATOM	1039	N	SER	A	145	26.136	49.612	-27.662	1.00	23.49	A	N
ATOM	1040	CA	SER	A	145	27.004	49.413	-26.512	1.00	23.02	A	C
ATOM	1041	CB	SER	A	145	26.971	47.949	-26.040	1.00	24.16	A	C
ATOM	1042	OG	SER	A	145	27.751	47.787	-24.854	1.00	21.41	A	O
ATOM	1043	C	SER	A	145	28.418	49.806	-26.930	1.00	20.30	A	C
ATOM	1044	O	SER	A	145	29.036	49.150	-27.770	1.00	17.83	A	O
ATOM	1045	N	ILE	A	146	28.923	50.889	-26.357	1.00	16.25	A	N
ATOM	1046	CA	ILE	A	146	30.237	51.382	-26.720	1.00	16.65	A	C
ATOM	1047	CB	ILE	A	146	30.261	52.928	-26.856	1.00	17.53	A	C
ATOM	1048	CG1	ILE	A	146	29.399	53.372	-28.057	1.00	15.72	A	C
ATOM	1049	CD1	ILE	A	146	29.279	54.885	-28.179	1.00	14.41	A	C
ATOM	1050	CG2	ILE	A	146	31.702	53.445	-27.010	1.00	16.52	A	C
ATOM	1051	C	ILE	A	146	31.204	50.949	-25.651	1.00	20.03	A	C
ATOM	1052	O	ILE	A	146	30.925	51.082	-24.454	1.00	19.64	A	O
ATOM	1053	N	GLN	A	147	32.338	50.420	-26.089	1.00	18.49	A	N
ATOM	1054	CA	GLN	A	147	33.375	49.983	-25.179	1.00	20.22	A	C
ATOM	1055	CB	GLN	A	147	33.674	48.508	-25.394	1.00	22.65	A	C
ATOM	1056	CG	GLN	A	147	34.958	48.085	-24.712	1.00	29.71	A	C
ATOM	1057	CD	GLN	A	147	35.210	46.609	-24.849	1.00	30.69	A	C
ATOM	1058	OE1	GLN	A	147	34.626	45.816	-24.122	1.00	32.24	A	O
ATOM	1059	NE2	GLN	A	147	36.086	46.231	-25.776	1.00	30.13	A	N
ATOM	1060	C	GLN	A	147	34.620	50.799	-25.454	1.00	18.82	A	C
ATOM	1061	O	GLN	A	147	35.038	50.883	-26.591	1.00	18.15	A	O
ATOM	1062	N	SER	A	148	35.178	51.435	-24.418	1.00	17.40	A	N
ATOM	1063	CA	SER	A	148	36.431	52.188	-24.532	1.00	15.90	A	C
ATOM	1064	CB	SER	A	148	36.403	53.437	-23.631	1.00	18.93	A	C
ATOM	1065	OG	SER	A	148	36.263	53.071	-22.262	1.00	19.52	A	O
ATOM	1066	C	SER	A	148	37.649	51.340	-24.148	1.00	16.28	A	C
ATOM	1067	O	SER	A	148	37.534	50.320	-23.452	1.00	14.76	A	O
ATOM	1068	N	SER	A	149	38.822	51.760	-24.602	1.00	15.85	A	N
ATOM	1069	CA	SER	A	149	40.063	51.110	-24.193	1.00	16.33	A	C
ATOM	1070	CB	SER	A	149	41.213	51.628	-25.056	1.00	17.57	A	C
ATOM	1071	OG	SER	A	149	42.456	51.301	-24.459	1.00	22.44	A	O
ATOM	1072	C	SER	A	149	40.370	51.432	-22.719	1.00	15.36	A	C
ATOM	1073	O	SER	A	149	40.178	52.565	-22.298	1.00	18.63	A	O

ATOM	1074	N	PRO	A	150	40.877	50.448	-21.946	1.00	14.88	A	N
ATOM	1075	CA	PRO	A	150	41.268	50.652	-20.538	1.00	16.70	A	C
ATOM	1076	CB	PRO	A	150	41.532	49.220	-20.036	1.00	16.28	A	C
ATOM	1077	CG	PRO	A	150	41.959	48.476	-21.262	1.00	14.43	A	C
ATOM	1078	CD	PRO	A	150	41.077	49.052	-22.373	1.00	14.09	A	C
ATOM	1079	C	PRO	A	150	42.535	51.526	-20.390	1.00	15.44	A	C
ATOM	1080	O	PRO	A	150	42.970	51.845	-19.269	1.00	14.95	A	O
ATOM	1081	N	LYS	A	151	43.119	51.908	-21.522	1.00	17.02	A	N
ATOM	1082	CA	LYS	A	151	44.295	52.764	-21.537	1.00	18.33	A	C
ATOM	1083	C	LYS	A	151	43.958	54.136	-22.103	1.00	19.19	A	C
ATOM	1084	O	LYS	A	151	44.869	54.915	-22.419	1.00	16.99	A	O
ATOM	1085	CB	LYS	A	151	45.408	52.138	-22.385	1.00	21.36	A	C
ATOM	1086	CG	LYS	A	151	46.151	51.001	-21.708	1.00	26.33	A	C
ATOM	1087	CD	LYS	A	151	47.216	50.446	-22.642	1.00	32.99	A	C
ATOM	1088	CE	LYS	A	151	48.220	49.569	-21.899	1.00	38.88	A	C
ATOM	1089	NZ	LYS	A	151	47.557	48.413	-21.239	1.00	40.30	A	N
ATOM	1090	N	CYS	A	152	42.656	54.414	-22.253	1.00	18.09	A	N
ATOM	1091	CA	CYS	A	152	42.178	55.665	-22.831	1.00	16.67	A	C
ATOM	1092	CB	CYS	A	152	40.639	55.724	-22.849	1.00	10.90	A	C
ATOM	1093	SG	CYS	A	152	40.004	57.129	-23.826	1.00	18.15	A	S
ATOM	1094	C	CYS	A	152	42.698	56.899	-22.086	1.00	16.19	A	C
ATOM	1095	O	CYS	A	152	42.813	56.906	-20.865	1.00	15.33	A	O
ATOM	1096	N	ILE	A	153	42.977	57.948	-22.840	1.00	13.37	A	N
ATOM	1097	CA	ILE	A	153	43.300	59.253	-22.261	1.00	13.60	A	C
ATOM	1098	CB	ILE	A	153	43.539	60.269	-23.408	1.00	13.99	A	C
ATOM	1099	CG1	ILE	A	153	44.946	60.026	-23.987	1.00	13.56	A	C
ATOM	1100	CD1	ILE	A	153	45.161	60.586	-25.358	1.00	14.01	A	C
ATOM	1101	CG2	ILE	A	153	43.360	61.720	-22.922	1.00	15.10	A	C
ATOM	1102	C	ILE	A	153	42.178	59.722	-21.336	1.00	12.44	A	C
ATOM	1103	O	ILE	A	153	41.008	59.551	-21.645	1.00	11.51	A	O
ATOM	1104	N	VAL	A	154	42.518	60.284	-20.178	1.00	13.49	A	N
ATOM	1105	CA	VAL	A	154	41.476	60.782	-19.283	1.00	12.28	A	C
ATOM	1106	CB	VAL	A	154	41.787	60.476	-17.797	1.00	13.50	A	C
ATOM	1107	CG1	VAL	A	154	40.914	61.332	-16.880	1.00	13.38	A	C
ATOM	1108	CG2	VAL	A	154	41.567	58.974	-17.529	1.00	9.67	A	C
ATOM	1109	C	VAL	A	154	41.206	62.278	-19.498	1.00	12.00	A	C
ATOM	1110	O	VAL	A	154	42.120	63.086	-19.466	1.00	13.54	A	O
ATOM	1111	N	GLY	A	155	39.947	62.631	-19.756	1.00	10.73	A	N
ATOM	1112	CA	GLY	A	155	39.610	64.016	-20.044	1.00	11.28	A	C
ATOM	1113	C	GLY	A	155	38.193	64.153	-20.579	1.00	15.65	A	C
ATOM	1114	O	GLY	A	155	37.377	63.226	-20.482	1.00	16.67	A	O
ATOM	1115	N	LYS	A	156	37.899	65.313	-21.151	1.00	14.24	A	N
ATOM	1116	CA	LYS	A	156	36.564	65.607	-21.655	1.00	13.96	A	C
ATOM	1117	CB	LYS	A	156	36.121	66.993	-21.184	1.00	14.43	A	C
ATOM	1118	CG	LYS	A	156	34.657	67.344	-21.506	1.00	16.19	A	C
ATOM	1119	CD	LYS	A	156	34.359	68.808	-21.129	1.00	17.48	A	C
ATOM	1120	CE	LYS	A	156	32.867	69.139	-21.294	1.00	18.78	A	C
ATOM	1121	NZ	LYS	A	156	32.580	70.576	-20.985	1.00	17.00	A	N
ATOM	1122	C	LYS	A	156	36.588	65.559	-23.177	1.00	14.71	A	C
ATOM	1123	O	LYS	A	156	37.238	66.385	-23.816	1.00	12.25	A	O
ATOM	1124	N	PHE	A	157	35.883	64.581	-23.756	1.00	15.49	A	N
ATOM	1125	CA	PHE	A	157	35.921	64.369	-25.196	1.00	16.00	A	C
ATOM	1126	CB	PHE	A	157	35.982	62.857	-25.495	1.00	13.88	A	C
ATOM	1127	CG	PHE	A	157	37.282	62.223	-25.118	1.00	15.55	A	C
ATOM	1128	CD1	PHE	A	157	37.531	61.840	-23.803	1.00	15.43	A	C
ATOM	1129	CE1	PHE	A	157	38.743	61.254	-23.453	1.00	13.72	A	C
ATOM	1130	CZ	PHE	A	157	39.714	61.056	-24.427	1.00	11.98	A	C
ATOM	1131	CE2	PHE	A	157	39.443	61.415	-25.752	1.00	10.80	A	C
ATOM	1132	CD2	PHE	A	157	38.255	62.003	-26.075	1.00	10.87	A	C
ATOM	1133	C	PHE	A	157	34.713	64.989	-25.909	1.00	15.62	A	C
ATOM	1134	O	PHE	A	157	33.617	65.058	-25.345	1.00	14.81	A	O
ATOM	1135	N	ARG	A	158	34.917	65.434	-27.145	1.00	12.08	A	N
ATOM	1136	CA	ARG	A	158	33.795	65.803	-27.995	1.00	12.61	A	C
ATOM	1137	CB	ARG	A	158	34.189	66.924	-28.964	1.00	16.12	A	C
ATOM	1138	CG	ARG	A	158	34.585	68.212	-28.213	1.00	17.95	A	C
ATOM	1139	CD	ARG	A	158	35.207	69.240	-29.154	1.00	18.92	A	C
ATOM	1140	NE	ARG	A	158	36.650	69.060	-29.233	1.00	18.92	A	N
ATOM	1141	CZ	ARG	A	158	37.340	68.908	-30.358	1.00	20.99	A	C
ATOM	1142	NH1	ARG	A	158	36.730	68.877	-31.550	1.00	23.35	A	N
ATOM	1143	NH2	ARG	A	158	38.653	68.785	-30.291	1.00	22.41	A	N
ATOM	1144	C	ARG	A	158	33.373	64.562	-28.752	1.00	13.15	A	C
ATOM	1145	O	ARG	A	158	34.230	63.782	-29.160	1.00	13.43	A	O
ATOM	1146	N	MET	A	159	32.062	64.374	-28.913	1.00	14.39	A	N
ATOM	1147	CA	MET	A	159	31.527	63.220	-29.624	1.00	15.21	A	C
ATOM	1148	CB	MET	A	159	30.422	62.562	-28.788	1.00	13.84	A	C
ATOM	1149	CG	MET	A	159	29.835	61.244	-29.397	1.00	15.95	A	C
ATOM	1150	SD	MET	A	159	28.283	60.860	-28.572	1.00	19.66	A	S

ATOM	1151	CE	MET	A	159	27.996	59.167	-29.151	1.00	14.35	A	C
ATOM	1152	C	MET	A	159	30.979	63.630	-30.997	1.00	18.41	A	C
ATOM	1153	O	MET	A	159	30.317	64.645	-31.115	1.00	19.48	A	O
ATOM	1154	N	TYR	A	160	31.237	62.824	-32.023	1.00	19.79	A	N
ATOM	1155	CA	TYR	A	160	30.650	63.059	-33.337	1.00	17.64	A	C
ATOM	1156	CB	TYR	A	160	31.666	63.663	-34.299	1.00	14.27	A	C
ATOM	1157	CG	TYR	A	160	32.249	64.974	-33.829	1.00	16.18	A	C
ATOM	1158	CD1	TYR	A	160	31.662	66.187	-34.179	1.00	21.08	A	C
ATOM	1159	CE1	TYR	A	160	32.208	67.406	-33.736	1.00	21.17	A	C
ATOM	1160	CZ	TYR	A	160	33.344	67.382	-32.926	1.00	21.66	A	C
ATOM	1161	OH	TYR	A	160	33.891	68.560	-32.478	1.00	22.79	A	O
ATOM	1162	CE2	TYR	A	160	33.921	66.188	-32.560	1.00	18.82	A	C
ATOM	1163	CD2	TYR	A	160	33.373	64.993	-33.001	1.00	16.97	A	C
ATOM	1164	C	TYR	A	160	30.182	61.735	-33.908	1.00	17.62	A	C
ATOM	1165	O	TYR	A	160	30.670	60.675	-33.510	1.00	15.72	A	O
ATOM	1166	N	VAL	A	161	29.239	61.808	-34.838	1.00	18.23	A	N
ATOM	1167	CA	VAL	A	161	28.891	60.657	-35.654	1.00	17.17	A	C
ATOM	1168	CB	VAL	A	161	27.386	60.306	-35.528	1.00	16.02	A	C
ATOM	1169	CG1	VAL	A	161	27.025	59.149	-36.473	1.00	19.35	A	C
ATOM	1170	CG2	VAL	A	161	27.057	59.921	-34.066	1.00	15.82	A	C
ATOM	1171	C	VAL	A	161	29.279	60.958	-37.093	1.00	18.30	A	C
ATOM	1172	O	VAL	A	161	28.898	61.998	-37.642	1.00	18.54	A	O
ATOM	1173	N	ALA	A	162	30.039	60.049	-37.700	1.00	15.58	A	N
ATOM	1174	CA	ALA	A	162	30.590	60.264	-39.031	1.00	19.17	A	C
ATOM	1175	CB	ALA	A	162	32.107	60.159	-39.000	1.00	15.53	A	C
ATOM	1176	C	ALA	A	162	30.015	59.213	-39.977	1.00	21.72	A	C
ATOM	1177	O	ALA	A	162	30.226	58.023	-39.770	1.00	21.62	A	O
ATOM	1178	N	VAL	A	163	29.291	59.660	-41.004	1.00	20.64	A	N
ATOM	1179	CA	VAL	A	163	28.737	58.754	-42.024	1.00	19.29	A	C
ATOM	1180	CB	VAL	A	163	27.288	59.133	-42.398	1.00	18.53	A	C
ATOM	1181	CG1	VAL	A	163	26.826	58.343	-43.650	1.00	19.35	A	C
ATOM	1182	CG2	VAL	A	163	26.371	58.898	-41.209	1.00	21.45	A	C
ATOM	1183	C	VAL	A	163	29.600	58.828	-43.276	1.00	18.97	A	C
ATOM	1184	O	VAL	A	163	29.823	59.910	-43.826	1.00	21.83	A	O
ATOM	1185	N	TRP	A	164	30.080	57.678	-43.728	1.00	18.31	A	N
ATOM	1186	CA	TRP	A	164	30.989	57.611	-44.867	1.00	26.83	A	C
ATOM	1187	CB	TRP	A	164	31.984	56.442	-44.692	1.00	25.00	A	C
ATOM	1188	CG	TRP	A	164	33.035	56.678	-43.630	1.00	27.32	A	C
ATOM	1189	CD1	TRP	A	164	32.935	57.481	-42.508	1.00	27.15	A	C
ATOM	1190	NE1	TRP	A	164	34.109	57.449	-41.798	1.00	24.67	A	N
ATOM	1191	CE2	TRP	A	164	35.004	56.644	-42.453	1.00	28.51	A	C
ATOM	1192	CD2	TRP	A	164	34.360	56.134	-43.605	1.00	29.18	A	C
ATOM	1193	CE3	TRP	A	164	35.068	55.268	-44.450	1.00	29.61	A	C
ATOM	1194	CZ3	TRP	A	164	36.371	54.935	-44.120	1.00	31.40	A	C
ATOM	1195	CH2	TRP	A	164	36.979	55.445	-42.959	1.00	29.43	A	C
ATOM	1196	CZ2	TRP	A	164	36.312	56.295	-42.113	1.00	30.25	A	C
ATOM	1197	C	TRP	A	164	30.235	57.489	-46.200	1.00	23.81	A	C
ATOM	1198	O	TRP	A	164	29.259	56.740	-46.314	1.00	23.62	A	O
ATOM	1199	N	THR	A	165	30.692	58.239	-47.201	1.00	22.48	A	N
ATOM	1200	CA	THR	A	165	30.060	58.258	-48.515	1.00	22.23	A	C
ATOM	1201	CB	THR	A	165	29.168	59.533	-48.697	1.00	23.49	A	C
ATOM	1202	OG1	THR	A	165	29.967	60.639	-49.143	1.00	23.86	A	O
ATOM	1203	CG2	THR	A	165	28.443	59.886	-47.409	1.00	21.12	A	C
ATOM	1204	C	THR	A	165	31.129	58.228	-49.611	1.00	21.30	A	C
ATOM	1205	O	THR	A	165	32.307	58.469	-49.332	1.00	24.08	A	O
ATOM	1206	N	PRO	A	166	30.728	57.959	-50.865	1.00	23.72	A	N
ATOM	1207	CA	PRO	A	166	31.691	58.036	-51.974	1.00	25.38	A	C
ATOM	1208	CB	PRO	A	166	30.836	57.693	-53.200	1.00	23.76	A	C
ATOM	1209	CG	PRO	A	166	29.749	56.828	-52.655	1.00	26.56	A	C
ATOM	1210	CD	PRO	A	166	29.425	57.428	-51.314	1.00	26.36	A	C
ATOM	1211	C	PRO	A	166	32.305	59.435	-52.150	1.00	22.82	A	C
ATOM	1212	O	PRO	A	166	33.307	59.572	-52.856	1.00	23.34	A	O
ATOM	1213	N	TYR	A	167	31.728	60.437	-51.501	1.00	22.40	A	N
ATOM	1214	CA	TYR	A	167	32.169	61.814	-51.721	1.00	22.65	A	C
ATOM	1215	CB	TYR	A	167	30.971	62.728	-51.960	1.00	23.01	A	C
ATOM	1216	CG	TYR	A	167	30.098	62.232	-53.060	1.00	23.78	A	C
ATOM	1217	CD1	TYR	A	167	30.492	62.341	-54.387	1.00	24.69	A	C
ATOM	1218	CE1	TYR	A	167	29.706	61.842	-55.399	1.00	25.44	A	C
ATOM	1219	CZ	TYR	A	167	28.507	61.249	-55.093	1.00	25.35	A	C
ATOM	1220	OH	TYR	A	167	27.699	60.767	-56.089	1.00	29.24	A	O
ATOM	1221	CE2	TYR	A	167	28.093	61.128	-53.785	1.00	24.53	A	C
ATOM	1222	CD2	TYR	A	167	28.888	61.614	-52.780	1.00	23.72	A	C
ATOM	1223	C	TYR	A	167	32.980	62.339	-50.551	1.00	26.56	A	C
ATOM	1224	O	TYR	A	167	33.514	63.451	-50.612	1.00	24.61	A	O
ATOM	1225	N	GLY	A	168	33.058	61.548	-49.489	1.00	21.11	A	N
ATOM	1226	CA	GLY	A	168	33.713	61.991	-48.269	1.00	25.16	A	C
ATOM	1227	C	GLY	A	168	32.791	61.791	-47.091	1.00	24.07	A	C

ATOM	1228	O	GLY	A	168	31.716	61.215	-47.230	1.00	29.68	A	O
ATOM	1229	N	VAL	A	169	33.198	62.287	-45.933	1.00	23.48	A	N
ATOM	1230	CA	VAL	A	169	32.505	62.015	-44.690	1.00	20.33	A	C
ATOM	1231	CB	VAL	A	169	33.533	61.973	-43.534	1.00	20.98	A	C
ATOM	1232	CG1	VAL	A	169	32.850	62.083	-42.180	1.00	19.62	A	C
ATOM	1233	CG2	VAL	A	169	34.394	60.704	-43.644	1.00	19.42	A	C
ATOM	1234	C	VAL	A	169	31.435	63.053	-44.379	1.00	23.03	A	C
ATOM	1235	O	VAL	A	169	31.661	64.261	-44.542	1.00	18.77	A	O
ATOM	1236	N	LEU	A	170	30.271	62.607	-43.914	1.00	18.37	A	N
ATOM	1237	CA	LEU	A	170	29.277	63.568	-43.444	1.00	22.16	A	C
ATOM	1238	CB	LEU	A	170	27.927	63.375	-44.118	1.00	22.34	A	C
ATOM	1239	CG	LEU	A	170	27.923	63.417	-45.651	1.00	25.11	A	C
ATOM	1240	CD1	LEU	A	170	26.530	63.080	-46.165	1.00	22.48	A	C
ATOM	1241	CD2	LEU	A	170	28.387	64.811	-46.172	1.00	27.71	A	C
ATOM	1242	C	LEU	A	170	29.160	63.450	-41.932	1.00	22.79	A	C
ATOM	1243	O	LEU	A	170	28.785	62.396	-41.406	1.00	18.87	A	O
ATOM	1244	N	ARG	A	171	29.468	64.544	-41.239	1.00	19.16	A	N
ATOM	1245	CA	ARG	A	171	29.669	64.490	-39.788	1.00	17.98	A	C
ATOM	1246	CB	ARG	A	171	31.102	64.890	-39.462	1.00	17.65	A	C
ATOM	1247	CG	ARG	A	171	31.461	64.803	-37.977	1.00	19.41	A	C
ATOM	1248	CD	ARG	A	171	32.924	65.175	-37.751	1.00	19.78	A	C
ATOM	1249	NE	ARG	A	171	33.822	64.124	-38.198	1.00	15.42	A	N
ATOM	1250	CZ	ARG	A	171	34.601	64.175	-39.273	1.00	20.59	A	C
ATOM	1251	NH1	ARG	A	171	34.621	65.258	-40.055	1.00	20.47	A	N
ATOM	1252	NH2	ARG	A	171	35.378	63.134	-39.557	1.00	15.76	A	N
ATOM	1253	C	ARG	A	171	28.690	65.383	-39.041	1.00	20.32	A	C
ATOM	1254	O	ARG	A	171	28.293	66.441	-39.542	1.00	21.32	A	O
ATOM	1255	N	THR	A	172	28.290	64.963	-37.848	1.00	20.00	A	N
ATOM	1256	CA	THR	A	172	27.422	65.792	-37.018	1.00	17.35	A	C
ATOM	1257	CB	THR	A	172	26.988	65.054	-35.744	1.00	17.09	A	C
ATOM	1258	OG1	THR	A	172	28.152	64.492	-35.113	1.00	17.36	A	O
ATOM	1259	CG2	THR	A	172	26.009	63.931	-36.112	1.00	17.34	A	C
ATOM	1260	C	THR	A	172	28.136	67.084	-36.593	1.00	19.29	A	C
ATOM	1261	O	THR	A	172	29.359	67.116	-36.484	1.00	17.35	A	O
ATOM	1262	N	SER	A	173	27.352	68.138	-36.386	1.00	19.84	A	N
ATOM	1263	CA	SER	A	173	27.863	69.434	-35.940	1.00	24.84	A	C
ATOM	1264	CB	SER	A	173	26.751	70.473	-36.032	1.00	26.06	A	C
ATOM	1265	OG	SER	A	173	26.234	70.517	-37.341	1.00	35.54	A	O
ATOM	1266	C	SER	A	173	28.336	69.364	-34.498	1.00	22.47	A	C
ATOM	1267	O	SER	A	173	27.943	68.459	-33.757	1.00	20.19	A	O
ATOM	1268	N	ARG	A	174	29.174	70.324	-34.111	1.00	22.84	A	N
ATOM	1269	CA	ARG	A	174	29.627	70.466	-32.726	1.00	20.43	A	C
ATOM	1270	CB	ARG	A	174	30.395	71.792	-32.556	1.00	18.87	A	C
ATOM	1271	CG	ARG	A	174	30.857	72.039	-31.107	1.00	17.42	A	C
ATOM	1272	CD	ARG	A	174	32.075	71.198	-30.755	1.00	17.99	A	C
ATOM	1273	NE	ARG	A	174	32.519	71.452	-29.383	1.00	23.53	A	N
ATOM	1274	CZ	ARG	A	174	32.100	70.758	-28.328	1.00	21.57	A	C
ATOM	1275	NH1	ARG	A	174	31.237	69.768	-28.497	1.00	18.58	A	N
ATOM	1276	NH2	ARG	A	174	32.531	71.047	-27.108	1.00	19.20	A	N
ATOM	1277	C	ARG	A	174	28.412	70.497	-31.808	1.00	19.77	A	C
ATOM	1278	O	ARG	A	174	27.493	71.269	-32.037	1.00	22.05	A	O
ATOM	1279	N	ASN	A	175	28.401	69.676	-30.772	1.00	16.91	A	N
ATOM	1280	CA	ASN	A	175	27.279	69.625	-29.839	1.00	22.73	A	C
ATOM	1281	CB	ASN	A	175	26.347	68.447	-30.174	1.00	26.22	A	C
ATOM	1282	CG	ASN	A	175	25.078	68.424	-29.305	1.00	29.18	A	C
ATOM	1283	OD1	ASN	A	175	24.974	69.150	-28.315	1.00	26.87	A	O
ATOM	1284	ND2	ASN	A	175	24.114	67.588	-29.680	1.00	27.84	A	N
ATOM	1285	C	ASN	A	175	27.798	69.459	-28.413	1.00	20.67	A	C
ATOM	1286	O	ASN	A	175	28.015	68.352	-27.957	1.00	18.46	A	O
ATOM	1287	N	PRO	A	176	27.949	70.570	-27.684	1.00	21.69	A	N
ATOM	1288	CA	PRO	A	176	28.473	70.495	-26.320	1.00	21.72	A	C
ATOM	1289	CB	PRO	A	176	28.362	71.944	-25.833	1.00	22.36	A	C
ATOM	1290	CG	PRO	A	176	28.453	72.756	-27.096	1.00	21.79	A	C
ATOM	1291	CD	PRO	A	176	27.679	71.953	-28.109	1.00	20.38	A	C
ATOM	1292	C	PRO	A	176	27.682	69.557	-25.404	1.00	21.26	A	C
ATOM	1293	O	PRO	A	176	28.224	69.053	-24.431	1.00	21.52	A	O
ATOM	1294	N	GLU	A	177	26.424	69.305	-25.738	1.00	24.08	A	N
ATOM	1295	CA	GLU	A	177	25.567	68.474	-24.911	1.00	24.24	A	C
ATOM	1296	CB	GLU	A	177	24.090	68.710	-25.251	1.00	27.07	A	C
ATOM	1297	CG	GLU	A	177	23.615	70.122	-24.914	1.00	35.23	A	C
ATOM	1298	CD	GLU	A	177	23.981	70.530	-23.489	1.00	41.23	A	C
ATOM	1299	OE1	GLU	A	177	23.809	69.689	-22.574	1.00	42.26	A	O
ATOM	1300	OE2	GLU	A	177	24.458	71.679	-23.286	1.00	41.58	A	O
ATOM	1301	C	GLU	A	177	25.910	66.974	-24.969	1.00	22.08	A	C
ATOM	1302	O	GLU	A	177	25.388	66.186	-24.175	1.00	19.02	A	O
ATOM	1303	N	THR	A	178	26.788	66.578	-25.886	1.00	15.73	A	N
ATOM	1304	CA	THR	A	178	27.188	65.177	-25.948	1.00	17.13	A	C

ATOM	1305	CB	THR	A	178	26.913	64.532	-27.344	1.00	19.35	A	C
ATOM	1306	OG1	THR	A	178	27.597	65.261	-28.370	1.00	19.99	A	O
ATOM	1307	CG2	THR	A	178	25.430	64.572	-27.652	1.00	22.69	A	C
ATOM	1308	C	THR	A	178	28.665	65.031	-25.557	1.00	18.34	A	C
ATOM	1309	O	THR	A	178	29.211	63.947	-25.648	1.00	19.40	A	O
ATOM	1310	N	ASP	A	179	29.301	66.116	-25.104	1.00	15.73	A	N
ATOM	1311	CA	ASP	A	179	30.676	66.030	-24.599	1.00	13.21	A	C
ATOM	1312	CB	ASP	A	179	31.202	67.403	-24.087	1.00	13.43	A	C
ATOM	1313	CG	ASP	A	179	31.397	68.411	-25.219	1.00	17.08	A	C
ATOM	1314	OD1	ASP	A	179	31.207	68.017	-26.395	1.00	15.01	A	O
ATOM	1315	OD2	ASP	A	179	31.728	69.594	-24.945	1.00	19.65	A	O
ATOM	1316	C	ASP	A	179	30.681	64.991	-23.492	1.00	14.15	A	C
ATOM	1317	O	ASP	A	179	29.739	64.908	-22.704	1.00	17.28	A	O
ATOM	1318	N	THR	A	180	31.713	64.165	-23.467	1.00	12.90	A	N
ATOM	1319	CA	THR	A	180	31.710	62.977	-22.632	1.00	11.85	A	C
ATOM	1320	CB	THR	A	180	31.590	61.702	-23.505	1.00	14.80	A	C
ATOM	1321	OG1	THR	A	180	30.375	61.751	-24.254	1.00	16.63	A	O
ATOM	1322	CG2	THR	A	180	31.596	60.432	-22.638	1.00	16.50	A	C
ATOM	1323	C	THR	A	180	33.016	62.899	-21.865	1.00	14.44	A	C
ATOM	1324	O	THR	A	180	34.091	62.917	-22.454	1.00	13.61	A	O
ATOM	1325	N	TYR	A	181	32.926	62.793	-20.545	1.00	14.50	A	N
ATOM	1326	CA	TYR	A	181	34.139	62.699	-19.741	1.00	14.00	A	C
ATOM	1327	CB	TYR	A	181	33.906	63.263	-18.333	1.00	10.85	A	C
ATOM	1328	CG	TYR	A	181	33.646	64.736	-18.251	1.00	11.64	A	C
ATOM	1329	CD1	TYR	A	181	32.377	65.244	-18.484	1.00	11.89	A	C
ATOM	1330	CE1	TYR	A	181	32.122	66.577	-18.397	1.00	17.01	A	C
ATOM	1331	CZ	TYR	A	181	33.120	67.445	-18.049	1.00	16.03	A	C
ATOM	1332	OH	TYR	A	181	32.824	68.784	-17.980	1.00	17.37	A	O
ATOM	1333	CE2	TYR	A	181	34.391	66.989	-17.797	1.00	11.69	A	C
ATOM	1334	CD2	TYR	A	181	34.652	65.634	-17.883	1.00	11.31	A	C
ATOM	1335	C	TYR	A	181	34.486	61.234	-19.605	1.00	13.18	A	C
ATOM	1336	O	TYR	A	181	33.624	60.439	-19.280	1.00	13.35	A	O
ATOM	1337	N	ILE	A	182	35.751	60.882	-19.816	1.00	13.32	A	N
ATOM	1338	CA	ILE	A	182	36.196	59.511	-19.579	1.00	12.52	A	C
ATOM	1339	CB	ILE	A	182	36.773	58.893	-20.863	1.00	15.14	A	C
ATOM	1340	CG1	ILE	A	182	35.792	59.073	-22.037	1.00	13.21	A	C
ATOM	1341	CD1	ILE	A	182	36.292	58.510	-23.388	1.00	15.45	A	C
ATOM	1342	CG2	ILE	A	182	37.136	57.439	-20.634	1.00	14.70	A	C
ATOM	1343	C	ILE	A	182	37.252	59.531	-18.459	1.00	12.75	A	C
ATOM	1344	O	ILE	A	182	38.279	60.206	-18.582	1.00	14.24	A	O
ATOM	1345	N	LEU	A	183	36.986	58.806	-17.379	1.00	11.23	A	N
ATOM	1346	CA	LEU	A	183	37.842	58.858	-16.176	1.00	13.46	A	C
ATOM	1347	CB	LEU	A	183	36.981	59.132	-14.940	1.00	12.60	A	C
ATOM	1348	CG	LEU	A	183	36.059	60.350	-15.021	1.00	16.11	A	C
ATOM	1349	CD1	LEU	A	183	35.256	60.505	-13.735	1.00	17.82	A	C
ATOM	1350	CD2	LEU	A	183	36.866	61.591	-15.278	1.00	12.07	A	C
ATOM	1351	C	LEU	A	183	38.573	57.540	-15.969	1.00	16.14	A	C
ATOM	1352	O	LEU	A	183	38.266	56.538	-16.627	1.00	14.20	A	O
ATOM	1353	N	PHE	A	184	39.536	57.539	-15.048	1.00	16.01	A	N
ATOM	1354	CA	PHE	A	184	40.179	56.303	-14.604	1.00	11.05	A	C
ATOM	1355	CB	PHE	A	184	41.277	56.622	-13.568	1.00	9.88	A	C
ATOM	1356	CG	PHE	A	184	42.467	57.304	-14.160	1.00	13.26	A	C
ATOM	1357	CD1	PHE	A	184	43.398	56.580	-14.899	1.00	13.08	A	C
ATOM	1358	CE1	PHE	A	184	44.538	57.209	-15.442	1.00	13.68	A	C
ATOM	1359	CZ	PHE	A	184	44.724	58.602	-15.252	1.00	10.31	A	C
ATOM	1360	CE2	PHE	A	184	43.791	59.323	-14.531	1.00	9.74	A	C
ATOM	1361	CD2	PHE	A	184	42.661	58.683	-13.989	1.00	9.60	A	C
ATOM	1362	C	PHE	A	184	39.150	55.358	-14.006	1.00	12.99	A	C
ATOM	1363	O	PHE	A	184	38.138	55.821	-13.472	1.00	13.34	A	O
ATOM	1364	N	ASN	A	185	39.400	54.046	-14.102	1.00	11.63	A	N
ATOM	1365	CA	ASN	A	185	38.427	53.034	-13.667	1.00	14.18	A	C
ATOM	1366	CB	ASN	A	185	37.851	52.275	-14.873	1.00	13.03	A	C
ATOM	1367	CG	ASN	A	185	36.521	51.616	-14.570	1.00	14.28	A	C
ATOM	1368	OD1	ASN	A	185	36.118	51.486	-13.399	1.00	16.92	A	O
ATOM	1369	ND2	ASN	A	185	35.822	51.179	-15.628	1.00	13.97	A	N
ATOM	1370	C	ASN	A	185	39.005	52.017	-12.678	1.00	14.34	A	C
ATOM	1371	O	ASN	A	185	39.471	50.964	-13.080	1.00	14.97	A	O
ATOM	1372	N	PRO	A	186	38.958	52.333	-11.372	1.00	15.80	A	N
ATOM	1373	CA	PRO	A	186	39.393	51.378	-10.335	1.00	13.77	A	C
ATOM	1374	CB	PRO	A	186	39.142	52.134	-9.024	1.00	15.44	A	C
ATOM	1375	CG	PRO	A	186	39.302	53.592	-9.414	1.00	15.70	A	C
ATOM	1376	CD	PRO	A	186	38.721	53.689	-10.835	1.00	11.20	A	C
ATOM	1377	C	PRO	A	186	38.627	50.053	-10.351	1.00	15.74	A	C
ATOM	1378	O	PRO	A	186	39.119	49.105	-9.747	1.00	15.10	A	O
ATOM	1379	N	TRP	A	187	37.481	49.988	-11.040	1.00	16.15	A	N
ATOM	1380	CA	TRP	A	187	36.663	48.784	-11.097	1.00	16.72	A	C
ATOM	1381	CB	TRP	A	187	35.158	49.142	-11.181	1.00	16.90	A	C

ATOM	1382	CG	TRP	A	187	34.590	49.712	-9.909	1.00	16.78	A	C
ATOM	1383	CD1	TRP	A	187	33.914	49.023	-8.940	1.00	18.57	A	C
ATOM	1384	NE1	TRP	A	187	33.568	49.869	-7.912	1.00	17.41	A	N
ATOM	1385	CE2	TRP	A	187	34.002	51.135	-8.210	1.00	16.10	A	C
ATOM	1386	CD2	TRP	A	187	34.659	51.074	-9.459	1.00	14.23	A	C
ATOM	1387	CE3	TRP	A	187	35.217	52.244	-9.983	1.00	13.02	A	C
ATOM	1388	CZ3	TRP	A	187	35.100	53.423	-9.262	1.00	13.09	A	C
ATOM	1389	CH2	TRP	A	187	34.445	53.456	-8.012	1.00	14.03	A	C
ATOM	1390	CZ2	TRP	A	187	33.882	52.331	-7.476	1.00	14.09	A	C
ATOM	1391	C	TRP	A	187	37.033	47.853	-12.267	1.00	16.40	A	C
ATOM	1392	O	TRP	A	187	36.613	46.700	-12.297	1.00	21.02	A	O
ATOM	1393	N	CYS	A	188	37.801	48.359	-13.229	1.00	15.25	A	N
ATOM	1394	CA	CYS	A	188	38.133	47.582	-14.422	1.00	17.72	A	C
ATOM	1395	CB	CYS	A	188	38.233	48.512	-15.645	1.00	15.58	A	C
ATOM	1396	SG	CYS	A	188	38.870	47.736	-17.141	1.00	19.67	A	S
ATOM	1397	C	CYS	A	188	39.443	46.821	-14.196	1.00	20.12	A	C
ATOM	1398	O	CYS	A	188	40.474	47.430	-13.961	1.00	16.17	A	O
ATOM	1399	N	GLU	A	189	39.400	45.488	-14.260	1.00	18.25	A	N
ATOM	1400	CA	GLU	A	189	40.576	44.687	-13.951	1.00	17.08	A	C
ATOM	1401	C	GLU	A	189	41.752	44.958	-14.901	1.00	20.72	A	C
ATOM	1402	O	GLU	A	189	42.892	44.675	-14.558	1.00	17.16	A	O
ATOM	1403	CB	GLU	A	189	40.229	43.182	-13.940	1.00	26.40	A	C
ATOM	1404	CG	GLU	A	189	39.637	42.684	-15.227	1.00	33.15	A	C
ATOM	1405	CD	GLU	A	189	39.127	41.240	-15.118	1.00	39.46	A	C
ATOM	1406	OE1	GLU	A	189	39.367	40.574	-14.074	1.00	33.82	A	O
ATOM	1407	OE2	GLU	A	189	38.481	40.790	-16.092	1.00	46.28	A	O
ATOM	1408	N	ASP	A	190	41.470	45.503	-16.087	1.00	16.32	A	N
ATOM	1409	CA	ASP	A	190	42.511	45.820	-17.071	1.00	21.55	A	C
ATOM	1410	CB	ASP	A	190	41.975	45.654	-18.495	1.00	21.85	A	C
ATOM	1411	CG	ASP	A	190	41.635	44.205	-18.820	1.00	30.04	A	C
ATOM	1412	OD1	ASP	A	190	42.342	43.303	-18.331	1.00	29.90	A	O
ATOM	1413	OD2	ASP	A	190	40.655	43.993	-19.550	1.00	36.40	A	O
ATOM	1414	C	ASP	A	190	43.050	47.252	-16.942	1.00	18.59	A	C
ATOM	1415	O	ASP	A	190	43.895	47.673	-17.735	1.00	19.08	A	O
ATOM	1416	N	ASP	A	191	42.539	47.999	-15.976	1.00	16.19	A	N
ATOM	1417	CA	ASP	A	191	42.979	49.383	-15.790	1.00	16.94	A	C
ATOM	1418	CB	ASP	A	191	41.841	50.221	-15.203	1.00	16.60	A	C
ATOM	1419	CG	ASP	A	191	42.106	51.726	-15.280	1.00	17.79	A	C
ATOM	1420	OD1	ASP	A	191	43.234	52.167	-14.919	1.00	16.68	A	O
ATOM	1421	OD2	ASP	A	191	41.174	52.463	-15.697	1.00	16.11	A	O
ATOM	1422	C	ASP	A	191	44.208	49.392	-14.867	1.00	17.61	A	C
ATOM	1423	O	ASP	A	191	44.251	48.658	-13.881	1.00	18.63	A	O
ATOM	1424	N	ALA	A	192	45.202	50.213	-15.204	1.00	18.21	A	N
ATOM	1425	CA	ALA	A	192	46.361	50.467	-14.335	1.00	19.02	A	C
ATOM	1426	CB	ALA	A	192	47.236	51.557	-14.927	1.00	17.00	A	C
ATOM	1427	C	ALA	A	192	46.002	50.820	-12.897	1.00	12.97	A	C
ATOM	1428	O	ALA	A	192	46.768	50.528	-11.997	1.00	18.85	A	O
ATOM	1429	N	VAL	A	193	44.851	51.455	-12.672	1.00	12.32	A	N
ATOM	1430	CA	VAL	A	193	44.444	51.794	-11.302	1.00	13.34	A	C
ATOM	1431	CB	VAL	A	193	43.829	53.226	-11.183	1.00	17.84	A	C
ATOM	1432	CG1	VAL	A	193	44.825	54.254	-11.690	1.00	11.00	A	C
ATOM	1433	CG2	VAL	A	193	42.488	53.329	-11.928	1.00	13.25	A	C
ATOM	1434	C	VAL	A	193	43.492	50.794	-10.660	1.00	13.28	A	C
ATOM	1435	O	VAL	A	193	42.925	51.077	-9.618	1.00	12.36	A	O
ATOM	1436	N	TYR	A	194	43.308	49.634	-11.296	1.00	16.27	A	N
ATOM	1437	CA	TYR	A	194	42.436	48.601	-10.732	1.00	18.07	A	C
ATOM	1438	CB	TYR	A	194	42.567	47.293	-11.513	1.00	14.86	A	C
ATOM	1439	CG	TYR	A	194	41.674	46.182	-10.996	1.00	15.81	A	C
ATOM	1440	CD1	TYR	A	194	40.289	46.353	-10.931	1.00	17.24	A	C
ATOM	1441	CE1	TYR	A	194	39.460	45.334	-10.490	1.00	19.26	A	C
ATOM	1442	CZ	TYR	A	194	40.009	44.131	-10.094	1.00	23.88	A	C
ATOM	1443	OH	TYR	A	194	39.170	43.113	-9.660	1.00	23.62	A	O
ATOM	1444	CE2	TYR	A	194	41.383	43.932	-10.157	1.00	23.94	A	C
ATOM	1445	CD2	TYR	A	194	42.203	44.955	-10.609	1.00	19.37	A	C
ATOM	1446	C	TYR	A	194	42.704	48.335	-9.249	1.00	21.41	A	C
ATOM	1447	O	TYR	A	194	43.845	48.054	-8.837	1.00	14.53	A	O
ATOM	1448	N	LEU	A	195	41.635	48.436	-8.459	1.00	14.22	A	N
ATOM	1449	CA	LEU	A	195	41.676	48.107	-7.041	1.00	18.81	A	C
ATOM	1450	CB	LEU	A	195	41.379	49.381	-6.243	1.00	22.44	A	C
ATOM	1451	CG	LEU	A	195	41.594	49.332	-4.739	1.00	26.49	A	C
ATOM	1452	CD1	LEU	A	195	42.921	48.695	-4.429	1.00	28.05	A	C
ATOM	1453	CD2	LEU	A	195	41.537	50.748	-4.192	1.00	22.75	A	C
ATOM	1454	C	LEU	A	195	40.647	46.989	-6.776	1.00	18.00	A	C
ATOM	1455	O	LEU	A	195	39.455	47.187	-6.978	1.00	18.10	A	O
ATOM	1456	N	ASP	A	196	41.087	45.802	-6.354	1.00	17.78	A	N
ATOM	1457	CA	ASP	A	196	40.171	44.654	-6.423	1.00	22.81	A	C
ATOM	1458	C	ASP	A	196	39.166	44.557	-5.269	1.00	28.33	A	C

ATOM	1459	O	ASP	A	196	38.408	43.597	-5.177	1.00	32.95	A	O
ATOM	1460	CB	ASP	A	196	40.932	43.329	-6.604	1.00	23.49	A	C
ATOM	1461	CG	ASP	A	196	41.607	42.848	-5.334	1.00	27.21	A	C
ATOM	1462	OD1	ASP	A	196	41.469	43.479	-4.261	1.00	26.49	A	O
ATOM	1463	OD2	ASP	A	196	42.282	41.804	-5.400	1.00	32.38	A	O
ATOM	1464	N	ASN	A	197	39.172	45.547	-4.393	1.00	25.55	A	N
ATOM	1465	CA	ASN	A	197	38.423	45.476	-3.144	1.00	26.22	A	C
ATOM	1466	CB	ASN	A	197	39.401	45.649	-1.965	1.00	25.66	A	C
ATOM	1467	CG	ASN	A	197	38.714	45.610	-0.608	1.00	28.57	A	C
ATOM	1468	OD1	ASN	A	197	37.982	46.525	-0.241	1.00	29.58	A	O
ATOM	1469	ND2	ASN	A	197	38.966	44.553	0.151	1.00	31.83	A	N
ATOM	1470	C	ASN	A	197	37.387	46.589	-3.132	1.00	24.18	A	C
ATOM	1471	O	ASN	A	197	37.751	47.764	-3.075	1.00	19.65	A	O
ATOM	1472	N	GLU	A	198	36.105	46.232	-3.185	1.00	27.43	A	N
ATOM	1473	CA	GLU	A	198	35.030	47.236	-3.203	1.00	27.83	A	C
ATOM	1474	CB	GLU	A	198	33.653	46.568	-3.303	1.00	30.03	A	C
ATOM	1475	CG	GLU	A	198	32.475	47.546	-3.276	1.00	30.49	A	C
ATOM	1476	CD	GLU	A	198	32.404	48.471	-4.503	1.00	34.03	A	C
ATOM	1477	OE1	GLU	A	198	33.124	48.255	-5.507	1.00	31.55	A	O
ATOM	1478	OE2	GLU	A	198	31.616	49.436	-4.459	1.00	38.92	A	O
ATOM	1479	C	GLU	A	198	35.058	48.217	-2.017	1.00	25.36	A	C
ATOM	1480	O	GLU	A	198	34.857	49.410	-2.195	1.00	20.21	A	O
ATOM	1481	N	LYS	A	199	35.298	47.726	-0.806	1.00	26.80	A	N
ATOM	1482	CA	LYS	A	199	35.360	48.648	0.346	1.00	26.34	A	C
ATOM	1483	C	LYS	A	199	36.477	49.671	0.195	1.00	21.22	A	C
ATOM	1484	O	LYS	A	199	36.335	50.844	0.563	1.00	22.73	A	O
ATOM	1485	CB	LYS	A	199	35.507	47.882	1.670	1.00	29.67	A	C
ATOM	1486	CG	LYS	A	199	34.207	47.261	2.146	1.00	34.94	A	C
ATOM	1487	CD	LYS	A	199	34.359	46.624	3.523	1.00	41.80	A	C
ATOM	1488	CE	LYS	A	199	33.000	46.359	4.132	1.00	47.22	A	C
ATOM	1489	NZ	LYS	A	199	33.109	45.757	5.490	1.00	53.09	A	N
ATOM	1490	N	GLU	A	200	37.605	49.229	-0.338	1.00	20.35	A	N
ATOM	1491	CA	GLU	A	200	38.697	50.156	-0.573	1.00	17.90	A	C
ATOM	1492	CB	GLU	A	200	40.011	49.407	-0.800	1.00	18.59	A	C
ATOM	1493	CG	GLU	A	200	40.394	48.552	0.394	1.00	25.88	A	C
ATOM	1494	CD	GLU	A	200	41.747	47.886	0.272	1.00	31.50	A	C
ATOM	1495	OE1	GLU	A	200	42.304	47.835	-0.833	1.00	34.14	A	O
ATOM	1496	OE2	GLU	A	200	42.266	47.420	1.303	1.00	39.14	A	O
ATOM	1497	C	GLU	A	200	38.384	51.139	-1.716	1.00	17.34	A	C
ATOM	1498	O	GLU	A	200	38.751	52.293	-1.638	1.00	16.42	A	O
ATOM	1499	N	ARG	A	201	37.699	50.680	-2.765	1.00	15.83	A	N
ATOM	1500	CA	ARG	A	201	37.321	51.575	-3.849	1.00	17.11	A	C
ATOM	1501	CB	ARG	A	201	36.696	50.814	-5.043	1.00	17.08	A	C
ATOM	1502	CG	ARG	A	201	37.704	49.996	-5.805	1.00	14.28	A	C
ATOM	1503	CD	ARG	A	201	37.090	49.254	-7.025	1.00	18.75	A	C
ATOM	1504	NE	ARG	A	201	36.019	48.318	-6.679	1.00	18.48	A	N
ATOM	1505	CZ	ARG	A	201	35.992	47.022	-6.997	1.00	23.39	A	C
ATOM	1506	NH1	ARG	A	201	37.005	46.445	-7.633	1.00	24.45	A	N
ATOM	1507	NH2	ARG	A	201	34.939	46.294	-6.661	1.00	21.98	A	N
ATOM	1508	C	ARG	A	201	36.351	52.613	-3.330	1.00	17.70	A	C
ATOM	1509	O	ARG	A	201	36.417	53.767	-3.732	1.00	15.36	A	O
ATOM	1510	N	GLU	A	202	35.448	52.204	-2.441	1.00	17.69	A	N
ATOM	1511	C	GLU	A	202	35.189	54.210	-1.044	1.00	18.41	A	C
ATOM	1512	O	GLU	A	202	34.851	55.388	-1.127	1.00	18.95	A	O
ATOM	1513	CA	AGLU	A	202	34.479	53.131	-1.868	0.49	19.05	A	C
ATOM	1514	CB	AGLU	A	202	33.456	52.382	-1.003	0.49	20.03	A	C
ATOM	1515	CG	AGLU	A	202	32.356	53.259	-0.417	0.49	22.52	A	C
ATOM	1516	CD	AGLU	A	202	31.327	53.713	-1.453	0.49	25.95	A	C
ATOM	1517	OE1AGLU	A	202	30.877	54.879	-1.390	0.49	24.55	A	O	
ATOM	1518	OE2AGLU	A	202	30.953	52.897	-2.319	0.49	28.87	A	O	
ATOM	1519	CA	BGLU	A	202	34.484	53.141	-1.882	0.51	19.09	A	C
ATOM	1520	CB	BGLU	A	202	33.400	52.413	-1.072	0.51	20.88	A	C
ATOM	1521	CG	BGLU	A	202	32.337	51.757	-1.951	0.51	25.30	A	C
ATOM	1522	CD	BGLU	A	202	31.362	50.891	-1.181	0.51	29.78	A	C
ATOM	1523	OE1BGLU	A	202	31.272	51.029	0.061	0.51	31.27	A	O	
ATOM	1524	OE2BGLU	A	202	30.686	50.058	-1.828	0.51	30.82	A	O	
ATOM	1525	N	GLU	A	203	36.177	53.807	-0.254	1.00	14.37	A	N
ATOM	1526	CA	GLU	A	203	36.879	54.794	0.594	1.00	18.62	A	C
ATOM	1527	CB	GLU	A	203	37.667	54.100	1.708	1.00	15.74	A	C
ATOM	1528	CG	GLU	A	203	38.537	55.046	2.531	1.00	19.25	A	C
ATOM	1529	CD	GLU	A	203	37.741	56.071	3.345	1.00	20.98	A	C
ATOM	1530	OE1	GLU	A	203	36.533	55.872	3.582	1.00	22.66	A	O
ATOM	1531	OE2	GLU	A	203	38.344	57.084	3.766	1.00	21.31	A	O
ATOM	1532	C	GLU	A	203	37.828	55.708	-0.202	1.00	19.39	A	C
ATOM	1533	O	GLU	A	203	37.875	56.927	-0.005	1.00	18.45	A	O
ATOM	1534	N	TYR	A	204	38.599	55.106	-1.089	1.00	16.14	A	N
ATOM	1535	CA	TYR	A	204	39.707	55.820	-1.714	1.00	14.55	A	C

ATOM	1536	CB	TYR	A	204	40.885	54.879	-1.920	1.00	11.94	A	C
ATOM	1537	CG	TYR	A	204	41.437	54.252	-0.649	1.00	14.88	A	C
ATOM	1538	CD1	TYR	A	204	41.688	55.026	0.491	1.00	12.43	A	C
ATOM	1539	CE1	TYR	A	204	42.209	54.441	1.649	1.00	12.93	A	C
ATOM	1540	CZ	TYR	A	204	42.466	53.082	1.670	1.00	15.06	A	C
ATOM	1541	OH	TYR	A	204	42.990	52.497	2.788	1.00	15.55	A	O
ATOM	1542	CE2	TYR	A	204	42.224	52.290	0.542	1.00	18.32	A	C
ATOM	1543	CD2	TYR	A	204	41.711	52.883	-0.598	1.00	14.68	A	C
ATOM	1544	C	TYR	A	204	39.349	56.458	-3.057	1.00	13.44	A	C
ATOM	1545	O	TYR	A	204	40.192	57.098	-3.680	1.00	15.79	A	O
ATOM	1546	N	VAL	A	205	38.116	56.271	-3.504	1.00	11.73	A	N
ATOM	1547	CA	VAL	A	205	37.654	56.908	-4.735	1.00	11.40	A	C
ATOM	1548	CB	VAL	A	205	37.364	55.855	-5.847	1.00	17.38	A	C
ATOM	1549	CG1	VAL	A	205	36.945	56.539	-7.129	1.00	11.21	A	C
ATOM	1550	CG2	VAL	A	205	38.586	54.944	-6.069	1.00	16.54	A	C
ATOM	1551	C	VAL	A	205	36.385	57.698	-4.491	1.00	15.26	A	C
ATOM	1552	O	VAL	A	205	36.283	58.881	-4.855	1.00	14.71	A	O
ATOM	1553	N	LEU	A	206	35.409	57.037	-3.878	1.00	13.04	A	N
ATOM	1554	CA	LEU	A	206	34.057	57.590	-3.770	1.00	15.97	A	C
ATOM	1555	CB	LEU	A	206	33.021	56.463	-3.889	1.00	13.89	A	C
ATOM	1556	CG	LEU	A	206	33.032	55.788	-5.273	1.00	18.17	A	C
ATOM	1557	CD1	LEU	A	206	32.016	54.650	-5.391	1.00	18.39	A	C
ATOM	1558	CD2	LEU	A	206	32.823	56.833	-6.375	1.00	16.58	A	C
ATOM	1559	C	LEU	A	206	33.783	58.409	-2.504	1.00	14.76	A	C
ATOM	1560	O	LEU	A	206	32.795	59.130	-2.436	1.00	15.40	A	O
ATOM	1561	N	ASN	A	207	34.622	58.280	-1.484	1.00	13.35	A	N
ATOM	1562	CA	ASN	A	207	34.355	59.023	-0.261	1.00	15.62	A	C
ATOM	1563	CB	ASN	A	207	35.038	58.403	0.965	1.00	14.00	A	C
ATOM	1564	CG	ASN	A	207	34.469	58.932	2.267	1.00	20.04	A	C
ATOM	1565	OD1	ASN	A	207	33.672	59.861	2.256	1.00	22.22	A	O
ATOM	1566	ND2	ASN	A	207	34.876	58.347	3.395	1.00	20.83	A	N
ATOM	1567	C	ASN	A	207	34.804	60.460	-0.483	1.00	14.36	A	C
ATOM	1568	O	ASN	A	207	35.950	60.702	-0.821	1.00	14.95	A	O
ATOM	1569	N	ASP	A	208	33.897	61.410	-0.328	1.00	13.92	A	N
ATOM	1570	CA	ASP	A	208	34.275	62.795	-0.599	1.00	19.94	A	C
ATOM	1571	CB	ASP	A	208	33.253	63.481	-1.518	1.00	19.64	A	C
ATOM	1572	CG	ASP	A	208	31.883	63.591	-0.896	1.00	23.57	A	C
ATOM	1573	OD1	ASP	A	208	31.729	63.218	0.280	1.00	29.10	A	O
ATOM	1574	OD2	ASP	A	208	30.955	64.065	-1.577	1.00	24.18	A	C
ATOM	1575	C	ASP	A	208	34.581	63.599	0.691	1.00	14.95	A	C
ATOM	1576	O	ASP	A	208	34.814	64.799	0.648	1.00	15.45	A	O
ATOM	1577	N	ILE	A	209	34.580	62.917	1.832	1.00	15.89	A	N
ATOM	1578	CA	ILE	A	209	35.058	63.510	3.087	1.00	16.33	A	C
ATOM	1579	C	ILE	A	209	36.134	62.623	3.708	1.00	18.05	A	C
ATOM	1580	O	ILE	A	209	36.209	61.427	3.447	1.00	20.93	A	O
ATOM	1581	CB	ILE	A	209	33.937	63.739	4.124	1.00	17.80	A	C
ATOM	1582	CG1	ILE	A	209	33.213	62.431	4.451	1.00	24.59	A	C
ATOM	1583	CG2	ILE	A	209	32.941	64.784	3.630	1.00	18.74	A	C
ATOM	1584	CD1	ILE	A	209	32.173	62.583	5.566	1.00	27.19	A	C
ATOM	1585	N	GLY	A	210	36.969	63.205	4.545	1.00	17.54	A	N
ATOM	1586	CA	GLY	A	210	37.984	62.410	5.189	1.00	17.19	A	C
ATOM	1587	C	GLY	A	210	38.470	63.060	6.451	1.00	16.97	A	C
ATOM	1588	O	GLY	A	210	37.847	63.989	6.985	1.00	16.62	A	O
ATOM	1589	N	VAL	A	211	39.604	62.554	6.911	1.00	16.37	A	N
ATOM	1590	CA	VAL	A	211	40.179	62.956	8.165	1.00	17.35	A	C
ATOM	1591	CB	VAL	A	211	39.734	61.965	9.258	1.00	24.67	A	C
ATOM	1592	CG1	VAL	A	211	40.744	61.862	10.365	1.00	27.96	A	C
ATOM	1593	CG2	VAL	A	211	38.352	62.361	9.791	1.00	25.47	A	C
ATOM	1594	C	VAL	A	211	41.682	62.939	7.924	1.00	18.28	A	C
ATOM	1595	O	VAL	A	211	42.205	62.071	7.214	1.00	18.90	A	O
ATOM	1596	N	ILE	A	212	42.367	63.931	8.473	1.00	17.06	A	N
ATOM	1597	CA	ILE	A	212	43.805	64.061	8.319	1.00	18.87	A	C
ATOM	1598	CB	ILE	A	212	44.158	65.327	7.526	1.00	18.19	A	C
ATOM	1599	CG1	ILE	A	212	43.514	65.252	6.126	1.00	17.80	A	C
ATOM	1600	CD1	ILE	A	212	43.711	66.513	5.300	1.00	19.83	A	C
ATOM	1601	CG2	ILE	A	212	45.672	65.503	7.452	1.00	17.45	A	C
ATOM	1602	C	ILE	A	212	44.376	64.178	9.713	1.00	21.00	A	C
ATOM	1603	O	ILE	A	212	43.892	64.980	10.498	1.00	19.28	A	O
ATOM	1604	N	PHE	A	213	45.365	63.357	10.039	1.00	21.14	A	N
ATOM	1605	CA	PHE	A	213	45.893	63.335	11.401	1.00	20.62	A	C
ATOM	1606	CB	PHE	A	213	46.266	61.896	11.797	1.00	18.18	A	C
ATOM	1607	CG	PHE	A	213	45.091	60.962	11.755	1.00	20.56	A	C
ATOM	1608	CD1	PHE	A	213	44.229	60.868	12.834	1.00	22.44	A	C
ATOM	1609	CE1	PHE	A	213	43.134	60.029	12.786	1.00	24.41	A	C
ATOM	1610	CZ	PHE	A	213	42.869	59.299	11.645	1.00	21.65	A	C
ATOM	1611	CE2	PHE	A	213	43.710	59.397	10.560	1.00	19.13	A	C
ATOM	1612	CD2	PHE	A	213	44.807	60.230	10.614	1.00	22.56	A	C

ATOM	1613	C	PHE	A	213	47.060	64.297	11.534	1.00	15.45	A	C
ATOM	1614	O	PHE	A	213	47.832	64.463	10.605	1.00	17.48	A	O
ATOM	1615	N	TYR	A	214	47.169	64.947	12.684	1.00	16.11	A	N
ATOM	1616	CA	TYR	A	214	48.258	65.888	12.903	1.00	26.87	A	C
ATOM	1617	CB	TYR	A	214	47.921	67.287	12.339	1.00	16.71	A	C
ATOM	1618	CG	TYR	A	214	46.812	68.035	13.049	1.00	18.64	A	C
ATOM	1619	CD1	TYR	A	214	45.482	67.644	12.922	1.00	20.54	A	C
ATOM	1620	CE1	TYR	A	214	44.463	68.341	13.573	1.00	20.67	A	C
ATOM	1621	CZ	TYR	A	214	44.782	69.454	14.352	1.00	26.47	A	C
ATOM	1622	OH	TYR	A	214	43.780	70.153	14.999	1.00	29.30	A	O
ATOM	1623	CE2	TYR	A	214	46.096	69.866	14.480	1.00	24.69	A	C
ATOM	1624	CD2	TYR	A	214	47.097	69.163	13.832	1.00	23.10	A	C
ATOM	1625	C	TYR	A	214	48.568	65.923	14.390	1.00	26.45	A	C
ATOM	1626	O	TYR	A	214	48.138	65.044	15.132	1.00	23.67	A	O
ATOM	1627	N	GLY	A	215	49.319	66.924	14.824	1.00	27.89	A	N
ATOM	1628	CA	GLY	A	215	49.648	67.040	16.229	1.00	30.13	A	C
ATOM	1629	C	GLY	A	215	50.945	66.348	16.595	1.00	31.72	A	C
ATOM	1630	O	GLY	A	215	51.899	66.317	15.812	1.00	27.80	A	O
ATOM	1631	N	GLU	A	216	50.988	65.789	17.798	1.00	38.27	A	N
ATOM	1632	CA	GLU	A	216	52.169	65.064	18.254	1.00	40.78	A	C
ATOM	1633	C	GLU	A	216	51.877	63.586	18.368	1.00	39.94	A	C
ATOM	1634	O	GLU	A	216	50.729	63.185	18.536	1.00	42.26	A	O
ATOM	1635	CB	GLU	A	216	52.645	65.617	19.594	1.00	45.28	A	C
ATOM	1636	CG	GLU	A	216	53.224	67.009	19.480	1.00	53.91	A	C
ATOM	1637	CD	GLU	A	216	52.622	67.992	20.475	1.00	60.35	A	C
ATOM	1638	OE1	GLU	A	216	52.680	67.724	21.698	1.00	62.14	A	O
ATOM	1639	OE2	GLU	A	216	52.093	69.035	20.024	1.00	62.08	A	O
ATOM	1640	N	VAL	A	217	52.929	62.777	18.293	1.00	44.48	A	N
ATOM	1641	CA	VAL	A	217	52.811	61.320	18.328	1.00	45.17	A	C
ATOM	1642	CB	VAL	A	217	54.199	60.668	18.334	1.00	48.29	A	C
ATOM	1643	CG1	VAL	A	217	54.240	59.519	17.377	1.00	44.34	A	C
ATOM	1644	CG2	VAL	A	217	55.246	61.696	17.953	1.00	51.49	A	C
ATOM	1645	C	VAL	A	217	52.012	60.773	19.514	1.00	47.40	A	C
ATOM	1646	O	VAL	A	217	51.326	59.758	19.387	1.00	47.84	A	O
ATOM	1647	N	ASN	A	218	52.102	61.435	20.664	1.00	50.26	A	N
ATOM	1648	CA	ASN	A	218	51.357	60.984	21.840	1.00	53.00	A	C
ATOM	1649	CB	ASN	A	218	52.282	60.788	23.051	1.00	55.28	A	C
ATOM	1650	CG	ASN	A	218	53.152	59.546	22.919	1.00	54.56	A	C
ATOM	1651	OD1	ASN	A	218	52.656	58.408	22.935	1.00	52.62	A	O
ATOM	1652	ND2	ASN	A	218	54.456	59.759	22.780	1.00	54.24	A	N
ATOM	1653	C	ASN	A	218	50.134	61.844	22.192	1.00	51.40	A	C
ATOM	1654	O	ASN	A	218	49.421	61.562	23.157	1.00	53.05	A	O
ATOM	1655	N	ASP	A	219	49.897	62.880	21.392	1.00	46.12	A	N
ATOM	1656	CA	ASP	A	219	48.655	63.650	21.449	1.00	40.28	A	C
ATOM	1657	CB	ASP	A	219	48.892	64.995	22.129	1.00	37.10	A	C
ATOM	1658	CG	ASP	A	219	47.593	65.720	22.470	1.00	38.97	A	C
ATOM	1659	OD1	ASP	A	219	46.542	65.058	22.579	1.00	38.54	A	O
ATOM	1660	OD2	ASP	A	219	47.628	66.960	22.644	1.00	43.79	A	O
ATOM	1661	C	ASP	A	219	48.126	63.861	20.014	1.00	33.99	A	C
ATOM	1662	O	ASP	A	219	48.192	64.949	19.469	1.00	30.38	A	O
ATOM	1663	N	ILE	A	220	47.613	62.797	19.419	1.00	32.89	A	N
ATOM	1664	CA	ILE	A	220	47.205	62.804	18.023	1.00	30.07	A	C
ATOM	1665	CB	ILE	A	220	47.112	61.360	17.493	1.00	32.29	A	C
ATOM	1666	CG1	ILE	A	220	48.529	60.831	17.239	1.00	30.51	A	C
ATOM	1667	CD1	ILE	A	220	48.638	59.356	17.062	1.00	31.17	A	C
ATOM	1668	CG2	ILE	A	220	46.286	61.314	16.219	1.00	34.41	A	C
ATOM	1669	C	ILE	A	220	45.899	63.584	17.796	1.00	28.30	A	C
ATOM	1670	O	ILE	A	220	44.870	63.314	18.420	1.00	29.54	A	O
ATOM	1671	N	LYS	A	221	45.966	64.579	16.923	1.00	24.64	A	N
ATOM	1672	CA	LYS	A	221	44.807	65.399	16.617	1.00	28.29	A	C
ATOM	1673	CB	LYS	A	221	45.183	66.887	16.596	1.00	28.66	A	C
ATOM	1674	CG	LYS	A	221	45.733	67.427	17.923	1.00	31.41	A	C
ATOM	1675	CD	LYS	A	221	44.748	67.153	19.063	1.00	37.29	A	C
ATOM	1676	CE	LYS	A	221	45.228	67.708	20.415	1.00	39.79	A	C
ATOM	1677	NZ	LYS	A	221	45.154	69.192	20.472	1.00	38.78	A	N
ATOM	1678	C	LYS	A	221	44.224	64.980	15.268	1.00	26.29	A	C
ATOM	1679	O	LYS	A	221	44.952	64.497	14.391	1.00	22.64	A	O
ATOM	1680	N	THR	A	222	42.918	65.174	15.105	1.00	23.51	A	N
ATOM	1681	CA	THR	A	222	42.262	64.844	13.846	1.00	27.09	A	C
ATOM	1682	CB	THR	A	222	41.198	63.754	14.031	1.00	32.49	A	C
ATOM	1683	OG1	THR	A	222	40.100	64.298	14.768	1.00	38.20	A	O
ATOM	1684	CG2	THR	A	222	41.765	62.572	14.801	1.00	32.61	A	C
ATOM	1685	C	THR	A	222	41.576	66.075	13.276	1.00	26.54	A	C
ATOM	1686	O	THR	A	222	40.872	66.793	13.988	1.00	29.86	A	O
ATOM	1687	N	ARG	A	223	41.802	66.335	11.996	1.00	22.92	A	N
ATOM	1688	C	ARG	A	223	40.256	66.896	10.184	1.00	22.18	A	C
ATOM	1689	O	ARG	A	223	40.732	66.131	9.328	1.00	18.39	A	O

ATOM	1690	CA	AARG	A	223	41.070	67.415	11.361	0.45	23.37	A	C
ATOM	1691	CB	AARG	A	223	41.961	68.616	11.007	0.45	22.57	A	C
ATOM	1692	CG	AARG	A	223	42.696	68.549	9.692	0.45	21.19	A	C
ATOM	1693	CD	AARG	A	223	42.579	69.890	8.968	0.45	21.09	A	C
ATOM	1694	NE	AARG	A	223	42.914	71.027	9.824	0.45	22.24	A	N
ATOM	1695	CZ	AARG	A	223	42.212	72.158	9.884	0.45	20.43	A	C
ATOM	1696	NH1	AARG	A	223	41.127	72.317	9.137	0.45	22.19	A	N
ATOM	1697	NH2	AARG	A	223	42.596	73.134	10.685	0.45	16.12	A	N
ATOM	1698	CA	BARG	A	223	41.172	67.442	11.286	0.55	23.26	A	C
ATOM	1699	CB	BARG	A	223	42.267	68.295	10.651	0.55	22.16	A	C
ATOM	1700	CG	BARG	A	223	41.807	69.639	10.147	0.55	21.38	A	C
ATOM	1701	CD	BARG	A	223	42.902	70.296	9.331	0.55	21.22	A	C
ATOM	1702	NE	BARG	A	223	44.224	70.160	9.943	0.55	20.97	A	N
ATOM	1703	CZ	BARG	A	223	44.836	71.126	10.620	0.55	22.10	A	C
ATOM	1704	NH1	BARG	A	223	44.236	72.304	10.777	0.55	18.79	A	N
ATOM	1705	NH2	BARG	A	223	46.052	70.919	11.129	0.55	21.56	A	N
ATOM	1706	N	SER	A	224	38.978	67.270	10.183	1.00	19.86	A	N
ATOM	1707	CA	SER	A	224	38.109	66.809	9.108	1.00	21.85	A	C
ATOM	1708	CB	SER	A	224	36.627	66.969	9.458	1.00	24.13	A	C
ATOM	1709	OG	SER	A	224	36.272	68.337	9.505	1.00	31.07	A	O
ATOM	1710	C	SER	A	224	38.463	67.551	7.833	1.00	18.87	A	C
ATOM	1711	O	SER	A	224	39.012	68.645	7.878	1.00	17.59	A	O
ATOM	1712	N	TRP	A	225	38.165	66.951	6.691	1.00	16.11	A	N
ATOM	1713	CA	TRP	A	225	38.459	67.593	5.430	1.00	16.29	A	C
ATOM	1714	CB	TRP	A	225	39.861	67.246	4.941	1.00	15.03	A	C
ATOM	1715	CG	TRP	A	225	40.356	68.200	3.859	1.00	13.05	A	C
ATOM	1716	CD1	TRP	A	225	40.254	68.043	2.496	1.00	11.41	A	C
ATOM	1717	NE1	TRP	A	225	40.832	69.114	1.853	1.00	12.55	A	N
ATOM	1718	CE2	TRP	A	225	41.309	69.993	2.801	1.00	12.41	A	C
ATOM	1719	CD2	TRP	A	225	41.020	69.452	4.071	1.00	13.01	A	C
ATOM	1720	CE3	TRP	A	225	41.402	70.161	5.209	1.00	16.80	A	C
ATOM	1721	CZ3	TRP	A	225	42.048	71.406	5.047	1.00	16.69	A	C
ATOM	1722	CH2	TRP	A	225	42.317	71.910	3.777	1.00	14.73	A	C
ATOM	1723	CZ2	TRP	A	225	41.952	71.225	2.643	1.00	15.03	A	C
ATOM	1724	C	TRP	A	225	37.441	67.171	4.382	1.00	19.64	A	C
ATOM	1725	O	TRP	A	225	37.151	65.974	4.216	1.00	18.32	A	O
ATOM	1726	N	SER	A	226	36.902	68.166	3.687	1.00	17.04	A	N
ATOM	1727	CA	SER	A	226	35.950	67.927	2.631	1.00	20.72	A	C
ATOM	1728	CB	SER	A	226	34.889	69.030	2.661	1.00	26.84	A	C
ATOM	1729	OG	SER	A	226	34.002	68.867	1.575	1.00	35.39	A	O
ATOM	1730	C	SER	A	226	36.672	67.893	1.281	1.00	17.19	A	C
ATOM	1731	O	SER	A	226	37.107	68.932	0.773	1.00	16.88	A	O
ATOM	1732	N	TYR	A	227	36.821	66.716	0.691	1.00	14.87	A	N
ATOM	1733	CA	TYR	A	227	37.537	66.664	-0.584	1.00	17.33	A	C
ATOM	1734	CB	TYR	A	227	38.018	65.256	-0.908	1.00	13.66	A	C
ATOM	1735	CG	TYR	A	227	38.873	64.673	0.191	1.00	12.85	A	C
ATOM	1736	CD1	TYR	A	227	40.053	65.289	0.582	1.00	14.27	A	C
ATOM	1737	CE1	TYR	A	227	40.840	64.763	1.621	1.00	15.77	A	C
ATOM	1738	CZ	TYR	A	227	40.429	63.607	2.257	1.00	21.60	A	C
ATOM	1739	OH	TYR	A	227	41.185	63.069	3.284	1.00	21.53	A	O
ATOM	1740	CE2	TYR	A	227	39.251	62.977	1.872	1.00	18.29	A	C
ATOM	1741	CD2	TYR	A	227	38.484	63.510	0.853	1.00	16.46	A	C
ATOM	1742	C	TYR	A	227	36.683	67.242	-1.719	1.00	16.58	A	C
ATOM	1743	O	TYR	A	227	37.199	67.901	-2.619	1.00	13.48	A	O
ATOM	1744	N	GLY	A	228	35.384	66.988	-1.645	1.00	15.24	A	N
ATOM	1745	CA	GLY	A	228	34.426	67.570	-2.567	1.00	15.47	A	C
ATOM	1746	C	GLY	A	228	34.675	67.250	-4.031	1.00	15.85	A	C
ATOM	1747	O	GLY	A	228	34.362	68.071	-4.890	1.00	15.95	A	O
ATOM	1748	N	GLN	A	229	35.193	66.060	-4.337	1.00	15.62	A	N
ATOM	1749	CA	GLN	A	229	35.555	65.766	-5.726	1.00	14.00	A	C
ATOM	1750	CB	GLN	A	229	36.369	64.459	-5.884	1.00	13.35	A	C
ATOM	1751	CG	GLN	A	229	35.664	63.157	-5.483	1.00	12.48	A	C
ATOM	1752	CD	GLN	A	229	35.926	62.792	-4.019	1.00	15.93	A	C
ATOM	1753	OE1	GLN	A	229	36.116	63.681	-3.176	1.00	16.00	A	O
ATOM	1754	NE2	GLN	A	229	35.955	61.483	-3.712	1.00	12.80	A	N
ATOM	1755	C	GLN	A	229	34.334	65.755	-6.653	1.00	14.01	A	C
ATOM	1756	O	GLN	A	229	34.481	65.864	-7.873	1.00	15.63	A	O
ATOM	1757	N	PHE	A	230	33.139	65.638	-6.085	1.00	12.44	A	N
ATOM	1758	CA	PHE	A	230	31.937	65.544	-6.920	1.00	17.20	A	C
ATOM	1759	CB	PHE	A	230	31.003	64.458	-6.390	1.00	17.27	A	C
ATOM	1760	CG	PHE	A	230	31.676	63.125	-6.263	1.00	18.77	A	C
ATOM	1761	CD1	PHE	A	230	32.176	62.483	-7.391	1.00	16.74	A	C
ATOM	1762	CE1	PHE	A	230	32.829	61.262	-7.285	1.00	14.58	A	C
ATOM	1763	CZ	PHE	A	230	32.989	60.676	-6.037	1.00	16.24	A	C
ATOM	1764	CE2	PHE	A	230	32.501	61.314	-4.898	1.00	16.37	A	C
ATOM	1765	CD2	PHE	A	230	31.856	62.536	-5.016	1.00	18.52	A	C
ATOM	1766	C	PHE	A	230	31.190	66.858	-7.090	1.00	19.76	A	C

ATOM	1767	O	PHE	A	230	30.200	66.920	-7.833	1.00	16.86	A	O
ATOM	1768	N	GLU	A	231	31.654	67.906	-6.412	1.00	16.44	A	N
ATOM	1769	CA	GLU	A	231	30.969	69.209	-6.484	1.00	20.53	A	C
ATOM	1770	C	GLU	A	231	31.049	69.859	-7.852	1.00	13.00	A	C
ATOM	1771	O	GLU	A	231	32.027	69.685	-8.583	1.00	14.60	A	O
ATOM	1772	CB	GLU	A	231	31.547	70.207	-5.483	1.00	22.50	A	C
ATOM	1773	CG	GLU	A	231	31.890	69.616	-4.181	1.00	29.77	A	C
ATOM	1774	CD	GLU	A	231	30.777	69.684	-3.200	1.00	39.13	A	C
ATOM	1775	OE1	GLU	A	231	29.813	68.898	-3.352	1.00	43.17	A	O
ATOM	1776	OE2	GLU	A	231	30.887	70.517	-2.265	1.00	42.46	A	O
ATOM	1777	N	ASP	A	232	30.023	70.641	-8.162	1.00	16.31	A	N
ATOM	1778	CA	ASP	A	232	29.941	71.368	-9.425	1.00	19.29	A	C
ATOM	1779	CB	ASP	A	232	28.737	72.318	-9.373	1.00	23.01	A	C
ATOM	1780	CG	ASP	A	232	28.357	72.865	-10.737	1.00	31.05	A	C
ATOM	1781	OD1	ASP	A	232	29.092	72.620	-11.708	1.00	30.52	A	O
ATOM	1782	OD2	ASP	A	232	27.316	73.554	-10.835	1.00	38.83	A	O
ATOM	1783	C	ASP	A	232	31.236	72.154	-9.686	1.00	17.18	A	C
ATOM	1784	O	ASP	A	232	31.703	72.903	-8.827	1.00	17.98	A	O
ATOM	1785	N	GLY	A	233	31.815	71.977	-10.863	1.00	14.59	A	N
ATOM	1786	CA	GLY	A	233	33.019	72.702	-11.219	1.00	13.97	A	C
ATOM	1787	C	GLY	A	233	34.334	71.973	-10.928	1.00	16.34	A	C
ATOM	1788	O	GLY	A	233	35.345	72.283	-11.546	1.00	15.80	A	O
ATOM	1789	N	ILE	A	234	34.344	71.001	-10.014	1.00	12.24	A	N
ATOM	1790	CA	ILE	A	234	35.625	70.422	-9.592	1.00	10.91	A	C
ATOM	1791	CB	ILE	A	234	35.531	69.696	-8.218	1.00	14.56	A	C
ATOM	1792	CG1	ILE	A	234	35.196	70.692	-7.091	1.00	16.61	A	C
ATOM	1793	CD1	ILE	A	234	36.287	71.769	-6.853	1.00	10.20	A	C
ATOM	1794	CG2	ILE	A	234	36.833	69.009	-7.900	1.00	14.38	A	C
ATOM	1795	C	ILE	A	234	36.323	69.551	-10.649	1.00	14.00	A	C
ATOM	1796	O	ILE	A	234	37.530	69.710	-10.898	1.00	16.19	A	O
ATOM	1797	N	LEU	A	235	35.579	68.628	-11.259	1.00	15.56	A	N
ATOM	1798	CA	LEU	A	235	36.114	67.840	-12.359	1.00	15.70	A	C
ATOM	1799	CB	LEU	A	235	35.040	66.883	-12.922	1.00	13.41	A	C
ATOM	1800	CG	LEU	A	235	35.443	66.076	-14.149	1.00	12.70	A	C
ATOM	1801	CD1	LEU	A	235	36.817	65.377	-13.931	1.00	14.04	A	C
ATOM	1802	CD2	LEU	A	235	34.339	65.035	-14.445	1.00	14.53	A	C
ATOM	1803	C	LEU	A	235	36.694	68.749	-13.457	1.00	13.84	A	C
ATOM	1804	O	LEU	A	235	37.822	68.533	-13.933	1.00	11.07	A	O
ATOM	1805	N	ASP	A	236	35.938	69.761	-13.852	1.00	13.92	A	N
ATOM	1806	CA	ASP	A	236	36.443	70.731	-14.831	1.00	15.34	A	C
ATOM	1807	CB	ASP	A	236	35.346	71.752	-15.190	1.00	16.65	A	C
ATOM	1808	CG	ASP	A	236	34.311	71.167	-16.153	1.00	18.99	A	C
ATOM	1809	OD1	ASP	A	236	34.730	70.369	-17.006	1.00	17.50	A	O
ATOM	1810	OD2	ASP	A	236	33.094	71.477	-16.061	1.00	22.44	A	O
ATOM	1811	C	ASP	A	236	37.738	71.425	-14.357	1.00	15.29	A	C
ATOM	1812	O	ASP	A	236	38.677	71.647	-15.139	1.00	13.29	A	O
ATOM	1813	N	THR	A	237	37.808	71.745	-13.069	1.00	13.39	A	N
ATOM	1814	CA	THR	A	237	39.001	72.393	-12.555	1.00	11.80	A	C
ATOM	1815	CB	THR	A	237	38.748	72.939	-11.141	1.00	15.61	A	C
ATOM	1816	OG1	THR	A	237	37.619	73.829	-11.179	1.00	15.71	A	O
ATOM	1817	CG2	THR	A	237	39.969	73.666	-10.607	1.00	16.53	A	C
ATOM	1818	C	THR	A	237	40.193	71.439	-12.599	1.00	11.37	A	C
ATOM	1819	O	THR	A	237	41.321	71.861	-12.903	1.00	11.41	A	O
ATOM	1820	N	CYS	A	238	39.956	70.147	-12.346	1.00	13.54	A	N
ATOM	1821	CA	CYS	A	238	41.065	69.195	-12.431	1.00	10.71	A	C
ATOM	1822	CB	CYS	A	238	40.687	67.799	-11.896	1.00	10.89	A	C
ATOM	1823	SG	CYS	A	238	40.257	67.801	-10.138	1.00	15.65	A	S
ATOM	1824	C	CYS	A	238	41.623	69.107	-13.841	1.00	12.74	A	C
ATOM	1825	O	CYS	A	238	42.830	68.975	-14.024	1.00	12.56	A	O
ATOM	1826	N	LEU	A	239	40.753	69.161	-14.851	1.00	12.68	A	N
ATOM	1827	CA	LEU	A	239	41.229	69.166	-16.235	1.00	13.38	A	C
ATOM	1828	CB	LEU	A	239	40.061	69.003	-17.222	1.00	10.02	A	C
ATOM	1829	CG	LEU	A	239	39.189	67.742	-17.012	1.00	10.63	A	C
ATOM	1830	CD1	LEU	A	239	38.206	67.569	-18.148	1.00	11.99	A	C
ATOM	1831	CD2	LEU	A	239	40.035	66.490	-16.841	1.00	11.67	A	C
ATOM	1832	C	LEU	A	239	41.997	70.461	-16.527	1.00	13.83	A	C
ATOM	1833	O	LEU	A	239	43.065	70.441	-17.160	1.00	15.12	A	O
ATOM	1834	N	TYR	A	240	41.440	71.575	-16.057	1.00	12.33	A	N
ATOM	1835	CA	TYR	A	240	42.108	72.896	-16.088	1.00	14.11	A	C
ATOM	1836	CB	TYR	A	240	41.243	73.934	-15.375	1.00	11.22	A	C
ATOM	1837	CG	TYR	A	240	41.868	75.335	-15.283	1.00	14.71	A	C
ATOM	1838	CD1	TYR	A	240	41.929	76.176	-16.399	1.00	13.51	A	C
ATOM	1839	CE1	TYR	A	240	42.507	77.439	-16.315	1.00	17.85	A	C
ATOM	1840	CZ	TYR	A	240	43.007	77.873	-15.094	1.00	20.38	A	C
ATOM	1841	OH	TYR	A	240	43.577	79.115	-14.975	1.00	19.60	A	O
ATOM	1842	CE2	TYR	A	240	42.941	77.065	-13.974	1.00	17.81	A	C
ATOM	1843	CD2	TYR	A	240	42.374	75.805	-14.069	1.00	13.55	A	C

ATOM	1844	C	TYR	A	240	43.523	72.860	-15.470	1.00	14.93	A	C
ATOM	1845	O	TYR	A	240	44.482	73.437	-16.019	1.00	13.74	A	O
ATOM	1846	N	VAL	A	241	43.651	72.181	-14.337	1.00	10.15	A	N
ATOM	1847	CA	VAL	A	241	44.971	72.022	-13.719	1.00	11.80	A	C
ATOM	1848	CB	VAL	A	241	44.900	71.257	-12.380	1.00	12.30	A	C
ATOM	1849	CG1	VAL	A	241	46.307	70.866	-11.901	1.00	14.01	A	C
ATOM	1850	CG2	VAL	A	241	44.209	72.116	-11.330	1.00	15.00	A	C
ATOM	1851	C	VAL	A	241	45.987	71.375	-14.668	1.00	12.29	A	C
ATOM	1852	O	VAL	A	241	47.115	71.836	-14.794	1.00	13.62	A	O
ATOM	1853	N	MET	A	242	45.578	70.314	-15.359	1.00	12.50	A	N
ATOM	1854	CA	MET	A	242	46.472	69.702	-16.317	1.00	11.67	A	C
ATOM	1855	CB	MET	A	242	45.938	68.315	-16.738	1.00	10.44	A	C
ATOM	1856	CG	MET	A	242	46.152	67.281	-15.635	1.00	10.95	A	C
ATOM	1857	SD	MET	A	242	45.477	65.646	-16.004	1.00	15.74	A	S
ATOM	1858	CE	MET	A	242	43.691	65.971	-16.028	1.00	8.74	A	C
ATOM	1859	C	MET	A	242	46.750	70.612	-17.506	1.00	11.24	A	C
ATOM	1860	O	MET	A	242	47.873	70.628	-18.024	1.00	12.08	A	O
ATOM	1861	N	ASP	A	243	45.738	71.347	-17.974	1.00	10.25	A	N
ATOM	1862	CA	ASP	A	243	45.988	72.308	-19.041	1.00	13.45	A	C
ATOM	1863	CB	ASP	A	243	44.698	73.006	-19.461	1.00	14.76	A	C
ATOM	1864	CG	ASP	A	243	43.704	72.063	-20.143	1.00	16.83	A	C
ATOM	1865	OD1	ASP	A	243	44.057	70.895	-20.481	1.00	17.23	A	O
ATOM	1866	OD2	ASP	A	243	42.554	72.503	-20.317	1.00	14.84	A	O
ATOM	1867	C	ASP	A	243	46.989	73.383	-18.568	1.00	16.26	A	C
ATOM	1868	O	ASP	A	243	47.900	73.775	-19.300	1.00	11.91	A	O
ATOM	1869	N	ARG	A	244	46.812	73.834	-17.334	1.00	14.22	A	N
ATOM	1870	CA	ARG	A	244	47.667	74.886	-16.788	1.00	16.41	A	C
ATOM	1871	CB	ARG	A	244	47.144	75.304	-15.415	1.00	12.75	A	C
ATOM	1872	CG	ARG	A	244	45.967	76.245	-15.474	1.00	16.41	A	C
ATOM	1873	CD	ARG	A	244	46.439	77.647	-15.801	1.00	22.66	A	C
ATOM	1874	NE	ARG	A	244	47.178	78.180	-14.655	1.00	29.87	A	N
ATOM	1875	CZ	ARG	A	244	47.267	79.468	-14.330	1.00	25.16	A	C
ATOM	1876	NH1	ARG	A	244	46.646	80.375	-15.056	1.00	25.17	A	N
ATOM	1877	NH2	ARG	A	244	47.963	79.842	-13.254	1.00	20.28	A	N
ATOM	1878	C	ARG	A	244	49.108	74.384	-16.694	1.00	19.93	A	C
ATOM	1879	O	ARG	A	244	50.059	75.163	-16.745	1.00	19.46	A	O
ATOM	1880	N	ALA	A	245	49.258	73.066	-16.577	1.00	18.46	A	N
ATOM	1881	CA	ALA	A	245	50.580	72.457	-16.537	1.00	16.20	A	C
ATOM	1882	CB	ALA	A	245	50.509	71.083	-15.847	1.00	13.60	A	C
ATOM	1883	C	ALA	A	245	51.170	72.295	-17.917	1.00	16.96	A	C
ATOM	1884	O	ALA	A	245	52.307	71.857	-18.030	1.00	18.41	A	O
ATOM	1885	N	GLN	A	246	50.393	72.619	-18.961	1.00	14.06	A	N
ATOM	1886	CA	GLN	A	246	50.741	72.253	-20.342	1.00	15.33	A	C
ATOM	1887	CB	GLN	A	246	51.886	73.102	-20.848	1.00	20.10	A	C
ATOM	1888	CG	GLN	A	246	51.574	74.600	-20.877	1.00	23.50	A	C
ATOM	1889	CD	GLN	A	246	52.813	75.392	-21.157	1.00	31.96	A	C
ATOM	1890	OE1	GLN	A	246	53.115	75.693	-22.302	1.00	33.31	A	O
ATOM	1891	NE2	GLN	A	246	53.563	75.712	-20.108	1.00	37.96	A	N
ATOM	1892	C	GLN	A	246	51.086	70.754	-20.496	1.00	16.38	A	C
ATOM	1893	O	GLN	A	246	52.045	70.369	-21.173	1.00	16.30	A	O
ATOM	1894	N	MET	A	247	50.310	69.920	-19.830	1.00	17.08	A	N
ATOM	1895	CA	MET	A	247	50.532	68.480	-19.871	1.00	14.11	A	C
ATOM	1896	CB	MET	A	247	49.819	67.812	-18.703	1.00	11.88	A	C
ATOM	1897	CG	MET	A	247	50.042	66.301	-18.684	1.00	10.49	A	C
ATOM	1898	SD	MET	A	247	49.146	65.537	-17.332	1.00	16.54	A	S
ATOM	1899	CE	MET	A	247	49.688	63.823	-17.487	1.00	12.36	A	C
ATOM	1900	C	MET	A	247	49.992	67.902	-21.169	1.00	16.74	A	C
ATOM	1901	O	MET	A	247	48.795	68.008	-21.433	1.00	13.69	A	O
ATOM	1902	N	ASP	A	248	50.867	67.308	-21.977	1.00	12.76	A	N
ATOM	1903	CA	ASP	A	248	50.448	66.686	-23.238	1.00	18.55	A	C
ATOM	1904	CB	ASP	A	248	51.604	65.929	-23.871	1.00	23.40	A	C
ATOM	1905	CG	ASP	A	248	52.553	66.843	-24.622	1.00	33.32	A	C
ATOM	1906	OD1	ASP	A	248	52.443	68.081	-24.482	1.00	34.25	A	O
ATOM	1907	OD2	ASP	A	248	53.418	66.322	-25.355	1.00	41.85	A	O
ATOM	1908	C	ASP	A	248	49.268	65.738	-23.032	1.00	19.10	A	C
ATOM	1909	O	ASP	A	248	49.283	64.881	-22.127	1.00	16.09	A	O
ATOM	1910	N	LEU	A	249	48.234	65.907	-23.847	1.00	17.89	A	N
ATOM	1911	CA	LEU	A	249	47.051	65.067	-23.705	1.00	17.84	A	C
ATOM	1912	CB	LEU	A	249	45.984	65.418	-24.752	1.00	19.97	A	C
ATOM	1913	CG	LEU	A	249	45.282	66.725	-24.429	1.00	18.24	A	C
ATOM	1914	CD1	LEU	A	249	44.595	67.235	-25.675	1.00	21.34	A	C
ATOM	1915	CD2	LEU	A	249	44.301	66.563	-23.281	1.00	14.17	A	C
ATOM	1916	C	LEU	A	249	47.371	63.576	-23.786	1.00	14.47	A	C
ATOM	1917	O	LEU	A	249	46.791	62.791	-23.050	1.00	14.60	A	O
ATOM	1918	N	ASER	A	250	48.299	63.203	-24.660	0.61	14.27	A	N
ATOM	1919	CA	ASER	A	250	48.606	61.793	-24.907	0.61	17.95	A	C
ATOM	1920	CB	ASER	A	250	49.667	61.645	-25.998	0.61	19.48	A	C

ATOM	1921	OG	ASER	A	250	50.867	62.288	-25.609	0.61	19.30	A	O
ATOM	1922	C	ASER	A	250	49.073	61.063	-23.651	0.61	18.81	A	C
ATOM	1923	O	ASER	A	250	49.035	59.838	-23.603	0.61	19.48	A	O
ATOM	1924	N	BSER	A	250	48.299	63.200	-24.660	0.39	14.90	A	N
ATOM	1925	CA	BSER	A	250	48.604	61.788	-24.900	0.39	17.84	A	C
ATOM	1926	CB	BSER	A	250	49.618	61.631	-26.033	0.39	19.47	A	C
ATOM	1927	OG	BSER	A	250	49.078	62.104	-27.250	0.39	21.12	A	O
ATOM	1928	C	BSER	A	250	49.107	61.060	-23.659	0.39	18.67	A	C
ATOM	1929	O	BSER	A	250	49.128	59.832	-23.629	0.39	19.37	A	O
ATOM	1930	N	GLY	A	251	49.515	61.815	-22.642	1.00	17.68	A	N
ATOM	1931	CA	GLY	A	251	49.996	61.215	-21.402	1.00	16.83	A	C
ATOM	1932	C	GLY	A	251	48.981	61.151	-20.267	1.00	15.47	A	C
ATOM	1933	O	GLY	A	251	49.244	60.550	-19.227	1.00	15.70	A	O
ATOM	1934	N	ARG	A	252	47.808	61.737	-20.460	1.00	14.58	A	N
ATOM	1935	CA	ARG	A	252	46.816	61.826	-19.383	1.00	14.79	A	C
ATOM	1936	CB	ARG	A	252	45.848	62.978	-19.659	1.00	13.31	A	C
ATOM	1937	CG	ARG	A	252	46.552	64.308	-19.780	1.00	11.79	A	C
ATOM	1938	CD	ARG	A	252	45.551	65.470	-19.866	1.00	14.31	A	C
ATOM	1939	NE	ARG	A	252	46.223	66.716	-20.216	1.00	15.36	A	N
ATOM	1940	CZ	ARG	A	252	45.646	67.913	-20.204	1.00	16.25	A	C
ATOM	1941	NH1	ARG	A	252	44.373	68.045	-19.822	1.00	10.55	A	N
ATOM	1942	NH2	ARG	A	252	46.349	68.986	-20.555	1.00	12.30	A	N
ATOM	1943	C	ARG	A	252	46.030	60.531	-19.124	1.00	14.16	A	C
ATOM	1944	O	ARG	A	252	45.143	60.502	-18.278	1.00	16.49	A	O
ATOM	1945	N	GLY	A	253	46.347	59.463	-19.841	1.00	12.49	A	N
ATOM	1946	CA	GLY	A	253	45.809	58.154	-19.488	1.00	14.65	A	C
ATOM	1947	C	GLY	A	253	46.784	57.363	-18.616	1.00	15.05	A	C
ATOM	1948	O	GLY	A	253	46.535	56.212	-18.239	1.00	16.57	A	O
ATOM	1949	N	ASN	A	254	47.905	57.985	-18.292	1.00	13.80	A	N
ATOM	1950	CA	ASN	A	254	48.943	57.319	-17.530	1.00	12.17	A	C
ATOM	1951	CB	ASN	A	254	50.301	57.507	-18.236	1.00	12.94	A	C
ATOM	1952	CG	ASN	A	254	51.432	56.733	-17.564	1.00	15.46	A	C
ATOM	1953	OD1	ASN	A	254	51.351	56.412	-16.383	1.00	18.08	A	O
ATOM	1954	ND2	ASN	A	254	52.494	56.448	-18.312	1.00	17.45	A	N
ATOM	1955	C	ASN	A	254	48.944	57.879	-16.109	1.00	11.04	A	C
ATOM	1956	O	ASN	A	254	49.293	59.040	-15.895	1.00	11.75	A	O
ATOM	1957	N	PRO	A	255	48.529	57.065	-15.126	1.00	12.95	A	N
ATOM	1958	CA	PRO	A	255	48.404	57.648	-13.778	1.00	10.76	A	C
ATOM	1959	CB	PRO	A	255	47.625	56.584	-13.003	1.00	12.61	A	C
ATOM	1960	CG	PRO	A	255	48.008	55.285	-13.690	1.00	15.41	A	C
ATOM	1961	CD	PRO	A	255	48.129	55.642	-15.164	1.00	16.14	A	C
ATOM	1962	C	PRO	A	255	49.759	57.971	-13.124	1.00	10.21	A	C
ATOM	1963	O	PRO	A	255	49.787	58.728	-12.160	1.00	13.13	A	O
ATOM	1964	N	ILE	A	256	50.857	57.428	-13.651	1.00	9.95	A	N
ATOM	1965	CA	ILE	A	256	52.187	57.821	-13.197	1.00	9.94	A	C
ATOM	1966	CB	ILE	A	256	53.256	56.939	-13.836	1.00	11.34	A	C
ATOM	1967	CG1	ILE	A	256	53.091	55.477	-13.355	1.00	15.47	A	C
ATOM	1968	CD1	ILE	A	256	53.990	54.488	-14.077	1.00	16.49	A	C
ATOM	1969	CG2	ILE	A	256	54.648	57.413	-13.478	1.00	15.23	A	C
ATOM	1970	C	ILE	A	256	52.413	59.299	-13.566	1.00	16.67	A	C
ATOM	1971	O	ILE	A	256	52.798	60.121	-12.733	1.00	13.80	A	O
ATOM	1972	N	LYS	A	257	52.151	59.625	-14.823	1.00	14.01	A	N
ATOM	1973	CA	LYS	A	257	52.277	60.989	-15.321	1.00	11.46	A	C
ATOM	1974	CB	LYS	A	257	52.092	61.008	-16.848	1.00	10.97	A	C
ATOM	1975	CG	LYS	A	257	53.251	60.312	-17.559	1.00	14.08	A	C
ATOM	1976	CD	LYS	A	257	53.200	60.488	-19.080	1.00	16.08	A	C
ATOM	1977	CE	LYS	A	257	54.438	59.900	-19.710	1.00	21.29	A	C
ATOM	1978	NZ	LYS	A	257	54.286	59.932	-21.192	1.00	30.01	A	N
ATOM	1979	C	LYS	A	257	51.283	61.942	-14.674	1.00	13.49	A	C
ATOM	1980	O	LYS	A	257	51.644	63.076	-14.290	1.00	13.15	A	O
ATOM	1981	N	VAL	A	258	50.032	61.506	-14.561	1.00	8.97	A	N
ATOM	1982	CA	VAL	A	258	49.013	62.385	-14.006	1.00	10.20	A	C
ATOM	1983	CB	VAL	A	258	47.627	61.768	-14.112	1.00	10.38	A	C
ATOM	1984	CG1	VAL	A	258	46.627	62.523	-13.238	1.00	10.22	A	C
ATOM	1985	CG2	VAL	A	258	47.196	61.741	-15.574	1.00	10.55	A	C
ATOM	1986	C	VAL	A	258	49.335	62.699	-12.550	1.00	13.63	A	C
ATOM	1987	O	VAL	A	258	49.211	63.850	-12.104	1.00	12.26	A	O
ATOM	1988	N	SER	A	259	49.771	61.684	-11.803	1.00	9.95	A	N
ATOM	1989	CA	SER	A	259	50.094	61.946	-10.405	1.00	11.12	A	C
ATOM	1990	CB	SER	A	259	50.184	60.624	-9.604	1.00	13.07	A	C
ATOM	1991	OG	SER	A	259	51.332	59.882	-9.985	1.00	12.13	A	O
ATOM	1992	C	SER	A	259	51.357	62.804	-10.269	1.00	12.20	A	C
ATOM	1993	O	SER	A	259	51.422	63.701	-9.421	1.00	12.46	A	O
ATOM	1994	N	ARG	A	260	52.363	62.557	-11.102	1.00	13.13	A	N
ATOM	1995	CA	ARG	A	260	53.574	63.386	-11.038	1.00	13.17	A	C
ATOM	1996	CB	ARG	A	260	54.708	62.815	-11.892	1.00	10.42	A	C
ATOM	1997	CG	ARG	A	260	56.042	63.546	-11.739	1.00	14.10	A	C

ATOM	1998	CD	ARG	A	260	57.203	62.601	-12.028	1.00	13.91	A	C
ATOM	1999	NE	ARG	A	260	58.494	63.283	-12.113	1.00	12.82	A	N
ATOM	2000	CZ	ARG	A	260	59.253	63.619	-11.060	1.00	14.38	A	C
ATOM	2001	NH1	ARG	A	260	58.848	63.386	-9.815	1.00	11.76	A	N
ATOM	2002	NH2	ARG	A	260	60.423	64.204	-11.254	1.00	15.12	A	N
ATOM	2003	C	ARG	A	260	53.290	64.841	-11.417	1.00	14.95	A	C
ATOM	2004	O	ARG	A	260	53.822	65.754	-10.790	1.00	17.35	A	O
ATOM	2005	N	VAL	A	261	52.452	65.058	-12.432	1.00	13.29	A	N
ATOM	2006	CA	VAL	A	261	52.001	66.408	-12.766	1.00	11.45	A	C
ATOM	2007	CB	VAL	A	261	51.153	66.452	-14.080	1.00	10.54	A	C
ATOM	2008	CG1	VAL	A	261	50.537	67.842	-14.281	1.00	11.43	A	C
ATOM	2009	CG2	VAL	A	261	52.043	66.152	-15.284	1.00	10.37	A	C
ATOM	2010	C	VAL	A	261	51.256	67.041	-11.587	1.00	14.59	A	C
ATOM	2011	O	VAL	A	261	51.502	68.199	-11.234	1.00	14.54	A	O
ATOM	2012	N	GLY	A	262	50.365	66.273	-10.968	1.00	12.78	A	N
ATOM	2013	CA	GLY	A	262	49.605	66.768	-9.826	1.00	13.47	A	C
ATOM	2014	C	GLY	A	262	50.490	67.173	-8.660	1.00	13.25	A	C
ATOM	2015	O	GLY	A	262	50.221	68.147	-7.942	1.00	12.61	A	O
ATOM	2016	N	SER	A	263	51.580	66.446	-8.472	1.00	13.71	A	N
ATOM	2017	C	SER	A	263	53.203	68.121	-7.633	1.00	13.82	A	C
ATOM	2018	O	SER	A	263	53.544	68.835	-6.693	1.00	14.83	A	O
ATOM	2019	CA	ASER	A	263	52.493	66.786	-7.380	0.58	13.08	A	C
ATOM	2020	CB	ASER	A	263	53.518	65.681	-7.135	0.58	12.42	A	C
ATOM	2021	OG	ASER	A	263	54.533	65.676	-8.125	0.58	9.14	A	O
ATOM	2022	CA	BSER	A	263	52.521	66.762	-7.406	0.42	12.93	A	C
ATOM	2023	CB	BSER	A	263	53.562	65.653	-7.317	0.42	12.38	A	C
ATOM	2024	OG	BSER	A	263	54.648	66.041	-6.510	0.42	9.16	A	O
ATOM	2025	N	ALA	A	264	53.447	68.462	-8.890	1.00	13.09	A	N
ATOM	2026	CA	ALA	A	264	54.007	69.779	-9.169	1.00	10.95	A	C
ATOM	2027	CB	ALA	A	264	54.667	69.829	-10.565	1.00	10.21	A	C
ATOM	2028	C	ALA	A	264	52.913	70.832	-9.058	1.00	10.18	A	C
ATOM	2029	O	ALA	A	264	53.066	71.816	-8.342	1.00	13.16	A	O
ATOM	2030	N	MET	A	265	51.783	70.589	-9.716	1.00	10.25	A	N
ATOM	2031	CA	MET	A	265	50.781	71.631	-9.978	1.00	12.91	A	C
ATOM	2032	CB	MET	A	265	49.817	71.180	-11.078	1.00	13.65	A	C
ATOM	2033	CG	MET	A	265	50.336	71.369	-12.459	1.00	17.25	A	C
ATOM	2034	SD	MET	A	265	50.704	73.098	-12.877	1.00	16.92	A	S
ATOM	2035	CE	MET	A	265	49.116	73.888	-12.654	1.00	11.39	A	C
ATOM	2036	C	MET	A	265	49.963	72.082	-8.785	1.00	13.38	A	C
ATOM	2037	O	MET	A	265	49.405	73.178	-8.799	1.00	10.41	A	O
ATOM	2038	N	VAL	A	266	49.880	71.249	-7.759	1.00	13.22	A	N
ATOM	2039	CA	VAL	A	266	49.090	71.602	-6.586	1.00	11.98	A	C
ATOM	2040	CB	VAL	A	266	48.661	70.342	-5.764	1.00	11.26	A	C
ATOM	2041	CG1	VAL	A	266	48.053	70.708	-4.425	1.00	11.10	A	C
ATOM	2042	CG2	VAL	A	266	47.612	69.512	-6.573	1.00	10.04	A	C
ATOM	2043	C	VAL	A	266	49.832	72.701	-5.782	1.00	12.77	A	C
ATOM	2044	O	VAL	A	266	49.206	73.489	-5.069	1.00	8.45	A	O
ATOM	2045	N	ASN	A	267	51.152	72.793	-5.947	1.00	11.38	A	N
ATOM	2046	CA	ASN	A	267	51.888	73.952	-5.386	1.00	10.35	A	C
ATOM	2047	CB	ASN	A	267	53.179	73.552	-4.678	1.00	9.60	A	C
ATOM	2048	CG	ASN	A	267	54.222	72.985	-5.622	1.00	15.62	A	C
ATOM	2049	OD1	ASN	A	267	54.764	73.693	-6.480	1.00	12.97	A	O
ATOM	2050	ND2	ASN	A	267	54.514	71.687	-5.466	1.00	14.24	A	N
ATOM	2051	C	ASN	A	267	52.166	75.027	-6.428	1.00	14.53	A	C
ATOM	2052	O	ASN	A	267	52.316	74.728	-7.631	1.00	11.37	A	O
ATOM	2053	N	ALA	A	268	52.257	76.275	-5.951	1.00	14.63	A	N
ATOM	2054	CA	ALA	A	268	52.400	77.426	-6.829	1.00	15.00	A	C
ATOM	2055	CB	ALA	A	268	52.047	78.730	-6.080	1.00	12.47	A	C
ATOM	2056	C	ALA	A	268	53.775	77.546	-7.485	1.00	17.34	A	C
ATOM	2057	O	ALA	A	268	53.888	78.123	-8.578	1.00	18.02	A	O
ATOM	2058	N	LYS	A	269	54.816	77.023	-6.832	1.00	15.79	A	N
ATOM	2059	CA	LYS	A	269	56.194	77.194	-7.337	1.00	17.95	A	C
ATOM	2060	C	LYS	A	269	56.344	76.704	-8.778	1.00	18.69	A	C
ATOM	2061	O	LYS	A	269	55.745	75.692	-9.120	1.00	16.39	A	O
ATOM	2062	CB	LYS	A	269	57.159	76.371	-6.482	1.00	22.73	A	C
ATOM	2063	CG	LYS	A	269	57.195	76.727	-5.024	1.00	28.25	A	C
ATOM	2064	CD	LYS	A	269	57.973	77.992	-4.823	1.00	33.00	A	C
ATOM	2065	CE	LYS	A	269	58.369	78.161	-3.363	1.00	38.14	A	C
ATOM	2066	NZ	LYS	A	269	59.224	79.388	-3.203	1.00	42.21	A	N
ATOM	2067	N	ASP	A	270	57.151	77.398	-9.592	1.00	19.48	A	N
ATOM	2068	CA	ASP	A	270	57.578	76.940	-10.931	1.00	22.17	A	C
ATOM	2069	CB	ASP	A	270	57.978	75.442	-10.940	1.00	21.31	A	C
ATOM	2070	CG	ASP	A	270	58.935	75.087	-9.845	1.00	22.04	A	C
ATOM	2071	OD1	ASP	A	270	59.994	75.738	-9.731	1.00	25.06	A	O
ATOM	2072	OD2	ASP	A	270	58.613	74.163	-9.080	1.00	19.49	A	O
ATOM	2073	C	ASP	A	270	56.564	77.100	-12.056	1.00	20.59	A	C
ATOM	2074	O	ASP	A	270	56.948	77.350	-13.197	1.00	21.48	A	O

ATOM	2075	N	ASP	A	271	55.287	76.909	-11.736	1.00	19.12	A	N
ATOM	2076	CA	ASP	A	271	54.260	76.630	-12.741	1.00	20.38	A	C
ATOM	2077	CB	ASP	A	271	54.031	75.107	-12.855	1.00	16.30	A	C
ATOM	2078	CG	ASP	A	271	53.698	74.445	-11.504	1.00	19.98	A	C
ATOM	2079	OD1	ASP	A	271	53.117	75.117	-10.622	1.00	19.81	A	O
ATOM	2080	OD2	ASP	A	271	54.015	73.239	-11.321	1.00	19.45	A	O
ATOM	2081	C	ASP	A	271	52.916	77.315	-12.471	1.00	20.81	A	C
ATOM	2082	O	ASP	A	271	51.920	76.962	-13.106	1.00	19.19	A	O
ATOM	2083	N	GLU	A	272	52.878	78.254	-11.520	1.00	19.25	A	N
ATOM	2084	CA	GLU	A	272	51.646	78.981	-11.216	1.00	22.55	A	C
ATOM	2085	CB	GLU	A	272	51.184	79.802	-12.438	1.00	24.87	A	C
ATOM	2086	CG	GLU	A	272	52.156	80.874	-12.842	1.00	31.75	A	C
ATOM	2087	CD	GLU	A	272	52.295	81.949	-11.778	1.00	38.68	A	C
ATOM	2088	OE1	GLU	A	272	51.274	82.554	-11.402	1.00	39.30	A	O
ATOM	2089	OE2	GLU	A	272	53.424	82.182	-11.305	1.00	44.31	A	O
ATOM	2090	C	GLU	A	272	50.524	78.035	-10.775	1.00	23.19	A	C
ATOM	2091	O	GLU	A	272	49.347	78.240	-11.099	1.00	22.85	A	O
ATOM	2092	N	GLY	A	273	50.895	77.009	-10.014	1.00	19.84	A	N
ATOM	2093	CA	GLY	A	273	49.949	76.014	-9.564	1.00	14.84	A	C
ATOM	2094	C	GLY	A	273	49.047	76.501	-8.452	1.00	13.92	A	C
ATOM	2095	O	GLY	A	273	49.000	77.697	-8.139	1.00	13.46	A	O
ATOM	2096	N	VAL	A	274	48.358	75.571	-7.811	1.00	12.46	A	N
ATOM	2097	CA	VAL	A	274	47.140	75.930	-7.081	1.00	11.50	A	C
ATOM	2098	CB	VAL	A	274	46.296	74.708	-6.771	1.00	10.18	A	C
ATOM	2099	CG1	VAL	A	274	44.998	75.116	-5.994	1.00	8.59	A	C
ATOM	2100	CG2	VAL	A	274	45.991	73.939	-8.069	1.00	10.13	A	C
ATOM	2101	C	VAL	A	274	47.365	76.737	-5.796	1.00	13.16	A	C
ATOM	2102	O	VAL	A	274	46.710	77.766	-5.599	1.00	11.20	A	O
ATOM	2103	N	LEU	A	275	48.292	76.276	-4.946	1.00	14.65	A	N
ATOM	2104	C	LEU	A	275	49.798	77.331	-3.265	1.00	9.92	A	C
ATOM	2105	O	LEU	A	275	50.826	76.679	-3.530	1.00	9.90	A	O
ATOM	2106	CA	LEU	A	275	48.425	76.798	-3.585	1.00	12.68	A	C
ATOM	2107	CB	LEU	A	275	48.121	75.707	-2.557	1.00	15.65	A	C
ATOM	2108	CG	LEU	A	275	46.714	75.549	-1.999	1.00	21.29	A	C
ATOM	2109	CD1	LEU	A	275	46.666	74.247	-1.200	1.00	25.77	A	C
ATOM	2110	CD2	LEU	A	275	46.324	76.750	-1.122	1.00	15.69	A	C
ATOM	2111	N	VAL	A	276	49.814	78.504	-2.639	1.00	13.73	A	N
ATOM	2112	CA	VAL	A	276	51.051	79.131	-2.211	1.00	15.63	A	C
ATOM	2113	CB	VAL	A	276	50.928	80.672	-2.282	1.00	18.01	A	C
ATOM	2114	CG1	VAL	A	276	52.168	81.337	-1.652	1.00	17.10	A	C
ATOM	2115	CG2	VAL	A	276	50.695	81.124	-3.723	1.00	11.80	A	C
ATOM	2116	C	VAL	A	276	51.343	78.734	-0.769	1.00	13.95	A	C
ATOM	2117	O	VAL	A	276	50.506	78.943	0.110	1.00	13.80	A	O
ATOM	2118	N	GLY	A	277	52.502	78.118	-0.528	1.00	14.96	A	N
ATOM	2119	CA	GLY	A	277	52.857	77.689	0.814	1.00	11.73	A	C
ATOM	2120	C	GLY	A	277	53.301	78.889	1.654	1.00	15.92	A	C
ATOM	2121	O	GLY	A	277	53.966	79.789	1.138	1.00	18.94	A	O
ATOM	2122	N	SER	A	278	52.905	78.908	2.926	1.00	15.85	A	N
ATOM	2123	CA	SER	A	278	53.446	79.839	3.917	1.00	18.43	A	C
ATOM	2124	CB	SER	A	278	52.694	81.186	3.931	1.00	14.21	A	C
ATOM	2125	OG	SER	A	278	53.258	82.042	4.954	1.00	15.26	A	O
ATOM	2126	C	SER	A	278	53.428	79.255	5.328	1.00	16.22	A	C
ATOM	2127	O	SER	A	278	52.474	78.581	5.719	1.00	15.23	A	O
ATOM	2128	N	TRP	A	279	54.462	79.581	6.102	1.00	18.86	A	N
ATOM	2129	CA	TRP	A	279	54.594	79.138	7.482	1.00	18.75	A	C
ATOM	2130	CB	TRP	A	279	55.729	78.107	7.572	1.00	17.33	A	C
ATOM	2131	CG	TRP	A	279	55.428	76.852	6.806	1.00	20.41	A	C
ATOM	2132	CD1	TRP	A	279	54.984	75.673	7.331	1.00	20.10	A	C
ATOM	2133	NE1	TRP	A	279	54.796	74.746	6.325	1.00	20.41	A	N
ATOM	2134	CE2	TRP	A	279	55.108	75.318	5.119	1.00	19.28	A	C
ATOM	2135	CD2	TRP	A	279	55.502	76.651	5.372	1.00	19.22	A	C
ATOM	2136	CE3	TRP	A	279	55.890	77.458	4.290	1.00	17.91	A	C
ATOM	2137	CZ3	TRP	A	279	55.840	76.913	2.995	1.00	18.52	A	C
ATOM	2138	CH2	TRP	A	279	55.434	75.578	2.783	1.00	18.97	A	C
ATOM	2139	CZ2	TRP	A	279	55.059	74.772	3.823	1.00	19.17	A	C
ATOM	2140	C	TRP	A	279	54.902	80.334	8.390	1.00	22.42	A	C
ATOM	2141	O	TRP	A	279	55.468	80.164	9.478	1.00	23.84	A	O
ATOM	2142	N	ASP	A	280	54.551	81.549	7.959	1.00	19.56	A	N
ATOM	2143	CA	ASP	A	280	55.091	82.728	8.648	1.00	18.23	A	C
ATOM	2144	C	ASP	A	280	54.251	83.281	9.795	1.00	18.87	A	C
ATOM	2145	O	ASP	A	280	54.597	84.318	10.336	1.00	23.84	A	O
ATOM	2146	CB	ASP	A	280	55.511	83.851	7.671	1.00	24.05	A	C
ATOM	2147	CG	ASP	A	280	54.320	84.594	7.047	1.00	24.35	A	C
ATOM	2148	OD1	ASP	A	280	53.158	84.299	7.398	1.00	19.05	A	O
ATOM	2149	OD2	ASP	A	280	54.567	85.509	6.218	1.00	25.18	A	O
ATOM	2150	N	ASN	A	281	53.163	82.598	10.151	1.00	18.36	A	N
ATOM	2151	CA	ASN	A	281	52.319	82.989	11.279	1.00	19.07	A	C

ATOM	2152	CB	ASN	A	281	53.138	82.983	12.593	1.00	20.29	A	C
ATOM	2153	CG	ASN	A	281	52.265	83.025	13.847	1.00	24.74	A	C
ATOM	2154	OD1	ASN	A	281	51.153	82.497	13.868	1.00	20.56	A	O
ATOM	2155	ND2	ASN	A	281	52.779	83.651	14.905	1.00	22.41	A	N
ATOM	2156	C	ASN	A	281	51.611	84.344	11.060	1.00	19.42	A	C
ATOM	2157	O	ASN	A	281	50.983	84.866	11.970	1.00	20.21	A	O
ATOM	2158	N	ILE	A	282	51.679	84.872	9.839	1.00	18.91	A	N
ATOM	2159	CA	ILE	A	282	51.033	86.145	9.522	1.00	20.09	A	C
ATOM	2160	CB	ILE	A	282	52.070	87.253	9.281	1.00	20.15	A	C
ATOM	2161	CG1	ILE	A	282	52.711	87.641	10.626	1.00	24.55	A	C
ATOM	2162	CD1	ILE	A	282	54.010	88.284	10.490	1.00	25.49	A	C
ATOM	2163	CG2	ILE	A	282	51.415	88.489	8.651	1.00	20.44	A	C
ATOM	2164	C	ILE	A	282	50.050	86.035	8.346	1.00	18.32	A	C
ATOM	2165	O	ILE	A	282	48.895	86.464	8.463	1.00	18.47	A	O
ATOM	2166	N	TYR	A	283	50.513	85.479	7.232	1.00	17.46	A	N
ATOM	2167	CA	TYR	A	283	49.617	85.132	6.103	1.00	17.40	A	C
ATOM	2168	CB	TYR	A	283	48.600	84.053	6.533	1.00	16.85	A	C
ATOM	2169	CG	TYR	A	283	49.299	82.953	7.311	1.00	18.08	A	C
ATOM	2170	CD1	TYR	A	283	50.311	82.209	6.713	1.00	16.78	A	C
ATOM	2171	CE1	TYR	A	283	50.991	81.226	7.408	1.00	16.18	A	C
ATOM	2172	CZ	TYR	A	283	50.672	80.967	8.714	1.00	16.00	A	C
ATOM	2173	OH	TYR	A	283	51.374	79.984	9.366	1.00	19.94	A	O
ATOM	2174	CE2	TYR	A	283	49.667	81.684	9.347	1.00	16.54	A	C
ATOM	2175	CD2	TYR	A	283	48.985	82.687	8.638	1.00	16.47	A	C
ATOM	2176	C	TYR	A	283	48.953	86.392	5.511	1.00	16.90	A	C
ATOM	2177	O	TYR	A	283	47.735	86.483	5.393	1.00	16.75	A	O
ATOM	2178	N	ALA	A	284	49.788	87.371	5.178	1.00	17.55	A	N
ATOM	2179	CA	ALA	A	284	49.311	88.649	4.630	1.00	20.68	A	C
ATOM	2180	CB	ALA	A	284	50.484	89.572	4.336	1.00	18.98	A	C
ATOM	2181	C	ALA	A	284	48.501	88.407	3.341	1.00	17.35	A	C
ATOM	2182	O	ALA	A	284	48.916	87.644	2.483	1.00	16.59	A	O
ATOM	2183	N	TYR	A	285	47.347	89.053	3.247	1.00	19.46	A	N
ATOM	2184	CA	TYR	A	285	46.558	89.082	2.022	1.00	17.24	A	C
ATOM	2185	CB	TYR	A	285	47.309	89.832	0.924	1.00	17.60	A	C
ATOM	2186	CG	TYR	A	285	47.715	91.248	1.312	1.00	18.90	A	C
ATOM	2187	CD1	TYR	A	285	46.762	92.165	1.741	1.00	19.70	A	C
ATOM	2188	CE1	TYR	A	285	47.108	93.496	2.084	1.00	21.02	A	C
ATOM	2189	CZ	TYR	A	285	48.420	93.901	1.992	1.00	26.14	A	C
ATOM	2190	OH	TYR	A	285	48.741	95.202	2.336	1.00	28.80	A	O
ATOM	2191	CE2	TYR	A	285	49.405	93.001	1.574	1.00	23.18	A	C
ATOM	2192	CD2	TYR	A	285	49.041	91.668	1.222	1.00	19.45	A	C
ATOM	2193	C	TYR	A	285	46.193	87.684	1.549	1.00	17.08	A	C
ATOM	2194	O	TYR	A	285	46.294	87.360	0.358	1.00	18.43	A	O
ATOM	2195	N	GLY	A	286	45.768	86.847	2.483	1.00	15.77	A	N
ATOM	2196	CA	GLY	A	286	45.244	85.548	2.100	1.00	16.45	A	C
ATOM	2197	C	GLY	A	286	44.532	84.885	3.257	1.00	16.28	A	C
ATOM	2198	O	GLY	A	286	44.244	85.516	4.276	1.00	15.65	A	O
ATOM	2199	N	VAL	A	287	44.242	83.603	3.074	1.00	14.06	A	N
ATOM	2200	CA	VAL	A	287	43.592	82.786	4.077	1.00	14.11	A	C
ATOM	2201	CB	VAL	A	287	42.624	81.776	3.360	1.00	19.50	A	C
ATOM	2202	CG1	VAL	A	287	42.144	80.676	4.285	1.00	16.42	A	C
ATOM	2203	CG2	VAL	A	287	41.436	82.544	2.722	1.00	20.27	A	C
ATOM	2204	C	VAL	A	287	44.689	82.048	4.832	1.00	15.02	A	C
ATOM	2205	O	VAL	A	287	45.572	81.425	4.215	1.00	15.65	A	O
ATOM	2206	N	PRO	A	288	44.647	82.098	6.169	1.00	17.64	A	N
ATOM	2207	CA	PRO	A	288	45.642	81.302	6.899	1.00	17.26	A	C
ATOM	2208	CB	PRO	A	288	45.369	81.648	8.375	1.00	24.59	A	C
ATOM	2209	CG	PRO	A	288	44.288	82.690	8.381	1.00	26.99	A	C
ATOM	2210	CD	PRO	A	288	43.590	82.627	7.048	1.00	15.54	A	C
ATOM	2211	C	PRO	A	288	45.414	79.798	6.630	1.00	16.43	A	C
ATOM	2212	O	PRO	A	288	44.263	79.381	6.554	1.00	14.81	A	O
ATOM	2213	N	PRO	A	289	46.494	79.007	6.470	1.00	17.53	A	N
ATOM	2214	CA	PRO	A	289	46.394	77.570	6.149	1.00	18.02	A	C
ATOM	2215	CB	PRO	A	289	47.835	77.078	6.329	1.00	12.79	A	C
ATOM	2216	CG	PRO	A	289	48.641	78.318	5.859	1.00	13.01	A	C
ATOM	2217	CD	PRO	A	289	47.901	79.440	6.552	1.00	14.91	A	C
ATOM	2218	C	PRO	A	289	45.425	76.820	7.053	1.00	16.99	A	C
ATOM	2219	O	PRO	A	289	44.663	75.986	6.572	1.00	17.65	A	O
ATOM	2220	N	SER	A	290	45.404	77.154	8.333	1.00	14.05	A	N
ATOM	2221	CA	SER	A	290	44.529	76.457	9.280	1.00	19.63	A	C
ATOM	2222	CB	SER	A	290	45.006	76.680	10.713	1.00	23.17	A	C
ATOM	2223	OG	SER	A	290	44.893	78.042	11.098	1.00	28.92	A	O
ATOM	2224	C	SER	A	290	43.042	76.827	9.193	1.00	21.07	A	C
ATOM	2225	O	SER	A	290	42.219	76.192	9.835	1.00	23.28	A	O
ATOM	2226	N	ALA	A	291	42.696	77.854	8.430	1.00	14.70	A	N
ATOM	2227	CA	ALA	A	291	41.293	78.242	8.266	1.00	17.09	A	C
ATOM	2228	CB	ALA	A	291	41.204	79.691	7.828	1.00	19.27	A	C

ATOM	2229	C	ALA	A	291	40.522	77.345	7.266	1.00	18.31	A	C
ATOM	2230	O	ALA	A	291	39.306	77.209	7.356	1.00	20.97	A	O
ATOM	2231	N	TRP	A	292	41.207	76.749	6.305	1.00	16.64	A	N
ATOM	2232	CA	TRP	A	292	40.502	75.915	5.314	1.00	18.54	A	C
ATOM	2233	CB	TRP	A	292	41.448	75.489	4.202	1.00	17.32	A	C
ATOM	2234	CG	TRP	A	292	42.137	76.605	3.447	1.00	18.26	A	C
ATOM	2235	CD1	TRP	A	292	43.459	76.928	3.501	1.00	16.51	A	C
ATOM	2236	NE1	TRP	A	292	43.725	77.970	2.645	1.00	19.42	A	N
ATOM	2237	CE2	TRP	A	292	42.569	78.326	2.006	1.00	15.04	A	C
ATOM	2238	CD2	TRP	A	292	41.545	77.497	2.494	1.00	15.68	A	C
ATOM	2239	CE3	TRP	A	292	40.250	77.655	1.983	1.00	15.29	A	C
ATOM	2240	CZ3	TRP	A	292	40.022	78.651	1.041	1.00	15.20	A	C
ATOM	2241	CH2	TRP	A	292	41.061	79.459	0.581	1.00	14.86	A	C
ATOM	2242	CZ2	TRP	A	292	42.340	79.315	1.045	1.00	14.33	A	C
ATOM	2243	C	TRP	A	292	39.946	74.648	5.960	1.00	21.79	A	C
ATOM	2244	O	TRP	A	292	40.567	74.104	6.882	1.00	22.38	A	O
ATOM	2245	N	THR	A	293	38.799	74.171	5.475	1.00	20.66	A	N
ATOM	2246	CA	THR	A	293	38.221	72.903	5.952	1.00	19.94	A	C
ATOM	2247	CB	THR	A	293	36.900	73.147	6.728	1.00	17.99	A	C
ATOM	2248	OG1	THR	A	293	35.936	73.755	5.856	1.00	15.77	A	O
ATOM	2249	CG2	THR	A	293	37.142	74.061	7.973	1.00	17.08	A	C
ATOM	2250	C	THR	A	293	37.961	71.879	4.824	1.00	19.85	A	C
ATOM	2251	O	THR	A	293	37.322	70.845	5.034	1.00	18.66	A	O
ATOM	2252	N	GLY	A	294	38.467	72.161	3.633	1.00	14.98	A	N
ATOM	2253	CA	GLY	A	294	38.210	71.316	2.478	1.00	16.59	A	C
ATOM	2254	C	GLY	A	294	38.889	71.899	1.247	1.00	17.45	A	C
ATOM	2255	O	GLY	A	294	39.560	72.936	1.335	1.00	19.91	A	O
ATOM	2256	N	SER	A	295	38.720	71.242	0.104	1.00	17.12	A	N
ATOM	2257	CA	SER	A	295	39.446	71.603	-1.099	1.00	14.68	A	C
ATOM	2258	CB	SER	A	295	39.813	70.340	-1.873	1.00	12.68	A	C
ATOM	2259	OG	SER	A	295	40.641	69.472	-1.108	1.00	14.73	A	O
ATOM	2260	C	SER	A	295	38.654	72.469	-2.064	1.00	17.07	A	C
ATOM	2261	O	SER	A	295	39.231	73.032	-2.991	1.00	14.07	A	O
ATOM	2262	N	VAL	A	296	37.337	72.521	-1.897	1.00	10.44	A	N
ATOM	2263	CA	VAL	A	296	36.504	73.020	-2.982	1.00	10.65	A	C
ATOM	2264	CB	VAL	A	296	35.006	72.698	-2.765	1.00	16.46	A	C
ATOM	2265	CG1	VAL	A	296	34.134	73.473	-3.775	1.00	19.37	A	C
ATOM	2266	CG2	VAL	A	296	34.755	71.197	-2.889	1.00	16.27	A	C
ATOM	2267	C	VAL	A	296	36.707	74.524	-3.180	1.00	17.23	A	C
ATOM	2268	O	VAL	A	296	36.919	74.989	-4.300	1.00	18.64	A	O
ATOM	2269	N	ASP	A	297	36.673	75.283	-2.091	1.00	15.30	A	N
ATOM	2270	CA	ASP	A	297	36.862	76.735	-2.209	1.00	15.38	A	C
ATOM	2271	CB	ASP	A	297	36.746	77.404	-0.847	1.00	25.15	A	C
ATOM	2272	CG	ASP	A	297	35.305	77.514	-0.375	1.00	30.68	A	C
ATOM	2273	OD1	ASP	A	297	34.382	77.273	-1.174	1.00	31.04	A	O
ATOM	2274	OD2	ASP	A	297	35.101	77.836	0.801	1.00	37.65	A	O
ATOM	2275	C	ASP	A	297	38.190	77.074	-2.862	1.00	13.21	A	C
ATOM	2276	O	ASP	A	297	38.265	77.950	-3.737	1.00	15.46	A	O
ATOM	2277	N	ILE	A	298	39.237	76.361	-2.469	1.00	11.70	A	N
ATOM	2278	CA	ILE	A	298	40.560	76.602	-3.030	1.00	9.98	A	C
ATOM	2279	CB	ILE	A	298	41.604	75.704	-2.358	1.00	9.58	A	C
ATOM	2280	CG1	ILE	A	298	41.852	76.147	-0.912	1.00	16.84	A	C
ATOM	2281	CD1	ILE	A	298	42.559	75.076	-0.051	1.00	15.06	A	C
ATOM	2282	CG2	ILE	A	298	42.906	75.743	-3.145	1.00	10.27	A	C
ATOM	2283	C	ILE	A	298	40.578	76.341	-4.541	1.00	14.32	A	C
ATOM	2284	O	ILE	A	298	41.059	77.161	-5.325	1.00	14.90	A	O
ATOM	2285	N	LEU	A	299	40.084	75.174	-4.948	1.00	13.67	A	N
ATOM	2286	CA	LEU	A	299	40.128	74.807	-6.368	1.00	11.50	A	C
ATOM	2287	CB	LEU	A	299	39.761	73.320	-6.566	1.00	10.41	A	C
ATOM	2288	CG	LEU	A	299	40.862	72.338	-6.147	1.00	10.75	A	C
ATOM	2289	CD1	LEU	A	299	40.343	70.912	-5.884	1.00	13.39	A	C
ATOM	2290	CD2	LEU	A	299	42.000	72.312	-7.191	1.00	8.91	A	C
ATOM	2291	C	LEU	A	299	39.246	75.716	-7.212	1.00	11.34	A	C
ATOM	2292	O	LEU	A	299	39.658	76.146	-8.286	1.00	12.76	A	O
ATOM	2293	N	LEU	A	300	38.044	76.016	-6.738	1.00	10.23	A	N
ATOM	2294	CA	LEU	A	300	37.163	76.890	-7.513	1.00	15.00	A	C
ATOM	2295	CB	LEU	A	300	35.748	76.907	-6.916	1.00	17.41	A	C
ATOM	2296	CG	LEU	A	300	35.012	75.560	-7.038	1.00	20.17	A	C
ATOM	2297	CD1	LEU	A	300	33.598	75.674	-6.469	1.00	19.82	A	C
ATOM	2298	CD2	LEU	A	300	34.966	75.084	-8.506	1.00	20.14	A	C
ATOM	2299	C	LEU	A	300	37.740	78.314	-7.646	1.00	14.79	A	C
ATOM	2300	O	LEU	A	300	37.589	78.977	-8.680	1.00	15.89	A	O
ATOM	2301	N	GLU	A	301	38.432	78.772	-6.609	1.00	13.66	A	N
ATOM	2302	CA	GLU	A	301	39.050	80.086	-6.670	1.00	13.54	A	C
ATOM	2303	CB	GLU	A	301	39.532	80.547	-5.299	1.00	15.18	A	C
ATOM	2304	CG	GLU	A	301	40.069	81.971	-5.362	1.00	24.74	A	C
ATOM	2305	CD	GLU	A	301	40.752	82.386	-4.098	1.00	35.52	A	C

ATOM	2306	OE1	GLU	A	301	41.773	83.100	-4.195	1.00	42.68	A	O
ATOM	2307	OE2	GLU	A	301	40.269	81.995	-3.013	1.00	34.95	A	O
ATOM	2308	C	GLU	A	301	40.214	80.094	-7.652	1.00	17.38	A	O
ATOM	2309	O	GLU	A	301	40.403	81.063	-8.387	1.00	22.62	A	O
ATOM	2310	N	TYR	A	302	40.994	79.017	-7.663	1.00	15.71	A	N
ATOM	2311	CA	TYR	A	302	42.064	78.866	-8.639	1.00	12.54	A	C
ATOM	2312	CB	TYR	A	302	42.775	77.522	-8.450	1.00	14.93	A	C
ATOM	2313	CG	TYR	A	302	43.971	77.310	-9.366	1.00	14.45	A	C
ATOM	2314	CD1	TYR	A	302	45.125	78.064	-9.223	1.00	13.00	A	C
ATOM	2315	CE1	TYR	A	302	46.210	77.873	-10.072	1.00	13.57	A	C
ATOM	2316	CZ	TYR	A	302	46.133	76.916	-11.074	1.00	16.86	A	C
ATOM	2317	OH	TYR	A	302	47.185	76.703	-11.934	1.00	18.49	A	O
ATOM	2318	CE2	TYR	A	302	44.988	76.174	-11.233	1.00	15.58	A	C
ATOM	2319	CD2	TYR	A	302	43.921	76.372	-10.389	1.00	13.86	A	C
ATOM	2320	C	TYR	A	302	41.525	78.980	-10.058	1.00	16.60	A	C
ATOM	2321	O	TYR	A	302	42.051	79.737	-10.874	1.00	13.43	A	O
ATOM	2322	N	ARG	A	303	40.464	78.232	-10.354	1.00	18.46	A	N
ATOM	2323	CA	ARG	A	303	39.880	78.253	-11.690	1.00	19.58	A	C
ATOM	2324	C	ARG	A	303	39.367	79.651	-12.052	1.00	18.25	A	C
ATOM	2325	O	ARG	A	303	39.588	80.143	-13.151	1.00	16.68	A	O
ATOM	2326	CB	ARG	A	303	38.742	77.231	-11.795	1.00	19.34	A	C
ATOM	2327	CG	ARG	A	303	38.080	77.161	-13.180	1.00	28.07	A	C
ATOM	2328	CD	ARG	A	303	39.130	76.934	-14.247	1.00	32.09	A	C
ATOM	2329	NE	ARG	A	303	38.614	76.926	-15.618	1.00	36.78	A	N
ATOM	2330	CZ	ARG	A	303	38.692	77.953	-16.463	1.00	37.93	A	C
ATOM	2331	NH1	ARG	A	303	39.253	79.110	-16.087	1.00	36.51	A	N
ATOM	2332	NH2	ARG	A	303	38.202	77.824	-17.688	1.00	37.58	A	N
ATOM	2333	N	SER	A	304	38.664	80.282	-11.129	1.00	19.26	A	N
ATOM	2334	C	SER	A	304	39.019	82.720	-11.529	1.00	20.65	A	C
ATOM	2335	O	SER	A	304	38.895	83.568	-12.407	1.00	21.62	A	O
ATOM	2336	CA	ASER	A	304	38.023	81.557	-11.416	0.41	20.43	A	C
ATOM	2337	CB	ASER	A	304	36.958	81.847	-10.362	0.41	20.28	A	C
ATOM	2338	OG	ASER	A	304	36.448	83.151	-10.508	0.41	20.65	A	O
ATOM	2339	CA	BSER	A	304	38.021	81.559	-11.431	0.59	20.54	A	C
ATOM	2340	CB	BSER	A	304	36.908	81.873	-10.426	0.59	20.19	A	C
ATOM	2341	OG	BSER	A	304	37.424	82.034	-9.114	0.59	20.59	A	O
ATOM	2342	N	SER	A	305	40.015	82.757	-10.639	1.00	15.33	A	N
ATOM	2343	CA	SER	A	305	40.988	83.860	-10.645	1.00	19.14	A	C
ATOM	2344	CB	SER	A	305	41.616	84.071	-9.244	1.00	15.20	A	C
ATOM	2345	OG	SER	A	305	42.410	82.922	-8.939	1.00	18.42	A	O
ATOM	2346	C	SER	A	305	42.111	83.541	-11.632	1.00	17.96	A	C
ATOM	2347	O	SER	A	305	42.829	84.432	-12.076	1.00	19.34	A	O
ATOM	2348	N	GLU	A	306	42.259	82.270	-11.966	1.00	14.48	A	N
ATOM	2349	CA	GLU	A	306	43.364	81.816	-12.826	1.00	16.31	A	C
ATOM	2350	CB	GLU	A	306	43.164	82.310	-14.274	1.00	21.87	A	C
ATOM	2351	CG	GLU	A	306	41.741	82.055	-14.788	1.00	26.18	A	C
ATOM	2352	CD	GLU	A	306	41.565	82.305	-16.288	1.00	36.78	A	C
ATOM	2353	OE1	GLU	A	306	42.493	81.999	-17.059	1.00	40.86	A	O
ATOM	2354	OE2	GLU	A	306	40.493	82.810	-16.690	1.00	40.07	A	O
ATOM	2355	C	GLU	A	306	44.743	82.196	-12.255	1.00	13.97	A	C
ATOM	2356	O	GLU	A	306	45.693	82.438	-12.991	1.00	15.28	A	O
ATOM	2357	N	ASN	A	307	44.841	82.191	-10.929	1.00	14.19	A	N
ATOM	2358	CA	ASN	A	307	46.092	82.498	-10.219	1.00	16.96	A	C
ATOM	2359	CB	ASN	A	307	46.187	83.997	-9.896	1.00	18.35	A	C
ATOM	2360	CG	ASN	A	307	46.569	84.846	-11.106	1.00	20.69	A	C
ATOM	2361	OD1	ASN	A	307	47.683	84.733	-11.654	1.00	18.71	A	O
ATOM	2362	ND2	ASN	A	307	45.661	85.737	-11.498	1.00	14.69	A	N
ATOM	2363	C	ASN	A	307	46.196	81.702	-8.912	1.00	17.47	A	C
ATOM	2364	O	ASN	A	307	45.173	81.315	-8.344	1.00	17.49	A	O
ATOM	2365	N	PRO	A	308	47.433	81.468	-8.421	1.00	17.02	A	N
ATOM	2366	CA	PRO	A	308	47.594	80.731	-7.160	1.00	14.30	A	C
ATOM	2367	CB	PRO	A	308	49.098	80.811	-6.888	1.00	12.50	A	C
ATOM	2368	CG	PRO	A	308	49.693	80.885	-8.248	1.00	15.59	A	C
ATOM	2369	CD	PRO	A	308	48.733	81.743	-9.060	1.00	15.16	A	C
ATOM	2370	C	PRO	A	308	46.795	81.280	-5.991	1.00	15.53	A	C
ATOM	2371	O	PRO	A	308	46.484	82.487	-5.933	1.00	16.17	A	O
ATOM	2372	N	VAL	A	309	46.444	80.378	-5.075	1.00	15.19	A	N
ATOM	2373	CA	VAL	A	309	45.624	80.705	-3.914	1.00	15.08	A	C
ATOM	2374	CB	VAL	A	309	44.503	79.649	-3.719	1.00	12.82	A	C
ATOM	2375	CG1	VAL	A	309	43.698	79.930	-2.472	1.00	15.13	A	C
ATOM	2376	CG2	VAL	A	309	43.561	79.645	-4.942	1.00	13.77	A	C
ATOM	2377	C	VAL	A	309	46.524	80.760	-2.663	1.00	16.40	A	C
ATOM	2378	O	VAL	A	309	47.325	79.854	-2.425	1.00	15.59	A	O
ATOM	2379	N	ARG	A	310	46.405	81.834	-1.886	1.00	16.00	A	N
ATOM	2380	CA	ARG	A	310	47.185	82.005	-0.645	1.00	14.44	A	C
ATOM	2381	CB	ARG	A	310	47.674	83.470	-0.561	1.00	15.54	A	C
ATOM	2382	CG	ARG	A	310	48.635	83.891	-1.693	1.00	14.12	A	C

ATOM	2383	CD	ARG	A	310	49.095	85.353	-1.597	1.00	17.06	A	C
ATOM	2384	NE	ARG	A	310	47.998	86.320	-1.568	1.00	17.69	A	N
ATOM	2385	CZ	ARG	A	310	47.510	86.948	-2.642	1.00	19.38	A	C
ATOM	2386	NH1	ARG	A	310	48.030	86.715	-3.836	1.00	18.41	A	N
ATOM	2387	NH2	ARG	A	310	46.502	87.806	-2.520	1.00	15.40	A	N
ATOM	2388	C	ARG	A	310	46.270	81.670	0.553	1.00	15.53	A	C
ATOM	2389	O	ARG	A	310	45.203	82.253	0.645	1.00	15.32	A	O
ATOM	2390	N	TYR	A	311	46.623	80.761	1.471	1.00	12.00	A	N
ATOM	2391	CA	TYR	A	311	47.882	80.035	1.570	1.00	14.70	A	C
ATOM	2392	C	TYR	A	311	47.610	78.601	2.061	1.00	14.59	A	C
ATOM	2393	O	TYR	A	311	46.530	78.291	2.601	1.00	13.63	A	O
ATOM	2394	CB	TYR	A	311	48.801	80.656	2.641	1.00	12.54	A	C
ATOM	2395	CG	TYR	A	311	49.287	82.052	2.369	1.00	13.20	A	C
ATOM	2396	CD1	TYR	A	311	48.662	83.159	2.964	1.00	13.89	A	C
ATOM	2397	CD2	TYR	A	311	50.397	82.275	1.565	1.00	14.36	A	C
ATOM	2398	CE1	TYR	A	311	49.125	84.466	2.738	1.00	14.63	A	C
ATOM	2399	CE2	TYR	A	311	50.871	83.595	1.342	1.00	14.07	A	C
ATOM	2400	CZ	TYR	A	311	50.218	84.669	1.932	1.00	14.71	A	C
ATOM	2401	OH	TYR	A	311	50.678	85.956	1.718	1.00	15.99	A	O
ATOM	2402	N	GLY	A	312	48.616	77.746	1.941	1.00	15.03	A	N
ATOM	2403	CA	GLY	A	312	48.511	76.415	2.513	1.00	15.45	A	C
ATOM	2404	C	GLY	A	312	49.772	75.901	3.173	1.00	14.89	A	C
ATOM	2405	O	GLY	A	312	50.838	76.506	3.063	1.00	14.66	A	O
ATOM	2406	N	GLN	A	313	49.627	74.779	3.878	1.00	12.82	A	N
ATOM	2407	CA	GLN	A	313	50.748	74.032	4.432	1.00	15.50	A	C
ATOM	2408	CB	GLN	A	313	50.850	74.201	5.956	1.00	15.05	A	C
ATOM	2409	CG	GLN	A	313	51.298	75.590	6.369	1.00	16.81	A	C
ATOM	2410	CD	GLN	A	313	51.541	75.754	7.861	1.00	18.28	A	C
ATOM	2411	OE1	GLN	A	313	51.567	74.780	8.631	1.00	21.74	A	O
ATOM	2412	NE2	GLN	A	313	51.732	77.011	8.285	1.00	14.69	A	N
ATOM	2413	C	GLN	A	313	50.481	72.582	4.100	1.00	17.51	A	C
ATOM	2414	O	GLN	A	313	49.444	72.280	3.529	1.00	15.34	A	O
ATOM	2415	O	CYS	A	314	49.557	69.088	2.944	1.00	12.92	A	O
ATOM	2416	N	CYS	A	314	51.380	71.693	4.512	1.00	11.23	A	N
ATOM	2417	CA	CYS	A	314	51.333	70.285	4.091	1.00	13.65	A	C
ATOM	2418	C	CYS	A	314	49.915	69.643	3.996	1.00	10.51	A	C
ATOM	2419	CB	CYS	A	314	52.330	69.468	4.941	1.00	13.53	A	C
ATOM	2420	SG	CYS	A	314	51.818	69.317	6.719	1.00	17.81	A	S
ATOM	2421	O	TRP	A	315	45.939	68.962	3.475	1.00	14.48	A	O
ATOM	2422	N	TRP	A	315	49.093	69.723	5.048	1.00	13.38	A	N
ATOM	2423	CA	TRP	A	315	47.780	69.038	4.990	1.00	14.54	A	C
ATOM	2424	C	TRP	A	315	46.828	69.650	3.970	1.00	13.62	A	C
ATOM	2425	CB	TRP	A	315	47.063	68.940	6.352	1.00	14.89	A	C
ATOM	2426	CG	TRP	A	315	46.523	70.266	6.811	1.00	16.48	A	C
ATOM	2427	CD1	TRP	A	315	45.249	70.737	6.656	1.00	16.66	A	C
ATOM	2428	CD2	TRP	A	315	47.254	71.299	7.490	1.00	13.44	A	C
ATOM	2429	NE1	TRP	A	315	45.147	72.002	7.196	1.00	16.77	A	N
ATOM	2430	CE2	TRP	A	315	46.362	72.367	7.711	1.00	14.81	A	C
ATOM	2431	CE3	TRP	A	315	48.575	71.420	7.937	1.00	17.14	A	C
ATOM	2432	CZ2	TRP	A	315	46.758	73.565	8.350	1.00	13.22	A	C
ATOM	2433	CZ3	TRP	A	315	48.963	72.601	8.569	1.00	19.19	A	C
ATOM	2434	CH2	TRP	A	315	48.051	73.644	8.786	1.00	15.90	A	C
ATOM	2435	N	VAL	A	316	47.000	70.938	3.677	1.00	14.01	A	N
ATOM	2436	CA	VAL	A	316	46.149	71.620	2.710	1.00	12.45	A	C
ATOM	2437	CB	VAL	A	316	46.209	73.192	2.849	1.00	11.66	A	C
ATOM	2438	CG1	VAL	A	316	45.117	73.813	1.994	1.00	11.04	A	C
ATOM	2439	CG2	VAL	A	316	46.037	73.625	4.320	1.00	10.89	A	C
ATOM	2440	C	VAL	A	316	46.564	71.191	1.301	1.00	12.53	A	C
ATOM	2441	O	VAL	A	316	45.719	70.875	0.464	1.00	13.76	A	O
ATOM	2442	N	PHE	A	317	47.871	71.177	1.041	1.00	9.95	A	N
ATOM	2443	CA	PHE	A	317	48.367	70.618	-0.205	1.00	11.78	A	C
ATOM	2444	CB	PHE	A	317	49.901	70.604	-0.271	1.00	11.70	A	C
ATOM	2445	CG	PHE	A	317	50.533	71.967	-0.344	1.00	14.18	A	C
ATOM	2446	CD1	PHE	A	317	50.475	72.718	-1.525	1.00	14.01	A	C
ATOM	2447	CE1	PHE	A	317	51.062	73.985	-1.590	1.00	12.71	A	C
ATOM	2448	CZ	PHE	A	317	51.736	74.499	-0.493	1.00	14.65	A	C
ATOM	2449	CE2	PHE	A	317	51.820	73.760	0.692	1.00	14.42	A	C
ATOM	2450	CD2	PHE	A	317	51.223	72.484	0.751	1.00	12.30	A	C
ATOM	2451	C	PHE	A	317	47.856	69.187	-0.374	1.00	11.79	A	C
ATOM	2452	O	PHE	A	317	47.349	68.850	-1.430	1.00	13.26	A	O
ATOM	2453	N	ALA	A	318	47.978	68.368	0.673	1.00	10.81	A	N
ATOM	2454	CA	ALA	A	318	47.533	66.975	0.632	1.00	10.54	A	C
ATOM	2455	CB	ALA	A	318	47.973	66.210	1.889	1.00	10.22	A	C
ATOM	2456	C	ALA	A	318	46.020	66.849	0.418	1.00	10.48	A	C
ATOM	2457	O	ALA	A	318	45.571	65.989	-0.339	1.00	11.65	A	O
ATOM	2458	N	GLY	A	319	45.240	67.735	1.036	1.00	13.70	A	N
ATOM	2459	CA	GLY	A	319	43.791	67.714	0.862	1.00	13.58	A	C

ATOM	2460	C	GLY	A	319	43.398	68.012	-0.586	1.00	13.95	A	C
ATOM	2461	O	GLY	A	319	42.616	67.287	-1.201	1.00	11.60	A	O
ATOM	2462	N	VAL	A	320	43.991	69.053	-1.153	1.00	16.78	A	N
ATOM	2463	CA	VAL	A	320	43.696	69.426	-2.538	1.00	15.18	A	C
ATOM	2464	CB	VAL	A	320	44.269	70.839	-2.852	1.00	15.97	A	C
ATOM	2465	CG1	VAL	A	320	44.210	71.144	-4.351	1.00	14.27	A	C
ATOM	2466	CG2	VAL	A	320	43.490	71.919	-2.038	1.00	8.49	A	C
ATOM	2467	C	VAL	A	320	44.172	68.358	-3.549	1.00	12.14	A	C
ATOM	2468	O	VAL	A	320	43.439	67.995	-4.476	1.00	9.13	A	O
ATOM	2469	N	PHE	A	321	45.403	67.881	-3.378	1.00	10.03	A	N
ATOM	2470	CA	PHE	A	321	45.949	66.791	-4.180	1.00	9.91	A	C
ATOM	2471	CB	PHE	A	321	47.400	66.498	-3.736	1.00	11.94	A	C
ATOM	2472	CG	PHE	A	321	48.219	65.756	-4.763	1.00	9.50	A	C
ATOM	2473	CD1	PHE	A	321	47.689	65.466	-6.024	1.00	10.79	A	C
ATOM	2474	CE1	PHE	A	321	48.446	64.787	-6.977	1.00	9.37	A	C
ATOM	2475	CZ	PHE	A	321	49.733	64.339	-6.647	1.00	8.83	A	C
ATOM	2476	CE2	PHE	A	321	50.250	64.602	-5.382	1.00	10.62	A	C
ATOM	2477	CD2	PHE	A	321	49.487	65.295	-4.449	1.00	11.54	A	C
ATOM	2478	C	PHE	A	321	45.053	65.529	-4.082	1.00	13.53	A	C
ATOM	2479	O	PHE	A	321	44.803	64.850	-5.093	1.00	12.56	A	O
ATOM	2480	N	ASN	A	322	44.549	65.222	-2.885	1.00	14.02	A	N
ATOM	2481	CA	ASN	A	322	43.650	64.077	-2.740	1.00	12.53	A	C
ATOM	2482	CB	ASN	A	322	43.235	63.846	-1.282	1.00	11.25	A	C
ATOM	2483	CG	ASN	A	322	43.064	62.360	-0.966	1.00	14.50	A	C
ATOM	2484	OD1	ASN	A	322	43.975	61.566	-1.217	1.00	14.90	A	O
ATOM	2485	ND2	ASN	A	322	41.905	61.982	-0.423	1.00	12.63	A	N
ATOM	2486	C	ASN	A	322	42.380	64.288	-3.579	1.00	16.98	A	C
ATOM	2487	O	ASN	A	322	41.896	63.367	-4.233	1.00	12.93	A	O
ATOM	2488	N	THR	A	323	41.855	65.511	-3.565	1.00	15.91	A	N
ATOM	2489	CA	THR	A	323	40.675	65.824	-4.369	1.00	11.39	A	C
ATOM	2490	CB	THR	A	323	40.237	67.300	-4.148	1.00	10.14	A	C
ATOM	2491	OG1	THR	A	323	39.768	67.443	-2.809	1.00	11.12	A	O
ATOM	2492	CG2	THR	A	323	39.092	67.674	-5.123	1.00	10.45	A	C
ATOM	2493	C	THR	A	323	40.972	65.557	-5.835	1.00	11.35	A	C
ATOM	2494	O	THR	A	323	40.258	64.802	-6.516	1.00	13.10	A	O
ATOM	2495	N	PHE	A	324	42.056	66.153	-6.311	1.00	11.96	A	N
ATOM	2496	CA	PHE	A	324	42.495	65.987	-7.697	1.00	13.26	A	C
ATOM	2497	CB	PHE	A	324	43.869	66.641	-7.847	1.00	10.99	A	C
ATOM	2498	CG	PHE	A	324	44.481	66.496	-9.201	1.00	10.73	A	C
ATOM	2499	CD1	PHE	A	324	44.089	67.330	-10.258	1.00	10.30	A	C
ATOM	2500	CE1	PHE	A	324	44.688	67.221	-11.517	1.00	10.64	A	C
ATOM	2501	CZ	PHE	A	324	45.702	66.271	-11.725	1.00	11.19	A	C
ATOM	2502	CE2	PHE	A	324	46.102	65.429	-10.657	1.00	10.92	A	C
ATOM	2503	CD2	PHE	A	324	45.501	65.571	-9.407	1.00	10.63	A	C
ATOM	2504	C	PHE	A	324	42.570	64.500	-8.116	1.00	12.41	A	C
ATOM	2505	O	PHE	A	324	42.119	64.134	-9.207	1.00	10.74	A	O
ATOM	2506	N	LEU	A	325	43.157	63.669	-7.261	1.00	11.18	A	N
ATOM	2507	CA	LEU	A	325	43.348	62.259	-7.582	1.00	12.65	A	C
ATOM	2508	CB	LEU	A	325	44.340	61.597	-6.615	1.00	10.62	A	C
ATOM	2509	CG	LEU	A	325	45.787	62.099	-6.764	1.00	10.96	A	C
ATOM	2510	CD1	LEU	A	325	46.696	61.709	-5.550	1.00	8.73	A	C
ATOM	2511	CD2	LEU	A	325	46.403	61.619	-8.051	1.00	11.80	A	C
ATOM	2512	C	LEU	A	325	42.019	61.508	-7.634	1.00	11.46	A	C
ATOM	2513	O	LEU	A	325	41.697	60.869	-8.638	1.00	11.85	A	O
ATOM	2514	N	ARG	A	326	41.238	61.611	-6.570	1.00	10.14	A	N
ATOM	2515	CA	ARG	A	326	39.982	60.898	-6.498	1.00	11.72	A	C
ATOM	2516	CB	ARG	A	326	39.341	61.066	-5.122	1.00	10.53	A	C
ATOM	2517	CG	ARG	A	326	40.179	60.438	-3.995	1.00	12.01	A	C
ATOM	2518	CD	ARG	A	326	39.348	60.247	-2.735	1.00	11.13	A	C
ATOM	2519	NE	ARG	A	326	40.175	59.597	-1.713	1.00	12.89	A	N
ATOM	2520	CZ	ARG	A	326	39.831	59.453	-0.442	1.00	15.05	A	C
ATOM	2521	NH1	ARG	A	326	38.656	59.910	0.002	1.00	13.46	A	N
ATOM	2522	NH2	ARG	A	326	40.669	58.840	0.390	1.00	13.98	A	N
ATOM	2523	C	ARG	A	326	39.013	61.353	-7.588	1.00	14.52	A	C
ATOM	2524	O	ARG	A	326	38.299	60.535	-8.162	1.00	14.63	A	O
ATOM	2525	N	CYS	A	327	38.993	62.656	-7.850	1.00	8.83	A	N
ATOM	2526	CA	CYS	A	327	38.117	63.231	-8.879	1.00	12.23	A	C
ATOM	2527	CB	CYS	A	327	38.334	64.760	-8.975	1.00	10.91	A	C
ATOM	2528	SG	CYS	A	327	37.140	65.587	-10.063	1.00	15.66	A	S
ATOM	2529	C	CYS	A	327	38.359	62.594	-10.244	1.00	9.06	A	C
ATOM	2530	O	CYS	A	327	37.430	62.302	-10.984	1.00	12.42	A	O
ATOM	2531	N	LEU	A	328	39.626	62.391	-10.577	1.00	8.66	A	N
ATOM	2532	CA	LEU	A	328	40.003	61.801	-11.853	1.00	12.11	A	C
ATOM	2533	CB	LEU	A	328	41.439	62.167	-12.197	1.00	8.35	A	C
ATOM	2534	CG	LEU	A	328	41.685	63.682	-12.398	1.00	12.31	A	C
ATOM	2535	CD1	LEU	A	328	43.138	63.908	-12.773	1.00	10.78	A	C
ATOM	2536	CD2	LEU	A	328	40.736	64.237	-13.483	1.00	13.99	A	C

ATOM	2537	C	LEU	A	328	39.853	60.288	-11.836	1.00	14.58	A	C
ATOM	2538	O	LEU	A	328	39.801	59.643	-12.902	1.00	9.39	A	O
ATOM	2539	N	GLY	A	329	39.751	59.727	-10.631	1.00	15.15	A	N
ATOM	2540	CA	GLY	A	329	39.477	58.304	-10.480	1.00	14.70	A	C
ATOM	2541	C	GLY	A	329	40.695	57.477	-10.114	1.00	14.04	A	C
ATOM	2542	O	GLY	A	329	40.671	56.241	-10.219	1.00	13.55	A	O
ATOM	2543	N	ILE	A	330	41.765	58.154	-9.710	1.00	12.98	A	N
ATOM	2544	CA	ILE	A	330	42.933	57.463	-9.152	1.00	15.16	A	C
ATOM	2545	CB	ILE	A	330	44.235	58.246	-9.375	1.00	14.48	A	C
ATOM	2546	CG1	ILE	A	330	44.478	58.450	-10.872	1.00	11.47	A	C
ATOM	2547	CD1	ILE	A	330	45.695	59.330	-11.236	1.00	10.68	A	C
ATOM	2548	CG2	ILE	A	330	45.410	57.475	-8.751	1.00	11.71	A	C
ATOM	2549	C	ILE	A	330	42.765	57.314	-7.658	1.00	11.57	A	C
ATOM	2550	O	ILE	A	330	42.702	58.332	-6.945	1.00	9.46	A	O
ATOM	2551	N	PRO	A	331	42.685	56.057	-7.171	1.00	9.67	A	N
ATOM	2552	CA	PRO	A	331	42.415	55.864	-5.741	1.00	10.38	A	C
ATOM	2553	CB	PRO	A	331	42.470	54.348	-5.565	1.00	10.71	A	C
ATOM	2554	CG	PRO	A	331	42.178	53.770	-6.963	1.00	10.82	A	C
ATOM	2555	CD	PRO	A	331	42.837	54.782	-7.897	1.00	10.10	A	C
ATOM	2556	C	PRO	A	331	43.532	56.522	-4.960	1.00	11.13	A	C
ATOM	2557	O	PRO	A	331	44.700	56.426	-5.381	1.00	11.93	A	O
ATOM	2558	N	ALA	A	332	43.190	57.190	-3.870	1.00	11.08	A	N
ATOM	2559	CA	ALA	A	332	44.182	57.990	-3.138	1.00	16.18	A	C
ATOM	2560	CB	ALA	A	332	44.326	59.381	-3.751	1.00	13.54	A	C
ATOM	2561	C	ALA	A	332	43.840	58.122	-1.674	1.00	14.31	A	C
ATOM	2562	O	ALA	A	332	42.665	58.092	-1.278	1.00	12.32	A	O
ATOM	2563	N	ARG	A	333	44.870	58.298	-0.862	1.00	16.07	A	N
ATOM	2564	CA	ARG	A	333	44.630	58.586	0.544	1.00	13.08	A	C
ATOM	2565	CB	ARG	A	333	44.548	57.285	1.359	1.00	11.40	A	C
ATOM	2566	CG	ARG	A	333	45.897	56.543	1.453	1.00	16.08	A	C
ATOM	2567	CD	ARG	A	333	45.759	55.078	1.907	1.00	13.77	A	C
ATOM	2568	NE	ARG	A	333	47.078	54.456	2.036	1.00	12.79	A	N
ATOM	2569	CZ	ARG	A	333	47.294	53.248	2.554	1.00	18.42	A	C
ATOM	2570	NH1	ARG	A	333	46.271	52.509	2.984	1.00	14.41	A	N
ATOM	2571	NH2	ARG	A	333	48.539	52.768	2.625	1.00	14.79	A	N
ATOM	2572	C	ARG	A	333	45.712	59.522	1.080	1.00	13.82	A	C
ATOM	2573	O	ARG	A	333	46.749	59.726	0.443	1.00	10.71	A	O
ATOM	2574	N	ILE	A	334	45.460	60.091	2.252	1.00	15.40	A	N
ATOM	2575	CA	ILE	A	334	46.423	60.984	2.887	1.00	15.36	A	C
ATOM	2576	CB	ILE	A	334	45.784	62.304	3.320	1.00	15.35	A	C
ATOM	2577	CG1	ILE	A	334	45.204	63.034	2.103	1.00	9.95	A	C
ATOM	2578	CD1	ILE	A	334	44.397	64.299	2.491	1.00	10.01	A	C
ATOM	2579	CG2	ILE	A	334	46.810	63.220	4.061	1.00	15.76	A	C
ATOM	2580	C	ILE	A	334	47.060	60.291	4.089	1.00	14.52	A	C
ATOM	2581	O	ILE	A	334	46.365	59.757	4.967	1.00	18.33	A	O
ATOM	2582	N	VAL	A	335	48.386	60.311	4.104	1.00	11.77	A	N
ATOM	2583	CA	VAL	A	335	49.155	59.754	5.203	1.00	14.57	A	C
ATOM	2584	CB	VAL	A	335	50.160	58.693	4.698	1.00	18.60	A	C
ATOM	2585	CG1	VAL	A	335	49.443	57.711	3.694	1.00	12.31	A	C
ATOM	2586	CG2	VAL	A	335	51.355	59.355	4.054	1.00	21.33	A	C
ATOM	2587	C	VAL	A	335	49.866	60.880	5.951	1.00	15.39	A	C
ATOM	2588	O	VAL	A	335	50.209	61.919	5.371	1.00	14.44	A	O
ATOM	2589	N	THR	A	336	50.044	60.674	7.253	1.00	14.40	A	N
ATOM	2590	CA	THR	A	336	50.751	61.620	8.132	1.00	16.11	A	C
ATOM	2591	CB	THR	A	336	49.829	62.155	9.239	1.00	14.60	A	C
ATOM	2592	OG1	THR	A	336	48.776	62.915	8.636	1.00	18.84	A	O
ATOM	2593	CG2	THR	A	336	50.617	63.057	10.263	1.00	15.29	A	C
ATOM	2594	C	THR	A	336	51.937	60.898	8.764	1.00	17.36	A	C
ATOM	2595	O	THR	A	336	51.780	59.792	9.311	1.00	19.37	A	O
ATOM	2596	N	ASN	A	337	53.111	61.500	8.627	1.00	14.93	A	N
ATOM	2597	CA	ASN	A	337	54.366	61.008	9.204	1.00	15.88	A	C
ATOM	2598	CB	ASN	A	337	55.446	61.073	8.122	1.00	15.46	A	C
ATOM	2599	CG	ASN	A	337	56.796	60.529	8.573	1.00	20.56	A	C
ATOM	2600	OD1	ASN	A	337	56.878	59.595	9.379	1.00	21.05	A	O
ATOM	2601	ND2	ASN	A	337	57.868	61.096	8.022	1.00	16.49	A	N
ATOM	2602	C	ASN	A	337	54.766	61.935	10.369	1.00	20.29	A	C
ATOM	2603	O	ASN	A	337	54.912	63.139	10.165	1.00	16.27	A	O
ATOM	2604	N	TYR	A	338	54.920	61.375	11.570	1.00	19.40	A	N
ATOM	2605	CA	TYR	A	338	55.357	62.132	12.748	1.00	20.72	A	C
ATOM	2606	CB	TYR	A	338	54.709	61.581	14.019	1.00	19.97	A	C
ATOM	2607	CG	TYR	A	338	53.219	61.804	14.021	1.00	21.47	A	C
ATOM	2608	CD1	TYR	A	338	52.676	62.993	14.489	1.00	20.84	A	C
ATOM	2609	CE1	TYR	A	338	51.306	63.211	14.475	1.00	21.34	A	C
ATOM	2610	CZ	TYR	A	338	50.467	62.226	13.973	1.00	23.45	A	C
ATOM	2611	OH	TYR	A	338	49.098	62.421	13.935	1.00	23.24	A	O
ATOM	2612	CE2	TYR	A	338	50.991	61.036	13.501	1.00	23.92	A	C
ATOM	2613	CD2	TYR	A	338	52.353	60.834	13.521	1.00	20.48	A	C

ATOM	2614	C	TYR	A	338	56.878	62.134	12.873	1.00	24.45	A	C
ATOM	2615	O	TYR	A	338	57.513	61.087	12.704	1.00	25.26	A	O
ATOM	2616	N	PHE	A	339	57.436	63.310	13.190	1.00	24.11	A	N
ATOM	2617	CA	PHE	A	339	58.883	63.576	13.128	1.00	25.01	A	C
ATOM	2618	CB	PHE	A	339	59.675	62.763	14.155	1.00	28.33	A	C
ATOM	2619	CG	PHE	A	339	59.423	63.158	15.579	1.00	34.67	A	C
ATOM	2620	CD1	PHE	A	339	59.965	64.317	16.096	1.00	40.92	A	C
ATOM	2621	CE1	PHE	A	339	59.760	64.676	17.430	1.00	43.26	A	C
ATOM	2622	CZ	PHE	A	339	59.016	63.867	18.252	1.00	41.81	A	C
ATOM	2623	CE2	PHE	A	339	58.492	62.692	17.757	1.00	43.18	A	C
ATOM	2624	CD2	PHE	A	339	58.693	62.341	16.421	1.00	40.80	A	C
ATOM	2625	C	PHE	A	339	59.416	63.324	11.721	1.00	22.48	A	C
ATOM	2626	O	PHE	A	339	60.172	62.373	11.474	1.00	21.18	A	O
ATOM	2627	N	SER	A	340	59.022	64.186	10.795	1.00	19.52	A	N
ATOM	2628	CA	SER	A	340	59.305	63.946	9.391	1.00	19.03	A	C
ATOM	2629	CB	SER	A	340	58.102	64.346	8.542	1.00	20.25	A	C
ATOM	2630	OG	SER	A	340	58.299	63.991	7.190	1.00	22.20	A	O
ATOM	2631	C	SER	A	340	60.577	64.679	8.978	1.00	21.32	A	C
ATOM	2632	O	SER	A	340	60.681	65.899	9.110	1.00	23.25	A	O
ATOM	2633	N	ALA	A	341	61.557	63.925	8.499	1.00	21.79	A	N
ATOM	2634	CA	ALA	A	341	62.852	64.497	8.154	1.00	20.81	A	C
ATOM	2635	CB	ALA	A	341	63.918	63.418	8.137	1.00	20.19	A	C
ATOM	2636	C	ALA	A	341	62.813	65.220	6.818	1.00	23.19	A	C
ATOM	2637	O	ALA	A	341	62.134	64.782	5.853	1.00	19.05	A	O
ATOM	2638	N	HIS	A	342	63.524	66.347	6.773	1.00	21.78	A	N
ATOM	2639	CA	HIS	A	342	63.704	67.085	5.531	1.00	18.69	A	C
ATOM	2640	CB	HIS	A	342	63.126	68.493	5.637	1.00	22.13	A	C
ATOM	2641	CG	HIS	A	342	63.323	69.326	4.404	1.00	27.52	A	C
ATOM	2642	ND1	HIS	A	342	62.822	70.605	4.282	1.00	34.34	A	N
ATOM	2643	CE1	HIS	A	342	63.155	71.096	3.101	1.00	34.10	A	C
ATOM	2644	NE2	HIS	A	342	63.871	70.190	2.458	1.00	31.02	A	N
ATOM	2645	CD2	HIS	A	342	63.988	69.073	3.249	1.00	26.83	A	C
ATOM	2646	C	HIS	A	342	65.185	67.141	5.202	1.00	21.16	A	C
ATOM	2647	O	HIS	A	342	65.931	67.924	5.774	1.00	23.50	A	O
ATOM	2648	N	ASP	A	343	65.589	66.317	4.250	1.00	21.73	A	N
ATOM	2649	CA	ASP	A	343	66.974	66.217	3.816	1.00	21.71	A	C
ATOM	2650	CB	ASP	A	343	67.214	64.812	3.255	1.00	21.27	A	C
ATOM	2651	CG	ASP	A	343	68.673	64.553	2.923	1.00	24.64	A	C
ATOM	2652	OD1	ASP	A	343	69.555	65.216	3.518	1.00	25.99	A	O
ATOM	2653	OD2	ASP	A	343	68.937	63.682	2.067	1.00	24.68	A	O
ATOM	2654	C	ASP	A	343	67.234	67.281	2.744	1.00	26.17	A	C
ATOM	2655	O	ASP	A	343	66.532	67.322	1.715	1.00	24.66	A	O
ATOM	2656	N	ASN	A	344	68.206	68.156	2.999	1.00	27.85	A	N
ATOM	2657	CA	ASN	A	344	68.500	69.260	2.089	1.00	34.48	A	C
ATOM	2658	CB	ASN	A	344	68.791	70.548	2.872	1.00	40.66	A	C
ATOM	2659	CG	ASN	A	344	67.530	71.277	3.274	1.00	41.98	A	C
ATOM	2660	OD1	ASN	A	344	66.763	70.807	4.117	1.00	39.74	A	O
ATOM	2661	ND2	ASN	A	344	67.306	72.435	2.668	1.00	44.00	A	N
ATOM	2662	C	ASN	A	344	69.656	68.981	1.137	1.00	34.38	A	C
ATOM	2663	O	ASN	A	344	69.777	69.631	0.107	1.00	36.42	A	O
ATOM	2664	N	ASP	A	345	70.511	68.026	1.473	1.00	30.87	A	N
ATOM	2665	CA	ASP	A	345	71.652	67.757	0.608	1.00	31.88	A	C
ATOM	2666	CB	ASP	A	345	72.960	68.118	1.315	1.00	35.69	A	C
ATOM	2667	CG	ASP	A	345	73.191	67.307	2.588	1.00	37.68	A	C
ATOM	2668	OD1	ASP	A	345	72.244	66.676	3.095	1.00	33.53	A	O
ATOM	2669	OD2	ASP	A	345	74.335	67.318	3.092	1.00	42.87	A	O
ATOM	2670	C	ASP	A	345	71.705	66.329	0.055	1.00	32.80	A	C
ATOM	2671	O	ASP	A	345	72.777	65.839	-0.297	1.00	33.10	A	O
ATOM	2672	N	ALA	A	346	70.540	65.684	-0.015	1.00	34.10	A	N
ATOM	2673	CA	ALA	A	346	70.357	64.389	-0.681	1.00	32.38	A	C
ATOM	2674	CB	ALA	A	346	70.270	64.566	-2.203	1.00	30.15	A	C
ATOM	2675	C	ALA	A	346	71.385	63.314	-0.326	1.00	33.81	A	C
ATOM	2676	O	ALA	A	346	71.898	62.622	-1.207	1.00	36.33	A	O
ATOM	2677	N	ASN	A	347	71.688	63.167	0.957	1.00	31.46	A	N
ATOM	2678	CA	ASN	A	347	72.551	62.064	1.375	1.00	30.21	A	C
ATOM	2679	CB	ASN	A	347	73.844	62.574	2.000	1.00	32.84	A	C
ATOM	2680	CG	ASN	A	347	73.603	63.339	3.280	1.00	31.32	A	C
ATOM	2681	OD1	ASN	A	347	72.462	63.634	3.636	1.00	31.51	A	O
ATOM	2682	ND2	ASN	A	347	74.677	63.693	3.963	1.00	33.04	A	N
ATOM	2683	C	ASN	A	347	71.827	61.125	2.327	1.00	27.67	A	C
ATOM	2684	O	ASN	A	347	72.436	60.243	2.913	1.00	29.12	A	O
ATOM	2685	N	LEU	A	348	70.525	61.348	2.487	1.00	29.32	A	N
ATOM	2686	CA	LEU	A	348	69.629	60.414	3.179	1.00	29.85	A	C
ATOM	2687	CB	LEU	A	348	69.654	59.012	2.548	1.00	32.23	A	C
ATOM	2688	CG	LEU	A	348	69.561	58.768	1.032	1.00	34.81	A	C
ATOM	2689	CD1	LEU	A	348	68.774	57.493	0.738	1.00	32.73	A	C
ATOM	2690	CD2	LEU	A	348	68.971	59.917	0.268	1.00	35.18	A	C

ATOM	2691	C	LEU	A	348	69.910	60.303	4.675	1.00	29.23	A	C
ATOM	2692	O	LEU	A	348	69.610	59.289	5.295	1.00	29.74	A	O
ATOM	2693	N	GLN	A	349	70.483	61.351	5.253	1.00	28.49	A	N
ATOM	2694	CA	GLN	A	349	70.677	61.414	6.697	1.00	29.70	A	C
ATOM	2695	CB	GLN	A	349	72.061	60.876	7.088	1.00	32.94	A	C
ATOM	2696	CG	GLN	A	349	73.212	61.682	6.526	1.00	35.54	A	C
ATOM	2697	CD	GLN	A	349	74.575	61.042	6.770	1.00	39.48	A	C
ATOM	2698	OE1	GLN	A	349	74.707	59.818	6.871	1.00	40.04	A	O
ATOM	2699	NE2	GLN	A	349	75.596	61.876	6.857	1.00	40.73	A	N
ATOM	2700	C	GLN	A	349	70.511	62.862	7.150	1.00	28.91	A	C
ATOM	2701	O	GLN	A	349	70.641	63.796	6.346	1.00	28.22	A	O
ATOM	2702	N	MET	A	350	70.177	63.048	8.421	1.00	27.10	A	N
ATOM	2703	CA	MET	A	350	70.081	64.389	8.979	1.00	29.10	A	C
ATOM	2704	CB	MET	A	350	69.049	64.452	10.106	1.00	26.84	A	C
ATOM	2705	CG	MET	A	350	67.604	64.217	9.664	1.00	24.54	A	C
ATOM	2706	SD	MET	A	350	66.954	65.395	8.460	1.00	25.71	A	S
ATOM	2707	CE	MET	A	350	67.295	64.590	6.903	1.00	22.44	A	C
ATOM	2708	C	MET	A	350	71.447	64.824	9.482	1.00	31.75	A	C
ATOM	2709	O	MET	A	350	71.955	64.298	10.488	1.00	33.22	A	O
ATOM	2710	N	ASP	A	351	72.058	65.763	8.765	1.00	34.82	A	N
ATOM	2711	CA	ASP	A	351	73.367	66.273	9.158	1.00	37.95	A	C
ATOM	2712	CB	ASP	A	351	74.180	66.708	7.936	1.00	38.96	A	C
ATOM	2713	CG	ASP	A	351	74.454	65.555	6.977	1.00	39.04	A	C
ATOM	2714	OD1	ASP	A	351	75.445	64.821	7.194	1.00	40.82	A	O
ATOM	2715	OD2	ASP	A	351	73.682	65.394	6.007	1.00	32.44	A	O
ATOM	2716	C	ASP	A	351	73.209	67.426	10.134	1.00	38.15	A	C
ATOM	2717	O	ASP	A	351	72.846	68.529	9.743	1.00	37.39	A	O
ATOM	2718	N	ILE	A	352	73.468	67.151	11.406	1.00	41.79	A	N
ATOM	2719	CA	ILE	A	352	73.372	68.159	12.458	1.00	41.48	A	C
ATOM	2720	CB	ILE	A	352	72.628	67.601	13.685	1.00	40.81	A	C
ATOM	2721	CG1	ILE	A	352	71.299	66.956	13.259	1.00	39.45	A	C
ATOM	2722	CD1	ILE	A	352	70.732	66.007	14.298	1.00	39.32	A	C
ATOM	2723	CG2	ILE	A	352	72.430	68.690	14.724	1.00	40.92	A	C
ATOM	2724	C	ILE	A	352	74.767	68.630	12.887	1.00	44.23	A	C
ATOM	2725	O	ILE	A	352	75.478	67.937	13.625	1.00	43.69	A	O
ATOM	2726	N	PHE	A	353	75.156	69.813	12.421	1.00	45.36	A	N
ATOM	2727	CA	PHE	A	353	76.468	70.348	12.755	1.00	48.72	A	C
ATOM	2728	CB	PHE	A	353	76.971	71.281	11.653	1.00	50.07	A	C
ATOM	2729	CG	PHE	A	353	77.218	70.581	10.348	1.00	49.00	A	C
ATOM	2730	CD1	PHE	A	353	78.390	69.862	10.142	1.00	50.27	A	C
ATOM	2731	CE1	PHE	A	353	78.619	69.208	8.947	1.00	47.33	A	C
ATOM	2732	CZ	PHE	A	353	77.673	69.261	7.948	1.00	44.54	A	C
ATOM	2733	CE2	PHE	A	353	76.498	69.966	8.144	1.00	43.73	A	C
ATOM	2734	CD2	PHE	A	353	76.273	70.616	9.339	1.00	44.53	A	C
ATOM	2735	C	PHE	A	353	76.457	71.034	14.114	1.00	47.83	A	C
ATOM	2736	O	PHE	A	353	75.656	71.930	14.362	1.00	46.08	A	O
ATOM	2737	N	LEU	A	354	77.345	70.587	14.996	1.00	48.78	A	N
ATOM	2738	CA	LEU	A	354	77.370	71.071	16.363	1.00	51.12	A	C
ATOM	2739	CB	LEU	A	354	77.249	69.895	17.340	1.00	53.65	A	C
ATOM	2740	C	LEU	A	354	78.649	71.873	16.623	1.00	52.71	A	C
ATOM	2741	O	LEU	A	354	79.758	71.390	16.363	1.00	54.01	A	O
ATOM	2742	O	GLU	A	355	80.094	72.238	19.142	1.00	58.84	A	O
ATOM	2743	N	GLU	A	355	78.484	73.100	17.115	1.00	51.87	A	N
ATOM	2744	CA	GLU	A	355	79.620	73.944	17.505	1.00	56.76	A	C
ATOM	2745	C	GLU	A	355	80.475	73.272	18.584	1.00	60.31	A	C
ATOM	2746	CB	GLU	A	355	79.138	75.316	17.988	1.00	55.96	A	C
ATOM	2747	O	GLU	A	356	82.053	72.412	22.071	1.00	65.32	A	O
ATOM	2748	N	GLU	A	356	81.638	73.850	18.874	1.00	63.66	A	N
ATOM	2749	CA	GLU	A	356	82.524	73.255	19.870	1.00	66.78	A	C
ATOM	2750	C	GLU	A	356	81.872	73.310	21.249	1.00	66.75	A	C
ATOM	2751	CB	GLU	A	356	83.889	73.948	19.882	1.00	69.21	A	C
ATOM	2752	O	ASP	A	357	78.983	73.150	24.121	1.00	72.06	A	O
ATOM	2753	N	ASP	A	357	81.083	74.356	21.477	1.00	68.82	A	N
ATOM	2754	CA	ASP	A	357	80.379	74.533	22.743	1.00	70.40	A	C
ATOM	2755	C	ASP	A	357	79.404	73.386	22.990	1.00	71.11	A	C
ATOM	2756	CB	ASP	A	357	79.643	75.881	22.766	1.00	67.13	A	C
ATOM	2757	O	GLY	A	358	75.931	71.105	21.160	1.00	65.45	A	O
ATOM	2758	N	GLY	A	358	79.057	72.670	21.924	1.00	70.76	A	N
ATOM	2759	CA	GLY	A	358	78.120	71.568	22.009	1.00	68.81	A	C
ATOM	2760	C	GLY	A	358	76.747	71.962	21.502	1.00	66.51	A	C
ATOM	2761	O	ASN	A	359	76.157	73.341	18.783	1.00	57.30	A	O
ATOM	2762	N	ASN	A	359	76.489	73.267	21.459	1.00	65.76	A	N
ATOM	2763	CA	ASN	A	359	75.219	73.782	20.950	1.00	61.71	A	C
ATOM	2764	C	ASN	A	359	75.132	73.543	19.445	1.00	57.69	A	C
ATOM	2765	CB	ASN	A	359	75.069	75.274	21.279	1.00	61.34	A	C
ATOM	2766	N	VAL	A	360	73.925	73.542	18.888	1.00	57.89	A	N
ATOM	2767	CA	VAL	A	360	73.823	73.297	17.456	1.00	52.47	A	C

ATOM	2768	CB	VAL	A	360	72.492	72.597	17.032	1.00	45.61	A	C
ATOM	2769	CG1	VAL	A	360	71.330	73.025	17.915	1.00	46.25	A	C
ATOM	2770	CG2	VAL	A	360	72.198	72.832	15.554	1.00	43.54	A	C
ATOM	2771	C	VAL	A	360	74.129	74.563	16.660	1.00	50.79	A	C
ATOM	2772	O	VAL	A	360	73.605	75.635	16.940	1.00	50.11	A	O
ATOM	2773	N	ASN	A	361	75.040	74.420	15.706	1.00	50.60	A	N
ATOM	2774	CA	ASN	A	361	75.362	75.454	14.741	1.00	50.73	A	C
ATOM	2775	CB	ASN	A	361	76.567	75.002	13.923	1.00	51.52	A	C
ATOM	2776	CG	ASN	A	361	77.281	76.147	13.249	1.00	52.82	A	C
ATOM	2777	OD1	ASN	A	361	76.758	76.764	12.319	1.00	49.78	A	O
ATOM	2778	ND2	ASN	A	361	78.499	76.422	13.701	1.00	56.57	A	N
ATOM	2779	C	ASN	A	361	74.177	75.678	13.810	1.00	50.17	A	C
ATOM	2780	O	ASN	A	361	73.941	74.889	12.879	1.00	45.65	A	O
ATOM	2781	N	SER	A	362	73.421	76.744	14.064	1.00	50.83	A	N
ATOM	2782	CA	SER	A	362	72.219	77.019	13.284	1.00	50.32	A	C
ATOM	2783	CB	SER	A	362	71.324	78.026	14.006	1.00	50.29	A	C
ATOM	2784	C	SER	A	362	72.565	77.502	11.876	1.00	51.75	A	C
ATOM	2785	O	SER	A	362	71.735	77.446	10.964	1.00	52.81	A	O
ATOM	2786	N	LYS	A	363	73.802	77.954	11.700	1.00	54.70	A	N
ATOM	2787	CA	LYS	A	363	74.246	78.490	10.417	1.00	55.64	A	C
ATOM	2788	CB	LYS	A	363	75.445	79.427	10.606	1.00	57.70	A	C
ATOM	2789	C	LYS	A	363	74.589	77.375	9.439	1.00	54.22	A	C
ATOM	2790	O	LYS	A	363	74.162	77.403	8.280	1.00	53.32	A	O
ATOM	2791	N	LEU	A	364	75.349	76.391	9.916	1.00	53.31	A	N
ATOM	2792	CA	LEU	A	364	75.786	75.272	9.082	1.00	50.68	A	C
ATOM	2793	CB	LEU	A	364	77.060	74.649	9.659	1.00	52.85	A	C
ATOM	2794	C	LEU	A	364	74.708	74.199	8.900	1.00	46.54	A	C
ATOM	2795	O	LEU	A	364	74.649	73.531	7.862	1.00	43.96	A	O
ATOM	2796	N	THR	A	365	73.870	74.017	9.916	1.00	45.07	A	N
ATOM	2797	CA	THR	A	365	72.837	72.988	9.864	1.00	40.50	A	C
ATOM	2798	CB	THR	A	365	72.277	72.655	11.265	1.00	36.53	A	C
ATOM	2799	OG1	THR	A	365	73.350	72.267	12.127	1.00	39.82	A	O
ATOM	2800	CG2	THR	A	365	71.281	71.499	11.177	1.00	33.75	A	C
ATOM	2801	C	THR	A	365	71.711	73.438	8.937	1.00	39.29	A	C
ATOM	2802	O	THR	A	365	71.092	74.473	9.172	1.00	43.72	A	O
ATOM	2803	N	LYS	A	366	71.469	72.676	7.874	1.00	32.83	A	N
ATOM	2804	CA	LYS	A	366	70.456	73.056	6.891	1.00	33.58	A	C
ATOM	2805	CB	LYS	A	366	71.034	73.065	5.472	1.00	35.41	A	C
ATOM	2806	CG	LYS	A	366	72.186	74.023	5.248	1.00	40.27	A	C
ATOM	2807	CD	LYS	A	366	71.774	75.468	5.407	1.00	42.44	A	C
ATOM	2808	CE	LYS	A	366	72.954	76.381	5.138	1.00	47.80	A	C
ATOM	2809	NZ	LYS	A	366	72.682	77.785	5.561	1.00	53.12	A	N
ATOM	2810	C	LYS	A	366	69.267	72.109	6.948	1.00	31.31	A	C
ATOM	2811	O	LYS	A	366	68.128	72.518	6.729	1.00	27.62	A	O
ATOM	2812	N	ASP	A	367	69.541	70.838	7.236	1.00	32.62	A	N
ATOM	2813	CA	ASP	A	367	68.479	69.831	7.322	1.00	30.70	A	C
ATOM	2814	CB	ASP	A	367	69.060	68.430	7.549	1.00	29.10	A	C
ATOM	2815	CG	ASP	A	367	69.864	67.924	6.372	1.00	29.91	A	C
ATOM	2816	OD1	ASP	A	367	69.690	68.453	5.254	1.00	29.37	A	O
ATOM	2817	OD2	ASP	A	367	70.639	66.952	6.558	1.00	31.64	A	O
ATOM	2818	C	ASP	A	367	67.550	70.172	8.480	1.00	30.34	A	C
ATOM	2819	O	ASP	A	367	67.902	70.947	9.370	1.00	26.73	A	O
ATOM	2820	N	SER	A	368	66.366	69.580	8.481	1.00	26.58	A	N
ATOM	2821	CA	SER	A	368	65.413	69.878	9.533	1.00	28.25	A	C
ATOM	2822	CB	SER	A	368	64.648	71.173	9.210	1.00	28.94	A	C
ATOM	2823	OG	SER	A	368	63.968	71.052	7.968	1.00	28.10	A	O
ATOM	2824	C	SER	A	368	64.453	68.732	9.765	1.00	28.50	A	C
ATOM	2825	O	SER	A	368	64.366	67.795	8.961	1.00	28.94	A	O
ATOM	2826	N	VAL	A	369	63.720	68.819	10.866	1.00	30.07	A	N
ATOM	2827	CA	VAL	A	369	62.725	67.808	11.193	1.00	29.64	A	C
ATOM	2828	CB	VAL	A	369	63.238	66.875	12.315	1.00	29.91	A	C
ATOM	2829	CG1	VAL	A	369	63.639	67.688	13.548	1.00	32.99	A	C
ATOM	2830	CG2	VAL	A	369	62.186	65.817	12.655	1.00	29.31	A	C
ATOM	2831	C	VAL	A	369	61.395	68.486	11.576	1.00	28.14	A	C
ATOM	2832	O	VAL	A	369	61.377	69.456	12.332	1.00	26.34	A	O
ATOM	2833	N	TRP	A	370	60.287	67.995	11.026	1.00	24.27	A	N
ATOM	2834	CA	TRP	A	370	58.966	68.593	11.269	1.00	25.87	A	C
ATOM	2835	CB	TRP	A	370	58.129	68.578	9.986	1.00	26.77	A	C
ATOM	2836	CG	TRP	A	370	58.652	69.449	8.903	1.00	36.40	A	C
ATOM	2837	CD1	TRP	A	370	59.478	69.084	7.882	1.00	42.73	A	C
ATOM	2838	NE1	TRP	A	370	59.739	70.168	7.075	1.00	46.26	A	N
ATOM	2839	CE2	TRP	A	370	59.086	71.264	7.578	1.00	40.79	A	C
ATOM	2840	CD2	TRP	A	370	58.385	70.846	8.726	1.00	36.31	A	C
ATOM	2841	CE3	TRP	A	370	57.613	71.775	9.417	1.00	32.60	A	C
ATOM	2842	CZ3	TRP	A	370	57.563	73.077	8.948	1.00	32.52	A	C
ATOM	2843	CH2	TRP	A	370	58.273	73.464	7.810	1.00	32.97	A	C
ATOM	2844	CZ2	TRP	A	370	59.044	72.577	7.116	1.00	36.68	A	C

ATOM	2845	C	TRP	A	370	58.194	67.809	12.309	1.00	26.10	A	C
ATOM	2846	O	TRP	A	370	58.268	66.577	12.328	1.00	22.48	A	O
ATOM	2847	N	ASN	A	371	57.404	68.505	13.122	1.00	21.02	A	N
ATOM	2848	CA	ASN	A	371	56.503	67.813	14.032	1.00	21.32	A	C
ATOM	2849	CB	ASN	A	371	55.637	68.792	14.827	1.00	22.28	A	C
ATOM	2850	CG	ASN	A	371	54.790	69.709	13.955	1.00	23.40	A	C
ATOM	2851	OD1	ASN	A	371	55.021	69.867	12.756	1.00	21.46	A	O
ATOM	2852	ND2	ASN	A	371	53.796	70.340	14.580	1.00	22.83	A	N
ATOM	2853	C	ASN	A	371	55.671	66.743	13.315	1.00	19.97	A	C
ATOM	2854	O	ASN	A	371	55.587	65.588	13.761	1.00	21.36	A	O
ATOM	2855	N	TYR	A	372	55.093	67.100	12.177	1.00	18.84	A	N
ATOM	2856	CA	TYR	A	372	54.482	66.099	11.328	1.00	17.61	A	C
ATOM	2857	CB	TYR	A	372	53.034	65.825	11.758	1.00	18.24	A	C
ATOM	2858	CG	TYR	A	372	52.149	67.040	11.612	1.00	18.90	A	C
ATOM	2859	CD1	TYR	A	372	51.369	67.205	10.476	1.00	19.19	A	C
ATOM	2860	CE1	TYR	A	372	50.553	68.328	10.312	1.00	21.34	A	C
ATOM	2861	CZ	TYR	A	372	50.527	69.304	11.283	1.00	23.12	A	C
ATOM	2862	OH	TYR	A	372	49.707	70.385	11.091	1.00	23.92	A	O
ATOM	2863	CE2	TYR	A	372	51.300	69.169	12.441	1.00	20.93	A	C
ATOM	2864	CD2	TYR	A	372	52.110	68.036	12.596	1.00	19.04	A	C
ATOM	2865	C	TYR	A	372	54.496	66.605	9.900	1.00	18.34	A	C
ATOM	2866	O	TYR	A	372	54.651	67.799	9.653	1.00	16.79	A	O
ATOM	2867	N	HIS	A	373	54.311	65.697	8.951	1.00	16.15	A	N
ATOM	2868	CA	HIS	A	373	54.156	66.111	7.569	1.00	16.28	A	C
ATOM	2869	CB	HIS	A	373	55.512	66.080	6.837	1.00	14.96	A	C
ATOM	2870	CG	HIS	A	373	55.435	66.374	5.365	1.00	16.70	A	C
ATOM	2871	ND1	HIS	A	373	54.604	67.338	4.837	1.00	17.45	A	N
ATOM	2872	CE1	HIS	A	373	54.745	67.368	3.525	1.00	18.05	A	C
ATOM	2873	NE2	HIS	A	373	55.657	66.477	3.181	1.00	16.85	A	N
ATOM	2874	CD2	HIS	A	373	56.105	65.841	4.313	1.00	15.20	A	C
ATOM	2875	C	HIS	A	373	53.130	65.161	6.959	1.00	18.18	A	C
ATOM	2876	O	HIS	A	373	52.986	64.021	7.407	1.00	19.13	A	O
ATOM	2877	N	CYS	A	374	52.410	65.663	5.961	1.00	14.55	A	N
ATOM	2878	CA	CYS	A	374	51.329	64.941	5.319	1.00	15.40	A	C
ATOM	2879	CB	CYS	A	374	49.996	65.678	5.559	1.00	15.20	A	C
ATOM	2880	SG	CYS	A	374	49.536	65.945	7.297	1.00	19.61	A	S
ATOM	2881	C	CYS	A	374	51.590	64.911	3.823	1.00	13.16	A	C
ATOM	2882	O	CYS	A	374	51.889	65.957	3.228	1.00	11.46	A	O
ATOM	2883	N	TRP	A	375	51.429	63.737	3.210	1.00	13.65	A	N
ATOM	2884	CA	TRP	A	375	51.463	63.626	1.749	1.00	13.52	A	C
ATOM	2885	CB	TRP	A	375	52.880	63.276	1.235	1.00	10.21	A	C
ATOM	2886	CG	TRP	A	375	53.432	61.948	1.744	1.00	14.98	A	C
ATOM	2887	CD1	TRP	A	375	53.188	60.690	1.228	1.00	15.86	A	C
ATOM	2888	NE1	TRP	A	375	53.887	59.744	1.943	1.00	19.98	A	N
ATOM	2889	CE2	TRP	A	375	54.603	60.373	2.931	1.00	17.60	A	C
ATOM	2890	CD2	TRP	A	375	54.334	61.760	2.842	1.00	13.57	A	C
ATOM	2891	CE3	TRP	A	375	54.956	62.635	3.746	1.00	14.71	A	C
ATOM	2892	CZ3	TRP	A	375	55.804	62.098	4.709	1.00	16.35	A	C
ATOM	2893	CH2	TRP	A	375	56.047	60.713	4.777	1.00	17.55	A	C
ATOM	2894	CZ2	TRP	A	375	55.451	59.835	3.905	1.00	17.76	A	C
ATOM	2895	C	TRP	A	375	50.418	62.605	1.292	1.00	13.34	A	C
ATOM	2896	O	TRP	A	375	49.574	62.162	2.081	1.00	13.08	A	O
ATOM	2897	N	ASN	A	376	50.441	62.280	0.006	1.00	16.07	A	N
ATOM	2898	CA	ASN	A	376	49.419	61.421	-0.565	1.00	13.55	A	C
ATOM	2899	CB	ASN	A	376	48.708	62.133	-1.726	1.00	15.05	A	C
ATOM	2900	CG	ASN	A	376	48.126	63.472	-1.299	1.00	14.60	A	C
ATOM	2901	OD1	ASN	A	376	48.867	64.422	-1.092	1.00	14.71	A	O
ATOM	2902	ND2	ASN	A	376	46.808	63.531	-1.103	1.00	12.41	A	N
ATOM	2903	C	ASN	A	376	50.003	60.103	-1.028	1.00	10.96	A	C
ATOM	2904	O	ASN	A	376	51.196	59.997	-1.353	1.00	8.97	A	O
ATOM	2905	N	GLU	A	377	49.150	59.093	-1.043	1.00	9.85	A	N
ATOM	2906	CA	GLU	A	377	49.471	57.874	-1.739	1.00	13.20	A	C
ATOM	2907	CB	GLU	A	377	49.450	56.675	-0.787	1.00	13.12	A	C
ATOM	2908	CG	GLU	A	377	50.565	56.740	0.261	1.00	9.96	A	C
ATOM	2909	CD	GLU	A	377	50.571	55.520	1.160	1.00	16.74	A	C
ATOM	2910	OE1	GLU	A	377	49.506	54.869	1.291	1.00	16.08	A	O
ATOM	2911	OE2	GLU	A	377	51.647	55.214	1.726	1.00	19.05	A	O
ATOM	2912	C	GLU	A	377	48.442	57.711	-2.838	1.00	12.83	A	C
ATOM	2913	O	GLU	A	377	47.253	57.943	-2.620	1.00	13.42	A	O
ATOM	2914	N	ALA	A	378	48.919	57.318	-4.009	1.00	11.80	A	N
ATOM	2915	CA	ALA	A	378	48.061	57.049	-5.160	1.00	11.36	A	C
ATOM	2916	CB	ALA	A	378	48.423	58.004	-6.306	1.00	8.27	A	C
ATOM	2917	C	ALA	A	378	48.281	55.599	-5.579	1.00	14.00	A	C
ATOM	2918	O	ALA	A	378	49.428	55.124	-5.601	1.00	13.65	A	O
ATOM	2919	N	TRP	A	379	47.192	54.909	-5.920	1.00	14.03	A	N
ATOM	2920	CA	TRP	A	379	47.214	53.476	-6.239	1.00	11.84	A	C
ATOM	2921	CB	TRP	A	379	45.925	52.820	-5.725	1.00	13.62	A	C

ATOM	2922	CG	TRP	A	379	45.835	51.327	-5.945	1.00	14.60	A	C
ATOM	2923	CD1	TRP	A	379	45.205	50.672	-6.985	1.00	15.57	A	C
ATOM	2924	NE1	TRP	A	379	45.334	49.316	-6.828	1.00	16.61	A	N
ATOM	2925	CE2	TRP	A	379	46.059	49.061	-5.690	1.00	18.03	A	C
ATOM	2926	CD2	TRP	A	379	46.393	50.305	-5.108	1.00	15.88	A	C
ATOM	2927	CE3	TRP	A	379	47.140	50.323	-3.922	1.00	17.00	A	C
ATOM	2928	CZ3	TRP	A	379	47.525	49.112	-3.361	1.00	14.89	A	C
ATOM	2929	CH2	TRP	A	379	47.178	47.889	-3.968	1.00	19.91	A	C
ATOM	2930	CZ2	TRP	A	379	46.452	47.844	-5.132	1.00	18.85	A	C
ATOM	2931	C	TRP	A	379	47.332	53.228	-7.740	1.00	14.83	A	C
ATOM	2932	O	TRP	A	379	46.460	53.648	-8.506	1.00	12.48	A	O
ATOM	2933	N	MET	A	380	48.389	52.518	-8.141	1.00	15.74	A	N
ATOM	2934	CA	MET	A	380	48.629	52.212	-9.545	1.00	15.37	A	C
ATOM	2935	CB	MET	A	380	49.078	53.474	-10.293	1.00	14.99	A	C
ATOM	2936	CG	MET	A	380	50.496	53.938	-9.890	1.00	11.79	A	C
ATOM	2937	SD	MET	A	380	50.809	55.646	-10.367	1.00	13.89	A	S
ATOM	2938	CE	MET	A	380	49.592	56.408	-9.307	1.00	11.92	A	C
ATOM	2939	C	MET	A	380	49.684	51.129	-9.749	1.00	15.39	A	C
ATOM	2940	O	MET	A	380	50.566	50.923	-8.911	1.00	13.32	A	O
ATOM	2941	N	THR	A	381	49.592	50.435	-10.884	1.00	14.48	A	N
ATOM	2942	CA	THR	A	381	50.669	49.576	-11.332	1.00	14.95	A	C
ATOM	2943	CB	THR	A	381	50.247	48.755	-12.588	1.00	15.24	A	C
ATOM	2944	OG1	THR	A	381	49.882	49.664	-13.634	1.00	12.91	A	O
ATOM	2945	CG2	THR	A	381	49.062	47.886	-12.262	1.00	13.59	A	C
ATOM	2946	C	THR	A	381	51.851	50.458	-11.689	1.00	16.00	A	C
ATOM	2947	O	THR	A	381	51.707	51.674	-11.881	1.00	15.72	A	O
ATOM	2948	N	ARG	A	382	53.027	49.848	-11.770	1.00	18.14	A	N
ATOM	2949	CA	ARG	A	382	54.227	50.574	-12.174	1.00	15.47	A	C
ATOM	2950	CB	ARG	A	382	55.193	50.784	-10.984	1.00	14.99	A	C
ATOM	2951	CG	ARG	A	382	54.694	51.738	-9.890	1.00	12.98	A	C
ATOM	2952	CD	ARG	A	382	54.483	53.199	-10.403	1.00	12.09	A	C
ATOM	2953	NE	ARG	A	382	55.707	53.759	-10.972	1.00	14.89	A	N
ATOM	2954	CZ	ARG	A	382	56.579	54.490	-10.281	1.00	15.20	A	C
ATOM	2955	NH1	ARG	A	382	56.382	54.714	-8.984	1.00	13.57	A	N
ATOM	2956	NH2	ARG	A	382	57.658	54.979	-10.874	1.00	11.91	A	N
ATOM	2957	C	ARG	A	382	54.918	49.796	-13.289	1.00	16.32	A	C
ATOM	2958	O	ARG	A	382	55.946	49.152	-13.054	1.00	15.34	A	O
ATOM	2959	N	PRO	A	383	54.352	49.855	-14.522	1.00	16.97	A	N
ATOM	2960	CA	PRO	A	383	54.943	49.129	-15.653	1.00	18.04	A	C
ATOM	2961	CB	PRO	A	383	54.039	49.491	-16.855	1.00	21.31	A	C
ATOM	2962	CG	PRO	A	383	52.808	50.124	-16.283	1.00	14.57	A	C
ATOM	2963	CD	PRO	A	383	53.189	50.672	-14.919	1.00	13.75	A	C
ATOM	2964	C	PRO	A	383	56.355	49.587	-15.921	1.00	16.74	A	C
ATOM	2965	O	PRO	A	383	57.075	48.861	-16.586	1.00	17.92	A	O
ATOM	2966	N	ASP	A	384	56.749	50.760	-15.409	1.00	15.47	A	N
ATOM	2967	CA	ASP	A	384	58.106	51.256	-15.593	1.00	18.00	A	C
ATOM	2968	CB	ASP	A	384	58.150	52.812	-15.557	1.00	15.81	A	C
ATOM	2969	CG	ASP	A	384	57.571	53.380	-14.279	1.00	19.24	A	C
ATOM	2970	OD1	ASP	A	384	56.740	52.693	-13.650	1.00	19.93	A	O
ATOM	2971	OD2	ASP	A	384	57.934	54.521	-13.902	1.00	22.76	A	O
ATOM	2972	C	ASP	A	384	59.088	50.682	-14.563	1.00	18.31	A	C
ATOM	2973	O	ASP	A	384	60.275	50.914	-14.676	1.00	19.54	A	O
ATOM	2974	N	LEU	A	385	58.596	49.939	-13.569	1.00	18.89	A	N
ATOM	2975	CA	LEU	A	385	59.467	49.330	-12.542	1.00	17.04	A	C
ATOM	2976	CB	LEU	A	385	59.036	49.792	-11.143	1.00	16.44	A	C
ATOM	2977	CG	LEU	A	385	59.011	51.307	-10.883	1.00	16.64	A	C
ATOM	2978	CD1	LEU	A	385	58.675	51.628	-9.402	1.00	13.47	A	C
ATOM	2979	CD2	LEU	A	385	60.342	51.940	-11.316	1.00	14.82	A	C
ATOM	2980	C	LEU	A	385	59.362	47.788	-12.639	1.00	19.96	A	C
ATOM	2981	O	LEU	A	385	58.451	47.281	-13.266	1.00	17.09	A	O
ATOM	2982	N	PRO	A	386	60.302	47.038	-12.032	1.00	21.75	A	N
ATOM	2983	CA	PRO	A	386	60.135	45.574	-12.046	1.00	19.72	A	C
ATOM	2984	CB	PRO	A	386	61.352	45.079	-11.232	1.00	20.12	A	C
ATOM	2985	CG	PRO	A	386	62.381	46.155	-11.397	1.00	20.37	A	C
ATOM	2986	CD	PRO	A	386	61.589	47.448	-11.441	1.00	19.80	A	C
ATOM	2987	C	PRO	A	386	58.841	45.168	-11.341	1.00	18.39	A	C
ATOM	2988	O	PRO	A	386	58.337	45.938	-10.521	1.00	17.27	A	O
ATOM	2989	N	VAL	A	387	58.310	43.984	-11.618	1.00	19.78	A	N
ATOM	2990	CA	VAL	A	387	57.112	43.557	-10.895	1.00	20.24	A	C
ATOM	2991	CB	VAL	A	387	56.549	42.190	-11.412	1.00	30.08	A	C
ATOM	2992	CG1	VAL	A	387	56.122	42.302	-12.875	1.00	33.43	A	C
ATOM	2993	CG2	VAL	A	387	57.559	41.111	-11.262	1.00	27.01	A	C
ATOM	2994	C	VAL	A	387	57.344	43.536	-9.363	1.00	18.73	A	C
ATOM	2995	O	VAL	A	387	58.453	43.271	-8.888	1.00	20.09	A	O
ATOM	2996	N	GLY	A	388	56.300	43.846	-8.601	1.00	18.04	A	N
ATOM	2997	CA	GLY	A	388	56.430	43.921	-7.159	1.00	18.75	A	C
ATOM	2998	C	GLY	A	388	56.364	45.324	-6.581	1.00	17.86	A	C

ATOM	2999	O	GLY	A	388	56.107	45.480	-5.383	1.00	19.73	A	O
ATOM	3000	N	PHE	A	389	56.536	46.346	-7.422	1.00	15.68	A	N
ATOM	3001	CA	PHE	A	389	56.611	47.719	-6.934	1.00	16.61	A	C
ATOM	3002	CB	PHE	A	389	57.901	48.377	-7.413	1.00	14.74	A	C
ATOM	3003	CG	PHE	A	389	59.133	47.683	-6.931	1.00	18.66	A	C
ATOM	3004	CD1	PHE	A	389	59.514	47.764	-5.599	1.00	18.53	A	C
ATOM	3005	CE1	PHE	A	389	60.666	47.103	-5.154	1.00	18.46	A	C
ATOM	3006	CZ	PHE	A	389	61.423	46.347	-6.032	1.00	19.18	A	C
ATOM	3007	CE2	PHE	A	389	61.046	46.251	-7.348	1.00	22.09	A	C
ATOM	3008	CD2	PHE	A	389	59.898	46.919	-7.797	1.00	20.31	A	C
ATOM	3009	C	PHE	A	389	55.387	48.604	-7.249	1.00	16.17	A	C
ATOM	3010	O	PHE	A	389	55.408	49.809	-6.982	1.00	13.35	A	O
ATOM	3011	N	GLY	A	390	54.329	47.997	-7.796	1.00	15.55	A	N
ATOM	3012	CA	GLY	A	390	53.051	48.683	-7.958	1.00	14.37	A	C
ATOM	3013	C	GLY	A	390	52.390	48.929	-6.609	1.00	15.44	A	C
ATOM	3014	O	GLY	A	390	53.042	48.867	-5.576	1.00	17.26	A	O
ATOM	3015	N	GLY	A	391	51.092	49.205	-6.609	1.00	12.49	A	N
ATOM	3016	CA	GLY	A	391	50.370	49.452	-5.364	1.00	12.03	A	C
ATOM	3017	C	GLY	A	391	50.412	50.916	-4.955	1.00	13.05	A	C
ATOM	3018	O	GLY	A	391	50.311	51.794	-5.818	1.00	12.39	A	O
ATOM	3019	N	TRP	A	392	50.551	51.182	-3.653	1.00	11.20	A	N
ATOM	3020	CA	TRP	A	392	50.557	52.567	-3.158	1.00	10.99	A	C
ATOM	3021	CB	TRP	A	392	50.373	52.620	-1.642	1.00	10.89	A	C
ATOM	3022	CG	TRP	A	392	48.997	52.264	-1.189	1.00	11.23	A	C
ATOM	3023	CD1	TRP	A	392	48.635	51.194	-0.428	1.00	12.11	A	C
ATOM	3024	NE1	TRP	A	392	47.272	51.209	-0.210	1.00	18.23	A	N
ATOM	3025	CE2	TRP	A	392	46.731	52.300	-0.843	1.00	14.57	A	C
ATOM	3026	CD2	TRP	A	392	47.784	52.985	-1.478	1.00	14.78	A	C
ATOM	3027	CE3	TRP	A	392	47.494	54.154	-2.203	1.00	13.24	A	C
ATOM	3028	CZ3	TRP	A	392	46.167	54.590	-2.278	1.00	16.14	A	C
ATOM	3029	CH2	TRP	A	392	45.138	53.870	-1.649	1.00	17.59	A	C
ATOM	3030	CZ2	TRP	A	392	45.399	52.724	-0.929	1.00	16.82	A	C
ATOM	3031	C	TRP	A	392	51.856	53.243	-3.562	1.00	11.51	A	C
ATOM	3032	O	TRP	A	392	52.943	52.678	-3.386	1.00	13.01	A	O
ATOM	3033	N	GLN	A	393	51.726	54.444	-4.119	1.00	12.56	A	N
ATOM	3034	CA	GLN	A	393	52.858	55.242	-4.556	1.00	13.78	A	C
ATOM	3035	CB	GLN	A	393	52.790	55.519	-6.059	1.00	9.52	A	C
ATOM	3036	CG	GLN	A	393	52.510	54.261	-6.923	1.00	9.70	A	C
ATOM	3037	CD	GLN	A	393	53.673	53.289	-6.906	1.00	11.12	A	C
ATOM	3038	OE1	GLN	A	393	54.832	53.666	-7.174	1.00	14.30	A	O
ATOM	3039	NE2	GLN	A	393	53.382	52.040	-6.582	1.00	12.37	A	N
ATOM	3040	C	GLN	A	393	52.776	56.561	-3.784	1.00	12.41	A	C
ATOM	3041	O	GLN	A	393	51.723	57.203	-3.760	1.00	12.87	A	O
ATOM	3042	N	ALA	A	394	53.861	56.916	-3.111	1.00	12.24	A	N
ATOM	3043	CA	ALA	A	394	53.932	58.209	-2.391	1.00	12.22	A	C
ATOM	3044	CB	ALA	A	394	55.114	58.251	-1.465	1.00	11.45	A	C
ATOM	3045	C	ALA	A	394	54.038	59.341	-3.382	1.00	13.07	A	C
ATOM	3046	O	ALA	A	394	54.940	59.340	-4.225	1.00	10.65	A	O
ATOM	3047	N	VAL	A	395	53.114	60.294	-3.271	1.00	13.76	A	N
ATOM	3048	CA	VAL	A	395	53.189	61.544	-4.020	1.00	14.47	A	C
ATOM	3049	CB	VAL	A	395	52.191	61.572	-5.247	1.00	15.61	A	C
ATOM	3050	CG1	VAL	A	395	52.715	60.732	-6.391	1.00	16.80	A	C
ATOM	3051	CG2	VAL	A	395	50.788	61.115	-4.847	1.00	14.18	A	C
ATOM	3052	C	VAL	A	395	52.936	62.730	-3.081	1.00	13.92	A	C
ATOM	3053	O	VAL	A	395	52.086	62.671	-2.176	1.00	18.16	A	O
ATOM	3054	N	ASP	A	396	53.671	63.808	-3.305	1.00	13.67	A	N
ATOM	3055	CA	ASP	A	396	53.737	64.902	-2.342	1.00	12.51	A	C
ATOM	3056	CB	ASP	A	396	55.010	64.730	-1.502	1.00	11.39	A	C
ATOM	3057	CG	ASP	A	396	55.079	65.680	-0.313	1.00	13.04	A	C
ATOM	3058	OD1	ASP	A	396	54.248	66.609	-0.195	1.00	11.17	A	O
ATOM	3059	OD2	ASP	A	396	55.961	65.451	0.539	1.00	15.74	A	O
ATOM	3060	C	ASP	A	396	53.808	66.211	-3.092	1.00	12.39	A	C
ATOM	3061	O	ASP	A	396	54.777	66.466	-3.816	1.00	10.72	A	O
ATOM	3062	N	SER	A	397	52.786	67.044	-2.924	1.00	13.06	A	N
ATOM	3063	CA	SER	A	397	52.772	68.358	-3.575	1.00	12.15	A	C
ATOM	3064	CB	SER	A	397	51.362	68.680	-4.094	1.00	11.81	A	C
ATOM	3065	OG	SER	A	397	50.445	68.795	-3.020	1.00	11.63	A	O
ATOM	3066	C	SER	A	397	53.284	69.494	-2.683	1.00	13.70	A	C
ATOM	3067	O	SER	A	397	53.369	70.654	-3.133	1.00	16.14	A	O
ATOM	3068	O	THR	A	398	56.451	69.567	-1.186	1.00	20.47	A	O
ATOM	3069	N	THR	A	398	53.631	69.189	-1.429	1.00	14.97	A	N
ATOM	3070	CA	THR	A	398	54.236	70.234	-0.565	1.00	12.84	A	C
ATOM	3071	C	THR	A	398	55.653	70.500	-1.075	1.00	16.32	A	C
ATOM	3072	CB	THR	A	398	54.305	69.800	0.920	1.00	13.15	A	C
ATOM	3073	OG1	THR	A	398	52.982	69.589	1.408	1.00	15.88	A	O
ATOM	3074	CG2	THR	A	398	54.943	70.908	1.787	1.00	16.83	A	C
ATOM	3075	N	PRO	A	399	55.982	71.763	-1.384	1.00	18.50	A	N

ATOM	3076	CA	PRO	A	399	57.346	72.019	-1.873	1.00	19.84	A	C
ATOM	3077	CB	PRO	A	399	57.324	73.495	-2.277	1.00	20.26	A	C
ATOM	3078	CG	PRO	A	399	55.913	73.905	-2.252	1.00	20.77	A	C
ATOM	3079	CD	PRO	A	399	55.160	72.989	-1.358	1.00	20.10	A	C
ATOM	3080	C	PRO	A	399	58.361	71.823	-0.763	1.00	23.24	A	C
ATOM	3081	O	PRO	A	399	58.197	72.356	0.324	1.00	24.55	A	O
ATOM	3082	N	GLN	A	400	59.392	71.042	-1.037	1.00	22.21	A	N
ATOM	3083	CA	GLN	A	400	60.474	70.887	-0.088	1.00	22.86	A	C
ATOM	3084	CB	GLN	A	400	60.312	69.593	0.730	1.00	21.64	A	C
ATOM	3085	CG	GLN	A	400	59.266	69.727	1.831	1.00	27.15	A	C
ATOM	3086	CD	GLN	A	400	59.221	68.529	2.773	1.00	35.50	A	C
ATOM	3087	OE1	GLN	A	400	59.552	68.647	3.958	1.00	43.37	A	O
ATOM	3088	NE2	GLN	A	400	58.795	67.379	2.256	1.00	33.42	A	N
ATOM	3089	C	GLN	A	400	61.766	70.907	-0.867	1.00	21.94	A	C
ATOM	3090	O	GLN	A	400	62.547	71.825	-0.724	1.00	24.32	A	O
ATOM	3091	N	GLU	A	401	61.971	69.902	-1.712	1.00	19.77	A	N
ATOM	3092	CA	GLU	A	401	63.150	69.836	-2.565	1.00	20.57	A	C
ATOM	3093	CB	GLU	A	401	64.008	68.639	-2.158	1.00	26.14	A	C
ATOM	3094	CG	GLU	A	401	64.620	68.778	-0.760	1.00	29.56	A	C
ATOM	3095	CD	GLU	A	401	65.516	70.005	-0.640	1.00	34.05	A	C
ATOM	3096	OE1	GLU	A	401	66.332	70.233	-1.558	1.00	37.67	A	O
ATOM	3097	OE2	GLU	A	401	65.410	70.741	0.365	1.00	34.20	A	O
ATOM	3098	C	GLU	A	401	62.779	69.730	-4.047	1.00	22.88	A	C
ATOM	3099	O	GLU	A	401	61.758	69.120	-4.413	1.00	22.23	A	O
ATOM	3100	N	ASN	A	402	63.618	70.309	-4.898	1.00	21.26	A	N
ATOM	3101	CA	ASN	A	402	63.467	70.153	-6.336	1.00	23.66	A	C
ATOM	3102	CB	ASN	A	402	64.467	71.034	-7.068	1.00	22.39	A	C
ATOM	3103	CG	ASN	A	402	63.970	72.461	-7.223	1.00	27.90	A	C
ATOM	3104	OD1	ASN	A	402	62.868	72.689	-7.728	1.00	28.50	A	O
ATOM	3105	ND2	ASN	A	402	64.771	73.428	-6.774	1.00	25.88	A	N
ATOM	3106	C	ASN	A	402	63.673	68.701	-6.761	1.00	24.04	A	C
ATOM	3107	O	ASN	A	402	64.498	67.996	-6.204	1.00	24.56	A	O
ATOM	3108	N	SER	A	403	62.911	68.276	-7.752	1.00	24.35	A	N
ATOM	3109	CA	SER	A	403	63.123	66.997	-8.410	1.00	20.76	A	C
ATOM	3110	CB	SER	A	403	61.970	66.041	-8.084	1.00	21.13	A	C
ATOM	3111	OG	SER	A	403	61.961	64.902	-8.938	1.00	18.26	A	O
ATOM	3112	C	SER	A	403	63.192	67.294	-9.900	1.00	20.44	A	C
ATOM	3113	O	SER	A	403	62.195	67.705	-10.497	1.00	19.45	A	O
ATOM	3114	N	ASP	A	404	64.378	67.143	-10.486	1.00	20.96	A	N
ATOM	3115	CA	ASP	A	404	64.539	67.392	-11.911	1.00	26.81	A	C
ATOM	3116	CB	ASP	A	404	63.827	66.288	-12.719	1.00	29.22	A	C
ATOM	3117	CG	ASP	A	404	63.986	66.456	-14.222	1.00	37.82	A	C
ATOM	3118	OD1	ASP	A	404	65.055	66.951	-14.658	1.00	39.54	A	O
ATOM	3119	OD2	ASP	A	404	63.029	66.111	-14.965	1.00	39.75	A	O
ATOM	3120	C	ASP	A	404	64.032	68.797	-12.295	1.00	27.08	A	C
ATOM	3121	O	ASP	A	404	63.306	68.970	-13.275	1.00	26.73	A	O
ATOM	3122	N	GLY	A	405	64.388	69.791	-11.488	1.00	25.38	A	N
ATOM	3123	CA	GLY	A	405	64.135	71.178	-11.838	1.00	24.86	A	C
ATOM	3124	C	GLY	A	405	62.869	71.836	-11.315	1.00	22.24	A	C
ATOM	3125	O	GLY	A	405	62.678	73.037	-11.510	1.00	23.39	A	O
ATOM	3126	N	MET	A	406	62.016	71.075	-10.635	1.00	17.88	A	N
ATOM	3127	CA	MET	A	406	60.755	71.609	-10.131	1.00	23.91	A	C
ATOM	3128	CB	MET	A	406	59.603	71.221	-11.068	1.00	16.20	A	C
ATOM	3129	CG	MET	A	406	59.743	71.719	-12.510	1.00	27.10	A	C
ATOM	3130	SD	MET	A	406	58.389	71.069	-13.537	1.00	35.44	A	S
ATOM	3131	CE	MET	A	406	56.991	72.065	-12.995	1.00	28.76	A	C
ATOM	3132	C	MET	A	406	60.425	71.059	-8.754	1.00	23.50	A	C
ATOM	3133	O	MET	A	406	60.817	69.936	-8.407	1.00	21.85	A	O
ATOM	3134	N	TYR	A	407	59.642	71.819	-7.992	1.00	21.90	A	N
ATOM	3135	CA	TYR	A	407	59.108	71.308	-6.731	1.00	20.84	A	C
ATOM	3136	CB	TYR	A	407	58.688	72.473	-5.814	1.00	22.70	A	C
ATOM	3137	CG	TYR	A	407	59.870	73.298	-5.326	1.00	24.50	A	C
ATOM	3138	CD1	TYR	A	407	60.657	72.851	-4.268	1.00	23.34	A	C
ATOM	3139	CE1	TYR	A	407	61.757	73.597	-3.821	1.00	26.21	A	C
ATOM	3140	CZ	TYR	A	407	62.066	74.809	-4.430	1.00	25.52	A	C
ATOM	3141	OH	TYR	A	407	63.150	75.539	-3.980	1.00	26.68	A	O
ATOM	3142	CE2	TYR	A	407	61.299	75.273	-5.485	1.00	24.62	A	C
ATOM	3143	CD2	TYR	A	407	60.208	74.516	-5.931	1.00	23.87	A	C
ATOM	3144	C	TYR	A	407	57.963	70.304	-6.958	1.00	18.50	A	C
ATOM	3145	O	TYR	A	407	56.819	70.687	-7.222	1.00	16.10	A	O
ATOM	3146	N	ARG	A	408	58.296	69.017	-6.841	1.00	16.66	A	N
ATOM	3147	CA	ARG	A	408	57.364	67.907	-7.030	1.00	16.05	A	C
ATOM	3148	CB	ARG	A	408	57.159	67.630	-8.527	1.00	12.01	A	C
ATOM	3149	CG	ARG	A	408	58.457	67.374	-9.295	1.00	12.82	A	C
ATOM	3150	CD	ARG	A	408	58.199	67.256	-10.774	1.00	14.15	A	C
ATOM	3151	NE	ARG	A	408	59.421	67.430	-11.562	1.00	20.08	A	N
ATOM	3152	CZ	ARG	A	408	59.442	67.548	-12.886	1.00	23.27	A	C

ATOM	3153	NH1	ARG	A	408	58.311	67.498	-13.572	1.00	24.83	A	N
ATOM	3154	NH2	ARG	A	408	60.589	67.712	-13.524	1.00	24.35	A	N
ATOM	3155	C	ARG	A	408	57.997	66.701	-6.363	1.00	18.88	A	N
ATOM	3156	O	ARG	A	408	59.167	66.755	-5.998	1.00	15.07	A	O
ATOM	3157	N	CYS	A	409	57.249	65.609	-6.213	1.00	16.69	A	N
ATOM	3158	CA	CYS	A	409	57.773	64.464	-5.491	1.00	13.85	A	C
ATOM	3159	CB	CYS	A	409	57.793	64.766	-3.990	1.00	14.11	A	C
ATOM	3160	SG	CYS	A	409	58.485	63.438	-2.959	1.00	20.05	A	S
ATOM	3161	C	CYS	A	409	56.910	63.244	-5.772	1.00	15.37	A	C
ATOM	3162	O	CYS	A	409	55.704	63.244	-5.492	1.00	12.27	A	O
ATOM	3163	O	GLY	A	410	56.495	61.799	-8.926	1.00	14.06	A	O
ATOM	3164	N	GLY	A	410	57.526	62.227	-6.362	1.00	15.73	A	N
ATOM	3165	CA	GLY	A	410	56.830	60.987	-6.681	1.00	13.68	A	C
ATOM	3166	C	GLY	A	410	56.332	60.870	-8.121	1.00	12.88	A	C
ATOM	3167	N	PRO	A	411	55.688	59.743	-8.448	1.00	11.64	A	N
ATOM	3168	CA	PRO	A	411	55.386	58.640	-7.525	1.00	9.55	A	C
ATOM	3169	CB	PRO	A	411	54.391	57.780	-8.329	1.00	10.21	A	C
ATOM	3170	CG	PRO	A	411	54.793	57.983	-9.755	1.00	12.22	A	C
ATOM	3171	CD	PRO	A	411	55.130	59.495	-9.791	1.00	11.80	A	C
ATOM	3172	C	PRO	A	411	56.608	57.817	-7.156	1.00	13.30	A	C
ATOM	3173	O	PRO	A	411	57.417	57.477	-8.017	1.00	12.41	A	O
ATOM	3174	N	ALA	A	412	56.761	57.587	-5.855	1.00	15.86	A	N
ATOM	3175	CA	ALA	A	412	57.769	56.692	-5.282	1.00	14.63	A	N
ATOM	3176	CB	ALA	A	412	58.470	57.393	-4.124	1.00	16.98	A	C
ATOM	3177	C	ALA	A	412	57.041	55.456	-4.769	1.00	15.03	A	C
ATOM	3178	O	ALA	A	412	56.091	55.578	-3.973	1.00	14.81	A	O
ATOM	3179	N	SER	A	413	57.454	54.273	-5.223	1.00	14.32	A	N
ATOM	3180	CA	SER	A	413	56.836	53.029	-4.730	1.00	12.12	A	C
ATOM	3181	CB	SER	A	413	57.361	51.830	-5.495	1.00	12.40	A	C
ATOM	3182	OG	SER	A	413	57.055	50.631	-4.790	1.00	14.48	A	O
ATOM	3183	C	SER	A	413	57.123	52.848	-3.238	1.00	12.74	A	C
ATOM	3184	O	SER	A	413	58.267	52.777	-2.825	1.00	13.45	A	O
ATOM	3185	N	VAL	A	414	56.078	52.782	-2.431	1.00	13.09	A	N
ATOM	3186	CA	VAL	A	414	56.251	52.552	-1.010	1.00	14.13	A	C
ATOM	3187	CB	VAL	A	414	54.878	52.611	-0.292	1.00	15.57	A	C
ATOM	3188	CG1	VAL	A	414	55.025	52.314	1.200	1.00	15.05	A	C
ATOM	3189	CG2	VAL	A	414	54.268	53.996	-0.496	1.00	11.90	A	C
ATOM	3190	C	VAL	A	414	56.979	51.233	-0.729	1.00	17.32	A	C
ATOM	3191	O	VAL	A	414	57.766	51.140	0.223	1.00	16.93	A	O
ATOM	3192	N	GLN	A	415	56.751	50.224	-1.582	1.00	13.57	A	N
ATOM	3193	CA	GLN	A	415	57.393	48.921	-1.414	1.00	14.71	A	C
ATOM	3194	CB	GLN	A	415	56.731	47.849	-2.322	1.00	17.60	A	C
ATOM	3195	CG	GLN	A	415	57.274	46.410	-2.216	1.00	19.78	A	C
ATOM	3196	CD	GLN	A	415	56.809	45.659	-0.975	1.00	21.07	A	C
ATOM	3197	OE1	GLN	A	415	56.617	46.246	0.086	1.00	24.50	A	O
ATOM	3198	NE2	GLN	A	415	56.621	44.354	-1.108	1.00	18.83	A	N
ATOM	3199	C	GLN	A	415	58.888	49.041	-1.698	1.00	17.82	A	C
ATOM	3200	O	GLN	A	415	59.695	48.389	-1.051	1.00	18.96	A	O
ATOM	3201	N	ALA	A	416	59.259	49.875	-2.667	1.00	15.89	A	N
ATOM	3202	CA	ALA	A	416	60.670	50.077	-2.977	1.00	17.35	A	C
ATOM	3203	CB	ALA	A	416	60.837	50.931	-4.235	1.00	16.81	A	C
ATOM	3204	C	ALA	A	416	61.333	50.773	-1.791	1.00	20.41	A	C
ATOM	3205	O	ALA	A	416	62.467	50.457	-1.423	1.00	21.78	A	O
ATOM	3206	N	ILE	A	417	60.615	51.736	-1.216	1.00	19.70	A	N
ATOM	3207	CA	ILE	A	417	61.120	52.494	-0.075	1.00	19.60	A	C
ATOM	3208	CB	ILE	A	417	60.163	53.641	0.311	1.00	19.19	A	C
ATOM	3209	CG1	ILE	A	417	60.239	54.748	-0.758	1.00	15.85	A	C
ATOM	3210	CD1	ILE	A	417	59.028	55.625	-0.837	1.00	14.26	A	C
ATOM	3211	CG2	ILE	A	417	60.508	54.181	1.715	1.00	16.35	A	C
ATOM	3212	C	ILE	A	417	61.385	51.572	1.118	1.00	19.68	A	C
ATOM	3213	O	ILE	A	417	62.420	51.687	1.768	1.00	19.52	A	O
ATOM	3214	N	LYS	A	418	60.466	50.635	1.369	1.00	20.09	A	N
ATOM	3215	CA	LYS	A	418	60.562	49.724	2.517	1.00	21.15	A	C
ATOM	3216	CB	LYS	A	418	59.361	48.765	2.566	1.00	23.15	A	C
ATOM	3217	CG	LYS	A	418	59.402	47.848	3.787	1.00	27.50	A	C
ATOM	3218	CD	LYS	A	418	58.147	47.048	3.946	1.00	32.65	A	C
ATOM	3219	CE	LYS	A	418	58.184	46.272	5.247	1.00	38.12	A	C
ATOM	3220	NZ	LYS	A	418	56.821	45.758	5.523	1.00	40.53	A	N
ATOM	3221	C	LYS	A	418	61.845	48.890	2.545	1.00	20.17	A	C
ATOM	3222	O	LYS	A	418	62.386	48.587	3.616	1.00	20.26	A	O
ATOM	3223	N	HIS	A	419	62.312	48.494	1.371	1.00	19.82	A	N
ATOM	3224	CA	HIS	A	419	63.449	47.583	1.270	1.00	20.73	A	C
ATOM	3225	CB	HIS	A	419	63.142	46.482	0.250	1.00	22.76	A	C
ATOM	3226	CG	HIS	A	419	62.064	45.547	0.688	1.00	23.27	A	C
ATOM	3227	ND1	HIS	A	419	62.309	44.479	1.525	1.00	24.01	A	N
ATOM	3228	CE1	HIS	A	419	61.181	43.829	1.750	1.00	24.26	A	C
ATOM	3229	NE2	HIS	A	419	60.212	44.439	1.092	1.00	21.99	A	N

ATOM	3230	CD2	HIS	A	419	60.736	45.523	0.423	1.00	21.31	A	C
ATOM	3231	C	HIS	A	419	64.691	48.339	0.845	1.00	20.69	A	C
ATOM	3232	O	HIS	A	419	65.713	47.740	0.538	1.00	21.35	A	O
ATOM	3233	N	GLY	A	420	64.577	49.664	0.788	1.00	23.02	A	N
ATOM	3234	CA	GLY	A	420	65.706	50.514	0.469	1.00	19.57	A	C
ATOM	3235	C	GLY	A	420	66.090	50.536	-0.996	1.00	23.44	A	C
ATOM	3236	O	GLY	A	420	67.170	51.010	-1.338	1.00	24.78	A	O
ATOM	3237	N	HIS	A	421	65.230	50.021	-1.873	1.00	21.71	A	N
ATOM	3238	CA	HIS	A	421	65.533	50.041	-3.300	1.00	21.42	A	C
ATOM	3239	CB	HIS	A	421	64.821	48.899	-4.046	1.00	21.78	A	C
ATOM	3240	CG	HIS	A	421	65.485	47.574	-3.866	1.00	23.30	A	C
ATOM	3241	ND1	HIS	A	421	65.573	46.953	-2.640	1.00	29.00	A	N
ATOM	3242	CE1	HIS	A	421	66.244	45.824	-2.765	1.00	25.87	A	C
ATOM	3243	NE2	HIS	A	421	66.602	45.694	-4.028	1.00	28.27	A	N
ATOM	3244	CD2	HIS	A	421	66.155	46.785	-4.734	1.00	24.04	A	C
ATOM	3245	C	HIS	A	421	65.158	51.392	-3.896	1.00	21.61	A	C
ATOM	3246	O	HIS	A	421	64.301	51.475	-4.782	1.00	21.55	A	O
ATOM	3247	N	VAL	A	422	65.835	52.440	-3.428	1.00	18.08	A	N
ATOM	3248	CA	VAL	A	422	65.461	53.817	-3.742	1.00	20.84	A	C
ATOM	3249	CB	VAL	A	422	65.911	54.792	-2.620	1.00	17.37	A	C
ATOM	3250	CG1	VAL	A	422	65.189	54.466	-1.339	1.00	16.99	A	C
ATOM	3251	CG2	VAL	A	422	67.414	54.706	-2.400	1.00	19.79	A	C
ATOM	3252	C	VAL	A	422	65.978	54.287	-5.106	1.00	19.42	A	C
ATOM	3253	O	VAL	A	422	65.736	55.420	-5.513	1.00	21.73	A	O
ATOM	3254	N	CYS	A	423	66.680	53.400	-5.797	1.00	20.82	A	N
ATOM	3255	CA	CYS	A	423	67.085	53.612	-7.175	1.00	24.48	A	C
ATOM	3256	CB	CYS	A	423	68.024	52.481	-7.630	1.00	29.25	A	C
ATOM	3257	SG	CYS	A	423	67.392	50.773	-7.378	1.00	33.65	A	S
ATOM	3258	C	CYS	A	423	65.893	53.694	-8.132	1.00	25.67	A	C
ATOM	3259	O	CYS	A	423	66.029	54.212	-9.234	1.00	28.96	A	O
ATOM	3260	N	PHE	A	424	64.735	53.177	-7.728	1.00	22.52	A	N
ATOM	3261	CA	PHE	A	424	63.561	53.169	-8.609	1.00	21.59	A	C
ATOM	3262	CB	PHE	A	424	62.613	52.015	-8.247	1.00	15.74	A	C
ATOM	3263	CG	PHE	A	424	63.213	50.656	-8.455	1.00	19.49	A	C
ATOM	3264	CD1	PHE	A	424	63.645	50.263	-9.717	1.00	19.37	A	C
ATOM	3265	CE1	PHE	A	424	64.206	49.009	-9.922	1.00	24.45	A	C
ATOM	3266	CZ	PHE	A	424	64.338	48.126	-8.858	1.00	25.98	A	C
ATOM	3267	CE2	PHE	A	424	63.909	48.509	-7.588	1.00	23.51	A	C
ATOM	3268	CD2	PHE	A	424	63.342	49.762	-7.392	1.00	20.90	A	C
ATOM	3269	C	PHE	A	424	62.805	54.495	-8.553	1.00	20.90	A	C
ATOM	3270	O	PHE	A	424	62.427	54.932	-7.462	1.00	21.81	A	O
ATOM	3271	N	GLN	A	425	62.569	55.109	-9.725	1.00	17.53	A	N
ATOM	3272	CA	GLN	A	425	61.958	56.445	-9.840	1.00	14.38	A	C
ATOM	3273	C	GLN	A	425	60.535	56.412	-9.280	1.00	15.78	A	C
ATOM	3274	O	GLN	A	425	59.915	55.350	-9.295	1.00	18.54	A	O
ATOM	3275	CB	GLN	A	425	61.957	56.906	-11.307	1.00	15.42	A	C
ATOM	3276	CG	GLN	A	425	61.003	56.130	-12.206	1.00	20.03	A	C
ATOM	3277	CD	GLN	A	425	61.245	56.378	-13.678	1.00	21.70	A	C
ATOM	3278	OE1	GLN	A	425	62.192	57.078	-14.042	1.00	25.75	A	O
ATOM	3279	NE2	GLN	A	425	60.399	55.782	-14.546	1.00	16.88	A	N
ATOM	3280	N	PHE	A	426	60.008	57.533	-8.766	1.00	16.19	A	N
ATOM	3281	CA	PHE	A	426	60.668	58.861	-8.700	1.00	17.43	A	C
ATOM	3282	CB	PHE	A	426	59.797	59.936	-9.401	1.00	13.06	A	C
ATOM	3283	CG	PHE	A	426	59.530	59.660	-10.854	1.00	16.13	A	C
ATOM	3284	CD1	PHE	A	426	60.289	60.276	-11.835	1.00	13.72	A	C
ATOM	3285	CE1	PHE	A	426	60.055	60.013	-13.174	1.00	17.15	A	C
ATOM	3286	CZ	PHE	A	426	59.049	59.117	-13.547	1.00	14.88	A	C
ATOM	3287	CE2	PHE	A	426	58.294	58.490	-12.569	1.00	19.04	A	C
ATOM	3288	CD2	PHE	A	426	58.535	58.764	-11.231	1.00	18.17	A	C
ATOM	3289	C	PHE	A	426	60.821	59.334	-7.251	1.00	14.08	A	C
ATOM	3290	O	PHE	A	426	59.891	59.194	-6.442	1.00	16.65	A	O
ATOM	3291	N	ASP	A	427	61.965	59.931	-6.943	1.00	14.28	A	N
ATOM	3292	CA	ASP	A	427	62.186	60.607	-5.666	1.00	17.79	A	C
ATOM	3293	CB	ASP	A	427	61.185	61.770	-5.493	1.00	18.18	A	C
ATOM	3294	CG	ASP	A	427	61.144	62.676	-6.719	1.00	19.39	A	C
ATOM	3295	OD1	ASP	A	427	62.228	63.136	-7.136	1.00	18.70	A	O
ATOM	3296	OD2	ASP	A	427	60.046	62.869	-7.305	1.00	22.15	A	O
ATOM	3297	C	ASP	A	427	62.137	59.685	-4.459	1.00	17.54	A	C
ATOM	3298	O	ASP	A	427	61.896	60.151	-3.348	1.00	15.31	A	O
ATOM	3299	N	ALA	A	428	62.360	58.388	-4.667	1.00	16.80	A	N
ATOM	3300	CA	ALA	A	428	62.370	57.469	-3.535	1.00	17.55	A	C
ATOM	3301	CB	ALA	A	428	62.434	55.991	-3.995	1.00	14.01	A	C
ATOM	3302	C	ALA	A	428	63.407	57.775	-2.441	1.00	16.62	A	C
ATOM	3303	O	ALA	A	428	63.084	57.639	-1.265	1.00	16.15	A	O
ATOM	3304	N	PRO	A	429	64.635	58.216	-2.807	1.00	18.03	A	N
ATOM	3305	CA	PRO	A	429	65.589	58.573	-1.743	1.00	21.14	A	C
ATOM	3306	CB	PRO	A	429	66.818	59.083	-2.518	1.00	23.48	A	C

ATOM	3307	CG	PRO	A	429	66.723	58.401	-3.865	1.00	22.36	A	C
ATOM	3308	CD	PRO	A	429	65.245	58.347	-4.146	1.00	19.93	A	C
ATOM	3309	C	PRO	A	429	65.091	59.663	-0.792	1.00	21.98	A	C
ATOM	3310	O	PRO	A	429	65.280	59.524	0.419	1.00	17.80	A	O
ATOM	3311	N	PHE	A	430	64.468	60.722	-1.317	1.00	21.58	A	N
ATOM	3312	CA	PHE	A	430	63.936	61.773	-0.448	1.00	21.38	A	C
ATOM	3313	CB	PHE	A	430	63.373	62.952	-1.257	1.00	17.57	A	C
ATOM	3314	CG	PHE	A	430	62.804	64.056	-0.393	1.00	19.81	A	C
ATOM	3315	CD1	PHE	A	430	61.428	64.182	-0.217	1.00	17.87	A	C
ATOM	3316	CE1	PHE	A	430	60.911	65.186	0.576	1.00	19.18	A	C
ATOM	3317	CZ	PHE	A	430	61.765	66.076	1.218	1.00	23.56	A	C
ATOM	3318	CE2	PHE	A	430	63.142	65.964	1.055	1.00	24.82	A	C
ATOM	3319	CD2	PHE	A	430	63.655	64.960	0.253	1.00	23.02	A	C
ATOM	3320	C	PHE	A	430	62.843	61.243	0.483	1.00	19.74	A	C
ATOM	3321	O	PHE	A	430	62.828	61.539	1.680	1.00	19.08	A	O
ATOM	3322	N	VAL	A	431	61.917	60.470	-0.075	1.00	14.49	A	N
ATOM	3323	CA	VAL	A	431	60.820	59.934	0.732	1.00	14.83	A	C
ATOM	3324	CB	VAL	A	431	59.720	59.276	-0.126	1.00	16.43	A	C
ATOM	3325	CG1	VAL	A	431	58.599	58.766	0.761	1.00	16.64	A	C
ATOM	3326	CG2	VAL	A	431	59.140	60.322	-1.119	1.00	12.93	A	C
ATOM	3327	C	VAL	A	431	61.376	58.962	1.785	1.00	14.76	A	C
ATOM	3328	O	VAL	A	431	60.917	58.934	2.929	1.00	16.40	A	O
ATOM	3329	N	PHE	A	432	62.385	58.191	1.404	1.00	17.97	A	N
ATOM	3330	CA	PHE	A	432	63.035	57.306	2.369	1.00	15.58	A	C
ATOM	3331	CB	PHE	A	432	64.139	56.485	1.716	1.00	16.36	A	C
ATOM	3332	CG	PHE	A	432	64.951	55.695	2.718	1.00	20.98	A	C
ATOM	3333	CD1	PHE	A	432	66.050	56.261	3.337	1.00	24.18	A	C
ATOM	3334	CE1	PHE	A	432	66.775	55.556	4.302	1.00	28.31	A	C
ATOM	3335	CZ	PHE	A	432	66.396	54.268	4.640	1.00	26.10	A	C
ATOM	3336	CE2	PHE	A	432	65.293	53.691	4.026	1.00	27.51	A	C
ATOM	3337	CD2	PHE	A	432	64.570	54.408	3.078	1.00	24.25	A	C
ATOM	3338	C	PHE	A	432	63.616	58.126	3.552	1.00	21.35	A	C
ATOM	3339	O	PHE	A	432	63.481	57.743	4.723	1.00	16.88	A	O
ATOM	3340	N	ALA	A	433	64.290	59.231	3.243	1.00	18.89	A	N
ATOM	3341	CA	ALA	A	433	64.876	60.056	4.307	1.00	17.62	A	C
ATOM	3342	CB	ALA	A	433	65.759	61.164	3.733	1.00	18.17	A	C
ATOM	3343	C	ALA	A	433	63.778	60.648	5.180	1.00	18.07	A	C
ATOM	3344	O	ALA	A	433	63.958	60.792	6.389	1.00	22.18	A	O
ATOM	3345	N	GLU	A	434	62.642	60.995	4.574	1.00	17.36	A	N
ATOM	3346	CA	GLU	A	434	61.541	61.538	5.361	1.00	17.82	A	C
ATOM	3347	CB	GLU	A	434	60.330	61.889	4.504	1.00	14.50	A	C
ATOM	3348	CG	GLU	A	434	60.544	62.987	3.501	1.00	15.65	A	C
ATOM	3349	CD	GLU	A	434	59.285	63.285	2.731	1.00	17.33	A	C
ATOM	3350	OE1	GLU	A	434	58.824	62.387	1.975	1.00	16.67	A	O
ATOM	3351	OE2	GLU	A	434	58.736	64.394	2.912	1.00	16.47	A	O
ATOM	3352	C	GLU	A	434	61.110	60.567	6.454	1.00	18.74	A	C
ATOM	3353	O	GLU	A	434	60.839	60.990	7.578	1.00	17.11	A	O
ATOM	3354	N	VAL	A	435	61.036	59.275	6.124	1.00	17.35	A	N
ATOM	3355	CA	VAL	A	435	60.493	58.302	7.062	1.00	16.88	A	C
ATOM	3356	CB	VAL	A	435	59.607	57.262	6.339	1.00	17.14	A	C
ATOM	3357	CG1	VAL	A	435	58.426	57.963	5.580	1.00	17.02	A	C
ATOM	3358	CG2	VAL	A	435	60.443	56.448	5.382	1.00	18.85	A	C
ATOM	3359	C	VAL	A	435	61.547	57.559	7.889	1.00	19.65	A	C
ATOM	3360	O	VAL	A	435	61.213	56.954	8.906	1.00	19.23	A	O
ATOM	3361	N	ASN	A	436	62.810	57.572	7.468	1.00	20.87	A	N
ATOM	3362	CA	ASN	A	436	63.776	56.727	8.167	1.00	20.24	A	C
ATOM	3363	CB	ASN	A	436	63.632	55.247	7.752	1.00	19.31	A	C
ATOM	3364	CG	ASN	A	436	64.182	54.314	8.823	1.00	26.97	A	C
ATOM	3365	OD1	ASN	A	436	63.987	54.571	10.012	1.00	22.80	A	O
ATOM	3366	ND2	ASN	A	436	64.920	53.279	8.420	1.00	26.97	A	N
ATOM	3367	C	ASN	A	436	65.256	57.130	8.142	1.00	20.36	A	C
ATOM	3368	O	ASN	A	436	66.126	56.289	8.338	1.00	21.40	A	O
ATOM	3369	N	SER	A	437	65.556	58.410	7.926	1.00	21.84	A	N
ATOM	3370	CA	SER	A	437	66.944	58.845	7.968	1.00	22.69	A	C
ATOM	3371	CB	SER	A	437	67.110	60.242	7.352	1.00	28.34	A	C
ATOM	3372	OG	SER	A	437	66.190	61.166	7.900	1.00	28.67	A	O
ATOM	3373	C	SER	A	437	67.439	58.820	9.417	1.00	22.93	A	C
ATOM	3374	O	SER	A	437	66.656	59.037	10.343	1.00	22.88	A	O
ATOM	3375	N	ASP	A	438	68.719	58.506	9.606	1.00	24.35	A	N
ATOM	3376	CA	ASP	A	438	69.337	58.615	10.921	1.00	27.08	A	C
ATOM	3377	CB	ASP	A	438	70.648	57.819	10.989	1.00	29.31	A	C
ATOM	3378	CG	ASP	A	438	70.438	56.313	11.085	1.00	30.53	A	C
ATOM	3379	OD1	ASP	A	438	69.324	55.864	11.436	1.00	28.03	A	O
ATOM	3380	OD2	ASP	A	438	71.423	55.583	10.825	1.00	29.87	A	O
ATOM	3381	C	ASP	A	438	69.687	60.077	11.187	1.00	26.45	A	C
ATOM	3382	O	ASP	A	438	69.829	60.861	10.250	1.00	25.92	A	O
ATOM	3383	N	LEU	A	439	69.847	60.434	12.457	1.00	27.66	A	N

ATOM	3384	CA	LEU	A	439	70.414	61.740	12.817	1.00	35.08	A	C
ATOM	3385	CB	LEU	A	439	69.774	62.293	14.089	1.00	34.05	A	C
ATOM	3386	CG	LEU	A	439	68.248	62.284	14.181	1.00	31.54	A	C
ATOM	3387	CD1	LEU	A	439	67.819	62.965	15.460	1.00	29.68	A	C
ATOM	3388	CD2	LEU	A	439	67.588	62.940	12.973	1.00	26.70	A	C
ATOM	3389	C	LEU	A	439	71.913	61.589	13.050	1.00	36.35	A	C
ATOM	3390	O	LEU	A	439	72.329	60.759	13.852	1.00	35.31	A	O
ATOM	3391	N	ILE	A	440	72.717	62.369	12.336	1.00	31.01	A	N
ATOM	3392	CA	ILE	A	440	74.168	62.299	12.476	1.00	34.84	A	C
ATOM	3393	CB	ILE	A	440	74.872	62.047	11.126	1.00	32.84	A	C
ATOM	3394	CG1	ILE	A	440	74.166	60.943	10.326	1.00	35.35	A	C
ATOM	3395	CD1	ILE	A	440	74.108	59.592	11.025	1.00	34.89	A	C
ATOM	3396	CG2	ILE	A	440	76.350	61.716	11.360	1.00	35.04	A	C
ATOM	3397	C	ILE	A	440	74.709	63.608	13.077	1.00	39.08	A	C
ATOM	3398	O	ILE	A	440	74.780	64.631	12.394	1.00	39.10	A	O
ATOM	3399	N	TYR	A	441	75.081	63.579	14.354	1.00	40.54	A	N
ATOM	3400	CA	TYR	A	441	75.577	64.785	15.014	1.00	41.44	A	C
ATOM	3401	CB	TYR	A	441	75.315	64.741	16.522	1.00	41.24	A	C
ATOM	3402	CG	TYR	A	441	73.850	64.713	16.928	1.00	40.32	A	C
ATOM	3403	CD1	TYR	A	441	73.095	63.553	16.814	1.00	39.24	A	C
ATOM	3404	CE1	TYR	A	441	71.756	63.526	17.198	1.00	37.93	A	C
ATOM	3405	CZ	TYR	A	441	71.171	64.664	17.712	1.00	37.95	A	C
ATOM	3406	OH	TYR	A	441	69.856	64.645	18.101	1.00	37.00	A	O
ATOM	3407	CE2	TYR	A	441	71.900	65.824	17.836	1.00	39.10	A	C
ATOM	3408	CD2	TYR	A	441	73.235	65.840	17.455	1.00	41.01	A	C
ATOM	3409	C	TYR	A	441	77.071	64.967	14.732	1.00	43.32	A	C
ATOM	3410	O	TYR	A	441	77.888	64.127	15.096	1.00	40.84	A	O
ATOM	3411	N	ILE	A	442	77.409	66.074	14.080	1.00	44.70	A	N
ATOM	3412	CA	ILE	A	442	78.749	66.297	13.558	1.00	47.68	A	C
ATOM	3413	CB	ILE	A	442	78.709	66.447	12.018	1.00	48.56	A	C
ATOM	3414	CG1	ILE	A	442	77.866	65.336	11.395	1.00	47.38	A	C
ATOM	3415	CD1	ILE	A	442	77.739	65.437	9.891	1.00	47.89	A	C
ATOM	3416	CG2	ILE	A	442	80.124	66.457	11.439	1.00	51.70	A	C
ATOM	3417	C	ILE	A	442	79.373	67.558	14.143	1.00	48.01	A	C
ATOM	3418	O	ILE	A	442	78.710	68.584	14.265	1.00	48.58	A	O
ATOM	3419	N	THR	A	443	80.645	67.488	14.508	1.00	50.59	A	N
ATOM	3420	CA	THR	A	443	81.353	68.684	14.949	1.00	52.82	A	C
ATOM	3421	CB	THR	A	443	82.209	68.426	16.187	1.00	55.16	A	C
ATOM	3422	OG1	THR	A	443	81.367	67.992	17.257	1.00	56.40	A	O
ATOM	3423	CG2	THR	A	443	82.938	69.703	16.614	1.00	57.95	A	C
ATOM	3424	C	THR	A	443	82.255	69.180	13.835	1.00	55.55	A	C
ATOM	3425	O	THR	A	443	83.223	68.512	13.475	1.00	59.58	A	O
ATOM	3426	N	ALA	A	444	81.932	70.348	13.286	1.00	55.11	A	N
ATOM	3427	CA	ALA	A	444	82.785	70.973	12.283	1.00	58.20	A	C
ATOM	3428	CB	ALA	A	444	81.967	71.857	11.356	1.00	55.43	A	C
ATOM	3429	C	ALA	A	444	83.894	71.770	12.970	1.00	65.16	A	C
ATOM	3430	O	ALA	A	444	83.622	72.714	13.712	1.00	66.59	A	O
ATOM	3431	N	LYS	A	445	85.141	71.369	12.723	1.00	69.35	A	N
ATOM	3432	CA	LYS	A	445	86.305	71.943	13.392	1.00	72.90	A	C
ATOM	3433	CB	LYS	A	445	87.128	70.832	14.049	1.00	74.44	A	C
ATOM	3434	CG	LYS	A	445	86.353	69.956	15.010	1.00	73.85	A	C
ATOM	3435	CD	LYS	A	445	87.282	69.029	15.765	1.00	76.57	A	C
ATOM	3436	CE	LYS	A	445	86.619	68.495	17.021	1.00	76.89	A	C
ATOM	3437	NZ	LYS	A	445	87.582	67.742	17.868	1.00	79.18	A	N
ATOM	3438	C	LYS	A	445	87.202	72.717	12.425	1.00	76.27	A	C
ATOM	3439	O	LYS	A	445	87.169	72.487	11.216	1.00	76.82	A	O
ATOM	3440	O	LYS	A	446	90.521	72.510	12.009	1.00	80.89	A	O
ATOM	3441	N	LYS	A	446	88.017	73.622	12.964	1.00	77.75	A	N
ATOM	3442	CA	LYS	A	446	88.978	74.355	12.150	1.00	78.82	A	C
ATOM	3443	C	LYS	A	446	90.362	73.713	12.236	1.00	81.69	A	C
ATOM	3444	CB	LYS	A	446	89.039	75.822	12.581	1.00	80.15	A	C
ATOM	3445	N	THR	A	449	88.101	69.762	8.980	1.00	75.36	A	N
ATOM	3446	CA	THR	A	449	87.975	68.476	9.664	1.00	75.19	A	C
ATOM	3447	C	THR	A	449	86.610	68.314	10.363	1.00	72.43	A	C
ATOM	3448	O	THR	A	449	86.150	69.214	11.067	1.00	71.67	A	O
ATOM	3449	CB	THR	A	449	89.152	68.251	10.651	1.00	76.02	A	C
ATOM	3450	OG1	THR	A	449	88.859	67.149	11.518	1.00	75.17	A	O
ATOM	3451	CG2	THR	A	449	89.417	69.504	11.487	1.00	78.33	A	C
ATOM	3452	N	HIS	A	450	85.968	67.166	10.154	1.00	71.18	A	N
ATOM	3453	CA	HIS	A	450	84.615	66.918	10.664	1.00	68.45	A	C
ATOM	3454	CB	HIS	A	450	83.641	66.781	9.493	1.00	69.55	A	C
ATOM	3455	CG	HIS	A	450	83.234	68.088	8.887	1.00	72.65	A	C
ATOM	3456	ND1	HIS	A	450	82.596	68.176	7.668	1.00	73.21	A	N
ATOM	3457	CE1	HIS	A	450	82.350	69.444	7.392	1.00	73.41	A	C
ATOM	3458	NE2	HIS	A	450	82.801	70.182	8.391	1.00	74.25	A	N
ATOM	3459	CD2	HIS	A	450	83.358	69.358	9.338	1.00	74.63	A	C
ATOM	3460	C	HIS	A	450	84.526	65.663	11.541	1.00	66.00	A	C

ATOM	3461	O	HIS	A	450	84.793	64.558	11.067	1.00	68.56	A	O
ATOM	3462	N	VAL	A	451	84.135	65.825	12.806	1.00	60.57	A	N
ATOM	3463	CA	VAL	A	451	84.048	64.690	13.730	1.00	58.79	A	C
ATOM	3464	CB	VAL	A	451	84.782	64.979	15.054	1.00	60.93	A	C
ATOM	3465	C	VAL	A	451	82.611	64.258	14.051	1.00	56.04	A	C
ATOM	3466	O	VAL	A	451	81.802	65.062	14.516	1.00	54.80	A	O
ATOM	3467	N	VAL	A	452	82.299	62.985	13.805	1.00	53.78	A	N
ATOM	3468	CA	VAL	A	452	80.991	62.439	14.178	1.00	50.85	A	C
ATOM	3469	CB	VAL	A	452	80.644	61.136	13.405	1.00	47.38	A	C
ATOM	3470	CG1	VAL	A	452	79.387	60.472	13.980	1.00	44.14	A	C
ATOM	3471	CG2	VAL	A	452	80.437	61.437	11.922	1.00	46.09	A	C
ATOM	3472	C	VAL	A	452	80.938	62.204	15.682	1.00	50.61	A	C
ATOM	3473	O	VAL	A	452	81.851	61.616	16.256	1.00	53.59	A	O
ATOM	3474	N	GLU	A	453	79.874	62.682	16.318	1.00	47.83	A	N
ATOM	3475	CA	GLU	A	453	79.780	62.667	17.775	1.00	49.64	A	C
ATOM	3476	CB	GLU	A	453	79.431	64.059	18.292	1.00	48.38	A	C
ATOM	3477	CG	GLU	A	453	80.345	65.144	17.768	1.00	50.17	A	C
ATOM	3478	CD	GLU	A	453	81.691	65.159	18.460	1.00	55.29	A	C
ATOM	3479	OE1	GLU	A	453	81.833	64.479	19.500	1.00	56.22	A	O
ATOM	3480	OE2	GLU	A	453	82.609	65.855	17.971	1.00	56.41	A	O
ATOM	3481	C	GLU	A	453	78.738	61.674	18.258	1.00	51.53	A	C
ATOM	3482	O	GLU	A	453	78.945	60.987	19.255	1.00	53.05	A	O
ATOM	3483	N	ASN	A	454	77.611	61.612	17.554	1.00	49.46	A	N
ATOM	3484	CA	ASN	A	454	76.554	60.674	17.902	1.00	49.15	A	C
ATOM	3485	CB	ASN	A	454	75.708	61.199	19.067	1.00	53.18	A	C
ATOM	3486	CG	ASN	A	454	74.713	60.165	19.577	1.00	54.48	A	C
ATOM	3487	OD1	ASN	A	454	75.011	58.973	19.610	1.00	56.33	A	O
ATOM	3488	ND2	ASN	A	454	73.519	60.616	19.949	1.00	54.05	A	N
ATOM	3489	C	ASN	A	454	75.657	60.350	16.716	1.00	42.86	A	C
ATOM	3490	O	ASN	A	454	75.615	61.093	15.730	1.00	41.35	A	O
ATOM	3491	N	VAL	A	455	74.955	59.228	16.824	1.00	40.97	A	N
ATOM	3492	CA	VAL	A	455	74.016	58.784	15.806	1.00	41.71	A	C
ATOM	3493	CB	VAL	A	455	74.553	57.568	15.037	1.00	44.03	A	C
ATOM	3494	CG1	VAL	A	455	73.467	57.013	14.087	1.00	41.80	A	C
ATOM	3495	CG2	VAL	A	455	75.812	57.940	14.269	1.00	36.59	A	C
ATOM	3496	C	VAL	A	455	72.701	58.402	16.479	1.00	39.63	A	C
ATOM	3497	O	VAL	A	455	72.692	57.600	17.411	1.00	38.68	A	O
ATOM	3498	N	ASP	A	456	71.604	59.004	16.025	1.00	32.92	A	N
ATOM	3499	CA	ASP	A	456	70.268	58.645	16.497	1.00	37.67	A	C
ATOM	3500	CB	ASP	A	456	69.497	59.891	16.956	1.00	38.27	A	C
ATOM	3501	CG	ASP	A	456	68.161	59.555	17.620	1.00	36.74	A	C
ATOM	3502	OD1	ASP	A	456	67.541	58.519	17.288	1.00	33.28	A	O
ATOM	3503	OD2	ASP	A	456	67.715	60.344	18.476	1.00	38.01	A	O
ATOM	3504	C	ASP	A	456	69.500	57.922	15.391	1.00	33.39	A	C
ATOM	3505	O	ASP	A	456	69.103	58.522	14.375	1.00	28.69	A	O
ATOM	3506	N	ALA	A	457	69.251	56.639	15.629	1.00	32.91	A	N
ATOM	3507	CA	ALA	A	457	68.692	55.752	14.613	1.00	31.36	A	C
ATOM	3508	CB	ALA	A	457	69.335	54.356	14.742	1.00	30.21	A	C
ATOM	3509	C	ALA	A	457	67.161	55.629	14.653	1.00	29.80	A	C
ATOM	3510	O	ALA	A	457	66.575	54.971	13.802	1.00	27.60	A	O
ATOM	3511	N	THR	A	458	66.514	56.227	15.648	1.00	30.22	A	N
ATOM	3512	CA	THR	A	458	65.096	55.947	15.900	1.00	27.26	A	C
ATOM	3513	CB	THR	A	458	64.929	55.235	17.249	1.00	29.08	A	C
ATOM	3514	OG1	THR	A	458	65.519	56.051	18.269	1.00	30.23	A	O
ATOM	3515	CG2	THR	A	458	65.621	53.860	17.243	1.00	31.00	A	C
ATOM	3516	C	THR	A	458	64.211	57.194	15.971	1.00	29.16	A	C
ATOM	3517	O	THR	A	458	62.988	57.085	16.089	1.00	31.01	A	O
ATOM	3518	N	HIS	A	459	64.815	58.373	15.914	1.00	29.42	A	N
ATOM	3519	CA	HIS	A	459	64.056	59.618	16.056	1.00	30.71	A	C
ATOM	3520	CB	HIS	A	459	65.008	60.806	16.107	1.00	33.99	A	C
ATOM	3521	CG	HIS	A	459	64.330	62.112	16.389	1.00	36.13	A	C
ATOM	3522	ND1	HIS	A	459	63.625	62.348	17.550	1.00	38.95	A	N
ATOM	3523	CE1	HIS	A	459	63.143	63.580	17.526	1.00	40.85	A	C
ATOM	3524	NE2	HIS	A	459	63.511	64.150	16.393	1.00	37.08	A	N
ATOM	3525	CD2	HIS	A	459	64.257	63.254	15.665	1.00	36.14	A	C
ATOM	3526	C	HIS	A	459	63.031	59.837	14.929	1.00	29.41	A	C
ATOM	3527	O	HIS	A	459	61.849	60.117	15.185	1.00	29.45	A	O
ATOM	3528	N	ILE	A	460	63.488	59.695	13.687	1.00	27.17	A	N
ATOM	3529	CA	ILE	A	460	62.679	60.034	12.513	1.00	21.57	A	C
ATOM	3530	CB	ILE	A	460	63.580	60.185	11.264	1.00	21.09	A	C
ATOM	3531	CG1	ILE	A	460	64.594	61.319	11.464	1.00	22.03	A	C
ATOM	3532	CD1	ILE	A	460	63.947	62.646	11.824	1.00	25.75	A	C
ATOM	3533	CG2	ILE	A	460	62.756	60.406	10.009	1.00	19.50	A	C
ATOM	3534	C	ILE	A	460	61.609	58.986	12.243	1.00	22.85	A	C
ATOM	3535	O	ILE	A	460	61.845	57.787	12.405	1.00	21.55	A	O
ATOM	3536	N	GLY	A	461	60.431	59.454	11.839	1.00	23.57	A	N
ATOM	3537	CA	GLY	A	461	59.372	58.589	11.358	1.00	22.51	A	C

ATOM	3538	C	GLY	A	461	58.844	57.696	12.454	1.00	22.13	A	C
ATOM	3539	O	GLY	A	461	58.828	56.470	12.322	1.00	21.68	A	O
ATOM	3540	N	LYS	A	462	58.387	58.313	13.535	1.00	23.68	A	N
ATOM	3541	CA	LYS	A	462	58.000	57.556	14.717	1.00	25.33	A	C
ATOM	3542	CB	LYS	A	462	57.921	58.479	15.954	1.00	24.48	A	C
ATOM	3543	C	LYS	A	462	56.702	56.778	14.486	1.00	26.30	A	C
ATOM	3544	O	LYS	A	462	56.507	55.705	15.045	1.00	27.22	A	O
ATOM	3545	N	LEU	A	463	55.842	57.313	13.615	1.00	25.79	A	N
ATOM	3546	CA	LEU	A	463	54.525	56.745	13.355	1.00	21.52	A	C
ATOM	3547	CB	LEU	A	463	53.581	57.124	14.498	1.00	23.60	A	C
ATOM	3548	CG	LEU	A	463	52.100	56.773	14.325	1.00	23.71	A	C
ATOM	3549	CD1	LEU	A	463	51.873	55.264	14.340	1.00	25.58	A	C
ATOM	3550	CD2	LEU	A	463	51.275	57.443	15.394	1.00	21.38	A	C
ATOM	3551	C	LEU	A	463	53.987	57.317	12.042	1.00	18.69	A	C
ATOM	3552	O	LEU	A	463	54.107	58.519	11.802	1.00	17.87	A	O
ATOM	3553	N	ILE	A	464	53.438	56.456	11.191	1.00	17.38	A	N
ATOM	3554	CA	ILE	A	464	52.778	56.863	9.942	1.00	17.00	A	C
ATOM	3555	CB	ILE	A	464	53.541	56.362	8.699	1.00	20.26	A	C
ATOM	3556	CG1	ILE	A	464	54.999	56.822	8.758	1.00	20.60	A	C
ATOM	3557	CD1	ILE	A	464	55.898	56.185	7.699	1.00	18.45	A	C
ATOM	3558	CG2	ILE	A	464	52.881	56.881	7.392	1.00	18.55	A	C
ATOM	3559	C	ILE	A	464	51.345	56.334	9.911	1.00	18.25	A	C
ATOM	3560	O	ILE	A	464	51.115	55.134	10.079	1.00	16.95	A	O
ATOM	3561	N	VAL	A	465	50.373	57.218	9.698	1.00	18.00	A	N
ATOM	3562	CA	VAL	A	465	48.969	56.829	9.805	1.00	18.00	A	C
ATOM	3563	CB	VAL	A	465	48.348	57.319	11.121	1.00	18.62	A	C
ATOM	3564	CG1	VAL	A	465	48.936	56.558	12.312	1.00	18.48	A	C
ATOM	3565	CG2	VAL	A	465	48.553	58.829	11.300	1.00	18.41	A	C
ATOM	3566	C	VAL	A	465	48.100	57.330	8.651	1.00	17.68	A	C
ATOM	3567	O	VAL	A	465	48.449	58.287	7.973	1.00	20.16	A	O
ATOM	3568	N	THR	A	466	46.964	56.677	8.439	1.00	17.06	A	N
ATOM	3569	CA	THR	A	466	45.979	57.156	7.458	1.00	16.95	A	C
ATOM	3570	CB	THR	A	466	46.228	56.508	6.074	1.00	17.90	A	C
ATOM	3571	OG1	THR	A	466	45.496	57.197	5.052	1.00	13.56	A	O
ATOM	3572	CG2	THR	A	466	45.847	54.999	6.088	1.00	14.26	A	C
ATOM	3573	C	THR	A	466	44.577	56.846	7.999	1.00	18.11	A	C
ATOM	3574	O	THR	A	466	44.434	56.056	8.941	1.00	17.33	A	O
ATOM	3575	N	LYS	A	467	43.546	57.465	7.432	1.00	19.57	A	N
ATOM	3576	CA	LYS	A	467	42.178	57.240	7.907	1.00	19.72	A	C
ATOM	3577	CB	LYS	A	467	41.194	58.171	7.179	1.00	18.54	A	C
ATOM	3578	CG	LYS	A	467	39.737	58.041	7.651	1.00	20.07	A	C
ATOM	3579	CD	LYS	A	467	38.789	58.823	6.706	1.00	22.91	A	C
ATOM	3580	CE	LYS	A	467	37.321	58.411	6.879	1.00	21.14	A	C
ATOM	3581	NZ	LYS	A	467	37.075	57.004	6.393	1.00	20.96	A	N
ATOM	3582	C	LYS	A	467	41.770	55.777	7.669	1.00	19.89	A	C
ATOM	3583	O	LYS	A	467	42.059	55.206	6.628	1.00	17.08	A	O
ATOM	3584	N	GLN	A	468	41.109	55.166	8.637	1.00	19.97	A	N
ATOM	3585	CA	GLN	A	468	40.677	53.787	8.465	1.00	23.06	A	C
ATOM	3586	CB	GLN	A	468	40.219	53.195	9.802	1.00	23.46	A	C
ATOM	3587	CG	GLN	A	468	38.822	53.606	10.226	1.00	31.73	A	C
ATOM	3588	CD	GLN	A	468	38.557	53.350	11.707	1.00	39.52	A	C
ATOM	3589	OE1	GLN	A	468	37.511	53.730	12.245	1.00	41.48	A	O
ATOM	3590	NE2	GLN	A	468	39.523	52.725	12.380	1.00	40.83	A	N
ATOM	3591	C	GLN	A	468	39.558	53.702	7.422	1.00	23.32	A	C
ATOM	3592	O	GLN	A	468	38.894	54.695	7.105	1.00	24.23	A	O
ATOM	3593	N	ILE	A	469	39.359	52.513	6.870	1.00	22.36	A	N
ATOM	3594	CA	ILE	A	469	38.203	52.282	6.025	1.00	25.59	A	C
ATOM	3595	CB	ILE	A	469	38.412	51.003	5.208	1.00	31.22	A	C
ATOM	3596	CG1	ILE	A	469	39.581	51.217	4.235	1.00	29.61	A	C
ATOM	3597	CD1	ILE	A	469	40.209	49.950	3.754	1.00	31.22	A	C
ATOM	3598	CG2	ILE	A	469	37.139	50.610	4.467	1.00	32.71	A	C
ATOM	3599	C	ILE	A	469	36.990	52.188	6.943	1.00	29.61	A	C
ATOM	3600	O	ILE	A	469	37.054	51.567	7.999	1.00	31.67	A	O
ATOM	3601	N	GLY	A	470	35.901	52.853	6.585	1.00	33.64	A	N
ATOM	3602	CA	GLY	A	470	34.653	52.662	7.312	1.00	36.43	A	C
ATOM	3603	C	GLY	A	470	34.437	53.438	8.598	1.00	38.84	A	C
ATOM	3604	O	GLY	A	470	33.371	53.331	9.211	1.00	43.91	A	O
ATOM	3605	N	GLY	A	471	35.427	54.225	9.009	1.00	34.15	A	N
ATOM	3606	CA	GLY	A	471	35.303	55.031	10.210	1.00	33.11	A	C
ATOM	3607	C	GLY	A	471	36.324	56.149	10.269	1.00	31.74	A	C
ATOM	3608	O	GLY	A	471	37.189	56.269	9.398	1.00	31.49	A	O
ATOM	3609	N	ASP	A	472	36.245	56.970	11.306	1.00	31.72	A	N
ATOM	3610	CA	ASP	A	472	37.156	58.101	11.420	1.00	30.60	A	C
ATOM	3611	CB	ASP	A	472	36.456	59.311	12.053	1.00	31.93	A	C
ATOM	3612	CG	ASP	A	472	35.575	60.059	11.069	1.00	34.92	A	C
ATOM	3613	OD1	ASP	A	472	35.712	59.839	9.843	1.00	33.71	A	O
ATOM	3614	OD2	ASP	A	472	34.752	60.884	11.522	1.00	38.66	A	O

ATOM	3615	C	ASP	A	472	38.419	57.749	12.198	1.00	30.76	A	C
ATOM	3616	O	ASP	A	472	39.219	58.629	12.528	1.00	30.45	A	O
ATOM	3617	N	GLY	A	473	38.601	56.463	12.474	1.00	29.07	A	N
ATOM	3618	CA	GLY	A	473	39.747	55.997	13.228	1.00	27.80	A	C
ATOM	3619	C	GLY	A	473	41.046	56.035	12.454	1.00	22.83	A	C
ATOM	3620	O	GLY	A	473	41.068	56.202	11.249	1.00	22.23	A	O
ATOM	3621	N	MET	A	474	42.138	55.872	13.182	1.00	23.91	A	N
ATOM	3622	CA	MET	A	474	43.482	55.949	12.654	1.00	25.08	A	C
ATOM	3623	CB	MET	A	474	44.376	56.436	13.786	1.00	30.79	A	C
ATOM	3624	CG	MET	A	474	45.646	57.096	13.380	1.00	32.38	A	C
ATOM	3625	SD	MET	A	474	46.452	57.756	14.862	1.00	46.18	A	S
ATOM	3626	CE	MET	A	474	46.752	56.257	15.799	1.00	33.04	A	C
ATOM	3627	C	MET	A	474	43.944	54.563	12.264	1.00	26.93	A	C
ATOM	3628	O	MET	A	474	43.750	53.615	13.020	1.00	26.98	A	O
ATOM	3629	N	MET	A	475	44.577	54.430	11.104	1.00	23.64	A	N
ATOM	3630	CA	MET	A	475	45.203	53.156	10.778	1.00	26.12	A	C
ATOM	3631	CB	MET	A	475	44.698	52.596	9.443	1.00	22.98	A	C
ATOM	3632	CG	MET	A	475	45.245	51.209	9.150	1.00	29.81	A	C
ATOM	3633	SD	MET	A	475	44.416	50.349	7.785	1.00	45.24	A	S
ATOM	3634	CE	MET	A	475	45.035	51.220	6.380	1.00	22.07	A	C
ATOM	3635	C	MET	A	475	46.718	53.334	10.737	1.00	24.73	A	C
ATOM	3636	O	MET	A	475	47.225	54.158	9.997	1.00	19.88	A	O
ATOM	3637	N	ASP	A	476	47.434	52.541	11.528	1.00	23.65	A	N
ATOM	3638	CA	ASP	A	476	48.890	52.582	11.565	1.00	21.31	A	C
ATOM	3639	CB	ASP	A	476	49.362	51.849	12.844	1.00	23.58	A	C
ATOM	3640	CG	ASP	A	476	50.859	51.966	13.084	1.00	23.93	A	C
ATOM	3641	OD1	ASP	A	476	51.615	52.121	12.104	1.00	24.00	A	O
ATOM	3642	OD2	ASP	A	476	51.290	51.898	14.260	1.00	27.49	A	O
ATOM	3643	C	ASP	A	476	49.465	51.907	10.322	1.00	21.47	A	C
ATOM	3644	O	ASP	A	476	49.294	50.707	10.155	1.00	21.38	A	O
ATOM	3645	N	ILE	A	477	50.160	52.654	9.462	1.00	17.44	A	N
ATOM	3646	CA	ILE	A	477	50.777	52.064	8.267	1.00	16.60	A	C
ATOM	3647	CB	ILE	A	477	50.198	52.651	6.947	1.00	19.27	A	C
ATOM	3648	CG1	ILE	A	477	50.384	54.170	6.900	1.00	18.03	A	C
ATOM	3649	CD1	ILE	A	477	49.894	54.782	5.601	1.00	19.83	A	C
ATOM	3650	CG2	ILE	A	477	48.742	52.263	6.782	1.00	15.50	A	C
ATOM	3651	C	ILE	A	477	52.310	52.193	8.234	1.00	16.53	A	C
ATOM	3652	O	ILE	A	477	52.935	52.132	7.166	1.00	18.74	A	O
ATOM	3653	N	THR	A	478	52.912	52.376	9.399	1.00	17.43	A	N
ATOM	3654	CA	THR	A	478	54.358	52.600	9.487	1.00	19.64	A	C
ATOM	3655	CB	THR	A	478	54.808	52.715	10.978	1.00	23.59	A	C
ATOM	3656	OG1	THR	A	478	53.993	53.678	11.654	1.00	21.39	A	O
ATOM	3657	CG2	THR	A	478	56.244	53.153	11.066	1.00	23.12	A	C
ATOM	3658	C	THR	A	478	55.126	51.452	8.833	1.00	19.13	A	C
ATOM	3659	O	THR	A	478	56.132	51.665	8.141	1.00	18.55	A	O
ATOM	3660	N	ASP	A	479	54.625	50.235	9.062	1.00	21.48	A	N
ATOM	3661	CA	ASP	A	479	55.242	48.995	8.579	1.00	23.29	A	C
ATOM	3662	CB	ASP	A	479	54.540	47.752	9.155	1.00	25.56	A	C
ATOM	3663	CG	ASP	A	479	54.805	47.566	10.644	1.00	38.20	A	C
ATOM	3664	OD1	ASP	A	479	55.698	48.262	11.196	1.00	42.90	A	O
ATOM	3665	OD2	ASP	A	479	54.116	46.730	11.273	1.00	41.19	A	O
ATOM	3666	C	ASP	A	479	55.290	48.879	7.065	1.00	23.05	A	C
ATOM	3667	O	ASP	A	479	56.078	48.094	6.544	1.00	22.03	A	O
ATOM	3668	N	THR	A	480	54.456	49.647	6.367	1.00	18.98	A	N
ATOM	3669	CA	THR	A	480	54.470	49.634	4.908	1.00	20.68	A	C
ATOM	3670	CB	THR	A	480	53.153	50.219	4.275	1.00	20.84	A	C
ATOM	3671	OG1	THR	A	480	53.052	51.628	4.544	1.00	17.15	A	O
ATOM	3672	CG2	THR	A	480	51.923	49.485	4.832	1.00	20.16	A	C
ATOM	3673	C	THR	A	480	55.668	50.415	4.391	1.00	18.87	A	C
ATOM	3674	O	THR	A	480	56.197	50.093	3.329	1.00	18.93	A	O
ATOM	3675	N	TYR	A	481	56.085	51.439	5.149	1.00	20.94	A	N
ATOM	3676	CA	TYR	A	481	57.223	52.287	4.771	1.00	15.18	A	C
ATOM	3677	CB	TYR	A	481	57.022	53.710	5.264	1.00	14.74	A	C
ATOM	3678	CG	TYR	A	481	56.141	54.539	4.362	1.00	15.41	A	C
ATOM	3679	CD1	TYR	A	481	56.673	55.224	3.274	1.00	12.98	A	C
ATOM	3680	CE1	TYR	A	481	55.852	55.993	2.437	1.00	12.06	A	C
ATOM	3681	CZ	TYR	A	481	54.481	56.046	2.678	1.00	15.69	A	C
ATOM	3682	OH	TYR	A	481	53.650	56.786	1.858	1.00	15.77	A	O
ATOM	3683	CE2	TYR	A	481	53.930	55.361	3.741	1.00	14.50	A	C
ATOM	3684	CD2	TYR	A	481	54.765	54.602	4.582	1.00	16.77	A	C
ATOM	3685	C	TYR	A	481	58.576	51.803	5.280	1.00	21.12	A	C
ATOM	3686	O	TYR	A	481	59.611	52.094	4.679	1.00	17.29	A	O
ATOM	3687	N	LYS	A	482	58.584	51.080	6.397	1.00	23.44	A	N
ATOM	3688	CA	LYS	A	482	59.856	50.750	7.011	1.00	21.78	A	C
ATOM	3689	CB	LYS	A	482	60.383	51.958	7.803	1.00	24.14	A	C
ATOM	3690	CG	LYS	A	482	59.482	52.410	8.944	1.00	26.04	A	C
ATOM	3691	CD	LYS	A	482	59.817	53.837	9.443	1.00	29.59	A	C

ATOM	3692	CE	LYS	A	482	60.906	53.830	10.479	1.00	31.04	A	C
ATOM	3693	NZ	LYS	A	482	61.152	55.165	11.173	1.00	20.37	A	N
ATOM	3694	C	LYS	A	482	59.729	49.543	7.907	1.00	22.26	A	C
ATOM	3695	O	LYS	A	482	58.678	49.317	8.511	1.00	23.65	A	O
ATOM	3696	N	PHE	A	483	60.799	48.758	7.999	1.00	21.83	A	N
ATOM	3697	CA	PHE	A	483	60.849	47.720	9.017	1.00	22.52	A	C
ATOM	3698	CB	PHE	A	483	62.081	46.821	8.811	1.00	23.74	A	C
ATOM	3699	CG	PHE	A	483	62.012	45.992	7.560	1.00	25.26	A	C
ATOM	3700	CD1	PHE	A	483	61.155	44.898	7.485	1.00	28.30	A	C
ATOM	3701	CE1	PHE	A	483	61.077	44.143	6.337	1.00	29.40	A	C
ATOM	3702	CZ	PHE	A	483	61.856	44.463	5.242	1.00	30.84	A	C
ATOM	3703	CE2	PHE	A	483	62.714	45.547	5.299	1.00	28.41	A	C
ATOM	3704	CD2	PHE	A	483	62.794	46.302	6.456	1.00	24.26	A	C
ATOM	3705	C	PHE	A	483	60.861	48.356	10.399	1.00	25.22	A	C
ATOM	3706	O	PHE	A	483	61.200	49.522	10.542	1.00	28.03	A	O
ATOM	3707	N	GLN	A	484	60.504	47.585	11.423	1.00	32.09	A	N
ATOM	3708	CA	GLN	A	484	60.486	48.097	12.796	1.00	36.32	A	C
ATOM	3709	C	GLN	A	484	61.848	48.494	13.350	1.00	34.11	A	C
ATOM	3710	O	GLN	A	484	62.846	47.797	13.142	1.00	27.16	A	O
ATOM	3711	CB	GLN	A	484	59.829	47.090	13.732	1.00	42.47	A	C
ATOM	3712	CG	GLN	A	484	58.323	47.157	13.656	1.00	50.53	A	C
ATOM	3713	CD	GLN	A	484	57.651	46.180	14.580	1.00	58.96	A	C
ATOM	3714	OE1	GLN	A	484	58.282	45.249	15.084	1.00	62.51	A	O
ATOM	3715	NE2	GLN	A	484	56.356	46.383	14.814	1.00	61.12	A	N
ATOM	3716	N	GLU	A	485	61.871	49.617	14.065	1.00	30.19	A	N
ATOM	3717	CA	GLU	A	485	63.077	50.090	14.728	1.00	31.40	A	C
ATOM	3718	CB	GLU	A	485	62.789	51.369	15.529	1.00	31.78	A	C
ATOM	3719	CG	GLU	A	485	62.207	52.540	14.683	1.00	25.38	A	C
ATOM	3720	CD	GLU	A	485	63.227	53.141	13.728	1.00	27.05	A	C
ATOM	3721	OE1	GLU	A	485	64.438	52.951	13.933	1.00	30.97	A	O
ATOM	3722	OE2	GLU	A	485	62.828	53.809	12.774	1.00	25.77	A	O
ATOM	3723	C	GLU	A	485	63.632	48.997	15.643	1.00	35.36	A	C
ATOM	3724	O	GLU	A	485	62.874	48.329	16.349	1.00	30.17	A	O
ATOM	3725	N	GLY	A	486	64.948	48.801	15.608	1.00	34.89	A	N
ATOM	3726	CA	GLY	A	486	65.592	47.827	16.468	1.00	32.44	A	C
ATOM	3727	C	GLY	A	486	65.708	46.459	15.817	1.00	36.91	A	C
ATOM	3728	O	GLY	A	486	66.423	45.606	16.310	1.00	34.69	A	O
ATOM	3729	N	GLN	A	487	65.002	46.249	14.711	1.00	34.98	A	N
ATOM	3730	CA	GLN	A	487	65.144	45.010	13.952	1.00	36.24	A	C
ATOM	3731	CB	GLN	A	487	63.878	44.732	13.138	1.00	36.31	A	C
ATOM	3732	CG	GLN	A	487	62.633	44.515	13.972	1.00	40.02	A	C
ATOM	3733	CD	GLN	A	487	62.658	43.199	14.712	1.00	49.67	A	C
ATOM	3734	OE1	GLN	A	487	63.255	43.087	15.788	1.00	51.14	A	O
ATOM	3735	NE2	GLN	A	487	62.015	42.181	14.133	1.00	53.91	A	N
ATOM	3736	C	GLN	A	487	66.332	45.139	13.013	1.00	34.70	A	C
ATOM	3737	O	GLN	A	487	66.592	46.215	12.473	1.00	31.02	A	O
ATOM	3738	N	GLU	A	488	67.047	44.046	12.809	1.00	30.14	A	N
ATOM	3739	CA	GLU	A	488	68.186	44.026	11.897	1.00	30.54	A	C
ATOM	3740	CB	GLU	A	488	68.823	42.632	11.881	1.00	32.59	A	C
ATOM	3741	CG	GLU	A	488	70.131	42.570	11.128	1.00	33.66	A	C
ATOM	3742	CD	GLU	A	488	71.196	43.414	11.797	1.00	41.42	A	C
ATOM	3743	OE1	GLU	A	488	71.315	43.330	13.042	1.00	42.90	A	O
ATOM	3744	OE2	GLU	A	488	71.892	44.176	11.085	1.00	44.02	A	O
ATOM	3745	C	GLU	A	488	67.807	44.435	10.456	1.00	28.52	A	C
ATOM	3746	O	GLU	A	488	68.621	45.027	9.746	1.00	27.32	A	O
ATOM	3747	N	GLU	A	489	66.591	44.115	10.024	1.00	23.80	A	N
ATOM	3748	CA	GLU	A	489	66.166	44.443	8.663	1.00	28.23	A	C
ATOM	3749	C	GLU	A	489	66.062	45.952	8.463	1.00	27.45	A	C
ATOM	3750	O	GLU	A	489	66.273	46.452	7.364	1.00	25.21	A	O
ATOM	3751	CB	GLU	A	489	64.812	43.807	8.315	1.00	31.22	A	C
ATOM	3752	CG	GLU	A	489	64.764	42.307	8.456	1.00	37.89	A	C
ATOM	3753	CD	GLU	A	489	64.332	41.855	9.842	1.00	40.25	A	C
ATOM	3754	OE1	GLU	A	489	64.900	42.342	10.833	1.00	35.08	A	O
ATOM	3755	OE2	GLU	A	489	63.420	41.002	9.933	1.00	46.05	A	O
ATOM	3756	N	GLU	A	490	65.726	46.670	9.527	1.00	29.73	A	N
ATOM	3757	CA	GLU	A	490	65.635	48.122	9.457	1.00	30.99	A	C
ATOM	3758	CB	GLU	A	490	65.051	48.700	10.752	1.00	32.15	A	C
ATOM	3759	CG	GLU	A	490	64.723	50.184	10.683	1.00	29.76	A	C
ATOM	3760	CD	GLU	A	490	65.805	51.049	11.289	1.00	31.61	A	C
ATOM	3761	OE1	GLU	A	490	66.786	50.504	11.827	1.00	34.65	A	O
ATOM	3762	OE2	GLU	A	490	65.674	52.285	11.248	1.00	33.83	A	O
ATOM	3763	C	GLU	A	490	67.008	48.717	9.140	1.00	29.70	A	C
ATOM	3764	O	GLU	A	490	67.111	49.656	8.353	1.00	28.92	A	O
ATOM	3765	N	ARG	A	491	68.059	48.162	9.737	1.00	26.26	A	N
ATOM	3766	C	ARG	A	491	69.846	48.187	8.046	1.00	27.86	A	C
ATOM	3767	O	ARG	A	491	70.432	48.978	7.300	1.00	29.39	A	O
ATOM	3768	CA	AARG	A	491	69.405	48.624	9.447	0.68	27.07	A	C

ATOM	3769	CB	AARG	A	491	70.398	48.144	10.519	0.68	30.77	A	C
ATOM	3770	CG	AARG	A	491	71.265	49.260	11.111	0.68	35.84	A	C
ATOM	3771	CD	AARG	A	491	70.554	50.062	12.195	0.68	31.84	A	C
ATOM	3772	NE	AARG	A	491	69.620	51.093	11.715	0.68	31.72	A	N
ATOM	3773	CZ	AARG	A	491	69.920	52.390	11.603	0.68	36.56	A	C
ATOM	3774	NH1AARG	A	491	69.004	53.264	11.187	0.68	33.20	A	N	
ATOM	3775	NH2AARG	A	491	71.136	52.828	11.916	0.68	34.89	A	N	
ATOM	3776	CA	BARG	A	491	69.428	48.591	9.454	0.32	28.97	A	C
ATOM	3777	CB	BARG	A	491	70.423	47.993	10.462	0.32	29.55	A	C
ATOM	3778	CG	BARG	A	491	70.170	48.349	11.919	0.32	29.83	A	C
ATOM	3779	CD	BARG	A	491	69.765	49.806	12.079	0.32	40.43	A	C
ATOM	3780	NE	BARG	A	491	70.746	50.752	11.557	0.32	31.92	A	N
ATOM	3781	CZ	BARG	A	491	70.493	52.041	11.347	0.32	32.91	A	C
ATOM	3782	NH1BARG	A	491	71.441	52.842	10.877	0.32	34.03	A	N	
ATOM	3783	NH2BARG	A	491	69.287	52.532	11.606	0.32	36.68	A	N	
ATOM	3784	N	LEU	A	492	69.554	46.940	7.679	1.00	25.40	A	N
ATOM	3785	CA	LEU	A	492	69.968	46.441	6.377	1.00	23.45	A	C
ATOM	3786	CB	LEU	A	492	69.721	44.939	6.267	1.00	22.43	A	C
ATOM	3787	CG	LEU	A	492	70.648	44.043	7.086	1.00	23.39	A	C
ATOM	3788	CD1	LEU	A	492	70.188	42.569	7.046	1.00	22.87	A	C
ATOM	3789	CD2	LEU	A	492	72.047	44.186	6.528	1.00	24.15	A	C
ATOM	3790	C	LEU	A	492	69.289	47.197	5.231	1.00	23.89	A	C
ATOM	3791	O	LEU	A	492	69.896	47.478	4.201	1.00	26.31	A	O
ATOM	3792	N	ALA	A	493	68.024	47.527	5.413	1.00	23.03	A	N
ATOM	3793	CA	ALA	A	493	67.322	48.269	4.381	1.00	23.50	A	C
ATOM	3794	CB	ALA	A	493	65.825	48.222	4.613	1.00	22.12	A	C
ATOM	3795	C	ALA	A	493	67.845	49.716	4.320	1.00	23.72	A	C
ATOM	3796	O	ALA	A	493	67.955	50.300	3.235	1.00	23.93	A	O
ATOM	3797	N	LEU	A	494	68.191	50.291	5.469	1.00	25.00	A	N
ATOM	3798	CA	LEU	A	494	68.736	51.646	5.454	1.00	26.71	A	C
ATOM	3799	CB	LEU	A	494	68.916	52.200	6.871	1.00	28.27	A	C
ATOM	3800	CG	LEU	A	494	69.608	53.563	6.916	1.00	37.86	A	C
ATOM	3801	CD1	LEU	A	494	68.816	54.518	7.768	1.00	38.84	A	C
ATOM	3802	CD2	LEU	A	494	71.030	53.430	7.437	1.00	41.98	A	C
ATOM	3803	C	LEU	A	494	70.066	51.673	4.716	1.00	28.03	A	C
ATOM	3804	O	LEU	A	494	70.332	52.575	3.912	1.00	28.12	A	O
ATOM	3805	N	GLU	A	495	70.905	50.672	5.002	1.00	27.54	A	N
ATOM	3806	CA	GLU	A	495	72.224	50.594	4.393	1.00	29.75	A	C
ATOM	3807	CB	GLU	A	495	73.079	49.545	5.107	1.00	27.16	A	C
ATOM	3808	CG	GLU	A	495	73.290	49.895	6.576	1.00	35.16	A	C
ATOM	3809	CD	GLU	A	495	73.798	48.729	7.399	1.00	37.62	A	C
ATOM	3810	OE1	GLU	A	495	74.125	47.692	6.800	1.00	38.71	A	O
ATOM	3811	OE2	GLU	A	495	73.865	48.849	8.641	1.00	39.82	A	O
ATOM	3812	C	GLU	A	495	72.113	50.338	2.887	1.00	28.42	A	C
ATOM	3813	O	GLU	A	495	72.919	50.834	2.094	1.00	27.32	A	O
ATOM	3814	N	THR	A	496	71.095	49.581	2.501	1.00	26.61	A	N
ATOM	3815	CA	THR	A	496	70.749	49.446	1.101	1.00	26.94	A	C
ATOM	3816	CB	THR	A	496	69.619	48.425	0.939	1.00	27.85	A	C
ATOM	3817	OG1	THR	A	496	70.059	47.167	1.466	1.00	25.76	A	O
ATOM	3818	CG2	THR	A	496	69.248	48.264	-0.523	1.00	22.16	A	C
ATOM	3819	C	THR	A	496	70.366	50.807	0.470	1.00	27.14	A	C
ATOM	3820	O	THR	A	496	70.873	51.172	-0.596	1.00	26.03	A	O
ATOM	3821	N	ALA	A	497	69.477	51.550	1.130	1.00	27.50	A	N
ATOM	3822	CA	ALA	A	497	69.081	52.877	0.660	1.00	28.95	A	C
ATOM	3823	CB	ALA	A	497	68.031	53.501	1.587	1.00	27.24	A	C
ATOM	3824	C	ALA	A	497	70.281	53.813	0.519	1.00	31.29	A	C
ATOM	3825	O	ALA	A	497	70.413	54.519	-0.484	1.00	31.05	A	O
ATOM	3826	N	LEU	A	498	71.158	53.823	1.521	1.00	32.67	A	N
ATOM	3827	CA	LEU	A	498	72.343	54.684	1.461	1.00	36.58	A	C
ATOM	3828	CB	LEU	A	498	73.173	54.580	2.744	1.00	37.11	A	C
ATOM	3829	CG	LEU	A	498	72.610	55.305	3.965	1.00	42.13	A	C
ATOM	3830	CD1	LEU	A	498	73.610	55.272	5.120	1.00	44.44	A	C
ATOM	3831	CD2	LEU	A	498	72.266	56.732	3.614	1.00	43.18	A	C
ATOM	3832	C	LEU	A	498	73.201	54.299	0.263	1.00	35.31	A	C
ATOM	3833	O	LEU	A	498	73.745	55.154	-0.428	1.00	38.64	A	O
ATOM	3834	N	MET	A	499	73.287	52.997	0.022	1.00	32.33	A	N
ATOM	3835	CA	MET	A	499	74.053	52.443	-1.087	1.00	34.85	A	C
ATOM	3836	CB	MET	A	499	73.969	50.922	-1.035	1.00	34.23	A	C
ATOM	3837	CG	MET	A	499	75.061	50.191	-1.773	1.00	38.29	A	C
ATOM	3838	SD	MET	A	499	74.424	49.286	-3.176	1.00	63.44	A	S
ATOM	3839	CE	MET	A	499	73.281	48.161	-2.371	1.00	50.50	A	C
ATOM	3840	C	MET	A	499	73.540	52.967	-2.431	1.00	38.03	A	C
ATOM	3841	O	MET	A	499	74.295	53.516	-3.228	1.00	39.11	A	O
ATOM	3842	O	TYR	A	500	71.741	55.402	-5.059	1.00	50.91	A	O
ATOM	3843	N	TYR	A	500	72.246	52.810	-2.675	1.00	38.52	A	N
ATOM	3844	CA	TYR	A	500	71.666	53.289	-3.921	1.00	41.78	A	C
ATOM	3845	C	TYR	A	500	71.702	54.812	-3.978	1.00	48.48	A	C

ATOM	3846	CB	TYR	A	500	70.243	52.768	-4.078	1.00	38.21	A	C
ATOM	3847	CG	TYR	A	500	70.158	51.305	-4.421	1.00	35.52	A	C
ATOM	3848	CD1	TYR	A	500	70.776	50.801	-5.555	1.00	35.20	A	C
ATOM	3849	CD2	TYR	A	500	69.437	50.427	-3.620	1.00	36.62	A	C
ATOM	3850	CE1	TYR	A	500	70.681	49.460	-5.884	1.00	37.11	A	C
ATOM	3851	CE2	TYR	A	500	69.336	49.088	-3.936	1.00	37.03	A	C
ATOM	3852	CZ	TYR	A	500	69.955	48.611	-5.073	1.00	39.84	A	C
ATOM	3853	OH	TYR	A	500	69.851	47.279	-5.385	1.00	44.02	A	O
ATOM	3854	O	GLY	A	501	71.187	58.200	-4.530	1.00	64.02	A	O
ATOM	3855	N	GLY	A	501	71.705	55.438	-2.804	1.00	52.91	A	N
ATOM	3856	CA	GLY	A	501	71.922	56.870	-2.689	1.00	56.02	A	C
ATOM	3857	C	GLY	A	501	70.901	57.694	-3.446	1.00	60.33	A	C
ATOM	3858	N	SER	A	516	84.889	44.384	-1.596	1.00	57.91	A	N
ATOM	3859	CA	SER	A	516	85.033	43.202	-0.743	1.00	56.16	A	C
ATOM	3860	CB	SER	A	516	83.789	43.004	0.129	1.00	58.72	A	C
ATOM	3861	OG	SER	A	516	83.642	44.064	1.057	1.00	60.54	A	O
ATOM	3862	C	SER	A	516	85.299	41.933	-1.550	1.00	48.32	A	C
ATOM	3863	O	SER	A	516	85.762	40.931	-1.002	1.00	44.58	A	O
ATOM	3864	N	ASN	A	517	84.991	41.982	-2.846	1.00	44.57	A	N
ATOM	3865	CA	ASN	A	517	85.216	40.848	-3.738	1.00	42.72	A	C
ATOM	3866	CB	ASN	A	517	86.701	40.455	-3.737	1.00	44.28	A	C
ATOM	3867	CG	ASN	A	517	87.194	39.994	-5.091	1.00	42.43	A	C
ATOM	3868	OD1	ASN	A	517	86.465	40.030	-6.089	1.00	39.02	A	O
ATOM	3869	ND2	ASN	A	517	88.457	39.571	-5.137	1.00	43.19	A	N
ATOM	3870	C	ASN	A	517	84.337	39.656	-3.347	1.00	37.21	A	C
ATOM	3871	O	ASN	A	517	84.751	38.493	-3.480	1.00	32.87	A	O
ATOM	3872	N	VAL	A	518	83.140	39.964	-2.840	1.00	32.24	A	N
ATOM	3873	CA	VAL	A	518	82.093	38.976	-2.606	1.00	31.52	A	C
ATOM	3874	CB	VAL	A	518	81.500	39.073	-1.189	1.00	30.76	A	C
ATOM	3875	CG1	VAL	A	518	80.327	38.082	-1.043	1.00	29.92	A	C
ATOM	3876	CG2	VAL	A	518	82.558	38.805	-0.145	1.00	33.37	A	C
ATOM	3877	C	VAL	A	518	80.946	39.187	-3.593	1.00	32.00	A	C
ATOM	3878	O	VAL	A	518	80.463	40.311	-3.742	1.00	34.38	A	O
ATOM	3879	N	ASP	A	519	80.536	38.117	-4.271	1.00	30.26	A	N
ATOM	3880	CA	ASP	A	519	79.380	38.134	-5.170	1.00	31.45	A	C
ATOM	3881	CB	ASP	A	519	79.675	37.377	-6.477	1.00	39.57	A	C
ATOM	3882	CG	ASP	A	519	80.878	37.929	-7.240	1.00	46.99	A	C
ATOM	3883	OD1	ASP	A	519	81.171	39.133	-7.126	1.00	46.98	A	O
ATOM	3884	OD2	ASP	A	519	81.523	37.146	-7.980	1.00	52.67	A	O
ATOM	3885	C	ASP	A	519	78.235	37.392	-4.493	1.00	28.69	A	C
ATOM	3886	O	ASP	A	519	78.460	36.358	-3.879	1.00	30.60	A	O
ATOM	3887	N	MET	A	520	77.014	37.909	-4.621	1.00	23.72	A	N
ATOM	3888	C	MET	A	520	74.780	37.093	-5.222	1.00	24.16	A	C
ATOM	3889	O	MET	A	520	74.526	38.034	-5.980	1.00	21.83	A	O
ATOM	3890	CA	AMET	A	520	75.817	37.239	-4.113	0.54	24.31	A	C
ATOM	3891	CB	AMET	A	520	75.205	38.004	-2.933	0.54	24.81	A	C
ATOM	3892	CG	AMET	A	520	73.944	37.358	-2.326	0.54	24.81	A	C
ATOM	3893	SD	AMET	A	520	72.353	37.845	-3.057	0.54	25.47	A	S
ATOM	3894	CE	AMET	A	520	72.312	39.581	-2.622	0.54	26.85	A	C
ATOM	3895	CA	BMET	A	520	75.834	37.220	-4.126	0.46	24.12	A	C
ATOM	3896	CB	BMET	A	520	75.240	37.938	-2.916	0.46	24.60	A	C
ATOM	3897	CG	BMET	A	520	74.073	37.192	-2.296	0.46	24.73	A	C
ATOM	3898	SD	BMET	A	520	73.104	38.190	-1.158	0.46	29.56	A	S
ATOM	3899	CE	BMET	A	520	72.466	39.440	-2.271	0.46	27.10	A	C
ATOM	3900	N	ASP	A	521	74.183	35.915	-5.323	1.00	21.65	A	N
ATOM	3901	CA	ASP	A	521	73.082	35.756	-6.254	1.00	22.21	A	C
ATOM	3902	CB	ASP	A	521	73.566	35.165	-7.570	1.00	24.98	A	C
ATOM	3903	CG	ASP	A	521	72.659	35.510	-8.747	1.00	31.15	A	C
ATOM	3904	OD1	ASP	A	521	71.563	36.084	-8.553	1.00	28.41	A	O
ATOM	3905	OD2	ASP	A	521	73.051	35.187	-9.883	1.00	37.58	A	O
ATOM	3906	C	ASP	A	521	72.131	34.825	-5.567	1.00	24.95	A	C
ATOM	3907	O	ASP	A	521	72.462	34.243	-4.530	1.00	27.55	A	O
ATOM	3908	N	PHE	A	522	70.936	34.698	-6.113	1.00	22.52	A	N
ATOM	3909	CA	PHE	A	522	70.032	33.668	-5.646	1.00	23.97	A	C
ATOM	3910	CB	PHE	A	522	69.208	34.104	-4.414	1.00	24.02	A	C
ATOM	3911	CG	PHE	A	522	68.196	35.217	-4.671	1.00	23.87	A	C
ATOM	3912	CD1	PHE	A	522	68.512	36.541	-4.382	1.00	22.68	A	C
ATOM	3913	CE1	PHE	A	522	67.566	37.576	-4.574	1.00	25.47	A	C
ATOM	3914	CZ	PHE	A	522	66.297	37.273	-5.041	1.00	25.62	A	C
ATOM	3915	CE2	PHE	A	522	65.967	35.936	-5.322	1.00	26.09	A	C
ATOM	3916	CD2	PHE	A	522	66.918	34.919	-5.116	1.00	22.30	A	C
ATOM	3917	C	PHE	A	522	69.162	33.142	-6.771	1.00	25.76	A	C
ATOM	3918	O	PHE	A	522	68.939	33.818	-7.769	1.00	26.32	A	O
ATOM	3919	N	GLU	A	523	68.707	31.911	-6.606	1.00	27.13	A	N
ATOM	3920	CA	GLU	A	523	67.857	31.267	-7.578	1.00	30.32	A	C
ATOM	3921	CB	GLU	A	523	68.655	30.243	-8.385	1.00	31.28	A	C
ATOM	3922	C	GLU	A	523	66.782	30.558	-6.791	1.00	32.99	A	C

ATOM	3923	O	GLU	A	523	67.022	30.055	-5.694	1.00	33.27	A	O
ATOM	3924	N	VAL	A	524	65.582	30.528	-7.336	1.00	35.19	A	N
ATOM	3925	CA	VAL	A	524	64.556	29.699	-6.751	1.00	40.30	A	C
ATOM	3926	CB	VAL	A	524	63.214	30.425	-6.713	1.00	42.67	A	C
ATOM	3927	CG1	VAL	A	524	63.189	31.539	-7.759	1.00	44.77	A	C
ATOM	3928	CG2	VAL	A	524	62.094	29.452	-6.914	1.00	40.74	A	C
ATOM	3929	C	VAL	A	524	64.520	28.422	-7.584	1.00	43.63	A	C
ATOM	3930	O	VAL	A	524	64.330	28.465	-8.800	1.00	46.66	A	O
ATOM	3931	N	GLU	A	525	64.748	27.293	-6.924	1.00	45.03	A	N
ATOM	3932	CA	GLU	A	525	64.960	26.031	-7.619	1.00	51.38	A	C
ATOM	3933	CB	GLU	A	525	66.040	25.214	-6.905	1.00	51.07	A	C
ATOM	3934	C	GLU	A	525	63.688	25.196	-7.779	1.00	57.47	A	C
ATOM	3935	O	GLU	A	525	63.093	24.767	-6.783	1.00	59.72	A	O
ATOM	3936	N	ASN	A	526	63.298	24.969	-9.037	1.00	57.82	A	N
ATOM	3937	CA	ASN	A	526	62.191	24.075	-9.401	1.00	57.66	A	C
ATOM	3938	CB	ASN	A	526	62.627	22.606	-9.317	1.00	59.52	A	C
ATOM	3939	C	ASN	A	526	60.933	24.312	-8.569	1.00	54.41	A	C
ATOM	3940	O	ASN	A	526	60.480	23.437	-7.830	1.00	55.29	A	O
ATOM	3941	N	ALA	A	527	60.386	25.515	-8.678	1.00	49.50	A	N
ATOM	3942	CA	ALA	A	527	59.311	25.918	-7.797	1.00	44.84	A	C
ATOM	3943	CB	ALA	A	527	59.391	27.389	-7.519	1.00	44.03	A	C
ATOM	3944	C	ALA	A	527	57.979	25.560	-8.412	1.00	43.97	A	C
ATOM	3945	O	ALA	A	527	57.558	26.138	-9.416	1.00	42.18	A	O
ATOM	3946	N	VAL	A	528	57.327	24.581	-7.808	1.00	44.02	A	N
ATOM	3947	CA	VAL	A	528	56.044	24.130	-8.294	1.00	42.41	A	C
ATOM	3948	CB	VAL	A	528	56.040	22.608	-8.471	1.00	40.82	A	C
ATOM	3949	CG1	VAL	A	528	54.743	22.151	-9.110	1.00	38.52	A	C
ATOM	3950	CG2	VAL	A	528	57.236	22.182	-9.306	1.00	42.25	A	C
ATOM	3951	C	VAL	A	528	54.959	24.550	-7.313	1.00	40.65	A	C
ATOM	3952	O	VAL	A	528	55.097	24.361	-6.105	1.00	37.46	A	O
ATOM	3953	N	LEU	A	529	53.902	25.148	-7.849	1.00	32.51	A	N
ATOM	3954	CA	LEU	A	529	52.702	25.485	-7.103	1.00	35.48	A	C
ATOM	3955	CB	LEU	A	529	51.667	26.036	-8.088	1.00	35.17	A	C
ATOM	3956	CG	LEU	A	529	50.199	26.085	-7.679	1.00	38.95	A	C
ATOM	3957	CD1	LEU	A	529	50.072	26.896	-6.447	1.00	37.70	A	C
ATOM	3958	CD2	LEU	A	529	49.336	26.687	-8.770	1.00	39.93	A	C
ATOM	3959	C	LEU	A	529	52.119	24.260	-6.386	1.00	42.04	A	C
ATOM	3960	O	LEU	A	529	51.801	23.253	-7.018	1.00	36.50	A	O
ATOM	3961	N	GLY	A	530	51.968	24.346	-5.070	1.00	33.78	A	N
ATOM	3962	CA	GLY	A	530	51.375	23.258	-4.311	1.00	35.95	A	C
ATOM	3963	C	GLY	A	530	52.395	22.417	-3.563	1.00	36.89	A	C
ATOM	3964	O	GLY	A	530	52.037	21.425	-2.936	1.00	39.05	A	O
ATOM	3965	N	LYS	A	531	53.664	22.821	-3.629	1.00	35.44	A	N
ATOM	3966	CA	LYS	A	531	54.760	22.066	-3.018	1.00	36.31	A	C
ATOM	3967	C	LYS	A	531	55.758	22.973	-2.274	1.00	35.99	A	C
ATOM	3968	O	LYS	A	531	55.847	24.171	-2.560	1.00	31.95	A	O
ATOM	3969	CB	LYS	A	531	55.491	21.283	-4.107	1.00	43.34	A	C
ATOM	3970	CG	LYS	A	531	56.379	20.172	-3.606	1.00	46.52	A	C
ATOM	3971	CD	LYS	A	531	56.884	19.320	-4.767	1.00	51.24	A	C
ATOM	3972	CE	LYS	A	531	58.095	19.923	-5.452	1.00	51.18	A	C
ATOM	3973	NZ	LYS	A	531	59.234	19.975	-4.509	1.00	52.68	A	N
ATOM	3974	N	ASP	A	532	56.508	22.404	-1.324	1.00	34.95	A	N
ATOM	3975	CA	ASP	A	532	57.620	23.125	-0.710	1.00	33.28	A	C
ATOM	3976	CB	ASP	A	532	58.336	22.273	0.352	1.00	36.61	A	C
ATOM	3977	CG	ASP	A	532	57.458	21.945	1.540	1.00	39.33	A	C
ATOM	3978	OD1	ASP	A	532	56.339	22.481	1.625	1.00	37.44	A	O
ATOM	3979	OD2	ASP	A	532	57.894	21.133	2.389	1.00	45.59	A	O
ATOM	3980	C	ASP	A	532	58.612	23.408	-1.820	1.00	32.31	A	C
ATOM	3981	O	ASP	A	532	58.642	22.682	-2.808	1.00	36.08	A	O
ATOM	3982	N	PHE	A	533	59.424	24.452	-1.674	1.00	31.67	A	N
ATOM	3983	CA	PHE	A	533	60.549	24.637	-2.583	1.00	33.28	A	C
ATOM	3984	CB	PHE	A	533	60.116	25.362	-3.859	1.00	34.25	A	C
ATOM	3985	CG	PHE	A	533	59.689	26.782	-3.637	1.00	33.40	A	C
ATOM	3986	CD1	PHE	A	533	60.620	27.804	-3.644	1.00	32.21	A	C
ATOM	3987	CE1	PHE	A	533	60.227	29.128	-3.448	1.00	31.66	A	C
ATOM	3988	CZ	PHE	A	533	58.895	29.415	-3.231	1.00	32.09	A	C
ATOM	3989	CE2	PHE	A	533	57.957	28.392	-3.228	1.00	29.25	A	C
ATOM	3990	CD2	PHE	A	533	58.358	27.093	-3.425	1.00	33.06	A	C
ATOM	3991	C	PHE	A	533	61.730	25.344	-1.917	1.00	34.85	A	C
ATOM	3992	O	PHE	A	533	61.608	25.901	-0.824	1.00	33.71	A	O
ATOM	3993	N	LYS	A	534	62.879	25.326	-2.580	1.00	35.12	A	N
ATOM	3994	CA	LYS	A	534	64.067	25.919	-1.990	1.00	34.87	A	C
ATOM	3995	CB	LYS	A	534	65.256	24.947	-2.062	1.00	37.56	A	C
ATOM	3996	C	LYS	A	534	64.409	27.241	-2.656	1.00	32.36	A	C
ATOM	3997	O	LYS	A	534	64.356	27.363	-3.881	1.00	31.09	A	O
ATOM	3998	N	LEU	A	535	64.719	28.231	-1.826	1.00	30.69	A	N
ATOM	3999	CA	LEU	A	535	65.372	29.454	-2.276	1.00	31.22	A	C

ATOM	4000	CB	LEU	A	535	64.830	30.667	-1.545	1.00	29.04	A	C
ATOM	4001	CG	LEU	A	535	65.495	31.958	-2.020	1.00	31.29	A	C
ATOM	4002	CD1	LEU	A	535	64.697	32.585	-3.138	1.00	33.27	A	C
ATOM	4003	CD2	LEU	A	535	65.640	32.905	-0.873	1.00	33.69	A	C
ATOM	4004	C	LEU	A	535	66.860	29.297	-1.981	1.00	32.71	A	C
ATOM	4005	O	LEU	A	535	67.264	29.136	-0.825	1.00	32.05	A	O
ATOM	4006	N	SER	A	536	67.665	29.320	-3.034	1.00	31.86	A	N
ATOM	4007	CA	SER	A	536	69.095	29.077	-2.919	1.00	32.01	A	C
ATOM	4008	CB	SER	A	536	69.516	28.067	-3.977	1.00	37.05	A	C
ATOM	4009	OG	SER	A	536	70.891	27.780	-3.881	1.00	40.71	A	O
ATOM	4010	C	SER	A	536	69.885	30.377	-3.076	1.00	30.97	A	C
ATOM	4011	O	SER	A	536	69.905	30.979	-4.147	1.00	30.26	A	O
ATOM	4012	N	ILE	A	537	70.519	30.809	-1.993	1.00	28.35	A	N
ATOM	4013	CA	ILE	A	537	71.312	32.031	-1.976	1.00	25.98	A	C
ATOM	4014	CB	ILE	A	537	71.058	32.786	-0.671	1.00	24.75	A	C
ATOM	4015	CG1	ILE	A	537	69.565	33.113	-0.542	1.00	25.55	A	C
ATOM	4016	CD1	ILE	A	537	69.163	33.572	0.825	1.00	24.27	A	C
ATOM	4017	CG2	ILE	A	537	71.916	34.051	-0.592	1.00	24.68	A	C
ATOM	4018	C	ILE	A	537	72.793	31.656	-2.040	1.00	28.70	A	C
ATOM	4019	O	ILE	A	537	73.271	30.890	-1.198	1.00	32.76	A	O
ATOM	4020	N	THR	A	538	73.523	32.175	-3.027	1.00	24.01	A	N
ATOM	4021	C	THR	A	538	75.863	32.988	-2.931	1.00	28.80	A	C
ATOM	4022	O	THR	A	538	75.632	34.099	-3.416	1.00	27.51	A	O
ATOM	4023	CA	ATHR	A	538	74.928	31.808	-3.188	0.49	26.41	A	C
ATOM	4024	CB	ATHR	A	538	75.222	31.218	-4.588	0.49	27.09	A	C
ATOM	4025	OG1	ATHR	A	538	74.350	30.108	-4.844	0.49	28.23	A	O
ATOM	4026	CG2	ATHR	A	538	76.669	30.744	-4.675	0.49	24.95	A	C
ATOM	4027	CA	BTHR	A	538	74.928	31.812	-3.199	0.51	26.40	A	C
ATOM	4028	CB	BTHR	A	538	75.209	31.294	-4.619	0.51	27.01	A	C
ATOM	4029	OG1	BTHR	A	538	74.797	32.279	-5.572	0.51	23.42	A	O
ATOM	4030	CG2	BTHR	A	538	74.461	29.992	-4.881	0.51	28.21	A	C
ATOM	4031	N	PHE	A	539	76.919	32.736	-2.164	1.00	25.89	A	N
ATOM	4032	CA	PHE	A	539	77.962	33.734	-1.953	1.00	25.28	A	C
ATOM	4033	CB	PHE	A	539	78.149	34.016	-0.461	1.00	25.38	A	C
ATOM	4034	CG	PHE	A	539	76.950	34.639	0.191	1.00	25.69	A	C
ATOM	4035	CD1	PHE	A	539	76.767	36.014	0.158	1.00	23.88	A	C
ATOM	4036	CE1	PHE	A	539	75.656	36.587	0.754	1.00	26.91	A	C
ATOM	4037	CZ	PHE	A	539	74.734	35.790	1.403	1.00	26.13	A	C
ATOM	4038	CE2	PHE	A	539	74.915	34.430	1.454	1.00	26.43	A	C
ATOM	4039	CD2	PHE	A	539	76.013	33.854	0.842	1.00	26.26	A	C
ATOM	4040	C	PHE	A	539	79.269	33.227	-2.534	1.00	26.79	A	C
ATOM	4041	O	PHE	A	539	79.694	32.118	-2.219	1.00	26.32	A	O
ATOM	4042	N	ARG	A	540	79.910	34.038	-3.373	1.00	29.21	A	N
ATOM	4043	CA	ARG	A	540	81.244	33.720	-3.874	1.00	30.23	A	C
ATOM	4044	CB	ARG	A	540	81.293	33.663	-5.411	1.00	26.37	A	C
ATOM	4045	C	ARG	A	540	82.271	34.704	-3.325	1.00	32.64	A	C
ATOM	4046	O	ARG	A	540	82.207	35.914	-3.571	1.00	30.92	A	O
ATOM	4047	N	ASN	A	541	83.220	34.160	-2.568	1.00	32.44	A	N
ATOM	4048	CA	ASN	A	541	84.281	34.939	-1.983	1.00	29.54	A	C
ATOM	4049	CB	ASN	A	541	84.477	34.552	-0.510	1.00	29.83	A	C
ATOM	4050	CG	ASN	A	541	85.479	35.452	0.208	1.00	31.78	A	C
ATOM	4051	OD1	ASN	A	541	86.014	36.404	-0.371	1.00	29.28	A	O
ATOM	4052	ND2	ASN	A	541	85.737	35.150	1.478	1.00	29.51	A	N
ATOM	4053	C	ASN	A	541	85.564	34.729	-2.768	1.00	30.60	A	C
ATOM	4054	O	ASN	A	541	86.255	33.711	-2.602	1.00	29.69	A	O
ATOM	4055	N	ASN	A	542	85.881	35.699	-3.621	1.00	29.22	A	N
ATOM	4056	CA	ASN	A	542	87.089	35.654	-4.439	1.00	36.38	A	C
ATOM	4057	CB	ASN	A	542	86.859	36.362	-5.784	1.00	40.10	A	C
ATOM	4058	CG	ASN	A	542	85.750	35.708	-6.606	1.00	43.19	A	C
ATOM	4059	OD1	ASN	A	542	85.884	34.568	-7.049	1.00	42.00	A	O
ATOM	4060	ND2	ASN	A	542	84.650	36.432	-6.808	1.00	46.52	A	N
ATOM	4061	C	ASN	A	542	88.328	36.208	-3.737	1.00	34.68	A	C
ATOM	4062	O	ASN	A	542	89.438	36.132	-4.279	1.00	32.75	A	O
ATOM	4063	N	SER	A	543	88.142	36.742	-2.528	1.00	32.56	A	N
ATOM	4064	CA	SER	A	543	89.247	37.290	-1.749	1.00	34.72	A	C
ATOM	4065	CB	SER	A	543	88.773	38.438	-0.852	1.00	37.39	A	C
ATOM	4066	OG	SER	A	543	88.249	37.950	0.375	1.00	37.82	A	O
ATOM	4067	C	SER	A	543	89.925	36.246	-0.868	1.00	36.28	A	C
ATOM	4068	O	SER	A	543	89.427	35.136	-0.700	1.00	32.53	A	O
ATOM	4069	N	HIS	A	544	91.058	36.638	-0.292	1.00	37.14	A	N
ATOM	4070	CA	HIS	A	544	91.785	35.805	0.658	1.00	40.52	A	C
ATOM	4071	CB	HIS	A	544	93.297	36.035	0.516	1.00	42.86	A	C
ATOM	4072	CG	HIS	A	544	93.879	35.439	-0.730	1.00	44.24	A	C
ATOM	4073	ND1	HIS	A	544	94.903	34.515	-0.706	1.00	44.88	A	N
ATOM	4074	CE1	HIS	A	544	95.203	34.163	-1.943	1.00	44.69	A	C
ATOM	4075	NE2	HIS	A	544	94.406	34.819	-2.768	1.00	43.66	A	N
ATOM	4076	CD2	HIS	A	544	93.564	35.618	-2.035	1.00	41.93	A	C

ATOM	4077	C	HIS	A	544	91.356	36.048	2.110	1.00	40.40	A	C
ATOM	4078	O	HIS	A	544	92.005	35.563	3.030	1.00	39.34	A	O
ATOM	4079	N	ASN	A	545	90.269	36.796	2.310	1.00	40.53	A	N
ATOM	4080	CA	ASN	A	545	89.784	37.123	3.657	1.00	39.51	A	C
ATOM	4081	CB	ASN	A	545	89.306	38.578	3.706	1.00	41.64	A	C
ATOM	4082	CG	ASN	A	545	90.362	39.563	3.237	1.00	43.75	A	C
ATOM	4083	OD1	ASN	A	545	90.200	40.213	2.207	1.00	44.04	A	O
ATOM	4084	ND2	ASN	A	545	91.435	39.696	4.003	1.00	45.26	A	N
ATOM	4085	C	ASN	A	545	88.630	36.228	4.112	1.00	38.52	A	C
ATOM	4086	O	ASN	A	545	87.881	35.708	3.278	1.00	32.94	A	O
ATOM	4087	N	ARG	A	546	88.483	36.039	5.425	1.00	38.49	A	N
ATOM	4088	CA	ARG	A	546	87.249	35.455	5.951	1.00	38.33	A	C
ATOM	4089	C	ARG	A	546	86.297	36.599	6.234	1.00	38.91	A	C
ATOM	4090	O	ARG	A	546	86.696	37.598	6.832	1.00	37.78	A	O
ATOM	4091	CB	ARG	A	546	87.477	34.650	7.230	1.00	34.49	A	C
ATOM	4092	N	TYR	A	547	85.047	36.472	5.791	1.00	30.95	A	N
ATOM	4093	CA	TYR	A	547	84.058	37.506	6.078	1.00	30.27	A	C
ATOM	4094	CB	TYR	A	547	83.485	38.106	4.786	1.00	28.98	A	C
ATOM	4095	CG	TYR	A	547	84.469	38.905	3.967	1.00	34.43	A	C
ATOM	4096	CD1	TYR	A	547	85.136	39.994	4.518	1.00	36.97	A	C
ATOM	4097	CE1	TYR	A	547	86.021	40.737	3.775	1.00	38.70	A	C
ATOM	4098	CZ	TYR	A	547	86.252	40.407	2.460	1.00	40.56	A	C
ATOM	4099	OH	TYR	A	547	87.147	41.158	1.729	1.00	46.33	A	O
ATOM	4100	CE2	TYR	A	547	85.605	39.327	1.884	1.00	36.86	A	C
ATOM	4101	CD2	TYR	A	547	84.718	38.585	2.639	1.00	33.31	A	C
ATOM	4102	C	TYR	A	547	82.921	36.933	6.893	1.00	29.93	A	C
ATOM	4103	O	TYR	A	547	82.690	35.728	6.889	1.00	29.87	A	O
ATOM	4104	N	THR	A	548	82.202	37.796	7.594	1.00	33.78	A	N
ATOM	4105	CA	THR	A	548	80.937	37.372	8.178	1.00	33.55	A	C
ATOM	4106	CB	THR	A	548	80.910	37.512	9.717	1.00	35.64	A	C
ATOM	4107	OG1	THR	A	548	80.950	38.896	10.070	1.00	38.77	A	O
ATOM	4108	CG2	THR	A	548	82.098	36.760	10.362	1.00	32.56	A	C
ATOM	4109	C	THR	A	548	79.802	38.165	7.521	1.00	29.98	A	C
ATOM	4110	O	THR	A	548	79.960	39.353	7.198	1.00	28.46	A	O
ATOM	4111	N	ILE	A	549	78.678	37.489	7.295	1.00	27.03	A	N
ATOM	4112	CA	ILE	A	549	77.532	38.079	6.624	1.00	25.71	A	C
ATOM	4113	CB	ILE	A	549	77.080	37.201	5.445	1.00	26.41	A	C
ATOM	4114	CG1	ILE	A	549	78.213	36.987	4.445	1.00	31.02	A	C
ATOM	4115	CD1	ILE	A	549	78.762	38.254	3.897	1.00	36.90	A	C
ATOM	4116	CG2	ILE	A	549	75.877	37.812	4.751	1.00	23.47	A	C
ATOM	4117	C	ILE	A	549	76.336	38.165	7.560	1.00	29.80	A	C
ATOM	4118	O	ILE	A	549	76.045	37.227	8.293	1.00	26.26	A	O
ATOM	4119	N	THR	A	550	75.629	39.288	7.515	1.00	29.42	A	N
ATOM	4120	CA	THR	A	550	74.353	39.412	8.195	1.00	27.89	A	C
ATOM	4121	CB	THR	A	550	74.405	40.454	9.323	1.00	30.60	A	C
ATOM	4122	OG1	THR	A	550	75.310	39.992	10.336	1.00	33.48	A	O
ATOM	4123	CG2	THR	A	550	73.018	40.650	9.935	1.00	30.79	A	C
ATOM	4124	C	THR	A	550	73.349	39.797	7.119	1.00	23.85	A	C
ATOM	4125	O	THR	A	550	73.578	40.711	6.338	1.00	23.59	A	O
ATOM	4126	N	ALA	A	551	72.264	39.055	7.021	1.00	24.90	A	N
ATOM	4127	CA	ALA	A	551	71.421	39.222	5.853	1.00	25.27	A	C
ATOM	4128	CB	ALA	A	551	71.816	38.214	4.784	1.00	23.24	A	C
ATOM	4129	C	ALA	A	551	69.976	39.059	6.230	1.00	26.50	A	C
ATOM	4130	O	ALA	A	551	69.681	38.534	7.297	1.00	29.84	A	O
ATOM	4131	N	TYR	A	552	69.075	39.516	5.362	1.00	24.80	A	N
ATOM	4132	CA	TYR	A	552	67.674	39.105	5.460	1.00	25.07	A	C
ATOM	4133	CB	TYR	A	552	66.803	40.169	6.147	1.00	23.53	A	C
ATOM	4134	CG	TYR	A	552	66.280	41.272	5.254	1.00	22.33	A	C
ATOM	4135	CD1	TYR	A	552	65.061	41.140	4.595	1.00	22.88	A	C
ATOM	4136	CE1	TYR	A	552	64.562	42.153	3.776	1.00	24.51	A	C
ATOM	4137	CZ	TYR	A	552	65.278	43.334	3.622	1.00	24.27	A	C
ATOM	4138	OH	TYR	A	552	64.775	44.352	2.812	1.00	26.25	A	O
ATOM	4139	CE2	TYR	A	552	66.482	43.501	4.280	1.00	21.46	A	C
ATOM	4140	CD2	TYR	A	552	66.983	42.465	5.095	1.00	21.55	A	C
ATOM	4141	C	TYR	A	552	67.067	38.684	4.124	1.00	23.69	A	C
ATOM	4142	O	TYR	A	552	67.528	39.082	3.051	1.00	24.15	A	O
ATOM	4143	N	LEU	A	553	66.025	37.869	4.214	1.00	23.50	A	N
ATOM	4144	CA	LEU	A	553	65.250	37.449	3.057	1.00	24.32	A	C
ATOM	4145	CB	LEU	A	553	65.323	35.923	2.894	1.00	26.41	A	C
ATOM	4146	CG	LEU	A	553	64.128	35.295	2.150	1.00	30.69	A	C
ATOM	4147	CD1	LEU	A	553	64.112	35.695	0.672	1.00	31.55	A	C
ATOM	4148	CD2	LEU	A	553	64.060	33.788	2.288	1.00	33.81	A	C
ATOM	4149	C	LEU	A	553	63.797	37.888	3.266	1.00	23.09	A	C
ATOM	4150	O	LEU	A	553	63.252	37.727	4.355	1.00	26.32	A	O
ATOM	4151	N	SER	A	554	63.173	38.436	2.227	1.00	21.39	A	N
ATOM	4152	CA	SER	A	554	61.736	38.751	2.245	1.00	21.32	A	C
ATOM	4153	CB	SER	A	554	61.499	40.269	2.231	1.00	22.37	A	C

ATOM	4154	OG	SER	A	554	60.109	40.600	2.108	1.00	21.47	A	O
ATOM	4155	C	SER	A	554	61.064	38.128	1.019	1.00	20.46	A	C
ATOM	4156	O	SER	A	554	61.419	38.447	-0.124	1.00	19.44	A	O
ATOM	4157	N	ALA	A	555	60.107	37.234	1.265	1.00	22.46	A	N
ATOM	4158	CA	ALA	A	555	59.369	36.563	0.200	1.00	19.62	A	C
ATOM	4159	CB	ALA	A	555	59.416	35.046	0.368	1.00	18.51	A	C
ATOM	4160	C	ALA	A	555	57.930	37.050	0.203	1.00	20.88	A	C
ATOM	4161	O	ALA	A	555	57.281	37.096	1.251	1.00	20.63	A	O
ATOM	4162	N	ASN	A	556	57.442	37.393	-0.986	1.00	18.76	A	N
ATOM	4163	CA	ASN	A	556	56.186	38.101	-1.148	1.00	18.29	A	C
ATOM	4164	CB	ASN	A	556	56.474	39.581	-1.475	1.00	19.60	A	C
ATOM	4165	CG	ASN	A	556	57.362	40.262	-0.430	1.00	21.23	A	C
ATOM	4166	OD1	ASN	A	556	56.856	40.946	0.447	1.00	21.31	A	O
ATOM	4167	ND2	ASN	A	556	58.687	40.066	-0.521	1.00	17.44	A	N
ATOM	4168	C	ASN	A	556	55.335	37.502	-2.287	1.00	18.61	A	C
ATOM	4169	O	ASN	A	556	55.877	36.984	-3.249	1.00	19.61	A	O
ATOM	4170	N	ILE	A	557	54.016	37.596	-2.162	1.00	17.72	A	N
ATOM	4171	CA	ILE	A	557	53.088	37.290	-3.238	1.00	21.44	A	C
ATOM	4172	CB	ILE	A	557	51.744	36.736	-2.693	1.00	23.99	A	C
ATOM	4173	CG1	ILE	A	557	51.960	35.540	-1.746	1.00	27.00	A	C
ATOM	4174	CD1	ILE	A	557	52.401	34.299	-2.419	1.00	27.29	A	C
ATOM	4175	CG2	ILE	A	557	50.788	36.377	-3.825	1.00	22.12	A	C
ATOM	4176	C	ILE	A	557	52.780	38.626	-3.909	1.00	21.45	A	C
ATOM	4177	O	ILE	A	557	52.593	39.628	-3.224	1.00	20.58	A	O
ATOM	4178	N	THR	A	558	52.723	38.617	-5.235	1.00	20.44	A	N
ATOM	4179	C	THR	A	558	51.454	39.422	-7.068	1.00	22.38	A	C
ATOM	4180	O	THR	A	558	51.458	38.297	-7.568	1.00	21.51	A	O
ATOM	4181	CA	THR	A	558	52.518	39.800	-6.062	1.00	19.96	A	C
ATOM	4182	CB	THR	A	558	53.809	40.113	-6.843	1.00	21.59	A	C
ATOM	4183	OG1	THR	A	558	54.850	40.399	-5.917	1.00	24.78	A	O
ATOM	4184	CG2	THR	A	558	53.659	41.309	-7.757	1.00	23.02	A	C
ATOM	4185	N	PHE	A	559	50.528	40.331	-7.355	1.00	22.92	A	N
ATOM	4186	CA	PHE	A	559	49.571	40.125	-8.453	1.00	24.92	A	C
ATOM	4187	CB	PHE	A	559	48.533	41.263	-8.468	1.00	26.89	A	C
ATOM	4188	CG	PHE	A	559	47.613	41.275	-7.269	1.00	26.90	A	C
ATOM	4189	CD1	PHE	A	559	46.397	40.609	-7.304	1.00	28.18	A	C
ATOM	4190	CE1	PHE	A	559	45.547	40.622	-6.204	1.00	30.45	A	C
ATOM	4191	CZ	PHE	A	559	45.914	41.314	-5.050	1.00	30.57	A	C
ATOM	4192	CE2	PHE	A	559	47.120	41.973	-5.005	1.00	27.16	A	C
ATOM	4193	CD2	PHE	A	559	47.958	41.963	-6.114	1.00	25.85	A	C
ATOM	4194	C	PHE	A	559	50.311	40.085	-9.801	1.00	22.87	A	C
ATOM	4195	O	PHE	A	559	51.432	40.585	-9.895	1.00	20.23	A	O
ATOM	4196	N	TYR	A	560	49.697	39.512	-10.844	1.00	24.12	A	N
ATOM	4197	CA	TYR	A	560	50.389	39.411	-12.135	1.00	25.87	A	C
ATOM	4198	C	TYR	A	560	50.777	40.781	-12.713	1.00	24.38	A	C
ATOM	4199	O	TYR	A	560	51.803	40.910	-13.373	1.00	23.71	A	O
ATOM	4200	CB	TYR	A	560	49.605	38.577	-13.172	1.00	30.92	A	C
ATOM	4201	CG	TYR	A	560	48.470	39.294	-13.843	1.00	37.79	A	C
ATOM	4202	CD1	TYR	A	560	48.632	39.884	-15.099	1.00	38.39	A	C
ATOM	4203	CD2	TYR	A	560	47.221	39.381	-13.231	1.00	42.55	A	C
ATOM	4204	CE1	TYR	A	560	47.581	40.555	-15.718	1.00	41.16	A	C
ATOM	4205	CE2	TYR	A	560	46.151	40.054	-13.849	1.00	43.48	A	C
ATOM	4206	CZ	TYR	A	560	46.341	40.637	-15.084	1.00	44.86	A	C
ATOM	4207	OH	TYR	A	560	45.285	41.299	-15.688	1.00	49.88	A	O
ATOM	4208	N	THR	A	561	49.972	41.803	-12.430	1.00	23.16	A	N
ATOM	4209	CA	THR	A	561	50.267	43.177	-12.867	1.00	20.73	A	C
ATOM	4210	CB	THR	A	561	49.034	44.072	-12.711	1.00	20.15	A	C
ATOM	4211	OG1	THR	A	561	48.632	44.053	-11.340	1.00	21.26	A	O
ATOM	4212	CG2	THR	A	561	47.873	43.565	-13.611	1.00	21.01	A	C
ATOM	4213	C	THR	A	561	51.425	43.836	-12.104	1.00	21.51	A	C
ATOM	4214	O	THR	A	561	51.793	44.979	-12.384	1.00	23.14	A	O
ATOM	4215	N	GLY	A	562	52.003	43.123	-11.146	1.00	20.39	A	N
ATOM	4216	CA	GLY	A	562	53.141	43.651	-10.415	1.00	21.98	A	C
ATOM	4217	C	GLY	A	562	52.821	44.415	-9.134	1.00	21.64	A	C
ATOM	4218	O	GLY	A	562	53.730	44.943	-8.485	1.00	20.38	A	O
ATOM	4219	N	VAL	A	563	51.539	44.477	-8.775	1.00	20.58	A	N
ATOM	4220	CA	VAL	A	563	51.095	45.035	-7.497	1.00	20.06	A	C
ATOM	4221	CB	VAL	A	563	49.563	45.275	-7.524	1.00	20.74	A	C
ATOM	4222	CG1	VAL	A	563	49.042	45.734	-6.159	1.00	18.91	A	C
ATOM	4223	CG2	VAL	A	563	49.197	46.249	-8.625	1.00	19.36	A	C
ATOM	4224	C	VAL	A	563	51.402	44.049	-6.367	1.00	17.64	A	C
ATOM	4225	O	VAL	A	563	51.080	42.863	-6.464	1.00	17.46	A	O
ATOM	4226	N	PRO	A	564	52.028	44.524	-5.290	1.00	18.60	A	N
ATOM	4227	CA	PRO	A	564	52.360	43.612	-4.191	1.00	19.76	A	C
ATOM	4228	CB	PRO	A	564	53.324	44.446	-3.329	1.00	21.45	A	C
ATOM	4229	CG	PRO	A	564	52.934	45.839	-3.587	1.00	21.87	A	C
ATOM	4230	CD	PRO	A	564	52.425	45.913	-5.000	1.00	18.05	A	C

ATOM	4231	C	PRO	A	564	51.104	43.238	-3.398	1.00	22.45	A	C
ATOM	4232	O	PRO	A	564	50.174	44.047	-3.296	1.00	22.04	A	O
ATOM	4233	N	LYS	A	565	51.067	42.019	-2.867	1.00	20.27	A	N
ATOM	4234	CA	LYS	A	565	49.919	41.580	-2.074	1.00	22.78	A	C
ATOM	4235	C	LYS	A	565	50.284	41.394	-0.603	1.00	23.52	A	C
ATOM	4236	O	LYS	A	565	49.676	42.000	0.274	1.00	26.48	A	O
ATOM	4237	CB	LYS	A	565	49.318	40.269	-2.621	1.00	25.17	A	C
ATOM	4238	CG	LYS	A	565	48.062	39.839	-1.859	1.00	31.03	A	C
ATOM	4239	CD	LYS	A	565	47.566	38.455	-2.272	1.00	37.31	A	C
ATOM	4240	CE	LYS	A	565	46.157	38.191	-1.714	1.00	40.75	A	C
ATOM	4241	NZ	LYS	A	565	45.934	36.815	-1.198	1.00	40.94	A	N
ATOM	4242	N	ALA	A	566	51.262	40.539	-0.326	1.00	22.78	A	N
ATOM	4243	CA	ALA	A	566	51.666	40.330	1.061	1.00	25.33	A	C
ATOM	4244	CB	ALA	A	566	50.650	39.465	1.796	1.00	25.32	A	C
ATOM	4245	C	ALA	A	566	53.028	39.697	1.161	1.00	22.47	A	C
ATOM	4246	O	ALA	A	566	53.463	39.002	0.256	1.00	25.14	A	O
ATOM	4247	N	GLU	A	567	53.699	39.953	2.277	1.00	21.06	A	N
ATOM	4248	CA	GLU	A	567	54.929	39.268	2.602	1.00	22.28	A	C
ATOM	4249	CB	GLU	A	567	55.741	40.131	3.563	1.00	25.19	A	C
ATOM	4250	CG	GLU	A	567	57.102	39.584	3.909	1.00	28.01	A	C
ATOM	4251	CD	GLU	A	567	57.805	40.470	4.916	1.00	33.09	A	C
ATOM	4252	OE1	GLU	A	567	57.289	40.595	6.048	1.00	32.85	A	O
ATOM	4253	OE2	GLU	A	567	58.849	41.058	4.562	1.00	34.53	A	O
ATOM	4254	C	GLU	A	567	54.501	37.991	3.306	1.00	23.64	A	C
ATOM	4255	O	GLU	A	567	53.741	38.054	4.278	1.00	25.45	A	O
ATOM	4256	N	PHE	A	568	54.959	36.840	2.825	1.00	25.27	A	N
ATOM	4257	CA	PHE	A	568	54.553	35.564	3.435	1.00	24.53	A	C
ATOM	4258	CB	PHE	A	568	53.942	34.591	2.397	1.00	21.99	A	C
ATOM	4259	CG	PHE	A	568	54.939	34.035	1.408	1.00	22.46	A	C
ATOM	4260	CD1	PHE	A	568	55.675	32.898	1.711	1.00	24.08	A	C
ATOM	4261	CE1	PHE	A	568	56.585	32.380	0.805	1.00	25.39	A	C
ATOM	4262	CZ	PHE	A	568	56.765	33.002	-0.422	1.00	22.90	A	C
ATOM	4263	CE2	PHE	A	568	56.026	34.140	-0.738	1.00	19.40	A	C
ATOM	4264	CD2	PHE	A	568	55.121	34.643	0.166	1.00	19.65	A	C
ATOM	4265	C	PHE	A	568	55.677	34.889	4.221	1.00	26.31	A	C
ATOM	4266	O	PHE	A	568	55.434	33.944	4.975	1.00	24.55	A	O
ATOM	4267	N	LYS	A	569	56.903	35.367	4.030	1.00	26.28	A	N
ATOM	4268	CA	LYS	A	569	58.048	34.860	4.783	1.00	25.67	A	C
ATOM	4269	CB	LYS	A	569	58.620	33.612	4.104	1.00	25.65	A	C
ATOM	4270	CG	LYS	A	569	59.773	32.934	4.850	1.00	27.25	A	C
ATOM	4271	CD	LYS	A	569	60.135	31.595	4.200	1.00	24.83	A	C
ATOM	4272	CE	LYS	A	569	61.126	30.808	5.050	1.00	29.58	A	C
ATOM	4273	NZ	LYS	A	569	60.514	30.314	6.322	1.00	30.11	A	N
ATOM	4274	C	LYS	A	569	59.126	35.939	4.910	1.00	27.09	A	C
ATOM	4275	O	LYS	A	569	59.407	36.671	3.951	1.00	28.41	A	O
ATOM	4276	N	LYS	A	570	59.725	36.043	6.094	1.00	24.65	A	N
ATOM	4277	CA	LYS	A	570	60.823	36.972	6.317	1.00	28.04	A	C
ATOM	4278	CB	LYS	A	570	60.296	38.274	6.923	1.00	32.43	A	C
ATOM	4279	CG	LYS	A	570	61.361	39.325	7.191	1.00	36.77	A	C
ATOM	4280	CD	LYS	A	570	60.743	40.596	7.773	1.00	41.97	A	C
ATOM	4281	CE	LYS	A	570	60.203	40.354	9.182	1.00	46.49	A	C
ATOM	4282	NZ	LYS	A	570	59.601	41.587	9.771	1.00	48.57	A	N
ATOM	4283	C	LYS	A	570	61.797	36.335	7.292	1.00	32.19	A	C
ATOM	4284	O	LYS	A	570	61.395	35.968	8.390	1.00	34.53	A	O
ATOM	4285	N	GLU	A	571	63.062	36.192	6.902	1.00	25.19	A	N
ATOM	4286	CA	GLU	A	571	64.063	35.627	7.810	1.00	29.29	A	C
ATOM	4287	CB	GLU	A	571	64.410	34.185	7.434	1.00	31.10	A	C
ATOM	4288	CG	GLU	A	571	63.223	33.261	7.147	1.00	37.25	A	C
ATOM	4289	CD	GLU	A	571	62.451	32.842	8.393	1.00	45.68	A	C
ATOM	4290	OE1	GLU	A	571	62.974	33.025	9.518	1.00	50.34	A	O
ATOM	4291	OE2	GLU	A	571	61.316	32.320	8.245	1.00	44.26	A	O
ATOM	4292	C	GLU	A	571	65.327	36.465	7.763	1.00	30.32	A	C
ATOM	4293	O	GLU	A	571	65.672	37.024	6.723	1.00	28.35	A	O
ATOM	4294	N	THR	A	572	66.006	36.552	8.902	1.00	33.53	A	N
ATOM	4295	CA	THR	A	572	67.347	37.106	8.959	1.00	33.08	A	C
ATOM	4296	CB	THR	A	572	67.479	38.093	10.116	1.00	35.55	A	C
ATOM	4297	OG1	THR	A	572	67.254	37.405	11.350	1.00	41.29	A	O
ATOM	4298	CG2	THR	A	572	66.457	39.195	9.983	1.00	34.19	A	C
ATOM	4299	C	THR	A	572	68.304	35.940	9.184	1.00	35.54	A	C
ATOM	4300	O	THR	A	572	67.925	34.935	9.781	1.00	38.61	A	O
ATOM	4301	N	PHE	A	573	69.537	36.056	8.709	1.00	34.53	A	N
ATOM	4302	CA	PHE	A	573	70.511	35.004	8.978	1.00	35.61	A	C
ATOM	4303	CB	PHE	A	573	70.338	33.826	8.014	1.00	35.34	A	C
ATOM	4304	CG	PHE	A	573	70.426	34.208	6.568	1.00	33.95	A	C
ATOM	4305	CD1	PHE	A	573	69.319	34.690	5.897	1.00	35.93	A	C
ATOM	4306	CE1	PHE	A	573	69.400	35.048	4.566	1.00	36.33	A	C
ATOM	4307	CZ	PHE	A	573	70.603	34.925	3.889	1.00	34.20	A	C

ATOM	4308	CE2	PHE	A	573	71.709	34.446	4.546	1.00	35.02	A	C
ATOM	4309	CD2	PHE	A	573	71.621	34.094	5.882	1.00	34.09	A	C
ATOM	4310	C	PHE	A	573	71.946	35.507	8.963	1.00	36.38	A	C
ATOM	4311	O	PHE	A	573	72.252	36.568	8.405	1.00	33.23	A	O
ATOM	4312	N	ASP	A	574	72.815	34.729	9.600	1.00	35.64	A	N
ATOM	4313	CA	ASP	A	574	74.229	35.010	9.625	1.00	39.07	A	C
ATOM	4314	CB	ASP	A	574	74.709	35.151	11.064	1.00	44.71	A	C
ATOM	4315	CG	ASP	A	574	74.139	36.375	11.745	1.00	48.65	A	C
ATOM	4316	OD1	ASP	A	574	74.125	37.457	11.118	1.00	46.22	A	O
ATOM	4317	OD2	ASP	A	574	73.695	36.253	12.903	1.00	53.91	A	O
ATOM	4318	C	ASP	A	574	74.949	33.861	8.964	1.00	39.39	A	C
ATOM	4319	O	ASP	A	574	74.592	32.702	9.162	1.00	43.88	A	O
ATOM	4320	N	VAL	A	575	75.961	34.175	8.175	1.00	35.29	A	N
ATOM	4321	CA	VAL	A	575	76.780	33.131	7.594	1.00	37.74	A	C
ATOM	4322	CB	VAL	A	575	76.257	32.699	6.182	1.00	41.25	A	C
ATOM	4323	CG1	VAL	A	575	76.341	33.829	5.201	1.00	39.04	A	C
ATOM	4324	CG2	VAL	A	575	77.025	31.501	5.664	1.00	43.43	A	C
ATOM	4325	C	VAL	A	575	78.234	33.584	7.586	1.00	36.66	A	C
ATOM	4326	O	VAL	A	575	78.527	34.777	7.508	1.00	34.37	A	O
ATOM	4327	N	THR	A	576	79.148	32.636	7.723	1.00	32.67	A	N
ATOM	4328	CA	THR	A	576	80.559	32.957	7.645	1.00	36.02	A	C
ATOM	4329	CB	THR	A	576	81.338	32.304	8.798	1.00	40.20	A	C
ATOM	4330	OG1	THR	A	576	81.027	33.014	9.999	1.00	42.58	A	O
ATOM	4331	CG2	THR	A	576	82.855	32.344	8.566	1.00	35.72	A	C
ATOM	4332	C	THR	A	576	81.065	32.531	6.284	1.00	34.05	A	C
ATOM	4333	O	THR	A	576	80.720	31.458	5.790	1.00	35.01	A	O
ATOM	4334	N	LEU	A	577	81.854	33.391	5.661	1.00	31.95	A	N
ATOM	4335	CA	LEU	A	577	82.334	33.133	4.314	1.00	32.54	A	C
ATOM	4336	CB	LEU	A	577	82.020	34.327	3.411	1.00	29.96	A	C
ATOM	4337	CG	LEU	A	577	81.101	34.131	2.221	1.00	33.19	A	C
ATOM	4338	CD1	LEU	A	577	81.204	35.353	1.288	1.00	29.41	A	C
ATOM	4339	CD2	LEU	A	577	81.432	32.841	1.489	1.00	36.55	A	C
ATOM	4340	C	LEU	A	577	83.838	32.900	4.329	1.00	32.04	A	C
ATOM	4341	O	LEU	A	577	84.610	33.850	4.473	1.00	33.01	A	O
ATOM	4342	N	GLU	A	578	84.250	31.644	4.176	1.00	33.07	A	N
ATOM	4343	CA	GLU	A	578	85.667	31.311	4.082	1.00	36.44	A	C
ATOM	4344	CB	GLU	A	578	85.861	29.793	4.073	1.00	42.72	A	C
ATOM	4345	CG	GLU	A	578	85.307	29.088	5.299	1.00	50.22	A	C
ATOM	4346	CD	GLU	A	578	85.753	29.720	6.611	1.00	55.84	A	C
ATOM	4347	OE1	GLU	A	578	86.914	30.189	6.715	1.00	55.18	A	O
ATOM	4348	OE2	GLU	A	578	84.924	29.741	7.547	1.00	60.17	A	O
ATOM	4349	C	GLU	A	578	86.295	31.930	2.836	1.00	33.88	A	C
ATOM	4350	O	GLU	A	578	85.600	32.197	1.847	1.00	31.67	A	O
ATOM	4351	N	PRO	A	579	87.612	32.171	2.875	1.00	30.03	A	N
ATOM	4352	CA	PRO	A	579	88.275	32.728	1.695	1.00	28.40	A	C
ATOM	4353	CB	PRO	A	579	89.735	32.844	2.133	1.00	32.05	A	C
ATOM	4354	CG	PRO	A	579	89.738	32.649	3.609	1.00	35.84	A	C
ATOM	4355	CD	PRO	A	579	88.569	31.816	3.936	1.00	36.65	A	C
ATOM	4356	C	PRO	A	579	88.197	31.776	0.498	1.00	30.98	A	C
ATOM	4357	O	PRO	A	579	88.062	30.567	0.690	1.00	29.47	A	O
ATOM	4358	N	LEU	A	580	88.293	32.327	-0.710	1.00	28.83	A	N
ATOM	4359	CA	LEU	A	580	88.483	31.532	-1.924	1.00	28.93	A	C
ATOM	4360	CB	LEU	A	580	89.922	30.994	-1.977	1.00	30.68	A	C
ATOM	4361	CG	LEU	A	580	90.993	32.083	-1.957	1.00	31.44	A	C
ATOM	4362	CD1	LEU	A	580	92.385	31.496	-2.029	1.00	29.18	A	C
ATOM	4363	CD2	LEU	A	580	90.779	33.043	-3.122	1.00	34.05	A	C
ATOM	4364	C	LEU	A	580	87.477	30.390	-2.012	1.00	30.49	A	C
ATOM	4365	O	LEU	A	580	87.846	29.222	-2.201	1.00	29.67	A	O
ATOM	4366	N	SER	A	581	86.204	30.730	-1.848	1.00	28.87	A	N
ATOM	4367	CA	SER	A	581	85.175	29.708	-1.740	1.00	30.47	A	C
ATOM	4368	CB	SER	A	581	85.051	29.273	-0.284	1.00	34.79	A	C
ATOM	4369	OG	SER	A	581	84.516	30.331	0.482	1.00	36.01	A	O
ATOM	4370	C	SER	A	581	83.802	30.180	-2.232	1.00	25.83	A	C
ATOM	4371	O	SER	A	581	83.542	31.375	-2.320	1.00	25.52	A	O
ATOM	4372	N	PHE	A	582	82.939	29.218	-2.533	1.00	26.35	A	N
ATOM	4373	CA	PHE	A	582	81.546	29.469	-2.882	1.00	34.41	A	C
ATOM	4374	C	PHE	A	582	80.686	28.800	-1.819	1.00	36.52	A	C
ATOM	4375	O	PHE	A	582	80.920	27.647	-1.462	1.00	36.13	A	O
ATOM	4376	CB	PHE	A	582	81.211	28.861	-4.260	1.00	34.89	A	C
ATOM	4377	N	LYS	A	583	79.697	29.518	-1.306	1.00	37.70	A	N
ATOM	4378	CA	LYS	A	583	78.820	28.963	-0.283	1.00	40.41	A	C
ATOM	4379	CB	LYS	A	583	79.078	29.648	1.055	1.00	40.52	A	C
ATOM	4380	CG	LYS	A	583	78.477	28.923	2.238	1.00	43.32	A	C
ATOM	4381	CD	LYS	A	583	79.033	29.484	3.514	1.00	45.56	A	C
ATOM	4382	CE	LYS	A	583	79.015	28.464	4.629	1.00	50.97	A	C
ATOM	4383	NZ	LYS	A	583	80.048	28.818	5.648	1.00	55.09	A	N
ATOM	4384	C	LYS	A	583	77.356	29.128	-0.656	1.00	40.23	A	C

ATOM	4385	O	LYS	A	583	76.918	30.238	-0.977	1.00	36.75	A	O
ATOM	4386	N	LYS	A	584	76.604	28.029	-0.626	1.00	40.88	A	N
ATOM	4387	CA	LYS	A	584	75.156	28.093	-0.827	1.00	40.79	A	C
ATOM	4388	CB	LYS	A	584	74.675	26.990	-1.780	1.00	39.34	A	C
ATOM	4389	C	LYS	A	584	74.417	27.999	0.512	1.00	45.68	A	C
ATOM	4390	O	LYS	A	584	74.777	27.197	1.386	1.00	47.19	A	O
ATOM	4391	N	GLU	A	585	73.400	28.842	0.673	1.00	44.18	A	N
ATOM	4392	CA	GLU	A	585	72.506	28.792	1.827	1.00	42.30	A	C
ATOM	4393	CB	GLU	A	585	72.517	30.121	2.584	1.00	41.07	A	C
ATOM	4394	C	GLU	A	585	71.091	28.474	1.342	1.00	42.71	A	C
ATOM	4395	O	GLU	A	585	70.432	29.302	0.694	1.00	39.97	A	O
ATOM	4396	N	ALA	A	586	70.632	27.269	1.652	1.00	42.80	A	N
ATOM	4397	CA	ALA	A	586	69.319	26.816	1.214	1.00	42.53	A	C
ATOM	4398	CB	ALA	A	586	69.308	25.300	1.068	1.00	44.69	A	C
ATOM	4399	C	ALA	A	586	68.253	27.260	2.203	1.00	37.96	A	C
ATOM	4400	O	ALA	A	586	68.330	26.952	3.392	1.00	38.15	A	O
ATOM	4401	N	VAL	A	587	67.267	27.999	1.722	1.00	30.84	A	N
ATOM	4402	CA	VAL	A	587	66.152	28.369	2.573	1.00	32.21	A	C
ATOM	4403	CB	VAL	A	587	65.906	29.889	2.560	1.00	31.35	A	C
ATOM	4404	CG1	VAL	A	587	64.681	30.238	3.391	1.00	32.38	A	C
ATOM	4405	CG2	VAL	A	587	67.137	30.634	3.081	1.00	29.20	A	C
ATOM	4406	C	VAL	A	587	64.907	27.623	2.104	1.00	36.09	A	C
ATOM	4407	O	VAL	A	587	64.472	27.779	0.954	1.00	36.57	A	O
ATOM	4408	N	LEU	A	588	64.349	26.798	2.987	1.00	35.62	A	N
ATOM	4409	CA	LEU	A	588	63.139	26.054	2.667	1.00	35.43	A	C
ATOM	4410	CB	LEU	A	588	62.956	24.848	3.596	1.00	38.18	A	C
ATOM	4411	CG	LEU	A	588	61.690	24.051	3.257	1.00	38.83	A	C
ATOM	4412	CD1	LEU	A	588	61.814	23.496	1.850	1.00	38.26	A	C
ATOM	4413	CD2	LEU	A	588	61.405	22.926	4.258	1.00	39.48	A	C
ATOM	4414	C	LEU	A	588	61.926	26.956	2.780	1.00	34.60	A	C
ATOM	4415	O	LEU	A	588	61.751	27.651	3.777	1.00	34.93	A	O
ATOM	4416	N	ILE	A	589	61.101	26.950	1.739	1.00	32.46	A	N
ATOM	4417	CA	ILE	A	589	59.827	27.654	1.746	1.00	29.97	A	C
ATOM	4418	CB	ILE	A	589	59.746	28.626	0.577	1.00	29.38	A	C
ATOM	4419	CG1	ILE	A	589	60.669	29.814	0.852	1.00	33.87	A	C
ATOM	4420	CD1	ILE	A	589	61.261	30.422	-0.365	1.00	36.31	A	C
ATOM	4421	CG2	ILE	A	589	58.314	29.126	0.384	1.00	28.67	A	C
ATOM	4422	C	ILE	A	589	58.725	26.607	1.663	1.00	32.52	A	C
ATOM	4423	O	ILE	A	589	58.556	25.948	0.637	1.00	32.54	A	O
ATOM	4424	N	GLN	A	590	57.996	26.428	2.756	1.00	29.93	A	N
ATOM	4425	CA	GLN	A	590	57.001	25.365	2.804	1.00	35.28	A	C
ATOM	4426	CB	GLN	A	590	56.731	24.939	4.240	1.00	39.14	A	C
ATOM	4427	CG	GLN	A	590	57.959	24.647	5.046	1.00	43.25	A	C
ATOM	4428	CD	GLN	A	590	57.599	24.273	6.454	1.00	47.08	A	C
ATOM	4429	OE1	GLN	A	590	57.211	23.134	6.721	1.00	51.10	A	O
ATOM	4430	NE2	GLN	A	590	57.685	25.237	7.363	1.00	45.07	A	N
ATOM	4431	C	GLN	A	590	55.706	25.823	2.173	1.00	33.72	A	C
ATOM	4432	O	GLN	A	590	55.363	27.005	2.239	1.00	31.46	A	O
ATOM	4433	N	ALA	A	591	54.984	24.873	1.586	1.00	34.09	A	N
ATOM	4434	CA	ALA	A	591	53.736	25.154	0.880	1.00	31.57	A	C
ATOM	4435	CB	ALA	A	591	53.107	23.855	0.348	1.00	32.22	A	C
ATOM	4436	C	ALA	A	591	52.749	25.893	1.769	1.00	28.80	A	C
ATOM	4437	O	ALA	A	591	52.055	26.779	1.307	1.00	29.51	A	O
ATOM	4438	N	GLY	A	592	52.697	25.531	3.045	1.00	30.17	A	N
ATOM	4439	CA	GLY	A	592	51.797	26.183	3.977	1.00	33.13	A	C
ATOM	4440	C	GLY	A	592	52.103	27.664	4.194	1.00	33.41	A	C
ATOM	4441	O	GLY	A	592	51.270	28.409	4.712	1.00	35.83	A	O
ATOM	4442	N	GLU	A	593	53.300	28.100	3.817	1.00	28.27	A	N
ATOM	4443	CA	GLU	A	593	53.673	29.487	4.047	1.00	29.76	A	C
ATOM	4444	CB	GLU	A	593	55.193	29.640	4.105	1.00	30.43	A	C
ATOM	4445	CG	GLU	A	593	55.843	29.029	5.334	1.00	34.29	A	C
ATOM	4446	CD	GLU	A	593	57.346	29.228	5.319	1.00	37.19	A	C
ATOM	4447	OE1	GLU	A	593	58.023	28.509	4.555	1.00	38.03	A	O
ATOM	4448	OE2	GLU	A	593	57.847	30.125	6.037	1.00	38.32	A	O
ATOM	4449	C	GLU	A	593	53.085	30.414	2.979	1.00	29.17	A	C
ATOM	4450	O	GLU	A	593	52.832	31.579	3.257	1.00	29.75	A	O
ATOM	4451	N	TYR	A	594	52.859	29.896	1.774	1.00	19.83	A	N
ATOM	4452	CA	TYR	A	594	52.375	30.726	0.676	1.00	21.17	A	C
ATOM	4453	CB	TYR	A	594	53.418	30.812	-0.458	1.00	18.76	A	C
ATOM	4454	CG	TYR	A	594	53.591	29.531	-1.248	1.00	22.51	A	C
ATOM	4455	CD1	TYR	A	594	54.543	28.587	-0.883	1.00	23.92	A	C
ATOM	4456	CE1	TYR	A	594	54.697	27.414	-1.608	1.00	22.02	A	C
ATOM	4457	CZ	TYR	A	594	53.907	27.173	-2.718	1.00	24.68	A	C
ATOM	4458	OH	TYR	A	594	54.060	25.989	-3.434	1.00	27.62	A	O
ATOM	4459	CE2	TYR	A	594	52.955	28.089	-3.095	1.00	23.63	A	C
ATOM	4460	CD2	TYR	A	594	52.801	29.262	-2.366	1.00	22.52	A	C
ATOM	4461	C	TYR	A	594	50.995	30.314	0.120	1.00	20.87	A	C

ATOM	4462	O	TYR	A	594	50.247	31.160	-0.365	1.00	21.23	A	O
ATOM	4463	N	MET	A	595	50.658	29.030	0.209	1.00	21.37	A	N
ATOM	4464	CA	MET	A	595	49.443	28.502	-0.441	1.00	23.07	A	C
ATOM	4465	CB	MET	A	595	49.345	26.968	-0.288	1.00	23.05	A	C
ATOM	4466	CG	MET	A	595	50.275	26.165	-1.207	1.00	21.03	A	C
ATOM	4467	SD	MET	A	595	49.858	26.354	-2.957	1.00	25.21	A	S
ATOM	4468	CE	MET	A	595	48.517	25.162	-3.093	1.00	30.00	A	C
ATOM	4469	C	MET	A	595	48.126	29.163	0.006	1.00	20.07	A	C
ATOM	4470	O	MET	A	595	47.145	29.171	-0.731	1.00	19.89	A	O
ATOM	4471	N	GLY	A	596	48.114	29.708	1.209	1.00	21.72	A	N
ATOM	4472	CA	GLY	A	596	46.925	30.339	1.735	1.00	23.63	A	C
ATOM	4473	C	GLY	A	596	46.709	31.727	1.158	1.00	28.70	A	C
ATOM	4474	O	GLY	A	596	45.646	32.314	1.344	1.00	25.22	A	O
ATOM	4475	N	GLN	A	597	47.708	32.250	0.450	1.00	21.73	A	N
ATOM	4476	CA	GLN	A	597	47.645	33.638	-0.015	1.00	28.33	A	C
ATOM	4477	CB	GLN	A	597	48.690	34.475	0.704	1.00	31.87	A	C
ATOM	4478	CG	GLN	A	597	48.514	34.507	2.198	1.00	39.64	A	C
ATOM	4479	CD	GLN	A	597	49.772	34.976	2.888	1.00	45.65	A	C
ATOM	4480	OE1	GLN	A	597	50.016	36.175	3.004	1.00	46.54	A	O
ATOM	4481	NE2	GLN	A	597	50.594	34.028	3.329	1.00	47.50	A	N
ATOM	4482	C	GLN	A	597	47.814	33.813	-1.519	1.00	29.72	A	C
ATOM	4483	O	GLN	A	597	47.984	34.934	-2.004	1.00	31.92	A	O
ATOM	4484	N	LEU	A	598	47.757	32.719	-2.264	1.00	28.53	A	N
ATOM	4485	CA	LEU	A	598	47.882	32.800	-3.715	1.00	30.76	A	C
ATOM	4486	CB	LEU	A	598	48.257	31.450	-4.288	1.00	29.69	A	C
ATOM	4487	CG	LEU	A	598	49.730	31.108	-4.147	1.00	28.90	A	C
ATOM	4488	CD1	LEU	A	598	49.895	29.711	-4.675	1.00	28.88	A	C
ATOM	4489	CD2	LEU	A	598	50.611	32.052	-4.920	1.00	24.50	A	C
ATOM	4490	C	LEU	A	598	46.619	33.275	-4.400	1.00	32.99	A	C
ATOM	4491	O	LEU	A	598	45.531	33.225	-3.834	1.00	36.00	A	O
ATOM	4492	N	LEU	A	599	46.781	33.753	-5.631	1.00	37.50	A	N
ATOM	4493	CA	LEU	A	599	45.652	34.040	-6.530	1.00	37.37	A	C
ATOM	4494	C	LEU	A	599	46.108	33.875	-7.979	1.00	35.43	A	C
ATOM	4495	O	LEU	A	599	47.298	33.745	-8.253	1.00	31.51	A	O
ATOM	4496	CB	LEU	A	599	45.072	35.453	-6.331	1.00	42.74	A	C
ATOM	4497	CG	LEU	A	599	45.511	36.350	-5.166	1.00	42.91	A	C
ATOM	4498	CD1	LEU	A	599	46.914	36.903	-5.407	1.00	41.70	A	C
ATOM	4499	CD2	LEU	A	599	44.495	37.464	-4.939	1.00	47.24	A	C
ATOM	4500	O	GLU	A	600	46.460	35.649	-10.909	1.00	49.26	A	O
ATOM	4501	N	GLU	A	600	45.149	33.895	-8.895	1.00	41.14	A	N
ATOM	4502	CA	GLU	A	600	45.395	33.603	-10.306	1.00	43.06	A	C
ATOM	4503	C	GLU	A	600	46.534	34.420	-10.890	1.00	46.30	A	C
ATOM	4504	CB	GLU	A	600	44.117	33.832	-11.125	1.00	41.68	A	C
ATOM	4505	O	GLN	A	601	50.265	36.090	-11.715	1.00	43.51	A	O
ATOM	4506	N	GLN	A	601	47.584	33.729	-11.342	1.00	42.39	A	N
ATOM	4507	CA	GLN	A	601	48.669	34.347	-12.108	1.00	44.35	A	C
ATOM	4508	C	GLN	A	601	49.494	35.258	-11.223	1.00	42.98	A	C
ATOM	4509	CB	GLN	A	601	48.163	35.144	-13.333	1.00	46.97	A	C
ATOM	4510	CG	GLN	A	601	47.419	34.343	-14.392	1.00	50.57	A	C
ATOM	4511	CD	GLN	A	601	46.573	35.219	-15.318	1.00	56.11	A	C
ATOM	4512	OE1	GLN	A	601	47.088	36.096	-16.015	1.00	56.32	A	O
ATOM	4513	NE2	GLN	A	601	45.262	34.975	-15.328	1.00	59.54	A	N
ATOM	4514	O	ALA	A	602	51.875	34.102	-9.600	1.00	36.74	A	O
ATOM	4515	N	ALA	A	602	49.330	35.115	-9.916	1.00	39.72	A	N
ATOM	4516	CA	ALA	A	602	50.245	35.774	-8.991	1.00	37.25	A	C
ATOM	4517	C	ALA	A	602	51.666	35.254	-9.202	1.00	35.37	A	C
ATOM	4518	CB	ALA	A	602	49.811	35.547	-7.558	1.00	39.18	A	C
ATOM	4519	N	SER	A	603	52.649	36.104	-8.946	1.00	30.60	A	N
ATOM	4520	CA	SER	A	603	54.029	35.669	-8.986	1.00	26.23	A	C
ATOM	4521	C	SER	A	603	54.607	35.736	-7.569	1.00	24.22	A	C
ATOM	4522	O	SER	A	603	53.907	36.107	-6.632	1.00	22.35	A	O
ATOM	4523	CB	SER	A	603	54.811	36.560	-9.944	1.00	26.04	A	C
ATOM	4524	OG	SER	A	603	54.815	37.896	-9.489	1.00	29.37	A	O
ATOM	4525	N	LEU	A	604	55.871	35.357	-7.405	1.00	24.59	A	N
ATOM	4526	CA	LEU	A	604	56.532	35.482	-6.103	1.00	23.53	A	C
ATOM	4527	C	LEU	A	604	57.654	36.525	-6.208	1.00	25.42	A	C
ATOM	4528	O	LEU	A	604	58.361	36.536	-7.202	1.00	29.94	A	O
ATOM	4529	CB	LEU	A	604	57.094	34.128	-5.663	1.00	23.55	A	C
ATOM	4530	CG	LEU	A	604	56.085	32.993	-5.471	1.00	24.30	A	C
ATOM	4531	CD1	LEU	A	604	56.729	31.821	-4.761	1.00	26.28	A	C
ATOM	4532	CD2	LEU	A	604	54.893	33.482	-4.699	1.00	23.45	A	C
ATOM	4533	N	HIS	A	605	57.815	37.396	-5.207	1.00	20.18	A	N
ATOM	4534	CA	HIS	A	605	58.829	38.456	-5.252	1.00	18.20	A	C
ATOM	4535	C	HIS	A	605	59.772	38.300	-4.057	1.00	20.12	A	C
ATOM	4536	O	HIS	A	605	59.340	38.335	-2.904	1.00	17.74	A	O
ATOM	4537	CB	HIS	A	605	58.185	39.857	-5.217	1.00	17.33	A	C
ATOM	4538	CG	HIS	A	605	59.128	40.976	-5.565	1.00	18.19	A	C

ATOM	4539	ND1	HIS	A	605	58.826	42.305	-5.345	1.00	24.63	A	N
ATOM	4540	CD2	HIS	A	605	60.347	40.965	-6.158	1.00	18.43	A	C
ATOM	4541	CE1	HIS	A	605	59.826	43.062	-5.768	1.00	23.81	A	C
ATOM	4542	NE2	HIS	A	605	60.765	42.274	-6.260	1.00	19.43	A	N
ATOM	4543	N	PHE	A	606	61.055	38.127	-4.344	1.00	19.30	A	N
ATOM	4544	CA	PHE	A	606	62.053	37.929	-3.300	1.00	18.40	A	C
ATOM	4545	C	PHE	A	606	63.054	39.087	-3.183	1.00	20.47	A	C
ATOM	4546	O	PHE	A	606	63.597	39.558	-4.186	1.00	20.20	A	O
ATOM	4547	CB	PHE	A	606	62.826	36.654	-3.589	1.00	19.42	A	C
ATOM	4548	CG	PHE	A	606	61.971	35.435	-3.619	1.00	21.60	A	C
ATOM	4549	CD1	PHE	A	606	61.671	34.764	-2.449	1.00	24.73	A	C
ATOM	4550	CD2	PHE	A	606	61.453	34.969	-4.810	1.00	23.39	A	C
ATOM	4551	CE1	PHE	A	606	60.880	33.633	-2.468	1.00	24.36	A	C
ATOM	4552	CE2	PHE	A	606	60.662	33.836	-4.839	1.00	26.00	A	C
ATOM	4553	CZ	PHE	A	606	60.371	33.173	-3.663	1.00	25.34	A	C
ATOM	4554	N	PHE	A	607	63.307	39.520	-1.952	1.00	20.54	A	N
ATOM	4555	CA	PHE	A	607	64.363	40.484	-1.671	1.00	21.48	A	C
ATOM	4556	CB	PHE	A	607	63.838	41.654	-0.854	1.00	21.93	A	C
ATOM	4557	CG	PHE	A	607	62.870	42.534	-1.576	1.00	22.03	A	C
ATOM	4558	CD1	PHE	A	607	63.323	43.620	-2.317	1.00	22.65	A	C
ATOM	4559	CE1	PHE	A	607	62.429	44.465	-2.958	1.00	20.94	A	C
ATOM	4560	CZ	PHE	A	607	61.064	44.227	-2.844	1.00	21.86	A	C
ATOM	4561	CE2	PHE	A	607	60.602	43.166	-2.092	1.00	20.31	A	C
ATOM	4562	CD2	PHE	A	607	61.500	42.324	-1.460	1.00	20.10	A	C
ATOM	4563	C	PHE	A	607	65.407	39.773	-0.811	1.00	24.15	A	C
ATOM	4564	O	PHE	A	607	65.055	39.198	0.227	1.00	22.31	A	O
ATOM	4565	N	VAL	A	608	66.669	39.783	-1.248	1.00	24.48	A	N
ATOM	4566	CA	VAL	A	608	67.773	39.335	-0.384	1.00	25.04	A	C
ATOM	4567	C	VAL	A	608	68.756	40.492	-0.243	1.00	24.12	A	C
ATOM	4568	O	VAL	A	608	69.246	41.037	-1.232	1.00	25.39	A	O
ATOM	4569	CB	VAL	A	608	68.507	38.062	-0.886	1.00	22.13	A	C
ATOM	4570	CG1	VAL	A	608	69.634	37.651	0.110	1.00	23.30	A	C
ATOM	4571	CG2	VAL	A	608	67.542	36.885	-1.066	1.00	22.68	A	C
ATOM	4572	N	THR	A	609	69.004	40.893	0.994	1.00	24.27	A	N
ATOM	4573	CA	THR	A	609	69.992	41.914	1.277	1.00	23.46	A	C
ATOM	4574	C	THR	A	609	71.004	41.402	2.300	1.00	25.37	A	C
ATOM	4575	O	THR	A	609	70.635	41.054	3.421	1.00	22.49	A	O
ATOM	4576	CB	THR	A	609	69.329	43.191	1.831	1.00	24.31	A	C
ATOM	4577	OG1	THR	A	609	68.504	43.791	0.810	1.00	24.98	A	O
ATOM	4578	CG2	THR	A	609	70.383	44.173	2.302	1.00	23.65	A	C
ATOM	4579	N	ALA	A	610	72.279	41.404	1.918	1.00	21.06	A	N
ATOM	4580	CA	ALA	A	610	73.340	40.926	2.795	1.00	22.32	A	C
ATOM	4581	C	ALA	A	610	74.393	42.009	3.048	1.00	29.42	A	C
ATOM	4582	O	ALA	A	610	74.819	42.714	2.131	1.00	30.91	A	O
ATOM	4583	CB	ALA	A	610	73.981	39.712	2.207	1.00	22.94	A	C
ATOM	4584	N	ARG	A	611	74.809	42.136	4.297	1.00	28.59	A	N
ATOM	4585	CA	ARG	A	611	75.915	43.018	4.623	1.00	28.24	A	C
ATOM	4586	C	ARG	A	611	77.158	42.208	4.935	1.00	27.93	A	C
ATOM	4587	O	ARG	A	611	77.120	41.273	5.739	1.00	28.92	A	O
ATOM	4588	CB	ARG	A	611	75.591	43.893	5.827	1.00	29.12	A	C
ATOM	4589	CG	ARG	A	611	76.765	44.776	6.226	1.00	30.01	A	C
ATOM	4590	CD	ARG	A	611	76.786	45.080	7.723	1.00	33.33	A	C
ATOM	4591	NE	ARG	A	611	75.546	45.695	8.172	1.00	32.65	A	N
ATOM	4592	CZ	ARG	A	611	74.733	45.160	9.079	1.00	35.43	A	C
ATOM	4593	NH1	ARG	A	611	75.034	44.000	9.658	1.00	33.64	A	C
ATOM	4594	NH2	ARG	A	611	73.616	45.791	9.415	1.00	35.33	A	N
ATOM	4595	N	ILE	A	612	78.264	42.554	4.298	1.00	27.15	A	N
ATOM	4596	CA	ILE	A	612	79.547	42.009	4.733	1.00	29.12	A	C
ATOM	4597	C	ILE	A	612	80.006	42.841	5.931	1.00	33.85	A	C
ATOM	4598	O	ILE	A	612	80.349	44.021	5.804	1.00	29.87	A	O
ATOM	4599	CB	ILE	A	612	80.569	42.027	3.607	1.00	33.61	A	C
ATOM	4600	CG1	ILE	A	612	80.021	41.225	2.423	1.00	38.59	A	C
ATOM	4601	CG2	ILE	A	612	81.915	41.466	4.090	1.00	34.43	A	C
ATOM	4602	CD1	ILE	A	612	80.578	41.655	1.101	1.00	41.96	A	C
ATOM	4603	N	ASN	A	613	79.990	42.208	7.096	1.00	34.43	A	N
ATOM	4604	CA	ASN	A	613	80.168	42.898	8.363	1.00	34.52	A	C
ATOM	4605	C	ASN	A	613	81.486	43.657	8.524	1.00	35.96	A	C
ATOM	4606	O	ASN	A	613	81.487	44.789	8.987	1.00	37.26	A	O
ATOM	4607	CB	ASN	A	613	79.933	41.933	9.523	1.00	34.74	A	C
ATOM	4608	CG	ASN	A	613	78.472	41.537	9.650	1.00	39.32	A	C
ATOM	4609	OD1	ASN	A	613	77.581	42.373	9.489	1.00	36.01	A	O
ATOM	4610	ND2	ASN	A	613	78.215	40.254	9.913	1.00	40.02	A	N
ATOM	4611	N	GLU	A	614	82.590	43.049	8.115	1.00	36.03	A	N
ATOM	4612	CA	GLU	A	614	83.905	43.650	8.317	1.00	39.09	A	C
ATOM	4613	C	GLU	A	614	84.078	44.882	7.452	1.00	40.63	A	C
ATOM	4614	O	GLU	A	614	84.762	45.825	7.839	1.00	41.83	A	O
ATOM	4615	CB	GLU	A	614	85.029	42.647	8.040	1.00	39.44	A	C

ATOM	4616	CG	GLU	A	614	85.055	41.448	8.991	1.00	42.73	A	C
ATOM	4617	CD	GLU	A	614	83.928	40.444	8.715	1.00	43.09	A	C
ATOM	4618	OE1	GLU	A	614	83.356	40.493	7.600	1.00	39.99	A	O
ATOM	4619	OE2	GLU	A	614	83.620	39.609	9.604	1.00	43.95	A	O
ATOM	4620	N	THR	A	615	83.439	44.887	6.286	1.00	36.88	A	N
ATOM	4621	CA	THR	A	615	83.634	45.978	5.346	1.00	38.27	A	C
ATOM	4622	C	THR	A	615	82.429	46.895	5.233	1.00	39.76	A	C
ATOM	4623	O	THR	A	615	82.495	47.923	4.562	1.00	42.71	A	O
ATOM	4624	CB	THR	A	615	83.974	45.465	3.945	1.00	38.62	A	C
ATOM	4625	OG1	THR	A	615	82.832	44.805	3.387	1.00	36.13	A	O
ATOM	4626	CG2	THR	A	615	85.159	44.508	3.996	1.00	41.85	A	C
ATOM	4627	N	ARG	A	616	81.331	46.516	5.880	1.00	41.68	A	N
ATOM	4628	CA	ARG	A	616	80.066	47.245	5.777	1.00	43.44	A	C
ATOM	4629	C	ARG	A	616	79.468	47.248	4.363	1.00	41.60	A	C
ATOM	4630	O	ARG	A	616	78.435	47.876	4.120	1.00	39.51	A	O
ATOM	4631	CB	ARG	A	616	80.206	48.670	6.316	1.00	45.81	A	C
ATOM	4632	CG	ARG	A	616	80.436	48.726	7.810	1.00	51.06	A	C
ATOM	4633	CD	ARG	A	616	79.175	48.310	8.565	1.00	55.09	A	C
ATOM	4634	NE	ARG	A	616	79.427	47.201	9.483	1.00	58.43	A	C
ATOM	4635	CZ	ARG	A	616	78.556	46.773	10.392	1.00	57.81	A	N
ATOM	4636	NH1	ARG	A	616	77.377	47.369	10.516	1.00	55.76	A	N
ATOM	4637	NH2	ARG	A	616	78.870	45.753	11.180	1.00	57.88	A	N
ATOM	4638	N	ASP	A	617	80.111	46.537	3.443	1.00	41.99	A	N
ATOM	4639	CA	ASP	A	617	79.591	46.385	2.087	1.00	42.82	A	C
ATOM	4640	C	ASP	A	617	78.196	45.772	2.081	1.00	36.10	A	C
ATOM	4641	O	ASP	A	617	77.904	44.853	2.850	1.00	33.56	A	O
ATOM	4642	CB	ASP	A	617	80.528	45.509	1.261	1.00	49.17	A	C
ATOM	4643	CG	ASP	A	617	81.227	46.279	0.168	1.00	53.01	A	C
ATOM	4644	OD1	ASP	A	617	80.549	46.642	-0.822	1.00	53.67	A	O
ATOM	4645	OD2	ASP	A	617	82.449	46.507	0.297	1.00	53.88	A	O
ATOM	4646	N	VAL	A	618	77.339	46.278	1.201	1.00	33.64	A	N
ATOM	4647	CA	VAL	A	618	75.984	45.768	1.083	1.00	28.96	A	C
ATOM	4648	C	VAL	A	618	75.720	45.153	-0.289	1.00	28.75	A	C
ATOM	4649	O	VAL	A	618	76.031	45.753	-1.317	1.00	29.67	A	O
ATOM	4650	CB	VAL	A	618	74.963	46.880	1.340	1.00	34.03	A	C
ATOM	4651	CG1	VAL	A	618	73.542	46.330	1.272	1.00	32.19	A	C
ATOM	4652	CG2	VAL	A	618	75.236	47.522	2.693	1.00	36.99	A	C
ATOM	4653	N	LEU	A	619	75.133	43.956	-0.294	1.00	24.55	A	N
ATOM	4654	CA	LEU	A	619	74.748	43.265	-1.524	1.00	23.78	A	C
ATOM	4655	C	LEU	A	619	73.252	43.102	-1.467	1.00	22.93	A	C
ATOM	4656	O	LEU	A	619	72.731	42.463	-0.553	1.00	22.92	A	O
ATOM	4657	CB	LEU	A	619	75.402	41.884	-1.584	1.00	28.01	A	C
ATOM	4658	CG	LEU	A	619	76.930	41.953	-1.464	1.00	31.58	A	C
ATOM	4659	CD1	LEU	A	619	77.526	40.640	-1.026	1.00	34.51	A	C
ATOM	4660	CD2	LEU	A	619	77.523	42.402	-2.790	1.00	35.53	A	C
ATOM	4661	N	ALA	A	620	72.555	43.681	-2.437	1.00	21.37	A	N
ATOM	4662	CA	ALA	A	620	71.097	43.676	-2.420	1.00	24.55	A	C
ATOM	4663	C	ALA	A	620	70.561	43.269	-3.779	1.00	26.01	A	C
ATOM	4664	O	ALA	A	620	70.915	43.864	-4.787	1.00	27.12	A	O
ATOM	4665	CB	ALA	A	620	70.578	45.043	-2.035	1.00	20.84	A	C
ATOM	4666	N	LYS	A	621	69.724	42.243	-3.808	1.00	26.56	A	N
ATOM	4667	CA	LYS	A	621	69.083	41.837	-5.051	1.00	26.86	A	C
ATOM	4668	C	LYS	A	621	67.585	41.658	-4.855	1.00	24.44	A	C
ATOM	4669	O	LYS	A	621	67.119	41.346	-3.759	1.00	22.16	A	O
ATOM	4670	CB	LYS	A	621	69.702	40.544	-5.593	1.00	28.92	A	C
ATOM	4671	N	GLN	A	622	66.831	41.862	-5.928	1.00	21.84	A	N
ATOM	4672	CA	GLN	A	622	65.421	41.522	-5.919	1.00	18.80	A	C
ATOM	4673	C	GLN	A	622	65.076	40.813	-7.227	1.00	19.30	A	C
ATOM	4674	O	GLN	A	622	65.557	41.179	-8.297	1.00	22.11	A	O
ATOM	4675	CB	GLN	A	622	64.554	42.766	-5.670	1.00	19.35	A	C
ATOM	4676	CG	GLN	A	622	64.717	43.871	-6.711	1.00	21.13	A	C
ATOM	4677	CD	GLN	A	622	63.916	43.583	-7.960	1.00	21.95	A	C
ATOM	4678	OE1	GLN	A	622	62.911	42.887	-7.903	1.00	21.38	A	O
ATOM	4679	NE2	GLN	A	622	64.364	44.112	-9.097	1.00	23.84	A	N
ATOM	4680	N	LYS	A	623	64.263	39.777	-7.126	1.00	18.40	A	N
ATOM	4681	CA	LYS	A	623	63.928	38.947	-8.275	1.00	19.23	A	C
ATOM	4682	C	LYS	A	623	62.527	38.467	-8.091	1.00	19.80	A	C
ATOM	4683	O	LYS	A	623	62.096	38.251	-6.960	1.00	18.15	A	O
ATOM	4684	CB	LYS	A	623	64.807	37.689	-8.326	1.00	21.83	A	C
ATOM	4685	CG	LYS	A	623	66.269	37.894	-8.635	1.00	27.40	A	C
ATOM	4686	CD	LYS	A	623	66.904	36.553	-9.014	1.00	31.27	A	C
ATOM	4687	CE	LYS	A	623	68.411	36.670	-9.211	1.00	36.23	A	C
ATOM	4688	NZ	LYS	A	623	68.951	35.440	-9.862	1.00	37.99	A	N
ATOM	4689	N	SER	A	624	61.816	38.260	-9.195	1.00	22.19	A	N
ATOM	4690	C	SER	A	624	60.472	36.340	-9.915	1.00	24.58	A	C
ATOM	4691	O	SER	A	624	61.207	36.169	-10.883	1.00	25.96	A	O
ATOM	4692	CA	ASER	A	624	60.511	37.638	-9.111	0.48	23.76	A	C

ATOM	4693	CB	ASER	A	624	59.415	38.596	-9.581	0.48	24.73	A	C
ATOM	4694	OG	ASER	A	624	59.454	39.797	-8.835	0.48	24.86	A	O
ATOM	4695	CA	BSER	A	624	60.509	37.640	-9.112	0.52	23.78	A	C
ATOM	4696	CB	BSER	A	624	59.412	38.589	-9.600	0.52	24.74	A	C
ATOM	4697	OG	BSER	A	624	59.492	38.768	-11.002	0.52	27.21	A	O
ATOM	4698	N	THR	A	625	59.609	35.432	-9.504	1.00	22.68	A	N
ATOM	4699	CA	THR	A	625	59.476	34.177	-10.201	1.00	29.58	A	C
ATOM	4700	C	THR	A	625	58.019	33.742	-10.296	1.00	30.68	A	C
ATOM	4701	O	THR	A	625	57.192	34.060	-9.444	1.00	31.18	A	O
ATOM	4702	CB	THR	A	625	60.304	33.094	-9.514	1.00	33.78	A	C
ATOM	4703	OG1	THR	A	625	60.053	31.836	-10.146	1.00	41.03	A	O
ATOM	4704	CG2	THR	A	625	59.921	33.007	-8.066	1.00	32.90	A	C
ATOM	4705	N	VAL	A	626	57.713	33.015	-11.358	1.00	32.11	A	N
ATOM	4706	CA	VAL	A	626	56.398	32.429	-11.531	1.00	33.47	A	C
ATOM	4707	C	VAL	A	626	56.485	30.953	-11.137	1.00	35.12	A	C
ATOM	4708	O	VAL	A	626	57.392	30.240	-11.570	1.00	35.09	A	O
ATOM	4709	CB	VAL	A	626	55.944	32.591	-12.985	1.00	37.72	A	C
ATOM	4710	CG1	VAL	A	626	54.655	31.819	-13.252	1.00	41.06	A	C
ATOM	4711	CG2	VAL	A	626	55.768	34.066	-13.298	1.00	35.79	A	C
ATOM	4712	N	LEU	A	627	55.576	30.502	-10.278	1.00	33.85	A	N
ATOM	4713	CA	LEU	A	627	55.532	29.081	-9.931	1.00	32.78	A	C
ATOM	4714	C	LEU	A	627	55.127	28.258	-11.140	1.00	29.29	A	C
ATOM	4715	O	LEU	A	627	54.283	28.671	-11.916	1.00	29.66	A	O
ATOM	4716	CB	LEU	A	627	54.540	28.835	-8.789	1.00	34.13	A	C
ATOM	4717	CG	LEU	A	627	54.935	29.384	-7.419	1.00	31.98	A	C
ATOM	4718	CD1	LEU	A	627	54.063	28.801	-6.323	1.00	32.44	A	C
ATOM	4719	CD2	LEU	A	627	56.382	29.059	-7.157	1.00	32.57	A	C
ATOM	4720	N	THR	A	628	55.743	27.095	-11.305	1.00	31.76	A	N
ATOM	4721	CA	THR	A	628	55.301	26.148	-12.313	1.00	31.84	A	C
ATOM	4722	C	THR	A	628	53.917	25.650	-11.898	1.00	31.29	A	C
ATOM	4723	O	THR	A	628	53.686	25.331	-10.731	1.00	30.55	A	O
ATOM	4724	CB	THR	A	628	56.319	25.006	-12.442	1.00	34.39	A	C
ATOM	4725	OG1	THR	A	628	57.488	25.512	-13.101	1.00	35.83	A	O
ATOM	4726	CG2	THR	A	628	55.754	23.828	-13.233	1.00	35.95	A	C
ATOM	4727	N	ILE	A	629	52.981	25.619	-12.837	1.00	31.89	A	N
ATOM	4728	C	ILE	A	629	51.239	23.877	-13.086	1.00	30.47	A	C
ATOM	4729	O	ILE	A	629	51.137	23.712	-14.299	1.00	32.07	A	O
ATOM	4730	CA	AILE	A	629	51.604	25.247	-12.523	0.21	31.03	A	C
ATOM	4731	CB	AILE	A	629	50.608	26.277	-13.079	0.21	31.26	A	C
ATOM	4732	CG1AILE	A	629	51.104	27.699	-12.812	0.21	31.38	A	C	
ATOM	4733	CG2AILE	A	629	49.224	26.054	-12.487	0.21	30.44	A	C	
ATOM	4734	CD1AILE	A	629	51.281	28.009	-11.348	0.21	30.46	A	C	
ATOM	4735	CA	BILE	A	629	51.610	25.242	-12.515	0.79	31.25	A	C
ATOM	4736	CB	BILE	A	629	50.626	26.296	-13.016	0.79	31.40	A	C
ATOM	4737	CG1BILE	A	629	50.766	27.561	-12.171	0.79	31.04	A	C	
ATOM	4738	CG2BILE	A	629	49.197	25.758	-12.992	0.79	30.46	A	C	
ATOM	4739	CD1BILE	A	629	50.009	28.749	-12.716	0.79	31.91	A	C	
ATOM	4740	N	PRO	A	630	51.044	22.881	-12.204	1.00	29.27	A	N
ATOM	4741	CA	PRO	A	630	50.688	21.547	-12.719	1.00	31.85	A	C
ATOM	4742	C	PRO	A	630	49.292	21.563	-13.335	1.00	35.43	A	C
ATOM	4743	O	PRO	A	630	48.391	22.172	-12.763	1.00	38.27	A	O
ATOM	4744	CB	PRO	A	630	50.709	20.660	-11.462	1.00	31.84	A	C
ATOM	4745	CG	PRO	A	630	51.546	21.450	-10.437	1.00	30.44	A	C
ATOM	4746	CD	PRO	A	630	51.241	22.887	-10.742	1.00	25.90	A	C
ATOM	4747	N	GLU	A	631	49.117	20.915	-14.479	1.00	36.89	A	N
ATOM	4748	CA	GLU	A	631	47.820	20.910	-15.151	1.00	38.54	A	C
ATOM	4749	C	GLU	A	631	46.943	19.741	-14.711	1.00	35.04	A	C
ATOM	4750	O	GLU	A	631	47.424	18.622	-14.537	1.00	37.12	A	O
ATOM	4751	CB	GLU	A	631	47.991	20.872	-16.677	1.00	38.67	A	C
ATOM	4752	N	ILE	A	632	45.660	20.017	-14.504	1.00	32.35	A	N
ATOM	4753	CA	ILE	A	632	44.649	18.958	-14.486	1.00	31.45	A	C
ATOM	4754	C	ILE	A	632	43.740	19.217	-15.680	1.00	29.65	A	C
ATOM	4755	O	ILE	A	632	43.270	20.333	-15.858	1.00	28.70	A	O
ATOM	4756	CB	ILE	A	632	43.811	18.996	-13.207	1.00	29.27	A	C
ATOM	4757	CG1	ILE	A	632	44.684	18.693	-11.991	1.00	28.62	A	C
ATOM	4758	CG2	ILE	A	632	42.687	17.982	-13.278	1.00	31.77	A	C
ATOM	4759	CD1	ILE	A	632	43.929	18.793	-10.683	1.00	26.25	A	C
ATOM	4760	N	ILE	A	633	43.506	18.205	-16.505	1.00	32.56	A	N
ATOM	4761	CA	ILE	A	633	42.718	18.390	-17.724	1.00	32.13	A	C
ATOM	4762	CB	ILE	A	633	43.454	17.829	-18.963	1.00	36.89	A	C
ATOM	4763	CG1	ILE	A	633	44.703	18.649	-19.255	1.00	39.04	A	C
ATOM	4764	CD1	ILE	A	633	44.398	20.113	-19.515	1.00	39.77	A	C
ATOM	4765	CG2	ILE	A	633	42.562	17.867	-20.177	1.00	38.05	A	C
ATOM	4766	C	ILE	A	633	41.363	17.706	-17.591	1.00	31.60	A	C
ATOM	4767	O	ILE	A	633	41.288	16.522	-17.246	1.00	28.91	A	O
ATOM	4768	N	ILE	A	634	40.295	18.454	-17.851	1.00	26.28	A	N
ATOM	4769	CA	ILE	A	634	38.954	17.909	-17.796	1.00	26.55	A	C

ATOM	4770	CB	ILE	A	634	38.032	18.746	-16.914	1.00	25.35	A	C
ATOM	4771	CG1	ILE	A	634	38.561	18.818	-15.478	1.00	26.36	A	C
ATOM	4772	CD1	ILE	A	634	37.858	19.901	-14.674	1.00	27.58	A	C
ATOM	4773	CG2	ILE	A	634	36.642	18.151	-16.886	1.00	25.96	A	C
ATOM	4774	C	ILE	A	634	38.375	17.888	-19.193	1.00	28.58	A	C
ATOM	4775	O	ILE	A	634	38.455	18.886	-19.909	1.00	29.39	A	O
ATOM	4776	N	LYS	A	635	37.814	16.745	-19.576	1.00	29.73	A	N
ATOM	4777	CA	LYS	A	635	37.143	16.601	-20.862	1.00	35.20	A	C
ATOM	4778	C	LYS	A	635	35.812	15.912	-20.625	1.00	34.04	A	C
ATOM	4779	O	LYS	A	635	35.629	15.231	-19.615	1.00	30.84	A	O
ATOM	4780	CB	LYS	A	635	38.006	15.795	-21.845	1.00	36.75	A	C
ATOM	4781	N	VAL	A	636	34.875	16.091	-21.547	1.00	35.62	A	N
ATOM	4782	CA	VAL	A	636	33.583	15.430	-21.435	1.00	34.07	A	C
ATOM	4783	C	VAL	A	636	33.334	14.571	-22.674	1.00	41.31	A	C
ATOM	4784	O	VAL	A	636	33.729	14.933	-23.779	1.00	41.12	A	O
ATOM	4785	CB	VAL	A	636	32.439	16.447	-21.205	1.00	33.92	A	C
ATOM	4786	CG1	VAL	A	636	31.092	15.748	-21.071	1.00	34.52	A	C
ATOM	4787	CG2	VAL	A	636	32.729	17.283	-19.962	1.00	34.34	A	C
ATOM	4788	N	ARG	A	637	32.710	13.419	-22.466	1.00	40.40	A	N
ATOM	4789	CA	ARG	A	637	32.384	12.508	-23.542	1.00	44.99	A	C
ATOM	4790	C	ARG	A	637	30.919	12.137	-23.389	1.00	47.50	A	C
ATOM	4791	O	ARG	A	637	30.494	11.679	-22.325	1.00	45.62	A	O
ATOM	4792	CB	ARG	A	637	33.264	11.262	-23.461	1.00	46.76	A	C
ATOM	4793	CG	ARG	A	637	33.199	10.380	-24.689	1.00	55.41	A	C
ATOM	4794	CD	ARG	A	637	33.311	8.917	-24.298	1.00	59.40	A	C
ATOM	4795	NE	ARG	A	637	34.494	8.693	-23.473	1.00	60.28	A	N
ATOM	4796	CZ	ARG	A	637	34.634	7.677	-22.628	1.00	60.34	A	C
ATOM	4797	NH1	ARG	A	637	33.663	6.777	-22.482	1.00	61.17	A	N
ATOM	4798	NH2	ARG	A	637	35.752	7.565	-21.932	1.00	59.47	A	N
ATOM	4799	N	GLY	A	638	30.141	12.349	-24.446	1.00	51.49	A	N
ATOM	4800	CA	GLY	A	638	28.709	12.104	-24.398	1.00	52.70	A	C
ATOM	4801	C	GLY	A	638	27.932	13.411	-24.452	1.00	55.92	A	C
ATOM	4802	O	GLY	A	638	28.423	14.459	-24.007	1.00	54.85	A	O
ATOM	4803	N	THR	A	639	26.718	13.361	-24.991	1.00	56.42	A	N
ATOM	4804	CA	THR	A	639	25.907	14.570	-25.103	1.00	59.73	A	C
ATOM	4805	C	THR	A	639	25.514	15.141	-23.727	1.00	57.81	A	C
ATOM	4806	O	THR	A	639	25.022	14.430	-22.845	1.00	58.31	A	O
ATOM	4807	CB	THR	A	639	24.685	14.372	-26.035	1.00	63.17	A	C
ATOM	4808	OG1	THR	A	639	24.013	13.158	-25.695	1.00	65.52	A	O
ATOM	4809	CG2	THR	A	639	25.135	14.277	-27.483	1.00	64.91	A	C
ATOM	4810	N	GLN	A	640	25.755	16.436	-23.565	1.00	56.86	A	N
ATOM	4811	CA	GLN	A	640	25.577	17.121	-22.293	1.00	55.94	A	C
ATOM	4812	C	GLN	A	640	24.173	17.708	-22.169	1.00	59.45	A	C
ATOM	4813	O	GLN	A	640	23.973	18.909	-22.346	1.00	59.98	A	O
ATOM	4814	CB	GLN	A	640	26.637	18.221	-22.162	1.00	51.54	A	C
ATOM	4815	CG	GLN	A	640	28.030	17.753	-22.579	1.00	47.59	A	C
ATOM	4816	CD	GLN	A	640	29.046	18.874	-22.670	1.00	47.68	A	C
ATOM	4817	OE1	GLN	A	640	30.253	18.626	-22.746	1.00	48.54	A	O
ATOM	4818	NE2	GLN	A	640	28.567	20.116	-22.669	1.00	47.93	A	N
ATOM	4819	O	VAL	A	641	21.212	15.672	-20.062	1.00	68.94	A	O
ATOM	4820	N	VAL	A	641	23.205	16.847	-21.873	1.00	62.66	A	N
ATOM	4821	CA	VAL	A	641	21.804	17.255	-21.760	1.00	66.43	A	C
ATOM	4822	C	VAL	A	641	21.226	16.855	-20.406	1.00	68.42	A	C
ATOM	4823	CB	VAL	A	641	20.944	16.620	-22.860	1.00	65.03	A	C
ATOM	4824	O	VAL	A	642	18.181	16.545	-19.073	1.00	65.83	A	O
ATOM	4825	N	VAL	A	642	20.759	17.850	-19.650	1.00	68.02	A	N
ATOM	4826	CA	VAL	A	642	20.174	17.633	-18.328	1.00	65.54	A	C
ATOM	4827	C	VAL	A	642	19.165	16.492	-18.347	1.00	66.39	A	C
ATOM	4828	CB	VAL	A	642	19.481	18.908	-17.797	1.00	65.85	A	C
ATOM	4829	O	GLY	A	643	18.626	11.930	-17.867	1.00	68.61	A	O
ATOM	4830	N	GLY	A	643	19.436	15.450	-17.564	1.00	66.48	A	N
ATOM	4831	CA	GLY	A	643	18.561	14.292	-17.495	1.00	66.70	A	C
ATOM	4832	C	GLY	A	643	19.157	13.021	-18.078	1.00	66.38	A	C
ATOM	4833	O	SER	A	644	22.950	12.900	-18.461	1.00	58.45	A	O
ATOM	4834	N	SER	A	644	20.252	13.153	-18.820	1.00	64.48	A	N
ATOM	4835	CA	SER	A	644	20.927	11.993	-19.402	1.00	61.55	A	C
ATOM	4836	C	SER	A	644	22.390	11.913	-18.948	1.00	57.95	A	C
ATOM	4837	CB	SER	A	644	20.835	12.026	-20.927	1.00	60.57	A	C
ATOM	4838	O	ASP	A	645	25.416	10.957	-20.730	1.00	56.92	A	O
ATOM	4839	N	ASP	A	645	23.002	10.742	-19.109	1.00	69.65	A	N
ATOM	4840	CA	ASP	A	645	24.365	10.506	-18.617	1.00	64.59	A	C
ATOM	4841	C	ASP	A	645	25.458	11.092	-19.507	1.00	57.48	A	C
ATOM	4842	CB	ASP	A	645	24.635	9.005	-18.432	1.00	67.07	A	C
ATOM	4843	CG	ASP	A	645	24.066	8.458	-17.138	1.00	68.40	A	C
ATOM	4844	OD1	ASP	A	645	23.664	9.261	-16.274	1.00	68.45	A	O
ATOM	4845	OD2	ASP	A	645	24.034	7.219	-16.980	1.00	69.95	A	O
ATOM	4846	N	MET	A	646	26.443	11.730	-18.872	1.00	50.53	A	N

ATOM	4847	CA	MET	A	646	27.661	12.151	-19.549	1.00	44.89	A	C
ATOM	4848	C	MET	A	646	28.889	11.676	-18.789	1.00	41.94	A	C
ATOM	4849	O	MET	A	646	28.882	11.609	-17.561	1.00	41.62	A	O
ATOM	4850	CB	MET	A	646	27.711	13.672	-19.706	1.00	43.51	A	C
ATOM	4851	CG	MET	A	646	27.371	14.448	-18.455	1.00	43.19	A	C
ATOM	4852	SD	MET	A	646	27.484	16.223	-18.735	1.00	46.84	A	S
ATOM	4853	CE	MET	A	646	28.955	16.659	-17.807	1.00	33.31	A	C
ATOM	4854	N	THR	A	647	29.948	11.355	-19.519	1.00	38.27	A	N
ATOM	4855	CA	THR	A	647	31.175	10.903	-18.883	1.00	35.76	A	C
ATOM	4856	C	THR	A	647	32.221	12.011	-18.800	1.00	32.81	A	C
ATOM	4857	O	THR	A	647	32.623	12.585	-19.808	1.00	32.10	A	O
ATOM	4858	CB	THR	A	647	31.749	9.665	-19.595	1.00	39.33	A	C
ATOM	4859	OG1	THR	A	647	30.750	8.640	-19.631	1.00	43.07	A	O
ATOM	4860	CG2	THR	A	647	32.973	9.147	-18.857	1.00	33.96	A	C
ATOM	4861	N	VAL	A	648	32.634	12.332	-17.575	1.00	30.17	A	N
ATOM	4862	CA	VAL	A	648	33.666	13.326	-17.354	1.00	26.60	A	C
ATOM	4863	C	VAL	A	648	34.988	12.594	-17.210	1.00	38.07	A	C
ATOM	4864	O	VAL	A	648	35.090	11.631	-16.449	1.00	38.53	A	O
ATOM	4865	CB	VAL	A	648	33.375	14.133	-16.078	1.00	28.10	A	C
ATOM	4866	CG1	VAL	A	648	34.496	15.144	-15.797	1.00	24.68	A	C
ATOM	4867	CG2	VAL	A	648	31.998	14.801	-16.187	1.00	26.59	A	C
ATOM	4868	N	ILE	A	649	35.993	13.027	-17.960	1.00	25.81	A	N
ATOM	4869	CA	ILE	A	649	37.320	12.437	-17.865	1.00	25.54	A	C
ATOM	4870	C	ILE	A	649	38.306	13.444	-17.287	1.00	27.28	A	C
ATOM	4871	O	ILE	A	649	38.610	14.466	-17.905	1.00	27.16	A	O
ATOM	4872	CB	ILE	A	649	37.869	11.963	-19.217	1.00	28.16	A	C
ATOM	4873	CG1	ILE	A	649	36.981	10.876	-19.822	1.00	32.06	A	C
ATOM	4874	CG2	ILE	A	649	39.269	11.410	-19.052	1.00	34.91	A	C
ATOM	4875	CD1	ILE	A	649	36.048	11.387	-20.863	1.00	32.51	A	C
ATOM	4876	N	VAL	A	650	38.810	13.133	-16.100	1.00	25.42	A	N
ATOM	4877	CA	VAL	A	650	39.767	13.979	-15.411	1.00	24.47	A	C
ATOM	4878	C	VAL	A	650	41.141	13.356	-15.584	1.00	28.07	A	C
ATOM	4879	O	VAL	A	650	41.368	12.177	-15.247	1.00	24.75	A	O
ATOM	4880	CB	VAL	A	650	39.413	14.079	-13.929	1.00	25.50	A	C
ATOM	4881	CG1	VAL	A	650	40.332	15.063	-13.203	1.00	21.59	A	C
ATOM	4882	CG2	VAL	A	650	37.960	14.486	-13.777	1.00	23.41	A	C
ATOM	4883	N	GLU	A	651	42.056	14.136	-16.137	1.00	25.52	A	N
ATOM	4884	CA	GLU	A	651	43.391	13.635	-16.399	1.00	29.83	A	C
ATOM	4885	C	GLU	A	651	44.410	14.428	-15.591	1.00	30.51	A	C
ATOM	4886	O	GLU	A	651	44.348	15.656	-15.524	1.00	28.09	A	O
ATOM	4887	CB	GLU	A	651	43.708	13.718	-17.893	1.00	34.89	A	C
ATOM	4888	CG	GLU	A	651	45.122	13.309	-18.243	1.00	42.46	A	C
ATOM	4889	CD	GLU	A	651	45.445	13.471	-19.727	1.00	49.61	A	C
ATOM	4890	OE1	GLU	A	651	44.560	13.194	-20.575	1.00	50.24	A	O
ATOM	4891	OE2	GLU	A	651	46.588	13.880	-20.038	1.00	52.18	A	O
ATOM	4892	N	PHE	A	652	45.337	13.720	-14.958	1.00	30.66	A	N
ATOM	4893	CA	PHE	A	652	46.376	14.380	-14.194	1.00	31.48	A	C
ATOM	4894	C	PHE	A	652	47.729	13.729	-14.440	1.00	33.67	A	C
ATOM	4895	O	PHE	A	652	47.860	12.499	-14.402	1.00	34.14	A	O
ATOM	4896	CB	PHE	A	652	46.033	14.391	-12.702	1.00	30.57	A	C
ATOM	4897	CG	PHE	A	652	47.131	14.929	-11.842	1.00	33.77	A	C
ATOM	4898	CD1	PHE	A	652	47.417	16.292	-11.832	1.00	35.26	A	C
ATOM	4899	CD2	PHE	A	652	47.891	14.075	-11.051	1.00	36.29	A	C
ATOM	4900	CE1	PHE	A	652	48.440	16.797	-11.041	1.00	36.35	A	C
ATOM	4901	CE2	PHE	A	652	48.920	14.575	-10.250	1.00	37.11	A	C
ATOM	4902	CZ	PHE	A	652	49.193	15.939	-10.249	1.00	36.12	A	C
ATOM	4903	N	THR	A	653	48.727	14.562	-14.720	1.00	36.26	A	N
ATOM	4904	CA	THR	A	653	50.087	14.092	-14.929	1.00	39.50	A	C
ATOM	4905	C	THR	A	653	50.968	14.558	-13.778	1.00	38.98	A	C
ATOM	4906	O	THR	A	653	50.953	15.734	-13.415	1.00	36.42	A	O
ATOM	4907	CB	THR	A	653	50.669	14.620	-16.255	1.00	46.15	A	C
ATOM	4908	OG1	THR	A	653	49.855	14.179	-17.354	1.00	48.86	A	O
ATOM	4909	CG2	THR	A	653	52.095	14.118	-16.453	1.00	48.84	A	C
ATOM	4910	N	ASN	A	654	51.720	13.632	-13.190	1.00	39.13	A	N
ATOM	4911	CA	ASN	A	654	52.649	13.984	-12.122	1.00	38.56	A	C
ATOM	4912	C	ASN	A	654	53.759	14.877	-12.667	1.00	42.13	A	C
ATOM	4913	O	ASN	A	654	54.559	14.435	-13.487	1.00	46.80	A	O
ATOM	4914	CB	ASN	A	654	53.245	12.712	-11.506	1.00	40.46	A	C
ATOM	4915	CG	ASN	A	654	54.183	12.999	-10.335	1.00	41.52	A	C
ATOM	4916	OD1	ASN	A	654	54.304	14.141	-9.875	1.00	37.68	A	O
ATOM	4917	ND2	ASN	A	654	54.846	11.954	-9.841	1.00	40.25	A	N
ATOM	4918	N	PRO	A	655	53.821	16.139	-12.205	1.00	41.83	A	N
ATOM	4919	CA	PRO	A	655	54.844	17.056	-12.712	1.00	44.36	A	C
ATOM	4920	C	PRO	A	655	56.212	16.883	-12.047	1.00	47.20	A	C
ATOM	4921	O	PRO	A	655	57.164	17.508	-12.502	1.00	49.82	A	O
ATOM	4922	CB	PRO	A	655	54.274	18.427	-12.355	1.00	43.42	A	C
ATOM	4923	CG	PRO	A	655	53.508	18.181	-11.106	1.00	40.05	A	C

ATOM	4924	CD	PRO	A	655	52.923	16.797	-11.239	1.00	35.89	A	C
ATOM	4925	N	LEU	A	656	56.319	16.051	-11.013	1.00	45.77	A	N
ATOM	4926	CA	LEU	A	656	57.573	15.946	-10.250	1.00	48.46	A	C
ATOM	4927	C	LEU	A	656	58.474	14.780	-10.665	1.00	52.15	A	C
ATOM	4928	O	LEU	A	656	58.048	13.862	-11.363	1.00	51.49	A	O
ATOM	4929	CB	LEU	A	656	57.279	15.846	-8.749	1.00	46.31	A	C
ATOM	4930	CG	LEU	A	656	56.224	16.825	-8.221	1.00	50.90	A	C
ATOM	4931	CD2	LEU	A	656	56.623	18.264	-8.530	1.00	44.86	A	C
ATOM	4932	CD1	LEU	A	656	56.008	16.617	-6.729	1.00	41.56	A	C
ATOM	4933	N	LYS	A	657	59.724	14.824	-10.218	1.00	56.58	A	N
ATOM	4934	CA	LYS	A	657	60.642	13.707	-10.399	1.00	67.38	A	C
ATOM	4935	C	LYS	A	657	60.534	12.802	-9.182	1.00	65.93	A	C
ATOM	4936	O	LYS	A	657	61.401	11.972	-8.933	1.00	63.41	A	O
ATOM	4937	CB	LYS	A	657	62.082	14.201	-10.566	1.00	67.08	A	C
ATOM	4938	N	GLU	A	658	59.456	12.981	-8.424	1.00	60.22	A	N
ATOM	4939	CA	GLU	A	658	59.236	12.225	-7.201	1.00	58.48	A	C
ATOM	4940	C	GLU	A	658	57.881	11.533	-7.252	1.00	55.00	A	C
ATOM	4941	O	GLU	A	658	56.938	12.033	-7.871	1.00	51.73	A	O
ATOM	4942	CB	GLU	A	658	59.306	13.150	-5.982	1.00	56.88	A	C
ATOM	4943	N	THR	A	659	57.786	10.380	-6.598	1.00	54.92	A	N
ATOM	4944	CA	THR	A	659	56.531	9.640	-6.537	1.00	49.56	A	C
ATOM	4945	C	THR	A	659	55.499	10.349	-5.656	1.00	41.97	A	C
ATOM	4946	O	THR	A	659	55.775	10.670	-4.501	1.00	47.07	A	O
ATOM	4947	CB	THR	A	659	56.760	8.191	-6.028	1.00	48.37	A	C
ATOM	4948	OG1	THR	A	659	57.492	7.450	-7.012	1.00	52.11	A	O
ATOM	4949	CG2	THR	A	659	55.443	7.496	-5.778	1.00	45.31	A	C
ATOM	4950	N	LEU	A	660	54.319	10.614	-6.209	1.00	40.82	A	N
ATOM	4951	CA	LEU	A	660	53.210	11.137	-5.414	1.00	37.72	A	C
ATOM	4952	C	LEU	A	660	52.527	9.984	-4.674	1.00	39.20	A	C
ATOM	4953	O	LEU	A	660	52.368	8.893	-5.217	1.00	35.40	A	O
ATOM	4954	CB	LEU	A	660	52.212	11.885	-6.297	1.00	32.06	A	C
ATOM	4955	CG	LEU	A	660	52.754	13.155	-6.968	1.00	38.59	A	C
ATOM	4956	CD1	LEU	A	660	51.695	13.836	-7.823	1.00	33.66	A	C
ATOM	4957	CD2	LEU	A	660	53.296	14.111	-5.934	1.00	33.75	A	C
ATOM	4958	N	ARG	A	661	52.143	10.215	-3.425	1.00	39.38	A	N
ATOM	4959	CA	ARG	A	661	51.533	9.155	-2.633	1.00	40.38	A	C
ATOM	4960	C	ARG	A	661	50.198	9.606	-2.052	1.00	38.18	A	C
ATOM	4961	O	ARG	A	661	50.037	10.770	-1.696	1.00	37.32	A	O
ATOM	4962	CB	ARG	A	661	52.487	8.688	-1.530	1.00	43.28	A	C
ATOM	4963	N	ASN	A	662	49.243	8.681	-1.987	1.00	37.01	A	N
ATOM	4964	CA	ASN	A	662	47.911	8.956	-1.453	1.00	34.88	A	C
ATOM	4965	C	ASN	A	662	47.263	10.165	-2.123	1.00	32.88	A	C
ATOM	4966	O	ASN	A	662	46.822	11.103	-1.456	1.00	30.91	A	O
ATOM	4967	CB	ASN	A	662	47.954	9.132	0.071	1.00	34.12	A	C
ATOM	4968	CG	ASN	A	662	48.393	7.860	0.791	1.00	40.89	A	C
ATOM	4969	OD1	ASN	A	662	47.683	6.843	0.771	1.00	41.59	A	O
ATOM	4970	ND2	ASN	A	662	49.570	7.908	1.422	1.00	38.67	A	N
ATOM	4971	N	VAL	A	663	47.227	10.126	-3.450	1.00	32.83	A	N
ATOM	4972	CA	VAL	A	663	46.640	11.188	-4.260	1.00	26.26	A	C
ATOM	4973	C	VAL	A	663	45.117	11.123	-4.232	1.00	24.65	A	C
ATOM	4974	O	VAL	A	663	44.522	10.101	-4.601	1.00	26.73	A	O
ATOM	4975	CB	VAL	A	663	47.072	11.025	-5.720	1.00	28.01	A	C
ATOM	4976	CG1	VAL	A	663	46.464	12.123	-6.576	1.00	29.47	A	C
ATOM	4977	CG2	VAL	A	663	48.582	11.034	-5.832	1.00	31.33	A	C
ATOM	4978	N	TRP	A	664	44.478	12.199	-3.797	1.00	21.53	A	N
ATOM	4979	CA	TRP	A	664	43.023	12.303	-3.875	1.00	20.69	A	C
ATOM	4980	C	TRP	A	664	42.649	13.259	-4.977	1.00	23.89	A	C
ATOM	4981	O	TRP	A	664	43.057	14.429	-4.955	1.00	23.08	A	O
ATOM	4982	CB	TRP	A	664	42.412	12.826	-2.569	1.00	23.61	A	C
ATOM	4983	CG	TRP	A	664	42.328	11.795	-1.473	1.00	26.95	A	C
ATOM	4984	CD1	TRP	A	664	43.216	11.601	-0.472	1.00	27.00	A	C
ATOM	4985	CD2	TRP	A	664	41.292	10.812	-1.294	1.00	29.16	A	C
ATOM	4986	NE1	TRP	A	664	42.803	10.559	0.334	1.00	30.12	A	N
ATOM	4987	CE2	TRP	A	664	41.625	10.058	-0.154	1.00	31.31	A	C
ATOM	4988	CE3	TRP	A	664	40.115	10.501	-1.989	1.00	27.51	A	C
ATOM	4989	CZ2	TRP	A	664	40.822	9.009	0.315	1.00	33.23	A	C
ATOM	4990	CZ3	TRP	A	664	39.317	9.453	-1.522	1.00	26.22	A	C
ATOM	4991	CH2	TRP	A	664	39.675	8.728	-0.380	1.00	28.65	A	C
ATOM	4992	N	VAL	A	665	41.864	12.782	-5.934	1.00	18.70	A	N
ATOM	4993	CA	VAL	A	665	41.318	13.675	-6.969	1.00	19.55	A	C
ATOM	4994	C	VAL	A	665	39.841	13.943	-6.683	1.00	21.42	A	C
ATOM	4995	O	VAL	A	665	39.093	13.020	-6.366	1.00	21.37	A	O
ATOM	4996	CB	VAL	A	665	41.501	13.070	-8.349	1.00	19.90	A	C
ATOM	4997	CG1	VAL	A	665	40.944	13.994	-9.429	1.00	19.55	A	C
ATOM	4998	CG2	VAL	A	665	42.982	12.760	-8.581	1.00	19.92	A	C
ATOM	4999	N	HIS	A	666	39.415	15.205	-6.765	1.00	17.65	A	N
ATOM	5000	C	HIS	A	666	37.366	16.128	-7.726	1.00	20.34	A	C

ATOM	5001	O	HIS	A	666	38.023	16.758	-8.559	1.00	18.32	A	O
ATOM	5002	CA	AHIS	A	666	38.017	15.528	-6.493	0.51	19.68	A	C
ATOM	5003	CB	AHIS	A	666	37.869	16.478	-5.294	0.51	21.78	A	C
ATOM	5004	CG	AHIS	A	666	36.445	16.825	-4.964	0.51	20.89	A	C
ATOM	5005	ND1	AHIS	A	666	35.725	16.172	-3.988	0.51	22.55	A	N
ATOM	5006	CD2	AHIS	A	666	35.615	17.768	-5.474	0.51	21.58	A	C
ATOM	5007	CE1	AHIS	A	666	34.512	16.690	-3.913	0.51	24.45	A	C
ATOM	5008	NE2	AHIS	A	666	34.418	17.661	-4.805	0.51	23.66	A	N
ATOM	5009	CA	BHIS	A	666	38.042	15.570	-6.460	0.49	19.95	A	C
ATOM	5010	CB	BHIS	A	666	38.014	16.608	-5.323	0.49	21.83	A	C
ATOM	5011	CG	BHIS	A	666	38.821	16.230	-4.110	0.49	21.10	A	C
ATOM	5012	ND1	BHIS	A	666	38.240	15.851	-2.917	0.49	22.71	A	N
ATOM	5013	CD2	BHIS	A	666	40.160	16.217	-3.890	0.49	19.67	A	C
ATOM	5014	CE1	BHIS	A	666	39.180	15.603	-2.022	0.49	22.22	A	C
ATOM	5015	NE2	BHIS	A	666	40.355	15.818	-2.586	0.49	21.06	A	N
ATOM	5016	N	LEU	A	667	36.067	15.891	-7.871	1.00	19.56	A	N
ATOM	5017	CA	LEU	A	667	35.332	16.452	-8.987	1.00	19.50	A	C
ATOM	5018	C	LEU	A	667	34.107	17.113	-8.428	1.00	22.42	A	C
ATOM	5019	O	LEU	A	667	33.367	16.524	-7.655	1.00	22.47	A	O
ATOM	5020	CB	LEU	A	667	34.911	15.391	-10.005	1.00	20.16	A	C
ATOM	5021	CG	LEU	A	667	34.215	15.994	-11.236	1.00	21.67	A	C
ATOM	5022	CD1	LEU	A	667	35.155	16.944	-11.957	1.00	21.88	A	C
ATOM	5023	CD2	LEU	A	667	33.699	14.903	-12.207	1.00	21.58	A	C
ATOM	5024	N	ASP	A	668	33.896	18.347	-8.842	1.00	24.01	A	N
ATOM	5025	CA	ASP	A	668	32.838	19.160	-8.307	1.00	29.85	A	C
ATOM	5026	C	ASP	A	668	32.170	19.817	-9.502	1.00	30.88	A	C
ATOM	5027	O	ASP	A	668	32.828	20.119	-10.495	1.00	31.53	A	O
ATOM	5028	CB	ASP	A	668	33.462	20.228	-7.413	1.00	36.42	A	C
ATOM	5029	CG	ASP	A	668	32.566	20.642	-6.295	1.00	44.02	A	C
ATOM	5030	OD1	ASP	A	668	31.372	20.282	-6.345	1.00	50.15	A	O
ATOM	5031	OD2	ASP	A	668	33.058	21.335	-5.374	1.00	45.24	A	O
ATOM	5032	N	GLY	A	669	30.866	20.026	-9.421	1.00	34.10	A	N
ATOM	5033	CA	GLY	A	669	30.146	20.632	-10.523	1.00	39.55	A	C
ATOM	5034	C	GLY	A	669	28.709	20.856	-10.126	1.00	45.93	A	C
ATOM	5035	O	GLY	A	669	27.858	20.028	-10.435	1.00	33.74	A	O
ATOM	5036	O	PRO	A	670	24.897	21.714	-8.883	1.00	66.37	A	O
ATOM	5037	N	PRO	A	670	28.442	21.985	-9.442	1.00	51.39	A	N
ATOM	5038	CA	PRO	A	670	27.191	22.365	-8.769	1.00	56.03	A	C
ATOM	5039	C	PRO	A	670	25.903	22.026	-9.522	1.00	60.95	A	C
ATOM	5040	CB	PRO	A	670	27.346	23.877	-8.597	1.00	56.99	A	C
ATOM	5041	CG	PRO	A	670	28.805	24.056	-8.386	1.00	55.15	A	C
ATOM	5042	CD	PRO	A	670	29.462	23.042	-9.308	1.00	52.23	A	C
ATOM	5043	O	GLY	A	671	23.916	19.605	-12.465	1.00	59.99	A	O
ATOM	5044	N	GLY	A	671	25.921	22.087	-10.847	1.00	60.08	A	N
ATOM	5045	CA	GLY	A	671	24.763	21.671	-11.613	1.00	61.93	A	C
ATOM	5046	C	GLY	A	671	24.911	20.290	-12.222	1.00	59.25	A	C
ATOM	5047	O	VAL	A	672	26.003	16.376	-12.789	1.00	58.28	A	O
ATOM	5048	N	VAL	A	672	26.155	19.879	-12.461	1.00	55.80	A	N
ATOM	5049	CA	VAL	A	672	26.443	18.691	-13.265	1.00	56.00	A	C
ATOM	5050	C	VAL	A	672	26.575	17.414	-12.444	1.00	56.63	A	C
ATOM	5051	CB	VAL	A	672	27.742	18.866	-14.094	1.00	33.50	A	C
ATOM	5052	O	THR	A	673	27.966	17.463	-8.542	1.00	51.99	A	O
ATOM	5053	N	THR	A	673	27.349	17.479	-11.369	1.00	53.11	A	N
ATOM	5054	CA	THR	A	673	27.603	16.276	-10.601	1.00	52.14	A	C
ATOM	5055	C	THR	A	673	27.497	16.463	-9.108	1.00	52.62	A	C
ATOM	5056	CB	THR	A	673	28.999	15.654	-10.918	1.00	45.92	A	C
ATOM	5057	OG1	THR	A	673	29.229	14.512	-10.077	1.00	45.44	A	O
ATOM	5058	CG2	THR	A	673	30.125	16.666	-10.726	1.00	41.61	A	C
ATOM	5059	O	ARG	A	674	29.286	14.561	-7.857	1.00	48.60	A	O
ATOM	5060	N	ARG	A	674	26.878	15.474	-8.473	1.00	53.04	A	N
ATOM	5061	CA	ARG	A	674	27.125	15.251	-7.070	1.00	54.13	A	C
ATOM	5062	C	ARG	A	674	28.649	15.145	-6.981	1.00	50.34	A	C
ATOM	5063	CB	ARG	A	674	26.447	13.959	-6.613	1.00	56.92	A	C
ATOM	5064	O	PRO	A	675	30.736	13.601	-4.797	1.00	42.11	A	O
ATOM	5065	N	PRO	A	675	29.240	15.744	-5.948	1.00	49.13	A	N
ATOM	5066	CA	PRO	A	675	30.696	15.803	-5.747	1.00	46.86	A	C
ATOM	5067	C	PRO	A	675	31.305	14.414	-5.524	1.00	42.39	A	C
ATOM	5068	CB	PRO	A	675	30.838	16.624	-4.465	1.00	49.20	A	C
ATOM	5069	CG	PRO	A	675	29.479	17.237	-4.227	1.00	52.36	A	C
ATOM	5070	CD	PRO	A	675	28.496	16.313	-4.818	1.00	53.60	A	C
ATOM	5071	O	MET	A	676	35.133	13.819	-6.216	1.00	24.40	A	O
ATOM	5072	N	MET	A	676	32.447	14.142	-6.145	1.00	36.49	A	N
ATOM	5073	CA	MET	A	676	32.981	12.787	-6.148	1.00	32.73	A	C
ATOM	5074	C	MET	A	676	34.483	12.800	-5.968	1.00	27.07	A	C
ATOM	5075	CB	MET	A	676	32.639	12.070	-7.460	1.00	32.89	A	C
ATOM	5076	CG	MET	A	676	31.167	12.087	-7.833	1.00	37.43	A	C
ATOM	5077	SD	MET	A	676	30.113	11.270	-6.622	1.00	54.14	A	S

ATOM	5078	CE	MET	A	676	30.487	9.549	-6.952	1.00	37.85	A	C
ATOM	5079	N	LYS	A	677	35.022	11.650	-5.557	1.00	26.07	A	N
ATOM	5080	CA	LYS	A	677	36.442	11.499	-5.295	1.00	25.95	A	C
ATOM	5081	CB	LYS	A	677	36.700	11.557	-3.782	1.00	30.86	A	C
ATOM	5082	CG	LYS	A	677	36.278	12.872	-3.168	1.00	32.33	A	C
ATOM	5083	CD	LYS	A	677	35.754	12.684	-1.779	1.00	37.78	A	C
ATOM	5084	CE	LYS	A	677	35.135	13.980	-1.278	1.00	43.17	A	C
ATOM	5085	NZ	LYS	A	677	36.143	15.077	-1.305	1.00	44.53	A	N
ATOM	5086	C	LYS	A	677	37.010	10.194	-5.822	1.00	25.35	A	C
ATOM	5087	O	LYS	A	677	36.363	9.149	-5.765	1.00	24.25	A	O
ATOM	5088	N	LYS	A	678	38.244	10.260	-6.307	1.00	23.26	A	O
ATOM	5089	CA	LYS	A	678	38.973	9.052	-6.641	1.00	23.54	A	C
ATOM	5090	CB	LYS	A	678	39.092	8.852	-8.154	1.00	23.24	A	C
ATOM	5091	CG	LYS	A	678	39.874	7.581	-8.529	1.00	29.20	A	C
ATOM	5092	CD	LYS	A	678	38.969	6.522	-9.143	1.00	34.97	A	C
ATOM	5093	CE	LYS	A	678	39.652	5.163	-9.248	1.00	39.58	A	C
ATOM	5094	NZ	LYS	A	678	40.951	5.233	-9.965	1.00	43.01	A	N
ATOM	5095	C	LYS	A	678	40.353	9.136	-6.008	1.00	25.17	A	C
ATOM	5096	O	LYS	A	678	41.004	10.188	-6.023	1.00	24.09	A	O
ATOM	5097	N	MET	A	679	40.792	8.018	-5.454	1.00	25.03	A	N
ATOM	5098	C	MET	A	679	43.067	7.102	-5.547	1.00	28.75	A	C
ATOM	5099	O	MET	A	679	42.739	6.030	-6.037	1.00	30.12	A	O
ATOM	5100	CA	MET	A	679	42.059	7.961	-4.770	1.00	27.78	A	C
ATOM	5101	CB	MET	A	679	41.824	7.441	-3.348	1.00	31.64	A	C
ATOM	5102	CG	MET	A	679	42.946	7.726	-2.401	1.00	35.14	A	C
ATOM	5103	SD	MET	A	679	43.918	6.238	-2.298	1.00	62.79	A	S
ATOM	5104	CE	MET	A	679	42.659	5.122	-1.657	1.00	47.99	A	C
ATOM	5105	N	PHE	A	680	44.281	7.610	-5.701	1.00	25.20	A	N
ATOM	5106	CA	PHE	A	680	45.358	6.850	-6.314	1.00	29.03	A	C
ATOM	5107	CB	PHE	A	680	45.932	7.586	-7.523	1.00	26.27	A	C
ATOM	5108	CG	PHE	A	680	44.944	7.803	-8.626	1.00	32.73	A	C
ATOM	5109	CD1	PHE	A	680	44.790	6.853	-9.635	1.00	36.09	A	C
ATOM	5110	CE1	PHE	A	680	43.878	7.041	-10.663	1.00	35.85	A	C
ATOM	5111	CZ	PHE	A	680	43.110	8.198	-10.695	1.00	33.58	A	C
ATOM	5112	CE2	PHE	A	680	43.250	9.153	-9.688	1.00	30.83	A	C
ATOM	5113	CD2	PHE	A	680	44.168	8.951	-8.661	1.00	30.82	A	C
ATOM	5114	C	PHE	A	680	46.443	6.684	-5.266	1.00	32.16	A	C
ATOM	5115	O	PHE	A	680	47.038	7.666	-4.843	1.00	31.43	A	O
ATOM	5116	N	ARG	A	681	46.696	5.442	-4.860	1.00	35.46	A	O
ATOM	5117	CA	ARG	A	681	47.692	5.132	-3.838	1.00	41.01	A	C
ATOM	5118	CB	ARG	A	681	47.816	3.615	-3.652	1.00	48.32	A	C
ATOM	5119	CG	ARG	A	681	46.651	2.963	-2.927	1.00	54.20	A	C
ATOM	5120	CD	ARG	A	681	46.445	3.579	-1.545	1.00	58.10	A	C
ATOM	5121	NE	ARG	A	681	45.543	2.789	-0.702	1.00	64.04	A	N
ATOM	5122	CZ	ARG	A	681	45.140	3.155	0.514	1.00	67.36	A	C
ATOM	5123	NH1	ARG	A	681	45.554	4.306	1.034	1.00	67.78	A	N
ATOM	5124	NH2	ARG	A	681	44.319	2.380	1.213	1.00	68.55	A	N
ATOM	5125	C	ARG	A	681	49.056	5.712	-4.198	1.00	40.63	A	C
ATOM	5126	O	ARG	A	681	49.788	6.214	-3.338	1.00	38.09	A	O
ATOM	5127	N	GLU	A	682	49.380	5.661	-5.483	1.00	40.05	A	N
ATOM	5128	CA	GLU	A	682	50.693	6.061	-5.941	1.00	42.59	A	C
ATOM	5129	C	GLU	A	682	50.652	6.497	-7.398	1.00	42.89	A	C
ATOM	5130	O	GLU	A	682	50.059	5.823	-8.230	1.00	41.51	A	O
ATOM	5131	CB	GLU	A	682	51.645	4.886	-5.775	1.00	47.17	A	C
ATOM	5132	CG	GLU	A	682	52.951	5.014	-6.500	1.00	53.77	A	C
ATOM	5133	CD	GLU	A	682	53.848	3.814	-6.256	1.00	62.31	A	C
ATOM	5134	OE1	GLU	A	682	54.024	2.998	-7.186	1.00	65.57	A	O
ATOM	5135	OE2	GLU	A	682	54.368	3.685	-5.129	1.00	66.00	A	O
ATOM	5136	N	ILE	A	683	51.266	7.638	-7.700	1.00	34.75	A	N
ATOM	5137	CA	ILE	A	683	51.502	8.018	-9.089	1.00	37.00	A	C
ATOM	5138	CB	ILE	A	683	50.754	9.319	-9.481	1.00	36.86	A	C
ATOM	5139	CG1	ILE	A	683	49.258	9.209	-9.156	1.00	29.10	A	C
ATOM	5140	CD1	ILE	A	683	48.460	10.435	-9.554	1.00	26.50	A	C
ATOM	5141	CG2	ILE	A	683	50.967	9.633	-10.958	1.00	38.69	A	C
ATOM	5142	C	ILE	A	683	53.011	8.184	-9.307	1.00	41.38	A	C
ATOM	5143	O	ILE	A	683	53.649	9.029	-8.669	1.00	43.06	A	O
ATOM	5144	N	ARG	A	684	53.579	7.368	-10.192	1.00	42.14	A	N
ATOM	5145	CA	ARG	A	684	55.014	7.419	-10.488	1.00	49.25	A	C
ATOM	5146	CB	ARG	A	684	55.426	6.216	-11.358	1.00	50.66	A	C
ATOM	5147	C	ARG	A	684	55.425	8.762	-11.128	1.00	48.59	A	C
ATOM	5148	O	ARG	A	684	54.571	9.517	-11.602	1.00	45.14	A	O
ATOM	5149	N	PRO	A	685	56.730	9.083	-11.104	1.00	52.80	A	N
ATOM	5150	CA	PRO	A	685	57.213	10.332	-11.712	1.00	55.65	A	C
ATOM	5151	CB	PRO	A	685	58.731	10.214	-11.581	1.00	59.73	A	C
ATOM	5152	CG	PRO	A	685	58.924	9.402	-10.355	1.00	59.62	A	C
ATOM	5153	CD	PRO	A	685	57.788	8.415	-10.321	1.00	56.18	A	C
ATOM	5154	C	PRO	A	685	56.825	10.497	-13.183	1.00	56.88	A	C

ATOM	5155	O	PRO	A	685	56.894	9.542	-13.958	1.00	57.24	A	O
ATOM	5156	N	ASN	A	686	56.413	11.710	-13.545	1.00	56.54	A	N
ATOM	5157	CA	ASN	A	686	56.033	12.044	-14.918	1.00	58.28	A	C
ATOM	5158	CB	ASN	A	686	57.260	12.046	-15.833	1.00	63.76	A	C
ATOM	5159	C	ASN	A	686	54.932	11.168	-15.520	1.00	57.35	A	C
ATOM	5160	O	ASN	A	686	54.744	11.156	-16.737	1.00	60.08	A	O
ATOM	5161	N	SER	A	687	54.208	10.443	-14.670	1.00	53.35	A	N
ATOM	5162	CA	SER	A	687	53.164	9.533	-15.135	1.00	50.81	A	C
ATOM	5163	CB	SER	A	687	53.157	8.255	-14.300	1.00	51.53	A	C
ATOM	5164	OG	SER	A	687	54.343	7.514	-14.514	1.00	59.06	A	O
ATOM	5165	C	SER	A	687	51.774	10.167	-15.126	1.00	46.38	A	C
ATOM	5166	O	SER	A	687	51.496	11.067	-14.336	1.00	42.34	A	O
ATOM	5167	N	THR	A	688	50.900	9.671	-15.997	1.00	48.13	A	N
ATOM	5168	CA	THR	A	688	49.562	10.235	-16.157	1.00	45.46	A	C
ATOM	5169	CB	THR	A	688	49.276	10.566	-17.641	1.00	48.65	A	C
ATOM	5170	OG1	THR	A	688	50.272	11.465	-18.130	1.00	51.54	A	O
ATOM	5171	CG2	THR	A	688	47.907	11.210	-17.803	1.00	44.90	A	C
ATOM	5172	C	THR	A	688	48.467	9.294	-15.648	1.00	41.65	A	C
ATOM	5173	O	THR	A	688	48.511	8.085	-15.893	1.00	41.92	A	O
ATOM	5174	N	VAL	A	689	47.491	9.854	-14.937	1.00	36.61	A	N
ATOM	5175	CA	VAL	A	689	46.308	9.097	-14.545	1.00	34.46	A	C
ATOM	5176	CB	VAL	A	689	46.143	8.976	-13.007	1.00	33.47	A	C
ATOM	5177	CG1	VAL	A	689	47.334	8.245	-12.389	1.00	37.74	A	C
ATOM	5178	CG2	VAL	A	689	45.952	10.346	-12.366	1.00	31.75	A	C
ATOM	5179	C	VAL	A	689	45.036	9.689	-15.146	1.00	33.08	A	C
ATOM	5180	O	VAL	A	689	44.932	10.905	-15.384	1.00	30.73	A	O
ATOM	5181	N	GLN	A	690	44.071	8.811	-15.396	1.00	31.77	A	N
ATOM	5182	CA	GLN	A	690	42.755	9.234	-15.833	1.00	29.77	A	C
ATOM	5183	CB	GLN	A	690	42.521	8.876	-17.299	1.00	33.37	A	C
ATOM	5184	CG	GLN	A	690	43.062	9.922	-18.238	1.00	38.13	A	C
ATOM	5185	CD	GLN	A	690	42.873	9.550	-19.694	1.00	45.29	A	C
ATOM	5186	OE1	GLN	A	690	42.551	8.408	-20.015	1.00	45.77	A	O
ATOM	5187	NE2	GLN	A	690	43.072	10.523	-20.585	1.00	48.37	A	N
ATOM	5188	C	GLN	A	690	41.652	8.660	-14.975	1.00	29.77	A	C
ATOM	5189	O	GLN	A	690	41.679	7.493	-14.557	1.00	31.62	A	O
ATOM	5190	N	TRP	A	691	40.657	9.490	-14.745	1.00	24.28	A	N
ATOM	5191	CA	TRP	A	691	39.508	9.096	-13.950	1.00	26.62	A	C
ATOM	5192	CB	TRP	A	691	39.513	9.873	-12.634	1.00	21.71	A	C
ATOM	5193	CG	TRP	A	691	38.269	9.744	-11.801	1.00	23.86	A	C
ATOM	5194	CD1	TRP	A	691	37.395	8.683	-11.755	1.00	27.15	A	C
ATOM	5195	NE1	TRP	A	691	36.377	8.950	-10.866	1.00	25.92	A	N
ATOM	5196	CE2	TRP	A	691	36.577	10.198	-10.329	1.00	24.66	A	C
ATOM	5197	CD2	TRP	A	691	37.767	10.717	-10.881	1.00	22.92	A	C
ATOM	5198	CE3	TRP	A	691	38.200	11.998	-10.487	1.00	22.11	A	C
ATOM	5199	CZ3	TRP	A	691	37.453	12.691	-9.563	1.00	21.32	A	C
ATOM	5200	CH2	TRP	A	691	36.278	12.141	-9.018	1.00	23.34	A	C
ATOM	5201	CZ2	TRP	A	691	35.826	10.898	-9.388	1.00	25.63	A	C
ATOM	5202	C	TRP	A	691	38.251	9.383	-14.779	1.00	26.29	A	C
ATOM	5203	O	TRP	A	691	38.041	10.499	-15.242	1.00	26.56	A	O
ATOM	5204	N	GLU	A	692	37.439	8.358	-14.997	1.00	27.37	A	N
ATOM	5205	CA	GLU	A	692	36.176	8.551	-15.677	1.00	27.51	A	C
ATOM	5206	CB	GLU	A	692	35.977	7.491	-16.752	1.00	32.52	A	C
ATOM	5207	CG	GLU	A	692	37.014	7.599	-17.853	1.00	35.55	A	C
ATOM	5208	CD	GLU	A	692	36.561	6.909	-19.116	1.00	40.64	A	C
ATOM	5209	OE1	GLU	A	692	35.589	6.132	-19.042	1.00	43.40	A	O
ATOM	5210	OE2	GLU	A	692	37.167	7.156	-20.180	1.00	42.62	A	O
ATOM	5211	C	GLU	A	692	35.032	8.526	-14.697	1.00	27.38	A	C
ATOM	5212	O	GLU	A	692	34.836	7.560	-13.971	1.00	29.32	A	O
ATOM	5213	N	GLU	A	693	34.269	9.601	-14.676	1.00	26.57	A	N
ATOM	5214	CA	GLU	A	693	33.143	9.684	-13.776	1.00	31.26	A	C
ATOM	5215	CB	GLU	A	693	33.392	10.776	-12.740	1.00	27.89	A	C
ATOM	5216	CG	GLU	A	693	32.244	10.974	-11.778	1.00	31.93	A	C
ATOM	5217	CD	GLU	A	693	32.180	9.890	-10.718	1.00	38.24	A	C
ATOM	5218	OE1	GLU	A	693	33.174	9.138	-10.555	1.00	37.18	A	O
ATOM	5219	OE2	GLU	A	693	31.129	9.794	-10.045	1.00	40.81	A	O
ATOM	5220	C	GLU	A	693	31.867	9.961	-14.549	1.00	35.90	A	C
ATOM	5221	O	GLU	A	693	31.778	10.940	-15.286	1.00	36.40	A	O
ATOM	5222	N	VAL	A	694	30.880	9.090	-14.384	1.00	38.48	A	N
ATOM	5223	CA	VAL	A	694	29.599	9.276	-15.033	1.00	40.97	A	C
ATOM	5224	CB	VAL	A	694	28.881	7.944	-15.227	1.00	44.48	A	C
ATOM	5225	CG1	VAL	A	694	27.802	8.081	-16.279	1.00	46.93	A	C
ATOM	5226	CG2	VAL	A	694	29.880	6.877	-15.633	1.00	46.21	A	C
ATOM	5227	C	VAL	A	694	28.737	10.220	-14.207	1.00	43.43	A	C
ATOM	5228	O	VAL	A	694	28.552	10.021	-13.003	1.00	41.12	A	O
ATOM	5229	N	CYS	A	695	28.221	11.251	-14.869	1.00	46.04	A	N
ATOM	5230	CA	CYS	A	695	27.428	12.293	-14.229	1.00	47.06	A	C
ATOM	5231	CB	CYS	A	695	28.170	13.626	-14.317	1.00	44.22	A	C

ATOM	5232	SG	CYS	A	695	29.764	13.621	-13.506	1.00	55.45	A	S
ATOM	5233	C	CYS	A	695	26.085	12.447	-14.928	1.00	52.50	A	C
ATOM	5234	O	CYS	A	695	25.942	12.069	-16.093	1.00	54.87	A	O
ATOM	5235	N	ARG	A	696	25.106	13.010	-14.223	1.00	54.02	A	N
ATOM	5236	CA	ARG	A	696	23.832	13.385	-14.846	1.00	58.26	A	C
ATOM	5237	C	ARG	A	696	23.412	14.774	-14.370	1.00	57.68	A	C
ATOM	5238	O	ARG	A	696	23.083	14.967	-13.199	1.00	57.06	A	O
ATOM	5239	CB	ARG	A	696	22.741	12.355	-14.550	1.00	61.68	A	C
ATOM	5240	CG	ARG	A	696	21.483	12.559	-15.365	1.00	67.16	A	C
ATOM	5241	CD	ARG	A	696	20.431	11.490	-15.087	1.00	72.18	A	C
ATOM	5242	NE	ARG	A	696	20.915	10.142	-15.379	1.00	72.69	A	N
ATOM	5243	CZ	ARG	A	696	20.147	9.148	-15.816	1.00	77.91	A	C
ATOM	5244	NH1	ARG	A	696	18.852	9.349	-16.026	1.00	83.80	A	N
ATOM	5245	NH2	ARG	A	696	20.673	7.954	-16.053	1.00	77.96	A	N
ATOM	5246	N	PRO	A	697	23.443	15.757	-15.278	1.00	58.16	A	N
ATOM	5247	CA	PRO	A	697	23.192	17.149	-14.887	1.00	58.40	A	C
ATOM	5248	CB	PRO	A	697	23.495	17.936	-16.173	1.00	58.60	A	C
ATOM	5249	CG	PRO	A	697	24.285	16.997	-17.044	1.00	56.48	A	C
ATOM	5250	CD	PRO	A	697	23.780	15.633	-16.706	1.00	58.52	A	C
ATOM	5251	C	PRO	A	697	21.742	17.369	-14.453	1.00	62.67	A	C
ATOM	5252	O	PRO	A	697	20.839	16.734	-15.003	1.00	65.16	A	O
ATOM	5253	N	TRP	A	698	21.527	18.249	-13.475	1.00	63.80	A	N
ATOM	5254	CA	TRP	A	698	20.169	18.606	-13.046	1.00	68.93	A	C
ATOM	5255	C	TRP	A	698	19.848	20.105	-13.206	1.00	68.40	A	C
ATOM	5256	O	TRP	A	698	18.746	20.550	-12.882	1.00	72.76	A	O
ATOM	5257	CB	TRP	A	698	19.881	18.111	-11.617	1.00	71.04	A	C
ATOM	5258	CG	TRP	A	698	20.718	18.739	-10.525	1.00	70.87	A	C
ATOM	5259	CD1	TRP	A	698	20.396	19.836	-9.779	1.00	73.78	A	C
ATOM	5260	CD2	TRP	A	698	21.998	18.291	-10.043	1.00	68.91	A	C
ATOM	5261	NE1	TRP	A	698	21.394	20.106	-8.874	1.00	72.05	A	N
ATOM	5262	CE2	TRP	A	698	22.389	19.175	-9.014	1.00	69.19	A	C
ATOM	5263	CE3	TRP	A	698	22.850	17.234	-10.384	1.00	65.38	A	C
ATOM	5264	CZ2	TRP	A	698	23.596	19.034	-8.321	1.00	65.73	A	C
ATOM	5265	CZ3	TRP	A	698	24.049	17.097	-9.696	1.00	62.20	A	C
ATOM	5266	CH2	TRP	A	698	24.411	17.994	-8.677	1.00	62.23	A	C
ATOM	5267	N	VAL	A	699	20.810	20.869	-13.721	1.00	63.54	A	N
ATOM	5268	CA	VAL	A	699	20.617	22.294	-13.997	1.00	64.51	A	C
ATOM	5269	CB	VAL	A	699	21.226	23.173	-12.881	1.00	62.34	A	C
ATOM	5270	C	VAL	A	699	21.212	22.689	-15.359	1.00	63.08	A	C
ATOM	5271	O	VAL	A	699	22.432	22.695	-15.532	1.00	60.04	A	O
ATOM	5272	N	SER	A	700	20.342	23.015	-16.317	1.00	66.04	A	N
ATOM	5273	CA	SER	A	700	20.756	23.335	-17.687	1.00	64.14	A	C
ATOM	5274	CB	SER	A	700	19.529	23.433	-18.605	1.00	70.28	A	C
ATOM	5275	C	SER	A	700	21.578	24.625	-17.789	1.00	62.58	A	C
ATOM	5276	O	SER	A	700	21.732	25.358	-16.808	1.00	62.49	A	O
ATOM	5277	N	GLY	A	701	22.113	24.890	-18.979	1.00	61.04	A	N
ATOM	5278	CA	GLY	A	701	22.770	26.158	-19.252	1.00	61.53	A	C
ATOM	5279	C	GLY	A	701	24.269	26.182	-19.013	1.00	58.33	A	C
ATOM	5280	O	GLY	A	701	24.955	25.169	-19.183	1.00	54.44	A	O
ATOM	5281	N	HIS	A	702	24.776	27.352	-18.627	1.00	58.97	A	N
ATOM	5282	CA	HIS	A	702	26.199	27.535	-18.377	1.00	54.37	A	C
ATOM	5283	CB	HIS	A	702	26.571	29.018	-18.455	1.00	55.92	A	C
ATOM	5284	C	HIS	A	702	26.594	26.968	-17.014	1.00	51.92	A	C
ATOM	5285	O	HIS	A	702	26.493	27.650	-15.995	1.00	54.70	A	O
ATOM	5286	N	ARG	A	703	27.030	25.714	-17.005	1.00	46.50	A	N
ATOM	5287	CA	ARG	A	703	27.537	25.088	-15.788	1.00	43.89	A	C
ATOM	5288	CB	ARG	A	703	26.890	23.719	-15.573	1.00	43.00	A	C
ATOM	5289	C	ARG	A	703	29.064	24.964	-15.833	1.00	40.74	A	C
ATOM	5290	O	ARG	A	703	29.713	25.403	-16.787	1.00	40.04	A	O
ATOM	5291	N	LYS	A	704	29.637	24.364	-14.800	1.00	39.23	A	N
ATOM	5292	CA	LYS	A	704	31.086	24.310	-14.679	1.00	37.06	A	C
ATOM	5293	CB	LYS	A	704	31.579	25.606	-14.041	1.00	39.84	A	C
ATOM	5294	CG	LYS	A	704	33.073	25.704	-13.878	1.00	39.56	A	C
ATOM	5295	CD	LYS	A	704	33.478	27.159	-13.903	1.00	43.41	A	C
ATOM	5296	CE	LYS	A	704	34.866	27.343	-13.352	1.00	42.15	A	C
ATOM	5297	NZ	LYS	A	704	35.234	28.792	-13.351	1.00	44.29	A	N
ATOM	5298	C	LYS	A	704	31.564	23.107	-13.865	1.00	32.72	A	C
ATOM	5299	O	LYS	A	704	30.952	22.739	-12.866	1.00	32.60	A	O
ATOM	5300	N	LEU	A	705	32.673	22.518	-14.301	1.00	27.76	A	N
ATOM	5301	CA	LEU	A	705	33.311	21.395	-13.616	1.00	27.60	A	C
ATOM	5302	CB	LEU	A	705	33.532	20.245	-14.594	1.00	28.25	A	C
ATOM	5303	CG	LEU	A	705	32.239	19.544	-15.026	1.00	30.39	A	C
ATOM	5304	CD1	LEU	A	705	32.451	18.780	-16.316	1.00	26.45	A	C
ATOM	5305	CD2	LEU	A	705	31.776	18.616	-13.900	1.00	28.80	A	C
ATOM	5306	C	LEU	A	705	34.655	21.824	-13.040	1.00	26.99	A	C
ATOM	5307	O	LEU	A	705	35.466	22.451	-13.728	1.00	25.56	A	O
ATOM	5308	N	ILE	A	706	34.886	21.489	-11.777	1.00	24.12	A	N

ATOM	5309	CA	ILE	A	706	36.132	21.845	-11.124	1.00	23.46	A	C
ATOM	5310	CB	ILE	A	706	35.895	22.868	-10.003	1.00	26.10	A	C
ATOM	5311	CG1	ILE	A	706	35.315	24.156	-10.594	1.00	27.78	A	C
ATOM	5312	CD1	ILE	A	706	34.547	24.986	-9.600	1.00	30.56	A	C
ATOM	5313	CG2	ILE	A	706	37.204	23.105	-9.219	1.00	23.22	A	C
ATOM	5314	C	ILE	A	706	36.791	20.611	-10.543	1.00	20.39	A	C
ATOM	5315	O	ILE	A	706	36.170	19.879	-9.788	1.00	20.20	A	O
ATOM	5316	N	ALA	A	707	38.047	20.385	-10.912	1.00	19.61	A	N
ATOM	5317	CA	ALA	A	707	38.801	19.265	-10.400	1.00	18.41	A	C
ATOM	5318	CB	ALA	A	707	39.413	18.452	-11.538	1.00	18.13	A	C
ATOM	5319	C	ALA	A	707	39.882	19.746	-9.449	1.00	21.54	A	C
ATOM	5320	O	ALA	A	707	40.431	20.838	-9.636	1.00	21.87	A	O
ATOM	5321	N	SER	A	708	40.177	18.925	-8.435	1.00	18.05	A	N
ATOM	5322	CA	SER	A	708	41.210	19.223	-7.438	1.00	18.58	A	C
ATOM	5323	CB	SER	A	708	40.595	19.623	-6.098	1.00	20.66	A	C
ATOM	5324	OG	SER	A	708	39.660	20.674	-6.262	1.00	27.70	A	O
ATOM	5325	C	SER	A	708	42.062	17.979	-7.221	1.00	24.82	A	C
ATOM	5326	O	SER	A	708	41.568	16.870	-7.344	1.00	22.88	A	O
ATOM	5327	N	MET	A	709	43.337	18.177	-6.908	1.00	18.84	A	N
ATOM	5328	CA	MET	A	709	44.246	17.085	-6.611	1.00	19.05	A	C
ATOM	5329	CB	MET	A	709	45.236	16.890	-7.764	1.00	19.57	A	C
ATOM	5330	CG	MET	A	709	46.171	15.647	-7.673	1.00	23.81	A	C
ATOM	5331	SD	MET	A	709	47.504	15.750	-6.436	1.00	30.21	A	S
ATOM	5332	CE	MET	A	709	48.134	17.388	-6.817	1.00	23.48	A	C
ATOM	5333	C	MET	A	709	44.991	17.484	-5.345	1.00	22.78	A	C
ATOM	5334	O	MET	A	709	45.521	18.605	-5.253	1.00	25.23	A	O
ATOM	5335	N	SER	A	710	45.010	16.588	-4.364	1.00	20.71	A	N
ATOM	5336	CA	SER	A	710	45.899	16.723	-3.205	1.00	24.43	A	C
ATOM	5337	CB	SER	A	710	45.138	17.194	-1.974	1.00	23.34	A	C
ATOM	5338	OG	SER	A	710	44.871	18.586	-2.044	1.00	28.88	A	O
ATOM	5339	C	SER	A	710	46.551	15.378	-2.908	1.00	28.43	A	C
ATOM	5340	O	SER	A	710	45.883	14.343	-2.966	1.00	29.24	A	O
ATOM	5341	N	SER	A	711	47.853	15.390	-2.627	1.00	30.30	A	N
ATOM	5342	CA	SER	A	711	48.568	14.186	-2.203	1.00	32.11	A	C
ATOM	5343	CB	SER	A	711	49.522	13.697	-3.293	1.00	34.26	A	C
ATOM	5344	OG	SER	A	711	50.574	14.618	-3.511	1.00	37.81	A	O
ATOM	5345	C	SER	A	711	49.345	14.492	-0.926	1.00	31.10	A	C
ATOM	5346	O	SER	A	711	49.148	15.533	-0.310	1.00	31.34	A	O
ATOM	5347	N	ASP	A	712	50.234	13.598	-0.526	1.00	31.00	A	N
ATOM	5348	CA	ASP	A	712	51.027	13.842	0.673	1.00	43.91	A	C
ATOM	5349	CB	ASP	A	712	51.749	12.567	1.119	1.00	46.07	A	C
ATOM	5350	CG	ASP	A	712	50.789	11.506	1.607	1.00	48.08	A	C
ATOM	5351	OD1	ASP	A	712	49.655	11.861	1.998	1.00	47.81	A	O
ATOM	5352	OD2	ASP	A	712	51.160	10.315	1.597	1.00	51.66	A	O
ATOM	5353	C	ASP	A	712	52.015	15.002	0.520	1.00	45.16	A	C
ATOM	5354	O	ASP	A	712	52.297	15.711	1.485	1.00	50.22	A	O
ATOM	5355	N	SER	A	713	52.519	15.205	-0.694	1.00	41.37	A	N
ATOM	5356	CA	SER	A	713	53.543	16.220	-0.935	1.00	45.30	A	C
ATOM	5357	CB	SER	A	713	54.751	15.599	-1.642	1.00	48.34	A	C
ATOM	5358	OG	SER	A	713	54.354	14.956	-2.844	1.00	47.42	A	O
ATOM	5359	C	SER	A	713	53.019	17.405	-1.744	1.00	43.81	A	C
ATOM	5360	O	SER	A	713	53.236	18.560	-1.375	1.00	50.25	A	O
ATOM	5361	N	LEU	A	714	52.336	17.111	-2.845	1.00	36.24	A	N
ATOM	5362	CA	LEU	A	714	51.813	18.133	-3.737	1.00	34.29	A	C
ATOM	5363	CB	LEU	A	714	52.072	17.718	-5.185	1.00	34.60	A	C
ATOM	5364	CG	LEU	A	714	51.608	18.683	-6.282	1.00	35.03	A	C
ATOM	5365	CD1	LEU	A	714	52.431	19.977	-6.217	1.00	36.87	A	C
ATOM	5366	CD2	LEU	A	714	51.704	18.030	-7.663	1.00	33.19	A	C
ATOM	5367	C	LEU	A	714	50.311	18.292	-3.489	1.00	30.10	A	C
ATOM	5368	O	LEU	A	714	49.577	17.314	-3.528	1.00	27.26	A	O
ATOM	5369	N	ARG	A	715	49.855	19.513	-3.226	1.00	30.28	A	N
ATOM	5370	CA	ARG	A	715	48.483	19.722	-2.759	1.00	29.52	A	C
ATOM	5371	CB	ARG	A	715	48.481	19.887	-1.234	1.00	34.45	A	C
ATOM	5372	CG	ARG	A	715	48.999	18.653	-0.511	1.00	40.35	A	C
ATOM	5373	CD	ARG	A	715	48.930	18.762	1.003	1.00	46.78	A	C
ATOM	5374	NE	ARG	A	715	47.554	18.853	1.489	1.00	48.01	A	N
ATOM	5375	CZ	ARG	A	715	46.717	17.823	1.599	1.00	47.12	A	C
ATOM	5376	NH1	ARG	A	715	47.097	16.595	1.245	1.00	45.13	A	N
ATOM	5377	NH2	ARG	A	715	45.490	18.024	2.063	1.00	47.41	A	N
ATOM	5378	C	ARG	A	715	47.775	20.921	-3.386	1.00	31.75	A	C
ATOM	5379	O	ARG	A	715	48.402	21.945	-3.686	1.00	31.18	A	O
ATOM	5380	N	HIS	A	716	46.460	20.790	-3.561	1.00	25.62	A	N
ATOM	5381	CA	HIS	A	716	45.608	21.923	-3.911	1.00	25.85	A	C
ATOM	5382	CB	HIS	A	716	45.570	22.932	-2.770	1.00	28.40	A	C
ATOM	5383	CG	HIS	A	716	44.956	22.384	-1.523	1.00	28.63	A	C
ATOM	5384	ND1	HIS	A	716	43.600	22.175	-1.396	1.00	32.69	A	N
ATOM	5385	CE1	HIS	A	716	43.344	21.676	-0.200	1.00	32.07	A	C

ATOM	5386	NE2	HIS	A	716	44.485	21.554	0.454	1.00	30.27	A	N
ATOM	5387	CD2	HIS	A	716	45.509	21.979	-0.355	1.00	30.17	A	C
ATOM	5388	C	HIS	A	716	45.987	22.563	-5.240	1.00	26.86	A	C
ATOM	5389	O	HIS	A	716	46.203	22.792	-5.345	1.00	29.91	A	O
ATOM	5390	N	VAL	A	717	46.105	21.677	-6.220	1.00	24.55	A	N
ATOM	5391	CA	VAL	A	717	46.240	21.982	-7.635	1.00	34.10	A	C
ATOM	5392	CB	VAL	A	717	47.247	20.987	-8.265	1.00	35.35	A	C
ATOM	5393	CG1	VAL	A	717	47.131	20.962	-9.768	1.00	36.36	A	C
ATOM	5394	CG2	VAL	A	717	48.672	21.318	-7.824	1.00	39.24	A	C
ATOM	5395	C	VAL	A	717	44.855	21.771	-8.275	1.00	28.86	A	C
ATOM	5396	O	VAL	A	717	44.167	20.808	-7.942	1.00	24.53	A	O
ATOM	5397	N	TYR	A	718	44.429	22.659	-9.175	1.00	23.69	A	N
ATOM	5398	CA	TYR	A	718	43.067	22.572	-9.714	1.00	24.66	A	C
ATOM	5399	CB	TYR	A	718	42.168	23.697	-9.175	1.00	23.76	A	C
ATOM	5400	CG	TYR	A	718	42.237	23.886	-7.670	1.00	24.35	A	C
ATOM	5401	CD1	TYR	A	718	41.604	22.990	-6.823	1.00	23.08	A	C
ATOM	5402	CE1	TYR	A	718	41.650	23.128	-5.459	1.00	24.14	A	C
ATOM	5403	CZ	TYR	A	718	42.342	24.184	-4.898	1.00	26.49	A	C
ATOM	5404	OH	TYR	A	718	42.350	24.270	-3.532	1.00	27.97	A	O
ATOM	5405	CE2	TYR	A	718	42.983	25.120	-5.715	1.00	27.85	A	C
ATOM	5406	CD2	TYR	A	718	42.922	24.965	-7.103	1.00	26.78	A	C
ATOM	5407	C	TYR	A	718	43.000	22.605	-11.234	1.00	25.09	A	C
ATOM	5408	O	TYR	A	718	43.913	23.083	-11.904	1.00	27.29	A	O
ATOM	5409	N	GLY	A	719	41.887	22.108	-11.752	1.00	25.45	A	N
ATOM	5410	CA	GLY	A	719	41.549	22.230	-13.157	1.00	26.71	A	C
ATOM	5411	C	GLY	A	719	40.093	22.645	-13.248	1.00	26.26	A	C
ATOM	5412	O	GLY	A	719	39.337	22.518	-12.277	1.00	22.17	A	O
ATOM	5413	N	GLU	A	720	39.694	23.155	-14.409	1.00	25.58	A	N
ATOM	5414	CA	GLU	A	720	38.320	23.583	-14.577	1.00	26.50	A	C
ATOM	5415	CB	GLU	A	720	38.103	24.967	-13.952	1.00	27.96	A	C
ATOM	5416	CG	GLU	A	720	38.683	26.114	-14.760	1.00	33.81	A	C
ATOM	5417	CD	GLU	A	720	38.549	27.451	-14.050	1.00	39.69	A	C
ATOM	5418	OE1	GLU	A	720	37.625	28.214	-14.382	1.00	42.62	A	O
ATOM	5419	OE2	GLU	A	720	39.362	27.745	-13.153	1.00	42.94	A	O
ATOM	5420	C	GLU	A	720	37.884	23.566	-16.043	1.00	27.83	A	C
ATOM	5421	O	GLU	A	720	38.707	23.656	-16.955	1.00	28.39	A	O
ATOM	5422	N	LEU	A	721	36.582	23.453	-16.257	1.00	27.28	A	N
ATOM	5423	CA	LEU	A	721	36.041	23.409	-17.614	1.00	38.17	A	C
ATOM	5424	CB	LEU	A	721	36.050	21.971	-18.138	1.00	33.58	A	C
ATOM	5425	CG	LEU	A	721	35.551	21.807	-19.581	1.00	30.45	A	C
ATOM	5426	CD1	LEU	A	721	36.458	22.539	-20.551	1.00	32.69	A	C
ATOM	5427	CD2	LEU	A	721	35.443	20.326	-19.934	1.00	31.80	A	C
ATOM	5428	C	LEU	A	721	34.615	23.911	-17.610	1.00	30.78	A	C
ATOM	5429	O	LEU	A	721	33.753	23.332	-16.955	1.00	30.23	A	O
ATOM	5430	N	ASP	A	722	34.352	24.980	-18.333	1.00	33.68	A	N
ATOM	5431	CA	ASP	A	722	32.977	25.418	-18.493	1.00	45.06	A	C
ATOM	5432	CB	ASP	A	722	32.923	26.828	-19.070	1.00	48.89	A	C
ATOM	5433	CG	ASP	A	722	33.498	27.844	-18.131	1.00	52.46	A	C
ATOM	5434	OD1	ASP	A	722	32.849	28.118	-17.101	1.00	53.46	A	O
ATOM	5435	OD2	ASP	A	722	34.598	28.357	-18.414	1.00	55.97	A	O
ATOM	5436	C	ASP	A	722	32.252	24.463	-19.419	1.00	43.92	A	C
ATOM	5437	O	ASP	A	722	32.752	24.147	-20.492	1.00	45.21	A	O
ATOM	5438	N	VAL	A	723	31.077	24.006	-19.007	1.00	41.93	A	N
ATOM	5439	CA	VAL	A	723	30.272	23.139	-19.863	1.00	43.26	A	C
ATOM	5440	CB	VAL	A	723	30.190	21.684	-19.315	1.00	40.28	A	C
ATOM	5441	CG1	VAL	A	723	31.579	21.069	-19.251	1.00	32.93	A	C
ATOM	5442	CG2	VAL	A	723	29.531	21.645	-17.941	1.00	34.96	A	C
ATOM	5443	C	VAL	A	723	28.875	23.723	-20.088	1.00	45.52	A	C
ATOM	5444	O	VAL	A	723	28.309	24.385	-19.212	1.00	43.43	A	O
ATOM	5445	N	GLN	A	724	28.334	23.494	-21.278	1.00	44.31	A	N
ATOM	5446	CA	GLN	A	724	26.978	23.915	-21.575	1.00	48.20	A	C
ATOM	5447	C	GLN	A	724	26.030	22.718	-21.506	1.00	51.27	A	C
ATOM	5448	O	GLN	A	724	26.112	21.801	-22.328	1.00	49.02	A	O
ATOM	5449	CB	GLN	A	724	26.920	24.564	-22.963	1.00	51.90	A	C
ATOM	5450	CG	GLN	A	724	25.637	25.325	-23.232	1.00	62.65	A	C
ATOM	5451	CD	GLN	A	724	25.638	26.711	-22.607	1.00	66.36	A	C
ATOM	5452	OE1	GLN	A	724	24.593	27.349	-22.481	1.00	73.28	A	O
ATOM	5453	NE2	GLN	A	724	26.818	27.190	-22.226	1.00	63.65	A	N
ATOM	5454	O	ILE	A	725	22.046	22.698	-20.932	1.00	58.99	A	O
ATOM	5455	N	ILE	A	725	25.137	22.716	-20.522	1.00	50.61	A	N
ATOM	5456	CA	ILE	A	725	24.140	21.655	-20.437	1.00	51.57	A	C
ATOM	5457	C	ILE	A	725	22.945	21.968	-21.333	1.00	56.00	A	C
ATOM	5458	CB	ILE	A	725	23.655	21.424	-18.989	1.00	51.26	A	C
ATOM	5459	O	PRO	B	15	58.000	30.388	19.918	1.00	35.05	B	O
ATOM	5460	N	PRO	B	15	59.218	31.504	17.889	1.00	50.66	B	N
ATOM	5461	CA	PRO	B	15	59.441	32.124	19.200	1.00	47.66	B	C
ATOM	5462	C	PRO	B	15	58.814	31.239	20.270	1.00	38.65	B	C

ATOM	5463	CB	PRO	B	15	58.692	33.469	19.092	1.00	50.28	B	C
ATOM	5464	CG	PRO	B	15	58.353	33.631	17.628	1.00	50.65	B	C
ATOM	5465	CD	PRO	B	15	58.193	32.226	17.120	1.00	50.56	B	C
ATOM	5466	N	PRO	B	16	59.190	31.427	21.549	1.00	34.54	B	N
ATOM	5467	CA	PRO	B	16	58.738	30.521	22.615	1.00	31.58	B	C
ATOM	5468	CB	PRO	B	16	59.490	31.022	23.856	1.00	33.32	B	C
ATOM	5469	CG	PRO	B	16	59.882	32.447	23.521	1.00	36.86	B	C
ATOM	5470	CD	PRO	B	16	60.130	32.448	22.045	1.00	36.81	B	C
ATOM	5471	C	PRO	B	16	57.226	30.520	22.877	1.00	27.26	B	C
ATOM	5472	O	PRO	B	16	56.609	31.559	23.136	1.00	28.15	B	O
ATOM	5473	N	ASN	B	17	56.641	29.327	22.848	1.00	18.03	B	N
ATOM	5474	CA	ASN	B	17	55.217	29.157	23.124	1.00	15.86	B	C
ATOM	5475	CB	ASN	B	17	54.659	27.994	22.283	1.00	15.42	B	C
ATOM	5476	CG	ASN	B	17	53.145	28.024	22.162	1.00	20.05	B	C
ATOM	5477	OD1	ASN	B	17	52.537	29.083	22.254	1.00	22.58	B	O
ATOM	5478	ND2	ASN	B	17	52.532	26.860	21.922	1.00	16.10	B	N
ATOM	5479	C	ASN	B	17	55.068	28.901	24.616	1.00	19.06	B	C
ATOM	5480	O	ASN	B	17	54.886	27.759	25.054	1.00	15.86	B	O
ATOM	5481	N	ASN	B	18	55.192	29.971	25.404	1.00	21.73	B	N
ATOM	5482	CA	ASN	B	18	55.226	29.850	26.843	1.00	18.79	B	C
ATOM	5483	CB	ASN	B	18	56.573	30.304	27.383	1.00	16.54	B	C
ATOM	5484	CG	ASN	B	18	56.879	31.749	27.041	1.00	22.49	B	C
ATOM	5485	OD1	ASN	B	18	56.004	32.492	26.578	1.00	22.92	B	O
ATOM	5486	ND2	ASN	B	18	58.121	32.154	27.268	1.00	20.20	B	N
ATOM	5487	C	ASN	B	18	54.093	30.571	27.549	1.00	17.25	B	C
ATOM	5488	O	ASN	B	18	54.185	30.868	28.738	1.00	17.66	B	O
ATOM	5489	N	SER	B	19	53.016	30.830	26.818	1.00	13.50	B	N
ATOM	5490	CA	SER	B	19	51.849	31.474	27.401	1.00	17.95	B	C
ATOM	5491	CB	SER	B	19	51.829	32.962	27.025	1.00	19.24	B	C
ATOM	5492	OG	SER	B	19	50.681	33.573	27.570	1.00	19.63	B	O
ATOM	5493	C	SER	B	19	50.546	30.802	26.953	1.00	17.78	B	C
ATOM	5494	O	SER	B	19	50.248	30.756	25.755	1.00	18.90	B	O
ATOM	5495	N	ASN	B	20	49.798	30.269	27.919	1.00	14.21	B	N
ATOM	5496	CA	ASN	B	20	48.467	29.676	27.682	1.00	15.80	B	C
ATOM	5497	CB	ASN	B	20	47.992	28.959	28.954	1.00	14.61	B	C
ATOM	5498	CG	ASN	B	20	46.870	27.943	28.709	1.00	18.65	B	C
ATOM	5499	OD1	ASN	B	20	46.755	26.989	29.473	1.00	18.20	B	O
ATOM	5500	ND2	ASN	B	20	46.039	28.143	27.662	1.00	14.43	B	N
ATOM	5501	C	ASN	B	20	47.475	30.786	27.330	1.00	15.09	B	C
ATOM	5502	O	ASN	B	20	46.563	30.583	26.528	1.00	17.81	B	O
ATOM	5503	N	ALA	B	21	47.680	31.960	27.925	1.00	14.71	B	N
ATOM	5504	CA	ALA	B	21	46.786	33.091	27.714	1.00	15.01	B	C
ATOM	5505	CB	ALA	B	21	47.070	34.199	28.723	1.00	20.49	B	C
ATOM	5506	C	ALA	B	21	46.857	33.634	26.283	1.00	17.14	B	C
ATOM	5507	O	ALA	B	21	45.880	34.171	25.779	1.00	20.47	B	O
ATOM	5508	N	ALA	B	22	48.012	33.531	25.635	1.00	17.51	B	N
ATOM	5509	CA	ALA	B	22	48.157	34.106	24.296	1.00	18.82	B	C
ATOM	5510	CB	ALA	B	22	49.635	34.360	23.960	1.00	18.30	B	C
ATOM	5511	C	ALA	B	22	47.533	33.157	23.287	1.00	18.09	B	C
ATOM	5512	O	ALA	B	22	47.508	31.946	23.489	1.00	13.40	B	O
ATOM	5513	N	GLU	B	23	47.023	33.681	22.186	1.00	18.32	B	N
ATOM	5514	CA	GLU	B	23	46.444	32.775	21.209	1.00	19.38	B	C
ATOM	5515	CB	GLU	B	23	44.921	32.619	21.379	1.00	21.51	B	C
ATOM	5516	CG	GLU	B	23	44.218	33.731	22.117	1.00	26.77	B	C
ATOM	5517	CD	GLU	B	23	42.715	33.462	22.297	1.00	28.50	B	C
ATOM	5518	OE1	GLU	B	23	41.978	33.555	21.300	1.00	25.46	B	O
ATOM	5519	OE2	GLU	B	23	42.270	33.154	23.425	1.00	26.67	B	O
ATOM	5520	C	GLU	B	23	46.764	33.217	19.813	1.00	22.30	B	C
ATOM	5521	O	GLU	B	23	47.037	34.401	19.574	1.00	20.27	B	O
ATOM	5522	N	ASP	B	24	46.748	32.254	18.902	1.00	19.31	B	N
ATOM	5523	CA	ASP	B	24	46.811	32.575	17.496	1.00	23.39	B	C
ATOM	5524	CB	ASP	B	24	47.670	31.551	16.737	1.00	24.30	B	C
ATOM	5525	CG	ASP	B	24	47.136	30.097	16.832	1.00	27.47	B	C
ATOM	5526	OD1	ASP	B	24	46.432	29.718	17.800	1.00	24.28	B	O
ATOM	5527	OD2	ASP	B	24	47.445	29.319	15.907	1.00	27.20	B	O
ATOM	5528	C	ASP	B	24	45.378	32.648	16.974	1.00	24.52	B	C
ATOM	5529	O	ASP	B	24	44.431	32.307	17.682	1.00	25.63	B	O
ATOM	5530	N	ASP	B	25	45.223	33.101	15.740	1.00	26.33	B	N
ATOM	5531	CA	ASP	B	25	43.914	33.290	15.138	1.00	24.68	B	C
ATOM	5532	CB	ASP	B	25	43.861	34.719	14.562	1.00	32.31	B	C
ATOM	5533	CG	ASP	B	25	42.481	35.110	14.036	1.00	37.62	B	C
ATOM	5534	OD1	ASP	B	25	41.483	34.425	14.351	1.00	36.78	B	O
ATOM	5535	OD2	ASP	B	25	42.404	36.127	13.308	1.00	39.63	B	O
ATOM	5536	C	ASP	B	25	43.838	32.264	14.027	1.00	23.03	B	C
ATOM	5537	O	ASP	B	25	44.576	32.388	13.051	1.00	25.25	B	O
ATOM	5538	N	LEU	B	26	42.995	31.227	14.169	1.00	13.93	B	N
ATOM	5539	CA	LEU	B	26	42.907	30.229	13.102	1.00	13.15	B	C

ATOM	5540	CB	LEU	B	26	42.579	28.828	13.655	1.00	10.71	B	C
ATOM	5541	CG	LEU	B	26	43.702	28.066	14.372	1.00	17.77	B	C
ATOM	5542	CD1	LEU	B	26	44.005	28.685	15.759	1.00	15.80	B	C
ATOM	5543	CD2	LEU	B	26	43.345	26.587	14.507	1.00	16.83	B	C
ATOM	5544	C	LEU	B	26	41.861	30.653	12.057	1.00	16.77	B	C
ATOM	5545	O	LEU	B	26	40.737	31.027	12.399	1.00	19.34	B	O
ATOM	5546	N	PRO	B	27	42.234	30.600	10.777	1.00	13.54	B	N
ATOM	5547	CA	PRO	B	27	41.336	30.944	9.676	1.00	17.16	B	C
ATOM	5548	CB	PRO	B	27	42.184	30.633	8.440	1.00	22.47	B	C
ATOM	5549	CG	PRO	B	27	43.601	30.675	8.920	1.00	20.11	B	C
ATOM	5550	CD	PRO	B	27	43.567	30.190	10.311	1.00	14.15	B	C
ATOM	5551	C	PRO	B	27	40.059	30.089	9.668	1.00	22.01	B	C
ATOM	5552	O	PRO	B	27	40.090	28.892	9.978	1.00	21.40	B	O
ATOM	5553	N	THR	B	28	38.933	30.704	9.327	1.00	21.34	B	N
ATOM	5554	CA	THR	B	28	37.680	29.963	9.265	1.00	20.10	B	C
ATOM	5555	CB	THR	B	28	36.482	30.836	9.691	1.00	17.47	B	C
ATOM	5556	OG1	THR	B	28	36.481	32.048	8.926	1.00	15.74	B	O
ATOM	5557	CG2	THR	B	28	36.591	31.183	11.183	1.00	17.69	B	C
ATOM	5558	C	THR	B	28	37.474	29.434	7.845	1.00	19.12	B	C
ATOM	5559	O	THR	B	28	36.850	28.400	7.639	1.00	16.79	B	O
ATOM	5560	N	VAL	B	29	38.006	30.163	6.873	1.00	12.71	B	N
ATOM	5561	CA	VAL	B	29	37.886	29.776	5.480	1.00	13.93	B	C
ATOM	5562	CB	VAL	B	29	37.023	30.774	4.707	1.00	18.98	B	C
ATOM	5563	CG1	VAL	B	29	36.742	30.267	3.271	1.00	21.43	B	C
ATOM	5564	CG2	VAL	B	29	35.710	30.997	5.466	1.00	19.92	B	C
ATOM	5565	C	VAL	B	29	39.296	29.731	4.922	1.00	16.30	B	C
ATOM	5566	O	VAL	B	29	39.803	30.703	4.391	1.00	19.74	B	O
ATOM	5567	N	GLU	B	30	39.934	28.582	5.071	1.00	17.40	B	N
ATOM	5568	CA	GLU	B	30	41.375	28.477	4.880	1.00	15.00	B	C
ATOM	5569	CB	GLU	B	30	41.960	27.633	6.019	1.00	13.85	B	C
ATOM	5570	CG	GLU	B	30	43.473	27.609	6.096	1.00	17.88	B	C
ATOM	5571	CD	GLU	B	30	43.919	26.679	7.189	1.00	24.36	B	C
ATOM	5572	OE1	GLU	B	30	44.012	27.146	8.339	1.00	26.47	B	O
ATOM	5573	OE2	GLU	B	30	44.107	25.469	6.912	1.00	28.42	B	O
ATOM	5574	C	GLU	B	30	41.679	27.881	3.513	1.00	14.85	B	C
ATOM	5575	O	GLU	B	30	42.212	26.767	3.406	1.00	16.03	B	O
ATOM	5576	N	LEU	B	31	41.318	28.638	2.481	1.00	15.49	B	N
ATOM	5577	CA	LEU	B	31	41.424	28.210	1.087	1.00	20.87	B	C
ATOM	5578	CB	LEU	B	31	40.726	29.221	0.185	1.00	21.44	B	C
ATOM	5579	CG	LEU	B	31	39.213	29.425	0.365	1.00	23.73	B	C
ATOM	5580	CD1	LEU	B	31	38.691	30.424	-0.644	1.00	25.61	B	C
ATOM	5581	CD2	LEU	B	31	38.433	28.133	0.273	1.00	23.61	B	C
ATOM	5582	C	LEU	B	31	42.883	28.088	0.678	1.00	21.44	B	C
ATOM	5583	O	LEU	B	31	43.745	28.829	1.166	1.00	23.41	B	O
ATOM	5584	N	GLN	B	32	43.157	27.177	-0.242	1.00	17.99	B	N
ATOM	5585	CA	GLN	B	32	44.533	26.876	-0.617	1.00	16.74	B	C
ATOM	5586	CB	GLN	B	32	44.954	25.500	-0.078	1.00	17.40	B	C
ATOM	5587	CG	GLN	B	32	44.839	25.356	1.438	1.00	15.45	B	C
ATOM	5588	CD	GLN	B	32	45.913	26.144	2.171	1.00	19.89	B	C
ATOM	5589	OE1	GLN	B	32	47.103	25.817	2.094	1.00	23.32	B	O
ATOM	5590	NE2	GLN	B	32	45.507	27.205	2.852	1.00	15.69	B	C
ATOM	5591	C	GLN	B	32	44.717	26.930	-2.115	1.00	16.32	B	C
ATOM	5592	O	GLN	B	32	43.916	26.359	-2.878	1.00	19.08	B	O
ATOM	5593	N	GLY	B	33	45.780	27.616	-2.540	1.00	22.45	B	N
ATOM	5594	CA	GLY	B	33	46.132	27.719	-3.946	1.00	18.44	B	C
ATOM	5595	C	GLY	B	33	45.202	28.650	-4.687	1.00	22.07	B	C
ATOM	5596	O	GLY	B	33	44.570	29.501	-4.087	1.00	24.39	B	O
ATOM	5597	N	VAL	B	34	45.093	28.463	-5.995	1.00	20.44	B	N
ATOM	5598	CA	VAL	B	34	44.275	29.331	-6.823	1.00	21.76	B	C
ATOM	5599	CB	VAL	B	34	44.968	29.612	-8.168	1.00	24.42	B	C
ATOM	5600	CG1	VAL	B	34	44.142	30.572	-9.043	1.00	27.86	B	C
ATOM	5601	CG2	VAL	B	34	46.355	30.176	-7.936	1.00	24.40	B	C
ATOM	5602	C	VAL	B	34	42.935	28.648	-7.028	1.00	21.19	B	C
ATOM	5603	O	VAL	B	34	42.726	27.963	-8.017	1.00	22.33	B	O
ATOM	5604	N	VAL	B	35	42.047	28.805	-6.051	1.00	20.30	B	N
ATOM	5605	CA	VAL	B	35	40.731	28.187	-6.112	1.00	21.21	B	C
ATOM	5606	CB	VAL	B	35	39.956	28.410	-4.796	1.00	22.27	B	C
ATOM	5607	CG1	VAL	B	35	38.559	27.801	-4.895	1.00	25.77	B	C
ATOM	5608	CG2	VAL	B	35	40.733	27.812	-3.609	1.00	23.56	B	C
ATOM	5609	C	VAL	B	35	39.939	28.750	-7.290	1.00	21.61	B	C
ATOM	5610	O	VAL	B	35	39.800	29.970	-7.420	1.00	22.64	B	O
ATOM	5611	N	PRO	B	36	39.420	27.872	-8.167	1.00	22.24	B	N
ATOM	5612	CA	PRO	B	36	38.663	28.371	-9.327	1.00	25.90	B	C
ATOM	5613	CB	PRO	B	36	38.297	27.088	-10.078	1.00	24.63	B	C
ATOM	5614	CG	PRO	B	36	39.364	26.116	-9.671	1.00	21.08	B	C
ATOM	5615	CD	PRO	B	36	39.628	26.413	-8.236	1.00	20.09	B	C
ATOM	5616	C	PRO	B	36	37.394	29.105	-8.915	1.00	27.02	B	C

ATOM	5617	O	PRO	B	36	36.817	28.794	-7.866	1.00	26.10	B	O
ATOM	5618	N	ARG	B	37	36.980	30.088	-9.711	1.00	25.44	B	N
ATOM	5619	CA	ARG	B	37	35.696	30.743	-9.474	1.00	28.06	B	C
ATOM	5620	CB	ARG	B	37	35.521	31.956	-10.404	1.00	29.27	B	C
ATOM	5621	C	ARG	B	37	34.558	29.744	-9.690	1.00	28.54	B	C
ATOM	5622	O	ARG	B	37	34.647	28.874	-10.561	1.00	30.08	B	O
ATOM	5623	N	GLY	B	38	33.490	29.855	-8.901	1.00	26.54	B	N
ATOM	5624	CA	GLY	B	38	32.339	28.986	-9.108	1.00	27.02	B	C
ATOM	5625	C	GLY	B	38	32.240	27.796	-8.152	1.00	26.45	B	C
ATOM	5626	O	GLY	B	38	31.367	26.941	-8.319	1.00	23.68	B	O
ATOM	5627	N	VAL	B	39	33.117	27.728	-7.146	1.00	23.25	B	N
ATOM	5628	CA	VAL	B	39	32.936	26.708	-6.124	1.00	24.04	B	C
ATOM	5629	CB	VAL	B	39	34.112	26.656	-5.104	1.00	22.83	B	C
ATOM	5630	CG1	VAL	B	39	35.366	26.163	-5.787	1.00	21.09	B	C
ATOM	5631	CG2	VAL	B	39	34.327	28.027	-4.467	1.00	23.89	B	C
ATOM	5632	C	VAL	B	39	31.641	27.009	-5.386	1.00	24.59	B	C
ATOM	5633	O	VAL	B	39	31.163	28.134	-5.406	1.00	21.86	B	O
ATOM	5634	N	ASN	B	40	31.071	26.005	-4.733	1.00	23.26	B	N
ATOM	5635	CA	ASN	B	40	29.993	26.257	-3.778	1.00	22.00	B	C
ATOM	5636	CB	ASN	B	40	28.659	25.725	-4.302	1.00	21.47	B	C
ATOM	5637	CG	ASN	B	40	27.511	26.025	-3.353	1.00	25.06	B	C
ATOM	5638	OD1	ASN	B	40	27.670	26.773	-2.391	1.00	25.71	B	O
ATOM	5639	ND2	ASN	B	40	26.341	25.455	-3.630	1.00	28.36	B	N
ATOM	5640	C	ASN	B	40	30.328	25.620	-2.418	1.00	20.70	B	C
ATOM	5641	O	ASN	B	40	30.199	24.412	-2.234	1.00	21.71	B	O
ATOM	5642	N	LEU	B	41	30.743	26.429	-1.465	1.00	21.33	B	N
ATOM	5643	CA	LEU	B	41	31.152	25.880	-0.176	1.00	23.29	B	C
ATOM	5644	CB	LEU	B	41	31.983	26.912	0.591	1.00	18.78	B	C
ATOM	5645	CG	LEU	B	41	33.258	27.359	-0.140	1.00	17.10	B	C
ATOM	5646	CD1	LEU	B	41	34.034	28.329	0.724	1.00	16.92	B	C
ATOM	5647	CD2	LEU	B	41	34.142	26.162	-0.529	1.00	16.93	B	C
ATOM	5648	C	LEU	B	41	29.969	25.340	0.661	1.00	23.44	B	C
ATOM	5649	O	LEU	B	41	30.171	24.626	1.645	1.00	20.49	B	O
ATOM	5650	N	GLN	B	42	28.738	25.644	0.256	1.00	24.91	B	N
ATOM	5651	CA	GLN	B	42	27.577	25.112	0.964	1.00	26.60	B	C
ATOM	5652	C	GLN	B	42	27.441	23.584	0.750	1.00	21.57	B	C
ATOM	5653	O	GLN	B	42	26.668	22.900	1.422	1.00	16.89	B	O
ATOM	5654	CB	GLN	B	42	26.300	25.839	0.525	1.00	31.25	B	C
ATOM	5655	CG	GLN	B	42	25.118	25.623	1.452	1.00	37.90	B	C
ATOM	5656	CD	GLN	B	42	25.359	26.175	2.848	1.00	47.04	B	C
ATOM	5657	OE1	GLN	B	42	25.887	27.278	3.012	1.00	52.71	B	O
ATOM	5658	NE2	GLN	B	42	24.979	25.406	3.865	1.00	48.86	B	N
ATOM	5659	N	GLU	B	43	28.193	23.059	-0.206	1.00	22.57	B	N
ATOM	5660	C	GLU	B	43	28.871	20.906	0.722	1.00	22.43	B	C
ATOM	5661	O	GLU	B	43	28.639	19.718	0.948	1.00	21.03	B	O
ATOM	5662	CA	AGLU	B	43	28.192	21.622	-0.446	0.51	23.40	B	C
ATOM	5663	CB	AGLU	B	43	28.895	21.295	-1.764	0.51	24.88	B	C
ATOM	5664	CG	AGLU	B	43	28.209	21.880	-2.992	0.51	27.65	B	C
ATOM	5665	CD	AGLU	B	43	29.018	21.679	-4.259	0.51	31.41	B	C
ATOM	5666	OE1AGLU	B	43	30.122	21.117	-4.154	0.51	31.72	B	O	
ATOM	5667	OE2AGLU	B	43	28.556	22.070	-5.359	0.51	33.75	B	O	
ATOM	5668	CA	BGLU	B	43	28.236	21.624	-0.465	0.49	23.60	B	C
ATOM	5669	CB	BGLU	B	43	29.057	21.352	-1.725	0.49	24.55	B	C
ATOM	5670	CG	BGLU	B	43	29.582	19.934	-1.830	0.49	24.89	B	C
ATOM	5671	CD	BGLU	B	43	30.739	19.813	-2.788	0.49	27.70	B	C
ATOM	5672	OE1BGLU	B	43	30.870	20.679	-3.678	0.49	31.53	B	O	
ATOM	5673	OE2BGLU	B	43	31.516	18.850	-2.658	0.49	25.69	B	O	
ATOM	5674	N	PHE	B	44	29.679	21.639	1.485	1.00	16.93	B	N
ATOM	5675	CA	PHE	B	44	30.425	21.021	2.581	1.00	16.46	B	C
ATOM	5676	CB	PHE	B	44	31.885	21.466	2.552	1.00	16.11	B	C
ATOM	5677	CG	PHE	B	44	32.483	21.331	1.196	1.00	17.49	B	C
ATOM	5678	CD1	PHE	B	44	32.775	20.067	0.686	1.00	17.37	B	C
ATOM	5679	CE1	PHE	B	44	33.291	19.933	-0.585	1.00	23.30	B	C
ATOM	5680	CZ	PHE	B	44	33.494	21.059	-1.374	1.00	22.52	B	C
ATOM	5681	CE2	PHE	B	44	33.191	22.308	-0.878	1.00	19.91	B	C
ATOM	5682	CD2	PHE	B	44	32.671	22.441	0.395	1.00	16.49	B	C
ATOM	5683	C	PHE	B	44	29.774	21.273	3.919	1.00	18.85	B	C
ATOM	5684	O	PHE	B	44	29.000	22.217	4.068	1.00	17.89	B	O
ATOM	5685	N	LEU	B	45	30.046	20.393	4.878	1.00	16.82	B	N
ATOM	5686	CA	LEU	B	45	29.424	20.521	6.182	1.00	18.09	B	C
ATOM	5687	CB	LEU	B	45	29.857	19.388	7.099	1.00	16.39	B	C
ATOM	5688	CG	LEU	B	45	29.399	17.972	6.749	1.00	17.32	B	C
ATOM	5689	CD1	LEU	B	45	29.988	17.008	7.800	1.00	15.74	B	C
ATOM	5690	CD2	LEU	B	45	27.875	17.911	6.732	1.00	14.22	B	C
ATOM	5691	C	LEU	B	45	29.839	21.845	6.811	1.00	18.19	B	C
ATOM	5692	O	LEU	B	45	30.994	22.241	6.724	1.00	18.84	B	O
ATOM	5693	N	ASN	B	46	28.897	22.527	7.434	1.00	16.58	B	N

ATOM	5694	CA	ASN	B	46	29.286	23.550	8.386	1.00	23.66	B	C
ATOM	5695	CB	ASN	B	46	28.988	24.955	7.866	1.00	30.01	B	C
ATOM	5696	CG	ASN	B	46	27.594	25.410	8.188	1.00	37.79	B	C
ATOM	5697	OD1	ASN	B	46	26.656	25.135	7.442	1.00	43.98	B	O
ATOM	5698	ND2	ASN	B	46	27.446	26.131	9.294	1.00	38.48	B	N
ATOM	5699	C	ASN	B	46	28.631	23.281	9.736	1.00	21.57	B	C
ATOM	5700	O	ASN	B	46	27.580	22.662	9.808	1.00	18.10	B	O
ATOM	5701	N	VAL	B	47	29.261	23.746	10.804	1.00	19.73	B	N
ATOM	5702	CA	VAL	B	47	28.815	23.411	12.148	1.00	17.10	B	C
ATOM	5703	CB	VAL	B	47	30.027	23.374	13.102	1.00	16.05	B	C
ATOM	5704	CG1	VAL	B	47	29.587	23.366	14.565	1.00	17.10	B	C
ATOM	5705	CG2	VAL	B	47	30.952	22.189	12.756	1.00	14.90	B	C
ATOM	5706	C	VAL	B	47	27.812	24.454	12.620	1.00	19.23	B	C
ATOM	5707	O	VAL	B	47	28.088	25.657	12.560	1.00	20.19	B	O
ATOM	5708	N	THR	B	48	26.637	24.014	13.069	1.00	17.48	B	O
ATOM	5709	CA	THR	B	48	25.654	24.971	13.554	1.00	20.64	B	N
ATOM	5710	CB	THR	B	48	24.219	24.604	13.131	1.00	21.95	B	C
ATOM	5711	OG1	THR	B	48	23.859	23.343	13.717	1.00	23.42	B	O
ATOM	5712	CG2	THR	B	48	24.119	24.539	11.610	1.00	21.31	B	C
ATOM	5713	C	THR	B	48	25.708	25.091	15.068	1.00	18.32	B	C
ATOM	5714	O	THR	B	48	25.254	26.077	15.632	1.00	17.83	B	O
ATOM	5715	N	SER	B	49	26.253	24.081	15.731	1.00	17.89	B	N
ATOM	5716	CA	SER	B	49	26.339	24.138	17.185	1.00	20.50	B	C
ATOM	5717	CB	SER	B	49	24.944	23.980	17.794	1.00	25.76	B	C
ATOM	5718	OG	SER	B	49	24.967	24.208	19.183	1.00	34.06	B	O
ATOM	5719	C	SER	B	49	27.285	23.071	17.728	1.00	21.67	B	C
ATOM	5720	O	SER	B	49	27.468	22.011	17.112	1.00	19.33	B	O
ATOM	5721	N	VAL	B	50	27.898	23.355	18.874	1.00	20.54	B	N
ATOM	5722	CA	VAL	B	50	28.736	22.362	19.533	1.00	21.86	B	C
ATOM	5723	CB	VAL	B	50	30.231	22.741	19.503	1.00	22.16	B	C
ATOM	5724	CG1	VAL	B	50	31.037	21.757	20.324	1.00	19.39	B	C
ATOM	5725	CG2	VAL	B	50	30.766	22.791	18.062	1.00	21.81	B	C
ATOM	5726	C	VAL	B	50	28.278	22.237	20.982	1.00	23.68	B	C
ATOM	5727	O	VAL	B	50	28.099	23.246	21.680	1.00	24.19	B	O
ATOM	5728	N	HIS	B	51	28.053	21.008	21.426	1.00	20.10	B	N
ATOM	5729	CA	HIS	B	51	27.547	20.793	22.778	1.00	22.77	B	C
ATOM	5730	CB	HIS	B	51	26.232	20.013	22.749	1.00	25.62	B	C
ATOM	5731	CG	HIS	B	51	25.163	20.657	21.924	1.00	36.00	B	C
ATOM	5732	ND1	HIS	B	51	24.405	21.715	22.380	1.00	40.22	B	N
ATOM	5733	CE1	HIS	B	51	23.545	22.077	21.442	1.00	41.44	B	C
ATOM	5734	NE2	HIS	B	51	23.711	21.283	20.398	1.00	41.57	B	N
ATOM	5735	CD2	HIS	B	51	24.721	20.390	20.671	1.00	40.07	B	C
ATOM	5736	C	HIS	B	51	28.593	20.003	23.549	1.00	20.70	B	C
ATOM	5737	O	HIS	B	51	28.960	18.919	23.130	1.00	19.88	B	O
ATOM	5738	N	LEU	B	52	29.057	20.535	24.672	1.00	16.73	B	N
ATOM	5739	CA	LEU	B	52	30.076	19.841	25.465	1.00	19.69	B	C
ATOM	5740	CB	LEU	B	52	31.181	20.795	25.925	1.00	18.55	B	C
ATOM	5741	CG	LEU	B	52	31.919	21.549	24.824	1.00	20.73	B	C
ATOM	5742	CD1	LEU	B	52	33.144	22.306	25.414	1.00	14.53	B	C
ATOM	5743	CD2	LEU	B	52	32.325	20.597	23.708	1.00	17.24	B	C
ATOM	5744	C	LEU	B	52	29.529	19.127	26.687	1.00	22.94	B	C
ATOM	5745	O	LEU	B	52	30.299	18.515	27.423	1.00	25.01	B	O
ATOM	5746	N	PHE	B	53	28.226	19.230	26.924	1.00	16.99	B	N
ATOM	5747	CA	PHE	B	53	27.596	18.527	28.057	1.00	22.12	B	C
ATOM	5748	CB	PHE	B	53	27.555	17.012	27.816	1.00	18.43	B	C
ATOM	5749	CG	PHE	B	53	26.766	16.612	26.592	1.00	25.43	B	C
ATOM	5750	CD1	PHE	B	53	25.397	16.838	26.526	1.00	25.22	B	C
ATOM	5751	CE1	PHE	B	53	24.666	16.476	25.396	1.00	28.19	B	C
ATOM	5752	CZ	PHE	B	53	25.298	15.882	24.323	1.00	26.38	B	C
ATOM	5753	CE2	PHE	B	53	26.659	15.648	24.375	1.00	25.41	B	C
ATOM	5754	CD2	PHE	B	53	27.393	16.022	25.508	1.00	24.91	B	C
ATOM	5755	C	PHE	B	53	28.355	18.823	29.333	1.00	21.54	B	C
ATOM	5756	O	PHE	B	53	28.748	17.912	30.072	1.00	22.06	B	O
ATOM	5757	N	LYS	B	54	28.567	20.110	29.580	1.00	21.77	B	N
ATOM	5758	CA	LYS	B	54	29.557	20.539	30.560	1.00	21.35	B	C
ATOM	5759	CB	LYS	B	54	30.416	21.654	29.958	1.00	18.66	B	C
ATOM	5760	CG	LYS	B	54	29.637	22.925	29.588	1.00	20.18	B	C
ATOM	5761	CD	LYS	B	54	30.595	23.939	28.947	1.00	21.62	B	C
ATOM	5762	CE	LYS	B	54	29.889	25.209	28.480	1.00	25.07	B	C
ATOM	5763	NZ	LYS	B	54	29.158	25.895	29.561	1.00	26.23	B	N
ATOM	5764	C	LYS	B	54	28.978	20.966	31.910	1.00	22.95	B	C
ATOM	5765	O	LYS	B	54	29.695	21.523	32.753	1.00	25.05	B	O
ATOM	5766	N	GLU	B	55	27.691	20.724	32.122	1.00	21.21	B	N
ATOM	5767	CA	GLU	B	55	27.085	21.081	33.395	1.00	25.31	B	C
ATOM	5768	CB	GLU	B	55	25.551	20.938	33.349	1.00	31.24	B	C
ATOM	5769	CG	GLU	B	55	24.851	21.927	32.405	1.00	32.07	B	C
ATOM	5770	CD	GLU	B	55	25.081	23.390	32.791	1.00	38.79	B	C

ATOM	5771	OE1	GLU	B	55	24.920	23.730	33.981	1.00	41.42	B	O
ATOM	5772	OE2	GLU	B	55	25.428	24.208	31.906	1.00	40.88	B	O
ATOM	5773	C	GLU	B	55	27.702	20.226	34.511	1.00	24.53	B	O
ATOM	5774	O	GLU	B	55	28.145	19.102	34.274	1.00	23.31	B	O
ATOM	5775	N	ARG	B	56	27.741	20.777	35.720	1.00	26.64	B	N
ATOM	5776	CA	ARG	B	56	28.428	20.143	36.832	1.00	24.58	B	C
ATOM	5777	CB	ARG	B	56	28.688	21.180	37.934	1.00	22.53	B	C
ATOM	5778	CG	ARG	B	56	29.699	22.256	37.450	1.00	23.70	B	C
ATOM	5779	CD	ARG	B	56	29.742	23.496	38.329	1.00	23.17	B	C
ATOM	5780	NE	ARG	B	56	30.131	23.188	39.699	1.00	26.05	B	N
ATOM	5781	CZ	ARG	B	56	30.161	24.082	40.687	1.00	30.59	B	N
ATOM	5782	NH1	ARG	B	56	29.820	25.341	40.452	1.00	29.41	B	N
ATOM	5783	NH2	ARG	B	56	30.528	23.719	41.915	1.00	29.48	B	N
ATOM	5784	C	ARG	B	56	27.738	18.876	37.352	1.00	28.79	B	C
ATOM	5785	O	ARG	B	56	28.363	18.065	38.034	1.00	29.79	B	O
ATOM	5786	N	TRP	B	57	26.467	18.690	37.001	1.00	27.22	B	N
ATOM	5787	CA	TRP	B	57	25.733	17.468	37.356	1.00	27.81	B	C
ATOM	5788	CB	TRP	B	57	24.252	17.775	37.597	1.00	30.35	B	C
ATOM	5789	CG	TRP	B	57	23.639	18.627	36.508	1.00	32.35	B	C
ATOM	5790	CD1	TRP	B	57	23.474	19.985	36.531	1.00	32.19	B	C
ATOM	5791	NE1	TRP	B	57	22.890	20.408	35.364	1.00	33.67	B	N
ATOM	5792	CE2	TRP	B	57	22.659	19.326	34.555	1.00	30.84	B	C
ATOM	5793	CD2	TRP	B	57	23.122	18.182	35.238	1.00	31.44	B	C
ATOM	5794	CE3	TRP	B	57	23.008	16.934	34.617	1.00	30.79	B	C
ATOM	5795	CZ3	TRP	B	57	22.445	16.870	33.343	1.00	34.65	B	C
ATOM	5796	CH2	TRP	B	57	21.996	18.030	32.689	1.00	34.09	B	C
ATOM	5797	CZ2	TRP	B	57	22.096	19.262	33.279	1.00	32.11	B	C
ATOM	5798	C	TRP	B	57	25.809	16.370	36.302	1.00	28.50	B	C
ATOM	5799	O	TRP	B	57	25.276	15.292	36.518	1.00	32.31	B	O
ATOM	5800	N	ASP	B	58	26.434	16.646	35.159	1.00	27.27	B	N
ATOM	5801	CA	ASP	B	58	26.401	15.722	34.018	1.00	29.11	B	C
ATOM	5802	CB	ASP	B	58	26.306	16.501	32.698	1.00	28.13	B	C
ATOM	5803	CG	ASP	B	58	25.550	15.738	31.609	1.00	28.72	B	C
ATOM	5804	OD1	ASP	B	58	25.255	14.543	31.795	1.00	27.73	B	O
ATOM	5805	OD2	ASP	B	58	25.258	16.341	30.556	1.00	27.25	B	O
ATOM	5806	C	ASP	B	58	27.633	14.809	34.022	1.00	27.76	B	C
ATOM	5807	O	ASP	B	58	28.543	14.995	34.828	1.00	25.03	B	O
ATOM	5808	N	THR	B	59	27.664	13.835	33.121	1.00	26.61	B	N
ATOM	5809	CA	THR	B	59	28.598	12.723	33.260	1.00	25.92	B	C
ATOM	5810	CB	THR	B	59	28.192	11.511	32.387	1.00	29.07	B	C
ATOM	5811	OG1	THR	B	59	28.383	11.826	31.004	1.00	25.55	B	O
ATOM	5812	CG2	THR	B	59	26.726	11.127	32.639	1.00	32.08	B	C
ATOM	5813	C	THR	B	59	30.066	13.065	33.022	1.00	23.31	B	C
ATOM	5814	O	THR	B	59	30.940	12.437	33.620	1.00	22.53	B	O
ATOM	5815	N	ASN	B	60	30.339	14.049	32.161	1.00	18.86	B	N
ATOM	5816	CA	ASN	B	60	31.707	14.446	31.879	1.00	17.97	B	C
ATOM	5817	CB	ASN	B	60	31.776	15.538	30.786	1.00	17.36	B	C
ATOM	5818	CG	ASN	B	60	31.500	14.996	29.373	1.00	18.87	B	C
ATOM	5819	OD1	ASN	B	60	31.649	13.816	29.110	1.00	17.72	B	O
ATOM	5820	ND2	ASN	B	60	31.127	15.884	28.459	1.00	15.84	B	N
ATOM	5821	C	ASN	B	60	32.400	14.952	33.168	1.00	21.11	B	C
ATOM	5822	O	ASN	B	60	33.385	14.380	33.615	1.00	19.19	B	O
ATOM	5823	N	LYS	B	61	31.886	16.023	33.762	1.00	20.71	B	N
ATOM	5824	CA	LYS	B	61	32.523	16.564	34.962	1.00	19.87	B	C
ATOM	5825	CB	LYS	B	61	31.958	17.938	35.309	1.00	17.93	B	C
ATOM	5826	CG	LYS	B	61	32.410	19.031	34.340	1.00	18.89	B	C
ATOM	5827	CD	LYS	B	61	32.103	20.418	34.901	1.00	19.06	B	C
ATOM	5828	CE	LYS	B	61	32.804	21.510	34.104	1.00	16.23	B	C
ATOM	5829	NZ	LYS	B	61	32.547	22.878	34.652	1.00	16.77	B	N
ATOM	5830	C	LYS	B	61	32.431	15.617	36.160	1.00	18.63	B	C
ATOM	5831	O	LYS	B	61	33.364	15.516	36.955	1.00	18.36	B	O
ATOM	5832	N	VAL	B	62	31.312	14.915	36.287	1.00	21.02	B	N
ATOM	5833	CA	VAL	B	62	31.170	13.963	37.387	1.00	23.67	B	C
ATOM	5834	CB	VAL	B	62	29.738	13.406	37.482	1.00	23.43	B	C
ATOM	5835	CG1	VAL	B	62	29.688	12.221	38.434	1.00	24.47	B	C
ATOM	5836	CG2	VAL	B	62	28.788	14.512	37.958	1.00	24.13	B	C
ATOM	5837	C	VAL	B	62	32.198	12.826	37.279	1.00	24.97	B	C
ATOM	5838	O	VAL	B	62	32.909	12.513	38.238	1.00	22.20	B	O
ATOM	5839	N	ASP	B	63	32.305	12.237	36.099	1.00	24.31	B	N
ATOM	5840	CA	ASP	B	63	33.188	11.098	35.918	1.00	21.35	B	C
ATOM	5841	CB	ASP	B	63	32.805	10.307	34.662	1.00	22.36	B	C
ATOM	5842	CG	ASP	B	63	31.497	9.582	34.819	1.00	27.55	B	C
ATOM	5843	OD1	ASP	B	63	30.998	9.525	35.959	1.00	28.36	B	O
ATOM	5844	OD2	ASP	B	63	30.969	9.067	33.807	1.00	27.15	B	O
ATOM	5845	C	ASP	B	63	34.643	11.503	35.837	1.00	18.56	B	C
ATOM	5846	O	ASP	B	63	35.536	10.691	36.063	1.00	21.31	B	O
ATOM	5847	N	HIS	B	64	34.891	12.754	35.484	1.00	19.33	B	N

ATOM	5848	CA	HIS	B	64	36.257	13.244	35.440	1.00	19.97	B	C
ATOM	5849	CB	HIS	B	64	36.472	14.237	34.287	1.00	17.63	B	C
ATOM	5850	CG	HIS	B	64	36.579	13.576	32.949	1.00	16.45	B	C
ATOM	5851	ND1	HIS	B	64	37.749	13.553	32.222	1.00	13.98	B	N
ATOM	5852	CE1	HIS	B	64	37.552	12.883	31.099	1.00	14.60	B	C
ATOM	5853	NE2	HIS	B	64	36.298	12.465	31.074	1.00	15.81	B	N
ATOM	5854	CD2	HIS	B	64	35.670	12.876	32.224	1.00	16.17	B	C
ATOM	5855	C	HIS	B	64	36.669	13.871	36.757	1.00	16.54	B	C
ATOM	5856	O	HIS	B	64	37.754	14.370	36.849	1.00	17.54	B	O
ATOM	5857	N	HIS	B	65	35.796	13.847	37.759	1.00	17.66	B	N
ATOM	5858	CA	HIS	B	65	36.119	14.435	39.063	1.00	21.96	B	C
ATOM	5859	CB	HIS	B	65	37.242	13.631	39.735	1.00	18.43	B	C
ATOM	5860	CG	HIS	B	65	37.017	12.147	39.681	1.00	18.78	B	C
ATOM	5861	ND1	HIS	B	65	37.510	11.351	38.664	1.00	20.29	B	N
ATOM	5862	CE1	HIS	B	65	37.135	10.098	38.863	1.00	19.42	B	C
ATOM	5863	NE2	HIS	B	65	36.401	10.055	39.961	1.00	24.74	B	N
ATOM	5864	CD2	HIS	B	65	36.317	11.322	40.495	1.00	23.80	B	C
ATOM	5865	C	HIS	B	65	36.474	15.930	38.961	1.00	21.15	B	C
ATOM	5866	O	HIS	B	65	37.427	16.415	39.587	1.00	17.82	B	O
ATOM	5867	N	THR	B	66	35.702	16.658	38.160	1.00	20.57	B	N
ATOM	5868	CA	THR	B	66	35.938	18.082	37.997	1.00	18.21	B	C
ATOM	5869	CB	THR	B	66	36.482	18.396	36.591	1.00	21.42	B	C
ATOM	5870	OG1	THR	B	66	35.523	17.977	35.614	1.00	21.42	B	O
ATOM	5871	CG2	THR	B	66	37.822	17.668	36.340	1.00	17.22	B	C
ATOM	5872	C	THR	B	66	34.668	18.910	38.239	1.00	19.25	B	C
ATOM	5873	O	THR	B	66	34.624	20.101	37.916	1.00	18.88	B	O
ATOM	5874	N	ASP	B	67	33.656	18.280	38.823	1.00	21.27	B	N
ATOM	5875	CA	ASP	B	67	32.368	18.924	39.077	1.00	24.80	B	C
ATOM	5876	CB	ASP	B	67	31.300	17.878	39.414	1.00	21.07	B	C
ATOM	5877	CG	ASP	B	67	31.691	16.996	40.592	1.00	24.25	B	C
ATOM	5878	OD1	ASP	B	67	32.683	16.246	40.479	1.00	22.04	B	O
ATOM	5879	OD2	ASP	B	67	30.992	17.031	41.624	1.00	29.14	B	O
ATOM	5880	C	ASP	B	67	32.414	19.982	40.182	1.00	26.02	B	C
ATOM	5881	O	ASP	B	67	31.514	20.814	40.279	1.00	22.86	B	O
ATOM	5882	N	LYS	B	68	33.446	19.939	41.020	1.00	19.89	B	N
ATOM	5883	CA	LYS	B	68	33.570	20.919	42.098	1.00	21.91	B	C
ATOM	5884	CB	LYS	B	68	34.460	20.387	43.224	1.00	23.13	B	C
ATOM	5885	CG	LYS	B	68	33.980	19.026	43.720	1.00	25.99	B	C
ATOM	5886	CD	LYS	B	68	34.178	18.832	45.195	1.00	30.27	B	C
ATOM	5887	CE	LYS	B	68	35.587	18.439	45.523	1.00	29.30	B	C
ATOM	5888	NZ	LYS	B	68	35.713	18.309	47.001	1.00	30.66	B	N
ATOM	5889	C	LYS	B	68	34.057	22.295	41.645	1.00	23.88	B	C
ATOM	5890	O	LYS	B	68	33.788	23.283	42.316	1.00	20.48	B	O
ATOM	5891	N	TYR	B	69	34.783	22.364	40.529	1.00	18.42	B	N
ATOM	5892	CA	TYR	B	69	35.282	23.648	40.069	1.00	20.47	B	C
ATOM	5893	CB	TYR	B	69	36.136	23.506	38.805	1.00	18.32	B	C
ATOM	5894	CG	TYR	B	69	37.475	22.829	39.021	1.00	19.30	B	C
ATOM	5895	CD1	TYR	B	69	38.617	23.574	39.350	1.00	16.32	B	C
ATOM	5896	CE1	TYR	B	69	39.855	22.944	39.535	1.00	16.42	B	C
ATOM	5897	CZ	TYR	B	69	39.953	21.563	39.395	1.00	17.46	B	C
ATOM	5898	OH	TYR	B	69	41.163	20.928	39.578	1.00	20.43	B	O
ATOM	5899	CE2	TYR	B	69	38.835	20.812	39.058	1.00	19.59	B	C
ATOM	5900	CD2	TYR	B	69	37.609	21.443	38.876	1.00	20.21	B	C
ATOM	5901	C	TYR	B	69	34.151	24.643	39.823	1.00	24.28	B	C
ATOM	5902	O	TYR	B	69	33.137	24.306	39.215	1.00	19.09	B	O
ATOM	5903	N	GLU	B	70	34.332	25.864	40.330	1.00	24.09	B	N
ATOM	5904	CA	GLU	B	70	33.435	26.975	40.032	1.00	26.39	B	C
ATOM	5905	C	GLU	B	70	33.951	27.619	38.758	1.00	29.58	B	C
ATOM	5906	O	GLU	B	70	34.724	28.570	38.794	1.00	37.08	B	O
ATOM	5907	CB	GLU	B	70	33.462	28.015	41.152	1.00	27.60	B	C
ATOM	5908	CG	GLU	B	70	32.951	27.514	42.511	1.00	32.21	B	C
ATOM	5909	CD	GLU	B	70	33.144	28.537	43.634	1.00	41.04	B	C
ATOM	5910	OE1	GLU	B	70	33.831	29.573	43.418	1.00	38.22	B	O
ATOM	5911	OE2	GLU	B	70	32.614	28.294	44.743	1.00	45.94	B	O
ATOM	5912	N	ASN	B	71	33.530	27.089	37.634	1.00	24.85	B	N
ATOM	5913	CA	ASN	B	71	34.059	27.491	36.351	1.00	27.42	B	C
ATOM	5914	CB	ASN	B	71	35.487	26.977	36.155	1.00	27.91	B	C
ATOM	5915	CG	ASN	B	71	36.160	27.568	34.923	1.00	32.37	B	C
ATOM	5916	OD1	ASN	B	71	35.591	27.575	33.823	1.00	30.57	B	O
ATOM	5917	ND2	ASN	B	71	37.374	28.090	35.106	1.00	33.79	B	N
ATOM	5918	C	ASN	B	71	33.115	26.806	35.409	1.00	27.86	B	C
ATOM	5919	O	ASN	B	71	32.928	25.582	35.497	1.00	27.10	B	O
ATOM	5920	N	ASN	B	72	32.469	27.581	34.549	1.00	24.90	B	N
ATOM	5921	CA	ASN	B	72	31.422	26.999	33.714	1.00	25.60	B	C
ATOM	5922	CB	ASN	B	72	30.293	28.000	33.447	1.00	30.25	B	C
ATOM	5923	CG	ASN	B	72	30.740	29.182	32.596	1.00	39.83	B	C
ATOM	5924	OD1	ASN	B	72	31.934	29.455	32.458	1.00	41.64	B	O

ATOM	5925	ND2	ASN	B	72	29.773	29.893	32.021	1.00	45.10	B	N
ATOM	5926	C	ASN	B	72	31.930	26.381	32.414	1.00	22.85	B	C
ATOM	5927	O	ASN	B	72	31.135	25.912	31.613	1.00	25.58	B	O
ATOM	5928	N	LYS	B	73	33.243	26.382	32.194	1.00	19.27	B	N
ATOM	5929	CA	LYS	B	73	33.778	25.746	30.994	1.00	18.05	B	C
ATOM	5930	CB	LYS	B	73	35.147	26.318	30.621	1.00	15.98	B	C
ATOM	5931	CG	LYS	B	73	35.149	27.847	30.388	1.00	20.04	B	C
ATOM	5932	CD	LYS	B	73	34.249	28.258	29.232	1.00	21.31	B	C
ATOM	5933	CE	LYS	B	73	34.235	29.804	29.040	1.00	27.90	B	C
ATOM	5934	NZ	LYS	B	73	33.380	30.489	30.037	1.00	30.89	B	N
ATOM	5935	C	LYS	B	73	33.896	24.243	31.230	1.00	17.33	B	C
ATOM	5936	O	LYS	B	73	33.864	23.764	32.370	1.00	17.87	B	O
ATOM	5937	N	LEU	B	74	34.047	23.504	30.151	1.00	16.43	B	N
ATOM	5938	CA	LEU	B	74	34.308	22.087	30.277	1.00	19.18	B	C
ATOM	5939	CB	LEU	B	74	34.255	21.390	28.915	1.00	15.13	B	C
ATOM	5940	CG	LEU	B	74	34.524	19.877	28.959	1.00	13.49	B	C
ATOM	5941	CD1	LEU	B	74	33.520	19.132	29.845	1.00	14.62	B	C
ATOM	5942	CD2	LEU	B	74	34.535	19.293	27.537	1.00	12.42	B	C
ATOM	5943	C	LEU	B	74	35.684	21.891	30.907	1.00	17.02	B	C
ATOM	5944	O	LEU	B	74	36.660	22.501	30.491	1.00	16.67	B	O
ATOM	5945	N	ILE	B	75	35.742	21.029	31.913	1.00	13.20	B	N
ATOM	5946	CA	ILE	B	75	37.012	20.642	32.494	1.00	14.38	B	C
ATOM	5947	CB	ILE	B	75	37.169	21.205	33.908	1.00	14.42	B	C
ATOM	5948	CG1	ILE	B	75	37.066	22.738	33.870	1.00	15.54	B	C
ATOM	5949	CD1	ILE	B	75	36.878	23.375	35.235	1.00	17.21	B	C
ATOM	5950	CG2	ILE	B	75	38.494	20.755	34.495	1.00	13.70	B	C
ATOM	5951	C	ILE	B	75	37.060	19.124	32.544	1.00	12.88	B	C
ATOM	5952	O	ILE	B	75	36.162	18.487	33.078	1.00	16.82	B	O
ATOM	5953	N	VAL	B	76	38.114	18.559	31.979	1.00	12.21	B	N
ATOM	5954	CA	VAL	B	76	38.278	17.119	31.898	1.00	12.39	B	C
ATOM	5955	CB	VAL	B	76	38.043	16.599	30.445	1.00	14.02	B	C
ATOM	5956	CG1	VAL	B	76	36.638	16.927	29.997	1.00	17.68	B	C
ATOM	5957	CG2	VAL	B	76	39.043	17.209	29.436	1.00	13.50	B	C
ATOM	5958	C	VAL	B	76	39.684	16.796	32.345	1.00	13.68	B	C
ATOM	5959	O	VAL	B	76	40.529	17.690	32.454	1.00	13.26	B	O
ATOM	5960	N	ARG	B	77	39.933	15.525	32.621	1.00	15.65	B	N
ATOM	5961	CA	ARG	B	77	41.271	15.074	32.967	1.00	14.72	B	C
ATOM	5962	CB	ARG	B	77	41.252	14.293	34.294	1.00	13.07	B	C
ATOM	5963	CG	ARG	B	77	40.876	15.172	35.478	1.00	15.36	B	C
ATOM	5964	CD	ARG	B	77	40.899	14.412	36.820	1.00	14.24	B	C
ATOM	5965	NE	ARG	B	77	40.276	15.198	37.888	1.00	19.15	B	N
ATOM	5966	CZ	ARG	B	77	40.916	16.086	38.657	1.00	17.06	B	C
ATOM	5967	NH1	ARG	B	77	42.216	16.326	38.494	1.00	16.08	B	C
ATOM	5968	NH2	ARG	B	77	40.251	16.736	39.591	1.00	16.42	B	N
ATOM	5969	C	ARG	B	77	41.835	14.217	31.859	1.00	14.87	B	C
ATOM	5970	O	ARG	B	77	41.102	13.442	31.215	1.00	18.13	B	O
ATOM	5971	N	ARG	B	78	43.143	14.337	31.638	1.00	15.01	B	N
ATOM	5972	CA	ARG	B	78	43.785	13.663	30.507	1.00	17.35	B	C
ATOM	5973	CB	ARG	B	78	45.233	14.142	30.383	1.00	16.81	B	C
ATOM	5974	CG	ARG	B	78	46.116	13.732	31.548	1.00	11.61	B	C
ATOM	5975	CD	ARG	B	78	47.476	14.441	31.439	1.00	16.43	B	C
ATOM	5976	NE	ARG	B	78	48.468	13.866	32.362	1.00	16.06	B	N
ATOM	5977	CZ	ARG	B	78	49.778	14.064	32.249	1.00	16.36	B	C
ATOM	5978	NH1	ARG	B	78	50.244	14.858	31.282	1.00	14.31	B	N
ATOM	5979	NH2	ARG	B	78	50.623	13.490	33.106	1.00	12.55	B	N
ATOM	5980	C	ARG	B	78	43.713	12.112	30.557	1.00	15.95	B	C
ATOM	5981	O	ARG	B	78	43.592	11.504	31.623	1.00	15.36	B	O
ATOM	5982	N	GLY	B	79	43.787	11.475	29.396	1.00	12.31	B	N
ATOM	5983	CA	GLY	B	79	43.743	10.015	29.306	1.00	13.16	B	C
ATOM	5984	C	GLY	B	79	42.391	9.330	29.510	1.00	19.03	B	C
ATOM	5985	O	GLY	B	79	42.328	8.116	29.657	1.00	19.33	B	O
ATOM	5986	N	GLN	B	80	41.308	10.095	29.501	1.00	13.59	B	N
ATOM	5987	CA	GLN	B	80	39.991	9.561	29.829	1.00	17.11	B	C
ATOM	5988	CB	GLN	B	80	39.598	9.976	31.241	1.00	16.09	B	C
ATOM	5989	CG	GLN	B	80	38.240	9.512	31.716	1.00	17.00	B	C
ATOM	5990	CD	GLN	B	80	38.007	9.828	33.195	1.00	19.52	B	C
ATOM	5991	OE1	GLN	B	80	38.958	10.051	33.949	1.00	20.97	B	O
ATOM	5992	NE2	GLN	B	80	36.740	9.850	33.616	1.00	18.01	B	N
ATOM	5993	C	GLN	B	80	39.020	10.153	28.837	1.00	18.56	B	C
ATOM	5994	O	GLN	B	80	39.193	11.299	28.409	1.00	17.26	B	O
ATOM	5995	N	SER	B	81	38.019	9.373	28.436	1.00	19.07	B	N
ATOM	5996	C	SER	B	81	35.996	10.764	27.946	1.00	18.46	B	C
ATOM	5997	O	SER	B	81	35.595	10.671	29.102	1.00	18.89	B	O
ATOM	5998	CA	ASER	B	81	37.089	9.833	27.410	0.43	18.05	B	C
ATOM	5999	CB	ASER	B	81	36.459	8.642	26.674	0.43	17.29	B	C
ATOM	6000	OG	ASER	B	81	37.443	7.873	26.001	0.43	16.25	B	O
ATOM	6001	CA	BSER	B	81	37.077	9.820	27.412	0.57	17.76	B	C

ATOM	6002	CB	BSER	B	81	36.420	8.618	26.707	0.57	16.77	B	C
ATOM	6003	OG	BSER	B	81	35.590	7.867	27.586	0.57	16.79	B	O
ATOM	6004	N	PHE	B	82	35.512	11.659	27.087	1.00	18.33	B	N
ATOM	6005	CA	PHE	B	82	34.368	12.505	27.424	1.00	20.65	B	C
ATOM	6006	CB	PHE	B	82	34.804	13.887	27.946	1.00	18.32	B	C
ATOM	6007	CG	PHE	B	82	35.724	14.650	27.013	1.00	15.82	B	C
ATOM	6008	CD1	PHE	B	82	37.090	14.369	26.976	1.00	16.34	B	C
ATOM	6009	CE1	PHE	B	82	37.946	15.066	26.143	1.00	14.76	B	C
ATOM	6010	CZ	PHE	B	82	37.446	16.081	25.332	1.00	17.04	B	C
ATOM	6011	CE2	PHE	B	82	36.091	16.383	25.370	1.00	17.85	B	C
ATOM	6012	CD2	PHE	B	82	35.241	15.680	26.219	1.00	16.91	B	C
ATOM	6013	C	PHE	B	82	33.485	12.678	26.197	1.00	22.06	B	C
ATOM	6014	O	PHE	B	82	33.950	12.482	25.085	1.00	19.77	B	O
ATOM	6015	N	TYR	B	83	32.227	13.059	26.404	1.00	15.33	B	N
ATOM	6016	CA	TYR	B	83	31.280	13.169	25.296	1.00	19.77	B	C
ATOM	6017	CB	TYR	B	83	29.919	12.590	25.671	1.00	19.95	B	C
ATOM	6018	CG	TYR	B	83	29.904	11.107	25.911	1.00	22.53	B	C
ATOM	6019	CD1	TYR	B	83	30.047	10.215	24.853	1.00	23.32	B	C
ATOM	6020	CE1	TYR	B	83	30.018	8.833	25.059	1.00	25.26	B	C
ATOM	6021	CZ	TYR	B	83	29.840	8.340	26.332	1.00	27.92	B	C
ATOM	6022	OH	TYR	B	83	29.818	6.979	26.528	1.00	32.52	B	O
ATOM	6023	CE2	TYR	B	83	29.693	9.202	27.404	1.00	29.60	B	C
ATOM	6024	CD2	TYR	B	83	29.732	10.592	27.185	1.00	26.77	B	C
ATOM	6025	C	TYR	B	83	31.055	14.596	24.850	1.00	20.01	B	C
ATOM	6026	O	TYR	B	83	30.998	15.513	25.672	1.00	16.97	B	O
ATOM	6027	N	VAL	B	84	30.908	14.768	23.539	1.00	18.68	B	N
ATOM	6028	CA	VAL	B	84	30.522	16.051	22.956	1.00	19.37	B	C
ATOM	6029	CB	VAL	B	84	31.723	16.898	22.439	1.00	15.16	B	C
ATOM	6030	CG1	VAL	B	84	32.863	16.986	23.500	1.00	12.73	B	C
ATOM	6031	CG2	VAL	B	84	32.271	16.336	21.124	1.00	13.31	B	C
ATOM	6032	C	VAL	B	84	29.589	15.736	21.800	1.00	20.81	B	C
ATOM	6033	O	VAL	B	84	29.558	14.607	21.296	1.00	20.08	B	O
ATOM	6034	N	GLN	B	85	28.802	16.726	21.413	1.00	22.47	B	N
ATOM	6035	CA	GLN	B	85	27.889	16.567	20.290	1.00	21.80	B	C
ATOM	6036	CB	GLN	B	85	26.466	16.578	20.785	1.00	26.12	B	C
ATOM	6037	CG	GLN	B	85	25.461	16.275	19.704	1.00	30.77	B	C
ATOM	6038	CD	GLN	B	85	24.113	16.010	20.284	1.00	37.87	B	C
ATOM	6039	OE1	GLN	B	85	23.868	14.927	20.840	1.00	41.58	B	O
ATOM	6040	NE2	GLN	B	85	23.220	16.998	20.184	1.00	37.76	B	C
ATOM	6041	C	GLN	B	85	28.075	17.709	19.311	1.00	19.58	B	C
ATOM	6042	O	GLN	B	85	28.148	18.879	19.703	1.00	18.60	B	O
ATOM	6043	N	ILE	B	86	28.174	17.364	18.038	1.00	17.49	B	N
ATOM	6044	CA	ILE	B	86	28.333	18.366	17.011	1.00	17.22	B	C
ATOM	6045	CB	ILE	B	86	29.582	18.119	16.163	1.00	17.94	B	C
ATOM	6046	CG1	ILE	B	86	30.816	18.050	17.053	1.00	21.24	B	C
ATOM	6047	CD1	ILE	B	86	32.086	17.835	16.273	1.00	21.44	B	C
ATOM	6048	CG2	ILE	B	86	29.753	19.219	15.091	1.00	18.10	B	C
ATOM	6049	C	ILE	B	86	27.087	18.337	16.141	1.00	18.40	B	C
ATOM	6050	O	ILE	B	86	26.631	17.260	15.733	1.00	16.34	B	O
ATOM	6051	N	ASP	B	87	26.510	19.510	15.891	1.00	20.70	B	N
ATOM	6052	CA	ASP	B	87	25.382	19.601	14.960	1.00	23.43	B	C
ATOM	6053	CB	ASP	B	87	24.251	20.460	15.524	1.00	25.72	B	C
ATOM	6054	CG	ASP	B	87	23.795	20.016	16.902	1.00	28.49	B	C
ATOM	6055	OD1	ASP	B	87	24.081	18.860	17.297	1.00	27.17	B	O
ATOM	6056	OD2	ASP	B	87	23.143	20.835	17.590	1.00	27.70	B	O
ATOM	6057	C	ASP	B	87	25.864	20.210	13.649	1.00	21.08	B	C
ATOM	6058	O	ASP	B	87	26.505	21.270	13.646	1.00	17.65	B	O
ATOM	6059	N	PHE	B	88	25.540	19.558	12.536	1.00	19.20	B	N
ATOM	6060	CA	PHE	B	88	25.978	20.051	11.248	1.00	18.62	B	C
ATOM	6061	CB	PHE	B	88	26.708	18.984	10.439	1.00	14.76	B	C
ATOM	6062	CG	PHE	B	88	28.052	18.559	10.998	1.00	14.78	B	C
ATOM	6063	CD1	PHE	B	88	29.174	19.374	10.873	1.00	16.47	B	C
ATOM	6064	CE1	PHE	B	88	30.416	18.962	11.350	1.00	17.84	B	C
ATOM	6065	CZ	PHE	B	88	30.555	17.695	11.933	1.00	16.35	B	C
ATOM	6066	CE2	PHE	B	88	29.448	16.867	12.027	1.00	19.00	B	C
ATOM	6067	CD2	PHE	B	88	28.210	17.298	11.558	1.00	16.06	B	C
ATOM	6068	C	PHE	B	88	24.783	20.551	10.439	1.00	21.37	B	C
ATOM	6069	O	PHE	B	88	23.623	20.305	10.784	1.00	20.97	B	O
ATOM	6070	N	SER	B	89	25.087	21.266	9.362	1.00	22.20	B	N
ATOM	6071	CA	SER	B	89	24.068	21.800	8.464	1.00	21.84	B	C
ATOM	6072	CB	SER	B	89	24.746	22.633	7.386	1.00	18.15	B	C
ATOM	6073	OG	SER	B	89	25.919	21.971	6.955	1.00	17.45	B	O
ATOM	6074	C	SER	B	89	23.200	20.700	7.830	1.00	23.81	B	C
ATOM	6075	O	SER	B	89	22.033	20.924	7.538	1.00	23.27	B	O
ATOM	6076	N	ARG	B	90	23.777	19.519	7.608	1.00	23.43	B	N
ATOM	6077	CA	ARG	B	90	23.012	18.342	7.159	1.00	20.70	B	C
ATOM	6078	CB	ARG	B	90	23.056	18.214	5.630	1.00	17.92	B	C

ATOM	6079	CG	ARG	B	90	24.461	18.072	5.070	1.00	24.56	B	C
ATOM	6080	CD	ARG	B	90	24.506	17.785	3.556	1.00	23.68	B	C
ATOM	6081	NE	ARG	B	90	25.863	18.015	3.069	1.00	22.33	B	N
ATOM	6082	CZ	ARG	B	90	26.875	17.171	3.235	1.00	25.23	B	C
ATOM	6083	NH1	ARG	B	90	26.675	16.009	3.851	1.00	25.62	B	N
ATOM	6084	NH2	ARG	B	90	28.091	17.487	2.790	1.00	22.14	B	N
ATOM	6085	C	ARG	B	90	23.661	17.126	7.832	1.00	20.88	B	C
ATOM	6086	O	ARG	B	90	24.718	17.270	8.426	1.00	19.70	B	O
ATOM	6087	N	PRO	B	91	23.035	15.931	7.764	1.00	22.54	B	N
ATOM	6088	CA	PRO	B	91	23.697	14.826	8.468	1.00	18.18	B	C
ATOM	6089	CB	PRO	B	91	22.739	13.646	8.263	1.00	22.03	B	C
ATOM	6090	CG	PRO	B	91	21.390	14.287	8.031	1.00	23.19	B	C
ATOM	6091	CD	PRO	B	91	21.714	15.539	7.234	1.00	22.61	B	C
ATOM	6092	C	PRO	B	91	25.086	14.486	7.914	1.00	17.67	B	C
ATOM	6093	O	PRO	B	91	25.291	14.432	6.692	1.00	18.11	B	O
ATOM	6094	N	TYR	B	92	26.036	14.285	8.820	1.00	16.43	B	N
ATOM	6095	CA	TYR	B	92	27.348	13.761	8.464	1.00	19.45	B	C
ATOM	6096	CB	TYR	B	92	28.175	13.525	9.727	1.00	16.50	B	C
ATOM	6097	CG	TYR	B	92	29.502	12.836	9.494	1.00	17.91	B	C
ATOM	6098	CD1	TYR	B	92	30.544	13.480	8.840	1.00	15.70	B	C
ATOM	6099	CE1	TYR	B	92	31.763	12.838	8.628	1.00	16.51	B	C
ATOM	6100	CZ	TYR	B	92	31.941	11.544	9.083	1.00	17.17	B	C
ATOM	6101	OH	TYR	B	92	33.131	10.889	8.884	1.00	17.38	B	O
ATOM	6102	CE2	TYR	B	92	30.922	10.889	9.729	1.00	20.02	B	C
ATOM	6103	CD2	TYR	B	92	29.712	11.526	9.936	1.00	20.94	B	C
ATOM	6104	C	TYR	B	92	27.218	12.460	7.663	1.00	21.63	B	C
ATOM	6105	O	TYR	B	92	26.483	11.545	8.049	1.00	20.62	B	O
ATOM	6106	N	ASP	B	93	27.929	12.398	6.540	1.00	16.00	B	N
ATOM	6107	CA	ASP	B	93	27.958	11.211	5.705	1.00	16.67	B	C
ATOM	6108	CB	ASP	B	93	27.260	11.492	4.377	1.00	19.39	B	C
ATOM	6109	CG	ASP	B	93	27.153	10.243	3.477	1.00	20.73	B	C
ATOM	6110	OD1	ASP	B	93	27.855	9.230	3.710	1.00	19.95	B	O
ATOM	6111	OD2	ASP	B	93	26.361	10.295	2.520	1.00	24.57	B	O
ATOM	6112	C	ASP	B	93	29.411	10.821	5.476	1.00	20.03	B	C
ATOM	6113	O	ASP	B	93	30.131	11.494	4.747	1.00	15.45	B	O
ATOM	6114	N	PRO	B	94	29.850	9.719	6.098	1.00	19.93	B	N
ATOM	6115	CA	PRO	B	94	31.273	9.356	6.001	1.00	21.29	B	C
ATOM	6116	CB	PRO	B	94	31.383	8.093	6.875	1.00	20.70	B	C
ATOM	6117	CG	PRO	B	94	29.994	7.558	6.941	1.00	25.46	B	C
ATOM	6118	CD	PRO	B	94	29.074	8.747	6.886	1.00	20.85	B	C
ATOM	6119	C	PRO	B	94	31.700	9.074	4.566	1.00	16.22	B	C
ATOM	6120	O	PRO	B	94	32.883	9.132	4.269	1.00	18.80	B	O
ATOM	6121	N	ARG	B	95	30.759	8.796	3.674	1.00	16.97	B	N
ATOM	6122	CA	ARG	B	95	31.156	8.568	2.295	1.00	18.05	B	C
ATOM	6123	C	ARG	B	95	31.567	9.872	1.621	1.00	19.65	B	C
ATOM	6124	O	ARG	B	95	32.368	9.876	0.696	1.00	20.88	B	O
ATOM	6125	CB	ARG	B	95	30.064	7.828	1.495	1.00	20.99	B	C
ATOM	6126	N	ARG	B	96	31.052	10.989	2.106	1.00	17.68	B	N
ATOM	6127	C	ARG	B	96	31.966	13.291	2.213	1.00	18.02	B	C
ATOM	6128	O	ARG	B	96	32.577	14.178	1.655	1.00	17.30	B	O
ATOM	6129	CA	ARG	B	96	31.284	12.226	1.389	1.00	21.52	B	C
ATOM	6130	CB	ARG	B	96	29.988	12.776	0.798	1.00	28.72	B	C
ATOM	6131	CG	ARG	B	96	28.962	13.207	1.800	1.00	36.06	B	C
ATOM	6132	CD	ARG	B	96	27.699	13.699	1.069	1.00	44.72	B	C
ATOM	6133	NE	ARG	B	96	27.875	15.044	0.512	1.00	47.60	B	N
ATOM	6134	CZ	ARG	B	96	26.872	15.818	0.094	1.00	47.72	B	C
ATOM	6135	NH1	ARG	B	96	27.122	17.033	-0.391	1.00	47.60	B	N
ATOM	6136	NH2	ARG	B	96	25.619	15.383	0.181	1.00	43.45	B	N
ATOM	6137	N	ASP	B	97	31.870	13.183	3.532	1.00	16.75	B	N
ATOM	6138	CA	ASP	B	97	32.392	14.217	4.442	1.00	16.79	B	C
ATOM	6139	CB	ASP	B	97	31.292	14.618	5.416	1.00	14.98	B	C
ATOM	6140	CG	ASP	B	97	30.052	15.082	4.703	1.00	16.53	B	C
ATOM	6141	OD1	ASP	B	97	30.206	15.741	3.656	1.00	15.65	B	O
ATOM	6142	OD2	ASP	B	97	28.935	14.775	5.160	1.00	17.63	B	O
ATOM	6143	C	ASP	B	97	33.608	13.760	5.229	1.00	16.63	B	C
ATOM	6144	O	ASP	B	97	33.730	12.570	5.548	1.00	17.50	B	O
ATOM	6145	N	LEU	B	98	34.483	14.715	5.563	1.00	17.78	B	N
ATOM	6146	CA	LEU	B	98	35.656	14.453	6.399	1.00	13.41	B	C
ATOM	6147	CB	LEU	B	98	36.897	14.198	5.547	1.00	12.02	B	C
ATOM	6148	CG	LEU	B	98	38.213	13.859	6.239	1.00	16.01	B	C
ATOM	6149	CD1	LEU	B	98	38.115	12.516	6.992	1.00	17.22	B	C
ATOM	6150	CD2	LEU	B	98	39.391	13.843	5.233	1.00	12.13	B	C
ATOM	6151	C	LEU	B	98	35.910	15.647	7.300	1.00	16.43	B	C
ATOM	6152	O	LEU	B	98	35.975	16.802	6.837	1.00	12.23	B	O
ATOM	6153	N	PHE	B	99	36.065	15.366	8.587	1.00	14.04	B	N
ATOM	6154	CA	PHE	B	99	36.320	16.420	9.546	1.00	13.81	B	C
ATOM	6155	CB	PHE	B	99	35.008	17.078	10.021	1.00	14.06	B	C

ATOM	6156	CG	PHE	B	99	34.282	16.313	11.104	1.00	16.12	B	C
ATOM	6157	CD1	PHE	B	99	33.355	15.323	10.775	1.00	18.86	B	C
ATOM	6158	CE1	PHE	B	99	32.671	14.622	11.766	1.00	16.51	B	C
ATOM	6159	CZ	PHE	B	99	32.910	14.911	13.096	1.00	16.95	B	C
ATOM	6160	CE2	PHE	B	99	33.831	15.910	13.442	1.00	14.21	B	C
ATOM	6161	CD2	PHE	B	99	34.501	16.606	12.447	1.00	14.86	B	C
ATOM	6162	C	PHE	B	99	37.147	15.897	10.700	1.00	11.73	B	C
ATOM	6163	O	PHE	B	99	37.325	14.680	10.857	1.00	10.78	B	O
ATOM	6164	N	ARG	B	100	37.686	16.818	11.497	1.00	10.97	B	N
ATOM	6165	CA	ARG	B	100	38.403	16.431	12.705	1.00	13.96	B	C
ATOM	6166	CB	ARG	B	100	39.919	16.305	12.430	1.00	18.35	B	C
ATOM	6167	CG	ARG	B	100	40.486	17.546	11.769	1.00	23.94	B	C
ATOM	6168	CD	ARG	B	100	41.978	17.793	11.980	1.00	25.68	B	C
ATOM	6169	NE	ARG	B	100	42.854	16.776	11.425	1.00	21.91	B	N
ATOM	6170	CZ	ARG	B	100	44.149	16.976	11.145	1.00	22.49	B	C
ATOM	6171	NH1	ARG	B	100	44.727	18.177	11.288	1.00	18.90	B	N
ATOM	6172	NH2	ARG	B	100	44.871	15.978	10.686	1.00	17.39	B	N
ATOM	6173	C	ARG	B	100	38.127	17.499	13.758	1.00	15.60	B	C
ATOM	6174	O	ARG	B	100	37.705	18.604	13.425	1.00	13.92	B	O
ATOM	6175	N	VAL	B	101	38.312	17.162	15.029	1.00	15.06	B	N
ATOM	6176	CA	VAL	B	101	38.316	18.175	16.082	1.00	11.11	B	C
ATOM	6177	CB	VAL	B	101	37.722	17.598	17.403	1.00	15.02	B	C
ATOM	6178	CG1	VAL	B	101	37.918	18.546	18.594	1.00	15.87	B	C
ATOM	6179	CG2	VAL	B	101	36.242	17.309	17.235	1.00	14.23	B	C
ATOM	6180	C	VAL	B	101	39.762	18.631	16.258	1.00	13.17	B	C
ATOM	6181	O	VAL	B	101	40.691	17.865	15.970	1.00	15.87	B	O
ATOM	6182	N	GLU	B	102	39.957	19.880	16.707	1.00	15.16	B	N
ATOM	6183	CA	GLU	B	102	41.290	20.417	16.972	1.00	16.48	B	C
ATOM	6184	CB	GLU	B	102	41.645	21.512	15.949	1.00	16.52	B	C
ATOM	6185	CG	GLU	B	102	41.927	21.002	14.525	1.00	14.93	B	C
ATOM	6186	CD	GLU	B	102	41.889	22.127	13.523	1.00	14.17	B	C
ATOM	6187	OE1	GLU	B	102	41.083	23.040	13.733	1.00	12.59	B	O
ATOM	6188	OE2	GLU	B	102	42.668	22.116	12.549	1.00	14.88	B	O
ATOM	6189	C	GLU	B	102	41.345	21.026	18.388	1.00	14.49	B	C
ATOM	6190	O	GLU	B	102	40.415	21.700	18.803	1.00	13.74	B	O
ATOM	6191	N	TYR	B	103	42.412	20.755	19.127	1.00	11.62	B	N
ATOM	6192	CA	TYR	B	103	42.651	21.458	20.390	1.00	12.89	B	C
ATOM	6193	CB	TYR	B	103	42.724	20.489	21.571	1.00	12.10	B	C
ATOM	6194	CG	TYR	B	103	41.357	19.951	21.908	1.00	10.72	B	C
ATOM	6195	CD1	TYR	B	103	40.412	20.762	22.543	1.00	13.53	B	C
ATOM	6196	CE1	TYR	B	103	39.150	20.295	22.856	1.00	10.34	B	C
ATOM	6197	CZ	TYR	B	103	38.808	18.996	22.485	1.00	13.52	B	C
ATOM	6198	OH	TYR	B	103	37.560	18.514	22.777	1.00	13.29	B	O
ATOM	6199	CE2	TYR	B	103	39.713	18.177	21.862	1.00	9.28	B	C
ATOM	6200	CD2	TYR	B	103	40.984	18.660	21.548	1.00	11.12	B	C
ATOM	6201	C	TYR	B	103	43.938	22.201	20.236	1.00	9.26	B	C
ATOM	6202	O	TYR	B	103	44.926	21.653	19.736	1.00	12.08	B	O
ATOM	6203	N	VAL	B	104	43.912	23.467	20.635	1.00	10.04	B	N
ATOM	6204	CA	VAL	B	104	44.981	24.375	20.326	1.00	11.75	B	C
ATOM	6205	CB	VAL	B	104	44.581	25.294	19.126	1.00	12.77	B	C
ATOM	6206	CG1	VAL	B	104	45.774	26.068	18.667	1.00	16.11	B	C
ATOM	6207	CG2	VAL	B	104	43.995	24.437	17.942	1.00	11.66	B	C
ATOM	6208	C	VAL	B	104	45.325	25.207	21.582	1.00	12.79	B	C
ATOM	6209	O	VAL	B	104	44.436	25.629	22.330	1.00	10.33	B	O
ATOM	6210	N	ILE	B	105	46.617	25.394	21.826	1.00	10.79	B	N
ATOM	6211	CA	ILE	B	105	47.052	26.135	23.004	1.00	12.40	B	C
ATOM	6212	CB	ILE	B	105	47.277	25.162	24.203	1.00	14.41	B	C
ATOM	6213	CG1	ILE	B	105	47.365	25.912	25.535	1.00	16.00	B	C
ATOM	6214	CD1	ILE	B	105	47.366	24.936	26.750	1.00	9.63	B	C
ATOM	6215	CG2	ILE	B	105	48.500	24.274	23.983	1.00	13.92	B	C
ATOM	6216	C	ILE	B	105	48.279	26.998	22.716	1.00	13.55	B	C
ATOM	6217	O	ILE	B	105	49.257	26.535	22.118	1.00	14.56	B	O
ATOM	6218	N	GLY	B	106	48.219	28.270	23.133	1.00	14.26	B	N
ATOM	6219	CA	GLY	B	106	49.327	29.195	22.935	1.00	13.53	B	C
ATOM	6220	C	GLY	B	106	49.242	30.002	21.646	1.00	18.33	B	C
ATOM	6221	O	GLY	B	106	48.348	29.801	20.808	1.00	17.92	B	O
ATOM	6222	N	ARG	B	107	50.183	30.919	21.477	1.00	20.43	B	N
ATOM	6223	CA	ARG	B	107	50.184	31.763	20.292	1.00	20.47	B	C
ATOM	6224	CB	ARG	B	107	50.795	33.147	20.600	1.00	24.88	B	C
ATOM	6225	C	ARG	B	107	50.957	31.102	19.165	1.00	18.43	B	C
ATOM	6226	O	ARG	B	107	50.739	31.418	18.010	1.00	16.78	B	O
ATOM	6227	N	TYR	B	108	51.883	30.205	19.506	1.00	16.83	B	N
ATOM	6228	CA	TYR	B	108	52.679	29.515	18.496	1.00	18.15	B	C
ATOM	6229	CB	TYR	B	108	54.149	29.900	18.640	1.00	19.93	B	C
ATOM	6230	CG	TYR	B	108	54.330	31.405	18.617	1.00	23.99	B	C
ATOM	6231	CD1	TYR	B	108	54.206	32.110	17.428	1.00	24.95	B	C
ATOM	6232	CE1	TYR	B	108	54.339	33.487	17.389	1.00	28.29	B	C

ATOM	6233	CZ	TYR	B	108	54.593	34.184	18.552	1.00	33.52	B	C
ATOM	6234	OH	TYR	B	108	54.732	35.559	18.493	1.00	35.00	B	O
ATOM	6235	CE2	TYR	B	108	54.712	33.505	19.763	1.00	29.98	B	C
ATOM	6236	CD2	TYR	B	108	54.567	32.123	19.789	1.00	25.30	B	C
ATOM	6237	C	TYR	B	108	52.508	27.996	18.528	1.00	19.37	B	C
ATOM	6238	O	TYR	B	108	53.491	27.272	18.715	1.00	20.81	B	O
ATOM	6239	N	PRO	B	109	51.264	27.502	18.357	1.00	13.98	B	N
ATOM	6240	CA	PRO	B	109	51.129	26.043	18.500	1.00	17.29	B	C
ATOM	6241	CB	PRO	B	109	49.626	25.827	18.433	1.00	14.32	B	C
ATOM	6242	CG	PRO	B	109	49.140	26.955	17.605	1.00	18.15	B	C
ATOM	6243	CD	PRO	B	109	49.978	28.128	17.987	1.00	12.51	B	C
ATOM	6244	C	PRO	B	109	51.788	25.286	17.363	1.00	22.77	B	C
ATOM	6245	O	PRO	B	109	51.839	25.779	16.226	1.00	22.32	B	O
ATOM	6246	N	GLN	B	110	52.272	24.089	17.674	1.00	18.60	B	N
ATOM	6247	CA	GLN	B	110	52.867	23.218	16.681	1.00	18.79	B	C
ATOM	6248	CB	GLN	B	110	54.390	23.337	16.712	1.00	25.75	B	C
ATOM	6249	CG	GLN	B	110	54.905	24.636	16.157	1.00	33.02	B	C
ATOM	6250	CD	GLN	B	110	56.391	24.613	16.021	1.00	41.18	B	C
ATOM	6251	OE1	GLN	B	110	56.919	24.205	14.993	1.00	44.35	B	O
ATOM	6252	NE2	GLN	B	110	57.087	25.027	17.072	1.00	43.91	B	N
ATOM	6253	C	GLN	B	110	52.486	21.784	16.973	1.00	18.55	B	C
ATOM	6254	O	GLN	B	110	52.471	21.347	18.134	1.00	14.06	B	O
ATOM	6255	N	GLU	B	111	52.202	21.036	15.919	1.00	16.45	B	N
ATOM	6256	CA	GLU	B	111	51.804	19.650	16.105	1.00	16.27	B	C
ATOM	6257	CB	GLU	B	111	51.374	19.032	14.776	1.00	14.10	B	C
ATOM	6258	CG	GLU	B	111	50.799	17.636	14.940	1.00	15.44	B	C
ATOM	6259	CD	GLU	B	111	49.986	17.208	13.725	1.00	22.17	B	C
ATOM	6260	OE1	GLU	B	111	49.640	16.007	13.645	1.00	23.41	B	O
ATOM	6261	OE2	GLU	B	111	49.691	18.085	12.869	1.00	21.44	B	O
ATOM	6262	C	GLU	B	111	52.903	18.820	16.774	1.00	17.54	B	C
ATOM	6263	O	GLU	B	111	52.632	18.080	17.722	1.00	19.03	B	O
ATOM	6264	N	ASN	B	112	54.148	18.952	16.309	1.00	20.78	B	N
ATOM	6265	CA	ASN	B	112	55.248	18.189	16.909	1.00	21.29	B	C
ATOM	6266	CB	ASN	B	112	56.468	18.115	15.976	1.00	25.34	B	C
ATOM	6267	CG	ASN	B	112	57.106	19.477	15.708	1.00	33.29	B	C
ATOM	6268	OD1	ASN	B	112	56.822	20.477	16.376	1.00	34.49	B	O
ATOM	6269	ND2	ASN	B	112	57.989	19.511	14.719	1.00	38.25	B	N
ATOM	6270	C	ASN	B	112	55.672	18.606	18.344	1.00	27.09	B	C
ATOM	6271	O	ASN	B	112	56.606	18.034	18.914	1.00	26.46	B	O
ATOM	6272	N	LYS	B	113	54.980	19.584	18.921	1.00	20.53	B	N
ATOM	6273	CA	LYS	B	113	55.217	19.982	20.302	1.00	17.94	B	C
ATOM	6274	CB	LYS	B	113	55.502	21.479	20.380	1.00	19.59	B	C
ATOM	6275	CG	LYS	B	113	56.779	21.931	19.679	1.00	27.03	B	C
ATOM	6276	CD	LYS	B	113	58.014	21.368	20.341	1.00	33.34	B	C
ATOM	6277	CE	LYS	B	113	58.896	22.495	20.870	1.00	40.57	B	C
ATOM	6278	NZ	LYS	B	113	59.190	23.512	19.809	1.00	43.15	B	N
ATOM	6279	C	LYS	B	113	54.018	19.677	21.194	1.00	20.12	B	C
ATOM	6280	O	LYS	B	113	54.019	20.035	22.372	1.00	21.10	B	O
ATOM	6281	N	GLY	B	114	52.986	19.037	20.648	1.00	17.20	B	N
ATOM	6282	CA	GLY	B	114	51.791	18.753	21.440	1.00	17.55	B	C
ATOM	6283	C	GLY	B	114	50.840	19.937	21.675	1.00	15.47	B	C
ATOM	6284	O	GLY	B	114	49.834	19.806	22.390	1.00	12.97	B	O
ATOM	6285	N	THR	B	115	51.117	21.079	21.049	1.00	15.06	B	N
ATOM	6286	CA	THR	B	115	50.297	22.282	21.254	1.00	12.79	B	C
ATOM	6287	CB	THR	B	115	51.184	23.513	21.510	1.00	12.39	B	C
ATOM	6288	OG1	THR	B	115	52.119	23.671	20.429	1.00	13.05	B	O
ATOM	6289	CG2	THR	B	115	51.964	23.336	22.845	1.00	14.52	B	C
ATOM	6290	C	THR	B	115	49.256	22.586	20.143	1.00	13.99	B	C
ATOM	6291	O	THR	B	115	48.366	23.421	20.328	1.00	14.60	B	O
ATOM	6292	N	TYR	B	116	49.380	21.913	19.002	1.00	14.08	B	N
ATOM	6293	CA	TYR	B	116	48.271	21.790	18.051	1.00	13.90	B	C
ATOM	6294	CB	TYR	B	116	48.635	22.277	16.644	1.00	13.88	B	C
ATOM	6295	CG	TYR	B	116	47.598	21.874	15.581	1.00	11.64	B	C
ATOM	6296	CD1	TYR	B	116	46.458	22.624	15.383	1.00	13.92	B	C
ATOM	6297	CE1	TYR	B	116	45.509	22.283	14.425	1.00	17.17	B	C
ATOM	6298	CZ	TYR	B	116	45.689	21.131	13.669	1.00	20.49	B	C
ATOM	6299	OH	TYR	B	116	44.751	20.771	12.724	1.00	20.03	B	O
ATOM	6300	CE2	TYR	B	116	46.811	20.355	13.848	1.00	18.89	B	C
ATOM	6301	CD2	TYR	B	116	47.765	20.727	14.812	1.00	15.75	B	C
ATOM	6302	C	TYR	B	116	47.916	20.311	18.016	1.00	12.68	B	C
ATOM	6303	O	TYR	B	116	48.756	19.492	17.695	1.00	15.17	B	O
ATOM	6304	N	ILE	B	117	46.701	19.976	18.427	1.00	10.22	B	N
ATOM	6305	CA	ILE	B	117	46.322	18.584	18.606	1.00	9.15	B	C
ATOM	6306	CB	ILE	B	117	45.887	18.286	20.055	1.00	9.03	B	C
ATOM	6307	CG1	ILE	B	117	46.984	18.684	21.056	1.00	16.15	B	C
ATOM	6308	CD1	ILE	B	117	46.543	18.549	22.539	1.00	11.67	B	C
ATOM	6309	CG2	ILE	B	117	45.604	16.779	20.208	1.00	12.20	B	C

ATOM	6310	C	ILE	B	117	45.174	18.230	17.656	1.00	10.16	B	C
ATOM	6311	O	ILE	B	117	44.011	18.564	17.915	1.00	12.30	B	O
ATOM	6312	N	PRO	B	118	45.491	17.582	16.540	1.00	13.73	B	N
ATOM	6313	CA	PRO	B	118	44.399	17.101	15.678	1.00	15.46	B	C
ATOM	6314	CB	PRO	B	118	45.118	16.752	14.372	1.00	18.90	B	C
ATOM	6315	CG	PRO	B	118	46.498	16.314	14.816	1.00	16.50	B	C
ATOM	6316	CD	PRO	B	118	46.818	17.131	16.083	1.00	13.95	B	C
ATOM	6317	C	PRO	B	118	43.743	15.850	16.260	1.00	15.50	B	C
ATOM	6318	O	PRO	B	118	44.434	14.965	16.747	1.00	15.17	B	O
ATOM	6319	N	VAL	B	119	42.418	15.797	16.233	1.00	13.08	B	N
ATOM	6320	CA	VAL	B	119	41.676	14.682	16.794	1.00	15.50	B	C
ATOM	6321	CB	VAL	B	119	40.767	15.109	17.960	1.00	15.45	B	C
ATOM	6322	CG1	VAL	B	119	40.174	13.888	18.631	1.00	14.33	B	C
ATOM	6323	CG2	VAL	B	119	41.556	15.989	19.007	1.00	13.00	B	C
ATOM	6324	C	VAL	B	119	40.844	14.054	15.663	1.00	10.14	B	C
ATOM	6325	O	VAL	B	119	39.750	14.541	15.330	1.00	15.65	B	O
ATOM	6326	N	PRO	B	120	41.389	13.011	15.043	1.00	11.90	B	N
ATOM	6327	CA	PRO	B	120	40.705	12.348	13.917	1.00	15.10	B	C
ATOM	6328	CB	PRO	B	120	41.744	11.338	13.402	1.00	14.99	B	C
ATOM	6329	CG	PRO	B	120	42.641	11.065	14.578	1.00	15.11	B	C
ATOM	6330	CD	PRO	B	120	42.672	12.361	15.394	1.00	14.96	B	C
ATOM	6331	C	PRO	B	120	39.454	11.609	14.374	1.00	17.76	B	C
ATOM	6332	O	PRO	B	120	39.397	11.086	15.509	1.00	15.18	B	O
ATOM	6333	N	ILE	B	121	38.460	11.556	13.495	1.00	17.44	B	N
ATOM	6334	CA	ILE	B	121	37.301	10.723	13.738	1.00	16.84	B	C
ATOM	6335	CB	ILE	B	121	36.058	11.233	13.006	1.00	20.47	B	C
ATOM	6336	CG1	ILE	B	121	35.827	12.733	13.264	1.00	22.21	B	C
ATOM	6337	CD1	ILE	B	121	35.911	13.181	14.712	1.00	23.42	B	C
ATOM	6338	CG2	ILE	B	121	34.850	10.394	13.378	1.00	24.28	B	C
ATOM	6339	C	ILE	B	121	37.619	9.293	13.285	1.00	17.87	B	C
ATOM	6340	O	ILE	B	121	37.765	9.022	12.096	1.00	17.39	B	O
ATOM	6341	N	VAL	B	122	37.715	8.388	14.247	1.00	16.26	B	N
ATOM	6342	CA	VAL	B	122	38.216	7.043	14.004	1.00	17.87	B	C
ATOM	6343	CB	VAL	B	122	39.398	6.735	14.955	1.00	19.39	B	C
ATOM	6344	CG1	VAL	B	122	40.511	7.752	14.757	1.00	19.33	B	C
ATOM	6345	CG2	VAL	B	122	38.922	6.744	16.436	1.00	14.69	B	C
ATOM	6346	C	VAL	B	122	37.156	5.967	14.198	1.00	19.37	B	C
ATOM	6347	O	VAL	B	122	36.123	6.214	14.825	1.00	22.33	B	O
ATOM	6348	N	SER	B	123	37.406	4.776	13.639	1.00	18.39	B	N
ATOM	6349	CA	SER	B	123	36.525	3.618	13.822	1.00	25.33	B	C
ATOM	6350	CB	SER	B	123	36.955	2.453	12.922	1.00	29.17	B	C
ATOM	6351	OG	SER	B	123	36.242	2.431	11.709	1.00	33.96	B	O
ATOM	6352	C	SER	B	123	36.546	3.122	15.265	1.00	25.61	B	C
ATOM	6353	O	SER	B	123	35.500	2.854	15.867	1.00	26.64	B	O
ATOM	6354	N	GLU	B	124	37.747	2.957	15.804	1.00	24.18	B	N
ATOM	6355	CA	GLU	B	124	37.889	2.546	17.200	1.00	28.96	B	C
ATOM	6356	CB	GLU	B	124	38.214	1.046	17.311	1.00	34.11	B	C
ATOM	6357	CG	GLU	B	124	37.091	0.110	16.843	1.00	40.35	B	C
ATOM	6358	CD	GLU	B	124	35.826	0.223	17.690	1.00	42.06	B	C
ATOM	6359	OE1	GLU	B	124	35.905	0.696	18.843	1.00	45.54	B	O
ATOM	6360	OE2	GLU	B	124	34.747	-0.152	17.201	1.00	40.97	B	O
ATOM	6361	C	GLU	B	124	38.975	3.357	17.883	1.00	25.01	B	C
ATOM	6362	O	GLU	B	124	40.043	3.567	17.310	1.00	25.63	B	O
ATOM	6363	N	LEU	B	125	38.701	3.813	19.102	1.00	24.36	B	N
ATOM	6364	CA	LEU	B	125	39.707	4.515	19.892	1.00	21.84	B	C
ATOM	6365	CB	LEU	B	125	39.110	4.975	21.225	1.00	21.27	B	C
ATOM	6366	CG	LEU	B	125	37.892	5.880	21.128	1.00	23.77	B	C
ATOM	6367	CD1	LEU	B	125	37.282	6.033	22.510	1.00	28.64	B	C
ATOM	6368	CD2	LEU	B	125	38.308	7.243	20.549	1.00	20.79	B	C
ATOM	6369	C	LEU	B	125	40.905	3.595	20.144	1.00	24.70	B	C
ATOM	6370	O	LEU	B	125	40.733	2.387	20.346	1.00	21.66	B	O
ATOM	6371	N	GLN	B	126	42.107	4.175	20.122	1.00	23.04	B	N
ATOM	6372	CA	GLN	B	126	43.355	3.440	20.308	1.00	23.71	B	C
ATOM	6373	CB	GLN	B	126	44.369	3.798	19.213	1.00	23.82	B	C
ATOM	6374	CG	GLN	B	126	43.946	3.461	17.780	1.00	25.87	B	C
ATOM	6375	CD	GLN	B	126	43.710	1.997	17.607	1.00	36.23	B	C
ATOM	6376	OE1	GLN	B	126	44.651	1.202	17.579	1.00	41.80	B	O
ATOM	6377	NE2	GLN	B	126	42.444	1.613	17.513	1.00	40.22	B	N
ATOM	6378	C	GLN	B	126	43.947	3.785	21.681	1.00	24.53	B	C
ATOM	6379	O	GLN	B	126	43.989	4.960	22.090	1.00	19.59	B	O
ATOM	6380	N	SER	B	127	44.401	2.772	22.398	1.00	24.65	B	N
ATOM	6381	CA	SER	B	127	44.912	3.011	23.749	1.00	25.88	B	C
ATOM	6382	CB	SER	B	127	45.416	1.705	24.369	1.00	32.07	B	C
ATOM	6383	OG	SER	B	127	45.761	1.919	25.730	1.00	37.79	B	O
ATOM	6384	C	SER	B	127	46.005	4.094	23.776	1.00	21.55	B	C
ATOM	6385	O	SER	B	127	46.973	4.033	23.021	1.00	24.36	B	O
ATOM	6386	N	GLY	B	128	45.825	5.095	24.628	1.00	21.53	B	N

ATOM	6387	CA	GLY	B	128	46.806	6.162	24.796	1.00	20.22	B	C
ATOM	6388	C	GLY	B	128	46.821	7.273	23.740	1.00	22.07	B	C
ATOM	6389	O	GLY	B	128	47.585	8.228	23.869	1.00	22.58	B	O
ATOM	6390	N	LYS	B	129	45.983	7.168	22.708	1.00	19.79	B	N
ATOM	6391	CA	LYS	B	129	46.038	8.106	21.577	1.00	16.31	B	C
ATOM	6392	CB	LYS	B	129	46.231	7.349	20.255	1.00	20.78	B	C
ATOM	6393	C	LYS	B	129	44.805	9.000	21.476	1.00	17.37	B	C
ATOM	6394	O	LYS	B	129	43.688	8.571	21.781	1.00	18.45	B	O
ATOM	6395	N	TRP	B	130	45.018	10.250	21.061	1.00	15.39	B	N
ATOM	6396	CA	TRP	B	130	43.919	11.143	20.797	1.00	13.48	B	C
ATOM	6397	CB	TRP	B	130	44.447	12.497	20.354	1.00	13.93	B	C
ATOM	6398	CG	TRP	B	130	44.749	13.451	21.467	1.00	12.70	B	C
ATOM	6399	CD1	TRP	B	130	45.974	13.711	22.012	1.00	12.24	B	C
ATOM	6400	NE1	TRP	B	130	45.854	14.679	22.991	1.00	14.39	B	N
ATOM	6401	CE2	TRP	B	130	44.535	15.042	23.102	1.00	13.10	B	C
ATOM	6402	CD2	TRP	B	130	43.811	14.295	22.147	1.00	10.96	B	C
ATOM	6403	CE3	TRP	B	130	42.426	14.482	22.051	1.00	12.44	B	C
ATOM	6404	CZ3	TRP	B	130	41.811	15.392	22.882	1.00	13.19	B	C
ATOM	6405	CH2	TRP	B	130	42.561	16.149	23.821	1.00	14.12	B	C
ATOM	6406	CZ2	TRP	B	130	43.922	15.980	23.943	1.00	13.48	B	C
ATOM	6407	C	TRP	B	130	43.097	10.556	19.653	1.00	14.43	B	C
ATOM	6408	O	TRP	B	130	43.656	10.122	18.648	1.00	13.88	B	O
ATOM	6409	N	GLY	B	131	41.781	10.554	19.821	1.00	11.73	B	N
ATOM	6410	CA	GLY	B	131	40.872	10.168	18.764	1.00	15.85	B	C
ATOM	6411	C	GLY	B	131	39.459	10.450	19.232	1.00	16.38	B	C
ATOM	6412	O	GLY	B	131	39.223	10.681	20.428	1.00	15.02	B	O
ATOM	6413	N	ALA	B	132	38.531	10.475	18.286	1.00	14.12	B	N
ATOM	6414	CA	ALA	B	132	37.118	10.681	18.578	1.00	12.48	B	C
ATOM	6415	CB	ALA	B	132	36.677	12.075	18.138	1.00	12.76	B	C
ATOM	6416	C	ALA	B	132	36.320	9.631	17.829	1.00	18.38	B	C
ATOM	6417	O	ALA	B	132	36.506	9.439	16.617	1.00	19.02	B	O
ATOM	6418	N	LYS	B	133	35.434	8.945	18.546	1.00	17.85	B	N
ATOM	6419	CA	LYS	B	133	34.582	7.949	17.920	1.00	20.39	B	C
ATOM	6420	CB	LYS	B	133	34.723	6.602	18.633	1.00	17.74	B	C
ATOM	6421	CG	LYS	B	133	33.784	5.526	18.087	1.00	18.52	B	C
ATOM	6422	CD	LYS	B	133	34.016	4.219	18.817	1.00	25.27	B	C
ATOM	6423	CE	LYS	B	133	33.120	3.100	18.268	1.00	31.18	B	C
ATOM	6424	NZ	LYS	B	133	33.238	1.960	19.207	1.00	36.17	B	N
ATOM	6425	C	LYS	B	133	33.117	8.393	17.903	1.00	20.95	B	C
ATOM	6426	O	LYS	B	133	32.582	8.834	18.914	1.00	21.49	B	O
ATOM	6427	N	ILE	B	134	32.463	8.261	16.760	1.00	21.77	B	N
ATOM	6428	CA	ILE	B	134	31.031	8.549	16.700	1.00	21.97	B	C
ATOM	6429	CB	ILE	B	134	30.533	8.649	15.239	1.00	24.81	B	C
ATOM	6430	CG1	ILE	B	134	31.204	9.825	14.533	1.00	27.88	B	C
ATOM	6431	CD1	ILE	B	134	30.948	9.866	13.026	1.00	33.89	B	C
ATOM	6432	CG2	ILE	B	134	29.036	8.813	15.216	1.00	25.22	B	C
ATOM	6433	C	ILE	B	134	30.252	7.447	17.393	1.00	23.44	B	C
ATOM	6434	O	ILE	B	134	30.226	6.313	16.926	1.00	24.07	B	O
ATOM	6435	N	VAL	B	135	29.603	7.766	18.502	1.00	23.24	B	N
ATOM	6436	CA	VAL	B	135	28.861	6.746	19.235	1.00	25.15	B	C
ATOM	6437	CB	VAL	B	135	29.154	6.806	20.732	1.00	25.42	B	C
ATOM	6438	CG1	VAL	B	135	30.585	6.374	21.008	1.00	22.41	B	C
ATOM	6439	CG2	VAL	B	135	28.921	8.234	21.233	1.00	26.44	B	C
ATOM	6440	C	VAL	B	135	27.364	6.925	19.041	1.00	27.19	B	C
ATOM	6441	O	VAL	B	135	26.582	6.087	19.461	1.00	27.19	B	O
ATOM	6442	N	MET	B	136	26.973	8.035	18.429	1.00	26.12	B	N
ATOM	6443	C	MET	B	136	25.444	9.225	16.904	1.00	29.30	B	C
ATOM	6444	O	MET	B	136	26.169	10.215	16.806	1.00	28.99	B	O
ATOM	6445	CA	AMET	B	136	25.579	8.259	18.075	0.49	30.52	B	C
ATOM	6446	CB	AMET	B	136	24.764	8.770	19.265	0.49	32.52	B	C
ATOM	6447	CG	AMET	B	136	23.295	9.019	18.907	0.49	33.75	B	C
ATOM	6448	SD	AMET	B	136	22.518	10.336	19.857	0.49	52.27	B	S
ATOM	6449	CE	AMET	B	136	22.151	9.470	21.385	0.49	43.54	B	C
ATOM	6450	CA	BMET	B	136	25.574	8.296	18.112	0.51	30.74	B	C
ATOM	6451	CB	BMET	B	136	24.848	8.896	19.324	0.51	32.58	B	C
ATOM	6452	CG	BMET	B	136	24.338	7.870	20.328	0.51	34.36	B	C
ATOM	6453	SD	BMET	B	136	23.571	8.569	21.802	0.51	63.10	B	S
ATOM	6454	CE	BMET	B	136	21.968	9.047	21.159	0.51	43.43	B	C
ATOM	6455	N	ARG	B	137	24.529	8.893	15.994	1.00	32.95	B	N
ATOM	6456	CA	ARG	B	137	24.143	9.760	14.874	1.00	32.77	B	C
ATOM	6457	C	ARG	B	137	22.624	9.901	14.964	1.00	37.05	B	C
ATOM	6458	O	ARG	B	137	21.913	8.890	15.005	1.00	42.11	B	O
ATOM	6459	CB	ARG	B	137	24.490	9.137	13.517	1.00	36.21	B	C
ATOM	6460	CG	ARG	B	137	25.935	8.712	13.327	1.00	41.51	B	C
ATOM	6461	CD	ARG	B	137	26.108	7.762	12.128	1.00	44.48	B	C
ATOM	6462	NE	ARG	B	137	25.987	8.453	10.841	1.00	47.60	B	N
ATOM	6463	CZ	ARG	B	137	26.209	7.887	9.652	1.00	49.03	B	C

ATOM	6464	NH1	ARG	B	137	26.579	6.612	9.564	1.00	47.53	B	N
ATOM	6465	NH2	ARG	B	137	26.064	8.599	8.539	1.00	49.61	B	N
ATOM	6466	N	GLU	B	138	22.120	11.133	15.009	1.00	35.60	B	N
ATOM	6467	CA	GLU	B	138	20.670	11.375	15.038	1.00	38.78	B	C
ATOM	6468	CB	GLU	B	138	20.149	11.367	16.480	1.00	42.22	B	C
ATOM	6469	C	GLU	B	138	20.344	12.711	14.378	1.00	35.87	B	C
ATOM	6470	O	GLU	B	138	20.928	13.735	14.739	1.00	34.34	B	O
ATOM	6471	N	ASP	B	139	19.414	12.699	13.424	1.00	34.03	B	N
ATOM	6472	CA	ASP	B	139	19.147	13.869	12.576	1.00	32.12	B	C
ATOM	6473	CB	ASP	B	139	18.321	14.926	13.315	1.00	34.75	B	C
ATOM	6474	C	ASP	B	139	20.451	14.456	12.049	1.00	25.99	B	C
ATOM	6475	O	ASP	B	139	21.233	13.748	11.412	1.00	24.97	B	O
ATOM	6476	N	ARG	B	140	20.705	15.734	12.333	1.00	25.92	B	N
ATOM	6477	CA	ARG	B	140	21.925	16.390	11.863	1.00	26.62	B	C
ATOM	6478	C	ARG	B	140	23.060	16.357	12.889	1.00	25.06	B	C
ATOM	6479	O	ARG	B	140	24.084	17.014	12.713	1.00	22.93	B	O
ATOM	6480	CB	ARG	B	140	21.630	17.846	11.470	1.00	24.51	B	C
ATOM	6481	CG	ARG	B	140	20.508	17.962	10.438	1.00	24.42	B	C
ATOM	6482	CD	ARG	B	140	20.204	19.411	10.078	1.00	27.90	B	C
ATOM	6483	NE	ARG	B	140	19.265	19.478	8.963	1.00	40.81	B	N
ATOM	6484	CZ	ARG	B	140	18.503	20.533	8.688	1.00	49.36	B	C
ATOM	6485	NH1	ARG	B	140	18.577	21.625	9.445	1.00	51.46	B	N
ATOM	6486	NH2	ARG	B	140	17.667	20.493	7.656	1.00	51.56	B	N
ATOM	6487	N	SER	B	141	22.869	15.604	13.966	1.00	25.27	B	N
ATOM	6488	CA	SER	B	141	23.848	15.558	15.056	1.00	25.20	B	C
ATOM	6489	CB	SER	B	141	23.133	15.627	16.408	1.00	30.65	B	C
ATOM	6490	OG	SER	B	141	22.454	16.853	16.568	1.00	38.30	B	O
ATOM	6491	C	SER	B	141	24.699	14.294	15.052	1.00	23.23	B	C
ATOM	6492	O	SER	B	141	24.227	13.221	14.668	1.00	20.75	B	O
ATOM	6493	N	VAL	B	142	25.947	14.420	15.500	1.00	16.99	B	N
ATOM	6494	CA	VAL	B	142	26.753	13.251	15.824	1.00	20.72	B	C
ATOM	6495	CB	VAL	B	142	27.958	13.051	14.864	1.00	26.25	B	C
ATOM	6496	CG1	VAL	B	142	27.478	12.655	13.472	1.00	26.16	B	C
ATOM	6497	CG2	VAL	B	142	28.818	14.294	14.797	1.00	22.99	B	C
ATOM	6498	C	VAL	B	142	27.281	13.420	17.241	1.00	22.14	B	C
ATOM	6499	O	VAL	B	142	27.744	14.498	17.602	1.00	19.56	B	O
ATOM	6500	N	ARG	B	143	27.158	12.376	18.056	1.00	22.40	B	N
ATOM	6501	CA	ARG	B	143	27.781	12.377	19.371	1.00	21.09	B	C
ATOM	6502	CB	ARG	B	143	26.890	11.691	20.412	1.00	24.88	B	C
ATOM	6503	CG	ARG	B	143	27.444	11.774	21.828	1.00	26.72	B	C
ATOM	6504	CD	ARG	B	143	26.446	11.248	22.855	1.00	30.37	B	C
ATOM	6505	NE	ARG	B	143	25.208	12.014	22.854	1.00	31.80	B	N
ATOM	6506	CZ	ARG	B	143	24.206	11.816	23.706	1.00	35.84	B	C
ATOM	6507	NH1	ARG	B	143	24.301	10.881	24.639	1.00	37.74	B	N
ATOM	6508	NH2	ARG	B	143	23.108	12.556	23.624	1.00	38.45	B	N
ATOM	6509	C	ARG	B	143	29.139	11.672	19.284	1.00	19.59	B	C
ATOM	6510	O	ARG	B	143	29.258	10.572	18.708	1.00	20.17	B	O
ATOM	6511	N	LEU	B	144	30.158	12.313	19.845	1.00	16.73	B	N
ATOM	6512	CA	LEU	B	144	31.503	11.768	19.799	1.00	17.52	B	C
ATOM	6513	CB	LEU	B	144	32.498	12.806	19.279	1.00	16.62	B	C
ATOM	6514	CG	LEU	B	144	32.325	13.438	17.898	1.00	21.28	B	C
ATOM	6515	CD1	LEU	B	144	33.425	14.526	17.618	1.00	14.45	B	C
ATOM	6516	CD2	LEU	B	144	32.345	12.372	16.846	1.00	20.89	B	C
ATOM	6517	C	LEU	B	144	31.943	11.355	21.195	1.00	19.35	B	C
ATOM	6518	O	LEU	B	144	31.648	12.034	22.184	1.00	18.87	B	O
ATOM	6519	N	SER	B	145	32.671	10.249	21.268	1.00	17.37	B	N
ATOM	6520	CA	SER	B	145	33.468	9.974	22.447	1.00	17.52	B	C
ATOM	6521	CB	SER	B	145	33.387	8.499	22.816	1.00	18.57	B	C
ATOM	6522	OG	SER	B	145	34.041	8.278	24.048	1.00	21.90	B	O
ATOM	6523	C	SER	B	145	34.898	10.365	22.126	1.00	17.97	B	C
ATOM	6524	O	SER	B	145	35.546	9.765	21.268	1.00	17.67	B	O
ATOM	6525	N	ILE	B	146	35.388	11.385	22.813	1.00	17.85	B	N
ATOM	6526	CA	ILE	B	146	36.720	11.887	22.577	1.00	19.30	B	C
ATOM	6527	CB	ILE	B	146	36.704	13.422	22.580	1.00	18.80	B	C
ATOM	6528	CG1	ILE	B	146	35.903	13.922	21.349	1.00	15.93	B	C
ATOM	6529	CD1	ILE	B	146	35.894	15.422	21.190	1.00	14.09	B	C
ATOM	6530	CG2	ILE	B	146	38.116	13.985	22.606	1.00	12.33	B	C
ATOM	6531	C	ILE	B	146	37.678	11.357	23.646	1.00	22.59	B	C
ATOM	6532	O	ILE	B	146	37.405	11.457	24.845	1.00	20.28	B	O
ATOM	6533	N	GLN	B	147	38.800	10.800	23.202	1.00	18.68	B	N
ATOM	6534	CA	GLN	B	147	39.834	10.343	24.113	1.00	16.38	B	C
ATOM	6535	CB	GLN	B	147	40.135	8.878	23.843	1.00	17.29	B	C
ATOM	6536	CG	GLN	B	147	41.193	8.310	24.772	1.00	22.02	B	C
ATOM	6537	CD	GLN	B	147	41.425	6.863	24.481	1.00	28.02	B	C
ATOM	6538	OE1	GLN	B	147	40.921	6.001	25.200	1.00	30.96	B	O
ATOM	6539	NE2	GLN	B	147	42.178	6.576	23.414	1.00	27.25	B	N
ATOM	6540	C	GLN	B	147	41.106	11.168	23.953	1.00	17.04	B	C

ATOM	6541	O	GLN	B	147	41.548	11.416	22.838	1.00	16.22	B	O
ATOM	6542	N	SER	B	148	41.665	11.626	25.073	1.00	19.09	B	N
ATOM	6543	CA	SER	B	148	42.901	12.404	25.068	1.00	18.27	B	C
ATOM	6544	CB	SER	B	148	42.804	13.606	26.021	1.00	18.64	B	C
ATOM	6545	OG	SER	B	148	42.580	13.211	27.372	1.00	20.16	B	O
ATOM	6546	C	SER	B	148	44.072	11.521	25.479	1.00	16.37	B	C
ATOM	6547	O	SER	B	148	43.876	10.454	26.070	1.00	16.58	B	O
ATOM	6548	N	SER	B	149	45.284	11.956	25.146	1.00	14.85	B	N
ATOM	6549	CA	SER	B	149	46.483	11.224	25.552	1.00	15.93	B	C
ATOM	6550	CB	SER	B	149	47.689	11.675	24.727	1.00	17.02	B	C
ATOM	6551	OG	SER	B	149	48.903	11.288	25.353	1.00	21.88	B	O
ATOM	6552	C	SER	B	149	46.779	11.440	27.043	1.00	11.88	B	C
ATOM	6553	O	SER	B	149	46.654	12.558	27.549	1.00	11.37	B	O
ATOM	6554	N	PRO	B	150	47.198	10.372	27.751	1.00	14.92	B	N
ATOM	6555	CA	PRO	B	150	47.527	10.527	29.173	1.00	16.32	B	C
ATOM	6556	CB	PRO	B	150	47.692	9.078	29.657	1.00	13.84	B	C
ATOM	6557	CG	PRO	B	150	48.133	8.325	28.432	1.00	19.91	B	C
ATOM	6558	CD	PRO	B	150	47.332	8.977	27.292	1.00	14.63	B	C
ATOM	6559	C	PRO	B	150	48.822	11.315	29.417	1.00	16.37	B	C
ATOM	6560	O	PRO	B	150	49.198	11.528	30.585	1.00	15.08	B	O
ATOM	6561	N	LYS	B	151	49.496	11.706	28.337	1.00	13.75	B	N
ATOM	6562	CA	LYS	B	151	50.683	12.548	28.427	1.00	16.62	B	C
ATOM	6563	C	LYS	B	151	50.393	13.991	27.979	1.00	14.54	B	C
ATOM	6564	O	LYS	B	151	51.319	14.787	27.860	1.00	16.94	B	O
ATOM	6565	CB	LYS	B	151	51.829	11.967	27.592	1.00	18.89	B	C
ATOM	6566	CG	LYS	B	151	52.386	10.648	28.139	1.00	23.96	B	C
ATOM	6567	CD	LYS	B	151	53.400	10.017	27.202	1.00	30.56	B	C
ATOM	6568	CE	LYS	B	151	53.879	8.660	27.769	1.00	38.15	B	C
ATOM	6569	NZ	LYS	B	151	54.590	7.819	26.755	1.00	43.69	B	N
ATOM	6570	N	CYS	B	152	49.116	14.303	27.749	1.00	13.09	B	N
ATOM	6571	CA	CYS	B	152	48.678	15.608	27.248	1.00	11.76	B	C
ATOM	6572	CB	CYS	B	152	47.149	15.682	27.177	1.00	10.13	B	C
ATOM	6573	SG	CYS	B	152	46.530	17.150	26.284	1.00	17.77	B	S
ATOM	6574	C	CYS	B	152	49.137	16.773	28.106	1.00	12.69	B	C
ATOM	6575	O	CYS	B	152	49.120	16.708	29.340	1.00	11.46	B	O
ATOM	6576	N	ILE	B	153	49.505	17.854	27.436	1.00	14.08	B	N
ATOM	6577	CA	ILE	B	153	49.784	19.124	28.092	1.00	14.45	B	C
ATOM	6578	CB	ILE	B	153	50.044	20.197	27.015	1.00	16.02	B	C
ATOM	6579	CG1	ILE	B	153	51.461	20.012	26.465	1.00	20.26	B	C
ATOM	6580	CD1	ILE	B	153	51.676	20.688	25.115	1.00	21.81	B	C
ATOM	6581	CG2	ILE	B	153	49.830	21.654	27.542	1.00	14.98	B	C
ATOM	6582	C	ILE	B	153	48.599	19.508	28.957	1.00	13.56	B	C
ATOM	6583	O	ILE	B	153	47.447	19.351	28.550	1.00	13.72	B	O
ATOM	6584	N	VAL	B	154	48.885	19.983	30.163	1.00	12.40	B	N
ATOM	6585	CA	VAL	B	154	47.857	20.482	31.063	1.00	11.18	B	C
ATOM	6586	CB	VAL	B	154	48.223	20.129	32.532	1.00	11.71	B	C
ATOM	6587	CG1	VAL	B	154	47.319	20.853	33.515	1.00	13.34	B	C
ATOM	6588	CG2	VAL	B	154	48.141	18.560	32.730	1.00	11.82	B	C
ATOM	6589	C	VAL	B	154	47.660	22.001	30.839	1.00	12.91	B	C
ATOM	6590	O	VAL	B	154	48.621	22.789	30.865	1.00	13.30	B	O
ATOM	6591	N	GLY	B	155	46.418	22.415	30.598	1.00	14.01	B	N
ATOM	6592	CA	GLY	B	155	46.122	23.836	30.381	1.00	11.20	B	C
ATOM	6593	C	GLY	B	155	44.708	24.015	29.816	1.00	12.36	B	C
ATOM	6594	O	GLY	B	155	43.888	23.067	29.781	1.00	11.51	B	O
ATOM	6595	N	LYS	B	156	44.427	25.229	29.371	1.00	14.04	B	N
ATOM	6596	CA	LYS	B	156	43.136	25.588	28.793	1.00	17.27	B	C
ATOM	6597	CB	LYS	B	156	42.720	26.967	29.325	1.00	15.62	B	C
ATOM	6598	CG	LYS	B	156	41.316	27.418	28.946	1.00	15.09	B	C
ATOM	6599	CD	LYS	B	156	41.044	28.835	29.464	1.00	16.93	B	C
ATOM	6600	CE	LYS	B	156	39.600	29.248	29.212	1.00	19.67	B	C
ATOM	6601	NZ	LYS	B	156	39.253	30.644	29.629	1.00	17.83	B	N
ATOM	6602	C	LYS	B	156	43.254	25.635	27.263	1.00	13.07	B	C
ATOM	6603	O	LYS	B	156	43.912	26.521	26.711	1.00	12.82	B	O
ATOM	6604	N	PHE	B	157	42.590	24.709	26.583	1.00	13.27	B	N
ATOM	6605	CA	PHE	B	157	42.695	24.618	25.128	1.00	11.04	B	C
ATOM	6606	CB	PHE	B	157	42.763	23.146	24.685	1.00	13.79	B	C
ATOM	6607	CG	PHE	B	157	44.047	22.445	25.103	1.00	13.28	B	C
ATOM	6608	CD1	PHE	B	157	44.230	22.037	26.414	1.00	10.51	B	C
ATOM	6609	CE1	PHE	B	157	45.418	21.399	26.801	1.00	9.95	B	C
ATOM	6610	CZ	PHE	B	157	46.430	21.190	25.864	1.00	12.16	B	C
ATOM	6611	CE2	PHE	B	157	46.235	21.593	24.543	1.00	8.92	B	C
ATOM	6612	CD2	PHE	B	157	45.057	22.219	24.180	1.00	8.82	B	C
ATOM	6613	C	PHE	B	157	41.539	25.304	24.412	1.00	14.00	B	C
ATOM	6614	O	PHE	B	157	40.405	25.336	24.915	1.00	16.19	B	O
ATOM	6615	N	ARG	B	158	41.822	25.834	23.223	1.00	10.11	B	N
ATOM	6616	CA	ARG	B	158	40.749	26.323	22.378	1.00	10.54	B	C
ATOM	6617	CB	ARG	B	158	41.246	27.496	21.538	1.00	10.47	B	C

ATOM	6618	CG	ARG	B	158	41.594	28.707	22.401	1.00	15.48	B	C
ATOM	6619	CD	ARG	B	158	42.308	29.767	21.580	1.00	15.44	B	C
ATOM	6620	NE	ARG	B	158	43.734	29.499	21.480	1.00	15.32	B	N
ATOM	6621	CZ	ARG	B	158	44.390	29.322	20.342	1.00	15.82	B	C
ATOM	6622	NH1	ARG	B	158	43.747	29.359	19.171	1.00	14.20	B	N
ATOM	6623	NH2	ARG	B	158	45.699	29.108	20.383	1.00	14.38	B	N
ATOM	6624	C	ARG	B	158	40.296	25.143	21.513	1.00	12.91	B	C
ATOM	6625	O	ARG	B	158	41.131	24.351	21.083	1.00	11.18	B	O
ATOM	6626	N	MET	B	159	38.986	25.000	21.314	1.00	16.32	B	N
ATOM	6627	CA	MET	B	159	38.433	23.877	20.528	1.00	15.48	B	C
ATOM	6628	CB	MET	B	159	37.227	23.250	21.225	1.00	9.75	B	C
ATOM	6629	CG	MET	B	159	36.735	21.863	20.613	1.00	10.14	B	C
ATOM	6630	SD	MET	B	159	35.082	21.530	21.259	1.00	17.04	B	S
ATOM	6631	CE	MET	B	159	34.733	19.890	20.482	1.00	10.59	B	C
ATOM	6632	C	MET	B	159	37.971	24.359	19.173	1.00	14.03	B	C
ATOM	6633	O	MET	B	159	37.409	25.433	19.079	1.00	13.10	B	O
ATOM	6634	N	TYR	B	160	38.193	23.566	18.127	1.00	11.31	B	N
ATOM	6635	CA	TYR	B	160	37.643	23.919	16.821	1.00	11.40	B	C
ATOM	6636	CB	TYR	B	160	38.703	24.546	15.919	1.00	9.34	B	C
ATOM	6637	CG	TYR	B	160	39.296	25.821	16.484	1.00	13.11	B	C
ATOM	6638	CD1	TYR	B	160	38.762	27.056	16.170	1.00	13.51	B	C
ATOM	6639	CE1	TYR	B	160	39.324	28.245	16.700	1.00	18.29	B	C
ATOM	6640	CZ	TYR	B	160	40.419	28.154	17.551	1.00	17.36	B	C
ATOM	6641	OH	TYR	B	160	40.994	29.297	18.081	1.00	16.13	B	O
ATOM	6642	CE2	TYR	B	160	40.945	26.919	17.884	1.00	13.30	B	C
ATOM	6643	CD2	TYR	B	160	40.394	25.771	17.350	1.00	14.27	B	C
ATOM	6644	C	TYR	B	160	37.156	22.652	16.158	1.00	9.88	B	C
ATOM	6645	O	TYR	B	160	37.576	21.543	16.516	1.00	10.33	B	O
ATOM	6646	N	VAL	B	161	36.257	22.822	15.202	1.00	13.17	B	N
ATOM	6647	CA	VAL	B	161	35.898	21.727	14.324	1.00	14.92	B	C
ATOM	6648	CB	VAL	B	161	34.380	21.424	14.367	1.00	15.42	B	C
ATOM	6649	CG1	VAL	B	161	34.031	20.337	13.345	1.00	12.93	B	C
ATOM	6650	CG2	VAL	B	161	33.980	20.956	15.763	1.00	14.73	B	C
ATOM	6651	C	VAL	B	161	36.336	22.142	12.931	1.00	15.03	B	C
ATOM	6652	O	VAL	B	161	35.920	23.179	12.423	1.00	14.55	B	O
ATOM	6653	N	ALA	B	162	37.178	21.316	12.328	1.00	14.31	B	N
ATOM	6654	CA	ALA	B	162	37.739	21.600	11.023	1.00	14.31	B	C
ATOM	6655	CB	ALA	B	162	39.271	21.496	11.089	1.00	11.87	B	C
ATOM	6656	C	ALA	B	162	37.165	20.608	10.003	1.00	12.92	B	C
ATOM	6657	O	ALA	B	162	37.344	19.405	10.132	1.00	14.26	B	O
ATOM	6658	N	VAL	B	163	36.444	21.117	9.016	1.00	13.26	B	N
ATOM	6659	CA	VAL	B	163	35.894	20.272	7.947	1.00	11.50	B	C
ATOM	6660	CB	VAL	B	163	34.474	20.739	7.560	1.00	12.21	B	C
ATOM	6661	CG1	VAL	B	163	33.926	19.982	6.300	1.00	11.24	B	C
ATOM	6662	CG2	VAL	B	163	33.545	20.595	8.751	1.00	10.94	B	C
ATOM	6663	C	VAL	B	163	36.804	20.362	6.734	1.00	13.51	B	C
ATOM	6664	O	VAL	B	163	37.150	21.477	6.279	1.00	12.11	B	O
ATOM	6665	N	TRP	B	164	37.200	19.195	6.219	1.00	14.10	B	N
ATOM	6666	CA	TRP	B	164	38.144	19.123	5.108	1.00	15.92	B	C
ATOM	6667	CB	TRP	B	164	39.057	17.898	5.247	1.00	15.35	B	C
ATOM	6668	CG	TRP	B	164	40.082	18.048	6.342	1.00	18.23	B	C
ATOM	6669	CD1	TRP	B	164	39.953	18.763	7.510	1.00	18.99	B	C
ATOM	6670	NE1	TRP	B	164	41.116	18.695	8.237	1.00	21.07	B	N
ATOM	6671	CE2	TRP	B	164	42.020	17.923	7.551	1.00	23.26	B	C
ATOM	6672	CD2	TRP	B	164	41.409	17.515	6.345	1.00	22.57	B	C
ATOM	6673	CE3	TRP	B	164	42.130	16.699	5.459	1.00	24.77	B	C
ATOM	6674	CZ3	TRP	B	164	43.422	16.335	5.790	1.00	26.53	B	C
ATOM	6675	CH2	TRP	B	164	44.009	16.772	6.991	1.00	25.42	B	C
ATOM	6676	CZ2	TRP	B	164	43.322	17.554	7.887	1.00	26.32	B	C
ATOM	6677	C	TRP	B	164	37.438	19.141	3.737	1.00	17.52	B	C
ATOM	6678	O	TRP	B	164	36.539	18.348	3.496	1.00	22.87	B	O
ATOM	6679	N	THR	B	165	37.839	20.059	2.851	1.00	14.91	B	N
ATOM	6680	CA	THR	B	165	37.238	20.150	1.512	1.00	12.02	B	C
ATOM	6681	CB	THR	B	165	36.481	21.493	1.335	1.00	13.35	B	C
ATOM	6682	OG1	THR	B	165	37.401	22.513	0.933	1.00	17.18	B	O
ATOM	6683	CG2	THR	B	165	35.753	21.912	2.643	1.00	12.75	B	C
ATOM	6684	C	THR	B	165	38.344	20.053	0.466	1.00	15.02	B	C
ATOM	6685	O	THR	B	165	39.506	20.144	0.814	1.00	12.38	B	O
ATOM	6686	N	PRO	B	166	37.995	19.872	-0.825	1.00	17.42	B	N
ATOM	6687	CA	PRO	B	166	39.051	19.913	-1.843	1.00	17.91	B	C
ATOM	6688	CB	PRO	B	166	38.278	19.727	-3.160	1.00	21.63	B	C
ATOM	6689	CG	PRO	B	166	36.966	19.157	-2.766	1.00	22.97	B	C
ATOM	6690	CD	PRO	B	166	36.662	19.709	-1.426	1.00	20.43	B	C
ATOM	6691	C	PRO	B	166	39.810	21.249	-1.888	1.00	16.49	B	C
ATOM	6692	O	PRO	B	166	40.922	21.287	-2.427	1.00	17.32	B	O
ATOM	6693	N	TYR	B	167	39.234	22.315	-1.330	1.00	14.99	B	N
ATOM	6694	CA	TYR	B	167	39.776	23.665	-1.499	1.00	13.68	B	C

ATOM	6695	CB	TYR	B	167	38.655	24.629	-1.895	1.00	13.91	B	C
ATOM	6696	CG	TYR	B	167	37.799	24.040	-2.987	1.00	15.04	B	C
ATOM	6697	CD1	TYR	B	167	38.332	23.787	-4.240	1.00	14.89	B	C
ATOM	6698	CE1	TYR	B	167	37.550	23.222	-5.269	1.00	17.02	B	C
ATOM	6699	CZ	TYR	B	167	36.232	22.892	-5.021	1.00	18.70	B	C
ATOM	6700	OH	TYR	B	167	35.476	22.326	-6.031	1.00	17.35	B	O
ATOM	6701	CE2	TYR	B	167	35.672	23.136	-3.767	1.00	17.15	B	C
ATOM	6702	CD2	TYR	B	167	36.467	23.706	-2.755	1.00	16.30	B	C
ATOM	6703	C	TYR	B	167	40.510	24.177	-0.257	1.00	17.86	B	C
ATOM	6704	O	TYR	B	167	41.029	25.289	-0.265	1.00	17.31	B	O
ATOM	6705	N	GLY	B	168	40.559	23.360	0.794	1.00	16.94	B	N
ATOM	6706	CA	GLY	B	168	41.144	23.779	2.065	1.00	15.55	B	C
ATOM	6707	C	GLY	B	168	40.196	23.444	3.199	1.00	16.37	B	C
ATOM	6708	O	GLY	B	168	39.165	22.790	2.998	1.00	19.38	B	O
ATOM	6709	N	VAL	B	169	40.532	23.892	4.394	1.00	15.61	B	N
ATOM	6710	CA	VAL	B	169	39.728	23.611	5.574	1.00	10.87	B	C
ATOM	6711	CB	VAL	B	169	40.656	23.512	6.818	1.00	16.57	B	C
ATOM	6712	CG1	VAL	B	169	39.856	23.541	8.106	1.00	14.82	B	C
ATOM	6713	CG2	VAL	B	169	41.534	22.260	6.732	1.00	19.97	B	C
ATOM	6714	C	VAL	B	169	38.702	24.719	5.802	1.00	14.94	B	C
ATOM	6715	O	VAL	B	169	39.007	25.907	5.629	1.00	16.47	B	O
ATOM	6716	N	LEU	B	170	37.496	24.322	6.204	1.00	13.20	B	N
ATOM	6717	CA	LEU	B	170	36.492	25.240	6.682	1.00	14.08	B	C
ATOM	6718	CB	LEU	B	170	35.155	25.033	5.969	1.00	14.78	B	C
ATOM	6719	CG	LEU	B	170	35.244	25.125	4.446	1.00	17.77	B	C
ATOM	6720	CD1	LEU	B	170	33.850	24.909	3.813	1.00	15.85	B	C
ATOM	6721	CD2	LEU	B	170	35.845	26.469	3.987	1.00	17.63	B	C
ATOM	6722	C	LEU	B	170	36.370	24.992	8.177	1.00	13.76	B	C
ATOM	6723	O	LEU	B	170	36.054	23.884	8.617	1.00	13.47	B	O
ATOM	6724	N	ARG	B	171	36.658	26.026	8.963	1.00	12.38	B	N
ATOM	6725	CA	ARG	B	171	36.854	25.839	10.404	1.00	10.46	B	C
ATOM	6726	CB	ARG	B	171	38.292	26.162	10.761	1.00	11.20	B	C
ATOM	6727	CG	ARG	B	171	38.638	26.005	12.239	1.00	16.83	B	C
ATOM	6728	CD	ARG	B	171	40.108	26.343	12.504	1.00	16.73	B	C
ATOM	6729	NE	ARG	B	171	41.030	25.286	12.061	1.00	12.26	B	N
ATOM	6730	CZ	ARG	B	171	41.881	25.408	11.046	1.00	12.47	B	C
ATOM	6731	NH1	ARG	B	171	41.917	26.540	10.334	1.00	12.56	B	N
ATOM	6732	NH2	ARG	B	171	42.706	24.399	10.737	1.00	10.30	B	N
ATOM	6733	C	ARG	B	171	35.900	26.710	11.193	1.00	13.16	B	C
ATOM	6734	O	ARG	B	171	35.568	27.818	10.763	1.00	14.39	B	O
ATOM	6735	N	THR	B	172	35.440	26.222	12.339	1.00	11.39	B	N
ATOM	6736	CA	THR	B	172	34.605	27.039	13.222	1.00	14.60	B	C
ATOM	6737	CB	THR	B	172	34.129	26.245	14.444	1.00	16.10	B	C
ATOM	6738	OG1	THR	B	172	35.265	25.634	15.073	1.00	12.39	B	O
ATOM	6739	CG2	THR	B	172	33.125	25.134	13.987	1.00	16.08	B	C
ATOM	6740	C	THR	B	172	35.343	28.291	13.702	1.00	15.67	B	C
ATOM	6741	O	THR	B	172	36.577	28.308	13.762	1.00	15.18	B	O
ATOM	6742	N	SER	B	173	34.561	29.329	14.008	1.00	12.08	B	N
ATOM	6743	CA	SER	B	173	35.053	30.587	14.569	1.00	17.99	B	C
ATOM	6744	CB	SER	B	173	33.929	31.626	14.563	1.00	18.41	B	C
ATOM	6745	OG	SER	B	173	33.603	31.951	13.233	1.00	26.26	B	O
ATOM	6746	C	SER	B	173	35.536	30.402	16.000	1.00	17.35	B	C
ATOM	6747	O	SER	B	173	35.128	29.444	16.685	1.00	17.04	B	O
ATOM	6748	N	ARG	B	174	36.392	31.322	16.445	1.00	19.09	B	N
ATOM	6749	CA	ARG	B	174	36.814	31.367	17.848	1.00	16.37	B	C
ATOM	6750	CB	ARG	B	174	37.554	32.678	18.133	1.00	19.27	B	C
ATOM	6751	CG	ARG	B	174	38.044	32.810	19.585	1.00	17.48	B	C
ATOM	6752	CD	ARG	B	174	39.188	31.834	19.892	1.00	17.11	B	C
ATOM	6753	NE	ARG	B	174	39.656	32.000	21.260	1.00	17.12	B	N
ATOM	6754	CZ	ARG	B	174	39.198	31.318	22.305	1.00	17.60	B	C
ATOM	6755	NH1	ARG	B	174	38.260	30.389	22.133	1.00	12.41	B	N
ATOM	6756	NH2	ARG	B	174	39.685	31.567	23.532	1.00	15.50	B	N
ATOM	6757	C	ARG	B	174	35.558	31.340	18.691	1.00	15.00	B	C
ATOM	6758	O	ARG	B	174	34.624	32.087	18.440	1.00	14.04	B	O
ATOM	6759	N	ASN	B	175	35.508	30.449	19.665	1.00	14.89	B	N
ATOM	6760	CA	ASN	B	175	34.346	30.376	20.538	1.00	17.14	B	C
ATOM	6761	CB	ASN	B	175	33.403	29.270	20.063	1.00	18.23	B	C
ATOM	6762	CG	ASN	B	175	32.125	29.198	20.880	1.00	20.14	B	C
ATOM	6763	OD1	ASN	B	175	31.975	29.883	21.897	1.00	19.10	B	O
ATOM	6764	ND2	ASN	B	175	31.198	28.345	20.447	1.00	21.61	B	N
ATOM	6765	C	ASN	B	175	34.775	30.098	21.975	1.00	15.98	B	C
ATOM	6766	O	ASN	B	175	34.980	28.940	22.344	1.00	15.54	B	O
ATOM	6767	N	PRO	B	176	34.900	31.158	22.791	1.00	18.13	B	N
ATOM	6768	CA	PRO	B	176	35.407	30.977	24.166	1.00	18.63	B	C
ATOM	6769	CB	PRO	B	176	35.341	32.398	24.758	1.00	20.24	B	C
ATOM	6770	CG	PRO	B	176	35.315	33.321	23.563	1.00	21.30	B	C
ATOM	6771	CD	PRO	B	176	34.586	32.572	22.486	1.00	15.68	B	C

ATOM	6772	C	PRO	B	176	34.556	30.020	24.998	1.00	18.97	B	C
ATOM	6773	O	PRO	B	176	35.030	29.454	25.979	1.00	21.99	B	O
ATOM	6774	N	GLU	B	177	33.303	29.835	24.609	1.00	21.14	B	N
ATOM	6775	CA	GLU	B	177	32.406	28.968	25.364	1.00	22.04	B	C
ATOM	6776	CB	GLU	B	177	30.939	29.193	24.959	1.00	25.91	B	C
ATOM	6777	CG	GLU	B	177	30.416	30.558	25.355	1.00	31.93	B	C
ATOM	6778	CD	GLU	B	177	30.740	30.889	26.802	1.00	38.87	B	C
ATOM	6779	OE1	GLU	B	177	30.388	30.070	27.681	1.00	41.97	B	O
ATOM	6780	OE2	GLU	B	177	31.368	31.949	27.059	1.00	41.48	B	O
ATOM	6781	C	GLU	B	177	32.766	27.490	25.242	1.00	16.75	B	C
ATOM	6782	O	GLU	B	177	32.295	26.674	26.024	1.00	16.75	B	O
ATOM	6783	N	THR	B	178	33.600	27.141	24.277	1.00	12.84	B	N
ATOM	6784	CA	THR	B	178	33.972	25.741	24.124	1.00	14.32	B	C
ATOM	6785	CB	THR	B	178	33.774	25.218	22.668	1.00	18.23	B	C
ATOM	6786	OG1	THR	B	178	34.548	26.005	21.744	1.00	13.02	B	O
ATOM	6787	CG2	THR	B	178	32.290	25.290	22.276	1.00	20.13	B	C
ATOM	6788	C	THR	B	178	35.409	25.511	24.583	1.00	14.60	B	C
ATOM	6789	O	THR	B	178	35.923	24.424	24.439	1.00	14.83	B	O
ATOM	6790	N	ASP	B	179	36.044	26.534	25.157	1.00	12.94	B	N
ATOM	6791	CA	ASP	B	179	37.401	26.358	25.673	1.00	14.04	B	C
ATOM	6792	CB	ASP	B	179	37.950	27.658	26.306	1.00	13.31	B	C
ATOM	6793	CG	ASP	B	179	38.231	28.748	25.259	1.00	15.95	B	C
ATOM	6794	OD1	ASP	B	179	38.131	28.465	24.043	1.00	16.89	B	O
ATOM	6795	OD2	ASP	B	179	38.538	29.901	25.636	1.00	16.24	B	O
ATOM	6796	C	ASP	B	179	37.362	25.237	26.693	1.00	14.57	B	C
ATOM	6797	O	ASP	B	179	36.405	25.110	27.466	1.00	15.71	B	O
ATOM	6798	N	THR	B	180	38.396	24.420	26.685	1.00	10.49	B	N
ATOM	6799	CA	THR	B	180	38.355	23.177	27.433	1.00	10.52	B	C
ATOM	6800	CB	THR	B	180	38.196	21.984	26.472	1.00	14.88	B	C
ATOM	6801	OG1	THR	B	180	36.966	22.132	25.761	1.00	15.78	B	O
ATOM	6802	CG2	THR	B	180	38.171	20.654	27.245	1.00	16.08	B	C
ATOM	6803	C	THR	B	180	39.625	23.000	28.248	1.00	12.04	B	C
ATOM	6804	O	THR	B	180	40.740	23.018	27.704	1.00	13.16	B	O
ATOM	6805	N	TYR	B	181	39.458	22.869	29.561	1.00	11.19	B	N
ATOM	6806	CA	TYR	B	181	40.606	22.637	30.426	1.00	12.71	B	C
ATOM	6807	CB	TYR	B	181	40.356	23.136	31.857	1.00	11.14	B	C
ATOM	6808	CG	TYR	B	181	40.113	24.631	32.019	1.00	15.02	B	C
ATOM	6809	CD1	TYR	B	181	41.113	25.480	32.488	1.00	15.53	B	C
ATOM	6810	CE1	TYR	B	181	40.873	26.859	32.666	1.00	11.99	B	C
ATOM	6811	CZ	TYR	B	181	39.616	27.373	32.380	1.00	15.57	B	C
ATOM	6812	OH	TYR	B	181	39.356	28.708	32.536	1.00	18.29	B	O
ATOM	6813	CE2	TYR	B	181	38.609	26.548	31.923	1.00	15.50	B	C
ATOM	6814	CD2	TYR	B	181	38.855	25.182	31.759	1.00	13.95	B	C
ATOM	6815	C	TYR	B	181	40.910	21.150	30.479	1.00	13.83	B	C
ATOM	6816	O	TYR	B	181	40.032	20.333	30.733	1.00	17.97	B	O
ATOM	6817	N	ILE	B	182	42.174	20.800	30.274	1.00	15.07	B	N
ATOM	6818	CA	ILE	B	182	42.592	19.422	30.427	1.00	12.59	B	C
ATOM	6819	CB	ILE	B	182	43.235	18.900	29.143	1.00	12.34	B	C
ATOM	6820	CG1	ILE	B	182	42.273	19.086	27.948	1.00	13.63	B	C
ATOM	6821	CD1	ILE	B	182	42.873	18.612	26.616	1.00	12.55	B	C
ATOM	6822	CG2	ILE	B	182	43.610	17.428	29.315	1.00	11.23	B	C
ATOM	6823	C	ILE	B	182	43.572	19.336	31.604	1.00	15.26	B	C
ATOM	6824	O	ILE	B	182	44.585	20.018	31.611	1.00	13.33	B	O
ATOM	6825	N	LEU	B	183	43.259	18.504	32.595	1.00	14.25	B	N
ATOM	6826	CA	LEU	B	183	44.049	18.472	33.821	1.00	12.66	B	C
ATOM	6827	CB	LEU	B	183	43.126	18.666	35.020	1.00	12.98	B	C
ATOM	6828	CG	LEU	B	183	42.250	19.932	35.034	1.00	15.03	B	C
ATOM	6829	CD1	LEU	B	183	41.431	20.025	36.320	1.00	18.23	B	C
ATOM	6830	CD2	LEU	B	183	43.067	21.186	34.841	1.00	15.04	B	C
ATOM	6831	C	LEU	B	183	44.787	17.153	33.981	1.00	18.04	B	C
ATOM	6832	O	LEU	B	183	44.485	16.169	33.292	1.00	16.50	B	O
ATOM	6833	N	PHE	B	184	45.719	17.106	34.932	1.00	17.01	B	N
ATOM	6834	CA	PHE	B	184	46.315	15.832	35.344	1.00	14.39	B	C
ATOM	6835	CB	PHE	B	184	47.357	16.092	36.450	1.00	14.76	B	C
ATOM	6836	CG	PHE	B	184	48.602	16.740	35.949	1.00	15.93	B	C
ATOM	6837	CD1	PHE	B	184	49.546	15.990	35.267	1.00	16.78	B	C
ATOM	6838	CE1	PHE	B	184	50.711	16.553	34.815	1.00	11.90	B	C
ATOM	6839	CZ	PHE	B	184	50.943	17.930	35.009	1.00	11.68	B	C
ATOM	6840	CE2	PHE	B	184	50.001	18.696	35.689	1.00	14.21	B	C
ATOM	6841	CD2	PHE	B	184	48.831	18.104	36.146	1.00	13.17	B	C
ATOM	6842	C	PHE	B	184	45.249	14.841	35.850	1.00	16.02	B	C
ATOM	6843	O	PHE	B	184	44.217	15.273	36.366	1.00	16.33	B	O
ATOM	6844	N	ASN	B	185	45.503	13.526	35.731	1.00	14.51	B	N
ATOM	6845	CA	ASN	B	185	44.480	12.522	36.031	1.00	14.51	B	C
ATOM	6846	CB	ASN	B	185	43.955	11.879	34.731	1.00	13.68	B	C
ATOM	6847	CG	ASN	B	185	42.578	11.221	34.900	1.00	16.50	B	C
ATOM	6848	OD1	ASN	B	185	42.047	11.117	36.012	1.00	15.08	B	O

ATOM	6849	ND2	ASN	B	185	41.992	10.770	33.780	1.00	17.21	B	N
ATOM	6850	C	ASN	B	185	44.956	11.399	36.963	1.00	17.25	B	O
ATOM	6851	O	ASN	B	185	45.361	10.340	36.495	1.00	15.96	B	C
ATOM	6852	N	PRO	B	186	44.881	11.622	38.287	1.00	18.30	B	N
ATOM	6853	CA	PRO	B	186	45.242	10.591	39.273	1.00	18.18	B	C
ATOM	6854	CB	PRO	B	186	44.998	11.277	40.626	1.00	18.92	B	C
ATOM	6855	CG	PRO	B	186	45.151	12.764	40.335	1.00	15.40	B	C
ATOM	6856	CD	PRO	B	186	44.691	12.954	38.890	1.00	14.72	B	C
ATOM	6857	C	PRO	B	186	44.419	9.306	39.182	1.00	19.26	B	C
ATOM	6858	O	PRO	B	186	44.812	8.328	39.819	1.00	17.93	B	O
ATOM	6859	N	TRP	B	187	43.325	9.308	38.416	1.00	20.68	B	N
ATOM	6860	CA	TRP	B	187	42.445	8.142	38.282	1.00	17.95	B	C
ATOM	6861	CB	TRP	B	187	40.961	8.582	38.150	1.00	22.36	B	C
ATOM	6862	CG	TRP	B	187	40.335	9.087	39.438	1.00	20.22	B	C
ATOM	6863	CD1	TRP	B	187	39.566	8.372	40.307	1.00	21.05	B	C
ATOM	6864	NE1	TRP	B	187	39.191	9.168	41.369	1.00	21.63	B	N
ATOM	6865	CE2	TRP	B	187	39.705	10.426	41.192	1.00	22.27	B	C
ATOM	6866	CD2	TRP	B	187	40.434	10.415	39.983	1.00	19.72	B	C
ATOM	6867	CE3	TRP	B	187	41.084	11.585	39.575	1.00	16.88	B	C
ATOM	6868	CZ3	TRP	B	187	40.979	12.729	40.373	1.00	16.75	B	C
ATOM	6869	CH2	TRP	B	187	40.245	12.709	41.577	1.00	17.79	B	C
ATOM	6870	CZ2	TRP	B	187	39.615	11.567	42.010	1.00	21.95	B	C
ATOM	6871	C	TRP	B	187	42.816	7.275	37.071	1.00	17.94	B	C
ATOM	6872	O	TRP	B	187	42.286	6.165	36.895	1.00	20.48	B	O
ATOM	6873	N	CYS	B	188	43.704	7.793	36.225	1.00	18.60	B	N
ATOM	6874	CA	CYS	B	188	44.063	7.118	34.980	1.00	16.92	B	C
ATOM	6875	CB	CYS	B	188	44.196	8.135	33.843	1.00	15.82	B	C
ATOM	6876	SG	CYS	B	188	44.831	7.414	32.295	1.00	22.74	B	S
ATOM	6877	C	CYS	B	188	45.363	6.350	35.152	1.00	17.93	B	C
ATOM	6878	O	CYS	B	188	46.403	6.954	35.454	1.00	16.94	B	O
ATOM	6879	N	GLU	B	189	45.304	5.023	34.964	1.00	18.52	B	N
ATOM	6880	CA	GLU	B	189	46.418	4.145	35.333	1.00	19.38	B	C
ATOM	6881	C	GLU	B	189	47.650	4.404	34.479	1.00	18.83	B	C
ATOM	6882	O	GLU	B	189	48.765	4.068	34.873	1.00	19.45	B	O
ATOM	6883	CB	GLU	B	189	46.007	2.636	35.285	1.00	20.91	B	C
ATOM	6884	CG	GLU	B	189	45.829	2.129	33.879	1.00	34.94	B	C
ATOM	6885	CD	GLU	B	189	45.128	0.777	33.805	1.00	39.43	B	C
ATOM	6886	OE1	GLU	B	189	44.950	0.132	34.868	1.00	34.14	B	O
ATOM	6887	OE2	GLU	B	189	44.759	0.385	32.671	1.00	42.74	B	O
ATOM	6888	N	ASP	B	190	47.445	5.023	33.318	1.00	17.90	B	N
ATOM	6889	CA	ASP	B	190	48.534	5.389	32.418	1.00	19.97	B	C
ATOM	6890	CB	ASP	B	190	48.059	5.289	30.977	1.00	17.46	B	C
ATOM	6891	CG	ASP	B	190	47.697	3.839	30.588	1.00	25.05	B	C
ATOM	6892	OD1	ASP	B	190	48.526	2.943	30.840	1.00	24.91	B	O
ATOM	6893	OD2	ASP	B	190	46.587	3.627	30.072	1.00	31.04	B	O
ATOM	6894	C	ASP	B	190	49.090	6.811	32.659	1.00	22.24	B	C
ATOM	6895	O	ASP	B	190	50.037	7.222	31.985	1.00	22.55	B	O
ATOM	6896	N	ASP	B	191	48.490	7.565	33.577	1.00	19.96	B	N
ATOM	6897	CA	ASP	B	191	48.988	8.919	33.877	1.00	18.49	B	C
ATOM	6898	CB	ASP	B	191	47.891	9.773	34.517	1.00	19.45	B	C
ATOM	6899	CG	ASP	B	191	48.214	11.266	34.506	1.00	17.51	B	C
ATOM	6900	OD1	ASP	B	191	49.315	11.670	34.951	1.00	18.29	B	O
ATOM	6901	OD2	ASP	B	191	47.352	12.045	34.070	1.00	14.63	B	O
ATOM	6902	C	ASP	B	191	50.169	8.838	34.833	1.00	15.53	B	C
ATOM	6903	O	ASP	B	191	50.165	8.050	35.785	1.00	16.37	B	O
ATOM	6904	N	ALA	B	192	51.176	9.665	34.578	1.00	16.23	B	N
ATOM	6905	CA	ALA	B	192	52.306	9.833	35.499	1.00	17.61	B	C
ATOM	6906	CB	ALA	B	192	53.249	10.959	35.001	1.00	18.86	B	C
ATOM	6907	C	ALA	B	192	51.895	10.093	36.955	1.00	17.82	B	C
ATOM	6908	O	ALA	B	192	52.644	9.744	37.862	1.00	18.86	B	O
ATOM	6909	N	VAL	B	193	50.726	10.700	37.191	1.00	16.51	B	N
ATOM	6910	CA	VAL	B	193	50.279	10.965	38.578	1.00	15.38	B	C
ATOM	6911	CB	VAL	B	193	49.697	12.396	38.786	1.00	15.45	B	C
ATOM	6912	CG1	VAL	B	193	50.688	13.428	38.333	1.00	15.20	B	C
ATOM	6913	CG2	VAL	B	193	48.308	12.564	38.061	1.00	14.21	B	C
ATOM	6914	C	VAL	B	193	49.258	9.967	39.123	1.00	19.13	B	C
ATOM	6915	O	VAL	B	193	48.663	10.213	40.184	1.00	19.37	B	O
ATOM	6916	N	TYR	B	194	49.066	8.847	38.416	1.00	16.59	B	N
ATOM	6917	CA	TYR	B	194	48.152	7.799	38.864	1.00	17.52	B	C
ATOM	6918	CB	TYR	B	194	48.298	6.538	37.995	1.00	18.18	B	C
ATOM	6919	CG	TYR	B	194	47.359	5.401	38.389	1.00	21.56	B	C
ATOM	6920	CD1	TYR	B	194	45.986	5.608	38.434	1.00	19.72	B	C
ATOM	6921	CE1	TYR	B	194	45.123	4.605	38.780	1.00	20.49	B	C
ATOM	6922	CZ	TYR	B	194	45.609	3.349	39.077	1.00	25.55	B	C
ATOM	6923	OH	TYR	B	194	44.707	2.362	39.410	1.00	26.40	B	O
ATOM	6924	CE2	TYR	B	194	46.972	3.095	39.027	1.00	23.44	B	C
ATOM	6925	CD2	TYR	B	194	47.841	4.121	38.675	1.00	20.62	B	C

ATOM	6926	C	TYR	B	194	48.383	7.442	40.336	1.00	18.62	B	C
ATOM	6927	O	TYR	B	194	49.505	7.163	40.757	1.00	18.83	B	O
ATOM	6928	N	LEU	B	195	47.305	7.488	41.106	1.00	18.80	B	N
ATOM	6929	CA	LEU	B	195	47.311	7.083	42.502	1.00	22.40	B	C
ATOM	6930	CB	LEU	B	195	47.033	8.309	43.362	1.00	27.13	B	C
ATOM	6931	CG	LEU	B	195	47.128	8.257	44.879	1.00	28.18	B	C
ATOM	6932	CD1	LEU	B	195	48.376	7.555	45.293	1.00	30.28	B	C
ATOM	6933	CD2	LEU	B	195	47.119	9.690	45.380	1.00	23.55	B	C
ATOM	6934	C	LEU	B	195	46.201	6.062	42.659	1.00	22.51	B	C
ATOM	6935	O	LEU	B	195	45.029	6.382	42.435	1.00	24.90	B	O
ATOM	6936	N	ASP	B	196	46.549	4.829	43.039	1.00	22.16	B	N
ATOM	6937	CA	ASP	B	196	45.623	3.702	42.842	1.00	25.41	B	C
ATOM	6938	CB	ASP	B	196	46.391	2.399	42.570	1.00	27.30	B	C
ATOM	6939	CG	ASP	B	196	47.001	1.774	43.834	1.00	32.25	B	C
ATOM	6940	OD1	ASP	B	196	46.968	2.379	44.924	1.00	32.92	B	O
ATOM	6941	OD2	ASP	B	196	47.542	0.650	43.732	1.00	36.98	B	O
ATOM	6942	C	ASP	B	196	44.573	3.505	43.937	1.00	29.13	B	C
ATOM	6943	O	ASP	B	196	43.861	2.506	43.947	1.00	31.91	B	O
ATOM	6944	N	ASN	B	197	44.460	4.478	44.831	1.00	28.37	B	N
ATOM	6945	CA	ASN	B	197	43.656	4.340	46.048	1.00	29.09	B	C
ATOM	6946	CB	ASN	B	197	44.578	4.412	47.272	1.00	25.64	B	C
ATOM	6947	CG	ASN	B	197	43.835	4.232	48.579	1.00	36.88	B	C
ATOM	6948	OD1	ASN	B	197	43.052	5.088	48.983	1.00	35.04	B	O
ATOM	6949	ND2	ASN	B	197	44.088	3.111	49.257	1.00	39.84	B	N
ATOM	6950	C	ASN	B	197	42.630	5.470	46.116	1.00	27.90	B	C
ATOM	6951	O	ASN	B	197	43.004	6.652	46.153	1.00	23.47	B	O
ATOM	6952	N	GLU	B	198	41.348	5.117	46.134	1.00	25.57	B	N
ATOM	6953	CA	GLU	B	198	40.306	6.138	46.045	1.00	28.91	B	C
ATOM	6954	CB	GLU	B	198	38.914	5.519	45.866	1.00	30.33	B	C
ATOM	6955	CG	GLU	B	198	37.771	6.535	45.700	1.00	34.43	B	C
ATOM	6956	CD	GLU	B	198	37.940	7.503	44.511	1.00	37.49	B	C
ATOM	6957	OE1	GLU	B	198	38.627	7.170	43.520	1.00	34.90	B	O
ATOM	6958	OE2	GLU	B	198	37.379	8.617	44.572	1.00	40.61	B	O
ATOM	6959	C	GLU	B	198	40.338	7.096	47.236	1.00	25.19	B	C
ATOM	6960	O	GLU	B	198	40.201	8.304	47.064	1.00	24.20	B	O
ATOM	6961	N	LYS	B	199	40.524	6.548	48.433	1.00	26.43	B	N
ATOM	6962	CA	LYS	B	199	40.595	7.364	49.641	1.00	30.51	B	C
ATOM	6963	CB	LYS	B	199	40.714	6.492	50.896	1.00	28.33	B	C
ATOM	6964	C	LYS	B	199	41.746	8.365	49.559	1.00	31.04	B	C
ATOM	6965	O	LYS	B	199	41.617	9.511	49.991	1.00	24.76	B	O
ATOM	6966	N	GLU	B	200	42.871	7.935	49.007	1.00	27.56	B	N
ATOM	6967	CA	GLU	B	200	44.002	8.838	48.873	1.00	24.77	B	C
ATOM	6968	CB	GLU	B	200	45.266	8.060	48.543	1.00	24.76	B	C
ATOM	6969	CG	GLU	B	200	45.715	7.106	49.641	1.00	31.54	B	C
ATOM	6970	CD	GLU	B	200	47.109	6.558	49.389	1.00	38.86	B	C
ATOM	6971	OE1	GLU	B	200	47.993	7.322	48.958	1.00	42.63	B	O
ATOM	6972	OE2	GLU	B	200	47.334	5.364	49.616	1.00	42.83	B	O
ATOM	6973	C	GLU	B	200	43.735	9.915	47.808	1.00	23.90	B	C
ATOM	6974	O	GLU	B	200	44.108	11.092	47.982	1.00	21.12	B	O
ATOM	6975	N	ARG	B	201	43.105	9.512	46.707	1.00	21.64	B	N
ATOM	6976	CA	ARG	B	201	42.721	10.468	45.676	1.00	23.86	B	C
ATOM	6977	CB	ARG	B	201	42.079	9.770	44.450	1.00	22.88	B	C
ATOM	6978	CG	ARG	B	201	43.103	9.035	43.586	1.00	19.96	B	C
ATOM	6979	CD	ARG	B	201	42.489	8.427	42.319	1.00	30.46	B	C
ATOM	6980	NE	ARG	B	201	41.440	7.434	42.579	1.00	21.22	B	N
ATOM	6981	CZ	ARG	B	201	41.490	6.157	42.205	1.00	24.48	B	C
ATOM	6982	NH1	ARG	B	201	42.564	5.664	41.592	1.00	26.37	B	N
ATOM	6983	NH2	ARG	B	201	40.455	5.368	42.443	1.00	23.35	B	N
ATOM	6984	C	ARG	B	201	41.794	11.541	46.233	1.00	26.20	B	C
ATOM	6985	O	ARG	B	201	41.955	12.731	45.909	1.00	23.42	B	O
ATOM	6986	N	GLU	B	202	40.838	11.129	47.071	1.00	21.96	B	N
ATOM	6987	C	GLU	B	202	40.629	13.093	48.552	1.00	24.33	B	C
ATOM	6988	O	GLU	B	202	40.348	14.292	48.512	1.00	21.72	B	O
ATOM	6989	CA	GLU	B	202	39.898	12.080	47.656	1.00	25.52	B	C
ATOM	6990	CB	GLU	B	202	38.804	11.365	48.463	1.00	28.06	B	C
ATOM	6991	CG	GLU	B	202	37.374	11.759	48.052	1.00	32.42	B	C
ATOM	6992	CD	GLU	B	202	37.034	13.255	48.279	1.00	67.54	B	C
ATOM	6993	OE1	GLU	B	202	36.080	13.745	47.634	1.00	67.01	B	O
ATOM	6994	OE2	GLU	B	202	37.693	13.943	49.105	1.00	67.31	B	O
ATOM	6995	N	GLU	B	203	41.559	12.598	49.359	1.00	22.47	B	N
ATOM	6996	CA	GLU	B	203	42.276	13.469	50.285	1.00	22.96	B	C
ATOM	6997	CB	GLU	B	203	42.989	12.645	51.364	1.00	23.43	B	C
ATOM	6998	CG	GLU	B	203	43.853	13.511	52.321	1.00	23.20	B	C
ATOM	6999	CD	GLU	B	203	43.034	14.495	53.146	1.00	27.26	B	C
ATOM	7000	OE1	GLU	B	203	41.817	14.260	53.307	1.00	27.77	B	O
ATOM	7001	OE2	GLU	B	203	43.604	15.513	53.646	1.00	27.68	B	O
ATOM	7002	C	GLU	B	203	43.273	14.379	49.569	1.00	23.26	B	C

ATOM	7003	O	GLU	B	203	43.273	15.598	49.767	1.00	21.54	B	O
ATOM	7004	N	TYR	B	204	44.103	13.785	48.721	1.00	21.66	B	N
ATOM	7005	CA	TYR	B	204	45.246	14.489	48.151	1.00	21.98	B	C
ATOM	7006	CB	TYR	B	204	46.398	13.517	47.916	1.00	19.09	B	C
ATOM	7007	CG	TYR	B	204	46.869	12.814	49.148	1.00	20.13	B	C
ATOM	7008	CD1	TYR	B	204	47.082	13.511	50.327	1.00	24.72	B	C
ATOM	7009	CE1	TYR	B	204	47.520	12.870	51.466	1.00	25.75	B	C
ATOM	7010	CZ	TYR	B	204	47.741	11.512	51.436	1.00	27.00	B	C
ATOM	7011	OH	TYR	B	204	48.181	10.888	52.569	1.00	23.32	B	O
ATOM	7012	CE2	TYR	B	204	47.516	10.777	50.284	1.00	21.89	B	C
ATOM	7013	CD2	TYR	B	204	47.079	11.427	49.148	1.00	20.82	B	C
ATOM	7014	C	TYR	B	204	44.958	15.247	46.847	1.00	21.22	B	C
ATOM	7015	O	TYR	B	204	45.854	15.914	46.307	1.00	18.31	B	O
ATOM	7016	N	VAL	B	205	43.737	15.122	46.329	1.00	18.22	B	N
ATOM	7017	CA	VAL	B	205	43.353	15.840	45.123	1.00	17.34	B	C
ATOM	7018	CB	VAL	B	205	43.130	14.886	43.919	1.00	19.10	B	C
ATOM	7019	CG1	VAL	B	205	42.881	15.686	42.634	1.00	17.66	B	C
ATOM	7020	CG2	VAL	B	205	44.318	13.934	43.744	1.00	20.44	B	C
ATOM	7021	C	VAL	B	205	42.076	16.645	45.370	1.00	24.42	B	C
ATOM	7022	O	VAL	B	205	42.017	17.843	45.078	1.00	25.57	B	O
ATOM	7023	N	LEU	B	206	41.075	15.989	45.940	1.00	18.83	B	N
ATOM	7024	CA	LEU	B	206	39.736	16.551	46.029	1.00	22.00	B	C
ATOM	7025	CB	LEU	B	206	38.681	15.464	45.806	1.00	22.09	B	C
ATOM	7026	CG	LEU	B	206	38.730	14.823	44.418	1.00	23.31	B	C
ATOM	7027	CD1	LEU	B	206	37.609	13.795	44.261	1.00	24.99	B	C
ATOM	7028	CD2	LEU	B	206	38.693	15.906	43.321	1.00	22.92	B	C
ATOM	7029	C	LEU	B	206	39.403	17.300	47.313	1.00	21.22	B	C
ATOM	7030	O	LEU	B	206	38.423	18.030	47.351	1.00	22.80	B	O
ATOM	7031	N	ASN	B	207	40.175	17.099	48.370	1.00	20.77	B	N
ATOM	7032	CA	ASN	B	207	39.932	17.842	49.605	1.00	21.70	B	C
ATOM	7033	CB	ASN	B	207	40.609	17.163	50.790	1.00	22.39	B	C
ATOM	7034	CG	ASN	B	207	39.999	17.581	52.118	1.00	29.12	B	C
ATOM	7035	OD1	ASN	B	207	39.163	18.475	52.158	1.00	24.81	B	O
ATOM	7036	ND2	ASN	B	207	40.407	16.925	53.211	1.00	24.63	B	N
ATOM	7037	C	ASN	B	207	40.409	19.300	49.488	1.00	21.06	B	C
ATOM	7038	O	ASN	B	207	41.582	19.544	49.228	1.00	20.16	B	O
ATOM	7039	N	ASP	B	208	39.509	20.268	49.662	1.00	21.65	B	N
ATOM	7040	CA	ASP	B	208	39.927	21.671	49.502	1.00	21.19	B	C
ATOM	7041	CB	ASP	B	208	39.004	22.480	48.581	1.00	21.08	B	C
ATOM	7042	CG	ASP	B	208	37.562	22.520	49.060	1.00	22.49	B	C
ATOM	7043	OD1	ASP	B	208	37.276	22.099	50.188	1.00	23.63	B	O
ATOM	7044	OD2	ASP	B	208	36.709	22.985	48.287	1.00	26.89	B	O
ATOM	7045	C	ASP	B	208	40.184	22.377	50.834	1.00	22.11	B	C
ATOM	7046	O	ASP	B	208	40.441	23.583	50.875	1.00	26.64	B	O
ATOM	7047	N	ILE	B	209	40.136	21.611	51.917	1.00	24.12	B	N
ATOM	7048	CA	ILE	B	209	40.539	22.120	53.229	1.00	26.52	B	C
ATOM	7049	CB	ILE	B	209	39.348	22.315	54.197	1.00	31.17	B	C
ATOM	7050	CG1	ILE	B	209	38.575	21.002	54.377	1.00	32.72	B	C
ATOM	7051	CD1	ILE	B	209	37.395	21.125	55.343	1.00	34.96	B	C
ATOM	7052	CG2	ILE	B	209	38.432	23.451	53.734	1.00	32.17	B	C
ATOM	7053	C	ILE	B	209	41.533	21.156	53.859	1.00	26.54	B	C
ATOM	7054	O	ILE	B	209	41.585	19.971	53.512	1.00	23.57	B	O
ATOM	7055	N	GLY	B	210	42.340	21.663	54.777	1.00	25.57	B	N
ATOM	7056	CA	GLY	B	210	43.340	20.818	55.379	1.00	28.16	B	C
ATOM	7057	C	GLY	B	210	43.787	21.336	56.721	1.00	29.76	B	C
ATOM	7058	O	GLY	B	210	43.207	22.276	57.268	1.00	27.98	B	O
ATOM	7059	N	VAL	B	211	44.832	20.709	57.236	1.00	25.05	B	N
ATOM	7060	CA	VAL	B	211	45.388	21.055	58.517	1.00	28.59	B	C
ATOM	7061	CB	VAL	B	211	45.069	19.970	59.566	1.00	33.89	B	C
ATOM	7062	CG1	VAL	B	211	45.804	20.246	60.868	1.00	32.61	B	C
ATOM	7063	CG2	VAL	B	211	43.571	19.888	59.799	1.00	37.13	B	C
ATOM	7064	C	VAL	B	211	46.884	21.119	58.324	1.00	26.70	B	C
ATOM	7065	O	VAL	B	211	47.463	20.258	57.663	1.00	26.70	B	O
ATOM	7066	N	ILE	B	212	47.507	22.154	58.878	1.00	25.38	B	N
ATOM	7067	CA	ILE	B	212	48.956	22.237	58.881	1.00	28.84	B	C
ATOM	7068	CB	ILE	B	212	49.475	23.506	58.171	1.00	24.26	B	C
ATOM	7069	CG1	ILE	B	212	48.864	23.619	56.762	1.00	23.23	B	C
ATOM	7070	CD1	ILE	B	212	49.156	24.965	56.012	1.00	22.75	B	C
ATOM	7071	CG2	ILE	B	212	50.986	23.449	58.097	1.00	23.91	B	C
ATOM	7072	C	ILE	B	212	49.416	22.213	60.329	1.00	29.19	B	C
ATOM	7073	O	ILE	B	212	48.917	22.976	61.151	1.00	28.35	B	O
ATOM	7074	N	PHE	B	213	50.348	21.316	60.631	1.00	26.16	B	N
ATOM	7075	CA	PHE	B	213	50.814	21.113	61.993	1.00	27.31	B	C
ATOM	7076	CB	PHE	B	213	51.114	19.626	62.251	1.00	27.62	B	C
ATOM	7077	CG	PHE	B	213	49.905	18.743	62.109	1.00	30.61	B	C
ATOM	7078	CD1	PHE	B	213	49.067	18.519	63.185	1.00	32.49	B	C
ATOM	7079	CE1	PHE	B	213	47.940	17.733	63.051	1.00	29.69	B	C

ATOM	7080	CZ	PHE	B	213	47.636	17.157	61.830	1.00	28.74	B	C
ATOM	7081	CE2	PHE	B	213	48.454	17.370	60.754	1.00	27.73	B	C
ATOM	7082	CD2	PHE	B	213	49.586	18.166	60.894	1.00	30.46	B	C
ATOM	7083	C	PHE	B	213	52.027	21.991	62.272	1.00	27.32	B	C
ATOM	7084	O	PHE	B	213	52.835	22.255	61.377	1.00	26.42	B	O
ATOM	7085	N	TYR	B	214	52.129	22.469	63.505	1.00	28.46	B	N
ATOM	7086	CA	TYR	B	214	53.266	23.289	63.901	1.00	28.72	B	C
ATOM	7087	CB	TYR	B	214	53.105	24.741	63.383	1.00	28.42	B	C
ATOM	7088	CG	TYR	B	214	51.995	25.549	64.033	1.00	29.34	B	C
ATOM	7089	CD1	TYR	B	214	50.669	25.337	63.705	1.00	29.26	B	C
ATOM	7090	CE1	TYR	B	214	49.651	26.064	64.284	1.00	30.27	B	C
ATOM	7091	CZ	TYR	B	214	49.951	27.047	65.194	1.00	39.98	B	C
ATOM	7092	OH	TYR	B	214	48.924	27.766	65.751	1.00	41.68	B	O
ATOM	7093	CE2	TYR	B	214	51.264	27.304	65.536	1.00	39.44	B	C
ATOM	7094	CD2	TYR	B	214	52.283	26.557	64.953	1.00	38.77	B	C
ATOM	7095	C	TYR	B	214	53.485	25.178	65.431	1.00	30.14	B	C
ATOM	7096	O	TYR	B	214	52.959	22.253	66.071	1.00	30.81	B	O
ATOM	7097	N	GLY	B	215	54.277	24.069	66.019	1.00	33.31	B	N
ATOM	7098	CA	GLY	B	215	54.520	23.997	67.460	1.00	33.94	B	C
ATOM	7099	C	GLY	B	215	55.720	23.143	67.873	1.00	36.50	B	C
ATOM	7100	O	GLY	B	215	56.822	23.353	67.359	1.00	37.34	B	O
ATOM	7101	N	GLU	B	216	55.513	22.197	68.804	1.00	31.86	B	N
ATOM	7102	CA	GLU	B	216	56.585	21.317	69.302	1.00	36.19	B	C
ATOM	7103	CB	GLU	B	216	56.985	21.701	70.732	1.00	36.10	B	C
ATOM	7104	CG	GLU	B	216	57.231	23.192	70.969	1.00	36.73	B	C
ATOM	7105	CD	GLU	B	216	57.068	23.574	72.437	1.00	42.70	B	C
ATOM	7106	OE1	GLU	B	216	57.316	22.716	73.313	1.00	42.39	B	O
ATOM	7107	OE2	GLU	B	216	56.679	24.727	72.721	1.00	48.91	B	O
ATOM	7108	C	GLU	B	216	56.114	19.866	69.315	1.00	41.21	B	C
ATOM	7109	O	GLU	B	216	54.910	19.612	69.279	1.00	45.24	B	O
ATOM	7110	N	VAL	B	217	57.044	18.914	69.395	1.00	40.85	B	N
ATOM	7111	CA	VAL	B	217	56.677	17.494	69.293	1.00	41.31	B	C
ATOM	7112	CB	VAL	B	217	57.912	16.555	69.224	1.00	44.56	B	C
ATOM	7113	CG1	VAL	B	217	58.673	16.770	67.920	1.00	38.08	B	C
ATOM	7114	CG2	VAL	B	217	58.818	16.761	70.433	1.00	46.75	B	C
ATOM	7115	C	VAL	B	217	55.715	17.011	70.386	1.00	42.25	B	C
ATOM	7116	O	VAL	B	217	54.843	16.178	70.127	1.00	41.54	B	O
ATOM	7117	N	ASN	B	218	55.867	17.527	71.602	1.00	43.69	B	N
ATOM	7118	CA	ASN	B	218	54.897	17.224	72.647	1.00	46.24	B	C
ATOM	7119	C	ASN	B	218	54.020	18.432	72.992	1.00	47.96	B	C
ATOM	7120	O	ASN	B	218	53.511	18.555	74.109	1.00	51.39	B	O
ATOM	7121	CB	ASN	B	218	55.573	16.647	73.897	1.00	47.55	B	C
ATOM	7122	CG	ASN	B	218	54.647	15.724	74.682	1.00	46.25	B	C
ATOM	7123	OD1	ASN	B	218	54.366	14.601	74.256	1.00	44.73	B	O
ATOM	7124	ND2	ASN	B	218	54.164	16.199	75.828	1.00	45.14	B	N
ATOM	7125	N	ASP	B	219	53.860	19.324	72.021	1.00	44.73	B	N
ATOM	7126	CA	ASP	B	219	52.943	20.447	72.145	1.00	43.89	B	C
ATOM	7127	CB	ASP	B	219	53.594	21.617	72.884	1.00	45.10	B	C
ATOM	7128	CG	ASP	B	219	52.575	22.660	73.354	1.00	49.40	B	C
ATOM	7129	OD1	ASP	B	219	52.993	23.710	73.908	1.00	53.48	B	O
ATOM	7130	OD2	ASP	B	219	51.359	22.426	73.174	1.00	46.80	B	O
ATOM	7131	C	ASP	B	219	52.513	20.844	70.732	1.00	39.43	B	C
ATOM	7132	O	ASP	B	219	52.757	21.970	70.271	1.00	33.97	B	O
ATOM	7133	N	ILE	B	220	51.874	19.893	70.056	1.00	36.73	B	N
ATOM	7134	CA	ILE	B	220	51.495	20.043	68.655	1.00	36.63	B	C
ATOM	7135	CB	ILE	B	220	51.068	18.702	68.046	1.00	39.76	B	C
ATOM	7136	CG1	ILE	B	220	52.065	17.590	68.405	1.00	41.84	B	C
ATOM	7137	CD1	ILE	B	220	53.303	17.544	67.521	1.00	40.45	B	C
ATOM	7138	CG2	ILE	B	220	50.890	18.838	66.537	1.00	38.70	B	C
ATOM	7139	C	ILE	B	220	50.332	21.007	68.490	1.00	35.76	B	C
ATOM	7140	O	ILE	B	220	49.292	20.877	69.140	1.00	34.38	B	O
ATOM	7141	N	LYS	B	221	50.517	21.983	67.614	1.00	36.68	B	N
ATOM	7142	CA	LYS	B	221	49.459	22.923	67.295	1.00	36.07	B	C
ATOM	7143	C	LYS	B	221	48.995	22.687	65.866	1.00	34.01	B	C
ATOM	7144	O	LYS	B	221	49.769	22.211	65.027	1.00	30.94	B	O
ATOM	7145	CB	LYS	B	221	49.954	24.347	67.486	1.00	36.75	B	C
ATOM	7146	CG	LYS	B	221	50.169	24.689	68.958	1.00	43.04	B	C
ATOM	7147	CD	LYS	B	221	51.194	25.783	69.144	1.00	46.77	B	C
ATOM	7148	CE	LYS	B	221	51.252	26.232	70.602	1.00	51.09	B	C
ATOM	7149	NZ	LYS	B	221	50.179	27.226	70.927	1.00	52.42	B	N
ATOM	7150	N	THR	B	222	47.726	22.992	65.610	1.00	29.51	B	N
ATOM	7151	CA	THR	B	222	47.144	22.845	64.281	1.00	29.97	B	C
ATOM	7152	CB	THR	B	222	46.042	21.742	64.245	1.00	41.44	B	C
ATOM	7153	OG1	THR	B	222	44.952	22.106	65.100	1.00	44.67	B	O
ATOM	7154	CG2	THR	B	222	46.603	20.404	64.714	1.00	37.33	B	C
ATOM	7155	C	THR	B	222	46.603	24.180	63.763	1.00	31.20	B	C
ATOM	7156	O	THR	B	222	46.084	25.008	64.520	1.00	36.58	B	O

ATOM	7157	N	ARG	B	223	46.776	24.397	62.471	1.00	27.89	B	N
ATOM	7158	CA	ARG	B	223	46.282	25.583	61.798	1.00	30.95	B	C
ATOM	7159	CB	ARG	B	223	47.469	26.311	61.168	1.00	32.35	B	C
ATOM	7160	CG	ARG	B	223	47.172	27.669	60.633	1.00	37.21	B	C
ATOM	7161	CD	ARG	B	223	48.417	28.306	60.039	1.00	38.37	B	C
ATOM	7162	NE	ARG	B	223	49.528	28.404	60.985	1.00	40.48	B	N
ATOM	7163	CZ	ARG	B	223	49.852	29.513	61.648	1.00	42.09	B	C
ATOM	7164	NH1	ARG	B	223	49.137	30.623	61.475	1.00	43.30	B	N
ATOM	7165	NH2	ARG	B	223	50.887	29.512	62.484	1.00	38.77	B	N
ATOM	7166	C	ARG	B	223	45.388	25.033	60.704	1.00	29.14	B	C
ATOM	7167	O	ARG	B	223	45.833	24.214	59.925	1.00	24.40	B	O
ATOM	7168	N	SER	B	224	44.127	25.439	60.645	1.00	28.19	B	N
ATOM	7169	CA	SER	B	224	43.303	25.025	59.513	1.00	26.40	B	C
ATOM	7170	CB	SER	B	224	41.825	25.263	59.800	1.00	29.17	B	C
ATOM	7171	OG	SER	B	224	41.553	26.650	59.830	1.00	29.17	B	O
ATOM	7172	C	SER	B	224	43.745	25.807	58.277	1.00	23.88	B	C
ATOM	7173	O	SER	B	224	44.326	26.882	58.393	1.00	23.80	B	O
ATOM	7174	N	TRP	B	225	43.498	25.262	57.095	1.00	22.99	B	N
ATOM	7175	CA	TRP	B	225	43.859	25.957	55.868	1.00	21.92	B	C
ATOM	7176	CB	TRP	B	225	45.256	25.567	55.370	1.00	20.96	B	C
ATOM	7177	CG	TRP	B	225	45.900	26.638	54.482	1.00	20.18	B	C
ATOM	7178	CD1	TRP	B	225	45.969	26.652	53.128	1.00	19.51	B	C
ATOM	7179	NE1	TRP	B	225	46.633	27.785	52.694	1.00	18.92	B	N
ATOM	7180	CE2	TRP	B	225	47.007	28.528	53.783	1.00	19.61	B	C
ATOM	7181	CD2	TRP	B	225	46.567	27.836	54.931	1.00	20.41	B	C
ATOM	7182	CE3	TRP	B	225	46.826	28.384	56.189	1.00	23.54	B	C
ATOM	7183	CZ3	TRP	B	225	47.518	29.616	56.262	1.00	23.89	B	C
ATOM	7184	CH2	TRP	B	225	47.939	30.270	55.098	1.00	20.56	B	C
ATOM	7185	CZ2	TRP	B	225	47.688	29.746	53.851	1.00	19.68	B	C
ATOM	7186	C	TRP	B	225	42.853	25.656	54.776	1.00	24.50	B	C
ATOM	7187	O	TRP	B	225	42.522	24.500	54.519	1.00	24.87	B	O
ATOM	7188	N	SER	B	226	42.365	26.710	54.146	1.00	22.13	B	N
ATOM	7189	C	SER	B	226	42.333	26.579	51.744	1.00	22.74	B	C
ATOM	7190	O	SER	B	226	42.871	27.606	51.368	1.00	20.88	B	O
ATOM	7191	CA	ASER	B	226	41.486	26.566	53.005	0.44	24.52	B	C
ATOM	7192	CB	ASER	B	226	40.484	27.719	52.973	0.44	26.05	B	C
ATOM	7193	OG	ASER	B	226	39.500	27.496	51.987	0.44	25.97	B	O
ATOM	7194	CA	BSER	B	226	41.485	26.573	52.999	0.56	24.60	B	C
ATOM	7195	CB	BSER	B	226	40.503	27.745	52.944	0.56	26.07	B	C
ATOM	7196	OG	BSER	B	226	39.867	27.926	54.193	0.56	27.35	B	O
ATOM	7197	N	TYR	B	227	42.459	25.434	51.090	1.00	21.84	B	N
ATOM	7198	CA	TYR	B	227	43.244	25.391	49.858	1.00	21.66	B	C
ATOM	7199	CB	TYR	B	227	43.622	23.948	49.498	1.00	20.20	B	C
ATOM	7200	CG	TYR	B	227	44.425	23.303	50.609	1.00	18.80	B	C
ATOM	7201	CD1	TYR	B	227	45.559	23.926	51.116	1.00	19.42	B	C
ATOM	7202	CE1	TYR	B	227	46.298	23.351	52.169	1.00	19.91	B	C
ATOM	7203	CZ	TYR	B	227	45.883	22.141	52.697	1.00	21.93	B	C
ATOM	7204	OH	TYR	B	227	46.608	21.571	53.727	1.00	24.16	B	O
ATOM	7205	CE2	TYR	B	227	44.756	21.504	52.191	1.00	19.94	B	C
ATOM	7206	CD2	TYR	B	227	44.032	22.092	51.167	1.00	18.62	B	C
ATOM	7207	C	TYR	B	227	42.460	26.049	48.745	1.00	23.12	B	C
ATOM	7208	O	TYR	B	227	43.006	26.819	47.962	1.00	23.32	B	O
ATOM	7209	N	GLY	B	228	41.167	25.757	48.698	1.00	18.74	B	N
ATOM	7210	CA	GLY	B	228	40.275	26.448	47.793	1.00	18.85	B	C
ATOM	7211	C	GLY	B	228	40.605	26.235	46.323	1.00	23.33	B	C
ATOM	7212	O	GLY	B	228	40.422	27.150	45.531	1.00	18.97	B	O
ATOM	7213	N	GLN	B	229	41.074	25.042	45.947	1.00	20.40	B	N
ATOM	7214	CA	GLN	B	229	41.488	24.813	44.547	1.00	21.24	B	C
ATOM	7215	CB	GLN	B	229	42.242	23.484	44.392	1.00	19.08	B	C
ATOM	7216	CG	GLN	B	229	41.438	22.252	44.756	1.00	17.42	B	C
ATOM	7217	CD	GLN	B	229	41.662	21.824	46.191	1.00	18.08	B	C
ATOM	7218	OE1	GLN	B	229	41.826	22.665	47.072	1.00	19.64	B	O
ATOM	7219	NE2	GLN	B	229	41.689	20.509	46.433	1.00	17.39	B	N
ATOM	7220	C	GLN	B	229	40.341	24.901	43.533	1.00	17.07	B	C
ATOM	7221	O	GLN	B	229	40.564	25.114	42.322	1.00	16.64	B	O
ATOM	7222	N	PHE	B	230	39.113	24.768	44.027	1.00	17.89	B	N
ATOM	7223	CA	PHE	B	230	37.942	24.784	43.154	1.00	18.90	B	C
ATOM	7224	CB	PHE	B	230	36.955	23.682	43.555	1.00	21.00	B	C
ATOM	7225	CG	PHE	B	230	37.604	22.332	43.715	1.00	25.00	B	C
ATOM	7226	CD1	PHE	B	230	38.109	21.660	42.612	1.00	22.13	B	C
ATOM	7227	CE1	PHE	B	230	38.719	20.423	42.747	1.00	22.97	B	C
ATOM	7228	CZ	PHE	B	230	38.832	19.845	44.003	1.00	22.50	B	C
ATOM	7229	CE2	PHE	B	230	38.337	20.515	45.116	1.00	18.73	B	C
ATOM	7230	CD2	PHE	B	230	37.723	21.747	44.968	1.00	19.01	B	C
ATOM	7231	C	PHE	B	230	37.225	26.133	43.082	1.00	20.25	B	C
ATOM	7232	O	PHE	B	230	36.257	26.283	42.341	1.00	19.34	B	O
ATOM	7233	N	GLU	B	231	37.688	27.108	43.860	1.00	18.94	B	N

ATOM	7234	CA	GLU	B	231	37.051	28.423	43.869	1.00	19.56	B	C
ATOM	7235	CB	GLU	B	231	37.670	29.291	44.952	1.00	31.17	B	C
ATOM	7236	CG	GLU	B	231	37.884	28.558	46.233	1.00	37.35	B	C
ATOM	7237	CD	GLU	B	231	36.772	28.762	47.200	1.00	44.58	B	C
ATOM	7238	OE1	GLU	B	231	35.635	28.362	46.867	1.00	45.54	B	O
ATOM	7239	OE2	GLU	B	231	37.041	29.329	48.288	1.00	49.29	B	O
ATOM	7240	C	GLU	B	231	37.217	29.134	42.546	1.00	19.22	B	C
ATOM	7241	O	GLU	B	231	38.249	28.988	41.911	1.00	18.40	B	O
ATOM	7242	N	ASP	B	232	36.207	29.932	42.174	1.00	19.96	B	N
ATOM	7243	CA	ASP	B	232	36.220	30.745	40.961	1.00	21.26	B	C
ATOM	7244	CB	ASP	B	232	35.027	31.709	40.993	1.00	30.35	B	C
ATOM	7245	CG	ASP	B	232	34.710	32.316	39.623	1.00	38.38	B	C
ATOM	7246	OD1	ASP	B	232	35.601	32.368	38.748	1.00	41.91	B	O
ATOM	7247	OD2	ASP	B	232	33.554	32.744	39.422	1.00	40.53	B	O
ATOM	7248	C	ASP	B	232	37.523	31.538	40.830	1.00	21.56	B	C
ATOM	7249	O	ASP	B	232	37.940	32.222	41.770	1.00	19.38	B	O
ATOM	7250	N	GLY	B	233	38.178	31.435	39.676	1.00	19.65	B	N
ATOM	7251	CA	GLY	B	233	39.425	32.163	39.469	1.00	18.14	B	C
ATOM	7252	C	GLY	B	233	40.726	31.412	39.765	1.00	21.63	B	C
ATOM	7253	O	GLY	B	233	41.773	31.758	39.210	1.00	20.22	B	O
ATOM	7254	N	ILE	B	234	40.680	30.373	40.604	1.00	17.15	B	N
ATOM	7255	CA	ILE	B	234	41.921	29.733	41.054	1.00	16.48	B	C
ATOM	7256	CB	ILE	B	234	41.717	28.903	42.326	1.00	21.98	B	C
ATOM	7257	CG1	ILE	B	234	41.304	29.828	43.474	1.00	24.43	B	C
ATOM	7258	CD1	ILE	B	234	42.395	30.846	43.921	1.00	17.22	B	C
ATOM	7259	CG2	ILE	B	234	42.987	28.131	42.681	1.00	16.02	B	C
ATOM	7260	C	ILE	B	234	42.641	28.923	39.982	1.00	15.81	B	C
ATOM	7261	O	ILE	B	234	43.855	29.049	39.807	1.00	15.92	B	O
ATOM	7262	N	LEU	B	235	41.895	28.108	39.248	1.00	15.87	B	N
ATOM	7263	CA	LEU	B	235	42.482	27.333	38.172	1.00	17.09	B	C
ATOM	7264	CB	LEU	B	235	41.424	26.415	37.530	1.00	15.64	B	C
ATOM	7265	CG	LEU	B	235	41.847	25.579	36.331	1.00	18.59	B	C
ATOM	7266	CD1	LEU	B	235	43.065	24.699	36.640	1.00	14.66	B	C
ATOM	7267	CD2	LEU	B	235	40.658	24.747	35.851	1.00	15.73	B	C
ATOM	7268	C	LEU	B	235	43.118	28.260	37.145	1.00	16.83	B	C
ATOM	7269	O	LEU	B	235	44.252	28.023	36.704	1.00	14.75	B	O
ATOM	7270	N	ASP	B	236	42.392	29.312	36.758	1.00	15.76	B	N
ATOM	7271	CA	ASP	B	236	42.959	30.309	35.842	1.00	20.84	B	C
ATOM	7272	CB	ASP	B	236	41.920	31.388	35.449	1.00	16.55	B	C
ATOM	7273	CG	ASP	B	236	40.908	30.864	34.434	1.00	20.09	B	C
ATOM	7274	OD1	ASP	B	236	41.324	30.049	33.599	1.00	18.12	B	O
ATOM	7275	OD2	ASP	B	236	39.714	31.245	34.471	1.00	21.76	B	O
ATOM	7276	C	ASP	B	236	44.210	30.953	36.455	1.00	20.41	B	C
ATOM	7277	O	ASP	B	236	45.177	31.262	35.746	1.00	15.32	B	O
ATOM	7278	N	THR	B	237	44.201	31.145	37.768	1.00	15.60	B	N
ATOM	7279	CA	THR	B	237	45.372	31.744	38.390	1.00	16.26	B	C
ATOM	7280	CB	THR	B	237	45.107	32.167	39.847	1.00	19.06	B	C
ATOM	7281	OG1	THR	B	237	44.041	33.125	39.869	1.00	19.68	B	O
ATOM	7282	CG2	THR	B	237	46.360	32.780	40.478	1.00	16.94	B	C
ATOM	7283	C	THR	B	237	46.564	30.805	38.292	1.00	16.39	B	C
ATOM	7284	O	THR	B	237	47.693	31.249	38.085	1.00	14.68	B	O
ATOM	7285	N	CYS	B	238	46.319	29.494	38.423	1.00	14.98	B	N
ATOM	7286	CA	CYS	B	238	47.421	28.549	38.337	1.00	14.02	B	C
ATOM	7287	CB	CYS	B	238	46.967	27.134	38.729	1.00	13.86	B	C
ATOM	7288	SG	CYS	B	238	46.481	27.030	40.492	1.00	19.68	B	S
ATOM	7289	C	CYS	B	238	48.026	28.562	36.929	1.00	15.00	B	C
ATOM	7290	O	CYS	B	238	49.224	28.431	36.775	1.00	13.60	B	O
ATOM	7291	N	LEU	B	239	47.195	28.698	35.896	1.00	15.29	B	N
ATOM	7292	CA	LEU	B	239	47.724	28.793	34.530	1.00	15.91	B	C
ATOM	7293	CB	LEU	B	239	46.580	28.727	33.501	1.00	14.40	B	C
ATOM	7294	CG	LEU	B	239	45.733	27.449	33.603	1.00	14.69	B	C
ATOM	7295	CD1	LEU	B	239	44.729	27.338	32.467	1.00	14.74	B	C
ATOM	7296	CD2	LEU	B	239	46.589	26.153	33.743	1.00	13.83	B	C
ATOM	7297	C	LEU	B	239	48.527	30.108	34.374	1.00	15.80	B	C
ATOM	7298	O	LEU	B	239	49.608	30.136	33.752	1.00	14.20	B	O
ATOM	7299	N	TYR	B	240	47.996	31.179	34.952	1.00	14.66	B	N
ATOM	7300	CA	TYR	B	240	48.684	32.490	34.921	1.00	15.28	B	C
ATOM	7301	CB	TYR	B	240	47.844	33.553	35.616	1.00	16.52	B	C
ATOM	7302	CG	TYR	B	240	48.573	34.869	35.817	1.00	15.89	B	C
ATOM	7303	CD1	TYR	B	240	48.772	35.745	34.756	1.00	16.35	B	C
ATOM	7304	CE1	TYR	B	240	49.445	36.964	34.942	1.00	21.89	B	C
ATOM	7305	CZ	TYR	B	240	49.946	37.284	36.200	1.00	25.86	B	C
ATOM	7306	OH	TYR	B	240	50.616	38.485	36.401	1.00	25.21	B	O
ATOM	7307	CE2	TYR	B	240	49.762	36.418	37.265	1.00	16.38	B	C
ATOM	7308	CD2	TYR	B	240	49.076	35.217	37.064	1.00	17.31	B	C
ATOM	7309	C	TYR	B	240	50.074	32.395	35.587	1.00	15.04	B	C
ATOM	7310	O	TYR	B	240	51.046	32.928	35.071	1.00	14.88	B	O

ATOM	7311	N	VAL	B	241	50.152	31.666	36.698	1.00	14.41	B	N
ATOM	7312	CA	VAL	B	241	51.437	31.471	37.374	1.00	15.36	B	C
ATOM	7313	CB	VAL	B	241	51.279	30.628	38.657	1.00	17.86	B	C
ATOM	7314	CG1	VAL	B	241	52.638	30.174	39.184	1.00	13.83	B	C
ATOM	7315	CG2	VAL	B	241	50.525	31.419	39.711	1.00	18.82	B	C
ATOM	7316	C	VAL	B	241	52.464	30.829	36.427	1.00	15.92	B	C
ATOM	7317	O	VAL	B	241	53.600	31.291	36.343	1.00	14.14	B	O
ATOM	7318	N	MET	B	242	52.067	29.774	35.697	1.00	14.49	B	N
ATOM	7319	CA	MET	B	242	52.993	29.157	34.750	1.00	15.51	B	C
ATOM	7320	CB	MET	B	242	52.486	27.781	34.249	1.00	13.30	B	C
ATOM	7321	CG	MET	B	242	52.486	26.717	35.358	1.00	12.98	B	C
ATOM	7322	SD	MET	B	242	51.835	25.133	34.765	1.00	12.86	B	S
ATOM	7323	CE	MET	B	242	50.051	25.409	34.800	1.00	13.21	B	C
ATOM	7324	C	MET	B	242	53.356	30.077	33.580	1.00	14.48	B	C
ATOM	7325	O	MET	B	242	54.498	30.078	33.106	1.00	14.14	B	O
ATOM	7326	N	ASP	B	243	52.368	30.820	33.100	1.00	14.32	B	N
ATOM	7327	CA	ASP	B	243	52.596	31.845	32.079	1.00	14.87	B	C
ATOM	7328	CB	ASP	B	243	51.285	32.572	31.756	1.00	15.24	B	C
ATOM	7329	CG	ASP	B	243	50.311	31.709	30.941	1.00	19.08	B	C
ATOM	7330	OD1	ASP	B	243	50.671	30.556	30.598	1.00	18.85	B	O
ATOM	7331	OD2	ASP	B	243	49.189	32.191	30.655	1.00	16.80	B	O
ATOM	7332	C	ASP	B	243	53.636	32.873	32.540	1.00	21.85	B	C
ATOM	7333	O	ASP	B	243	54.562	33.231	31.813	1.00	17.14	B	O
ATOM	7334	N	ARG	B	244	53.486	33.346	33.762	1.00	15.16	B	N
ATOM	7335	CA	ARG	B	244	54.393	34.390	34.227	1.00	18.75	B	C
ATOM	7336	CB	ARG	B	244	53.901	35.001	35.518	1.00	19.08	B	C
ATOM	7337	CG	ARG	B	244	54.796	36.160	35.927	1.00	23.86	B	C
ATOM	7338	CD	ARG	B	244	53.988	37.341	36.256	1.00	23.82	B	C
ATOM	7339	NE	ARG	B	244	54.801	38.461	36.740	1.00	23.25	B	N
ATOM	7340	CZ	ARG	B	244	54.297	39.430	37.478	1.00	22.55	B	C
ATOM	7341	NH1	ARG	B	244	53.013	39.359	37.800	1.00	22.08	B	N
ATOM	7342	NH2	ARG	B	244	55.059	40.447	37.901	1.00	19.56	B	N
ATOM	7343	C	ARG	B	244	55.816	33.856	34.406	1.00	18.23	B	C
ATOM	7344	O	ARG	B	244	56.802	34.584	34.215	1.00	17.26	B	O
ATOM	7345	N	ALA	B	245	55.898	32.563	34.725	1.00	15.64	B	N
ATOM	7346	CA	ALA	B	245	57.166	31.849	34.843	1.00	14.80	B	C
ATOM	7347	CB	ALA	B	245	56.955	30.477	35.459	1.00	14.23	B	C
ATOM	7348	C	ALA	B	245	57.823	31.688	33.501	1.00	16.91	B	C
ATOM	7349	O	ALA	B	245	58.983	31.287	33.437	1.00	15.63	B	O
ATOM	7350	N	GLN	B	246	57.082	32.005	32.436	1.00	16.07	B	N
ATOM	7351	CA	GLN	B	246	57.527	31.723	31.068	1.00	17.08	B	C
ATOM	7352	CB	GLN	B	246	58.712	32.594	30.686	1.00	18.95	B	C
ATOM	7353	CG	GLN	B	246	58.386	34.076	30.795	1.00	24.38	B	C
ATOM	7354	CD	GLN	B	246	59.476	34.955	30.227	1.00	33.93	B	C
ATOM	7355	OE1	GLN	B	246	59.214	35.805	29.384	1.00	41.21	B	O
ATOM	7356	NE2	GLN	B	246	60.703	34.756	30.683	1.00	35.22	B	N
ATOM	7357	C	GLN	B	246	57.847	30.234	30.891	1.00	16.23	B	C
ATOM	7358	O	GLN	B	246	58.847	29.849	30.279	1.00	15.38	B	O
ATOM	7359	N	MET	B	247	56.984	29.410	31.451	1.00	15.92	B	N
ATOM	7360	CA	MET	B	247	57.119	27.956	31.324	1.00	16.18	B	C
ATOM	7361	CB	MET	B	247	56.327	27.254	32.419	1.00	13.66	B	C
ATOM	7362	CG	MET	B	247	56.439	25.700	32.353	1.00	13.36	B	C
ATOM	7363	SD	MET	B	247	55.538	24.871	33.665	1.00	17.11	B	S
ATOM	7364	CE	MET	B	247	56.057	23.150	33.391	1.00	12.77	B	C
ATOM	7365	C	MET	B	247	56.618	27.501	29.948	1.00	17.83	B	C
ATOM	7366	O	MET	B	247	55.448	27.733	29.600	1.00	14.36	B	O
ATOM	7367	N	ASP	B	248	57.517	26.908	29.158	1.00	16.91	B	N
ATOM	7368	CA	ASP	B	248	57.158	26.401	27.821	1.00	18.44	B	C
ATOM	7369	CB	ASP	B	248	58.319	25.626	27.190	1.00	23.09	B	C
ATOM	7370	CG	ASP	B	248	59.335	26.529	26.520	1.00	34.47	B	C
ATOM	7371	OD1	ASP	B	248	59.033	27.729	26.272	1.00	34.23	B	O
ATOM	7372	OD2	ASP	B	248	60.446	26.029	26.225	1.00	38.69	B	O
ATOM	7373	C	ASP	B	248	55.939	25.479	27.908	1.00	15.69	B	C
ATOM	7374	O	ASP	B	248	55.917	24.555	28.721	1.00	14.00	B	O
ATOM	7375	N	LEU	B	249	54.928	25.722	27.078	1.00	15.90	B	N
ATOM	7376	CA	LEU	B	249	53.714	24.901	27.105	1.00	14.44	B	C
ATOM	7377	CB	LEU	B	249	52.733	25.365	26.011	1.00	14.93	B	C
ATOM	7378	CG	LEU	B	249	52.042	26.673	26.432	1.00	16.65	B	C
ATOM	7379	CD1	LEU	B	249	51.384	27.378	25.270	1.00	15.72	B	C
ATOM	7380	CD2	LEU	B	249	51.027	26.405	27.542	1.00	14.59	B	C
ATOM	7381	C	LEU	B	249	54.004	23.407	26.971	1.00	14.27	B	C
ATOM	7382	O	LEU	B	249	53.335	22.565	27.588	1.00	13.92	B	O
ATOM	7383	N	SER	B	250	55.017	23.075	26.181	1.00	15.47	B	N
ATOM	7384	CA	SER	B	250	55.232	21.691	25.802	1.00	21.13	B	C
ATOM	7385	CB	SER	B	250	56.195	21.590	24.616	1.00	26.19	B	C
ATOM	7386	OG	SER	B	250	57.476	22.066	24.979	1.00	31.93	B	O
ATOM	7387	C	SER	B	250	55.692	20.833	26.985	1.00	20.06	B	C

ATOM	7388	O	SER	B	250	55.645	19.610	26.914	1.00	16.52	B	O
ATOM	7389	N	GLY	B	251	56.083	21.472	28.087	1.00	17.68	B	N
ATOM	7390	CA	GLY	B	251	56.498	20.726	29.262	1.00	18.49	B	C
ATOM	7391	C	GLY	B	251	55.434	20.676	30.342	1.00	16.10	B	C
ATOM	7392	O	GLY	B	251	55.637	20.042	31.362	1.00	12.87	B	O
ATOM	7393	N	ARG	B	252	54.295	21.335	30.123	1.00	14.08	B	N
ATOM	7394	CA	ARG	B	252	53.231	21.365	31.142	1.00	12.85	B	C
ATOM	7395	CB	ARG	B	252	52.286	22.538	30.920	1.00	12.99	B	C
ATOM	7396	CG	ARG	B	252	53.012	23.883	31.081	1.00	13.10	B	C
ATOM	7397	CD	ARG	B	252	52.077	25.060	30.996	1.00	13.30	B	C
ATOM	7398	NE	ARG	B	252	52.784	26.305	30.677	1.00	13.60	B	N
ATOM	7399	CZ	ARG	B	252	52.209	27.512	30.699	1.00	13.86	B	C
ATOM	7400	NH1	ARG	B	252	50.928	27.634	31.056	1.00	13.87	B	N
ATOM	7401	NH2	ARG	B	252	52.914	28.591	30.393	1.00	14.21	B	N
ATOM	7402	C	ARG	B	252	52.418	20.077	31.330	1.00	13.51	B	C
ATOM	7403	O	ARG	B	252	51.527	20.022	32.177	1.00	16.37	B	O
ATOM	7404	N	GLY	B	253	52.717	19.054	30.551	1.00	14.93	B	N
ATOM	7405	CA	GLY	B	253	52.148	17.729	30.811	1.00	12.95	B	C
ATOM	7406	C	GLY	B	253	53.057	16.872	31.678	1.00	15.92	B	C
ATOM	7407	O	GLY	B	253	52.751	15.710	31.958	1.00	16.04	B	O
ATOM	7408	N	ASN	B	254	54.181	17.445	32.108	1.00	14.42	B	N
ATOM	7409	CA	ASN	B	254	55.170	16.710	32.896	1.00	15.25	B	C
ATOM	7410	CB	ASN	B	254	56.557	16.856	32.260	1.00	16.49	B	C
ATOM	7411	CG	ASN	B	254	57.630	16.065	32.992	1.00	16.63	B	C
ATOM	7412	OD1	ASN	B	254	57.421	15.598	34.118	1.00	16.07	B	O
ATOM	7413	ND2	ASN	B	254	58.781	15.893	32.347	1.00	13.32	B	N
ATOM	7414	C	ASN	B	254	55.162	17.201	34.351	1.00	12.52	B	C
ATOM	7415	O	ASN	B	254	55.529	18.346	34.637	1.00	12.45	B	O
ATOM	7416	N	PRO	B	255	54.705	16.350	35.271	1.00	12.53	B	N
ATOM	7417	CA	PRO	B	255	54.510	16.831	36.644	1.00	12.88	B	C
ATOM	7418	CB	PRO	B	255	53.750	15.684	37.321	1.00	12.63	B	C
ATOM	7419	CG	PRO	B	255	54.139	14.458	36.515	1.00	12.79	B	C
ATOM	7420	CD	PRO	B	255	54.252	14.958	35.094	1.00	12.71	B	C
ATOM	7421	C	PRO	B	255	55.823	17.112	37.356	1.00	13.75	B	C
ATOM	7422	O	PRO	B	255	55.849	17.886	38.322	1.00	15.16	B	O
ATOM	7423	N	ILE	B	256	56.901	16.511	36.875	1.00	13.28	B	N
ATOM	7424	CA	ILE	B	256	58.229	16.868	37.352	1.00	14.46	B	C
ATOM	7425	CB	ILE	B	256	59.303	16.031	36.657	1.00	14.69	B	C
ATOM	7426	CG1	ILE	B	256	59.126	14.555	37.066	1.00	16.94	B	C
ATOM	7427	CD1	ILE	B	256	60.113	13.588	36.388	1.00	16.82	B	C
ATOM	7428	CG2	ILE	B	256	60.696	16.570	36.990	1.00	16.89	B	C
ATOM	7429	C	ILE	B	256	58.467	18.346	37.079	1.00	13.64	B	C
ATOM	7430	O	ILE	B	256	58.824	19.101	37.992	1.00	13.88	B	O
ATOM	7431	N	LYS	B	257	58.253	18.759	35.832	1.00	12.71	B	N
ATOM	7432	CA	LYS	B	257	58.496	20.147	35.451	1.00	14.51	B	C
ATOM	7433	CB	LYS	B	257	58.486	20.324	33.926	1.00	14.65	B	C
ATOM	7434	CG	LYS	B	257	59.493	19.423	33.238	1.00	17.37	B	C
ATOM	7435	CD	LYS	B	257	59.630	19.703	31.768	1.00	21.49	B	C
ATOM	7436	CE	LYS	B	257	60.908	19.062	31.235	1.00	25.86	B	C
ATOM	7437	NZ	LYS	B	257	61.029	19.327	29.766	1.00	29.47	B	N
ATOM	7438	C	LYS	B	257	57.478	21.086	36.085	1.00	16.62	B	C
ATOM	7439	O	LYS	B	257	57.830	22.171	36.513	1.00	12.68	B	O
ATOM	7440	N	VAL	B	258	56.208	20.685	36.131	1.00	12.41	B	N
ATOM	7441	CA	VAL	B	258	55.209	21.580	36.713	1.00	16.61	B	C
ATOM	7442	CB	VAL	B	258	53.774	21.065	36.526	1.00	13.33	B	C
ATOM	7443	CG1	VAL	B	258	52.793	21.883	37.388	1.00	14.57	B	C
ATOM	7444	CG2	VAL	B	258	53.382	21.093	35.029	1.00	12.34	B	C
ATOM	7445	C	VAL	B	258	55.498	21.796	38.191	1.00	20.04	B	C
ATOM	7446	O	VAL	B	258	55.416	22.923	38.691	1.00	12.52	B	O
ATOM	7447	N	SER	B	259	55.866	20.728	38.898	1.00	12.47	B	N
ATOM	7448	CA	SER	B	259	56.137	20.881	40.318	1.00	15.43	B	C
ATOM	7449	CB	SER	B	259	56.135	19.504	41.037	1.00	15.94	B	C
ATOM	7450	OG	SER	B	259	57.252	18.723	40.662	1.00	17.21	B	O
ATOM	7451	C	SER	B	259	57.419	21.698	40.579	1.00	15.13	B	C
ATOM	7452	O	SER	B	259	57.484	22.484	41.529	1.00	13.87	B	O
ATOM	7453	N	ARG	B	260	58.445	21.545	39.742	1.00	14.27	B	N
ATOM	7454	CA	ARG	B	260	59.660	22.336	39.957	1.00	15.63	B	C
ATOM	7455	CB	ARG	B	260	60.831	21.772	39.153	1.00	15.55	B	C
ATOM	7456	CG	ARG	B	260	62.154	22.470	39.447	1.00	16.42	B	C
ATOM	7457	CD	ARG	B	260	63.321	21.584	39.025	1.00	17.60	B	C
ATOM	7458	NE	ARG	B	260	64.627	22.246	39.069	1.00	18.72	B	N
ATOM	7459	CZ	ARG	B	260	65.350	22.446	40.172	1.00	16.59	B	C
ATOM	7460	NH1	ARG	B	260	64.890	22.079	41.362	1.00	16.07	B	N
ATOM	7461	NH2	ARG	B	260	66.534	23.027	40.083	1.00	17.16	B	N
ATOM	7462	C	ARG	B	260	59.458	23.825	39.623	1.00	16.34	B	C
ATOM	7463	O	ARG	B	260	60.006	24.704	40.302	1.00	14.34	B	O
ATOM	7464	N	VAL	B	261	58.703	24.108	38.560	1.00	14.76	B	N

ATOM	7465	CA	VAL	B	261	58.359	25.485	38.261	1.00	13.17	B	C
ATOM	7466	CB	VAL	B	261	57.639	25.668	36.877	1.00	18.46	B	C
ATOM	7467	CG1	VAL	B	261	57.062	27.116	36.747	1.00	13.27	B	C
ATOM	7468	CG2	VAL	B	261	58.613	25.406	35.737	1.00	15.66	B	C
ATOM	7469	C	VAL	B	261	57.523	26.067	39.392	1.00	14.80	B	C
ATOM	7470	O	VAL	B	261	57.773	27.197	39.834	1.00	14.93	B	O
ATOM	7471	N	GLY	B	262	56.554	25.301	39.884	1.00	12.99	B	N
ATOM	7472	CA	GLY	B	262	55.741	25.761	41.008	1.00	13.89	B	C
ATOM	7473	C	GLY	B	262	56.576	26.070	42.246	1.00	19.30	B	C
ATOM	7474	O	GLY	B	262	56.346	27.079	42.935	1.00	15.39	B	O
ATOM	7475	N	SER	B	263	57.563	25.226	42.542	1.00	17.05	B	N
ATOM	7476	CA	SER	B	263	58.425	25.543	43.678	1.00	16.42	B	C
ATOM	7477	CB	SER	B	263	59.365	24.386	44.045	1.00	18.32	B	C
ATOM	7478	OG	SER	B	263	60.492	24.324	43.196	1.00	19.73	B	O
ATOM	7479	C	SER	B	263	59.205	26.865	43.506	1.00	18.03	B	C
ATOM	7480	O	SER	B	263	59.501	27.518	44.483	1.00	18.55	B	O
ATOM	7481	N	ALA	B	264	59.537	27.253	42.277	1.00	14.15	B	N
ATOM	7482	CA	ALA	B	264	60.140	28.569	42.054	1.00	20.35	B	C
ATOM	7483	CB	ALA	B	264	60.828	28.632	40.689	1.00	14.57	B	C
ATOM	7484	C	ALA	B	264	59.085	29.664	42.142	1.00	17.11	B	C
ATOM	7485	O	ALA	B	264	59.245	30.651	42.855	1.00	16.59	B	O
ATOM	7486	N	MET	B	265	57.993	29.475	41.421	1.00	16.49	B	N
ATOM	7487	CA	MET	B	265	57.039	30.560	41.179	1.00	19.10	B	C
ATOM	7488	CB	MET	B	265	56.161	30.236	39.980	1.00	18.05	B	C
ATOM	7489	CG	MET	B	265	56.653	30.831	38.712	1.00	24.60	B	C
ATOM	7490	SD	MET	B	265	57.112	32.602	38.687	1.00	19.97	B	S
ATOM	7491	CE	MET	B	265	55.538	33.441	38.508	1.00	38.57	B	C
ATOM	7492	C	MET	B	265	56.122	30.931	42.339	1.00	17.14	B	C
ATOM	7493	O	MET	B	265	55.547	32.012	42.345	1.00	15.15	B	O
ATOM	7494	N	VAL	B	266	55.964	30.033	43.297	1.00	15.28	B	N
ATOM	7495	CA	VAL	B	266	55.139	30.331	44.454	1.00	14.76	B	C
ATOM	7496	CB	VAL	B	266	54.718	29.017	45.211	1.00	15.25	B	C
ATOM	7497	CG1	VAL	B	266	54.092	29.296	46.569	1.00	15.11	B	C
ATOM	7498	CG2	VAL	B	266	53.714	28.219	44.340	1.00	16.96	B	C
ATOM	7499	C	VAL	B	266	55.870	31.386	45.323	1.00	15.36	B	C
ATOM	7500	O	VAL	B	266	55.231	32.131	46.063	1.00	16.04	B	O
ATOM	7501	N	ASN	B	267	57.197	31.460	45.235	1.00	15.50	B	N
ATOM	7502	CA	ASN	B	267	57.892	32.542	45.944	1.00	17.00	B	C
ATOM	7503	CB	ASN	B	267	59.116	32.074	46.745	1.00	18.40	B	C
ATOM	7504	CG	ASN	B	267	60.210	31.521	45.860	1.00	17.83	B	C
ATOM	7505	OD1	ASN	B	267	60.824	32.267	45.110	1.00	16.47	B	O
ATOM	7506	ND2	ASN	B	267	60.463	30.198	45.944	1.00	16.75	B	N
ATOM	7507	C	ASN	B	267	58.278	33.659	44.975	1.00	16.37	B	C
ATOM	7508	O	ASN	B	267	58.537	33.412	43.784	1.00	16.04	B	O
ATOM	7509	N	ALA	B	268	58.346	34.869	45.521	1.00	17.01	B	N
ATOM	7510	CA	ALA	B	268	58.562	36.088	44.749	1.00	18.58	B	C
ATOM	7511	CB	ALA	B	268	58.155	37.321	45.583	1.00	19.77	B	C
ATOM	7512	C	ALA	B	268	59.986	36.266	44.232	1.00	20.81	B	C
ATOM	7513	O	ALA	B	268	60.199	36.979	43.229	1.00	20.32	B	O
ATOM	7514	N	LYS	B	269	60.958	35.683	44.933	1.00	17.83	B	N
ATOM	7515	CA	LYS	B	269	62.364	35.867	44.569	1.00	18.28	B	C
ATOM	7516	CB	LYS	B	269	63.279	35.007	45.459	1.00	22.59	B	C
ATOM	7517	CG	LYS	B	269	63.018	35.113	46.952	1.00	30.22	B	C
ATOM	7518	CD	LYS	B	269	64.252	35.528	47.739	1.00	34.49	B	C
ATOM	7519	CE	LYS	B	269	64.391	37.027	47.747	1.00	39.05	B	C
ATOM	7520	NZ	LYS	B	269	65.043	37.522	48.989	1.00	38.25	B	N
ATOM	7521	C	LYS	B	269	62.608	35.452	43.140	1.00	18.53	B	C
ATOM	7522	O	LYS	B	269	62.012	34.481	42.701	1.00	18.39	B	O
ATOM	7523	N	ASP	B	270	63.494	36.158	42.439	1.00	18.46	B	N
ATOM	7524	CA	ASP	B	270	63.994	35.750	41.113	1.00	18.33	B	C
ATOM	7525	CB	ASP	B	270	64.314	34.233	41.042	1.00	17.77	B	C
ATOM	7526	CG	ASP	B	270	65.242	33.773	42.160	1.00	23.02	B	C
ATOM	7527	OD1	ASP	B	270	66.282	34.430	42.386	1.00	24.09	B	O
ATOM	7528	OD2	ASP	B	270	64.917	32.759	42.818	1.00	21.15	B	O
ATOM	7529	C	ASP	B	270	63.073	36.078	39.940	1.00	18.98	B	C
ATOM	7530	O	ASP	B	270	63.551	36.418	38.865	1.00	18.39	B	O
ATOM	7531	N	ASP	B	271	61.767	35.966	40.157	1.00	17.53	B	N
ATOM	7532	CA	ASP	B	271	60.820	35.834	39.057	1.00	17.64	B	C
ATOM	7533	CB	ASP	B	271	60.505	34.333	38.821	1.00	16.35	B	C
ATOM	7534	CG	ASP	B	271	60.152	33.585	40.111	1.00	15.98	B	C
ATOM	7535	OD1	ASP	B	271	59.700	34.225	41.074	1.00	18.84	B	O
ATOM	7536	OD2	ASP	B	271	60.316	32.337	40.171	1.00	16.30	B	O
ATOM	7537	C	ASP	B	271	59.512	36.576	39.306	1.00	19.41	B	C
ATOM	7538	O	ASP	B	271	58.560	36.377	38.566	1.00	17.05	B	O
ATOM	7539	N	GLU	B	272	59.451	37.395	40.358	1.00	17.58	B	N
ATOM	7540	CA	GLU	B	272	58.224	38.139	40.685	1.00	19.52	B	C
ATOM	7541	CB	GLU	B	272	57.918	39.158	39.582	1.00	21.98	B	C

ATOM	7542	CG	GLU	B	272	59.059	40.141	39.355	1.00	20.22	B	C
ATOM	7543	CD	GLU	B	272	58.792	41.153	38.252	1.00	22.71	B	C
ATOM	7544	OE1	GLU	B	272	57.889	40.915	37.415	1.00	22.55	B	O
ATOM	7545	OE2	GLU	B	272	59.505	42.188	38.227	1.00	21.39	B	O
ATOM	7546	C	GLU	B	272	57.023	37.197	40.924	1.00	21.11	B	C
ATOM	7547	O	GLU	B	272	55.860	37.515	40.600	1.00	19.50	B	O
ATOM	7548	N	GLY	B	273	57.321	36.017	41.463	1.00	16.86	B	N
ATOM	7549	CA	GLY	B	273	56.300	35.027	41.800	1.00	16.01	B	C
ATOM	7550	C	GLY	B	273	55.361	35.435	42.939	1.00	16.28	B	C
ATOM	7551	O	GLY	B	273	55.391	36.598	43.402	1.00	19.04	B	O
ATOM	7552	N	VAL	B	274	54.580	34.479	43.431	1.00	15.92	B	N
ATOM	7553	CA	VAL	B	274	53.368	34.745	44.218	1.00	23.12	B	C
ATOM	7554	CB	VAL	B	274	52.521	33.447	44.385	1.00	19.35	B	C
ATOM	7555	CG1	VAL	B	274	51.219	33.711	45.146	1.00	17.43	B	C
ATOM	7556	CG2	VAL	B	274	52.193	32.842	43.012	1.00	15.22	B	C
ATOM	7557	C	VAL	B	274	53.554	35.437	45.592	1.00	24.17	B	C
ATOM	7558	O	VAL	B	274	52.811	36.363	45.939	1.00	22.17	B	O
ATOM	7559	N	LEU	B	275	54.524	34.994	46.376	1.00	16.90	B	N
ATOM	7560	CA	LEU	B	275	54.501	35.365	47.785	1.00	18.53	B	C
ATOM	7561	CB	LEU	B	275	53.920	34.197	48.572	1.00	20.07	B	C
ATOM	7562	CG	LEU	B	275	53.665	34.341	50.056	1.00	24.01	B	C
ATOM	7563	CD1	LEU	B	275	52.444	35.247	50.332	1.00	23.14	B	C
ATOM	7564	CD2	LEU	B	275	53.495	32.919	50.619	1.00	21.91	B	C
ATOM	7565	C	LEU	B	275	55.875	35.759	48.305	1.00	21.61	B	C
ATOM	7566	O	LEU	B	275	56.868	35.065	48.029	1.00	20.61	B	O
ATOM	7567	N	VAL	B	276	55.921	36.887	49.034	1.00	18.76	B	N
ATOM	7568	CA	VAL	B	276	57.139	37.439	49.604	1.00	21.77	B	C
ATOM	7569	CB	VAL	B	276	57.059	38.999	49.614	1.00	21.85	B	C
ATOM	7570	CG1	VAL	B	276	58.289	39.625	50.288	1.00	21.62	B	C
ATOM	7571	CG2	VAL	B	276	56.841	39.539	48.198	1.00	19.87	B	C
ATOM	7572	C	VAL	B	276	57.280	37.007	51.050	1.00	19.84	B	C
ATOM	7573	O	VAL	B	276	56.357	37.191	51.842	1.00	21.48	B	O
ATOM	7574	N	GLY	B	277	58.424	36.440	51.411	1.00	19.93	B	N
ATOM	7575	CA	GLY	B	277	58.627	36.010	52.790	1.00	22.11	B	C
ATOM	7576	C	GLY	B	277	59.064	37.174	53.672	1.00	24.77	B	C
ATOM	7577	O	GLY	B	277	59.717	38.095	53.190	1.00	25.62	B	O
ATOM	7578	N	SER	B	278	58.680	37.166	54.946	1.00	22.25	B	N
ATOM	7579	CA	SER	B	278	59.235	38.131	55.898	1.00	23.40	B	C
ATOM	7580	CB	SER	B	278	58.545	39.504	55.784	1.00	23.89	B	C
ATOM	7581	OG	SER	B	278	59.068	40.389	56.777	1.00	25.11	B	O
ATOM	7582	C	SER	B	278	59.171	37.670	57.346	1.00	24.15	B	C
ATOM	7583	O	SER	B	278	58.254	36.942	57.737	1.00	23.96	B	O
ATOM	7584	N	TRP	B	279	60.155	38.101	58.134	1.00	25.12	B	N
ATOM	7585	CA	TRP	B	279	60.192	37.868	59.577	1.00	27.82	B	C
ATOM	7586	CB	TRP	B	279	61.368	36.959	59.944	1.00	26.92	B	C
ATOM	7587	CG	TRP	B	279	61.071	35.511	59.760	1.00	29.07	B	C
ATOM	7588	CD1	TRP	B	279	60.849	34.594	60.742	1.00	28.62	B	C
ATOM	7589	NE1	TRP	B	279	60.590	33.372	60.187	1.00	28.86	B	N
ATOM	7590	CE2	TRP	B	279	60.641	33.480	58.821	1.00	27.68	B	C
ATOM	7591	CD2	TRP	B	279	60.944	34.816	58.518	1.00	26.40	B	C
ATOM	7592	CE3	TRP	B	279	61.059	35.195	57.178	1.00	27.61	B	C
ATOM	7593	CZ3	TRP	B	279	60.865	34.234	56.195	1.00	29.16	B	C
ATOM	7594	CH2	TRP	B	279	60.571	32.905	56.530	1.00	29.35	B	C
ATOM	7595	CZ2	TRP	B	279	60.449	32.511	57.831	1.00	30.31	B	C
ATOM	7596	C	TRP	B	279	60.404	39.180	60.313	1.00	32.96	B	C
ATOM	7597	O	TRP	B	279	60.793	39.179	61.482	1.00	32.85	B	O
ATOM	7598	N	ASP	B	280	60.158	40.297	59.634	1.00	28.12	B	N
ATOM	7599	CA	ASP	B	280	60.667	41.567	60.130	1.00	28.65	B	C
ATOM	7600	C	ASP	B	280	59.835	42.204	61.233	1.00	29.63	B	C
ATOM	7601	O	ASP	B	280	60.195	43.245	61.717	1.00	30.74	B	O
ATOM	7602	CB	ASP	B	280	60.966	42.540	58.981	1.00	28.32	B	C
ATOM	7603	CG	ASP	B	280	59.716	43.238	58.426	1.00	31.38	B	C
ATOM	7604	OD1	ASP	B	280	58.584	43.042	58.917	1.00	28.07	B	O
ATOM	7605	OD2	ASP	B	280	59.892	44.036	57.488	1.00	31.01	B	O
ATOM	7606	N	ASN	B	281	58.720	41.583	61.607	1.00	29.39	B	N
ATOM	7607	CA	ASN	B	281	57.902	42.058	62.729	1.00	30.52	B	C
ATOM	7608	CB	ASN	B	281	58.740	42.132	64.024	1.00	31.87	B	C
ATOM	7609	CG	ASN	B	281	57.896	42.322	65.271	1.00	33.07	B	C
ATOM	7610	OD1	ASN	B	281	56.835	41.724	65.428	1.00	32.80	B	O
ATOM	7611	ND2	ASN	B	281	58.371	43.171	66.166	1.00	34.51	B	N
ATOM	7612	C	ASN	B	281	57.177	43.383	62.450	1.00	30.97	B	C
ATOM	7613	O	ASN	B	281	56.489	43.898	63.320	1.00	32.01	B	O
ATOM	7614	N	ILE	B	282	57.303	43.874	61.211	1.00	30.22	B	N
ATOM	7615	C	ILE	B	282	55.664	44.867	59.639	1.00	29.46	B	C
ATOM	7616	O	ILE	B	282	54.519	45.297	59.709	1.00	29.76	B	O
ATOM	7617	CA	AILE	B	282	56.679	45.120	60.758	0.21	30.59	B	C
ATOM	7618	CB	AILE	B	282	57.736	46.103	60.215	0.21	30.95	B	C

ATOM	7619	CG1AILE	B	282	58.732	46.476	61.312	0.21	32.25	B	C
ATOM	7620	CD1AILE	B	282	58.083	47.136	62.476	0.21	33.60	B	C
ATOM	7621	CG2AILE	B	282	57.071	47.353	59.657	0.21	31.33	B	C
ATOM	7622	CA BILE	B	282	56.648	45.112	60.794	0.79	30.61	B	C
ATOM	7623	CB BILE	B	282	57.684	46.201	60.423	0.79	31.18	B	C
ATOM	7624	CG1BILE	B	282	58.474	46.629	61.676	0.79	32.61	B	C
ATOM	7625	CD1BILE	B	282	59.645	47.526	61.368	0.79	33.23	B	C
ATOM	7626	CG2BILE	B	282	57.004	47.408	59.788	0.79	31.46	B	C
ATOM	7627	N TYR	B	283	56.115	44.179	58.597	1.00	28.25	B	N
ATOM	7628	CA TYR	B	283	55.226	43.791	57.487	1.00	27.16	B	C
ATOM	7629	CB TYR	B	283	54.196	42.762	57.976	1.00	26.85	B	C
ATOM	7630	CG TYR	B	283	54.874	41.680	58.815	1.00	26.85	B	C
ATOM	7631	CD1 TYR	B	283	55.876	40.889	58.261	1.00	26.04	B	C
ATOM	7632	CE1 TYR	B	283	56.535	39.906	59.011	1.00	26.12	B	C
ATOM	7633	CZ TYR	B	283	56.198	39.717	60.328	1.00	27.05	B	C
ATOM	7634	OH TYR	B	283	56.863	38.746	61.035	1.00	30.23	B	O
ATOM	7635	CE2 TYR	B	283	55.214	40.493	60.923	1.00	27.90	B	C
ATOM	7636	CD2 TYR	B	283	54.551	41.485	60.153	1.00	27.79	B	C
ATOM	7637	C TYR	B	283	54.561	45.026	56.852	1.00	27.51	B	C
ATOM	7638	O TYR	B	283	53.336	45.145	56.812	1.00	27.56	B	O
ATOM	7639	N ALA	B	284	55.402	45.950	56.395	1.00	27.87	B	N
ATOM	7640	CA ALA	B	284	54.928	47.195	55.797	1.00	28.37	B	C
ATOM	7641	CB ALA	B	284	56.101	48.127	55.512	1.00	28.99	B	C
ATOM	7642	C ALA	B	284	54.147	46.897	54.509	1.00	27.35	B	C
ATOM	7643	O ALA	B	284	54.590	46.118	53.679	1.00	26.33	B	O
ATOM	7644	N TYR	B	285	52.985	47.530	54.377	1.00	27.75	B	N
ATOM	7645	CA TYR	B	285	52.186	47.468	53.166	1.00	27.06	B	C
ATOM	7646	CB TYR	B	285	52.941	48.100	51.998	1.00	26.93	B	C
ATOM	7647	CG TYR	B	285	53.278	49.555	52.220	1.00	28.21	B	C
ATOM	7648	CD1 TYR	B	285	52.272	50.511	52.327	1.00	29.08	B	C
ATOM	7649	CE1 TYR	B	285	52.574	51.874	52.528	1.00	30.36	B	C
ATOM	7650	CZ TYR	B	285	53.896	52.265	52.623	1.00	30.76	B	C
ATOM	7651	OH TYR	B	285	54.213	53.593	52.836	1.00	32.11	B	O
ATOM	7652	CE2 TYR	B	285	54.913	51.323	52.529	1.00	29.92	B	C
ATOM	7653	CD2 TYR	B	285	54.600	49.977	52.322	1.00	28.65	B	C
ATOM	7654	C TYR	B	285	51.799	46.036	52.818	1.00	29.95	B	C
ATOM	7655	O TYR	B	285	51.993	45.593	51.694	1.00	29.89	B	O
ATOM	7656	N GLY	B	286	51.268	45.306	53.791	1.00	25.91	B	N
ATOM	7657	CA GLY	B	286	50.844	43.942	53.539	1.00	28.98	B	C
ATOM	7658	C GLY	B	286	50.128	43.364	54.739	1.00	28.76	B	C
ATOM	7659	O GLY	B	286	49.578	44.097	55.573	1.00	28.48	B	O
ATOM	7660	N VAL	B	287	50.179	42.042	54.821	1.00	27.72	B	N
ATOM	7661	CA VAL	B	287	49.470	41.249	55.800	1.00	27.68	B	C
ATOM	7662	C VAL	B	287	50.518	40.402	56.528	1.00	28.03	B	C
ATOM	7663	O VAL	B	287	51.307	39.713	55.875	1.00	23.86	B	O
ATOM	7664	CB VAL	B	287	48.500	40.288	55.045	1.00	32.99	B	C
ATOM	7665	CG1 VAL	B	287	47.888	39.306	55.971	1.00	32.55	B	C
ATOM	7666	CG2 VAL	B	287	47.410	41.078	54.308	1.00	35.38	B	C
ATOM	7667	N PRO	B	288	50.542	40.439	57.874	1.00	25.74	B	N
ATOM	7668	CA PRO	B	288	51.473	39.550	58.592	1.00	27.18	B	C
ATOM	7669	CB PRO	B	288	51.129	39.788	60.072	1.00	27.06	B	C
ATOM	7670	CG PRO	B	288	50.399	41.126	60.093	1.00	27.87	B	C
ATOM	7671	CD PRO	B	288	49.649	41.164	58.789	1.00	26.97	B	C
ATOM	7672	C PRO	B	288	51.229	38.079	58.220	1.00	27.86	B	C
ATOM	7673	O PRO	B	288	50.086	37.686	58.023	1.00	25.10	B	O
ATOM	7674	N PRO	B	289	52.296	37.286	58.092	1.00	24.21	B	N
ATOM	7675	CA PRO	B	289	52.144	35.891	57.651	1.00	23.57	B	C
ATOM	7676	CB PRO	B	289	53.540	35.312	57.877	1.00	23.18	B	C
ATOM	7677	CG PRO	B	289	54.440	36.497	57.617	1.00	23.43	B	C
ATOM	7678	CD PRO	B	289	53.712	37.659	58.266	1.00	24.42	B	C
ATOM	7679	C PRO	B	289	51.080	35.112	58.435	1.00	23.76	B	C
ATOM	7680	O PRO	B	289	50.320	34.344	57.831	1.00	24.57	B	O
ATOM	7681	N SER	B	290	51.012	35.335	59.743	1.00	24.91	B	N
ATOM	7682	CA SER	B	290	50.044	34.681	60.630	1.00	29.96	B	C
ATOM	7683	CB SER	B	290	50.376	35.005	62.095	1.00	31.19	B	C
ATOM	7684	OG SER	B	290	50.225	36.392	62.350	1.00	34.39	B	O
ATOM	7685	C SER	B	290	48.564	35.032	60.397	1.00	31.32	B	C
ATOM	7686	O SER	B	290	47.683	34.353	60.927	1.00	29.20	B	O
ATOM	7687	N ALA	B	291	48.285	36.090	59.640	1.00	25.65	B	N
ATOM	7688	CA ALA	B	291	46.900	36.487	59.399	1.00	31.37	B	C
ATOM	7689	CB ALA	B	291	46.821	37.947	58.975	1.00	26.25	B	C
ATOM	7690	C ALA	B	291	46.166	35.607	58.377	1.00	29.03	B	C
ATOM	7691	O ALA	B	291	44.942	35.477	58.449	1.00	27.22	B	O
ATOM	7692	N TRP	B	292	46.896	35.035	57.422	1.00	23.88	B	N
ATOM	7693	CA TRP	B	292	46.247	34.251	56.361	1.00	23.79	B	C
ATOM	7694	CB TRP	B	292	47.219	33.887	55.234	1.00	21.82	B	C
ATOM	7695	CG TRP	B	292	47.951	35.025	54.585	1.00	24.86	B	C

ATOM	7696	CD1	TRP	B	292	49.265	35.343	54.753	1.00	22.39	B	C
ATOM	7697	NE1	TRP	B	292	49.590	36.436	53.988	1.00	24.29	B	N
ATOM	7698	CE2	TRP	B	292	48.484	36.843	53.294	1.00	21.58	B	C
ATOM	7699	CD2	TRP	B	292	47.426	35.975	53.643	1.00	23.32	B	C
ATOM	7700	CE3	TRP	B	292	46.167	36.175	53.061	1.00	22.71	B	C
ATOM	7701	CZ3	TRP	B	292	46.012	37.245	52.169	1.00	21.91	B	C
ATOM	7702	CH2	TRP	B	292	47.091	38.079	51.841	1.00	21.43	B	C
ATOM	7703	CZ2	TRP	B	292	48.327	37.899	52.395	1.00	21.35	B	C
ATOM	7704	C	TRP	B	292	45.657	32.965	56.936	1.00	26.48	B	C
ATOM	7705	O	TRP	B	292	46.186	32.424	57.916	1.00	23.68	B	O
ATOM	7706	N	THR	B	293	44.574	32.474	56.323	1.00	24.58	B	N
ATOM	7707	CA	THR	B	293	43.905	31.261	56.794	1.00	23.39	B	C
ATOM	7708	CB	THR	B	293	42.579	31.579	57.559	1.00	25.58	B	C
ATOM	7709	OG1	THR	B	293	41.634	32.196	56.671	1.00	26.39	B	O
ATOM	7710	CG2	THR	B	293	42.823	32.525	58.779	1.00	25.77	B	C
ATOM	7711	C	THR	B	293	43.613	30.317	55.617	1.00	22.44	B	C
ATOM	7712	O	THR	B	293	42.938	29.291	55.774	1.00	22.66	B	O
ATOM	7713	N	GLY	B	294	44.125	30.667	54.441	1.00	21.47	B	N
ATOM	7714	CA	GLY	B	294	43.919	29.849	53.250	1.00	21.94	B	C
ATOM	7715	C	GLY	B	294	44.670	30.463	52.092	1.00	19.73	B	C
ATOM	7716	O	GLY	B	294	45.359	31.462	52.261	1.00	20.05	B	O
ATOM	7717	N	SER	B	295	44.525	29.881	50.913	1.00	19.00	B	N
ATOM	7718	CA	SER	B	295	45.341	30.268	49.776	1.00	18.19	B	C
ATOM	7719	CB	SER	B	295	45.753	29.015	48.983	1.00	17.62	B	C
ATOM	7720	OG	SER	B	295	46.495	28.099	49.793	1.00	20.92	B	O
ATOM	7721	C	SER	B	295	44.597	31.193	48.839	1.00	19.28	B	C
ATOM	7722	O	SER	B	295	45.207	31.817	47.973	1.00	18.84	B	O
ATOM	7723	N	VAL	B	296	43.279	31.261	48.981	1.00	18.84	B	N
ATOM	7724	CA	VAL	B	296	42.451	31.867	47.923	1.00	20.80	B	C
ATOM	7725	CB	VAL	B	296	40.940	31.555	48.110	1.00	19.60	B	C
ATOM	7726	CG1	VAL	B	296	40.073	32.414	47.177	1.00	20.69	B	C
ATOM	7727	CG2	VAL	B	296	40.668	30.060	47.915	1.00	19.29	B	C
ATOM	7728	C	VAL	B	296	42.684	33.372	47.795	1.00	21.27	B	C
ATOM	7729	O	VAL	B	296	42.894	33.886	46.688	1.00	22.33	B	O
ATOM	7730	N	ASP	B	297	42.650	34.082	48.913	1.00	20.64	B	C
ATOM	7731	CA	ASP	B	297	42.863	35.528	48.868	1.00	24.46	B	C
ATOM	7732	CB	ASP	B	297	42.726	36.151	50.259	1.00	30.03	B	C
ATOM	7733	CG	ASP	B	297	41.288	36.152	50.753	1.00	37.07	B	C
ATOM	7734	OD1	ASP	B	297	40.364	36.109	49.911	1.00	36.11	B	O
ATOM	7735	OD2	ASP	B	297	41.083	36.190	51.984	1.00	43.20	B	O
ATOM	7736	C	ASP	B	297	44.231	35.851	48.274	1.00	23.77	B	C
ATOM	7737	O	ASP	B	297	44.370	36.754	47.445	1.00	22.06	B	O
ATOM	7738	N	ILE	B	298	45.239	35.092	48.682	1.00	22.09	B	N
ATOM	7739	CA	ILE	B	298	46.584	35.304	48.175	1.00	21.54	B	C
ATOM	7740	CB	ILE	B	298	47.582	34.321	48.816	1.00	21.12	B	C
ATOM	7741	CG1	ILE	B	298	47.807	34.677	50.290	1.00	23.24	B	C
ATOM	7742	CD1	ILE	B	298	48.621	33.588	51.066	1.00	18.93	B	C
ATOM	7743	CG2	ILE	B	298	48.896	34.374	48.072	1.00	17.71	B	C
ATOM	7744	C	ILE	B	298	46.626	35.121	46.667	1.00	17.99	B	C
ATOM	7745	O	ILE	B	298	47.092	35.990	45.936	1.00	18.10	B	O
ATOM	7746	N	LEU	B	299	46.131	33.980	46.192	1.00	17.54	B	N
ATOM	7747	CA	LEU	B	299	46.210	33.709	44.766	1.00	16.97	B	C
ATOM	7748	CB	LEU	B	299	45.804	32.252	44.470	1.00	16.51	B	C
ATOM	7749	CG	LEU	B	299	46.929	31.281	44.834	1.00	16.01	B	C
ATOM	7750	CD1	LEU	B	299	46.381	29.857	44.997	1.00	15.84	B	C
ATOM	7751	CD2	LEU	B	299	48.058	31.333	43.800	1.00	17.66	B	C
ATOM	7752	C	LEU	B	299	45.375	34.668	43.932	1.00	17.34	B	C
ATOM	7753	O	LEU	B	299	45.823	35.117	42.878	1.00	19.40	B	O
ATOM	7754	N	LEU	B	300	44.158	34.963	44.387	1.00	17.99	B	N
ATOM	7755	CA	LEU	B	300	43.299	35.904	43.657	1.00	21.66	B	C
ATOM	7756	CB	LEU	B	300	41.855	35.879	44.175	1.00	21.92	B	C
ATOM	7757	CG	LEU	B	300	41.109	34.550	43.963	1.00	23.45	B	C
ATOM	7758	CD1	LEU	B	300	39.640	34.697	44.366	1.00	25.26	B	C
ATOM	7759	CD2	LEU	B	300	41.226	34.046	42.528	1.00	18.39	B	C
ATOM	7760	C	LEU	B	300	43.861	37.324	43.676	1.00	22.16	B	C
ATOM	7761	O	LEU	B	300	43.709	38.064	42.695	1.00	19.12	B	O
ATOM	7762	N	GLU	B	301	44.502	37.726	44.779	1.00	19.17	B	N
ATOM	7763	CA	GLU	B	301	45.146	39.029	44.775	1.00	19.60	B	C
ATOM	7764	CB	GLU	B	301	45.618	39.466	46.169	1.00	20.10	B	C
ATOM	7765	CG	GLU	B	301	46.375	40.787	46.117	1.00	31.23	B	C
ATOM	7766	CD	GLU	B	301	47.182	41.072	47.380	1.00	36.45	B	C
ATOM	7767	OE1	GLU	B	301	46.761	40.649	48.477	1.00	39.07	B	O
ATOM	7768	OE2	GLU	B	301	48.240	41.730	47.270	1.00	37.22	B	O
ATOM	7769	C	GLU	B	301	46.317	39.060	43.793	1.00	25.57	B	C
ATOM	7770	O	GLU	B	301	46.498	40.053	43.084	1.00	23.33	B	O
ATOM	7771	N	TYR	B	302	47.114	37.987	43.746	1.00	18.28	B	N
ATOM	7772	CA	TYR	B	302	48.208	37.924	42.773	1.00	17.82	B	C

ATOM	7773	CB	TYR	B	302	48.965	36.599	42.887	1.00	18.94	B	C
ATOM	7774	CG	TYR	B	302	50.194	36.480	42.003	1.00	16.69	B	C
ATOM	7775	CD1	TYR	B	302	51.317	37.261	42.234	1.00	20.74	B	C
ATOM	7776	CE1	TYR	B	302	52.446	37.146	41.445	1.00	18.48	B	C
ATOM	7777	CZ	TYR	B	302	52.470	36.230	40.426	1.00	16.22	B	C
ATOM	7778	OH	TYR	B	302	53.594	36.116	39.637	1.00	16.10	B	O
ATOM	7779	CE2	TYR	B	302	51.368	35.436	40.168	1.00	18.28	B	C
ATOM	7780	CD2	TYR	B	302	50.239	35.556	40.967	1.00	18.86	B	C
ATOM	7781	C	TYR	B	302	47.695	38.096	41.338	1.00	21.95	B	C
ATOM	7782	O	TYR	B	302	48.205	38.925	40.585	1.00	20.31	B	O
ATOM	7783	N	ARG	B	303	46.677	37.323	40.975	1.00	21.09	B	N
ATOM	7784	CA	ARG	B	303	46.077	37.419	39.640	1.00	22.07	B	C
ATOM	7785	CB	ARG	B	303	44.924	36.421	39.482	1.00	19.77	B	C
ATOM	7786	CG	ARG	B	303	44.418	36.302	38.051	1.00	24.63	B	C
ATOM	7787	CD	ARG	B	303	45.593	35.975	37.155	1.00	29.82	B	C
ATOM	7788	NE	ARG	B	303	45.329	36.120	35.721	1.00	31.60	B	N
ATOM	7789	CZ	ARG	B	303	45.674	37.183	35.000	1.00	31.22	B	C
ATOM	7790	NH1	ARG	B	303	46.276	38.233	35.587	1.00	27.80	B	N
ATOM	7791	NH2	ARG	B	303	45.412	37.201	33.693	1.00	26.52	B	N
ATOM	7792	C	ARG	B	303	45.591	38.836	39.335	1.00	23.91	B	C
ATOM	7793	O	ARG	B	303	45.858	39.370	38.263	1.00	18.64	B	O
ATOM	7794	N	SER	B	304	44.909	39.439	40.302	1.00	24.33	B	N
ATOM	7795	CA	SER	B	304	44.296	40.751	40.138	1.00	28.64	B	C
ATOM	7796	CB	SER	B	304	43.303	40.989	41.283	1.00	32.19	B	C
ATOM	7797	OG	SER	B	304	42.633	42.224	41.131	1.00	37.35	B	O
ATOM	7798	C	SER	B	304	45.321	41.895	40.070	1.00	24.15	B	C
ATOM	7799	O	SER	B	304	45.276	42.728	39.171	1.00	22.01	B	O
ATOM	7800	N	SER	B	305	46.258	41.914	41.006	1.00	23.03	B	N
ATOM	7801	CA	SER	B	305	47.212	43.021	41.130	1.00	24.53	B	C
ATOM	7802	CB	SER	B	305	47.794	43.048	42.537	1.00	23.55	B	C
ATOM	7803	OG	SER	B	305	48.717	41.976	42.684	1.00	21.69	B	O
ATOM	7804	C	SER	B	305	48.359	42.813	40.157	1.00	25.02	B	C
ATOM	7805	O	SER	B	305	49.030	43.760	39.750	1.00	25.13	B	O
ATOM	7806	N	GLU	B	306	48.568	41.556	39.792	1.00	22.92	B	N
ATOM	7807	CA	GLU	B	306	49.759	41.111	39.069	1.00	23.84	B	C
ATOM	7808	CB	GLU	B	306	49.757	41.548	37.589	1.00	22.28	B	C
ATOM	7809	CG	GLU	B	306	48.494	41.140	36.830	1.00	31.79	B	C
ATOM	7810	CD	GLU	B	306	48.630	41.248	35.311	1.00	38.73	B	C
ATOM	7811	OE1	GLU	B	306	48.104	40.364	34.592	1.00	43.87	B	O
ATOM	7812	OE2	GLU	B	306	49.250	42.213	34.830	1.00	37.39	B	O
ATOM	7813	C	GLU	B	306	51.066	41.481	39.796	1.00	25.01	B	C
ATOM	7814	O	GLU	B	306	52.120	41.584	39.169	1.00	24.42	B	O
ATOM	7815	N	ASN	B	307	50.995	41.660	41.112	1.00	19.31	B	N
ATOM	7816	CA	ASN	B	307	52.218	41.825	41.905	1.00	19.45	B	C
ATOM	7817	CB	ASN	B	307	52.300	43.213	42.570	1.00	21.24	B	C
ATOM	7818	CG	ASN	B	307	52.223	44.361	41.574	1.00	21.98	B	C
ATOM	7819	OD1	ASN	B	307	52.913	44.374	40.552	1.00	22.25	B	O
ATOM	7820	ND2	ASN	B	307	51.376	45.339	41.879	1.00	22.36	B	N
ATOM	7821	C	ASN	B	307	52.336	40.776	42.999	1.00	20.93	B	C
ATOM	7822	O	ASN	B	307	51.313	40.326	43.527	1.00	18.85	B	O
ATOM	7823	N	PRO	B	308	53.584	40.422	43.382	1.00	19.49	B	N
ATOM	7824	CA	PRO	B	308	53.788	39.542	44.533	1.00	19.04	B	C
ATOM	7825	CB	PRO	B	308	55.291	39.632	44.780	1.00	18.75	B	C
ATOM	7826	CG	PRO	B	308	55.858	39.895	43.413	1.00	18.67	B	C
ATOM	7827	CD	PRO	B	308	54.865	40.822	42.769	1.00	19.68	B	C
ATOM	7828	C	PRO	B	308	52.993	40.010	45.742	1.00	21.46	B	C
ATOM	7829	O	PRO	B	308	52.771	41.201	45.949	1.00	21.50	B	O
ATOM	7830	N	VAL	B	309	52.539	39.049	46.519	1.00	18.84	B	N
ATOM	7831	CA	VAL	B	309	51.681	39.302	47.658	1.00	24.07	B	C
ATOM	7832	CB	VAL	B	309	50.583	38.220	47.717	1.00	18.98	B	C
ATOM	7833	CG1	VAL	B	309	49.815	38.238	49.030	1.00	19.60	B	C
ATOM	7834	CG2	VAL	B	309	49.635	38.351	46.493	1.00	18.74	B	C
ATOM	7835	C	VAL	B	309	52.554	39.277	48.915	1.00	19.82	B	C
ATOM	7836	O	VAL	B	309	53.489	38.482	48.993	1.00	20.80	B	O
ATOM	7837	N	ARG	B	310	52.241	40.140	49.876	1.00	20.70	B	N
ATOM	7838	CA	ARG	B	310	53.025	40.295	51.113	1.00	21.57	B	C
ATOM	7839	CB	ARG	B	310	53.599	41.722	51.146	1.00	22.14	B	C
ATOM	7840	CG	ARG	B	310	54.639	41.995	50.061	1.00	21.83	B	C
ATOM	7841	CD	ARG	B	310	55.043	43.482	49.973	1.00	30.08	B	C
ATOM	7842	NE	ARG	B	310	54.020	44.247	49.261	1.00	34.29	B	N
ATOM	7843	CZ	ARG	B	310	54.092	45.556	49.018	1.00	37.89	B	C
ATOM	7844	NH1	ARG	B	310	55.150	46.259	49.434	1.00	35.32	B	N
ATOM	7845	NH2	ARG	B	310	53.102	46.166	48.363	1.00	36.64	B	N
ATOM	7846	C	ARG	B	310	52.123	40.049	52.331	1.00	21.84	B	C
ATOM	7847	O	ARG	B	310	51.069	40.681	52.434	1.00	22.83	B	O
ATOM	7848	N	TYR	B	311	52.480	39.155	53.253	1.00	21.86	B	N
ATOM	7849	CA	TYR	B	311	53.745	38.427	53.339	1.00	21.50	B	C

ATOM	7850	CB	TYR	B	311	54.651	39.063	54.416	1.00	22.45	B	C
ATOM	7851	CG	TYR	B	311	55.099	40.479	54.113	1.00	23.03	B	C
ATOM	7852	CD1	TYR	B	311	56.275	40.717	53.418	1.00	22.84	B	C
ATOM	7853	CE1	TYR	B	311	56.706	42.010	53.156	1.00	28.59	B	C
ATOM	7854	CZ	TYR	B	311	55.952	43.095	53.575	1.00	24.32	B	C
ATOM	7855	OH	TYR	B	311	56.401	44.357	53.296	1.00	25.03	B	O
ATOM	7856	CE2	TYR	B	311	54.773	42.896	54.265	1.00	24.51	B	C
ATOM	7857	CD2	TYR	B	311	54.350	41.574	54.536	1.00	23.87	B	C
ATOM	7858	C	TYR	B	311	53.469	36.986	53.815	1.00	26.26	B	C
ATOM	7859	O	TYR	B	311	52.407	36.710	54.374	1.00	21.40	B	O
ATOM	7860	N	GLY	B	312	54.449	36.099	53.649	1.00	24.23	B	N
ATOM	7861	CA	GLY	B	312	54.316	34.725	54.125	1.00	24.70	B	C
ATOM	7862	C	GLY	B	312	55.534	34.186	54.864	1.00	25.33	B	C
ATOM	7863	O	GLY	B	312	56.596	34.805	54.892	1.00	20.98	B	O
ATOM	7864	N	GLN	B	313	55.350	33.030	55.494	1.00	23.90	B	N
ATOM	7865	CA	GLN	B	313	56.441	32.187	55.967	1.00	20.80	B	C
ATOM	7866	CB	GLN	B	313	56.610	32.290	57.489	1.00	21.93	B	C
ATOM	7867	CG	GLN	B	313	56.972	33.735	57.977	1.00	23.04	B	C
ATOM	7868	CD	GLN	B	313	57.212	33.816	59.485	1.00	25.65	B	C
ATOM	7869	OE1	GLN	B	313	57.157	32.802	60.194	1.00	24.67	B	O
ATOM	7870	NE2	GLN	B	313	57.483	35.031	59.982	1.00	24.84	B	N
ATOM	7871	C	GLN	B	313	56.109	30.748	55.522	1.00	20.98	B	C
ATOM	7872	O	GLN	B	313	55.093	30.518	54.856	1.00	21.22	B	O
ATOM	7873	O	CYS	B	314	55.127	27.360	54.110	1.00	18.46	B	O
ATOM	7874	N	CYS	B	314	56.966	29.802	55.880	1.00	20.17	B	N
ATOM	7875	CA	CYS	B	314	56.868	28.415	55.404	1.00	19.56	B	C
ATOM	7876	C	CYS	B	314	55.449	27.814	55.202	1.00	19.25	B	C
ATOM	7877	CB	CYS	B	314	57.781	27.515	56.273	1.00	21.55	B	C
ATOM	7878	SG	CYS	B	314	57.224	27.256	58.033	1.00	22.49	B	S
ATOM	7879	N	TRP	B	315	54.603	27.797	56.233	1.00	21.04	B	N
ATOM	7880	CA	TRP	B	315	53.278	27.181	56.091	1.00	19.84	B	C
ATOM	7881	CB	TRP	B	315	52.536	27.115	57.425	1.00	20.89	B	C
ATOM	7882	CG	TRP	B	315	52.055	28.450	57.902	1.00	24.05	B	C
ATOM	7883	CD1	TRP	B	315	50.813	28.998	57.724	1.00	24.37	B	C
ATOM	7884	NE1	TRP	B	315	50.766	30.252	58.291	1.00	23.22	B	N
ATOM	7885	CE2	TRP	B	315	51.980	30.524	58.861	1.00	23.67	B	C
ATOM	7886	CD2	TRP	B	315	52.818	29.414	58.631	1.00	22.17	B	C
ATOM	7887	CE3	TRP	B	315	54.130	29.446	59.107	1.00	22.48	B	C
ATOM	7888	CZ3	TRP	B	315	54.565	30.586	59.798	1.00	24.13	B	C
ATOM	7889	CH2	TRP	B	315	53.707	31.674	60.011	1.00	25.09	B	C
ATOM	7890	CZ2	TRP	B	315	52.416	31.667	59.555	1.00	24.75	B	C
ATOM	7891	C	TRP	B	315	52.401	27.895	55.057	1.00	24.41	B	C
ATOM	7892	O	TRP	B	315	51.497	27.276	54.467	1.00	18.90	B	O
ATOM	7893	N	VAL	B	316	52.657	29.192	54.860	1.00	20.73	B	N
ATOM	7894	CA	VAL	B	316	51.902	29.972	53.887	1.00	18.96	B	C
ATOM	7895	CB	VAL	B	316	52.028	31.506	54.107	1.00	19.46	B	C
ATOM	7896	CG1	VAL	B	316	51.102	32.263	53.142	1.00	26.17	B	C
ATOM	7897	CG2	VAL	B	316	51.682	31.878	55.541	1.00	20.54	B	C
ATOM	7898	C	VAL	B	316	52.362	29.598	52.490	1.00	17.99	B	C
ATOM	7899	O	VAL	B	316	51.536	29.424	51.599	1.00	17.54	B	O
ATOM	7900	N	PHE	B	317	53.670	29.458	52.291	1.00	17.77	B	N
ATOM	7901	CA	PHE	B	317	54.166	29.014	50.985	1.00	19.48	B	C
ATOM	7902	CB	PHE	B	317	55.705	28.991	50.929	1.00	18.52	B	C
ATOM	7903	CG	PHE	B	317	56.351	30.365	50.983	1.00	19.11	B	C
ATOM	7904	CD1	PHE	B	317	56.479	31.138	49.831	1.00	17.01	B	C
ATOM	7905	CE1	PHE	B	317	57.077	32.400	49.865	1.00	17.47	B	C
ATOM	7906	CZ	PHE	B	317	57.564	32.899	51.066	1.00	18.25	B	C
ATOM	7907	CE2	PHE	B	317	57.451	32.129	52.229	1.00	22.27	B	C
ATOM	7908	CD2	PHE	B	317	56.847	30.862	52.175	1.00	20.39	B	C
ATOM	7909	C	PHE	B	317	53.606	27.612	50.711	1.00	21.41	B	C
ATOM	7910	O	PHE	B	317	53.097	27.335	49.624	1.00	18.59	B	O
ATOM	7911	N	ALA	B	318	53.662	26.748	51.722	1.00	21.05	B	N
ATOM	7912	CA	ALA	B	318	53.206	25.373	51.552	1.00	16.74	B	C
ATOM	7913	CB	ALA	B	318	53.522	24.511	52.796	1.00	17.38	B	C
ATOM	7914	C	ALA	B	318	51.727	25.333	51.219	1.00	16.69	B	C
ATOM	7915	O	ALA	B	318	51.343	24.609	50.339	1.00	16.94	B	O
ATOM	7916	N	GLY	B	319	50.913	26.124	51.913	1.00	19.95	B	N
ATOM	7917	CA	GLY	B	319	49.489	26.200	51.632	1.00	22.25	B	C
ATOM	7918	C	GLY	B	319	49.177	26.622	50.197	1.00	23.44	B	C
ATOM	7919	O	GLY	B	319	48.399	25.959	49.493	1.00	22.10	B	O
ATOM	7920	N	VAL	B	320	49.783	27.718	49.757	1.00	16.52	B	N
ATOM	7921	CA	VAL	B	320	49.612	28.167	48.378	1.00	17.15	B	C
ATOM	7922	CB	VAL	B	320	50.300	29.517	48.162	1.00	16.59	B	C
ATOM	7923	CG1	VAL	B	320	50.233	29.941	46.683	1.00	15.59	B	C
ATOM	7924	CG2	VAL	B	320	49.660	30.576	49.084	1.00	16.82	B	C
ATOM	7925	C	VAL	B	320	50.094	27.139	47.329	1.00	18.32	B	C
ATOM	7926	O	VAL	B	320	49.407	26.879	46.334	1.00	14.99	B	O

ATOM	7927	N	PHE	B	321	51.277	26.572	47.550	1.00	17.08	B	N
ATOM	7928	CA	PHE	B	321	51.822	25.534	46.683	1.00	17.79	B	C
ATOM	7929	CB	PHE	B	321	53.232	25.128	47.161	1.00	17.86	B	C
ATOM	7930	CG	PHE	B	321	54.084	24.431	46.096	1.00	15.29	B	C
ATOM	7931	CD1	PHE	B	321	53.614	24.253	44.796	1.00	15.71	B	C
ATOM	7932	CE1	PHE	B	321	54.391	23.630	43.825	1.00	13.40	B	C
ATOM	7933	CZ	PHE	B	321	55.655	23.145	44.158	1.00	14.53	B	C
ATOM	7934	CE2	PHE	B	321	56.136	23.307	45.457	1.00	14.68	B	C
ATOM	7935	CD2	PHE	B	321	55.348	23.933	46.421	1.00	15.30	B	C
ATOM	7936	C	PHE	B	321	50.888	24.301	46.638	1.00	18.23	B	C
ATOM	7937	O	PHE	B	321	50.679	23.696	45.579	1.00	14.18	B	O
ATOM	7938	N	ASN	B	322	50.337	23.927	47.784	1.00	19.11	B	N
ATOM	7939	CA	ASN	B	322	49.396	22.815	47.837	1.00	18.46	B	C
ATOM	7940	CB	ASN	B	322	48.986	22.497	49.289	1.00	18.60	B	C
ATOM	7941	CG	ASN	B	322	48.677	20.995	49.485	1.00	20.26	B	C
ATOM	7942	OD1	ASN	B	322	49.533	20.152	49.229	1.00	20.64	B	O
ATOM	7943	ND2	ASN	B	322	47.471	20.675	49.948	1.00	19.13	B	N
ATOM	7944	C	ASN	B	322	48.151	23.080	46.988	1.00	19.84	B	C
ATOM	7945	O	ASN	B	322	47.666	22.189	46.276	1.00	16.66	B	O
ATOM	7946	N	THR	B	323	47.639	24.308	47.059	1.00	15.39	B	N
ATOM	7947	CA	THR	B	323	46.508	24.685	46.217	1.00	20.27	B	C
ATOM	7948	CB	THR	B	323	46.053	26.152	46.507	1.00	15.80	B	C
ATOM	7949	OG1	THR	B	323	45.477	26.212	47.814	1.00	16.54	B	O
ATOM	7950	CG2	THR	B	323	45.005	26.628	45.460	1.00	15.83	B	C
ATOM	7951	C	THR	B	323	46.901	24.514	44.751	1.00	16.46	B	C
ATOM	7952	O	THR	B	323	46.199	23.851	43.978	1.00	16.63	B	O
ATOM	7953	N	PHE	B	324	48.054	25.069	44.379	1.00	15.02	B	N
ATOM	7954	CA	PHE	B	324	48.559	24.977	42.986	1.00	15.82	B	C
ATOM	7955	CB	PHE	B	324	49.935	25.652	42.905	1.00	13.70	B	C
ATOM	7956	CG	PHE	B	324	50.588	25.585	41.557	1.00	14.90	B	C
ATOM	7957	CD1	PHE	B	324	50.296	26.535	40.568	1.00	15.04	B	C
ATOM	7958	CE1	PHE	B	324	50.926	26.498	39.341	1.00	13.10	B	C
ATOM	7959	CZ	PHE	B	324	51.850	25.501	39.059	1.00	13.31	B	C
ATOM	7960	CE2	PHE	B	324	52.171	24.552	40.057	1.00	13.68	B	C
ATOM	7961	CD2	PHE	B	324	51.542	24.617	41.290	1.00	14.28	B	C
ATOM	7962	C	PHE	B	324	48.610	23.525	42.454	1.00	17.76	B	C
ATOM	7963	O	PHE	B	324	48.144	23.232	41.344	1.00	16.57	B	O
ATOM	7964	N	LEU	B	325	49.166	22.619	43.246	1.00	13.67	B	N
ATOM	7965	CA	LEU	B	325	49.273	21.216	42.827	1.00	13.52	B	C
ATOM	7966	CB	LEU	B	325	50.207	20.443	43.773	1.00	14.63	B	C
ATOM	7967	CG	LEU	B	325	51.637	20.985	43.817	1.00	17.65	B	C
ATOM	7968	CD1	LEU	B	325	52.399	20.507	45.070	1.00	13.77	B	C
ATOM	7969	CD2	LEU	B	325	52.377	20.603	42.545	1.00	18.24	B	C
ATOM	7970	C	LEU	B	325	47.911	20.515	42.702	1.00	17.11	B	C
ATOM	7971	O	LEU	B	325	47.597	19.925	41.644	1.00	14.39	B	O
ATOM	7972	N	ARG	B	326	47.097	20.577	43.762	1.00	14.94	B	N
ATOM	7973	CA	ARG	B	326	45.800	19.904	43.734	1.00	16.14	B	C
ATOM	7974	CB	ARG	B	326	45.083	20.007	45.090	1.00	16.68	B	C
ATOM	7975	CG	ARG	B	326	45.849	19.285	46.226	1.00	15.65	B	C
ATOM	7976	CD	ARG	B	326	44.981	18.981	47.471	1.00	19.78	B	C
ATOM	7977	NE	ARG	B	326	45.775	18.281	48.494	1.00	18.02	B	N
ATOM	7978	CZ	ARG	B	326	45.398	18.106	49.758	1.00	20.43	B	C
ATOM	7979	NH1	ARG	B	326	44.224	18.547	50.182	1.00	20.01	B	N
ATOM	7980	NH2	ARG	B	326	46.196	17.487	50.608	1.00	21.56	B	N
ATOM	7981	C	ARG	B	326	44.922	20.474	42.633	1.00	16.55	B	C
ATOM	7982	O	ARG	B	326	44.159	19.750	42.006	1.00	16.55	B	O
ATOM	7983	N	CYS	B	327	45.030	21.776	42.414	1.00	14.57	B	N
ATOM	7984	CA	CYS	B	327	44.186	22.444	41.434	1.00	15.89	B	C
ATOM	7985	CB	CYS	B	327	44.430	23.970	41.453	1.00	14.98	B	C
ATOM	7986	SG	CYS	B	327	43.273	24.878	40.400	1.00	18.45	B	S
ATOM	7987	C	CYS	B	327	44.463	21.889	40.047	1.00	14.28	B	C
ATOM	7988	O	CYS	B	327	43.542	21.688	39.254	1.00	17.02	B	O
ATOM	7989	N	LEU	B	328	45.737	21.636	39.756	1.00	14.55	B	N
ATOM	7990	CA	LEU	B	328	46.144	21.115	38.448	1.00	15.55	B	C
ATOM	7991	CB	LEU	B	328	47.612	21.455	38.172	1.00	15.88	B	C
ATOM	7992	CG	LEU	B	328	47.862	22.966	37.950	1.00	18.08	B	C
ATOM	7993	CD1	LEU	B	328	49.353	23.276	37.716	1.00	16.99	B	C
ATOM	7994	CD2	LEU	B	328	47.024	23.491	36.775	1.00	16.98	B	C
ATOM	7995	C	LEU	B	328	45.890	19.613	38.311	1.00	13.61	B	C
ATOM	7996	O	LEU	B	328	45.877	19.075	37.213	1.00	13.90	B	O
ATOM	7997	N	GLY	B	329	45.661	18.954	39.436	1.00	13.93	B	N
ATOM	7998	CA	GLY	B	329	45.431	17.514	39.444	1.00	14.08	B	C
ATOM	7999	C	GLY	B	329	46.619	16.693	39.919	1.00	13.88	B	C
ATOM	8000	O	GLY	B	329	46.638	15.465	39.770	1.00	14.05	B	O
ATOM	8001	N	ILE	B	330	47.633	17.344	40.473	1.00	13.62	B	N
ATOM	8002	CA	ILE	B	330	48.777	16.573	40.969	1.00	17.21	B	C
ATOM	8003	CB	ILE	B	330	50.095	17.331	40.820	1.00	13.17	B	C

ATOM	8004	CG1	ILE	B	330	50.435	17.549	39.341	1.00	12.85	B	C
ATOM	8005	CD1	ILE	B	330	51.563	18.532	39.116	1.00	12.60	B	C
ATOM	8006	CG2	ILE	B	330	51.226	16.552	41.554	1.00	13.93	B	C
ATOM	8007	C	ILE	B	330	48.572	16.292	42.440	1.00	14.58	B	C
ATOM	8008	O	ILE	B	330	48.568	17.237	43.243	1.00	14.06	B	O
ATOM	8009	N	PRO	B	331	48.408	15.002	42.817	1.00	14.35	B	N
ATOM	8010	CA	PRO	B	331	48.107	14.741	44.234	1.00	14.91	B	C
ATOM	8011	CB	PRO	B	331	48.068	13.201	44.319	1.00	16.18	B	C
ATOM	8012	CG	PRO	B	331	47.812	12.742	42.843	1.00	15.79	B	C
ATOM	8013	CD	PRO	B	331	48.645	13.760	42.065	1.00	14.35	B	C
ATOM	8014	C	PRO	B	331	49.200	15.317	45.132	1.00	17.63	B	C
ATOM	8015	O	PRO	B	331	50.386	15.183	44.801	1.00	14.53	B	O
ATOM	8016	N	ALA	B	332	48.811	15.987	46.215	1.00	15.23	B	N
ATOM	8017	CA	ALA	B	332	49.780	16.724	47.030	1.00	15.24	B	C
ATOM	8018	CB	ALA	B	332	50.017	18.146	46.472	1.00	14.78	B	C
ATOM	8019	C	ALA	B	332	49.367	16.802	48.475	1.00	15.98	B	C
ATOM	8020	O	ALA	B	332	48.186	16.729	48.802	1.00	19.77	B	O
ATOM	8021	N	ARG	B	333	50.346	16.975	49.349	1.00	18.16	B	N
ATOM	8022	CA	ARG	B	333	50.043	17.147	50.761	1.00	16.99	B	C
ATOM	8023	CB	ARG	B	333	49.942	15.778	51.462	1.00	18.84	B	C
ATOM	8024	CG	ARG	B	333	51.265	15.020	51.565	1.00	19.31	B	C
ATOM	8025	CD	ARG	B	333	51.031	13.588	52.091	1.00	21.01	B	C
ATOM	8026	NE	ARG	B	333	52.275	12.833	52.259	1.00	18.50	B	N
ATOM	8027	CZ	ARG	B	333	52.334	11.587	52.729	1.00	22.38	B	C
ATOM	8028	NH1	ARG	B	333	51.216	10.942	53.056	1.00	19.80	B	N
ATOM	8029	NH2	ARG	B	333	53.512	10.974	52.863	1.00	20.19	B	N
ATOM	8030	C	ARG	B	333	51.134	17.978	51.396	1.00	17.03	B	C
ATOM	8031	O	ARG	B	333	52.224	18.134	50.820	1.00	16.67	B	O
ATOM	8032	N	ILE	B	334	50.845	18.487	52.587	1.00	17.74	B	N
ATOM	8033	CA	ILE	B	334	51.787	19.333	53.320	1.00	17.97	B	C
ATOM	8034	CB	ILE	B	334	51.116	20.627	53.838	1.00	20.53	B	C
ATOM	8035	CG1	ILE	B	334	50.560	21.445	52.660	1.00	17.60	B	C
ATOM	8036	CD1	ILE	B	334	49.858	22.723	53.068	1.00	20.78	B	C
ATOM	8037	CG2	ILE	B	334	52.097	21.472	54.666	1.00	19.55	B	C
ATOM	8038	C	ILE	B	334	52.417	18.571	54.484	1.00	21.37	B	C
ATOM	8039	O	ILE	B	334	51.720	17.966	55.307	1.00	21.66	B	O
ATOM	8040	N	VAL	B	335	53.742	18.588	54.542	1.00	19.73	B	N
ATOM	8041	CA	VAL	B	335	54.426	17.913	55.629	1.00	19.51	B	C
ATOM	8042	CB	VAL	B	335	55.453	16.844	55.131	1.00	22.25	B	C
ATOM	8043	CG1	VAL	B	335	54.814	15.910	54.078	1.00	18.74	B	C
ATOM	8044	CG2	VAL	B	335	56.706	17.481	54.595	1.00	24.40	B	C
ATOM	8045	C	VAL	B	335	55.067	18.946	56.557	1.00	20.12	B	C
ATOM	8046	O	VAL	B	335	55.409	20.067	56.129	1.00	19.85	B	O
ATOM	8047	N	THR	B	336	55.180	18.582	57.829	1.00	21.09	B	N
ATOM	8048	CA	THR	B	336	55.834	19.438	58.824	1.00	21.81	B	C
ATOM	8049	CB	THR	B	336	54.877	19.873	59.946	1.00	22.76	B	C
ATOM	8050	OG1	THR	B	336	53.790	20.617	59.390	1.00	22.26	B	O
ATOM	8051	CG2	THR	B	336	55.618	20.764	60.981	1.00	23.59	B	C
ATOM	8052	C	THR	B	336	57.003	18.706	59.473	1.00	22.48	B	C
ATOM	8053	O	THR	B	336	56.842	17.613	60.038	1.00	24.70	B	O
ATOM	8054	N	ASN	B	337	58.176	19.325	59.401	1.00	23.01	B	N
ATOM	8055	CA	ASN	B	337	59.387	18.784	59.992	1.00	23.13	B	C
ATOM	8056	CB	ASN	B	337	60.506	18.884	58.960	1.00	22.41	B	C
ATOM	8057	CG	ASN	B	337	61.783	18.182	59.401	1.00	23.12	B	C
ATOM	8058	OD1	ASN	B	337	61.762	17.268	60.229	1.00	27.49	B	O
ATOM	8059	ND2	ASN	B	337	62.902	18.614	58.844	1.00	22.88	B	N
ATOM	8060	C	ASN	B	337	59.768	19.572	61.261	1.00	24.24	B	C
ATOM	8061	O	ASN	B	337	59.985	20.785	61.185	1.00	25.73	B	O
ATOM	8062	N	TYR	B	338	59.841	18.895	62.409	1.00	25.42	B	N
ATOM	8063	CA	TYR	B	338	60.242	19.551	63.658	1.00	26.63	B	C
ATOM	8064	CB	TYR	B	338	59.497	18.971	64.846	1.00	27.84	B	C
ATOM	8065	CG	TYR	B	338	58.011	19.211	64.781	1.00	30.09	B	C
ATOM	8066	CD1	TYR	B	338	57.442	20.335	65.379	1.00	28.08	B	C
ATOM	8067	CE1	TYR	B	338	56.082	20.555	65.330	1.00	31.46	B	C
ATOM	8068	CZ	TYR	B	338	55.275	19.654	64.649	1.00	30.72	B	C
ATOM	8069	OH	TYR	B	338	53.919	19.864	64.582	1.00	29.74	B	O
ATOM	8070	CE2	TYR	B	338	55.820	18.541	64.035	1.00	30.29	B	C
ATOM	8071	CD2	TYR	B	338	57.177	18.332	64.094	1.00	26.97	B	C
ATOM	8072	C	TYR	B	338	61.744	19.465	63.879	1.00	27.14	B	C
ATOM	8073	O	TYR	B	338	62.339	18.399	63.741	1.00	27.27	B	O
ATOM	8074	N	PHE	B	339	62.331	20.609	64.215	1.00	27.50	B	N
ATOM	8075	CA	PHE	B	339	63.781	20.788	64.283	1.00	32.90	B	C
ATOM	8076	CB	PHE	B	339	64.451	19.868	65.305	1.00	34.09	B	C
ATOM	8077	CG	PHE	B	339	64.035	20.133	66.716	1.00	40.29	B	C
ATOM	8078	CD1	PHE	B	339	62.988	19.428	67.285	1.00	42.59	B	C
ATOM	8079	CE1	PHE	B	339	62.609	19.670	68.600	1.00	45.51	B	C
ATOM	8080	CZ	PHE	B	339	63.274	20.630	69.348	1.00	46.18	B	C

ATOM	8081	CE2	PHE	B	339	64.319	21.339	68.791	1.00	43.64	B	C
ATOM	8082	CD2	PHE	B	339	64.698	21.087	67.484	1.00	42.60	B	C
ATOM	8083	C	PHE	B	339	64.322	20.564	62.888	1.00	30.60	B	C
ATOM	8084	O	PHE	B	339	64.991	19.576	62.612	1.00	26.78	B	O
ATOM	8085	N	SER	B	340	64.004	21.505	62.005	1.00	25.75	B	N
ATOM	8086	CA	SER	B	340	64.342	21.377	60.602	1.00	24.60	B	C
ATOM	8087	CB	SER	B	340	63.193	21.914	59.743	1.00	23.49	B	C
ATOM	8088	OG	SER	B	340	63.424	21.667	58.372	1.00	22.44	B	O
ATOM	8089	C	SER	B	340	65.634	22.118	60.315	1.00	24.79	B	C
ATOM	8090	O	SER	B	340	65.704	23.336	60.488	1.00	25.27	B	O
ATOM	8091	N	ALA	B	341	66.650	21.381	59.873	1.00	24.83	B	N
ATOM	8092	CA	ALA	B	341	67.953	21.962	59.594	1.00	25.17	B	C
ATOM	8093	CB	ALA	B	341	69.026	20.900	59.549	1.00	25.68	B	C
ATOM	8094	C	ALA	B	341	67.979	22.775	58.317	1.00	27.51	B	C
ATOM	8095	O	ALA	B	341	67.324	22.423	57.323	1.00	25.58	B	O
ATOM	8096	N	HIS	B	342	68.753	23.861	58.360	1.00	27.07	B	N
ATOM	8097	CA	HIS	B	342	69.019	24.698	57.186	1.00	27.72	B	C
ATOM	8098	CB	HIS	B	342	68.468	26.118	57.346	1.00	30.27	B	C
ATOM	8099	CG	HIS	B	342	68.754	27.027	56.179	1.00	33.38	B	C
ATOM	8100	ND1	HIS	B	342	68.118	28.238	56.014	1.00	39.23	B	N
ATOM	8101	CE1	HIS	B	342	68.568	28.827	54.919	1.00	38.20	B	C
ATOM	8102	NE2	HIS	B	342	69.480	28.045	54.371	1.00	36.01	B	N
ATOM	8103	CD2	HIS	B	342	69.615	26.914	55.139	1.00	31.70	B	N
ATOM	8104	C	HIS	B	342	70.508	24.743	56.967	1.00	26.85	B	C
ATOM	8105	O	HIS	B	342	71.232	25.482	57.639	1.00	26.84	B	O
ATOM	8106	N	ASP	B	343	70.948	23.936	56.014	1.00	24.18	B	N
ATOM	8107	CA	ASP	B	343	72.335	23.843	55.619	1.00	24.79	B	C
ATOM	8108	CB	ASP	B	343	72.533	22.504	54.918	1.00	26.81	B	C
ATOM	8109	CG	ASP	B	343	73.978	22.174	54.704	1.00	26.21	B	C
ATOM	8110	OD1	ASP	B	343	74.819	22.779	55.399	1.00	26.87	B	O
ATOM	8111	OD2	ASP	B	343	74.265	21.308	53.847	1.00	26.95	B	O
ATOM	8112	C	ASP	B	343	72.707	24.991	54.668	1.00	27.87	B	C
ATOM	8113	O	ASP	B	343	72.111	25.126	53.596	1.00	26.20	B	O
ATOM	8114	N	ASN	B	344	73.695	25.801	55.050	1.00	31.33	B	N
ATOM	8115	CA	ASN	B	344	74.112	26.949	54.239	1.00	34.06	B	C
ATOM	8116	CB	ASN	B	344	74.481	28.141	55.130	1.00	36.49	B	C
ATOM	8117	CG	ASN	B	344	73.279	28.954	55.543	1.00	39.61	B	C
ATOM	8118	OD1	ASN	B	344	72.274	28.414	56.009	1.00	43.25	B	O
ATOM	8119	ND2	ASN	B	344	73.371	30.262	55.371	1.00	38.56	B	N
ATOM	8120	C	ASN	B	344	75.275	26.693	53.287	1.00	34.96	B	C
ATOM	8121	O	ASN	B	344	75.458	27.432	52.318	1.00	33.89	B	O
ATOM	8122	N	ASP	B	345	76.083	25.680	53.576	1.00	34.79	B	N
ATOM	8123	CA	ASP	B	345	77.285	25.447	52.783	1.00	33.45	B	C
ATOM	8124	CB	ASP	B	345	78.567	25.759	53.590	1.00	31.64	B	C
ATOM	8125	CG	ASP	B	345	78.762	24.838	54.809	1.00	34.79	B	C
ATOM	8126	OD1	ASP	B	345	77.783	24.240	55.296	1.00	33.69	B	O
ATOM	8127	OD2	ASP	B	345	79.913	24.731	55.298	1.00	38.00	B	O
ATOM	8128	C	ASP	B	345	77.318	24.066	52.118	1.00	33.00	B	C
ATOM	8129	O	ASP	B	345	78.378	23.562	51.757	1.00	36.09	B	O
ATOM	8130	N	ALA	B	346	76.141	23.474	51.945	1.00	32.85	B	N
ATOM	8131	CA	ALA	B	346	75.975	22.250	51.152	1.00	33.36	B	C
ATOM	8132	CB	ALA	B	346	76.055	22.569	49.644	1.00	31.87	B	C
ATOM	8133	C	ALA	B	346	76.923	21.105	51.507	1.00	32.59	B	C
ATOM	8134	O	ALA	B	346	77.446	20.425	50.620	1.00	33.55	B	O
ATOM	8135	N	ASN	B	347	77.137	20.873	52.794	1.00	30.28	B	N
ATOM	8136	CA	ASN	B	347	77.944	19.719	53.202	1.00	33.16	B	C
ATOM	8137	C	ASN	B	347	77.140	18.721	54.039	1.00	33.14	B	C
ATOM	8138	O	ASN	B	347	77.702	17.783	54.635	1.00	30.64	B	O
ATOM	8139	CB	ASN	B	347	79.212	20.171	53.933	1.00	33.67	B	C
ATOM	8140	CG	ASN	B	347	78.910	20.835	55.235	1.00	34.38	B	C
ATOM	8141	OD1	ASN	B	347	77.778	21.221	55.492	1.00	37.18	B	O
ATOM	8142	ND2	ASN	B	347	79.914	20.974	56.073	1.00	35.72	B	N
ATOM	8143	N	LEU	B	348	75.827	18.963	54.102	1.00	26.31	B	N
ATOM	8144	CA	LEU	B	348	74.851	18.029	54.667	1.00	28.84	B	C
ATOM	8145	CB	LEU	B	348	74.853	16.703	53.891	1.00	28.87	B	C
ATOM	8146	CG	LEU	B	348	74.383	16.729	52.426	1.00	31.95	B	C
ATOM	8147	CD1	LEU	B	348	75.402	17.342	51.478	1.00	33.40	B	C
ATOM	8148	CD2	LEU	B	348	73.985	15.321	51.937	1.00	24.09	B	C
ATOM	8149	C	LEU	B	348	74.981	17.787	56.176	1.00	31.46	B	C
ATOM	8150	O	LEU	B	348	74.528	16.764	56.691	1.00	32.09	B	O
ATOM	8151	N	GLN	B	349	75.605	18.736	56.870	1.00	27.96	B	N
ATOM	8152	CA	GLN	B	349	75.767	18.681	58.320	1.00	32.28	B	C
ATOM	8153	CB	GLN	B	349	77.143	18.108	58.693	1.00	33.34	B	C
ATOM	8154	CG	GLN	B	349	78.310	18.972	58.227	1.00	33.38	B	C
ATOM	8155	CD	GLN	B	349	79.655	18.346	58.540	1.00	36.70	B	C
ATOM	8156	OE1	GLN	B	349	79.822	17.123	58.442	1.00	36.14	B	O
ATOM	8157	NE2	GLN	B	349	80.625	19.183	58.928	1.00	35.67	B	N

ATOM	8158	C	GLN	B	349	75.624	20.094	58.878	1.00	29.39	B	C
ATOM	8159	O	GLN	B	349	75.856	21.063	58.166	1.00	32.20	B	O
ATOM	8160	N	MET	B	350	75.216	20.219	60.134	1.00	33.86	B	N
ATOM	8161	CA	MET	B	350	75.189	21.532	60.781	1.00	31.71	B	C
ATOM	8162	CB	MET	B	350	74.091	21.607	61.840	1.00	33.37	B	C
ATOM	8163	CG	MET	B	350	72.680	21.411	61.293	1.00	29.26	B	C
ATOM	8164	SD	MET	B	350	72.159	22.687	60.142	1.00	27.96	B	S
ATOM	8165	CE	MET	B	350	72.546	21.914	58.565	1.00	26.93	B	C
ATOM	8166	C	MET	B	350	76.538	21.834	61.411	1.00	33.00	B	C
ATOM	8167	O	MET	B	350	76.986	21.115	62.292	1.00	33.29	B	O
ATOM	8168	N	ASP	B	351	77.185	22.907	60.961	1.00	33.82	B	N
ATOM	8169	CA	ASP	B	351	78.503	23.245	61.471	1.00	37.89	B	C
ATOM	8170	CB	ASP	B	351	79.427	23.686	60.342	1.00	39.39	B	C
ATOM	8171	CG	ASP	B	351	79.519	22.650	59.243	1.00	41.81	B	C
ATOM	8172	OD1	ASP	B	351	80.367	21.742	59.359	1.00	42.27	B	O
ATOM	8173	OD2	ASP	B	351	78.735	22.743	58.273	1.00	31.52	B	O
ATOM	8174	C	ASP	B	351	78.354	24.332	62.504	1.00	34.72	B	C
ATOM	8175	O	ASP	B	351	78.063	25.484	62.171	1.00	35.94	B	O
ATOM	8176	N	ILE	B	352	78.518	23.955	63.763	1.00	36.52	B	N
ATOM	8177	CA	ILE	B	352	78.373	24.908	64.852	1.00	41.00	B	C
ATOM	8178	CB	ILE	B	352	77.461	24.362	65.965	1.00	43.99	B	C
ATOM	8179	CG1	ILE	B	352	76.111	23.928	65.380	1.00	41.99	B	C
ATOM	8180	CD1	ILE	B	352	75.527	22.686	66.051	1.00	40.84	B	C
ATOM	8181	CG2	ILE	B	352	77.273	25.405	67.061	1.00	44.92	B	C
ATOM	8182	C	ILE	B	352	79.745	25.237	65.415	1.00	43.21	B	C
ATOM	8183	O	ILE	B	352	80.374	24.412	66.086	1.00	43.61	B	O
ATOM	8184	N	PHE	B	353	80.215	26.446	65.127	1.00	45.16	B	N
ATOM	8185	CA	PHE	B	353	81.534	26.869	65.591	1.00	47.80	B	C
ATOM	8186	CB	PHE	B	353	82.153	27.863	64.609	1.00	48.02	B	C
ATOM	8187	CG	PHE	B	353	82.424	27.279	63.254	1.00	47.10	B	C
ATOM	8188	CD1	PHE	B	353	83.535	26.477	63.046	1.00	50.15	B	C
ATOM	8189	CE1	PHE	B	353	83.790	25.929	61.807	1.00	49.99	B	C
ATOM	8190	CZ	PHE	B	353	82.930	26.183	60.756	1.00	50.67	B	C
ATOM	8191	CE2	PHE	B	353	81.811	26.984	60.951	1.00	47.29	B	C
ATOM	8192	CD2	PHE	B	353	81.564	27.519	62.197	1.00	46.55	B	C
ATOM	8193	C	PHE	B	353	81.467	27.453	66.999	1.00	47.98	B	C
ATOM	8194	O	PHE	B	353	80.623	28.302	67.283	1.00	44.86	B	O
ATOM	8195	N	LEU	B	354	82.350	26.975	67.874	1.00	51.72	B	N
ATOM	8196	CA	LEU	B	354	82.429	27.455	69.255	1.00	53.49	B	C
ATOM	8197	C	LEU	B	354	83.660	28.330	69.505	1.00	53.06	B	C
ATOM	8198	O	LEU	B	354	84.753	28.031	69.015	1.00	50.72	B	O
ATOM	8199	CB	LEU	B	354	82.471	26.272	70.228	1.00	55.63	B	C
ATOM	8200	CG	LEU	B	354	81.326	25.261	70.191	1.00	54.59	B	C
ATOM	8201	CD1	LEU	B	354	81.529	24.226	71.286	1.00	56.60	B	C
ATOM	8202	CD2	LEU	B	354	79.978	25.950	70.333	1.00	51.99	B	C
ATOM	8203	N	GLU	B	355	83.477	29.404	70.271	1.00	54.66	B	N
ATOM	8204	CA	GLU	B	355	84.600	30.203	70.771	1.00	56.96	B	C
ATOM	8205	CB	GLU	B	355	84.113	31.527	71.376	1.00	55.58	B	C
ATOM	8206	C	GLU	B	355	85.364	29.398	71.814	1.00	58.19	B	C
ATOM	8207	O	GLU	B	355	84.904	28.339	72.247	1.00	55.34	B	O
ATOM	8208	N	GLU	B	356	86.528	29.904	72.221	1.00	63.63	B	N
ATOM	8209	CA	GLU	B	356	87.378	29.211	73.189	1.00	66.42	B	C
ATOM	8210	CB	GLU	B	356	88.619	30.049	73.510	1.00	68.63	B	C
ATOM	8211	C	GLU	B	356	86.619	28.867	74.474	1.00	67.32	B	C
ATOM	8212	O	GLU	B	356	86.789	27.779	75.036	1.00	63.53	B	O
ATOM	8213	N	ASP	B	357	85.761	29.793	74.904	1.00	70.90	B	N
ATOM	8214	CA	ASP	B	357	84.967	29.641	76.125	1.00	73.16	B	C
ATOM	8215	CB	ASP	B	357	84.353	30.988	76.531	1.00	72.90	B	C
ATOM	8216	C	ASP	B	357	83.867	28.574	76.012	1.00	71.62	B	C
ATOM	8217	O	ASP	B	357	83.200	28.254	76.997	1.00	70.63	B	O
ATOM	8218	N	GLY	B	358	83.677	28.027	74.814	1.00	70.58	B	N
ATOM	8219	CA	GLY	B	358	82.677	26.993	74.603	1.00	66.26	B	C
ATOM	8220	C	GLY	B	358	81.311	27.532	74.215	1.00	62.61	B	C
ATOM	8221	O	GLY	B	358	80.385	26.759	73.980	1.00	63.59	B	O
ATOM	8222	N	ASN	B	359	81.182	28.855	74.156	1.00	59.79	B	N
ATOM	8223	CA	ASN	B	359	79.953	29.487	73.676	1.00	55.71	B	C
ATOM	8224	C	ASN	B	359	79.901	29.457	72.146	1.00	52.82	B	C
ATOM	8225	O	ASN	B	359	80.918	29.220	71.495	1.00	51.49	B	O
ATOM	8226	CB	ASN	B	359	79.838	30.927	74.193	1.00	54.40	B	C
ATOM	8227	N	VAL	B	360	78.723	29.686	71.572	1.00	51.83	B	N
ATOM	8228	CA	VAL	B	360	78.586	29.659	70.121	1.00	51.71	B	C
ATOM	8229	CB	VAL	B	360	77.128	29.369	69.680	1.00	53.00	B	C
ATOM	8230	C	VAL	B	360	79.076	30.953	69.456	1.00	53.56	B	C
ATOM	8231	O	VAL	B	360	78.567	32.041	69.719	1.00	51.91	B	O
ATOM	8232	N	ASN	B	361	80.075	30.814	68.591	1.00	54.19	B	N
ATOM	8233	CA	ASN	B	361	80.528	31.905	67.738	1.00	51.45	B	C
ATOM	8234	CB	ASN	B	361	81.857	31.505	67.085	1.00	50.67	B	C

ATOM	8235	CG	ASN	B	361	82.498	32.632	66.294	1.00	51.52	B	C
ATOM	8236	OD1	ASN	B	361	81.823	33.396	65.597	1.00	48.82	B	O
ATOM	8237	ND2	ASN	B	361	83.819	32.734	66.396	1.00	52.91	B	N
ATOM	8238	C	ASN	B	361	79.466	32.202	66.677	1.00	50.48	B	C
ATOM	8239	O	ASN	B	361	79.309	31.439	65.709	1.00	44.81	B	O
ATOM	8240	N	SER	B	362	78.736	33.304	66.859	1.00	52.31	B	N
ATOM	8241	CA	SER	B	362	77.635	33.661	65.962	1.00	53.43	B	C
ATOM	8242	CB	SER	B	362	76.637	34.584	66.669	1.00	52.37	B	C
ATOM	8243	C	SER	B	362	78.116	34.300	64.656	1.00	57.46	B	C
ATOM	8244	O	SER	B	362	77.349	34.436	63.699	1.00	58.27	B	O
ATOM	8245	N	LYS	B	363	79.387	34.689	64.614	1.00	60.12	B	N
ATOM	8246	CA	LYS	B	363	79.954	35.256	63.394	1.00	59.40	B	C
ATOM	8247	CB	LYS	B	363	81.202	36.087	63.703	1.00	62.07	B	C
ATOM	8248	C	LYS	B	363	80.292	34.136	62.420	1.00	55.86	B	C
ATOM	8249	O	LYS	B	363	79.902	34.176	61.255	1.00	54.94	B	O
ATOM	8250	N	LEU	B	364	81.010	33.132	62.908	1.00	52.66	B	N
ATOM	8251	CA	LEU	B	364	81.404	31.999	62.080	1.00	49.45	B	C
ATOM	8252	CB	LEU	B	364	82.500	31.187	62.778	1.00	49.20	B	C
ATOM	8253	C	LEU	B	364	80.215	31.096	61.694	1.00	46.82	B	C
ATOM	8254	O	LEU	B	364	80.107	30.671	60.544	1.00	45.39	B	O
ATOM	8255	N	THR	B	365	79.329	30.822	62.652	1.00	44.69	B	N
ATOM	8256	CA	THR	B	365	78.202	29.906	62.456	1.00	42.76	B	C
ATOM	8257	CB	THR	B	365	77.564	29.514	63.810	1.00	41.24	B	C
ATOM	8258	OG1	THR	B	365	78.557	28.924	64.657	1.00	40.22	B	O
ATOM	8259	CG2	THR	B	365	76.422	28.521	63.605	1.00	38.17	B	C
ATOM	8260	C	THR	B	365	77.106	30.464	61.546	1.00	40.77	B	C
ATOM	8261	O	THR	B	365	76.438	31.435	61.900	1.00	42.64	B	O
ATOM	8262	N	LYS	B	366	76.930	29.846	60.380	1.00	37.97	B	N
ATOM	8263	CA	LYS	B	366	75.920	30.268	59.404	1.00	38.64	B	C
ATOM	8264	C	LYS	B	366	74.696	29.334	59.348	1.00	38.75	B	C
ATOM	8265	O	LYS	B	366	73.571	29.784	59.107	1.00	35.53	B	O
ATOM	8266	CB	LYS	B	366	76.541	30.351	58.007	1.00	39.37	B	C
ATOM	8267	CG	LYS	B	366	77.758	31.240	57.932	1.00	44.09	B	C
ATOM	8268	CD	LYS	B	366	77.414	32.673	58.313	1.00	45.98	B	C
ATOM	8269	CE	LYS	B	366	78.661	33.538	58.371	1.00	47.67	B	C
ATOM	8270	NZ	LYS	B	366	78.333	34.936	58.755	1.00	47.91	B	N
ATOM	8271	N	ASP	B	367	74.924	28.035	59.545	1.00	37.06	B	N
ATOM	8272	CA	ASP	B	367	73.839	27.060	59.505	1.00	33.38	B	C
ATOM	8273	CB	ASP	B	367	74.374	25.643	59.729	1.00	34.39	B	C
ATOM	8274	CG	ASP	B	367	75.211	25.135	58.568	1.00	32.75	B	C
ATOM	8275	OD1	ASP	B	367	75.121	25.713	57.453	1.00	29.86	B	O
ATOM	8276	OD2	ASP	B	367	75.935	24.136	58.776	1.00	33.05	B	O
ATOM	8277	C	ASP	B	367	72.854	27.382	60.610	1.00	34.08	B	C
ATOM	8278	O	ASP	B	367	73.195	28.068	61.581	1.00	35.69	B	O
ATOM	8279	N	SER	B	368	71.635	26.883	60.484	1.00	28.33	B	N
ATOM	8280	CA	SER	B	368	70.661	27.083	61.547	1.00	30.35	B	C
ATOM	8281	CB	SER	B	368	69.932	28.415	61.337	1.00	29.45	B	C
ATOM	8282	OG	SER	B	368	69.367	28.458	60.029	1.00	31.01	B	O
ATOM	8283	C	SER	B	368	69.652	25.946	61.662	1.00	30.64	B	C
ATOM	8284	O	SER	B	368	69.609	25.023	60.821	1.00	27.92	B	O
ATOM	8285	N	VAL	B	369	68.828	26.022	62.703	1.00	29.82	B	N
ATOM	8286	CA	VAL	B	369	67.745	25.063	62.869	1.00	31.59	B	C
ATOM	8287	CB	VAL	B	369	68.087	23.952	63.896	1.00	29.14	B	C
ATOM	8288	CG1	VAL	B	369	68.427	24.554	65.273	1.00	31.14	B	C
ATOM	8289	CG2	VAL	B	369	66.933	22.972	63.986	1.00	29.44	B	C
ATOM	8290	C	VAL	B	369	66.438	25.772	63.233	1.00	33.46	B	C
ATOM	8291	O	VAL	B	369	66.416	26.685	64.065	1.00	32.46	B	O
ATOM	8292	N	TRP	B	370	65.354	25.353	62.589	1.00	26.83	B	N
ATOM	8293	CA	TRP	B	370	64.037	25.953	62.784	1.00	31.59	B	C
ATOM	8294	CB	TRP	B	370	63.265	25.953	61.452	1.00	28.97	B	C
ATOM	8295	CG	TRP	B	370	63.811	26.826	60.369	1.00	33.01	B	C
ATOM	8296	CD1	TRP	B	370	64.496	26.426	59.251	1.00	34.34	B	C
ATOM	8297	NE1	TRP	B	370	64.794	27.522	58.462	1.00	36.90	B	N
ATOM	8298	CE2	TRP	B	370	64.296	28.651	59.063	1.00	36.01	B	C
ATOM	8299	CD2	TRP	B	370	63.658	28.251	60.256	1.00	32.20	B	C
ATOM	8300	CE3	TRP	B	370	63.051	29.224	61.052	1.00	30.39	B	C
ATOM	8301	CZ3	TRP	B	370	63.104	30.552	60.645	1.00	28.24	B	C
ATOM	8302	CH2	TRP	B	370	63.753	30.918	59.466	1.00	30.12	B	C
ATOM	8303	CZ2	TRP	B	370	64.355	29.989	58.660	1.00	34.31	B	C
ATOM	8304	C	TRP	B	370	63.218	25.152	63.795	1.00	32.55	B	C
ATOM	8305	O	TRP	B	370	63.274	23.913	63.799	1.00	33.19	B	O
ATOM	8306	N	ASN	B	371	62.422	25.831	64.618	1.00	27.94	B	N
ATOM	8307	CA	ASN	B	371	61.462	25.110	65.454	1.00	28.54	B	C
ATOM	8308	CB	ASN	B	371	60.572	26.055	66.259	1.00	29.29	B	C
ATOM	8309	CG	ASN	B	371	59.850	27.082	65.389	1.00	39.58	B	C
ATOM	8310	OD1	ASN	B	371	60.189	27.298	64.222	1.00	27.21	B	O
ATOM	8311	ND2	ASN	B	371	58.843	27.718	65.965	1.00	28.89	B	N

ATOM	8312	C	ASN	B	371	60.612	24.135	64.610	1.00	27.46	B	C
ATOM	8313	O	ASN	B	371	60.362	22.994	65.008	1.00	27.83	B	O
ATOM	8314	N	TYR	B	372	60.187	24.589	63.439	1.00	26.22	B	N
ATOM	8315	CA	TYR	B	372	59.564	23.683	62.472	1.00	25.16	B	C
ATOM	8316	CB	TYR	B	372	58.096	23.452	62.814	1.00	25.32	B	C
ATOM	8317	CG	TYR	B	372	57.233	24.686	62.640	1.00	26.76	B	C
ATOM	8318	CD1	TYR	B	372	57.143	25.650	63.646	1.00	26.63	B	C
ATOM	8319	CE1	TYR	B	372	56.350	26.783	63.485	1.00	26.05	B	C
ATOM	8320	CZ	TYR	B	372	55.630	26.952	62.308	1.00	24.92	B	C
ATOM	8321	OH	TYR	B	372	54.834	28.061	62.117	1.00	24.88	B	O
ATOM	8322	CE2	TYR	B	372	55.706	26.005	61.304	1.00	25.08	B	C
ATOM	8323	CD2	TYR	B	372	56.494	24.879	61.476	1.00	26.61	B	C
ATOM	8324	C	TYR	B	372	59.668	24.283	61.089	1.00	23.91	B	C
ATOM	8325	O	TYR	B	372	59.866	25.483	60.949	1.00	23.88	B	O
ATOM	8326	N	HIS	B	373	59.532	23.441	60.062	1.00	22.96	B	N
ATOM	8327	CA	HIS	B	373	59.437	23.920	58.700	1.00	21.82	B	C
ATOM	8328	CB	HIS	B	373	60.798	23.834	58.017	1.00	21.52	B	C
ATOM	8329	CG	HIS	B	373	60.784	24.247	56.576	1.00	24.32	B	C
ATOM	8330	ND1	HIS	B	373	59.986	25.268	56.099	1.00	23.34	B	N
ATOM	8331	CE1	HIS	B	373	60.183	25.409	54.799	1.00	24.33	B	C
ATOM	8332	NE2	HIS	B	373	61.090	24.526	54.418	1.00	25.27	B	N
ATOM	8333	CD2	HIS	B	373	61.481	23.786	55.510	1.00	24.08	B	C
ATOM	8334	C	HIS	B	373	58.381	23.059	57.995	1.00	30.01	B	C
ATOM	8335	O	HIS	B	373	58.151	21.912	58.396	1.00	24.51	B	O
ATOM	8336	N	CYS	B	374	57.722	23.625	56.982	1.00	20.26	B	N
ATOM	8337	CA	CYS	B	374	56.685	22.921	56.250	1.00	20.79	B	C
ATOM	8338	CB	CYS	B	374	55.307	23.570	56.457	1.00	22.43	B	C
ATOM	8339	SG	CYS	B	374	54.873	23.920	58.181	1.00	22.01	B	S
ATOM	8340	C	CYS	B	374	57.015	22.970	54.779	1.00	20.51	B	C
ATOM	8341	O	CYS	B	374	57.377	24.029	54.253	1.00	20.81	B	O
ATOM	8342	N	TRP	B	375	56.878	21.837	54.101	1.00	18.15	B	N
ATOM	8343	CA	TRP	B	375	56.983	21.846	52.653	1.00	21.84	B	C
ATOM	8344	CB	TRP	B	375	58.397	21.492	52.173	1.00	17.12	B	C
ATOM	8345	CG	TRP	B	375	58.890	20.135	52.592	1.00	22.93	B	C
ATOM	8346	CD1	TRP	B	375	58.682	18.959	51.954	1.00	20.86	B	C
ATOM	8347	NE1	TRP	B	375	59.313	17.931	52.619	1.00	22.63	B	N
ATOM	8348	CE2	TRP	B	375	59.947	18.445	53.715	1.00	22.29	B	C
ATOM	8349	CD2	TRP	B	375	59.717	19.839	53.719	1.00	21.74	B	C
ATOM	8350	CE3	TRP	B	375	60.260	20.611	54.747	1.00	21.41	B	C
ATOM	8351	CZ3	TRP	B	375	61.026	19.983	55.717	1.00	22.42	B	C
ATOM	8352	CH2	TRP	B	375	61.241	18.593	55.679	1.00	23.24	B	C
ATOM	8353	CZ2	TRP	B	375	60.710	17.811	54.683	1.00	21.99	B	C
ATOM	8354	C	TRP	B	375	55.915	20.932	52.079	1.00	19.46	B	C
ATOM	8355	O	TRP	B	375	55.024	20.497	52.798	1.00	19.08	B	O
ATOM	8356	N	ASN	B	376	55.967	20.684	50.782	1.00	19.03	B	N
ATOM	8357	CA	ASN	B	376	54.951	19.849	50.155	1.00	15.86	B	C
ATOM	8358	CB	ASN	B	376	54.282	20.592	48.984	1.00	15.25	B	C
ATOM	8359	CG	ASN	B	376	53.688	21.926	49.403	1.00	15.44	B	C
ATOM	8360	OD1	ASN	B	376	54.412	22.867	49.671	1.00	17.72	B	O
ATOM	8361	ND2	ASN	B	376	52.369	21.991	49.507	1.00	17.52	B	N
ATOM	8362	C	ASN	B	376	55.517	18.547	49.649	1.00	16.77	B	C
ATOM	8363	O	ASN	B	376	56.707	18.434	49.354	1.00	17.05	B	O
ATOM	8364	N	GLU	B	377	54.637	17.567	49.512	1.00	15.75	B	N
ATOM	8365	CA	GLU	B	377	54.967	16.400	48.732	1.00	15.54	B	C
ATOM	8366	CB	GLU	B	377	54.894	15.151	49.605	1.00	16.20	B	C
ATOM	8367	CG	GLU	B	377	55.949	15.128	50.690	1.00	16.79	B	C
ATOM	8368	CD	GLU	B	377	55.941	13.829	51.471	1.00	22.58	B	C
ATOM	8369	OE1	GLU	B	377	54.871	13.197	51.566	1.00	22.71	B	O
ATOM	8370	OE2	GLU	B	377	57.010	13.442	51.965	1.00	23.88	B	O
ATOM	8371	C	GLU	B	377	54.013	16.293	47.548	1.00	16.97	B	C
ATOM	8372	O	GLU	B	377	52.806	16.514	47.692	1.00	15.88	B	O
ATOM	8373	N	ALA	B	378	54.563	15.969	46.382	1.00	15.11	B	N
ATOM	8374	CA	ALA	B	378	53.743	15.755	45.188	1.00	14.21	B	C
ATOM	8375	CB	ALA	B	378	54.037	16.801	44.115	1.00	13.69	B	C
ATOM	8376	C	ALA	B	378	53.914	14.336	44.636	1.00	15.84	B	C
ATOM	8377	O	ALA	B	378	55.025	13.805	44.575	1.00	17.91	B	O
ATOM	8378	N	TRP	B	379	52.802	13.730	44.242	1.00	17.93	B	N
ATOM	8379	CA	TRP	B	379	52.783	12.305	43.842	1.00	14.58	B	C
ATOM	8380	CB	TRP	B	379	51.458	11.672	44.228	1.00	15.03	B	C
ATOM	8381	CG	TRP	B	379	51.369	10.184	43.934	1.00	15.42	B	C
ATOM	8382	CD1	TRP	B	379	50.807	9.574	42.832	1.00	15.37	B	C
ATOM	8383	NE1	TRP	B	379	50.909	8.196	42.953	1.00	15.91	B	N
ATOM	8384	CE2	TRP	B	379	51.544	7.905	44.135	1.00	17.95	B	C
ATOM	8385	CD2	TRP	B	379	51.845	9.133	44.776	1.00	20.64	B	C
ATOM	8386	CE3	TRP	B	379	52.503	9.111	46.015	1.00	20.40	B	C
ATOM	8387	CZ3	TRP	B	379	52.841	7.873	46.562	1.00	23.31	B	C
ATOM	8388	CH2	TRP	B	379	52.526	6.670	45.892	1.00	22.47	B	C

ATOM	8389	CZ2	TRP	B	379	51.882	6.670	44.687	1.00	17.01	B	C
ATOM	8390	C	TRP	B	379	52.973	12.155	42.351	1.00	17.82	B	C
ATOM	8391	O	TRP	B	379	52.168	12.685	41.579	1.00	13.91	B	O
ATOM	8392	N	MET	B	380	54.016	11.419	41.950	1.00	16.14	B	N
ATOM	8393	CA	MET	B	380	54.307	11.190	40.528	1.00	15.44	B	C
ATOM	8394	CB	MET	B	380	54.772	12.497	39.868	1.00	13.52	B	C
ATOM	8395	CG	MET	B	380	56.206	12.921	40.279	1.00	13.53	B	C
ATOM	8396	SD	MET	B	380	56.599	14.663	40.002	1.00	17.59	B	S
ATOM	8397	CE	MET	B	380	55.438	15.412	41.148	1.00	18.25	B	C
ATOM	8398	C	MET	B	380	55.356	10.100	40.283	1.00	19.25	B	C
ATOM	8399	O	MET	B	380	56.176	9.799	41.164	1.00	16.54	B	O
ATOM	8400	N	THR	B	381	55.315	9.483	39.096	1.00	16.62	B	N
ATOM	8401	CA	THR	B	381	56.394	8.612	38.673	1.00	16.98	B	C
ATOM	8402	CB	THR	B	381	56.055	7.896	37.332	1.00	20.42	B	C
ATOM	8403	OG1	THR	B	381	55.653	8.881	36.366	1.00	14.26	B	O
ATOM	8404	CG2	THR	B	381	54.922	6.881	37.546	1.00	15.06	B	C
ATOM	8405	C	THR	B	381	57.645	9.434	38.447	1.00	14.38	B	C
ATOM	8406	O	THR	B	381	57.565	10.654	38.264	1.00	15.51	B	O
ATOM	8407	N	ARG	B	382	58.804	8.771	38.447	1.00	15.83	B	N
ATOM	8408	CA	ARG	B	382	60.063	9.448	38.133	1.00	18.79	B	C
ATOM	8409	CB	ARG	B	382	60.926	9.634	39.388	1.00	15.01	B	C
ATOM	8410	CG	ARG	B	382	60.308	10.571	40.444	1.00	14.75	B	C
ATOM	8411	CD	ARG	B	382	60.248	12.050	39.966	1.00	14.26	B	C
ATOM	8412	NE	ARG	B	382	61.512	12.562	39.455	1.00	14.38	B	N
ATOM	8413	CZ	ARG	B	382	62.362	13.292	40.189	1.00	15.59	B	C
ATOM	8414	NH1	ARG	B	382	62.113	13.513	41.474	1.00	16.54	B	N
ATOM	8415	NH2	ARG	B	382	63.481	13.752	39.665	1.00	14.77	B	N
ATOM	8416	C	ARG	B	382	60.826	8.696	37.041	1.00	18.43	B	C
ATOM	8417	O	ARG	B	382	61.798	7.978	37.312	1.00	16.78	B	O
ATOM	8418	N	PRO	B	383	60.384	8.863	35.791	1.00	19.19	B	N
ATOM	8419	CA	PRO	B	383	60.968	8.175	34.635	1.00	19.71	B	C
ATOM	8420	CB	PRO	B	383	60.076	8.620	33.479	1.00	24.07	B	C
ATOM	8421	CG	PRO	B	383	58.827	9.169	34.132	1.00	21.57	B	C
ATOM	8422	CD	PRO	B	383	59.250	9.726	35.414	1.00	18.91	B	C
ATOM	8423	C	PRO	B	383	62.377	8.667	34.393	1.00	18.70	B	C
ATOM	8424	O	PRO	B	383	63.112	8.022	33.644	1.00	18.00	B	O
ATOM	8425	N	ASP	B	384	62.745	9.793	35.017	1.00	17.07	B	N
ATOM	8426	CA	ASP	B	384	64.102	10.310	34.932	1.00	15.63	B	C
ATOM	8427	CB	ASP	B	384	64.134	11.862	35.052	1.00	22.44	B	C
ATOM	8428	CG	ASP	B	384	63.558	12.379	36.381	1.00	23.06	B	C
ATOM	8429	OD1	ASP	B	384	62.696	11.689	36.974	1.00	19.75	B	O
ATOM	8430	OD2	ASP	B	384	63.955	13.496	36.817	1.00	21.01	B	O
ATOM	8431	C	ASP	B	384	65.046	9.667	35.944	1.00	17.49	B	C
ATOM	8432	O	ASP	B	384	66.241	9.881	35.864	1.00	18.92	B	O
ATOM	8433	N	LEU	B	385	64.500	8.898	36.890	1.00	16.17	B	N
ATOM	8434	CA	LEU	B	385	65.286	8.189	37.896	1.00	16.76	B	C
ATOM	8435	CB	LEU	B	385	64.779	8.529	39.312	1.00	16.57	B	C
ATOM	8436	CG	LEU	B	385	64.680	10.030	39.629	1.00	21.35	B	C
ATOM	8437	CD1	LEU	B	385	64.176	10.287	41.084	1.00	16.06	B	C
ATOM	8438	CD2	LEU	B	385	66.014	10.704	39.374	1.00	16.43	B	C
ATOM	8439	C	LEU	B	385	65.129	6.692	37.658	1.00	21.80	B	C
ATOM	8440	O	LEU	B	385	64.211	6.285	36.961	1.00	17.00	B	O
ATOM	8441	N	PRO	B	386	66.020	5.871	38.242	1.00	18.60	B	N
ATOM	8442	CA	PRO	B	386	65.836	4.413	38.134	1.00	21.91	B	C
ATOM	8443	CB	PRO	B	386	67.033	3.829	38.912	1.00	20.79	B	C
ATOM	8444	CG	PRO	B	386	68.041	4.945	38.981	1.00	21.68	B	C
ATOM	8445	CD	PRO	B	386	67.253	6.242	38.965	1.00	18.45	B	C
ATOM	8446	C	PRO	B	386	64.543	3.991	38.817	1.00	22.00	B	C
ATOM	8447	O	PRO	B	386	64.027	4.746	39.649	1.00	18.75	B	O
ATOM	8448	N	VAL	B	387	64.035	2.802	38.502	1.00	21.50	B	N
ATOM	8449	CA	VAL	B	387	62.772	2.397	39.109	1.00	22.74	B	C
ATOM	8450	CB	VAL	B	387	62.186	1.104	38.503	1.00	27.16	B	C
ATOM	8451	CG1	VAL	B	387	62.343	1.074	36.977	1.00	30.15	B	C
ATOM	8452	CG2	VAL	B	387	62.827	-0.083	39.109	1.00	25.56	B	C
ATOM	8453	C	VAL	B	387	62.898	2.256	40.630	1.00	21.05	B	C
ATOM	8454	O	VAL	B	387	63.957	1.876	41.179	1.00	19.56	B	O
ATOM	8455	N	GLY	B	388	61.809	2.591	41.310	1.00	20.02	B	N
ATOM	8456	CA	GLY	B	388	61.781	2.526	42.760	1.00	18.97	B	C
ATOM	8457	C	GLY	B	388	61.705	3.901	43.398	1.00	18.42	B	C
ATOM	8458	O	GLY	B	388	61.385	4.003	44.579	1.00	20.46	B	O
ATOM	8459	N	PHE	B	389	61.943	4.963	42.625	1.00	17.74	B	N
ATOM	8460	CA	PHE	B	389	62.077	6.295	43.222	1.00	17.34	B	C
ATOM	8461	CB	PHE	B	389	63.418	6.942	42.818	1.00	17.35	B	C
ATOM	8462	CG	PHE	B	389	64.635	6.192	43.351	1.00	24.57	B	C
ATOM	8463	CD1	PHE	B	389	64.957	6.239	44.701	1.00	20.13	B	C
ATOM	8464	CE1	PHE	B	389	66.061	5.546	45.200	1.00	19.64	B	C
ATOM	8465	CZ	PHE	B	389	66.866	4.806	44.353	1.00	23.06	B	C

ATOM	8466	CE2	PHE	B	389	66.552	4.736	42.999	1.00	22.72	B	C
ATOM	8467	CD2	PHE	B	389	65.435	5.426	42.506	1.00	22.94	B	C
ATOM	8468	C	PHE	B	389	60.895	7.241	42.987	1.00	21.54	B	C
ATOM	8469	O	PHE	B	389	60.990	8.447	43.272	1.00	18.16	B	O
ATOM	8470	N	GLY	B	390	59.794	6.703	42.463	1.00	20.10	B	N
ATOM	8471	CA	GLY	B	390	58.598	7.506	42.232	1.00	15.89	B	C
ATOM	8472	C	GLY	B	390	57.818	7.615	43.527	1.00	17.86	B	C
ATOM	8473	O	GLY	B	390	58.371	7.401	44.609	1.00	16.61	B	O
ATOM	8474	N	GLY	B	391	56.527	7.901	43.415	1.00	16.30	B	N
ATOM	8475	CA	GLY	B	391	55.697	8.130	44.585	1.00	16.13	B	C
ATOM	8476	C	GLY	B	391	55.874	9.565	45.059	1.00	15.77	B	C
ATOM	8477	O	GLY	B	391	55.958	10.501	44.244	1.00	15.59	B	O
ATOM	8478	N	TRP	B	392	55.974	9.742	46.376	1.00	16.85	B	N
ATOM	8479	CA	TRP	B	392	56.053	11.077	46.963	1.00	16.02	B	C
ATOM	8480	CB	TRP	B	392	55.783	11.027	48.476	1.00	16.72	B	C
ATOM	8481	CG	TRP	B	392	54.341	10.736	48.844	1.00	17.02	B	C
ATOM	8482	CD1	TRP	B	392	53.864	9.638	49.525	1.00	21.55	B	C
ATOM	8483	NE1	TRP	B	392	52.504	9.732	49.675	1.00	21.14	B	N
ATOM	8484	CE2	TRP	B	392	52.069	10.887	49.078	1.00	19.96	B	C
ATOM	8485	CD2	TRP	B	392	53.196	11.538	48.535	1.00	19.42	B	C
ATOM	8486	CE3	TRP	B	392	53.018	12.757	47.871	1.00	16.02	B	C
ATOM	8487	CZ3	TRP	B	392	51.738	13.277	47.770	1.00	23.04	B	C
ATOM	8488	CH2	TRP	B	392	50.635	12.596	48.309	1.00	22.87	B	C
ATOM	8489	CZ2	TRP	B	392	50.778	11.402	48.959	1.00	21.13	B	C
ATOM	8490	C	TRP	B	392	57.402	11.723	46.664	1.00	15.78	B	C
ATOM	8491	O	TRP	B	392	58.464	11.120	46.867	1.00	16.53	B	O
ATOM	8492	N	GLN	B	393	57.332	12.967	46.185	1.00	15.24	B	N
ATOM	8493	CA	GLN	B	393	58.479	13.800	45.882	1.00	15.06	B	C
ATOM	8494	CB	GLN	B	393	58.462	14.219	44.419	1.00	14.47	B	C
ATOM	8495	CG	GLN	B	393	58.176	13.042	43.460	1.00	14.40	B	C
ATOM	8496	CD	GLN	B	393	59.300	11.997	43.461	1.00	14.84	B	C
ATOM	8497	OE1	GLN	B	393	60.485	12.345	43.361	1.00	14.95	B	O
ATOM	8498	NE2	GLN	B	393	58.928	10.703	43.548	1.00	15.17	B	N
ATOM	8499	C	GLN	B	393	58.386	15.054	46.752	1.00	19.65	B	C
ATOM	8500	O	GLN	B	393	57.365	15.746	46.754	1.00	14.89	B	O
ATOM	8501	N	ALA	B	394	59.447	15.342	47.493	1.00	16.59	B	N
ATOM	8502	CA	ALA	B	394	59.473	16.576	48.281	1.00	15.68	B	C
ATOM	8503	CB	ALA	B	394	60.579	16.529	49.344	1.00	16.39	B	C
ATOM	8504	C	ALA	B	394	59.653	17.771	47.360	1.00	18.68	B	C
ATOM	8505	O	ALA	B	394	60.594	17.820	46.561	1.00	15.05	B	O
ATOM	8506	N	VAL	B	395	58.723	18.719	47.442	1.00	14.96	B	N
ATOM	8507	CA	VAL	B	395	58.894	20.004	46.774	1.00	14.65	B	C
ATOM	8508	CB	VAL	B	395	57.944	20.170	45.547	1.00	15.86	B	C
ATOM	8509	CG1	VAL	B	395	58.446	19.367	44.354	1.00	18.60	B	C
ATOM	8510	CG2	VAL	B	395	56.523	19.744	45.914	1.00	14.65	B	C
ATOM	8511	C	VAL	B	395	58.661	21.148	47.773	1.00	14.99	B	C
ATOM	8512	O	VAL	B	395	57.754	21.085	48.622	1.00	21.12	B	O
ATOM	8513	N	ASP	B	396	59.444	22.215	47.638	1.00	15.08	B	N
ATOM	8514	CA	ASP	B	396	59.471	23.287	48.657	1.00	15.99	B	C
ATOM	8515	CB	ASP	B	396	60.635	23.037	49.631	1.00	16.22	B	C
ATOM	8516	CG	ASP	B	396	60.598	23.954	50.886	1.00	19.54	B	C
ATOM	8517	OD1	ASP	B	396	59.803	24.929	50.966	1.00	16.84	B	O
ATOM	8518	OD2	ASP	B	396	61.388	23.666	51.817	1.00	20.40	B	O
ATOM	8519	C	ASP	B	396	59.619	24.653	47.991	1.00	16.86	B	C
ATOM	8520	O	ASP	B	396	60.634	24.941	47.359	1.00	15.42	B	O
ATOM	8521	N	SER	B	397	58.602	25.496	48.157	1.00	15.39	B	N
ATOM	8522	CA	SER	B	397	58.625	26.828	47.589	1.00	15.37	B	C
ATOM	8523	CB	SER	B	397	57.237	27.213	47.084	1.00	16.37	B	C
ATOM	8524	OG	SER	B	397	56.305	27.307	48.149	1.00	15.39	B	O
ATOM	8525	C	SER	B	397	59.101	27.903	48.560	1.00	18.40	B	C
ATOM	8526	O	SER	B	397	59.147	29.069	48.177	1.00	16.49	B	O
ATOM	8527	N	THR	B	398	59.411	27.553	49.809	1.00	22.11	B	N
ATOM	8528	CA	THR	B	398	59.971	28.582	50.731	1.00	19.63	B	C
ATOM	8529	CB	THR	B	398	59.912	28.159	52.226	1.00	19.32	B	C
ATOM	8530	OG1	THR	B	398	58.559	27.880	52.610	1.00	19.62	B	O
ATOM	8531	CG2	THR	B	398	60.503	29.304	53.167	1.00	18.89	B	C
ATOM	8532	C	THR	B	398	61.435	28.807	50.370	1.00	18.74	B	C
ATOM	8533	O	THR	B	398	62.228	27.850	50.353	1.00	18.64	B	O
ATOM	8534	N	PRO	B	399	61.821	30.057	50.086	1.00	21.89	B	N
ATOM	8535	CA	PRO	B	399	63.234	30.300	49.775	1.00	20.75	B	C
ATOM	8536	CB	PRO	B	399	63.276	31.805	49.479	1.00	21.60	B	C
ATOM	8537	CG	PRO	B	399	61.891	32.162	49.121	1.00	19.16	B	C
ATOM	8538	CD	PRO	B	399	61.016	31.286	49.964	1.00	20.41	B	C
ATOM	8539	C	PRO	B	399	64.163	29.968	50.940	1.00	22.14	B	C
ATOM	8540	O	PRO	B	399	63.960	30.430	52.053	1.00	21.59	B	O
ATOM	8541	N	GLN	B	400	65.165	29.137	50.682	1.00	20.66	B	N
ATOM	8542	CA	GLN	B	400	66.246	28.960	51.628	1.00	21.75	B	C

ATOM	8543	CB	GLN	B	400	66.085	27.668	52.441	1.00	22.68	B	C
ATOM	8544	CG	GLN	B	400	64.879	27.678	53.351	1.00	28.64	B	C
ATOM	8545	CD	GLN	B	400	64.933	26.608	54.432	1.00	36.20	B	C
ATOM	8546	OE1	GLN	B	400	65.450	26.843	55.539	1.00	42.22	B	O
ATOM	8547	NE2	GLN	B	400	64.383	25.435	54.126	1.00	31.02	B	N
ATOM	8548	C	GLN	B	400	67.545	28.948	50.864	1.00	25.51	B	C
ATOM	8549	O	GLN	B	400	68.388	29.813	51.057	1.00	26.77	B	O
ATOM	8550	N	GLU	B	401	67.717	27.967	49.993	1.00	19.65	B	N
ATOM	8551	CA	GLU	B	401	68.939	27.902	49.202	1.00	24.85	B	C
ATOM	8552	CB	GLU	B	401	69.778	26.654	49.542	1.00	23.89	B	C
ATOM	8553	CG	GLU	B	401	70.374	26.643	50.975	1.00	29.76	B	C
ATOM	8554	CD	GLU	B	401	71.329	27.809	51.241	1.00	32.97	B	C
ATOM	8555	OE1	GLU	B	401	72.308	27.961	50.483	1.00	35.70	B	O
ATOM	8556	OE2	GLU	B	401	71.112	28.563	52.220	1.00	30.90	B	O
ATOM	8557	C	GLU	B	401	68.636	27.941	47.709	1.00	22.50	B	C
ATOM	8558	O	GLU	B	401	67.595	27.444	47.247	1.00	20.79	B	O
ATOM	8559	N	ASN	B	402	69.566	28.512	46.955	1.00	19.66	B	N
ATOM	8560	CA	ASN	B	402	69.479	28.482	45.511	1.00	22.82	B	C
ATOM	8561	CB	ASN	B	402	70.527	29.398	44.901	1.00	23.90	B	C
ATOM	8562	CG	ASN	B	402	70.075	30.839	44.879	1.00	22.85	B	C
ATOM	8563	OD1	ASN	B	402	68.997	31.155	44.369	1.00	21.81	B	O
ATOM	8564	ND2	ASN	B	402	70.866	31.716	45.480	1.00	23.62	B	N
ATOM	8565	C	ASN	B	402	69.676	27.070	45.010	1.00	25.14	B	C
ATOM	8566	O	ASN	B	402	70.485	26.310	45.547	1.00	19.34	B	O
ATOM	8567	N	SER	B	403	68.920	26.730	43.981	1.00	20.87	B	N
ATOM	8568	CA	SER	B	403	69.102	25.486	43.283	1.00	21.10	B	C
ATOM	8569	CB	SER	B	403	67.873	24.610	43.461	1.00	17.06	B	C
ATOM	8570	OG	SER	B	403	67.909	23.516	42.575	1.00	17.25	B	O
ATOM	8571	C	SER	B	403	69.272	25.880	41.832	1.00	22.12	B	C
ATOM	8572	O	SER	B	403	68.336	26.408	41.217	1.00	17.28	B	O
ATOM	8573	N	ASP	B	404	70.472	25.675	41.294	1.00	20.42	B	N
ATOM	8574	CA	ASP	B	404	70.726	26.066	39.910	1.00	22.91	B	C
ATOM	8575	CB	ASP	B	404	70.002	25.098	38.962	1.00	25.15	B	C
ATOM	8576	CG	ASP	B	404	70.373	25.304	37.503	1.00	31.49	B	C
ATOM	8577	OD1	ASP	B	404	71.494	25.764	37.229	1.00	30.72	B	O
ATOM	8578	OD2	ASP	B	404	69.536	24.993	36.623	1.00	36.99	B	O
ATOM	8579	C	ASP	B	404	70.321	27.543	39.665	1.00	25.28	B	C
ATOM	8580	O	ASP	B	404	69.617	27.872	38.692	1.00	23.70	B	O
ATOM	8581	N	GLY	B	405	70.750	28.419	40.577	1.00	23.69	B	N
ATOM	8582	CA	GLY	B	405	70.582	29.853	40.420	1.00	24.00	B	C
ATOM	8583	C	GLY	B	405	69.219	30.462	40.745	1.00	24.23	B	C
ATOM	8584	O	GLY	B	405	69.024	31.650	40.505	1.00	22.07	B	O
ATOM	8585	N	MET	B	406	68.282	29.678	41.279	1.00	20.33	B	N
ATOM	8586	CA	MET	B	406	66.990	30.219	41.715	1.00	19.69	B	C
ATOM	8587	CB	MET	B	406	65.886	29.858	40.699	1.00	19.89	B	C
ATOM	8588	CG	MET	B	406	66.019	30.537	39.331	1.00	26.36	B	C
ATOM	8589	SD	MET	B	406	64.586	30.148	38.297	1.00	26.46	B	S
ATOM	8590	CE	MET	B	406	63.410	31.366	38.901	1.00	19.87	B	C
ATOM	8591	C	MET	B	406	66.568	29.619	43.053	1.00	19.59	B	C
ATOM	8592	O	MET	B	406	66.844	28.461	43.321	1.00	21.74	B	O
ATOM	8593	N	TYR	B	407	65.820	30.375	43.844	1.00	20.11	B	N
ATOM	8594	CA	TYR	B	407	65.167	29.815	45.027	1.00	20.01	B	C
ATOM	8595	CB	TYR	B	407	64.726	30.929	45.979	1.00	19.66	B	C
ATOM	8596	CG	TYR	B	407	65.903	31.654	46.593	1.00	19.13	B	C
ATOM	8597	CD1	TYR	B	407	66.630	31.075	47.633	1.00	21.29	B	C
ATOM	8598	CE1	TYR	B	407	67.717	31.724	48.183	1.00	25.38	B	C
ATOM	8599	CZ	TYR	B	407	68.088	32.976	47.687	1.00	28.43	B	C
ATOM	8600	OH	TYR	B	407	69.162	33.635	48.215	1.00	30.41	B	O
ATOM	8601	CE2	TYR	B	407	67.387	33.556	46.663	1.00	27.78	B	C
ATOM	8602	CD2	TYR	B	407	66.307	32.893	46.119	1.00	19.03	B	C
ATOM	8603	C	TYR	B	407	64.003	28.853	44.683	1.00	19.23	B	C
ATOM	8604	O	TYR	B	407	62.880	29.260	44.354	1.00	18.95	B	O
ATOM	8605	N	ARG	B	408	64.299	27.560	44.783	1.00	16.96	B	N
ATOM	8606	CA	ARG	B	408	63.351	26.507	44.475	1.00	15.58	B	C
ATOM	8607	CB	ARG	B	408	63.194	26.358	42.975	1.00	15.16	B	C
ATOM	8608	CG	ARG	B	408	64.510	26.130	42.265	1.00	15.50	B	C
ATOM	8609	CD	ARG	B	408	64.331	26.132	40.768	1.00	16.59	B	C
ATOM	8610	NE	ARG	B	408	65.584	26.350	40.046	1.00	20.93	B	N
ATOM	8611	CZ	ARG	B	408	65.669	26.548	38.728	1.00	23.62	B	C
ATOM	8612	NH1	ARG	B	408	64.574	26.537	37.966	1.00	22.58	B	N
ATOM	8613	NH2	ARG	B	408	66.855	26.738	38.168	1.00	24.34	B	N
ATOM	8614	C	ARG	B	408	63.955	25.238	45.034	1.00	18.62	B	C
ATOM	8615	O	ARG	B	408	65.131	25.215	45.413	1.00	20.91	B	O
ATOM	8616	N	CYS	B	409	63.172	24.171	45.049	1.00	19.13	B	N
ATOM	8617	CA	CYS	B	409	63.616	22.954	45.696	1.00	16.41	B	C
ATOM	8618	CB	CYS	B	409	63.545	23.130	47.208	1.00	16.05	B	C
ATOM	8619	SG	CYS	B	409	64.174	21.704	48.144	1.00	20.60	B	S

ATOM	8620	C	CYS	B	409	62.725	21.808	45.276	1.00	17.28	B	C
ATOM	8621	O	CYS	B	409	61.510	21.849	45.511	1.00	15.03	B	O
ATOM	8622	O	GLY	B	410	62.383	20.489	42.049	1.00	14.16	B	O
ATOM	8623	N	GLY	B	410	63.332	20.798	44.653	1.00	16.72	B	N
ATOM	8624	CA	GLY	B	410	62.622	19.576	44.265	1.00	17.58	B	C
ATOM	8625	C	GLY	B	410	62.165	19.538	42.804	1.00	14.25	B	C
ATOM	8626	N	PRO	B	411	61.499	18.442	42.394	1.00	14.02	B	N
ATOM	8627	CA	PRO	B	411	61.106	17.303	43.231	1.00	14.19	B	C
ATOM	8628	CB	PRO	B	411	60.097	16.560	42.335	1.00	13.83	B	C
ATOM	8629	CG	PRO	B	411	60.572	16.834	40.967	1.00	15.40	B	C
ATOM	8630	CD	PRO	B	411	61.002	18.302	41.018	1.00	13.64	B	C
ATOM	8631	C	PRO	B	411	62.298	16.397	43.609	1.00	16.94	B	C
ATOM	8632	O	PRO	B	411	63.119	16.040	42.756	1.00	14.81	B	O
ATOM	8633	N	ALA	B	412	62.396	16.081	44.902	1.00	15.15	B	N
ATOM	8634	CA	ALA	B	412	63.378	15.155	45.434	1.00	15.77	B	C
ATOM	8635	CB	ALA	B	412	64.089	15.780	46.616	1.00	16.33	B	C
ATOM	8636	C	ALA	B	412	62.628	13.892	45.878	1.00	17.90	B	C
ATOM	8637	O	ALA	B	412	61.673	13.976	46.662	1.00	17.85	B	O
ATOM	8638	N	SER	B	413	63.032	12.731	45.368	1.00	16.13	B	N
ATOM	8639	CA	SER	B	413	62.374	11.483	45.762	1.00	16.40	B	C
ATOM	8640	CB	SER	B	413	62.914	10.311	44.942	1.00	16.62	B	C
ATOM	8641	OG	SER	B	413	62.446	9.070	45.466	1.00	17.85	B	O
ATOM	8642	C	SER	B	413	62.562	11.194	47.252	1.00	18.73	B	C
ATOM	8643	O	SER	B	413	63.692	11.054	47.724	1.00	17.70	B	O
ATOM	8644	N	VAL	B	414	61.463	11.103	47.992	1.00	17.18	B	N
ATOM	8645	CA	VAL	B	414	61.528	10.781	49.421	1.00	17.98	B	C
ATOM	8646	CB	VAL	B	414	60.113	10.809	50.056	1.00	18.28	B	C
ATOM	8647	CG1	VAL	B	414	60.130	10.335	51.505	1.00	18.99	B	C
ATOM	8648	CG2	VAL	B	414	59.520	12.245	49.962	1.00	17.43	B	C
ATOM	8649	C	VAL	B	414	62.202	9.435	49.645	1.00	18.72	B	C
ATOM	8650	O	VAL	B	414	62.981	9.248	50.590	1.00	19.49	B	O
ATOM	8651	N	GLN	B	415	61.931	8.490	48.742	1.00	18.54	B	N
ATOM	8652	CA	GLN	B	415	62.521	7.170	48.868	1.00	19.29	B	C
ATOM	8653	CB	GLN	B	415	61.881	6.175	47.893	1.00	19.10	B	C
ATOM	8654	CG	GLN	B	415	62.519	4.803	47.932	1.00	24.70	B	C
ATOM	8655	CD	GLN	B	415	62.036	3.932	49.088	1.00	25.23	B	C
ATOM	8656	OE1	GLN	B	415	61.786	4.408	50.189	1.00	27.26	B	O
ATOM	8657	NE2	GLN	B	415	61.895	2.640	48.826	1.00	24.24	B	N
ATOM	8658	C	GLN	B	415	64.028	7.244	48.646	1.00	22.86	B	C
ATOM	8659	O	GLN	B	415	64.781	6.554	49.312	1.00	20.47	B	O
ATOM	8660	N	ALA	B	416	64.468	8.087	47.716	1.00	18.97	B	N
ATOM	8661	CA	ALA	B	416	65.913	8.269	47.532	1.00	20.56	B	C
ATOM	8662	CB	ALA	B	416	66.194	9.109	46.301	1.00	21.32	B	C
ATOM	8663	C	ALA	B	416	66.562	8.901	48.773	1.00	20.90	B	C
ATOM	8664	O	ALA	B	416	67.644	8.489	49.214	1.00	21.86	B	O
ATOM	8665	N	ILE	B	417	65.886	9.877	49.355	1.00	19.61	B	N
ATOM	8666	CA	ILE	B	417	66.407	10.546	50.571	1.00	20.22	B	C
ATOM	8667	CB	ILE	B	417	65.490	11.706	50.978	1.00	19.73	B	C
ATOM	8668	CG1	ILE	B	417	65.671	12.856	49.975	1.00	19.75	B	C
ATOM	8669	CD1	ILE	B	417	64.550	13.863	49.961	1.00	19.65	B	C
ATOM	8670	CG2	ILE	B	417	65.835	12.200	52.402	1.00	20.54	B	C
ATOM	8671	C	ILE	B	417	66.557	9.534	51.726	1.00	25.57	B	C
ATOM	8672	O	ILE	B	417	67.535	9.542	52.486	1.00	22.99	B	O
ATOM	8673	N	LYS	B	418	65.591	8.632	51.815	1.00	24.52	B	N
ATOM	8674	CA	LYS	B	418	65.528	7.695	52.922	1.00	26.27	B	C
ATOM	8675	CB	LYS	B	418	64.266	6.839	52.822	1.00	26.66	B	C
ATOM	8676	CG	LYS	B	418	64.273	5.703	53.845	1.00	26.65	B	C
ATOM	8677	CD	LYS	B	418	62.911	5.113	54.078	1.00	28.05	B	C
ATOM	8678	CE	LYS	B	418	62.972	4.109	55.245	1.00	32.19	B	C
ATOM	8679	NZ	LYS	B	418	61.606	3.668	55.598	1.00	32.98	B	N
ATOM	8680	C	LYS	B	418	66.760	6.793	52.990	1.00	25.45	B	C
ATOM	8681	O	LYS	B	418	67.271	6.515	54.074	1.00	24.93	B	O
ATOM	8682	N	HIS	B	419	67.225	6.355	51.822	1.00	22.89	B	N
ATOM	8683	CA	HIS	B	419	68.368	5.460	51.727	1.00	23.76	B	C
ATOM	8684	CB	HIS	B	419	68.134	4.387	50.655	1.00	23.56	B	C
ATOM	8685	CG	HIS	B	419	67.006	3.469	50.979	1.00	29.45	B	C
ATOM	8686	ND1	HIS	B	419	67.170	2.343	51.761	1.00	24.87	B	N
ATOM	8687	CE1	HIS	B	419	66.009	1.730	51.889	1.00	24.85	B	C
ATOM	8688	NE2	HIS	B	419	65.099	2.413	51.217	1.00	24.30	B	N
ATOM	8689	CD2	HIS	B	419	65.696	3.507	50.641	1.00	22.99	B	C
ATOM	8690	C	HIS	B	419	69.614	6.229	51.404	1.00	23.84	B	C
ATOM	8691	O	HIS	B	419	70.663	5.641	51.133	1.00	27.14	B	O
ATOM	8692	N	GLY	B	420	69.505	7.552	51.425	1.00	23.23	B	N
ATOM	8693	CA	GLY	B	420	70.667	8.400	51.257	1.00	23.44	B	C
ATOM	8694	C	GLY	B	420	71.211	8.471	49.841	1.00	27.37	B	C
ATOM	8695	O	GLY	B	420	72.336	8.925	49.645	1.00	24.73	B	O
ATOM	8696	N	HIS	B	421	70.431	8.037	48.852	1.00	22.23	B	N

ATOM	8697	CA	HIS	B	421	70.860	8.176	47.464	1.00	21.82	B	C
ATOM	8698	CB	HIS	B	421	70.202	7.109	46.575	1.00	21.50	B	C
ATOM	8699	CG	HIS	B	421	70.823	5.749	46.720	1.00	23.06	B	C
ATOM	8700	ND1	HIS	B	421	70.930	5.105	47.934	1.00	24.46	B	N
ATOM	8701	CE1	HIS	B	421	71.539	3.947	47.762	1.00	26.20	B	C
ATOM	8702	NE2	HIS	B	421	71.829	3.816	46.480	1.00	28.96	B	N
ATOM	8703	CD2	HIS	B	421	71.405	4.936	45.811	1.00	22.85	B	C
ATOM	8704	C	HIS	B	421	70.558	9.581	46.934	1.00	21.91	B	C
ATOM	8705	O	HIS	B	421	69.707	9.751	46.070	1.00	21.27	B	O
ATOM	8706	N	VAL	B	422	71.274	10.582	47.445	1.00	21.27	B	N
ATOM	8707	CA	VAL	B	422	70.893	11.960	47.197	1.00	21.33	B	C
ATOM	8708	CB	VAL	B	422	71.284	12.875	48.364	1.00	23.47	B	C
ATOM	8709	CG1	VAL	B	422	70.523	12.444	49.596	1.00	23.76	B	C
ATOM	8710	CG2	VAL	B	422	72.793	12.808	48.595	1.00	22.14	B	C
ATOM	8711	C	VAL	B	422	71.489	12.487	45.911	1.00	22.03	B	C
ATOM	8712	O	VAL	B	422	71.342	13.664	45.594	1.00	21.19	B	O
ATOM	8713	N	CYS	B	423	72.153	11.595	45.182	1.00	25.07	B	N
ATOM	8714	CA	CYS	B	423	72.706	11.886	43.866	1.00	24.12	B	C
ATOM	8715	CB	CYS	B	423	73.639	10.744	43.440	1.00	26.42	B	C
ATOM	8716	SG	CYS	B	423	72.907	9.052	43.596	1.00	31.83	B	S
ATOM	8717	C	CYS	B	423	71.593	12.081	42.823	1.00	24.72	B	C
ATOM	8718	O	CYS	B	423	71.810	12.670	41.759	1.00	22.05	B	O
ATOM	8719	N	PHE	B	424	70.396	11.606	43.132	1.00	20.74	B	N
ATOM	8720	CA	PHE	B	424	69.291	11.723	42.175	1.00	21.80	B	C
ATOM	8721	CB	PHE	B	424	68.299	10.585	42.381	1.00	18.04	B	C
ATOM	8722	CG	PHE	B	424	68.891	9.221	42.126	1.00	21.87	B	C
ATOM	8723	CD1	PHE	B	424	69.455	8.919	40.887	1.00	20.33	B	C
ATOM	8724	CE1	PHE	B	424	69.998	7.654	40.636	1.00	22.86	B	C
ATOM	8725	CZ	PHE	B	424	69.969	6.684	41.627	1.00	26.06	B	C
ATOM	8726	CE2	PHE	B	424	69.410	6.974	42.873	1.00	26.04	B	C
ATOM	8727	CD2	PHE	B	424	68.867	8.239	43.113	1.00	22.80	B	C
ATOM	8728	C	PHE	B	424	68.588	13.079	42.273	1.00	19.29	B	C
ATOM	8729	O	PHE	B	424	68.189	13.489	43.360	1.00	18.03	B	O
ATOM	8730	N	GLN	B	425	68.439	13.755	41.135	1.00	17.64	B	N
ATOM	8731	CA	GLN	B	425	67.850	15.105	41.086	1.00	16.62	B	C
ATOM	8732	CB	GLN	B	425	67.924	15.634	39.656	1.00	16.42	B	C
ATOM	8733	CG	GLN	B	425	66.982	14.900	38.653	1.00	16.99	B	C
ATOM	8734	CD	GLN	B	425	67.309	15.243	37.213	1.00	20.68	B	C
ATOM	8735	OE1	GLN	B	425	68.268	15.965	36.948	1.00	21.34	B	O
ATOM	8736	NE2	GLN	B	425	66.514	14.717	36.269	1.00	19.81	B	N
ATOM	8737	C	GLN	B	425	66.398	15.049	41.607	1.00	17.21	B	C
ATOM	8738	O	GLN	B	425	65.753	14.005	41.482	1.00	21.22	B	O
ATOM	8739	N	PHE	B	426	65.868	16.123	42.199	1.00	17.24	B	N
ATOM	8740	CA	PHE	B	426	66.511	17.443	42.325	1.00	17.12	B	C
ATOM	8741	C	PHE	B	426	66.590	17.846	43.789	1.00	18.40	B	C
ATOM	8742	O	PHE	B	426	65.599	17.711	44.521	1.00	16.02	B	O
ATOM	8743	CB	PHE	B	426	65.681	18.535	41.633	1.00	15.98	B	C
ATOM	8744	CG	PHE	B	426	65.459	18.322	40.153	1.00	18.36	B	C
ATOM	8745	CD1	PHE	B	426	66.250	18.974	39.219	1.00	18.72	B	C
ATOM	8746	CD2	PHE	B	426	64.435	17.506	39.699	1.00	18.93	B	C
ATOM	8747	CE1	PHE	B	426	66.030	18.794	37.858	1.00	17.50	B	C
ATOM	8748	CE2	PHE	B	426	64.218	17.311	38.327	1.00	18.45	B	C
ATOM	8749	CZ	PHE	B	426	65.015	17.961	37.416	1.00	17.32	B	C
ATOM	8750	N	ASP	B	427	67.742	18.381	44.200	1.00	16.88	B	N
ATOM	8751	CA	ASP	B	427	67.917	18.944	45.542	1.00	17.32	B	C
ATOM	8752	CB	ASP	B	427	66.971	20.133	45.744	1.00	20.76	B	C
ATOM	8753	CG	ASP	B	427	66.998	21.088	44.577	1.00	21.54	B	C
ATOM	8754	OD1	ASP	B	427	68.115	21.507	44.184	1.00	19.54	B	O
ATOM	8755	OD2	ASP	B	427	65.900	21.370	44.030	1.00	22.20	B	O
ATOM	8756	C	ASP	B	427	67.757	17.949	46.701	1.00	17.67	B	C
ATOM	8757	O	ASP	B	427	67.524	18.350	47.843	1.00	18.94	B	O
ATOM	8758	N	ALA	B	428	67.886	16.657	46.417	1.00	17.76	B	N
ATOM	8759	CA	ALA	B	428	67.840	15.673	47.490	1.00	18.37	B	C
ATOM	8760	CB	ALA	B	428	67.972	14.232	46.946	1.00	18.36	B	C
ATOM	8761	C	ALA	B	428	68.825	15.929	48.650	1.00	19.20	B	C
ATOM	8762	O	ALA	B	428	68.450	15.724	49.803	1.00	19.56	B	O
ATOM	8763	N	PRO	B	429	70.072	16.372	48.356	1.00	24.72	B	N
ATOM	8764	CA	PRO	B	429	70.999	16.610	49.481	1.00	27.00	B	C
ATOM	8765	CB	PRO	B	429	72.288	17.071	48.784	1.00	27.51	B	C
ATOM	8766	CG	PRO	B	429	72.221	16.462	47.430	1.00	22.91	B	C
ATOM	8767	CD	PRO	B	429	70.765	16.504	47.058	1.00	23.43	B	C
ATOM	8768	C	PRO	B	429	70.528	17.685	50.473	1.00	20.78	B	C
ATOM	8769	O	PRO	B	429	70.661	17.500	51.680	1.00	21.49	B	O
ATOM	8770	N	PHE	B	430	69.978	18.786	49.973	1.00	22.33	B	N
ATOM	8771	CA	PHE	B	430	69.391	19.781	50.851	1.00	21.91	B	C
ATOM	8772	CB	PHE	B	430	68.883	21.008	50.075	1.00	20.91	B	C
ATOM	8773	CG	PHE	B	430	68.388	22.097	50.973	1.00	19.71	B	C

ATOM	8774	CD1	PHE	B	430	67.026	22.283	51.180	1.00	22.70	B	C
ATOM	8775	CE1	PHE	B	430	66.571	23.282	52.033	1.00	25.13	B	C
ATOM	8776	CZ	PHE	B	430	67.490	24.097	52.712	1.00	26.08	B	C
ATOM	8777	CE2	PHE	B	430	68.852	23.902	52.530	1.00	25.88	B	C
ATOM	8778	CD2	PHE	B	430	69.294	22.891	51.668	1.00	25.19	B	C
ATOM	8779	C	PHE	B	430	68.255	19.211	51.697	1.00	20.95	B	C
ATOM	8780	O	PHE	B	430	68.213	19.432	52.906	1.00	22.53	B	O
ATOM	8781	N	VAL	B	431	67.334	18.484	51.069	1.00	19.92	B	N
ATOM	8782	CA	VAL	B	431	66.195	17.920	51.810	1.00	19.65	B	C
ATOM	8783	CB	VAL	B	431	65.107	17.325	50.904	1.00	18.40	B	C
ATOM	8784	CG1	VAL	B	431	63.925	16.932	51.754	1.00	18.49	B	C
ATOM	8785	CG2	VAL	B	431	64.626	18.369	49.840	1.00	17.58	B	C
ATOM	8786	C	VAL	B	431	66.653	16.884	52.844	1.00	23.10	B	C
ATOM	8787	O	VAL	B	431	66.189	16.875	53.995	1.00	22.15	B	O
ATOM	8788	N	PHE	B	432	67.582	16.027	52.442	1.00	22.12	B	N
ATOM	8789	CA	PHE	B	432	68.192	15.132	53.418	1.00	22.92	B	C
ATOM	8790	CB	PHE	B	432	69.341	14.333	52.815	1.00	21.88	B	C
ATOM	8791	CG	PHE	B	432	70.038	13.487	53.814	1.00	23.05	B	C
ATOM	8792	CD1	PHE	B	432	69.564	12.217	54.105	1.00	29.40	B	C
ATOM	8793	CE1	PHE	B	432	70.198	11.430	55.056	1.00	30.27	B	C
ATOM	8794	CZ	PHE	B	432	71.308	11.931	55.741	1.00	28.13	B	C
ATOM	8795	CE2	PHE	B	432	71.776	13.182	55.462	1.00	27.56	B	C
ATOM	8796	CD2	PHE	B	432	71.139	13.967	54.497	1.00	26.25	B	C
ATOM	8797	C	PHE	B	432	68.707	15.919	54.617	1.00	23.46	B	C
ATOM	8798	O	PHE	B	432	68.442	15.568	55.779	1.00	23.50	B	O
ATOM	8799	N	ALA	B	433	69.475	16.962	54.336	1.00	23.26	B	N
ATOM	8800	CA	ALA	B	433	70.053	17.767	55.408	1.00	23.36	B	C
ATOM	8801	CB	ALA	B	433	70.888	18.904	54.841	1.00	23.36	B	C
ATOM	8802	C	ALA	B	433	68.961	18.293	56.338	1.00	23.36	B	C
ATOM	8803	O	ALA	B	433	69.119	18.268	57.567	1.00	24.35	B	O
ATOM	8804	N	GLU	B	434	67.861	18.766	55.754	1.00	22.37	B	N
ATOM	8805	CA	GLU	B	434	66.750	19.273	56.558	1.00	22.39	B	C
ATOM	8806	CB	GLU	B	434	65.584	19.709	55.676	1.00	21.26	B	C
ATOM	8807	CG	GLU	B	434	65.834	20.915	54.808	1.00	20.73	B	C
ATOM	8808	CD	GLU	B	434	64.601	21.272	54.029	1.00	23.70	B	C
ATOM	8809	OE1	GLU	B	434	64.167	20.420	53.211	1.00	23.11	B	O
ATOM	8810	OE2	GLU	B	434	64.037	22.365	54.269	1.00	19.92	B	O
ATOM	8811	C	GLU	B	434	66.217	18.251	57.579	1.00	23.03	B	C
ATOM	8812	O	GLU	B	434	65.879	18.625	58.693	1.00	23.73	B	O
ATOM	8813	N	VAL	B	435	66.075	16.991	57.165	1.00	22.83	B	N
ATOM	8814	CA	VAL	B	435	65.497	15.968	58.039	1.00	23.46	B	C
ATOM	8815	CB	VAL	B	435	64.604	14.978	57.264	1.00	22.74	B	C
ATOM	8816	CG1	VAL	B	435	63.449	15.722	56.597	1.00	21.71	B	C
ATOM	8817	CG2	VAL	B	435	65.428	14.213	56.237	1.00	24.08	B	C
ATOM	8818	C	VAL	B	435	66.511	15.153	58.850	1.00	28.39	B	C
ATOM	8819	O	VAL	B	435	66.137	14.531	59.842	1.00	27.13	B	O
ATOM	8820	N	ASN	B	436	67.771	15.119	58.441	1.00	24.88	B	N
ATOM	8821	CA	ASN	B	436	68.680	14.218	59.149	1.00	26.09	B	C
ATOM	8822	CB	ASN	B	436	68.521	12.765	58.661	1.00	25.98	B	C
ATOM	8823	CG	ASN	B	436	68.841	11.759	59.764	1.00	28.46	B	C
ATOM	8824	OD1	ASN	B	436	68.530	12.015	60.922	1.00	29.02	B	O
ATOM	8825	ND2	ASN	B	436	69.479	10.648	59.418	1.00	27.74	B	N
ATOM	8826	C	ASN	B	436	70.160	14.569	59.220	1.00	26.82	B	C
ATOM	8827	O	ASN	B	436	70.990	13.677	59.418	1.00	27.66	B	O
ATOM	8828	N	SER	B	437	70.511	15.848	59.082	1.00	26.64	B	N
ATOM	8829	CA	SER	B	437	71.912	16.217	59.244	1.00	27.88	B	C
ATOM	8830	CB	SER	B	437	72.167	17.656	58.779	1.00	29.28	B	C
ATOM	8831	OG	SER	B	437	71.233	18.537	59.347	1.00	29.57	B	O
ATOM	8832	C	SER	B	437	72.332	16.017	60.709	1.00	29.06	B	C
ATOM	8833	O	SER	B	437	71.527	16.206	61.612	1.00	29.34	B	O
ATOM	8834	N	ASP	B	438	73.569	15.590	60.932	1.00	30.13	B	N
ATOM	8835	CA	ASP	B	438	74.147	15.586	62.289	1.00	33.51	B	C
ATOM	8836	CB	ASP	B	438	75.422	14.745	62.323	1.00	34.23	B	C
ATOM	8837	CG	ASP	B	438	75.154	13.246	62.415	1.00	34.94	B	C
ATOM	8838	OD1	ASP	B	438	74.020	12.846	62.756	1.00	32.75	B	O
ATOM	8839	OD2	ASP	B	438	76.111	12.472	62.183	1.00	34.38	B	O
ATOM	8840	C	ASP	B	438	74.512	17.025	62.710	1.00	37.31	B	C
ATOM	8841	O	ASP	B	438	74.794	17.861	61.844	1.00	31.44	B	O
ATOM	8842	N	LEU	B	439	74.509	17.322	64.016	1.00	33.36	B	N
ATOM	8843	CA	LEU	B	439	75.075	18.595	64.485	1.00	36.19	B	C
ATOM	8844	CB	LEU	B	439	74.382	19.132	65.745	1.00	35.96	B	C
ATOM	8845	CG	LEU	B	439	72.856	19.226	65.775	1.00	39.75	B	C
ATOM	8846	CD1	LEU	B	439	72.386	19.966	67.020	1.00	40.09	B	C
ATOM	8847	CD2	LEU	B	439	72.302	19.863	64.510	1.00	32.11	B	C
ATOM	8848	C	LEU	B	439	76.542	18.360	64.795	1.00	37.49	B	C
ATOM	8849	O	LEU	B	439	76.890	17.460	65.557	1.00	37.93	B	O
ATOM	8850	N	ILE	B	440	77.407	19.158	64.194	1.00	35.51	B	N

ATOM	8851	CA	ILE	B	440	78.825	19.019	64.440	1.00	36.95	B	C
ATOM	8852	CB	ILE	B	440	79.602	18.810	63.125	1.00	36.40	B	C
ATOM	8853	CG1	ILE	B	440	78.907	17.755	62.249	1.00	35.09	B	C
ATOM	8854	CD1	ILE	B	440	78.932	16.353	62.833	1.00	35.84	B	C
ATOM	8855	CG2	ILE	B	440	81.021	18.364	63.414	1.00	38.73	B	C
ATOM	8856	C	ILE	B	440	79.322	20.252	65.215	1.00	41.83	B	C
ATOM	8857	O	ILE	B	440	79.312	21.370	64.696	1.00	40.22	B	O
ATOM	8858	N	TYR	B	441	79.722	20.047	66.468	1.00	39.73	B	N
ATOM	8859	CA	TYR	B	441	80.268	21.137	67.266	1.00	41.02	B	C
ATOM	8860	CB	TYR	B	441	79.952	20.959	68.748	1.00	42.37	B	C
ATOM	8861	CG	TYR	B	441	78.483	21.046	69.087	1.00	44.36	B	C
ATOM	8862	CD1	TYR	B	441	77.903	22.247	69.479	1.00	41.42	B	C
ATOM	8863	CE1	TYR	B	441	76.550	22.320	69.790	1.00	40.70	B	C
ATOM	8864	CZ	TYR	B	441	75.771	21.178	69.716	1.00	40.07	B	C
ATOM	8865	OH	TYR	B	441	74.433	21.210	70.026	1.00	41.72	B	O
ATOM	8866	CE2	TYR	B	441	76.328	19.984	69.339	1.00	40.12	B	C
ATOM	8867	CD2	TYR	B	441	77.677	19.922	69.027	1.00	43.22	B	C
ATOM	8868	C	TYR	B	441	81.765	21.221	67.042	1.00	45.81	B	C
ATOM	8869	O	TYR	B	441	82.518	20.313	67.404	1.00	47.28	B	O
ATOM	8870	N	ILE	B	442	82.185	22.320	66.434	1.00	46.50	B	N
ATOM	8871	CA	ILE	B	442	83.576	22.532	66.078	1.00	50.55	B	C
ATOM	8872	CB	ILE	B	442	83.715	22.835	64.575	1.00	49.94	B	C
ATOM	8873	CG1	ILE	B	442	82.801	21.922	63.760	1.00	47.88	B	C
ATOM	8874	CD1	ILE	B	442	82.646	22.353	62.316	1.00	46.18	B	C
ATOM	8875	CG2	ILE	B	442	85.171	22.713	64.131	1.00	51.37	B	C
ATOM	8876	C	ILE	B	442	84.150	23.720	66.845	1.00	52.04	B	C
ATOM	8877	O	ILE	B	442	83.679	24.844	66.708	1.00	51.93	B	O
ATOM	8878	N	THR	B	443	85.173	23.483	67.649	1.00	53.73	B	N
ATOM	8879	CA	THR	B	443	85.829	24.602	68.307	1.00	58.69	B	C
ATOM	8880	C	THR	B	443	86.839	25.228	67.343	1.00	60.76	B	C
ATOM	8881	O	THR	B	443	87.664	24.535	66.740	1.00	61.22	B	O
ATOM	8882	CB	THR	B	443	86.477	24.198	69.651	1.00	58.98	B	C
ATOM	8883	OG1	THR	B	443	87.052	25.352	70.276	1.00	63.66	B	O
ATOM	8884	CG2	THR	B	443	87.544	23.148	69.445	1.00	58.62	B	C
ATOM	8885	O	ALA	B	444	88.357	29.218	67.538	1.00	64.17	B	O
ATOM	8886	N	ALA	B	444	86.732	26.539	67.168	1.00	61.53	B	N
ATOM	8887	CA	ALA	B	444	87.658	27.274	66.317	1.00	62.76	B	C
ATOM	8888	C	ALA	B	444	88.639	28.078	67.170	1.00	63.84	B	C
ATOM	8889	CB	ALA	B	444	86.901	28.187	65.378	1.00	60.47	B	C
ATOM	8890	O	HIS	B	450	90.046	21.298	64.024	1.00	68.97	B	O
ATOM	8891	N	HIS	B	450	90.677	24.446	64.541	1.00	70.76	B	N
ATOM	8892	CA	HIS	B	450	89.568	23.646	64.030	1.00	69.98	B	C
ATOM	8893	C	HIS	B	450	89.525	22.242	64.619	1.00	69.18	B	C
ATOM	8894	CB	HIS	B	450	89.637	23.547	62.506	1.00	73.00	B	C
ATOM	8895	CG	HIS	B	450	88.883	24.627	61.794	1.00	75.30	B	C
ATOM	8896	ND1	HIS	B	450	88.528	25.813	62.402	1.00	77.33	B	N
ATOM	8897	CD2	HIS	B	450	88.412	24.698	60.526	1.00	74.80	B	C
ATOM	8898	CE1	HIS	B	450	87.874	26.568	61.538	1.00	76.56	B	C
ATOM	8899	NE2	HIS	B	450	87.790	25.915	60.392	1.00	74.86	B	N
ATOM	8900	N	VAL	B	451	88.893	22.096	65.779	1.00	67.54	B	N
ATOM	8901	CA	VAL	B	451	88.769	20.781	66.401	1.00	65.19	B	C
ATOM	8902	CB	VAL	B	451	89.511	20.719	67.747	1.00	65.57	B	C
ATOM	8903	C	VAL	B	451	87.309	20.374	66.609	1.00	61.59	B	C
ATOM	8904	O	VAL	B	451	86.526	21.128	67.186	1.00	60.00	B	O
ATOM	8905	N	VAL	B	452	86.950	19.184	66.132	1.00	59.54	B	N
ATOM	8906	CA	VAL	B	452	85.617	18.630	66.366	1.00	57.96	B	C
ATOM	8907	CB	VAL	B	452	85.333	17.380	65.484	1.00	54.99	B	C
ATOM	8908	CG1	VAL	B	452	84.039	16.687	65.916	1.00	51.80	B	C
ATOM	8909	CG2	VAL	B	452	85.259	17.762	64.016	1.00	54.85	B	C
ATOM	8910	C	VAL	B	452	85.450	18.279	67.845	1.00	57.90	B	C
ATOM	8911	O	VAL	B	452	86.178	17.451	68.383	1.00	60.94	B	O
ATOM	8912	N	GLU	B	453	84.480	18.914	68.491	1.00	55.88	B	N
ATOM	8913	CA	GLU	B	453	84.299	18.787	69.931	1.00	57.64	B	C
ATOM	8914	C	GLU	B	453	83.286	17.699	70.273	1.00	56.58	B	C
ATOM	8915	O	GLU	B	453	83.447	16.969	71.245	1.00	56.83	B	O
ATOM	8916	CB	GLU	B	453	83.828	20.126	70.507	1.00	59.37	B	C
ATOM	8917	CG	GLU	B	453	84.165	20.349	71.964	1.00	65.15	B	C
ATOM	8918	CD	GLU	B	453	85.658	20.429	72.206	1.00	67.79	B	C
ATOM	8919	OE1	GLU	B	453	86.305	21.317	71.614	1.00	66.54	B	O
ATOM	8920	OE2	GLU	B	453	86.184	19.598	72.980	1.00	71.27	B	O
ATOM	8921	N	ASN	B	454	82.239	17.598	69.465	1.00	54.40	B	N
ATOM	8922	CA	ASN	B	454	81.101	16.746	69.778	1.00	55.50	B	C
ATOM	8923	CB	ASN	B	454	80.302	17.355	70.939	1.00	60.52	B	C
ATOM	8924	CG	ASN	B	454	79.117	16.493	71.361	1.00	63.84	B	C
ATOM	8925	OD1	ASN	B	454	79.224	15.265	71.464	1.00	63.07	B	O
ATOM	8926	ND2	ASN	B	454	77.972	17.137	71.593	1.00	65.19	B	N
ATOM	8927	C	ASN	B	454	80.205	16.601	68.552	1.00	52.39	B	C

ATOM	8928	O	ASN	B	454	80.231	17.453	67.661	1.00	41.74	B	O
ATOM	8929	N	VAL	B	455	79.421	15.525	68.516	1.00	42.32	B	N
ATOM	8930	CA	VAL	B	455	78.476	15.275	67.431	1.00	41.18	B	C
ATOM	8931	CB	VAL	B	455	78.959	14.130	66.533	1.00	42.40	B	C
ATOM	8932	CG1	VAL	B	455	77.880	13.765	65.507	1.00	38.13	B	C
ATOM	8933	CG2	VAL	B	455	80.272	14.502	65.858	1.00	40.38	B	C
ATOM	8934	C	VAL	B	455	77.123	14.896	68.013	1.00	40.42	B	C
ATOM	8935	O	VAL	B	455	77.037	13.978	68.831	1.00	42.97	B	O
ATOM	8936	N	ASP	B	456	76.075	15.610	67.611	1.00	38.59	B	N
ATOM	8937	CA	ASP	B	456	74.710	15.266	68.007	1.00	38.14	B	C
ATOM	8938	CB	ASP	B	456	73.942	16.499	68.498	1.00	37.93	B	C
ATOM	8939	CG	ASP	B	456	72.560	16.159	69.059	1.00	38.14	B	C
ATOM	8940	OD1	ASP	B	456	71.933	15.149	68.641	1.00	37.15	B	O
ATOM	8941	OD2	ASP	B	456	72.080	16.922	69.920	1.00	38.39	B	O
ATOM	8942	C	ASP	B	456	73.999	14.634	66.815	1.00	42.21	B	O
ATOM	8943	O	ASP	B	456	73.675	15.320	65.844	1.00	35.04	B	O
ATOM	8944	N	ALA	B	457	73.735	13.332	66.913	1.00	36.74	B	N
ATOM	8945	CA	ALA	B	457	73.188	12.576	65.800	1.00	35.39	B	C
ATOM	8946	CB	ALA	B	457	73.762	11.142	65.798	1.00	36.22	B	C
ATOM	8947	C	ALA	B	457	71.664	12.533	65.793	1.00	34.49	B	C
ATOM	8948	O	ALA	B	457	71.082	11.977	64.899	1.00	33.38	B	O
ATOM	8949	N	THR	B	458	71.026	13.098	66.806	1.00	35.08	B	N
ATOM	8950	CA	THR	B	458	69.601	12.887	67.004	1.00	34.63	B	C
ATOM	8951	CB	THR	B	458	69.332	12.048	68.284	1.00	36.26	B	C
ATOM	8952	OG1	THR	B	458	69.755	12.780	69.440	1.00	40.19	B	O
ATOM	8953	CG2	THR	B	458	70.078	10.719	68.231	1.00	37.03	B	C
ATOM	8954	C	THR	B	458	68.759	14.157	67.088	1.00	33.96	B	C
ATOM	8955	O	THR	B	458	67.538	14.079	67.175	1.00	33.55	B	O
ATOM	8956	N	HIS	B	459	69.397	15.320	67.069	1.00	33.95	B	N
ATOM	8957	CA	HIS	B	459	68.665	16.570	67.251	1.00	33.54	B	C
ATOM	8958	CB	HIS	B	459	69.638	17.733	67.423	1.00	37.72	B	C
ATOM	8959	CG	HIS	B	459	68.979	19.028	67.780	1.00	38.97	B	C
ATOM	8960	ND1	HIS	B	459	68.250	19.198	68.938	1.00	41.28	B	N
ATOM	8961	CE1	HIS	B	459	67.793	20.437	68.989	1.00	40.41	B	C
ATOM	8962	NE2	HIS	B	459	68.203	21.077	67.909	1.00	38.19	B	N
ATOM	8963	CD2	HIS	B	459	68.952	20.221	67.139	1.00	37.98	B	C
ATOM	8964	C	HIS	B	459	67.724	16.874	66.091	1.00	41.88	B	C
ATOM	8965	O	HIS	B	459	66.567	17.224	66.301	1.00	31.47	B	O
ATOM	8966	N	ILE	B	460	68.219	16.733	64.867	1.00	30.71	B	N
ATOM	8967	CA	ILE	B	460	67.465	17.172	63.680	1.00	29.09	B	C
ATOM	8968	CB	ILE	B	460	68.419	17.385	62.496	1.00	28.33	B	C
ATOM	8969	CG1	ILE	B	460	69.426	18.483	62.841	1.00	29.00	B	C
ATOM	8970	CD1	ILE	B	460	68.760	19.841	63.013	1.00	28.70	B	C
ATOM	8971	CG2	ILE	B	460	67.664	17.739	61.217	1.00	26.75	B	C
ATOM	8972	C	ILE	B	460	66.331	16.205	63.298	1.00	28.43	B	C
ATOM	8973	O	ILE	B	460	66.486	14.969	63.371	1.00	28.83	B	O
ATOM	8974	N	GLY	B	461	65.186	16.775	62.930	1.00	27.55	B	N
ATOM	8975	CA	GLY	B	461	64.092	16.010	62.349	1.00	27.33	B	C
ATOM	8976	C	GLY	B	461	63.506	15.012	63.328	1.00	27.80	B	C
ATOM	8977	O	GLY	B	461	63.472	13.807	63.058	1.00	27.83	B	O
ATOM	8978	N	LYS	B	462	63.061	15.515	64.476	1.00	30.53	B	N
ATOM	8979	CA	LYS	B	462	62.591	14.645	65.554	1.00	30.01	B	C
ATOM	8980	CB	LYS	B	462	62.448	15.437	66.871	1.00	31.26	B	C
ATOM	8981	C	LYS	B	462	61.274	13.975	65.169	1.00	30.02	B	C
ATOM	8982	O	LYS	B	462	60.948	12.902	65.662	1.00	32.87	B	O
ATOM	8983	N	LEU	B	463	60.535	14.602	64.260	1.00	28.24	B	N
ATOM	8984	CA	LEU	B	463	59.206	14.139	63.900	1.00	27.82	B	C
ATOM	8985	CB	LEU	B	463	58.219	14.470	65.024	1.00	31.31	B	C
ATOM	8986	CG	LEU	B	463	56.731	14.184	64.780	1.00	32.83	B	C
ATOM	8987	CD1	LEU	B	463	56.406	12.664	64.769	1.00	30.02	B	C
ATOM	8988	CD2	LEU	B	463	55.837	14.951	65.775	1.00	33.45	B	C
ATOM	8989	C	LEU	B	463	58.770	14.826	62.613	1.00	26.28	B	C
ATOM	8990	O	LEU	B	463	58.957	16.047	62.445	1.00	25.84	B	O
ATOM	8991	N	ILE	B	464	58.232	14.031	61.691	1.00	25.54	B	N
ATOM	8992	CA	ILE	B	464	57.640	14.556	60.471	1.00	24.21	B	C
ATOM	8993	CB	ILE	B	464	58.443	14.152	59.215	1.00	26.65	B	C
ATOM	8994	CG1	ILE	B	464	59.932	14.424	59.429	1.00	23.53	B	C
ATOM	8995	CD1	ILE	B	464	60.783	14.047	58.253	1.00	22.77	B	C
ATOM	8996	CG2	ILE	B	464	57.906	14.867	57.957	1.00	23.92	B	C
ATOM	8997	C	ILE	B	464	56.213	14.036	60.354	1.00	24.21	B	C
ATOM	8998	O	ILE	B	464	55.972	12.833	60.498	1.00	25.19	B	O
ATOM	8999	N	VAL	B	465	55.280	14.944	60.070	1.00	23.73	B	N
ATOM	9000	CA	VAL	B	465	53.862	14.644	60.116	1.00	23.94	B	C
ATOM	9001	CB	VAL	B	465	53.224	15.083	61.446	1.00	25.15	B	C
ATOM	9002	CG1	VAL	B	465	53.865	14.360	62.638	1.00	26.46	B	C
ATOM	9003	CG2	VAL	B	465	53.294	16.606	61.610	1.00	24.94	B	C
ATOM	9004	C	VAL	B	465	53.081	15.329	59.011	1.00	24.18	B	C

ATOM	9005	O	VAL	B	465	53.493	16.377	58.469	1.00	22.22	B	O
ATOM	9006	N	THR	B	466	51.942	14.730	58.686	1.00	25.02	B	N
ATOM	9007	CA	THR	B	466	51.035	15.277	57.687	1.00	24.07	B	C
ATOM	9008	CB	THR	B	466	51.357	14.734	56.288	1.00	22.22	B	C
ATOM	9009	OG1	THR	B	466	50.674	15.508	55.292	1.00	20.94	B	O
ATOM	9010	CG2	THR	B	466	50.947	13.245	56.151	1.00	21.36	B	C
ATOM	9011	C	THR	B	466	49.618	14.908	58.133	1.00	29.64	B	C
ATOM	9012	O	THR	B	466	49.455	14.043	59.003	1.00	23.87	B	O
ATOM	9013	N	LYS	B	467	48.607	15.570	57.571	1.00	22.45	B	N
ATOM	9014	CA	LYS	B	467	47.217	15.354	57.969	1.00	23.27	B	C
ATOM	9015	CB	LYS	B	467	46.316	16.380	57.274	1.00	23.18	B	C
ATOM	9016	CG	LYS	B	467	44.835	16.240	57.573	1.00	23.63	B	C
ATOM	9017	CD	LYS	B	467	43.988	17.064	56.584	1.00	23.65	B	C
ATOM	9018	CE	LYS	B	467	42.499	16.730	56.713	1.00	25.81	B	C
ATOM	9019	NZ	LYS	B	467	42.158	15.353	56.229	1.00	24.01	B	C
ATOM	9020	C	LYS	B	467	46.743	13.940	57.604	1.00	25.98	B	N
ATOM	9021	O	LYS	B	467	46.985	13.472	56.498	1.00	23.91	B	O
ATOM	9022	N	GLN	B	468	46.068	13.260	58.527	1.00	27.42	B	N
ATOM	9023	CA	GLN	B	468	45.599	11.903	58.243	1.00	27.58	B	C
ATOM	9024	CB	GLN	B	468	45.116	11.216	59.519	1.00	28.51	B	C
ATOM	9025	CG	GLN	B	468	43.723	11.627	59.958	1.00	34.62	B	C
ATOM	9026	CD	GLN	B	468	43.456	11.309	61.428	1.00	40.42	B	C
ATOM	9027	OE1	GLN	B	468	42.405	11.657	61.975	1.00	40.95	B	O
ATOM	9028	NE2	GLN	B	468	44.416	10.657	62.074	1.00	42.02	B	N
ATOM	9029	C	GLN	B	468	44.496	11.895	57.178	1.00	27.92	B	C
ATOM	9030	O	GLN	B	468	43.852	12.912	56.910	1.00	28.13	B	O
ATOM	9031	N	ILE	B	469	44.297	10.749	56.547	1.00	27.94	B	N
ATOM	9032	CA	ILE	B	469	43.199	10.602	55.612	1.00	31.74	B	C
ATOM	9033	CB	ILE	B	469	43.430	9.381	54.715	1.00	33.47	B	C
ATOM	9034	CG1	ILE	B	469	44.560	9.695	53.728	1.00	33.41	B	C
ATOM	9035	CD1	ILE	B	469	45.166	8.474	53.059	1.00	37.88	B	C
ATOM	9036	CG2	ILE	B	469	42.160	9.011	53.977	1.00	35.52	B	C
ATOM	9037	C	ILE	B	469	41.883	10.518	56.398	1.00	36.59	B	C
ATOM	9038	O	ILE	B	469	41.795	9.816	57.403	1.00	34.22	B	O
ATOM	9039	N	GLY	B	470	40.888	11.301	55.981	1.00	41.18	B	N
ATOM	9040	CA	GLY	B	470	39.567	11.254	56.590	1.00	43.98	B	C
ATOM	9041	C	GLY	B	470	39.460	11.721	58.034	1.00	44.38	B	C
ATOM	9042	O	GLY	B	470	38.604	11.242	58.775	1.00	47.11	B	O
ATOM	9043	N	GLY	B	471	40.321	12.652	58.439	1.00	39.48	B	N
ATOM	9044	CA	GLY	B	471	40.270	13.217	59.778	1.00	35.55	B	C
ATOM	9045	C	GLY	B	471	41.279	14.342	59.930	1.00	33.86	B	C
ATOM	9046	O	GLY	B	471	42.148	14.531	59.079	1.00	29.37	B	O
ATOM	9047	N	ASP	B	472	41.177	15.094	61.018	1.00	36.44	B	N
ATOM	9048	CA	ASP	B	472	42.094	16.200	61.255	1.00	36.21	B	C
ATOM	9049	CB	ASP	B	472	41.371	17.383	61.903	1.00	38.97	B	C
ATOM	9050	CG	ASP	B	472	40.556	18.183	60.907	1.00	40.45	B	C
ATOM	9051	OD1	ASP	B	472	40.787	18.022	59.692	1.00	38.34	B	O
ATOM	9052	OD2	ASP	B	472	39.687	18.968	61.339	1.00	43.11	B	O
ATOM	9053	C	ASP	B	472	43.276	15.780	62.115	1.00	37.31	B	C
ATOM	9054	O	ASP	B	472	44.058	16.625	62.570	1.00	34.90	B	O
ATOM	9055	N	GLY	B	473	43.407	14.475	62.328	1.00	37.24	B	N
ATOM	9056	CA	GLY	B	473	44.481	13.947	63.146	1.00	38.42	B	C
ATOM	9057	C	GLY	B	473	45.834	13.961	62.456	1.00	34.25	B	C
ATOM	9058	O	GLY	B	473	45.942	14.085	61.240	1.00	29.86	B	O
ATOM	9059	N	MET	B	474	46.876	13.829	63.258	1.00	35.23	B	N
ATOM	9060	CA	MET	B	474	48.238	13.833	62.776	1.00	34.98	B	C
ATOM	9061	CB	MET	B	474	49.135	14.181	63.954	1.00	36.28	B	C
ATOM	9062	CG	MET	B	474	50.432	14.824	63.602	1.00	37.05	B	C
ATOM	9063	SD	MET	B	474	51.245	15.342	65.127	1.00	45.38	B	S
ATOM	9064	CE	MET	B	474	51.539	13.758	65.896	1.00	30.54	B	C
ATOM	9065	C	MET	B	474	48.596	12.438	62.281	1.00	35.81	B	C
ATOM	9066	O	MET	B	474	48.227	11.457	62.911	1.00	39.07	B	O
ATOM	9067	N	MET	B	475	49.306	12.343	61.160	1.00	30.81	B	N
ATOM	9068	CA	MET	B	475	49.877	11.066	60.737	1.00	32.48	B	C
ATOM	9069	CB	MET	B	475	49.362	10.647	59.351	1.00	27.57	B	C
ATOM	9070	CG	MET	B	475	49.846	9.296	58.899	1.00	33.33	B	C
ATOM	9071	SD	MET	B	475	49.375	8.850	57.204	1.00	52.49	B	S
ATOM	9072	CE	MET	B	475	50.341	7.366	57.024	1.00	35.56	B	C
ATOM	9073	C	MET	B	475	51.405	11.180	60.751	1.00	31.08	B	C
ATOM	9074	O	MET	B	475	51.963	12.064	60.119	1.00	27.83	B	O
ATOM	9075	N	ASP	B	476	52.067	10.290	61.486	1.00	30.67	B	N
ATOM	9076	CA	ASP	B	476	53.523	10.312	61.626	1.00	26.87	B	C
ATOM	9077	CB	ASP	B	476	53.933	9.550	62.906	1.00	32.10	B	C
ATOM	9078	CG	ASP	B	476	55.447	9.517	63.138	1.00	28.58	B	C
ATOM	9079	OD1	ASP	B	476	56.241	9.732	62.206	1.00	33.75	B	O
ATOM	9080	OD2	ASP	B	476	55.856	9.273	64.280	1.00	31.00	B	O
ATOM	9081	C	ASP	B	476	54.162	9.670	60.405	1.00	25.87	B	C

ATOM	9082	O	ASP	B	476	54.026	8.461	60.193	1.00	26.21	B	O
ATOM	9083	N	ILE	B	477	54.867	10.467	59.605	1.00	24.75	B	N
ATOM	9084	CA	ILE	B	477	55.537	9.928	58.415	1.00	27.53	B	C
ATOM	9085	CB	ILE	B	477	55.062	10.623	57.099	1.00	24.23	B	C
ATOM	9086	CG1	ILE	B	477	55.338	12.135	57.161	1.00	22.02	B	C
ATOM	9087	CD1	ILE	B	477	55.059	12.875	55.854	1.00	20.77	B	C
ATOM	9088	CG2	ILE	B	477	53.594	10.330	56.850	1.00	22.52	B	C
ATOM	9089	C	ILE	B	477	57.064	9.991	58.485	1.00	23.90	B	C
ATOM	9090	O	ILE	B	477	57.743	9.927	57.452	1.00	23.08	B	O
ATOM	9091	N	THR	B	478	57.602	10.102	59.698	1.00	24.95	B	N
ATOM	9092	CA	THR	B	478	59.040	10.263	59.878	1.00	34.55	B	C
ATOM	9093	CB	THR	B	478	59.415	10.309	61.386	1.00	34.48	B	C
ATOM	9094	OG1	THR	B	478	58.550	11.227	62.058	1.00	26.83	B	O
ATOM	9095	CG2	THR	B	478	60.856	10.736	61.567	1.00	26.80	B	C
ATOM	9096	C	THR	B	478	59.825	9.138	59.197	1.00	33.98	B	C
ATOM	9097	O	THR	B	478	60.865	9.389	58.579	1.00	24.59	B	O
ATOM	9098	N	ASP	B	479	59.311	7.908	59.311	1.00	25.66	B	N
ATOM	9099	CA	ASP	B	479	59.990	6.729	58.787	1.00	33.20	B	C
ATOM	9100	CB	ASP	B	479	59.308	5.432	59.265	1.00	38.47	B	C
ATOM	9101	CG	ASP	B	479	59.404	5.221	60.784	1.00	47.28	B	C
ATOM	9102	OD1	ASP	B	479	60.296	5.798	61.450	1.00	48.78	B	O
ATOM	9103	OD2	ASP	B	479	58.578	4.452	61.321	1.00	50.26	B	O
ATOM	9104	C	ASP	B	479	60.102	6.718	57.248	1.00	29.15	B	C
ATOM	9105	O	ASP	B	479	60.880	5.941	56.696	1.00	25.12	B	O
ATOM	9106	N	THR	B	480	59.324	7.551	56.556	1.00	23.48	B	N
ATOM	9107	CA	THR	B	480	59.410	7.588	55.090	1.00	26.55	B	C
ATOM	9108	CB	THR	B	480	58.180	8.281	54.426	1.00	28.42	B	C
ATOM	9109	OG1	THR	B	480	58.180	9.676	54.752	1.00	21.12	B	O
ATOM	9110	CG2	THR	B	480	56.883	7.637	54.891	1.00	28.48	B	C
ATOM	9111	C	THR	B	480	60.663	8.341	54.642	1.00	23.28	B	C
ATOM	9112	O	THR	B	480	61.206	8.078	53.560	1.00	21.34	B	O
ATOM	9113	N	TYR	B	481	61.106	9.281	55.483	1.00	22.20	B	N
ATOM	9114	CA	TYR	B	481	62.266	10.109	55.181	1.00	22.24	B	C
ATOM	9115	CB	TYR	B	481	62.087	11.525	55.749	1.00	21.80	B	C
ATOM	9116	CG	TYR	B	481	61.267	12.434	54.866	1.00	20.71	B	C
ATOM	9117	CD1	TYR	B	481	61.870	13.207	53.875	1.00	19.95	B	C
ATOM	9118	CE1	TYR	B	481	61.125	14.052	53.072	1.00	19.05	B	C
ATOM	9119	CZ	TYR	B	481	59.763	14.118	53.248	1.00	22.84	B	C
ATOM	9120	OH	TYR	B	481	59.000	14.940	52.451	1.00	19.93	B	O
ATOM	9121	CE2	TYR	B	481	59.138	13.348	54.206	1.00	19.64	B	C
ATOM	9122	CD2	TYR	B	481	59.892	12.519	55.017	1.00	20.54	B	C
ATOM	9123	C	TYR	B	481	63.577	9.533	55.699	1.00	22.85	B	C
ATOM	9124	O	TYR	B	481	64.639	9.807	55.140	1.00	22.77	B	O
ATOM	9125	N	LYS	B	482	63.520	8.765	56.782	1.00	23.96	B	N
ATOM	9126	CA	LYS	B	482	64.759	8.282	57.350	1.00	24.98	B	C
ATOM	9127	CB	LYS	B	482	65.422	9.391	58.172	1.00	25.43	B	C
ATOM	9128	CG	LYS	B	482	64.650	9.802	59.407	1.00	27.40	B	C
ATOM	9129	CD	LYS	B	482	65.448	10.916	60.125	1.00	29.31	B	C
ATOM	9130	CE	LYS	B	482	64.731	11.517	61.309	1.00	31.15	B	C
ATOM	9131	NZ	LYS	B	482	65.605	12.550	62.021	1.00	27.84	B	N
ATOM	9132	C	LYS	B	482	64.541	7.084	58.235	1.00	35.23	B	C
ATOM	9133	O	LYS	B	482	63.455	6.887	58.769	1.00	26.41	B	O
ATOM	9134	N	PHE	B	483	65.586	6.289	58.399	1.00	27.03	B	N
ATOM	9135	CA	PHE	B	483	65.507	5.169	59.326	1.00	28.36	B	C
ATOM	9136	CB	PHE	B	483	66.656	4.187	59.099	1.00	29.10	B	C
ATOM	9137	CG	PHE	B	483	66.552	3.415	57.810	1.00	31.85	B	C
ATOM	9138	CD1	PHE	B	483	65.646	2.360	57.683	1.00	33.03	B	C
ATOM	9139	CE1	PHE	B	483	65.554	1.639	56.501	1.00	32.90	B	C
ATOM	9140	CZ	PHE	B	483	66.374	1.959	55.426	1.00	34.75	B	C
ATOM	9141	CE2	PHE	B	483	67.281	3.009	55.536	1.00	33.34	B	C
ATOM	9142	CD2	PHE	B	483	67.370	3.724	56.730	1.00	27.66	B	C
ATOM	9143	C	PHE	B	483	65.485	5.699	60.757	1.00	29.39	B	C
ATOM	9144	O	PHE	B	483	65.786	6.860	61.010	1.00	29.16	B	O
ATOM	9145	N	GLN	B	484	65.104	4.832	61.680	1.00	36.28	B	N
ATOM	9146	CA	GLN	B	484	64.867	5.212	63.062	1.00	37.74	B	C
ATOM	9147	CB	GLN	B	484	64.198	4.043	63.784	1.00	39.44	B	C
ATOM	9148	CG	GLN	B	484	63.554	4.381	65.110	1.00	47.77	B	C
ATOM	9149	CD	GLN	B	484	62.729	3.220	65.652	1.00	53.19	B	C
ATOM	9150	OE1	GLN	B	484	61.787	2.761	64.999	1.00	53.50	B	O
ATOM	9151	NE2	GLN	B	484	63.085	2.736	66.842	1.00	54.94	B	N
ATOM	9152	C	GLN	B	484	66.166	5.624	63.758	1.00	38.33	B	C
ATOM	9153	O	GLN	B	484	67.212	4.997	63.569	1.00	33.18	B	O
ATOM	9154	N	GLU	B	485	66.104	6.701	64.536	1.00	34.00	B	N
ATOM	9155	CA	GLU	B	485	67.259	7.119	65.314	1.00	36.20	B	C
ATOM	9156	CB	GLU	B	485	66.939	8.385	66.113	1.00	35.88	B	C
ATOM	9157	CG	GLU	B	485	66.558	9.583	65.229	1.00	34.73	B	C
ATOM	9158	CD	GLU	B	485	67.742	10.171	64.469	1.00	34.68	B	C

ATOM	9159	OE1	GLU	B	485	68.892	9.916	64.869	1.00	36.33	B	O
ATOM	9160	OE2	GLU	B	485	67.525	10.899	63.472	1.00	31.44	B	O
ATOM	9161	C	GLU	B	485	67.657	5.967	66.238	1.00	40.03	B	O
ATOM	9162	O	GLU	B	485	66.797	5.361	66.865	1.00	36.48	B	O
ATOM	9163	N	GLY	B	486	68.951	5.653	66.274	1.00	36.50	B	N
ATOM	9164	CA	GLY	B	486	69.475	4.585	67.113	1.00	38.29	B	C
ATOM	9165	C	GLY	B	486	69.692	3.299	66.330	1.00	38.23	B	C
ATOM	9166	O	GLY	B	486	70.370	2.388	66.784	1.00	39.63	B	O
ATOM	9167	N	GLN	B	487	69.098	3.214	65.145	1.00	36.67	B	N
ATOM	9168	CA	GLN	B	487	69.293	2.041	64.304	1.00	42.38	B	C
ATOM	9169	CB	GLN	B	487	68.034	1.768	63.482	1.00	42.12	B	C
ATOM	9170	CG	GLN	B	487	66.816	1.460	64.338	1.00	44.69	B	C
ATOM	9171	CD	GLN	B	487	66.986	0.182	65.132	1.00	50.23	B	C
ATOM	9172	OE1	GLN	B	487	67.054	-0.909	64.562	1.00	53.89	B	O
ATOM	9173	NE2	GLN	B	487	67.067	0.309	66.454	1.00	52.20	B	O
ATOM	9174	C	GLN	B	487	70.502	2.226	63.396	1.00	36.06	B	C
ATOM	9175	O	GLN	B	487	70.758	3.331	62.899	1.00	35.03	B	O
ATOM	9176	N	GLU	B	488	71.233	1.143	63.176	1.00	36.89	B	N
ATOM	9177	CA	GLU	B	488	72.427	1.157	62.343	1.00	36.71	B	C
ATOM	9178	CB	GLU	B	488	73.043	-0.245	62.282	1.00	37.93	B	C
ATOM	9179	CG	GLU	B	488	74.432	-0.260	61.677	1.00	44.72	B	C
ATOM	9180	CD	GLU	B	488	75.455	0.376	62.605	1.00	45.84	B	C
ATOM	9181	OE1	GLU	B	488	75.471	0.002	63.797	1.00	48.71	B	O
ATOM	9182	OE2	GLU	B	488	76.230	1.247	62.150	1.00	42.12	B	O
ATOM	9183	C	GLU	B	488	72.177	1.647	60.910	1.00	40.34	B	C
ATOM	9184	O	GLU	B	488	73.058	2.245	60.288	1.00	34.46	B	O
ATOM	9185	N	GLU	B	489	70.987	1.376	60.384	1.00	33.88	B	N
ATOM	9186	CA	GLU	B	489	70.640	1.776	59.018	1.00	32.22	B	C
ATOM	9187	CB	GLU	B	489	69.268	1.237	58.594	1.00	31.50	B	C
ATOM	9188	CG	GLU	B	489	69.060	-0.243	58.774	1.00	48.90	B	C
ATOM	9189	CD	GLU	B	489	68.844	-0.612	60.226	1.00	49.34	B	C
ATOM	9190	OE1	GLU	B	489	67.697	-0.898	60.618	1.00	51.64	B	O
ATOM	9191	OE2	GLU	B	489	69.827	-0.592	60.980	1.00	48.91	B	O
ATOM	9192	C	GLU	B	489	70.613	3.300	58.924	1.00	31.24	B	C
ATOM	9193	O	GLU	B	489	70.883	3.868	57.863	1.00	30.25	B	O
ATOM	9194	N	GLU	B	490	70.249	3.949	60.028	1.00	31.66	B	N
ATOM	9195	CA	GLU	B	490	70.173	5.409	60.075	1.00	30.89	B	C
ATOM	9196	CB	GLU	B	490	69.530	5.885	61.386	1.00	31.55	B	C
ATOM	9197	CG	GLU	B	490	69.203	7.392	61.445	1.00	30.73	B	C
ATOM	9198	CD	GLU	B	490	70.296	8.221	62.120	1.00	31.56	B	C
ATOM	9199	OE1	GLU	B	490	71.168	7.638	62.790	1.00	32.93	B	O
ATOM	9200	OE2	GLU	B	490	70.271	9.457	61.984	1.00	33.19	B	O
ATOM	9201	C	GLU	B	490	71.562	6.004	59.897	1.00	31.19	B	C
ATOM	9202	O	GLU	B	490	71.732	6.999	59.202	1.00	30.23	B	O
ATOM	9203	N	ARG	B	491	72.558	5.404	60.545	1.00	32.66	B	N
ATOM	9204	CA	ARG	B	491	73.945	5.790	60.325	1.00	33.15	B	C
ATOM	9205	C	ARG	B	491	74.390	5.494	58.887	1.00	32.34	B	C
ATOM	9206	O	ARG	B	491	75.008	6.328	58.239	1.00	31.84	B	O
ATOM	9207	CB	ARG	B	491	74.874	5.113	61.350	1.00	35.04	B	C
ATOM	9208	CG	ARG	B	491	74.520	5.460	62.798	1.00	36.02	B	C
ATOM	9209	CD	ARG	B	491	73.994	6.929	62.899	1.00	41.10	B	C
ATOM	9210	NE	ARG	B	491	75.036	7.901	62.667	1.00	39.91	B	N
ATOM	9211	CZ	ARG	B	491	74.874	9.225	62.562	1.00	37.31	B	C
ATOM	9212	NH1	ARG	B	491	73.675	9.816	62.607	1.00	34.59	B	N
ATOM	9213	NH2	ARG	B	491	75.952	9.958	62.383	1.00	34.69	B	N
ATOM	9214	N	LEU	B	492	74.055	4.310	58.384	1.00	32.29	B	N
ATOM	9215	CA	LEU	B	492	74.548	3.895	57.075	1.00	31.79	B	C
ATOM	9216	CB	LEU	B	492	74.293	2.391	56.844	1.00	37.90	B	C
ATOM	9217	CG	LEU	B	492	75.116	1.412	57.715	1.00	38.42	B	C
ATOM	9218	CD1	LEU	B	492	74.660	-0.039	57.513	1.00	34.53	B	C
ATOM	9219	CD2	LEU	B	492	76.589	1.517	57.392	1.00	34.85	B	C
ATOM	9220	C	LEU	B	492	73.962	4.755	55.933	1.00	30.09	B	C
ATOM	9221	O	LEU	B	492	74.651	5.082	54.971	1.00	29.72	B	O
ATOM	9222	N	ALA	B	493	72.693	5.119	56.051	1.00	29.17	B	N
ATOM	9223	CA	ALA	B	493	72.060	5.937	55.020	1.00	27.65	B	C
ATOM	9224	CB	ALA	B	493	70.565	5.924	55.160	1.00	26.90	B	C
ATOM	9225	C	ALA	B	493	72.602	7.363	55.082	1.00	28.21	B	C
ATOM	9226	O	ALA	B	493	72.820	7.978	54.056	1.00	26.60	B	O
ATOM	9227	N	LEU	B	494	72.855	7.877	56.283	1.00	28.21	B	N
ATOM	9228	CA	LEU	B	494	73.462	9.196	56.386	1.00	32.01	B	C
ATOM	9229	CB	LEU	B	494	73.535	9.672	57.848	1.00	29.16	B	C
ATOM	9230	CG	LEU	B	494	74.332	10.961	58.090	1.00	33.45	B	C
ATOM	9231	CD1	LEU	B	494	73.674	11.805	59.173	1.00	34.64	B	C
ATOM	9232	CD2	LEU	B	494	75.766	10.640	58.484	1.00	34.04	B	C
ATOM	9233	C	LEU	B	494	74.846	9.193	55.743	1.00	28.67	B	C
ATOM	9234	O	LEU	B	494	75.192	10.103	54.985	1.00	28.08	B	O
ATOM	9235	N	GLU	B	495	75.634	8.171	56.070	1.00	29.86	B	N

ATOM	9236	CA	GLU	B	495	76.993	8.050	55.559	1.00	30.60	B	C
ATOM	9237	CB	GLU	B	495	77.724	6.880	56.232	1.00	32.14	B	C
ATOM	9238	CG	GLU	B	495	78.090	7.165	57.697	1.00	41.41	B	C
ATOM	9239	CD	GLU	B	495	78.215	5.892	58.542	1.00	44.85	B	C
ATOM	9240	OE1	GLU	B	495	78.135	4.789	57.978	1.00	49.32	B	O
ATOM	9241	OE2	GLU	B	495	78.361	5.986	59.774	1.00	44.78	B	O
ATOM	9242	C	GLU	B	495	76.965	7.915	54.038	1.00	34.98	B	C
ATOM	9243	O	GLU	B	495	77.811	8.458	53.340	1.00	29.67	B	O
ATOM	9244	N	THR	B	496	75.966	7.215	53.520	1.00	28.78	B	N
ATOM	9245	CA	THR	B	496	75.747	7.203	52.080	1.00	35.21	B	C
ATOM	9246	CB	THR	B	496	74.626	6.213	51.726	1.00	33.91	B	C
ATOM	9247	OG1	THR	B	496	75.052	4.898	52.111	1.00	28.27	B	O
ATOM	9248	CG2	THR	B	496	74.309	6.235	50.234	1.00	26.10	B	C
ATOM	9249	C	THR	B	496	75.464	8.622	51.536	1.00	34.86	B	C
ATOM	9250	O	THR	B	496	76.013	9.036	50.508	1.00	26.44	B	O
ATOM	9251	N	ALA	B	497	74.618	9.369	52.235	1.00	26.20	B	N
ATOM	9252	CA	ALA	B	497	74.258	10.708	51.773	1.00	27.82	B	C
ATOM	9253	CB	ALA	B	497	73.185	11.319	52.647	1.00	28.46	B	C
ATOM	9254	C	ALA	B	497	75.483	11.605	51.720	1.00	25.88	B	C
ATOM	9255	O	ALA	B	497	75.669	12.337	50.746	1.00	25.33	B	O
ATOM	9256	N	LEU	B	498	76.331	11.537	52.745	1.00	27.13	B	N
ATOM	9257	CA	LEU	B	498	77.535	12.377	52.763	1.00	39.86	B	C
ATOM	9258	CB	LEU	B	498	78.268	12.316	54.104	1.00	40.48	B	C
ATOM	9259	CG	LEU	B	498	77.527	12.778	55.355	1.00	40.13	B	C
ATOM	9260	CD1	LEU	B	498	78.511	13.071	56.474	1.00	43.42	B	C
ATOM	9261	CD2	LEU	B	498	76.668	13.977	55.060	1.00	38.85	B	C
ATOM	9262	C	LEU	B	498	78.479	11.972	51.641	1.00	39.99	B	C
ATOM	9263	O	LEU	B	498	79.072	12.816	50.982	1.00	42.37	B	O
ATOM	9264	N	MET	B	499	78.603	10.673	51.422	1.00	37.08	B	N
ATOM	9265	CA	MET	B	499	79.424	10.164	50.338	1.00	36.95	B	C
ATOM	9266	CB	MET	B	499	79.421	8.632	50.371	1.00	38.71	B	C
ATOM	9267	CG	MET	B	499	80.332	7.969	49.362	1.00	40.58	B	C
ATOM	9268	SD	MET	B	499	79.412	7.514	47.888	1.00	63.88	B	S
ATOM	9269	CE	MET	B	499	78.509	6.087	48.492	1.00	49.12	B	C
ATOM	9270	C	MET	B	499	78.949	10.697	48.976	1.00	35.46	B	C
ATOM	9271	O	MET	B	499	79.758	11.118	48.154	1.00	36.90	B	O
ATOM	9272	N	TYR	B	500	77.641	10.685	48.729	1.00	35.35	B	N
ATOM	9273	CA	TYR	B	500	77.142	11.283	47.493	1.00	38.29	B	C
ATOM	9274	CB	TYR	B	500	75.703	10.860	47.193	1.00	36.71	B	C
ATOM	9275	CG	TYR	B	500	75.616	9.447	46.644	1.00	36.64	B	C
ATOM	9276	CD1	TYR	B	500	76.298	9.092	45.486	1.00	37.28	B	C
ATOM	9277	CE1	TYR	B	500	76.229	7.808	44.978	1.00	37.05	B	C
ATOM	9278	CZ	TYR	B	500	75.487	6.856	45.629	1.00	37.62	B	C
ATOM	9279	OH	TYR	B	500	75.419	5.580	45.112	1.00	40.09	B	O
ATOM	9280	CE2	TYR	B	500	74.805	7.176	46.786	1.00	37.20	B	C
ATOM	9281	CD2	TYR	B	500	74.872	8.468	47.287	1.00	38.10	B	C
ATOM	9282	C	TYR	B	500	77.306	12.807	47.468	1.00	42.00	B	C
ATOM	9283	O	TYR	B	500	77.519	13.385	46.405	1.00	45.44	B	O
ATOM	9284	O	GLY	B	501	75.412	15.311	47.709	1.00	52.14	B	O
ATOM	9285	N	GLY	B	501	77.216	13.447	48.632	1.00	41.49	B	N
ATOM	9286	CA	GLY	B	501	77.524	14.872	48.756	1.00	46.10	B	C
ATOM	9287	C	GLY	B	501	76.417	15.788	48.259	1.00	52.05	B	C
ATOM	9288	O	ARG	B	515	91.767	3.181	50.692	1.00	62.69	B	O
ATOM	9289	N	ARG	B	515	88.903	3.722	48.592	1.00	59.27	B	N
ATOM	9290	CA	ARG	B	515	90.002	4.230	49.415	1.00	59.84	B	C
ATOM	9291	C	ARG	B	515	90.582	3.154	50.347	1.00	61.73	B	C
ATOM	9292	CB	ARG	B	515	89.557	5.445	50.225	1.00	59.50	B	C
ATOM	9293	O	SER	B	516	90.926	-1.176	50.912	1.00	50.20	B	O
ATOM	9294	N	SER	B	516	89.740	2.214	50.765	1.00	59.21	B	N
ATOM	9295	CA	SER	B	516	90.213	1.055	51.514	1.00	56.58	B	C
ATOM	9296	C	SER	B	516	90.482	-0.086	50.530	1.00	50.54	B	C
ATOM	9297	CB	SER	B	516	89.168	0.636	52.542	1.00	59.31	B	C
ATOM	9298	OG	SER	B	516	87.914	0.421	51.914	1.00	60.04	B	O
ATOM	9299	N	ASN	B	517	90.197	0.192	49.260	1.00	45.14	B	N
ATOM	9300	CA	ASN	B	517	90.400	-0.740	48.160	1.00	42.70	B	C
ATOM	9301	CB	ASN	B	517	91.886	-1.099	48.024	1.00	44.95	B	C
ATOM	9302	CG	ASN	B	517	92.279	-1.409	46.592	1.00	48.60	B	C
ATOM	9303	OD1	ASN	B	517	91.460	-1.290	45.669	1.00	50.72	B	O
ATOM	9304	ND2	ASN	B	517	93.539	-1.798	46.393	1.00	48.17	B	N
ATOM	9305	C	ASN	B	517	89.489	-1.989	48.246	1.00	36.88	B	C
ATOM	9306	O	ASN	B	517	89.903	-3.117	47.969	1.00	32.26	B	O
ATOM	9307	N	VAL	B	518	88.243	-1.753	48.639	1.00	31.86	B	N
ATOM	9308	CA	VAL	B	518	87.231	-2.788	48.695	1.00	29.48	B	C
ATOM	9309	CB	VAL	B	518	86.617	-2.883	50.108	1.00	29.35	B	C
ATOM	9310	CG1	VAL	B	518	85.472	-3.898	50.138	1.00	30.11	B	C
ATOM	9311	CG2	VAL	B	518	87.688	-3.244	51.138	1.00	30.68	B	C
ATOM	9312	C	VAL	B	518	86.127	-2.412	47.712	1.00	30.88	B	C

ATOM	9313	O	VAL	B	518	85.670	-1.265	47.714	1.00	28.13	B	O
ATOM	9314	N	ASP	B	519	85.735	-3.374	46.877	1.00	30.34	B	N
ATOM	9315	CA	ASP	B	519	84.595	-3.253	45.959	1.00	35.58	B	C
ATOM	9316	CB	ASP	B	519	84.917	-3.829	44.563	1.00	40.86	B	C
ATOM	9317	CG	ASP	B	519	86.217	-3.307	43.978	1.00	46.97	B	C
ATOM	9318	OD1	ASP	B	519	86.569	-2.132	44.224	1.00	51.11	B	O
ATOM	9319	OD2	ASP	B	519	86.886	-4.081	43.254	1.00	48.53	B	O
ATOM	9320	C	ASP	B	519	83.415	-4.062	46.504	1.00	33.41	B	C
ATOM	9321	O	ASP	B	519	83.602	-5.060	47.216	1.00	30.65	B	O
ATOM	9322	N	MET	B	520	82.202	-3.661	46.137	1.00	30.22	B	N
ATOM	9323	CA	MET	B	520	81.013	-4.404	46.527	1.00	31.94	B	C
ATOM	9324	CB	MET	B	520	80.335	-3.771	47.748	1.00	34.62	B	C
ATOM	9325	CG	MET	B	520	79.107	-4.535	48.254	1.00	35.05	B	C
ATOM	9326	SD	MET	B	520	77.552	-4.087	47.436	1.00	39.95	B	S
ATOM	9327	CE	MET	B	520	77.464	-2.349	47.884	1.00	29.85	B	C
ATOM	9328	C	MET	B	520	80.060	-4.408	45.366	1.00	29.24	B	C
ATOM	9329	O	MET	B	520	79.896	-3.393	44.695	1.00	27.30	B	O
ATOM	9330	N	ASP	B	521	79.451	-5.556	45.112	1.00	28.15	B	N
ATOM	9331	CA	ASP	B	521	78.350	-5.640	44.156	1.00	27.13	B	C
ATOM	9332	CB	ASP	B	521	78.865	-6.065	42.778	1.00	30.02	B	C
ATOM	9333	CG	ASP	B	521	77.944	-5.634	41.637	1.00	33.20	B	C
ATOM	9334	OD1	ASP	B	521	76.825	-5.127	41.890	1.00	28.64	B	O
ATOM	9335	OD2	ASP	B	521	78.355	-5.812	40.476	1.00	36.32	B	O
ATOM	9336	C	ASP	B	521	77.384	-6.681	44.707	1.00	27.45	B	C
ATOM	9337	O	ASP	B	521	77.693	-7.347	45.695	1.00	30.53	B	O
ATOM	9338	N	PHE	B	522	76.215	-6.813	44.084	1.00	26.32	B	N
ATOM	9339	CA	PHE	B	522	75.297	-7.890	44.430	1.00	26.31	B	C
ATOM	9340	CB	PHE	B	522	74.392	-7.531	45.629	1.00	28.53	B	C
ATOM	9341	CG	PHE	B	522	73.323	-6.490	45.331	1.00	27.30	B	C
ATOM	9342	CD1	PHE	B	522	72.074	-6.871	44.822	1.00	28.57	B	C
ATOM	9343	CE1	PHE	B	522	71.087	-5.919	44.557	1.00	26.84	B	C
ATOM	9344	CZ	PHE	B	522	71.336	-4.572	44.818	1.00	23.98	B	C
ATOM	9345	CE2	PHE	B	522	72.563	-4.190	45.326	1.00	26.63	B	C
ATOM	9346	CD2	PHE	B	522	73.553	-5.157	45.586	1.00	26.19	B	C
ATOM	9347	C	PHE	B	522	74.494	-8.329	43.220	1.00	28.97	B	C
ATOM	9348	O	PHE	B	522	74.185	-7.531	42.332	1.00	28.94	B	O
ATOM	9349	N	GLU	B	523	74.186	-9.614	43.182	1.00	30.96	B	N
ATOM	9350	CA	GLU	B	523	73.378	-10.180	42.124	1.00	30.14	B	C
ATOM	9351	CB	GLU	B	523	74.176	-11.220	41.346	1.00	28.70	B	C
ATOM	9352	C	GLU	B	523	72.187	-10.831	42.784	1.00	32.85	B	C
ATOM	9353	O	GLU	B	523	72.278	-11.308	43.923	1.00	34.88	B	O
ATOM	9354	N	VAL	B	524	71.065	-10.843	42.077	1.00	32.08	B	N
ATOM	9355	CA	VAL	B	524	69.871	-11.513	42.564	1.00	32.29	B	C
ATOM	9356	CB	VAL	B	524	68.683	-10.559	42.540	1.00	33.45	B	C
ATOM	9357	CG1	VAL	B	524	67.533	-11.148	43.296	1.00	35.82	B	C
ATOM	9358	CG2	VAL	B	524	69.081	-9.234	43.167	1.00	36.20	B	C
ATOM	9359	C	VAL	B	524	69.595	-12.744	41.693	1.00	33.18	B	C
ATOM	9360	O	VAL	B	524	69.574	-12.634	40.478	1.00	33.20	B	O
ATOM	9361	N	GLU	B	525	69.432	-13.918	42.301	1.00	34.45	B	N
ATOM	9362	CA	GLU	B	525	69.060	-15.113	41.529	1.00	41.00	B	C
ATOM	9363	CB	GLU	B	525	68.961	-16.345	42.432	1.00	41.89	B	C
ATOM	9364	C	GLU	B	525	67.723	-14.867	40.827	1.00	43.00	B	C
ATOM	9365	O	GLU	B	525	66.945	-14.015	41.268	1.00	42.87	B	O
ATOM	9366	N	ASN	B	526	67.467	-15.577	39.729	1.00	44.89	B	N
ATOM	9367	CA	ASN	B	526	66.189	-15.441	39.038	1.00	44.22	B	C
ATOM	9368	CB	ASN	B	526	66.071	-16.430	37.878	1.00	44.75	B	C
ATOM	9369	C	ASN	B	526	65.059	-15.642	40.040	1.00	43.54	B	C
ATOM	9370	O	ASN	B	526	64.955	-16.688	40.671	1.00	46.12	B	O
ATOM	9371	N	ALA	B	527	64.249	-14.609	40.226	1.00	40.08	B	N
ATOM	9372	CA	ALA	B	527	63.197	-14.648	41.227	1.00	37.29	B	C
ATOM	9373	CB	ALA	B	527	63.061	-13.289	41.904	1.00	35.09	B	C
ATOM	9374	C	ALA	B	527	61.875	-15.074	40.602	1.00	34.33	B	C
ATOM	9375	O	ALA	B	527	61.352	-14.407	39.708	1.00	33.87	B	O
ATOM	9376	N	VAL	B	528	61.349	-16.194	41.079	1.00	32.90	B	N
ATOM	9377	CA	VAL	B	528	60.061	-16.710	40.627	1.00	33.12	B	C
ATOM	9378	CB	VAL	B	528	60.190	-18.174	40.107	1.00	32.77	B	C
ATOM	9379	CG1	VAL	B	528	58.824	-18.759	39.770	1.00	31.01	B	C
ATOM	9380	CG2	VAL	B	528	61.124	-18.231	38.904	1.00	33.69	B	C
ATOM	9381	C	VAL	B	528	59.073	-16.664	41.792	1.00	29.72	B	C
ATOM	9382	O	VAL	B	528	59.358	-17.188	42.876	1.00	28.59	B	O
ATOM	9383	N	LEU	B	529	57.922	-16.034	41.566	1.00	26.94	B	N
ATOM	9384	CA	LEU	B	529	56.879	-15.945	42.581	1.00	24.60	B	C
ATOM	9385	CB	LEU	B	529	55.623	-15.280	41.993	1.00	25.09	B	C
ATOM	9386	CG	LEU	B	529	54.364	-15.103	42.852	1.00	27.69	B	C
ATOM	9387	CD1	LEU	B	529	53.454	-14.007	42.268	1.00	25.95	B	C
ATOM	9388	CD2	LEU	B	529	53.571	-16.404	42.974	1.00	27.58	B	C
ATOM	9389	C	LEU	B	529	56.560	-17.336	43.157	1.00	26.95	B	C

ATOM	9390	O	LEU	B	529	56.318	-18.304	42.410	1.00	27.12	B	O
ATOM	9391	N	GLY	B	530	56.559	-17.417	44.487	1.00	25.88	B	N
ATOM	9392	CA	GLY	B	530	56.267	-18.648	45.195	1.00	27.07	B	C
ATOM	9393	C	GLY	B	530	57.492	-19.393	45.685	1.00	29.36	B	C
ATOM	9394	O	GLY	B	530	57.372	-20.324	46.485	1.00	32.60	B	O
ATOM	9395	N	LYS	B	531	58.673	-18.993	45.221	1.00	29.42	B	N
ATOM	9396	CA	LYS	B	531	59.914	-19.663	45.623	1.00	32.92	B	C
ATOM	9397	C	LYS	B	531	60.840	-18.744	46.419	1.00	33.67	B	C
ATOM	9398	O	LYS	B	531	60.855	-17.532	46.202	1.00	27.76	B	O
ATOM	9399	CB	LYS	B	531	60.662	-20.155	44.389	1.00	33.65	B	C
ATOM	9400	CG	LYS	B	531	59.906	-21.212	43.591	1.00	35.34	B	C
ATOM	9401	CD	LYS	B	531	59.418	-22.370	44.488	1.00	36.77	B	C
ATOM	9402	CE	LYS	B	531	60.560	-23.242	44.994	1.00	38.43	B	C
ATOM	9403	NZ	LYS	B	531	60.133	-24.299	45.994	1.00	38.95	B	N
ATOM	9404	N	ASP	B	532	61.614	-19.324	47.333	1.00	35.49	B	N
ATOM	9405	CA	ASP	B	532	62.748	-18.606	47.923	1.00	37.18	B	C
ATOM	9406	CB	ASP	B	532	63.563	-19.505	48.855	1.00	38.92	B	C
ATOM	9407	CG	ASP	B	532	62.764	-20.041	50.042	1.00	38.87	B	C
ATOM	9408	OD1	ASP	B	532	61.600	-19.651	50.219	1.00	33.62	B	O
ATOM	9409	OD2	ASP	B	532	63.326	-20.848	50.822	1.00	44.59	B	O
ATOM	9410	C	ASP	B	532	63.677	-18.144	46.794	1.00	37.00	B	C
ATOM	9411	O	ASP	B	532	63.670	-18.709	45.695	1.00	34.04	B	O
ATOM	9412	N	PHE	B	533	64.476	-17.115	47.056	1.00	37.30	B	N
ATOM	9413	CA	PHE	B	533	65.562	-16.782	46.145	1.00	34.93	B	C
ATOM	9414	CB	PHE	B	533	65.081	-15.895	44.982	1.00	33.31	B	C
ATOM	9415	CG	PHE	B	533	64.646	-14.512	45.389	1.00	33.23	B	C
ATOM	9416	CD1	PHE	B	533	65.541	-13.448	45.359	1.00	35.08	B	C
ATOM	9417	CE1	PHE	B	533	65.131	-12.168	45.709	1.00	32.95	B	C
ATOM	9418	CZ	PHE	B	533	63.816	-11.945	46.089	1.00	30.70	B	C
ATOM	9419	CE2	PHE	B	533	62.918	-12.999	46.110	1.00	30.04	B	C
ATOM	9420	CD2	PHE	B	533	63.333	-14.265	45.759	1.00	32.71	B	C
ATOM	9421	C	PHE	B	533	66.729	-16.161	46.904	1.00	34.03	B	C
ATOM	9422	O	PHE	B	533	66.562	-15.654	48.004	1.00	33.48	B	O
ATOM	9423	N	LYS	B	534	67.913	-16.240	46.311	1.00	33.90	B	N
ATOM	9424	CA	LYS	B	534	69.125	-15.773	46.949	1.00	32.74	B	C
ATOM	9425	CB	LYS	B	534	70.273	-16.770	46.753	1.00	35.11	B	C
ATOM	9426	C	LYS	B	534	69.525	-14.427	46.391	1.00	31.90	B	C
ATOM	9427	O	LYS	B	534	69.446	-14.175	45.178	1.00	30.90	B	O
ATOM	9428	N	LEU	B	535	69.930	-13.558	47.302	1.00	31.70	B	N
ATOM	9429	CA	LEU	B	535	70.605	-12.333	46.944	1.00	31.23	B	C
ATOM	9430	CB	LEU	B	535	69.977	-11.136	47.658	1.00	31.67	B	C
ATOM	9431	CG	LEU	B	535	70.483	-9.778	47.161	1.00	30.41	B	C
ATOM	9432	CD1	LEU	B	535	69.368	-8.755	47.016	1.00	27.68	B	C
ATOM	9433	CD2	LEU	B	535	71.539	-9.256	48.102	1.00	32.90	B	C
ATOM	9434	C	LEU	B	535	72.037	-12.545	47.388	1.00	31.71	B	C
ATOM	9435	O	LEU	B	535	72.287	-12.808	48.562	1.00	35.25	B	O
ATOM	9436	N	SER	B	536	72.967	-12.482	46.443	1.00	28.56	B	N
ATOM	9437	CA	SER	B	536	74.374	-12.690	46.747	1.00	29.42	B	C
ATOM	9438	CB	SER	B	536	74.997	-13.639	45.746	1.00	32.09	B	C
ATOM	9439	OG	SER	B	536	74.591	-14.950	46.054	1.00	40.00	B	O
ATOM	9440	C	SER	B	536	75.151	-11.396	46.742	1.00	30.33	B	C
ATOM	9441	O	SER	B	536	75.275	-10.754	45.701	1.00	30.17	B	O
ATOM	9442	N	ILE	B	537	75.679	-11.020	47.901	1.00	27.93	B	N
ATOM	9443	CA	ILE	B	537	76.497	-9.821	48.010	1.00	27.44	B	C
ATOM	9444	CB	ILE	B	537	76.166	-9.047	49.287	1.00	26.94	B	C
ATOM	9445	CG1	ILE	B	537	74.695	-8.635	49.273	1.00	29.71	B	C
ATOM	9446	CD1	ILE	B	537	74.075	-8.508	50.636	1.00	28.55	B	C
ATOM	9447	CG2	ILE	B	537	77.057	-7.818	49.411	1.00	26.59	B	C
ATOM	9448	C	ILE	B	537	77.960	-10.232	48.018	1.00	33.59	B	C
ATOM	9449	O	ILE	B	537	78.400	-11.008	48.882	1.00	37.45	B	O
ATOM	9450	N	ATHR	B	538	78.711	-9.725	47.048	0.66	29.39	B	N
ATOM	9451	CA	ATHR	B	538	80.124	-10.061	46.943	0.66	30.41	B	C
ATOM	9452	CB	ATHR	B	538	80.475	-10.538	45.533	0.66	31.54	B	C
ATOM	9453	OG1	ATHR	B	538	79.536	-11.541	45.124	0.66	33.48	B	O
ATOM	9454	CG2	ATHR	B	538	81.894	-11.111	45.494	0.66	31.10	B	C
ATOM	9455	C	ATHR	B	538	80.997	-8.860	47.282	0.66	30.49	B	C
ATOM	9456	O	ATHR	B	538	80.796	-7.758	46.761	0.66	28.96	B	O
ATOM	9457	N	BTHR	B	538	78.720	-9.739	47.048	0.34	29.95	B	N
ATOM	9458	CA	BTHR	B	538	80.134	-10.088	46.966	0.34	30.55	B	C
ATOM	9459	CB	BTHR	B	538	80.498	-10.681	45.602	0.34	31.83	B	C
ATOM	9460	OG1	BTHR	B	538	80.003	-9.824	44.564	0.34	30.71	B	O
ATOM	9461	CG2	BTHR	B	538	79.903	-12.079	45.452	0.34	33.26	B	C
ATOM	9462	C	BTHR	B	538	81.035	-8.894	47.236	0.34	30.31	B	C
ATOM	9463	O	BTHR	B	538	80.899	-7.837	46.616	0.34	29.41	B	O
ATOM	9464	N	PHE	B	539	81.955	-9.072	48.172	1.00	29.13	B	N
ATOM	9465	CA	PHE	B	539	82.933	-8.057	48.483	1.00	30.60	B	C
ATOM	9466	CB	PHE	B	539	83.062	-7.914	49.996	1.00	30.38	B	C

ATOM	9467	CG	PHE	B	539	81.831	-7.365	50.661	1.00	29.39	B	C
ATOM	9468	CD1	PHE	B	539	81.646	-6.002	50.773	1.00	27.35	B	C
ATOM	9469	CE1	PHE	B	539	80.516	-5.488	51.390	1.00	30.64	B	C
ATOM	9470	CZ	PHE	B	539	79.551	-6.348	51.897	1.00	29.91	B	C
ATOM	9471	CE2	PHE	B	539	79.723	-7.715	51.791	1.00	27.76	B	C
ATOM	9472	CD2	PHE	B	539	80.860	-8.217	51.174	1.00	32.36	B	C
ATOM	9473	C	PHE	B	539	84.237	-8.553	47.899	1.00	33.02	B	C
ATOM	9474	O	PHE	B	539	84.532	-9.754	47.964	1.00	34.15	B	O
ATOM	9475	N	ARG	B	540	85.006	-7.658	47.295	1.00	32.01	B	N
ATOM	9476	CA	ARG	B	540	86.374	-7.996	46.923	1.00	34.26	B	C
ATOM	9477	CB	ARG	B	540	86.594	-7.952	45.402	1.00	34.49	B	C
ATOM	9478	CG	ARG	B	540	88.084	-7.976	44.968	1.00	39.83	B	C
ATOM	9479	CD	ARG	B	540	88.785	-9.341	45.199	1.00	56.48	B	C
ATOM	9480	NE	ARG	B	540	90.254	-9.233	45.198	1.00	54.86	B	N
ATOM	9481	CZ	ARG	B	540	91.104	-10.253	45.338	1.00	53.43	B	N
ATOM	9482	NH1	ARG	B	540	90.657	-11.500	45.489	1.00	50.43	B	N
ATOM	9483	NH2	ARG	B	540	92.415	-10.027	45.329	1.00	54.06	B	N
ATOM	9484	C	ARG	B	540	87.335	-7.064	47.671	1.00	34.06	B	C
ATOM	9485	O	ARG	B	540	87.284	-5.848	47.508	1.00	30.27	B	O
ATOM	9486	N	ASN	B	541	88.190	-7.652	48.507	1.00	34.07	B	N
ATOM	9487	CA	ASN	B	541	89.195	-6.905	49.251	1.00	34.18	B	C
ATOM	9488	CB	ASN	B	541	89.338	-7.459	50.678	1.00	31.10	B	C
ATOM	9489	CG	ASN	B	541	90.313	-6.629	51.554	1.00	30.96	B	C
ATOM	9490	OD1	ASN	B	541	90.932	-5.688	51.086	1.00	30.66	B	O
ATOM	9491	ND2	ASN	B	541	90.438	-7.003	52.820	1.00	31.31	B	N
ATOM	9492	C	ASN	B	541	90.522	-6.968	48.508	1.00	35.28	B	C
ATOM	9493	O	ASN	B	541	91.164	-8.003	48.479	1.00	32.70	B	O
ATOM	9494	N	ASN	B	542	90.928	-5.854	47.908	1.00	35.91	B	N
ATOM	9495	CA	ASN	B	542	92.153	-5.825	47.118	1.00	37.25	B	C
ATOM	9496	CB	ASN	B	542	91.996	-4.969	45.847	1.00	38.90	B	C
ATOM	9497	CG	ASN	B	542	90.948	-5.509	44.907	1.00	43.00	B	C
ATOM	9498	OD1	ASN	B	542	91.088	-6.609	44.357	1.00	43.13	B	O
ATOM	9499	ND2	ASN	B	542	89.881	-4.734	44.706	1.00	45.04	B	N
ATOM	9500	C	ASN	B	542	93.354	-5.340	47.913	1.00	33.72	B	C
ATOM	9501	O	ASN	B	542	94.452	-5.266	47.374	1.00	34.80	B	O
ATOM	9502	N	SER	B	543	93.143	-5.018	49.188	1.00	32.37	B	N
ATOM	9503	CA	SER	B	543	94.236	-4.609	50.073	1.00	31.67	B	C
ATOM	9504	CB	SER	B	543	93.747	-3.573	51.096	1.00	32.49	B	C
ATOM	9505	OG	SER	B	543	93.037	-4.187	52.169	1.00	30.69	B	O
ATOM	9506	C	SER	B	543	94.849	-5.789	50.828	1.00	32.54	B	C
ATOM	9507	O	SER	B	543	94.327	-6.910	50.795	1.00	33.06	B	O
ATOM	9508	N	HIS	B	544	95.948	-5.513	51.527	1.00	32.80	B	N
ATOM	9509	CA	HIS	B	544	96.580	-6.504	52.390	1.00	35.59	B	C
ATOM	9510	CB	HIS	B	544	98.107	-6.375	52.348	1.00	36.22	B	C
ATOM	9511	CG	HIS	B	544	98.697	-6.668	51.003	1.00	36.98	B	C
ATOM	9512	ND1	HIS	B	544	99.881	-7.355	50.842	1.00	37.14	B	N
ATOM	9513	CE1	HIS	B	544	100.149	-7.473	49.553	1.00	38.49	B	C
ATOM	9514	NE2	HIS	B	544	99.185	-6.881	48.871	1.00	39.74	B	N
ATOM	9515	CD2	HIS	B	544	98.264	-6.366	49.753	1.00	34.98	B	C
ATOM	9516	C	HIS	B	544	96.062	-6.348	53.813	1.00	34.88	B	C
ATOM	9517	O	HIS	B	544	96.621	-6.906	54.758	1.00	37.55	B	O
ATOM	9518	N	ASN	B	545	94.977	-5.594	53.959	1.00	33.78	B	N
ATOM	9519	CA	ASN	B	545	94.381	-5.369	55.266	1.00	34.26	B	C
ATOM	9520	CB	ASN	B	545	94.000	-3.897	55.428	1.00	35.76	B	C
ATOM	9521	CG	ASN	B	545	95.134	-2.967	55.084	1.00	32.42	B	C
ATOM	9522	OD1	ASN	B	545	95.023	-2.135	54.178	1.00	31.24	B	O
ATOM	9523	ND2	ASN	B	545	96.246	-3.117	55.786	1.00	33.54	B	N
ATOM	9524	C	ASN	B	545	93.164	-6.247	55.521	1.00	36.05	B	C
ATOM	9525	O	ASN	B	545	92.431	-6.611	54.594	1.00	35.95	B	O
ATOM	9526	N	ARG	B	546	92.957	-6.585	56.788	1.00	32.81	B	N
ATOM	9527	CA	ARG	B	546	91.752	-7.281	57.227	1.00	36.85	B	C
ATOM	9528	CB	ARG	B	546	92.104	-8.230	58.377	1.00	40.41	B	C
ATOM	9529	CG	ARG	B	546	90.959	-9.063	58.924	1.00	47.30	B	C
ATOM	9530	CD	ARG	B	546	91.474	-9.967	60.044	1.00	53.34	B	C
ATOM	9531	NE	ARG	B	546	90.401	-10.625	60.791	1.00	59.26	B	N
ATOM	9532	CZ	ARG	B	546	90.169	-11.939	60.782	1.00	64.35	B	C
ATOM	9533	NH1	ARG	B	546	90.932	-12.745	60.056	1.00	69.46	B	N
ATOM	9534	NH2	ARG	B	546	89.172	-12.456	61.494	1.00	63.29	B	N
ATOM	9535	C	ARG	B	546	90.745	-6.212	57.676	1.00	35.30	B	C
ATOM	9536	O	ARG	B	546	91.057	-5.383	58.524	1.00	35.36	B	O
ATOM	9537	N	TYR	B	547	89.552	-6.212	57.097	1.00	33.96	B	N
ATOM	9538	CA	TYR	B	547	88.541	-5.202	57.420	1.00	30.86	B	C
ATOM	9539	CB	TYR	B	547	88.052	-4.511	56.156	1.00	29.87	B	C
ATOM	9540	CG	TYR	B	547	89.083	-3.674	55.469	1.00	29.56	B	C
ATOM	9541	CD1	TYR	B	547	89.718	-2.624	56.141	1.00	34.58	B	C
ATOM	9542	CE1	TYR	B	547	90.663	-1.838	55.505	1.00	35.39	B	C
ATOM	9543	CZ	TYR	B	547	90.971	-2.093	54.180	1.00	37.30	B	C

ATOM	9544	OH	TYR	B	547	91.904	-1.317	53.526	1.00	39.89	B	O
ATOM	9545	CE2	TYR	B	547	90.347	-3.129	53.497	1.00	35.28	B	C
ATOM	9546	CD2	TYR	B	547	89.410	-3.902	54.140	1.00	29.43	B	C
ATOM	9547	C	TYR	B	547	87.332	-5.827	58.070	1.00	34.64	B	C
ATOM	9548	O	TYR	B	547	87.068	-7.024	57.901	1.00	37.60	B	O
ATOM	9549	N	THR	B	548	86.587	-5.016	58.809	1.00	33.78	B	N
ATOM	9550	CA	THR	B	548	85.258	-5.414	59.232	1.00	31.25	B	C
ATOM	9551	CB	THR	B	548	85.049	-5.324	60.755	1.00	32.27	B	C
ATOM	9552	OG1	THR	B	548	85.325	-3.988	61.199	1.00	32.09	B	O
ATOM	9553	CG2	THR	B	548	85.959	-6.314	61.489	1.00	33.52	B	C
ATOM	9554	C	THR	B	548	84.254	-4.528	58.504	1.00	31.50	B	C
ATOM	9555	O	THR	B	548	84.488	-3.331	58.281	1.00	29.70	B	O
ATOM	9556	N	ILE	B	549	83.138	-5.141	58.148	1.00	31.12	B	N
ATOM	9557	CA	ILE	B	549	82.104	-4.519	57.358	1.00	31.86	B	C
ATOM	9558	CB	ILE	B	549	81.829	-5.372	56.122	1.00	32.56	B	C
ATOM	9559	CG1	ILE	B	549	83.037	-5.372	55.186	1.00	35.06	B	C
ATOM	9560	CD1	ILE	B	549	83.374	-4.045	54.659	1.00	37.49	B	C
ATOM	9561	CG2	ILE	B	549	80.551	-4.924	55.406	1.00	31.33	B	C
ATOM	9562	C	ILE	B	549	80.841	-4.525	58.187	1.00	32.57	B	C
ATOM	9563	O	ILE	B	549	80.507	-5.539	58.798	1.00	30.24	B	O
ATOM	9564	N	THR	B	550	80.146	-3.393	58.222	1.00	29.12	B	N
ATOM	9565	CA	THR	B	550	78.782	-3.362	58.735	1.00	29.36	B	C
ATOM	9566	CB	THR	B	550	78.636	-2.465	59.980	1.00	30.19	B	C
ATOM	9567	OG1	THR	B	550	79.417	-3.009	61.064	1.00	31.25	B	O
ATOM	9568	CG2	THR	B	550	77.163	-2.371	60.388	1.00	30.51	B	C
ATOM	9569	C	THR	B	550	77.879	-2.860	57.612	1.00	28.40	B	C
ATOM	9570	O	THR	B	550	78.158	-1.830	57.002	1.00	29.45	B	O
ATOM	9571	N	ALA	B	551	76.808	-3.596	57.336	1.00	29.47	B	N
ATOM	9572	CA	ALA	B	551	75.992	-3.331	56.158	1.00	27.37	B	C
ATOM	9573	CB	ALA	B	551	76.443	-4.220	55.016	1.00	26.93	B	C
ATOM	9574	C	ALA	B	551	74.508	-3.529	56.418	1.00	29.15	B	C
ATOM	9575	O	ALA	B	551	74.121	-4.181	57.387	1.00	32.70	B	O
ATOM	9576	N	TYR	B	552	73.671	-2.965	55.555	1.00	26.79	B	N
ATOM	9577	CA	TYR	B	552	72.267	-3.315	55.579	1.00	26.75	B	C
ATOM	9578	CB	TYR	B	552	71.393	-2.254	56.264	1.00	27.16	B	C
ATOM	9579	CG	TYR	B	552	70.938	-1.088	55.386	1.00	26.66	B	C
ATOM	9580	CD1	TYR	B	552	71.657	0.107	55.357	1.00	26.85	B	C
ATOM	9581	CE1	TYR	B	552	71.237	1.195	54.567	1.00	28.72	B	C
ATOM	9582	CZ	TYR	B	552	70.079	1.091	53.798	1.00	27.37	B	C
ATOM	9583	OH	TYR	B	552	69.646	2.161	53.009	1.00	28.98	B	O
ATOM	9584	CE2	TYR	B	552	69.338	-0.085	53.829	1.00	25.92	B	C
ATOM	9585	CD2	TYR	B	552	69.763	-1.165	54.631	1.00	26.18	B	C
ATOM	9586	C	TYR	B	552	71.775	-3.626	54.184	1.00	25.91	B	C
ATOM	9587	O	TYR	B	552	72.347	-3.160	53.188	1.00	25.42	B	O
ATOM	9588	N	LEU	B	553	70.737	-4.460	54.135	1.00	25.88	B	N
ATOM	9589	CA	LEU	B	553	70.012	-4.786	52.916	1.00	25.21	B	C
ATOM	9590	CB	LEU	B	553	70.037	-6.298	52.675	1.00	25.40	B	C
ATOM	9591	CG	LEU	B	553	68.923	-6.869	51.808	1.00	34.06	B	C
ATOM	9592	CD1	LEU	B	553	69.156	-6.500	50.344	1.00	33.55	B	C
ATOM	9593	CD2	LEU	B	553	68.826	-8.374	51.978	1.00	32.52	B	C
ATOM	9594	C	LEU	B	553	68.571	-4.329	53.102	1.00	25.14	B	C
ATOM	9595	O	LEU	B	553	67.964	-4.574	54.149	1.00	25.73	B	O
ATOM	9596	N	SER	B	554	68.021	-3.655	52.101	1.00	24.57	B	N
ATOM	9597	CA	SER	B	554	66.608	-3.333	52.116	1.00	24.50	B	C
ATOM	9598	CB	SER	B	554	66.379	-1.818	52.172	1.00	24.68	B	C
ATOM	9599	OG	SER	B	554	65.004	-1.496	52.012	1.00	24.65	B	O
ATOM	9600	C	SER	B	554	66.002	-3.887	50.826	1.00	24.84	B	C
ATOM	9601	O	SER	B	554	66.444	-3.533	49.732	1.00	23.49	B	C
ATOM	9602	N	ALA	B	555	65.020	-4.769	50.975	1.00	24.64	B	N
ATOM	9603	CA	ALA	B	555	64.330	-5.390	49.840	1.00	23.36	B	C
ATOM	9604	CB	ALA	B	555	64.360	-6.913	49.960	1.00	23.61	B	C
ATOM	9605	C	ALA	B	555	62.890	-4.869	49.791	1.00	24.66	B	C
ATOM	9606	O	ALA	B	555	62.166	-4.908	50.794	1.00	23.60	B	O
ATOM	9607	N	ASN	B	556	62.492	-4.382	48.618	1.00	22.75	B	N
ATOM	9608	CA	ASN	B	556	61.237	-3.676	48.457	1.00	22.67	B	C
ATOM	9609	CB	ASN	B	556	61.538	-2.191	48.241	1.00	22.88	B	C
ATOM	9610	CG	ASN	B	556	62.329	-1.581	49.400	1.00	24.55	B	C
ATOM	9611	OD1	ASN	B	556	61.740	-0.999	50.291	1.00	23.99	B	O
ATOM	9612	ND2	ASN	B	556	63.655	-1.767	49.409	1.00	23.44	B	N
ATOM	9613	C	ASN	B	556	60.425	-4.186	47.274	1.00	22.20	B	C
ATOM	9614	O	ASN	B	556	60.973	-4.719	46.303	1.00	24.70	B	O
ATOM	9615	N	ILE	B	557	59.115	-4.013	47.362	1.00	22.16	B	N
ATOM	9616	CA	ILE	B	557	58.227	-4.301	46.256	1.00	21.77	B	C
ATOM	9617	CB	ILE	B	557	56.883	-4.855	46.759	1.00	21.75	B	C
ATOM	9618	CG1	ILE	B	557	57.062	-6.196	47.495	1.00	23.08	B	C
ATOM	9619	CD1	ILE	B	557	57.914	-7.186	46.759	1.00	24.85	B	C
ATOM	9620	CG2	ILE	B	557	55.865	-4.959	45.592	1.00	21.37	B	C

ATOM	9621	C	ILE	B	557	57.948	-2.948	45.579	1.00	25.77	B	C
ATOM	9622	O	ILE	B	557	57.750	-1.948	46.277	1.00	22.31	B	O
ATOM	9623	N	THR	B	558	57.972	-2.911	44.250	1.00	21.71	B	N
ATOM	9624	C	THR	B	558	56.678	-2.001	42.345	1.00	28.31	B	C
ATOM	9625	O	THR	B	558	56.627	-3.147	41.841	1.00	21.49	B	O
ATOM	9626	CA	ATHR	B	558	57.612	-1.698	43.503	0.59	22.02	B	C
ATOM	9627	CB	ATHR	B	558	58.828	-0.977	42.884	0.59	28.49	B	C
ATOM	9628	OG1	ATHR	B	558	59.187	-1.621	41.655	0.59	28.80	B	O
ATOM	9629	CG2	ATHR	B	558	60.008	-0.958	43.829	0.59	22.49	B	C
ATOM	9630	CA	BTHR	B	558	57.624	-1.697	43.519	0.41	28.85	B	C
ATOM	9631	CB	BTHR	B	558	58.912	-0.929	43.082	0.41	28.02	B	C
ATOM	9632	OG1	BTHR	B	558	58.582	0.179	42.229	0.41	27.57	B	O
ATOM	9633	CG2	BTHR	B	558	59.887	-1.866	42.380	0.41	27.78	B	C
ATOM	9634	N	PHE	B	559	55.923	-0.985	41.929	1.00	22.22	B	N
ATOM	9635	CA	PHE	B	559	55.056	-1.102	40.765	1.00	22.20	B	C
ATOM	9636	CB	PHE	B	559	54.032	0.033	40.739	1.00	22.72	B	C
ATOM	9637	CG	PHE	B	559	53.052	-0.002	41.885	1.00	22.61	B	C
ATOM	9638	CD1	PHE	B	559	53.347	0.623	43.093	1.00	25.94	B	C
ATOM	9639	CE1	PHE	B	559	52.445	0.585	44.159	1.00	26.26	B	C
ATOM	9640	CZ	PHE	B	559	51.237	-0.080	44.012	1.00	28.95	B	C
ATOM	9641	CE2	PHE	B	559	50.933	-0.699	42.805	1.00	28.39	B	C
ATOM	9642	CD2	PHE	B	559	51.841	-0.660	41.758	1.00	28.77	B	C
ATOM	9643	C	PHE	B	559	55.919	-1.074	39.514	1.00	22.52	B	C
ATOM	9644	O	PHE	B	559	57.049	-0.589	39.557	1.00	22.88	B	O
ATOM	9645	N	TYR	B	560	55.391	-1.593	38.401	1.00	23.41	B	N
ATOM	9646	CA	TYR	B	560	56.150	-1.618	37.156	1.00	23.08	B	C
ATOM	9647	CB	TYR	B	560	55.414	-2.392	36.040	1.00	26.54	B	C
ATOM	9648	CG	TYR	B	560	54.285	-1.610	35.435	1.00	28.24	B	C
ATOM	9649	CD1	TYR	B	560	53.022	-1.606	36.028	1.00	30.49	B	C
ATOM	9650	CE1	TYR	B	560	51.983	-0.868	35.491	1.00	30.18	B	C
ATOM	9651	CZ	TYR	B	560	52.208	-0.105	34.363	1.00	34.56	B	C
ATOM	9652	OH	TYR	B	560	51.181	0.637	33.820	1.00	41.27	B	O
ATOM	9653	CE2	TYR	B	560	53.450	-0.092	33.756	1.00	32.84	B	C
ATOM	9654	CD2	TYR	B	560	54.480	-0.834	34.299	1.00	31.07	B	C
ATOM	9655	C	TYR	B	560	56.480	-0.192	36.688	1.00	24.02	B	C
ATOM	9656	O	TYR	B	560	57.464	0.008	35.999	1.00	24.64	B	O
ATOM	9657	N	THR	B	561	55.651	0.781	37.056	1.00	24.30	B	N
ATOM	9658	CA	THR	B	561	55.950	2.212	36.756	1.00	25.43	B	C
ATOM	9659	CB	THR	B	561	54.735	3.119	37.030	1.00	25.90	B	C
ATOM	9660	OG1	THR	B	561	54.345	2.975	38.406	1.00	32.00	B	O
ATOM	9661	CG2	THR	B	561	53.549	2.750	36.113	1.00	25.90	B	C
ATOM	9662	C	THR	B	561	57.103	2.789	37.583	1.00	25.63	B	C
ATOM	9663	O	THR	B	561	57.488	3.938	37.393	1.00	26.66	B	O
ATOM	9664	N	GLY	B	562	57.635	2.015	38.524	1.00	24.77	B	N
ATOM	9665	CA	GLY	B	562	58.743	2.484	39.346	1.00	24.92	B	C
ATOM	9666	C	GLY	B	562	58.369	3.195	40.641	1.00	25.06	B	C
ATOM	9667	O	GLY	B	562	59.245	3.686	41.364	1.00	25.34	B	O
ATOM	9668	N	VAL	B	563	57.076	3.256	40.934	1.00	25.01	B	N
ATOM	9669	CA	VAL	B	563	56.582	3.750	42.211	1.00	25.25	B	C
ATOM	9670	CB	VAL	B	563	55.081	4.067	42.103	1.00	33.09	B	C
ATOM	9671	CG1	VAL	B	563	54.493	4.377	43.461	1.00	25.88	B	C
ATOM	9672	CG2	VAL	B	563	54.827	5.199	41.079	1.00	26.70	B	C
ATOM	9673	C	VAL	B	563	56.811	2.672	43.302	1.00	24.38	B	C
ATOM	9674	O	VAL	B	563	56.492	1.498	43.087	1.00	23.58	B	O
ATOM	9675	N	PRO	B	564	57.387	3.061	44.459	1.00	24.72	B	N
ATOM	9676	CA	PRO	B	564	57.616	2.114	45.560	1.00	24.18	B	C
ATOM	9677	CB	PRO	B	564	58.469	2.926	46.562	1.00	24.90	B	C
ATOM	9678	CG	PRO	B	564	58.143	4.354	46.272	1.00	25.96	B	C
ATOM	9679	CD	PRO	B	564	57.848	4.428	44.796	1.00	25.81	B	C
ATOM	9680	C	PRO	B	564	56.298	1.710	46.216	1.00	25.29	B	C
ATOM	9681	O	PRO	B	564	55.384	2.533	46.329	1.00	24.78	B	O
ATOM	9682	N	LYS	B	565	56.197	0.447	46.632	1.00	23.47	B	N
ATOM	9683	CA	LYS	B	565	55.056	-0.016	47.411	1.00	23.55	B	C
ATOM	9684	CB	LYS	B	565	54.556	-1.387	46.908	1.00	23.30	B	C
ATOM	9685	CG	LYS	B	565	53.374	-1.974	47.715	1.00	29.36	B	C
ATOM	9686	CD	LYS	B	565	52.149	-1.069	47.618	1.00	37.43	B	C
ATOM	9687	CE	LYS	B	565	51.025	-1.494	48.556	1.00	41.16	B	C
ATOM	9688	NZ	LYS	B	565	49.780	-0.683	48.314	1.00	41.69	B	N
ATOM	9689	C	LYS	B	565	55.454	-0.139	48.878	1.00	24.49	B	C
ATOM	9690	O	LYS	B	565	55.005	0.635	49.716	1.00	27.33	B	O
ATOM	9691	N	ALA	B	566	56.293	-1.125	49.190	1.00	23.69	B	N
ATOM	9692	CA	ALA	B	566	56.635	-1.392	50.581	1.00	25.76	B	C
ATOM	9693	CB	ALA	B	566	55.498	-2.144	51.281	1.00	27.60	B	C
ATOM	9694	C	ALA	B	566	57.923	-2.176	50.708	1.00	24.00	B	C
ATOM	9695	O	ALA	B	566	58.297	-2.933	49.815	1.00	23.93	B	O
ATOM	9696	N	GLU	B	567	58.581	-1.993	51.840	1.00	24.68	B	N
ATOM	9697	CA	GLU	B	567	59.763	-2.759	52.194	1.00	24.64	B	C

ATOM	9698	CB	GLU	B	567	60.538	-2.019	53.274	1.00	27.49	B	C
ATOM	9699	CG	GLU	B	567	61.921	-2.560	53.548	1.00	29.67	B	C
ATOM	9700	CD	GLU	B	567	62.623	-1.771	54.636	1.00	31.14	B	C
ATOM	9701	OE1	GLU	B	567	62.100	-1.748	55.770	1.00	29.31	B	O
ATOM	9702	OE2	GLU	B	567	63.674	-1.161	54.343	1.00	31.11	B	O
ATOM	9703	C	GLU	B	567	59.249	-4.098	52.720	1.00	25.34	B	C
ATOM	9704	O	GLU	B	567	58.300	-4.136	53.505	1.00	26.43	B	O
ATOM	9705	N	PHE	B	568	59.829	-5.196	52.262	1.00	25.04	B	N
ATOM	9706	CA	PHE	B	568	59.381	-6.515	52.748	1.00	24.78	B	C
ATOM	9707	CB	PHE	B	568	58.837	-7.383	51.615	1.00	24.11	B	C
ATOM	9708	CG	PHE	B	568	59.884	-7.864	50.642	1.00	28.90	B	C
ATOM	9709	CD1	PHE	B	568	60.633	-9.007	50.905	1.00	27.54	B	C
ATOM	9710	CE1	PHE	B	568	61.583	-9.458	50.007	1.00	27.25	B	C
ATOM	9711	CZ	PHE	B	568	61.777	-8.791	48.809	1.00	26.62	B	C
ATOM	9712	CE2	PHE	B	568	61.034	-7.652	48.532	1.00	26.60	B	C
ATOM	9713	CD2	PHE	B	568	60.092	-7.199	49.446	1.00	27.32	B	C
ATOM	9714	C	PHE	B	568	60.442	-7.261	53.554	1.00	27.81	B	C
ATOM	9715	O	PHE	B	568	60.137	-8.253	54.205	1.00	29.03	B	O
ATOM	9716	N	LYS	B	569	61.680	-6.779	53.500	1.00	28.03	B	N
ATOM	9717	CA	LYS	B	569	62.779	-7.369	54.264	1.00	29.29	B	C
ATOM	9718	CB	LYS	B	569	63.382	-8.570	53.519	1.00	26.24	B	C
ATOM	9719	CG	LYS	B	569	64.517	-9.294	54.280	1.00	26.75	B	C
ATOM	9720	CD	LYS	B	569	65.092	-10.450	53.465	1.00	26.76	B	C
ATOM	9721	CE	LYS	B	569	66.050	-11.349	54.284	1.00	33.28	B	C
ATOM	9722	NZ	LYS	B	569	65.465	-11.873	55.554	1.00	31.99	B	N
ATOM	9723	C	LYS	B	569	63.855	-6.314	54.544	1.00	32.69	B	C
ATOM	9724	O	LYS	B	569	64.205	-5.530	53.663	1.00	34.00	B	O
ATOM	9725	N	LYS	B	570	64.366	-6.285	55.773	1.00	27.04	B	N
ATOM	9726	CA	LYS	B	570	65.453	-5.374	56.119	1.00	29.50	B	C
ATOM	9727	CB	LYS	B	570	64.927	-4.086	56.737	1.00	31.74	B	C
ATOM	9728	CG	LYS	B	570	66.027	-3.065	57.062	1.00	33.97	B	C
ATOM	9729	CD	LYS	B	570	65.428	-1.810	57.649	1.00	37.26	B	C
ATOM	9730	CE	LYS	B	570	64.710	-2.109	58.963	1.00	40.97	B	C
ATOM	9731	NZ	LYS	B	570	64.204	-0.860	59.603	1.00	43.56	B	N
ATOM	9732	C	LYS	B	570	66.365	-6.067	57.105	1.00	28.13	B	C
ATOM	9733	O	LYS	B	570	65.907	-6.531	58.148	1.00	32.01	B	O
ATOM	9734	N	GLU	B	571	67.644	-6.163	56.757	1.00	27.86	B	N
ATOM	9735	CA	GLU	B	571	68.608	-6.885	57.586	1.00	36.22	B	C
ATOM	9736	C	GLU	B	571	69.855	-6.052	57.727	1.00	33.25	B	C
ATOM	9737	O	GLU	B	571	70.282	-5.412	56.764	1.00	27.78	B	O
ATOM	9738	CB	GLU	B	571	69.013	-8.205	56.925	1.00	37.99	B	C
ATOM	9739	CG	GLU	B	571	67.862	-9.076	56.460	1.00	43.38	B	C
ATOM	9740	CD	GLU	B	571	67.154	-9.793	57.598	1.00	46.70	B	C
ATOM	9741	OE1	GLU	B	571	67.723	-9.838	58.712	1.00	49.72	B	O
ATOM	9742	OE2	GLU	B	571	66.027	-10.299	57.374	1.00	45.64	B	O
ATOM	9743	N	THR	B	572	70.450	-6.071	58.916	1.00	31.27	B	N
ATOM	9744	CA	THR	B	572	71.788	-5.543	59.079	1.00	29.82	B	C
ATOM	9745	CB	THR	B	572	71.881	-4.510	60.220	1.00	35.22	B	C
ATOM	9746	OG1	THR	B	572	71.858	-5.173	61.490	1.00	39.88	B	O
ATOM	9747	CG2	THR	B	572	70.720	-3.529	60.131	1.00	33.12	B	C
ATOM	9748	C	THR	B	572	72.713	-6.713	59.322	1.00	33.08	B	C
ATOM	9749	O	THR	B	572	72.305	-7.721	59.912	1.00	32.48	B	O
ATOM	9750	N	PHE	B	573	73.948	-6.606	58.853	1.00	30.04	B	N
ATOM	9751	CA	PHE	B	573	74.886	-7.685	59.095	1.00	34.11	B	C
ATOM	9752	CB	PHE	B	573	74.794	-8.778	58.018	1.00	35.43	B	C
ATOM	9753	CG	PHE	B	573	75.044	-8.288	56.614	1.00	35.40	B	C
ATOM	9754	CD1	PHE	B	573	76.306	-8.392	56.045	1.00	37.99	B	C
ATOM	9755	CE1	PHE	B	573	76.544	-7.952	54.746	1.00	38.37	B	C
ATOM	9756	CZ	PHE	B	573	75.508	-7.400	54.000	1.00	36.53	B	C
ATOM	9757	CE2	PHE	B	573	74.240	-7.292	54.558	1.00	35.84	B	C
ATOM	9758	CD2	PHE	B	573	74.015	-7.747	55.859	1.00	36.99	B	C
ATOM	9759	C	PHE	B	573	76.298	-7.175	59.238	1.00	33.55	B	C
ATOM	9760	O	PHE	B	573	76.637	-6.105	58.730	1.00	29.96	B	O
ATOM	9761	N	ASP	B	574	77.102	-7.939	59.976	1.00	31.91	B	N
ATOM	9762	CA	ASP	B	574	78.520	-7.664	60.110	1.00	37.83	B	C
ATOM	9763	CB	ASP	B	574	78.882	-7.418	61.568	1.00	41.93	B	C
ATOM	9764	CG	ASP	B	574	78.117	-6.261	62.146	1.00	46.76	B	C
ATOM	9765	OD1	ASP	B	574	78.343	-5.119	61.689	1.00	42.40	B	O
ATOM	9766	OD2	ASP	B	574	77.277	-6.499	63.037	1.00	52.26	B	O
ATOM	9767	C	ASP	B	574	79.344	-8.807	59.548	1.00	38.18	B	C
ATOM	9768	O	ASP	B	574	79.068	-9.984	59.806	1.00	37.26	B	O
ATOM	9769	N	VAL	B	575	80.361	-8.448	58.782	1.00	36.44	B	N
ATOM	9770	CA	VAL	B	575	81.167	-9.433	58.098	1.00	35.69	B	C
ATOM	9771	CB	VAL	B	575	80.678	-9.608	56.632	1.00	57.60	B	C
ATOM	9772	CG1	VAL	B	575	81.615	-8.938	55.645	1.00	56.45	B	C
ATOM	9773	CG2	VAL	B	575	80.493	-11.079	56.301	1.00	58.77	B	C
ATOM	9774	C	VAL	B	575	82.623	-8.998	58.180	1.00	35.85	B	C

ATOM	9775	O	VAL	B	575	82.934	-7.802	58.203	1.00	33.74	B	O
ATOM	9776	N	THR	B	576	83.511	-9.975	58.292	1.00	35.10	B	N
ATOM	9777	CA	THR	B	576	84.941	-9.715	58.289	1.00	35.35	B	C
ATOM	9778	CB	THR	B	576	85.663	-10.609	59.310	1.00	39.02	B	C
ATOM	9779	OG1	THR	B	576	85.152	-10.336	60.621	1.00	42.23	B	O
ATOM	9780	CG2	THR	B	576	87.165	-10.358	59.277	1.00	39.64	B	C
ATOM	9781	C	THR	B	576	85.496	-10.030	56.908	1.00	34.43	B	C
ATOM	9782	O	THR	B	576	85.220	-11.094	56.352	1.00	34.59	B	O
ATOM	9783	N	LEU	B	577	86.281	-9.117	56.359	1.00	32.26	B	N
ATOM	9784	CA	LEU	B	577	86.808	-9.281	55.016	1.00	32.05	B	C
ATOM	9785	CB	LEU	B	577	86.518	-8.033	54.186	1.00	30.77	B	C
ATOM	9786	CG	LEU	B	577	85.792	-8.219	52.865	1.00	41.24	B	C
ATOM	9787	CD1	LEU	B	577	85.854	-6.915	52.059	1.00	37.77	B	C
ATOM	9788	CD2	LEU	B	577	86.366	-9.395	52.086	1.00	41.45	B	C
ATOM	9789	C	LEU	B	577	88.307	-9.499	55.073	1.00	32.81	B	C
ATOM	9790	O	LEU	B	577	89.058	-8.577	55.414	1.00	33.78	B	O
ATOM	9791	N	GLU	B	578	88.740	-10.715	54.751	1.00	33.98	B	N
ATOM	9792	CA	GLU	B	578	90.156	-11.057	54.743	1.00	37.85	B	C
ATOM	9793	CB	GLU	B	578	90.353	-12.568	54.546	1.00	40.35	B	C
ATOM	9794	CG	GLU	B	578	89.715	-13.436	55.607	1.00	41.86	B	C
ATOM	9795	CD	GLU	B	578	90.197	-13.106	57.006	1.00	43.28	B	C
ATOM	9796	OE1	GLU	B	578	91.409	-12.853	57.189	1.00	43.02	B	O
ATOM	9797	OE2	GLU	B	578	89.354	-13.108	57.926	1.00	45.56	B	O
ATOM	9798	C	GLU	B	578	90.867	-10.300	53.627	1.00	34.27	B	C
ATOM	9799	O	GLU	B	578	90.247	-9.922	52.644	1.00	33.51	B	O
ATOM	9800	N	PRO	B	579	92.182	-10.095	53.775	1.00	34.70	B	N
ATOM	9801	CA	PRO	B	579	92.970	-9.451	52.722	1.00	34.39	B	C
ATOM	9802	CB	PRO	B	579	94.396	-9.497	53.272	1.00	35.58	B	C
ATOM	9803	CG	PRO	B	579	94.268	-9.871	54.703	1.00	36.04	B	C
ATOM	9804	CD	PRO	B	579	93.021	-10.603	54.872	1.00	35.78	B	C
ATOM	9805	C	PRO	B	579	92.951	-10.276	51.446	1.00	35.17	B	C
ATOM	9806	O	PRO	B	579	92.896	-11.509	51.538	1.00	36.40	B	O
ATOM	9807	N	LEU	B	580	93.023	-9.600	50.301	1.00	34.68	B	N
ATOM	9808	CA	LEU	B	580	93.234	-10.237	49.004	1.00	35.65	B	C
ATOM	9809	CB	LEU	B	580	94.674	-10.733	48.865	1.00	37.04	B	C
ATOM	9810	CG	LEU	B	580	95.776	-9.689	48.995	1.00	36.62	B	C
ATOM	9811	CD2	LEU	B	580	95.582	-8.534	47.995	1.00	35.77	B	C
ATOM	9812	CD1	LEU	B	580	97.136	-10.334	48.822	1.00	38.17	B	C
ATOM	9813	C	LEU	B	580	92.259	-11.392	48.824	1.00	36.28	B	C
ATOM	9814	O	LEU	B	580	92.660	-12.510	48.515	1.00	37.82	B	O
ATOM	9815	N	SER	B	581	90.981	-11.107	49.049	1.00	35.20	B	N
ATOM	9816	C	SER	B	581	88.637	-11.636	48.444	1.00	34.53	B	C
ATOM	9817	O	SER	B	581	88.286	-10.458	48.589	1.00	33.20	B	O
ATOM	9818	CA	ASER	B	581	89.955	-12.137	49.020	0.61	35.69	B	C
ATOM	9819	CB	ASER	B	581	89.701	-12.648	50.438	0.61	35.94	B	C
ATOM	9820	OG	ASER	B	581	88.968	-11.690	51.179	0.61	34.96	B	O
ATOM	9821	CA	BSER	B	581	89.958	-12.140	49.009	0.39	35.69	B	C
ATOM	9822	CB	BSER	B	581	89.725	-12.714	50.412	0.39	36.03	B	C
ATOM	9823	OG	BSER	B	581	90.842	-13.461	50.862	0.39	37.49	B	O
ATOM	9824	N	PHE	B	582	87.920	-12.542	47.789	1.00	35.18	B	N
ATOM	9825	CA	PHE	B	582	86.528	-12.332	47.437	1.00	39.10	B	C
ATOM	9826	CB	PHE	B	582	86.153	-13.124	46.181	1.00	42.08	B	C
ATOM	9827	CG	PHE	B	582	86.505	-12.438	44.898	1.00	47.10	B	C
ATOM	9828	CD1	PHE	B	582	85.695	-11.418	44.395	1.00	48.44	B	C
ATOM	9829	CE1	PHE	B	582	86.012	-10.776	43.201	1.00	50.67	B	C
ATOM	9830	CZ	PHE	B	582	87.150	-11.157	42.494	1.00	52.47	B	C
ATOM	9831	CE2	PHE	B	582	87.959	-12.180	42.983	1.00	52.67	B	C
ATOM	9832	CD2	PHE	B	582	87.632	-12.817	44.178	1.00	49.88	B	C
ATOM	9833	C	PHE	B	582	85.764	-12.921	48.608	1.00	40.46	B	C
ATOM	9834	O	PHE	B	582	86.162	-13.953	49.163	1.00	40.49	B	O
ATOM	9835	N	LYS	B	583	84.678	-12.281	49.006	1.00	37.13	B	N
ATOM	9836	CA	LYS	B	583	83.835	-12.857	50.038	1.00	38.92	B	C
ATOM	9837	CB	LYS	B	583	84.064	-12.165	51.375	1.00	42.17	B	C
ATOM	9838	CG	LYS	B	583	82.985	-12.473	52.401	1.00	46.41	B	C
ATOM	9839	CD	LYS	B	583	83.457	-13.478	53.424	1.00	51.06	B	C
ATOM	9840	CE	LYS	B	583	82.391	-13.725	54.466	1.00	53.16	B	C
ATOM	9841	NZ	LYS	B	583	82.946	-14.551	55.559	1.00	56.42	B	N
ATOM	9842	C	LYS	B	583	82.390	-12.701	49.636	1.00	37.29	B	C
ATOM	9843	O	LYS	B	583	81.936	-11.575	49.393	1.00	31.02	B	O
ATOM	9844	N	LYS	B	584	81.679	-13.824	49.538	1.00	35.03	B	N
ATOM	9845	CA	LYS	B	584	80.261	-13.789	49.203	1.00	38.46	B	C
ATOM	9846	CB	LYS	B	584	79.897	-14.873	48.181	1.00	36.61	B	C
ATOM	9847	C	LYS	B	584	79.405	-13.936	50.458	1.00	41.95	B	C
ATOM	9848	O	LYS	B	584	79.631	-14.816	51.290	1.00	41.67	B	O
ATOM	9849	N	GLU	B	585	78.418	-13.062	50.583	1.00	41.64	B	N
ATOM	9850	CA	GLU	B	585	77.453	-13.142	51.661	1.00	40.98	B	C
ATOM	9851	CB	GLU	B	585	77.436	-11.816	52.428	1.00	42.42	B	C

ATOM	9852	CG	GLU	B	585	76.544	-11.788	53.657	1.00	48.31	B	C
ATOM	9853	CD	GLU	B	585	77.180	-12.454	54.870	1.00	54.50	B	C
ATOM	9854	OE1	GLU	B	585	78.286	-13.031	54.733	1.00	56.22	B	O
ATOM	9855	OE2	GLU	B	585	76.571	-12.392	55.963	1.00	56.64	B	O
ATOM	9856	C	GLU	B	585	76.090	-13.448	51.041	1.00	39.75	B	C
ATOM	9857	O	GLU	B	585	75.479	-12.586	50.403	1.00	40.84	B	O
ATOM	9858	N	ALA	B	586	75.621	-14.679	51.214	1.00	36.64	B	N
ATOM	9859	CA	ALA	B	586	74.381	-15.126	50.583	1.00	38.87	B	C
ATOM	9860	CB	ALA	B	586	74.495	-16.584	50.155	1.00	38.23	B	C
ATOM	9861	C	ALA	B	586	73.171	-14.938	51.491	1.00	39.88	B	C
ATOM	9862	O	ALA	B	586	73.057	-15.569	52.539	1.00	43.79	B	O
ATOM	9863	N	VAL	B	587	72.262	-14.072	51.079	1.00	34.55	B	N
ATOM	9864	CA	VAL	B	587	71.077	-13.806	51.867	1.00	33.67	B	C
ATOM	9865	CB	VAL	B	587	70.783	-12.298	51.909	1.00	33.15	B	C
ATOM	9866	CG1	VAL	B	587	69.509	-12.005	52.704	1.00	31.77	B	C
ATOM	9867	CG2	VAL	B	587	71.987	-11.551	52.502	1.00	32.58	B	C
ATOM	9868	C	VAL	B	587	69.913	-14.559	51.249	1.00	35.53	B	C
ATOM	9869	O	VAL	B	587	69.559	-14.339	50.091	1.00	36.22	B	O
ATOM	9870	N	LEU	B	588	69.343	-15.481	52.011	1.00	34.65	B	N
ATOM	9871	CA	LEU	B	588	68.181	-16.207	51.544	1.00	35.92	B	C
ATOM	9872	C	LEU	B	588	66.970	-15.316	51.744	1.00	34.99	B	C
ATOM	9873	O	LEU	B	588	66.768	-14.760	52.824	1.00	35.23	B	O
ATOM	9874	CB	LEU	B	588	68.007	-17.519	52.315	1.00	36.97	B	C
ATOM	9875	CG	LEU	B	588	66.826	-18.374	51.849	1.00	36.46	B	C
ATOM	9876	CD1	LEU	B	588	66.967	-18.692	50.376	1.00	35.53	B	C
ATOM	9877	CD2	LEU	B	588	66.734	-19.653	52.666	1.00	40.28	B	C
ATOM	9878	N	ILE	B	589	66.178	-15.147	50.696	1.00	31.85	B	N
ATOM	9879	CA	ILE	B	589	64.920	-14.447	50.865	1.00	31.40	B	C
ATOM	9880	C	ILE	B	589	63.838	-15.490	50.713	1.00	30.94	B	C
ATOM	9881	O	ILE	B	589	63.653	-16.035	49.636	1.00	34.21	B	O
ATOM	9882	CB	ILE	B	589	64.728	-13.335	49.821	1.00	33.31	B	C
ATOM	9883	CG1	ILE	B	589	65.746	-12.217	50.056	1.00	34.59	B	C
ATOM	9884	CG2	ILE	B	589	63.290	-12.798	49.871	1.00	32.60	B	C
ATOM	9885	CD1	ILE	B	589	65.584	-11.063	49.103	1.00	38.09	B	C
ATOM	9886	N	GLN	B	590	63.133	-15.763	51.799	1.00	30.00	B	N
ATOM	9887	CA	GLN	B	590	62.126	-16.804	51.814	1.00	32.10	B	C
ATOM	9888	CB	GLN	B	590	61.931	-17.321	53.245	1.00	35.50	B	C
ATOM	9889	CG	GLN	B	590	63.230	-17.907	53.834	1.00	40.41	B	C
ATOM	9890	CD	GLN	B	590	63.165	-18.182	55.332	1.00	48.18	B	C
ATOM	9891	OE1	GLN	B	590	62.108	-18.511	55.878	1.00	52.23	B	O
ATOM	9892	NE2	GLN	B	590	64.309	-18.066	55.999	1.00	48.70	B	N
ATOM	9893	C	GLN	B	590	60.838	-16.250	51.221	1.00	33.55	B	C
ATOM	9894	O	GLN	B	590	60.539	-15.062	51.380	1.00	32.26	B	O
ATOM	9895	N	ALA	B	591	60.108	-17.114	50.514	1.00	29.71	B	N
ATOM	9896	CA	ALA	B	591	58.849	-16.756	49.864	1.00	27.86	B	C
ATOM	9897	CB	ALA	B	591	58.188	-18.003	49.232	1.00	28.52	B	C
ATOM	9898	C	ALA	B	591	57.886	-16.080	50.827	1.00	27.64	B	C
ATOM	9899	O	ALA	B	591	57.238	-15.092	50.468	1.00	26.55	B	O
ATOM	9900	N	GLY	B	592	57.811	-16.601	52.051	1.00	28.88	B	N
ATOM	9901	CA	GLY	B	592	56.978	-16.014	53.083	1.00	37.01	B	C
ATOM	9902	C	GLY	B	592	57.212	-14.519	53.285	1.00	34.58	B	C
ATOM	9903	O	GLY	B	592	56.283	-13.779	53.600	1.00	34.57	B	O
ATOM	9904	N	GLU	B	593	58.444	-14.072	53.077	1.00	30.93	B	N
ATOM	9905	CA	GLU	B	593	58.787	-12.657	53.293	1.00	31.09	B	C
ATOM	9906	CB	GLU	B	593	60.301	-12.471	53.346	1.00	29.67	B	C
ATOM	9907	CG	GLU	B	593	60.950	-13.235	54.500	1.00	31.29	B	C
ATOM	9908	CD	GLU	B	593	62.451	-13.072	54.518	1.00	35.36	B	C
ATOM	9909	OE1	GLU	B	593	63.154	-13.921	53.933	1.00	35.88	B	O
ATOM	9910	OE2	GLU	B	593	62.929	-12.074	55.101	1.00	39.94	B	O
ATOM	9911	C	GLU	B	593	58.165	-11.663	52.303	1.00	27.72	B	C
ATOM	9912	O	GLU	B	593	57.932	-10.515	52.652	1.00	25.59	B	O
ATOM	9913	N	TYR	B	594	57.908	-12.084	51.074	1.00	25.19	B	N
ATOM	9914	CA	TYR	B	594	57.371	-11.152	50.092	1.00	25.98	B	C
ATOM	9915	CB	TYR	B	594	58.328	-11.008	48.904	1.00	27.77	B	C
ATOM	9916	CG	TYR	B	594	58.430	-12.256	48.050	1.00	27.77	B	C
ATOM	9917	CD1	TYR	B	594	59.469	-13.162	48.224	1.00	27.98	B	C
ATOM	9918	CE1	TYR	B	594	59.563	-14.309	47.432	1.00	31.72	B	C
ATOM	9919	CZ	TYR	B	594	58.606	-14.543	46.452	1.00	31.03	B	C
ATOM	9920	OH	TYR	B	594	58.663	-15.675	45.656	1.00	29.34	B	O
ATOM	9921	CE2	TYR	B	594	57.574	-13.651	46.264	1.00	29.74	B	C
ATOM	9922	CD2	TYR	B	594	57.494	-12.515	47.053	1.00	29.02	B	C
ATOM	9923	C	TYR	B	594	55.963	-11.517	49.600	1.00	23.86	B	C
ATOM	9924	O	TYR	B	594	55.221	-10.643	49.132	1.00	23.22	B	O
ATOM	9925	N	MET	B	595	55.605	-12.799	49.700	1.00	24.46	B	N
ATOM	9926	CA	MET	B	595	54.370	-13.331	49.084	1.00	24.24	B	C
ATOM	9927	CB	MET	B	595	54.256	-14.859	49.304	1.00	25.23	B	C
ATOM	9928	CG	MET	B	595	55.119	-15.687	48.370	1.00	25.45	B	C

ATOM	9929	SD	MET	B	595	54.584	-15.530	46.642	1.00	26.58	B	S
ATOM	9930	CE	MET	B	595	53.283	-16.771	46.599	1.00	25.08	B	C
ATOM	9931	C	MET	B	595	53.090	-12.642	49.573	1.00	24.05	B	C
ATOM	9932	O	MET	B	595	52.081	-12.635	48.886	1.00	25.78	B	O
ATOM	9933	N	GLY	B	596	53.121	-12.074	50.771	1.00	24.60	B	N
ATOM	9934	CA	GLY	B	596	51.954	-11.396	51.299	1.00	26.86	B	C
ATOM	9935	C	GLY	B	596	51.850	-9.940	50.848	1.00	28.05	B	C
ATOM	9936	O	GLY	B	596	50.860	-9.270	51.152	1.00	27.12	B	O
ATOM	9937	N	GLN	B	597	52.851	-9.460	50.111	1.00	27.02	B	N
ATOM	9938	CA	GLN	B	597	52.926	-8.041	49.746	1.00	30.85	B	C
ATOM	9939	CB	GLN	B	597	54.147	-7.387	50.396	1.00	33.62	B	C
ATOM	9940	CG	GLN	B	597	54.018	-7.158	51.860	1.00	40.74	B	C
ATOM	9941	CD	GLN	B	597	55.347	-6.794	52.498	1.00	46.51	B	C
ATOM	9942	OE1	GLN	B	597	55.961	-7.615	53.175	1.00	50.46	B	O
ATOM	9943	NE2	GLN	B	597	55.801	-5.566	52.274	1.00	46.46	B	N
ATOM	9944	C	GLN	B	597	53.005	-7.787	48.248	1.00	31.91	B	C
ATOM	9945	O	GLN	B	597	53.494	-6.733	47.825	1.00	29.86	B	O
ATOM	9946	N	LEU	B	598	52.526	-8.731	47.439	1.00	29.70	B	N
ATOM	9947	CA	LEU	B	598	52.694	-8.587	46.002	1.00	29.34	B	C
ATOM	9948	CB	LEU	B	598	52.909	-9.943	45.329	1.00	25.56	B	C
ATOM	9949	CG	LEU	B	598	54.278	-10.542	45.661	1.00	25.93	B	C
ATOM	9950	CD1	LEU	B	598	54.380	-11.996	45.145	1.00	25.68	B	C
ATOM	9951	CD2	LEU	B	598	55.351	-9.694	45.055	1.00	24.41	B	C
ATOM	9952	C	LEU	B	598	51.571	-7.820	45.318	1.00	32.03	B	C
ATOM	9953	O	LEU	B	598	50.582	-7.426	45.941	1.00	34.13	B	O
ATOM	9954	N	LEU	B	599	51.761	-7.603	44.026	1.00	29.60	B	N
ATOM	9955	CA	LEU	B	599	50.797	-6.919	43.189	1.00	27.26	B	C
ATOM	9956	CB	LEU	B	599	50.853	-5.408	43.439	1.00	33.86	B	C
ATOM	9957	CG	LEU	B	599	52.252	-4.808	43.643	1.00	40.01	B	C
ATOM	9958	CD1	LEU	B	599	52.924	-4.571	42.296	1.00	41.30	B	C
ATOM	9959	CD2	LEU	B	599	52.220	-3.515	44.469	1.00	40.95	B	C
ATOM	9960	C	LEU	B	599	51.180	-7.258	41.767	1.00	26.03	B	C
ATOM	9961	O	LEU	B	599	52.287	-7.746	41.520	1.00	25.92	B	O
ATOM	9962	N	GLU	B	600	50.271	-7.018	40.834	1.00	26.98	B	N
ATOM	9963	CA	GLU	B	600	50.500	-7.405	39.449	1.00	30.27	B	C
ATOM	9964	CB	GLU	B	600	49.252	-7.105	38.597	1.00	30.85	B	C
ATOM	9965	C	GLU	B	600	51.745	-6.696	38.892	1.00	30.23	B	C
ATOM	9966	O	GLU	B	600	52.013	-5.531	39.232	1.00	26.84	B	O
ATOM	9967	N	GLN	B	601	52.506	-7.409	38.060	1.00	29.57	B	C
ATOM	9968	CA	GLN	B	601	53.717	-6.876	37.419	1.00	31.87	B	C
ATOM	9969	CB	GLN	B	601	53.367	-5.840	36.354	1.00	32.40	B	C
ATOM	9970	CG	GLN	B	601	52.729	-6.356	35.112	1.00	40.31	B	C
ATOM	9971	CD	GLN	B	601	52.568	-5.237	34.097	1.00	45.22	B	C
ATOM	9972	OE1	GLN	B	601	51.473	-4.709	33.906	1.00	47.71	B	O
ATOM	9973	NE2	GLN	B	601	53.674	-4.837	33.479	1.00	46.55	B	N
ATOM	9974	C	GLN	B	601	54.716	-6.225	38.385	1.00	30.32	B	C
ATOM	9975	O	GLN	B	601	55.439	-5.289	38.001	1.00	28.86	B	O
ATOM	9976	N	ALA	B	602	54.746	-6.712	39.619	1.00	27.65	B	N
ATOM	9977	CA	ALA	B	602	55.680	-6.216	40.628	1.00	27.65	B	C
ATOM	9978	CB	ALA	B	602	55.492	-6.981	41.933	1.00	30.99	B	C
ATOM	9979	C	ALA	B	602	57.127	-6.345	40.181	1.00	26.68	B	C
ATOM	9980	O	ALA	B	602	57.508	-7.324	39.529	1.00	29.03	B	O
ATOM	9981	N	SER	B	603	57.928	-5.352	40.535	1.00	25.42	B	N
ATOM	9982	CA	SER	B	603	59.371	-5.484	40.481	1.00	25.14	B	C
ATOM	9983	CB	SER	B	603	60.001	-4.327	39.715	1.00	29.72	B	C
ATOM	9984	OG	SER	B	603	59.762	-4.501	38.331	1.00	34.85	B	O
ATOM	9985	C	SER	B	603	59.876	-5.515	41.907	1.00	24.39	B	C
ATOM	9986	O	SER	B	603	59.133	-5.206	42.830	1.00	21.46	B	O
ATOM	9987	N	LEU	B	604	61.127	-5.928	42.073	1.00	21.90	B	N
ATOM	9988	CA	LEU	B	604	61.760	-6.017	43.382	1.00	21.92	B	C
ATOM	9989	CB	LEU	B	604	62.372	-7.402	43.587	1.00	22.21	B	C
ATOM	9990	CG	LEU	B	604	61.443	-8.600	43.409	1.00	25.55	B	C
ATOM	9991	CD1	LEU	B	604	62.212	-9.888	43.621	1.00	23.85	B	C
ATOM	9992	CD2	LEU	B	604	60.262	-8.494	44.369	1.00	21.96	B	C
ATOM	9993	C	LEU	B	604	62.878	-4.998	43.387	1.00	28.10	B	C
ATOM	9994	O	LEU	B	604	63.646	-4.939	42.435	1.00	28.52	B	O
ATOM	9995	N	HIS	B	605	62.988	-4.199	44.446	1.00	26.85	B	N
ATOM	9996	CA	HIS	B	605	63.998	-3.134	44.470	1.00	22.42	B	C
ATOM	9997	CB	HIS	B	605	63.349	-1.756	44.548	1.00	22.59	B	C
ATOM	9998	CG	HIS	B	605	64.306	-0.619	44.324	1.00	23.04	B	C
ATOM	9999	ND1	HIS	B	605	64.035	0.674	44.720	1.00	23.50	B	N
ATOM	10000	CE1	HIS	B	605	65.041	1.458	44.373	1.00	25.93	B	C
ATOM	10001	NE2	HIS	B	605	65.960	0.719	43.777	1.00	23.80	B	N
ATOM	10002	CD2	HIS	B	605	65.521	-0.583	43.729	1.00	23.27	B	C
ATOM	10003	C	HIS	B	605	64.876	-3.333	45.677	1.00	22.55	B	C
ATOM	10004	O	HIS	B	605	64.388	-3.366	46.808	1.00	22.59	B	O
ATOM	10005	N	PHE	B	606	66.170	-3.465	45.430	1.00	22.74	B	N

ATOM	10006	CA	PHE	B	606	67.105	-3.796	46.493	1.00	22.94	B	C
ATOM	10007	CB	PHE	B	606	67.869	-5.054	46.144	1.00	23.12	B	C
ATOM	10008	CG	PHE	B	606	67.004	-6.247	45.956	1.00	26.57	B	C
ATOM	10009	CD1	PHE	B	606	66.552	-6.971	47.048	1.00	28.23	B	C
ATOM	10010	CE1	PHE	B	606	65.758	-8.101	46.865	1.00	27.20	B	C
ATOM	10011	CZ	PHE	B	606	65.410	-8.504	45.585	1.00	25.04	B	C
ATOM	10012	CE2	PHE	B	606	65.859	-7.801	44.493	1.00	24.98	B	C
ATOM	10013	CD2	PHE	B	606	66.652	-6.665	44.679	1.00	26.49	B	C
ATOM	10014	C	PHE	B	606	68.122	-2.702	46.749	1.00	23.18	B	C
ATOM	10015	O	PHE	B	606	68.750	-2.208	45.817	1.00	23.32	B	O
ATOM	10016	N	PHE	B	607	68.304	-2.365	48.023	1.00	23.66	B	N
ATOM	10017	CA	PHE	B	607	69.377	-1.471	48.434	1.00	23.71	B	C
ATOM	10018	CB	PHE	B	607	68.861	-0.341	49.318	1.00	24.06	B	C
ATOM	10019	CG	PHE	B	607	67.941	0.628	48.627	1.00	24.13	B	C
ATOM	10020	CD1	PHE	B	607	68.429	1.842	48.141	1.00	25.58	B	C
ATOM	10021	CE1	PHE	B	607	67.592	2.755	47.535	1.00	24.87	B	C
ATOM	10022	CZ	PHE	B	607	66.241	2.468	47.410	1.00	25.48	B	C
ATOM	10023	CE2	PHE	B	607	65.734	1.269	47.908	1.00	24.14	B	C
ATOM	10024	CD2	PHE	B	607	66.587	0.359	48.516	1.00	23.94	B	C
ATOM	10025	C	PHE	B	607	70.364	-2.286	49.261	1.00	23.89	B	C
ATOM	10026	O	PHE	B	607	69.967	-2.993	50.191	1.00	24.72	B	O
ATOM	10027	N	VAL	B	608	71.641	-2.193	48.912	1.00	24.02	B	N
ATOM	10028	CA	VAL	B	608	72.710	-2.698	49.769	1.00	24.33	B	C
ATOM	10029	CB	VAL	B	608	73.421	-3.930	49.176	1.00	24.88	B	C
ATOM	10030	CG1	VAL	B	608	74.592	-4.363	50.091	1.00	24.89	B	C
ATOM	10031	CG2	VAL	B	608	72.430	-5.084	48.997	1.00	24.37	B	C
ATOM	10032	C	VAL	B	608	73.735	-1.597	50.052	1.00	24.57	B	C
ATOM	10033	O	VAL	B	608	74.310	-0.997	49.130	1.00	25.49	B	O
ATOM	10034	N	THR	B	609	73.936	-1.321	51.332	1.00	24.93	B	N
ATOM	10035	CA	THR	B	609	74.882	-0.303	51.780	1.00	25.28	B	C
ATOM	10036	CB	THR	B	609	74.134	0.889	52.397	1.00	27.84	B	C
ATOM	10037	OG1	THR	B	609	73.318	1.514	51.395	1.00	26.31	B	O
ATOM	10038	CG2	THR	B	609	75.110	1.936	52.975	1.00	26.20	B	C
ATOM	10039	C	THR	B	609	75.821	-0.950	52.823	1.00	37.30	B	C
ATOM	10040	O	THR	B	609	75.358	-1.531	53.804	1.00	25.97	B	O
ATOM	10041	N	ALA	B	610	77.125	-0.886	52.584	1.00	25.74	B	N
ATOM	10042	CA	ALA	B	610	78.115	-1.457	53.498	1.00	26.17	B	C
ATOM	10043	CB	ALA	B	610	78.804	-2.627	52.855	1.00	26.14	B	C
ATOM	10044	C	ALA	B	610	79.151	-0.402	53.895	1.00	27.14	B	C
ATOM	10045	O	ALA	B	610	79.601	0.367	53.054	1.00	27.78	B	O
ATOM	10046	N	ARG	B	611	79.526	-0.371	55.168	1.00	27.03	B	N
ATOM	10047	CA	ARG	B	611	80.606	0.499	55.608	1.00	28.62	B	C
ATOM	10048	CB	ARG	B	611	80.203	1.324	56.827	1.00	28.92	B	C
ATOM	10049	CG	ARG	B	611	81.324	2.228	57.346	1.00	28.59	B	C
ATOM	10050	CD	ARG	B	611	81.234	2.377	58.848	1.00	33.87	B	C
ATOM	10051	NE	ARG	B	611	79.929	2.885	59.247	1.00	35.61	B	N
ATOM	10052	CZ	ARG	B	611	79.082	2.248	60.052	1.00	36.72	B	C
ATOM	10053	NH1	ARG	B	611	79.402	1.072	60.590	1.00	33.58	B	N
ATOM	10054	NH2	ARG	B	611	77.910	2.804	60.336	1.00	36.67	B	N
ATOM	10055	C	ARG	B	611	81.824	-0.325	55.965	1.00	27.65	B	C
ATOM	10056	O	ARG	B	611	81.717	-1.319	56.680	1.00	29.27	B	O
ATOM	10057	N	ILE	B	612	82.980	0.072	55.451	1.00	27.58	B	N
ATOM	10058	CA	ILE	B	612	84.224	-0.513	55.930	1.00	30.70	B	C
ATOM	10059	CB	ILE	B	612	85.361	-0.340	54.916	1.00	27.77	B	C
ATOM	10060	CG1	ILE	B	612	85.053	-1.138	53.646	1.00	32.60	B	C
ATOM	10061	CD1	ILE	B	612	84.859	-0.335	52.412	1.00	36.53	B	C
ATOM	10062	CG2	ILE	B	612	86.663	-0.846	55.514	1.00	29.51	B	C
ATOM	10063	C	ILE	B	612	84.543	0.185	57.247	1.00	30.07	B	C
ATOM	10064	O	ILE	B	612	84.934	1.345	57.253	1.00	28.67	B	O
ATOM	10065	N	ASN	B	613	84.335	-0.505	58.366	1.00	31.73	B	N
ATOM	10066	CA	ASN	B	613	84.432	0.139	59.691	1.00	30.51	B	C
ATOM	10067	CB	ASN	B	613	84.063	-0.847	60.803	1.00	30.91	B	C
ATOM	10068	CG	ASN	B	613	82.598	-1.274	60.747	1.00	35.14	B	C
ATOM	10069	OD1	ASN	B	613	81.708	-0.443	60.539	1.00	33.38	B	O
ATOM	10070	ND2	ASN	B	613	82.343	-2.578	60.922	1.00	31.17	B	N
ATOM	10071	C	ASN	B	613	85.759	0.836	60.019	1.00	33.61	B	C
ATOM	10072	O	ASN	B	613	85.779	1.890	60.669	1.00	32.07	B	O
ATOM	10073	N	GLU	B	614	86.865	0.259	59.569	1.00	32.85	B	N
ATOM	10074	CA	GLU	B	614	88.178	0.788	59.919	1.00	31.75	B	C
ATOM	10075	CB	GLU	B	614	89.265	-0.263	59.658	1.00	31.26	B	C
ATOM	10076	CG	GLU	B	614	89.235	-1.464	60.603	1.00	32.44	B	C
ATOM	10077	CD	GLU	B	614	88.089	-2.443	60.339	1.00	34.72	B	C
ATOM	10078	OE1	GLU	B	614	87.633	-2.582	59.167	1.00	33.61	B	O
ATOM	10079	OE2	GLU	B	614	87.641	-3.076	61.321	1.00	33.12	B	O
ATOM	10080	C	GLU	B	614	88.491	2.109	59.191	1.00	32.76	B	C
ATOM	10081	O	GLU	B	614	89.215	2.958	59.706	1.00	30.53	B	O
ATOM	10082	N	THR	B	615	87.922	2.287	58.006	1.00	30.90	B	N

ATOM	10083	CA	THR	B	615	88.245	3.445	57.172	1.00	33.18	B	C
ATOM	10084	CB	THR	B	615	88.655	2.996	55.762	1.00	33.48	B	C
ATOM	10085	OG1	THR	B	615	87.562	2.285	55.157	1.00	30.61	B	O
ATOM	10086	CG2	THR	B	615	89.894	2.078	55.828	1.00	31.65	B	C
ATOM	10087	C	THR	B	615	87.079	4.425	57.039	1.00	32.41	B	C
ATOM	10088	O	THR	B	615	87.279	5.572	56.667	1.00	33.90	B	O
ATOM	10089	N	ARG	B	616	85.870	3.953	57.345	1.00	34.08	B	N
ATOM	10090	CA	ARG	B	616	84.613	4.705	57.181	1.00	36.37	B	C
ATOM	10091	C	ARG	B	616	84.182	4.902	55.716	1.00	34.56	B	C
ATOM	10092	O	ARG	B	616	83.276	5.694	55.428	1.00	30.41	B	O
ATOM	10093	CB	ARG	B	616	84.634	6.048	57.929	1.00	40.20	B	C
ATOM	10094	CG	ARG	B	616	85.017	5.949	59.418	1.00	48.17	B	C
ATOM	10095	CD	ARG	B	616	83.788	5.789	60.322	1.00	53.52	B	C
ATOM	10096	NE	ARG	B	616	83.667	4.436	60.867	1.00	56.20	B	N
ATOM	10097	CZ	ARG	B	616	82.652	4.011	61.618	1.00	56.18	B	C
ATOM	10098	NH1	ARG	B	616	81.655	4.833	61.924	1.00	56.80	B	N
ATOM	10099	NH2	ARG	B	616	82.633	2.759	62.058	1.00	54.97	B	N
ATOM	10100	N	ASP	B	617	84.832	4.189	54.798	1.00	34.94	B	N
ATOM	10101	CA	ASP	B	617	84.377	4.144	53.409	1.00	35.87	B	C
ATOM	10102	CB	ASP	B	617	85.330	3.320	52.542	1.00	39.78	B	C
ATOM	10103	CG	ASP	B	617	86.603	4.056	52.201	1.00	44.89	B	C
ATOM	10104	OD1	ASP	B	617	86.565	5.291	52.084	1.00	45.29	B	O
ATOM	10105	OD2	ASP	B	617	87.646	3.388	52.038	1.00	49.43	B	O
ATOM	10106	C	ASP	B	617	82.981	3.521	53.322	1.00	32.11	B	C
ATOM	10107	O	ASP	B	617	82.670	2.547	54.023	1.00	31.74	B	O
ATOM	10108	N	VAL	B	618	82.163	4.081	52.438	1.00	27.43	B	N
ATOM	10109	CA	VAL	B	618	80.803	3.628	52.214	1.00	30.06	B	C
ATOM	10110	CB	VAL	B	618	79.807	4.780	52.398	1.00	37.35	B	C
ATOM	10111	CG1	VAL	B	618	78.383	4.271	52.288	1.00	39.87	B	C
ATOM	10112	CG2	VAL	B	618	80.039	5.459	53.736	1.00	43.08	B	C
ATOM	10113	C	VAL	B	618	80.668	3.120	50.788	1.00	29.84	B	C
ATOM	10114	O	VAL	B	618	81.083	3.796	49.847	1.00	29.66	B	O
ATOM	10115	N	LEU	B	619	80.103	1.920	50.644	1.00	29.72	B	N
ATOM	10116	CA	LEU	B	619	79.836	1.307	49.343	1.00	30.93	B	C
ATOM	10117	CB	LEU	B	619	80.570	-0.031	49.191	1.00	27.01	B	C
ATOM	10118	CG	LEU	B	619	82.087	0.066	49.397	1.00	28.91	B	C
ATOM	10119	CD1	LEU	B	619	82.731	-1.307	49.418	1.00	32.97	B	C
ATOM	10120	CD2	LEU	B	619	82.727	0.934	48.329	1.00	31.37	B	C
ATOM	10121	C	LEU	B	619	78.343	1.085	49.262	1.00	29.81	B	C
ATOM	10122	O	LEU	B	619	77.772	0.330	50.055	1.00	28.45	B	O
ATOM	10123	N	ALA	B	620	77.710	1.756	48.312	1.00	28.76	B	N
ATOM	10124	CA	ALA	B	620	76.260	1.731	48.218	1.00	25.38	B	C
ATOM	10125	CB	ALA	B	620	75.687	3.074	48.675	1.00	25.77	B	C
ATOM	10126	C	ALA	B	620	75.816	1.411	46.796	1.00	27.31	B	C
ATOM	10127	O	ALA	B	620	76.247	2.057	45.842	1.00	28.27	B	O
ATOM	10128	N	LYS	B	621	74.954	0.409	46.661	1.00	26.39	B	N
ATOM	10129	CA	LYS	B	621	74.381	0.053	45.362	1.00	25.47	B	C
ATOM	10130	CB	LYS	B	621	75.066	-1.209	44.801	1.00	24.96	B	C
ATOM	10131	C	LYS	B	621	72.867	-0.162	45.486	1.00	24.47	B	C
ATOM	10132	O	LYS	B	621	72.365	-0.575	46.539	1.00	26.35	B	O
ATOM	10133	N	GLN	B	622	72.143	0.100	44.404	1.00	25.03	B	N
ATOM	10134	CA	GLN	B	622	70.726	-0.213	44.338	1.00	24.20	B	C
ATOM	10135	CB	GLN	B	622	69.858	1.027	44.608	1.00	24.38	B	C
ATOM	10136	CG	GLN	B	622	70.050	2.190	43.625	1.00	26.55	B	C
ATOM	10137	CD	GLN	B	622	69.264	1.998	42.343	1.00	26.92	B	C
ATOM	10138	OE1	GLN	B	622	68.226	1.326	42.329	1.00	28.28	B	O
ATOM	10139	NE2	GLN	B	622	69.763	2.560	41.255	1.00	25.92	B	N
ATOM	10140	C	GLN	B	622	70.427	-0.825	42.975	1.00	24.30	B	C
ATOM	10141	O	GLN	B	622	71.014	-0.422	41.978	1.00	24.84	B	O
ATOM	10142	N	LYS	B	623	69.545	-1.826	42.956	1.00	23.92	B	N
ATOM	10143	CA	LYS	B	623	69.184	-2.541	41.728	1.00	24.09	B	C
ATOM	10144	CB	LYS	B	623	70.038	-3.805	41.529	1.00	30.42	B	C
ATOM	10145	CG	LYS	B	623	71.499	-3.584	41.202	1.00	32.58	B	C
ATOM	10146	CD	LYS	B	623	72.253	-4.926	41.060	1.00	32.07	B	C
ATOM	10147	CE	LYS	B	623	73.764	-4.670	40.976	1.00	31.16	B	C
ATOM	10148	NZ	LYS	B	623	74.454	-5.786	40.286	1.00	31.09	B	N
ATOM	10149	C	LYS	B	623	67.761	-3.026	41.828	1.00	23.90	B	C
ATOM	10150	O	LYS	B	623	67.245	-3.261	42.935	1.00	23.22	B	O
ATOM	10151	N	SER	B	624	67.153	-3.235	40.663	1.00	23.84	B	N
ATOM	10152	C	SER	B	624	65.807	-5.039	39.685	1.00	24.80	B	C
ATOM	10153	O	SER	B	624	66.616	-5.153	38.769	1.00	24.45	B	O
ATOM	10154	CA	ASER	B	624	65.823	-3.816	40.599	0.70	24.39	B	C
ATOM	10155	CB	ASER	B	624	64.791	-2.787	40.121	0.70	25.03	B	C
ATOM	10156	OG	ASER	B	624	64.933	-2.509	38.736	0.70	24.20	B	O
ATOM	10157	CA	BSER	B	624	65.821	-3.812	40.588	0.30	24.55	B	C
ATOM	10158	CB	BSER	B	624	64.815	-2.784	40.070	0.30	24.75	B	C
ATOM	10159	OG	BSER	B	624	64.718	-1.676	40.945	0.30	23.39	B	O

ATOM	10160	N	THR	B	625	64.890	-5.954	39.957	1.00	23.43	B	N
ATOM	10161	CA	THR	B	625	64.699	-7.121	39.105	1.00	31.30	B	C
ATOM	10162	CB	THR	B	625	65.268	-8.392	39.755	1.00	37.83	B	C
ATOM	10163	OG1	THR	B	625	64.600	-8.625	40.999	1.00	43.26	B	O
ATOM	10164	CG2	THR	B	625	66.758	-8.240	40.023	1.00	37.24	B	C
ATOM	10165	C	THR	B	625	63.202	-7.297	38.883	1.00	28.09	B	C
ATOM	10166	O	THR	B	625	62.396	-6.918	39.730	1.00	27.17	B	O
ATOM	10167	N	VAL	B	626	62.814	-7.842	37.739	1.00	30.03	B	N
ATOM	10168	CA	VAL	B	626	61.399	-8.114	37.520	1.00	33.32	B	C
ATOM	10169	CB	VAL	B	626	60.999	-8.027	36.033	1.00	36.69	B	C
ATOM	10170	CG1	VAL	B	626	59.519	-8.317	35.875	1.00	35.60	B	C
ATOM	10171	CG2	VAL	B	626	61.330	-6.629	35.483	1.00	39.99	B	C
ATOM	10172	C	VAL	B	626	61.091	-9.496	38.083	1.00	31.67	B	C
ATOM	10173	O	VAL	B	626	61.805	-10.453	37.807	1.00	33.98	B	O
ATOM	10174	N	LEU	B	627	60.056	-9.581	38.910	1.00	27.70	B	N
ATOM	10175	CA	LEU	B	627	59.624	-10.860	39.461	1.00	27.05	B	C
ATOM	10176	CB	LEU	B	627	58.646	-10.632	40.608	1.00	26.36	B	C
ATOM	10177	CG	LEU	B	627	58.122	-11.881	41.315	1.00	27.02	B	C
ATOM	10178	CD1	LEU	B	627	59.250	-12.631	42.044	1.00	25.90	B	C
ATOM	10179	CD2	LEU	B	627	57.007	-11.499	42.275	1.00	26.37	B	C
ATOM	10180	C	LEU	B	627	58.926	-11.677	38.381	1.00	27.03	B	C
ATOM	10181	O	LEU	B	627	57.999	-11.191	37.742	1.00	23.14	B	O
ATOM	10182	N	THR	B	628	59.365	-12.913	38.171	1.00	27.05	B	N
ATOM	10183	CA	THR	B	628	58.631	-13.808	37.280	1.00	26.38	B	C
ATOM	10184	CB	THR	B	628	59.502	-14.996	36.853	1.00	29.89	B	C
ATOM	10185	OG1	THR	B	628	60.587	-14.510	36.055	1.00	30.96	B	O
ATOM	10186	CG2	THR	B	628	58.692	-16.030	36.050	1.00	28.42	B	C
ATOM	10187	C	THR	B	628	57.361	-14.300	37.973	1.00	25.77	B	C
ATOM	10188	O	THR	B	628	57.423	-14.947	39.021	1.00	25.81	B	O
ATOM	10189	N	ILE	B	629	56.211	-13.972	37.398	1.00	23.89	B	N
ATOM	10190	CA	ILE	B	629	54.930	-14.413	37.943	1.00	23.48	B	C
ATOM	10191	CB	ILE	B	629	53.951	-13.222	38.074	1.00	25.18	B	C
ATOM	10192	CG1	ILE	B	629	54.590	-12.115	38.921	1.00	25.27	B	C
ATOM	10193	CD1	ILE	B	629	53.852	-10.759	38.853	1.00	26.31	B	C
ATOM	10194	CG2	ILE	B	629	52.619	-13.671	38.676	1.00	23.96	B	C
ATOM	10195	C	ILE	B	629	54.301	-15.521	37.076	1.00	25.22	B	C
ATOM	10196	O	ILE	B	629	53.700	-15.233	36.044	1.00	24.88	B	O
ATOM	10197	N	PRO	B	630	54.434	-16.792	37.495	1.00	25.00	B	N
ATOM	10198	CA	PRO	B	630	53.732	-17.861	36.766	1.00	30.07	B	C
ATOM	10199	CB	PRO	B	630	54.127	-19.143	37.527	1.00	26.85	B	C
ATOM	10200	CG	PRO	B	630	55.361	-18.774	38.334	1.00	26.85	B	C
ATOM	10201	CD	PRO	B	630	55.173	-17.299	38.662	1.00	25.40	B	C
ATOM	10202	C	PRO	B	630	52.215	-17.656	36.826	1.00	26.43	B	C
ATOM	10203	O	PRO	B	630	51.724	-17.058	37.786	1.00	24.72	B	O
ATOM	10204	N	GLU	B	631	51.495	-18.142	35.816	1.00	26.81	B	N
ATOM	10205	CA	GLU	B	631	50.034	-18.084	35.797	1.00	24.68	B	C
ATOM	10206	CB	GLU	B	631	49.534	-16.924	34.925	1.00	23.95	B	C
ATOM	10207	C	GLU	B	631	49.436	-19.371	35.243	1.00	28.47	B	C
ATOM	10208	O	GLU	B	631	50.073	-20.096	34.496	1.00	26.90	B	O
ATOM	10209	N	ILE	B	632	48.181	-19.609	35.585	1.00	25.21	B	N
ATOM	10210	CA	ILE	B	632	47.419	-20.702	35.028	1.00	26.04	B	C
ATOM	10211	CB	ILE	B	632	46.457	-21.258	36.086	1.00	25.85	B	C
ATOM	10212	CG1	ILE	B	632	47.242	-21.721	37.321	1.00	36.32	B	C
ATOM	10213	CD1	ILE	B	632	46.375	-22.159	38.454	1.00	26.40	B	C
ATOM	10214	CG2	ILE	B	632	45.629	-22.412	35.516	1.00	26.78	B	C
ATOM	10215	C	ILE	B	632	46.620	-20.138	33.844	1.00	26.20	B	C
ATOM	10216	O	ILE	B	632	45.995	-19.084	33.964	1.00	24.41	B	O
ATOM	10217	N	ILE	B	633	46.674	-20.811	32.703	1.00	27.29	B	N
ATOM	10218	CA	ILE	B	633	45.920	-20.367	31.529	1.00	28.05	B	C
ATOM	10219	CB	ILE	B	633	46.648	-20.707	30.215	1.00	34.52	B	C
ATOM	10220	CG1	ILE	B	633	48.069	-20.145	30.225	1.00	36.49	B	C
ATOM	10221	CD1	ILE	B	633	48.116	-18.642	30.454	1.00	37.38	B	C
ATOM	10222	CG2	ILE	B	633	45.875	-20.152	29.026	1.00	37.57	B	C
ATOM	10223	C	ILE	B	633	44.542	-21.006	31.507	1.00	26.48	B	C
ATOM	10224	O	ILE	B	633	44.412	-22.224	31.650	1.00	27.49	B	O
ATOM	10225	N	ILE	B	634	43.516	-20.176	31.349	1.00	25.37	B	N
ATOM	10226	CA	ILE	B	634	42.148	-20.654	31.200	1.00	25.22	B	C
ATOM	10227	CB	ILE	B	634	41.216	-20.090	32.281	1.00	23.87	B	C
ATOM	10228	CG1	ILE	B	634	41.754	-20.390	33.678	1.00	23.81	B	C
ATOM	10229	CD1	ILE	B	634	41.065	-19.603	34.771	1.00	22.78	B	C
ATOM	10230	CG2	ILE	B	634	39.825	-20.664	32.159	1.00	23.80	B	C
ATOM	10231	C	ILE	B	634	41.606	-20.265	29.821	1.00	28.95	B	C
ATOM	10232	O	ILE	B	634	41.691	-19.104	29.413	1.00	25.98	B	O
ATOM	10233	N	LYS	B	635	41.057	-21.248	29.120	1.00	26.38	B	N
ATOM	10234	CA	LYS	B	635	40.468	-21.061	27.792	1.00	32.36	B	C
ATOM	10235	CB	LYS	B	635	41.270	-21.818	26.740	1.00	31.73	B	C
ATOM	10236	CG	LYS	B	635	42.708	-21.400	26.576	1.00	36.08	B	C

ATOM	10237	CD	LYS	B	635	43.431	-22.385	25.661	1.00	39.65	B	C
ATOM	10238	CE	LYS	B	635	44.901	-22.029	25.544	1.00	45.80	B	C
ATOM	10239	NZ	LYS	B	635	45.633	-23.077	24.778	1.00	52.57	B	N
ATOM	10240	C	LYS	B	635	39.080	-21.660	27.797	1.00	36.14	B	C
ATOM	10241	O	LYS	B	635	38.805	-22.594	28.554	1.00	38.87	B	O
ATOM	10242	N	VAL	B	636	38.211	-21.161	26.924	1.00	34.75	B	N
ATOM	10243	CA	VAL	B	636	36.896	-21.760	26.756	1.00	34.66	B	C
ATOM	10244	CB	VAL	B	636	35.784	-20.863	27.335	1.00	34.93	B	C
ATOM	10245	CG1	VAL	B	636	34.426	-21.428	27.017	1.00	42.24	B	C
ATOM	10246	CG2	VAL	B	636	35.938	-20.731	28.836	1.00	34.76	B	C
ATOM	10247	C	VAL	B	636	36.659	-22.076	25.264	1.00	38.82	B	C
ATOM	10248	O	VAL	B	636	37.015	-21.272	24.386	1.00	37.59	B	O
ATOM	10249	N	ARG	B	637	36.109	-23.263	24.994	1.00	43.98	B	N
ATOM	10250	CA	ARG	B	637	35.836	-23.721	23.630	1.00	46.96	B	C
ATOM	10251	CB	ARG	B	637	36.650	-24.983	23.316	1.00	47.18	B	C
ATOM	10252	C	ARG	B	637	34.350	-24.015	23.453	1.00	48.01	B	C
ATOM	10253	O	ARG	B	637	33.704	-24.539	24.358	1.00	46.65	B	O
ATOM	10254	N	GLY	B	638	33.808	-23.688	22.287	1.00	49.92	B	N
ATOM	10255	CA	GLY	B	638	32.410	-23.959	22.012	1.00	53.21	B	C
ATOM	10256	C	GLY	B	638	31.516	-22.770	22.291	1.00	56.49	B	C
ATOM	10257	O	GLY	B	638	31.993	-21.713	22.684	1.00	54.86	B	O
ATOM	10258	N	THR	B	639	30.214	-22.941	22.075	1.00	63.05	B	N
ATOM	10259	CA	THR	B	639	29.243	-21.887	22.350	1.00	65.16	B	C
ATOM	10260	CB	THR	B	639	27.848	-22.255	21.805	1.00	68.67	B	C
ATOM	10261	C	THR	B	639	29.155	-21.615	23.853	1.00	64.16	B	C
ATOM	10262	O	THR	B	639	29.378	-22.514	24.668	1.00	64.69	B	O
ATOM	10263	N	GLN	B	640	28.849	-20.373	24.218	1.00	62.19	B	C
ATOM	10264	CA	GLN	B	640	28.738	-19.985	25.625	1.00	59.15	B	C
ATOM	10265	C	GLN	B	640	27.347	-19.432	25.914	1.00	60.44	B	C
ATOM	10266	O	GLN	B	640	27.162	-18.216	26.039	1.00	60.05	B	O
ATOM	10267	CB	GLN	B	640	29.798	-18.936	25.987	1.00	57.33	B	C
ATOM	10268	CG	GLN	B	640	31.235	-19.364	25.704	1.00	55.87	B	C
ATOM	10269	CD	GLN	B	640	32.234	-18.220	25.837	1.00	55.66	B	C
ATOM	10270	OE1	GLN	B	640	33.345	-18.292	25.311	1.00	57.15	B	O
ATOM	10271	NE2	GLN	B	640	31.841	-17.160	26.538	1.00	53.37	B	C
ATOM	10272	N	VAL	B	641	26.366	-20.325	26.007	1.00	61.96	B	N
ATOM	10273	CA	VAL	B	641	24.983	-19.922	26.242	1.00	63.46	B	C
ATOM	10274	CB	VAL	B	641	24.111	-20.109	24.981	1.00	66.27	B	C
ATOM	10275	C	VAL	B	641	24.391	-20.737	27.384	1.00	63.33	B	C
ATOM	10276	O	VAL	B	641	24.693	-21.922	27.518	1.00	62.52	B	O
ATOM	10277	O	VAL	B	642	20.662	-20.860	28.517	1.00	75.56	B	O
ATOM	10278	N	VAL	B	642	23.556	-20.097	28.201	1.00	63.38	B	N
ATOM	10279	CA	VAL	B	642	22.882	-20.755	29.319	1.00	63.62	B	C
ATOM	10280	C	VAL	B	642	21.641	-21.498	28.851	1.00	70.38	B	C
ATOM	10281	CB	VAL	B	642	22.419	-19.716	30.357	1.00	60.98	B	C
ATOM	10282	O	GLY	B	643	22.393	-25.852	28.356	1.00	75.25	B	O
ATOM	10283	N	GLY	B	643	21.653	-22.829	28.819	1.00	71.68	B	N
ATOM	10284	CA	GLY	B	643	22.797	-23.638	29.176	1.00	69.73	B	C
ATOM	10285	C	GLY	B	643	22.993	-24.793	28.210	1.00	71.77	B	C
ATOM	10286	O	SER	B	644	26.304	-25.159	27.717	1.00	65.92	B	O
ATOM	10287	N	SER	B	644	23.815	-24.574	27.193	1.00	70.83	B	N
ATOM	10288	CA	SER	B	644	24.351	-25.668	26.406	1.00	70.95	B	C
ATOM	10289	C	SER	B	644	25.750	-25.953	26.948	1.00	69.60	B	C
ATOM	10290	CB	SER	B	644	24.408	-25.297	24.925	1.00	72.46	B	C
ATOM	10291	O	ASP	B	645	28.723	-26.245	25.282	1.00	64.37	B	O
ATOM	10292	N	ASP	B	645	26.323	-27.087	26.565	1.00	70.65	B	N
ATOM	10293	CA	ASP	B	645	27.639	-27.457	27.064	1.00	67.10	B	C
ATOM	10294	C	ASP	B	645	28.730	-26.562	26.478	1.00	63.48	B	C
ATOM	10295	CB	ASP	B	645	27.933	-28.931	26.764	1.00	69.84	B	C
ATOM	10296	CG	ASP	B	645	26.998	-29.882	27.501	1.00	71.70	B	C
ATOM	10297	OD1	ASP	B	645	26.629	-29.594	28.662	1.00	69.77	B	O
ATOM	10298	OD2	ASP	B	645	26.641	-30.924	26.916	1.00	75.87	B	O
ATOM	10299	N	MET	B	646	29.651	-26.131	27.335	1.00	58.56	B	N
ATOM	10300	CA	MET	B	646	30.853	-25.447	26.881	1.00	54.49	B	C
ATOM	10301	CB	MET	B	646	30.755	-23.934	27.088	1.00	53.56	B	C
ATOM	10302	CG	MET	B	646	30.854	-23.464	28.520	1.00	52.75	B	C
ATOM	10303	SD	MET	B	646	31.174	-21.692	28.586	1.00	62.78	B	S
ATOM	10304	CE	MET	B	646	32.196	-21.572	30.059	1.00	46.32	B	C
ATOM	10305	C	MET	B	646	32.069	-26.016	27.595	1.00	48.88	B	C
ATOM	10306	O	MET	B	646	32.019	-26.309	28.786	1.00	49.48	B	O
ATOM	10307	N	THR	B	647	33.157	-26.188	26.859	1.00	44.89	B	N
ATOM	10308	CA	THR	B	647	34.367	-26.757	27.428	1.00	42.42	B	C
ATOM	10309	CB	THR	B	647	35.091	-27.649	26.405	1.00	43.90	B	C
ATOM	10310	OG1	THR	B	647	34.169	-28.629	25.923	1.00	50.46	B	O
ATOM	10311	CG2	THR	B	647	36.264	-28.375	27.052	1.00	40.71	B	C
ATOM	10312	C	THR	B	647	35.305	-25.686	28.014	1.00	37.93	B	C
ATOM	10313	O	THR	B	647	35.607	-24.684	27.364	1.00	36.07	B	O

ATOM	10314	N	VAL	B	648	35.722	-25.893	29.261	1.00	33.31	B	N
ATOM	10315	CA	VAL	B	648	36.709	-25.037	29.904	1.00	28.73	B	C
ATOM	10316	CB	VAL	B	648	36.288	-24.654	31.330	1.00	32.75	B	C
ATOM	10317	CG1	VAL	B	648	37.389	-23.832	32.010	1.00	26.03	B	C
ATOM	10318	CG2	VAL	B	648	34.950	-23.909	31.319	1.00	34.30	B	C
ATOM	10319	C	VAL	B	648	38.028	-25.802	29.967	1.00	30.49	B	C
ATOM	10320	O	VAL	B	648	38.093	-26.915	30.488	1.00	32.29	B	O
ATOM	10321	N	ILE	B	649	39.065	-25.233	29.383	1.00	27.26	B	N
ATOM	10322	CA	ILE	B	649	40.371	-25.853	29.400	1.00	30.97	B	C
ATOM	10323	CB	ILE	B	649	41.018	-25.886	28.001	1.00	31.25	B	C
ATOM	10324	CG1	ILE	B	649	40.117	-26.631	27.004	1.00	34.29	B	C
ATOM	10325	CD1	ILE	B	649	39.272	-25.712	26.167	1.00	37.25	B	C
ATOM	10326	CG2	ILE	B	649	42.381	-26.557	28.066	1.00	27.35	B	C
ATOM	10327	C	ILE	B	649	41.252	-25.072	30.369	1.00	30.64	B	C
ATOM	10328	O	ILE	B	649	41.324	-23.839	30.308	1.00	29.43	B	O
ATOM	10329	N	VAL	B	650	41.896	-25.795	31.279	1.00	23.60	B	N
ATOM	10330	CA	VAL	B	650	42.799	-25.175	32.255	1.00	22.22	B	C
ATOM	10331	CB	VAL	B	650	42.356	-25.525	33.695	1.00	22.57	B	C
ATOM	10332	CG1	VAL	B	650	43.319	-24.937	34.735	1.00	22.81	B	C
ATOM	10333	CG2	VAL	B	650	40.937	-25.044	33.937	1.00	22.16	B	C
ATOM	10334	C	VAL	B	650	44.187	-25.741	32.011	1.00	27.61	B	C
ATOM	10335	O	VAL	B	650	44.384	-26.951	32.088	1.00	27.38	B	O
ATOM	10336	N	GLU	B	651	45.145	-24.876	31.710	1.00	26.67	B	N
ATOM	10337	CA	GLU	B	651	46.512	-25.324	31.443	1.00	27.05	B	C
ATOM	10338	CB	GLU	B	651	46.949	-24.908	30.032	1.00	29.37	B	C
ATOM	10339	CG	GLU	B	651	46.405	-25.816	28.935	1.00	39.43	B	C
ATOM	10340	CD	GLU	B	651	46.696	-25.300	27.524	1.00	46.69	B	C
ATOM	10341	OE1	GLU	B	651	46.400	-26.039	26.556	1.00	51.78	B	O
ATOM	10342	OE2	GLU	B	651	47.202	-24.160	27.387	1.00	45.60	B	O
ATOM	10343	C	GLU	B	651	47.494	-24.763	32.460	1.00	26.27	B	C
ATOM	10344	O	GLU	B	651	47.349	-23.628	32.899	1.00	25.21	B	O
ATOM	10345	N	PHE	B	652	48.488	-25.566	32.832	1.00	26.16	B	N
ATOM	10346	CA	PHE	B	652	49.558	-25.102	33.700	1.00	25.80	B	C
ATOM	10347	CB	PHE	B	652	49.305	-25.477	35.169	1.00	25.20	B	C
ATOM	10348	CG	PHE	B	652	50.356	-24.941	36.110	1.00	28.54	B	C
ATOM	10349	CD1	PHE	B	652	50.613	-23.584	36.175	1.00	29.67	B	C
ATOM	10350	CE1	PHE	B	652	51.587	-23.080	37.038	1.00	34.98	B	C
ATOM	10351	CZ	PHE	B	652	52.316	-23.943	37.838	1.00	34.29	B	C
ATOM	10352	CE2	PHE	B	652	52.069	-25.303	37.782	1.00	32.76	B	C
ATOM	10353	CD2	PHE	B	652	51.097	-25.799	36.915	1.00	33.19	B	C
ATOM	10354	C	PHE	B	652	50.912	-25.646	33.260	1.00	25.53	B	C
ATOM	10355	O	PHE	B	652	51.076	-26.835	33.031	1.00	22.82	B	O
ATOM	10356	N	THR	B	653	51.885	-24.753	33.155	1.00	25.67	B	N
ATOM	10357	CA	THR	B	653	53.245	-25.122	32.810	1.00	23.26	B	C
ATOM	10358	CB	THR	B	653	53.782	-24.195	31.689	1.00	25.67	B	C
ATOM	10359	OG1	THR	B	653	53.041	-24.410	30.473	1.00	24.93	B	O
ATOM	10360	CG2	THR	B	653	55.254	-24.441	31.432	1.00	27.98	B	C
ATOM	10361	C	THR	B	653	54.097	-24.948	34.065	1.00	26.60	B	C
ATOM	10362	O	THR	B	653	54.056	-23.899	34.700	1.00	24.50	B	O
ATOM	10363	N	ASN	B	654	54.857	-25.974	34.435	1.00	28.31	B	N
ATOM	10364	CA	ASN	B	654	55.798	-25.864	35.550	1.00	28.19	B	C
ATOM	10365	CB	ASN	B	654	56.442	-27.235	35.803	1.00	27.50	B	C
ATOM	10366	CG	ASN	B	654	57.491	-27.199	36.899	1.00	29.36	B	C
ATOM	10367	OD1	ASN	B	654	57.726	-26.164	37.526	1.00	25.46	B	O
ATOM	10368	ND2	ASN	B	654	58.118	-28.356	37.157	1.00	30.48	B	N
ATOM	10369	C	ASN	B	654	56.882	-24.847	35.244	1.00	29.37	B	C
ATOM	10370	O	ASN	B	654	57.650	-25.054	34.317	1.00	35.20	B	O
ATOM	10371	N	PRO	B	655	56.972	-23.753	36.040	1.00	29.16	B	N
ATOM	10372	CA	PRO	B	655	57.944	-22.702	35.729	1.00	30.50	B	C
ATOM	10373	CB	PRO	B	655	57.289	-21.461	36.332	1.00	29.83	B	C
ATOM	10374	CG	PRO	B	655	56.689	-21.997	37.611	1.00	27.48	B	C
ATOM	10375	CD	PRO	B	655	56.193	-23.415	37.248	1.00	25.34	B	C
ATOM	10376	C	PRO	B	655	59.275	-22.932	36.426	1.00	31.99	B	C
ATOM	10377	O	PRO	B	655	60.126	-22.042	36.402	1.00	34.55	B	O
ATOM	10378	N	LEU	B	656	59.458	-24.088	37.056	1.00	30.54	B	N
ATOM	10379	CA	LEU	B	656	60.671	-24.312	37.830	1.00	30.51	B	C
ATOM	10380	CB	LEU	B	656	60.337	-24.817	39.235	1.00	30.14	B	C
ATOM	10381	CG	LEU	B	656	59.362	-23.944	40.031	1.00	31.00	B	C
ATOM	10382	CD1	LEU	B	656	59.231	-24.464	41.447	1.00	33.42	B	C
ATOM	10383	CD2	LEU	B	656	59.801	-22.464	40.035	1.00	29.93	B	C
ATOM	10384	C	LEU	B	656	61.592	-25.290	37.135	1.00	33.71	B	C
ATOM	10385	O	LEU	B	656	61.171	-26.008	36.237	1.00	37.22	B	O
ATOM	10386	N	LYS	B	657	62.852	-25.326	37.561	1.00	36.47	B	N
ATOM	10387	CA	LYS	B	657	63.795	-26.328	37.060	1.00	41.45	B	C
ATOM	10388	CB	LYS	B	657	65.220	-25.779	37.052	1.00	46.40	B	C
ATOM	10389	C	LYS	B	657	63.724	-27.614	37.889	1.00	42.82	B	C
ATOM	10390	O	LYS	B	657	64.428	-28.578	37.604	1.00	45.72	B	O

ATOM	10391	N	GLU	B	658	62.878	-27.602	38.920	1.00	39.73	B	N
ATOM	10392	CA	GLU	B	658	62.576	-28.783	39.726	1.00	40.06	B	C
ATOM	10393	CB	GLU	B	658	62.517	-28.401	41.208	1.00	39.94	B	C
ATOM	10394	C	GLU	B	658	61.237	-29.407	39.308	1.00	36.72	B	C
ATOM	10395	O	GLU	B	658	60.382	-28.735	38.732	1.00	36.88	B	O
ATOM	10396	N	THR	B	659	61.055	-30.688	39.607	1.00	33.31	B	N
ATOM	10397	CA	THR	B	659	59.793	-31.367	39.349	1.00	28.43	B	C
ATOM	10398	CB	THR	B	659	59.996	-32.926	39.364	1.00	31.69	B	C
ATOM	10399	OG1	THR	B	659	60.723	-33.330	38.197	1.00	30.97	B	O
ATOM	10400	CG2	THR	B	659	58.672	-33.650	39.380	1.00	28.56	B	C
ATOM	10401	C	THR	B	659	58.756	-30.970	40.405	1.00	28.32	B	C
ATOM	10402	O	THR	B	659	59.079	-30.887	41.593	1.00	28.23	B	O
ATOM	10403	N	LEU	B	660	57.517	-30.711	39.981	1.00	25.42	B	N
ATOM	10404	CA	LEU	B	660	56.419	-30.468	40.927	1.00	23.48	B	C
ATOM	10405	CB	LEU	B	660	55.414	-29.458	40.360	1.00	24.01	B	C
ATOM	10406	CG	LEU	B	660	55.925	-28.036	40.110	1.00	25.67	B	C
ATOM	10407	CD1	LEU	B	660	54.818	-27.198	39.458	1.00	25.10	B	C
ATOM	10408	CD2	LEU	B	660	56.418	-27.404	41.411	1.00	24.65	B	C
ATOM	10409	C	LEU	B	660	55.686	-31.765	41.247	1.00	23.64	B	C
ATOM	10410	O	LEU	B	660	55.464	-32.602	40.354	1.00	22.99	B	O
ATOM	10411	N	ARG	B	661	55.301	-31.943	42.512	1.00	22.80	B	N
ATOM	10412	CA	ARG	B	661	54.586	-33.162	42.902	1.00	28.08	B	C
ATOM	10413	CB	ARG	B	661	55.503	-34.100	43.686	1.00	31.80	B	C
ATOM	10414	CG	ARG	B	661	56.799	-34.401	42.975	1.00	34.14	B	C
ATOM	10415	CD	ARG	B	661	57.588	-35.505	43.669	1.00	40.53	B	C
ATOM	10416	NE	ARG	B	661	58.981	-35.444	43.245	1.00	46.17	B	N
ATOM	10417	CZ	ARG	B	661	59.463	-36.067	42.175	1.00	48.38	B	C
ATOM	10418	NH1	ARG	B	661	58.661	-36.820	41.428	1.00	45.41	B	N
ATOM	10419	NH2	ARG	B	661	60.748	-35.937	41.857	1.00	51.95	B	N
ATOM	10420	C	ARG	B	661	53.314	-32.882	43.693	1.00	28.17	B	C
ATOM	10421	O	ARG	B	661	53.218	-31.868	44.407	1.00	23.26	B	O
ATOM	10422	N	ASN	B	662	52.354	-33.799	43.570	1.00	23.94	B	N
ATOM	10423	C	ASN	B	662	50.423	-32.304	43.944	1.00	28.44	B	C
ATOM	10424	O	ASN	B	662	50.066	-31.551	44.857	1.00	23.32	B	O
ATOM	10425	CA	AASN	B	662	51.061	-33.664	44.247	0.46	28.47	B	C
ATOM	10426	CB	AASN	B	662	51.225	-33.874	45.757	0.46	29.82	B	C
ATOM	10427	CG	AASN	B	662	49.910	-34.192	46.464	0.46	32.37	B	C
ATOM	10428	OD1AASN	B	662	48.909	-34.531	45.833	0.46	32.49	B	O	
ATOM	10429	ND2AASN	B	662	49.919	-34.093	47.791	0.46	34.78	B	N	
ATOM	10430	CA	BASN	B	662	51.046	-33.669	44.205	0.54	28.49	B	C
ATOM	10431	CB	BASN	B	662	51.145	-33.993	45.685	0.54	30.01	B	C
ATOM	10432	CG	BASN	B	662	51.779	-35.343	45.924	0.54	32.30	B	C
ATOM	10433	OD1BASN	B	662	51.363	-36.355	45.340	0.54	32.26	B	O	
ATOM	10434	ND2BASN	B	662	52.816	-35.367	46.745	0.54	33.41	B	N	
ATOM	10435	N	VAL	B	663	50.301	-31.994	42.661	1.00	21.97	B	N
ATOM	10436	CA	VAL	B	663	49.778	-30.716	42.229	1.00	20.98	B	C
ATOM	10437	CB	VAL	B	663	50.261	-30.373	40.825	1.00	20.76	B	C
ATOM	10438	CG1	VAL	B	663	49.678	-29.053	40.369	1.00	19.81	B	C
ATOM	10439	CG2	VAL	B	663	51.761	-30.354	40.767	1.00	20.29	B	C
ATOM	10440	C	VAL	B	663	48.266	-30.803	42.181	1.00	24.91	B	C
ATOM	10441	O	VAL	B	663	47.713	-31.704	41.540	1.00	24.95	B	O
ATOM	10442	N	TRP	B	664	47.601	-29.890	42.880	1.00	21.33	B	N
ATOM	10443	CA	TRP	B	664	46.160	-29.745	42.756	1.00	21.68	B	C
ATOM	10444	CB	TRP	B	664	45.484	-29.757	44.119	1.00	23.09	B	C
ATOM	10445	CG	TRP	B	664	45.588	-31.079	44.765	1.00	32.86	B	C
ATOM	10446	CD1	TRP	B	664	46.674	-31.589	45.402	1.00	30.49	B	C
ATOM	10447	NE1	TRP	B	664	46.402	-32.847	45.855	1.00	31.37	B	N
ATOM	10448	CE2	TRP	B	664	45.120	-33.184	45.508	1.00	33.50	B	C
ATOM	10449	CD2	TRP	B	664	44.577	-32.093	44.810	1.00	32.37	B	C
ATOM	10450	CE3	TRP	B	664	43.263	-32.178	44.334	1.00	33.74	B	C
ATOM	10451	CZ3	TRP	B	664	42.541	-33.351	44.569	1.00	34.46	B	C
ATOM	10452	CH2	TRP	B	664	43.111	-34.424	45.271	1.00	29.74	B	C
ATOM	10453	CZ2	TRP	B	664	44.397	-34.367	45.741	1.00	29.14	B	C
ATOM	10454	C	TRP	B	664	45.857	-28.446	42.044	1.00	25.26	B	C
ATOM	10455	O	TRP	B	664	46.346	-27.389	42.443	1.00	23.60	B	O
ATOM	10456	N	VAL	B	665	45.056	-28.534	40.987	1.00	20.62	B	N
ATOM	10457	CA	VAL	B	665	44.604	-27.353	40.246	1.00	20.14	B	C
ATOM	10458	CB	VAL	B	665	44.845	-27.506	38.737	1.00	23.88	B	C
ATOM	10459	CG1	VAL	B	665	44.397	-26.254	37.981	1.00	22.09	B	C
ATOM	10460	CG2	VAL	B	665	46.308	-27.779	38.464	1.00	19.24	B	C
ATOM	10461	C	VAL	B	665	43.120	-27.154	40.523	1.00	22.12	B	C
ATOM	10462	O	VAL	B	665	42.342	-28.107	40.425	1.00	22.11	B	O
ATOM	10463	N	HIS	B	666	42.727	-25.930	40.891	1.00	21.18	B	N
ATOM	10464	CA	HIS	B	666	41.340	-25.648	41.249	1.00	22.32	B	C
ATOM	10465	CB	HIS	B	666	41.241	-24.887	42.572	1.00	23.27	B	C
ATOM	10466	CG	HIS	B	666	41.607	-25.696	43.770	1.00	27.67	B	C
ATOM	10467	ND1	HIS	B	666	40.663	-26.195	44.643	1.00	29.60	B	N

ATOM	10468	CE1	HIS	B	666	41.272	-26.866	45.605	1.00	28.54	B	C
ATOM	10469	NE2	HIS	B	666	42.574	-26.822	45.384	1.00	25.93	B	N
ATOM	10470	CD2	HIS	B	666	42.810	-26.091	44.246	1.00	25.60	B	C
ATOM	10471	C	HIS	B	666	40.707	-24.780	40.187	1.00	25.18	B	C
ATOM	10472	O	HIS	B	666	41.386	-23.982	39.552	1.00	23.77	B	O
ATOM	10473	N	LEU	B	667	39.397	-24.920	40.016	1.00	24.94	B	N
ATOM	10474	CA	LEU	B	667	38.662	-24.047	39.115	1.00	25.56	B	C
ATOM	10475	CB	LEU	B	667	38.431	-24.723	37.768	1.00	28.34	B	C
ATOM	10476	CG	LEU	B	667	37.497	-23.964	36.821	1.00	28.98	B	C
ATOM	10477	CD1	LEU	B	667	38.205	-22.769	36.258	1.00	23.65	B	C
ATOM	10478	CD2	LEU	B	667	36.994	-24.888	35.714	1.00	29.34	B	C
ATOM	10479	C	LEU	B	667	37.332	-23.676	39.735	1.00	26.51	B	C
ATOM	10480	O	LEU	B	667	36.618	-24.541	40.241	1.00	28.49	B	O
ATOM	10481	N	ASP	B	668	37.020	-22.383	39.694	1.00	28.48	B	N
ATOM	10482	CA	ASP	B	668	35.791	-21.831	40.245	1.00	32.49	B	C
ATOM	10483	CB	ASP	B	668	36.092	-21.042	41.510	1.00	39.21	B	C
ATOM	10484	CG	ASP	B	668	35.407	-21.613	42.721	1.00	50.55	B	C
ATOM	10485	OD1	ASP	B	668	35.970	-22.561	43.329	1.00	51.97	B	O
ATOM	10486	OD2	ASP	B	668	34.311	-21.109	43.060	1.00	55.87	B	O
ATOM	10487	C	ASP	B	668	35.189	-20.877	39.225	1.00	32.02	B	C
ATOM	10488	O	ASP	B	668	35.911	-20.256	38.456	1.00	30.98	B	O
ATOM	10489	O	GLY	B	669	30.941	-20.712	37.974	1.00	41.76	B	O
ATOM	10490	N	GLY	B	669	33.870	-20.756	39.243	1.00	31.09	B	O
ATOM	10491	CA	GLY	B	669	33.166	-19.904	38.306	1.00	34.14	B	C
ATOM	10492	C	GLY	B	669	31.679	-19.933	38.588	1.00	38.87	B	C
ATOM	10493	O	PRO	B	670	29.164	-17.883	37.915	1.00	44.40	B	O
ATOM	10494	N	PRO	B	670	31.236	-19.095	39.537	1.00	42.94	B	C
ATOM	10495	CA	PRO	B	670	29.827	-18.950	39.932	1.00	47.65	B	C
ATOM	10496	C	PRO	B	670	28.925	-18.780	38.715	1.00	46.71	B	C
ATOM	10497	CB	PRO	B	670	29.826	-17.649	40.738	1.00	49.95	B	C
ATOM	10498	CG	PRO	B	670	31.220	-17.524	41.263	1.00	48.16	B	C
ATOM	10499	CD	PRO	B	670	32.119	-18.145	40.239	1.00	43.75	B	C
ATOM	10500	O	GLY	B	671	26.729	-20.261	35.203	1.00	50.38	B	O
ATOM	10501	N	GLY	B	671	27.920	-19.635	38.568	1.00	49.08	B	N
ATOM	10502	CA	GLY	B	671	26.981	-19.504	37.467	1.00	51.43	B	C
ATOM	10503	C	GLY	B	671	27.468	-20.172	36.198	1.00	49.19	B	C
ATOM	10504	O	VAL	B	672	29.388	-23.741	34.786	1.00	48.97	B	O
ATOM	10505	N	VAL	B	672	28.716	-20.635	36.235	1.00	44.15	B	N
ATOM	10506	CA	VAL	B	672	29.316	-21.357	35.119	1.00	42.43	B	C
ATOM	10507	C	VAL	B	672	29.645	-22.793	35.531	1.00	46.34	B	C
ATOM	10508	CB	VAL	B	672	30.592	-20.656	34.609	1.00	39.08	B	C
ATOM	10509	CG1	VAL	B	672	31.244	-21.468	33.511	1.00	36.65	B	C
ATOM	10510	CG2	VAL	B	672	30.271	-19.246	34.113	1.00	39.44	B	C
ATOM	10511	O	THR	B	673	31.117	-23.365	39.370	1.00	51.36	B	O
ATOM	10512	N	THR	B	673	30.216	-22.955	36.720	1.00	47.15	B	N
ATOM	10513	CA	THR	B	673	30.476	-24.290	37.244	1.00	47.46	B	C
ATOM	10514	C	THR	B	673	30.599	-24.308	38.756	1.00	50.72	B	C
ATOM	10515	CB	THR	B	673	31.737	-24.942	36.620	1.00	47.80	B	C
ATOM	10516	OG1	THR	B	673	32.084	-26.125	37.356	1.00	51.09	B	O
ATOM	10517	CG2	THR	B	673	32.912	-23.989	36.647	1.00	41.63	B	C
ATOM	10518	O	ARG	B	674	32.604	-26.150	39.889	1.00	44.51	B	O
ATOM	10519	N	ARG	B	674	30.110	-25.395	39.347	1.00	53.98	B	N
ATOM	10520	CA	ARG	B	674	30.401	-25.708	40.739	1.00	53.64	B	C
ATOM	10521	C	ARG	B	674	31.924	-25.813	40.866	1.00	49.22	B	C
ATOM	10522	CB	ARG	B	674	29.723	-27.023	41.138	1.00	56.04	B	C
ATOM	10523	N	PRO	B	675	32.468	-25.487	42.051	1.00	49.42	B	N
ATOM	10524	CA	PRO	B	675	33.924	-25.468	42.231	1.00	46.13	B	C
ATOM	10525	CB	PRO	B	675	34.092	-25.010	43.687	1.00	49.80	B	C
ATOM	10526	CG	PRO	B	675	32.832	-24.262	43.993	1.00	53.12	B	C
ATOM	10527	CD	PRO	B	675	31.761	-25.019	43.255	1.00	53.46	B	C
ATOM	10528	C	PRO	B	675	34.506	-26.861	42.055	1.00	39.83	B	C
ATOM	10529	O	PRO	B	675	33.993	-27.797	42.651	1.00	39.06	B	O
ATOM	10530	N	MET	B	676	35.549	-26.990	41.242	1.00	37.58	B	N
ATOM	10531	CA	MET	B	676	36.115	-28.300	40.920	1.00	37.39	B	C
ATOM	10532	C	MET	B	676	37.622	-28.315	41.140	1.00	32.31	B	C
ATOM	10533	O	MET	B	676	38.242	-27.263	41.242	1.00	27.87	B	O
ATOM	10534	CB	MET	B	676	35.816	-28.629	39.462	1.00	37.03	B	C
ATOM	10535	CG	MET	B	676	34.337	-28.739	39.156	1.00	40.18	B	C
ATOM	10536	SD	MET	B	676	34.081	-29.238	37.443	1.00	72.36	B	S
ATOM	10537	CE	MET	B	676	34.851	-27.859	36.585	1.00	53.24	B	C
ATOM	10538	N	LYS	B	677	38.213	-29.503	41.211	1.00	29.06	B	N
ATOM	10539	CA	LYS	B	677	39.669	-29.604	41.283	1.00	27.64	B	C
ATOM	10540	CB	LYS	B	677	40.159	-29.494	42.735	1.00	27.93	B	C
ATOM	10541	CG	LYS	B	677	39.593	-30.554	43.679	1.00	31.17	B	C
ATOM	10542	CD	LYS	B	677	40.093	-30.323	45.104	1.00	33.44	B	C
ATOM	10543	CE	LYS	B	677	39.376	-31.220	46.090	1.00	36.91	B	C
ATOM	10544	NZ	LYS	B	677	39.998	-31.106	47.442	1.00	43.73	B	N

ATOM	10545	C	LYS	B	677	40.206	-30.885	40.641	1.00	29.15	B	C
ATOM	10546	O	LYS	B	677	39.532	-31.927	40.629	1.00	27.08	B	O
ATOM	10547	N	LYS	B	678	41.437	-30.808	40.141	1.00	26.00	B	N
ATOM	10548	CA	LYS	B	678	42.067	-31.942	39.475	1.00	29.04	B	C
ATOM	10549	CB	LYS	B	678	42.127	-31.686	37.969	1.00	29.21	B	C
ATOM	10550	CG	LYS	B	678	42.848	-32.743	37.164	1.00	31.74	B	C
ATOM	10551	CD	LYS	B	678	41.999	-33.989	36.990	1.00	35.58	B	C
ATOM	10552	CE	LYS	B	678	42.701	-34.986	36.101	1.00	35.29	B	C
ATOM	10553	NZ	LYS	B	678	42.148	-36.339	36.326	1.00	35.46	B	N
ATOM	10554	C	LYS	B	678	43.473	-32.124	40.047	1.00	27.42	B	C
ATOM	10555	O	LYS	B	678	44.199	-31.148	40.192	1.00	23.90	B	O
ATOM	10556	N	MET	B	679	43.842	-33.357	40.395	1.00	24.57	B	N
ATOM	10557	CA	MET	B	679	45.180	-33.610	40.929	1.00	24.18	B	C
ATOM	10558	CB	MET	B	679	45.123	-34.561	42.135	1.00	25.82	B	C
ATOM	10559	CG	MET	B	679	46.477	-34.740	42.828	1.00	33.63	B	C
ATOM	10560	SD	MET	B	679	46.870	-36.447	43.207	1.00	74.49	B	S
ATOM	10561	CE	MET	B	679	47.146	-37.066	41.561	1.00	31.71	B	C
ATOM	10562	C	MET	B	679	46.094	-34.178	39.853	1.00	23.99	B	C
ATOM	10563	O	MET	B	679	45.670	-34.999	39.036	1.00	25.04	B	O
ATOM	10564	N	PHE	B	680	47.341	-33.729	39.833	1.00	22.99	B	N
ATOM	10565	CA	PHE	B	680	48.369	-34.307	38.960	1.00	23.21	B	C
ATOM	10566	CB	PHE	B	680	48.854	-33.292	37.908	1.00	23.35	B	C
ATOM	10567	CG	PHE	B	680	47.758	-32.777	36.999	1.00	25.51	B	C
ATOM	10568	CD1	PHE	B	680	47.044	-31.635	37.328	1.00	26.86	B	C
ATOM	10569	CE1	PHE	B	680	46.030	-31.160	36.494	1.00	28.92	B	C
ATOM	10570	CZ	PHE	B	680	45.721	-31.844	35.327	1.00	28.32	B	C
ATOM	10571	CE2	PHE	B	680	46.424	-32.986	34.987	1.00	25.73	B	C
ATOM	10572	CD2	PHE	B	680	47.441	-33.446	35.824	1.00	26.95	B	C
ATOM	10573	C	PHE	B	680	49.537	-34.702	39.855	1.00	23.47	B	C
ATOM	10574	O	PHE	B	680	50.075	-33.859	40.583	1.00	22.68	B	O
ATOM	10575	N	ARG	B	681	49.930	-35.966	39.817	1.00	28.31	B	N
ATOM	10576	CA	ARG	B	681	50.946	-36.430	40.761	1.00	30.68	B	C
ATOM	10577	CB	ARG	B	681	51.017	-37.955	40.842	1.00	27.58	B	C
ATOM	10578	CG	ARG	B	681	51.509	-38.616	39.587	1.00	28.38	B	C
ATOM	10579	CD	ARG	B	681	51.644	-40.146	39.760	1.00	31.61	B	C
ATOM	10580	NE	ARG	B	681	52.782	-40.490	40.596	1.00	31.49	B	N
ATOM	10581	CZ	ARG	B	681	54.026	-40.566	40.147	1.00	31.70	B	C
ATOM	10582	NH1	ARG	B	681	54.282	-40.335	38.869	1.00	31.44	B	N
ATOM	10583	NH2	ARG	B	681	55.014	-40.875	40.971	1.00	32.47	B	N
ATOM	10584	C	ARG	B	681	52.321	-35.843	40.469	1.00	31.79	B	C
ATOM	10585	O	ARG	B	681	53.111	-35.660	41.378	1.00	24.84	B	O
ATOM	10586	N	GLU	B	682	52.590	-35.531	39.208	1.00	24.35	B	N
ATOM	10587	CA	GLU	B	682	53.914	-35.087	38.829	1.00	28.36	B	C
ATOM	10588	CB	GLU	B	682	54.768	-36.310	38.555	1.00	34.99	B	C
ATOM	10589	CG	GLU	B	682	56.206	-36.026	38.249	1.00	38.59	B	C
ATOM	10590	CD	GLU	B	682	56.999	-37.303	38.086	1.00	38.67	B	C
ATOM	10591	OE1	GLU	B	682	57.192	-37.731	36.936	1.00	36.65	B	O
ATOM	10592	OE2	GLU	B	682	57.415	-37.878	39.114	1.00	41.79	B	O
ATOM	10593	C	GLU	B	682	53.904	-34.178	37.593	1.00	29.01	B	C
ATOM	10594	O	GLU	B	682	53.309	-34.519	36.578	1.00	28.90	B	O
ATOM	10595	N	ILE	B	683	54.551	-33.017	37.688	1.00	26.12	B	N
ATOM	10596	CA	ILE	B	683	54.803	-32.202	36.499	1.00	27.16	B	C
ATOM	10597	CB	ILE	B	683	54.038	-30.851	36.539	1.00	23.48	B	C
ATOM	10598	CG1	ILE	B	683	52.572	-31.056	36.942	1.00	21.53	B	C
ATOM	10599	CD1	ILE	B	683	51.768	-29.777	36.937	1.00	24.77	B	C
ATOM	10600	CG2	ILE	B	683	54.135	-30.136	35.184	1.00	24.44	B	C
ATOM	10601	C	ILE	B	683	56.311	-31.947	36.368	1.00	26.27	B	C
ATOM	10602	O	ILE	B	683	56.895	-31.255	37.197	1.00	26.00	B	O
ATOM	10603	N	ARG	B	684	56.939	-32.514	35.337	1.00	27.52	B	N
ATOM	10604	CA	ARG	B	684	58.385	-32.367	35.137	1.00	31.13	B	C
ATOM	10605	CB	ARG	B	684	58.863	-33.337	34.048	1.00	32.31	B	C
ATOM	10606	C	ARG	B	684	58.718	-30.900	34.783	1.00	33.88	B	C
ATOM	10607	O	ARG	B	684	57.832	-30.165	34.360	1.00	31.45	B	O
ATOM	10608	N	PRO	B	685	59.981	-30.466	34.985	1.00	37.00	B	N
ATOM	10609	CA	PRO	B	685	60.331	-29.053	34.743	1.00	39.84	B	C
ATOM	10610	CB	PRO	B	685	61.846	-29.028	34.947	1.00	39.38	B	C
ATOM	10611	CG	PRO	B	685	62.102	-30.156	35.912	1.00	40.78	B	C
ATOM	10612	CD	PRO	B	685	61.126	-31.230	35.518	1.00	38.83	B	C
ATOM	10613	C	PRO	B	685	59.977	-28.574	33.333	1.00	40.56	B	C
ATOM	10614	O	PRO	B	685	60.365	-29.209	32.358	1.00	38.09	B	O
ATOM	10615	N	ASN	B	686	59.235	-27.471	33.253	1.00	43.11	B	N
ATOM	10616	CA	ASN	B	686	58.772	-26.897	31.984	1.00	46.29	B	C
ATOM	10617	C	ASN	B	686	57.795	-27.778	31.182	1.00	42.91	B	C
ATOM	10618	O	ASN	B	686	57.604	-27.570	29.991	1.00	45.66	B	O
ATOM	10619	CB	ASN	B	686	59.954	-26.426	31.114	1.00	52.23	B	C
ATOM	10620	CG	ASN	B	686	59.539	-25.407	30.052	1.00	55.08	B	C
ATOM	10621	OD1	ASN	B	686	59.046	-24.321	30.370	1.00	55.02	B	O

ATOM	10622	ND2	ASN	B	686	59.747	-25.755	28.786	1.00	56.70	B	N
ATOM	10623	N	SER	B	687	57.156	-28.743	31.838	1.00	36.80	B	N
ATOM	10624	CA	SER	B	687	56.134	-29.547	31.168	1.00	34.05	B	C
ATOM	10625	CB	SER	B	687	56.146	-30.995	31.669	1.00	36.39	B	C
ATOM	10626	OG	SER	B	687	57.431	-31.565	31.519	1.00	40.13	B	O
ATOM	10627	C	SER	B	687	54.780	-28.910	31.424	1.00	28.82	B	C
ATOM	10628	O	SER	B	687	54.619	-28.160	32.380	1.00	27.67	B	O
ATOM	10629	N	THR	B	688	53.815	-29.191	30.560	1.00	29.91	B	N
ATOM	10630	CA	THR	B	688	52.508	-28.552	30.652	1.00	29.67	B	C
ATOM	10631	CB	THR	B	688	52.193	-27.742	29.375	1.00	31.68	B	C
ATOM	10632	OG1	THR	B	688	53.162	-26.694	29.224	1.00	34.47	B	O
ATOM	10633	CG2	THR	B	688	50.802	-27.114	29.470	1.00	30.58	B	C
ATOM	10634	C	THR	B	688	51.406	-29.570	30.874	1.00	30.59	B	C
ATOM	10635	O	THR	B	688	51.335	-30.574	30.169	1.00	29.39	B	O
ATOM	10636	N	VAL	B	689	50.539	-29.333	31.852	1.00	31.68	B	N
ATOM	10637	CA	VAL	B	689	49.384	-30.222	31.997	1.00	31.35	B	C
ATOM	10638	CB	VAL	B	689	49.185	-30.747	33.445	1.00	27.50	B	C
ATOM	10639	CG1	VAL	B	689	50.375	-31.588	33.868	1.00	30.45	B	C
ATOM	10640	CG2	VAL	B	689	48.962	-29.603	34.419	1.00	26.15	B	C
ATOM	10641	C	VAL	B	689	48.130	-29.518	31.513	1.00	30.76	B	C
ATOM	10642	O	VAL	B	689	48.059	-28.274	31.466	1.00	26.23	B	O
ATOM	10643	N	GLN	B	690	47.132	-30.315	31.162	1.00	29.76	B	N
ATOM	10644	CA	GLN	B	690	45.917	-29.759	30.628	1.00	29.61	B	C
ATOM	10645	CB	GLN	B	690	45.920	-29.884	29.106	1.00	34.63	B	C
ATOM	10646	CG	GLN	B	690	44.652	-29.403	28.483	1.00	39.98	B	C
ATOM	10647	CD	GLN	B	690	44.806	-29.152	26.996	1.00	46.52	B	C
ATOM	10648	OE1	GLN	B	690	44.130	-29.778	26.176	1.00	48.80	B	O
ATOM	10649	NE2	GLN	B	690	45.696	-28.227	26.643	1.00	46.57	B	N
ATOM	10650	C	GLN	B	690	44.711	-30.463	31.218	1.00	33.00	B	C
ATOM	10651	O	GLN	B	690	44.641	-31.692	31.241	1.00	38.32	B	O
ATOM	10652	N	TRP	B	691	43.746	-29.676	31.668	1.00	30.37	B	N
ATOM	10653	CA	TRP	B	691	42.567	-30.224	32.309	1.00	30.52	B	C
ATOM	10654	CB	TRP	B	691	42.609	-29.858	33.798	1.00	26.70	B	C
ATOM	10655	CG	TRP	B	691	41.364	-30.141	34.567	1.00	26.25	B	C
ATOM	10656	CD1	TRP	B	691	40.462	-31.132	34.343	1.00	30.48	B	C
ATOM	10657	NE1	TRP	B	691	39.434	-31.052	35.259	1.00	32.02	B	N
ATOM	10658	CE2	TRP	B	691	39.666	-29.986	36.090	1.00	29.86	B	C
ATOM	10659	CD2	TRP	B	691	40.875	-29.391	35.681	1.00	27.28	B	C
ATOM	10660	CE3	TRP	B	691	41.350	-28.266	36.380	1.00	23.99	B	C
ATOM	10661	CZ3	TRP	B	691	40.603	-27.781	37.444	1.00	26.12	B	C
ATOM	10662	CH2	TRP	B	691	39.405	-28.400	37.833	1.00	30.28	B	C
ATOM	10663	CZ2	TRP	B	691	38.922	-29.504	37.171	1.00	32.53	B	C
ATOM	10664	C	TRP	B	691	41.312	-29.689	31.625	1.00	32.09	B	C
ATOM	10665	O	TRP	B	691	41.078	-28.487	31.604	1.00	29.54	B	O
ATOM	10666	N	GLU	B	692	40.517	-30.577	31.043	1.00	36.78	B	N
ATOM	10667	CA	GLU	B	692	39.291	-30.151	30.345	1.00	40.66	B	C
ATOM	10668	CB	GLU	B	692	39.228	-30.718	28.930	1.00	44.86	B	C
ATOM	10669	CG	GLU	B	692	40.440	-30.423	28.077	1.00	48.57	B	C
ATOM	10670	CD	GLU	B	692	40.129	-30.549	26.597	1.00	56.65	B	C
ATOM	10671	OE1	GLU	B	692	39.011	-30.992	26.262	1.00	55.48	B	O
ATOM	10672	OE2	GLU	B	692	40.994	-30.188	25.772	1.00	62.15	B	O
ATOM	10673	C	GLU	B	692	38.034	-30.556	31.099	1.00	39.95	B	C
ATOM	10674	O	GLU	B	692	37.888	-31.707	31.507	1.00	40.72	B	O
ATOM	10675	N	GLU	B	693	37.133	-29.604	31.289	1.00	39.01	B	N
ATOM	10676	CA	GLU	B	693	35.881	-29.864	31.978	1.00	44.59	B	C
ATOM	10677	C	GLU	B	693	34.722	-29.316	31.178	1.00	48.88	B	C
ATOM	10678	O	GLU	B	693	34.783	-28.192	30.674	1.00	48.93	B	O
ATOM	10679	CB	GLU	B	693	35.894	-29.230	33.368	1.00	48.27	B	C
ATOM	10680	CG	GLU	B	693	36.576	-30.076	34.428	1.00	53.10	B	C
ATOM	10681	CD	GLU	B	693	35.779	-31.314	34.800	1.00	58.95	B	C
ATOM	10682	OE1	GLU	B	693	36.337	-32.215	35.464	1.00	60.88	B	O
ATOM	10683	OE2	GLU	B	693	34.588	-31.385	34.436	1.00	62.41	B	O
ATOM	10684	N	VAL	B	694	33.669	-30.117	31.041	1.00	52.38	B	N
ATOM	10685	CA	VAL	B	694	32.453	-29.667	30.380	1.00	52.45	B	C
ATOM	10686	C	VAL	B	694	31.587	-28.958	31.406	1.00	53.88	B	C
ATOM	10687	O	VAL	B	694	31.451	-29.424	32.535	1.00	53.83	B	O
ATOM	10688	CB	VAL	B	694	31.661	-30.835	29.774	1.00	56.09	B	C
ATOM	10689	CG1	VAL	B	694	30.461	-30.309	28.994	1.00	57.12	B	C
ATOM	10690	CG2	VAL	B	694	32.559	-31.682	28.878	1.00	55.90	B	C
ATOM	10691	N	CYS	B	695	31.024	-27.816	31.016	1.00	54.09	B	N
ATOM	10692	CA	CYS	B	695	30.168	-27.031	31.900	1.00	53.46	B	C
ATOM	10693	C	CYS	B	695	28.862	-26.668	31.196	1.00	55.54	B	C
ATOM	10694	O	CYS	B	695	28.840	-26.388	29.997	1.00	54.85	B	O
ATOM	10695	CB	CYS	B	695	30.880	-25.750	32.353	1.00	51.71	B	C
ATOM	10696	SG	CYS	B	695	32.410	-26.005	33.275	1.00	77.76	B	S
ATOM	10697	N	ARG	B	696	27.772	-26.697	31.951	1.00	57.61	B	N
ATOM	10698	CA	ARG	B	696	26.488	-26.220	31.462	1.00	58.15	B	C

ATOM	10699	CB	ARG	B	696	25.401	-27.280	31.639	1.00	59.83	B	C
ATOM	10700	C	ARG	B	696	26.167	-24.985	32.277	1.00	56.22	B	C
ATOM	10701	O	ARG	B	696	25.529	-25.074	33.325	1.00	55.78	B	O
ATOM	10702	N	PRO	B	697	26.639	-23.823	31.812	1.00	56.05	B	N
ATOM	10703	CA	PRO	B	697	26.469	-22.592	32.590	1.00	55.90	B	C
ATOM	10704	CB	PRO	B	697	27.218	-21.544	31.758	1.00	54.71	B	C
ATOM	10705	CG	PRO	B	697	27.213	-22.089	30.367	1.00	55.39	B	C
ATOM	10706	CD	PRO	B	697	27.276	-23.582	30.505	1.00	55.00	B	C
ATOM	10707	C	PRO	B	697	24.985	-22.254	32.715	1.00	57.07	B	C
ATOM	10708	O	PRO	B	697	24.200	-22.627	31.840	1.00	57.70	B	O
ATOM	10709	N	TRP	B	698	24.603	-21.583	33.795	1.00	56.55	B	N
ATOM	10710	CA	TRP	B	698	23.190	-21.350	34.051	1.00	60.50	B	C
ATOM	10711	CB	TRP	B	698	22.694	-22.267	35.174	1.00	62.55	B	C
ATOM	10712	CG	TRP	B	698	23.286	-22.003	36.533	1.00	62.82	B	C
ATOM	10713	CD1	TRP	B	698	22.749	-21.229	37.525	1.00	65.01	B	C
ATOM	10714	NE1	TRP	B	698	23.563	-21.244	38.634	1.00	64.06	B	N
ATOM	10715	CE2	TRP	B	698	24.651	-22.037	38.377	1.00	61.41	B	C
ATOM	10716	CD2	TRP	B	698	24.508	-22.540	37.064	1.00	61.05	B	C
ATOM	10717	CE3	TRP	B	698	25.500	-23.386	36.554	1.00	57.84	B	C
ATOM	10718	CZ3	TRP	B	698	26.586	-23.702	37.362	1.00	55.91	B	C
ATOM	10719	CH2	TRP	B	698	26.696	-23.187	38.663	1.00	56.74	B	C
ATOM	10720	CZ2	TRP	B	698	25.742	-22.356	39.186	1.00	58.98	B	C
ATOM	10721	C	TRP	B	698	22.837	-19.887	34.329	1.00	60.95	B	C
ATOM	10722	O	TRP	B	698	21.659	-19.534	34.391	1.00	65.06	B	O
ATOM	10723	N	VAL	B	699	23.857	-19.042	34.478	1.00	56.66	B	N
ATOM	10724	CA	VAL	B	699	23.660	-17.618	34.760	1.00	54.94	B	C
ATOM	10725	CB	VAL	B	699	24.343	-17.218	36.091	1.00	49.92	B	C
ATOM	10726	CG1	VAL	B	699	24.376	-15.697	36.250	1.00	48.19	B	C
ATOM	10727	CG2	VAL	B	699	23.641	-17.871	37.258	1.00	49.38	B	C
ATOM	10728	C	VAL	B	699	24.204	-16.723	33.640	1.00	54.45	B	C
ATOM	10729	O	VAL	B	699	25.422	-16.650	33.451	1.00	54.73	B	O
ATOM	10730	N	SER	B	700	23.306	-16.047	32.915	1.00	52.80	B	N
ATOM	10731	CA	SER	B	700	23.678	-15.146	31.811	1.00	52.56	B	C
ATOM	10732	CB	SER	B	700	22.421	-14.598	31.104	1.00	52.98	B	C
ATOM	10733	C	SER	B	700	24.570	-13.973	32.230	1.00	52.26	B	C
ATOM	10734	O	SER	B	700	24.654	-13.640	33.410	1.00	53.78	B	O
ATOM	10735	N	GLY	B	701	25.226	-13.346	31.254	1.00	52.52	B	N
ATOM	10736	CA	GLY	B	701	26.001	-12.136	31.497	1.00	52.60	B	C
ATOM	10737	C	GLY	B	701	27.497	-12.335	31.685	1.00	51.13	B	C
ATOM	10738	O	GLY	B	701	28.030	-13.397	31.367	1.00	48.21	B	O
ATOM	10739	N	HIS	B	702	28.173	-11.299	32.187	1.00	53.67	B	N
ATOM	10740	CA	HIS	B	702	29.602	-11.352	32.488	1.00	53.25	B	C
ATOM	10741	C	HIS	B	702	29.839	-12.235	33.708	1.00	48.64	B	C
ATOM	10742	O	HIS	B	702	29.416	-11.910	34.819	1.00	50.00	B	O
ATOM	10743	CB	HIS	B	702	30.164	-9.940	32.743	1.00	60.70	B	C
ATOM	10744	CG	HIS	B	702	31.653	-9.896	32.957	1.00	64.99	B	C
ATOM	10745	ND1	HIS	B	702	32.310	-10.711	33.857	1.00	63.48	B	N
ATOM	10746	CD2	HIS	B	702	32.610	-9.116	32.397	1.00	68.31	B	C
ATOM	10747	CE1	HIS	B	702	33.604	-10.446	33.832	1.00	62.56	B	C
ATOM	10748	NE2	HIS	B	702	33.813	-9.481	32.955	1.00	66.09	B	N
ATOM	10749	N	ARG	B	703	30.517	-13.356	33.485	1.00	42.52	B	N
ATOM	10750	CA	ARG	B	703	30.884	-14.272	34.550	1.00	39.01	B	C
ATOM	10751	C	ARG	B	703	32.402	-14.349	34.571	1.00	36.50	B	C
ATOM	10752	O	ARG	B	703	33.068	-13.878	33.647	1.00	35.56	B	O
ATOM	10753	CB	ARG	B	703	30.311	-15.663	34.281	1.00	40.30	B	C
ATOM	10754	CG	ARG	B	703	28.789	-15.735	34.218	1.00	46.97	B	C
ATOM	10755	CD	ARG	B	703	28.195	-15.776	35.610	1.00	51.85	B	C
ATOM	10756	NE	ARG	B	703	27.991	-14.439	36.148	1.00	58.93	B	N
ATOM	10757	CZ	ARG	B	703	27.808	-14.171	37.435	1.00	63.12	B	C
ATOM	10758	NH1	ARG	B	703	27.818	-15.150	38.333	1.00	62.67	B	N
ATOM	10759	NH2	ARG	B	703	27.622	-12.918	37.825	1.00	65.73	B	N
ATOM	10760	N	LYS	B	704	32.961	-14.955	35.610	1.00	34.91	B	N
ATOM	10761	CA	LYS	B	704	34.407	-14.984	35.719	1.00	32.41	B	C
ATOM	10762	C	LYS	B	704	34.887	-16.334	36.195	1.00	30.09	B	C
ATOM	10763	O	LYS	B	704	34.338	-16.901	37.125	1.00	35.76	B	O
ATOM	10764	CB	LYS	B	704	34.892	-13.861	36.639	1.00	37.11	B	C
ATOM	10765	CG	LYS	B	704	36.400	-13.678	36.647	1.00	40.83	B	C
ATOM	10766	CD	LYS	B	704	36.777	-12.296	37.170	1.00	47.74	B	C
ATOM	10767	CE	LYS	B	704	38.290	-12.159	37.292	1.00	51.63	B	C
ATOM	10768	NZ	LYS	B	704	38.971	-12.651	36.056	1.00	53.21	B	N
ATOM	10769	N	LEU	B	705	35.899	-16.860	35.530	1.00	28.60	B	N
ATOM	10770	CA	LEU	B	705	36.514	-18.099	35.963	1.00	27.07	B	C
ATOM	10771	CB	LEU	B	705	36.760	-19.031	34.773	1.00	33.39	B	C
ATOM	10772	CG	LEU	B	705	35.468	-19.502	34.097	1.00	37.08	B	C
ATOM	10773	CD1	LEU	B	705	35.740	-20.199	32.772	1.00	37.31	B	C
ATOM	10774	CD2	LEU	B	705	34.710	-20.414	35.037	1.00	40.15	B	C
ATOM	10775	C	LEU	B	705	37.820	-17.785	36.669	1.00	26.20	B	C

ATOM	10776	O	LEU	B	705	38.594	-16.946	36.210	1.00	28.60	B	O
ATOM	10777	N	ILE	B	706	38.052	-18.444	37.800	1.00	25.60	B	N
ATOM	10778	CA	ILE	B	706	39.312	-18.280	38.523	1.00	24.89	B	C
ATOM	10779	CB	ILE	B	706	39.112	-17.453	39.815	1.00	32.16	B	C
ATOM	10780	CG1	ILE	B	706	38.769	-16.009	39.453	1.00	34.05	B	C
ATOM	10781	CD1	ILE	B	706	38.045	-15.271	40.535	1.00	36.25	B	C
ATOM	10782	CG2	ILE	B	706	40.359	-17.480	40.667	1.00	29.51	B	C
ATOM	10783	C	ILE	B	706	39.937	-19.632	38.833	1.00	23.64	B	C
ATOM	10784	O	ILE	B	706	39.240	-20.586	39.195	1.00	27.99	B	O
ATOM	10785	N	ALA	B	707	41.242	-19.732	38.644	1.00	22.67	B	N
ATOM	10786	CA	ALA	B	707	41.936	-20.966	38.939	1.00	21.70	B	C
ATOM	10787	CB	ALA	B	707	42.468	-21.593	37.661	1.00	20.92	B	C
ATOM	10788	C	ALA	B	707	43.068	-20.739	39.946	1.00	21.59	B	C
ATOM	10789	O	ALA	B	707	43.553	-19.618	40.112	1.00	22.13	B	O
ATOM	10790	N	SER	B	708	43.474	-21.807	40.615	1.00	21.21	B	N
ATOM	10791	CA	SER	B	708	44.608	-21.741	41.536	1.00	21.29	B	C
ATOM	10792	CB	SER	B	708	44.139	-21.393	42.944	1.00	22.67	B	C
ATOM	10793	OG	SER	B	708	43.503	-22.510	43.544	1.00	23.03	B	O
ATOM	10794	C	SER	B	708	45.286	-23.093	41.559	1.00	20.56	B	C
ATOM	10795	O	SER	B	708	44.674	-24.111	41.229	1.00	20.37	B	O
ATOM	10796	N	MET	B	709	46.558	-23.118	41.929	1.00	22.48	B	N
ATOM	10797	CA	MET	B	709	47.222	-24.399	42.069	1.00	22.14	B	C
ATOM	10798	CB	MET	B	709	48.141	-24.692	40.873	1.00	21.36	B	C
ATOM	10799	CG	MET	B	709	49.269	-23.694	40.652	1.00	23.79	B	C
ATOM	10800	SD	MET	B	709	50.632	-23.901	41.847	1.00	34.87	B	S
ATOM	10801	CE	MET	B	709	50.954	-25.667	41.657	1.00	19.65	B	C
ATOM	10802	C	MET	B	709	47.985	-24.472	43.384	1.00	25.10	B	C
ATOM	10803	O	MET	B	709	48.316	-23.455	43.972	1.00	21.63	B	O
ATOM	10804	N	SER	B	710	48.244	-25.687	43.836	1.00	21.04	B	N
ATOM	10805	CA	SER	B	710	49.218	-25.905	44.888	1.00	31.06	B	C
ATOM	10806	CB	SER	B	710	48.601	-25.843	46.287	1.00	33.09	B	C
ATOM	10807	OG	SER	B	710	47.640	-26.857	46.479	1.00	33.59	B	O
ATOM	10808	C	SER	B	710	49.883	-27.240	44.656	1.00	21.65	B	C
ATOM	10809	O	SER	B	710	49.412	-28.087	43.882	1.00	23.89	B	O
ATOM	10810	N	SER	B	711	50.997	-27.426	45.334	1.00	22.74	B	N
ATOM	10811	CA	SER	B	711	51.816	-28.588	45.133	1.00	22.37	B	C
ATOM	10812	CB	SER	B	711	52.633	-28.410	43.859	1.00	21.41	B	C
ATOM	10813	OG	SER	B	711	53.655	-27.451	44.084	1.00	25.32	B	O
ATOM	10814	C	SER	B	711	52.720	-28.626	46.340	1.00	25.38	B	C
ATOM	10815	O	SER	B	711	52.691	-27.705	47.158	1.00	24.63	B	O
ATOM	10816	N	ASP	B	712	53.526	-29.673	46.444	1.00	26.23	B	N
ATOM	10817	CA	ASP	B	712	54.387	-29.843	47.598	1.00	31.69	B	C
ATOM	10818	CB	ASP	B	712	55.010	-31.238	47.605	1.00	36.94	B	C
ATOM	10819	CG	ASP	B	712	54.013	-32.329	48.020	1.00	43.74	B	C
ATOM	10820	OD1	ASP	B	712	52.896	-31.992	48.481	1.00	42.36	B	O
ATOM	10821	OD2	ASP	B	712	54.357	-33.530	47.901	1.00	47.91	B	O
ATOM	10822	C	ASP	B	712	55.466	-28.755	47.721	1.00	31.12	B	C
ATOM	10823	O	ASP	B	712	56.053	-28.590	48.776	1.00	35.50	B	O
ATOM	10824	N	SER	B	713	55.729	-28.019	46.649	1.00	28.25	B	N
ATOM	10825	CA	SER	B	713	56.635	-26.883	46.748	1.00	33.47	B	C
ATOM	10826	CB	SER	B	713	57.919	-27.139	45.951	1.00	35.93	B	C
ATOM	10827	OG	SER	B	713	57.632	-27.665	44.666	1.00	35.39	B	O
ATOM	10828	C	SER	B	713	55.944	-25.574	46.326	1.00	33.02	B	C
ATOM	10829	O	SER	B	713	55.664	-24.700	47.152	1.00	40.69	B	O
ATOM	10830	N	LEU	B	714	55.640	-25.455	45.046	1.00	28.09	B	N
ATOM	10831	CA	LEU	B	714	55.047	-24.228	44.531	1.00	28.59	B	C
ATOM	10832	CB	LEU	B	714	55.326	-24.117	43.037	1.00	22.55	B	C
ATOM	10833	CG	LEU	B	714	54.842	-22.865	42.309	1.00	22.46	B	C
ATOM	10834	CD1	LEU	B	714	55.607	-21.606	42.803	1.00	24.07	B	C
ATOM	10835	CD2	LEU	B	714	55.018	-23.075	40.816	1.00	28.05	B	C
ATOM	10836	C	LEU	B	714	53.543	-24.132	44.809	1.00	26.78	B	C
ATOM	10837	O	LEU	B	714	52.782	-25.056	44.505	1.00	24.52	B	O
ATOM	10838	N	ARG	B	715	53.115	-23.011	45.386	1.00	23.91	B	N
ATOM	10839	CA	ARG	B	715	51.688	-22.731	45.524	1.00	31.99	B	C
ATOM	10840	C	ARG	B	715	51.379	-21.254	45.329	1.00	29.55	B	C
ATOM	10841	O	ARG	B	715	52.263	-20.469	45.019	1.00	28.47	B	O
ATOM	10842	CB	ARG	B	715	51.137	-23.215	46.869	1.00	39.49	B	C
ATOM	10843	CG	ARG	B	715	51.981	-22.851	48.069	1.00	45.24	B	C
ATOM	10844	CD	ARG	B	715	51.387	-23.381	49.380	1.00	49.37	B	C
ATOM	10845	NE	ARG	B	715	50.979	-24.784	49.311	1.00	52.53	B	N
ATOM	10846	CZ	ARG	B	715	51.797	-25.827	49.459	1.00	56.49	B	C
ATOM	10847	NH1	ARG	B	715	53.100	-25.650	49.666	1.00	58.80	B	N
ATOM	10848	NH2	ARG	B	715	51.311	-27.059	49.387	1.00	55.08	B	N
ATOM	10849	N	HIS	B	716	50.110	-20.906	45.505	1.00	24.61	B	N
ATOM	10850	CA	HIS	B	716	49.636	-19.540	45.394	1.00	25.54	B	C
ATOM	10851	CB	HIS	B	716	50.233	-18.684	46.505	1.00	27.80	B	C
ATOM	10852	CG	HIS	B	716	49.875	-19.167	47.870	1.00	35.91	B	C

ATOM	10853	ND1	HIS	B	716	48.569	-19.312	48.283	1.00	29.63	B	N
ATOM	10854	CE1	HIS	B	716	48.552	-19.730	49.534	1.00	31.35	B	C
ATOM	10855	NE2	HIS	B	716	49.798	-19.882	49.938	1.00	33.15	B	N
ATOM	10856	CD2	HIS	B	716	50.647	-19.553	48.911	1.00	30.54	B	C
ATOM	10857	C	HIS	B	716	49.902	-18.938	44.018	1.00	24.73	B	C
ATOM	10858	O	HIS	B	716	50.342	-17.779	43.890	1.00	29.24	B	O
ATOM	10859	N	VAL	B	717	49.623	-19.749	43.011	1.00	23.10	B	N
ATOM	10860	CA	VAL	B	717	49.737	-19.382	41.621	1.00	27.79	B	C
ATOM	10861	CB	VAL	B	717	50.695	-20.332	40.897	1.00	28.77	B	C
ATOM	10862	CG1	VAL	B	717	50.538	-20.207	39.392	1.00	25.28	B	C
ATOM	10863	CG2	VAL	B	717	52.137	-20.071	41.342	1.00	22.53	B	C
ATOM	10864	C	VAL	B	717	48.340	-19.525	41.022	1.00	27.75	B	C
ATOM	10865	O	VAL	B	717	47.669	-20.525	41.248	1.00	23.26	B	O
ATOM	10866	N	TYR	B	718	47.915	-18.546	40.237	1.00	22.35	B	N
ATOM	10867	CA	TYR	B	718	46.512	-18.439	39.861	1.00	22.30	B	C
ATOM	10868	CB	TYR	B	718	45.868	-17.295	40.649	1.00	23.81	B	C
ATOM	10869	CG	TYR	B	718	46.207	-17.305	42.121	1.00	24.67	B	C
ATOM	10870	CD1	TYR	B	718	45.664	-18.265	42.966	1.00	24.46	B	C
ATOM	10871	CE1	TYR	B	718	45.946	-18.284	44.308	1.00	25.67	B	C
ATOM	10872	CZ	TYR	B	718	46.791	-17.331	44.849	1.00	27.11	B	C
ATOM	10873	OH	TYR	B	718	47.059	-17.362	46.193	1.00	28.69	B	O
ATOM	10874	CE2	TYR	B	718	47.349	-16.348	44.034	1.00	27.36	B	C
ATOM	10875	CD2	TYR	B	718	47.053	-16.337	42.676	1.00	26.15	B	C
ATOM	10876	C	TYR	B	718	46.325	-18.163	38.385	1.00	22.18	B	C
ATOM	10877	O	TYR	B	718	47.285	-17.902	37.660	1.00	22.37	B	O
ATOM	10878	N	GLY	B	719	45.071	-18.181	37.961	1.00	26.29	B	N
ATOM	10879	CA	GLY	B	719	44.689	-17.734	36.630	1.00	25.92	B	C
ATOM	10880	C	GLY	B	719	43.271	-17.203	36.675	1.00	23.49	B	C
ATOM	10881	O	GLY	B	719	42.550	-17.436	37.648	1.00	23.56	B	O
ATOM	10882	N	GLU	B	720	42.860	-16.500	35.625	1.00	24.41	B	N
ATOM	10883	CA	GLU	B	720	41.541	-15.890	35.607	1.00	25.52	B	C
ATOM	10884	C	GLU	B	720	41.083	-15.667	34.161	1.00	26.31	B	C
ATOM	10885	O	GLU	B	720	41.901	-15.497	33.264	1.00	29.24	B	O
ATOM	10886	CB	GLU	B	720	41.557	-14.556	36.361	1.00	26.97	B	C
ATOM	10887	CG	GLU	B	720	42.449	-13.508	35.705	1.00	47.15	B	C
ATOM	10888	CD	GLU	B	720	42.558	-12.199	36.489	1.00	49.58	B	C
ATOM	10889	OE1	GLU	B	720	41.531	-11.671	36.982	1.00	50.03	B	O
ATOM	10890	OE2	GLU	B	720	43.690	-11.686	36.588	1.00	51.01	B	O
ATOM	10891	N	LEU	B	721	39.777	-15.662	33.949	1.00	27.03	B	N
ATOM	10892	CA	LEU	B	721	39.234	-15.416	32.619	1.00	28.20	B	C
ATOM	10893	CB	LEU	B	721	39.226	-16.702	31.785	1.00	27.52	B	C
ATOM	10894	CG	LEU	B	721	38.641	-16.538	30.374	1.00	33.16	B	C
ATOM	10895	CD1	LEU	B	721	39.525	-15.621	29.580	1.00	30.23	B	C
ATOM	10896	CD2	LEU	B	721	38.495	-17.893	29.667	1.00	28.87	B	C
ATOM	10897	C	LEU	B	721	37.823	-14.897	32.758	1.00	29.58	B	C
ATOM	10898	O	LEU	B	721	36.977	-15.559	33.358	1.00	29.28	B	O
ATOM	10899	N	ASP	B	722	37.574	-13.709	32.211	1.00	31.90	B	N
ATOM	10900	CA	ASP	B	722	36.225	-13.186	32.121	1.00	36.28	B	C
ATOM	10901	CB	ASP	B	722	36.233	-11.680	31.842	1.00	39.87	B	C
ATOM	10902	CG	ASP	B	722	36.857	-10.879	32.961	1.00	45.23	B	C
ATOM	10903	OD1	ASP	B	722	36.568	-11.167	34.140	1.00	44.94	B	O
ATOM	10904	OD2	ASP	B	722	37.639	-9.955	32.653	1.00	49.06	B	O
ATOM	10905	C	ASP	B	722	35.530	-13.869	30.960	1.00	36.97	B	C
ATOM	10906	O	ASP	B	722	36.079	-13.954	29.862	1.00	36.41	B	O
ATOM	10907	N	VAL	B	723	34.316	-14.336	31.194	1.00	36.81	B	N
ATOM	10908	CA	VAL	B	723	33.527	-14.913	30.117	1.00	41.52	B	C
ATOM	10909	CB	VAL	B	723	33.425	-16.465	30.224	1.00	36.83	B	C
ATOM	10910	CG1	VAL	B	723	34.821	-17.080	30.260	1.00	32.36	B	C
ATOM	10911	CG2	VAL	B	723	32.652	-16.882	31.463	1.00	40.36	B	C
ATOM	10912	C	VAL	B	723	32.145	-14.280	30.085	1.00	42.27	B	C
ATOM	10913	O	VAL	B	723	31.506	-14.101	31.122	1.00	42.81	B	O
ATOM	10914	N	GLN	B	724	31.709	-13.907	28.890	1.00	43.80	B	N
ATOM	10915	CA	GLN	B	724	30.326	-13.498	28.680	1.00	46.10	B	C
ATOM	10916	CB	GLN	B	724	30.235	-12.400	27.618	1.00	46.68	B	C
ATOM	10917	C	GLN	B	724	29.535	-14.735	28.260	1.00	47.77	B	C
ATOM	10918	O	GLN	B	724	29.949	-15.475	27.364	1.00	48.94	B	O
ATOM	10919	N	ILE	B	725	28.425	-14.996	28.938	1.00	47.22	B	N
ATOM	10920	CA	ILE	B	725	27.565	-16.090	28.518	1.00	48.85	B	C
ATOM	10921	CB	ILE	B	725	27.490	-17.228	29.567	1.00	50.28	B	C
ATOM	10922	CG1	ILE	B	725	26.282	-17.065	30.473	1.00	54.19	B	C
ATOM	10923	CD1	ILE	B	725	25.758	-18.381	30.955	1.00	58.19	B	C
ATOM	10924	CG2	ILE	B	725	28.797	-17.340	30.383	1.00	46.05	B	C
ATOM	10925	C	ILE	B	725	26.171	-15.576	28.096	1.00	50.36	B	C
ATOM	10926	O	ILE	B	725	25.601	-14.662	28.709	1.00	48.95	B	O
ATOM	10927	O	GLN	B	726	23.269	-17.346	27.687	1.00	59.76	B	O
ATOM	10928	N	GLN	B	726	25.645	-16.147	27.019	1.00	51.40	B	N
ATOM	10929	CA	GLN	B	726	24.407	-15.646	26.426	1.00	56.09	B	C

ATOM	10930	C	GLN	B	726	23.180	-16.273	27.088	1.00	59.90	B	C
ATOM	10931	CB	GLN	B	726	24.403	-15.888	24.915	1.00	55.99	B	C
ATOM	10932	O	ARG	B	727	20.231	-17.011	25.475	1.00	68.73	B	O
ATOM	10933	N	ARG	B	727	22.046	-15.589	26.997	1.00	63.09	B	N
ATOM	10934	CA	ARG	B	727	20.808	-16.069	27.597	1.00	65.03	B	C
ATOM	10935	C	ARG	B	727	20.174	-17.129	26.700	1.00	67.49	B	C
ATOM	10936	CB	ARG	B	727	19.839	-14.904	27.813	1.00	66.44	B	C
ATOM	10937	O	ARG	B	728	17.120	-17.849	25.762	1.00	75.31	B	O
ATOM	10938	N	ARG	B	728	19.590	-18.159	27.317	1.00	66.97	B	N
ATOM	10939	CA	ARG	B	728	18.884	-19.225	26.597	1.00	68.73	B	C
ATOM	10940	C	ARG	B	728	17.981	-18.684	25.496	1.00	73.05	B	C
ATOM	10941	CB	ARG	B	728	18.027	-20.048	27.565	1.00	68.83	B	C
ATOM	10942	O	PRO	B	729	15.901	-20.579	23.771	1.00	83.07	B	O
ATOM	10943	N	PRO	B	729	18.186	-19.153	24.252	1.00	75.24	B	N
ATOM	10944	CA	PRO	B	729	17.330	-18.786	23.114	1.00	79.66	B	C
ATOM	10945	C	PRO	B	729	15.986	-19.497	23.189	1.00	82.58	B	C
ATOM	10946	CB	PRO	B	729	18.121	-19.294	21.905	1.00	79.25	B	C
ATOM	10947	CG	PRO	B	729	18.916	-20.434	22.443	1.00	77.13	B	C
ATOM	10948	CD	PRO	B	729	19.289	-20.043	23.848	1.00	73.72	B	C
ATOM	10949	O	SER	B	730	13.265	-21.673	21.678	1.00	87.03	B	O
ATOM	10950	N	SER	B	730	14.949	-18.898	22.615	1.00	85.69	B	N
ATOM	10951	CA	SER	B	730	13.630	-19.510	22.635	1.00	83.51	B	C
ATOM	10952	C	SER	B	730	13.494	-20.483	21.475	1.00	86.18	B	C
ATOM	10953	CB	SER	B	730	12.538	-18.443	22.563	1.00	86.81	B	C
ATOM	10954	OG	SER	B	730	12.593	-17.746	21.331	1.00	88.67	B	O
ATOM	10955	CA	CA	C	1	54.210	73.864	-8.774	1.00	15.94	C	CA
ATOM	10956	CA	CA	C	2	71.492	65.483	4.889	1.00	29.69	D	CA
ATOM	10957	CA	CA	C	3	65.183	54.435	12.034	1.00	20.77	E	CA
ATOM	10958	CA	CA	C	4	60.463	32.661	42.752	1.00	15.65	F	CA
ATOM	10959	CA	CA	C	5	76.779	22.835	56.898	1.00	26.63	G	CA
ATOM	10960	CA	CA	C	6	69.753	11.496	62.955	1.00	22.85	H	CA
ATOM	10961	O	HOH	S	2	62.504	31.460	42.508	1.00	11.20	S	O
ATOM	10962	O	HOH	S	3	39.182	29.436	37.375	1.00	9.97	S	O
ATOM	10963	O	HOH	S	4	50.246	85.036	-5.009	1.00	10.50	S	O
ATOM	10964	O	HOH	S	5	33.748	24.959	27.727	1.00	15.31	S	O
ATOM	10965	O	HOH	S	6	32.873	69.805	-13.190	1.00	8.28	S	O
ATOM	10966	O	HOH	S	7	34.073	53.733	-21.011	1.00	11.01	S	O
ATOM	10967	O	HOH	S	8	50.604	66.578	-1.254	1.00	13.67	S	O
ATOM	10968	O	HOH	S	10	40.389	13.758	28.510	1.00	9.30	S	O
ATOM	10969	O	HOH	S	11	53.980	50.167	-3.214	1.00	15.56	S	O
ATOM	10970	O	HOH	S	12	56.282	72.740	-9.087	1.00	13.47	S	O
ATOM	10971	O	HOH	S	13	33.162	67.440	-9.734	1.00	12.78	S	O
ATOM	10972	O	HOH	S	14	49.821	17.678	24.337	1.00	8.36	S	O
ATOM	10973	O	HOH	S	15	57.471	25.403	51.995	1.00	14.34	S	O
ATOM	10974	O	HOH	S	16	64.422	56.647	12.591	1.00	18.62	S	O
ATOM	10975	O	HOH	S	17	66.819	55.407	10.854	1.00	17.44	S	O
ATOM	10976	O	HOH	S	18	52.020	31.216	23.884	1.00	13.69	S	O
ATOM	10977	O	HOH	S	19	56.916	81.116	5.122	1.00	12.99	S	O
ATOM	10978	O	HOH	S	20	48.855	25.672	30.786	1.00	9.64	S	O
ATOM	10979	O	HOH	S	21	42.331	18.646	40.403	1.00	13.85	S	O
ATOM	10980	O	HOH	S	22	39.452	26.866	40.535	1.00	16.18	S	O
ATOM	10981	O	HOH	S	23	30.190	66.323	-28.314	1.00	16.76	S	O
ATOM	10982	O	HOH	S	24	35.819	20.086	24.148	1.00	15.24	S	O
ATOM	10983	O	HOH	S	25	51.365	10.718	31.864	1.00	11.10	S	O
ATOM	10984	O	HOH	S	26	42.367	65.954	-19.822	1.00	12.35	S	O
ATOM	10985	O	HOH	S	27	35.539	26.848	17.519	1.00	13.78	S	O
ATOM	10986	O	HOH	S	28	51.926	67.179	0.871	1.00	16.01	S	O
ATOM	10987	O	HOH	S	29	52.075	5.004	38.389	1.00	12.91	S	O
ATOM	10988	O	HOH	S	30	60.064	30.903	38.114	1.00	14.33	S	O
ATOM	10989	O	HOH	S	32	53.350	12.891	32.078	1.00	14.06	S	O
ATOM	10990	O	HOH	S	33	55.654	67.188	-12.882	1.00	13.79	S	O
ATOM	10991	O	HOH	S	34	38.130	59.647	2.974	1.00	15.50	S	O
ATOM	10992	O	HOH	S	35	61.930	26.052	38.397	1.00	14.58	S	O
ATOM	10993	O	HOH	S	36	42.210	55.314	-26.578	1.00	16.81	S	O
ATOM	10994	O	HOH	S	38	34.197	17.172	4.033	1.00	11.07	S	O
ATOM	10995	O	HOH	S	39	60.323	26.561	30.002	1.00	24.32	S	O
ATOM	10996	O	HOH	S	40	46.760	31.349	31.241	1.00	15.93	S	O
ATOM	10997	O	HOH	S	41	37.148	26.923	22.094	1.00	13.94	S	O
ATOM	10998	O	HOH	S	42	51.553	50.347	1.250	1.00	12.47	S	O
ATOM	10999	O	HOH	S	44	37.608	28.383	19.894	1.00	15.65	S	O
ATOM	11000	O	HOH	S	45	43.994	60.197	6.365	1.00	16.56	S	O
ATOM	11001	O	HOH	S	46	50.502	52.582	-14.138	1.00	15.89	S	O
ATOM	11002	O	HOH	S	47	35.249	12.596	9.494	1.00	14.56	S	O
ATOM	11003	O	HOH	S	48	56.693	10.824	52.700	1.00	15.45	S	O
ATOM	11004	O	HOH	S	49	29.806	17.608	32.645	1.00	15.80	S	O
ATOM	11005	O	HOH	S	50	56.188	7.192	47.998	1.00	12.52	S	O
ATOM	11006	O	HOH	S	51	38.730	30.194	14.089	1.00	14.15	S	O

ATOM	11007	O	HOH	S	52	53.658	71.723	-13.408	1.00	17.63	S	O
ATOM	11008	O	HOH	S	53	43.155	73.836	7.374	1.00	19.53	S	O
ATOM	11009	O	HOH	S	54	29.216	59.731	-25.685	1.00	16.42	S	O
ATOM	11010	O	HOH	S	55	45.051	71.149	-27.181	1.00	18.17	S	O
ATOM	11011	O	HOH	S	56	56.284	24.757	23.642	1.00	10.28	S	O
ATOM	11012	O	HOH	S	57	43.141	57.613	-25.848	1.00	12.61	S	O
ATOM	11013	O	HOH	S	58	33.144	22.319	37.423	1.00	22.22	S	O
ATOM	11014	O	HOH	S	59	66.326	0.575	40.466	1.00	12.29	S	O
ATOM	11015	O	HOH	S	60	31.859	65.880	-3.565	1.00	19.92	S	O
ATOM	11016	O	HOH	S	61	23.519	57.506	-16.806	1.00	18.01	S	O
ATOM	11017	O	HOH	S	62	50.117	17.317	18.759	1.00	17.45	S	O
ATOM	11018	O	HOH	S	63	69.154	21.876	55.193	1.00	17.42	S	O
ATOM	11019	O	HOH	S	64	38.981	12.741	10.897	1.00	17.86	S	O
ATOM	11020	O	HOH	S	65	69.443	12.379	38.671	1.00	15.35	S	O
ATOM	11021	O	HOH	S	66	43.800	28.717	25.298	1.00	16.39	S	O
ATOM	11022	O	HOH	S	67	36.346	59.367	-9.615	1.00	14.88	S	O
ATOM	11023	O	HOH	S	68	45.692	29.609	23.563	1.00	15.11	S	O
ATOM	11024	O	HOH	S	70	56.190	24.978	49.742	1.00	16.27	S	O
ATOM	11025	O	HOH	S	71	47.763	73.921	-22.011	1.00	19.87	S	O
ATOM	11026	O	HOH	S	72	46.352	45.884	-11.345	1.00	16.71	S	O
ATOM	11027	O	HOH	S	73	48.082	10.925	20.582	1.00	15.97	S	O
ATOM	11028	O	HOH	S	74	45.235	51.231	-17.915	1.00	13.86	S	O
ATOM	11029	O	HOH	S	76	47.219	53.375	-17.970	1.00	14.13	S	O
ATOM	11030	O	HOH	S	77	55.165	48.398	1.373	1.00	16.17	S	O
ATOM	11031	O	HOH	S	79	51.445	52.632	2.578	1.00	15.15	S	O
ATOM	11032	O	HOH	S	80	27.031	62.657	-12.568	1.00	19.23	S	O
ATOM	11033	O	HOH	S	82	26.901	55.335	-45.597	1.00	13.42	S	O
ATOM	11034	O	HOH	S	83	59.905	54.215	-6.845	1.00	14.22	S	O
ATOM	11035	O	HOH	S	84	40.655	60.741	4.366	1.00	15.66	S	O
ATOM	11036	O	HOH	S	85	48.543	34.601	31.588	1.00	17.14	S	O
ATOM	11037	O	HOH	S	86	62.929	49.727	6.064	1.00	17.92	S	O
ATOM	11038	O	HOH	S	87	24.475	56.230	-45.394	1.00	17.38	S	O
ATOM	11039	O	HOH	S	88	59.796	23.702	32.559	1.00	18.40	S	O
ATOM	11040	O	HOH	S	89	54.548	69.086	-14.397	1.00	20.68	S	O
ATOM	11041	O	HOH	S	90	59.164	69.647	-3.685	1.00	17.83	S	O
ATOM	11042	O	HOH	S	91	65.956	25.562	49.794	1.00	19.86	S	O
ATOM	11043	O	HOH	S	92	38.497	72.464	-17.839	1.00	15.57	S	O
ATOM	11044	O	HOH	S	93	37.215	19.885	-7.102	1.00	21.29	S	O
ATOM	11045	O	HOH	S	94	35.006	10.256	5.806	1.00	13.17	S	O
ATOM	11046	O	HOH	S	95	63.506	53.671	-12.105	1.00	18.07	S	O
ATOM	11047	O	HOH	S	96	53.115	47.087	-10.916	1.00	14.00	S	O
ATOM	11048	O	HOH	S	97	62.012	1.657	46.115	1.00	19.39	S	O
ATOM	11049	O	HOH	S	99	37.425	10.645	9.928	1.00	14.27	S	O
ATOM	11050	O	HOH	S	100	49.879	42.168	45.317	1.00	19.13	S	O
ATOM	11051	O	HOH	S	101	58.828	5.972	39.121	1.00	12.23	S	O
ATOM	11052	O	HOH	S	102	46.688	61.466	7.786	1.00	16.08	S	O
ATOM	11053	O	HOH	S	103	59.442	8.536	46.967	1.00	14.13	S	O
ATOM	11054	O	HOH	S	104	34.979	9.187	31.182	1.00	21.10	S	O
ATOM	11055	O	HOH	S	106	67.103	45.796	1.654	1.00	23.75	S	O
ATOM	11056	O	HOH	S	107	39.289	11.237	36.552	1.00	15.16	S	O
ATOM	11057	O	HOH	S	108	34.034	23.577	10.284	1.00	20.71	S	O
ATOM	11058	O	HOH	S	109	43.614	31.285	2.447	1.00	21.67	S	O
ATOM	11059	O	HOH	S	110	62.326	75.044	-8.869	1.00	22.12	S	O
ATOM	11060	O	HOH	S	111	56.664	8.499	51.289	1.00	15.78	S	O
ATOM	11061	O	HOH	S	113	43.556	18.273	53.078	1.00	16.38	S	O
ATOM	11062	O	HOH	S	114	56.457	11.811	36.109	1.00	17.61	S	O
ATOM	11063	O	HOH	S	115	43.023	56.574	4.297	1.00	20.85	S	O
ATOM	11064	O	HOH	S	116	27.072	64.650	-22.273	1.00	16.57	S	O
ATOM	11065	O	HOH	S	117	54.693	17.898	28.578	1.00	20.63	S	O
ATOM	11066	O	HOH	S	118	63.904	64.088	3.552	1.00	18.91	S	O
ATOM	11067	O	HOH	S	119	33.618	6.945	14.517	1.00	17.97	S	O
ATOM	11068	O	HOH	S	120	60.303	6.572	51.477	1.00	22.29	S	O
ATOM	11069	O	HOH	S	121	47.604	89.005	7.880	1.00	14.26	S	O
ATOM	11070	O	HOH	S	122	64.754	23.351	56.947	1.00	18.26	S	O
ATOM	11071	O	HOH	S	124	27.992	48.505	-43.359	1.00	15.26	S	O
ATOM	11072	O	HOH	S	125	28.399	65.861	-32.701	1.00	17.56	S	O
ATOM	11073	O	HOH	S	126	48.782	15.437	23.447	1.00	15.00	S	O
ATOM	11074	O	HOH	S	127	60.948	41.914	-9.695	1.00	19.07	S	O
ATOM	11075	O	HOH	S	128	30.473	67.626	-30.556	1.00	18.21	S	O
ATOM	11076	O	HOH	S	129	52.086	7.457	39.490	1.00	14.09	S	O
ATOM	11077	O	HOH	S	130	52.920	47.676	58.931	1.00	19.51	S	O
ATOM	11078	O	HOH	S	131	63.261	15.260	34.806	1.00	20.86	S	O
ATOM	11079	O	HOH	S	132	65.078	28.028	48.015	1.00	17.00	S	O
ATOM	11080	O	HOH	S	133	30.524	49.215	-39.216	1.00	17.29	S	O
ATOM	11081	O	HOH	S	134	31.951	51.395	-38.577	1.00	17.09	S	O
ATOM	11082	O	HOH	S	135	67.688	7.312	56.647	1.00	26.87	S	O
ATOM	11083	O	HOH	S	136	42.888	31.110	31.767	1.00	17.20	S	O

ATOM	11084	O	HOH	S	137	70.915	15.627	64.339	1.00	17.08	S	O
ATOM	11085	O	HOH	S	138	58.296	45.760	56.548	1.00	15.22	S	O
ATOM	11086	O	HOH	S	139	72.078	29.898	48.203	1.00	20.96	S	O
ATOM	11087	O	HOH	S	140	35.353	17.009	0.630	1.00	16.96	S	O
ATOM	11088	O	HOH	S	142	52.892	6.068	33.698	1.00	27.69	S	O
ATOM	11089	O	HOH	S	143	50.058	44.513	60.456	1.00	17.44	S	O
ATOM	11090	O	HOH	S	144	54.746	33.720	29.243	1.00	23.57	S	O
ATOM	11091	O	HOH	S	146	77.628	27.156	59.821	1.00	24.11	S	O
ATOM	11092	O	HOH	S	147	41.837	32.525	51.753	1.00	20.02	S	O
ATOM	11093	O	HOH	S	148	49.061	82.379	-12.821	1.00	22.70	S	O
ATOM	11094	O	HOH	S	149	33.195	51.747	-12.911	1.00	14.80	S	O
ATOM	11095	O	HOH	S	150	59.403	65.646	5.671	1.00	20.68	S	O
ATOM	11096	O	HOH	S	151	40.219	71.655	-19.541	1.00	19.01	S	O
ATOM	11097	O	HOH	S	152	68.981	13.835	63.721	1.00	21.77	S	O
ATOM	11098	O	HOH	S	153	31.754	18.141	4.184	1.00	17.50	S	O
ATOM	11099	O	HOH	S	154	46.233	48.248	-10.201	1.00	14.54	S	O
ATOM	11100	O	HOH	S	155	40.821	57.628	3.111	1.00	15.12	S	O
ATOM	11101	O	HOH	S	156	43.889	83.445	-6.562	1.00	18.32	S	O
ATOM	11102	O	HOH	S	157	52.702	87.237	5.325	1.00	18.00	S	O
ATOM	11103	O	HOH	S	158	36.206	71.115	-18.909	1.00	20.83	S	O
ATOM	11104	O	HOH	S	159	35.706	69.534	6.884	1.00	23.06	S	O
ATOM	11105	O	HOH	S	161	69.577	15.894	43.921	1.00	19.08	S	O
ATOM	11106	O	HOH	S	162	45.138	32.136	32.954	1.00	18.69	S	O
ATOM	11107	O	HOH	S	164	31.885	23.231	-4.337	1.00	26.58	S	O
ATOM	11108	O	HOH	S	165	48.109	14.754	54.479	1.00	26.43	S	O
ATOM	11109	O	HOH	S	167	62.628	26.893	47.704	1.00	22.92	S	O
ATOM	11110	O	HOH	S	168	54.623	24.790	21.408	1.00	23.24	S	O
ATOM	11111	O	HOH	S	169	37.618	24.980	46.577	1.00	18.23	S	O
ATOM	11112	O	HOH	S	170	58.642	63.783	-14.962	1.00	27.52	S	O
ATOM	11113	O	HOH	S	171	26.725	47.099	-38.893	1.00	20.81	S	O
ATOM	11114	O	HOH	S	172	50.526	-10.789	48.017	1.00	22.66	S	O
ATOM	11115	O	HOH	S	173	55.281	7.780	34.030	1.00	19.14	S	O
ATOM	11116	O	HOH	S	175	22.171	54.984	-18.747	1.00	26.35	S	O
ATOM	11117	O	HOH	S	176	62.258	24.571	36.245	1.00	16.50	S	O
ATOM	11118	O	HOH	S	177	32.189	9.060	31.446	1.00	22.86	S	O
ATOM	11119	O	HOH	S	178	28.561	15.266	30.304	1.00	28.17	S	O
ATOM	11120	O	HOH	S	179	50.988	5.463	35.757	1.00	16.62	S	O
ATOM	11121	O	HOH	S	180	56.514	62.731	0.809	1.00	15.73	S	O
ATOM	11122	O	HOH	S	182	37.359	33.345	14.599	1.00	20.67	S	O
ATOM	11123	O	HOH	S	183	45.164	46.259	-13.873	1.00	21.37	S	O
ATOM	11124	O	HOH	S	184	42.201	6.916	19.727	1.00	14.03	S	O
ATOM	11125	O	HOH	S	185	56.750	43.339	-3.673	1.00	23.19	S	O
ATOM	11126	O	HOH	S	186	48.828	32.185	58.394	1.00	20.95	S	O
ATOM	11127	O	HOH	S	187	40.759	-21.607	43.936	1.00	24.82	S	O
ATOM	11128	O	HOH	S	188	35.951	74.043	0.746	1.00	21.46	S	O
ATOM	11129	O	HOH	S	189	38.889	69.216	-27.101	1.00	22.10	S	O
ATOM	11130	O	HOH	S	191	42.072	2.929	40.386	1.00	30.11	S	O
ATOM	11131	O	HOH	S	192	50.011	42.055	49.446	1.00	23.05	S	O
ATOM	11132	O	HOH	S	193	40.634	31.136	16.007	1.00	16.43	S	O
ATOM	11133	O	HOH	S	194	43.761	-36.835	38.974	1.00	23.33	S	O
ATOM	11134	O	HOH	S	195	24.258	14.372	4.391	1.00	19.95	S	O
ATOM	11135	O	HOH	S	196	62.526	1.043	51.519	1.00	20.15	S	O
ATOM	11136	O	HOH	S	197	70.914	19.948	47.243	1.00	17.05	S	O
ATOM	11137	O	HOH	S	198	55.153	55.472	-17.658	1.00	20.00	S	O
ATOM	11138	O	HOH	S	200	49.841	-16.310	39.650	1.00	21.18	S	O
ATOM	11139	O	HOH	S	201	49.446	48.371	-15.912	1.00	21.50	S	O
ATOM	11140	O	HOH	S	202	50.532	-15.411	42.304	1.00	17.56	S	O
ATOM	11141	O	HOH	S	203	53.306	64.363	-18.495	1.00	19.16	S	O
ATOM	11142	O	HOH	S	204	62.792	18.242	34.079	1.00	24.22	S	O
ATOM	11143	O	HOH	S	206	45.861	10.520	17.209	1.00	23.32	S	O
ATOM	11144	O	HOH	S	207	36.797	43.651	-8.699	1.00	25.48	S	O
ATOM	11145	O	HOH	S	208	66.900	24.237	47.554	1.00	18.81	S	O
ATOM	11146	O	HOH	S	209	29.388	45.944	-38.017	1.00	20.32	S	O
ATOM	11147	O	HOH	S	210	49.326	49.875	-17.894	1.00	23.54	S	O
ATOM	11148	O	HOH	S	211	32.369	73.690	-14.715	1.00	23.48	S	O
ATOM	11149	O	HOH	S	212	62.582	39.239	57.099	1.00	20.26	S	O
ATOM	11150	O	HOH	S	213	61.479	6.016	39.234	1.00	20.75	S	O
ATOM	11151	O	HOH	S	214	23.681	12.934	12.028	1.00	22.85	S	O
ATOM	11152	O	HOH	S	215	52.969	46.341	-14.486	1.00	34.02	S	O
ATOM	11153	O	HOH	S	216	50.791	48.705	-1.883	1.00	19.67	S	O
ATOM	11154	O	HOH	S	218	41.880	84.749	9.496	1.00	29.95	S	O
ATOM	11155	O	HOH	S	219	31.633	71.550	-18.333	1.00	24.70	S	O
ATOM	11156	O	HOH	S	220	40.707	33.872	16.525	1.00	22.07	S	O
ATOM	11157	O	HOH	S	221	58.365	2.341	51.112	1.00	37.47	S	O
ATOM	11158	O	HOH	S	222	79.132	57.898	17.718	1.00	40.53	S	O
ATOM	11159	O	HOH	S	223	33.203	9.363	26.313	1.00	27.35	S	O
ATOM	11160	O	HOH	S	224	60.977	44.883	65.688	1.00	27.68	S	O

ATOM	11161	O	HOH	S	225	33.770	8.432	10.169	1.00	26.54	S	O
ATOM	11162	O	HOH	S	226	26.662	62.046	-39.442	1.00	19.35	S	O
ATOM	11163	O	HOH	S	228	52.784	8.221	53.707	1.00	18.36	S	O
ATOM	11164	O	HOH	S	229	49.946	45.099	44.664	1.00	20.46	S	O
ATOM	11165	O	HOH	S	230	48.565	-10.272	52.003	1.00	20.65	S	O
ATOM	11166	O	HOH	S	231	28.363	51.200	-39.862	1.00	18.16	S	O
ATOM	11167	O	HOH	S	232	37.424	31.109	27.876	1.00	21.55	S	O
ATOM	11168	O	HOH	S	233	43.486	24.553	4.680	1.00	19.93	S	O
ATOM	11169	O	HOH	S	234	42.554	20.516	10.290	1.00	20.95	S	O
ATOM	11170	O	HOH	S	235	24.443	63.532	-39.568	1.00	23.46	S	O
ATOM	11171	O	HOH	S	237	34.692	15.956	42.066	1.00	29.48	S	O
ATOM	11172	O	HOH	S	238	52.959	-2.821	39.032	1.00	21.24	S	O
ATOM	11173	O	HOH	S	239	70.825	29.500	58.283	1.00	21.36	S	O
ATOM	11174	O	HOH	S	240	31.591	69.167	-36.579	1.00	20.38	S	O
ATOM	11175	O	HOH	S	241	61.329	14.639	32.938	1.00	21.17	S	O
ATOM	11176	O	HOH	S	242	37.619	7.084	36.946	1.00	27.19	S	O
ATOM	11177	O	HOH	S	243	45.982	19.140	54.599	1.00	21.79	S	O
ATOM	11178	O	HOH	S	244	43.765	-17.348	31.009	1.00	25.88	S	O
ATOM	11179	O	HOH	S	245	44.605	30.430	29.745	1.00	25.32	S	O
ATOM	11180	O	HOH	S	246	38.820	33.285	36.038	1.00	31.75	S	O
ATOM	11181	O	HOH	S	247	49.092	18.459	56.750	1.00	20.22	S	O
ATOM	11182	O	HOH	S	248	44.804	23.995	8.865	1.00	27.77	S	O
ATOM	11183	O	HOH	S	249	58.469	27.019	22.976	1.00	31.48	S	O
ATOM	11184	O	HOH	S	250	67.184	43.338	-1.535	1.00	22.70	S	O
ATOM	11185	O	HOH	S	251	65.399	12.629	43.984	1.00	18.48	S	O
ATOM	11186	O	HOH	S	252	31.245	67.763	-11.697	1.00	27.24	S	O
ATOM	11187	O	HOH	S	254	35.196	45.054	-10.635	1.00	26.28	S	O
ATOM	11188	O	HOH	S	255	50.835	-22.007	32.935	1.00	22.36	S	O
ATOM	11189	O	HOH	S	256	25.872	49.138	-17.805	1.00	25.82	S	O
ATOM	11190	O	HOH	S	257	45.900	25.191	-9.751	1.00	23.84	S	O
ATOM	11191	O	HOH	S	259	19.292	58.823	-18.764	1.00	34.60	S	O
ATOM	11192	O	HOH	S	260	72.123	16.057	43.860	1.00	30.35	S	O
ATOM	11193	O	HOH	S	261	44.432	89.141	-4.213	1.00	22.90	S	O
ATOM	11194	O	HOH	S	262	36.136	62.900	-45.763	1.00	24.94	S	O
ATOM	11195	O	HOH	S	263	32.205	28.765	16.684	1.00	26.22	S	O
ATOM	11196	O	HOH	S	264	55.995	65.405	-15.080	1.00	19.17	S	O
ATOM	11197	O	HOH	S	265	28.967	56.488	-7.291	1.00	27.60	S	O
ATOM	11198	O	HOH	S	266	26.827	64.697	-30.937	1.00	25.09	S	O
ATOM	11199	O	HOH	S	267	44.773	33.892	51.010	1.00	28.89	S	O
ATOM	11200	O	HOH	S	268	41.394	50.362	-29.095	1.00	19.89	S	O
ATOM	11201	O	HOH	S	269	58.687	7.509	49.423	1.00	19.52	S	O
ATOM	11202	O	HOH	S	270	35.651	78.433	-10.355	1.00	20.25	S	O
ATOM	11203	O	HOH	S	271	39.380	33.263	12.704	1.00	25.70	S	O
ATOM	11204	O	HOH	S	272	29.973	58.839	-8.400	1.00	19.77	S	O
ATOM	11205	O	HOH	S	273	56.645	58.990	-16.775	1.00	26.71	S	O
ATOM	11206	O	HOH	S	274	48.052	84.669	-7.067	1.00	23.47	S	O
ATOM	11207	O	HOH	S	275	49.378	64.732	-27.322	1.00	21.48	S	O
ATOM	11208	O	HOH	S	276	67.258	48.541	13.793	1.00	24.34	S	O
ATOM	11209	O	HOH	S	277	33.377	70.329	-34.622	1.00	22.11	S	O
ATOM	11210	O	HOH	S	278	56.658	68.480	-3.785	1.00	24.47	S	O
ATOM	11211	O	HOH	S	279	37.973	5.814	-13.880	1.00	20.59	S	O
ATOM	11212	O	HOH	S	280	67.002	62.886	-2.167	1.00	24.53	S	O
ATOM	11213	O	HOH	S	281	67.694	23.154	37.543	1.00	28.70	S	O
ATOM	11214	O	HOH	S	282	64.780	22.958	36.327	1.00	23.22	S	O
ATOM	11215	O	HOH	S	283	38.378	31.556	32.156	1.00	21.95	S	O
ATOM	11216	O	HOH	S	284	54.990	-21.578	46.953	1.00	20.76	S	O
ATOM	11217	O	HOH	S	285	59.464	20.071	68.963	1.00	33.22	S	O
ATOM	11218	O	HOH	S	286	45.394	85.756	6.526	1.00	24.22	S	O
ATOM	11219	O	HOH	S	288	42.944	34.634	34.784	1.00	33.47	S	O
ATOM	11220	O	HOH	S	289	57.822	4.604	52.470	1.00	29.04	S	O
ATOM	11221	O	HOH	S	290	31.698	28.988	13.819	1.00	20.58	S	O
ATOM	11222	O	HOH	S	291	42.527	33.776	18.612	1.00	25.55	S	O
ATOM	11223	O	HOH	S	292	28.769	49.122	-17.780	1.00	23.65	S	O
ATOM	11224	O	HOH	S	293	66.383	51.373	14.825	1.00	25.30	S	O
ATOM	11225	O	HOH	S	294	45.926	-36.353	36.486	1.00	25.53	S	O
ATOM	11226	O	HOH	S	295	65.751	1.519	36.389	1.00	22.56	S	O
ATOM	11227	O	HOH	S	296	26.543	23.449	36.118	1.00	30.00	S	O
ATOM	11228	O	HOH	S	297	24.441	65.577	-31.861	1.00	25.78	S	O
ATOM	11229	O	HOH	S	298	55.975	47.285	-10.923	1.00	20.43	S	O
ATOM	11230	O	HOH	S	299	63.589	60.611	-9.280	1.00	38.18	S	O
ATOM	11231	O	HOH	S	300	60.880	28.382	36.984	1.00	17.29	S	O
ATOM	11232	O	HOH	S	301	75.138	15.073	59.010	1.00	22.59	S	O
ATOM	11233	O	HOH	S	302	43.335	7.593	17.391	1.00	27.44	S	O
ATOM	11234	O	HOH	S	303	65.267	61.728	-4.297	1.00	21.18	S	O
ATOM	11235	O	HOH	S	304	58.182	23.398	30.222	1.00	21.35	S	O
ATOM	11236	O	HOH	S	305	25.293	67.641	-33.709	1.00	25.22	S	O
ATOM	11237	O	HOH	S	306	32.974	30.331	34.636	1.00	26.10	S	O

ATOM	11238	O	HOH	S	307	31.639	25.286	10.360	1.00	24.87	S	O
ATOM	11239	O	HOH	S	308	32.247	71.376	-43.526	1.00	21.21	S	O
ATOM	11240	O	HOH	S	309	46.414	25.987	-6.979	1.00	17.88	S	O
ATOM	11241	O	HOH	S	310	24.587	51.264	-18.736	1.00	38.52	S	O
ATOM	11242	O	HOH	S	313	41.212	27.980	57.632	1.00	25.06	S	O
ATOM	11243	O	HOH	S	314	38.261	6.453	29.247	1.00	23.34	S	O
ATOM	11244	O	HOH	S	315	39.788	52.777	-32.660	1.00	31.16	S	O
ATOM	11245	O	HOH	S	316	60.422	32.214	35.842	1.00	18.46	S	O
ATOM	11246	O	HOH	S	317	30.176	70.088	-61.555	1.00	26.24	S	O
ATOM	11247	O	HOH	S	319	42.192	74.964	-19.734	1.00	24.84	S	O
ATOM	11248	O	HOH	S	320	72.344	69.903	7.378	1.00	28.89	S	O
ATOM	11249	O	HOH	S	321	47.761	64.475	-29.548	1.00	23.28	S	O
ATOM	11250	O	HOH	S	322	71.372	5.462	64.613	1.00	31.15	S	O
ATOM	11251	O	HOH	S	323	31.332	26.647	18.191	1.00	27.54	S	O
ATOM	11252	O	HOH	S	324	71.573	31.305	52.319	1.00	38.81	S	O
ATOM	11253	O	HOH	S	325	18.661	53.164	-37.469	1.00	25.27	S	O
ATOM	11254	O	HOH	S	326	34.457	56.438	6.602	1.00	30.66	S	O
ATOM	11255	O	HOH	S	327	60.260	12.420	32.813	1.00	32.17	S	O
ATOM	11256	O	HOH	S	328	24.408	67.521	-36.497	1.00	21.54	S	O
ATOM	11257	O	HOH	S	329	23.672	63.769	-15.640	1.00	25.98	S	O
ATOM	11258	O	HOH	S	332	66.692	66.359	-9.030	1.00	32.60	S	O
ATOM	11259	O	HOH	S	333	68.677	33.658	43.191	1.00	24.00	S	O
ATOM	11260	O	HOH	S	334	68.636	-2.203	38.107	1.00	21.89	S	O
ATOM	11261	O	HOH	S	335	65.740	41.252	-10.974	1.00	28.94	S	O
ATOM	11262	O	HOH	S	336	31.113	7.405	-12.129	1.00	35.89	S	O
ATOM	11263	O	HOH	S	337	48.171	58.338	-21.824	1.00	25.64	S	O
ATOM	11264	O	HOH	S	339	29.158	70.200	-17.813	1.00	30.59	S	O
ATOM	11265	O	HOH	S	340	37.762	62.533	-41.234	1.00	28.10	S	O
ATOM	11266	O	HOH	S	341	43.298	49.661	2.622	1.00	25.74	S	O
ATOM	11267	O	HOH	S	342	45.394	-24.031	44.841	1.00	37.66	S	O
ATOM	11268	O	HOH	S	344	46.979	48.893	-18.681	1.00	28.70	S	O
ATOM	11269	O	HOH	S	345	45.183	-16.453	33.654	1.00	33.49	S	O
ATOM	11270	O	HOH	S	346	71.076	-0.249	39.378	1.00	23.44	S	O
ATOM	11271	O	HOH	S	347	43.174	56.834	-31.390	1.00	23.44	S	O
ATOM	11272	O	HOH	S	348	72.766	27.897	42.374	1.00	27.51	S	O
ATOM	11273	O	HOH	S	349	43.115	59.554	3.997	1.00	20.28	S	O
ATOM	11274	O	HOH	S	350	43.403	30.812	27.085	1.00	28.06	S	O
ATOM	11275	O	HOH	S	351	44.505	21.356	8.604	1.00	20.28	S	O
ATOM	11276	O	HOH	S	352	67.751	73.409	10.098	1.00	26.16	S	O
ATOM	11277	O	HOH	S	353	59.557	0.471	49.652	1.00	22.10	S	O
ATOM	11278	O	HOH	S	354	54.531	42.233	-0.184	1.00	30.72	S	O
ATOM	11279	O	HOH	S	355	44.320	85.776	9.012	1.00	21.76	S	O
ATOM	11280	O	HOH	S	356	35.598	46.313	-29.229	1.00	24.92	S	O
ATOM	11281	O	HOH	S	357	28.265	7.558	34.150	1.00	34.28	S	O
ATOM	11282	O	HOH	S	358	33.615	25.612	19.128	1.00	21.29	S	O
ATOM	11283	O	HOH	S	359	61.063	65.753	-4.036	1.00	27.97	S	O
ATOM	11284	O	HOH	S	360	39.584	10.199	51.800	1.00	28.87	S	O
ATOM	11285	O	HOH	S	361	61.511	64.186	-14.125	1.00	27.00	S	O
ATOM	11286	O	HOH	S	362	60.247	67.358	-1.740	1.00	23.64	S	O
ATOM	11287	O	HOH	S	363	57.459	38.727	35.747	1.00	27.25	S	O
ATOM	11288	O	HOH	S	364	23.257	55.032	-49.217	1.00	32.46	S	O
ATOM	11289	O	HOH	S	365	49.991	44.758	49.839	1.00	25.82	S	O
ATOM	11290	O	HOH	S	366	70.617	8.192	65.545	1.00	27.53	S	O
ATOM	11291	O	HOH	S	367	39.501	32.889	7.187	1.00	21.40	S	O
ATOM	11292	O	HOH	S	368	31.804	47.582	-12.126	1.00	31.17	S	O
ATOM	11293	O	HOH	S	369	41.733	37.671	40.849	1.00	25.40	S	O
ATOM	11294	O	HOH	S	370	46.970	12.347	0.858	1.00	28.43	S	O
ATOM	11295	O	HOH	S	373	55.745	11.948	32.417	1.00	30.14	S	O
ATOM	11296	O	HOH	S	374	43.745	27.052	-10.511	1.00	32.18	S	O
ATOM	11297	O	HOH	S	375	59.955	42.616	-13.811	1.00	27.16	S	O
ATOM	11298	O	HOH	S	376	66.444	58.626	12.845	1.00	19.19	S	O
ATOM	11299	O	HOH	S	377	34.872	58.349	-47.931	1.00	43.03	S	O
ATOM	11300	O	HOH	S	378	72.178	22.511	44.505	1.00	35.29	S	O
ATOM	11301	O	HOH	S	379	56.427	-8.882	37.537	1.00	25.89	S	O
ATOM	11302	O	HOH	S	380	15.188	61.937	-33.401	1.00	37.05	S	O
ATOM	11303	O	HOH	S	381	46.159	16.130	53.150	1.00	22.46	S	O
ATOM	11304	O	HOH	S	382	37.322	75.472	3.110	1.00	27.88	S	O
ATOM	11305	O	HOH	S	383	41.421	32.376	30.099	1.00	25.19	S	O
ATOM	11306	O	HOH	S	384	71.817	3.515	52.253	1.00	23.12	S	O
ATOM	11307	O	HOH	S	386	52.695	33.016	5.585	1.00	31.91	S	O
ATOM	11308	O	HOH	S	387	33.989	5.492	24.358	1.00	30.30	S	O
ATOM	11309	O	HOH	S	388	32.161	46.517	-19.932	1.00	25.85	S	O
ATOM	11310	O	HOH	S	389	34.949	72.405	-20.948	1.00	29.68	S	O
ATOM	11311	O	HOH	S	391	28.101	26.139	19.522	1.00	27.02	S	O
ATOM	11312	O	HOH	S	392	52.324	20.547	-0.062	1.00	34.55	S	O
ATOM	11313	O	HOH	S	393	66.198	57.656	-7.449	1.00	35.80	S	O
ATOM	11314	O	HOH	S	394	34.013	32.903	8.312	1.00	29.44	S	O

ATOM	11315	O	HOH	S	395	52.051	19.373	58.336	1.00	19.45	S	O
ATOM	11316	O	HOH	S	396	51.644	63.934	-20.861	1.00	23.49	S	O
ATOM	11317	O	HOH	S	397	45.793	56.719	-25.998	1.00	28.55	S	O
ATOM	11318	O	HOH	S	398	57.121	7.188	60.988	1.00	30.27	S	O
ATOM	11319	O	HOH	S	399	67.929	32.394	52.407	1.00	45.03	S	O
ATOM	11320	O	HOH	S	400	46.152	-0.104	39.465	1.00	33.82	S	O
ATOM	11321	O	HOH	S	401	55.503	9.139	32.103	1.00	27.08	S	O
ATOM	11322	O	HOH	S	402	31.733	2.858	21.602	1.00	39.93	S	O
ATOM	11323	O	HOH	S	403	33.955	59.379	6.134	1.00	25.81	S	O
ATOM	11324	O	HOH	S	405	51.027	32.515	-11.370	1.00	37.52	S	O
ATOM	11325	O	HOH	S	406	54.792	63.385	-16.050	1.00	30.25	S	O
ATOM	11326	O	HOH	S	407	35.802	18.140	41.328	1.00	27.80	S	O
ATOM	11327	O	HOH	S	408	67.813	66.536	-0.554	1.00	26.10	S	O
ATOM	11328	O	HOH	S	409	53.584	67.000	-21.437	1.00	27.51	S	O
ATOM	11329	O	HOH	S	410	35.529	65.603	-60.921	1.00	30.19	S	O
ATOM	11330	O	HOH	S	411	57.458	12.835	33.773	1.00	27.74	S	O
ATOM	11331	O	HOH	S	412	77.781	25.463	0.059	1.00	41.07	S	O
ATOM	11332	O	HOH	S	413	57.649	43.086	1.689	1.00	24.24	S	O
ATOM	11333	O	HOH	S	414	71.193	32.293	49.661	1.00	28.45	S	O
ATOM	11334	O	HOH	S	415	54.729	20.452	13.937	1.00	25.90	S	O
ATOM	11335	O	HOH	S	416	37.796	27.432	38.338	1.00	26.99	S	O
ATOM	11336	O	HOH	S	417	26.121	68.185	-39.649	1.00	33.18	S	O
ATOM	11337	O	HOH	S	418	73.590	1.501	42.408	1.00	25.69	S	O
ATOM	11338	O	HOH	S	419	40.792	4.515	38.510	1.00	28.78	S	O
ATOM	11339	O	HOH	S	420	39.359	15.041	56.416	1.00	29.60	S	O
ATOM	11340	O	HOH	S	421	35.048	61.144	7.772	1.00	22.97	S	O
ATOM	11341	O	HOH	S	422	53.916	-21.248	34.750	1.00	31.80	S	O
ATOM	11342	O	HOH	S	423	44.275	80.398	-17.166	1.00	32.60	S	O
ATOM	11343	O	HOH	S	424	65.514	71.943	5.930	1.00	32.39	S	O
ATOM	11344	O	HOH	S	425	53.267	86.246	2.663	1.00	19.11	S	O
ATOM	11345	O	HOH	S	426	72.497	3.621	41.737	1.00	31.05	S	O
ATOM	11346	O	HOH	S	427	34.239	71.812	-44.392	1.00	31.07	S	O
ATOM	11347	O	HOH	S	428	68.250	43.034	-7.943	1.00	28.89	S	O
ATOM	11348	O	HOH	S	429	36.478	2.322	20.546	1.00	30.67	S	O
ATOM	11349	O	HOH	S	430	34.750	75.375	-13.972	1.00	28.68	S	O
ATOM	11350	O	HOH	S	431	50.062	4.138	46.380	1.00	33.17	S	O
ATOM	11351	O	HOH	S	432	39.046	70.954	8.907	1.00	27.26	S	O
ATOM	11352	O	HOH	S	433	35.482	71.652	0.321	1.00	29.96	S	O
ATOM	11353	O	HOH	S	434	46.990	46.778	-16.133	1.00	26.24	S	O
ATOM	11354	O	HOH	S	435	30.055	41.949	-27.999	1.00	31.91	S	O
ATOM	11355	O	HOH	S	436	49.843	48.568	1.986	1.00	27.47	S	O
ATOM	11356	O	HOH	S	437	30.369	22.616	-23.533	1.00	31.06	S	O
ATOM	11357	O	HOH	S	438	36.514	33.286	43.922	1.00	27.41	S	O
ATOM	11358	O	HOH	S	439	60.792	22.506	35.102	1.00	21.64	S	O
ATOM	11359	O	HOH	S	440	57.177	56.417	-16.053	1.00	28.05	S	O
ATOM	11360	O	HOH	S	441	17.142	52.264	-44.605	1.00	26.67	S	O
ATOM	11361	O	HOH	S	442	48.011	-33.331	30.826	1.00	34.23	S	O
ATOM	11362	O	HOH	S	443	58.342	-19.032	53.234	1.00	34.12	S	O
ATOM	11363	O	HOH	S	444	58.532	34.267	8.216	1.00	37.72	S	O
ATOM	11364	O	HOH	S	446	49.442	1.595	35.741	1.00	33.90	S	O
ATOM	11365	O	HOH	S	448	69.840	8.521	57.462	1.00	24.46	S	O
ATOM	11366	O	HOH	S	449	45.716	34.794	32.457	1.00	26.02	S	O
ATOM	11367	O	HOH	S	450	34.980	57.470	-53.480	1.00	28.10	S	O
ATOM	11368	O	HOH	S	451	21.905	21.565	12.492	1.00	29.95	S	O
ATOM	11369	O	HOH	S	452	30.706	70.885	-22.912	1.00	28.22	S	O
ATOM	11370	O	HOH	S	453	35.272	63.989	7.727	1.00	36.47	S	O
ATOM	11371	O	HOH	S	454	61.163	56.060	14.693	1.00	27.98	S	O
ATOM	11372	O	HOH	S	455	53.238	36.462	61.471	1.00	26.70	S	O
ATOM	11373	O	HOH	S	456	38.001	70.645	-21.097	1.00	28.96	S	O
ATOM	11374	O	HOH	S	457	59.090	54.081	13.991	1.00	23.20	S	O
ATOM	11375	O	HOH	S	459	35.765	30.004	32.784	1.00	36.59	S	O
ATOM	11376	O	HOH	S	460	39.213	50.029	-32.314	1.00	31.87	S	O
ATOM	11377	O	HOH	S	461	26.709	48.838	-22.255	1.00	32.90	S	O
ATOM	11378	O	HOH	S	462	26.607	70.528	-15.723	1.00	30.35	S	O
ATOM	11379	O	HOH	S	463	54.124	73.196	-15.821	1.00	28.35	S	O
ATOM	11380	O	HOH	S	464	55.973	-12.629	34.818	1.00	29.50	S	O
ATOM	11381	O	HOH	S	465	51.615	22.216	13.378	1.00	24.21	S	O
ATOM	11382	O	HOH	S	466	69.951	1.856	38.417	1.00	27.64	S	O
ATOM	11383	O	HOH	S	467	60.931	3.218	52.561	1.00	32.60	S	O
ATOM	11384	O	HOH	S	468	42.413	19.001	-3.108	1.00	25.56	S	O
ATOM	11385	O	HOH	S	469	47.400	38.068	-9.853	1.00	24.31	S	O
ATOM	11386	O	HOH	S	470	65.424	12.835	65.573	1.00	27.49	S	O
ATOM	11387	O	HOH	S	471	26.802	53.812	-8.492	1.00	24.16	S	O
ATOM	11388	O	HOH	S	472	39.284	-21.954	41.675	1.00	34.32	S	O
ATOM	11389	O	HOH	S	473	59.620	22.445	67.528	1.00	25.31	S	O
ATOM	11390	O	HOH	S	474	14.919	59.643	-36.811	1.00	29.22	S	O
ATOM	11391	O	HOH	S	476	66.479	36.061	37.996	1.00	29.77	S	O

ATOM	11392	O	HOH	S	477	47.717	86.856	10.687	1.00	24.01	S	O
ATOM	11393	O	HOH	S	478	57.761	-4.710	36.853	1.00	31.43	S	O
ATOM	11394	O	HOH	S	482	38.319	83.225	-15.254	1.00	33.53	S	O
ATOM	11395	O	HOH	S	483	70.410	57.801	7.276	1.00	23.01	S	O
ATOM	11396	O	HOH	S	484	82.642	-12.503	58.759	1.00	38.82	S	O
ATOM	11397	O	HOH	S	485	32.824	13.239	40.630	1.00	28.74	S	O
ATOM	11398	O	HOH	S	486	17.455	59.985	-20.272	1.00	34.64	S	O
ATOM	11399	O	HOH	S	488	48.513	46.447	39.283	1.00	34.57	S	O
ATOM	11400	O	HOH	S	489	46.221	84.385	-15.059	1.00	30.50	S	O
ATOM	11401	O	HOH	S	491	41.058	-33.357	31.179	1.00	32.35	S	O
ATOM	11402	O	HOH	S	492	65.762	73.514	0.159	1.00	40.27	S	O
ATOM	11403	O	HOH	S	493	56.465	-30.392	44.750	1.00	34.61	S	O
ATOM	11404	O	HOH	S	494	26.934	71.459	-42.586	1.00	26.22	S	O
ATOM	11405	O	HOH	S	495	75.705	-10.459	61.091	1.00	30.95	S	O
ATOM	11406	O	HOH	S	496	32.779	45.744	-9.883	1.00	34.60	S	O
ATOM	11407	O	HOH	S	498	48.054	57.876	-25.658	1.00	27.95	S	O
ATOM	11408	O	HOH	S	499	36.786	44.406	-15.126	1.00	27.09	S	O
ATOM	11409	O	HOH	S	500	26.201	54.591	-48.153	1.00	24.00	S	O
ATOM	11410	O	HOH	S	501	52.023	43.392	47.711	1.00	26.63	S	O
ATOM	11411	O	HOH	S	502	60.742	39.575	42.825	1.00	32.66	S	O
ATOM	11412	O	HOH	S	503	40.127	19.420	57.904	1.00	31.85	S	O
ATOM	11413	O	HOH	S	504	38.715	33.846	10.181	1.00	27.95	S	O
ATOM	11414	O	HOH	S	505	48.462	23.262	0.796	1.00	27.84	S	O
ATOM	11415	O	HOH	S	506	35.643	7.184	-7.595	1.00	26.17	S	O
ATOM	11416	O	HOH	S	508	73.935	45.527	-4.429	1.00	39.43	S	O
ATOM	11417	O	HOH	S	509	57.821	18.899	72.705	1.00	37.29	S	O
ATOM	11418	O	HOH	S	510	58.149	-32.170	45.731	1.00	36.80	S	O
ATOM	11419	O	HOH	S	511	63.633	57.400	-7.124	1.00	25.08	S	O
ATOM	11420	O	HOH	S	513	20.438	63.702	-13.637	1.00	30.68	S	O
ATOM	11421	O	HOH	S	514	38.943	75.091	-18.634	1.00	35.25	S	O
ATOM	11422	O	HOH	S	515	59.998	28.527	34.245	1.00	30.78	S	O
ATOM	11423	O	HOH	S	516	66.342	60.918	-6.493	1.00	32.62	S	O
ATOM	11424	O	HOH	S	517	58.328	8.802	65.017	1.00	32.51	S	O
ATOM	11425	O	HOH	S	518	16.639	51.314	-36.663	1.00	28.88	S	O
ATOM	11426	O	HOH	S	519	44.462	45.405	-2.953	1.00	31.07	S	O
ATOM	11427	O	HOH	S	520	45.978	68.945	23.244	1.00	45.53	S	O
ATOM	11428	O	HOH	S	521	35.375	34.363	12.565	1.00	31.54	S	O
ATOM	11429	O	HOH	S	522	55.000	80.096	-10.442	1.00	21.70	S	O
ATOM	11430	O	HOH	S	524	25.522	14.846	11.614	1.00	22.99	S	O
ATOM	11431	O	HOH	S	525	33.581	-14.456	26.634	1.00	30.52	S	O
ATOM	11432	O	HOH	S	526	46.666	13.610	17.172	1.00	30.13	S	O
ATOM	11433	O	HOH	S	527	51.014	44.308	57.977	1.00	28.44	S	O
ATOM	11434	O	HOH	S	528	60.353	26.532	32.707	1.00	25.14	S	O
ATOM	11435	O	HOH	S	530	40.449	21.506	-18.422	1.00	30.72	S	O
ATOM	11436	O	HOH	S	532	55.452	-33.981	33.651	1.00	27.27	S	O
ATOM	11437	O	HOH	S	533	45.990	48.660	0.951	1.00	34.00	S	O
ATOM	11438	O	HOH	S	534	43.554	4.950	26.546	1.00	33.20	S	O
ATOM	11439	O	HOH	S	535	62.824	-17.675	42.851	1.00	37.73	S	O
ATOM	11440	O	HOH	S	536	73.521	18.700	71.208	1.00	33.52	S	O
ATOM	11441	O	HOH	S	537	36.423	46.903	-31.582	1.00	27.89	S	O
ATOM	11442	O	HOH	S	538	40.681	35.931	39.153	1.00	31.07	S	O
ATOM	11443	O	HOH	S	539	44.420	61.619	-37.229	1.00	34.14	S	O
ATOM	11444	O	HOH	S	540	48.210	17.944	54.170	1.00	24.13	S	O
ATOM	11445	O	HOH	S	541	54.646	41.624	-3.076	1.00	36.60	S	O
ATOM	11446	O	HOH	S	542	62.968	-8.461	57.412	1.00	30.82	S	O
ATOM	11447	O	HOH	S	543	72.509	24.500	42.789	1.00	32.95	S	O
ATOM	11448	O	HOH	S	544	30.419	73.924	-6.625	1.00	30.83	S	O
ATOM	11449	O	HOH	S	545	62.397	7.575	61.704	1.00	27.19	S	O
ATOM	11450	O	HOH	S	546	44.603	39.347	49.560	1.00	36.00	S	O
ATOM	11451	O	HOH	S	547	57.794	49.969	11.221	1.00	29.89	S	O
ATOM	11452	O	HOH	S	548	24.364	12.071	2.306	1.00	30.95	S	O
ATOM	11453	O	HOH	S	549	23.912	44.851	-23.959	1.00	36.56	S	O
ATOM	11454	O	HOH	S	550	64.213	57.848	19.318	1.00	36.28	S	O
ATOM	11455	O	HOH	S	551	53.177	70.311	-23.818	1.00	33.62	S	O
ATOM	11456	O	HOH	S	552	32.577	71.271	0.206	1.00	36.21	S	O
ATOM	11457	O	HOH	S	553	22.535	23.280	15.769	1.00	35.59	S	O
ATOM	11458	O	HOH	S	554	59.635	1.092	55.226	1.00	35.56	S	O
ATOM	11459	O	HOH	S	555	58.097	67.350	-0.299	1.00	35.43	S	O
ATOM	11460	O	HOH	S	556	52.419	16.737	24.259	1.00	24.54	S	O
ATOM	11461	O	HOH	S	557	34.452	51.609	2.405	1.00	23.67	S	O
ATOM	11462	O	HOH	S	558	76.912	40.520	-6.058	1.00	34.06	S	O
ATOM	11463	O	HOH	S	559	68.749	29.781	36.761	1.00	36.86	S	O
ATOM	11464	O	HOH	S	560	59.819	0.122	46.886	1.00	30.82	S	O
ATOM	11465	O	HOH	S	561	43.630	31.260	5.192	1.00	32.47	S	O
ATOM	11466	O	HOH	S	562	54.916	6.745	51.733	1.00	26.68	S	O
ATOM	11467	O	HOH	S	563	48.553	8.216	52.326	1.00	32.23	S	O
ATOM	11468	O	HOH	S	564	49.374	15.399	20.676	1.00	31.25	S	O

ATOM	11469	O	HOH	S	565	47.614	34.269	14.609	1.00	38.60	S	O
ATOM	11470	O	HOH	S	566	31.710	4.930	14.722	1.00	28.91	S	O
ATOM	11471	O	HOH	S	567	47.006	36.622	22.073	1.00	28.99	S	O
ATOM	11472	O	HOH	S	569	49.576	74.105	-27.835	1.00	34.41	S	O
ATOM	11473	O	HOH	S	570	29.995	23.815	34.053	1.00	26.84	S	O
ATOM	11474	O	HOH	S	571	37.222	-33.102	43.933	1.00	36.26	S	O
ATOM	11475	O	HOH	S	572	54.847	65.314	16.196	1.00	32.18	S	O
ATOM	11476	O	HOH	S	573	60.040	34.147	64.407	1.00	28.16	S	O
ATOM	11477	O	HOH	S	574	77.841	14.689	59.213	1.00	39.61	S	O
ATOM	11478	O	HOH	S	575	39.142	36.016	17.684	1.00	34.85	S	O
ATOM	11479	O	HOH	S	576	72.849	30.572	62.687	1.00	32.62	S	O
ATOM	11480	O	HOH	S	577	52.950	5.827	49.602	1.00	35.12	S	O
ATOM	11481	O	HOH	S	578	53.408	62.538	-22.242	1.00	36.38	S	O
ATOM	11482	O	HOH	S	579	49.576	52.554	-17.688	1.00	25.93	S	O
ATOM	11483	O	HOH	S	580	54.382	52.958	-17.585	1.00	35.45	S	O
ATOM	11484	O	HOH	S	581	16.625	55.661	-19.764	1.00	35.67	S	O
ATOM	11485	O	HOH	S	582	28.123	43.694	-37.788	1.00	22.53	S	O
ATOM	11486	O	HOH	S	583	53.773	51.571	14.654	1.00	28.83	S	O
ATOM	11487	O	HOH	S	584	41.175	50.449	7.537	1.00	35.60	S	O
ATOM	11488	O	HOH	S	585	32.661	19.701	-23.276	1.00	37.97	S	O
ATOM	11489	O	HOH	S	586	67.370	9.853	55.473	1.00	31.27	S	O
ATOM	11490	O	HOH	S	587	29.740	70.651	-13.020	1.00	40.49	S	O
ATOM	11491	O	HOH	S	588	40.179	2.387	46.266	1.00	37.42	S	O
ATOM	11492	O	HOH	S	589	41.046	3.320	24.280	1.00	39.44	S	O
ATOM	11493	O	HOH	S	590	71.313	-9.314	39.745	1.00	32.61	S	O
ATOM	11494	O	HOH	S	591	40.316	40.725	-9.581	1.00	31.73	S	O
ATOM	11495	O	HOH	S	592	37.547	59.845	-41.549	1.00	27.03	S	O
ATOM	11496	O	HOH	S	593	67.724	35.722	40.136	1.00	33.41	S	O
ATOM	11497	O	HOH	S	594	22.873	16.172	29.412	1.00	34.88	S	O
ATOM	11498	O	HOH	S	595	30.509	27.320	11.872	1.00	39.07	S	O
ATOM	11499	O	HOH	S	596	34.620	69.302	-54.005	1.00	30.47	S	O
ATOM	11500	O	HOH	S	597	64.110	43.125	-11.876	1.00	29.74	S	O
ATOM	11501	O	HOH	S	598	47.703	-36.917	46.706	1.00	36.43	S	O
ATOM	11502	O	HOH	S	599	51.395	66.905	-28.378	1.00	42.71	S	O
ATOM	11503	O	HOH	S	600	69.197	62.025	19.590	1.00	35.57	S	O
ATOM	11504	O	HOH	S	601	30.482	72.785	-40.350	1.00	37.59	S	O
ATOM	11505	O	HOH	S	603	39.942	33.715	26.660	1.00	31.80	S	O
ATOM	11506	O	HOH	S	604	41.066	41.786	-27.814	1.00	40.33	S	O
ATOM	11507	O	HOH	S	605	54.082	84.017	3.636	1.00	33.90	S	O
ATOM	11508	O	HOH	S	606	28.092	53.988	-51.033	1.00	36.15	S	O
ATOM	11509	O	HOH	S	607	29.120	48.460	-12.228	1.00	28.87	S	O
ATOM	11510	O	HOH	S	608	41.630	39.128	38.306	1.00	31.37	S	O
ATOM	11511	O	HOH	S	609	66.724	69.578	-9.522	1.00	28.26	S	O
ATOM	11512	O	HOH	S	610	19.978	17.536	14.953	1.00	38.28	S	O
ATOM	11513	O	HOH	S	611	52.500	49.652	11.177	1.00	28.50	S	O
ATOM	11514	O	HOH	S	612	36.651	75.640	-32.945	1.00	41.15	S	O
ATOM	11515	O	HOH	S	613	52.885	41.995	4.094	1.00	34.94	S	O
ATOM	11516	O	HOH	S	614	62.805	66.794	17.149	1.00	33.14	S	O
ATOM	11517	O	HOH	S	615	41.618	66.377	17.301	1.00	35.29	S	O
ATOM	11518	O	HOH	S	616	44.472	18.129	64.848	1.00	36.68	S	O
ATOM	11519	O	HOH	S	617	46.246	27.355	9.726	1.00	33.13	S	O
ATOM	11520	O	HOH	S	618	38.720	82.551	0.370	1.00	32.69	S	O
ATOM	11521	O	HOH	S	619	35.090	72.960	-31.989	1.00	38.71	S	O
ATOM	11522	O	HOH	S	620	42.749	55.172	-29.294	1.00	33.53	S	O
ATOM	11523	O	HOH	S	621	50.340	13.757	24.465	1.00	26.71	S	O
ATOM	11524	O	HOH	S	622	52.932	6.502	55.503	1.00	38.11	S	O
ATOM	11525	O	HOH	S	623	32.646	67.040	0.191	1.00	37.16	S	O
ATOM	11526	O	HOH	S	624	21.767	64.948	-27.131	1.00	36.49	S	O
ATOM	11527	O	HOH	S	625	64.145	2.003	60.995	1.00	32.58	S	O
ATOM	11528	O	HOH	S	626	21.899	42.533	-28.144	1.00	41.35	S	O
ATOM	11529	O	HOH	S	627	50.286	-1.826	38.846	1.00	33.17	S	O
ATOM	11530	O	HOH	S	628	62.831	26.107	33.768	1.00	42.23	S	O
ATOM	11531	O	HOH	S	630	40.635	31.216	26.951	1.00	28.62	S	O
ATOM	11532	O	HOH	S	631	31.594	15.980	44.092	1.00	38.99	S	O
ATOM	11533	O	HOH	S	632	65.977	71.688	-3.779	1.00	31.92	S	O
ATOM	11534	O	HOH	S	633	50.378	6.457	48.037	1.00	43.26	S	O
ATOM	11535	O	HOH	S	634	57.628	-0.088	53.696	1.00	36.52	S	O
ATOM	11536	O	HOH	S	636	65.320	51.182	6.710	1.00	30.47	S	O
ATOM	11537	O	HOH	S	637	37.981	-25.305	43.592	1.00	42.45	S	O
ATOM	11538	O	HOH	S	638	40.109	65.835	-35.994	1.00	38.33	S	O
ATOM	11539	O	HOH	S	639	36.458	30.166	37.398	1.00	38.55	S	O
ATOM	11540	O	HOH	S	640	62.440	5.404	32.945	1.00	37.15	S	O
ATOM	11541	O	HOH	S	641	63.867	58.833	-13.294	1.00	38.80	S	O
ATOM	11542	O	HOH	S	642	28.582	24.843	-12.362	1.00	43.09	S	O
ATOM	11543	O	HOH	S	643	72.711	20.888	49.217	1.00	23.17	S	O
ATOM	11544	O	HOH	S	644	63.493	8.513	63.707	1.00	30.50	S	O
ATOM	11545	O	HOH	S	645	73.400	24.333	51.562	1.00	34.08	S	O

ATOM	11546	O	HOH	S	647	67.286	50.886	17.124	1.00	31.75	S	O
ATOM	11547	O	HOH	S	648	52.168	38.472	63.256	1.00	37.70	S	O
ATOM	11548	O	HOH	S	649	50.612	8.073	62.676	1.00	30.37	S	O
ATOM	11549	O	HOH	S	650	47.946	-0.973	45.522	1.00	43.73	S	O
ATOM	11550	O	HOH	S	651	26.826	45.589	-34.265	1.00	30.43	S	O
ATOM	11551	O	HOH	S	653	53.046	46.567	2.330	1.00	38.44	S	O
ATOM	11552	O	HOH	S	654	49.607	29.675	14.450	1.00	36.49	S	O
ATOM	11553	O	HOH	S	655	16.698	62.990	-52.931	1.00	40.31	S	O
ATOM	11554	O	HOH	S	656	38.892	17.626	55.911	1.00	30.72	S	O
ATOM	11555	O	HOH	S	657	46.257	-35.976	33.662	1.00	35.17	S	O
ATOM	11556	O	HOH	S	658	39.230	66.238	-41.089	1.00	38.94	S	O
ATOM	11557	O	HOH	S	659	87.002	-12.612	53.519	1.00	34.24	S	O
ATOM	11558	O	HOH	S	660	35.152	43.284	-6.942	1.00	36.24	S	O
ATOM	11559	O	HOH	S	661	53.457	49.287	-0.789	1.00	30.26	S	O
ATOM	11560	O	HOH	S	662	38.867	-18.795	25.797	1.00	30.07	S	O
ATOM	11561	O	HOH	S	664	44.057	44.229	42.600	1.00	38.40	S	O
ATOM	11562	O	HOH	S	665	35.047	8.029	36.959	1.00	23.51	S	O
ATOM	11563	O	HOH	S	666	74.232	11.922	69.314	1.00	29.28	S	O
ATOM	11564	O	HOH	S	667	45.135	47.004	-20.166	1.00	35.53	S	O
ATOM	11565	O	HOH	S	668	50.317	0.802	38.214	1.00	35.56	S	O
ATOM	11566	O	HOH	S	669	47.999	17.647	10.783	1.00	30.73	S	O
ATOM	11567	O	HOH	S	670	44.294	33.285	-1.667	1.00	40.04	S	O
ATOM	11568	O	HOH	S	672	53.585	33.515	23.561	1.00	34.73	S	O
ATOM	11569	O	HOH	S	673	56.636	54.536	51.990	1.00	34.41	S	O
ATOM	11570	O	HOH	S	674	66.760	-0.188	38.230	1.00	35.74	S	O
ATOM	11571	O	HOH	S	675	25.184	43.632	-33.451	1.00	39.29	S	O
ATOM	11572	O	HOH	S	676	36.468	53.019	-37.905	1.00	33.95	S	O
ATOM	11573	O	HOH	S	677	74.452	14.814	44.798	1.00	35.53	S	O
ATOM	11574	O	HOH	S	678	21.078	65.003	-30.302	1.00	25.39	S	O
ATOM	11575	O	HOH	S	680	39.932	76.252	-29.056	1.00	26.83	S	O
ATOM	11576	O	HOH	S	682	53.085	12.706	-2.397	1.00	29.29	S	O
ATOM	11577	O	HOH	S	683	71.628	32.552	11.276	1.00	40.43	S	O
ATOM	11578	O	HOH	S	684	44.517	86.128	-5.335	1.00	41.62	S	O
ATOM	11579	O	HOH	S	685	34.250	72.343	4.074	1.00	35.61	S	O
ATOM	11580	O	HOH	S	686	42.781	40.402	-3.207	1.00	38.98	S	O
ATOM	11581	O	HOH	S	687	63.816	25.539	51.005	1.00	34.09	S	O
ATOM	11582	O	HOH	S	688	47.921	48.506	6.298	1.00	42.39	S	O
ATOM	11583	O	HOH	S	689	36.260	-31.900	41.545	1.00	37.50	S	O
ATOM	11584	O	HOH	S	690	36.781	72.673	-40.640	1.00	39.54	S	O
ATOM	11585	O	HOH	S	691	28.654	28.564	27.794	1.00	34.14	S	O
ATOM	11586	O	HOH	S	692	45.090	22.929	-14.545	1.00	35.31	S	O
ATOM	11587	O	HOH	S	693	42.084	33.569	6.345	1.00	33.75	S	O
ATOM	11588	O	HOH	S	694	43.115	43.678	-2.197	1.00	40.10	S	O
ATOM	11589	O	HOH	S	695	28.528	25.623	35.601	1.00	36.21	S	O
ATOM	11590	O	HOH	S	696	25.339	10.975	10.224	1.00	29.44	S	O
ATOM	11591	O	HOH	S	697	13.779	58.533	-34.499	1.00	35.92	S	O
ATOM	11592	O	HOH	S	698	56.016	25.983	19.593	1.00	37.36	S	O
ATOM	11593	O	HOH	S	699	44.107	29.181	59.953	1.00	33.72	S	O
ATOM	11594	O	HOH	S	700	57.036	36.829	32.538	1.00	35.37	S	O
ATOM	11595	O	HOH	S	701	62.585	70.888	-15.123	1.00	46.29	S	O
ATOM	11596	O	HOH	S	703	38.404	30.440	-12.171	1.00	38.77	S	O
ATOM	11597	O	HOH	S	704	40.932	70.200	14.128	1.00	41.51	S	O
ATOM	11598	O	HOH	S	705	63.204	38.993	-11.560	1.00	31.14	S	O
ATOM	11599	O	HOH	S	706	79.448	3.139	46.307	1.00	33.14	S	O
ATOM	11600	O	HOH	S	707	44.851	68.013	-35.459	1.00	36.64	S	O
ATOM	11601	O	HOH	S	708	68.860	-7.504	61.160	1.00	44.17	S	O
ATOM	11602	O	HOH	S	710	26.542	24.665	29.406	1.00	33.83	S	O
ATOM	11603	O	HOH	S	711	34.650	73.317	-41.129	1.00	42.33	S	O
ATOM	11604	O	HOH	S	712	47.871	2.216	20.944	1.00	32.78	S	O
ATOM	11605	O	HOH	S	713	52.662	-39.727	36.605	1.00	38.63	S	O
ATOM	11606	O	HOH	S	714	29.866	45.054	-22.163	1.00	36.44	S	O
ATOM	11607	O	HOH	S	715	45.189	38.983	-10.204	1.00	36.90	S	O
ATOM	11608	O	HOH	S	716	62.413	52.170	4.707	1.00	30.61	S	O
ATOM	11609	O	HOH	S	717	56.811	34.162	23.465	1.00	34.88	S	O
ATOM	11610	O	HOH	S	718	51.300	-9.660	37.081	1.00	31.36	S	O
ATOM	11611	O	HOH	S	719	42.825	3.795	33.871	1.00	24.77	S	O
ATOM	11612	O	HOH	S	720	38.786	0.744	21.481	1.00	41.73	S	O
ATOM	11613	O	HOH	S	721	47.660	55.163	-21.470	1.00	35.57	S	O
ATOM	11614	O	HOH	S	722	35.856	33.505	28.230	1.00	37.46	S	O
ATOM	11615	O	HOH	S	723	77.448	27.279	56.569	1.00	28.90	S	O
ATOM	11616	O	HOH	S	726	32.839	7.010	-8.564	1.00	26.75	S	O
ATOM	11617	O	HOH	S	729	32.972	22.292	-22.889	1.00	32.87	S	O
ATOM	11618	O	HOH	S	731	34.326	67.368	6.146	1.00	35.18	S	O
ATOM	11619	O	HOH	S	732	41.200	34.764	36.675	1.00	34.03	S	O
ATOM	11620	O	HOH	S	742	61.912	20.900	52.021	1.00	20.92	S	O
ATOM	11621	O	HOH	S	746	25.721	19.083	30.641	1.00	27.91	S	O
ATOM	11622	O	HOH	S	753	69.854	22.013	46.008	1.00	27.18	S	O

ATOM	11623	O	HOH	S	756	55.789	44.707	2.534	1.00	43.48	S	O
ATOM	11624	O	HOH	S	757	46.961	23.820	-11.839	1.00	36.43	S	O
ATOM	11625	O	HOH	S	759	72.305	19.250	44.979	1.00	28.96	S	O
ATOM	11626	O	HOH	S	760	43.390	27.480	62.644	1.00	29.26	S	O
ATOM	11627	O	HOH	S	763	32.832	23.866	44.791	1.00	42.52	S	O
ATOM	11628	O	HOH	S	764	61.705	-10.139	55.941	1.00	34.88	S	O
ATOM	11629	O	HOH	S	765	21.612	15.155	3.463	1.00	30.33	S	O
ATOM	11630	O	HOH	S	768	51.388	39.677	34.285	1.00	33.90	S	O
ATOM	11631	O	HOH	S	769	36.115	30.800	-5.923	1.00	35.49	S	O
ATOM	11632	O	HOH	S	770	23.354	65.642	-38.502	1.00	37.11	S	O
ATOM	11633	O	HOH	S	771	37.542	44.905	-22.653	1.00	37.37	S	O
ATOM	11634	O	HOH	S	774	66.903	45.234	-9.201	1.00	32.72	S	O
ATOM	11635	O	HOH	S	775	54.116	-19.623	48.714	1.00	35.30	S	O
ATOM	11636	O	HOH	S	777	52.337	28.230	15.156	1.00	31.34	S	O
ATOM	11637	O	HOH	S	778	48.853	-10.092	54.613	1.00	30.36	S	O
ATOM	11638	O	HOH	S	779	79.652	-1.593	63.249	1.00	36.22	S	O
ATOM	11639	O	HOH	S	780	34.118	15.141	44.442	1.00	40.54	S	O
ATOM	11640	O	HOH	S	781	27.810	45.299	-24.228	1.00	32.16	S	O
ATOM	11641	O	HOH	S	782	52.924	-18.701	33.465	1.00	35.84	S	O
ATOM	11642	O	HOH	S	783	77.458	-10.868	43.861	1.00	33.44	S	O
ATOM	11643	O	HOH	S	784	47.883	43.478	60.747	1.00	32.55	S	O
ATOM	11644	O	HOH	S	785	59.580	-1.169	38.925	1.00	29.93	S	O
ATOM	11645	O	HOH	S	786	62.390	22.547	31.648	1.00	42.85	S	O
ATOM	11646	O	HOH	S	787	54.772	18.023	24.656	1.00	34.34	S	O
ATOM	11647	O	HOH	S	790	44.732	6.517	28.826	1.00	33.42	S	O
ATOM	11648	O	HOH	S	791	43.426	34.027	54.104	1.00	26.87	S	O
ATOM	11649	O	HOH	S	792	45.831	84.735	11.086	1.00	27.96	S	O
ATOM	11650	O	HOH	S	793	25.041	7.606	1.758	1.00	39.67	S	O
ATOM	11651	O	HOH	S	794	44.970	-25.238	48.919	1.00	37.16	S	O
ATOM	11652	O	HOH	S	795	82.490	-7.536	44.522	1.00	36.70	S	O
ATOM	11653	O	HOH	S	796	50.219	-40.913	36.316	1.00	35.12	S	O
ATOM	11654	O	HOH	S	797	53.230	75.271	-16.693	1.00	38.55	S	O
ATOM	11655	O	HOH	S	798	27.963	8.663	-19.888	1.00	38.74	S	O
ATOM	11656	O	HOH	S	801	69.463	16.857	70.901	1.00	39.11	S	O
ATOM	11657	O	HOH	S	802	14.583	52.750	-45.632	1.00	41.64	S	O
ATOM	11658	O	HOH	S	803	13.204	56.171	-34.475	1.00	41.45	S	O
ATOM	11659	O	HOH	S	804	70.106	55.352	17.955	1.00	31.93	S	O
ATOM	11660	O	HOH	S	805	74.481	29.810	51.124	1.00	38.91	S	O
ATOM	11661	O	HOH	S	806	34.810	18.183	-23.390	1.00	31.42	S	O
ATOM	11662	O	HOH	S	807	58.532	79.719	-8.497	1.00	30.89	S	O
ATOM	11663	O	HOH	S	808	59.992	22.192	28.538	1.00	34.76	S	O
ATOM	11664	O	HOH	S	809	62.167	74.131	0.891	1.00	47.15	S	O
ATOM	11665	O	HOH	S	812	33.942	65.174	-62.716	1.00	33.30	S	O
ATOM	11666	O	HOH	S	814	82.787	-16.478	50.625	1.00	31.27	S	O
ATOM	11667	O	HOH	S	815	79.383	26.877	58.253	1.00	36.50	S	O
ATOM	11668	O	HOH	S	816	43.917	53.578	-25.555	1.00	38.20	S	O
ATOM	11669	O	HOH	S	817	18.508	17.051	7.225	1.00	43.56	S	O
ATOM	11670	O	HOH	S	818	53.880	69.360	-17.058	1.00	36.95	S	O
ATOM	11671	O	HOH	S	820	19.920	63.997	-19.934	1.00	37.41	S	O
ATOM	11672	O	HOH	S	821	22.815	6.320	16.794	1.00	34.03	S	O
ATOM	11673	O	HOH	S	822	50.255	77.413	-15.167	1.00	30.17	S	O
ATOM	11674	O	HOH	S	823	49.828	52.194	16.270	1.00	39.91	S	O
ATOM	11675	O	HOH	S	824	11.695	48.494	-35.690	1.00	33.13	S	O
ATOM	11676	O	HOH	S	825	60.498	23.987	69.239	1.00	37.45	S	O
ATOM	11677	O	HOH	S	827	47.433	-0.608	41.635	1.00	37.60	S	O
ATOM	11678	O	HOH	S	828	45.819	12.999	12.988	1.00	39.64	S	O
ATOM	11679	O	HOH	S	829	53.787	67.295	-18.388	1.00	33.77	S	O
ATOM	11680	O	HOH	S	830	55.199	79.800	-3.547	1.00	37.16	S	O
ATOM	11681	O	HOH	S	832	56.478	32.242	6.931	1.00	34.54	S	O
ATOM	11682	O	HOH	S	833	35.240	56.141	-51.192	1.00	29.35	S	O
ATOM	11683	O	HOH	S	834	81.121	6.896	56.713	1.00	40.29	S	O
ATOM	11684	O	HOH	S	836	46.705	73.614	-27.648	1.00	35.24	S	O
ATOM	11685	O	HOH	S	837	52.819	8.501	31.228	1.00	27.53	S	O
ATOM	11686	O	HOH	S	838	42.626	-38.326	34.626	1.00	31.99	S	O
ATOM	11687	O	HOH	S	839	45.719	3.363	-6.537	1.00	41.24	S	O
ATOM	11688	O	HOH	S	840	55.038	6.336	58.198	1.00	41.95	S	O
ATOM	11689	O	HOH	S	841	26.437	55.125	-52.830	1.00	37.12	S	O
ATOM	11690	O	HOH	S	842	28.254	73.414	-38.243	1.00	40.29	S	O
ATOM	11691	O	HOH	S	844	33.837	28.483	7.847	1.00	32.40	S	O
ATOM	11692	O	HOH	S	845	42.251	38.646	47.044	1.00	41.47	S	O
ATOM	11693	O	HOH	S	847	62.238	4.796	35.467	1.00	38.52	S	O
ATOM	11694	O	HOH	S	848	22.175	68.255	-21.943	1.00	36.12	S	O
ATOM	11695	O	HOH	S	849	61.373	66.693	19.443	1.00	40.33	S	O
ATOM	11696	O	HOH	S	850	94.726	-6.324	59.112	1.00	29.79	S	O
ATOM	11697	O	HOH	S	851	72.286	7.944	67.431	1.00	35.71	S	O
ATOM	11698	O	HOH	S	852	33.075	30.713	7.876	1.00	35.72	S	O
ATOM	11699	O	HOH	S	853	38.681	30.336	50.727	1.00	39.29	S	O

ATOM	11700	O	HOH	S	854	40.217	3.405	48.877	1.00	38.00	S	O
ATOM	11701	O	HOH	S	855	40.014	66.611	-45.683	1.00	32.44	S	O
ATOM	11702	O	HOH	S	856	71.818	23.650	48.631	1.00	32.47	S	O
ATOM	11703	O	HOH	S	857	43.861	35.107	30.400	1.00	41.69	S	O
ATOM	11704	O	HOH	S	858	50.261	-31.067	47.406	1.00	38.89	S	O
ATOM	11705	O	HOH	S	859	56.626	46.461	-17.606	1.00	33.03	S	O
ATOM	11706	O	HOH	S	860	23.942	28.097	14.404	1.00	41.16	S	O
ATOM	11707	O	HOH	S	861	55.076	-37.515	42.335	1.00	33.47	S	O
ATOM	11708	O	HOH	S	862	36.502	67.436	-62.590	1.00	40.00	S	O
ATOM	11709	O	HOH	S	863	76.754	-16.233	53.539	1.00	38.47	S	O
ATOM	11710	O	HOH	S	864	77.764	3.115	63.747	1.00	39.17	S	O
ATOM	11711	O	HOH	S	866	51.081	48.487	8.313	1.00	37.35	S	O
ATOM	11712	O	HOH	S	867	50.967	-36.763	36.621	1.00	34.00	S	O
ATOM	11713	O	HOH	S	870	89.015	28.138	5.373	1.00	34.03	S	O
ATOM	11714	O	HOH	S	871	54.431	-30.311	28.216	1.00	40.11	S	O
ATOM	11715	O	HOH	S	875	25.483	20.485	1.697	1.00	28.15	S	O
ATOM	11716	O	HOH	S	876	48.917	5.629	-10.485	1.00	35.41	S	O
ATOM	11717	O	HOH	S	878	34.660	42.927	-24.618	1.00	39.96	S	O
ATOM	11718	O	HOH	S	879	32.714	70.886	-58.522	1.00	39.31	S	O
ATOM	11719	O	HOH	S	880	39.851	38.680	42.336	1.00	47.66	S	O
ATOM	11720	O	HOH	S	881	40.205	31.709	-9.297	1.00	31.70	S	O
ATOM	11721	O	HOH	S	882	50.392	20.525	11.904	1.00	37.42	S	O
ATOM	11722	O	HOH	S	884	67.046	68.804	-5.435	1.00	30.76	S	O
ATOM	11723	O	HOH	S	885	63.689	40.245	59.720	1.00	37.88	S	O
ATOM	11724	O	HOH	S	886	44.314	-0.107	21.292	1.00	30.29	S	O
ATOM	11725	O	HOH	S	887	25.408	72.841	-38.518	1.00	42.64	S	O
ATOM	11726	O	HOH	S	888	67.074	36.485	44.246	1.00	33.51	S	O
ATOM	11727	O	HOH	S	889	17.485	52.985	-15.608	1.00	42.72	S	O
ATOM	11728	O	HOH	S	890	27.293	73.369	-34.212	1.00	37.66	S	O
ATOM	11729	O	HOH	S	891	82.576	29.677	2.594	1.00	32.68	S	O
ATOM	11730	O	HOH	S	892	37.030	75.909	-20.828	1.00	41.72	S	O
ATOM	11731	O	HOH	S	893	37.154	9.828	-23.896	1.00	40.70	S	O
ATOM	11732	O	HOH	S	894	25.890	56.803	-5.362	1.00	43.68	S	O
ATOM	11733	O	HOH	S	895	74.652	48.418	10.900	1.00	41.91	S	O
ATOM	11734	O	HOH	S	896	52.107	-13.394	34.885	1.00	35.83	S	O
ATOM	11735	O	HOH	S	897	46.655	41.649	-11.291	1.00	44.89	S	O
ATOM	11736	O	HOH	S	899	43.695	13.770	11.524	1.00	40.99	S	O
ATOM	11737	O	HOH	S	900	71.470	12.458	61.889	1.00	21.51	S	O
ATOM	11738	O	HOH	S	904	58.697	76.149	11.303	1.00	33.05	S	O
ATOM	11739	O	HOH	S	905	64.478	71.120	12.773	1.00	29.49	S	O
ATOM	11740	O	HOH	S	906	65.359	73.463	13.609	1.00	37.76	S	O
ATOM	11741	O	HOH	S	907	71.846	70.056	4.119	1.00	48.78	S	O
ATOM	11742	O	HOH	S	908	47.535	78.646	9.899	1.00	25.86	S	O
ATOM	11743	O	HOH	S	910	53.017	69.637	17.669	1.00	38.58	S	O
ATOM	11744	O	HOH	S	911	69.788	28.129	64.821	1.00	24.92	S	O
ATOM	11745	O	HOH	S	912	70.797	30.495	65.007	1.00	44.12	S	O
ATOM	11746	O	HOH	S	913	64.202	33.336	63.591	1.00	24.72	S	O
ATOM	11747	O	HOH	S	914	64.433	34.852	61.382	1.00	41.94	S	O
ATOM	11748	O	HOH	S	915	58.419	35.775	62.918	1.00	24.77	S	O
ATOM	11749	O	HOH	S	916	55.207	33.695	66.884	1.00	39.81	S	O
ATOM	11750	O	HOH	S	917	77.199	20.680	73.354	1.00	44.72	S	O
ATOM	11751	O	HOH	S	918	60.128	35.370	48.502	1.00	17.68	S	O
ATOM	11752	O	HOH	S	920	72.236	1.413	48.933	1.00	15.97	S	O
ATOM	11753	O	HOH	S	921	30.970	11.377	30.233	1.00	29.84	S	O
ATOM	11754	O	HOH	S	922	67.287	47.228	-7.304	1.00	34.35	S	O
ATOM	11755	O	HOH	S	924	35.423	59.258	-39.888	1.00	25.87	S	O
ATOM	11756	O	HOH	S	925	92.301	39.263	-1.478	1.00	33.40	S	O
ATOM	11757	O	HOH	S	926	47.748	49.999	3.786	1.00	25.40	S	O
ATOM	11758	O	HOH	S	927	46.129	30.670	60.036	1.00	36.39	S	O
ATOM	11759	O	HOH	S	928	47.658	59.767	-36.746	1.00	31.31	S	O
ATOM	11760	O	HOH	S	929	77.986	48.603	-0.742	1.00	38.59	S	O
ATOM	11761	O	HOH	S	930	35.053	81.120	-7.006	1.00	33.97	S	O
ATOM	11762	O	HOH	S	931	65.150	74.058	-2.040	1.00	48.42	S	O
ATOM	11763	O	HOH	S	932	58.936	51.065	12.987	1.00	40.15	S	O
ATOM	11764	O	HOH	S	933	50.658	36.025	27.999	1.00	33.86	S	O
ATOM	11765	O	HOH	S	934	29.097	56.411	-2.113	1.00	41.16	S	O
ATOM	11766	O	HOH	S	935	32.233	56.259	0.371	1.00	42.04	S	O
ATOM	11767	O	HOH	S	936	69.437	24.323	47.254	1.00	28.34	S	O
ATOM	11768	O	HOH	S	937	72.923	5.477	43.484	1.00	37.12	S	O
ATOM	11769	O	HOH	S	940	45.095	40.917	-0.849	1.00	35.70	S	O
ATOM	11770	O	HOH	S	941	47.266	26.688	14.673	1.00	32.34	S	O
ATOM	11771	O	HOH	S	943	54.148	89.794	5.469	1.00	31.58	S	O
ATOM	11772	O	HOH	S	944	50.515	36.312	30.669	1.00	46.04	S	O
ATOM	11773	O	HOH	S	946	46.174	8.724	57.064	1.00	30.62	S	O
ATOM	11774	O	HOH	S	947	34.768	51.683	-40.250	1.00	43.13	S	O
ATOM	11775	O	HOH	S	952	55.074	85.367	14.606	1.00	28.02	S	O
ATOM	11776	O	HOH	S	953	38.994	-22.766	45.411	1.00	46.68	S	O

ATOM	11777	O	HOH	S	955	63.666	11.248	64.606	1.00	34.43	S	O
ATOM	11778	O	HOH	S	956	64.638	62.882	-10.057	1.00	40.20	S	O
ATOM	11779	O	HOH	S	957	31.053	70.780	-54.613	1.00	45.55	S	O
ATOM	11780	O	HOH	S	958	54.931	-11.047	52.674	1.00	47.73	S	O
ATOM	11781	O	HOH	S	959	67.285	62.642	0.439	1.00	36.35	S	O
ATOM	11782	O	HOH	S	960	42.694	52.774	5.268	1.00	34.47	S	O
ATOM	11783	O	HOH	S	961	38.216	25.701	50.660	1.00	33.65	S	O
ATOM	11784	O	HOH	S	962	78.256	29.962	8.630	1.00	34.00	S	O
ATOM	11785	O	HOH	S	963	50.568	7.354	50.872	1.00	37.22	S	O
ATOM	11786	O	HOH	S	964	83.198	6.665	50.943	1.00	33.63	S	O
ATOM	11787	O	HOH	S	965	28.810	26.215	22.532	1.00	46.00	S	O
ATOM	11788	O	HOH	S	967	61.148	-21.941	48.021	1.00	28.98	S	O
ATOM	11789	O	HOH	S	968	34.756	44.684	-0.072	1.00	32.98	S	O
ATOM	11790	O	HOH	S	970	56.302	45.701	-14.462	1.00	36.96	S	O
ATOM	11791	O	HOH	S	971	44.496	0.428	-1.076	1.00	33.56	S	O
ATOM	11792	O	HOH	S	972	28.413	53.550	-6.572	1.00	40.02	S	O
ATOM	11793	O	HOH	S	975	55.227	87.867	1.988	1.00	29.78	S	O
ATOM	11794	O	HOH	S	976	34.435	47.070	-15.194	1.00	38.39	S	O
ATOM	11795	O	HOH	S	979	33.454	29.262	10.375	1.00	46.72	S	O
ATOM	11796	O	HOH	S	980	48.894	65.854	-31.841	1.00	39.50	S	O
ATOM	11797	O	HOH	S	981	49.922	24.785	14.018	1.00	42.78	S	O
ATOM	11798	O	HOH	S	982	52.236	36.560	23.754	1.00	35.89	S	O
ATOM	11799	O	HOH	S	983	53.162	44.443	1.035	1.00	40.91	S	O
ATOM	11800	O	HOH	S	984	44.885	76.723	-19.605	1.00	36.01	S	O
ATOM	11801	O	HOH	S	986	67.623	6.264	35.451	1.00	40.28	S	O
ATOM	11802	O	HOH	S	988	46.316	73.871	12.547	1.00	45.01	S	O
ATOM	11803	O	HOH	S	989	41.156	31.711	-2.462	1.00	41.98	S	O
ATOM	11804	O	HOH	S	990	45.296	23.053	4.718	1.00	51.71	S	O
ATOM	11805	O	HOH	S	992	63.390	-32.480	39.593	1.00	46.98	S	O
ATOM	11806	O	HOH	S	993	48.378	13.656	18.898	1.00	39.71	S	O
ATOM	11807	O	HOH	S	994	32.570	26.689	8.660	1.00	38.49	S	O
ATOM	11808	O	HOH	S	995	51.613	32.087	63.564	1.00	44.59	S	O
ATOM	11809	O	HOH	S	996	33.090	33.296	28.977	1.00	40.13	S	O
ATOM	11810	O	HOH	S	997	28.258	55.664	-4.996	1.00	47.04	S	O
ATOM	11811	O	HOH	S	999	43.758	42.349	-13.132	1.00	41.32	S	O
ATOM	11812	O	HOH	S	1000	60.130	30.101	27.191	1.00	38.58	S	O
ATOM	11813	O	HOH	S	1001	57.032	-33.945	47.743	1.00	41.87	S	O
ATOM	11814	O	HOH	S	1002	47.137	45.553	37.048	1.00	43.74	S	O
ATOM	11815	O	HOH	S	1003	77.152	34.064	-5.895	1.00	35.58	S	O
ATOM	11816	O	HOH	S	1004	42.192	22.550	-16.801	1.00	43.98	S	O
ATOM	11817	O	HOH	S	1005	69.798	18.706	42.482	1.00	46.03	S	O
ATOM	11818	O	HOH	S	1006	70.310	20.799	41.733	1.00	46.90	S	O
ATOM	11819	O	HOH	S	1008	81.234	24.653	57.515	1.00	43.04	S	O
ATOM	11820	O	HOH	S	1010	33.736	31.698	-7.046	1.00	33.54	S	O
ATOM	11821	O	HOH	S	1011	40.260	6.820	33.865	1.00	40.47	S	O
ATOM	11822	O	HOH	S	1012	37.856	84.857	-8.481	1.00	36.46	S	O
ATOM	11823	O	HOH	S	1013	39.837	60.120	14.792	1.00	41.09	S	O
ATOM	11824	O	HOH	S	1014	41.342	30.655	-11.631	1.00	41.64	S	O
ATOM	11825	O	HOH	S	1016	81.291	42.693	-2.752	1.00	53.57	S	O
ATOM	11826	O	HOH	S	1018	34.422	12.707	42.691	1.00	44.34	S	O
ATOM	11827	O	HOH	S	1019	25.507	69.012	-42.024	1.00	35.19	S	O
ATOM	11828	O	HOH	S	1020	74.844	-4.987	63.357	1.00	43.94	S	O
ATOM	11829	O	HOH	S	1021	50.819	43.942	35.498	1.00	38.49	S	O
ATOM	11830	O	HOH	S	1022	58.670	23.028	75.559	1.00	36.71	S	O
ATOM	11831	O	HOH	S	1023	61.278	41.189	-12.094	1.00	40.97	S	O
ATOM	11832	O	HOH	S	1024	48.792	47.154	-0.609	1.00	38.92	S	O
ATOM	11833	O	HOH	S	1025	73.990	69.673	5.415	1.00	42.62	S	O
ATOM	11834	O	HOH	S	1026	72.070	71.801	2.119	1.00	37.37	S	O
ATOM	11835	O	HOH	S	1027	34.446	-20.051	23.647	1.00	43.77	S	O
ATOM	11836	O	HOH	S	1028	35.167	79.619	-13.038	1.00	29.76	S	O
ATOM	11837	O	HOH	S	1029	38.642	46.666	-20.621	1.00	33.76	S	O
ATOM	11838	O	HOH	S	1031	59.950	-19.390	35.146	1.00	46.13	S	O
ATOM	11839	O	HOH	S	1032	97.098	-2.819	51.422	1.00	44.89	S	O
ATOM	11840	O	HOH	S	1033	45.000	5.782	-14.620	1.00	37.72	S	O
ATOM	11841	O	HOH	S	1034	14.809	54.253	-23.428	1.00	36.41	S	O
ATOM	11842	O	HOH	S	1035	29.756	26.941	37.602	1.00	38.47	S	O
ATOM	11843	O	HOH	S	1036	53.905	15.639	15.075	1.00	38.62	S	O
ATOM	11844	O	HOH	S	1039	51.113	18.244	-13.877	1.00	42.33	S	O
ATOM	11845	O	HOH	S	1040	48.848	77.488	-20.773	1.00	38.72	S	O
ATOM	11846	O	HOH	S	1041	52.588	31.350	-9.401	1.00	52.15	S	O
ATOM	11847	O	HOH	S	1042	45.302	14.330	0.349	1.00	40.20	S	O
ATOM	11848	O	HOH	S	1043	73.321	57.437	7.460	1.00	50.96	S	O
ATOM	11849	O	HOH	S	1044	42.353	77.302	-29.180	1.00	42.08	S	O
ATOM	11850	O	HOH	S	1045	70.594	34.621	45.468	1.00	40.81	S	O
ATOM	11851	O	HOH	S	1046	39.202	14.700	62.611	1.00	44.51	S	O
ATOM	11852	O	HOH	S	1047	79.152	5.389	62.199	1.00	46.31	S	O
ATOM	11853	O	HOH	S	1048	57.167	5.484	34.238	1.00	30.67	S	O

ATOM	11854	O	HOH	S1049	52.741	37.109	32.211	1.00	38.39	S	O
ATOM	11855	O	HOH	S1050	53.603	14.721	29.005	1.00	42.87	S	O
ATOM	11856	O	HOH	S1051	32.768	73.456	-24.039	1.00	41.19	S	O
ATOM	11857	O	HOH	S1052	38.352	69.062	12.245	1.00	40.86	S	O
ATOM	11858	O	HOH	S1053	33.592	-32.972	32.271	1.00	44.77	S	O
ATOM	11859	O	HOH	S1054	41.533	40.357	44.756	1.00	41.45	S	O
ATOM	11860	O	HOH	S1055	33.319	73.147	-34.222	1.00	34.90	S	O
ATOM	11861	O	HOH	S1056	59.146	38.396	63.957	1.00	46.45	S	O
ATOM	11862	O	HOH	S1057	48.168	1.946	47.230	1.00	42.88	S	O
ATOM	11863	O	HOH	S1059	39.569	12.909	52.702	1.00	47.23	S	O
ATOM	11864	O	HOH	S1060	49.585	30.961	3.302	1.00	43.76	S	O
ATOM	11865	O	HOH	S1061	35.770	6.592	31.507	1.00	43.56	S	O
ATOM	11866	O	HOH	S1062	36.000	-22.300	46.394	1.00	47.56	S	O
ATOM	11867	O	HOH	S1063	56.111	56.089	-20.389	1.00	41.10	S	O
ATOM	11868	O	HOH	S1064	40.205	-12.105	30.821	1.00	37.58	S	O
ATOM	11869	O	HOH	S1065	48.522	-14.368	33.705	1.00	45.60	S	O
ATOM	11870	O	HOH	S1066	35.709	42.217	-22.342	1.00	42.50	S	O
ATOM	11871	O	HOH	S1067	65.324	27.118	35.118	1.00	42.13	S	O
ATOM	11872	O	HOH	S1068	71.317	16.264	41.224	1.00	42.63	S	O
ATOM	11873	O	HOH	S1070	54.311	45.946	4.868	1.00	34.16	S	O
ATOM	11874	O	HOH	S1071	63.882	63.979	-5.036	1.00	38.37	S	O
ATOM	11875	O	HOH	S1072	43.151	-30.224	47.982	1.00	37.35	S	O
ATOM	11876	O	HOH	S1073	58.450	16.970	29.151	1.00	21.94	S	O
ATOM	11877	O	HOH	S1075	51.965	57.295	-21.590	1.00	22.61	S	O
ATOM	11878	O	HOH	S1076	54.356	77.135	-3.135	1.00	6.83	S	O
ATOM	11879	O	HOH	S1077	26.519	22.691	-5.473	1.00	32.02	S	O
ATOM	11880	O	HOH	S1078	50.740	79.592	11.742	1.00	33.47	S	O
ATOM	11881	O3	GOL	D 1	45.415	43.650	-9.741	1.00	27.33	K	O
ATOM	11882	C3	GOL	D 1	44.844	43.538	-8.453	1.00	27.43	K	C
ATOM	11883	C2	GOL	D 1	45.359	44.691	-7.596	1.00	27.09	K	C
ATOM	11884	O2	GOL	D 1	45.144	45.907	-8.249	1.00	27.86	K	O
ATOM	11885	C1	GOL	D 1	44.828	44.692	-6.163	1.00	24.16	K	C
ATOM	11886	O1	GOL	D 1	43.627	45.398	-5.994	1.00	18.04	K	O
ATOM	11887	O3	GOL	D 2	51.428	2.760	39.622	1.00	23.08	L	O
ATOM	11888	C3	GOL	D 2	50.535	2.618	40.708	1.00	26.05	L	C
ATOM	11889	C2	GOL	D 2	50.903	3.604	41.803	1.00	27.09	L	C
ATOM	11890	O2	GOL	D 2	50.812	4.937	41.321	1.00	27.32	L	O
ATOM	11891	C1	GOL	D 2	50.095	3.362	43.077	1.00	27.91	L	C
ATOM	11892	O1	GOL	D 2	49.260	4.453	43.403	1.00	26.05	L	O
ATOM	11893	O3	GOL	D 3	21.421	52.647	-19.964	1.00	34.10	M	O
ATOM	11894	C3	GOL	D 3	20.621	52.460	-21.105	1.00	34.42	M	C
ATOM	11895	C2	GOL	D 3	19.144	52.455	-20.732	1.00	35.77	M	C
ATOM	11896	O2	GOL	D 3	18.919	52.938	-19.433	1.00	33.80	M	O
ATOM	11897	C1	GOL	D 3	18.361	53.281	-21.743	1.00	37.20	M	C
ATOM	11898	O1	GOL	D 3	16.992	53.341	-21.405	1.00	37.04	M	O
ATOM	11899	O3	GOL	D 4	27.602	12.998	28.969	1.00	31.75	N	O
ATOM	11900	C3	GOL	D 4	26.633	13.386	28.028	1.00	34.28	N	C
ATOM	11901	C2	GOL	D 4	25.314	12.694	28.318	1.00	35.38	N	C
ATOM	11902	O2	GOL	D 4	24.877	13.014	29.619	1.00	34.31	N	O
ATOM	11903	C1	GOL	D 4	24.291	13.080	27.249	1.00	34.74	N	C
ATOM	11904	O1	GOL	D 4	23.301	13.939	27.764	1.00	36.95	N	O
ATOM	11905	O3	GOL	D 5	44.866	84.186	-2.820	0.86	37.52	O	O
ATOM	11906	C3	GOL	D 5	43.838	83.579	-2.069	0.86	37.98	O	C
ATOM	11907	C2	GOL	D 5	42.970	84.638	-1.409	0.86	40.38	O	C
ATOM	11908	O2	GOL	D 5	42.266	85.379	-2.383	0.86	41.22	O	O
ATOM	11909	C1	GOL	D 5	42.015	83.922	-0.459	0.86	37.78	O	C
ATOM	11910	O1	GOL	D 5	40.882	83.391	-1.115	0.86	33.22	O	O
ATOM	11911	O3	GOL	D 6	37.064	68.325	-25.544	0.71	16.38	P	O
ATOM	11912	C3	GOL	D 6	35.944	68.863	-24.875	0.71	22.39	P	C
ATOM	11913	C2	GOL	D 6	36.114	70.371	-24.765	0.71	24.35	P	C
ATOM	11914	O2	GOL	D 6	36.719	70.707	-23.535	0.71	22.69	P	O
ATOM	11915	C1	GOL	D 6	34.751	71.037	-24.882	0.71	26.02	P	C
ATOM	11916	O1	GOL	D 6	33.959	70.819	-23.739	0.71	20.44	P	O
ATOM	11917	O1	LIG	A 1	69.019	66.167	20.195	1.00	52.51	A	O
ATOM	11918	C1	LIG	A 1	68.016	66.090	20.944	1.00	51.50	A	C
ATOM	11919	O2	LIG	A 1	68.083	65.950	22.184	1.00	54.61	A	O
ATOM	11920	C2	LIG	A 1	66.653	66.152	20.325	1.00	46.02	A	C
ATOM	11921	N1	LIG	A 1	66.699	66.728	18.984	1.00	42.50	A	N
ATOM	11922	C3	LIG	A 1	66.965	68.016	18.812	1.00	41.11	A	C
ATOM	11923	O3	LIG	A 1	67.196	68.796	19.730	1.00	38.89	A	O
ATOM	11924	C4	LIG	A 1	66.974	68.494	17.390	1.00	39.81	A	C
ATOM	11925	N2	LIG	A 1	66.433	69.839	17.345	1.00	40.25	A	N
ATOM	11926	C5	LIG	A 1	65.136	70.003	17.612	1.00	39.78	A	C
ATOM	11927	O4	LIG	A 1	64.392	69.057	17.868	1.00	37.53	A	O
ATOM	11928	C6	LIG	A 1	64.610	71.410	17.572	1.00	39.50	A	C
ATOM	11929	N3	LIG	A 1	63.174	71.374	17.336	1.00	38.70	A	N
ATOM	11930	C7	LIG	A 1	62.744	71.126	16.099	1.00	32.34	A	C

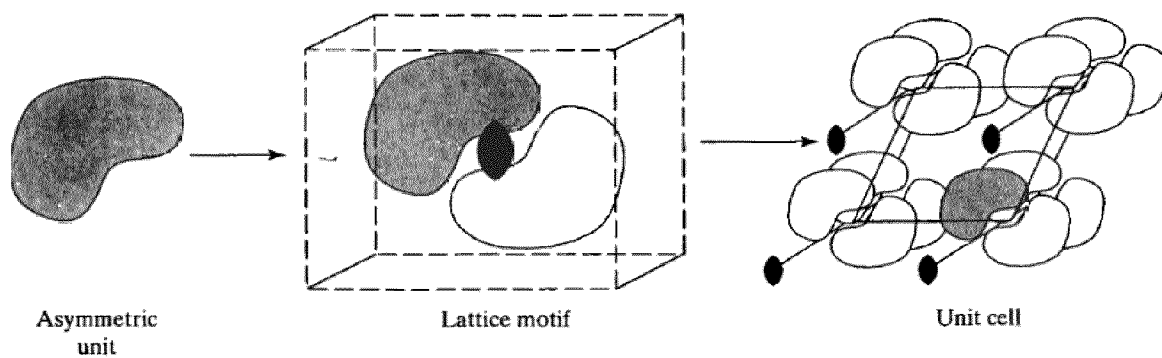
ATOM	11931	O5	LIG	A	1	63.530	70.937	15.194	1.00	30.94	A	O
ATOM	11932	C8	LIG	A	1	61.272	71.049	15.835	1.00	32.30	A	C
ATOM	11933	N4	LIG	A	1	60.980	71.273	14.420	1.00	32.99	A	N
ATOM	11934	C9	LIG	A	1	60.540	72.461	14.002	1.00	33.65	A	C
ATOM	11935	O6	LIG	A	1	60.347	73.388	14.769	1.00	33.04	A	O
ATOM	11936	C10	LIG	A	1	60.260	72.676	12.545	1.00	32.59	A	C
ATOM	11937	N5	LIG	A	1	58.994	73.378	12.437	1.00	30.77	A	N
ATOM	11938	C11	LIG	A	1	57.860	72.684	12.536	1.00	29.91	A	C
ATOM	11939	O7	LIG	A	1	57.855	71.462	12.696	1.00	26.27	A	O
ATOM	11940	C12	LIG	A	1	56.589	73.481	12.422	1.00	30.14	A	C
ATOM	11941	N6	LIG	A	1	55.490	72.655	11.951	1.00	27.96	A	N
ATOM	11942	C13	LIG	A	1	54.497	73.176	11.247	1.00	27.10	A	C
ATOM	11943	O8	LIG	A	1	54.458	74.372	10.988	1.00	23.27	A	O
ATOM	11944	C14	LIG	A	1	53.400	72.243	10.767	1.00	24.12	A	C
ATOM	11945	N7	LIG	A	1	52.144	72.983	10.886	1.00	23.07	A	N
ATOM	11946	C15	LIG	A	1	51.574	73.116	12.088	1.00	26.45	A	C
ATOM	11947	O9	LIG	A	1	52.039	72.607	13.106	1.00	25.29	A	O
ATOM	11948	C16	LIG	A	1	50.323	73.937	12.178	1.00	29.78	A	C
ATOM	11949	N8	LIG	A	1	50.627	75.348	11.921	1.00	33.53	A	N
ATOM	11950	C17	LIG	A	1	49.758	76.344	11.651	1.00	36.38	A	C
ATOM	11951	O10	LIG	A	1	50.128	77.493	11.464	1.00	39.18	A	O
ATOM	11952	C18	LIG	A	1	48.303	76.036	11.598	1.00	23.39	A	C
ATOM	11953	C19	LIG	A	1	49.897	73.891	13.629	1.00	29.29	A	C
ATOM	11954	C20	LIG	A	1	49.084	72.669	13.950	1.00	36.45	A	C
ATOM	11955	O11	LIG	A	1	48.581	72.613	15.093	1.00	40.72	A	O
ATOM	11956	O12	LIG	A	1	48.938	71.779	13.084	1.00	39.81	A	O
ATOM	11957	C21	LIG	A	1	53.637	71.950	9.285	1.00	24.08	A	C
ATOM	11958	C22	LIG	A	1	52.846	70.753	8.710	1.00	21.96	A	C
ATOM	11959	C23	LIG	A	1	53.025	70.584	7.194	1.00	21.61	A	C
ATOM	11960	C24	LIG	A	1	54.479	70.158	7.022	1.00	21.72	A	C
ATOM	11961	C25	LIG	A	1	55.065	71.037	5.966	1.00	28.92	A	C
ATOM	11962	O13	LIG	A	1	54.390	71.908	5.425	1.00	26.65	A	O
ATOM	11963	O14	LIG	A	1	56.435	70.822	5.576	1.00	32.61	A	O
ATOM	11964	C26	LIG	A	1	57.016	71.680	4.600	1.00	37.48	A	C
ATOM	11965	C27	LIG	A	1	56.172	74.059	13.771	1.00	32.03	A	C
ATOM	11966	C28	LIG	A	1	56.274	73.058	14.893	1.00	35.83	A	C
ATOM	11967	C31	LIG	A	1	61.263	73.665	11.974	1.00	32.73	A	C
ATOM	11968	C32	LIG	A	1	61.787	73.265	10.608	1.00	33.92	A	C
ATOM	11969	C33	LIG	A	1	61.770	74.421	9.621	1.00	36.41	A	C
ATOM	11970	C34	LIG	A	1	62.780	74.214	8.513	1.00	35.84	A	C
ATOM	11971	C35	LIG	A	1	60.853	69.613	16.135	1.00	33.30	A	C
ATOM	11972	C36	LIG	A	1	59.337	69.460	16.236	1.00	37.48	A	C
ATOM	11973	C37	LIG	A	1	58.731	70.441	17.239	1.00	37.32	A	C
ATOM	11974	C38	LIG	A	1	58.990	68.027	16.619	1.00	38.29	A	C
ATOM	11975	C39	LIG	A	1	62.391	71.613	18.548	1.00	40.78	A	C
ATOM	11976	C40	LIG	A	1	63.407	72.065	19.592	1.00	41.31	A	C
ATOM	11977	C41	LIG	A	1	64.773	72.075	18.931	1.00	41.46	A	C
ATOM	11978	C42	LIG	A	1	68.417	68.589	16.909	1.00	40.94	A	C
ATOM	11979	C43	LIG	A	1	68.490	69.100	15.493	1.00	40.02	A	C
ATOM	11980	C44	LIG	A	1	68.963	70.314	15.093	1.00	42.66	A	C
ATOM	11981	N9	LIG	A	1	68.864	70.420	13.731	1.00	42.54	A	N
ATOM	11982	C45	LIG	A	1	68.315	69.262	13.211	1.00	39.75	A	C
ATOM	11983	C46	LIG	A	1	68.034	68.937	11.893	1.00	37.52	A	C
ATOM	11984	C47	LIG	A	1	67.467	67.687	11.665	1.00	39.15	A	C
ATOM	11985	C48	LIG	A	1	67.215	66.830	12.721	1.00	38.24	A	C
ATOM	11986	C49	LIG	A	1	67.500	67.175	14.037	1.00	36.10	A	C
ATOM	11987	C50	LIG	A	1	68.072	68.417	14.308	1.00	37.95	A	C
ATOM	11988	C51	LIG	A	1	66.409	65.756	17.926	1.00	40.52	A	C
ATOM	11989	C52	LIG	A	1	66.424	64.421	18.654	1.00	43.08	A	C
ATOM	11990	C53	LIG	A	1	66.161	64.730	20.114	1.00	44.97	A	C
ATOM	11991	O1	LIG	B	1	73.896	22.778	71.758	1.00	53.06	B	O
ATOM	11992	C1	LIG	B	1	72.965	22.798	72.595	1.00	53.38	B	C
ATOM	11993	O2	LIG	B	1	73.156	22.871	73.829	1.00	55.59	B	O
ATOM	11994	C2	LIG	B	1	71.558	22.735	72.078	1.00	50.17	B	C
ATOM	11995	N1	LIG	B	1	71.497	23.348	70.751	1.00	46.88	B	N
ATOM	11996	C3	LIG	B	1	71.709	24.657	70.617	1.00	44.36	B	C
ATOM	11997	O3	LIG	B	1	71.945	25.368	71.573	1.00	45.18	B	O
ATOM	11998	C4	LIG	B	1	71.674	25.258	69.242	1.00	42.24	B	C
ATOM	11999	N2	LIG	B	1	71.210	26.635	69.280	1.00	40.56	B	N
ATOM	12000	C5	LIG	B	1	69.945	26.890	69.590	1.00	39.77	B	C
ATOM	12001	O4	LIG	B	1	69.132	26.002	69.813	1.00	37.89	B	O
ATOM	12002	C6	LIG	B	1	69.500	28.322	69.631	1.00	40.68	B	C
ATOM	12003	N3	LIG	B	1	68.081	28.315	69.300	1.00	40.52	B	N
ATOM	12004	C7	LIG	B	1	67.747	28.045	68.043	1.00	37.52	B	C
ATOM	12005	O5	LIG	B	1	68.601	27.822	67.195	1.00	35.15	B	O
ATOM	12006	C8	LIG	B	1	66.286	27.989	67.709	1.00	34.39	B	C
ATOM	12007	N4	LIG	B	1	66.069	28.278	66.302	1.00	33.75	B	N

ATOM	12008	C9	LIG	B	1	65.692	29.500	65.925	1.00	35.55	B	C
ATOM	12009	O6	LIG	B	1	65.495	30.376	66.734	1.00	33.54	B	O
ATOM	12010	C10	LIG	B	1	65.469	29.795	64.467	1.00	34.75	B	O
ATOM	12011	N5	LIG	B	1	64.231	30.546	64.346	1.00	32.36	B	N
ATOM	12012	C11	LIG	B	1	63.058	29.908	64.358	1.00	35.23	B	C
ATOM	12013	O7	LIG	B	1	62.947	28.677	64.438	1.00	32.12	B	O
ATOM	12014	C12	LIG	B	1	61.840	30.786	64.249	1.00	32.97	B	O
ATOM	12015	N6	LIG	B	1	60.733	30.056	63.656	1.00	32.50	B	N
ATOM	12016	C13	LIG	B	1	59.852	30.673	62.868	1.00	30.96	B	C
ATOM	12017	O8	LIG	B	1	59.909	31.883	62.650	1.00	30.97	B	O
ATOM	12018	C14	LIG	B	1	58.763	29.830	62.238	1.00	30.62	B	O
ATOM	12019	N7	LIG	B	1	57.553	30.624	62.295	1.00	30.55	B	N
ATOM	12020	C15	LIG	B	1	56.941	30.760	63.482	1.00	37.93	B	C
ATOM	12021	O9	LIG	B	1	57.341	30.205	64.501	1.00	31.31	B	O
ATOM	12022	C16	LIG	B	1	55.726	31.644	63.560	1.00	35.58	B	O
ATOM	12023	N8	LIG	B	1	56.153	33.041	63.547	1.00	36.66	B	N
ATOM	12024	C17	LIG	B	1	55.411	34.126	63.236	1.00	35.39	B	C
ATOM	12025	O10	LIG	B	1	55.879	35.256	63.265	1.00	34.08	B	O
ATOM	12026	C18	LIG	B	1	53.980	33.921	62.867	1.00	31.24	B	C
ATOM	12027	C19	LIG	B	1	55.141	31.491	64.946	1.00	34.63	B	C
ATOM	12028	C20	LIG	B	1	54.085	30.430	65.014	1.00	40.14	B	C
ATOM	12029	O11	LIG	B	1	53.302	30.469	65.984	1.00	46.43	B	O
ATOM	12030	O12	LIG	B	1	54.034	29.563	64.121	1.00	38.37	B	O
ATOM	12031	C21	LIG	B	1	59.134	29.637	60.770	1.00	30.25	B	C
ATOM	12032	C22	LIG	B	1	58.189	28.681	60.009	1.00	29.98	B	C
ATOM	12033	C23	LIG	B	1	58.481	28.457	58.515	1.00	31.25	B	C
ATOM	12034	C24	LIG	B	1	59.898	27.914	58.476	1.00	29.96	B	C
ATOM	12035	C25	LIG	B	1	60.635	28.632	57.387	1.00	30.45	B	C
ATOM	12036	O13	LIG	B	1	60.108	29.542	56.751	1.00	30.25	B	O
ATOM	12037	O14	LIG	B	1	61.972	28.214	57.039	1.00	34.18	B	O
ATOM	12038	C26	LIG	B	1	62.629	28.894	55.973	1.00	32.71	B	C
ATOM	12039	C27	LIG	B	1	61.396	31.374	65.593	1.00	37.05	B	C
ATOM	12040	C28	LIG	B	1	61.313	30.344	66.694	1.00	41.16	B	C
ATOM	12041	C31	LIG	B	1	66.589	30.693	63.959	1.00	34.85	B	C
ATOM	12042	C32	LIG	B	1	66.672	30.766	62.433	1.00	37.37	B	C
ATOM	12043	C33	LIG	B	1	67.757	31.776	62.034	1.00	39.69	B	C
ATOM	12044	C34	LIG	B	1	67.974	31.848	60.538	1.00	35.69	B	C
ATOM	12045	C35	LIG	B	1	65.870	26.532	67.922	1.00	34.61	B	C
ATOM	12046	C36	LIG	B	1	64.368	26.302	67.812	1.00	36.23	B	C
ATOM	12047	C37	LIG	B	1	63.601	27.229	68.743	1.00	37.84	B	C
ATOM	12048	C38	LIG	B	1	64.021	24.840	68.087	1.00	34.59	B	C
ATOM	12049	C39	LIG	B	1	67.205	28.592	70.439	1.00	40.86	B	C
ATOM	12050	C40	LIG	B	1	68.157	28.872	71.597	1.00	41.17	B	C
ATOM	12051	C41	LIG	B	1	69.575	28.862	71.050	1.00	40.96	B	C
ATOM	12052	C42	LIG	B	1	73.131	25.366	68.818	1.00	43.65	B	C
ATOM	12053	C43	LIG	B	1	73.254	25.836	67.396	1.00	46.00	B	C
ATOM	12054	C44	LIG	B	1	73.772	27.018	66.956	1.00	49.17	B	C
ATOM	12055	N9	LIG	B	1	73.698	27.066	65.582	1.00	49.67	B	N
ATOM	12056	C45	LIG	B	1	73.133	25.905	65.104	1.00	47.67	B	C
ATOM	12057	C46	LIG	B	1	72.872	25.519	63.800	1.00	46.69	B	C
ATOM	12058	C47	LIG	B	1	72.283	24.275	63.624	1.00	47.40	B	C
ATOM	12059	C48	LIG	B	1	71.983	23.473	64.706	1.00	45.47	B	C
ATOM	12060	C49	LIG	B	1	72.253	23.874	66.004	1.00	44.33	B	C
ATOM	12061	C50	LIG	B	1	72.844	25.116	66.230	1.00	46.01	B	C
ATOM	12062	C51	LIG	B	1	71.209	22.383	69.692	1.00	47.02	B	C
ATOM	12063	C52	LIG	B	1	70.752	21.125	70.432	1.00	49.32	B	C
ATOM	12064	C53	LIG	B	1	71.195	21.269	71.880	1.00	50.96	B	C
ATOM	12065	O3	GOL	D	7	41.395	14.046	10.272	0.90	45.81	W	O
ATOM	12066	C3	GOL	D	7	41.600	13.134	9.219	0.90	45.36	W	C
ATOM	12067	C2	GOL	D	7	42.728	13.635	8.322	0.90	44.49	W	C
ATOM	12068	O2	GOL	D	7	43.962	13.590	9.018	0.90	44.68	W	O
ATOM	12069	C1	GOL	D	7	42.808	12.643	7.178	0.90	41.66	W	C
ATOM	12070	O1	GOL	D	7	42.945	11.372	7.775	0.90	38.10	W	O
ATOM	12071	O3	GOL	D	8	44.860	20.760	5.935	0.80	33.94	X	O
ATOM	12072	C3	GOL	D	8	43.969	19.931	5.212	0.80	33.62	X	C
ATOM	12073	C2	GOL	D	8	43.546	20.592	3.897	0.80	31.13	X	C
ATOM	12074	O2	GOL	D	8	44.514	20.354	2.900	0.80	27.43	X	O
ATOM	12075	C1	GOL	D	8	42.206	20.026	3.448	0.80	32.94	X	C
ATOM	12076	O1	GOL	D	8	41.872	20.557	2.184	0.80	34.08	X	O
ATOM	12077	O3	GOL	D	9	85.094	28.544	-6.687	1.00	54.84	R	O
ATOM	12078	C3	GOL	D	9	85.243	29.568	-5.723	1.00	55.65	R	C
ATOM	12079	C2	GOL	D	9	85.892	30.791	-6.370	1.00	56.65	R	C
ATOM	12080	O2	GOL	D	9	84.890	31.651	-6.871	1.00	58.72	R	O
ATOM	12081	C1	GOL	D	9	86.740	31.531	-5.341	1.00	53.91	R	C
ATOM	12082	O1	GOL	D	9	88.091	31.135	-5.490	1.00	52.01	R	O
ATOM	12083	S	SO4	E	1	64.583	39.172	44.125	0.73	35.25	V	S
ATOM	12084	O1	SO4	E	1	65.526	40.282	44.204	0.73	36.62	V	O

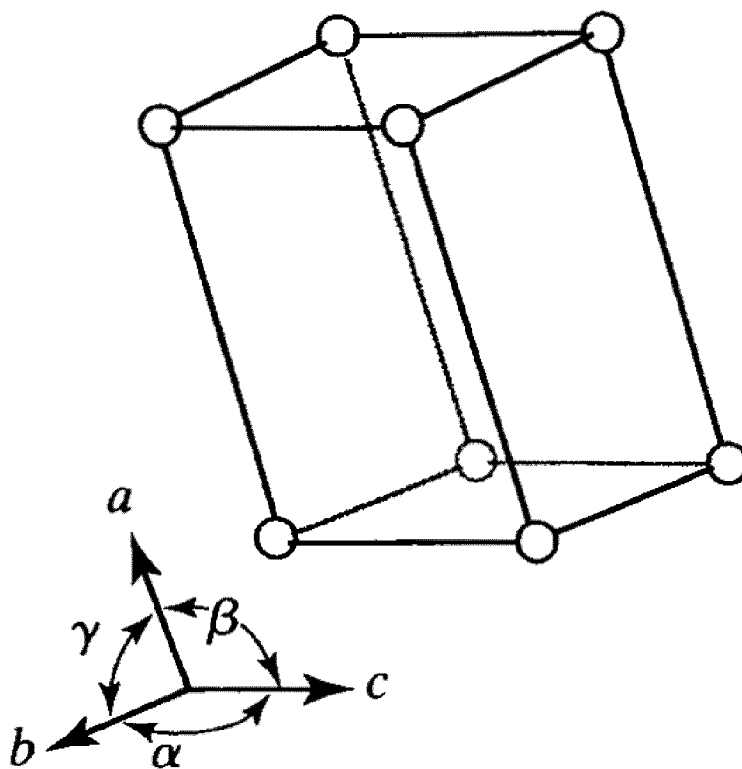
ATOM	12085	O2	SO4	E	1	63.599	39.429	43.080	0.73	38.18	V	O
ATOM	12086	O3	SO4	E	1	65.316	37.959	43.792	0.73	34.92	V	O
ATOM	12087	O4	SO4	E	1	63.866	39.043	45.397	0.73	32.33	V	O

Figure 7

a) component of crystals



b) unit cell definition



INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2013/076146

A. CLASSIFICATION OF SUBJECT MATTER
INV. C12N9/10 G06F19/16
ADD.

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C12N G06F C07K

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	AKITADA ICHINOSE ET AL: "AMINO ACID SEQUENCE OF THE A SUBUNIT OF HUMAN FACTOR XIII", BIOCHEMISTRY, AMERICAN CHEMICAL SOCIETY, US, vol. 25, no. 22, 4 November 1986 (1986-11-04), pages 6900-6906, XP000567872, ISSN: 0006-2960, DOI: 10.1021/BI00370A025	1,5-9
A	The query sequence SEQ ID NO:1 has 99.70 % identity (99.90 % similarity) over 731 positions in a common overlap (range (q:s): 8-738:2-732) with subject UNIPROT:P00488 (length: 732).; the whole document ----- -/--	2-4, 10-15



Further documents are listed in the continuation of Box C.



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"&" document member of the same patent family

Date of the actual completion of the international search

15 January 2014

Date of mailing of the international search report

23/01/2014

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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2013/076146

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	The query sequence SEQ ID NO:1 has 99.90 % identity (99.90 % similarity) over 731 positions in a common overlap (range (q:s): 8-738:1-731) with subject PDB:1GGT A (length: 731).; the whole document	2-4, 10-15
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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2013/076146

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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INTERNATIONAL SEARCH REPORT

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International application No

PCT/EP2013/076146

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