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(71) Applicants: **THE BROAD INSTITUTE, INC.** [US/US];
415 Main Street, Cambridge, Massachusetts 02142 (US).
DANA-FARBER CANCER INSTITUTE, INC.
[US/US]; 450 Brookline Avenue, Boston, Massachusetts
02215 (US).

(72) Inventors; and

(71) Applicants : **THOMAS, David K.** [US/US]; c/o The
Broad Institute, Inc., 415 Main Street, Cambridge, Mas-
sachusetts 02142 (US). **GOLUB, Todd R.** [US/US]; c/o
Dana-farber Cancer Institute, Inc., 450 Brookline Avenue,
Boston, Massachusetts 02215 (US).

(74) Agent: **HUNTER-ENSOR, Melissa, D.**; c/o Greenberg
Traurig, LLP, One International Place, Boston, Massachu-
setts 02110 (US).

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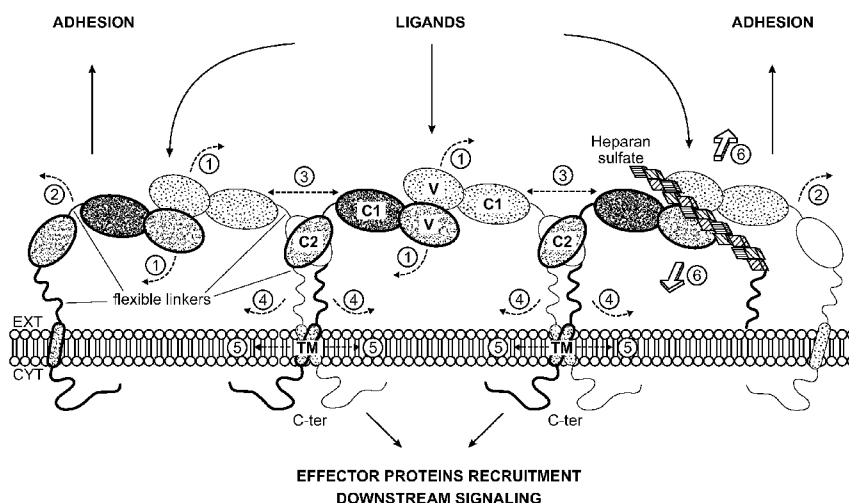


FIG. 1

(57) Abstract: The invention provides compositions and methods for treating cardiac dysfunction, particularly cachexia-associated or RAGE-associated cardiac dysfunction, using an anti-RAGE agent. The invention also provides compositions and methods for identifying therapeutic agents useful for disrupting (slowing, reducing, reversing, or preventing). The methods comprise designing or identifying agents that bind to functional sites identified on the RAGE polypeptide, wherein binding of agents to the functional site(s) inhibit RAGE-mediated cachetogenic signaling.

COMPOSITIONS AND METHODS FOR TREATING CARDIAC DYSFUNCTION

CROSS-REFERENCE TO RELATED APPLICATION

5 This application claims the benefit of the following U.S. Provisional Application No.: 62/267,158, filed December 14, 2015, the entire content of which is incorporated herein by reference.

STATEMENT OF RIGHTS TO INVENTIONS MADE UNDER FEDERALLY SPONSORED RESEARCH

10 This invention was made with government support under Grant No. R01CA190101-01 awarded by the National Institutes of Health. The government has certain rights in the invention.

BACKGROUND OF THE INVENTION

15 Cardiac disease or cardiac dysfunction remains a global health problem. Advanced glycation end products and the receptor for advanced glycation end products (RAGE) have been implicated in cardiac disease. Diseases such as heart dysfunction or heart failure can also be associated with cachexia. The pathogenesis of cardiac dysfunction associated with RAGE or cachexia is not currently well-understood.

20 Accordingly, compositions and methods for treating cardiac dysfunction, such as cardiac dysfunction associated with RAGE and/or cachexia, are urgently required. Further, methods for identifying therapeutic agents having cardiac dysfunction-inhibiting or cachexia-inhibiting activity are urgently needed.

SUMMARY OF THE INVENTION

25 The invention generally provides compositions and methods of inhibiting, preventing, or reversing cardiac dysfunction, methods of identifying therapeutic agents useful for disrupting (slowing, reducing, reversing, or preventing) cachectic signaling in cells by targeting functional sites on RAGE polypeptide and/or cachectogenic ligands of RAGE, and therapeutic agents identified using the methods.

30 In one aspect, the invention provides a pharmaceutical composition that contains an effective amount of an agent that specifically binds to a RAGE polypeptide at a site containing one or more of the amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152,

154, 175, 177, 178, 179, 186, 213, 214, and 216 of the RAGE polypeptide, and a pharmaceutically acceptable excipient.

In another aspect, the invention provides a pharmaceutical composition that contains an effective amount of an agent that inhibits binding of a RAGE ligand to a RAGE polypeptide at a site containing one or more of the amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116,
5 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, and 216 of the RAGE polypeptide, and a pharmaceutically acceptable excipient.

In various embodiments of any one of the aspects delineated herein, the agent is an antibody or antigen binding fragment thereof, peptide, polynucleotide, or small molecule
10 compound. In various embodiments, the RAGE ligand is S100A7, S100A8, or S100A9. In some embodiments, the agent binds at a site containing one or more of amino acid residues 23-54 of the RAGE polypeptide. In some other embodiments, the site contains each of amino acid residues 25, 54, 59, 61, 92, 94, 96, 114, 116, 150, 151, 152, 175, 177, 179, 186, and 214 of the RAGE polypeptide.

15 In various embodiments, an effective amount is an amount sufficient to inhibit loss of myosin heavy chain in a cell contacted with the composition. In some other embodiments, an effective amount is an amount sufficient to inhibit cachexia-associated cardiac dysfunction in a subject administered with the composition.

In yet another aspect, the invention provides a method of inhibiting loss of myosin heavy
20 chain in a cardiomyocyte. The method contains the step of contacting the cardiomyocyte with an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby inhibiting loss of myosin heavy chain in the cardiomyocyte.

In still another aspect, the invention provides a method of reversing loss of myosin heavy chain in a cardiomyocyte, the method containing the step of contacting the cardiomyocyte with an
25 effective amount of an agent that specifically binds to a RAGE polypeptide, thereby reversing loss of myosin heavy chain in the cardiomyocyte. In some embodiments, the cardiomyocyte is in vivo or in vitro.

In another aspect, the invention provides a method of preventing and/or inhibiting cardiac dysfunction in a subject, the method containing the step of administering to the subject an
30 effective amount of an agent that specifically binds to a RAGE polypeptide, thereby preventing or inhibiting cardiac dysfunction in the subject.

In yet another aspect, the invention provides a method of reversing cardiac dysfunction in a subject. The method contains the step of administering to the subject an effective amount of an

agent that specifically binds to a RAGE polypeptide, thereby reversing cardiac dysfunction in the subject.

In still another aspect, the invention provides a method of treating cardiac dysfunction in a subject. The method contains the step of administering to the subject an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby treating cardiac dysfunction in the subject.

In another aspect, the invention provides a method of treating cardiac dysfunction in a selected subject. The method contains the step of administering to the subject an effective amount of an agent that specifically binds to a RAGE polypeptide, where the subject is selected as having an increased level of S100A7, S100A8, or S100A9 polypeptide or polynucleotide in a biological sample obtained from the subject relative to a control level, thereby treating cardiac dysfunction in the subject.

In various embodiments of any one of the aspects delineated herein, the subject is human. In some embodiments, the cardiac dysfunction is cachexia-associated cardiac dysfunction. In some other embodiments, the cardiac dysfunction is heart dysfunction associated with cancer cachexia, cachexia-associated advanced heart failure, heart dysfunction following acute myocardial infarction, cardiac ischemia, or cardiac atrophy.

In some embodiments, the agent is FPS3. In some other embodiments, the agent is an anti-RAGE antibody.

In another aspect, the invention provides a method for identifying a candidate compound that binds to a site on a RAGE polypeptide. The method contains the steps of (a) providing a three-dimensional structure of a RAGE polypeptide having at least one atomic coordinate, or surrogate thereof, from PDB ID: 4LP4 for each of the amino acid residues 23-54 or for each of the amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, and 216 of the RAGE polypeptide; or atomic coordinates that have a root mean square deviation of the coordinates of less than 3 angstroms; and (b) producing a structure for a candidate compound wherein the structure defines a molecule having sufficient surface complementary to the RAGE polypeptide to bind the site in an aqueous solution.

In various embodiments, the method further contains the step of (c) evaluating the ability of the compound to bind a RAGE polypeptide in an *in vitro*, *in vivo*, or *ex vivo* assay. In some embodiments, the method further contains the step of (d) evaluating the ability of the compound to inhibit cachexia or inhibit loss of myosin heavy chain in a functional assay. In some other embodiments, the method contains the step of (e) modifying the candidate compound based upon

the positioning, alignment, and interactions between the candidate compound and one or more amino acids in the site. In some embodiments, the structure of the candidate compound is designed de novo. In still other embodiments, the results of the evaluation in step (c) or step (d) provide further structure related binding information such that other candidate compounds are selected for evaluation in step (c) or step (d).

Other features and advantages of the invention will be apparent from the detailed description, and from the claims.

Definitions

Unless defined otherwise, all technical and scientific terms used herein have the meaning commonly understood by a person skilled in the art to which this invention belongs. The following references provide one of skill with a general definition of many of the terms used in this invention: Singleton et al., Dictionary of Microbiology and Molecular Biology (2nd ed. 1994); The Cambridge Dictionary of Science and Technology (Walker ed., 1988); The Glossary of Genetics, 5th Ed., R. Rieger et al. (eds.), Springer Verlag (1991); and Hale & Marham, The Harper Collins Dictionary of Biology (1991). As used herein, the following terms have the meanings ascribed to them below, unless specified otherwise.

By “agent” is meant a peptide, nucleic acid molecule, or small compound.

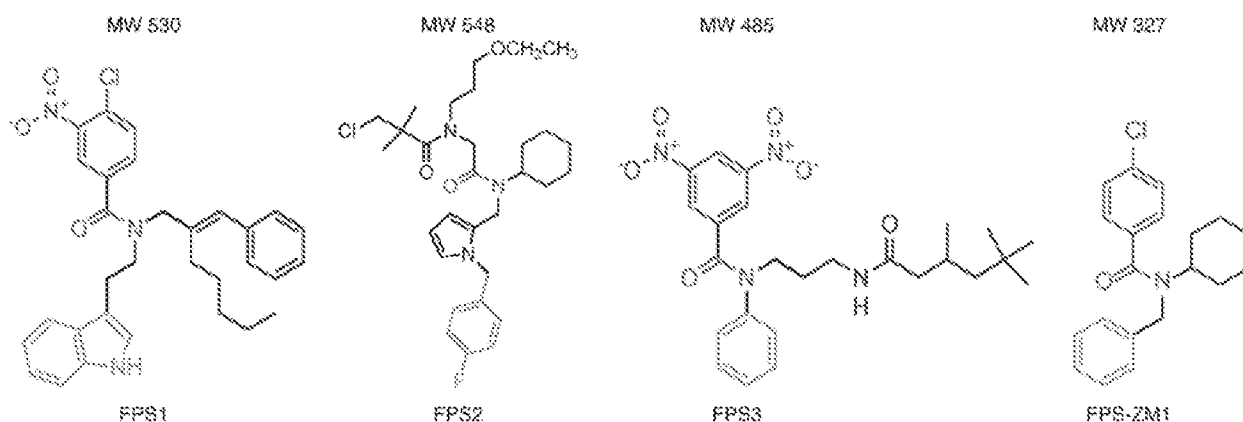
By “ameliorate” is meant decrease, suppress, attenuate, diminish, arrest, or stabilize the development or progression of a disease.

By “alteration” is meant a change (increase or decrease) in the expression levels or activity of a gene or polypeptide as detected by standard art known methods such as those described herein. As used herein, an alteration includes a 10% change in expression levels, preferably a 25% change, more preferably a 40% change, and most preferably a 50% or greater change in expression levels.

As used herein, an “anti-RAGE agent” or “RAGE inhibitor” is an agent that inhibits a biological activity or function of RAGE. Exemplary biological activities of RAGE include, without limitation, binding to advanced glycation end products (AGEs), amyloid fibrils, amphotericins, and S100/calgranulins, such as S100A7, S100A8, and S100A9. In particular embodiments, the biological activity or function of RAGE is RAGE-mediated cachectogenic signaling. In some embodiments, the anti-RAGE agent is an anti-RAGE antibody, or antigen-binding fragment thereof, having cachexia-inhibitory activity. In some other embodiments, the anti-RAGE agent is an anti-S100A7, anti-S100A8, or anti-S100A9 antibody, or antigen-binding

fragment thereof, having cachexia-inhibitory activity. In still other embodiments, the anti-RAGE agent is a small molecular compound binding to RAGE and having cachexia-inhibitory activity. In some embodiments, the anti-RAGE agent is FPS3.

Exemplary RAGE inhibitors include, without limitation, PF-04494700 (also known as TTP-488) (Sabbagh et al., Alzheimer Dis Assoc Disord. 2011; 25(3): 206–212), FPS1, FPS2, FPS3, or FPS-ZM1. In some embodiments, the anti-RAGE agent is FPS1, FPS2, or FPS3. In some embodiments, the anti-RAGE agent is not FPS-ZM1 or PF-04494700.



The term “antibody,” as used herein, refers to an immunoglobulin molecule which specifically binds with an antigen. Methods of preparing antibodies are well known to those of ordinary skill in the science of immunology. Antibodies can be intact immunoglobulins derived from natural sources or from recombinant sources and can be immunoreactive portions of intact immunoglobulins. Antibodies are typically tetramers of immunoglobulin molecules. Tetramers may be naturally occurring or reconstructed from single chain antibodies or antibody fragments. Antibodies also include dimers that may be naturally occurring or constructed from single chain antibodies or antibody fragments. The antibodies in the present invention may exist in a variety of forms including, for example, polyclonal antibodies, monoclonal antibodies, Fv, Fab and F(ab')₂, as well as single chain antibodies (scFv), humanized antibodies, and human antibodies (Harlow et al., 1999, In: Using Antibodies: A Laboratory Manual, Cold Spring Harbor Laboratory Press, NY; Harlow et al., 1989, In: Antibodies: A Laboratory Manual, Cold Spring Harbor, New York; Houston et al., 1988, Proc. Natl. Acad. Sci. USA 85:5879-5883; Bird et al., 1988, Science 242:423-426).

The term “antibody fragment” refers to a portion of an intact antibody and refers to the antigenic determining variable regions of an intact antibody. Examples of antibody fragments include, but are not limited to, Fab, Fab', F(ab')₂, and Fv fragments, linear antibodies, scFv

antibodies, single-domain antibodies, such as camelid antibodies (Riechmann, 1999, Journal of Immunological Methods 231:25-38), composed of either a VL or a VH domain which exhibit sufficient affinity for the target, and multispecific antibodies formed from antibody fragments. The antibody fragment also includes a human antibody or a humanized antibody or a portion of a human antibody or a humanized antibody.

Antibodies can be made by any of the methods known in the art utilizing a polypeptide of the invention (e.g., RAGE polypeptide), or immunogenic fragments thereof, as an immunogen. One method of obtaining antibodies is to immunize suitable host animals with an immunogen and to follow standard procedures for polyclonal or monoclonal antibody production. The immunogen will facilitate presentation of the immunogen on the cell surface. Immunization of a suitable host can be carried out in a number of ways. Nucleic acid sequences encoding a polypeptide of the invention or immunogenic fragments thereof, can be provided to the host in a delivery vehicle that is taken up by immune cells of the host. The cells will in turn express the receptor on the cell surface generating an immunogenic response in the host. Alternatively, nucleic acid sequences encoding the polypeptide, or immunogenic fragments thereof, can be expressed in cells *in vitro*, followed by isolation of the polypeptide and administration of the polypeptide to a suitable host in which antibodies are raised.

Alternatively, antibodies against the polypeptide may, if desired, be derived from an antibody phage display library. A bacteriophage is capable of infecting and reproducing within bacteria, which can be engineered, when combined with human antibody genes, to display human antibody proteins. Phage display is the process by which the phage is made to 'display' the human antibody proteins on its surface. Genes from the human antibody gene libraries are inserted into a population of phage. Each phage carries the genes for a different antibody and thus displays a different antibody on its surface.

Antibodies made by any method known in the art can then be purified from the host. Antibody purification methods may include salt precipitation (for example, with ammonium sulfate), ion exchange chromatography (for example, on a cationic or anionic exchange column preferably run at neutral pH and eluted with step gradients of increasing ionic strength), gel filtration chromatography (including gel filtration HPLC), and chromatography on affinity resins such as protein A, protein G, hydroxyapatite, and anti-immunoglobulin.

Antibodies can be conveniently produced from hybridoma cells engineered to express the antibody. Methods of making hybridomas are well known in the art. The hybridoma cells can be cultured in a suitable medium, and spent medium can be used as an antibody source.

Polynucleotides encoding the antibody of interest can in turn be obtained from the hybridoma that produces the antibody, and then the antibody may be produced synthetically or recombinantly from these DNA sequences. For the production of large amounts of antibody, it is generally more convenient to obtain an ascites fluid. The method of raising ascites generally comprises injecting
5 hybridoma cells into an immunologically naive histocompatible or immunotolerant mammal, especially a mouse. The mammal may be primed for ascites production by prior administration of a suitable composition (e.g., Pristane).

By “biological sample” is meant any liquid, cell, or tissue obtained from a subject. In some embodiments, the biological sample is blood.

10 In this disclosure, “comprises,” “comprising,” “containing” and “having” and the like can have the meaning ascribed to them in U.S. Patent law and can mean “includes,” “including,” and the like; “consisting essentially of” or “consists essentially” likewise has the meaning ascribed in U.S. Patent law and the term is open-ended, allowing for the presence of more than that which is recited so long as basic or novel characteristics of that which is recited is not changed by the
15 presence of more than that which is recited, but excludes prior art embodiments.

By “pre-cachexia” is meant a clinical state that fails to meet the criteria for cachexia. For example, a subject may be pre-cachexic when their weight is stable or when their weight loss is about 1%, 2% or 3% of their body mass. As used with respect to the invention described herein, at least a subset of patients with pre-cachexia may be characterized by an increase in one or more
20 S100 RAGE ligands and/or a decrease in soluble RAGE relative to a reference level without unintended weight loss of at least 5% or more of body weight.

By “cachexia” is meant unintended weight loss of at least 5% or more of body weight. In general, cachexia refers to the progressive loss of lean body mass (particularly of muscle mass) that typically is associated with gross body weight loss that is at least 5, 6, 7, 8, 9, 10% or more.

25 Muscle and adipose tissue loss, indicative of cachexia, may be detected by a computed tomography (CT) scan (Martin *et al.*, *J Clin Oncol* 31:1539-1547 (2013)), though this method has not been validated as sufficient to formally diagnose the condition as there are numerous conditions that result in similar findings by imaging studies alone. Currently, there is no molecular biomarker(s) for this condition, as the pathogenesis of cachexia remains to be
30 elucidated. In some embodiments, cachexia is characterized by loss of myosin heavy chain.

By “cancer-induced cachexia” is meant cachexia associated with the presence of a cancer or tumor.

By “disease-induced cachexia” is meant cachexia associated with the presence of a disease that is not due to the presence of at least one cancer or tumor. As used herein, at least a subset of patients with disease-induced cachexia may be characterized by an increase in one or more S100 RAGE ligands and/or a decrease in soluble RAGE relative to a reference level.

5 By “cachexia-inhibitory activity” is meant an activity of an agent that inhibits cachectogenic signaling or cachexia in a cell or subject. In some embodiments, cachectogenic signaling or cachexia in a cell or subject is measured using the cachexia functional assay(s) described herein. In particular embodiments, cachexia-inhibitory activity of an agent is indicated by loss of myosin heavy chain in a cell. In certain embodiments, the agent is an
10 antibody or a small molecular compound. Conversely, by “cachexia-inducing activity” is meant an activity of an agent that increases or promotes cachectogenic signaling or cachexia in a cell or subject. For example, the RAGE ligands S100 A7, S100A8, and S100A9, have cachexia-inducing activity.

By “cardiac dysfunction” or “heart dysfunction” is meant an alteration, particularly a
15 decrease, in a heart function, structure, or activity. In some embodiments, the cardiac dysfunction is characterized by an irregular heartbeat. In certain embodiments, the cardiac dysfunction is cardiac atrophy. In some other embodiments, the cardiac dysfunction is characterized by loss of myosin heavy chain in a cardiomyocyte. In particular embodiments, the cardiac dysfunction is dependent on RAGE-mediated signaling. In some embodiments, the cardiac dysfunction follows
20 an acute myocardial infarction. In still other embodiments, the cardiac dysfunction is cardiac ischemia.

In particular embodiments, the cardiac dysfunction is inhibited and/or prevented by an anti-RAGE antibody. In certain embodiments, the cardiac dysfunction is rescued or reversed by an anti-RAGE antibody.

25 The cardiac dysfunction can be dependent or independent of cachexia. By “cachexia-associated cardiac dysfunction” is meant a decrease or impairment in heart function or structure relative to normal heart function that is associated with the presence of cachexia. In some embodiments, the cardiac dysfunction is induced by cachexia. In some other embodiments, the cardiac dysfunction is associated with cancer-induced cachexia. In still other embodiments, cachexia is associated with advanced heart failure. In particular embodiments, the cachexia-
30 associated cardiac dysfunction is cachexia-induced cardiac atrophy. In some embodiments, the cachexia-associated cardiac dysfunction is characterized by a loss of myosin heavy chain in a cardiomyocyte.

Currently, the pathogenesis of cachexia-associated cardiac dysfunction remains to be elucidated. However, without intending to be bound by theory, it is believed cachexia-associated cardiac dysfunction is dependent on RAGE-mediated signaling. Thus, in some embodiments, a cachexia-associated cardiac dysfunction is inhibited, prevented, and/or reversed by inhibiting RAGE-mediated signaling. In some embodiments, the RAGE-mediated signaling is inhibited by contacting RAGE with an anti-RAGE antibody.

By “cardiomyocyte” is meant a cardiac muscle cell.

By “cardiac ischemia” is meant a lack of blood flow and/or oxygen to the heart muscles.

As used herein, “cellular differentiation” or “differentiation” is the process by which a less specialized cell becomes a more specialized cell type.

“Detect” refers to identifying the presence, absence or amount of the analyte to be detected.

By “disease” is meant any condition or disorder that damages or interferes with the normal function of a cell, tissue, or organ. In one embodiment, the disease is pre-cachexia, cachexia, or refractory cachexia. In another embodiment, the disease is cardiac dysfunction. In still another embodiment, the disease is cachexia-associated cardiac dysfunction. In another embodiment, the disease is cachexia-independent cardiac dysfunction.

By “effective amount” is meant the amount of a required to ameliorate the symptoms of a disease relative to an untreated patient. The effective amount of active compound(s) used to practice the present invention for therapeutic treatment of a disease varies depending upon the manner of administration, the age, body weight, and general health of the subject. Ultimately, the attending physician or veterinarian will decide the appropriate amount and dosage regimen. Such amount is referred to as an “effective” amount.

The invention provides a number of targets that are useful for the development of highly specific drugs to treat or a disorder characterized by the methods delineated herein. In addition, the methods of the invention provide a facile means to identify therapies that are safe for use in subjects. In addition, the methods of the invention provide a route for analyzing virtually any number of compounds for effects on a disease described herein with high-volume throughput, high sensitivity, and low complexity.

By “fragment” is meant a portion of a polypeptide or nucleic acid molecule. This portion contains, preferably, at least 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, or 90% of the entire length of the reference nucleic acid molecule or polypeptide. A fragment may contain 10, 20, 30,

40, 50, 60, 70, 80, 90, or 100, 200, 300, 400, 500, 600, 700, 800, 900, or 1000 nucleotides or amino acids.

As used herein, a “functional site” on a RAGE polypeptide is a binding site on RAGE of an antibody or ligand having functional activity. In some embodiments, the functional activity is modulation of cachectic signaling or cachexia in a cell or subject. In some other embodiments, the functional activity is inhibition of cachectic signaling or cachexia in a cell or subject. In particular embodiments, the functional activity is measured using a cachexia functional assay described herein.

In some embodiments, the functional site of RAGE is on the V domain of RAGE. In some other embodiments, the functional site on RAGE comprises any one or more of amino acid residues 23-54 of RAGE. In still other embodiments, the functional site comprises any one or more amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, and 216 of RAGE.

By “heart failure” is meant a condition where the ability of the heart to pump blood is decreased. In particular embodiments, the ability of the heart to pump blood is decreased such that the heart is not able to pump blood sufficient to meet the body’s needs.

“High-throughput screening” (HTS) refers to a process that uses a combination of modern robotics, data processing and control software, liquid handling devices, and/or sensitive detectors, to efficiently process a large amount of (e.g., thousands, hundreds of thousands, or millions of) samples in biochemical, genetic or pharmacological experiments, either in parallel or in sequence, within a reasonably short period of time (e.g., days). Preferably, the process is amenable to automation, such as robotic simultaneous handling of 96 samples, 384 samples, 1536 samples or more. A typical HTS robot tests up to 100,000 to a few hundred thousand compounds per day. The samples are often in small volumes, such as no more than 1 mL, 500 µl, 200 µl, 100 µl, 50 µl or less. Through this process, one can rapidly identify active compounds, small molecules, antibodies, proteins or polynucleotides which modulate a particular biomolecular/genetic pathway. The results of these experiments provide starting points for further drug design and for understanding the interaction or role of a particular biochemical process in biology. Thus “high-throughput screening” as used herein does not include handling large quantities of radioactive materials, slow and complicated operator-dependent screening steps, and/or prohibitively expensive reagent costs, etc.

The terms “isolated,” “purified,” or “biologically pure” refer to material that is free to varying degrees from components which normally accompany it as found in its native state.

“Isolate” denotes a degree of separation from original source or surroundings. “Purify” denotes a degree of separation that is higher than isolation. A “purified” or “biologically pure” protein is sufficiently free of other materials such that any impurities do not materially affect the biological properties of the protein or cause other adverse consequences. That is, a nucleic acid or peptide of this invention is purified if it is substantially free of cellular material, viral material, or culture medium when produced by recombinant DNA techniques, or chemical precursors or other chemicals when chemically synthesized. Purity and homogeneity are typically determined using analytical chemistry techniques, for example, polyacrylamide gel electrophoresis or high performance liquid chromatography. The term “purified” can denote that a nucleic acid or protein gives rise to essentially one band in an electrophoretic gel. For a protein that can be subjected to modifications, for example, phosphorylation or glycosylation, different modifications may give rise to different isolated proteins, which can be separately purified.

By “isolated polynucleotide” is meant a nucleic acid (e.g., a DNA) that is free of the genes which, in the naturally-occurring genome of the organism from which the nucleic acid molecule of the invention is derived, flank the gene. The term therefore includes, for example, a recombinant DNA that is incorporated into a vector; into an autonomously replicating plasmid or virus; or into the genomic DNA of a prokaryote or eukaryote; or that exists as a separate molecule (for example, a cDNA or a genomic or cDNA fragment produced by PCR or restriction endonuclease digestion) independent of other sequences. In addition, the term includes an RNA molecule that is transcribed from a DNA molecule, as well as a recombinant DNA that is part of a hybrid gene encoding additional polypeptide sequence.

By an “isolated polypeptide” is meant a polypeptide of the invention that has been separated from components that naturally accompany it. Typically, the polypeptide is isolated when it is at least 60%, by weight, free from the proteins and naturally-occurring organic molecules with which it is naturally associated. Preferably, the preparation is at least 75%, more preferably at least 90%, and most preferably at least 99%, by weight, a polypeptide of the invention. An isolated polypeptide of the invention may be obtained, for example, by extraction from a natural source, by expression of a recombinant nucleic acid encoding such a polypeptide; or by chemically synthesizing the protein. Purity can be measured by any appropriate method, for example, column chromatography, polyacrylamide gel electrophoresis, or by HPLC analysis.

By “marker” is meant any clinical indicator, protein, metabolite, or polynucleotide having an alteration associated with a disease or disorder. In one embodiment, an alteration in body mass, lean body mass, metabolism, or a metabolite is a marker (e.g., clinical indicator) of disease

state (e.g., pre-cachexia or cachexia). In some embodiments, a marker of cachexia or cachexia-induced cardiac dysfunction is elevated level of a cachectogenic ligand (e.g., S100A7, S100A8, or S100A9).

By "metabolic profile" is meant alterations in one or more amino acid or lipid metabolites.

5 By "myocardial infarction" is meant a condition where blood flow to a part of the heart is stopped. Damage to heart muscle may result from a myocardial infarction.

As used herein, "obtaining" as in "obtaining an agent" includes synthesizing, purchasing, or otherwise acquiring the agent.

By "RAGE polypeptide" is meant a polypeptide or fragment thereof having at least about
10 85% or greater amino acid identity to the amino acid sequence provided at GenBank Accession No. AAH26069.1 and having RAGE biological activity. Exemplary RAGE biological activities include activity as a receptor for advanced glycation endproducts, binding to S100 proteins (e.g., S100A7, S100A8, S100A9), involvement in inflammatory and immune responses, and involvement in cachetogenic signaling. The exemplary RAGE polypeptide sequence at GenBank
15 Accession No. AAH26069.1 is provided below:

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1 mdlwsagcvf yeiaslqplf pgvneldqis kihdvigtpa qkiltkfkqs ramnfdpfpk
61 kgsqiplltt nlspqclsl1 hamvaydpde riaahqalqh pyfqeqrkte kralgshrka
121 gfpehpvape plsnscqisk egrkqkqslk qeedrpkr rg payvmelpkl klsgvvrlss
181 yssptlqsvl gsgtngrvpv lrplkcipas kkt dpqkdlk papqqcrlpt ivrkggr
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20 By "RAGE polynucleotide" is meant a polynucleotide encoding a RAGE polypeptide. An exemplary RAGE polynucleotide sequence is provided at GenBank Accession No. AB036432.1.

The exemplary sequence at GenBank Accession No. AB036432.1 is provided below.

```
1 gccaggaccc tggaaaggaag caggatggca gccggaacag cagttggagc ctgggtgctg
25 61 gtcctcagtc tgtgggggggc agtagtaggt gctcaaaaca tcacagcccg gattggcgag
121 ccactgggtgc tgaagtgtaa gggggccccc aagaaaccac cccagcggtc ggaatggaaa
181 ctgaacacag gccggacaga agcttggaaag gtcctgtctc cccagggagg aggcccttg
241 gacagtgtgg ctctgtctct tcccaacggc tccctcttcc ttccggctgt cgggatccag
301 gatgagggga ttttccggtg ccaggcaatg aacagggaatg gaaaggagac caagtccaac
30 361 taccgagtcg gtgtctacca gattcctggg aagccagaaa ttgtagattc tgcctctgaa
421 ctacaggctg gtgttcccaa taaggtaggg acatgtgtgt cagagggaag ctaccctgca
481 gggactctta gctggcactt ggatgggaag cccctgggtg ctaatgagaa gggagtatct
541 gtgaaggaac agaccaggag acaccctgag acagggtctc tcacactgca gtcggagcta
601 atggtgaccc cagcccgggg aggagatccc cgtcccacct tctcctgtag cttcagccca
35 661 ggccttcccc gacaccgggc cttgcgcaca gcccccatcc agccccgtgt ctgggagcct
721 gtgcctctgg aggaggtcca attggtggtg gagccagaag gtggagcagt agctcctggt
781 ggaaccgtaa cctgacctg tgaagtccct gccagccct ctcctcaaat ccactggatg
841 aaggatggtg tgcccttgcc ccttcccccc agccctgtgc tgatcctccc tgagataggg
901 cctcaggacc agggaaacct cagctgtgtg gccacccatt ccagccacgg gccccaggaa
40 961 agcctgtctg tcagcatcag catcatcgaa ccaggcgagg aggggccaac tgcaggctct
1021 gtgggaggat cagggtctgg aactctagcc ctggccctgg ggatcctggg aggcctgggg
1081 acagccgccc tgctcattgg ggtcatcttg tggcaaaggc ggcaacgccg aggagaggag
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1141 aggaaggccc cagaaaacca ggaggaagag gaggagcgtg cagaactgaa tcagtcggag
1201 gaacctgagg caggcgagag tagtactgga gggccttgag gggccacag acagatccca
1261 tccatcag

```

5 By “reduces” is meant a negative alteration of at least 10%, 25%, 50%, 75%, or 100%.

By “reference” is meant a standard or control condition.

A “reference sequence” is a defined sequence used as a basis for sequence comparison. A reference sequence may be a subset of or the entirety of a specified sequence; for example, a segment of a full-length cDNA or gene sequence, or the complete cDNA or gene sequence. For
 10 polypeptides, the length of the reference polypeptide sequence will generally be at least about 16 amino acids, preferably at least about 20 amino acids, more preferably at least about 25 amino acids, and even more preferably about 35 amino acids, about 50 amino acids, or about 100 amino acids. For nucleic acids, the length of the reference nucleic acid sequence will generally be at
 15 75 nucleotides, and even more preferably about 100 nucleotides or about 300 nucleotides or any integer thereabout or therebetween.

By “S100A7 polypeptide ” is meant a polypeptide or fragment thereof having at least about 85% or greater amino acid identity to the amino acid sequence provided at NCBI Accession No. NP_002954.2 and having the activities of binding to a RAGE polypeptide and inhibiting
 20 cachexia. The exemplary S100A7 polypeptide sequence at NCBI Accession No. NP_002954.2 is provided below:

```

1 msntqaersi igmidmfhky trrddkiekp slltmmkenf pnflsacdkk gtnyladvfe
61 kkdcknedkki dfseflsllg diatdyhkqs hgaapcsqgs q

```

25 By "S100A7 polynucleotide" is meant a polynucleotide encoding a S100A7 polypeptide. An exemplary S100A7 polynucleotide sequence is provided at NCBI Accession No. NM_002963.3. The exemplary sequence at NCBI Accession No. NM_002963.3 is provided below.

```

1 gtccaaacac acacatctca ctcatccttc tactcgtgac gcttcccagc tctggctttt
30 61 tgaaagcaaa gatgagcaac actcaagctg agagggtccat aataggcatg atcgacatgt
121 ttcacaaata caccagacgt gatgacaaga ttgagaagcc aagcctgctg acgatgatga
181 aggagaactt ccccaacttc cttagtgcct gtgacaaaaa gggcacaaat tacctcgccg
241 atgtctttga gaaaaaggac aagaatgagg ataagaagat tgatttttct gagtttctgt
301 ccttgctggg agacatagcc acagactacc acaagcagag ccatggagca gcgccctggt
35 361 ccgggggcag ccagtgaccc agccccacca atgggcctcc agagacccca ggaacaataa
421 aatgtcttct cccaccagaa aaaaaaaaaa

```

By "S100A8 polypeptide " is meant a polypeptide or fragment thereof having at least about 85% or greater amino acid identity to the amino acid sequence provided at NCBI Accession No. NP_002955.2 and having the activities of binding to a RAGE polypeptide and inhibiting cachexia. The exemplary S100A8 polypeptide sequence at NCBI Accession No. NP_002955.2 is provided below:

```
1 mltelekaln siidvyhkys likgnfhavy rddlkklllet ecpqyirkkg advwfkeldi
61 ntdgavnfqe flilvikmgv aahkkshees hke
```

By "S100A8 polynucleotide" is meant a polynucleotide encoding a S100A8 polypeptide. An exemplary S100A8 polynucleotide sequence is provided at NCBI Accession No. NM_002964.4. The exemplary sequence at NCBI Accession No. NM_002964.4 is provided below.

```
1 gagaaaccag agactgtagc aactctggca gggagaagct gtctctgatg gcctgaagct
61 gtgggcagct ggccaagcct aaccgctata aaaaggagct gcctctcagc cctgcatgtc
121 tcttgctcagc tgtctttcag aagacctggt ggggcaagtc cgtgggcatac atgttgaccg
181 agctggagaa agccttgaac tctatcatcg acgtctacca caagtactcc ctgataaagg
241 ggaatttcca tgccgtctac agggatgacc tgaagaaatt gctagagacc gagtgtcctc
301 agtatatcag gaaaaagggg gcagacgtct ggttcaaaga gttggatata aacactgatg
361 gtgcagttaa cttccaggag ttcctcattc tgggtgataaa gatgggcgtg gcagcccaca
421 aaaaaagcca tgaagaaagc caciaagagt agctgagtta ctgggcccag aggctgggcc
481 cctggacatg tacctgcaga ataataaagt catcaatacc tcaaaaaaaaa aa
```

By "S100A9 polypeptide " is meant a polypeptide or fragment thereof having at least about 85% or greater amino acid identity to the amino acid sequence provided at NCBI Accession No. NP_002956.1 and having the activities of binding to a RAGE polypeptide and inhibiting cachexia. The exemplary S100A9 polypeptide sequence at NCBI Accession No. NP_002956.1 is provided below:

```
1 mtckmsqler nietiintfh qysvklghpd tlnqgefkel vrkdlnflk kenknekvie
61 himedldtna dkqlsfefi mlmarltwas hekmhegdeg pghhhkpglg egtg
```

By "S100A9 polynucleotide" is meant a polynucleotide encoding a S100A9 polypeptide. An exemplary S100A9 polynucleotide sequence is provided at NCBI Accession No. NM_002965.3. The exemplary sequence at NCBI Accession No. NM_002965.3 is provided below.

1 aaacactctg tgtggctcct cggttttgac agagtgcag acgatgactt gcaaaatgtc
 61 gcagctggaa cgcaacatag agaccatcat caacaccttc caccaatact ctgtgaagct
 121 ggggcaccca gacaccctga accaggggga attcaaagag ctggtgcaa aagatctgca
 181 aaatthttctc aagaaggaga ataagaatga aaaggtcata gaacacatca tggaggacct
 5 241 ggacacaaat gcagacaagc agctgagctt cgaggagttc atcatgctga tggcgaggct
 301 aacctggggc tcccacgaga agatgcacga gggtagagag ggccctggcc accaccataa
 361 gccaggcctc ggggaggggca cccctaaga ccacagtggc caagatcaca gtggccacgg
 421 ccacggccac agtcatggtg gccacggcca cagccactaa tcaggaggcc aggccaccct
 481 gcctctaccc aaccaggggc ccggggcctg ttatgtcaaa ctgtcttggc tgtggggcta
 10 541 ggggctgggg ccaataaag tctcttcctc caagtcaaaa aaaaaa

By “specifically binds” is meant a compound or antibody that recognizes and binds a polypeptide of the invention, but which does not substantially recognize and bind other molecules in a sample, for example, a biological sample, which naturally includes a polypeptide of the invention.

Nucleic acid molecules useful in the methods of the invention include any nucleic acid molecule that encodes a polypeptide of the invention or a fragment thereof. Such nucleic acid molecules need not be 100% identical with an endogenous nucleic acid sequence, but will typically exhibit substantial identity. Polynucleotides having “substantial identity” to an endogenous sequence are typically capable of hybridizing with at least one strand of a double-stranded nucleic acid molecule. Nucleic acid molecules useful in the methods of the invention include any nucleic acid molecule that encodes a polypeptide of the invention or a fragment thereof. Such nucleic acid molecules need not be 100% identical with an endogenous nucleic acid sequence, but will typically exhibit substantial identity. Polynucleotides having “substantial identity” to an endogenous sequence are typically capable of hybridizing with at least one strand of a double-stranded nucleic acid molecule. By “hybridize” is meant pair to form a double-stranded molecule between complementary polynucleotide sequences (e.g., a gene described herein), or portions thereof, under various conditions of stringency. (See, e.g., Wahl, G. M. and S. L. Berger (1987) *Methods Enzymol.* 152:399; Kimmel, A. R. (1987) *Methods Enzymol.* 152:507).

For example, stringent salt concentration will ordinarily be less than about 750 mM NaCl and 75 mM trisodium citrate, preferably less than about 500 mM NaCl and 50 mM trisodium citrate, and more preferably less than about 250 mM NaCl and 25 mM trisodium citrate. Low stringency hybridization can be obtained in the absence of organic solvent, e.g., formamide, while

high stringency hybridization can be obtained in the presence of at least about 35% formamide, and more preferably at least about 50% formamide. Stringent temperature conditions will ordinarily include temperatures of at least about 30° C, more preferably of at least about 37° C, and most preferably of at least about 42° C. Varying additional parameters, such as hybridization
5 time, the concentration of detergent, e.g., sodium dodecyl sulfate (SDS), and the inclusion or exclusion of carrier DNA, are well known to those skilled in the art. Various levels of stringency are accomplished by combining these various conditions as needed. In a preferred embodiment, hybridization will occur at 30° C in 750 mM NaCl, 75 mM trisodium citrate, and 1% SDS. In a more preferred embodiment, hybridization will occur at 37° C in 500 mM NaCl, 50 mM
10 trisodium citrate, 1% SDS, 35% formamide, and 100 .mu.g/ml denatured salmon sperm DNA (ssDNA). In a most preferred embodiment, hybridization will occur at 42° C in 250 mM NaCl, 25 mM trisodium citrate, 1% SDS, 50% formamide, and 200 µg/ml ssDNA. Useful variations on these conditions will be readily apparent to those skilled in the art.

For most applications, washing steps that follow hybridization will also vary in stringency.
15 Wash stringency conditions can be defined by salt concentration and by temperature. As above, wash stringency can be increased by decreasing salt concentration or by increasing temperature. For example, stringent salt concentration for the wash steps will preferably be less than about 30 mM NaCl and 3 mM trisodium citrate, and most preferably less than about 15 mM NaCl and 1.5 mM trisodium citrate. Stringent temperature conditions for the wash steps will ordinarily include
20 a temperature of at least about 25° C, more preferably of at least about 42° C, and even more preferably of at least about 68° C. In a preferred embodiment, wash steps will occur at 25° C in 30 mM NaCl, 3 mM trisodium citrate, and 0.1% SDS. In a more preferred embodiment, wash steps will occur at 42 C in 15 mM NaCl, 1.5 mM trisodium citrate, and 0.1% SDS. In a more preferred embodiment, wash steps will occur at 68° C in 15 mM NaCl, 1.5 mM trisodium citrate,
25 and 0.1% SDS. Additional variations on these conditions will be readily apparent to those skilled in the art. Hybridization techniques are well known to those skilled in the art and are described, for example, in Benton and Davis (Science 196:180, 1977); Grunstein and Hogness (Proc. Natl. Acad. Sci., USA 72:3961, 1975); Ausubel et al. (Current Protocols in Molecular Biology, Wiley Interscience, New York, 2001); Berger and Kimmel (Guide to Molecular Cloning Techniques,
30 1987, Academic Press, New York); and Sambrook et al., Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory Press, New York.

By “substantially identical” is meant a polypeptide or nucleic acid molecule exhibiting at least 50% identity to a reference amino acid sequence (for example, any one of the amino acid

sequences described herein) or nucleic acid sequence (for example, any one of the nucleic acid sequences described herein). Preferably, such a sequence is at least 60%, more preferably 80% or 85%, and more preferably 90%, 95% or even 99% identical at the amino acid level or nucleic acid to the sequence used for comparison.

5 Sequence identity is typically measured using sequence analysis software (for example, Sequence Analysis Software Package of the Genetics Computer Group, University of Wisconsin Biotechnology Center, 1710 University Avenue, Madison, Wis. 53705, BLAST, BESTFIT, GAP, or PILEUP/PRETTYBOX programs). Such software matches identical or similar sequences by assigning degrees of homology to various substitutions, deletions, and/or other modifications.

10 Conservative substitutions typically include substitutions within the following groups: glycine, alanine; valine, isoleucine, leucine; aspartic acid, glutamic acid, asparagine, glutamine; serine, threonine; lysine, arginine; and phenylalanine, tyrosine. In an exemplary approach to determining the degree of identity, a BLAST program may be used, with a probability score between e^{-3} and e^{-100} indicating a closely related sequence.

15 By “subject” is meant a mammal, including, but not limited to, a human or non-human mammal, such as a bovine, equine, canine, ovine, or feline. In one aspect, the subject is a human.

 Ranges provided herein are understood to be shorthand for all of the values within the range. For example, a range of 1 to 50 is understood to include any number, combination of numbers, or sub-range from the group consisting 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16,
20 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50.

 As used herein, the terms “treat,” “treating,” “treatment,” and the like refer to reducing or ameliorating a disorder and/or symptoms associated therewith. It will be appreciated that, although not precluded, treating a disorder or condition does not require that the disorder,
25 condition or symptoms associated therewith be completely eliminated.

 As used herein, a therapeutic that “prevents” a disorder or condition refers to a compound that, in a statistical sample, reduces the occurrence of the disorder or condition in the treated sample relative to an untreated control sample, or delays the onset or reduces the severity of one or more symptoms of the disorder or condition relative to the untreated control sample.

30 Unless specifically stated or obvious from context, as used herein, the term “or” is understood to be inclusive. Unless specifically stated or obvious from context, as used herein, the terms “a,” “an,” and “the” are understood to be singular or plural.

Unless specifically stated or obvious from context, as used herein, the term “about” is understood as within a range of normal tolerance in the art, for example within 2 standard deviations of the mean. About can be understood as within 10%, 9%, 8%, 7%, 6%, 5%, 4%, 3%, 2%, 1%, 0.5%, 0.1%, 0.05%, or 0.01% of the stated value. Unless otherwise clear from context, all numerical values provided herein are modified by the term about.

The recitation of a listing of chemical groups in any definition of a variable herein includes definitions of that variable as any single group or combination of listed groups. The recitation of an embodiment for a variable or aspect herein includes that embodiment as any single embodiment or in combination with any other embodiments or portions thereof.

Any compositions or methods provided herein can be combined with one or more of any of the other compositions and methods provided herein.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic illustrating a current model of RAGE oligomerization (Yatime and Andersen, FEBS Journal 280 (2013) 6556–6568).

FIG. 2 is a diagram showing a methodology described herein for obtaining a refined model of the cachectic signal. The methodology combines computational modeling, hypothesis generation, and experimental verification of hypothesis and computational models.

FIG. 3A is a schematic illustrating a dimer of RAGE and S100 (a ligand of RAGE).

FIG. 3B is a schematic showing the antigen of a cachexia inhibitory antibody (residues 23-54) and the antigen of a cachexia non-inhibitory antibody (residues 23-43), each located on the V domain of RAGE. The structure of the V-V dimer is provided at PDB ID: 4LP4 and the structure of the RAGE + S100A6 dimer is at PDB ID: 4P2Y.

FIG. 4 provides a plot showing results of antigen mapping of various anti-RAGE antibodies. Using the cachexia functional assay as described herein, the plot indicates the effects the anti-RAGE antibody on cachexia as a function of the location or site on RAGE to which the antibody binds.

FIG. 5 provides a top view of the V domains of RAGE, which interact to form a dimer. The antigen of the cachexia inhibitory antibody is indicated.

FIG. 6A is a schematic showing the structure of a RAGE polypeptide. The RAGE polypeptide is a transmembrane protein, having an intracellular, cytoplasmic tail; a transmembrane domain; and an extracellular domain comprised of the domains C2, C1, and V. The V domain of RAGE contains druggable “hot spots.” The “hot spot” is a site on RAGE

which, when bound by an agent (e.g., an antibody or small molecule), produce a functional effect such as inhibition of cachectic signaling or a cachectic phenotype. Thus, these functional sites on RAGE may serve as targets for rational drug design.

FIG. 6B is a schematic showing a magnified view of an end portion of the V domain of RAGE, indicated by the arrow in FIG. 6A. The antigen of the cachexia inhibitory antibody is indicated.

FIG. 6C is a schematic showing a magnified view of an end portion of the V domain of RAGE. A druggable “hot spot” is indicated by “X” and the arrows extending from the “X.”

FIG. 7A is a series of schematics showing docking of an exemplary small molecule inhibitor of RAGE (FPS3) to the V domain of RAGE.

FIG. 7B is a plot showing results of the cachexia functional assay (i.e., levels of myosin heavy chain) as a function of concentration of FPS3.

FIG. 8 is a schematic representation of RAGE polypeptide and its ligands, S100A7, S100A8/9, S100A6, S100B, and S100P, where S100A7 and S100A8/9 are cachexia-inducing and the remaining ligands are not cachexia-inducing.

FIG. 9 is a series of plots and schematics showing residues on ligands S100A7 (top) and S100A8/A9 (bottom) which contact the RAGE polypeptide.

FIG. 10 is a set of plots showing mutagenesis of S100A7 and effects of the S100A7 mutants on cachexia using the cachexia functional assay described herein.

FIG. 11 is a series of plots and schematics showing residues on the RAGE polypeptide that contact S100A7 (top) and S100A8/A9 (bottom). Residues on RAGE that contact S100A7 and S100A8/A9 are listed in the table at the bottom right of FIG. 11.

FIG. 12 is a schematic showing a multidimensional RAGE model predicting cachexogenic signaling. In the model, a raft of RAGE molecules and S100 ligands is formed.

FIG. 13 is a schematic depicting generation and characterization of a cardiac cachexia model using cardiomyocytes differentiated from induced pluripotent stem cells (iPS cells).

FIG. 14 is a set of micrographs showing cachexia-induced cardiac atrophy. FIG. 14 shows a loss of myosin heavy chain in cardiomyocytes treated with a cachexia-inducing medium described herein (right) relative to cardiomyocytes not treated with cachexia-inducing medium (left). Light gray indicates myosin heavy chain (MYHC).

FIG. 15 is a set of micrographs showing cardiac atrophy and cardiac dysfunction is *prevented* by an anti-RAGE antibody. From left to right, the micrographs show cardiomyocytes treated with (1) non-inducing medium, (2) cachexia-inducing medium, and (3) cachexia-inducing

medium and anti-RAGE antibody. The micrographs in the top panel show DAPI stained and myosin heavy chain (MYHC) stained cardiomyocytes. Light gray indicates myosin heavy chain (MYHC). The right-most micrograph at the top shows that the anti-RAGE antibody prevented or inhibited loss of myosin heavy chain in the cardiomyocytes. The micrographs in the bottom panel are from videomicrographs showing that (1) cardiac tissue in non-inducing medium exhibited a regular beat, (2) cardiac tissue in cachexia-inducing medium exhibited an irregular heart beat, and (3) cardiac tissue in cachexia-inducing with anti-RAGE antibody exhibited a regular heart beat, thus indicating that cardiac dysfunction was inhibited or prevented by the anti-RAGE antibody.

FIG. 16 is a set of micrographs showing cardiac atrophy and cardiac dysfunction is reversed by an anti-RAGE antibody. The micrographs on the left show DAPI stained and myosin heavy chain (MYHC) stained cardiomyocytes. On the left, the top micrograph shows loss of myosin heavy chain in cardiomyocytes treated with cachexia inducing medium. The bottom micrograph on the left shows myosin heavy chain restored in those cardiomyocytes after treatment with an anti-RAGE antibody. The micrograph on the right is from a videomicrograph showing that regular heart beat was restored in cardiac tissue in cachexia-inducing medium following treatment of the cardiac tissue with anti-RAGE antibody.

FIG. 17 is a plot showing antigen mapping of the RAGE polypeptide. The plot shows functional regions or functional sites on the RAGE polypeptide, based on results of the cachexia functional assay described herein. Sites highlighted in light gray, for example, are antigens of anti-RAGE antibodies that have a cachexia-inhibitory effect.

FIG. 18 is a plot showing that antibodies targeting cachexia-inducing ligands (S100A7, S100A8, S100A9) had cachexia-inhibiting activity. FIG. 19 is a table showing anti-RAGE antibodies screened in a cachexia functional assay described herein.

FIG. 20 is set of plots showing results of screening of anti-RAGE antibodies in a mouse cachexia functional assay (left) and human cachexia functional assay (right). Out of the 22 anti-RAGE antibody candidates screened, 2 antibodies were identified as anti-RAGE antibodies having cachexia-inhibitory activity.

FIG. 21 is a set of plots showing that surrogate RAGE antibodies had comparable activity profiles in both mouse cachexia (left) and human cachexia (right) functional assays.

FIG. 22 is a table showing anti-RAGE antibodies screened in a cachexia functional assay described herein. Out of the 22 candidate antibodies screened, two (2) antibodies, antibody D and antibody X, were identified as having cachexia-inhibitory activity.

Appendix A (beginning at page 50) provides a PDB file listing atomic coordinates of a domain of RAGE. The PDB file is available at Protein Data Bank PDB ID 4LP4.

DETAILED DESCRIPTION OF THE INVENTION

5 The invention provides compositions and methods for treating a cardiac dysfunction, as well as methods for the discovery or identification of therapeutic agents useful for inhibiting cachexia.

 The invention is based, at least in part, on the discovery that anti-RAGE antibodies prevented and/or reversed cardiac dysfunction and cardiac atrophy in cardiomyocytes.

10 Accordingly, the invention provides methods of treating cardiac dysfunction in a subject using anti-RAGE antibodies. The invention is further based, at least in part, on the discovery of functional sites on the RAGE polypeptide and cachectogenic ligands of RAGE. In some embodiments, the functional site is a binding site of a cachexia-inhibitory anti-RAGE antibody. In some other embodiments, the functional site is a binding site of a cachexia-inducing ligand.

15 Without intending to be bound by theory, binding of agents to the functional sites is believed to disrupt RAGE-mediated cachectogenic signaling in cells by disrupting oligomerization and/or formation of a “raft” of RAGE and/or RAGE ligands on a cell surface.

In vitro Cachexia/Pre-Cachexia Model System

20 The present invention provides a culture system, comprising a human target cell and a cachexia-inducing factor. In certain embodiments, the target cell is selected from a myocyte, an adipocyte, and a hepatocyte. In one embodiment, the target cell is a cardiomyocyte.

 In certain embodiments, the cachexia-inducing factor is provided in (i) human plasma from a cachexia patient or (ii) cachexia-inducing conditioned media, such as human cancer cell
25 conditioned media. In certain embodiments, the media is conditioned by a human cancer cell line selected from one or more of the following: AsPC-1, A375, CAPAN-1, CAPAN-2, C32, G361, HCT-15, HPAF-II, JHU012, JHU022, LS180, LX1, MKN1, and PANC-1. In particular
 embodiments, a cachexia-inducing cell line is the human melanoma cell line A375 (ATCC® CRL1619™); the intestinal human colon adenocarcinoma cell line LS180 (ATCC® CL-187™);
30 the hepatic stellate cell line LX1 (Xu et al., Gut. Jan 2005; 54(1): 142–151); the malignant melanoma human cell line G361 (ATCC® CRL-1424™), or the human malignant melanoma cell line C32 (ATCC® CRL-1585™). In certain embodiments, the media is conditioned by a human cancer cell isolated from a patient.

In certain embodiments, the culture is in a single or a multi-well plate format. In certain embodiments, the invention provides a multi-well plate suitable for use in a high-throughput screening system, the plate having a plurality of wells comprising the culture system described therein. The surface of the multi-well plate may be the surface of a culture well or glass slide, or any other suitable surface. In certain embodiments the multi-well plate contains 384 wells. Cultures can be contained in a multi-well plate having a 96-, 384-, 1536- or more than 1536-well format.

In certain embodiments, the invention further provides a method for producing the model of the present invention, in a single or multi-well plate format.

Uses of the Cachexia/Pre-cachexia Model System

The present invention provides methods for characterizing an agent for the ability to induce pre-cachexia or cachexia in a target cell. The method generally involves contacting or exposing a target cell to a test agent, and characterizing the effect of the agent on the target cell relative to: (i) a control target cell not exposed to the test agent; or (ii) a transcriptional profile of a non-cachectic cell and/or a transcriptional profile of a cachectic cell, wherein the cell type of the target cell and the cachectic and/or non-cachectic cell is the same.

The present invention provides a method for predicting the effect of a test agent on a target cell of a patient *in vivo*, comprising culturing a target cell obtained from a patient in the system of the invention, exposing it to the test agent, and assaying for a pharmacological effect of the test agent on the target cell relative to: (i) a control target cell not treated with the test agent; or (ii) a transcriptional profile of a non-cachectic cell and/or a transcriptional profile of a cachectic cell, wherein the cell type of the target cell and the cachectic and/or non-cachectic cell is the same.

In certain embodiments, the target cell is isolated from a patient with cancer or a cardiac disease.

In certain embodiments, the effect is selected from proliferation, viability, and differentiation, or combinations thereof.

In certain embodiments, the effect is detected by assessing a change in gene expression profile between the target cell and the control target cell of step (i); or the cachectic or non-cachectic cell of step (ii).

In certain embodiments, the target cell is selected from a myocyte, an adipocyte, and a hepatocyte. In a particular embodiment, the target cell is a cardiomyocyte.

The cachectic culture system can be used to screen for test agents (such as solvents, small molecule drugs, peptides, and polynucleotides) or environmental conditions (such as culture conditions or manipulation) that affect the characteristics of cells. Two or more agents can be tested in combination (by exposing to the cells either simultaneously or sequentially), to detect possible drug-drug interactions and/or rescue effects (e.g., by testing a toxin and a potential anti-toxin). Agent(s) and environmental condition(s) can be tested in combination (by treating the cells with a drug either simultaneously or sequentially relative to an environmental condition), to detect possible agent-environment interaction effects.

In certain embodiments, the assay to determine the characteristics of cells is selected in a manner appropriate to the cell type and agent and/or environmental factor being studied as disclosed in WO 2002/04113, which is hereby incorporated by reference in its entirety. For example, changes in cell morphology may be assayed by standard light, or electron microscopy. Alternatively, the effects of treatments or compounds potentially affecting the expression of cell surface proteins may be assayed by exposing the cells to either fluorescently labeled ligands of the proteins or antibodies to the proteins and then measuring the fluorescent emissions associated with each cell on the plate. As another example, the effects of treatments or compounds which potentially alter the pH or levels of various ions within cells may be assayed using various dyes which change in color at determined pH values or in the presence of particular ions. The use of such dyes is well known in the art. For cells which have been transformed or transfected with a genetic marker, such as the β -galactosidase, alkaline phosphatase, or luciferase genes, the effects of treatments or compounds may be assessed by assays for expression of that marker. In particular, the marker may be chosen so as to cause spectrophotometrically assayable changes associated with its expression.

Particular screening applications of this invention relate to the testing of pharmaceutical compounds in drug research. The reader is referred generally to the standard textbook *In vitro Methods in Pharmaceutical Research*, Academic Press, 1997, and U.S. Pat. No. 5,030,015. In certain aspects of this invention, the culture of the invention is used to grow and differentiate a cachectic target cell to play the role of test cells for standard drug screening and toxicity assays. Assessment of the activity of candidate pharmaceutical compounds generally involves combining the target cell (e.g., a cardiomyocyte, an adipocyte or a hepatocyte) with the candidate compound, determining any change in the morphology, marker phenotype, or metabolic activity of the cells that is attributable to the candidate compound (compared with untreated cells or cells treated with an inert compound, such as vehicle), and then correlating the effect of the candidate compound

with the observed change. The screening may be done because the candidate compound is designed to have a pharmacological effect on the target cell, or because a candidate compound may have unintended side effects on the target cell. Alternatively, libraries can be screened without any predetermined expectations in hopes of identifying compounds with desired effects.

5 Cytotoxicity can be determined in the first instance by the effect on cell viability and morphology. In certain embodiments, toxicity may be assessed by observation of vital staining techniques, ELISA assays, immunohistochemistry, and the like or by analyzing the cellular content of the culture, e.g., by total cell counts, and differential cell counts or by metabolic markers such as MTT and XTT.

10 Additional further uses of the culture of the invention include, but are not limited to, its use in research e.g., to elucidate cachectic mechanisms leading to the identification of novel targets for cachectic therapies, and to generate genotype-specific cells for disease modeling, including the generation of new therapies customized to different genotypes. Such customization can reduce adverse drug effects and help identify therapies appropriate to the patient's genotype.

15 **Methods of Identifying a Subject Having Cachexia or Cachexia-Associated Disease**

As reported herein below, within days of contacting target cells with cachexia-inducing media changes in metabolism, metabolite profiles, the differential expression of markers, and changes in cell morphology are observed. Such changes closely phenocopy overt clinical
20 cachexia as induced by cachectic patient plasma and seen in patient biopsy samples, and likely reproduce the alterations present in pre-cachectic humans and mice. Significantly, many of the changes observed in cells *in vitro* in response to cachexia inducing factors were reversible (e.g., the cachectic gene expression signature, loss of myosin heavy chain, loss of lipid content, and cell atrophy) with novel treatments identified with this discovery platform

25 The presence and/or level of the cachexia-inducing proteins, e.g. the factors listed in Table 2, in patient plasma may serve as cachectic biomarker(s) useful for diagnosing and/or monitoring a patient with cachexia. Accordingly, the present invention also provides a method for diagnosing a patient with cachexia, comprising (i) obtaining plasma from the patient; and (ii) detecting the presence or level of a cachexia-inducing factor(s) selected from Table 2. The present invention
30 also provides a method for monitoring a patient with cachexia, comprising (i) obtaining plasma from the patient; and (ii) detecting the presence or level of a cachexia-inducing factor(s) selected from Table 2.

Table 2: Cachexia-Inducing Factors	
BCAM	NGF
BTC	PDGFA
CCL5	PDGFB
CCL28	Plasminogen activator inhibitor 1
DKK3	S100A7
EGFR	S100A8
Follistatin-related peptide 1	S100A9
HMG1	S100A11
IGF-2	sRAGE (soluble RAGE)*
IGFBP-2	TNFRSF10C
IGFBP-6	TNFSF18
IL6	TYRO3
Lipolysis-stimulated lipoprotein receptor	
BCAM	
BTC	

(*anti-correlated with cachexia)

In particular embodiments, at least one or more of IGFBP-1, CCL27, AXL, CSF1, ICAM2, PIGF, TMP2, FGF4, KDR and CSF3 are increased in cachexia.

5 In other embodiments, a marker of cachexia or pre-cachexia or a cachexia-associated disease (e.g., cachexia-associated cardiac dysfunction) is any one or more of three markers selected from S100A2 or S100A4, S100A8 or S100A9, and S100A7; four markers selected from S100A2 or S100A4, S100A8 or S100A9, S100A7 and S100A14; five markers selected from S100A2 or S100A4, S100A8 or S100A9, S100A7, S100A14, and S100P, which are increased in
10 pre-cachexia or cachexia. In particular embodiments, a marker of cachexia is S100A7, S100A8, or S100A9. In certain embodiments, a marker of cachexia-associated cardiac dysfunction is S100A7, S100A8, or S100A9.

In other embodiments, a marker of cachexia or pre-cachexia is Basal cell adhesion molecule (BCAM), Buchang-tang (BCT), Chemokine ligand (CCL)5, CCL28, Dickkopf-related
15 protein 3 (DKK3), Epidermal Growth Factor Receptor (EGFR), FASLG (Fas ligand), Fibroblast growth factor 4 (FGF4), Follistatin-related peptide 1, intercellular adhesion molecule (ICAM2), High Mobility Group (HMG1), Insulin Growth Factor-2 (IGF-2), Insulin Growth Factor Binding Protein-2 (IGFBP-2), IGFBP-6, interleukin-6 (IL6), Kinase insert domain receptor (KDR), lipolysis-stimulated receptor (LSR), NM (NME/NM23 Nucleoside Diphosphate Kinase 1), Nerve
20 Growth Factor (NGF), Platelet Derived Growth Factor-A (PDGFA), PDGFB, PIGF (placenta growth factor), tyrosine-protein kinase receptor (TYRO3), Plasminogen activator inhibitor 1, tissue inhibitor of metalloproteinases (TIMP2), soluble Receptor for Advanced Glycation

Endproducts (sRAGE)*, Tumor necrosis factor receptor superfamily member 10C (TNFRSF10C), and tumor necrosis factor superfamily member 18 (TNFSF18). All of the aforementioned markers are increased, with the exception of sRAGE, which is decreased. In other embodiments, the method further involves measuring an increase in an S100 family member selected from HMGB1, S100P, S100A2, S100A3, S100A4, S100A5, S100A7, S100A7A, S100A8, S100A9, S100A11, S100A12, S100A13, S100A14, and S100A15.

In some embodiments, the patient has a disease-related cachexia that is not associated with cancer, but that like cancer-induced cachexia fails to respond to treatment with nutritional support and anti-inflammatory therapy. Such disease-related cachexia may, for example, be associated with AIDS, chronic obstructive lung disease, or cardiac dysfunction (e.g., congestive heart failure) and, like cancer-induced cachexia are characterized by an increase in one or more S100 RAGE ligands and/or a decrease in soluble RAGE relative to a reference level.

In certain embodiments, the target cell is selected from a myocyte, an adipocyte, and a hepatocyte. In a particular embodiment, the target cell is a cardiomyocyte.

The presence or absence of the herein disclosed marker(s) is measured in a tissue (e.g., biopsy) or bodily fluid from a pre-cachectic or cachectic subject. Bodily fluids used to evaluate the presence or absence of the herein disclosed markers include without limitation blood, serum, plasma, urine, and or saliva. For example, levels of biomarker are measured in the blood or biopsy before and after treatment in a subject.

Biopsy refers to the removal of a sample of tissue for purposes of diagnosis. For example, a biopsy is from a muscle, fat, a cancer or tumor, including a sample of tissue from an abnormal area or an entire tumor.

Also provided is a method of predicting or monitoring the efficacy of an anti-cachectic agent (e.g., an anti-RAGE antibody) in a subject. The method comprises acquiring a biological sample, such as tissue or bodily fluid, from the subject after administering the agent to the subject. For example, the tissue or bodily fluid is collected from the subject 1 to 60 minutes, hours, days, or weeks after administering the agent to the subject. The method further comprises detecting levels of one or more biomarkers delineated herein (e.g., S100 family proteins). A decrease in level(s) of one or more biomarkers is evidence of treatment efficacy. Thus, a decline in said increase or time is evidence of decreasing efficacy. Thus, it is preferred that biological samples be systematically acquired over time to monitor changes in marker levels.

Methods of Treatment

The present invention provides methods of treating cardiac dysfunction, particularly cachexia-associated and/or RAGE-associated cardiac dysfunction, and/or disorders or symptoms thereof which comprise administering a therapeutically effective amount of a pharmaceutical composition comprising an anti-RAGE agent as described herein, to a subject (e.g., a mammal such as a human). Thus, one embodiment is a method of treating a subject suffering from or susceptible to a cardiac disease or disorder or symptom thereof. The method includes the step of administering to the mammal a therapeutic amount of an amount of an anti-RAGE agent (e.g., anti-RAGE antibody) sufficient to treat the disease or disorder or symptom thereof, under conditions such that the disease or disorder is treated. Such treatment will be suitably administered to subjects, particularly humans, suffering from, having, susceptible to, or at risk for cardiac dysfunction (particularly cachexia-associated and/or RAGE-associated cardiac dysfunction), disorder, or symptom thereof. Determination of those subjects "at risk" can be made by any objective or subjective determination by a diagnostic test or opinion of a subject or health care provider (e.g., genetic test, enzyme or protein marker (such as levels of S100 ligands), family history, and the like). The compounds herein may be also used in the treatment of any other disorders in which RAGE-mediated signaling may be implicated.

The methods herein include administering to the subject (including a subject identified as in need of such treatment) an effective amount of an anti-RAGE antibody an agent inhibiting RAGE-mediated signaling as described herein, or a composition described herein to produce such effect. Identifying a subject in need of such treatment can be in the judgment of a subject or a health care professional and can be subjective (e.g. opinion) or objective (e.g. measurable by a test or diagnostic method).

In one aspect, the present invention provides a method of treating, reversing, and/or preventing cardiac dysfunction, particularly cachexia-associated and/or RAGE-associated cardiac dysfunction, in a patient, comprising administering to a patient in need thereof an effective dose of anti-RAGE antibody, or an antigen-binding fragment thereof. The anti-RAGE antibody inhibits the RAGE signaling pathway. As described herein, without being bound by theory, activation of RAGE was associated with the cachectic phenotype and cachexia-induced cardiac atrophy and/or dysfunction.

In another aspect, the present invention provides a method of treating, reversing, and/or preventing cardiac dysfunction, particularly cachexia-associated and/or RAGE associated cardiac dysfunction, in a patient, comprising administering to a patient in need thereof an effective dose

of a compound that inhibits the RAGE signaling pathway, or a pharmaceutically acceptable salt or prodrug thereof. In some embodiments, the compound is FPS3.

In certain embodiments, the compound or antibody inhibits a biological function or activity of the Receptor for Advanced Glycation Endproducts (RAGE). RAGE is a member of the immunoglobulin supergene family of molecules and was identified herein to be transcriptionally upregulated in muscle cells exposed to a cachexia-inducing factor(s). The extracellular (N-terminal) domain of RAGE includes three immunoglobulin-type regions: one V (variable) type domain followed by two C-type (constant) domains (see, e.g., FIG. 1; FIGS. 3A-3B; FIG. 6A) (Neeper *et al.*, J Biol Chem 267:14998-15004 (1992); and Schmidt *et al.*, Circ (Suppl) 96#194 (1997)). A single transmembrane-spanning domain and a short, highly charged cytosolic tail follow the extracellular domain. The N-terminal, extracellular domain can be isolated by proteolysis of RAGE or by molecular biological approaches to generate soluble RAGE (sRAGE) comprising the V and C domains. RAGE is believed to dimerize via interactions between the V domains. FIG. 1 illustrates a current model of RAGE oligomerization (Yatime and Andersen, FEBS Journal 280 (2013) 6556–6568).

Soluble RAGE (a negative regulator of RAGE signaling that acts as a sink for RAGE ligands) was also identified herein to be elevated in non-cachexia-inducing conditioned media in comparison to cachexia-inducing conditioned media. Additionally, treatment with a blocking peptide or antibody to RAGE has been shown to inhibit and reverse the cachexia-induced loss of myosin heavy chain protein in human muscle cells *in vitro*. RAGE blocking peptides are known in the art (see, for example, Arumugam *et al.*, Clin Cancer Res. 2012; 18(16): 10.1158/1078-0432.CCR-12-0221), and are commercially available (e.g., RAP; a 10 amino acid sequence from S100P (R&D Systems)).

RAGE binds to multiple functionally and structurally diverse ligands, such as proteins having β -sheet fibrils characteristic of amyloid deposits and pro-inflammatory mediators, and includes amyloid beta ($A\beta$), serum amyloid A (SAA), Advanced Glycation End products (AGEs), S100 (a proinflammatory member of the Calgranulin 65 family), carboxymethyl lysine (CML), Mac-1, β 2-integrin, CD11b/CD18 and high-mobility group protein 1 (HMG1), which is also known as high-mobility group protein box-1 (HMGB1) or amphoterin (Bucciarelli *et al.*, Cell Mol Life Sci 59:1117-1128 (2002); Chavakis *et al.*, Microbes Infect 6:1219-1225 (2004); Kokkola *et al.*, Scand J Immunol 61:1-9 (2005); Schmidt *et al.*, J Clin Invest 108:949-955 (2001); Rocken *et al.*, Am J Pathol 162:1213-1220 (2003); Donato *et al.*, Curr Mol Med 13(1): 24-57 (2013)).

The invention also provides methods for inhibiting RAGE by alternative means, such as with the use of small organic molecules, soluble receptor fragments, fusion proteins, antibodies or peptides, as disclosed in WO2011/042548, WO2007/109747, WO2009/136382, WO2011053707, WO2007/109749, WO2008/137552, WO2004/016229, US2010/0226915A1 and U.S. Patent Nos. 7,981,424, 7,485,697 and 8,420,083, which are hereby incorporated by reference for the compounds and methods for inhibiting RAGE disclosed therein.

In one embodiment, the soluble receptor is a human soluble RAGE polypeptide (bold) fused to a mouse IgG2A Fc chimera (underline):

MAAGTAVGAWVLVLSLWGAVVGAQNI TARIGE PLVLKCKGAPKKPPQRLEWKLNT
 GRTEAWKVLSPQGGGPWDSVARVLPNGSLFLPAVGIQDEGI FRCQAMNRNGKE TK
 SNYRVRVYQIPGKPE IVDSASELTAGVPNKVGTCVSEGSYPAGTLSWHLDGKPLV
 PNEKGVSVKEQTRRHPETGLFTLQSELMVTPARGGDP RPTFSCSFSPGLPRHRAL
 RTAPIQPRVWE PVPLEEVQLVVEPEGGAVAPGGTVTLTCEVPAQPSPQIHWMKDG
 VPLPLPPSPVLILPEIGPQDQGTYSVATHSSHGPQESRAVSISIIIEPGEEGPTA
 GSVGGSGLGTLALAPRGPTIKPCPPCKCPAPNLLGGPSVFI FPPKIKDVLMI SLS
 PIVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQTHREDYNSTLRVVSALPIQHQ
 DWMSGKEFKCKVNNKDLPAPIERTISKPKGSVRAPQVYVLPPPEEEMTKKQVTLT
 CMVTDMPEDIYVEWTNNGKTELNYKNTEPVLDSDGSYFMYSKLRVEKKNWVERN
 SYSCSVVHEGLHNHHTTKSFSRTPGK

Representative RAGE peptides further include peptides derived from the N-terminus of RAGE, e.g., the C-domain and multimerization epitope, as disclosed in US2010/0226915A1.

Representative antibodies of the invention include antibodies that specifically bind RAGE and compete for binding to RAGE with an XT-H1, XT-H2, XT-H3, XT-H5, XT-H7, or XT-M4 antibody, or which bind to an epitope of RAGE bound by an XT-H1, XT-H2, XT-H3, XT-H5, XT-H7, or XT-M4 antibody, as disclosed in WO2007/109747.

Representative antibodies further include anti-RAGE antibodies that bind to various domains in RAGE. For example, antibodies that bind to the C1- and C2-domain in RAGE and compete with ligands, e.g., A β for binding to RAGE as disclosed in WO 2009/136382; antibodies that bind to the V-domain in RAGE and compete with ligands, e.g., S100b, HMGB1 and amyloid $\alpha\beta$ for binding to RAGE, as disclosed in WO2007/109749; and antibodies that inhibit the interaction of human RAGE and a complex of HMGB1 and CpG DNA, as disclosed in WO2008/137552.

Antibodies that specifically bind to RAGE suitable for use in the methods of the invention also include variants of any of the antibodies described herein, which may be readily prepared using known molecular biology and cloning techniques. See, e.g., U.S. Published Patent Application Nos. 2003/0118592, 2003/0133939, 2004/0058445, 2005/0136049, 2005/0175614, 2005/0180970, 2005/0186216, 2005/0202012, 2005/0202023, 2005/0202028, 2005/0202534, and 2005/0238646, all of which are hereby incorporated by reference herein in their entireties.

In particular embodiments, antibodies that specifically bind to RAGE suitable for use in the methods of the invention specifically bind to the V domain of RAGE. In certain embodiments, the antibodies bind to a functional site on RAGE, such as residues 23-54 of RAGE.

In particular embodiments, the antibodies specifically bind to the V-domain of RAGE and compete with ligands S100A7, S100A8, or S100A9.

Suitable antibodies may also comprise a label attached thereto, such as a detectable label (e.g., a radioisotope, fluorescent compound, enzyme or enzyme co-factor). Suitable antibodies include whole antibodies and fragments thereof including chimeric antibodies, humanized antibodies, single chain antibodies, tetrameric antibodies, tetravalent antibodies, heteroconjugate antibodies, bispecific antibodies, multispecific antibodies, domain-specific antibodies, domain-deleted antibodies, diabodies, antibody conjugates (e.g., with an Fc domain (e.g., an antigen binding domain fused to an immunoglobulin constant region), PEG, an immunoglobulin domain, etc.), Fab fragments, Fab' fragments, F(ab')₂ fragments, Fv fragments, ScFv fragments, Fd fragments, single domain antibodies, and dAb fragments, and Fc fusion protein.

In certain embodiments, an effective dose of the compound increases myofibrillar protein content and does not inhibit cellular proliferation of the myocyte. In certain embodiments, the myofibrillar protein is selected from myosin, actin, tropomyosin, myosin heavy chain, myosin light chain, troponin, titin, and nebulin. In a preferred embodiment, the myofibrillar protein is a myosin heavy chain protein.

In certain embodiments, the patient has cachexia-associated and/or RAGE cardiac dysfunction. Significantly, no treatment for cachexia-induced cardiac dysfunction was previously available.

In other embodiments, the patient has a cardiac dysfunction (e.g., congestive heart failure) or a disease-associated or disease-induced cachexia that is characterized by an increase in one or more S100 RAGE ligands (particularly, S100A7, S100A8, and S100A9) and/or a decrease in soluble RAGE relative to a reference level. In some embodiments, the patient has cachexia-

associated cardiac dysfunction. In some other embodiments, the patient has cachexia-independent cardiac dysfunction.

In other embodiments, the patient has a cardiac dysfunction (e.g., congestive heart failure) or a disease-associated or disease-induced cachexia that is not associated with cancer, but that like cancer-induced cachexia fails to respond to treatment with nutritional support and anti-inflammatory therapy. T cardiac dysfunction may or may not be associated with cachexia. Like cancer-induced cachexia, the cardiac dysfunction can be characterized by an increase in one or more S100 RAGE ligands (particularly, S100A7, S100A8, and S100A9) and/or a decrease in soluble RAGE relative to a reference level.

In one embodiment, the invention provides a method of monitoring treatment progress. The method includes the step of determining a level of a cardiac dysfunction marker (e.g., levels of S100A7, S100A8, or S100A9) or diagnostic measurement (e.g., screen, assay) in a subject suffering from or susceptible to a disorder or symptoms thereof associated with a cardiac disease or dysfunction, in which the subject has been administered a therapeutic amount of a composition herein sufficient to treat the disease or symptoms thereof. The level of a cardiac dysfunction marker determined in the method can be compared to known levels of the cardiac dysfunction marker in either healthy normal controls or in other afflicted patients to establish the subject's disease status. In particular embodiments, a second level of a cardiac dysfunction marker in the subject is determined at a time point later than the determination of the first level, and the two levels are compared to monitor the course of disease or the efficacy of the therapy. In certain embodiments, a pre-treatment level of a cardiac dysfunction marker in the subject is determined prior to beginning treatment according to this invention; this pre-treatment level of the cardiac dysfunction marker can then be compared to the level of the marker in the subject after the treatment commences, to determine the efficacy of the treatment.

In some embodiments, a subject identified as having increased level of a S100 ligand, such as S100A7, S100A8, and/or S100A9, relative to a reference is administered a therapeutic composition of the invention. Levels of cardiac dysfunction markers (e.g., S100A7, S100A8, or S100A9) are measured in a subject sample and used as an indicator of a cardiac dysfunction that is responsive to treatment with an anti-RAGE agent (e.g., anti-RAGE antibody) of the invention. Levels of cardiac dysfunction marker polynucleotides may be measured by standard methods, such as quantitative PCR, Northern Blot, microarray, mass spectrometry, and in situ hybridization. Standard methods may be used to measure levels of cardiac dysfunction marker polypeptides in a biological sample derived from a subject. Such methods include immunoassay,

ELISA, western blotting using an antibody that binds the marker polypeptide, and radioimmunoassay. Elevated levels of cardiac dysfunction marker polynucleotides or polypeptides are considered a positive indicator of cardiac dysfunction (particularly, cachexia-associated and/or RAGE-associated cardiac dysfunction) that is responsive to treatment with an anti-RAGE agent (e.g., anti-RAGE antibody) of the invention.

Pharmaceutical Compositions

The present invention features compositions useful for treating a cardiac dysfunction, particularly cachexia-associated cardiac dysfunction, in a subject. In some embodiments, the composition comprises an anti-RAGE agent, such as an anti-RAGE antibody, as described herein.

The administration of a composition comprising an anti-RAGE agent herein for the treatment of a cardiac dysfunction such as cachexia-associated or RAGE-associated cardiac dysfunction may be by any suitable means that results in a concentration of the therapeutic that, combined with other components, is effective in ameliorating, reducing, or stabilizing the disease symptoms in a subject. The composition may be administered systemically, for example, formulated in a pharmaceutically-acceptable buffer such as physiological saline. Preferable routes of administration include, for example, subcutaneous, intravenous, intraperitoneally, intramuscular, or intradermal injections that provide continuous, sustained levels of the agent in the patient. The amount of the therapeutic agent to be administered varies depending upon the manner of administration, the age and body weight of the patient, and with the clinical symptoms of the cardiac dysfunction or disease. Generally, amounts will be in the range of those used for other agents used in the treatment of cardiac dysfunction, although in certain instances lower amounts will be needed because of the increased specificity of the agent. A composition is administered at a dosage that ameliorates or decreases effects of the cardiac dysfunction or disease (e.g., atrophy, irregular heart beat) as determined by a method known to one skilled in the art.

The therapeutic anti-RAGE agent (e.g., anti-RAGE antibody, or an antigen-binding fragment thereof) may be contained in any appropriate amount in any suitable carrier substance, and is generally present in an amount of 1-95% by weight of the total weight of the composition.

The composition may be provided in a dosage form that is suitable for parenteral (e.g., subcutaneously, intravenously, intramuscularly, or intraperitoneally) administration route. The pharmaceutical compositions may be formulated according to conventional pharmaceutical practice (see, e.g., Remington: The Science and Practice of Pharmacy (20th ed.), ed. A. R.

Gennaro, Lippincott Williams & Wilkins, 2000 and Encyclopedia of Pharmaceutical Technology, eds. J. Swarbrick and J. C. Boylan, 1988-1999, Marcel Dekker, New York).

Pharmaceutical compositions according to the invention may be formulated to release the active agent substantially immediately upon administration or at any predetermined time or time period after administration. The latter types of compositions are generally known as controlled release formulations, which include (i) formulations that create a substantially constant concentration of the drug within the body over an extended period of time; (ii) formulations that after a predetermined lag time create a substantially constant concentration of the drug within the body over an extended period of time; (iii) formulations that sustain action during a predetermined time period by maintaining a relatively, constant, effective level in the body with concomitant minimization of undesirable side effects associated with fluctuations in the plasma level of the active substance (sawtooth kinetic pattern); (iv) formulations that localize action by, e.g., spatial placement of a controlled release composition adjacent to or in contact with an organ, such as the heart; (v) formulations that allow for convenient dosing, such that doses are administered, for example, once every one or two weeks; and (vi) formulations that target a disease using carriers or chemical derivatives to deliver the therapeutic agent to a particular cell type (e.g., heart cell). For some applications, controlled release formulations obviate the need for frequent dosing during the day to sustain the plasma level at a therapeutic level.

Any of a number of strategies can be pursued in order to obtain controlled release in which the rate of release outweighs the rate of metabolism of the agent in question. In one example, controlled release is obtained by appropriate selection of various formulation parameters and ingredients, including, e.g., various types of controlled release compositions and coatings. Thus, the therapeutic is formulated with appropriate excipients into a pharmaceutical composition that, upon administration, releases the therapeutic in a controlled manner. Examples include single or multiple unit tablet or capsule compositions, oil solutions, suspensions, emulsions, microcapsules, microspheres, molecular complexes, nanoparticles, patches, and liposomes.

The pharmaceutical composition may be administered parenterally by injection, infusion or implantation (subcutaneous, intravenous, intramuscular, intraperitoneal, or the like) in dosage forms, formulations, or via suitable delivery devices or implants containing conventional, non-toxic pharmaceutically acceptable carriers and adjuvants. The formulation and preparation of such compositions are well known to those skilled in the art of pharmaceutical formulation. Formulations can be found in Remington: The Science and Practice of Pharmacy, supra.

Compositions for parenteral use may be provided in unit dosage forms (e.g., in single-dose ampoules), or in vials containing several doses and in which a suitable preservative may be added (see below). The composition may be in the form of a solution, a suspension, an emulsion, an infusion device, or a delivery device for implantation, or it may be presented as a dry powder to be reconstituted with water or another suitable vehicle before use. Apart from the active agent that reduces or ameliorates a cardiac dysfunction or disease, the composition may include suitable parenterally acceptable carriers and/or excipients. The active therapeutic agent(s) (e.g., an anti-RAGE agent described herein) may be incorporated into microspheres, microcapsules, nanoparticles, liposomes, or the like for controlled release. Furthermore, the composition may include suspending, solubilizing, stabilizing, pH-adjusting agents, tonicity adjusting agents, and/or dispersing, agents.

In some embodiments, the composition comprising the active therapeutic (i.e., an anti-RAGE antibody herein) is formulated for intravenous delivery. As indicated above, the pharmaceutical compositions according to the invention may be in the form suitable for sterile injection. To prepare such a composition, the suitable therapeutic(s) are dissolved or suspended in a parenterally acceptable liquid vehicle. Among acceptable vehicles and solvents that may be employed are water, water adjusted to a suitable pH by addition of an appropriate amount of hydrochloric acid, sodium hydroxide or a suitable buffer, 1,3-butanediol, Ringer's solution, and isotonic sodium chloride solution and dextrose solution. The aqueous formulation may also contain one or more preservatives (e.g., methyl, ethyl or n-propyl p-hydroxybenzoate). In cases where one of the agents is only sparingly or slightly soluble in water, a dissolution enhancing or solubilizing agent can be added, or the solvent may include 10-60% w/w of propylene glycol or the like.

Combination Therapies

In some aspects, the invention features methods of treating a cardiac dysfunction in a subject, the methods comprising administering to the subject an effective amount of a composition comprising an anti-RAGE agent (e.g., an anti-RAGE antibody) as described herein. Optionally, an anti-cardiac disease therapeutic of the invention (e.g., an anti-RAGE antibody as described herein) may be administered in combination with any other standard anti-cardiac disease therapy; such methods are known to the skilled artisan and described in Remington's Pharmaceutical Sciences by E. W. Martin.

Antibodies

Antibodies that selectively bind a RAGE polypeptide or a RAGE ligand (e.g., S100A7, S100A8, S100A9) are useful in the methods of the invention. Binding to the RAGE polypeptide reduces RAGE biological activity as assayed by analyzing, for example, modulation of cachexia in a cell using a cachexia functional assay as described herein. Methods of preparing antibodies are well known to those of ordinary skill in the science of immunology. As used herein, the term “antibody” means not only intact antibody molecules, but also fragments of antibody molecules that retain immunogen-binding ability. Such fragments are also well known in the art and are regularly employed both *in vitro* and *in vivo*. Accordingly, as used herein, the term “antibody” means not only intact immunoglobulin molecules but also the well-known active fragments F(ab')₂, and Fab. F(ab')₂, and Fab fragments that lack the Fc fragment of intact antibody, clear more rapidly from the circulation, and may have less non-specific tissue binding of an intact antibody (Wahl et al., *J. Nucl. Med.* 24:316-325 (1983)). The antibodies of the invention comprise whole native antibodies, bispecific antibodies; chimeric antibodies; Fab, Fab', single chain V region fragments (scFv), fusion polypeptides, and unconventional antibodies.

In one embodiment, an antibody that binds a RAGE polypeptide is monoclonal. Alternatively, the anti-RAGE antibody is a polyclonal antibody. The preparation and use of polyclonal antibodies are known to the skilled artisan. The invention also encompasses hybrid antibodies, in which one pair of heavy and light chains is obtained from a first antibody, while the other pair of heavy and light chains is obtained from a different second antibody. Such hybrids may also be formed using humanized heavy and light chains. Such antibodies are often referred to as “chimeric” antibodies.

In general, intact antibodies are said to contain “Fc” and “Fab” regions. The Fc regions are involved in complement activation and are not involved in antigen binding. An antibody from which the Fc' region has been enzymatically cleaved, or which has been produced without the Fc' region, designated an “F(ab')₂” fragment, retains both of the antigen binding sites of the intact antibody. Similarly, an antibody from which the Fc region has been enzymatically cleaved, or which has been produced without the Fc region, designated an “Fab” fragment, retains one of the antigen binding sites of the intact antibody. Fab' fragments consist of a covalently bound antibody light chain and a portion of the antibody heavy chain, denoted “Fd.” The Fd fragments are the major determinants of antibody specificity (a single Fd fragment may be associated with up to ten different light chains without altering antibody specificity). Isolated Fd fragments retain the ability to specifically bind to immunogenic epitopes.

Antibodies can be made by any of the methods known in the art utilizing RAGE, or immunogenic fragments thereof, as an immunogen. One method of obtaining antibodies is to immunize suitable host animals with an immunogen and to follow standard procedures for polyclonal or monoclonal antibody production. The immunogen will facilitate presentation of the immunogen on the cell surface. Immunization of a suitable host can be carried out in a number of ways. Nucleic acid sequences encoding a RAGE polypeptide or immunogenic fragments thereof, can be provided to the host in a delivery vehicle that is taken up by immune cells of the host. The cells will in turn express the receptor on the cell surface generating an immunogenic response in the host. Alternatively, nucleic acid sequences encoding a RAGE polypeptide, or immunogenic fragments thereof, can be expressed in cells *in vitro*, followed by isolation of the polypeptide and administration of the polypeptide to a suitable host in which antibodies are raised.

Alternatively, antibodies against a RAGE polypeptide may, if desired, be derived from an antibody phage display library. A bacteriophage is capable of infecting and reproducing within bacteria, which can be engineered, when combined with human antibody genes, to display human antibody proteins. Phage display is the process by which the phage is made to 'display' the human antibody proteins on its surface. Genes from the human antibody gene libraries are inserted into a population of phage. Each phage carries the genes for a different antibody and thus displays a different antibody on its surface.

Antibodies made by any method known in the art can then be purified from the host. Antibody purification methods may include salt precipitation (for example, with ammonium sulfate), ion exchange chromatography (for example, on a cationic or anionic exchange column preferably run at neutral pH and eluted with step gradients of increasing ionic strength), gel filtration chromatography (including gel filtration HPLC), and chromatography on affinity resins such as protein A, protein G, hydroxyapatite, and anti-immunoglobulin.

Antibodies can be conveniently produced from hybridoma cells engineered to express the antibody. Methods of making hybridomas are well known in the art. The hybridoma cells can be cultured in a suitable medium, and spent medium can be used as an antibody source. Polynucleotides encoding the antibody of interest can in turn be obtained from the hybridoma that produces the antibody, and then the antibody may be produced synthetically or recombinantly from these DNA sequences. For the production of large amounts of antibody, it is generally more convenient to obtain an ascites fluid. The method of raising ascites generally comprises injecting hybridoma cells into an immunologically naive histocompatible or immunotolerant mammal,

especially a mouse. The mammal may be primed for ascites production by prior administration of a suitable composition (e.g., Pristane).

Monoclonal antibodies (Mabs) produced by methods of the invention can be "humanized" by methods known in the art. "Humanized" antibodies are antibodies in which at least part of the sequence has been altered from its initial form to render it more like human immunoglobulins. Techniques to humanize antibodies are particularly useful when non-human animal (e.g., murine) antibodies are generated. Examples of methods for humanizing a murine antibody are provided in U.S. patents 4,816,567, 5,530,101, 5,225,539, 5,585,089, 5,693,762 and 5,859,205.

In other embodiments, the invention provides "unconventional antibodies."

Unconventional antibodies include, but are not limited to, nanobodies, linear antibodies (Zapata et al., Protein Eng. 8(10): 1057-1062, 1995), single domain antibodies, single chain antibodies, and antibodies having multiple valencies (e.g., diabodies, tribodies, tetrabodies, and pentabodies). Nanobodies are the smallest fragments of naturally occurring heavy-chain antibodies that have evolved to be fully functional in the absence of a light chain. Nanobodies have the affinity and specificity of conventional antibodies although they are only half of the size of a single chain Fv fragment. The consequence of this unique structure, combined with their extreme stability and a high degree of homology with human antibody frameworks, is that nanobodies can bind therapeutic targets not accessible to conventional antibodies. These multimeric scFvs (e.g., diabodies, tetrabodies) offer an improvement over the parent antibody since small molecules of ~60-100kDa in size provide faster blood clearance and rapid tissue uptake. See Power et al., (Generation of recombinant multimeric antibody fragments for tumor diagnosis and therapy. Methods Mol Biol, 207, 335-50, 2003); and Wu et al. (Anti-carcinoembryonic antigen (CEA) diabody for rapid tumor targeting and imaging. Tumor Targeting, 4, 47-58, 1999).

Various techniques for making unconventional antibodies have been described. Bispecific antibodies produced using leucine zippers are described by Kostelny et al. (J. Immunol. 148(5):1547-1553, 1992). Diabody technology is described by Hollinger et al. (Proc. Natl. Acad. Sci. USA 90:6444-6448, 1993). Another strategy for making bispecific antibody fragments by the use of single-chain Fv (scFv) dimers is described by Gruber et al. (J. Immunol. 152:5368, 1994). Trispecific antibodies are described by Tutt et al. (J. Immunol. 147:60, 1991). Single chain Fv polypeptide antibodies include a covalently linked VH::VL heterodimer which can be expressed from a nucleic acid including V_H- and V_L-encoding sequences either joined directly or joined by a peptide-encoding linker as described by Huston, et al. (Proc. Nat. Acad. Sci. USA, 85:5879-5883,

1988). See, also, U.S. Patent Nos. 5,091,513, 5,132,405 and 4,956,778; and U.S. Patent Publication Nos. 20050196754 and 20050196754.

Methods of Identifying Agents that Inhibit Cachexia and/or RAGE-mediated Cachectogenic Signaling

In Silico Drug Design

The present invention permits the use of virtual design techniques (i.e., computer modeling or “in silico”) to design, select, and synthesize compounds capable of regulating RAGE, in particular, RAGE-mediated cachectogenic signaling. In turn, these compounds may be effective in the treatment of a RAGE-regulated disorder, such as RAGE-associated cardiac dysfunction, cachexia, or a cachexia-associated disorder (e.g., a cachexia-associated cardiac dysfunction).

In addition to the more traditional sources of test compounds, computer modeling and searching technologies permit the rational selection of test compounds by utilizing structural information from the ligand binding sites and functional antibody binding sites (e.g., binding sites of cachexia-inhibitory antibodies) on proteins of the present invention (e.g., RAGE). Such rational selection of compounds may decrease the number of compounds that may need to be screened to identify a therapeutic candidate compound. In some embodiments, the functional site on RAGE comprises any one or more of amino acid residues 23-54 of RAGE. In some other embodiments, the functional site comprises any one or more amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, and 216 of RAGE.

Knowledge of the protein sequences of the present invention may allow for generation of models of their binding sites that may be used to screen for potential agent(s) that bind to the binding sites. This process may be accomplished with the skills known in the art. One approach involves generating a sequence alignment of the protein sequence to a template (derived from the crystal structures or NMR-based model of a similar protein(s)), conversion of the amino acid structures and refining the model by molecular mechanics and visual examination. If a strong sequence alignment may not be obtained, then a model may also be generated by building models of the hydrophobic helices. Mutational data that point towards contact residues may also be used to position the helices relative to each other so that these contacts are achieved. During this process, docking of the known ligands into the binding site cavity within the helices may also be used to help position the helices by developing interactions that may stabilize the binding of the ligand. The model may be completed by refinement using molecular mechanics and loop building using standard homology modeling techniques. General information regarding modeling may be

found in Schoneberg, T. et. al., *Molecular and Cellular Endocrinology*, 151:181-193 (1999), Flower, D., *Biochim Biophys Acta*, 1422, 207-234 (1999), and Sexton, P. M., *Curr. Opin. Drug Discovery and Development*, 2, 440-448 (1999).

Once the model is completed, it may be used in conjunction with one of several computer programs to narrow the number of compounds to be screened, e.g., the DOCK program (UCSF Molecular Design Institute, San Francisco, Calif. 94143) or FLEXX (Tripos Inc., MO). One may also screen databases of commercial and/or proprietary compounds for steric fit and rough electrostatic complementarity to the binding site. In one embodiment, the docking program is ZDOCK (Pierce et al., *Bioinformatics*, 2014 Jun 15;30(12):1771-3). In another embodiment, the docking program is AutoDock Vina (Trott et al., *Journal of Computational Chemistry* 31 (2010) 455-461).

In Silico Screening of Compounds

In one aspect, the invention provides means to carry out virtual screening of compounds using the disclosed atomic coordinates or coordinates derived therefrom. The atomic coordinates of the three-dimensional structure elucidated by the invention are input into a computer so that images of the structure and various parameters are shown on the display. The resultant data are input into a virtual compound library. Since a virtual compound library is contained in a virtual screening software, the above-described data may be input into such a software. Compounds may be searched for, using a three-dimensional structure database of virtual or non-virtual compounds, such as MDDR (Prous Science, Spain).

The potential interactions of a compound may be analyzed prior to its actual synthesis and testing by the use of computer modeling techniques. If the theoretical structure of the given compound suggests insufficient interactions with RAGE, synthesis and testing of the compound may be obviated. However, if computer modeling indicate sufficient interactions, the molecule may then be synthesized and tested for its ability to regulate RAGE, using various methods described herein and/or that are known to a person skilled in the art. In one embodiment, the molecule is tested for its ability to modulate cachexia using the cachexia functiona assay described herein.

Compounds may be computationally evaluated and designed by means of a series of steps in which chemical entities or fragments are screened and selected for their ability to bind with individual binding sites or combinations thereof (e.g., P0, P+1, P-1) or other areas of RAGE.

One skilled in the art may use any of several methods to screen chemical entities or fragments for their ability to bind to RAGE and more particularly with the specific binding sites

or functional sites described herein. Sequences of RAGE, may also be threaded onto the protein backbone of a RAGE domain (e.g., V domain, or any of the functional sites on RAGE described herein) derived from the crystal structure, with side chain positions optimized using methods known in the art. The resulting structural models may then be used to discover chemical entities or fragments that regulate RAGE via in silico docking. The process may begin by visual inspection of, for example, the functional site on the computer screen based on the RAGE coordinates presented in Protein Data Bank PDB ID 4LP4 (provided in Appendix A). Selected fragments or chemical entities may then be positioned in a variety of orientations, or docked, within a binding site of RAGE. Docking may be accomplished using software such as QUANTATM, SYBYLTM, followed by energy minimization and molecular dynamics with molecular mechanics forcefields softwares, such as CHARMMTM and AMBERTM.

Specialized computer programs may also assist in the process of selecting fragments or chemical entities. These include, but are not limited to, GRIDTM (Goodford, P. J., J. Med. Chem., 28, 849-857 (1985)); MCSSTTM (Miranker, A. and M. Karplus, "Proteins: Structure, Function and Genetics, 11, 29-34 (1991)); (3) AUTODOCKTM (Goodsell, D. S. and A. J. Olsen, Proteins: Structure, Function, and Genetics, 8, 195-202 (1990; DOCKTM (Kuntz, I. D. et al., J. Mol. Biol., 161, pp. 269-288 (1982)); GLIDETM (Schrodinger Inc.); FLEXXTM (Tripos Inc); (7) GOLDTM (Jones et al., J. Mol. Biol., 245, 43-53, 1995).

Once suitable chemical entities or fragments have been selected, they may be assembled in silico or synthesized into a single compound. Chemical syntheses may be carried out by methods known in the art. In silico assembly may proceed by visual inspection of the relationship of the fragments to each other on the three-dimensional image displayed on a computer screen in relation to the structure coordinates of RAGE. This may be followed by manual model building using softwares such as QUANTATM or SYBYLTM.

Useful programs for connecting the individual chemical entities or fragments include the following: CAVEATTM (Bartlett, P. A. et al, Royal Chem. Soc., 78, 182-196 (1989)); 3D Database systems such as MACCS-3DTM (MDL Information Systems, San Leandro, Calif.); and HOOKTM (Molecular Simulations, Burlington, Mass.). In addition to building a compound in a step-wise fashion as described above, compounds may be designed as a whole or "de novo" using an empty active site or optionally including some portion(s) of a known compound. Such methods include, but are not limited to, LUDITM (Bohm, H.-J., J. Com R. Aid. Molec. Design, 6, pp. 61-78 (1992)); LEGENDTM (Nishibata, Y. and A. Itai, Tetrahedron, 47, p. 8985 (1991)), and LEAPFROGTM (Tripos Inc., St. Louis, Mo.).

Once a compound has been designed or selected, the efficiency with which that compound may regulate RAGE may be tested and optimized by computational evaluation. For example, a compound may demonstrate a relatively small difference in energy between its bound and unbound states (i.e., a small deformation energy of binding). A compound may interact with RAGE in more than one conformation that is similar in overall binding energy. In those cases, the deformation energy of binding is taken to be the difference between the energy of the unbound compound and the average energy of the conformations observed.

A compound that is designed or selected may be further computationally optimized so that in its bound state it may lack repulsive electrostatic interactions. Such interactions include repulsive charge-charge, dipole-dipole, and charge-dipole interactions. The sum of all electrostatic interactions between the compound and RAGE, may make a neutral or favorable contribution to the enthalpy of binding. Software programs to evaluate compound deformation energy and electrostatic interaction include, e.g., Gaussian 92™ (M. J. Frisch, Gaussian, Inc., Pittsburgh, Pa.); AMBER™ (P. A. Kollman, University of California at San Francisco, Calif.); QUANTA/CHARMM™ (Molecular Simulations, Inc., Burlington, Mass.); and Insight II/Discover™ (Biosym Technologies Inc., San Diego, Calif.).

Once a compound has been optimally selected or designed, substitutions may be made in some of its atoms or side groups in order to improve or modify its binding properties. Initial substitutions may be conservative, i.e., the replacement group will have approximately the same size, shape, hydrophobicity and charge as the original group. Such substituted compounds may then be analyzed for efficiency of fit to RAGE by software programs similar to those described.

Crystallographic Evaluation of Chemical Entities for Binding to RAGE

The invention allows one skilled in the art to study the binding of compounds to RAGE by exposing either individual compounds or mixtures of compounds (such as may be obtained from combinatorial libraries) into RAGE crystals or, alternatively, by co-crystallization of the compounds of interest with RAGE, using methods known in the art, and those described in the Examples herein. Acquisition and analysis of X-ray diffraction data from these crystals may then be performed using standard methods. If a compound binds to RAGE then positive difference electron density will be observed in the Fourier maps calculated using the X-ray diffraction intensities and phases obtained from the RAGE model presented herein. Models of the chemical entities may then be built into the electron density using standard methods, and the resulting structures may be refined against the X-ray diffraction data, providing experimental data describing the interaction of the compounds of interest. Those skilled in the art may use these

models to design compounds based either on purely structural data; or on combination of structural data, biological/chemical activity based structure-activity relationship, and in silico drug design.

The compounds that are thus designed or selected may further be tested in an *in vitro*, *in vivo*, or *ex vivo* assays to determine if they regulate RAGE. Such assays are known to one skilled in the art. In some embodiments, the assay is a cachexia functional assay as described herein and further described in PCT/US2014/068631, which is incorporated herewith in its entirety.

The practice of the present invention employs, unless otherwise indicated, conventional techniques of molecular biology (including recombinant techniques), microbiology, cell biology, biochemistry and immunology, which are well within the purview of the skilled artisan. Such techniques are explained fully in the literature, such as, "Molecular Cloning: A Laboratory Manual", second edition (Sambrook, 1989); "Oligonucleotide Synthesis" (Gait, 1984); "Animal Cell Culture" (Freshney, 1987); "Methods in Enzymology" "Handbook of Experimental Immunology" (Weir, 1996); "Gene Transfer Vectors for Mammalian Cells" (Miller and Calos, 1987); "Current Protocols in Molecular Biology" (Ausubel, 1987); "PCR: The Polymerase Chain Reaction", (Mullis, 1994); "Current Protocols in Immunology" (Coligan, 1991). These techniques are applicable to the production of the polynucleotides and polypeptides of the invention, and, as such, may be considered in making and practicing the invention. Particularly useful techniques for particular embodiments will be discussed in the sections that follow.

The following examples are put forth so as to provide those of ordinary skill in the art with a complete disclosure and description of how to make and use the assay, screening, and therapeutic methods of the invention, and are not intended to limit the scope of what the inventors regard as their invention.

Example 1: Identification of Functional Sites on RAGE polypeptide

In studies described herein below, a refined model of the cachectic signal was obtained (FIG. 2). Functional sites on the RAGE polypeptide were determined using a combination of experiments mapping binding interface(s) of anti-RAGE antibodies with RAGE polypeptide using hydrogen-deuterium exchange (HDEX) reactions and cachexia functional assays. As described elsewhere herein, results of the cachexia functional assay indicate whether a candidate agent (e.g., a particular anti-RAGE antibody) has cachexia-inhibitory or cachexia-inducing activity, as measured, for example, by levels of myosin heavy chain in cells treated with the candidate agent relative to a control or baseline myosin heavy chain level.

The anti-RAGE antibodies were found to bind to various sites on RAGE (FIG. 4; FIG. 17). Results of screening of anti-RAGE antibodies in a mouse cachexia functional assay (left) and human cachexia functional assay are shown in FIG. 20. Out of the 22 anti-RAGE antibody candidates screened, two (2) antibodies, were identified as anti-RAGE antibodies having cachexia-inhibitory activity (FIG. 22). FIG. 21 shows that surrogate RAGE antibodies had comparable activity profiles in both mouse cachexia (left) and human cachexia (right) functional assays.

Anti-RAGE antibodies having cachexia-inhibitory activity were found to bind to a particular site on the V domain of RAGE (residues 23-54). The antigen (or binding site) of the cachexia-inhibitory antibody on RAGE is shown in FIGS. 3A-3B and FIG. 5.

Based on these results, a druggable “hot spot” on the RAGE polypeptide was identified (FIGS. 6A-6C). Without being bound by theory, agents that bind to the hot spot are expected to inhibit RAGE-mediated cachectic signaling, thereby inhibiting cachexia in a cell or a subject. The “hot spot” is located on the V domain of RAGE and corresponds to the region marked with an “X” in FIG. 6C. Thus, the hot spot serves as a target site for rational drug design to identify agents that inhibit RAGE mediated-signaling and cachexia.

FIG. 7A is a series of schematics showing docking of an exemplary small molecule inhibitor of RAGE (FPS3) to the hot spot of RAGE. Docking of FPS3 indicates a favorable fit of FPS3 within the hot spot. Results of a cachexia functional assay wherein cells were treated with various concentrations of FPS3 showed that FPS3 had cachexia-inhibitory activity (FIG. 7B).

In another set of experiments, the residues on ligands of RAGE that contact RAGE and the residues on RAGE that contact RAGE ligands were determined. FIG. 8 shows RAGE polypeptide and its ligands, S100A7, S100A8/9, S100A6, S100B, and S100P. The ligands S100A7 and S100A8/9 are cachexia-inducing ligands, whereas the ligands S100A6, S100B, and S100P are non-cachexia-inducing ligands, as measured by the cachexia functional assay described herein.

FIG. 9 shows residues on ligands S100A7 and S100A8/A9 which contact the RAGE polypeptide. The residues contacting RAGE on S100A7 were confirmed by mutagenesis of S100A7 and investigation of effects of the S100A7 mutants on cachexia using the cachexia functional assay described herein (FIG. 10).

FIG. 11 shows residues on the RAGE polypeptide that contact S100A7 and S100A8/A9 (cachexia-inducing ligands). Residues on RAGE that contact S100A7 and S100A8/A9 are listed in the table at the bottom right of FIG. 11. As shown in the table, the set of residues on RAGE

that each of the cachexia-inducing ligands contact is nearly identical, indicating that the site on RAGE defined by these residues is a functional site that may be targeted to inhibit cachexia. Agents that block binding of S100A7 and/or S100A8/A9 to this site, for example, may inhibit cachexia. For example, agents that target S100A7 or S100A8/A9, such as antibodies against S100A7 or S100A8/A9, were found to inhibit cachexia (FIG. 18).

FIG. 12 shows a multidimensional RAGE model predicting cachexogenic signaling. In the model, a raft of RAGE molecules and S100 ligands is formed. Without intending to be bound by theory, it is believed that disrupting the formation of the raft (e.g., by disruption of RAGE oligomerization and/or S100 ligand binding) disrupts cachexogenic signaling. Agents that bind to the “hot spot” of RAGE and/or block binding of S100A7 or S100A8/A9 to their binding site on RAGE are expected to disrupt cachexogenic signaling, thereby inhibiting cachexia.

Example 2: Prevention and Reversal of Cardiac Atrophy and Cardiac Dysfunction by anti-RAGE antibodies

In another set of experiments, anti-RAGE antibodies were shown to prevent and reverse cardiac atrophy and cardiac dysfunction in a clinically relevant model of human cardiac function. A cardiac cachexia model was generated using cardiomyocytes differentiated from induced pluripotent stem cells (iPS cells) (FIG. 13). Assessment of gene expression, protein markers, and electrophysiology of the cardiomyocytes was performed. The cardiac model generated was found to exhibit molecular and functional characteristics of cardiac tissue (e.g., similar gene expression signature, synchronized beating) (FIG. 13).

The cardiomyocytes were then treated or cultured in cachexia-inducing medium. FIG. 14 shows cachexia-induced cardiac atrophy. FIG. 14 shows a loss of myosin heavy chain in cardiomyocytes treated with a cachexia-inducing medium described herein (right) relative to cardiomyocytes not treated with cachexia-inducing medium (left).

Next, the effect of anti-RAGE antibodies on cachexia-induced cardiac atrophy and cardiac dysfunction was investigated. FIG. 15 shows cardiac atrophy and cardiac dysfunction was *prevented* by an anti-RAGE antibody. From left to right, the micrographs show cardiomyocytes treated with (1) non-inducing medium, (2) cachexia-inducing medium, and (3) cachexia-inducing medium and anti-RAGE antibody. The micrographs in the top panel show DAPI stained and myosin heavy chain (MYHC) stained cardiomyocytes. Light gray indicates myosin heavy chain (MYHC). The right-most micrograph at the top shows that the anti-RAGE antibody prevented or inhibited loss of myosin heavy chain in the cardiomyocytes. The micrographs in the bottom panel

are from videomicrographs showing that (1) cardiac tissue in non-inducing medium exhibited a regular beat, (2) cardiac tissue in cachexia-inducing medium exhibited an irregular heart beat, and (3) cardiac tissue in cachexia-inducing with anti-RAGE antibody exhibited a regular heart beat, thus indicating that cardiac dysfunction was inhibited or prevented by the anti-RAGE antibody.

5 FIG. 16 shows that cardiac atrophy and cardiac dysfunction were *reversed* by an anti-RAGE antibody. The micrographs on the left show DAPI stained and myosin heavy chain (MYHC) stained cardiomyocytes. On the left, the top micrograph shows loss of myosin heavy chain in cardiomyocytes treated with cachexia inducing medium. The bottom micrograph on the left shows myosin heavy chain restored in those cardiomyocytes after treatment with an anti-
10 RAGE antibody. The micrograph on the right is a micrograph from a videomicrograph showing that regular heart beat was restored in cardiac tissue in cachexia-inducing medium following treatment of the cardiac tissue with anti-RAGE antibody. Thus, the results show that the loss of myosin heavy chain in cardiomyocytes was rescued by treatment with an anti-RAGE antibody.

15 **Other Embodiments**

From the foregoing description, it will be apparent that variations and modifications may be made to the invention described herein to adopt it to various usages and conditions. Such embodiments are also within the scope of the following claims.

The recitation of a listing of elements in any definition of a variable herein includes
20 definitions of that variable as any single element or combination (or subcombination) of listed elements. The recitation of an embodiment herein includes that embodiment as any single embodiment or in combination with any other embodiments or portions thereof.

All patents and publications mentioned in this specification are herein incorporated by reference to the same extent as if each independent patent and publication was specifically and
25 individually indicated to be incorporated by reference.

What is claimed is:

1. A pharmaceutical composition comprising an effective amount of an agent that
5 specifically binds to a RAGE polypeptide at a site comprising one or more amino acid residues selected from the group consisting of amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, 214, and 216 of the RAGE polypeptide, and a pharmaceutically acceptable excipient.
- 10 2. A pharmaceutical composition comprising an effective amount of an agent that inhibits binding of a RAGE ligand to a RAGE polypeptide at a site comprising one or more amino acid residues selected from the group consisting of amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, and 216 of the RAGE polypeptide, and a pharmaceutically acceptable excipient.
- 15 3. The pharmaceutical composition of claim 1 or 2, wherein the agent is an antibody or antigen binding fragment thereof, peptide, polynucleotide, or small molecule compound.
4. The pharmaceutical composition of claim 2, wherein the RAGE ligand is selected from the
20 group consisting of S100A7, S100A8, and S100A9.
5. The pharmaceutical composition of claim 1 or 2, wherein the agent binds at a site comprising one or more amino acid residues selected from the group consisting of amino acid residues 23-54 of the RAGE polypeptide.
- 25 6. The pharmaceutical composition of claim 1 or 2, wherein the site comprises each of amino acid residues 25, 54, 59, 61, 92, 94, 96, 114, 116, 150, 151, 152, 175, 177, 179, 186, and 214 of the RAGE polypeptide.
- 30 7. The pharmaceutical composition of claim 1 or 2, wherein an effective amount is an amount sufficient to inhibit loss of myosin heavy chain in a cell contacted with the composition.

8. The pharmaceutical composition of claim 1 or 2, wherein an effective amount is an amount sufficient to inhibit cachexia-associated cardiac dysfunction in a subject administered with the composition.

9. A method of inhibiting loss of myosin heavy chain in a cardiomyocyte, the method comprising contacting the cardiomyocyte with an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby inhibiting loss of myosin heavy chain in the cardiomyocyte.

10. A method of reversing loss of myosin heavy chain in a cardiomyocyte, the method comprising contacting the cardiomyocyte with an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby reversing loss of myosin heavy chain in the cardiomyocyte.

11. A method of preventing and/or inhibiting cardiac dysfunction in a subject, the method comprising administering to the subject an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby preventing or inhibiting cardiac dysfunction in the subject.

12. A method of reversing cardiac dysfunction in a subject, the method comprising administering to the subject an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby reversing cardiac dysfunction in the subject.

13. A method of treating cardiac dysfunction in a subject, the method comprising administering to the subject an effective amount of an agent that specifically binds to a RAGE polypeptide, thereby treating cardiac dysfunction in the subject.

14. A method of treating cardiac dysfunction in a selected subject, the method comprising administering to the subject an effective amount of an agent that specifically binds to a RAGE polypeptide, wherein the subject is selected as having an increased level of S100A7, S100A8, or S100A9 polypeptide or polynucleotide in a biological sample obtained from the subject relative to a control level, thereby treating cardiac dysfunction in the subject.

15. The method of any one of claims 11-14, wherein the subject is human.

16. The method of any one of claims 11-15, wherein the cardiac dysfunction is cachexia-associated cardiac dysfunction.

17. The method of any one of claims 11-15, wherein the cardiac dysfunction is heart dysfunction associated with cancer cachexia, cachexia-associated advanced heart failure, heart dysfunction following acute myocardial infarction, cardiac ischemia, or cardiac atrophy.

18. The method of any one of claims 9-17, wherein the agent is an antibody or antigen binding fragment thereof, peptide, polynucleotide, or small molecule compound.

19. The pharmaceutical composition of claim 1 or 2 or method of any one of claims 9-17, wherein the agent is FPS3.

20. The pharmaceutical composition of claim 1 or 2 or method of any one of claims 9-17, wherein the agent is an anti-RAGE antibody.

21. The method of any one of claims 9-10, wherein the cardiomyocyte is *in vivo* or *in vitro*.

22. A method for identifying a candidate compound that binds to a site on a RAGE polypeptide, the method comprising:

(a) providing a three-dimensional structure of a RAGE polypeptide having at least one atomic coordinate, or surrogate thereof, from PDB ID: 4LP4 for each of the amino acid residues 23-54 or for each of the amino acid residues 25, 54, 59, 61, 91, 92, 94, 96, 98, 114, 116, 150, 151, 152, 154, 175, 177, 178, 179, 186, 213, and 216 of the RAGE polypeptide: or atomic coordinates that have a root mean square deviation of the coordinates of less than 3 angstroms; and

(b) producing a structure for a candidate compound wherein the structure defines a molecule having sufficient surface complementary to the RAGE polypeptide to bind the site in an aqueous solution.

23. The method of claim 22, further comprising the step of (c) evaluating the ability of the compound to bind a RAGE polypeptide in an *in vitro*, *in vivo*, or *ex vivo* assay.

24. The method of claim 23, further comprising the step of (d) evaluating the ability of the compound to inhibit cachexia or inhibit loss of myosin heavy chain in a functional assay.

5 25. The method of any one of claims 22-24, wherein the structure of the candidate compound is designed de novo.

26. The method of any one of claims 22-25, further comprising the step of (e) modifying the candidate compound based upon the positioning, alignment, and interactions between the candidate compound and one or more amino acids comprising the site.

10

27. The method of claim 23 or 24, wherein the results of the evaluation in step (c) or step (d) provide further structure related binding information such that other candidate compounds are selected for evaluation in step (c) or step (d).

15

Appendix A: Atomic coordinates provided at PDB ID: 4LP4

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5  HEADER      SIGNALING PROTEIN                                15-JUL-13    4LP4
   TITLE      CRYSTAL STRUCTURE OF THE HUMAN RAGE VC1 FRAGMENT IN SPACE GROUP P62
   COMPND      MOL_ID: 1;
   COMPND      2 MOLECULE: ADVANCED GLYCOSYLATION END PRODUCT-SPECIFIC RECEPTOR;
   COMPND      3 CHAIN: A, B;
   COMPND      4 FRAGMENT: V AND C1 DOMAINS (VC1 FRAGMENT), ECTODOMAIN FRAGMENT (UNP
10  COMPND      5 RESIDUES 23-231);
   COMPND      6 SYNONYM: RECEPTOR FOR ADVANCED GLYCOSYLATION END PRODUCTS;
   COMPND      7 ENGINEERED: YES
   SOURCE      MOL_ID: 1;
   SOURCE      2 ORGANISM_SCIENTIFIC: HOMO SAPIENS;
15  SOURCE      3 ORGANISM_COMMON: HUMAN;
   SOURCE      4 ORGANISM_TAXID: 9606;
   SOURCE      5 GENE: AGER, RAGE;
   SOURCE      6 EXPRESSION_SYSTEM: ESCHERICHIA COLI;
   SOURCE      7 EXPRESSION_SYSTEM_TAXID: 562;
20  SOURCE      8 EXPRESSION_SYSTEM_STRAIN: SHUFFLE T7 EXPRESS;
   SOURCE      9 EXPRESSION_SYSTEM_VECTOR_TYPE: PLASMID;
   SOURCE     10 EXPRESSION_SYSTEM_PLASMID: PETM11
   KEYWDS      IMMUNOGLOBULIN FOLD, PATTERN RECOGNITION RECEPTOR, SIGNALING
   KEYWDS      2 RECEPTOR, MEMBRANE, SIGNALING PROTEIN
25  EXPDTA      X-RAY DIFFRACTION
   AUTHOR      L.YATIME,G.R.ANDERSEN
   REVDAT      4 18-DEC-13 4LP4 1 JRNL
   REVDAT      3 27-NOV-13 4LP4 1 JRNL
   REVDAT      2 30-OCT-13 4LP4 1 JRNL
30  REVDAT      1 16-OCT-13 4LP4 0
   JRNL         AUTH  L.YATIME,G.R.ANDERSEN
   JRNL         TITL  STRUCTURAL INSIGHTS INTO THE OLIGOMERIZATION MODE OF THE
   JRNL         TITL 2 HUMAN RECEPTOR FOR ADVANCED GLYCATION END-PRODUCTS.
   JRNL         REF   FEBS J.                                V. 280 6556 2013
35  JRNL         REFN                                     ISSN 1742-464X
   JRNL         PMID  24119142
   JRNL         DOI   10.1111/FEBS.12556
   REMARK      2
   REMARK      2 RESOLUTION.      2.40 ANGSTROMS.
40  REMARK      3
   REMARK      3 REFINEMENT.
   REMARK      3 PROGRAM      : PHENIX (PHENIX.REFINE: 1.8.1_1168)
   REMARK      3 AUTHORS      : PAUL ADAMS,PAVEL AFONINE,VICENT CHEN,IAN
   REMARK      3              : DAVIS,KRESHNA GOPAL,RALF GROSSE-
45  REMARK      3              : KUNSTLEVE,LI-WEI HUNG,ROBERT IMMORMINO,
   REMARK      3              : TOM IOERGER,AIRLIE MCCOY,ERIK MCKEE,NIGEL
   REMARK      3              : MORIARTY,REETAL PAI,RANDY READ,JANE
   REMARK      3              : RICHARDSON,DAVID RICHARDSON,TOD ROMO,JIM
   REMARK      3              : SACCHETTINI,NICHOLAS SAUTER,JACOB SMITH,
50  REMARK      3              : LAURENT STORONI,TOM TERWILLIGER,PETER
   REMARK      3              : ZWART
   REMARK      3
   REMARK      3 REFINEMENT TARGET : ML
   REMARK      3
55  REMARK      3 DATA USED IN REFINEMENT.
   REMARK      3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.40
   REMARK      3 RESOLUTION RANGE LOW (ANGSTROMS)  : 33.39
   REMARK      3 MIN (FOBS/SIGMA_FOBS)                : 2.000

```

REMARK 3 COMPLETENESS FOR RANGE (%) : 99.6
 REMARK 3 NUMBER OF REFLECTIONS : 23854
 REMARK 3
 5 REMARK 3 FIT TO DATA USED IN REFINEMENT.
 REMARK 3 R VALUE (WORKING + TEST SET) : 0.180
 REMARK 3 R VALUE (WORKING SET) : 0.178
 REMARK 3 FREE R VALUE : 0.217
 REMARK 3 FREE R VALUE TEST SET SIZE (%) : 5.080
 REMARK 3 FREE R VALUE TEST SET COUNT : 1212
 10 REMARK 3
 REMARK 3 FIT TO DATA USED IN REFINEMENT (IN BINS).
 REMARK 3 BIN RESOLUTION RANGE COMPL. NWORK NFREE RWORK RFREE
 REMARK 3 1 33.3906 - 4.9873 0.99 2559 133 0.1674 0.2231
 REMARK 3 2 4.9873 - 3.9606 1.00 2535 133 0.1430 0.1570
 15 REMARK 3 3 3.9606 - 3.4605 0.98 2458 132 0.1952 0.2268
 REMARK 3 4 3.4605 - 3.1444 1.00 2519 136 0.1840 0.2246
 REMARK 3 5 3.1444 - 2.9192 1.00 2506 141 0.1980 0.2362
 REMARK 3 6 2.9192 - 2.7471 1.00 2505 139 0.1941 0.2483
 REMARK 3 7 2.7471 - 2.6096 1.00 2532 135 0.1873 0.2329
 20 REMARK 3 8 2.6096 - 2.4961 1.00 2493 134 0.1953 0.2526
 REMARK 3 9 2.4961 - 2.4000 1.00 2535 129 0.2107 0.2460
 REMARK 3
 REMARK 3 BULK SOLVENT MODELLING.
 REMARK 3 METHOD USED : FLAT BULK SOLVENT MODEL
 25 REMARK 3 SOLVENT RADIUS : 1.11
 REMARK 3 SHRINKAGE RADIUS : 0.90
 REMARK 3 K_SOL : NULL
 REMARK 3 B_SOL : NULL
 REMARK 3
 30 REMARK 3 ERROR ESTIMATES.
 REMARK 3 COORDINATE ERROR (MAXIMUM-LIKELIHOOD BASED) : 0.250
 REMARK 3 PHASE ERROR (DEGREES, MAXIMUM-LIKELIHOOD BASED) : 22.460
 REMARK 3
 REMARK 3 B VALUES.
 35 REMARK 3 FROM WILSON PLOT (A**2) : 37.00
 REMARK 3 MEAN B VALUE (OVERALL, A**2) : 44.43
 REMARK 3 OVERALL ANISOTROPIC B VALUE.
 REMARK 3 B11 (A**2) : NULL
 REMARK 3 B22 (A**2) : NULL
 40 REMARK 3 B33 (A**2) : NULL
 REMARK 3 B12 (A**2) : NULL
 REMARK 3 B13 (A**2) : NULL
 REMARK 3 B23 (A**2) : NULL
 REMARK 3
 45 REMARK 3 TWINNING INFORMATION.
 REMARK 3 FRACTION: NULL
 REMARK 3 OPERATOR: NULL
 REMARK 3
 REMARK 3 DEVIATIONS FROM IDEAL VALUES.
 50 REMARK 3 RMSD COUNT
 REMARK 3 BOND : 0.006 3340
 REMARK 3 ANGLE : 0.974 4534
 REMARK 3 CHIRALITY : 0.063 486
 REMARK 3 PLANARITY : 0.005 602
 55 REMARK 3 DIHEDRAL : 12.896 1282
 REMARK 3
 REMARK 3 TLS DETAILS
 REMARK 3 NUMBER OF TLS GROUPS : 4
 REMARK 3 TLS GROUP : 1

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REMARK 3 SELECTION: CHAIN A AND (RESID 20:118 )
REMARK 3 ORIGIN FOR THE GROUP (A): -44.4255 -11.7844 22.3117
REMARK 3 T TENSOR
5 REMARK 3 T11: 0.3346 T22: 0.1939
REMARK 3 T33: 0.2709 T12: 0.0810
REMARK 3 T13: -0.0289 T23: -0.0287
REMARK 3 L TENSOR
REMARK 3 L11: 3.6848 L22: 3.1058
REMARK 3 L33: 3.0732 L12: -0.6131
10 REMARK 3 L13: 0.1315 L23: 0.1477
REMARK 3 S TENSOR
REMARK 3 S11: -0.2097 S12: -0.4670 S13: 0.1060
REMARK 3 S21: 0.4580 S22: 0.2118 S23: -0.0168
REMARK 3 S31: 0.0894 S32: 0.0496 S33: 0.0320
15 REMARK 3 TLS GROUP : 2
REMARK 3 SELECTION: CHAIN A AND (RESID 119:231 )
REMARK 3 ORIGIN FOR THE GROUP (A): -25.7555 -6.0996 -12.8620
REMARK 3 T TENSOR
20 REMARK 3 T11: 0.2986 T22: 0.3588
REMARK 3 T33: 0.3621 T12: -0.0411
REMARK 3 T13: 0.0314 T23: -0.1219
REMARK 3 L TENSOR
REMARK 3 L11: 4.4625 L22: 2.3215
REMARK 3 L33: 6.1419 L12: 0.9146
25 REMARK 3 L13: -4.0580 L23: -0.8104
REMARK 3 S TENSOR
REMARK 3 S11: 0.0852 S12: -0.1847 S13: -0.0007
REMARK 3 S21: -0.1855 S22: 0.1172 S23: -0.4285
REMARK 3 S31: -0.2356 S32: 0.8244 S33: -0.1302
30 REMARK 3 TLS GROUP : 3
REMARK 3 SELECTION: CHAIN B AND (RESID 20:118 )
REMARK 3 ORIGIN FOR THE GROUP (A): -32.4094 -32.5805 17.7126
REMARK 3 T TENSOR
REMARK 3 T11: 0.3066 T22: 0.2220
35 REMARK 3 T33: 0.2675 T12: 0.0924
REMARK 3 T13: 0.0200 T23: 0.0084
REMARK 3 L TENSOR
REMARK 3 L11: 3.1428 L22: 3.5962
REMARK 3 L33: 2.4777 L12: -0.2641
40 REMARK 3 L13: -0.2974 L23: -0.0455
REMARK 3 S TENSOR
REMARK 3 S11: 0.1237 S12: 0.3040 S13: -0.0959
REMARK 3 S21: -0.6026 S22: -0.1027 S23: -0.0478
REMARK 3 S31: -0.0892 S32: -0.0480 S33: -0.0109
45 REMARK 3 TLS GROUP : 4
REMARK 3 SELECTION: CHAIN B AND (RESID 119:231 )
REMARK 3 ORIGIN FOR THE GROUP (A): -18.1587 -19.2650 52.8930
REMARK 3 T TENSOR
REMARK 3 T11: 0.3004 T22: 0.3474
50 REMARK 3 T33: 0.3383 T12: -0.0410
REMARK 3 T13: 0.0821 T23: -0.0901
REMARK 3 L TENSOR
REMARK 3 L11: 3.4597 L22: 2.7773
REMARK 3 L33: 4.7269 L12: 1.0117
55 REMARK 3 L13: 1.8017 L23: 2.1893
REMARK 3 S TENSOR
REMARK 3 S11: 0.0052 S12: -0.1663 S13: 0.3429
REMARK 3 S21: -0.0582 S22: 0.2251 S23: -0.1990
REMARK 3 S31: -0.5215 S32: 0.5405 S33: -0.1130

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REMARK 3
REMARK 3 NCS DETAILS
REMARK 3 NUMBER OF NCS GROUPS : 1
REMARK 3 NCS GROUP : 1
5 REMARK 3 NCS OPERATOR : 1
REMARK 3 REFERENCE SELECTION: CHAIN A AND (RESSEQ 20:231)
REMARK 3 SELECTION : CHAIN B AND (RESSEQ 20:231)
REMARK 3 ATOM PAIRS NUMBER : 1626
REMARK 3 RMSD : 0.008
10 REMARK 3
REMARK 3 OTHER REFINEMENT REMARKS: NULL
REMARK 4
REMARK 4 4LP4 COMPLIES WITH FORMAT V. 3.30, 13-JUL-11
REMARK 100
15 REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 02-AUG-13.
REMARK 100 THE RCSB ID CODE IS RCSB080909.
REMARK 200
REMARK 200 EXPERIMENTAL DETAILS
REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION
20 REMARK 200 DATE OF DATA COLLECTION : 18-FEB-12
REMARK 200 TEMPERATURE (KELVIN) : 100
REMARK 200 PH : 7.5
REMARK 200 NUMBER OF CRYSTALS USED : 1
REMARK 200
25 REMARK 200 SYNCHROTRON (Y/N) : Y
REMARK 200 RADIATION SOURCE : MAX II
REMARK 200 BEAMLINE : I911-2
REMARK 200 X-RAY GENERATOR MODEL : NULL
REMARK 200 MONOCHROMATIC OR LAUE (M/L) : M
30 REMARK 200 WAVELENGTH OR RANGE (A) : 1.04
REMARK 200 MONOCHROMATOR : SI(111)
REMARK 200 OPTICS : NULL
REMARK 200
REMARK 200 DETECTOR TYPE : CCD
35 REMARK 200 DETECTOR MANUFACTURER : MAR CCD 165 MM
REMARK 200 INTENSITY-INTEGRATION SOFTWARE : XDS
REMARK 200 DATA SCALING SOFTWARE : XSCALE
REMARK 200
REMARK 200 NUMBER OF UNIQUE REFLECTIONS : 23876
40 REMARK 200 RESOLUTION RANGE HIGH (A) : 2.400
REMARK 200 RESOLUTION RANGE LOW (A) : 35.000
REMARK 200 REJECTION CRITERIA (SIGMA(I)) : 2.000
REMARK 200
REMARK 200 OVERALL.
45 REMARK 200 COMPLETENESS FOR RANGE (%) : 99.7
REMARK 200 DATA REDUNDANCY : 9.900
REMARK 200 R MERGE (I) : 0.07500
REMARK 200 R SYM (I) : NULL
REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : 22.7200
50 REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.40
REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : 2.50
REMARK 200 COMPLETENESS FOR SHELL (%) : 100.0
55 REMARK 200 DATA REDUNDANCY IN SHELL : NULL
REMARK 200 R MERGE FOR SHELL (I) : 0.49400
REMARK 200 R SYM FOR SHELL (I) : NULL
REMARK 200 <I/SIGMA(I)> FOR SHELL : 4.770
REMARK 200

REMARK 200 DIFFRACTION PROTOCOL: SINGLE WAVELENGTH
 REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: MOLECULAR REPLACEMENT
 REMARK 200 SOFTWARE USED: PHASER
 REMARK 200 STARTING MODEL: PDB ENTRY 3O3U

5 REMARK 200
 REMARK 200 REMARK: NULL
 REMARK 280
 REMARK 280 CRYSTAL
 REMARK 280 SOLVENT CONTENT, VS (%): 63.35

10 REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 3.36
 REMARK 280
 REMARK 280 CRYSTALLIZATION CONDITIONS: 2.5 M SODIUM ACETATE, PH 7.5, VAPOR
 REMARK 280 DIFFUSION, HANGING DROP, TEMPERATURE 277K
 REMARK 290

15 REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
 REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 62
 REMARK 290
 REMARK 290 SYMOP SYMMETRY
 REMARK 290 NNNMMM OPERATOR

20 REMARK 290 1555 X,Y,Z
 REMARK 290 2555 -Y,X-Y,Z+2/3
 REMARK 290 3555 -X+Y,-X,Z+1/3
 REMARK 290 4555 -X,-Y,Z
 REMARK 290 5555 Y,-X+Y,Z+2/3

25 REMARK 290 6555 X-Y,X,Z+1/3
 REMARK 290
 REMARK 290 WHERE NNN -> OPERATOR NUMBER
 REMARK 290 MMM -> TRANSLATION VECTOR
 REMARK 290

30 REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
 REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
 REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
 REMARK 290 RELATED MOLECULES.

35 REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.000000
 REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.000000
 REMARK 290 SMTRY1 2 -0.500000 -0.866025 0.000000 0.000000
 REMARK 290 SMTRY2 2 0.866025 -0.500000 0.000000 0.000000
 REMARK 290 SMTRY3 2 0.000000 0.000000 1.000000 68.93333

40 REMARK 290 SMTRY1 3 -0.500000 0.866025 0.000000 0.000000
 REMARK 290 SMTRY2 3 -0.866025 -0.500000 0.000000 0.000000
 REMARK 290 SMTRY3 3 0.000000 0.000000 1.000000 34.46667
 REMARK 290 SMTRY1 4 -1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 4 0.000000 -1.000000 0.000000 0.000000

45 REMARK 290 SMTRY3 4 0.000000 0.000000 1.000000 0.000000
 REMARK 290 SMTRY1 5 0.500000 0.866025 0.000000 0.000000
 REMARK 290 SMTRY2 5 -0.866025 0.500000 0.000000 0.000000
 REMARK 290 SMTRY3 5 0.000000 0.000000 1.000000 68.93333
 REMARK 290 SMTRY1 6 0.500000 -0.866025 0.000000 0.000000

50 REMARK 290 SMTRY2 6 0.866025 0.500000 0.000000 0.000000
 REMARK 290 SMTRY3 6 0.000000 0.000000 1.000000 34.46667
 REMARK 290
 REMARK 290 REMARK: NULL
 REMARK 300

55 REMARK 300 BIOMOLECULE: 1, 2
 REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM
 REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN
 REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON
 REMARK 300 BURIED SURFACE AREA.

REMARK 350
 REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN
 REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE
 REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS
 5 REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND
 REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.
 REMARK 350
 REMARK 350 BIOMOLECULE: 1
 REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC
 10 REMARK 350 APPLY THE FOLLOWING TO CHAINS: A
 REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000
 REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000
 REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000
 REMARK 350
 15 REMARK 350 BIOMOLECULE: 2
 REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC
 REMARK 350 APPLY THE FOLLOWING TO CHAINS: B
 REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000
 REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000
 20 REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000
 REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: TORSION ANGLES
 REMARK 500
 25 REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:
 REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;
 REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
 REMARK 500
 REMARK 500 STANDARD TABLE:
 30 REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)
 REMARK 500
 REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-
 REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400
 REMARK 500
 35 REMARK 500 M RES CSSEQI PSI PHI
 REMARK 500 ALA A 60 -136.53 53.60
 REMARK 500 PRO A 151 -179.37 -64.30
 REMARK 500 ASN A 167 -3.88 76.17
 REMARK 500 ALA B 60 -136.38 53.21
 40 REMARK 500 PRO B 151 -179.44 -63.94
 REMARK 500 ASN B 167 -3.64 75.81
 REMARK 500
 REMARK 500 REMARK: NULL
 REMARK 800
 45 REMARK 800 SITE
 REMARK 800 SITE_IDENTIFIER: AC1
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE NA A 301
 REMARK 800
 50 REMARK 800 SITE_IDENTIFIER: AC2
 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE NA B 301
 REMARK 800
 REMARK 800 SITE_IDENTIFIER: AC3
 55 REMARK 800 EVIDENCE_CODE: SOFTWARE
 REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE NA B 302
 REMARK 800
 REMARK 800 SITE_IDENTIFIER: AC4
 REMARK 800 EVIDENCE_CODE: SOFTWARE

REMARK 800 SITE_DESCRIPTION: BINDING SITE FOR RESIDUE NA B 303
 REMARK 900
 REMARK 900 RELATED ENTRIES
 REMARK 900 RELATED ID: 4LP5 RELATED DB: PDB

5	DBREF	4LP4	A	23	231	UNP	Q15109	RAGE_HUMAN	23	231									
	DBREF	4LP4	B	23	231	UNP	Q15109	RAGE_HUMAN	23	231									
	SEQADV	4LP4	GLY	A	20	UNP	Q15109	EXPRESSION TAG											
	SEQADV	4LP4	ALA	A	21	UNP	Q15109	EXPRESSION TAG											
	SEQADV	4LP4	MET	A	22	UNP	Q15109	EXPRESSION TAG											
10	SEQADV	4LP4	GLY	B	20	UNP	Q15109	EXPRESSION TAG											
	SEQADV	4LP4	ALA	B	21	UNP	Q15109	EXPRESSION TAG											
	SEQADV	4LP4	MET	B	22	UNP	Q15109	EXPRESSION TAG											
	SEQRES	1	A	212	GLY	ALA	MET	ALA	GLN	ASN	ILE	THR	ALA	ARG	ILE	GLY	GLU		
	SEQRES	2	A	212	PRO	LEU	VAL	LEU	LYS	CYS	LYS	GLY	ALA	PRO	LYS	LYS	PRO		
15	SEQRES	3	A	212	PRO	GLN	ARG	LEU	GLU	TRP	LYS	LEU	ASN	THR	GLY	ARG	THR		
	SEQRES	4	A	212	GLU	ALA	TRP	LYS	VAL	LEU	SER	PRO	GLN	GLY	GLY	GLY	PRO		
	SEQRES	5	A	212	TRP	ASP	SER	VAL	ALA	ARG	VAL	LEU	PRO	ASN	GLY	SER	LEU		
	SEQRES	6	A	212	PHE	LEU	PRO	ALA	VAL	GLY	ILE	GLN	ASP	GLU	GLY	ILE	PHE		
	SEQRES	7	A	212	ARG	CYS	GLN	ALA	MET	ASN	ARG	ASN	GLY	LYS	GLU	THR	LYS		
20	SEQRES	8	A	212	SER	ASN	TYR	ARG	VAL	ARG	VAL	TYR	GLN	ILE	PRO	GLY	LYS		
	SEQRES	9	A	212	PRO	GLU	ILE	VAL	ASP	SER	ALA	SER	GLU	LEU	THR	ALA	GLY		
	SEQRES	10	A	212	VAL	PRO	ASN	LYS	VAL	GLY	THR	CYS	VAL	SER	GLU	GLY	SER		
	SEQRES	11	A	212	TYR	PRO	ALA	GLY	THR	LEU	SER	TRP	HIS	LEU	ASP	GLY	LYS		
	SEQRES	12	A	212	PRO	LEU	VAL	PRO	ASN	GLU	LYS	GLY	VAL	SER	VAL	LYS	GLU		
25	SEQRES	13	A	212	GLN	THR	ARG	ARG	HIS	PRO	GLU	THR	GLY	LEU	PHE	THR	LEU		
	SEQRES	14	A	212	GLN	SER	GLU	LEU	MET	VAL	THR	PRO	ALA	ARG	GLY	GLY	ASP		
	SEQRES	15	A	212	PRO	ARG	PRO	THR	PHE	SER	CYS	SER	PHE	SER	PRO	GLY	LEU		
	SEQRES	16	A	212	PRO	ARG	HIS	ARG	ALA	LEU	ARG	THR	ALA	PRO	ILE	GLN	PRO		
	SEQRES	17	A	212	ARG	VAL	TRP	GLU											
30	SEQRES	1	B	212	GLY	ALA	MET	ALA	GLN	ASN	ILE	THR	ALA	ARG	ILE	GLY	GLU		
	SEQRES	2	B	212	PRO	LEU	VAL	LEU	LYS	CYS	LYS	GLY	ALA	PRO	LYS	LYS	PRO		
	SEQRES	3	B	212	PRO	GLN	ARG	LEU	GLU	TRP	LYS	LEU	ASN	THR	GLY	ARG	THR		
	SEQRES	4	B	212	GLU	ALA	TRP	LYS	VAL	LEU	SER	PRO	GLN	GLY	GLY	GLY	PRO		
	SEQRES	5	B	212	TRP	ASP	SER	VAL	ALA	ARG	VAL	LEU	PRO	ASN	GLY	SER	LEU		
35	SEQRES	6	B	212	PHE	LEU	PRO	ALA	VAL	GLY	ILE	GLN	ASP	GLU	GLY	ILE	PHE		
	SEQRES	7	B	212	ARG	CYS	GLN	ALA	MET	ASN	ARG	ASN	GLY	LYS	GLU	THR	LYS		
	SEQRES	8	B	212	SER	ASN	TYR	ARG	VAL	ARG	VAL	TYR	GLN	ILE	PRO	GLY	LYS		
	SEQRES	9	B	212	PRO	GLU	ILE	VAL	ASP	SER	ALA	SER	GLU	LEU	THR	ALA	GLY		
	SEQRES	10	B	212	VAL	PRO	ASN	LYS	VAL	GLY	THR	CYS	VAL	SER	GLU	GLY	SER		
40	SEQRES	11	B	212	TYR	PRO	ALA	GLY	THR	LEU	SER	TRP	HIS	LEU	ASP	GLY	LYS		
	SEQRES	12	B	212	PRO	LEU	VAL	PRO	ASN	GLU	LYS	GLY	VAL	SER	VAL	LYS	GLU		
	SEQRES	13	B	212	GLN	THR	ARG	ARG	HIS	PRO	GLU	THR	GLY	LEU	PHE	THR	LEU		
	SEQRES	14	B	212	GLN	SER	GLU	LEU	MET	VAL	THR	PRO	ALA	ARG	GLY	GLY	ASP		
	SEQRES	15	B	212	PRO	ARG	PRO	THR	PHE	SER	CYS	SER	PHE	SER	PRO	GLY	LEU		
45	SEQRES	16	B	212	PRO	ARG	HIS	ARG	ALA	LEU	ARG	THR	ALA	PRO	ILE	GLN	PRO		
	SEQRES	17	B	212	ARG	VAL	TRP	GLU											
	HET	NA	A	301															
	HET	NA	B	301															
	HET	NA	B	302															
50	HET	NA	B	303															
	HETNAM				NA	SODIUM	ION												
	FORMUL	3	NA		4	(NA	1+)												
	FORMUL	7	HOH		*245	(H2	O)												
	HELIX	1	1	GLY	A	70	VAL	A	75	5							6		
55	HELIX	2	2	GLY	A	90	ASP	A	93	5							4		
	HELIX	3	3	GLY	B	70	VAL	B	75	5							6		
	HELIX	4	4	GLY	B	90	ASP	B	93	5							4		
	SHEET	1	A	5	GLN	A	24	ARG	A	29	0								
	SHEET	2	A	5	GLU	A	108	TYR	A	118	1	O	ARG	A	114	N	ILE	A	26

	SHEET	3	A 5	GLY A	95	MET A	102	-1	N	GLY A	95	O	VAL A	115	
	SHEET	4	A 5	ARG A	48	THR A	55	-1	N	LYS A	52	O	ARG A	98	
	SHEET	5	A 5	LYS A	62	LEU A	64	-1	O	LEU A	64	N	TRP A	51	
5	SHEET	1	B 3	LEU A	34	LEU A	36	0							
	SHEET	2	B 3	LEU A	84	LEU A	86	-1	O	LEU A	86	N	LEU A	34	
	SHEET	3	B 3	ARG A	77	VAL A	78	-1	N	ARG A	77	O	PHE A	85	
	SHEET	1	C 4	GLU A	125	VAL A	127	0							
	SHEET	2	C 4	ASN A	139	SER A	149	-1	O	THR A	143	N	VAL A	127	
10	SHEET	3	C 4	PHE A	186	VAL A	194	-1	O	LEU A	192	N	VAL A	141	
	SHEET	4	C 4	VAL A	171	ARG A	179	-1	N	LYS A	174	O	GLU A	191	
	SHEET	1	D 2	GLU A	132	THR A	134	0							
	SHEET	2	D 2	ARG A	228	TRP A	230	1	O	TRP A	230	N	LEU A	133	
	SHEET	1	E 4	LYS A	162	LEU A	164	0							
15	SHEET	2	E 4	THR A	154	LEU A	159	-1	N	LEU A	159	O	LYS A	162	
	SHEET	3	E 4	PHE A	206	SER A	211	-1	O	SER A	207	N	HIS A	158	
	SHEET	4	E 4	LEU A	220	ARG A	221	-1	O	LEU A	220	N	PHE A	210	
	SHEET	1	F 5	GLN B	24	ARG B	29	0							
	SHEET	2	F 5	GLU B	108	TYR B	118	1	O	ARG B	114	N	ILE B	26	
20	SHEET	3	F 5	GLY B	95	MET B	102	-1	N	GLY B	95	O	VAL B	115	
	SHEET	4	F 5	ARG B	48	THR B	55	-1	N	LYS B	52	O	ARG B	98	
	SHEET	5	F 5	LYS B	62	LEU B	64	-1	O	LEU B	64	N	TRP B	51	
	SHEET	1	G 3	LEU B	34	LEU B	36	0							
	SHEET	2	G 3	LEU B	84	LEU B	86	-1	O	LEU B	86	N	LEU B	34	
25	SHEET	3	G 3	ARG B	77	VAL B	78	-1	N	ARG B	77	O	PHE B	85	
	SHEET	1	H 4	GLU B	125	VAL B	127	0							
	SHEET	2	H 4	ASN B	139	SER B	149	-1	O	THR B	143	N	VAL B	127	
	SHEET	3	H 4	PHE B	186	VAL B	194	-1	O	LEU B	192	N	VAL B	141	
	SHEET	4	H 4	VAL B	171	ARG B	179	-1	N	LYS B	174	O	GLU B	191	
30	SHEET	1	I 2	GLU B	132	THR B	134	0							
	SHEET	2	I 2	ARG B	228	TRP B	230	1	O	TRP B	230	N	LEU B	133	
	SHEET	1	J 4	LYS B	162	LEU B	164	0							
	SHEET	2	J 4	THR B	154	LEU B	159	-1	N	LEU B	159	O	LYS B	162	
	SHEET	3	J 4	PHE B	206	SER B	211	-1	O	SER B	207	N	HIS B	158	
35	SHEET	4	J 4	LEU B	220	ARG B	221	-1	O	LEU B	220	N	PHE B	210	
	SSBOND	1	CYS A	38	CYS A	99							1555	1555	2.06
	SSBOND	2	CYS A	144	CYS A	208							1555	1555	2.04
	SSBOND	3	CYS B	38	CYS B	99							1555	1555	2.06
	SSBOND	4	CYS B	144	CYS B	208							1555	1555	2.04
40	LINK		NA	NA B	301				O	HOH B	489		1555	1555	3.01
	LINK		NA	NA A	301				O	HOH A	401		1555	1555	3.08
	LINK		NA	NA B	303				O	HOH B	401		1555	1555	3.11
	CISPEP	1	PRO A	45	PRO A	46			0		0.77				
	CISPEP	2	TYR A	150	PRO A	151			0		-11.05				
45	CISPEP	3	PRO B	45	PRO B	46			0		0.76				
	CISPEP	4	TYR B	150	PRO B	151			0		-11.28				
	SITE	1	AC1	3 ALA A	21	ILE A	96			HOH A	401				
	SITE	1	AC2	3 GLU A	59	ARG B	179			HOH B	489				
	SITE	1	AC3	2 ARG A	179	GLU B	59								
50	SITE	1	AC4	2 ALA B	21	ILE B	96								
	CRYST1	102.000	102.000	103.400	90.00	90.00	120.00	P	62				12		
	ORIGX1		1.000000	0.000000	0.000000		0.000000								
	ORIGX2		0.000000	1.000000	0.000000		0.000000								
	ORIGX3		0.000000	0.000000	1.000000		0.000000								
	SCALE1		0.009804	0.005660	0.000000		0.000000								
55	SCALE2		0.000000	0.011321	0.000000		0.000000								
	SCALE3		0.000000	0.000000	0.009671		0.000000								
	ATOM	1	N	GLY A	20	-43.410	5.450	17.529	1.00	35.07					N
	ANISOU	1	N	GLY A	20	5059	1799	6466	146	-763	-615				N
	ATOM	2	CA	GLY A	20	-43.645	4.374	18.478	1.00	35.46					C

	ANISOU	2	CA	GLY	A	20	5087	2049	6337	252	-773	-766	C
	ATOM	3	C	GLY	A	20	-42.796	4.534	19.725	1.00	36.84		C
	ANISOU	3	C	GLY	A	20	5258	2240	6501	219	-860	-1014	C
	ATOM	4	O	GLY	A	20	-42.143	5.560	19.922	1.00	39.23		O
5	ANISOU	4	O	GLY	A	20	5571	2386	6947	119	-916	-1093	O
	ATOM	5	N	ALA	A	21	-42.803	3.521	20.580	1.00	37.52		N
	ANISOU	5	N	ALA	A	21	5333	2515	6408	304	-879	-1137	N
	ATOM	6	CA	ALA	A	21	-41.994	3.571	21.793	1.00	41.31		C
	ANISOU	6	CA	ALA	A	21	5813	3050	6834	293	-984	-1374	C
10	ATOM	7	C	ALA	A	21	-40.606	2.995	21.524	1.00	38.94		C
	ANISOU	7	C	ALA	A	21	5407	2809	6579	141	-1061	-1364	C
	ATOM	8	O	ALA	A	21	-40.368	2.398	20.476	1.00	35.96		O
	ANISOU	8	O	ALA	A	21	4967	2449	6246	67	-1011	-1182	O
	ATOM	9	CB	ALA	A	21	-42.683	2.818	22.924	1.00	40.16		C
15	ANISOU	9	CB	ALA	A	21	5722	3087	6449	477	-968	-1506	C
	ATOM	10	N	MET	A	22	-39.697	3.189	22.470	1.00	35.64		N
	ANISOU	10	N	MET	A	22	4959	2430	6151	99	-1186	-1567	N
	ATOM	11	CA	MET	A	22	-38.380	2.579	22.414	1.00	35.55		C
	ANISOU	11	CA	MET	A	22	4820	2515	6173	-19	-1280	-1596	C
20	ATOM	12	C	MET	A	22	-38.509	1.064	22.410	1.00	39.66		C
	ANISOU	12	C	MET	A	22	5332	3229	6507	88	-1259	-1546	C
	ATOM	13	O	MET	A	22	-39.216	0.487	23.234	1.00	35.63		O
	ANISOU	13	O	MET	A	22	4917	2843	5777	263	-1249	-1619	O
	ATOM	14	CB	MET	A	22	-37.526	3.045	23.594	1.00	38.08		C
25	ANISOU	14	CB	MET	A	22	5113	2878	6479	-48	-1440	-1844	C
	ATOM	15	CG	MET	A	22	-36.884	4.408	23.380	1.00	40.88		C
	ANISOU	15	CG	MET	A	22	5423	3028	7083	-230	-1482	-1881	C
	ATOM	16	SD	MET	A	22	-35.433	4.265	22.310	1.00	41.21		S
	ANISOU	16	SD	MET	A	22	5244	3058	7357	-486	-1493	-1744	S
30	ATOM	17	CE	MET	A	22	-34.882	5.962	22.259	1.00	45.09		C
	ANISOU	17	CE	MET	A	22	5726	3290	8116	-684	-1527	-1797	C
	ATOM	18	N	ALA	A	23	-37.841	0.422	21.461	1.00	31.99		N
	ANISOU	18	N	ALA	A	23	4240	2333	5582	-13	-1207	-1372	N
	ATOM	19	CA	ALA	A	23	-37.972	-1.015	21.313	1.00	29.92		C
35	ANISOU	19	CA	ALA	A	23	3961	2301	5107	88	-1127	-1246	C
	ATOM	20	C	ALA	A	23	-36.633	-1.648	20.998	1.00	30.05		C
	ANISOU	20	C	ALA	A	23	3810	2456	5153	1	-1160	-1207	C
	ATOM	21	O	ALA	A	23	-35.717	-0.989	20.527	1.00	33.55		O
	ANISOU	21	O	ALA	A	23	4126	2822	5800	-168	-1193	-1210	O
40	ATOM	22	CB	ALA	A	23	-38.990	-1.349	20.220	1.00	27.99		C
	ANISOU	22	CB	ALA	A	23	3766	2027	4841	114	-966	-1026	C
	ATOM	23	N	GLN	A	24	-36.519	-2.934	21.275	1.00	30.32		N
	ANISOU	23	N	GLN	A	24	3836	2691	4995	120	-1144	-1166	N
	ATOM	24	CA	GLN	A	24	-35.381	-3.681	20.792	1.00	33.01		C
45	ANISOU	24	CA	GLN	A	24	4013	3166	5362	76	-1142	-1101	C
	ATOM	25	C	GLN	A	24	-35.699	-4.138	19.383	1.00	31.34		C
	ANISOU	25	C	GLN	A	24	3790	2946	5172	35	-965	-891	C
	ATOM	26	O	GLN	A	24	-36.788	-4.660	19.121	1.00	25.74		O
	ANISOU	26	O	GLN	A	24	3205	2231	4342	122	-872	-798	O
50	ATOM	27	CB	GLN	A	24	-35.092	-4.882	21.680	1.00	38.54		C
	ANISOU	27	CB	GLN	A	24	4723	4063	5859	243	-1210	-1140	C
	ATOM	28	CG	GLN	A	24	-33.975	-5.748	21.144	1.00	45.93		C
	ANISOU	28	CG	GLN	A	24	5489	5135	6829	239	-1198	-1070	C
	ATOM	29	CD	GLN	A	24	-33.617	-6.867	22.085	1.00	54.22		C
55	ANISOU	29	CD	GLN	A	24	6552	6353	7697	420	-1292	-1102	C
	ATOM	30	OE1	GLN	A	24	-33.936	-6.819	23.277	1.00	60.83		O
	ANISOU	30	OE1	GLN	A	24	7499	7229	8385	522	-1402	-1203	O
	ATOM	31	NE2	GLN	A	24	-32.948	-7.887	21.560	1.00	51.44		N
	ANISOU	31	NE2	GLN	A	24	6096	6103	7346	477	-1245	-1012	N

5	ATOM	32	N	ASN	A	25	-34.754	-3.914	18.476	1.00	33.17	N	
	ANISOU	32	N	ASN	A	25	3865	3184	5553	-103	-920	-822	N
	ATOM	33	CA	ASN	A	25	-34.904	-4.309	17.084	1.00	38.26	C	
	ANISOU	33	CA	ASN	A	25	4494	3848	6193	-144	-753	-636	C
	ATOM	34	C	ASN	A	25	-34.615	-5.799	16.904	1.00	38.47	C	
	ANISOU	34	C	ASN	A	25	4489	4053	6074	-19	-700	-599	C
10	ATOM	35	O	ASN	A	25	-33.581	-6.300	17.340	1.00	44.63	O	
	ANISOU	35	O	ASN	A	25	5137	4955	6865	20	-765	-670	O
	ATOM	36	CB	ASN	A	25	-33.972	-3.474	16.211	1.00	50.22	C	
	ANISOU	36	CB	ASN	A	25	5854	5317	7910	-340	-699	-568	C
	ATOM	37	CG	ASN	A	25	-34.158	-3.745	14.737	1.00	60.50	C	
	ANISOU	37	CG	ASN	A	25	7162	6651	9173	-382	-518	-371	C
15	ATOM	38	OD1	ASN	A	25	-35.234	-3.504	14.183	1.00	65.38	O	
	ANISOU	38	OD1	ASN	A	25	7928	7179	9736	-366	-461	-267	O
	ATOM	39	ND2	ASN	A	25	-33.104	-4.237	14.083	1.00	61.11	N	
	ANISOU	39	ND2	ASN	A	25	7071	6875	9272	-424	-431	-325	N
	ATOM	40	N	ILE	A	26	-35.551	-6.512	16.298	1.00	31.17	N	
	ANISOU	40	N	ILE	A	26	3686	3134	5023	53	-598	-498	N
20	ATOM	41	CA	ILE	A	26	-35.373	-7.931	16.029	1.00	28.51	C	
	ANISOU	41	CA	ILE	A	26	3346	2919	4568	168	-541	-468	C
	ATOM	42	C	ILE	A	26	-35.510	-8.174	14.526	1.00	29.70	C	
	ANISOU	42	C	ILE	A	26	3495	3091	4699	114	-392	-348	C
	ATOM	43	O	ILE	A	26	-36.497	-7.763	13.906	1.00	28.10	O	
	ANISOU	43	O	ILE	A	26	3396	2811	4469	70	-343	-267	O
25	ATOM	44	CB	ILE	A	26	-36.442	-8.781	16.750	1.00	27.11	C	
	ANISOU	44	CB	ILE	A	26	3334	2729	4239	306	-562	-476	C
	ATOM	45	CG1	ILE	A	26	-36.338	-8.641	18.274	1.00	28.59	C	
	ANISOU	45	CG1	ILE	A	26	3548	2930	4385	385	-698	-586	C
	ATOM	46	CG2	ILE	A	26	-36.340	-10.235	16.320	1.00	29.22	C	
	ANISOU	46	CG2	ILE	A	26	3619	3066	4415	406	-494	-434	C
30	ATOM	47	CD1	ILE	A	26	-35.017	-9.134	18.873	1.00	24.48	C	
	ANISOU	47	CD1	ILE	A	26	2899	2529	3872	451	-796	-658	C
	ATOM	48	N	THR	A	27	-34.512	-8.813	13.934	1.00	32.43	N	
	ANISOU	48	N	THR	A	27	3717	3554	5050	131	-323	-342	N
	ATOM	49	CA	THR	A	27	-34.608	-9.228	12.538	1.00	34.82	C	
	ANISOU	49	CA	THR	A	27	4035	3911	5284	112	-175	-255	C
40	ATOM	50	C	THR	A	27	-34.707	-10.746	12.510	1.00	35.45	C	
	ANISOU	50	C	THR	A	27	4174	4048	5247	270	-151	-300	C
	ATOM	51	O	THR	A	27	-33.818	-11.445	12.986	1.00	38.13	O	
	ANISOU	51	O	THR	A	27	4418	4459	5610	369	-179	-367	O
	ATOM	52	CB	THR	A	27	-33.394	-8.785	11.704	1.00	36.62	C	
	ANISOU	52	CB	THR	A	27	4074	4238	5601	11	-71	-213	C
45	ATOM	53	OG1	THR	A	27	-32.255	-9.564	12.080	1.00	39.98	O	
	ANISOU	53	OG1	THR	A	27	4341	4787	6064	105	-82	-302	O
	ATOM	54	CG2	THR	A	27	-33.097	-7.302	11.916	1.00	31.66	C	
	ANISOU	54	CG2	THR	A	27	3367	3521	5142	-162	-111	-178	C
	ATOM	55	N	ALA	A	28	-35.809	-11.248	11.971	1.00	32.15	N	
	ANISOU	55	N	ALA	A	28	3911	3585	4718	293	-112	-264	N
50	ATOM	56	CA	ALA	A	28	-36.089	-12.670	11.990	1.00	30.06	C	
	ANISOU	56	CA	ALA	A	28	3734	3320	4367	421	-100	-311	C
	ATOM	57	C	ALA	A	28	-36.194	-13.182	10.560	1.00	28.08	C	
	ANISOU	57	C	ALA	A	28	3519	3127	4024	415	16	-302	C
	ATOM	58	O	ALA	A	28	-36.842	-12.565	9.727	1.00	24.61	O	
	ANISOU	58	O	ALA	A	28	3130	2689	3531	321	51	-234	O
55	ATOM	59	CB	ALA	A	28	-37.390	-12.937	12.749	1.00	27.56	C	
	ANISOU	59	CB	ALA	A	28	3568	2894	4008	447	-170	-303	C
	ATOM	60	N	ARG	A	29	-35.567	-14.318	10.285	1.00	27.71	N	
	ANISOU	60	N	ARG	A	29	3453	3126	3948	530	68	-376	N
	ATOM	61	CA	ARG	A	29	-35.575	-14.875	8.943	1.00	26.64	C	

	ANISOU	61	CA	ARG	A	29	3359	3059	3704	544	180	-407	C
	ATOM	62	C	ARG	A	29	-36.827	-15.710	8.719	1.00	29.28		C
	ANISOU	62	C	ARG	A	29	3878	3292	3955	562	143	-443	C
	ATOM	63	O	ARG	A	29	-37.182	-16.553	9.555	1.00	30.47		O
5	ANISOU	63	O	ARG	A	29	4102	3327	4147	636	78	-481	O
	ATOM	64	CB	ARG	A	29	-34.324	-15.716	8.729	1.00	27.81		C
	ANISOU	64	CB	ARG	A	29	3398	3296	3873	678	260	-498	C
	ATOM	65	CG	ARG	A	29	-34.151	-16.256	7.333	1.00	30.13		C
	ANISOU	65	CG	ARG	A	29	3722	3688	4037	714	397	-560	C
10	ATOM	66	CD	ARG	A	29	-32.743	-16.805	7.172	1.00	33.58		C
	ANISOU	66	CD	ARG	A	29	3994	4242	4523	850	498	-642	C
	ATOM	67	NE	ARG	A	29	-32.544	-17.405	5.861	1.00	40.83		N
	ANISOU	67	NE	ARG	A	29	4950	5266	5298	913	647	-731	N
	ATOM	68	CZ	ARG	A	29	-31.398	-17.933	5.441	1.00	45.86		C
15	ANISOU	68	CZ	ARG	A	29	5450	6031	5945	1049	776	-823	C
	ATOM	69	NH1	ARG	A	29	-30.334	-17.948	6.232	1.00	46.33		N
	ANISOU	69	NH1	ARG	A	29	5305	6130	6170	1134	759	-827	N
	ATOM	70	NH2	ARG	A	29	-31.321	-18.453	4.226	1.00	48.36		N
	ANISOU	70	NH2	ARG	A	29	5827	6450	6099	1112	918	-922	N
20	ATOM	71	N	ILE	A	30	-37.495	-15.452	7.596	1.00	25.17		N
	ANISOU	71	N	ILE	A	30	3427	2817	3318	485	180	-422	N
	ATOM	72	CA	ILE	A	30	-38.702	-16.174	7.195	1.00	23.66		C
	ANISOU	72	CA	ILE	A	30	3386	2553	3051	475	132	-472	C
	ATOM	73	C	ILE	A	30	-38.491	-17.696	7.183	1.00	25.78		C
25	ANISOU	73	C	ILE	A	30	3726	2749	3322	592	147	-613	C
	ATOM	74	O	ILE	A	30	-37.493	-18.186	6.657	1.00	25.56		O
	ANISOU	74	O	ILE	A	30	3654	2795	3262	686	238	-696	O
	ATOM	75	CB	ILE	A	30	-39.169	-15.704	5.801	1.00	24.14		C
	ANISOU	75	CB	ILE	A	30	3493	2727	2951	400	166	-444	C
30	ATOM	76	CG1	ILE	A	30	-39.688	-14.269	5.873	1.00	26.14		C
	ANISOU	76	CG1	ILE	A	30	3715	2990	3225	292	123	-285	C
	ATOM	77	CG2	ILE	A	30	-40.232	-16.642	5.227	1.00	24.50		C
	ANISOU	77	CG2	ILE	A	30	3673	2725	2909	397	106	-546	C
	ATOM	78	CD1	ILE	A	30	-39.706	-13.558	4.522	1.00	27.81		C
35	ANISOU	78	CD1	ILE	A	30	3946	3343	3279	234	180	-200	C
	ATOM	79	N	GLY	A	31	-39.428	-18.437	7.775	1.00	25.01		N
	ANISOU	79	N	GLY	A	31	3731	2496	3277	588	69	-637	N
	ATOM	80	CA	GLY	A	31	-39.316	-19.885	7.839	1.00	25.88		C
	ANISOU	80	CA	GLY	A	31	3930	2479	3423	687	74	-756	C
40	ATOM	81	C	GLY	A	31	-38.625	-20.395	9.097	1.00	28.64		C
	ANISOU	81	C	GLY	A	31	4253	2731	3896	808	58	-727	C
	ATOM	82	O	GLY	A	31	-38.727	-21.577	9.448	1.00	29.61		O
	ANISOU	82	O	GLY	A	31	4474	2691	4085	886	42	-778	O
	ATOM	83	N	GLU	A	32	-37.920	-19.508	9.787	1.00	26.16		N
45	ANISOU	83	N	GLU	A	32	3814	2507	3618	822	51	-642	N
	ATOM	84	CA	GLU	A	32	-37.218	-19.899	11.005	1.00	32.16		C
	ANISOU	84	CA	GLU	A	32	4539	3212	4468	947	9	-610	C
	ATOM	85	C	GLU	A	32	-37.998	-19.553	12.279	1.00	32.36		C
	ANISOU	85	C	GLU	A	32	4611	3163	4520	897	-74	-501	C
50	ATOM	86	O	GLU	A	32	-38.759	-18.589	12.305	1.00	31.47		O
	ANISOU	86	O	GLU	A	32	4489	3088	4381	771	-93	-447	O
	ATOM	87	CB	GLU	A	32	-35.822	-19.280	11.039	1.00	34.17		C
	ANISOU	87	CB	GLU	A	32	4607	3626	4750	1011	36	-615	C
	ATOM	88	CG	GLU	A	32	-34.829	-20.004	10.145	1.00	43.73		C
55	ANISOU	88	CG	GLU	A	32	5760	4900	5957	1138	132	-728	C
	ATOM	89	CD	GLU	A	32	-33.421	-19.497	10.335	1.00	52.95		C
	ANISOU	89	CD	GLU	A	32	6703	6228	7186	1207	158	-727	C
	ATOM	90	OE1	GLU	A	32	-33.161	-18.819	11.354	1.00	54.23		O
	ANISOU	90	OE1	GLU	A	32	6778	6418	7410	1182	66	-655	O

5	ATOM	91	OE2	GLU	A	32	-32.575	-19.768	9.459	1.00	59.59	O	
	ANISOU	91	OE2	GLU	A	32	7447	7181	8014	1285	272	-810	O
	ATOM	92	N	PRO	A	33	-37.812	-20.351	13.339	1.00	30.95	N	
	ANISOU	92	N	PRO	A	33	4489	2883	4388	1012	-118	-464	N
	ATOM	93	CA	PRO	A	33	-38.518	-20.075	14.590	1.00	27.04	C	
	ANISOU	93	CA	PRO	A	33	4048	2344	3884	981	-176	-358	C
10	ATOM	94	C	PRO	A	33	-38.029	-18.783	15.219	1.00	25.91	C	
	ANISOU	94	C	PRO	A	33	3783	2342	3721	961	-230	-333	C
	ATOM	95	O	PRO	A	33	-36.913	-18.345	14.956	1.00	24.59	O	
	ANISOU	95	O	PRO	A	33	3480	2285	3578	1000	-237	-381	O
	ATOM	96	CB	PRO	A	33	-38.126	-21.261	15.481	1.00	28.06	C	
	ANISOU	96	CB	PRO	A	33	4262	2354	4045	1140	-206	-312	C
15	ATOM	97	CG	PRO	A	33	-36.801	-21.709	14.936	1.00	32.38	C	
	ANISOU	97	CG	PRO	A	33	4723	2945	4635	1286	-196	-400	C
	ATOM	98	CD	PRO	A	33	-36.921	-21.522	13.452	1.00	31.86	C	
	ANISOU	98	CD	PRO	A	33	4624	2925	4555	1195	-113	-509	C
	ATOM	99	N	LEU	A	34	-38.866	-18.185	16.054	1.00	26.48	N	
	ANISOU	99	N	LEU	A	34	3896	2406	3758	898	-262	-270	N
20	ATOM	100	CA	LEU	A	34	-38.498	-16.983	16.777	1.00	27.79	C	
	ANISOU	100	CA	LEU	A	34	3976	2675	3908	883	-327	-272	C
	ATOM	101	C	LEU	A	34	-38.994	-17.088	18.216	1.00	32.34	C	
	ANISOU	101	C	LEU	A	34	4642	3231	4415	939	-374	-209	C
	ATOM	102	O	LEU	A	34	-40.158	-17.402	18.457	1.00	31.72	O	
	ANISOU	102	O	LEU	A	34	4666	3080	4308	895	-324	-148	O
25	ATOM	103	CB	LEU	A	34	-39.094	-15.744	16.102	1.00	23.38	C	
	ANISOU	103	CB	LEU	A	34	3370	2149	3364	735	-302	-284	C
	ATOM	104	CG	LEU	A	34	-38.873	-14.424	16.851	1.00	26.85	C	
	ANISOU	104	CG	LEU	A	34	3743	2647	3813	703	-371	-303	C
	ATOM	105	CD1	LEU	A	34	-37.378	-14.098	16.958	1.00	25.44	C	
	ANISOU	105	CD1	LEU	A	34	3423	2557	3685	740	-429	-360	C
30	ATOM	106	CD2	LEU	A	34	-39.635	-13.273	16.192	1.00	19.37	C	
	ANISOU	106	CD2	LEU	A	34	2780	1683	2897	575	-344	-292	C
	ATOM	107	N	VAL	A	35	-38.096	-16.841	19.165	1.00	33.36	N	
	ANISOU	107	N	VAL	A	35	4723	3442	4509	1037	-469	-226	N
	ATOM	108	CA	VAL	A	35	-38.444	-16.809	20.578	1.00	29.84	C	
	ANISOU	108	CA	VAL	A	35	4366	3021	3952	1105	-522	-176	C
35	ATOM	109	C	VAL	A	35	-38.207	-15.396	21.103	1.00	28.41	C	
	ANISOU	109	C	VAL	A	35	4105	2943	3748	1061	-604	-264	C
	ATOM	110	O	VAL	A	35	-37.114	-14.849	20.963	1.00	29.37	O	
	ANISOU	110	O	VAL	A	35	4091	3139	3930	1062	-687	-347	O
	ATOM	111	CB	VAL	A	35	-37.584	-17.813	21.400	1.00	24.52	C	
	ANISOU	111	CB	VAL	A	35	3731	2362	3223	1289	-600	-122	C
40	ATOM	112	CG1	VAL	A	35	-37.936	-17.738	22.894	1.00	25.63	C	
	ANISOU	112	CG1	VAL	A	35	3982	2561	3197	1368	-655	-58	C
	ATOM	113	CG2	VAL	A	35	-37.755	-19.234	20.875	1.00	24.94	C	
	ANISOU	113	CG2	VAL	A	35	3878	2268	3331	1342	-522	-45	C
	ATOM	114	N	LEU	A	36	-39.236	-14.797	21.692	1.00	28.51	N	
	ANISOU	114	N	LEU	A	36	4191	2951	3690	1018	-577	-257	N
45	ATOM	115	CA	LEU	A	36	-39.117	-13.461	22.275	1.00	26.46	C	
	ANISOU	115	CA	LEU	A	36	3886	2757	3411	988	-656	-365	C
	ATOM	116	C	LEU	A	36	-39.238	-13.568	23.786	1.00	28.42	C	
	ANISOU	116	C	LEU	A	36	4236	3086	3475	1108	-717	-363	C
	ATOM	117	O	LEU	A	36	-40.188	-14.164	24.292	1.00	27.78	O	
	ANISOU	117	O	LEU	A	36	4278	2988	3289	1146	-625	-263	O
50	ATOM	118	CB	LEU	A	36	-40.204	-12.533	21.721	1.00	23.25	C	
	ANISOU	118	CB	LEU	A	36	3481	2287	3067	868	-577	-383	C
	ATOM	119	CG	LEU	A	36	-40.145	-12.223	20.219	1.00	24.48	C	
	ANISOU	119	CG	LEU	A	36	3550	2383	3369	749	-527	-375	C
	ATOM	120	CD1	LEU	A	36	-41.314	-11.340	19.801	1.00	22.86	C	

	ANISOU	120	CD1	LEU	A	36	3359	2118	3209	665	-470	-370	C
	ATOM	121	CD2	LEU	A	36	-38.819	-11.553	19.838	1.00	25.32		C
	ANISOU	121	CD2	LEU	A	36	3521	2526	3572	706	-606	-451	C
	ATOM	122	N	LYS	A	37	-38.267	-13.017	24.507	1.00	31.49		N
5	ANISOU	122	N	LYS	A	37	4570	3574	3819	1163	-870	-472	N
	ATOM	123	CA	LYS	A	37	-38.265	-13.109	25.958	1.00	34.86		C
	ANISOU	123	CA	LYS	A	37	5102	4112	4030	1295	-952	-485	C
	ATOM	124	C	LYS	A	37	-39.261	-12.134	26.564	1.00	33.14		C
	ANISOU	124	C	LYS	A	37	4960	3907	3723	1266	-908	-567	C
10	ATOM	125	O	LYS	A	37	-39.408	-11.009	26.091	1.00	34.47		O
	ANISOU	125	O	LYS	A	37	5058	4018	4021	1160	-913	-686	O
	ATOM	126	CB	LYS	A	37	-36.877	-12.803	26.514	1.00	46.77		C
	ANISOU	126	CB	LYS	A	37	6510	5742	5518	1363	-1164	-604	C
	ATOM	127	CG	LYS	A	37	-35.787	-13.752	26.062	1.00	55.16		C
15	ANISOU	127	CG	LYS	A	37	7473	6821	6663	1435	-1222	-537	C
	ATOM	128	CD	LYS	A	37	-34.408	-13.187	26.393	1.00	60.41		C
	ANISOU	128	CD	LYS	A	37	7965	7613	7376	1457	-1435	-685	C
	ATOM	129	CE	LYS	A	37	-33.304	-14.171	26.054	1.00	62.29		C
	ANISOU	129	CE	LYS	A	37	8082	7894	7691	1569	-1494	-621	C
20	ATOM	130	NZ	LYS	A	37	-33.332	-15.340	26.974	1.00	65.54		N
	ANISOU	130	NZ	LYS	A	37	8646	8351	7906	1783	-1542	-480	N
	ATOM	131	N	CYS	A	38	-39.951	-12.576	27.608	1.00	34.49		N
	ANISOU	131	N	CYS	A	38	5279	4151	3676	1371	-852	-495	N
	ATOM	132	CA	CYS	A	38	-40.756	-11.677	28.424	1.00	38.46		C
25	ANISOU	132	CA	CYS	A	38	5857	4711	4047	1392	-818	-601	C
	ATOM	133	C	CYS	A	38	-39.968	-11.358	29.692	1.00	41.75		C
	ANISOU	133	C	CYS	A	38	6326	5290	4247	1519	-999	-730	C
	ATOM	134	O	CYS	A	38	-39.912	-12.166	30.621	1.00	43.20		O
	ANISOU	134	O	CYS	A	38	6628	5592	4194	1656	-1010	-623	O
30	ATOM	135	CB	CYS	A	38	-42.104	-12.313	28.778	1.00	38.30		C
	ANISOU	135	CB	CYS	A	38	5951	4695	3906	1422	-611	-443	C
	ATOM	136	SG	CYS	A	38	-43.204	-11.241	29.750	1.00	52.02		S
	ANISOU	136	SG	CYS	A	38	7764	6524	5479	1475	-522	-578	S
	ATOM	137	N	LYS	A	39	-39.338	-10.191	29.718	1.00	43.79		N
35	ANISOU	137	N	LYS	A	39	6500	5550	4589	1469	-1152	-955	N
	ATOM	138	CA	LYS	A	39	-38.506	-9.804	30.852	1.00	46.82		C
	ANISOU	138	CA	LYS	A	39	6912	6091	4787	1570	-1366	-1123	C
	ATOM	139	C	LYS	A	39	-39.342	-9.616	32.116	1.00	46.93		C
	ANISOU	139	C	LYS	A	39	7109	6236	4487	1699	-1311	-1174	C
40	ATOM	140	O	LYS	A	39	-40.495	-9.179	32.050	1.00	45.57		O
	ANISOU	140	O	LYS	A	39	6990	6004	4320	1674	-1134	-1186	O
	ATOM	141	CB	LYS	A	39	-37.737	-8.519	30.535	1.00	51.25		C
	ANISOU	141	CB	LYS	A	39	7332	6588	5552	1448	-1532	-1371	C
	ATOM	142	CG	LYS	A	39	-36.876	-8.607	29.276	1.00	54.16		C
45	ANISOU	142	CG	LYS	A	39	7504	6852	6224	1311	-1561	-1320	C
	ATOM	143	CD	LYS	A	39	-36.213	-7.272	28.953	1.00	57.11		C
	ANISOU	143	CD	LYS	A	39	7740	7139	6821	1160	-1692	-1538	C
	ATOM	144	CE	LYS	A	39	-37.255	-6.170	28.782	1.00	59.31		C
	ANISOU	144	CE	LYS	A	39	8093	7262	7179	1086	-1586	-1634	C
50	ATOM	145	NZ	LYS	A	39	-36.684	-4.885	28.264	1.00	61.29		N
	ANISOU	145	NZ	LYS	A	39	8221	7360	7705	912	-1683	-1801	N
	ATOM	146	N	GLY	A	40	-38.764	-9.964	33.264	1.00	46.11		N
	ANISOU	146	N	GLY	A	40	7096	6327	4096	1852	-1461	-1200	N
	ATOM	147	CA	GLY	A	40	-39.408	-9.727	34.545	1.00	49.76		C
55	ANISOU	147	CA	GLY	A	40	7741	6957	4209	1991	-1426	-1273	C
	ATOM	148	C	GLY	A	40	-40.550	-10.669	34.891	1.00	53.36		C
	ANISOU	148	C	GLY	A	40	8343	7460	4470	2069	-1162	-1009	C
	ATOM	149	O	GLY	A	40	-41.373	-10.360	35.750	1.00	56.19		O
	ANISOU	149	O	GLY	A	40	8833	7937	4579	2157	-1047	-1060	O

5	ATOM	150	N	ALA	A	41	-40.614	-11.813	34.217	1.00	53.29	N	
	ANISOU	150	N	ALA	A	41	8309	7354	4585	2032	-1057	-735	N
	ATOM	151	CA	ALA	A	41	-41.623	-12.821	34.529	1.00	51.35	C	
	ANISOU	151	CA	ALA	A	41	8192	7128	4189	2078	-814	-460	C
	ATOM	152	C	ALA	A	41	-40.987	-13.963	35.321	1.00	52.02	C	
	ANISOU	152	C	ALA	A	41	8406	7335	4026	2235	-899	-253	C
10	ATOM	153	O	ALA	A	41	-39.815	-14.280	35.120	1.00	52.01	O	
	ANISOU	153	O	ALA	A	41	8337	7326	4098	2274	-1112	-259	O
	ATOM	154	CB	ALA	A	41	-42.256	-13.346	33.253	1.00	47.07	C	
	ANISOU	154	CB	ALA	A	41	7553	6368	3962	1921	-633	-300	C
	ATOM	155	N	PRO	A	42	-41.753	-14.574	36.237	1.00	51.47	N	
	ANISOU	155	N	PRO	A	42	8513	7381	3660	2334	-729	-57	N
15	ATOM	156	CA	PRO	A	42	-41.247	-15.738	36.972	1.00	53.75	C	
	ANISOU	156	CA	PRO	A	42	8951	7760	3712	2489	-788	199	C
	ATOM	157	C	PRO	A	42	-40.845	-16.857	36.014	1.00	51.73	C	
	ANISOU	157	C	PRO	A	42	8631	7280	3742	2433	-785	414	C
	ATOM	158	O	PRO	A	42	-41.349	-16.904	34.894	1.00	50.55	O	
	ANISOU	158	O	PRO	A	42	8368	6928	3912	2263	-650	422	O
20	ATOM	159	CB	PRO	A	42	-42.451	-16.161	37.819	1.00	54.94	C	
	ANISOU	159	CB	PRO	A	42	9279	8015	3580	2536	-509	408	C
	ATOM	160	CG	PRO	A	42	-43.238	-14.913	38.007	1.00	48.45	C	
	ANISOU	160	CG	PRO	A	42	8419	7282	2709	2494	-407	147	C
	ATOM	161	CD	PRO	A	42	-43.087	-14.162	36.709	1.00	53.29	C	
	ANISOU	161	CD	PRO	A	42	8816	7687	3747	2323	-475	-64	C
25	ATOM	162	N	LYS	A	43	-39.945	-17.733	36.451	1.00	53.84	N	
	ANISOU	162	N	LYS	A	43	8967	7585	3904	2579	-936	570	N
	ATOM	163	CA	LYS	A	43	-39.416	-18.809	35.610	1.00	54.66	C	
	ANISOU	163	CA	LYS	A	43	9018	7476	4276	2566	-958	744	C
	ATOM	164	C	LYS	A	43	-40.478	-19.775	35.087	1.00	55.33	C	
	ANISOU	164	C	LYS	A	43	9185	7341	4496	2463	-679	1012	C
30	ATOM	165	O	LYS	A	43	-40.365	-20.290	33.976	1.00	54.49	O	
	ANISOU	165	O	LYS	A	43	8984	7009	4711	2364	-647	1042	O
	ATOM	166	CB	LYS	A	43	-38.354	-19.599	36.375	1.00	56.44	C	
	ANISOU	166	CB	LYS	A	43	9254	7770	4423	2696	-1115	843	C
	ATOM	167	CG	LYS	A	43	-37.076	-18.832	36.646	1.00	56.04	C	
	ANISOU	167	CG	LYS	A	43	9057	7886	4349	2768	-1415	583	C
35	ATOM	168	CD	LYS	A	43	-36.119	-19.671	37.477	1.00	58.44	C	
	ANISOU	168	CD	LYS	A	43	9383	8272	4552	2911	-1558	712	C
	ATOM	169	CE	LYS	A	43	-34.772	-18.995	37.613	1.00	58.74	C	
	ANISOU	169	CE	LYS	A	43	9235	8459	4626	2963	-1858	462	C
	ATOM	170	NZ	LYS	A	43	-33.921	-19.687	38.613	1.00	64.03	N	
	ANISOU	170	NZ	LYS	A	43	9938	9253	5136	3117	-2009	580	N
40	ATOM	171	N	LYS	A	44	-41.503	-20.023	35.893	1.00	58.55	N	
	ANISOU	171	N	LYS	A	44	9734	7816	4694	2451	-463	1180	N
	ATOM	172	CA	LYS	A	44	-42.545	-20.977	35.536	1.00	62.40	C	
	ANISOU	172	CA	LYS	A	44	10288	8104	5318	2328	-192	1445	C
	ATOM	173	C	LYS	A	44	-43.889	-20.495	36.075	1.00	66.02	C	
	ANISOU	173	C	LYS	A	44	10800	8687	5598	2259	64	1478	C
45	ATOM	174	O	LYS	A	44	-43.923	-19.639	36.961	1.00	68.68	O	
	ANISOU	174	O	LYS	A	44	11171	9275	5650	2351	31	1333	O
	ATOM	175	CB	LYS	A	44	-42.195	-22.374	36.079	1.00	65.55	C	
	ANISOU	175	CB	LYS	A	44	10774	8409	5722	2370	-182	1710	C
	ATOM	176	CG	LYS	A	44	-41.768	-22.386	37.532	1.00	71.99	C	
	ANISOU	176	CG	LYS	A	44	11687	9466	6199	2519	-268	1758	C
50	ATOM	177	CD	LYS	A	44	-41.086	-23.695	37.926	1.00	77.12	C	
	ANISOU	177	CD	LYS	A	44	12407	10012	6883	2595	-341	1991	C
	ATOM	178	CE	LYS	A	44	-42.084	-24.831	38.104	1.00	79.80	C	
	ANISOU	178	CE	LYS	A	44	12863	10179	7279	2481	-83	2313	C
	ATOM	179	NZ	LYS	A	44	-41.474	-25.993	38.814	1.00	83.50	N	
													N

	ANISOU	179	NZ	LYS	A	44	13439	10595	7694	2581	-161	2553	N
	ATOM	180	N	PRO	A	45	-45.001	-21.018	35.522	1.00	65.78		N
	ANISOU	180	N	PRO	A	45	10736	8482	5775	2077	320	1628	N
	ATOM	181	CA	PRO	A	45	-46.346	-20.694	36.020	1.00	64.59		C
5	ANISOU	181	CA	PRO	A	45	10590	8450	5502	1996	600	1682	C
	ATOM	182	C	PRO	A	45	-46.485	-20.925	37.526	1.00	67.55		C
	ANISOU	182	C	PRO	A	45	11121	9051	5495	2121	681	1834	C
	ATOM	183	O	PRO	A	45	-45.768	-21.762	38.077	1.00	69.58		O
	ANISOU	183	O	PRO	A	45	11462	9283	5691	2194	569	1981	O
10	ATOM	184	CB	PRO	A	45	-47.237	-21.668	35.248	1.00	64.54		C
	ANISOU	184	CB	PRO	A	45	10536	8182	5802	1788	812	1894	C
	ATOM	185	CG	PRO	A	45	-46.522	-21.847	33.945	1.00	62.16		C
	ANISOU	185	CG	PRO	A	45	10122	7648	5850	1718	627	1762	C
	ATOM	186	CD	PRO	A	45	-45.054	-21.832	34.290	1.00	62.39		C
15	ANISOU	186	CD	PRO	A	45	10227	7743	5736	1926	348	1701	C
	ATOM	187	N	PRO	A	46	-47.390	-20.182	38.189	1.00	67.54		N
	ANISOU	187	N	PRO	A	46	11112	9266	5286	2126	865	1761	N
	ATOM	188	CA	PRO	A	46	-48.279	-19.170	37.599	1.00	64.71		C
	ANISOU	188	CA	PRO	A	46	10609	8940	5038	2037	1000	1558	C
20	ATOM	189	C	PRO	A	46	-47.570	-17.843	37.323	1.00	61.75		C
	ANISOU	189	C	PRO	A	46	10137	8637	4688	2103	748	1158	C
	ATOM	190	O	PRO	A	46	-46.731	-17.413	38.114	1.00	66.14		O
	ANISOU	190	O	PRO	A	46	10802	9372	4956	2278	556	1034	O
	ATOM	191	CB	PRO	A	46	-49.342	-18.979	38.682	1.00	66.60		C
25	ANISOU	191	CB	PRO	A	46	10884	9411	5012	2061	1276	1631	C
	ATOM	192	CG	PRO	A	46	-48.617	-19.244	39.946	1.00	69.14		C
	ANISOU	192	CG	PRO	A	46	11345	9894	5030	2204	1143	1677	C
	ATOM	193	CD	PRO	A	46	-47.626	-20.338	39.635	1.00	69.51		C
	ANISOU	193	CD	PRO	A	46	11461	9739	5209	2207	956	1862	C
30	ATOM	194	N	GLN	A	47	-47.904	-17.209	36.207	1.00	57.50		N
	ANISOU	194	N	GLN	A	47	9398	7955	4494	1957	739	966	N
	ATOM	195	CA	GLN	A	47	-47.302	-15.931	35.844	1.00	56.69		C
	ANISOU	195	CA	GLN	A	47	9197	7874	4468	1987	523	611	C
	ATOM	196	C	GLN	A	47	-48.371	-14.912	35.460	1.00	54.48		C
35	ANISOU	196	C	GLN	A	47	8768	7600	4331	1910	670	428	C
	ATOM	197	O	GLN	A	47	-49.244	-15.196	34.635	1.00	49.86		O
	ANISOU	197	O	GLN	A	47	8053	6881	4013	1757	826	521	O
	ATOM	198	CB	GLN	A	47	-46.337	-16.104	34.668	1.00	53.18		C
	ANISOU	198	CB	GLN	A	47	8651	7215	4340	1903	303	552	C
40	ATOM	199	CG	GLN	A	47	-45.151	-17.013	34.930	1.00	52.82		C
	ANISOU	199	CG	GLN	A	47	8715	7150	4204	2004	122	691	C
	ATOM	200	CD	GLN	A	47	-44.796	-17.835	33.706	1.00	48.17		C
	ANISOU	200	CD	GLN	A	47	8041	6304	3955	1887	81	791	C
	ATOM	201	OE1	GLN	A	47	-45.678	-18.245	32.953	1.00	47.57		O
45	ANISOU	201	OE1	GLN	A	47	7898	6074	4101	1732	255	888	O
	ATOM	202	NE2	GLN	A	47	-43.505	-18.071	33.494	1.00	44.92		N
	ANISOU	202	NE2	GLN	A	47	7622	5857	3588	1966	-152	751	N
	ATOM	203	N	ARG	A	48	-48.303	-13.727	36.061	1.00	55.04		N
	ANISOU	203	N	ARG	A	48	8858	7824	4232	2026	607	157	N
50	ATOM	204	CA	ARG	A	48	-49.146	-12.615	35.634	1.00	51.55		C
	ANISOU	204	CA	ARG	A	48	8272	7355	3958	1986	696	-57	C
	ATOM	205	C	ARG	A	48	-48.484	-11.888	34.464	1.00	44.33		C
	ANISOU	205	C	ARG	A	48	7228	6239	3376	1891	472	-253	C
	ATOM	206	O	ARG	A	48	-47.848	-10.848	34.644	1.00	42.49		O
55	ANISOU	206	O	ARG	A	48	7007	6023	3114	1956	290	-521	O
	ATOM	207	CB	ARG	A	48	-49.406	-11.650	36.793	1.00	54.95		C
	ANISOU	207	CB	ARG	A	48	8793	8012	4071	2163	740	-279	C
	ATOM	208	CG	ARG	A	48	-50.361	-12.205	37.841	1.00	65.04		C
	ANISOU	208	CG	ARG	A	48	10165	9513	5037	2247	1040	-88	C

5	ATOM	209	CD	ARG	A	48	-50.242	-11.476	39.178	1.00	72.87	C	
	ANISOU	209	CD	ARG	A	48	11303	10762	5624	2448	1025	-295	C
	ATOM	210	NE	ARG	A	48	-48.962	-11.737	39.834	1.00	77.21	N	
	ANISOU	210	NE	ARG	A	48	11988	11371	5976	2512	749	-306	N
	ATOM	211	CZ	ARG	A	48	-48.639	-11.296	41.047	1.00	85.05	C	
	ANISOU	211	CZ	ARG	A	48	13066	12543	6707	2616	656	-446	C
10	ATOM	212	NH1	ARG	A	48	-49.503	-10.570	41.746	1.00	88.37	N	
	ANISOU	212	NH1	ARG	A	48	13467	13094	7016	2669	824	-593	N
	ATOM	213	NH2	ARG	A	48	-47.451	-11.583	41.564	1.00	87.49	N	
	ANISOU	213	NH2	ARG	A	48	13469	12904	6868	2671	395	-445	N
	ATOM	214	N	LEU	A	49	-48.613	-12.447	33.267	1.00	37.65	N	
	ANISOU	214	N	LEU	A	49	6264	5201	2841	1731	486	-119	N
15	ATOM	215	CA	LEU	A	49	-48.064	-11.785	32.098	1.00	40.09	C	
	ANISOU	215	CA	LEU	A	49	6451	5334	3447	1636	310	-272	C
	ATOM	216	C	LEU	A	49	-49.039	-11.768	30.931	1.00	37.67	C	
	ANISOU	216	C	LEU	A	49	5983	4887	3441	1494	429	-213	C
	ATOM	217	O	LEU	A	49	-49.953	-12.588	30.847	1.00	38.27	O	
	ANISOU	217	O	LEU	A	49	6026	4966	3549	1429	617	-20	O
20	ATOM	218	CB	LEU	A	49	-46.725	-12.400	31.676	1.00	39.85	C	
	ANISOU	218	CB	LEU	A	49	6445	5221	3476	1607	104	-221	C
	ATOM	219	CG	LEU	A	49	-46.706	-13.766	30.987	1.00	39.32	C	
	ANISOU	219	CG	LEU	A	49	6368	5032	3541	1512	159	28	C
	ATOM	220	CD1	LEU	A	49	-46.830	-13.645	29.484	1.00	35.13	C	
	ANISOU	220	CD1	LEU	A	49	5687	4318	3342	1357	138	3	C
25	ATOM	221	CD2	LEU	A	49	-45.432	-14.505	31.353	1.00	40.67	C	
	ANISOU	221	CD2	LEU	A	49	6633	5222	3597	1596	-7	98	C
	ATOM	222	N	GLU	A	50	-48.810	-10.841	30.015	1.00	36.69	N	
	ANISOU	222	N	GLU	A	50	5758	4639	3542	1437	308	-372	N
	ATOM	223	CA	GLU	A	50	-49.677	-10.691	28.869	1.00	39.20	C	
	ANISOU	223	CA	GLU	A	50	5927	4841	4127	1323	381	-333	C
30	ATOM	224	C	GLU	A	50	-48.868	-10.244	27.659	1.00	38.74	C	
	ANISOU	224	C	GLU	A	50	5803	4624	4293	1231	200	-406	C
	ATOM	225	O	GLU	A	50	-48.071	-9.306	27.756	1.00	40.55	O	
	ANISOU	225	O	GLU	A	50	6053	4826	4529	1269	52	-578	O
	ATOM	226	CB	GLU	A	50	-50.749	-9.660	29.193	1.00	40.87	C	
	ANISOU	226	CB	GLU	A	50	6073	5109	4345	1400	496	-458	C
35	ATOM	227	CG	GLU	A	50	-51.858	-9.601	28.186	1.00	45.51	C	
	ANISOU	227	CG	GLU	A	50	6492	5624	5177	1309	588	-390	C
	ATOM	228	CD	GLU	A	50	-52.860	-8.525	28.519	1.00	49.51	C	
	ANISOU	228	CD	GLU	A	50	6920	6184	5708	1421	690	-525	C
	ATOM	229	OE1	GLU	A	50	-53.920	-8.857	29.093	1.00	51.43	O	
	ANISOU	229	OE1	GLU	A	50	7105	6561	5875	1461	900	-451	O
40	ATOM	230	OE2	GLU	A	50	-52.577	-7.347	28.212	1.00	50.15	O	
	ANISOU	230	OE2	GLU	A	50	6994	6165	5893	1471	566	-702	O
	ATOM	231	N	TRP	A	51	-49.064	-10.913	26.526	1.00	26.42	N	
	ANISOU	231	N	TRP	A	51	4164	2963	2911	1104	213	-279	N
	ATOM	232	CA	TRP	A	51	-48.438	-10.477	25.287	1.00	28.18	C	
	ANISOU	232	CA	TRP	A	51	4320	3058	3329	1017	78	-330	C
50	ATOM	233	C	TRP	A	51	-49.421	-9.696	24.411	1.00	31.58	C	
	ANISOU	233	C	TRP	A	51	4633	3425	3941	971	113	-355	C
	ATOM	234	O	TRP	A	51	-50.592	-10.065	24.278	1.00	31.63	O	
	ANISOU	234	O	TRP	A	51	4568	3462	3990	946	238	-270	O
	ATOM	235	CB	TRP	A	51	-47.859	-11.661	24.500	1.00	26.24	C	
	ANISOU	235	CB	TRP	A	51	4078	2748	3145	926	45	-204	C
55	ATOM	236	CG	TRP	A	51	-46.531	-12.146	25.005	1.00	28.16	C	
	ANISOU	236	CG	TRP	A	51	4406	3017	3277	982	-60	-209	C
	ATOM	237	CD1	TRP	A	51	-46.317	-13.110	25.941	1.00	30.82	C	
	ANISOU	237	CD1	TRP	A	51	4846	3418	3445	1055	-26	-110	C
	ATOM	238	CD2	TRP	A	51	-45.230	-11.692	24.589	1.00	29.97	C	
													C

	ANISOU	238	CD2	TRP	A	51	4608	3214	3565	974	-218	-306	C
	ATOM	239	NE1	TRP	A	51	-44.963	-13.291	26.141	1.00	31.10		N
	ANISOU	239	NE1	TRP	A	51	4917	3470	3428	1113	-173	-147	N
	ATOM	240	CE2	TRP	A	51	-44.275	-12.434	25.326	1.00	30.62		C
5	ANISOU	240	CE2	TRP	A	51	4762	3358	3513	1057	-288	-275	C
	ATOM	241	CE3	TRP	A	51	-44.782	-10.731	23.671	1.00	25.98		C
	ANISOU	241	CE3	TRP	A	51	4016	2637	3218	903	-302	-400	C
	ATOM	242	CZ2	TRP	A	51	-42.896	-12.239	25.179	1.00	29.70		C
	ANISOU	242	CZ2	TRP	A	51	4605	3250	3429	1072	-443	-355	C
10	ATOM	243	CZ3	TRP	A	51	-43.416	-10.542	23.516	1.00	27.87		C
	ANISOU	243	CZ3	TRP	A	51	4224	2876	3490	896	-433	-468	C
	ATOM	244	CH2	TRP	A	51	-42.485	-11.296	24.271	1.00	30.38		C
	ANISOU	244	CH2	TRP	A	51	4586	3272	3684	981	-505	-455	C
	ATOM	245	N	LYS	A	52	-48.929	-8.616	23.816	1.00	32.07		N
15	ANISOU	245	N	LYS	A	52	4667	3396	4120	960	-4	-461	N
	ATOM	246	CA	LYS	A	52	-49.709	-7.807	22.891	1.00	30.18		C
	ANISOU	246	CA	LYS	A	52	4332	3078	4057	933	-4	-466	C
	ATOM	247	C	LYS	A	52	-48.944	-7.693	21.586	1.00	29.13		C
	ANISOU	247	C	LYS	A	52	4173	2844	4052	825	-115	-428	C
20	ATOM	248	O	LYS	A	52	-47.764	-7.334	21.570	1.00	31.13		O
	ANISOU	248	O	LYS	A	52	4466	3053	4310	805	-213	-490	O
	ATOM	249	CB	LYS	A	52	-49.935	-6.394	23.446	1.00	28.29		C
	ANISOU	249	CB	LYS	A	52	4105	2800	3845	1041	-25	-625	C
	ATOM	250	CG	LYS	A	52	-51.071	-6.264	24.434	1.00	37.38		C
25	ANISOU	250	CG	LYS	A	52	5240	4055	4907	1165	118	-668	C
	ATOM	251	CD	LYS	A	52	-51.272	-4.798	24.851	1.00	44.09		C
	ANISOU	251	CD	LYS	A	52	6109	4833	5813	1289	88	-855	C
	ATOM	252	CE	LYS	A	52	-52.448	-4.654	25.815	1.00	50.56		C
	ANISOU	252	CE	LYS	A	52	6896	5778	6535	1437	256	-914	C
30	ATOM	253	NZ	LYS	A	52	-52.326	-3.493	26.762	1.00	52.38		N
	ANISOU	253	NZ	LYS	A	52	7215	5982	6706	1592	235	-1153	N
	ATOM	254	N	LEU	A	53	-49.604	-7.974	20.477	1.00	24.33		N
	ANISOU	254	N	LEU	A	53	3488	2213	3543	754	-100	-330	N
	ATOM	255	CA	LEU	A	53	-48.914	-7.814	19.213	1.00	25.63		C
35	ANISOU	255	CA	LEU	A	53	3639	2305	3793	664	-188	-290	C
	ATOM	256	C	LEU	A	53	-49.751	-7.072	18.200	1.00	26.08		C
	ANISOU	256	C	LEU	A	53	3623	2312	3973	652	-214	-243	C
	ATOM	257	O	LEU	A	53	-50.986	-7.122	18.227	1.00	31.16		O
	ANISOU	257	O	LEU	A	53	4194	2997	4648	689	-162	-215	O
40	ATOM	258	CB	LEU	A	53	-48.385	-9.148	18.667	1.00	30.74		C
	ANISOU	258	CB	LEU	A	53	4303	2984	4393	583	-184	-217	C
	ATOM	259	CG	LEU	A	53	-49.315	-10.228	18.127	1.00	33.90		C
	ANISOU	259	CG	LEU	A	53	4661	3416	4802	523	-128	-133	C
	ATOM	260	CD1	LEU	A	53	-48.486	-11.315	17.466	1.00	32.36		C
45	ANISOU	260	CD1	LEU	A	53	4508	3207	4579	456	-150	-104	C
	ATOM	261	CD2	LEU	A	53	-50.146	-10.825	19.234	1.00	36.45		C
	ANISOU	261	CD2	LEU	A	53	4983	3796	5069	562	-22	-112	C
	ATOM	262	N	ASN	A	54	-49.062	-6.329	17.345	1.00	24.78		N
	ANISOU	262	N	ASN	A	54	3471	2063	3880	607	-292	-226	N
50	ATOM	263	CA	ASN	A	54	-49.699	-5.634	16.233	1.00	27.23		C
	ANISOU	263	CA	ASN	A	54	3735	2322	4288	599	-336	-145	C
	ATOM	264	C	ASN	A	54	-48.860	-5.926	15.001	1.00	25.67		C
	ANISOU	264	C	ASN	A	54	3556	2126	4071	493	-378	-63	C
	ATOM	265	O	ASN	A	54	-47.755	-5.404	14.855	1.00	22.90		O
55	ANISOU	265	O	ASN	A	54	3242	1712	3746	449	-404	-71	O
	ATOM	266	CB	ASN	A	54	-49.785	-4.122	16.495	1.00	21.97		C
	ANISOU	266	CB	ASN	A	54	3086	1522	3738	676	-375	-191	C
	ATOM	267	CG	ASN	A	54	-50.585	-3.382	15.419	1.00	27.99		C
	ANISOU	267	CG	ASN	A	54	3806	2225	4603	703	-426	-82	C

	ATOM	268	OD1	ASN	A	54	-50.947	-3.956	14.397	1.00	32.92		O
	ANISOU	268	OD1	ASN	A	54	4389	2927	5191	652	-449	24	O
	ATOM	269	ND2	ASN	A	54	-50.847	-2.107	15.645	1.00	26.43		N
	ANISOU	269	ND2	ASN	A	54	3626	1885	4532	794	-457	-112	N
5	ATOM	270	N	THR	A	55	-49.366	-6.800	14.139	1.00	26.78		N
	ANISOU	270	N	THR	A	55	3665	2348	4162	446	-378	3	N
	ATOM	271	CA	THR	A	55	-48.623	-7.226	12.954	1.00	23.94		C
	ANISOU	271	CA	THR	A	55	3331	2020	3744	360	-400	61	C
	ATOM	272	C	THR	A	55	-49.529	-7.249	11.732	1.00	22.66		C
10	ANISOU	272	C	THR	A	55	3134	1910	3564	344	-455	146	C
	ATOM	273	O	THR	A	55	-50.696	-6.854	11.804	1.00	22.27		O
	ANISOU	273	O	THR	A	55	3022	1864	3575	401	-486	168	O
	ATOM	274	CB	THR	A	55	-48.017	-8.644	13.142	1.00	22.21		C
	ANISOU	274	CB	THR	A	55	3138	1863	3437	318	-356	12	C
15	ATOM	275	OG1	THR	A	55	-49.068	-9.614	13.125	1.00	21.66		O
	ANISOU	275	OG1	THR	A	55	3037	1844	3348	306	-343	10	O
	ATOM	276	CG2	THR	A	55	-47.259	-8.747	14.465	1.00	20.68		C
	ANISOU	276	CG2	THR	A	55	2973	1646	3238	358	-323	-65	C
	ATOM	277	N	GLY	A	56	-48.997	-7.739	10.611	1.00	23.48		N
20	ANISOU	277	N	GLY	A	56	3271	2074	3575	277	-469	185	N
	ATOM	278	CA	GLY	A	56	-49.788	-7.931	9.410	1.00	20.87		C
	ANISOU	278	CA	GLY	A	56	2921	1826	3181	259	-539	245	C
	ATOM	279	C	GLY	A	56	-50.951	-8.894	9.608	1.00	23.05		C
	ANISOU	279	C	GLY	A	56	3127	2164	3468	249	-563	186	C
25	ATOM	280	O	GLY	A	56	-51.878	-8.912	8.813	1.00	26.42		O
	ANISOU	280	O	GLY	A	56	3500	2661	3876	246	-650	220	O
	ATOM	281	N	ARG	A	57	-50.916	-9.693	10.668	1.00	23.21		N
	ANISOU	281	N	ARG	A	57	3140	2160	3520	239	-489	108	N
	ATOM	282	CA	ARG	A	57	-52.010	-10.624	10.955	1.00	29.02		C
30	ANISOU	282	CA	ARG	A	57	3798	2934	4294	203	-487	69	C
	ATOM	283	C	ARG	A	57	-53.148	-9.997	11.753	1.00	28.94		C
	ANISOU	283	C	ARG	A	57	3675	2929	4393	270	-470	87	C
	ATOM	284	O	ARG	A	57	-54.245	-10.549	11.797	1.00	33.11		O
	ANISOU	284	O	ARG	A	57	4094	3512	4977	234	-477	78	O
35	ATOM	285	CB	ARG	A	57	-51.508	-11.842	11.745	1.00	28.53		C
	ANISOU	285	CB	ARG	A	57	3789	2833	4217	161	-399	8	C
	ATOM	286	CG	ARG	A	57	-50.396	-12.628	11.084	1.00	26.37		C
	ANISOU	286	CG	ARG	A	57	3616	2549	3855	120	-398	-33	C
	ATOM	287	CD	ARG	A	57	-50.142	-13.914	11.837	1.00	25.51		C
40	ANISOU	287	CD	ARG	A	57	3554	2379	3758	96	-329	-79	C
	ATOM	288	NE	ARG	A	57	-48.959	-14.609	11.337	1.00	28.86		N
	ANISOU	288	NE	ARG	A	57	4070	2781	4114	96	-318	-130	N
	ATOM	289	CZ	ARG	A	57	-48.965	-15.449	10.307	1.00	31.17		C
	ANISOU	289	CZ	ARG	A	57	4399	3080	4363	43	-354	-195	C
45	ATOM	290	NH1	ARG	A	57	-50.094	-15.710	9.662	1.00	29.04		N
	ANISOU	290	NH1	ARG	A	57	4081	2840	4112	-32	-424	-219	N
	ATOM	291	NH2	ARG	A	57	-47.839	-16.026	9.922	1.00	34.35		N
	ANISOU	291	NH2	ARG	A	57	4878	3467	4706	73	-325	-253	N
	ATOM	292	N	THR	A	58	-52.890	-8.869	12.404	1.00	24.54		N
50	ANISOU	292	N	THR	A	58	3134	2313	3877	364	-443	100	N
	ATOM	293	CA	THR	A	58	-53.858	-8.337	13.363	1.00	26.77		C
	ANISOU	293	CA	THR	A	58	3321	2598	4251	454	-394	85	C
	ATOM	294	C	THR	A	58	-54.624	-7.098	12.904	1.00	23.09		C
	ANISOU	294	C	THR	A	58	2778	2120	3874	557	-472	135	C
55	ATOM	295	O	THR	A	58	-54.174	-6.341	12.063	1.00	23.25		O
	ANISOU	295	O	THR	A	58	2859	2089	3887	572	-554	198	O
	ATOM	296	CB	THR	A	58	-53.184	-7.965	14.702	1.00	25.45		C
	ANISOU	296	CB	THR	A	58	3229	2371	4072	520	-302	23	C
	ATOM	297	OG1	THR	A	58	-52.455	-6.740	14.546	1.00	22.13		O

	ANISOU	297	OG1	THR	A	58	2877	1852	3679	574	-353	23	O
	ATOM	298	CG2	THR	A	58	-52.252	-9.075	15.174	1.00	20.46		C
	ANISOU	298	CG2	THR	A	58	2688	1741	3346	450	-246	-7	C
	ATOM	299	N	GLU	A	59	-55.794	-6.902	13.490	1.00	24.20		N
5	ANISOU	299	N	GLU	A	59	2781	2308	4106	634	-434	118	N
	ATOM	300	CA	GLU	A	59	-56.455	-5.615	13.431	1.00	25.55		C
	ANISOU	300	CA	GLU	A	59	2885	2438	4385	784	-482	144	C
	ATOM	301	C	GLU	A	59	-56.017	-4.857	14.678	1.00	30.45		C
	ANISOU	301	C	GLU	A	59	3580	2959	5030	887	-385	58	C
10	ATOM	302	O	GLU	A	59	-56.522	-5.129	15.770	1.00	30.27		O
	ANISOU	302	O	GLU	A	59	3496	2996	5010	934	-266	-14	O
	ATOM	303	CB	GLU	A	59	-57.968	-5.804	13.432	1.00	31.10		C
	ANISOU	303	CB	GLU	A	59	3369	3264	5185	832	-487	152	C
	ATOM	304	CG	GLU	A	59	-58.744	-4.502	13.403	1.00	37.83		C
15	ANISOU	304	CG	GLU	A	59	4129	4077	6169	1024	-536	174	C
	ATOM	305	CD	GLU	A	59	-58.702	-3.831	12.045	1.00	40.41		C
	ANISOU	305	CD	GLU	A	59	4489	4362	6503	1056	-717	293	C
	ATOM	306	OE1	GLU	A	59	-58.581	-4.548	11.031	1.00	39.56		O
	ANISOU	306	OE1	GLU	A	59	4391	4339	6302	933	-812	347	O
20	ATOM	307	OE2	GLU	A	59	-58.785	-2.586	11.994	1.00	44.85		O
	ANISOU	307	OE2	GLU	A	59	5081	4802	7159	1211	-762	333	O
	ATOM	308	N	ALA	A	60	-55.077	-3.920	14.517	1.00	28.31		N
	ANISOU	308	N	ALA	A	60	3443	2542	4772	913	-433	62	N
	ATOM	309	CA	ALA	A	60	-54.457	-3.225	15.655	1.00	25.42		C
25	ANISOU	309	CA	ALA	A	60	3171	2067	4420	984	-371	-52	C
	ATOM	310	C	ALA	A	60	-53.895	-4.240	16.655	1.00	24.32		C
	ANISOU	310	C	ALA	A	60	3080	2009	4153	916	-271	-134	C
	ATOM	311	O	ALA	A	60	-53.303	-5.232	16.242	1.00	23.08		O
	ANISOU	311	O	ALA	A	60	2957	1904	3909	790	-278	-91	O
30	ATOM	312	CB	ALA	A	60	-55.438	-2.275	16.323	1.00	27.25		C
	ANISOU	312	CB	ALA	A	60	3329	2258	4767	1170	-337	-121	C
	ATOM	313	N	TRP	A	61	-54.107	-4.022	17.956	1.00	25.21		N
	ANISOU	313	N	TRP	A	61	3201	2138	4241	1016	-178	-249	N
	ATOM	314	CA	TRP	A	61	-53.572	-4.947	18.973	1.00	24.41		C
35	ANISOU	314	CA	TRP	A	61	3162	2121	3991	973	-89	-305	C
	ATOM	315	C	TRP	A	61	-54.374	-6.214	19.223	1.00	27.07		C
	ANISOU	315	C	TRP	A	61	3409	2607	4269	923	17	-244	C
	ATOM	316	O	TRP	A	61	-55.602	-6.196	19.315	1.00	25.62		O
	ANISOU	316	O	TRP	A	61	3085	2501	4149	977	84	-226	O
40	ATOM	317	CB	TRP	A	61	-53.350	-4.249	20.308	1.00	33.43		C
	ANISOU	317	CB	TRP	A	61	4379	3241	5081	1097	-37	-458	C
	ATOM	318	CG	TRP	A	61	-52.329	-3.213	20.213	1.00	43.12		C
	ANISOU	318	CG	TRP	A	61	5713	4306	6367	1101	-145	-536	C
	ATOM	319	CD1	TRP	A	61	-52.540	-1.887	20.036	1.00	51.65		C
45	ANISOU	319	CD1	TRP	A	61	6802	5231	7593	1191	-201	-592	C
	ATOM	320	CD2	TRP	A	61	-50.910	-3.397	20.246	1.00	42.54		C
	ANISOU	320	CD2	TRP	A	61	5738	4191	6235	1001	-216	-562	C
	ATOM	321	NE1	TRP	A	61	-51.347	-1.228	19.969	1.00	52.60		N
	ANISOU	321	NE1	TRP	A	61	7026	5202	7757	1130	-296	-649	N
50	ATOM	322	CE2	TRP	A	61	-50.326	-2.129	20.101	1.00	48.96		C
	ANISOU	322	CE2	TRP	A	61	6606	4824	7171	1012	-308	-636	C
	ATOM	323	CE3	TRP	A	61	-50.079	-4.505	20.392	1.00	38.27		C
	ANISOU	323	CE3	TRP	A	61	5234	3740	5568	909	-212	-528	C
	ATOM	324	CZ2	TRP	A	61	-48.948	-1.934	20.098	1.00	45.17		C
55	ANISOU	324	CZ2	TRP	A	61	6193	4273	6697	913	-391	-681	C
	ATOM	325	CZ3	TRP	A	61	-48.711	-4.310	20.386	1.00	38.22		C
	ANISOU	325	CZ3	TRP	A	61	5291	3673	5557	842	-300	-576	C
	ATOM	326	CH2	TRP	A	61	-48.160	-3.036	20.242	1.00	37.94		C
	ANISOU	326	CH2	TRP	A	61	5285	3480	5650	834	-386	-653	C

5	ATOM	327	N	LYS	A	62	-53.639	-7.313	19.359	1.00	25.60	N	
	ANISOU	327	N	LYS	A	62	3298	2452	3976	819	35	-210	N
	ATOM	328	CA	LYS	A	62	-54.209	-8.605	19.689	1.00	23.59	C	
	ANISOU	328	CA	LYS	A	62	2994	2295	3672	749	140	-142	C
	ATOM	329	C	LYS	A	62	-53.518	-9.135	20.942	1.00	28.00	C	
	ANISOU	329	C	LYS	A	62	3677	2891	4071	778	221	-168	C
10	ATOM	330	O	LYS	A	62	-52.291	-9.171	21.010	1.00	28.60	O	
	ANISOU	330	O	LYS	A	62	3873	2915	4079	768	146	-200	O
	ATOM	331	CB	LYS	A	62	-54.020	-9.565	18.510	1.00	22.60	C	
	ANISOU	331	CB	LYS	A	62	2859	2148	3581	601	67	-63	C
	ATOM	332	CG	LYS	A	62	-54.142	-11.042	18.862	1.00	26.06	C	
	ANISOU	332	CG	LYS	A	62	3311	2619	3971	502	155	0	C
15	ATOM	333	CD	LYS	A	62	-55.566	-11.410	19.259	1.00	27.40	C	
	ANISOU	333	CD	LYS	A	62	3326	2877	4207	480	275	46	C
	ATOM	334	CE	LYS	A	62	-55.596	-12.793	19.895	1.00	29.23	C	
	ANISOU	334	CE	LYS	A	62	3603	3114	4390	385	392	127	C
	ATOM	335	NZ	LYS	A	62	-56.969	-13.190	20.256	1.00	34.07	N	
	ANISOU	335	NZ	LYS	A	62	4044	3814	5087	331	528	189	N
20	ATOM	336	N	VAL	A	63	-54.309	-9.530	21.936	1.00	31.78	N	
	ANISOU	336	N	VAL	A	63	4117	3472	4484	819	375	-146	N
	ATOM	337	CA	VAL	A	63	-53.788	-10.056	23.200	1.00	29.70	C	
	ANISOU	337	CA	VAL	A	63	3980	3271	4033	864	461	-143	C
	ATOM	338	C	VAL	A	63	-53.599	-11.582	23.188	1.00	30.53	C	
	ANISOU	338	C	VAL	A	63	4132	3371	4097	745	509	-3	C
25	ATOM	339	O	VAL	A	63	-54.513	-12.322	22.843	1.00	34.81	O	
	ANISOU	339	O	VAL	A	63	4568	3927	4731	644	588	93	O
	ATOM	340	CB	VAL	A	63	-54.727	-9.679	24.370	1.00	31.37	C	
	ANISOU	340	CB	VAL	A	63	4147	3615	4159	986	633	-178	C
	ATOM	341	CG1	VAL	A	63	-54.279	-10.345	25.668	1.00	30.02	C	
	ANISOU	341	CG1	VAL	A	63	4118	3537	3752	1032	733	-141	C
30	ATOM	342	CG2	VAL	A	63	-54.799	-8.162	24.534	1.00	29.97	C	
	ANISOU	342	CG2	VAL	A	63	3959	3412	4015	1134	583	-347	C
	ATOM	343	N	LEU	A	64	-52.411	-12.043	23.571	1.00	31.53	N	
	ANISOU	343	N	LEU	A	64	4410	3468	4103	759	451	3	N
	ATOM	344	CA	LEU	A	64	-52.140	-13.474	23.758	1.00	33.91	C	
	ANISOU	344	CA	LEU	A	64	4788	3741	4354	687	499	138	C
35	ATOM	345	C	LEU	A	64	-51.814	-13.785	25.226	1.00	40.39	C	
	ANISOU	345	C	LEU	A	64	5740	4653	4951	792	585	185	C
	ATOM	346	O	LEU	A	64	-51.007	-13.093	25.853	1.00	43.43	O	
	ANISOU	346	O	LEU	A	64	6212	5088	5203	910	506	79	O
	ATOM	347	CB	LEU	A	64	-50.977	-13.928	22.875	1.00	27.70	C	
	ANISOU	347	CB	LEU	A	64	4065	2841	3616	635	352	128	C
40	ATOM	348	CG	LEU	A	64	-51.212	-13.848	21.372	1.00	23.81	C	
	ANISOU	348	CG	LEU	A	64	3475	2274	3297	527	271	103	C
	ATOM	349	CD1	LEU	A	64	-49.934	-14.158	20.623	1.00	21.95	C	
	ANISOU	349	CD1	LEU	A	64	3309	1961	3071	509	150	72	C
	ATOM	350	CD2	LEU	A	64	-52.312	-14.814	20.984	1.00	23.67	C	
	ANISOU	350	CD2	LEU	A	64	3379	2232	3383	402	355	195	C
45	ATOM	351	N	SER	A	65	-52.433	-14.833	25.764	1.00	41.12	N	
	ANISOU	351	N	SER	A	65	5852	4770	5001	743	740	347	N
	ATOM	352	CA	SER	A	65	-52.271	-15.195	27.170	1.00	41.20	C	
	ANISOU	352	CA	SER	A	65	5996	4888	4770	844	846	434	C
	ATOM	353	C	SER	A	65	-51.542	-16.528	27.312	1.00	40.91	C	
	ANISOU	353	C	SER	A	65	6101	4754	4689	813	824	596	C
50	ATOM	354	O	SER	A	65	-51.491	-17.302	26.357	1.00	39.70	O	
	ANISOU	354	O	SER	A	65	5920	4446	4718	689	781	648	O
	ATOM	355	CB	SER	A	65	-53.644	-15.278	27.838	1.00	44.14	C	
	ANISOU	355	CB	SER	A	65	6281	5382	5109	828	1086	526	C
	ATOM	356	OG	SER	A	65	-54.428	-16.291	27.234	1.00	49.58	O	
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	ANISOU	356	OG	SER	A	65	6874	5978	5987	647	1179	676	O
	ATOM	357	N	PRO	A	66	-50.975	-16.804	28.507	1.00	42.94		N
	ANISOU	357	N	PRO	A	66	6520	5101	4696	940	845	670	N
	ATOM	358	CA	PRO	A	66	-50.308	-18.092	28.754	1.00	42.22		C
5	ANISOU	358	CA	PRO	A	66	6576	4910	4556	944	826	853	C
	ATOM	359	C	PRO	A	66	-51.157	-19.332	28.426	1.00	46.73		C
	ANISOU	359	C	PRO	A	66	7128	5337	5289	777	980	1061	C
	ATOM	360	O	PRO	A	66	-50.600	-20.340	27.979	1.00	47.98		O
	ANISOU	360	O	PRO	A	66	7365	5315	5549	735	914	1149	O
10	ATOM	361	CB	PRO	A	66	-49.990	-18.039	30.256	1.00	38.46		C
	ANISOU	361	CB	PRO	A	66	6258	4611	3745	1114	870	923	C
	ATOM	362	CG	PRO	A	66	-49.788	-16.595	30.526	1.00	41.09		C
	ANISOU	362	CG	PRO	A	66	6545	5093	3973	1221	782	676	C
	ATOM	363	CD	PRO	A	66	-50.785	-15.870	29.635	1.00	41.13		C
15	ANISOU	363	CD	PRO	A	66	6356	5062	4208	1109	847	563	C
	ATOM	364	N	GLN	A	67	-52.469	-19.269	28.642	1.00	46.83		N
	ANISOU	364	N	GLN	A	67	7030	5421	5343	685	1181	1128	N
	ATOM	365	CA	GLN	A	67	-53.335	-20.419	28.365	1.00	51.03		C
	ANISOU	365	CA	GLN	A	67	7518	5813	6056	494	1331	1320	C
20	ATOM	366	C	GLN	A	67	-53.562	-20.650	26.866	1.00	48.86		C
	ANISOU	366	C	GLN	A	67	7109	5362	6092	325	1223	1218	C
	ATOM	367	O	GLN	A	67	-53.813	-21.775	26.437	1.00	50.91		O
	ANISOU	367	O	GLN	A	67	7386	5433	6525	173	1257	1334	O
	ATOM	368	CB	GLN	A	67	-54.672	-20.304	29.108	1.00	59.28		C
25	ANISOU	368	CB	GLN	A	67	8454	7015	7055	438	1596	1431	C
	ATOM	369	CG	GLN	A	67	-55.391	-18.972	28.934	1.00	68.34		C
	ANISOU	369	CG	GLN	A	67	9404	8339	8224	481	1619	1233	C
	ATOM	370	CD	GLN	A	67	-54.909	-17.890	29.902	1.00	75.84		C
	ANISOU	370	CD	GLN	A	67	10444	9493	8877	712	1601	1106	C
30	ATOM	371	OE1	GLN	A	67	-53.802	-17.965	30.442	1.00	77.99		O
	ANISOU	371	OE1	GLN	A	67	10912	9774	8947	842	1486	1106	O
	ATOM	372	NE2	GLN	A	67	-55.747	-16.880	30.124	1.00	76.88		N
	ANISOU	372	NE2	GLN	A	67	10429	9792	8992	771	1704	984	N
	ATOM	373	N	GLY	A	68	-53.466	-19.584	26.076	1.00	43.79		N
35	ANISOU	373	N	GLY	A	68	6349	4776	5514	353	1089	1001	N
	ATOM	374	CA	GLY	A	68	-53.603	-19.690	24.635	1.00	40.21		C
	ANISOU	374	CA	GLY	A	68	5785	4194	5300	220	968	894	C
	ATOM	375	C	GLY	A	68	-54.974	-20.166	24.204	1.00	39.56		C
	ANISOU	375	C	GLY	A	68	5530	4077	5422	21	1082	955	C
40	ATOM	376	O	GLY	A	68	-55.986	-19.770	24.778	1.00	41.51		O
	ANISOU	376	O	GLY	A	68	5646	4469	5655	7	1239	1001	O
	ATOM	377	N	GLY	A	69	-55.005	-21.026	23.191	1.00	37.87		N
	ANISOU	377	N	GLY	A	69	5306	3681	5404	-132	1002	942	N
	ATOM	378	CA	GLY	A	69	-56.255	-21.504	22.629	1.00	37.73		C
45	ANISOU	378	CA	GLY	A	69	5105	3618	5611	-346	1063	965	C
	ATOM	379	C	GLY	A	69	-56.528	-20.873	21.273	1.00	38.51		C
	ANISOU	379	C	GLY	A	69	5050	3745	5836	-395	890	773	C
	ATOM	380	O	GLY	A	69	-56.063	-19.762	20.992	1.00	33.87		O
	ANISOU	380	O	GLY	A	69	4452	3264	5153	-254	785	651	O
50	ATOM	381	N	GLY	A	70	-57.276	-21.587	20.433	1.00	41.01		N
	ANISOU	381	N	GLY	A	70	5252	3962	6367	-598	854	750	N
	ATOM	382	CA	GLY	A	70	-57.729	-21.064	19.155	1.00	38.49		C
	ANISOU	382	CA	GLY	A	70	4772	3697	6157	-656	689	587	C
	ATOM	383	C	GLY	A	70	-56.675	-21.108	18.064	1.00	36.79		C
55	ANISOU	383	C	GLY	A	70	4692	3387	5900	-609	491	445	C
	ATOM	384	O	GLY	A	70	-55.601	-21.685	18.256	1.00	36.02		O
	ANISOU	384	O	GLY	A	70	4800	3159	5728	-546	481	465	O
	ATOM	385	N	PRO	A	71	-56.976	-20.482	16.913	1.00	36.43		N
	ANISOU	385	N	PRO	A	71	4527	3421	5892	-626	335	309	N

	ATOM	386	CA	PRO	A	71	-56.110	-20.467	15.722	1.00	31.11		C
	ANISOU	386	CA	PRO	A	71	3958	2697	5166	-593	159	172	C
	ATOM	387	C	PRO	A	71	-54.726	-19.893	16.018	1.00	28.33		C
	ANISOU	387	C	PRO	A	71	3772	2356	4637	-402	149	166	C
5	ATOM	388	O	PRO	A	71	-53.755	-20.278	15.375	1.00	29.04		O
	ANISOU	388	O	PRO	A	71	3991	2363	4681	-372	69	92	O
	ATOM	389	CB	PRO	A	71	-56.854	-19.535	14.755	1.00	33.88		C
	ANISOU	389	CB	PRO	A	71	4127	3202	5542	-602	29	84	C
	ATOM	390	CG	PRO	A	71	-58.282	-19.531	15.230	1.00	39.10		C
10	ANISOU	390	CG	PRO	A	71	4561	3946	6351	-705	113	150	C
	ATOM	391	CD	PRO	A	71	-58.216	-19.704	16.716	1.00	37.51		C
	ANISOU	391	CD	PRO	A	71	4410	3727	6115	-660	328	293	C
	ATOM	392	N	TRP	A	72	-54.634	-18.977	16.977	1.00	27.10		N
	ANISOU	392	N	TRP	A	72	3600	2309	4388	-274	228	229	N
15	ATOM	393	CA	TRP	A	72	-53.353	-18.352	17.280	1.00	24.18		C
	ANISOU	393	CA	TRP	A	72	3360	1959	3870	-111	199	207	C
	ATOM	394	C	TRP	A	72	-52.268	-19.316	17.782	1.00	26.10		C
	ANISOU	394	C	TRP	A	72	3784	2076	4057	-65	228	250	C
	ATOM	395	O	TRP	A	72	-51.084	-19.033	17.625	1.00	28.49		O
20	ANISOU	395	O	TRP	A	72	4173	2379	4273	41	161	199	O
	ATOM	396	CB	TRP	A	72	-53.532	-17.165	18.230	1.00	23.87		C
	ANISOU	396	CB	TRP	A	72	3270	2050	3749	12	263	233	C
	ATOM	397	CG	TRP	A	72	-53.880	-15.921	17.488	1.00	27.54		C
	ANISOU	397	CG	TRP	A	72	3620	2605	4238	49	173	158	C
25	ATOM	398	CD1	TRP	A	72	-55.134	-15.426	17.248	1.00	24.05		C
	ANISOU	398	CD1	TRP	A	72	3000	2247	3891	17	178	159	C
	ATOM	399	CD2	TRP	A	72	-52.964	-15.030	16.836	1.00	21.76		C
	ANISOU	399	CD2	TRP	A	72	2938	1881	3450	127	60	89	C
	ATOM	400	NE1	TRP	A	72	-55.050	-14.272	16.510	1.00	24.63		N
30	ANISOU	400	NE1	TRP	A	72	3030	2366	3961	88	66	102	N
	ATOM	401	CE2	TRP	A	72	-53.731	-14.008	16.243	1.00	26.70		C
	ANISOU	401	CE2	TRP	A	72	3436	2577	4133	144	1	66	C
	ATOM	402	CE3	TRP	A	72	-51.573	-14.995	16.704	1.00	20.69		C
	ANISOU	402	CE3	TRP	A	72	2927	1701	3233	183	8	54	C
35	ATOM	403	CZ2	TRP	A	72	-53.149	-12.962	15.521	1.00	24.89		C
	ANISOU	403	CZ2	TRP	A	72	3228	2353	3877	204	-101	29	C
	ATOM	404	CZ3	TRP	A	72	-50.995	-13.948	15.992	1.00	19.82		C
	ANISOU	404	CZ3	TRP	A	72	2812	1615	3104	227	-81	6	C
	ATOM	405	CH2	TRP	A	72	-51.784	-12.948	15.415	1.00	20.01		C
40	ANISOU	405	CH2	TRP	A	72	2735	1688	3182	233	-130	4	C
	ATOM	406	N	ASP	A	73	-52.668	-20.447	18.363	1.00	27.02		N
	ANISOU	406	N	ASP	A	73	3949	2083	4236	-145	325	353	N
	ATOM	407	CA	ASP	A	73	-51.700	-21.431	18.864	1.00	33.78		C
	ANISOU	407	CA	ASP	A	73	4985	2796	5053	-84	347	418	C
45	ATOM	408	C	ASP	A	73	-50.759	-21.951	17.778	1.00	37.33		C
	ANISOU	408	C	ASP	A	73	5517	3132	5534	-67	229	298	C
	ATOM	409	O	ASP	A	73	-49.626	-22.324	18.069	1.00	39.70		O
	ANISOU	409	O	ASP	A	73	5941	3371	5771	56	209	311	O
	ATOM	410	CB	ASP	A	73	-52.404	-22.612	19.545	1.00	36.52		C
50	ANISOU	410	CB	ASP	A	73	5375	3006	5493	-197	476	573	C
	ATOM	411	CG	ASP	A	73	-52.933	-22.261	20.921	1.00	41.10		C
	ANISOU	411	CG	ASP	A	73	5936	3708	5974	-154	631	727	C
	ATOM	412	OD1	ASP	A	73	-52.475	-21.252	21.491	1.00	39.26		O
	ANISOU	412	OD1	ASP	A	73	5708	3635	5574	0	621	702	O
55	ATOM	413	OD2	ASP	A	73	-53.801	-22.998	21.439	1.00	48.62		O
	ANISOU	413	OD2	ASP	A	73	6867	4595	7010	-278	770	870	O
	ATOM	414	N	SER	A	74	-51.237	-21.971	16.535	1.00	38.24		N
	ANISOU	414	N	SER	A	74	5556	3239	5736	-179	149	177	N
	ATOM	415	CA	SER	A	74	-50.444	-22.432	15.399	1.00	38.61		C

	ANISOU	415	CA	SER	A	74	5674	3205	5789	-163	50	39	C
	ATOM	416	C	SER	A	74	-49.361	-21.435	15.041	1.00	38.62		C
	ANISOU	416	C	SER	A	74	5674	3342	5657	-21	-10	-28	C
	ATOM	417	O	SER	A	74	-48.364	-21.793	14.417	1.00	43.96		O
5	ANISOU	417	O	SER	A	74	6422	3975	6304	47	-53	-115	O
	ATOM	418	CB	SER	A	74	-51.329	-22.620	14.168	1.00	37.01		C
	ANISOU	418	CB	SER	A	74	5389	2999	5676	-319	-31	-83	C
	ATOM	419	OG	SER	A	74	-52.389	-23.515	14.425	1.00	45.15		O
	ANISOU	419	OG	SER	A	74	6388	3902	6866	-486	15	-35	O
10	ATOM	420	N	VAL	A	75	-49.564	-20.182	15.432	1.00	32.18		N
	ANISOU	420	N	VAL	A	75	4768	2683	4775	20	-5	7	N
	ATOM	421	CA	VAL	A	75	-48.748	-19.085	14.936	1.00	31.11		C
	ANISOU	421	CA	VAL	A	75	4604	2667	4551	105	-67	-54	C
	ATOM	422	C	VAL	A	75	-47.818	-18.510	15.993	1.00	32.14		C
15	ANISOU	422	C	VAL	A	75	4765	2847	4599	238	-46	-9	C
	ATOM	423	O	VAL	A	75	-46.629	-18.309	15.743	1.00	33.53		O
	ANISOU	423	O	VAL	A	75	4964	3046	4729	319	-85	-56	O
	ATOM	424	CB	VAL	A	75	-49.648	-17.948	14.427	1.00	30.10		C
	ANISOU	424	CB	VAL	A	75	4351	2657	4428	55	-106	-66	C
20	ATOM	425	CG1	VAL	A	75	-48.804	-16.765	13.973	1.00	26.56		C
	ANISOU	425	CG1	VAL	A	75	3886	2300	3905	130	-157	-98	C
	ATOM	426	CG2	VAL	A	75	-50.556	-18.457	13.307	1.00	30.40		C
	ANISOU	426	CG2	VAL	A	75	4340	2680	4530	-73	-165	-126	C
	ATOM	427	N	ALA	A	76	-48.382	-18.211	17.162	1.00	28.75		N
25	ANISOU	427	N	ALA	A	76	4324	2453	4148	259	15	73	N
	ATOM	428	CA	ALA	A	76	-47.628	-17.647	18.272	1.00	24.14		C
	ANISOU	428	CA	ALA	A	76	3775	1932	3463	384	19	98	C
	ATOM	429	C	ALA	A	76	-48.191	-18.181	19.580	1.00	30.21		C
	ANISOU	429	C	ALA	A	76	4600	2691	4187	406	116	213	C
30	ATOM	430	O	ALA	A	76	-49.391	-18.072	19.854	1.00	34.09		O
	ANISOU	430	O	ALA	A	76	5032	3212	4710	337	197	261	O
	ATOM	431	CB	ALA	A	76	-47.680	-16.138	18.249	1.00	19.84		C
	ANISOU	431	CB	ALA	A	76	3149	1495	2894	409	-19	42	C
	ATOM	432	N	ARG	A	77	-47.311	-18.753	20.389	1.00	27.30		N
35	ANISOU	432	N	ARG	A	77	4338	2296	3738	510	112	268	N
	ATOM	433	CA	ARG	A	77	-47.718	-19.468	21.579	1.00	29.83		C
	ANISOU	433	CA	ARG	A	77	4748	2595	3992	539	209	413	C
	ATOM	434	C	ARG	A	77	-46.838	-19.006	22.729	1.00	31.65		C
	ANISOU	434	C	ARG	A	77	5044	2937	4047	701	166	424	C
40	ATOM	435	O	ARG	A	77	-45.642	-18.768	22.539	1.00	27.57		O
	ANISOU	435	O	ARG	A	77	4529	2441	3507	788	50	344	O
	ATOM	436	CB	ARG	A	77	-47.536	-20.969	21.337	1.00	33.86		C
	ANISOU	436	CB	ARG	A	77	5360	2918	4588	509	229	496	C
	ATOM	437	CG	ARG	A	77	-47.983	-21.862	22.454	1.00	40.29		C
45	ANISOU	437	CG	ARG	A	77	6283	3668	5357	516	343	690	C
	ATOM	438	CD	ARG	A	77	-49.503	-21.913	22.575	1.00	44.88		C
	ANISOU	438	CD	ARG	A	77	6786	4256	6010	355	482	764	C
	ATOM	439	NE	ARG	A	77	-49.918	-22.795	23.668	1.00	53.04		N
	ANISOU	439	NE	ARG	A	77	7927	5230	6996	347	622	982	N
50	ATOM	440	CZ	ARG	A	77	-50.141	-22.386	24.914	1.00	59.33		C
	ANISOU	440	CZ	ARG	A	77	8757	6182	7604	432	719	1089	C
	ATOM	441	NH1	ARG	A	77	-49.998	-21.101	25.229	1.00	58.95		N
	ANISOU	441	NH1	ARG	A	77	8643	6340	7416	530	678	968	N
	ATOM	442	NH2	ARG	A	77	-50.515	-23.256	25.845	1.00	63.35		N
55	ANISOU	442	NH2	ARG	A	77	9376	6635	8058	418	861	1316	N
	ATOM	443	N	VAL	A	78	-47.428	-18.871	23.916	1.00	31.01		N
	ANISOU	443	N	VAL	A	78	5005	2943	3834	741	259	514	N
	ATOM	444	CA	VAL	A	78	-46.670	-18.537	25.116	1.00	29.84		C
	ANISOU	444	CA	VAL	A	78	4941	2916	3480	902	210	523	C

5	ATOM	445	C	VAL	A	78	-46.029	-19.788	25.740	1.00	30.15	C	
	ANISOU	445	C	VAL	A	78	5129	2881	3445	995	202	684	C
	ATOM	446	O	VAL	A	78	-46.714	-20.754	26.041	1.00	35.06	O	
	ANISOU	446	O	VAL	A	78	5827	3410	4083	943	328	857	O
	ATOM	447	CB	VAL	A	78	-47.566	-17.831	26.149	1.00	32.98	C	
	ANISOU	447	CB	VAL	A	78	5338	3466	3729	931	321	538	C
10	ATOM	448	CG1	VAL	A	78	-46.795	-17.551	27.439	1.00	32.20	C	
	ANISOU	448	CG1	VAL	A	78	5350	3509	3376	1104	257	534	C
	ATOM	449	CG2	VAL	A	78	-48.150	-16.541	25.558	1.00	26.22	C	
	ANISOU	449	CG2	VAL	A	78	4338	2662	2962	874	313	376	C
	ATOM	450	N	LEU	A	79	-44.713	-19.761	25.935	1.00	28.24	N	
	ANISOU	450	N	LEU	A	79	4920	2674	3135	1132	51	634	N
15	ATOM	451	CA	LEU	A	79	-43.976	-20.902	26.504	1.00	30.01	C	
	ANISOU	451	CA	LEU	A	79	5279	2828	3294	1261	11	785	C
	ATOM	452	C	LEU	A	79	-44.046	-20.913	28.040	1.00	32.18	C	
	ANISOU	452	C	LEU	A	79	5684	3248	3297	1390	36	918	C
	ATOM	453	O	LEU	A	79	-44.449	-19.913	28.640	1.00	33.19	O	
	ANISOU	453	O	LEU	A	79	5783	3549	3279	1398	60	837	O
20	ATOM	454	CB	LEU	A	79	-42.518	-20.852	26.031	1.00	34.97	C	
	ANISOU	454	CB	LEU	A	79	5852	3460	3975	1369	-169	668	C
	ATOM	455	CG	LEU	A	79	-42.299	-20.941	24.518	1.00	31.89	C	
	ANISOU	455	CG	LEU	A	79	5353	2949	3814	1270	-183	547	C
	ATOM	456	CD1	LEU	A	79	-40.819	-20.890	24.197	1.00	29.01	C	
	ANISOU	456	CD1	LEU	A	79	4916	2625	3483	1394	-334	446	C
25	ATOM	457	CD2	LEU	A	79	-42.926	-22.222	23.963	1.00	28.42	C	
	ANISOU	457	CD2	LEU	A	79	4996	2284	3517	1191	-78	658	C
	ATOM	458	N	PRO	A	80	-43.670	-22.039	28.679	1.00	34.34	N	
	ANISOU	458	N	PRO	A	80	6110	3447	3491	1503	34	1123	N
	ATOM	459	CA	PRO	A	80	-43.721	-22.109	30.146	1.00	36.83	C	
	ANISOU	459	CA	PRO	A	80	6572	3918	3505	1640	58	1277	C
30	ATOM	460	C	PRO	A	80	-42.928	-21.009	30.856	1.00	54.27	C	
	ANISOU	460	C	PRO	A	80	8749	6379	5492	1782	-114	1105	C
	ATOM	461	O	PRO	A	80	-43.333	-20.586	31.938	1.00	38.54	O	
	ANISOU	461	O	PRO	A	80	6837	4570	3234	1845	-63	1138	O
	ATOM	462	CB	PRO	A	80	-43.113	-23.485	30.454	1.00	39.02	C	
	ANISOU	462	CB	PRO	A	80	7007	4041	3779	1765	21	1509	C
35	ATOM	463	CG	PRO	A	80	-43.451	-24.305	29.270	1.00	38.07	C	
	ANISOU	463	CG	PRO	A	80	6853	3637	3974	1618	96	1528	C
	ATOM	464	CD	PRO	A	80	-43.378	-23.362	28.087	1.00	34.99	C	
	ANISOU	464	CD	PRO	A	80	6261	3279	3756	1503	38	1244	C
	ATOM	465	N	ASN	A	81	-41.827	-20.550	30.268	1.00	35.67	N	
	ANISOU	465	N	ASN	A	81	6272	4038	3241	1825	-309	915	N
40	ATOM	466	CA	ASN	A	81	-41.056	-19.476	30.884	1.00	42.23	C	
	ANISOU	466	CA	ASN	A	81	7051	5090	3905	1926	-491	726	C
	ATOM	467	C	ASN	A	81	-41.607	-18.088	30.531	1.00	39.62	C	
	ANISOU	467	C	ASN	A	81	6597	4825	3630	1795	-457	497	C
	ATOM	468	O	ASN	A	81	-41.014	-17.066	30.865	1.00	34.37	O	
	ANISOU	468	O	ASN	A	81	5872	4300	2889	1839	-607	298	O
45	ATOM	469	CB	ASN	A	81	-39.560	-19.597	30.546	1.00	36.08	C	
	ANISOU	469	CB	ASN	A	81	6177	4316	3215	2034	-720	637	C
	ATOM	470	CG	ASN	A	81	-39.227	-19.122	29.131	1.00	33.50	C	
	ANISOU	470	CG	ASN	A	81	5654	3888	3185	1896	-740	458	C
	ATOM	471	OD1	ASN	A	81	-40.095	-19.045	28.253	1.00	31.69	O	
	ANISOU	471	OD1	ASN	A	81	5388	3534	3117	1732	-588	448	O
50	ATOM	472	ND2	ASN	A	81	-37.961	-18.794	28.912	1.00	33.61	N	
	ANISOU	472	ND2	ASN	A	81	5533	3973	3265	1963	-929	323	N
	ATOM	473	N	GLY	A	82	-42.740	-18.061	29.840	1.00	32.79	N	
	ANISOU	473	N	GLY	A	82	5693	3848	2916	1636	-271	523	N
	ATOM	474	CA	GLY	A	82	-43.387	-16.805	29.503	1.00	33.57	C	
													C

	ANISOU	474	CA	GLY	A	82	5686	3991	3079	1533	-227	339	C
	ATOM	475	C	GLY	A	82	-42.990	-16.204	28.165	1.00	31.95		C
	ANISOU	475	C	GLY	A	82	5318	3684	3138	1418	-303	182	C
	ATOM	476	O	GLY	A	82	-43.600	-15.248	27.709	1.00	35.03		O
5	ANISOU	476	O	GLY	A	82	5624	4066	3618	1326	-259	64	O
	ATOM	477	N	SER	A	83	-41.963	-16.760	27.538	1.00	28.60		N
	ANISOU	477	N	SER	A	83	4850	3187	2829	1437	-410	190	N
	ATOM	478	CA	SER	A	83	-41.539	-16.306	26.222	1.00	30.59		C
	ANISOU	478	CA	SER	A	83	4955	3358	3309	1331	-456	70	C
10	ATOM	479	C	SER	A	83	-42.593	-16.600	25.161	1.00	30.87		C
	ANISOU	479	C	SER	A	83	4964	3260	3507	1184	-307	123	C
	ATOM	480	O	SER	A	83	-43.344	-17.574	25.264	1.00	30.20		O
	ANISOU	480	O	SER	A	83	4961	3097	3416	1164	-189	272	O
	ATOM	481	CB	SER	A	83	-40.218	-16.969	25.819	1.00	30.95		C
15	ANISOU	481	CB	SER	A	83	4953	3377	3430	1405	-574	73	C
	ATOM	482	OG	SER	A	83	-39.137	-16.479	26.594	1.00	32.94		O
	ANISOU	482	OG	SER	A	83	5167	3771	3578	1517	-751	-20	O
	ATOM	483	N	LEU	A	84	-42.640	-15.748	24.141	1.00	23.77		N
	ANISOU	483	N	LEU	A	84	3947	2333	2753	1078	-321	6	N
20	ATOM	484	CA	LEU	A	84	-43.519	-15.964	23.007	1.00	24.10		C
	ANISOU	484	CA	LEU	A	84	3947	2270	2938	947	-222	36	C
	ATOM	485	C	LEU	A	84	-42.758	-16.720	21.926	1.00	27.03		C
	ANISOU	485	C	LEU	A	84	4288	2556	3427	928	-254	35	C
	ATOM	486	O	LEU	A	84	-41.632	-16.352	21.568	1.00	28.06		O
25	ANISOU	486	O	LEU	A	84	4343	2724	3593	959	-346	-48	O
	ATOM	487	CB	LEU	A	84	-44.032	-14.632	22.449	1.00	22.74		C
	ANISOU	487	CB	LEU	A	84	3680	2118	2842	861	-222	-69	C
	ATOM	488	CG	LEU	A	84	-45.210	-14.774	21.468	1.00	24.39		C
	ANISOU	488	CG	LEU	A	84	3847	2256	3163	742	-129	-28	C
30	ATOM	489	CD1	LEU	A	84	-46.466	-15.249	22.205	1.00	21.70		C
	ANISOU	489	CD1	LEU	A	84	3549	1926	2769	734	-5	70	C
	ATOM	490	CD2	LEU	A	84	-45.485	-13.465	20.707	1.00	20.58		C
	ANISOU	490	CD2	LEU	A	84	3271	1779	2771	680	-160	-114	C
	ATOM	491	N	PHE	A	85	-43.380	-17.773	21.410	1.00	24.21		N
35	ANISOU	491	N	PHE	A	85	3980	2084	3136	874	-172	117	N
	ATOM	492	CA	PHE	A	85	-42.743	-18.646	20.447	1.00	22.20		C
	ANISOU	492	CA	PHE	A	85	3724	1733	2977	877	-188	100	C
	ATOM	493	C	PHE	A	85	-43.514	-18.693	19.135	1.00	26.55		C
	ANISOU	493	C	PHE	A	85	4233	2218	3636	736	-138	57	C
40	ATOM	494	O	PHE	A	85	-44.704	-19.026	19.105	1.00	24.69		O
	ANISOU	494	O	PHE	A	85	4024	1925	3434	642	-67	111	O
	ATOM	495	CB	PHE	A	85	-42.634	-20.053	21.023	1.00	24.44		C
	ANISOU	495	CB	PHE	A	85	4136	1903	3248	960	-161	221	C
	ATOM	496	CG	PHE	A	85	-42.128	-21.073	20.049	1.00	29.41		C
45	ANISOU	496	CG	PHE	A	85	4786	2396	3992	975	-164	189	C
	ATOM	497	CD1	PHE	A	85	-40.854	-20.966	19.509	1.00	29.63		C
	ANISOU	497	CD1	PHE	A	85	4737	2473	4047	1066	-236	91	C
	ATOM	498	CD2	PHE	A	85	-42.918	-22.156	19.686	1.00	35.21		C
	ANISOU	498	CD2	PHE	A	85	5609	2952	4817	899	-90	245	C
50	ATOM	499	CE1	PHE	A	85	-40.379	-21.915	18.618	1.00	29.12		C
	ANISOU	499	CE1	PHE	A	85	4694	2293	4078	1107	-223	40	C
	ATOM	500	CE2	PHE	A	85	-42.449	-23.113	18.793	1.00	34.71		C
	ANISOU	500	CE2	PHE	A	85	5583	2745	4859	926	-97	182	C
	ATOM	501	CZ	PHE	A	85	-41.175	-22.992	18.266	1.00	32.23		C
55	ANISOU	501	CZ	PHE	A	85	5202	2493	4551	1044	-158	76	C
	ATOM	502	N	LEU	A	86	-42.822	-18.364	18.052	1.00	26.07		N
	ANISOU	502	N	LEU	A	86	4099	2184	3623	719	-176	-39	N
	ATOM	503	CA	LEU	A	86	-43.365	-18.512	16.708	1.00	24.38		C
	ANISOU	503	CA	LEU	A	86	3862	1928	3474	610	-149	-90	C

5	ATOM	504	C	LEU	A	86	-42.530	-19.568	15.984	1.00	25.80	C	
	ANISOU	504	C	LEU	A	86	4078	2033	3690	669	-150	-145	C
	ATOM	505	O	LEU	A	86	-41.359	-19.338	15.688	1.00	28.27	O	
	ANISOU	505	O	LEU	A	86	4331	2414	3995	746	-176	-201	O
	ATOM	506	CB	LEU	A	86	-43.299	-17.185	15.945	1.00	19.34	C	
	ANISOU	506	CB	LEU	A	86	3122	1394	2832	549	-176	-147	C
10	ATOM	507	CG	LEU	A	86	-44.230	-16.023	16.309	1.00	27.65	C	
	ANISOU	507	CG	LEU	A	86	4131	2497	3879	493	-178	-122	C
	ATOM	508	CD1	LEU	A	86	-43.766	-15.303	17.558	1.00	18.85	C	
	ANISOU	508	CD1	LEU	A	86	3010	1436	2717	570	-208	-120	C
	ATOM	509	CD2	LEU	A	86	-44.365	-15.027	15.134	1.00	22.56	C	
	ANISOU	509	CD2	LEU	A	86	3415	1900	3257	418	-199	-153	C
15	ATOM	510	N	PRO	A	87	-43.129	-20.730	15.697	1.00	26.73	N	
	ANISOU	510	N	PRO	A	87	4285	2005	3864	631	-116	-138	N
	ATOM	511	CA	PRO	A	87	-42.392	-21.851	15.096	1.00	26.80	C	
	ANISOU	511	CA	PRO	A	87	4356	1907	3922	709	-113	-207	C
	ATOM	512	C	PRO	A	87	-41.841	-21.557	13.695	1.00	29.02	C	
	ANISOU	512	C	PRO	A	87	4572	2272	4182	700	-113	-345	C
20	ATOM	513	O	PRO	A	87	-40.802	-22.107	13.328	1.00	30.96	O	
	ANISOU	513	O	PRO	A	87	4820	2504	4440	818	-103	-416	O
	ATOM	514	CB	PRO	A	87	-43.438	-22.974	15.040	1.00	26.42	C	
	ANISOU	514	CB	PRO	A	87	4416	1664	3958	619	-81	-182	C
	ATOM	515	CG	PRO	A	87	-44.758	-22.280	15.088	1.00	26.14	C	
	ANISOU	515	CG	PRO	A	87	4324	1690	3918	460	-68	-140	C
25	ATOM	516	CD	PRO	A	87	-44.544	-21.058	15.936	1.00	27.20	C	
	ANISOU	516	CD	PRO	A	87	4383	1985	3966	509	-77	-74	C
	ATOM	517	N	ALA	A	88	-42.517	-20.706	12.930	1.00	24.73	N	
	ANISOU	517	N	ALA	A	88	3971	1825	3599	576	-118	-372	N
	ATOM	518	CA	ALA	A	88	-42.080	-20.409	11.565	1.00	25.17	C	
	ANISOU	518	CA	ALA	A	88	3986	1980	3599	561	-106	-477	C
30	ATOM	519	C	ALA	A	88	-42.533	-19.017	11.136	1.00	24.26	C	
	ANISOU	519	C	ALA	A	88	3787	2007	3426	464	-124	-437	C
	ATOM	520	O	ALA	A	88	-43.669	-18.830	10.708	1.00	24.24	O	
	ANISOU	520	O	ALA	A	88	3793	2003	3413	359	-152	-430	O
	ATOM	521	CB	ALA	A	88	-42.596	-21.481	10.583	1.00	23.39	C	
	ANISOU	521	CB	ALA	A	88	3852	1652	3382	519	-105	-593	C
35	ATOM	522	N	VAL	A	89	-41.631	-18.048	11.264	1.00	24.30	N	
	ANISOU	522	N	VAL	A	89	3702	2122	3410	501	-114	-406	N
	ATOM	523	CA	VAL	A	89	-41.917	-16.655	10.960	1.00	26.96	C	
	ANISOU	523	CA	VAL	A	89	3969	2556	3718	421	-129	-349	C
	ATOM	524	C	VAL	A	89	-42.268	-16.452	9.487	1.00	30.56	C	
	ANISOU	524	C	VAL	A	89	4435	3087	4088	354	-118	-376	C
40	ATOM	525	O	VAL	A	89	-41.638	-17.052	8.599	1.00	29.82	O	
	ANISOU	525	O	VAL	A	89	4362	3037	3931	391	-72	-457	O
	ATOM	526	CB	VAL	A	89	-40.716	-15.762	11.334	1.00	30.71	C	
	ANISOU	526	CB	VAL	A	89	4343	3108	4216	457	-119	-325	C
	ATOM	527	CG1	VAL	A	89	-40.767	-14.443	10.590	1.00	32.89	C	
	ANISOU	527	CG1	VAL	A	89	4562	3463	4471	369	-111	-270	C
45	ATOM	528	CG2	VAL	A	89	-40.679	-15.527	12.828	1.00	31.02	C	
	ANISOU	528	CG2	VAL	A	89	4374	3106	4308	501	-167	-291	C
	ATOM	529	N	GLY	A	90	-43.284	-15.618	9.239	1.00	27.45	N	
	ANISOU	529	N	GLY	A	90	4032	2718	3682	273	-164	-313	N
	ATOM	530	CA	GLY	A	90	-43.659	-15.225	7.892	1.00	24.61	C	
	ANISOU	530	CA	GLY	A	90	3682	2452	3216	219	-178	-306	C
50	ATOM	531	C	GLY	A	90	-43.683	-13.713	7.733	1.00	25.82	C	
	ANISOU	531	C	GLY	A	90	3781	2661	3369	183	-188	-184	C
	ATOM	532	O	GLY	A	90	-43.579	-12.969	8.723	1.00	22.57	O	
	ANISOU	532	O	GLY	A	90	3324	2196	3057	189	-196	-131	O
	ATOM	533	N	ILE	A	91	-43.825	-13.258	6.488	1.00	24.71	N	

	ANISOU	533	N	ILE	A	91	3659	2621	3111	149	-192	-141	N
	ATOM	534	CA	ILE	A	91	-43.912	-11.832	6.180	1.00	23.70		C
	ANISOU	534	CA	ILE	A	91	3501	2520	2984	114	-204	3	C
	ATOM	535	C	ILE	A	91	-44.951	-11.093	7.049	1.00	23.88		C
5	ANISOU	535	C	ILE	A	91	3496	2447	3132	111	-284	62	C
	ATOM	536	O	ILE	A	91	-44.698	-9.986	7.524	1.00	23.05		O
	ANISOU	536	O	ILE	A	91	3356	2284	3117	106	-279	141	O
	ATOM	537	CB	ILE	A	91	-44.228	-11.608	4.683	1.00	25.60		C
	ANISOU	537	CB	ILE	A	91	3793	2889	3046	92	-221	59	C
10	ATOM	538	CG1	ILE	A	91	-43.073	-12.119	3.816	1.00	26.82		C
	ANISOU	538	CG1	ILE	A	91	3969	3163	3059	108	-106	8	C
	ATOM	539	CG2	ILE	A	91	-44.515	-10.117	4.388	1.00	23.53		C
	ANISOU	539	CG2	ILE	A	91	3520	2621	2801	66	-251	244	C
	ATOM	540	CD1	ILE	A	91	-43.343	-12.059	2.312	1.00	25.97		C
15	ANISOU	540	CD1	ILE	A	91	3937	3216	2716	100	-113	43	C
	ATOM	541	N	GLN	A	92	-46.103	-11.717	7.279	1.00	24.00		N
	ANISOU	541	N	GLN	A	92	3515	2439	3164	111	-350	11	N
	ATOM	542	CA	GLN	A	92	-47.178	-11.060	8.017	1.00	28.31		C
	ANISOU	542	CA	GLN	A	92	4014	2924	3819	123	-408	59	C
20	ATOM	543	C	GLN	A	92	-46.905	-10.930	9.522	1.00	29.75		C
	ANISOU	543	C	GLN	A	92	4172	3014	4118	158	-365	32	C
	ATOM	544	O	GLN	A	92	-47.702	-10.348	10.252	1.00	31.55		O
	ANISOU	544	O	GLN	A	92	4362	3197	4429	186	-389	55	O
	ATOM	545	CB	GLN	A	92	-48.524	-11.746	7.761	1.00	31.47		C
25	ANISOU	545	CB	GLN	A	92	4391	3352	4214	99	-484	19	C
	ATOM	546	CG	GLN	A	92	-48.982	-11.709	6.295	1.00	41.21		C
	ANISOU	546	CG	GLN	A	92	5645	4699	5314	75	-569	41	C
	ATOM	547	CD	GLN	A	92	-48.989	-10.295	5.695	1.00	50.98		C
	ANISOU	547	CD	GLN	A	92	6882	5969	6518	107	-605	193	C
30	ATOM	548	OE1	GLN	A	92	-48.495	-10.076	4.586	1.00	52.85		O
	ANISOU	548	OE1	GLN	A	92	7179	6297	6605	100	-604	248	O
	ATOM	549	NE2	GLN	A	92	-49.558	-9.337	6.426	1.00	52.30		N
	ANISOU	549	NE2	GLN	A	92	6992	6059	6823	150	-628	266	N
	ATOM	550	N	ASP	A	93	-45.777	-11.457	9.982	1.00	27.47		N
35	ANISOU	550	N	ASP	A	93	3901	2711	3824	173	-307	-22	N
	ATOM	551	CA	ASP	A	93	-45.422	-11.330	11.389	1.00	23.73		C
	ANISOU	551	CA	ASP	A	93	3415	2177	3425	217	-288	-50	C
	ATOM	552	C	ASP	A	93	-44.596	-10.079	11.668	1.00	22.20		C
	ANISOU	552	C	ASP	A	93	3190	1956	3287	217	-291	-23	C
40	ATOM	553	O	ASP	A	93	-44.186	-9.858	12.801	1.00	21.02		O
	ANISOU	553	O	ASP	A	93	3031	1770	3184	254	-296	-67	O
	ATOM	554	CB	ASP	A	93	-44.684	-12.577	11.880	1.00	24.12		C
	ANISOU	554	CB	ASP	A	93	3495	2219	3451	251	-250	-118	C
	ATOM	555	CG	ASP	A	93	-45.542	-13.817	11.815	1.00	28.18		C
45	ANISOU	555	CG	ASP	A	93	4051	2706	3952	236	-247	-147	C
	ATOM	556	OD1	ASP	A	93	-46.674	-13.781	12.343	1.00	29.53		O
	ANISOU	556	OD1	ASP	A	93	4206	2853	4163	220	-257	-122	O
	ATOM	557	OD2	ASP	A	93	-45.091	-14.827	11.229	1.00	32.49		O
	ANISOU	557	OD2	ASP	A	93	4638	3249	4459	238	-229	-201	O
50	ATOM	558	N	GLU	A	94	-44.346	-9.266	10.640	1.00	24.16		N
	ANISOU	558	N	GLU	A	94	3429	2222	3528	171	-291	52	N
	ATOM	559	CA	GLU	A	94	-43.691	-7.978	10.849	1.00	25.94		C
	ANISOU	559	CA	GLU	A	94	3626	2384	3846	143	-296	93	C
	ATOM	560	C	GLU	A	94	-44.572	-7.083	11.696	1.00	25.41		C
55	ANISOU	560	C	GLU	A	94	3565	2216	3873	184	-348	88	C
	ATOM	561	O	GLU	A	94	-45.787	-7.044	11.505	1.00	26.38		O
	ANISOU	561	O	GLU	A	94	3698	2337	3988	217	-376	121	O
	ATOM	562	CB	GLU	A	94	-43.393	-7.278	9.527	1.00	34.77		C
	ANISOU	562	CB	GLU	A	94	4749	3528	4936	79	-271	216	C

5	ATOM	563	CG	GLU	A	94	-42.345	-7.983	8.716	1.00	45.82	C	
	ANISOU	563	CG	GLU	A	94	6129	5042	6239	47	-192	211	C
	ATOM	564	CD	GLU	A	94	-41.698	-7.085	7.689	1.00	50.16	C	
	ANISOU	564	CD	GLU	A	94	6664	5616	6776	-30	-132	346	C
	ATOM	565	OE1	GLU	A	94	-42.380	-6.707	6.697	1.00	51.23	O	
	ANISOU	565	OE1	GLU	A	94	6859	5780	6826	-39	-146	463	O
10	ATOM	566	OE2	GLU	A	94	-40.502	-6.766	7.882	1.00	48.38	O	
	ANISOU	566	OE2	GLU	A	94	6363	5392	6629	-84	-73	344	O
	ATOM	567	N	GLY	A	95	-43.963	-6.354	12.624	1.00	22.11	N	
	ANISOU	567	N	GLY	A	95	3132	1721	3548	186	-365	32	N
	ATOM	568	CA	GLY	A	95	-44.726	-5.473	13.489	1.00	21.84	C	
	ANISOU	568	CA	GLY	A	95	3114	1585	3598	244	-406	-8	C
15	ATOM	569	C	GLY	A	95	-44.165	-5.361	14.890	1.00	23.49	C	
	ANISOU	569	C	GLY	A	95	3323	1769	3833	280	-430	-144	C
	ATOM	570	O	GLY	A	95	-42.954	-5.438	15.096	1.00	21.77	O	
	ANISOU	570	O	GLY	A	95	3074	1571	3628	234	-442	-189	O
	ATOM	571	N	ILE	A	96	-45.056	-5.191	15.860	1.00	27.94	N	
	ANISOU	571	N	ILE	A	96	3914	2311	4392	370	-437	-214	N
20	ATOM	572	CA	ILE	A	96	-44.657	-4.898	17.232	1.00	30.05	C	
	ANISOU	572	CA	ILE	A	96	4203	2562	4654	423	-471	-356	C
	ATOM	573	C	ILE	A	96	-45.169	-5.961	18.208	1.00	30.44	C	
	ANISOU	573	C	ILE	A	96	4280	2723	4564	510	-429	-398	C
	ATOM	574	O	ILE	A	96	-46.327	-6.385	18.136	1.00	27.08	O	
	ANISOU	574	O	ILE	A	96	3851	2333	4104	550	-370	-347	O
25	ATOM	575	CB	ILE	A	96	-45.139	-3.491	17.640	1.00	33.32	C	
	ANISOU	575	CB	ILE	A	96	4644	2831	5185	466	-509	-424	C
	ATOM	576	CG1	ILE	A	96	-44.576	-2.454	16.666	1.00	33.50	C	
	ANISOU	576	CG1	ILE	A	96	4654	2712	5363	364	-544	-349	C
	ATOM	577	CG2	ILE	A	96	-44.722	-3.158	19.067	1.00	32.41	C	
	ANISOU	577	CG2	ILE	A	96	4566	2710	5039	525	-557	-608	C
30	ATOM	578	CD1	ILE	A	96	-45.290	-1.133	16.708	1.00	39.56	C	
	ANISOU	578	CD1	ILE	A	96	5460	3297	6274	415	-574	-363	C
	ATOM	579	N	PHE	A	97	-44.283	-6.401	19.101	1.00	27.81	N	
	ANISOU	579	N	PHE	A	97	3964	2450	4153	534	-461	-477	N
	ATOM	580	CA	PHE	A	97	-44.593	-7.441	20.075	1.00	22.98	C	
	ANISOU	580	CA	PHE	A	97	3398	1941	3391	618	-420	-486	C
40	ATOM	581	C	PHE	A	97	-44.264	-6.908	21.459	1.00	27.57	C	
	ANISOU	581	C	PHE	A	97	4028	2549	3898	700	-477	-628	C
	ATOM	582	O	PHE	A	97	-43.127	-6.504	21.717	1.00	29.41	O	
	ANISOU	582	O	PHE	A	97	4243	2776	4157	676	-578	-717	O
	ATOM	583	CB	PHE	A	97	-43.768	-8.710	19.807	1.00	22.16	C	
	ANISOU	583	CB	PHE	A	97	3288	1902	3228	598	-419	-426	C
45	ATOM	584	CG	PHE	A	97	-44.127	-9.434	18.516	1.00	25.21	C	
	ANISOU	584	CG	PHE	A	97	3650	2278	3652	531	-362	-317	C
	ATOM	585	CD1	PHE	A	97	-44.701	-10.693	18.553	1.00	22.33	C	
	ANISOU	585	CD1	PHE	A	97	3321	1942	3222	548	-299	-252	C
	ATOM	586	CD2	PHE	A	97	-43.867	-8.862	17.274	1.00	27.68	C	
	ANISOU	586	CD2	PHE	A	97	3913	2549	4056	448	-374	-282	C
50	ATOM	587	CE1	PHE	A	97	-45.013	-11.374	17.386	1.00	22.26	C	
	ANISOU	587	CE1	PHE	A	97	3297	1918	3243	483	-267	-191	C
	ATOM	588	CE2	PHE	A	97	-44.184	-9.534	16.099	1.00	27.36	C	
	ANISOU	588	CE2	PHE	A	97	3864	2523	4010	398	-333	-205	C
	ATOM	589	CZ	PHE	A	97	-44.758	-10.791	16.155	1.00	24.56	C	
	ANISOU	589	CZ	PHE	A	97	3543	2194	3594	416	-289	-177	C
55	ATOM	590	N	ARG	A	98	-45.255	-6.896	22.347	1.00	29.80	N	
	ANISOU	590	N	ARG	A	98	4362	2877	4084	795	-412	-659	N
	ATOM	591	CA	ARG	A	98	-45.058	-6.368	23.696	1.00	30.22	C	
	ANISOU	591	CA	ARG	A	98	4481	2977	4023	893	-458	-815	C
	ATOM	592	C	ARG	A	98	-45.466	-7.355	24.775	1.00	30.38	C	
													C

	ANISOU	592	C	ARG	A	98	4575	3146	3822	994	-380	-775	C
	ATOM	593	O	ARG	A	98	-46.537	-7.970	24.708	1.00	27.84		O
	ANISOU	593	O	ARG	A	98	4248	2860	3469	1008	-245	-662	O
	ATOM	594	CB	ARG	A	98	-45.857	-5.090	23.899	1.00	33.79		C
5	ANISOU	594	CB	ARG	A	98	4943	3341	4554	944	-443	-929	C
	ATOM	595	CG	ARG	A	98	-45.375	-3.931	23.087	1.00	40.95		C
	ANISOU	595	CG	ARG	A	98	5810	4073	5675	857	-533	-977	C
	ATOM	596	CD	ARG	A	98	-46.146	-2.686	23.442	1.00	41.43		C
	ANISOU	596	CD	ARG	A	98	5904	4021	5817	940	-526	-1105	C
10	ATOM	597	NE	ARG	A	98	-45.640	-1.529	22.724	1.00	40.89		N
	ANISOU	597	NE	ARG	A	98	5818	3745	5973	851	-616	-1138	N
	ATOM	598	CZ	ARG	A	98	-46.142	-0.308	22.853	1.00	44.98		C
	ANISOU	598	CZ	ARG	A	98	6360	4122	6607	895	-621	-1225	C
	ATOM	599	NH1	ARG	A	98	-47.172	-0.099	23.666	1.00	42.10		N
15	ANISOU	599	NH1	ARG	A	98	6029	3812	6155	1046	-542	-1314	N
	ATOM	600	NH2	ARG	A	98	-45.618	0.700	22.171	1.00	51.59		N
	ANISOU	600	NH2	ARG	A	98	7178	4793	7631	777	-678	-1191	N
	ATOM	601	N	CYS	A	99	-44.615	-7.494	25.780	1.00	29.24		N
	ANISOU	601	N	CYS	A	99	4493	3091	3524	1061	-469	-860	N
20	ATOM	602	CA	CYS	A	99	-44.986	-8.268	26.947	1.00	33.93		C
	ANISOU	602	CA	CYS	A	99	5185	3835	3873	1176	-397	-818	C
	ATOM	603	C	CYS	A	99	-45.090	-7.351	28.151	1.00	34.20		C
	ANISOU	603	C	CYS	A	99	5297	3942	3755	1291	-435	-1017	C
	ATOM	604	O	CYS	A	99	-44.353	-6.370	28.276	1.00	36.93		O
25	ANISOU	604	O	CYS	A	99	5634	4234	4162	1279	-585	-1205	O
	ATOM	605	CB	CYS	A	99	-43.990	-9.401	27.220	1.00	32.07		C
	ANISOU	605	CB	CYS	A	99	4983	3674	3526	1198	-469	-724	C
	ATOM	606	SG	CYS	A	99	-44.623	-10.628	28.391	1.00	43.97		S
	ANISOU	606	SG	CYS	A	99	6624	5330	4752	1318	-336	-563	S
30	ATOM	607	N	GLN	A	100	-46.025	-7.669	29.030	1.00	32.24		N
	ANISOU	607	N	GLN	A	100	5122	3816	3312	1396	-290	-981	N
	ATOM	608	CA	GLN	A	100	-46.150	-6.963	30.287	1.00	34.89		C
	ANISOU	608	CA	GLN	A	100	5556	4263	3436	1534	-304	-1174	C
	ATOM	609	C	GLN	A	100	-46.317	-8.025	31.358	1.00	39.21		C
35	ANISOU	609	C	GLN	A	100	6217	5013	3669	1639	-211	-1045	C
	ATOM	610	O	GLN	A	100	-47.183	-8.886	31.241	1.00	39.92		O
	ANISOU	610	O	GLN	A	100	6295	5136	3739	1622	-23	-837	O
	ATOM	611	CB	GLN	A	100	-47.354	-6.030	30.257	1.00	38.92		C
	ANISOU	611	CB	GLN	A	100	6036	4725	4028	1583	-173	-1274	C
40	ATOM	612	CG	GLN	A	100	-47.470	-5.134	31.479	1.00	52.95		C
	ANISOU	612	CG	GLN	A	100	7919	6594	5606	1738	-191	-1530	C
	ATOM	613	CD	GLN	A	100	-48.513	-4.052	31.300	1.00	61.26		C
	ANISOU	613	CD	GLN	A	100	8924	7548	6803	1799	-90	-1663	C
	ATOM	614	OE1	GLN	A	100	-49.282	-4.069	30.336	1.00	63.23		O
45	ANISOU	614	OE1	GLN	A	100	9056	7695	7274	1736	8	-1531	O
	ATOM	615	NE2	GLN	A	100	-48.542	-3.099	32.223	1.00	66.17		N
	ANISOU	615	NE2	GLN	A	100	9640	8200	7302	1934	-125	-1937	N
	ATOM	616	N	ALA	A	101	-45.479	-7.968	32.390	1.00	41.61		N
	ANISOU	616	N	ALA	A	101	6629	5451	3731	1740	-352	-1160	N
50	ATOM	617	CA	ALA	A	101	-45.437	-9.007	33.414	1.00	40.51		C
	ANISOU	617	CA	ALA	A	101	6619	5508	3266	1851	-297	-1008	C
	ATOM	618	C	ALA	A	101	-45.186	-8.421	34.789	1.00	42.75		C
	ANISOU	618	C	ALA	A	101	7042	5986	3217	2014	-381	-1219	C
	ATOM	619	O	ALA	A	101	-44.634	-7.333	34.917	1.00	42.97		O
55	ANISOU	619	O	ALA	A	101	7060	5976	3291	2022	-559	-1501	O
	ATOM	620	CB	ALA	A	101	-44.356	-10.026	33.083	1.00	36.66		C
	ANISOU	620	CB	ALA	A	101	6123	4998	2809	1812	-434	-846	C
	ATOM	621	N	MET	A	102	-45.600	-9.157	35.814	1.00	49.30		N
	ANISOU	621	N	MET	A	102	8008	7020	3706	2139	-251	-1078	N

5	ATOM	622	CA	MET	A	102	-45.252	-8.848	37.198	1.00	56.51	C	
	ANISOU	622	CA	MET	A	102	9084	8167	4219	2316	-343	-1240	C
	ATOM	623	C	MET	A	102	-44.492	-10.015	37.808	1.00	60.73	C	
	ANISOU	623	C	MET	A	102	9732	8847	4495	2394	-436	-1022	C
	ATOM	624	O	MET	A	102	-44.792	-11.173	37.518	1.00	58.79	O	
	ANISOU	624	O	MET	A	102	9491	8563	4284	2353	-292	-699	O
10	ATOM	625	CB	MET	A	102	-46.507	-8.588	38.024	1.00	59.93	C	
	ANISOU	625	CB	MET	A	102	9586	8751	4435	2417	-77	-1256	C
	ATOM	626	CG	MET	A	102	-47.059	-7.180	37.895	1.00	64.70	C	
	ANISOU	626	CG	MET	A	102	10100	9255	5227	2399	-54	-1545	C
	ATOM	627	SD	MET	A	102	-48.637	-7.005	38.747	1.00	131.45	S	
	ANISOU	627	SD	MET	A	102	18567	17876	13501	2496	295	-1514	S
15	ATOM	628	CE	MET	A	102	-48.263	-7.810	40.304	1.00	55.19	C	
	ANISOU	628	CE	MET	A	102	9081	8512	3377	2605	295	-1374	C
	ATOM	629	N	ASN	A	103	-43.509	-9.720	38.653	1.00	68.72	N	
	ANISOU	629	N	ASN	A	103	10778	9979	5353	2461	-677	-1166	N
	ATOM	630	CA	ASN	A	103	-42.811	-10.777	39.378	1.00	75.10	C	
	ANISOU	630	CA	ASN	A	103	11672	10925	5937	2548	-768	-949	C
20	ATOM	631	C	ASN	A	103	-43.505	-11.111	40.701	1.00	82.55	C	
	ANISOU	631	C	ASN	A	103	12754	12080	6532	2656	-586	-824	C
	ATOM	632	O	ASN	A	103	-44.578	-10.580	40.995	1.00	82.68	O	
	ANISOU	632	O	ASN	A	103	12787	12142	6486	2663	-369	-897	O
	ATOM	633	CB	ASN	A	103	-41.338	-10.420	39.597	1.00	77.12	C	
	ANISOU	633	CB	ASN	A	103	11855	11207	6239	2553	-1119	-1131	C
25	ATOM	634	CG	ASN	A	103	-41.151	-9.063	40.250	1.00	81.93	C	
	ANISOU	634	CG	ASN	A	103	12435	11867	6828	2546	-1244	-1485	C
	ATOM	635	OD1	ASN	A	103	-42.042	-8.553	40.932	1.00	85.03	O	
	ANISOU	635	OD1	ASN	A	103	12904	12340	7062	2592	-1081	-1569	O
	ATOM	636	ND2	ASN	A	103	-39.983	-8.469	40.042	1.00	82.36	N	
	ANISOU	636	ND2	ASN	A	103	12369	11868	7057	2481	-1527	-1693	N
30	ATOM	637	N	ARG	A	104	-42.893	-11.989	41.494	1.00	88.91	N	
	ANISOU	637	N	ARG	A	104	13648	13013	7122	2743	-670	-635	N
	ATOM	638	CA	ARG	A	104	-43.460	-12.386	42.782	1.00	95.96	C	
	ANISOU	638	CA	ARG	A	104	14682	14113	7666	2840	-508	-492	C
	ATOM	639	C	ARG	A	104	-43.538	-11.191	43.732	1.00	99.57	C	
	ANISOU	639	C	ARG	A	104	15163	14724	7944	2897	-569	-819	C
35	ATOM	640	O	ARG	A	104	-44.345	-11.176	44.665	1.00	103.20	O	
	ANISOU	640	O	ARG	A	104	15721	15350	8140	2962	-371	-776	O
	ATOM	641	CB	ARG	A	104	-42.633	-13.507	43.429	1.00	100.47	C	
	ANISOU	641	CB	ARG	A	104	15342	14771	8062	2925	-632	-242	C
	ATOM	642	CG	ARG	A	104	-42.291	-14.685	42.517	1.00	100.44	C	
	ANISOU	642	CG	ARG	A	104	15310	14581	8270	2880	-634	52	C
40	ATOM	643	CD	ARG	A	104	-43.529	-15.419	42.013	1.00	100.73	C	
	ANISOU	643	CD	ARG	A	104	15381	14504	8387	2798	-291	338	C
	ATOM	644	NE	ARG	A	104	-43.184	-16.623	41.255	1.00	99.90	N	
	ANISOU	644	NE	ARG	A	104	15270	14203	8483	2755	-296	624	N
	ATOM	645	CZ	ARG	A	104	-44.045	-17.320	40.515	1.00	98.84	C	
	ANISOU	645	CZ	ARG	A	104	15134	13897	8523	2647	-52	860	C
45	ATOM	646	NH1	ARG	A	104	-45.309	-16.931	40.416	1.00	98.19	N	
	ANISOU	646	NH1	ARG	A	104	15035	13836	8437	2572	223	853	N
	ATOM	647	NH2	ARG	A	104	-43.639	-18.402	39.861	1.00	97.82	N	
	ANISOU	647	NH2	ARG	A	104	15002	13565	8598	2608	-83	1091	N
	ATOM	648	N	ASN	A	105	-42.695	-10.191	43.482	1.00	97.16	N	
	ANISOU	648	N	ASN	A	105	14764	14355	7798	2862	-838	-1144	N
50	ATOM	649	CA	ASN	A	105	-42.618	-8.999	44.325	1.00	97.08	C	
	ANISOU	649	CA	ASN	A	105	14774	14447	7664	2899	-937	-1483	C
	ATOM	650	C	ASN	A	105	-43.638	-7.921	43.964	1.00	91.14	C	
	ANISOU	650	C	ASN	A	105	13972	13591	7067	2847	-762	-1698	C
	ATOM	651	O	ASN	A	105	-43.814	-6.948	44.700	1.00	93.25	O	
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	ANISOU	651	O	ASN	A	105	14275	13930	7225	2887	-784	-1964	O
	ATOM	652	CB	ASN	A	105	-41.204	-8.414	44.286	1.00	97.51		C
	ANISOU	652	CB	ASN	A	105	14739	14466	7844	2864	-1309	-1727	C
	ATOM	653	CG	ASN	A	105	-40.195	-9.278	45.016	1.00	99.53		C
5	ANISOU	653	CG	ASN	A	105	15048	14886	7881	2956	-1502	-1577	C
	ATOM	654	OD1	ASN	A	105	-40.461	-10.440	45.324	1.00	100.09		O
	ANISOU	654	OD1	ASN	A	105	15220	15043	7766	3031	-1369	-1248	O
	ATOM	655	ND2	ASN	A	105	-39.027	-8.713	45.297	1.00	100.85		N
	ANISOU	655	ND2	ASN	A	105	15142	15088	8088	2944	-1816	-1810	N
10	ATOM	656	N	GLY	A	106	-44.302	-8.094	42.827	1.00	84.33		N
	ANISOU	656	N	GLY	A	106	13026	12552	6462	2763	-594	-1587	N
	ATOM	657	CA	GLY	A	106	-45.313	-7.151	42.385	1.00	82.25		C
	ANISOU	657	CA	GLY	A	106	12697	12174	6381	2721	-419	-1757	C
	ATOM	658	C	GLY	A	106	-44.779	-6.061	41.475	1.00	78.75		C
15	ANISOU	658	C	GLY	A	106	12126	11491	6305	2608	-616	-2029	C
	ATOM	659	O	GLY	A	106	-45.520	-5.172	41.064	1.00	76.34		O
	ANISOU	659	O	GLY	A	106	11759	11053	6195	2572	-506	-2181	O
	ATOM	660	N	LYS	A	107	-43.488	-6.123	41.164	1.00	79.32		N
	ANISOU	660	N	LYS	A	107	12146	11501	6489	2548	-903	-2076	N
20	ATOM	661	CA	LYS	A	107	-42.884	-5.153	40.259	1.00	79.31		C
	ANISOU	661	CA	LYS	A	107	12010	11263	6861	2410	-1087	-2297	C
	ATOM	662	C	LYS	A	107	-43.285	-5.439	38.813	1.00	72.58		C
	ANISOU	662	C	LYS	A	107	11063	10204	6311	2310	-976	-2156	C
	ATOM	663	O	LYS	A	107	-43.339	-6.592	38.383	1.00	69.06		O
25	ANISOU	663	O	LYS	A	107	10636	9789	5815	2323	-898	-1893	O
	ATOM	664	CB	LYS	A	107	-41.358	-5.153	40.393	1.00	83.09		C
	ANISOU	664	CB	LYS	A	107	12431	11761	7377	2366	-1414	-2384	C
	ATOM	665	CG	LYS	A	107	-40.677	-4.017	39.634	1.00	83.03		C
	ANISOU	665	CG	LYS	A	107	12278	11521	7750	2202	-1599	-2625	C
30	ATOM	666	CD	LYS	A	107	-39.176	-4.236	39.494	1.00	83.07		C
	ANISOU	666	CD	LYS	A	107	12172	11540	7850	2134	-1888	-2650	C
	ATOM	667	CE	LYS	A	107	-38.864	-5.414	38.585	1.00	78.30		C
	ANISOU	667	CE	LYS	A	107	11506	10914	7329	2118	-1876	-2382	C
	ATOM	668	NZ	LYS	A	107	-37.415	-5.495	38.252	1.00	77.11		N
35	ANISOU	668	NZ	LYS	A	107	11196	10749	7352	2035	-2142	-2425	N
	ATOM	669	N	GLU	A	108	-43.560	-4.380	38.065	1.00	69.89		N
	ANISOU	669	N	GLU	A	108	10628	9641	6288	2209	-970	-2326	N
	ATOM	670	CA	GLU	A	108	-44.001	-4.518	36.688	1.00	64.74		C
	ANISOU	670	CA	GLU	A	108	9883	8785	5931	2114	-865	-2211	C
40	ATOM	671	C	GLU	A	108	-42.859	-4.251	35.709	1.00	59.44		C
	ANISOU	671	C	GLU	A	108	9089	7927	5569	1959	-1093	-2267	C
	ATOM	672	O	GLU	A	108	-42.073	-3.325	35.897	1.00	64.43		O
	ANISOU	672	O	GLU	A	108	9666	8489	6327	1884	-1285	-2473	O
	ATOM	673	CB	GLU	A	108	-45.177	-3.586	36.421	1.00	67.58		C
45	ANISOU	673	CB	GLU	A	108	10206	9014	6458	2111	-681	-2307	C
	ATOM	674	CG	GLU	A	108	-45.957	-3.928	35.171	1.00	72.51		C
	ANISOU	674	CG	GLU	A	108	10748	9487	7315	2057	-512	-2138	C
	ATOM	675	CD	GLU	A	108	-47.441	-3.686	35.345	1.00	79.07		C
	ANISOU	675	CD	GLU	A	108	11568	10350	8123	2144	-239	-2115	C
50	ATOM	676	OE1	GLU	A	108	-47.952	-3.932	36.461	1.00	81.87		O
	ANISOU	676	OE1	GLU	A	108	12008	10925	8173	2265	-107	-2107	O
	ATOM	677	OE2	GLU	A	108	-48.091	-3.242	34.373	1.00	79.16		O
	ANISOU	677	OE2	GLU	A	108	11474	10177	8427	2090	-157	-2096	O
	ATOM	678	N	THR	A	109	-42.774	-5.077	34.671	1.00	49.49		N
55	ANISOU	678	N	THR	A	109	7783	6590	4431	1906	-1059	-2082	N
	ATOM	679	CA	THR	A	109	-41.684	-5.018	33.707	1.00	44.41		C
	ANISOU	679	CA	THR	A	109	6996	5799	4081	1746	-1237	-2072	C
	ATOM	680	C	THR	A	109	-42.243	-5.154	32.295	1.00	41.00		C
	ANISOU	680	C	THR	A	109	6443	5163	3972	1608	-1074	-1874	C

5	ATOM	681	O	THR	A	109	-43.040	-6.047	32.024	1.00	38.42	O	
	ANISOU	681	O	THR	A	109	6126	4869	3603	1627	-877	-1635	O
	ATOM	682	CB	THR	A	109	-40.681	-6.158	33.949	1.00	46.53	C	
	ANISOU	682	CB	THR	A	109	7252	6220	4208	1777	-1365	-1915	C
	ATOM	683	OG1	THR	A	109	-40.269	-6.155	35.326	1.00	54.39	O	
	ANISOU	683	OG1	THR	A	109	8363	7440	4864	1922	-1503	-2044	O
10	ATOM	684	CG2	THR	A	109	-39.471	-6.012	33.044	1.00	42.56	C	
	ANISOU	684	CG2	THR	A	109	6569	5596	4006	1623	-1545	-1936	C
	ATOM	685	N	LYS	A	110	-41.834	-4.259	31.403	1.00	41.06	N	
	ANISOU	685	N	LYS	A	110	6340	4963	4299	1464	-1161	-1973	N
	ATOM	686	CA	LYS	A	110	-42.335	-4.245	30.034	1.00	36.34	C	
	ANISOU	686	CA	LYS	A	110	5639	4182	3988	1340	-1030	-1802	C
15	ATOM	687	C	LYS	A	110	-41.235	-4.629	29.060	1.00	36.91	C	
	ANISOU	687	C	LYS	A	110	5576	4192	4257	1195	-1128	-1692	C
	ATOM	688	O	LYS	A	110	-40.073	-4.279	29.262	1.00	38.87	O	
	ANISOU	688	O	LYS	A	110	5767	4449	4552	1143	-1321	-1828	O
	ATOM	689	CB	LYS	A	110	-42.874	-2.863	29.673	1.00	38.59	C	
	ANISOU	689	CB	LYS	A	110	5915	4260	4488	1302	-1015	-1963	C
20	ATOM	690	CG	LYS	A	110	-44.107	-2.428	30.465	1.00	45.07	C	
	ANISOU	690	CG	LYS	A	110	6842	5124	5157	1462	-879	-2073	C
	ATOM	691	CD	LYS	A	110	-44.449	-0.973	30.169	1.00	51.71	C	
	ANISOU	691	CD	LYS	A	110	7639	5762	6248	1395	-877	-2181	C
	ATOM	692	CE	LYS	A	110	-45.768	-0.554	30.806	1.00	58.20	C	
	ANISOU	692	CE	LYS	A	110	8515	6632	6967	1540	-705	-2237	C
25	ATOM	693	NZ	LYS	A	110	-46.921	-1.312	30.246	1.00	59.21	N	
	ANISOU	693	NZ	LYS	A	110	8611	6796	7091	1607	-503	-2047	N
	ATOM	694	N	SER	A	111	-41.615	-5.363	28.013	1.00	33.09	N	
	ANISOU	694	N	SER	A	111	5032	3658	3882	1131	-992	-1458	N
	ATOM	695	CA	SER	A	111	-40.707	-5.740	26.942	1.00	31.61	C	
	ANISOU	695	CA	SER	A	111	4717	3415	3879	1005	-1039	-1348	C
30	ATOM	696	C	SER	A	111	-41.310	-5.276	25.623	1.00	32.24	C	
	ANISOU	696	C	SER	A	111	4735	3321	4193	890	-930	-1253	C
	ATOM	697	O	SER	A	111	-42.481	-5.508	25.361	1.00	36.66	O	
	ANISOU	697	O	SER	A	111	5334	3862	4733	924	-783	-1151	O
	ATOM	698	CB	SER	A	111	-40.510	-7.258	26.907	1.00	30.58	C	
	ANISOU	698	CB	SER	A	111	4594	3404	3623	1060	-989	-1154	C
35	ATOM	699	OG	SER	A	111	-40.029	-7.748	28.146	1.00	36.08	O	
	ANISOU	699	OG	SER	A	111	5365	4268	4075	1191	-1089	-1202	O
	ATOM	700	N	ASN	A	112	-40.504	-4.629	24.793	1.00	29.50	N	
	ANISOU	700	N	ASN	A	112	4284	2860	4065	752	-1003	-1276	N
	ATOM	701	CA	ASN	A	112	-40.994	-4.025	23.559	1.00	27.69	C	
	ANISOU	701	CA	ASN	A	112	4013	2466	4043	648	-919	-1182	C
45	ATOM	702	C	ASN	A	112	-40.090	-4.402	22.394	1.00	28.31	C	
	ANISOU	702	C	ASN	A	112	3971	2536	4249	521	-916	-1055	C
	ATOM	703	O	ASN	A	112	-38.911	-4.057	22.385	1.00	30.47	O	
	ANISOU	703	O	ASN	A	112	4151	2807	4620	436	-1020	-1128	O
	ATOM	704	CB	ASN	A	112	-41.041	-2.500	23.715	1.00	30.80	C	
	ANISOU	704	CB	ASN	A	112	4424	2682	4596	603	-990	-1344	C
50	ATOM	705	CG	ASN	A	112	-41.873	-1.825	22.639	1.00	34.63	C	
	ANISOU	705	CG	ASN	A	112	4908	2993	5256	552	-898	-1231	C
	ATOM	706	OD1	ASN	A	112	-42.862	-2.379	22.160	1.00	35.15	O	
	ANISOU	706	OD1	ASN	A	112	4990	3097	5269	604	-779	-1088	O
	ATOM	707	ND2	ASN	A	112	-41.472	-0.618	22.254	1.00	38.27	N	
	ANISOU	707	ND2	ASN	A	112	5348	3255	5937	446	-962	-1290	N
55	ATOM	708	N	TYR	A	113	-40.640	-5.124	21.423	1.00	29.35	N	
	ANISOU	708	N	TYR	A	113	4097	2678	4378	508	-794	-879	N
	ATOM	709	CA	TYR	A	113	-39.862	-5.606	20.291	1.00	29.83	C	
	ANISOU	709	CA	TYR	A	113	4059	2759	4517	414	-764	-765	C
	ATOM	710	C	TYR	A	113	-40.417	-5.099	18.968	1.00	30.50	C	

	ANISOU	710	C	TYR	A	113	4132	2736	4719	324	-680	-640	C
	ATOM	711	O	TYR	A	113	-41.628	-5.165	18.721	1.00	27.74		O
	ANISOU	711	O	TYR	A	113	3848	2358	4335	369	-612	-575	O
	ATOM	712	CB	TYR	A	113	-39.856	-7.135	20.259	1.00	28.17		C
5	ANISOU	712	CB	TYR	A	113	3863	2674	4167	491	-710	-675	C
	ATOM	713	CG	TYR	A	113	-39.264	-7.790	21.485	1.00	30.79		C
	ANISOU	713	CG	TYR	A	113	4215	3122	4363	600	-795	-749	C
	ATOM	714	CD1	TYR	A	113	-37.894	-7.970	21.609	1.00	24.09		C
	ANISOU	714	CD1	TYR	A	113	3258	2347	3548	592	-894	-800	C
10	ATOM	715	CD2	TYR	A	113	-40.082	-8.247	22.509	1.00	23.29		C
	ANISOU	715	CD2	TYR	A	113	3384	2223	3242	719	-773	-753	C
	ATOM	716	CE1	TYR	A	113	-37.352	-8.577	22.727	1.00	28.92		C
	ANISOU	716	CE1	TYR	A	113	3888	3077	4022	713	-996	-854	C
	ATOM	717	CE2	TYR	A	113	-39.554	-8.853	23.632	1.00	25.31		C
15	ANISOU	717	CE2	TYR	A	113	3679	2596	3341	832	-854	-793	C
	ATOM	718	CZ	TYR	A	113	-38.192	-9.018	23.738	1.00	28.91		C
	ANISOU	718	CZ	TYR	A	113	4037	3121	3828	836	-979	-843	C
	ATOM	719	OH	TYR	A	113	-37.675	-9.624	24.859	1.00	29.83		O
	ANISOU	719	OH	TYR	A	113	4194	3365	3774	970	-1083	-871	O
20	ATOM	720	N	ARG	A	114	-39.527	-4.600	18.117	1.00	29.64		N
	ANISOU	720	N	ARG	A	114	3932	2583	4746	198	-683	-598	N
	ATOM	721	CA	ARG	A	114	-39.884	-4.266	16.744	1.00	30.01		C
	ANISOU	721	CA	ARG	A	114	3974	2565	4864	116	-598	-445	C
	ATOM	722	C	ARG	A	114	-39.316	-5.389	15.867	1.00	30.71		C
25	ANISOU	722	C	ARG	A	114	4003	2789	4878	101	-524	-355	C
	ATOM	723	O	ARG	A	114	-38.104	-5.561	15.770	1.00	35.22		O
	ANISOU	723	O	ARG	A	114	4465	3425	5491	50	-532	-378	O
	ATOM	724	CB	ARG	A	114	-39.326	-2.883	16.366	1.00	32.34		C
	ANISOU	724	CB	ARG	A	114	4225	2707	5357	-19	-628	-436	C
30	ATOM	725	CG	ARG	A	114	-39.537	-2.426	14.912	1.00	32.70		C
	ANISOU	725	CG	ARG	A	114	4273	2687	5466	-109	-541	-243	C
	ATOM	726	CD	ARG	A	114	-41.004	-2.290	14.533	1.00	37.15		C
	ANISOU	726	CD	ARG	A	114	4943	3195	5979	-24	-516	-159	C
	ATOM	727	NE	ARG	A	114	-41.179	-1.850	13.143	1.00	43.63		N
35	ANISOU	727	NE	ARG	A	114	5776	3972	6829	-95	-455	38	N
	ATOM	728	CZ	ARG	A	114	-41.411	-2.666	12.109	1.00	42.31		C
	ANISOU	728	CZ	ARG	A	114	5612	3942	6521	-86	-387	154	C
	ATOM	729	NH1	ARG	A	114	-41.505	-3.981	12.291	1.00	32.79		N
	ANISOU	729	NH1	ARG	A	114	4396	2892	5170	-20	-367	91	N
40	ATOM	730	NH2	ARG	A	114	-41.554	-2.168	10.885	1.00	43.64		N
	ANISOU	730	NH2	ARG	A	114	5807	4084	6690	-143	-343	335	N
	ATOM	731	N	VAL	A	115	-40.202	-6.178	15.269	1.00	25.57		N
	ANISOU	731	N	VAL	A	115	3414	2182	4121	151	-456	-271	N
	ATOM	732	CA	VAL	A	115	-39.794	-7.337	14.482	1.00	25.67		C
45	ANISOU	732	CA	VAL	A	115	3397	2307	4048	159	-388	-221	C
	ATOM	733	C	VAL	A	115	-39.857	-7.057	12.981	1.00	27.00		C
	ANISOU	733	C	VAL	A	115	3558	2483	4219	77	-312	-96	C
	ATOM	734	O	VAL	A	115	-40.915	-6.719	12.443	1.00	25.91		O
	ANISOU	734	O	VAL	A	115	3487	2299	4059	75	-306	-21	O
50	ATOM	735	CB	VAL	A	115	-40.672	-8.571	14.810	1.00	19.50		C
	ANISOU	735	CB	VAL	A	115	2697	1568	3144	259	-371	-229	C
	ATOM	736	CG1	VAL	A	115	-40.343	-9.735	13.886	1.00	19.27		C
	ANISOU	736	CG1	VAL	A	115	2661	1617	3045	268	-305	-197	C
	ATOM	737	CG2	VAL	A	115	-40.502	-8.968	16.275	1.00	19.57		C
55	ANISOU	737	CG2	VAL	A	115	2727	1595	3112	350	-430	-319	C
	ATOM	738	N	ARG	A	116	-38.716	-7.201	12.315	1.00	27.48		N
	ANISOU	738	N	ARG	A	116	3527	2621	4293	22	-254	-72	N
	ATOM	739	CA	ARG	A	116	-38.627	-7.059	10.865	1.00	27.88		C
	ANISOU	739	CA	ARG	A	116	3574	2721	4297	-46	-158	50	C

	ATOM	740	C	ARG	A	116	-38.166	-8.387	10.297	1.00	30.58		C
	ANISOU	740	C	ARG	A	116	3896	3204	4518	15	-85	14	C
	ATOM	741	O	ARG	A	116	-37.241	-9.012	10.831	1.00	30.98		O
	ANISOU	741	O	ARG	A	116	3863	3313	4594	63	-85	-73	O
5	ATOM	742	CB	ARG	A	116	-37.626	-5.966	10.488	1.00	31.46		C
	ANISOU	742	CB	ARG	A	116	3926	3147	4880	-177	-116	121	C
	ATOM	743	CG	ARG	A	116	-37.854	-4.647	11.208	1.00	38.59		C
	ANISOU	743	CG	ARG	A	116	4843	3870	5948	-240	-202	116	C
	ATOM	744	CD	ARG	A	116	-36.695	-3.666	11.007	1.00	43.39		C
10	ANISOU	744	CD	ARG	A	116	5328	4429	6729	-396	-168	163	C
	ATOM	745	NE	ARG	A	116	-36.777	-2.538	11.939	1.00	46.53		N
	ANISOU	745	NE	ARG	A	116	5738	4634	7308	-449	-278	92	N
	ATOM	746	CZ	ARG	A	116	-37.527	-1.459	11.743	1.00	48.88		C
	ANISOU	746	CZ	ARG	A	116	6135	4742	7693	-484	-301	177	C
15	ATOM	747	NH1	ARG	A	116	-38.264	-1.353	10.646	1.00	51.41		N
	ANISOU	747	NH1	ARG	A	116	6546	5060	7927	-471	-233	357	N
	ATOM	748	NH2	ARG	A	116	-37.541	-0.483	12.639	1.00	48.76		N
	ANISOU	748	NH2	ARG	A	116	6136	4540	7851	-519	-403	75	N
	ATOM	749	N	VAL	A	117	-38.811	-8.839	9.226	1.00	29.68		N
20	ANISOU	749	N	VAL	A	117	3861	3144	4272	26	-36	67	N
	ATOM	750	CA	VAL	A	117	-38.476	-10.148	8.686	1.00	28.91		C
	ANISOU	750	CA	VAL	A	117	3771	3155	4059	96	28	-1	C
	ATOM	751	C	VAL	A	117	-37.718	-10.043	7.383	1.00	23.70		C
	ANISOU	751	C	VAL	A	117	3065	2625	3316	53	155	60	C
25	ATOM	752	O	VAL	A	117	-37.765	-9.026	6.707	1.00	26.26		O
	ANISOU	752	O	VAL	A	117	3389	2953	3634	-39	193	193	O
	ATOM	753	CB	VAL	A	117	-39.710	-11.039	8.508	1.00	31.87		C
	ANISOU	753	CB	VAL	A	117	4270	3507	4331	151	-16	-40	C
	ATOM	754	CG1	VAL	A	117	-40.570	-10.978	9.761	1.00	29.23		C
30	ANISOU	754	CG1	VAL	A	117	3972	3060	4074	179	-112	-66	C
	ATOM	755	CG2	VAL	A	117	-40.498	-10.625	7.269	1.00	31.96		C
	ANISOU	755	CG2	VAL	A	117	4350	3563	4229	101	-8	51	C
	ATOM	756	N	TYR	A	118	-37.000	-11.097	7.034	1.00	24.30		N
	ANISOU	756	N	TYR	A	118	3104	2805	3324	129	232	-31	N
35	ATOM	757	CA	TYR	A	118	-36.175	-11.036	5.842	1.00	27.97		C
	ANISOU	757	CA	TYR	A	118	3507	3424	3694	103	383	12	C
	ATOM	758	C	TYR	A	118	-35.957	-12.417	5.268	1.00	28.23		C
	ANISOU	758	C	TYR	A	118	3579	3552	3594	226	449	-122	C
	ATOM	759	O	TYR	A	118	-36.183	-13.424	5.935	1.00	28.21		O
40	ANISOU	759	O	TYR	A	118	3621	3472	3624	325	379	-244	O
	ATOM	760	CB	TYR	A	118	-34.824	-10.376	6.150	1.00	27.32		C
	ANISOU	760	CB	TYR	A	118	3228	3390	3762	41	455	48	C
	ATOM	761	CG	TYR	A	118	-33.867	-11.269	6.905	1.00	32.96		C
	ANISOU	761	CG	TYR	A	118	3816	4144	4562	153	449	-93	C
45	ATOM	762	CD1	TYR	A	118	-32.894	-12.000	6.235	1.00	33.94		C
	ANISOU	762	CD1	TYR	A	118	3838	4426	4631	233	590	-156	C
	ATOM	763	CD2	TYR	A	118	-33.946	-11.396	8.289	1.00	35.29		C
	ANISOU	763	CD2	TYR	A	118	4099	4329	4981	199	302	-163	C
	ATOM	764	CE1	TYR	A	118	-32.022	-12.826	6.918	1.00	33.71		C
50	ANISOU	764	CE1	TYR	A	118	3686	4429	4694	364	572	-278	C
	ATOM	765	CE2	TYR	A	118	-33.072	-12.218	8.986	1.00	33.27		C
	ANISOU	765	CE2	TYR	A	118	3735	4115	4793	322	276	-271	C
	ATOM	766	CZ	TYR	A	118	-32.115	-12.928	8.292	1.00	33.24		C
	ANISOU	766	CZ	TYR	A	118	3620	4253	4757	408	405	-326	C
55	ATOM	767	OH	TYR	A	118	-31.251	-13.748	8.972	1.00	36.75		O
	ANISOU	767	OH	TYR	A	118	3949	4735	5281	557	368	-426	O
	ATOM	768	N	GLN	A	119	-35.520	-12.456	4.020	1.00	26.59		N
	ANISOU	768	N	GLN	A	119	3612	3450	3039	778	-371	0	N
	ATOM	769	CA	GLN	A	119	-35.073	-13.701	3.424	1.00	27.16		C

	ANISOU	769	CA	GLN	A	119	3652	3435	3234	998	-320	147	C
	ATOM	770	C	GLN	A	119	-33.927	-13.413	2.466	1.00	27.21		C
	ANISOU	770	C	GLN	A	119	3501	3572	3267	985	-377	75	C
	ATOM	771	O	GLN	A	119	-33.908	-12.388	1.783	1.00	26.98		O
5	ANISOU	771	O	GLN	A	119	3459	3530	3261	787	-411	-110	O
	ATOM	772	CB	GLN	A	119	-36.220	-14.424	2.707	1.00	25.92		C
	ANISOU	772	CB	GLN	A	119	3665	2897	3289	1003	-174	136	C
	ATOM	773	CG	GLN	A	119	-35.848	-15.807	2.161	1.00	27.11		C
	ANISOU	773	CG	GLN	A	119	3855	2878	3569	1200	-35	259	C
10	ATOM	774	CD	GLN	A	119	-35.358	-16.753	3.247	1.00	30.61		C
	ANISOU	774	CD	GLN	A	119	4295	3408	3929	1473	30	527	C
	ATOM	775	OE1	GLN	A	119	-34.177	-16.755	3.610	1.00	31.43		O
	ANISOU	775	OE1	GLN	A	119	4220	3813	3909	1638	-51	662	O
	ATOM	776	NE2	GLN	A	119	-36.270	-17.563	3.775	1.00	30.76		N
15	ANISOU	776	NE2	GLN	A	119	4493	3193	3999	1527	187	627	N
	ATOM	777	N	ILE	A	120	-32.965	-14.321	2.436	1.00	31.74		N
	ANISOU	777	N	ILE	A	120	3957	4266	3839	1220	-357	248	N
	ATOM	778	CA	ILE	A	120	-31.786	-14.166	1.606	1.00	32.67		C
	ANISOU	778	CA	ILE	A	120	3894	4541	3977	1243	-392	211	C
20	ATOM	779	C	ILE	A	120	-32.015	-14.813	0.245	1.00	32.26		C
	ANISOU	779	C	ILE	A	120	3960	4139	4159	1289	-240	159	C
	ATOM	780	O	ILE	A	120	-32.300	-16.010	0.164	1.00	36.91		O
	ANISOU	780	O	ILE	A	120	4671	4488	4864	1477	-72	288	O
	ATOM	781	CB	ILE	A	120	-30.567	-14.825	2.286	1.00	37.50		C
25	ANISOU	781	CB	ILE	A	120	4272	5520	4457	1516	-428	464	C
	ATOM	782	CG1	ILE	A	120	-30.342	-14.221	3.674	1.00	39.92		C
	ANISOU	782	CG1	ILE	A	120	4443	6261	4465	1427	-593	507	C
	ATOM	783	CG2	ILE	A	120	-29.321	-14.694	1.423	1.00	35.98		C
	ANISOU	783	CG2	ILE	A	120	3856	5519	4296	1554	-446	438	C
30	ATOM	784	CD1	ILE	A	120	-29.127	-14.802	4.409	1.00	38.32		C
	ANISOU	784	CD1	ILE	A	120	3937	6559	4065	1698	-667	798	C
	ATOM	785	N	PRO	A	121	-31.883	-14.032	-0.836	1.00	29.95		N
	ANISOU	785	N	PRO	A	121	3649	3811	3921	1098	-269	-37	N
	ATOM	786	CA	PRO	A	121	-32.055	-14.634	-2.161	1.00	27.27		C
35	ANISOU	786	CA	PRO	A	121	3413	3198	3752	1106	-129	-104	C
	ATOM	787	C	PRO	A	121	-30.916	-15.603	-2.454	1.00	31.76		C
	ANISOU	787	C	PRO	A	121	3884	3803	4380	1363	-9	31	C
	ATOM	788	O	PRO	A	121	-29.904	-15.600	-1.749	1.00	36.71		O
	ANISOU	788	O	PRO	A	121	4299	4745	4904	1526	-78	182	O
40	ATOM	789	CB	PRO	A	121	-31.966	-13.431	-3.099	1.00	24.92		C
	ANISOU	789	CB	PRO	A	121	3078	2949	3444	871	-204	-299	C
	ATOM	790	CG	PRO	A	121	-31.058	-12.475	-2.379	1.00	26.92		C
	ANISOU	790	CG	PRO	A	121	3145	3537	3546	808	-336	-311	C
	ATOM	791	CD	PRO	A	121	-31.423	-12.633	-0.918	1.00	30.66		C
45	ANISOU	791	CD	PRO	A	121	3626	4122	3903	871	-393	-197	C
	ATOM	792	N	GLY	A	122	-31.080	-16.435	-3.473	1.00	28.95		N
	ANISOU	792	N	GLY	A	122	3671	3154	4173	1395	189	-18	N
	ATOM	793	CA	GLY	A	122	-29.988	-17.278	-3.915	1.00	31.28		C
	ANISOU	793	CA	GLY	A	122	3898	3434	4552	1643	364	92	C
50	ATOM	794	C	GLY	A	122	-28.955	-16.397	-4.593	1.00	34.16		C
	ANISOU	794	C	GLY	A	122	4047	4063	4870	1560	255	-6	C
	ATOM	795	O	GLY	A	122	-29.214	-15.218	-4.854	1.00	35.12		O
	ANISOU	795	O	GLY	A	122	4137	4291	4916	1291	88	-176	O
	ATOM	796	N	LYS	A	123	-27.788	-16.966	-4.869	1.00	36.35		N
55	ANISOU	796	N	LYS	A	123	4177	4433	5201	1803	383	118	N
	ATOM	797	CA	LYS	A	123	-26.701	-16.249	-5.518	1.00	41.69		C
	ANISOU	797	CA	LYS	A	123	4624	5375	5842	1738	316	39	C
	ATOM	798	C	LYS	A	123	-27.200	-15.549	-6.781	1.00	41.56		C
	ANISOU	798	C	LYS	A	123	4757	5182	5853	1416	310	-240	C

5	ATOM	799	O	LYS	A	123	-27.933	-16.142	-7.566	1.00	44.31	O	
	ANISOU	799	O	LYS	A	123	5349	5197	6289	1352	469	-341	O
	ATOM	800	CB	LYS	A	123	-25.585	-17.233	-5.865	1.00	47.75	C	
	ANISOU	800	CB	LYS	A	123	5271	6156	6717	2083	549	217	C
	ATOM	801	CG	LYS	A	123	-24.227	-16.601	-6.022	1.00	54.72	C	
	ANISOU	801	CG	LYS	A	123	5788	7476	7526	2108	454	245	C
10	ATOM	802	CD	LYS	A	123	-23.165	-17.638	-6.311	1.00	62.82	C	
	ANISOU	802	CD	LYS	A	123	6673	8523	8673	2512	718	470	C
	ATOM	803	CE	LYS	A	123	-21.810	-16.975	-6.482	1.00	67.94	C	
	ANISOU	803	CE	LYS	A	123	6906	9670	9239	2512	615	495	C
	ATOM	804	NZ	LYS	A	123	-21.906	-15.821	-7.419	1.00	66.80	N	
	ANISOU	804	NZ	LYS	A	123	6813	9507	9059	2080	509	157	N
15	ATOM	805	N	PRO	A	124	-26.820	-14.275	-6.972	1.00	38.45	N	
	ANISOU	805	N	PRO	A	124	4221	5029	5361	1193	144	-363	N
	ATOM	806	CA	PRO	A	124	-27.262	-13.558	-8.174	1.00	33.95	C	
	ANISOU	806	CA	PRO	A	124	3785	4315	4799	929	153	-572	C
	ATOM	807	C	PRO	A	124	-26.561	-14.110	-9.417	1.00	35.44	C	
	ANISOU	807	C	PRO	A	124	3982	4413	5073	988	348	-626	C
20	ATOM	808	O	PRO	A	124	-25.467	-14.658	-9.308	1.00	37.96	O	
	ANISOU	808	O	PRO	A	124	4123	4861	5438	1213	447	-512	O
	ATOM	809	CB	PRO	A	124	-26.824	-12.117	-7.899	1.00	31.04	C	
	ANISOU	809	CB	PRO	A	124	3264	4215	4316	720	-8	-650	C
	ATOM	810	CG	PRO	A	124	-25.636	-12.258	-6.986	1.00	32.23	C	
	ANISOU	810	CG	PRO	A	124	3115	4729	4401	866	-66	-523	C
25	ATOM	811	CD	PRO	A	124	-25.920	-13.463	-6.133	1.00	36.30	C	
	ANISOU	811	CD	PRO	A	124	3657	5185	4950	1159	-27	-316	C
	ATOM	812	N	GLU	A	125	-27.195	-13.988	-10.576	1.00	32.47	N	
	ANISOU	812	N	GLU	A	125	3795	3843	4698	800	415	-783	N
	ATOM	813	CA	GLU	A	125	-26.640	-14.540	-11.800	1.00	37.26	C	
	ANISOU	813	CA	GLU	A	125	4455	4343	5357	816	626	-869	C
30	ATOM	814	C	GLU	A	125	-26.741	-13.538	-12.933	1.00	39.13	C	
	ANISOU	814	C	GLU	A	125	4729	4632	5505	556	581	-1019	C
	ATOM	815	O	GLU	A	125	-27.699	-12.770	-13.019	1.00	37.89	O	
	ANISOU	815	O	GLU	A	125	4660	4471	5265	372	447	-1060	O
	ATOM	816	CB	GLU	A	125	-27.392	-15.808	-12.214	1.00	41.81	C	
	ANISOU	816	CB	GLU	A	125	5290	4598	5999	839	841	-922	C
35	ATOM	817	CG	GLU	A	125	-27.346	-16.940	-11.212	1.00	50.82	C	
	ANISOU	817	CG	GLU	A	125	6461	5600	7248	1121	974	-752	C
	ATOM	818	CD	GLU	A	125	-28.163	-18.138	-11.663	1.00	58.86	C	
	ANISOU	818	CD	GLU	A	125	7787	6247	8331	1066	1242	-852	C
	ATOM	819	OE1	GLU	A	125	-27.967	-18.601	-12.809	1.00	59.38	O	
	ANISOU	819	OE1	GLU	A	125	7991	6159	8413	970	1474	-1014	O
40	ATOM	820	OE2	GLU	A	125	-29.009	-18.612	-10.872	1.00	62.60	O	
	ANISOU	820	OE2	GLU	A	125	8375	6584	8825	1086	1243	-791	O
	ATOM	821	N	ILE	A	126	-25.754	-13.565	-13.815	1.00	41.40	N	
	ANISOU	821	N	ILE	A	126	4949	4970	5811	568	720	-1075	N
	ATOM	822	CA	ILE	A	126	-25.800	-12.765	-15.021	1.00	42.56	C	
	ANISOU	822	CA	ILE	A	126	5159	5148	5864	341	727	-1201	C
45	ATOM	823	C	ILE	A	126	-26.275	-13.623	-16.180	1.00	43.28	C	
	ANISOU	823	C	ILE	A	126	5470	5050	5923	258	915	-1330	C
	ATOM	824	O	ILE	A	126	-25.717	-14.684	-16.444	1.00	47.11	O	
	ANISOU	824	O	ILE	A	126	5998	5404	6497	394	1151	-1359	O
	ATOM	825	CB	ILE	A	126	-24.428	-12.155	-15.334	1.00	46.23	C	
	ANISOU	825	CB	ILE	A	126	5416	5810	6341	349	776	-1207	C
50	ATOM	826	CG1	ILE	A	126	-24.129	-11.036	-14.338	1.00	45.50	C	
	ANISOU	826	CG1	ILE	A	126	5137	5935	6214	284	588	-1151	C
	ATOM	827	CG2	ILE	A	126	-24.387	-11.620	-16.760	1.00	47.76	C	
	ANISOU	827	CG2	ILE	A	126	5715	5987	6443	152	866	-1327	C
	ATOM	828	CD1	ILE	A	126	-22.770	-10.405	-14.515	1.00	51.15	C	
													C

	ANISOU	828	CD1	ILE	A	126	5613	6895	6927	234	634	-1176	C
	ATOM	829	N	VAL	A	127	-27.326	-13.167	-16.852	1.00	43.11		N
	ANISOU	829	N	VAL	A	127	5587	5034	5759	32	831	-1401	N
	ATOM	830	CA	VAL	A	127	-27.837	-13.843	-18.041	1.00	45.65		C
5	ANISOU	830	CA	VAL	A	127	6099	5272	5972	-138	982	-1557	C
	ATOM	831	C	VAL	A	127	-27.732	-12.912	-19.256	1.00	47.70		C
	ANISOU	831	C	VAL	A	127	6363	5699	6061	-320	959	-1603	C
	ATOM	832	O	VAL	A	127	-27.558	-11.701	-19.106	1.00	50.87		O
	ANISOU	832	O	VAL	A	127	6659	6229	6439	-323	822	-1499	O
10	ATOM	833	CB	VAL	A	127	-29.296	-14.305	-17.830	1.00	47.13		C
	ANISOU	833	CB	VAL	A	127	6418	5403	6085	-272	909	-1591	C
	ATOM	834	CG1	VAL	A	127	-29.442	-14.997	-16.473	1.00	44.15		C
	ANISOU	834	CG1	VAL	A	127	6033	4868	5874	-79	911	-1498	C
	ATOM	835	CG2	VAL	A	127	-30.249	-13.127	-17.903	1.00	46.13		C
15	ANISOU	835	CG2	VAL	A	127	6237	5477	5812	-398	664	-1501	C
	ATOM	836	N	ASP	A	128	-27.820	-13.485	-20.451	1.00	51.01		N
	ANISOU	836	N	ASP	A	128	6925	6105	6351	-483	1126	-1763	N
	ATOM	837	CA	ASP	A	128	-27.757	-12.732	-21.708	1.00	54.78		C
	ANISOU	837	CA	ASP	A	128	7427	6765	6622	-659	1127	-1797	C
20	ATOM	838	C	ASP	A	128	-26.629	-11.705	-21.760	1.00	53.20		C
	ANISOU	838	C	ASP	A	128	7087	6638	6489	-566	1130	-1706	C
	ATOM	839	O	ASP	A	128	-26.856	-10.545	-22.109	1.00	57.63		O
	ANISOU	839	O	ASP	A	128	7624	7339	6934	-640	1022	-1603	O
	ATOM	840	CB	ASP	A	128	-29.094	-12.040	-21.996	1.00	59.68		C
25	ANISOU	840	CB	ASP	A	128	8062	7590	7025	-819	914	-1713	C
	ATOM	841	CG	ASP	A	128	-30.248	-13.020	-22.115	1.00	66.18		C
	ANISOU	841	CG	ASP	A	128	8991	8425	7728	-996	913	-1836	C
	ATOM	842	OD1	ASP	A	128	-30.088	-14.050	-22.806	1.00	68.39		O
	ANISOU	842	OD1	ASP	A	128	9416	8628	7942	-1148	1131	-2056	O
30	ATOM	843	OD2	ASP	A	128	-31.310	-12.763	-21.505	1.00	68.22		O
	ANISOU	843	OD2	ASP	A	128	9195	8766	7961	-1003	725	-1726	O
	ATOM	844	N	SER	A	129	-25.420	-12.127	-21.411	1.00	46.17		N
	ANISOU	844	N	SER	A	129	6098	5661	5782	-401	1280	-1727	N
	ATOM	845	CA	SER	A	129	-24.275	-11.225	-21.426	1.00	41.33		C
35	ANISOU	845	CA	SER	A	129	5317	5157	5229	-356	1301	-1670	C
	ATOM	846	C	SER	A	129	-23.642	-11.145	-22.808	1.00	43.54		C
	ANISOU	846	C	SER	A	129	5661	5485	5397	-472	1503	-1773	C
	ATOM	847	O	SER	A	129	-23.564	-12.145	-23.527	1.00	45.39		O
	ANISOU	847	O	SER	A	129	6025	5628	5593	-499	1709	-1913	O
40	ATOM	848	CB	SER	A	129	-23.233	-11.657	-20.397	1.00	38.32		C
	ANISOU	848	CB	SER	A	129	4725	4771	5064	-123	1348	-1614	C
	ATOM	849	OG	SER	A	129	-22.749	-12.951	-20.690	1.00	39.51		O
	ANISOU	849	OG	SER	A	129	4922	4784	5305	18	1600	-1684	O
	ATOM	850	N	ALA	A	130	-23.197	-9.949	-23.180	1.00	42.25		N
45	ANISOU	850	N	ALA	A	130	5432	5444	5175	-558	1480	-1714	N
	ATOM	851	CA	ALA	A	130	-22.530	-9.756	-24.460	1.00	44.24		C
	ANISOU	851	CA	ALA	A	130	5737	5756	5315	-668	1680	-1792	C
	ATOM	852	C	ALA	A	130	-21.094	-10.250	-24.376	1.00	45.66		C
	ANISOU	852	C	ALA	A	130	5746	5929	5675	-535	1891	-1853	C
50	ATOM	853	O	ALA	A	130	-20.453	-10.149	-23.333	1.00	49.08		O
	ANISOU	853	O	ALA	A	130	5952	6412	6286	-395	1832	-1782	O
	ATOM	854	CB	ALA	A	130	-22.564	-8.291	-24.870	1.00	43.65		C
	ANISOU	854	CB	ALA	A	130	5673	5786	5126	-795	1626	-1681	C
	ATOM	855	N	SER	A	131	-20.588	-10.794	-25.472	1.00	46.42		N
55	ANISOU	855	N	SER	A	131	5933	6000	5706	-578	2147	-1978	N
	ATOM	856	CA	SER	A	131	-19.194	-11.208	-25.513	1.00	48.81		C
	ANISOU	856	CA	SER	A	131	6052	6317	6177	-429	2389	-2011	C
	ATOM	857	C	SER	A	131	-18.333	-10.190	-26.268	1.00	44.12		C
	ANISOU	857	C	SER	A	131	5373	5873	5518	-567	2490	-2014	C

5	ATOM	858	O	SER A 131	-17.109	-10.182	-26.132	1.00	45.74	O	
	ANISOU	858	O	SER A 131	5334	6176	5867	-470	2637	-2006	O
	ATOM	859	CB	SER A 131	-19.075	-12.597	-26.125	1.00	45.31	C	
	ANISOU	859	CB	SER A 131	5770	5691	5753	-349	2692	-2155	C
	ATOM	860	OG	SER A 131	-19.908	-12.694	-27.258	1.00	47.86	O	
	ANISOU	860	OG	SER A 131	6389	5984	5810	-604	2742	-2298	O
10	ATOM	861	N	GLU A 132	-18.977	-9.337	-27.061	1.00	43.58	N	
	ANISOU	861	N	GLU A 132	5488	5844	5225	-785	2425	-2003	N
	ATOM	862	CA	GLU A 132	-18.283	-8.234	-27.726	1.00	52.00	C	
	ANISOU	862	CA	GLU A 132	6516	7020	6223	-929	2530	-1974	C
	ATOM	863	C	GLU A 132	-18.975	-6.896	-27.507	1.00	53.01	C	
	ANISOU	863	C	GLU A 132	6712	7172	6256	-1052	2345	-1828	C
15	ATOM	864	O	GLU A 132	-20.194	-6.785	-27.640	1.00	53.51	O	
	ANISOU	864	O	GLU A 132	6954	7215	6163	-1083	2190	-1752	O
	ATOM	865	CB	GLU A 132	-18.138	-8.477	-29.227	1.00	53.86	C	
	ANISOU	865	CB	GLU A 132	6943	7270	6250	-1054	2770	-2078	C
	ATOM	866	CG	GLU A 132	-17.032	-9.444	-29.606	1.00	55.94	C	
	ANISOU	866	CG	GLU A 132	7120	7499	6636	-949	3080	-2219	C
20	ATOM	867	CD	GLU A 132	-17.490	-10.874	-29.539	1.00	54.48	C	
	ANISOU	867	CD	GLU A 132	7067	7144	6491	-831	3117	-2303	C
	ATOM	868	OE1	GLU A 132	-18.705	-11.093	-29.365	1.00	51.11	O	
	ANISOU	868	OE1	GLU A 132	6809	6673	5939	-902	2950	-2321	O
	ATOM	869	OE2	GLU A 132	-16.644	-11.778	-29.661	1.00	57.83	O	
	ANISOU	869	OE2	GLU A 132	7428	7471	7075	-668	3316	-2329	O
25	ATOM	870	N	LEU A 133	-18.183	-5.885	-27.160	1.00	52.37	N	
	ANISOU	870	N	LEU A 133	6483	7142	6273	-1127	2393	-1788	N
	ATOM	871	CA	LEU A 133	-18.666	-4.514	-27.096	1.00	48.75	C	
	ANISOU	871	CA	LEU A 133	6139	6643	5741	-1256	2342	-1656	C
	ATOM	872	C	LEU A 133	-17.966	-3.679	-28.160	1.00	50.90	C	
	ANISOU	872	C	LEU A 133	6484	6940	5915	-1417	2597	-1645	C
30	ATOM	873	O	LEU A 133	-16.831	-3.970	-28.549	1.00	49.70	O	
	ANISOU	873	O	LEU A 133	6188	6870	5826	-1454	2789	-1761	O
	ATOM	874	CB	LEU A 133	-18.401	-3.911	-25.720	1.00	47.82	C	
	ANISOU	874	CB	LEU A 133	5844	6522	5804	-1280	2233	-1648	C
	ATOM	875	CG	LEU A 133	-18.975	-4.645	-24.508	1.00	46.61	C	
	ANISOU	875	CG	LEU A 133	5596	6361	5754	-1122	1991	-1644	C
35	ATOM	876	CD1	LEU A 133	-18.873	-3.761	-23.289	1.00	43.99	C	
	ANISOU	876	CD1	LEU A 133	5156	6038	5521	-1214	1902	-1630	C
	ATOM	877	CD2	LEU A 133	-20.411	-5.079	-24.746	1.00	42.17	C	
	ANISOU	877	CD2	LEU A 133	5256	5702	5064	-1032	1842	-1560	C
	ATOM	878	N	THR A 134	-18.647	-2.644	-28.635	1.00	52.16	N	
	ANISOU	878	N	THR A 134	6864	7031	5925	-1490	2625	-1479	N
40	ATOM	879	CA	THR A 134	-18.027	-1.700	-29.547	1.00	55.64	C	
	ANISOU	879	CA	THR A 134	7404	7457	6279	-1641	2896	-1428	C
	ATOM	880	C	THR A 134	-17.868	-0.359	-28.837	1.00	56.36	C	
	ANISOU	880	C	THR A 134	7518	7403	6492	-1763	2983	-1356	C
	ATOM	881	O	THR A 134	-18.841	0.202	-28.328	1.00	51.63	O	
	ANISOU	881	O	THR A 134	7055	6678	5885	-1701	2879	-1203	O
45	ATOM	882	CB	THR A 134	-18.854	-1.525	-30.830	1.00	55.78	C	
	ANISOU	882	CB	THR A 134	7685	7520	5988	-1621	2940	-1254	C
	ATOM	883	OG1	THR A 134	-19.274	-2.809	-31.305	1.00	54.46	O	
	ANISOU	883	OG1	THR A 134	7525	7484	5681	-1555	2826	-1357	O
	ATOM	884	CG2	THR A 134	-18.032	-0.822	-31.905	1.00	51.54	C	
	ANISOU	884	CG2	THR A 134	7242	6992	5348	-1761	3257	-1222	C
50	ATOM	885	N	ALA A 135	-16.635	0.134	-28.789	1.00	59.63	N	
	ANISOU	885	N	ALA A 135	7798	7837	7021	-1956	3204	-1483	N
	ATOM	886	CA	ALA A 135	-16.334	1.393	-28.120	1.00	62.41	C	
	ANISOU	886	CA	ALA A 135	8182	8046	7485	-2163	3354	-1488	C
	ATOM	887	C	ALA A 135	-16.992	2.556	-28.850	1.00	65.03	C	
											C

	ANISOU	887	C	ALA	A	135	8877	8144	7686	-2180	3572	-1246	C
	ATOM	888	O	ALA	A	135	-17.021	2.582	-30.082	1.00	65.71		O
	ANISOU	888	O	ALA	A	135	9112	8259	7595	-2141	3712	-1124	O
	ATOM	889	CB	ALA	A	135	-14.827	1.603	-28.040	1.00	63.90		C
5	ANISOU	889	CB	ALA	A	135	8119	8371	7791	-2411	3554	-1695	C
	ATOM	890	N	GLY	A	136	-17.526	3.508	-28.087	1.00	63.22		N
	ANISOU	890	N	GLY	A	136	8798	7687	7535	-2224	3626	-1160	N
	ATOM	891	CA	GLY	A	136	-18.099	4.714	-28.660	1.00	63.65		C
	ANISOU	891	CA	GLY	A	136	9204	7469	7511	-2191	3882	-889	C
10	ATOM	892	C	GLY	A	136	-19.594	4.657	-28.922	1.00	63.58		C
	ANISOU	892	C	GLY	A	136	9381	7430	7347	-1880	3740	-564	C
	ATOM	893	O	GLY	A	136	-20.201	5.663	-29.289	1.00	65.01		O
	ANISOU	893	O	GLY	A	136	9837	7397	7466	-1780	3960	-270	O
	ATOM	894	N	VAL	A	137	-20.192	3.483	-28.738	1.00	60.51		N
15	ANISOU	894	N	VAL	A	137	8828	7264	6898	-1708	3367	-601	N
	ATOM	895	CA	VAL	A	137	-21.632	3.316	-28.933	1.00	59.52		C
	ANISOU	895	CA	VAL	A	137	8807	7197	6612	-1436	3169	-320	C
	ATOM	896	C	VAL	A	137	-22.248	2.572	-27.746	1.00	58.57		C
	ANISOU	896	C	VAL	A	137	8527	7117	6611	-1348	2840	-432	C
20	ATOM	897	O	VAL	A	137	-21.536	1.900	-26.998	1.00	57.00		O
	ANISOU	897	O	VAL	A	137	8118	6973	6565	-1457	2724	-716	O
	ATOM	898	CB	VAL	A	137	-21.945	2.560	-30.244	1.00	59.34		C
	ANISOU	898	CB	VAL	A	137	8785	7470	6292	-1345	3067	-223	C
	ATOM	899	CG1	VAL	A	137	-21.482	3.367	-31.457	1.00	59.94		C
25	ANISOU	899	CG1	VAL	A	137	9046	7521	6205	-1400	3398	-48	C
	ATOM	900	CG2	VAL	A	137	-21.304	1.182	-30.232	1.00	59.46		C
	ANISOU	900	CG2	VAL	A	137	8580	7679	6335	-1431	2892	-552	C
	ATOM	901	N	PRO	A	138	-23.571	2.703	-27.550	1.00	58.31		N
	ANISOU	901	N	PRO	A	138	8575	7076	6503	-1132	2702	-184	N
30	ATOM	902	CA	PRO	A	138	-24.153	1.977	-26.415	1.00	56.28		C
	ANISOU	902	CA	PRO	A	138	8174	6851	6359	-1062	2408	-297	C
	ATOM	903	C	PRO	A	138	-24.159	0.478	-26.677	1.00	52.78		C
	ANISOU	903	C	PRO	A	138	7554	6675	5827	-1050	2141	-471	C
	ATOM	904	O	PRO	A	138	-24.430	0.062	-27.803	1.00	56.53		O
35	ANISOU	904	O	PRO	A	138	8061	7351	6067	-1023	2116	-394	O
	ATOM	905	CB	PRO	A	138	-25.590	2.513	-26.345	1.00	55.21		C
	ANISOU	905	CB	PRO	A	138	8161	6677	6138	-824	2366	47	C
	ATOM	906	CG	PRO	A	138	-25.561	3.806	-27.095	1.00	59.55		C
	ANISOU	906	CG	PRO	A	138	8944	7062	6620	-774	2717	334	C
40	ATOM	907	CD	PRO	A	138	-24.545	3.607	-28.183	1.00	59.87		C
	ANISOU	907	CD	PRO	A	138	8981	7225	6542	-932	2839	227	C
	ATOM	908	N	ASN	A	139	-23.837	-0.311	-25.659	1.00	45.04		N
	ANISOU	908	N	ASN	A	139	6401	5694	5017	-1082	1978	-704	N
	ATOM	909	CA	ASN	A	139	-23.899	-1.761	-25.758	1.00	42.95		C
45	ANISOU	909	CA	ASN	A	139	6007	5601	4710	-1047	1783	-861	C
	ATOM	910	C	ASN	A	139	-24.677	-2.327	-24.583	1.00	42.98		C
	ANISOU	910	C	ASN	A	139	5934	5579	4820	-944	1547	-884	C
	ATOM	911	O	ASN	A	139	-24.465	-1.916	-23.442	1.00	41.91		O
	ANISOU	911	O	ASN	A	139	5744	5321	4861	-957	1533	-926	O
50	ATOM	912	CB	ASN	A	139	-22.503	-2.377	-25.729	1.00	42.53		C
	ANISOU	912	CB	ASN	A	139	5796	5585	4779	-1144	1872	-1111	C
	ATOM	913	CG	ASN	A	139	-21.613	-1.879	-26.839	1.00	47.73		C
	ANISOU	913	CG	ASN	A	139	6510	6272	5354	-1265	2127	-1121	C
	ATOM	914	OD1	ASN	A	139	-21.437	-2.549	-27.860	1.00	49.57		O
55	ANISOU	914	OD1	ASN	A	139	6770	6626	5441	-1278	2181	-1176	O
	ATOM	915	ND2	ASN	A	139	-21.026	-0.706	-26.641	1.00	47.92		N
	ANISOU	915	ND2	ASN	A	139	6568	6175	5465	-1385	2319	-1090	N
	ATOM	916	N	LYS	A	140	-25.567	-3.274	-24.855	1.00	41.64		N
	ANISOU	916	N	LYS	A	140	5763	5538	4523	-878	1378	-874	N

5	ATOM	917	CA	LYS	A	140	-26.184	-4.033	-23.786	1.00	43.97	C	
	ANISOU	917	CA	LYS	A	140	5979	5805	4924	-800	1180	-932	C
	ATOM	918	C	LYS	A	140	-25.114	-4.971	-23.232	1.00	45.10	C	
	ANISOU	918	C	LYS	A	140	5982	5915	5238	-809	1196	-1160	C
	ATOM	919	O	LYS	A	140	-24.606	-5.829	-23.949	1.00	46.44	O	
	ANISOU	919	O	LYS	A	140	6141	6144	5361	-839	1276	-1288	O
10	ATOM	920	CB	LYS	A	140	-27.391	-4.815	-24.309	1.00	49.47	C	
	ANISOU	920	CB	LYS	A	140	6709	6665	5420	-782	1034	-886	C
	ATOM	921	CG	LYS	A	140	-28.305	-5.383	-23.210	1.00	56.13	C	
	ANISOU	921	CG	LYS	A	140	7499	7471	6357	-704	845	-888	C
	ATOM	922	CD	LYS	A	140	-29.505	-6.117	-23.821	1.00	61.82	C	
	ANISOU	922	CD	LYS	A	140	8235	8404	6849	-755	721	-865	C
15	ATOM	923	CE	LYS	A	140	-30.315	-6.881	-22.774	1.00	63.97	C	
	ANISOU	923	CE	LYS	A	140	8456	8627	7222	-714	569	-913	C
	ATOM	924	NZ	LYS	A	140	-29.514	-7.928	-22.070	1.00	64.27	N	
	ANISOU	924	NZ	LYS	A	140	8474	8482	7463	-703	616	-1134	N
	ATOM	925	N	VAL	A	141	-24.741	-4.784	-21.969	1.00	43.57	N	
	ANISOU	925	N	VAL	A	141	5678	5646	5230	-778	1144	-1196	N
20	ATOM	926	CA	VAL	A	141	-23.692	-5.605	-21.367	1.00	41.08	C	
	ANISOU	926	CA	VAL	A	141	5179	5368	5063	-739	1155	-1345	C
	ATOM	927	C	VAL	A	141	-24.256	-6.914	-20.837	1.00	39.84	C	
	ANISOU	927	C	VAL	A	141	5001	5188	4949	-605	1032	-1378	C
	ATOM	928	O	VAL	A	141	-23.703	-7.986	-21.081	1.00	41.80	O	
	ANISOU	928	O	VAL	A	141	5197	5442	5241	-535	1117	-1473	O
25	ATOM	929	CB	VAL	A	141	-22.978	-4.871	-20.230	1.00	40.21	C	
	ANISOU	929	CB	VAL	A	141	4920	5277	5081	-795	1146	-1371	C
	ATOM	930	CG1	VAL	A	141	-21.924	-5.768	-19.598	1.00	40.23	C	
	ANISOU	930	CG1	VAL	A	141	4669	5418	5200	-712	1133	-1465	C
	ATOM	931	CG2	VAL	A	141	-22.345	-3.612	-20.753	1.00	41.80	C	
	ANISOU	931	CG2	VAL	A	141	5165	5464	5254	-976	1331	-1375	C
30	ATOM	932	N	GLY	A	142	-25.365	-6.827	-20.113	1.00	35.15	N	
	ANISOU	932	N	GLY	A	142	4464	4541	4350	-562	874	-1294	N
	ATOM	933	CA	GLY	A	142	-25.976	-8.015	-19.567	1.00	31.23	C	
	ANISOU	933	CA	GLY	A	142	3972	4000	3895	-459	782	-1321	C
	ATOM	934	C	GLY	A	142	-27.124	-7.753	-18.621	1.00	29.30	C	
	ANISOU	934	C	GLY	A	142	3762	3710	3661	-421	617	-1221	C
35	ATOM	935	O	GLY	A	142	-27.485	-6.613	-18.344	1.00	29.64	O	
	ANISOU	935	O	GLY	A	142	3835	3740	3686	-455	584	-1122	O
	ATOM	936	N	THR	A	143	-27.698	-8.840	-18.125	1.00	30.19	N	
	ANISOU	936	N	THR	A	143	3890	3770	3811	-346	555	-1247	N
	ATOM	937	CA	THR	A	143	-28.841	-8.777	-17.244	1.00	32.06	C	
	ANISOU	937	CA	THR	A	143	4155	3969	4056	-310	413	-1161	C
40	ATOM	938	C	THR	A	143	-28.522	-9.554	-15.979	1.00	31.95	C	
	ANISOU	938	C	THR	A	143	4062	3893	4184	-178	377	-1175	C
	ATOM	939	O	THR	A	143	-28.113	-10.710	-16.039	1.00	35.31	O	
	ANISOU	939	O	THR	A	143	4485	4262	4668	-99	468	-1238	O
	ATOM	940	CB	THR	A	143	-30.082	-9.386	-17.918	1.00	36.33	C	
	ANISOU	940	CB	THR	A	143	4796	4544	4462	-385	377	-1167	C
45	ATOM	941	OG1	THR	A	143	-30.379	-8.662	-19.118	1.00	39.86	O	
	ANISOU	941	OG1	THR	A	143	5286	5128	4731	-487	396	-1110	O
	ATOM	942	CG2	THR	A	143	-31.276	-9.328	-16.981	1.00	33.35	C	
	ANISOU	942	CG2	THR	A	143	4419	4147	4104	-343	243	-1070	C
	ATOM	943	N	CYS	A	144	-28.682	-8.900	-14.837	1.00	30.02	N	
	ANISOU	943	N	CYS	A	144	3765	3654	3985	-145	278	-1105	N
50	ATOM	944	CA	CYS	A	144	-28.452	-9.534	-13.556	1.00	30.35	C	
	ANISOU	944	CA	CYS	A	144	3722	3694	4116	-18	223	-1082	C
	ATOM	945	C	CYS	A	144	-29.801	-9.897	-12.950	1.00	30.21	C	
	ANISOU	945	C	CYS	A	144	3802	3584	4093	9	138	-1024	C
	ATOM	946	O	CYS	A	144	-30.734	-9.095	-12.980	1.00	28.32	O	
													O

	ANISOU	946	O	CYS	A	144	3625	3334	3799	-61	82	-971	O
	ATOM	947	CB	CYS	A	144	-27.702	-8.579	-12.631	1.00	31.90		C
	ANISOU	947	CB	CYS	A	144	3787	4011	4321	-55	175	-1074	C
	ATOM	948	SG	CYS	A	144	-27.137	-9.317	-11.078	1.00	38.90		S
5	ANISOU	948	SG	CYS	A	144	4501	5030	5251	104	93	-1017	S
	ATOM	949	N	VAL	A	145	-29.903	-11.111	-12.415	1.00	30.37		N
	ANISOU	949	N	VAL	A	145	3833	3530	4176	126	161	-1015	N
	ATOM	950	CA	VAL	A	145	-31.140	-11.587	-11.803	1.00	30.44		C
	ANISOU	950	CA	VAL	A	145	3931	3446	4189	136	109	-972	C
10	ATOM	951	C	VAL	A	145	-30.884	-12.112	-10.388	1.00	33.43		C
	ANISOU	951	C	VAL	A	145	4254	3810	4637	300	80	-888	C
	ATOM	952	O	VAL	A	145	-29.908	-12.827	-10.143	1.00	36.32		O
	ANISOU	952	O	VAL	A	145	4545	4192	5062	454	158	-856	O
	ATOM	953	CB	VAL	A	145	-31.786	-12.720	-12.631	1.00	29.78		C
15	ANISOU	953	CB	VAL	A	145	3976	3251	4088	66	218	-1056	C
	ATOM	954	CG1	VAL	A	145	-33.149	-13.093	-12.054	1.00	27.49		C
	ANISOU	954	CG1	VAL	A	145	3757	2903	3786	19	167	-1025	C
	ATOM	955	CG2	VAL	A	145	-31.919	-12.314	-14.082	1.00	29.40		C
	ANISOU	955	CG2	VAL	A	145	3962	3290	3918	-103	245	-1137	C
20	ATOM	956	N	SER	A	146	-31.771	-11.750	-9.469	1.00	30.50		N
	ANISOU	956	N	SER	A	146	3911	3430	4248	288	-16	-828	N
	ATOM	957	CA	SER	A	146	-31.723	-12.214	-8.093	1.00	30.05		C
	ANISOU	957	CA	SER	A	146	3821	3380	4216	426	-51	-734	C
	ATOM	958	C	SER	A	146	-33.111	-12.710	-7.683	1.00	29.78		C
25	ANISOU	958	C	SER	A	146	3912	3207	4194	405	-49	-703	C
	ATOM	959	O	SER	A	146	-34.095	-11.971	-7.808	1.00	25.49		O
	ANISOU	959	O	SER	A	146	3405	2670	3612	289	-108	-712	O
	ATOM	960	CB	SER	A	146	-31.283	-11.066	-7.179	1.00	29.02		C
	ANISOU	960	CB	SER	A	146	3586	3423	4019	386	-159	-718	C
30	ATOM	961	OG	SER	A	146	-31.441	-11.410	-5.818	1.00	29.51		O
	ANISOU	961	OG	SER	A	146	3626	3534	4054	485	-210	-626	O
	ATOM	962	N	GLU	A	147	-33.192	-13.952	-7.202	1.00	31.01		N
	ANISOU	962	N	GLU	A	147	4131	3239	4411	528	48	-649	N
	ATOM	963	CA	GLU	A	147	-34.477	-14.549	-6.828	1.00	31.66		C
35	ANISOU	963	CA	GLU	A	147	4338	3180	4511	477	87	-636	C
	ATOM	964	C	GLU	A	147	-34.581	-14.904	-5.354	1.00	28.15		C
	ANISOU	964	C	GLU	A	147	3900	2719	4076	631	76	-496	C
	ATOM	965	O	GLU	A	147	-33.724	-15.607	-4.811	1.00	27.55		O
	ANISOU	965	O	GLU	A	147	3798	2640	4030	836	148	-385	O
40	ATOM	966	CB	GLU	A	147	-34.734	-15.825	-7.629	1.00	39.58		C
	ANISOU	966	CB	GLU	A	147	5482	3984	5572	422	288	-723	C
	ATOM	967	CG	GLU	A	147	-34.802	-15.633	-9.125	1.00	49.78		C
	ANISOU	967	CG	GLU	A	147	6789	5317	6809	225	314	-881	C
	ATOM	968	CD	GLU	A	147	-35.018	-16.946	-9.856	1.00	59.35		C
45	ANISOU	968	CD	GLU	A	147	8172	6324	8052	115	557	-1017	C
	ATOM	969	OE1	GLU	A	147	-34.319	-17.198	-10.865	1.00	62.38		O
	ANISOU	969	OE1	GLU	A	147	8591	6680	8429	76	678	-1123	O
	ATOM	970	OE2	GLU	A	147	-35.885	-17.728	-9.412	1.00	62.50		O
	ANISOU	970	OE2	GLU	A	147	8687	6578	8480	43	661	-1034	O
50	ATOM	971	N	GLY	A	148	-35.648	-14.439	-4.717	1.00	22.47		N
	ANISOU	971	N	GLY	A	148	3208	2008	3321	552	3	-477	N
	ATOM	972	CA	GLY	A	148	-36.035	-14.963	-3.416	1.00	23.04		C
	ANISOU	972	CA	GLY	A	148	3333	2029	3393	661	30	-357	C
	ATOM	973	C	GLY	A	148	-35.738	-14.061	-2.231	1.00	30.08		C
55	ANISOU	973	C	GLY	A	148	4140	3107	4182	711	-102	-286	C
	ATOM	974	O	GLY	A	148	-35.564	-14.540	-1.109	1.00	33.36		O
	ANISOU	974	O	GLY	A	148	4562	3562	4554	850	-91	-157	O
	ATOM	975	N	SER	A	149	-35.679	-12.755	-2.462	1.00	22.86		N
	ANISOU	975	N	SER	A	149	3162	2309	3213	586	-198	-370	N

5	ATOM	976	CA	SER A 149	-35.346	-11.844	-1.380	1.00	25.47	C	
	ANISOU	976	CA	SER A 149	3442	2807	3427	563	-277	-362	C
	ATOM	977	C	SER A 149	-36.582	-11.292	-0.674	1.00	21.34	C	
	ANISOU	977	C	SER A 149	3013	2209	2885	492	-257	-359	C
	ATOM	978	O	SER A 149	-37.667	-11.217	-1.249	1.00	22.24	O	
	ANISOU	978	O	SER A 149	3180	2193	3076	440	-211	-369	O
10	ATOM	979	CB	SER A 149	-34.483	-10.693	-1.896	1.00	26.43	C	
	ANISOU	979	CB	SER A 149	3478	3061	3502	444	-321	-472	C
	ATOM	980	OG	SER A 149	-35.209	-9.883	-2.800	1.00	24.28	O	
	ANISOU	980	OG	SER A 149	3272	2666	3288	333	-279	-538	O
	ATOM	981	N	TYR A 150	-36.397	-10.930	0.588	1.00	26.38	N	
	ANISOU	981	N	TYR A 150	3651	2971	3400	488	-286	-340	N
15	ATOM	982	CA	TYR A 150	-37.325	-10.072	1.308	1.00	21.92	C	
	ANISOU	982	CA	TYR A 150	3180	2353	2796	397	-236	-373	C
	ATOM	983	C	TYR A 150	-36.515	-9.313	2.348	1.00	24.53	C	
	ANISOU	983	C	TYR A 150	3485	2897	2938	296	-270	-447	C
	ATOM	984	O	TYR A 150	-35.678	-9.905	3.026	1.00	26.44	O	
	ANISOU	984	O	TYR A 150	3632	3363	3050	360	-354	-382	O
20	ATOM	985	CB	TYR A 150	-38.460	-10.849	1.978	1.00	21.95	C	
	ANISOU	985	CB	TYR A 150	3267	2242	2834	472	-179	-270	C
	ATOM	986	CG	TYR A 150	-39.539	-9.924	2.487	1.00	21.78	C	
	ANISOU	986	CG	TYR A 150	3328	2138	2809	397	-89	-299	C
	ATOM	987	CD1	TYR A 150	-39.450	-9.343	3.753	1.00	22.84	C	
	ANISOU	987	CD1	TYR A 150	3527	2355	2795	340	-55	-336	C
25	ATOM	988	CD2	TYR A 150	-40.625	-9.588	1.683	1.00	26.99	C	
	ANISOU	988	CD2	TYR A 150	3989	2671	3596	385	-20	-284	C
	ATOM	989	CE1	TYR A 150	-40.425	-8.464	4.210	1.00	23.03	C	
	ANISOU	989	CE1	TYR A 150	3653	2264	2832	284	86	-369	C
	ATOM	990	CE2	TYR A 150	-41.611	-8.715	2.134	1.00	27.40	C	
	ANISOU	990	CE2	TYR A 150	4099	2648	3663	371	102	-270	C
30	ATOM	991	CZ	TYR A 150	-41.501	-8.159	3.394	1.00	28.96	C	
	ANISOU	991	CZ	TYR A 150	4398	2859	3747	327	174	-319	C
	ATOM	992	OH	TYR A 150	-42.470	-7.299	3.834	1.00	34.59	O	
	ANISOU	992	OH	TYR A 150	5193	3458	4491	327	350	-309	O
	ATOM	993	N	PRO A 151	-36.679	-7.978	2.411	1.00	27.27	N	
	ANISOU	993	N	PRO A 151	3907	3199	3255	127	-183	-581	N
35	ATOM	994	CA	PRO A 151	-37.387	-7.120	1.442	1.00	26.54	C	
	ANISOU	994	CA	PRO A 151	3892	2884	3307	93	-64	-613	C
	ATOM	995	C	PRO A 151	-36.672	-7.147	0.095	1.00	27.30	C	
	ANISOU	995	C	PRO A 151	3899	2994	3479	96	-113	-632	C
	ATOM	996	O	PRO A 151	-35.674	-7.854	-0.027	1.00	29.33	O	
	ANISOU	996	O	PRO A 151	4039	3410	3694	129	-222	-629	O
40	ATOM	997	CB	PRO A 151	-37.279	-5.704	2.048	1.00	23.72	C	
	ANISOU	997	CB	PRO A 151	3658	2492	2864	-93	90	-762	C
	ATOM	998	CG	PRO A 151	-36.913	-5.918	3.485	1.00	27.84	C	
	ANISOU	998	CG	PRO A 151	4183	3219	3178	-180	43	-817	C
	ATOM	999	CD	PRO A 151	-36.111	-7.197	3.524	1.00	28.65	C	
	ANISOU	999	CD	PRO A 151	4104	3563	3220	-55	-165	-708	C
45	ATOM	1000	N	ALA A 152	-37.174	-6.413	-0.894	1.00	29.36	N	
	ANISOU	1000	N	ALA A 152	4207	3107	3841	88	-18	-623	N
	ATOM	1001	CA	ALA A 152	-36.650	-6.507	-2.259	1.00	27.61	C	
	ANISOU	1001	CA	ALA A 152	3913	2900	3678	97	-56	-622	C
	ATOM	1002	C	ALA A 152	-35.123	-6.439	-2.332	1.00	26.87	C	
	ANISOU	1002	C	ALA A 152	3731	2968	3510	1	-113	-733	C
50	ATOM	1003	O	ALA A 152	-34.479	-7.296	-2.942	1.00	28.84	O	
	ANISOU	1003	O	ALA A 152	3874	3304	3780	66	-199	-714	O
	ATOM	1004	CB	ALA A 152	-37.276	-5.434	-3.147	1.00	20.80	C	
	ANISOU	1004	CB	ALA A 152	3120	1899	2885	98	82	-574	C
	ATOM	1005	N	GLY A 153	-34.549	-5.434	-1.686	1.00	25.17	N	

	ANISOU	1005	N	GLY	A	153	3556	2804	3201	-170	-37	-860	N
	ATOM	1006	CA	GLY	A	153	-33.131	-5.165	-1.826	1.00	29.31		C
	ANISOU	1006	CA	GLY	A	153	3966	3528	3642	-317	-71	-984	C
	ATOM	1007	C	GLY	A	153	-32.882	-4.511	-3.174	1.00	29.71		C
5	ANISOU	1007	C	GLY	A	153	4050	3455	3785	-362	29	-1008	C
	ATOM	1008	O	GLY	A	153	-33.829	-4.088	-3.836	1.00	30.39		O
	ANISOU	1008	O	GLY	A	153	4257	3321	3968	-285	135	-921	O
	ATOM	1009	N	THR	A	154	-31.621	-4.424	-3.583	1.00	29.71		N
	ANISOU	1009	N	THR	A	154	3922	3628	3740	-473	1	-1101	N
10	ATOM	1010	CA	THR	A	154	-31.265	-3.777	-4.847	1.00	30.93		C
	ANISOU	1010	CA	THR	A	154	4112	3676	3962	-534	115	-1129	C
	ATOM	1011	C	THR	A	154	-30.103	-4.489	-5.558	1.00	31.81		C
	ANISOU	1011	C	THR	A	154	4022	3994	4070	-508	15	-1143	C
	ATOM	1012	O	THR	A	154	-29.270	-5.142	-4.923	1.00	31.48		O
15	ANISOU	1012	O	THR	A	154	3787	4223	3949	-497	-107	-1162	O
	ATOM	1013	CB	THR	A	154	-30.873	-2.294	-4.638	1.00	35.13		C
	ANISOU	1013	CB	THR	A	154	4777	4121	4451	-809	336	-1292	C
	ATOM	1014	OG1	THR	A	154	-29.892	-2.204	-3.601	1.00	42.04		O
	ANISOU	1014	OG1	THR	A	154	5525	5283	5167	-1038	282	-1468	O
20	ATOM	1015	CG2	THR	A	154	-32.083	-1.441	-4.244	1.00	34.73		C
	ANISOU	1015	CG2	THR	A	154	4976	3768	4450	-790	537	-1250	C
	ATOM	1016	N	LEU	A	155	-30.060	-4.355	-6.879	1.00	29.36		N
	ANISOU	1016	N	LEU	A	155	3746	3574	3833	-476	82	-1109	N
	ATOM	1017	CA	LEU	A	155	-28.926	-4.814	-7.672	1.00	33.12		C
25	ANISOU	1017	CA	LEU	A	155	4061	4209	4314	-477	53	-1144	C
	ATOM	1018	C	LEU	A	155	-28.078	-3.619	-8.124	1.00	36.10		C
	ANISOU	1018	C	LEU	A	155	4453	4597	4665	-718	210	-1275	C
	ATOM	1019	O	LEU	A	155	-28.608	-2.538	-8.371	1.00	34.22		O
	ANISOU	1019	O	LEU	A	155	4417	4136	4449	-813	382	-1282	O
30	ATOM	1020	CB	LEU	A	155	-29.420	-5.585	-8.899	1.00	30.38		C
	ANISOU	1020	CB	LEU	A	155	3755	3751	4038	-310	41	-1042	C
	ATOM	1021	CG	LEU	A	155	-30.194	-6.878	-8.634	1.00	27.14		C
	ANISOU	1021	CG	LEU	A	155	3345	3306	3660	-120	-62	-947	C
	ATOM	1022	CD1	LEU	A	155	-30.747	-7.450	-9.935	1.00	22.01		C
35	ANISOU	1022	CD1	LEU	A	155	2761	2562	3038	-60	-36	-905	C
	ATOM	1023	CD2	LEU	A	155	-29.301	-7.891	-7.938	1.00	25.37		C
	ANISOU	1023	CD2	LEU	A	155	2950	3260	3429	-14	-136	-939	C
	ATOM	1024	N	SER	A	156	-26.765	-3.815	-8.229	1.00	38.80		N
	ANISOU	1024	N	SER	A	156	4581	5196	4965	-808	182	-1362	N
40	ATOM	1025	CA	SER	A	156	-25.876	-2.787	-8.778	1.00	39.78		C
	ANISOU	1025	CA	SER	A	156	4700	5347	5069	-1065	349	-1499	C
	ATOM	1026	C	SER	A	156	-24.694	-3.395	-9.553	1.00	36.76		C
	ANISOU	1026	C	SER	A	156	4079	5190	4697	-1028	320	-1509	C
	ATOM	1027	O	SER	A	156	-24.342	-4.557	-9.360	1.00	37.23		O
45	ANISOU	1027	O	SER	A	156	3940	5443	4762	-825	179	-1429	O
	ATOM	1028	CB	SER	A	156	-25.384	-1.844	-7.673	1.00	40.06		C
	ANISOU	1028	CB	SER	A	156	4712	5520	4988	-1392	419	-1690	C
	ATOM	1029	OG	SER	A	156	-24.700	-2.567	-6.664	1.00	42.83		O
	ANISOU	1029	OG	SER	A	156	4773	6281	5219	-1391	222	-1714	O
50	ATOM	1030	N	TRP	A	157	-24.084	-2.613	-10.434	1.00	36.42		N
	ANISOU	1030	N	TRP	A	157	4070	5102	4666	-1208	492	-1593	N
	ATOM	1031	CA	TRP	A	157	-23.028	-3.150	-11.291	1.00	40.14		C
	ANISOU	1031	CA	TRP	A	157	4335	5758	5159	-1164	503	-1598	C
	ATOM	1032	C	TRP	A	157	-21.645	-2.616	-10.930	1.00	42.04		C
55	ANISOU	1032	C	TRP	A	157	4314	6339	5320	-1451	555	-1765	C
	ATOM	1033	O	TRP	A	157	-21.512	-1.518	-10.384	1.00	41.18		O
	ANISOU	1033	O	TRP	A	157	4275	6230	5140	-1778	665	-1924	O
	ATOM	1034	CB	TRP	A	157	-23.324	-2.864	-12.763	1.00	31.53		C
	ANISOU	1034	CB	TRP	A	157	3444	4411	4124	-1127	657	-1545	C

5	ATOM	1035	CG	TRP	A	157	-24.517	-3.590	-13.304	1.00	29.36	C	
	ANISOU	1035	CG	TRP	A	157	3335	3934	3885	-869	584	-1390	C
	ATOM	1036	CD1	TRP	A	157	-25.817	-3.187	-13.244	1.00	28.11	C	
	ANISOU	1036	CD1	TRP	A	157	3405	3549	3727	-813	589	-1292	C
	ATOM	1037	CD2	TRP	A	157	-24.515	-4.844	-14.005	1.00	31.52	C	
	ANISOU	1037	CD2	TRP	A	157	3551	4239	4186	-660	524	-1329	C
10	ATOM	1038	NE1	TRP	A	157	-26.628	-4.111	-13.866	1.00	28.81	N	
	ANISOU	1038	NE1	TRP	A	157	3545	3581	3818	-614	502	-1182	N
	ATOM	1039	CE2	TRP	A	157	-25.855	-5.135	-14.333	1.00	27.12	C	
	ANISOU	1039	CE2	TRP	A	157	3187	3498	3619	-541	476	-1224	C
	ATOM	1040	CE3	TRP	A	157	-23.513	-5.744	-14.379	1.00	33.39	C	
	ANISOU	1040	CE3	TRP	A	157	3594	4641	4453	-569	540	-1355	C
15	ATOM	1041	CZ2	TRP	A	157	-26.214	-6.291	-15.028	1.00	26.61	C	
	ANISOU	1041	CZ2	TRP	A	157	3147	3409	3554	-399	446	-1191	C
	ATOM	1042	CZ3	TRP	A	157	-23.875	-6.894	-15.067	1.00	33.40	C	
	ANISOU	1042	CZ3	TRP	A	157	3656	4554	4481	-383	546	-1307	C
	ATOM	1043	CH2	TRP	A	157	-25.215	-7.156	-15.384	1.00	30.72	C	
	ANISOU	1043	CH2	TRP	A	157	3532	4029	4112	-332	499	-1248	C
20	ATOM	1044	N	HIS	A	158	-20.618	-3.402	-11.242	1.00	41.38	N	
	ANISOU	1044	N	HIS	A	158	3925	6552	5243	-1342	504	-1735	N
	ATOM	1045	CA	HIS	A	158	-19.248	-2.982	-10.987	1.00	44.34	C	
	ANISOU	1045	CA	HIS	A	158	3975	7342	5531	-1608	541	-1874	C
	ATOM	1046	C	HIS	A	158	-18.361	-3.209	-12.198	1.00	43.94	C	
	ANISOU	1046	C	HIS	A	158	3793	7352	5551	-1564	670	-1866	C
25	ATOM	1047	O	HIS	A	158	-18.509	-4.199	-12.908	1.00	39.23	O	
	ANISOU	1047	O	HIS	A	158	3213	6645	5048	-1238	660	-1725	O
	ATOM	1048	CB	HIS	A	158	-18.683	-3.726	-9.779	1.00	48.81	C	
	ANISOU	1048	CB	HIS	A	158	4162	8398	5986	-1511	326	-1812	C
	ATOM	1049	CG	HIS	A	158	-19.530	-3.612	-8.555	1.00	50.47	C	
	ANISOU	1049	CG	HIS	A	158	4493	8579	6105	-1540	197	-1812	C
30	ATOM	1050	ND1	HIS	A	158	-19.237	-2.750	-7.520	1.00	54.21	N	
	ANISOU	1050	ND1	HIS	A	158	4884	9320	6395	-1926	182	-2001	N
	ATOM	1051	CD2	HIS	A	158	-20.676	-4.247	-8.199	1.00	47.69	C	
	ANISOU	1051	CD2	HIS	A	158	4348	7965	5807	-1262	98	-1665	C
	ATOM	1052	CE1	HIS	A	158	-20.156	-2.860	-6.579	1.00	53.48	C	
	ANISOU	1052	CE1	HIS	A	158	4948	9124	6248	-1860	81	-1960	C
35	ATOM	1053	NE2	HIS	A	158	-21.042	-3.763	-6.970	1.00	50.85	N	
	ANISOU	1053	NE2	HIS	A	158	4784	8470	6067	-1449	25	-1747	N
	ATOM	1054	N	LEU	A	159	-17.439	-2.280	-12.427	1.00	48.37	N	
	ANISOU	1054	N	LEU	A	159	4239	8080	6059	-1924	823	-2040	N
	ATOM	1055	CA	LEU	A	159	-16.476	-2.396	-13.517	1.00	49.11	C	
	ANISOU	1055	CA	LEU	A	159	4176	8278	6207	-1928	970	-2052	C
40	ATOM	1056	C	LEU	A	159	-15.068	-2.350	-12.947	1.00	56.59	C	
	ANISOU	1056	C	LEU	A	159	4620	9831	7052	-2133	935	-2147	C
	ATOM	1057	O	LEU	A	159	-14.681	-1.366	-12.311	1.00	58.87	O	
	ANISOU	1057	O	LEU	A	159	4905	10266	7198	-2514	965	-2319	O
	ATOM	1058	CB	LEU	A	159	-16.667	-1.269	-14.534	1.00	46.55	C	
	ANISOU	1058	CB	LEU	A	159	4187	7583	5915	-2180	1241	-2153	C
50	ATOM	1059	CG	LEU	A	159	-15.599	-1.129	-15.627	1.00	46.37	C	
	ANISOU	1059	CG	LEU	A	159	4022	7672	5923	-2285	1440	-2207	C
	ATOM	1060	CD1	LEU	A	159	-15.616	-2.325	-16.549	1.00	45.07	C	
	ANISOU	1060	CD1	LEU	A	159	3829	7452	5844	-1881	1415	-2041	C
	ATOM	1061	CD2	LEU	A	159	-15.789	0.148	-16.419	1.00	46.89	C	
	ANISOU	1061	CD2	LEU	A	159	4440	7381	5996	-2577	1734	-2298	C
55	ATOM	1062	N	ASP	A	160	-14.316	-3.425	-13.175	1.00	60.82	N	
	ANISOU	1062	N	ASP	A	160	4806	10670	7633	-1821	878	-1997	N
	ATOM	1063	CA	ASP	A	160	-12.949	-3.568	-12.669	1.00	69.57	C	
	ANISOU	1063	CA	ASP	A	160	5453	12358	8621	-1865	801	-1970	C
	ATOM	1064	C	ASP	A	160	-12.837	-3.313	-11.163	1.00	73.63	C	

	ANISOU	1064	C	ASP	A	160	5860	13205	8911	-1998	580	-1976	C
	ATOM	1065	O	ASP	A	160	-11.894	-2.670	-10.699	1.00	78.02		O
	ANISOU	1065	O	ASP	A	160	6269	14096	9277	-2277	566	-2074	O
5	ATOM	1066	CB	ASP	A	160	-11.967	-2.686	-13.454	1.00	74.06		C
	ANISOU	1066	CB	ASP	A	160	6022	12958	9159	-2180	997	-2120	C
	ATOM	1067	CG	ASP	A	160	-11.764	-3.168	-14.887	1.00	76.65		C
	ANISOU	1067	CG	ASP	A	160	6363	13092	9669	-1984	1207	-2063	C
	ATOM	1068	OD1	ASP	A	160	-12.131	-4.327	-15.185	1.00	73.61		O
	ANISOU	1068	OD1	ASP	A	160	5915	12641	9412	-1569	1202	-1901	O
10	ATOM	1069	OD2	ASP	A	160	-11.230	-2.394	-15.714	1.00	80.17		O
	ANISOU	1069	OD2	ASP	A	160	6912	13435	10115	-2241	1405	-2188	O
	ATOM	1070	N	GLY	A	161	-13.812	-3.820	-10.414	1.00	71.27		N
	ANISOU	1070	N	GLY	A	161	5644	12820	8617	-1808	426	-1882	N
	ATOM	1071	CA	GLY	A	161	-13.800	-3.734	-8.965	1.00	74.14		C
15	ANISOU	1071	CA	GLY	A	161	5923	13494	8754	-1880	225	-1855	C
	ATOM	1072	C	GLY	A	161	-14.147	-2.369	-8.398	1.00	73.83		C
	ANISOU	1072	C	GLY	A	161	6192	13304	8556	-2360	302	-2121	C
	ATOM	1073	O	GLY	A	161	-13.719	-2.021	-7.299	1.00	79.87		O
	ANISOU	1073	O	GLY	A	161	6854	14422	9071	-2546	215	-2172	O
20	ATOM	1074	N	LYS	A	162	-14.915	-1.589	-9.147	1.00	66.84		N
	ANISOU	1074	N	LYS	A	162	5701	11887	7808	-2543	507	-2276	N
	ATOM	1075	CA	LYS	A	162	-15.363	-0.282	-8.684	1.00	62.39		C
	ANISOU	1075	CA	LYS	A	162	5506	11060	7138	-2921	667	-2491	C
	ATOM	1076	C	LYS	A	162	-16.827	-0.085	-9.064	1.00	54.92		C
25	ANISOU	1076	C	LYS	A	162	4981	9510	6376	-2840	762	-2478	C
	ATOM	1077	O	LYS	A	162	-17.269	-0.578	-10.099	1.00	50.60		O
	ANISOU	1077	O	LYS	A	162	4488	8705	6034	-2640	796	-2388	O
	ATOM	1078	CB	LYS	A	162	-14.488	0.833	-9.268	1.00	65.62		C
	ANISOU	1078	CB	LYS	A	162	5997	11447	7487	-3283	926	-2692	C
30	ATOM	1079	CG	LYS	A	162	-13.032	0.759	-8.828	1.00	71.69		C
	ANISOU	1079	CG	LYS	A	162	6353	12844	8041	-3419	837	-2730	C
	ATOM	1080	CD	LYS	A	162	-12.259	2.035	-9.117	1.00	76.18		C
	ANISOU	1080	CD	LYS	A	162	7047	13402	8494	-3863	1108	-2990	C
	ATOM	1081	CE	LYS	A	162	-10.845	1.950	-8.541	1.00	82.41		C
35	ANISOU	1081	CE	LYS	A	162	7396	14887	9028	-4027	996	-3036	C
	ATOM	1082	NZ	LYS	A	162	-10.038	3.184	-8.775	1.00	85.81		N
	ANISOU	1082	NZ	LYS	A	162	7930	15353	9321	-4500	1268	-3323	N
	ATOM	1083	N	PRO	A	163	-17.588	0.624	-8.217	1.00	54.98		N
	ANISOU	1083	N	PRO	A	163	5282	9305	6304	-2987	823	-2556	N
40	ATOM	1084	CA	PRO	A	163	-19.019	0.826	-8.479	1.00	51.16		C
	ANISOU	1084	CA	PRO	A	163	5198	8258	5981	-2870	911	-2504	C
	ATOM	1085	C	PRO	A	163	-19.269	1.545	-9.803	1.00	49.46		C
	ANISOU	1085	C	PRO	A	163	5286	7580	5927	-2925	1198	-2517	C
	ATOM	1086	O	PRO	A	163	-18.503	2.416	-10.197	1.00	53.03		O
45	ANISOU	1086	O	PRO	A	163	5789	8032	6328	-3169	1426	-2637	O
	ATOM	1087	CB	PRO	A	163	-19.475	1.694	-7.298	1.00	51.94		C
	ANISOU	1087	CB	PRO	A	163	5527	8271	5938	-3067	1012	-2600	C
	ATOM	1088	CG	PRO	A	163	-18.472	1.427	-6.222	1.00	53.81		C
	ANISOU	1088	CG	PRO	A	163	5405	9115	5925	-3198	841	-2659	C
50	ATOM	1089	CD	PRO	A	163	-17.171	1.226	-6.938	1.00	55.10		C
	ANISOU	1089	CD	PRO	A	163	5256	9617	6062	-3252	827	-2683	C
	ATOM	1090	N	LEU	A	164	-20.340	1.160	-10.481	1.00	47.25		N
	ANISOU	1090	N	LEU	A	164	5219	6923	5812	-2661	1187	-2367	N
	ATOM	1091	CA	LEU	A	164	-20.695	1.728	-11.769	1.00	47.23		C
55	ANISOU	1091	CA	LEU	A	164	5513	6504	5926	-2603	1433	-2281	C
	ATOM	1092	C	LEU	A	164	-21.979	2.541	-11.591	1.00	52.28		C
	ANISOU	1092	C	LEU	A	164	6578	6665	6619	-2565	1614	-2212	C
	ATOM	1093	O	LEU	A	164	-23.055	1.982	-11.373	1.00	52.24		O
	ANISOU	1093	O	LEU	A	164	6662	6537	6651	-2249	1454	-2034	O

5	ATOM	1094	CB	LEU	A	164	-20.895	0.592	-12.770	1.00	43.12	C	
	ANISOU	1094	CB	LEU	A	164	4913	5987	5482	-2190	1272	-2057	C
	ATOM	1095	CG	LEU	A	164	-20.792	0.827	-14.273	1.00	43.93	C	
	ANISOU	1095	CG	LEU	A	164	5159	5889	5645	-2130	1458	-1970	C
	ATOM	1096	CD1	LEU	A	164	-19.542	1.610	-14.636	1.00	48.29	C	
	ANISOU	1096	CD1	LEU	A	164	5612	6564	6173	-2494	1691	-2156	C
	ATOM	1097	CD2	LEU	A	164	-20.790	-0.508	-14.978	1.00	39.61	C	
	ANISOU	1097	CD2	LEU	A	164	4461	5463	5127	-1791	1273	-1827	C
10	ATOM	1098	N	VAL	A	165	-21.853	3.864	-11.665	1.00	55.67	N	
	ANISOU	1098	N	VAL	A	165	7265	6854	7035	-2804	1963	-2295	N
	ATOM	1099	CA	VAL	A	165	-22.968	4.774	-11.399	1.00	57.25	C	
	ANISOU	1099	CA	VAL	A	165	7851	6623	7277	-2725	2202	-2192	C
15	ATOM	1100	C	VAL	A	165	-23.825	5.031	-12.640	1.00	58.58	C	
	ANISOU	1100	C	VAL	A	165	8308	6363	7587	-2493	2388	-1954	C
	ATOM	1101	O	VAL	A	165	-23.321	5.502	-13.662	1.00	61.15	O	
	ANISOU	1101	O	VAL	A	165	8712	6584	7936	-2564	2603	-1927	O
20	ATOM	1102	CB	VAL	A	165	-22.468	6.130	-10.854	1.00	62.51	C	
	ANISOU	1102	CB	VAL	A	165	8681	7230	7839	-3021	2546	-2358	C
	ATOM	1103	CG1	VAL	A	165	-23.640	7.036	-10.525	1.00	61.68	C	
	ANISOU	1103	CG1	VAL	A	165	8953	6693	7789	-2901	2828	-2237	C
	ATOM	1104	CG2	VAL	A	165	-21.593	5.929	-9.627	1.00	63.41	C	
	ANISOU	1104	CG2	VAL	A	165	8511	7816	7767	-3281	2378	-2584	C
	ATOM	1105	N	PRO	A	166	-25.132	4.735	-12.548	1.00	57.67	N	
	ANISOU	1105	N	PRO	A	166	8327	6058	7528	-2163	2297	-1731	N
25	ATOM	1106	CA	PRO	A	166	-26.029	4.923	-13.694	1.00	60.05	C	
	ANISOU	1106	CA	PRO	A	166	8819	6112	7886	-1823	2403	-1396	C
	ATOM	1107	C	PRO	A	166	-26.142	6.389	-14.102	1.00	67.61	C	
	ANISOU	1107	C	PRO	A	166	10146	6633	8908	-1922	2914	-1328	C
30	ATOM	1108	O	PRO	A	166	-25.964	7.269	-13.259	1.00	69.61	O	
	ANISOU	1108	O	PRO	A	166	10514	6807	9128	-2098	3132	-1484	O
	ATOM	1109	CB	PRO	A	166	-27.377	4.416	-13.171	1.00	57.74	C	
	ANISOU	1109	CB	PRO	A	166	8543	5784	7612	-1501	2209	-1205	C
35	ATOM	1110	CG	PRO	A	166	-27.037	3.516	-12.015	1.00	56.29	C	
	ANISOU	1110	CG	PRO	A	166	8111	5901	7377	-1606	1896	-1415	C
	ATOM	1111	CD	PRO	A	166	-25.827	4.149	-11.389	1.00	57.65	C	
	ANISOU	1111	CD	PRO	A	166	8251	6152	7502	-2053	2059	-1742	C
40	ATOM	1112	N	ASN	A	167	-26.424	6.625	-15.383	1.00	72.19	N	
	ANISOU	1112	N	ASN	A	167	10838	7096	9496	-1694	3041	-1045	N
	ATOM	1113	CA	ASN	A	167	-26.691	7.961	-15.934	1.00	79.33	C	
	ANISOU	1113	CA	ASN	A	167	12096	7594	10451	-1637	3527	-864	C
	ATOM	1114	C	ASN	A	167	-25.466	8.858	-16.146	1.00	81.37	C	
	ANISOU	1114	C	ASN	A	167	12421	7827	10667	-1935	3795	-1118	C
	ATOM	1115	O	ASN	A	167	-25.584	9.962	-16.677	1.00	84.34	O	
	ANISOU	1115	O	ASN	A	167	13062	7919	11063	-1824	4154	-1000	O
45	ATOM	1116	CB	ASN	A	167	-27.774	8.705	-15.129	1.00	87.87	C	
	ANISOU	1116	CB	ASN	A	167	13376	8438	11574	-1418	3703	-750	C
	ATOM	1117	CG	ASN	A	167	-29.102	7.967	-15.103	1.00	91.37	C	
	ANISOU	1117	CG	ASN	A	167	13772	8890	12056	-1057	3482	-431	C
50	ATOM	1118	OD1	ASN	A	167	-29.148	6.749	-14.942	1.00	90.75	O	
	ANISOU	1118	OD1	ASN	A	167	13402	9164	11916	-1015	3028	-494	O
	ATOM	1119	ND2	ASN	A	167	-30.192	8.707	-15.277	1.00	95.45	N	
	ANISOU	1119	ND2	ASN	A	167	14453	9210	12604	-688	3698	-109	N
55	ATOM	1120	N	GLU	A	168	-24.295	8.379	-15.741	1.00	81.75	N	
	ANISOU	1120	N	GLU	A	168	12213	8194	10655	-2286	3620	-1454	N
	ATOM	1121	CA	GLU	A	168	-23.056	9.115	-15.957	1.00	87.23	C	
	ANISOU	1121	CA	GLU	A	168	12923	8933	11287	-2593	3842	-1704	C
	ATOM	1122	C	GLU	A	168	-22.052	8.261	-16.721	1.00	84.70	C	
	ANISOU	1122	C	GLU	A	168	12311	8928	10943	-2727	3635	-1778	C
	ATOM	1123	O	GLU	A	168	-22.060	7.035	-16.606	1.00	80.86	O	

	ANISOU	1123	O	GLU	A	168	11534	8725	10464	-2689	3287	-1773	O
	ATOM	1124	CB	GLU	A	168	-22.448	9.537	-14.622	1.00	91.82		C
	ANISOU	1124	CB	GLU	A	168	13431	9693	11762	-2920	3881	-2049	C
	ATOM	1125	CG	GLU	A	168	-23.445	9.565	-13.492	1.00	94.84		C
5	ANISOU	1125	CG	GLU	A	168	13885	10002	12146	-2806	3839	-2003	C
	ATOM	1126	CD	GLU	A	168	-22.852	10.074	-12.199	1.00	100.28		C
	ANISOU	1126	CD	GLU	A	168	14527	10882	12692	-3157	3928	-2318	C
	ATOM	1127	OE1	GLU	A	168	-21.664	9.789	-11.940	1.00	101.94		O
	ANISOU	1127	OE1	GLU	A	168	14471	11480	12783	-3464	3786	-2567	O
10	ATOM	1128	OE2	GLU	A	168	-23.577	10.767	-11.451	1.00	102.60		O
	ANISOU	1128	OE2	GLU	A	168	15043	10962	12979	-3123	4155	-2305	O
	ATOM	1129	N	LYS	A	169	-21.191	8.916	-17.495	1.00	88.47		N
	ANISOU	1129	N	LYS	A	169	12868	9350	11398	-2873	3871	-1853	N
	ATOM	1130	CA	LYS	A	169	-20.122	8.240	-18.239	1.00	88.45		C
15	ANISOU	1130	CA	LYS	A	169	12586	9656	11366	-3010	3733	-1938	C
	ATOM	1131	C	LYS	A	169	-20.647	7.229	-19.260	1.00	79.69		C
	ANISOU	1131	C	LYS	A	169	11383	8615	10281	-2742	3570	-1644	C
	ATOM	1132	O	LYS	A	169	-20.014	6.204	-19.502	1.00	80.98		O
	ANISOU	1132	O	LYS	A	169	11216	9133	10421	-2794	3353	-1724	O
20	ATOM	1133	CB	LYS	A	169	-19.127	7.571	-17.274	1.00	91.86		C
	ANISOU	1133	CB	LYS	A	169	12611	10570	11722	-3274	3458	-2251	C
	ATOM	1134	CG	LYS	A	169	-18.355	8.550	-16.396	1.00	97.73		C
	ANISOU	1134	CG	LYS	A	169	13397	11382	12354	-3607	3641	-2557	C
	ATOM	1135	CD	LYS	A	169	-17.810	7.884	-15.138	1.00	98.57		C
25	ANISOU	1135	CD	LYS	A	169	13127	11982	12344	-3772	3329	-2761	C
	ATOM	1136	CE	LYS	A	169	-16.345	7.496	-15.278	1.00	100.79		C
	ANISOU	1136	CE	LYS	A	169	13027	12733	12534	-3995	3202	-2947	C
	ATOM	1137	NZ	LYS	A	169	-15.805	6.947	-14.000	1.00	100.99		N
	ANISOU	1137	NZ	LYS	A	169	12686	13274	12410	-4125	2914	-3099	N
30	ATOM	1138	N	GLY	A	170	-21.802	7.529	-19.853	1.00	72.99		N
	ANISOU	1138	N	GLY	A	170	10812	7477	9445	-2429	3696	-1294	N
	ATOM	1139	CA	GLY	A	170	-22.416	6.663	-20.848	1.00	66.63		C
	ANISOU	1139	CA	GLY	A	170	9930	6832	8555	-2078	3473	-1006	C
	ATOM	1140	C	GLY	A	170	-22.966	5.360	-20.285	1.00	59.43		C
35	ANISOU	1140	C	GLY	A	170	8753	6212	7615	-1865	2989	-1022	C
	ATOM	1141	O	GLY	A	170	-23.056	4.349	-20.984	1.00	57.78		O
	ANISOU	1141	O	GLY	A	170	8381	6251	7320	-1679	2732	-945	O
	ATOM	1142	N	VAL	A	171	-23.337	5.384	-19.012	1.00	54.93		N
	ANISOU	1142	N	VAL	A	171	8166	5595	7111	-1912	2899	-1135	N
40	ATOM	1143	CA	VAL	A	171	-23.849	4.198	-18.343	1.00	48.96		C
	ANISOU	1143	CA	VAL	A	171	7183	5079	6339	-1729	2482	-1153	C
	ATOM	1144	C	VAL	A	171	-25.332	4.332	-18.044	1.00	45.80		C
	ANISOU	1144	C	VAL	A	171	6951	4503	5950	-1442	2438	-905	C
	ATOM	1145	O	VAL	A	171	-25.757	5.304	-17.439	1.00	46.67		O
45	ANISOU	1145	O	VAL	A	171	7286	4320	6128	-1490	2691	-877	O
	ATOM	1146	CB	VAL	A	171	-23.132	3.969	-17.017	1.00	46.25		C
	ANISOU	1146	CB	VAL	A	171	6635	4909	6030	-1989	2364	-1462	C
	ATOM	1147	CG1	VAL	A	171	-23.706	2.743	-16.310	1.00	40.60		C
	ANISOU	1147	CG1	VAL	A	171	5718	4405	5301	-1764	1969	-1438	C
50	ATOM	1148	CG2	VAL	A	171	-21.633	3.835	-17.249	1.00	45.54		C
	ANISOU	1148	CG2	VAL	A	171	6306	5075	5920	-2271	2400	-1692	C
	ATOM	1149	N	SER	A	172	-26.122	3.352	-18.461	1.00	43.74		N
	ANISOU	1149	N	SER	A	172	6578	4422	5619	-1160	2146	-736	N
	ATOM	1150	CA	SER	A	172	-27.543	3.369	-18.150	1.00	43.90		C
55	ANISOU	1150	CA	SER	A	172	6686	4357	5638	-895	2071	-501	C
	ATOM	1151	C	SER	A	172	-27.983	2.018	-17.596	1.00	38.98		C
	ANISOU	1151	C	SER	A	172	5839	3977	4994	-789	1681	-570	C
	ATOM	1152	O	SER	A	172	-27.465	0.969	-17.987	1.00	35.80		O
	ANISOU	1152	O	SER	A	172	5253	3806	4542	-807	1481	-679	O

5	ATOM	1153	CB	SER A	172	-28.360	3.718	-19.391	1.00	47.48	C	
	ANISOU	1153	CB	SER A	172	7258	4798	5983	-642	2166	-139	C
	ATOM	1154	OG	SER A	172	-28.312	2.655	-20.330	1.00	49.17	O	
	ANISOU	1154	OG	SER A	172	7300	5328	6054	-582	1915	-125	O
	ATOM	1155	N	VAL A	173	-28.944	2.052	-16.681	1.00	37.62	N	
	ANISOU	1155	N	VAL A	173	5703	3721	4869	-673	1618	-501	N
10	ATOM	1156	CA	VAL A	173	-29.454	0.836	-16.073	1.00	38.00	C	
	ANISOU	1156	CA	VAL A	173	5576	3955	4908	-577	1294	-550	C
	ATOM	1157	C	VAL A	173	-30.974	0.872	-16.105	1.00	38.07	C	
	ANISOU	1157	C	VAL A	173	5635	3941	4888	-328	1246	-282	C
	ATOM	1158	O	VAL A	173	-31.575	1.932	-15.920	1.00	37.29	O	
	ANISOU	1158	O	VAL A	173	5706	3627	4835	-236	1476	-109	O
15	ATOM	1159	CB	VAL A	173	-28.943	0.682	-14.612	1.00	36.37	C	
	ANISOU	1159	CB	VAL A	173	5297	3744	4776	-736	1231	-791	C
	ATOM	1160	CG1	VAL A	173	-29.628	-0.479	-13.897	1.00	27.86	C	
	ANISOU	1160	CG1	VAL A	173	4086	2801	3697	-600	948	-788	C
	ATOM	1161	CG2	VAL A	173	-27.438	0.490	-14.598	1.00	34.80	C	
	ANISOU	1161	CG2	VAL A	173	4953	3694	4575	-966	1232	-1030	C
20	ATOM	1162	N	LYS A	174	-31.582	-0.282	-16.378	1.00	34.09	N	
	ANISOU	1162	N	LYS A	174	4982	3665	4307	-226	981	-244	N
	ATOM	1163	CA	LYS A	174	-33.020	-0.462	-16.230	1.00	29.29	C	
	ANISOU	1163	CA	LYS A	174	4344	3122	3661	-33	882	-33	C
	ATOM	1164	C	LYS A	174	-33.261	-1.580	-15.231	1.00	29.24	C	
	ANISOU	1164	C	LYS A	174	4221	3187	3703	-58	656	-193	C
25	ATOM	1165	O	LYS A	174	-32.548	-2.594	-15.229	1.00	28.02	O	
	ANISOU	1165	O	LYS A	174	3971	3132	3544	-156	521	-388	O
	ATOM	1166	CB	LYS A	174	-33.693	-0.792	-17.565	1.00	30.60	C	
	ANISOU	1166	CB	LYS A	174	4434	3550	3642	69	794	172	C
	ATOM	1167	CG	LYS A	174	-33.567	0.300	-18.615	1.00	33.97	C	
	ANISOU	1167	CG	LYS A	174	4975	3943	3989	145	1022	404	C
30	ATOM	1168	CD	LYS A	174	-34.268	1.572	-18.175	1.00	40.66	C	
	ANISOU	1168	CD	LYS A	174	5964	4558	4926	341	1276	674	C
	ATOM	1169	CE	LYS A	174	-33.924	2.748	-19.093	1.00	49.39	C	
	ANISOU	1169	CE	LYS A	174	7243	5529	5994	417	1592	900	C
	ATOM	1170	NZ	LYS A	174	-32.527	3.265	-18.894	1.00	49.94	N	
	ANISOU	1170	NZ	LYS A	174	7473	5320	6182	169	1810	635	N
40	ATOM	1171	N	GLU A	175	-34.271	-1.390	-14.388	1.00	26.32	N	
	ANISOU	1171	N	GLU A	175	3868	2749	3384	54	650	-87	N
	ATOM	1172	CA	GLU A	175	-34.536	-2.296	-13.284	1.00	28.45	C	
	ANISOU	1172	CA	GLU A	175	4062	3042	3706	36	483	-217	C
	ATOM	1173	C	GLU A	175	-35.966	-2.802	-13.324	1.00	26.78	C	
	ANISOU	1173	C	GLU A	175	3764	2969	3444	169	364	-48	C
45	ATOM	1174	O	GLU A	175	-36.861	-2.165	-13.888	1.00	27.73	O	
	ANISOU	1174	O	GLU A	175	3876	3152	3507	310	436	205	O
	ATOM	1175	CB	GLU A	175	-34.275	-1.596	-11.943	1.00	31.93	C	
	ANISOU	1175	CB	GLU A	175	4606	3275	4251	-20	608	-313	C
	ATOM	1176	CG	GLU A	175	-32.890	-0.976	-11.851	1.00	41.85	C	
	ANISOU	1176	CG	GLU A	175	5924	4446	5531	-214	745	-499	C
50	ATOM	1177	CD	GLU A	175	-32.637	-0.273	-10.538	1.00	49.88	C	
	ANISOU	1177	CD	GLU A	175	7044	5310	6598	-346	879	-639	C
	ATOM	1178	OE1	GLU A	175	-33.601	0.232	-9.918	1.00	51.54	O	
	ANISOU	1178	OE1	GLU A	175	7367	5366	6850	-251	991	-537	O
	ATOM	1179	OE2	GLU A	175	-31.460	-0.228	-10.125	1.00	54.80	O	
	ANISOU	1179	OE2	GLU A	175	7620	5999	7203	-560	883	-857	O
55	ATOM	1180	N	GLN A	176	-36.173	-3.945	-12.692	1.00	25.91	N	
	ANISOU	1180	N	GLN A	176	3574	2921	3350	128	199	-172	N
	ATOM	1181	CA	GLN A	176	-37.462	-4.597	-12.701	1.00	28.32	C	
	ANISOU	1181	CA	GLN A	176	3777	3382	3601	186	84	-67	C
	ATOM	1182	C	GLN A	176	-37.618	-5.391	-11.410	1.00	24.88	C	

	ANISOU	1182	C	GLN	A	176	3338	2862	3253	164	9	-191	C
	ATOM	1183	O	GLN	A	176	-36.675	-6.044	-10.951	1.00	22.56		O
	ANISOU	1183	O	GLN	A	176	3064	2504	3004	92	-30	-369	O
	ATOM	1184	CB	GLN	A	176	-37.552	-5.525	-13.925	1.00	28.41		C
5	ANISOU	1184	CB	GLN	A	176	3695	3635	3464	86	-29	-109	C
	ATOM	1185	CG	GLN	A	176	-38.858	-6.278	-14.051	1.00	33.62		C
	ANISOU	1185	CG	GLN	A	176	4224	4522	4027	58	-145	-47	C
	ATOM	1186	CD	GLN	A	176	-38.965	-7.028	-15.372	1.00	40.88		C
	ANISOU	1186	CD	GLN	A	176	5069	5719	4746	-106	-220	-113	C
10	ATOM	1187	OE1	GLN	A	176	-38.030	-7.716	-15.785	1.00	44.53		O
	ANISOU	1187	OE1	GLN	A	176	5602	6117	5202	-232	-203	-320	O
	ATOM	1188	NE2	GLN	A	176	-40.100	-6.884	-16.046	1.00	41.48		N
	ANISOU	1188	NE2	GLN	A	176	4987	6136	4640	-108	-288	68	N
	ATOM	1189	N	THR	A	177	-38.806	-5.329	-10.824	1.00	27.54		N
15	ANISOU	1189	N	THR	A	177	3637	3220	3608	249	3	-66	N
	ATOM	1190	CA	THR	A	177	-39.099	-6.076	-9.604	1.00	29.37		C
	ANISOU	1190	CA	THR	A	177	3873	3380	3906	235	-52	-154	C
	ATOM	1191	C	THR	A	177	-40.358	-6.904	-9.797	1.00	26.32		C
	ANISOU	1191	C	THR	A	177	3365	3171	3464	218	-140	-88	C
20	ATOM	1192	O	THR	A	177	-41.360	-6.397	-10.291	1.00	27.57		O
	ANISOU	1192	O	THR	A	177	3417	3495	3562	291	-127	104	O
	ATOM	1193	CB	THR	A	177	-39.308	-5.131	-8.401	1.00	32.06		C
	ANISOU	1193	CB	THR	A	177	4309	3541	4331	318	74	-105	C
	ATOM	1194	OG1	THR	A	177	-38.071	-4.481	-8.084	1.00	33.23		O
25	ANISOU	1194	OG1	THR	A	177	4567	3554	4506	249	159	-232	O
	ATOM	1195	CG2	THR	A	177	-39.779	-5.912	-7.186	1.00	31.41		C
	ANISOU	1195	CG2	THR	A	177	4225	3425	4286	313	18	-160	C
	ATOM	1196	N	ARG	A	178	-40.298	-8.179	-9.427	1.00	25.55		N
	ANISOU	1196	N	ARG	A	178	3271	3056	3381	119	-206	-234	N
30	ATOM	1197	CA	ARG	A	178	-41.472	-9.049	-9.499	1.00	25.04		C
	ANISOU	1197	CA	ARG	A	178	3108	3139	3266	33	-255	-223	C
	ATOM	1198	C	ARG	A	178	-41.647	-9.803	-8.196	1.00	23.61		C
	ANISOU	1198	C	ARG	A	178	2996	2795	3180	36	-235	-289	C
	ATOM	1199	O	ARG	A	178	-40.699	-9.957	-7.418	1.00	23.51		O
35	ANISOU	1199	O	ARG	A	178	3093	2601	3239	89	-212	-363	O
	ATOM	1200	CB	ARG	A	178	-41.365	-10.042	-10.660	1.00	22.88		C
	ANISOU	1200	CB	ARG	A	178	2802	3013	2878	-162	-295	-358	C
	ATOM	1201	CG	ARG	A	178	-41.458	-9.419	-12.039	1.00	44.57		C
	ANISOU	1201	CG	ARG	A	178	5449	6017	5467	-194	-331	-270	C
40	ATOM	1202	CD	ARG	A	178	-41.364	-10.503	-13.092	1.00	51.67		C
	ANISOU	1202	CD	ARG	A	178	6343	7065	6226	-444	-348	-458	C
	ATOM	1203	NE	ARG	A	178	-40.201	-11.362	-12.863	1.00	54.04		N
	ANISOU	1203	NE	ARG	A	178	6816	7080	6634	-482	-263	-668	N
	ATOM	1204	CZ	ARG	A	178	-39.130	-11.391	-13.648	1.00	56.99		C
45	ANISOU	1204	CZ	ARG	A	178	7259	7413	6981	-507	-217	-763	C
	ATOM	1205	NH1	ARG	A	178	-39.082	-10.624	-14.732	1.00	63.14		N
	ANISOU	1205	NH1	ARG	A	178	7972	8406	7614	-526	-253	-683	N
	ATOM	1206	NH2	ARG	A	178	-38.113	-12.192	-13.359	1.00	53.37		N
	ANISOU	1206	NH2	ARG	A	178	6929	6712	6639	-491	-117	-911	N
50	ATOM	1207	N	ARG	A	179	-42.854	-10.306	-7.975	1.00	24.02		N
	ANISOU	1207	N	ARG	A	179	2962	2952	3211	-27	-241	-250	N
	ATOM	1208	CA	ARG	A	179	-43.189	-10.921	-6.695	1.00	26.91		C
	ANISOU	1208	CA	ARG	A	179	3399	3166	3662	-11	-196	-275	C
	ATOM	1209	C	ARG	A	179	-43.720	-12.330	-6.930	1.00	26.74		C
55	ANISOU	1209	C	ARG	A	179	3373	3174	3612	-215	-170	-397	C
	ATOM	1210	O	ARG	A	179	-44.540	-12.542	-7.822	1.00	26.48		O
	ANISOU	1210	O	ARG	A	179	3201	3389	3472	-383	-201	-410	O
	ATOM	1211	CB	ARG	A	179	-44.244	-10.057	-5.994	1.00	33.78		C
	ANISOU	1211	CB	ARG	A	179	4188	4088	4558	106	-162	-104	C

5	ATOM	1212	CG	ARG	A	179	-44.157	-10.035	-4.494	1.00	42.08	C	
	ANISOU	1212	CG	ARG	A	179	5364	4933	5691	196	-95	-105	C
	ATOM	1213	CD	ARG	A	179	-44.231	-8.611	-3.956	1.00	44.66	C	
	ANISOU	1213	CD	ARG	A	179	5723	5194	6050	354	-11	8	C
	ATOM	1214	NE	ARG	A	179	-45.513	-7.970	-4.223	1.00	48.49	N	
	ANISOU	1214	NE	ARG	A	179	6057	5828	6538	441	49	195	N
	ATOM	1215	CZ	ARG	A	179	-46.590	-8.108	-3.453	1.00	49.98	C	
	ANISOU	1215	CZ	ARG	A	179	6186	6043	6762	475	115	274	C
10	ATOM	1216	NH1	ARG	A	179	-46.541	-8.878	-2.368	1.00	49.36	N	
	ANISOU	1216	NH1	ARG	A	179	6216	5829	6709	414	131	172	N
	ATOM	1217	NH2	ARG	A	179	-47.720	-7.484	-3.771	1.00	46.85	N	
	ANISOU	1217	NH2	ARG	A	179	5605	5830	6367	592	179	482	N
15	ATOM	1218	N	HIS	A	180	-43.248	-13.301	-6.155	1.00	25.86	N	
	ANISOU	1218	N	HIS	A	180	3416	2829	3579	-213	-90	-483	N
	ATOM	1219	CA	HIS	A	180	-43.768	-14.656	-6.287	1.00	24.74	C	
	ANISOU	1219	CA	HIS	A	180	3330	2634	3435	-418	15	-607	C
	ATOM	1220	C	HIS	A	180	-45.221	-14.631	-5.811	1.00	25.04	C	
	ANISOU	1220	C	HIS	A	180	3245	2813	3455	-507	21	-540	C
20	ATOM	1221	O	HIS	A	180	-45.512	-14.131	-4.730	1.00	25.45	O	
	ANISOU	1221	O	HIS	A	180	3298	2803	3567	-346	23	-415	O
	ATOM	1222	CB	HIS	A	180	-42.941	-15.656	-5.475	1.00	24.17	C	
	ANISOU	1222	CB	HIS	A	180	3468	2248	3467	-327	150	-647	C
25	ATOM	1223	CG	HIS	A	180	-43.346	-17.086	-5.681	1.00	27.20	C	
	ANISOU	1223	CG	HIS	A	180	3979	2485	3872	-539	345	-787	C
	ATOM	1224	ND1	HIS	A	180	-44.511	-17.615	-5.158	1.00	28.93	N	
	ANISOU	1224	ND1	HIS	A	180	4197	2697	4098	-693	433	-799	N
	ATOM	1225	CD2	HIS	A	180	-42.746	-18.094	-6.358	1.00	27.61	C	
	ANISOU	1225	CD2	HIS	A	180	4185	2363	3944	-644	515	-938	C
30	ATOM	1226	CE1	HIS	A	180	-44.603	-18.889	-5.502	1.00	29.55	C	
	ANISOU	1226	CE1	HIS	A	180	4437	2592	4197	-909	657	-964	C
	ATOM	1227	NE2	HIS	A	180	-43.548	-19.203	-6.232	1.00	29.77	N	
	ANISOU	1227	NE2	HIS	A	180	4574	2500	4236	-876	724	-1052	N
35	ATOM	1228	N	PRO	A	181	-46.141	-15.148	-6.629	1.00	26.98	N	
	ANISOU	1228	N	PRO	A	181	3367	3286	3598	-784	32	-631	N
	ATOM	1229	CA	PRO	A	181	-47.574	-15.035	-6.320	1.00	28.30	C	
	ANISOU	1229	CA	PRO	A	181	3336	3691	3725	-883	22	-551	C
	ATOM	1230	C	PRO	A	181	-47.999	-15.709	-5.007	1.00	31.57	C	
	ANISOU	1230	C	PRO	A	181	3875	3866	4255	-876	163	-549	C
40	ATOM	1231	O	PRO	A	181	-49.024	-15.331	-4.438	1.00	30.77	O	
	ANISOU	1231	O	PRO	A	181	3621	3911	4160	-850	160	-430	O
	ATOM	1232	CB	PRO	A	181	-48.256	-15.697	-7.535	1.00	30.96	C	
	ANISOU	1232	CB	PRO	A	181	3524	4352	3887	-1266	16	-713	C
45	ATOM	1233	CG	PRO	A	181	-47.207	-16.534	-8.166	1.00	31.09	C	
	ANISOU	1233	CG	PRO	A	181	3776	4137	3902	-1396	114	-931	C
	ATOM	1234	CD	PRO	A	181	-45.903	-15.820	-7.915	1.00	28.47	C	
	ANISOU	1234	CD	PRO	A	181	3570	3573	3673	-1048	59	-824	C
	ATOM	1235	N	GLU	A	182	-47.224	-16.674	-4.523	1.00	34.08	N	
	ANISOU	1235	N	GLU	A	182	4460	3826	4661	-869	307	-648	N
50	ATOM	1236	CA	GLU	A	182	-47.600	-17.384	-3.303	1.00	36.20	C	
	ANISOU	1236	CA	GLU	A	182	4871	3861	5023	-853	467	-620	C
	ATOM	1237	C	GLU	A	182	-46.770	-16.982	-2.083	1.00	35.10	C	
	ANISOU	1237	C	GLU	A	182	4874	3500	4961	-514	456	-468	C
55	ATOM	1238	O	GLU	A	182	-47.315	-16.778	-0.996	1.00	35.37	O	
	ANISOU	1238	O	GLU	A	182	4912	3504	5022	-423	490	-360	O
	ATOM	1239	CB	GLU	A	182	-47.519	-18.895	-3.511	1.00	45.43	C	
	ANISOU	1239	CB	GLU	A	182	6254	4782	6226	-1095	710	-805	C
	ATOM	1240	CG	GLU	A	182	-48.770	-19.646	-3.086	1.00	58.84	C	
	ANISOU	1240	CG	GLU	A	182	7940	6488	7929	-1368	879	-870	C
	ATOM	1241	CD	GLU	A	182	-49.688	-20.005	-4.261	1.00	70.33	C	

	ANISOU	1241	CD	GLU	A	182	9212	8265	9245	-1824	889	-1082	C
	ATOM	1242	OE1	GLU	A	182	-49.190	-20.489	-5.307	1.00	71.74		O
	ANISOU	1242	OE1	GLU	A	182	9475	8425	9358	-2022	944	-1275	O
	ATOM	1243	OE2	GLU	A	182	-50.915	-19.800	-4.131	1.00	76.69		O
5	ANISOU	1243	OE2	GLU	A	182	9773	9379	9986	-1997	849	-1057	O
	ATOM	1244	N	THR	A	183	-45.455	-16.863	-2.256	1.00	31.39		N
	ANISOU	1244	N	THR	A	183	4505	2918	4505	-346	411	-465	N
	ATOM	1245	CA	THR	A	183	-44.565	-16.642	-1.115	1.00	25.61		C
	ANISOU	1245	CA	THR	A	183	3885	2047	3799	-73	399	-339	C
10	ATOM	1246	C	THR	A	183	-44.326	-15.175	-0.832	1.00	26.10		C
	ANISOU	1246	C	THR	A	183	3836	2266	3814	71	235	-260	C
	ATOM	1247	O	THR	A	183	-43.902	-14.815	0.270	1.00	24.12		O
	ANISOU	1247	O	THR	A	183	3647	1979	3540	226	222	-175	O
	ATOM	1248	CB	THR	A	183	-43.190	-17.292	-1.320	1.00	28.75		C
15	ANISOU	1248	CB	THR	A	183	4413	2285	4227	53	455	-351	C
	ATOM	1249	OG1	THR	A	183	-42.540	-16.687	-2.449	1.00	27.36		O
	ANISOU	1249	OG1	THR	A	183	4143	2235	4020	28	336	-430	O
	ATOM	1250	CG2	THR	A	183	-43.328	-18.800	-1.534	1.00	27.41		C
	ANISOU	1250	CG2	THR	A	183	4424	1863	4128	-61	710	-424	C
20	ATOM	1251	N	GLY	A	184	-44.582	-14.330	-1.830	1.00	25.67		N
	ANISOU	1251	N	GLY	A	184	3633	2391	3729	6	137	-287	N
	ATOM	1252	CA	GLY	A	184	-44.349	-12.905	-1.695	1.00	23.53		C
	ANISOU	1252	CA	GLY	A	184	3299	2210	3433	132	52	-217	C
	ATOM	1253	C	GLY	A	184	-42.899	-12.487	-1.870	1.00	23.55		C
25	ANISOU	1253	C	GLY	A	184	3354	2179	3414	222	-13	-254	C
	ATOM	1254	O	GLY	A	184	-42.577	-11.312	-1.791	1.00	29.16		O
	ANISOU	1254	O	GLY	A	184	4045	2932	4102	284	-44	-231	O
	ATOM	1255	N	LEU	A	185	-42.010	-13.440	-2.111	1.00	23.93		N
	ANISOU	1255	N	LEU	A	185	3471	2146	3475	226	3	-311	N
30	ATOM	1256	CA	LEU	A	185	-40.589	-13.109	-2.224	1.00	24.69		C
	ANISOU	1256	CA	LEU	A	185	3573	2260	3548	318	-55	-333	C
	ATOM	1257	C	LEU	A	185	-40.279	-12.415	-3.552	1.00	26.51		C
	ANISOU	1257	C	LEU	A	185	3725	2583	3764	250	-110	-395	C
	ATOM	1258	O	LEU	A	185	-40.884	-12.722	-4.580	1.00	25.36		O
35	ANISOU	1258	O	LEU	A	185	3539	2484	3614	132	-99	-438	O
	ATOM	1259	CB	LEU	A	185	-39.736	-14.362	-2.078	1.00	23.85		C
	ANISOU	1259	CB	LEU	A	185	3543	2045	3473	402	17	-326	C
	ATOM	1260	CG	LEU	A	185	-39.909	-15.113	-0.760	1.00	27.35		C
	ANISOU	1260	CG	LEU	A	185	4078	2399	3915	512	95	-214	C
40	ATOM	1261	CD1	LEU	A	185	-38.958	-16.305	-0.708	1.00	24.11		C
	ANISOU	1261	CD1	LEU	A	185	3741	1875	3546	665	209	-148	C
	ATOM	1262	CD2	LEU	A	185	-39.689	-14.166	0.426	1.00	22.27		C
	ANISOU	1262	CD2	LEU	A	185	3400	1891	3170	584	2	-149	C
	ATOM	1263	N	PHE	A	186	-39.315	-11.501	-3.524	1.00	25.31		N
45	ANISOU	1263	N	PHE	A	186	3551	2483	3582	299	-160	-406	N
	ATOM	1264	CA	PHE	A	186	-39.009	-10.672	-4.682	1.00	25.97		C
	ANISOU	1264	CA	PHE	A	186	3581	2638	3649	248	-185	-440	C
	ATOM	1265	C	PHE	A	186	-37.984	-11.271	-5.634	1.00	25.76		C
	ANISOU	1265	C	PHE	A	186	3542	2622	3625	228	-187	-520	C
50	ATOM	1266	O	PHE	A	186	-37.029	-11.921	-5.220	1.00	30.23		O
	ANISOU	1266	O	PHE	A	186	4120	3158	4209	305	-172	-534	O
	ATOM	1267	CB	PHE	A	186	-38.498	-9.306	-4.233	1.00	24.38		C
	ANISOU	1267	CB	PHE	A	186	3390	2453	3420	264	-178	-438	C
	ATOM	1268	CG	PHE	A	186	-39.504	-8.493	-3.486	1.00	26.25		C
55	ANISOU	1268	CG	PHE	A	186	3666	2647	3662	286	-114	-368	C
	ATOM	1269	CD1	PHE	A	186	-39.565	-8.540	-2.102	1.00	27.52		C
	ANISOU	1269	CD1	PHE	A	186	3887	2774	3795	307	-92	-372	C
	ATOM	1270	CD2	PHE	A	186	-40.374	-7.655	-4.163	1.00	30.26		C
	ANISOU	1270	CD2	PHE	A	186	4146	3163	4189	308	-52	-276	C

5	ATOM	1271	CE1	PHE	A	186	-40.488	-7.762	-1.405	1.00	27.45	C	
	ANISOU	1271	CE1	PHE	A	186	3935	2701	3795	326	11	-321	C
	ATOM	1272	CE2	PHE	A	186	-41.296	-6.870	-3.475	1.00	29.24	C	
	ANISOU	1272	CE2	PHE	A	186	4054	2971	4085	372	60	-186	C
	ATOM	1273	CZ	PHE	A	186	-41.356	-6.931	-2.095	1.00	26.77	C	
	ANISOU	1273	CZ	PHE	A	186	3825	2586	3762	370	101	-227	C
10	ATOM	1274	N	THR	A	187	-38.193	-11.032	-6.921	1.00	24.54	N	
	ANISOU	1274	N	THR	A	187	3351	2534	3439	142	-190	-550	N
	ATOM	1275	CA	THR	A	187	-37.192	-11.331	-7.935	1.00	25.45	C	
	ANISOU	1275	CA	THR	A	187	3461	2666	3542	110	-170	-635	C
	ATOM	1276	C	THR	A	187	-36.800	-10.008	-8.580	1.00	27.25	C	
	ANISOU	1276	C	THR	A	187	3648	2976	3727	95	-190	-613	C
15	ATOM	1277	O	THR	A	187	-37.665	-9.233	-8.999	1.00	26.35	O	
	ANISOU	1277	O	THR	A	187	3509	2931	3570	75	-197	-528	O
	ATOM	1278	CB	THR	A	187	-37.737	-12.288	-8.995	1.00	24.53	C	
	ANISOU	1278	CB	THR	A	187	3366	2568	3387	-25	-122	-717	C
	ATOM	1279	OG1	THR	A	187	-37.975	-13.562	-8.391	1.00	27.07	O	
	ANISOU	1279	OG1	THR	A	187	3772	2745	3770	-24	-34	-754	O
20	ATOM	1280	CG2	THR	A	187	-36.745	-12.454	-10.151	1.00	25.85	C	
	ANISOU	1280	CG2	THR	A	187	3543	2756	3524	-70	-74	-815	C
	ATOM	1281	N	LEU	A	188	-35.501	-9.734	-8.620	1.00	28.05	N	
	ANISOU	1281	N	LEU	A	188	3736	3081	3842	116	-176	-667	N
	ATOM	1282	CA	LEU	A	188	-35.008	-8.460	-9.135	1.00	25.78	C	
	ANISOU	1282	CA	LEU	A	188	3438	2832	3525	77	-148	-662	C
25	ATOM	1283	C	LEU	A	188	-34.257	-8.703	-10.425	1.00	26.50	C	
	ANISOU	1283	C	LEU	A	188	3508	2975	3585	26	-116	-727	C
	ATOM	1284	O	LEU	A	188	-33.578	-9.713	-10.572	1.00	29.63	O	
	ANISOU	1284	O	LEU	A	188	3886	3363	4009	47	-97	-802	O
	ATOM	1285	CB	LEU	A	188	-34.070	-7.789	-8.133	1.00	23.41	C	
	ANISOU	1285	CB	LEU	A	188	3122	2535	3236	71	-137	-704	C
30	ATOM	1286	CG	LEU	A	188	-34.605	-7.418	-6.751	1.00	26.97	C	
	ANISOU	1286	CG	LEU	A	188	3614	2947	3685	88	-143	-674	C
	ATOM	1287	CD1	LEU	A	188	-33.506	-6.713	-5.962	1.00	29.09	C	
	ANISOU	1287	CD1	LEU	A	188	3853	3293	3906	-2	-124	-768	C
	ATOM	1288	CD2	LEU	A	188	-35.832	-6.526	-6.847	1.00	26.21	C	
	ANISOU	1288	CD2	LEU	A	188	3599	2760	3601	99	-70	-579	C
35	ATOM	1289	N	GLN	A	189	-34.372	-7.763	-11.351	1.00	25.26	N	
	ANISOU	1289	N	GLN	A	189	3364	2861	3372	-20	-77	-681	N
	ATOM	1290	CA	GLN	A	189	-33.712	-7.878	-12.637	1.00	26.76	C	
	ANISOU	1290	CA	GLN	A	189	3546	3117	3506	-82	-34	-736	C
	ATOM	1291	C	GLN	A	189	-33.149	-6.516	-13.018	1.00	33.37	C	
	ANISOU	1291	C	GLN	A	189	4407	3944	4328	-109	52	-694	C
40	ATOM	1292	O	GLN	A	189	-33.791	-5.483	-12.807	1.00	35.89	O	
	ANISOU	1292	O	GLN	A	189	4778	4214	4645	-75	101	-572	O
	ATOM	1293	CB	GLN	A	189	-34.702	-8.384	-13.683	1.00	26.15	C	
	ANISOU	1293	CB	GLN	A	189	3469	3154	3312	-144	-61	-706	C
	ATOM	1294	CG	GLN	A	189	-34.064	-9.037	-14.877	1.00	37.21	C	
	ANISOU	1294	CG	GLN	A	189	4884	4617	4637	-240	-7	-826	C
45	ATOM	1295	CD	GLN	A	189	-35.058	-9.817	-15.721	1.00	43.18	C	
	ANISOU	1295	CD	GLN	A	189	5641	5522	5244	-376	-33	-865	C
	ATOM	1296	OE1	GLN	A	189	-35.984	-10.436	-15.195	1.00	47.37	O	
	ANISOU	1296	OE1	GLN	A	189	6162	6057	5781	-408	-78	-870	O
	ATOM	1297	NE2	GLN	A	189	-34.873	-9.783	-17.036	1.00	43.18	N	
	ANISOU	1297	NE2	GLN	A	189	5650	5672	5086	-490	5	-905	N
50	ATOM	1298	N	SER	A	190	-31.934	-6.513	-13.554	1.00	35.87	N	
	ANISOU	1298	N	SER	A	190	4697	4284	4647	-164	111	-790	N
	ATOM	1299	CA	SER	A	190	-31.244	-5.266	-13.859	1.00	35.42	C	
	ANISOU	1299	CA	SER	A	190	4675	4196	4587	-231	232	-782	C
	ATOM	1300	C	SER	A	190	-30.446	-5.382	-15.160	1.00	36.82	C	
													C

	ANISOU	1300	C	SER	A	190	4838	4445	4705	-292	304	-832	C
	ATOM	1301	O	SER	A	190	-29.617	-6.282	-15.304	1.00	40.87		O
	ANISOU	1301	O	SER	A	190	5273	5012	5244	-298	296	-950	O
5	ATOM	1302	CB	SER	A	190	-30.336	-4.876	-12.689	1.00	31.78		C
	ANISOU	1302	CB	SER	A	190	4166	3715	4196	-293	253	-887	C
	ATOM	1303	OG	SER	A	190	-29.514	-3.766	-13.004	1.00	32.39		O
	ANISOU	1303	OG	SER	A	190	4275	3763	4268	-426	404	-935	O
	ATOM	1304	N	GLU	A	191	-30.705	-4.482	-16.107	1.00	32.48		N
10	ANISOU	1304	N	GLU	A	191	4369	3895	4076	-312	402	-720	N
	ATOM	1305	CA	GLU	A	191	-29.999	-4.510	-17.394	1.00	34.09		C
	ANISOU	1305	CA	GLU	A	191	4579	4178	4197	-380	487	-755	C
	ATOM	1306	C	GLU	A	191	-29.015	-3.354	-17.537	1.00	31.70		C
	ANISOU	1306	C	GLU	A	191	4319	3794	3933	-470	668	-772	C
15	ATOM	1307	O	GLU	A	191	-29.394	-2.194	-17.432	1.00	27.88		O
	ANISOU	1307	O	GLU	A	191	3948	3189	3456	-461	790	-645	O
	ATOM	1308	CB	GLU	A	191	-30.984	-4.516	-18.562	1.00	39.13		C
	ANISOU	1308	CB	GLU	A	191	5262	4950	4656	-353	466	-604	C
	ATOM	1309	CG	GLU	A	191	-31.889	-5.726	-18.553	1.00	48.30		C
20	ANISOU	1309	CG	GLU	A	191	6373	6230	5751	-351	314	-642	C
	ATOM	1310	CD	GLU	A	191	-32.851	-5.761	-19.717	1.00	52.96		C
	ANISOU	1310	CD	GLU	A	191	6955	7062	6104	-383	271	-514	C
	ATOM	1311	OE1	GLU	A	191	-32.861	-4.788	-20.507	1.00	53.89		O
	ANISOU	1311	OE1	GLU	A	191	7108	7256	6113	-349	354	-338	O
25	ATOM	1312	OE2	GLU	A	191	-33.588	-6.770	-19.835	1.00	51.49		O
	ANISOU	1312	OE2	GLU	A	191	6726	7012	5828	-457	168	-586	O
	ATOM	1313	N	LEU	A	192	-27.751	-3.688	-17.778	1.00	27.69		N
	ANISOU	1313	N	LEU	A	192	3724	3343	3456	-558	720	-928	N
	ATOM	1314	CA	LEU	A	192	-26.696	-2.694	-17.852	1.00	29.02		C
30	ANISOU	1314	CA	LEU	A	192	3899	3467	3661	-701	898	-991	C
	ATOM	1315	C	LEU	A	192	-26.324	-2.395	-19.292	1.00	36.85		C
	ANISOU	1315	C	LEU	A	192	4958	4488	4555	-747	1045	-947	C
	ATOM	1316	O	LEU	A	192	-26.096	-3.307	-20.085	1.00	38.88		O
	ANISOU	1316	O	LEU	A	192	5164	4861	4746	-723	1009	-998	O
35	ATOM	1317	CB	LEU	A	192	-25.461	-3.184	-17.098	1.00	34.62		C
	ANISOU	1317	CB	LEU	A	192	4405	4295	4456	-776	864	-1176	C
	ATOM	1318	CG	LEU	A	192	-24.194	-2.332	-17.203	1.00	35.96		C
	ANISOU	1318	CG	LEU	A	192	4511	4507	4647	-985	1042	-1291	C
	ATOM	1319	CD1	LEU	A	192	-24.386	-0.978	-16.513	1.00	36.38		C
40	ANISOU	1319	CD1	LEU	A	192	4700	4403	4719	-1149	1179	-1303	C
	ATOM	1320	CD2	LEU	A	192	-22.997	-3.072	-16.621	1.00	33.60		C
	ANISOU	1320	CD2	LEU	A	192	3923	4447	4394	-1010	971	-1429	C
	ATOM	1321	N	MET	A	193	-26.270	-1.111	-19.624	1.00	37.70		N
	ANISOU	1321	N	MET	A	193	5208	4468	4648	-816	1249	-851	N
45	ATOM	1322	CA	MET	A	193	-25.764	-0.666	-20.915	1.00	40.60		C
	ANISOU	1322	CA	MET	A	193	5652	4853	4923	-876	1431	-799	C
	ATOM	1323	C	MET	A	193	-24.615	0.309	-20.708	1.00	43.54		C
	ANISOU	1323	C	MET	A	193	6043	5117	5383	-1088	1672	-919	C
	ATOM	1324	O	MET	A	193	-24.713	1.219	-19.884	1.00	46.49		O
50	ANISOU	1324	O	MET	A	193	6510	5315	5839	-1173	1792	-927	O
	ATOM	1325	CB	MET	A	193	-26.867	0.004	-21.730	1.00	41.78		C
	ANISOU	1325	CB	MET	A	193	5978	4962	4936	-740	1504	-505	C
	ATOM	1326	CG	MET	A	193	-27.920	-0.953	-22.252	1.00	42.18		C
	ANISOU	1326	CG	MET	A	193	5974	5225	4828	-605	1281	-402	C
55	ATOM	1327	SD	MET	A	193	-29.004	-0.153	-23.443	1.00	64.32		S
	ANISOU	1327	SD	MET	A	193	8902	8140	7396	-449	1365	-15	S
	ATOM	1328	CE	MET	A	193	-27.868	0.100	-24.811	1.00	51.66		C
	ANISOU	1328	CE	MET	A	193	7368	6594	5666	-582	1573	-52	C
	ATOM	1329	N	VAL	A	194	-23.521	0.114	-21.437	1.00	41.20		N
	ANISOU	1329	N	VAL	A	194	5661	4927	5066	-1203	1770	-1033	N

5	ATOM	1330	CA	VAL	A	194	-22.399	1.037	-21.350	1.00	44.80	C	
	ANISOU	1330	CA	VAL	A	194	6114	5321	5588	-1453	2019	-1162	C
	ATOM	1331	C	VAL	A	194	-21.941	1.504	-22.728	1.00	49.46	C	
	ANISOU	1331	C	VAL	A	194	6820	5885	6087	-1510	2257	-1086	C
	ATOM	1332	O	VAL	A	194	-22.078	0.791	-23.725	1.00	48.66	O	
	ANISOU	1332	O	VAL	A	194	6707	5913	5867	-1393	2190	-1021	O
	ATOM	1333	CB	VAL	A	194	-21.181	0.427	-20.604	1.00	45.86	C	
	ANISOU	1333	CB	VAL	A	194	5939	5680	5808	-1594	1931	-1415	C
10	ATOM	1334	CG1	VAL	A	194	-21.587	-0.110	-19.247	1.00	36.78	C	
	ANISOU	1334	CG1	VAL	A	194	4663	4598	4715	-1522	1691	-1465	C
	ATOM	1335	CG2	VAL	A	194	-20.533	-0.665	-21.439	1.00	49.19	C	
	ANISOU	1335	CG2	VAL	A	194	6192	6302	6198	-1504	1879	-1461	C
15	ATOM	1336	N	THR	A	195	-21.411	2.720	-22.774	1.00	52.23	N	
	ANISOU	1336	N	THR	A	195	7307	6058	6481	-1717	2567	-1106	N
	ATOM	1337	CA	THR	A	195	-20.747	3.221	-23.963	1.00	52.60	C	
	ANISOU	1337	CA	THR	A	195	7450	6076	6459	-1820	2838	-1064	C
	ATOM	1338	C	THR	A	195	-19.265	3.327	-23.637	1.00	55.19	C	
20	ANISOU	1338	C	THR	A	195	7567	6524	6880	-2134	2962	-1353	C
	ATOM	1339	O	THR	A	195	-18.836	4.283	-22.993	1.00	58.10	O	
	ANISOU	1339	O	THR	A	195	7991	6756	7329	-2402	3175	-1476	O
	ATOM	1340	CB	THR	A	195	-21.300	4.590	-24.396	1.00	53.60	C	
	ANISOU	1340	CB	THR	A	195	7927	5881	6558	-1807	3172	-820	C
25	ATOM	1341	OG1	THR	A	195	-22.681	4.455	-24.756	1.00	55.50	O	
	ANISOU	1341	OG1	THR	A	195	8295	6108	6684	-1481	3039	-505	O
	ATOM	1342	CG2	THR	A	195	-20.514	5.141	-25.593	1.00	50.42	C	
	ANISOU	1342	CG2	THR	A	195	7635	5439	6082	-1935	3490	-776	C
	ATOM	1343	N	PRO	A	196	-18.481	2.321	-24.058	1.00	54.10	N	
30	ANISOU	1343	N	PRO	A	196	7172	6661	6725	-2113	2848	-1469	N
	ATOM	1344	CA	PRO	A	196	-17.051	2.258	-23.740	1.00	53.15	C	
	ANISOU	1344	CA	PRO	A	196	6754	6758	6682	-2365	2929	-1715	C
	ATOM	1345	C	PRO	A	196	-16.297	3.404	-24.385	1.00	58.63	C	
	ANISOU	1345	C	PRO	A	196	7578	7328	7369	-2660	3319	-1760	C
35	ATOM	1346	O	PRO	A	196	-16.505	3.695	-25.565	1.00	62.23	O	
	ANISOU	1346	O	PRO	A	196	8263	7647	7734	-2588	3502	-1597	O
	ATOM	1347	CB	PRO	A	196	-16.612	0.927	-24.356	1.00	52.17	C	
	ANISOU	1347	CB	PRO	A	196	6409	6882	6533	-2174	2792	-1740	C
	ATOM	1348	CG	PRO	A	196	-17.872	0.131	-24.507	1.00	44.52	C	
40	ANISOU	1348	CG	PRO	A	196	5580	5842	5492	-1870	2559	-1584	C
	ATOM	1349	CD	PRO	A	196	-18.933	1.137	-24.807	1.00	49.58	C	
	ANISOU	1349	CD	PRO	A	196	6563	6223	6052	-1850	2652	-1382	C
	ATOM	1350	N	ALA	A	197	-15.438	4.053	-23.609	1.00	61.86	N	
	ANISOU	1350	N	ALA	A	197	7861	7793	7850	-2965	3394	-1971	N
45	ATOM	1351	CA	ALA	A	197	-14.612	5.133	-24.128	1.00	67.14	C	
	ANISOU	1351	CA	ALA	A	197	8673	8323	8515	-3189	3644	-2045	C
	ATOM	1352	C	ALA	A	197	-13.554	4.567	-25.070	1.00	69.48	C	
	ANISOU	1352	C	ALA	A	197	8745	8864	8790	-3190	3674	-2089	C
	ATOM	1353	O	ALA	A	197	-13.104	3.431	-24.905	1.00	69.53	O	
50	ANISOU	1353	O	ALA	A	197	8395	9209	8815	-3086	3487	-2151	O
	ATOM	1354	CB	ALA	A	197	-13.963	5.894	-22.987	1.00	58.82	C	
	ANISOU	1354	CB	ALA	A	197	7543	7322	7485	-3498	3657	-2302	C
	ATOM	1355	N	ARG	A	198	-13.165	5.355	-26.065	1.00	71.55	N	
	ANISOU	1355	N	ARG	A	198	9226	8939	9022	-3277	3930	-2041	N
55	ATOM	1356	CA	ARG	A	198	-12.132	4.929	-26.997	1.00	72.57	C	
	ANISOU	1356	CA	ARG	A	198	9172	9271	9131	-3296	3995	-2084	C
	ATOM	1357	C	ARG	A	198	-10.785	4.922	-26.287	1.00	73.30	C	
	ANISOU	1357	C	ARG	A	198	8884	9688	9278	-3545	3940	-2344	C
	ATOM	1358	O	ARG	A	198	-10.539	5.743	-25.401	1.00	74.05	O	
	ANISOU	1358	O	ARG	A	198	8997	9757	9383	-3797	3968	-2505	O
	ATOM	1359	CB	ARG	A	198	-12.110	5.838	-28.224	1.00	75.89	C	

	ANISOU	1359	CB	ARG	A	198	9939	9403	9491	-3327	4289	-1947	C
	ATOM	1360	CG	ARG	A	198	-13.487	6.020	-28.835	1.00	77.71		C
	ANISOU	1360	CG	ARG	A	198	10537	9365	9625	-3068	4333	-1639	C
	ATOM	1361	CD	ARG	A	198	-13.473	6.887	-30.080	1.00	83.56		C
5	ANISOU	1361	CD	ARG	A	198	11596	9872	10282	-3047	4612	-1447	C
	ATOM	1362	NE	ARG	A	198	-14.835	7.195	-30.510	1.00	85.51		N
	ANISOU	1362	NE	ARG	A	198	12162	9912	10414	-2774	4638	-1105	N
	ATOM	1363	CZ	ARG	A	198	-15.591	6.382	-31.242	1.00	83.98		C
	ANISOU	1363	CZ	ARG	A	198	11987	9883	10039	-2523	4503	-902	C
10	ATOM	1364	NH1	ARG	A	198	-15.118	5.206	-31.634	1.00	84.64		N
	ANISOU	1364	NH1	ARG	A	198	11830	10272	10059	-2509	4364	-1036	N
	ATOM	1365	NH2	ARG	A	198	-16.821	6.745	-31.583	1.00	81.49		N
	ANISOU	1365	NH2	ARG	A	198	11924	9446	9591	-2277	4513	-567	N
	ATOM	1366	N	GLY	A	199	-9.928	3.977	-26.663	1.00	72.29		N
15	ANISOU	1366	N	GLY	A	199	8412	9890	9164	-3457	3870	-2377	N
	ATOM	1367	CA	GLY	A	199	-8.638	3.818	-26.017	1.00	74.61		C
	ANISOU	1367	CA	GLY	A	199	8273	10586	9488	-3626	3789	-2559	C
	ATOM	1368	C	GLY	A	199	-8.745	3.316	-24.589	1.00	75.28		C
	ANISOU	1368	C	GLY	A	199	8062	10955	9585	-3597	3502	-2625	C
20	ATOM	1369	O	GLY	A	199	-7.839	3.526	-23.783	1.00	79.37		O
	ANISOU	1369	O	GLY	A	199	8281	11804	10073	-3801	3420	-2774	O
	ATOM	1370	N	GLY	A	200	-9.857	2.656	-24.271	1.00	70.41		N
	ANISOU	1370	N	GLY	A	200	7527	10238	8987	-3348	3348	-2509	N
	ATOM	1371	CA	GLY	A	200	-10.053	2.091	-22.950	1.00	61.38		C
25	ANISOU	1371	CA	GLY	A	200	6118	9353	7852	-3277	3072	-2540	C
	ATOM	1372	C	GLY	A	200	-9.568	0.656	-22.856	1.00	72.48		C
	ANISOU	1372	C	GLY	A	200	7100	11128	9311	-2965	2906	-2460	C
	ATOM	1373	O	GLY	A	200	-8.929	0.149	-23.774	1.00	71.91		O
	ANISOU	1373	O	GLY	A	200	6921	11130	9273	-2836	3024	-2413	O
30	ATOM	1374	N	ASP	A	201	-9.875	0.000	-21.740	1.00	73.13		N
	ANISOU	1374	N	ASP	A	201	6961	11423	9403	-2818	2655	-2430	N
	ATOM	1375	CA	ASP	A	201	-9.473	-1.387	-21.516	1.00	72.92		C
	ANISOU	1375	CA	ASP	A	201	6550	11717	9440	-2455	2517	-2313	C
	ATOM	1376	C	ASP	A	201	-10.144	-2.322	-22.523	1.00	67.96		C
35	ANISOU	1376	C	ASP	A	201	6114	10828	8878	-2127	2632	-2211	C
	ATOM	1377	O	ASP	A	201	-11.366	-2.375	-22.600	1.00	65.37		O
	ANISOU	1377	O	ASP	A	201	6093	10207	8538	-2061	2618	-2188	O
	ATOM	1378	CB	ASP	A	201	-9.817	-1.809	-20.082	1.00	72.65		C
	ANISOU	1378	CB	ASP	A	201	6305	11916	9382	-2356	2232	-2275	C
40	ATOM	1379	CG	ASP	A	201	-9.248	-3.171	-19.713	1.00	74.60		C
	ANISOU	1379	CG	ASP	A	201	6133	12520	9692	-1951	2106	-2106	C
	ATOM	1380	OD1	ASP	A	201	-8.368	-3.676	-20.441	1.00	77.51		O
	ANISOU	1380	OD1	ASP	A	201	6318	13011	10124	-1792	2246	-2036	O
	ATOM	1381	OD2	ASP	A	201	-9.671	-3.732	-18.679	1.00	73.79		O
45	ANISOU	1381	OD2	ASP	A	201	5897	12561	9579	-1770	1889	-2020	O
	ATOM	1382	N	PRO	A	202	-9.339	-3.049	-23.313	1.00	69.28		N
	ANISOU	1382	N	PRO	A	202	6121	11104	9098	-1929	2764	-2156	N
	ATOM	1383	CA	PRO	A	202	-9.900	-3.992	-24.287	1.00	67.94		C
	ANISOU	1383	CA	PRO	A	202	6175	10681	8957	-1637	2898	-2098	C
50	ATOM	1384	C	PRO	A	202	-10.561	-5.206	-23.641	1.00	66.53		C
	ANISOU	1384	C	PRO	A	202	5932	10501	8847	-1278	2765	-2020	C
	ATOM	1385	O	PRO	A	202	-11.371	-5.875	-24.283	1.00	66.30		O
	ANISOU	1385	O	PRO	A	202	6236	10154	8799	-1085	2792	-1982	O
	ATOM	1386	CB	PRO	A	202	-8.680	-4.416	-25.121	1.00	69.83		C
55	ANISOU	1386	CB	PRO	A	202	6222	11066	9244	-1534	3091	-2068	C
	ATOM	1387	CG	PRO	A	202	-7.492	-4.084	-24.279	1.00	73.00		C
	ANISOU	1387	CG	PRO	A	202	6165	11901	9671	-1645	2992	-2054	C
	ATOM	1388	CD	PRO	A	202	-7.882	-2.884	-23.474	1.00	72.22		C
	ANISOU	1388	CD	PRO	A	202	6161	11796	9483	-2018	2841	-2165	C

5	ATOM	1389	N	ARG A 203	-10.231	-5.488	-22.387	1.00	66.54	N	
	ANISOU	1389	N	ARG A 203	5577	10813	8891	-1180	2561	-1954	N
	ATOM	1390	CA	ARG A 203	-10.846	-6.617	-21.697	1.00	66.46	C	
	ANISOU	1390	CA	ARG A 203	5567	10744	8942	-803	2398	-1820	C
	ATOM	1391	C	ARG A 203	-11.403	-6.266	-20.311	1.00	61.36	C	
	ANISOU	1391	C	ARG A 203	4860	10209	8244	-880	2093	-1792	C
10	ATOM	1392	O	ARG A 203	-10.913	-6.767	-19.299	1.00	60.96	O	
	ANISOU	1392	O	ARG A 203	4425	10521	8214	-708	1960	-1684	O
	ATOM	1393	CB	ARG A 203	-9.853	-7.774	-21.594	1.00	72.67	C	
	ANISOU	1393	CB	ARG A 203	5957	11805	9848	-423	2517	-1681	C
	ATOM	1394	CG	ARG A 203	-9.515	-8.415	-22.927	1.00	77.71	C	
	ANISOU	1394	CG	ARG A 203	6767	12213	10546	-259	2828	-1684	C
15	ATOM	1395	CD	ARG A 203	-9.321	-9.906	-22.757	1.00	83.59	C	
	ANISOU	1395	CD	ARG A 203	7413	12918	11429	244	2946	-1505	C
	ATOM	1396	NE	ARG A 203	-10.523	-10.540	-22.219	1.00	85.25	N	
	ANISOU	1396	NE	ARG A 203	7889	12845	11655	409	2818	-1479	N
	ATOM	1397	CZ	ARG A 203	-11.352	-11.295	-22.932	1.00	86.96	C	
	ANISOU	1397	CZ	ARG A 203	8546	12612	11882	517	2962	-1534	C
20	ATOM	1398	NH1	ARG A 203	-11.103	-11.525	-24.214	1.00	91.69	N	
	ANISOU	1398	NH1	ARG A 203	9350	13021	12466	482	3256	-1639	N
	ATOM	1399	NH2	ARG A 203	-12.423	-11.830	-22.360	1.00	83.27	N	
	ANISOU	1399	NH2	ARG A 203	8320	11903	11415	630	2810	-1488	N
	ATOM	1400	N	PRO A 204	-12.446	-5.420	-20.267	1.00	55.87	N	
	ANISOU	1400	N	PRO A 204	4544	9214	7471	-1114	1999	-1865	N
25	ATOM	1401	CA	PRO A 204	-13.006	-4.955	-18.995	1.00	53.62	C	
	ANISOU	1401	CA	PRO A 204	4248	8996	7128	-1232	1756	-1869	C
	ATOM	1402	C	PRO A 204	-13.684	-6.085	-18.240	1.00	52.66	C	
	ANISOU	1402	C	PRO A 204	4134	8823	7050	-862	1566	-1716	C
	ATOM	1403	O	PRO A 204	-14.040	-7.103	-18.834	1.00	53.09	O	
	ANISOU	1403	O	PRO A 204	4344	8651	7177	-562	1643	-1633	O
30	ATOM	1404	CB	PRO A 204	-14.046	-3.924	-19.431	1.00	50.88	C	
	ANISOU	1404	CB	PRO A 204	4371	8242	6721	-1472	1793	-1939	C
	ATOM	1405	CG	PRO A 204	-14.472	-4.391	-20.782	1.00	49.91	C	
	ANISOU	1405	CG	PRO A 204	4538	7817	6608	-1312	1940	-1893	C
	ATOM	1406	CD	PRO A 204	-13.215	-4.914	-21.417	1.00	52.62	C	
	ANISOU	1406	CD	PRO A 204	4594	8393	7008	-1236	2130	-1914	C
40	ATOM	1407	N	THR A 205	-13.860	-5.900	-16.939	1.00	52.22	N	
	ANISOU	1407	N	THR A 205	3931	8973	6938	-912	1349	-1693	N
	ATOM	1408	CA	THR A 205	-14.478	-6.915	-16.102	1.00	51.48	C	
	ANISOU	1408	CA	THR A 205	3835	8850	6874	-575	1177	-1532	C
	ATOM	1409	C	THR A 205	-15.696	-6.328	-15.408	1.00	46.66	C	
	ANISOU	1409	C	THR A 205	3523	8008	6196	-725	1008	-1574	C
45	ATOM	1410	O	THR A 205	-15.574	-5.408	-14.605	1.00	45.16	O	
	ANISOU	1410	O	THR A 205	3242	8010	5906	-1020	919	-1673	O
	ATOM	1411	CB	THR A 205	-13.489	-7.450	-15.053	1.00	58.99	C	
	ANISOU	1411	CB	THR A 205	4260	10353	7798	-407	1069	-1399	C
	ATOM	1412	OG1	THR A 205	-12.269	-7.838	-15.700	1.00	68.30	O	
	ANISOU	1412	OG1	THR A 205	5111	11799	9043	-281	1255	-1350	O
50	ATOM	1413	CG2	THR A 205	-14.068	-8.647	-14.338	1.00	57.16	C	
	ANISOU	1413	CG2	THR A 205	4056	10044	7619	14	961	-1183	C
	ATOM	1414	N	PHE A 206	-16.872	-6.850	-15.743	1.00	44.96	N	
	ANISOU	1414	N	PHE A 206	3666	7390	6028	-546	990	-1514	N
	ATOM	1415	CA	PHE A 206	-18.122	-6.394	-15.147	1.00	41.38	C	
	ANISOU	1415	CA	PHE A 206	3490	6706	5527	-633	849	-1522	C
55	ATOM	1416	C	PHE A 206	-18.666	-7.438	-14.186	1.00	42.25	C	
	ANISOU	1416	C	PHE A 206	3565	6823	5663	-343	692	-1380	C
	ATOM	1417	O	PHE A 206	-18.523	-8.639	-14.411	1.00	41.26	O	
	ANISOU	1417	O	PHE A 206	3393	6662	5621	-35	752	-1269	O
	ATOM	1418	CB	PHE A 206	-19.184	-6.150	-16.215	1.00	37.37	C	

	ANISOU	1418	CB	PHE	A	206	3389	5789	5021	-665	932	-1537	C
	ATOM	1419	CG	PHE	A	206	-18.821	-5.099	-17.223	1.00	40.46		C
	ANISOU	1419	CG	PHE	A	206	3884	6115	5375	-918	1112	-1630	C
	ATOM	1420	CD1	PHE	A	206	-19.222	-3.784	-17.045	1.00	39.70		C
5	ANISOU	1420	CD1	PHE	A	206	3962	5898	5226	-1180	1150	-1685	C
	ATOM	1421	CD2	PHE	A	206	-18.116	-5.435	-18.375	1.00	42.09		C
	ANISOU	1421	CD2	PHE	A	206	4049	6341	5600	-881	1288	-1653	C
	ATOM	1422	CE1	PHE	A	206	-18.910	-2.820	-17.984	1.00	41.36		C
	ANISOU	1422	CE1	PHE	A	206	4303	6005	5408	-1391	1362	-1738	C
10	ATOM	1423	CE2	PHE	A	206	-17.798	-4.479	-19.315	1.00	39.47		C
	ANISOU	1423	CE2	PHE	A	206	3829	5943	5223	-1108	1470	-1720	C
	ATOM	1424	CZ	PHE	A	206	-18.194	-3.170	-19.125	1.00	39.27		C
	ANISOU	1424	CZ	PHE	A	206	3980	5793	5149	-1358	1510	-1751	C
	ATOM	1425	N	SER	A	207	-19.320	-6.977	-13.126	1.00	41.69		N
15	ANISOU	1425	N	SER	A	207	3553	6763	5525	-444	534	-1385	N
	ATOM	1426	CA	SER	A	207	-19.958	-7.886	-12.186	1.00	40.25		C
	ANISOU	1426	CA	SER	A	207	3379	6559	5354	-190	395	-1246	C
	ATOM	1427	C	SER	A	207	-21.181	-7.229	-11.563	1.00	41.09		C
	ANISOU	1427	C	SER	A	207	3746	6458	5408	-333	291	-1285	C
20	ATOM	1428	O	SER	A	207	-21.312	-6.001	-11.568	1.00	43.28		O
	ANISOU	1428	O	SER	A	207	4128	6689	5628	-629	325	-1412	O
	ATOM	1429	CB	SER	A	207	-18.975	-8.305	-11.096	1.00	38.81		C
	ANISOU	1429	CB	SER	A	207	2785	6852	5110	-73	292	-1141	C
	ATOM	1430	OG	SER	A	207	-18.700	-7.217	-10.232	1.00	40.51		O
25	ANISOU	1430	OG	SER	A	207	2864	7354	5172	-406	185	-1264	O
	ATOM	1431	N	CYS	A	208	-22.072	-8.058	-11.027	1.00	39.20		N
	ANISOU	1431	N	CYS	A	208	3623	6072	5199	-117	205	-1171	N
	ATOM	1432	CA	CYS	A	208	-23.286	-7.588	-10.378	1.00	34.15		C
	ANISOU	1432	CA	CYS	A	208	3208	5246	4522	-202	116	-1181	C
30	ATOM	1433	C	CYS	A	208	-23.304	-8.034	-8.921	1.00	33.91		C
	ANISOU	1433	C	CYS	A	208	3032	5428	4425	-95	-30	-1089	C
	ATOM	1434	O	CYS	A	208	-22.769	-9.085	-8.584	1.00	34.99		O
	ANISOU	1434	O	CYS	A	208	2978	5736	4583	162	-53	-947	O
	ATOM	1435	CB	CYS	A	208	-24.519	-8.137	-11.103	1.00	31.55		C
35	ANISOU	1435	CB	CYS	A	208	3163	4559	4264	-81	152	-1132	C
	ATOM	1436	SG	CYS	A	208	-26.093	-7.741	-10.303	1.00	39.76		S
	ANISOU	1436	SG	CYS	A	208	4433	5397	5277	-121	56	-1099	S
	ATOM	1437	N	SER	A	209	-23.921	-7.242	-8.054	1.00	32.69		N
	ANISOU	1437	N	SER	A	209	2978	5257	4185	-274	-100	-1150	N
40	ATOM	1438	CA	SER	A	209	-24.045	-7.644	-6.664	1.00	35.23		C
	ANISOU	1438	CA	SER	A	209	3193	5784	4411	-190	-237	-1064	C
	ATOM	1439	C	SER	A	209	-25.408	-7.297	-6.069	1.00	33.64		C
	ANISOU	1439	C	SER	A	209	3264	5317	4199	-241	-263	-1076	C
	ATOM	1440	O	SER	A	209	-26.034	-6.312	-6.459	1.00	31.92		O
45	ANISOU	1440	O	SER	A	209	3264	4861	4005	-427	-175	-1183	O
	ATOM	1441	CB	SER	A	209	-22.922	-7.033	-5.828	1.00	40.08		C
	ANISOU	1441	CB	SER	A	209	3501	6885	4841	-410	-309	-1149	C
	ATOM	1442	OG	SER	A	209	-23.058	-5.630	-5.782	1.00	42.52		O
	ANISOU	1442	OG	SER	A	209	3953	7122	5083	-801	-231	-1373	O
50	ATOM	1443	N	PHE	A	210	-25.862	-8.120	-5.126	1.00	35.89		N
	ANISOU	1443	N	PHE	A	210	3537	5645	4455	-48	-357	-939	N
	ATOM	1444	CA	PHE	A	210	-27.140	-7.894	-4.455	1.00	32.74		C
	ANISOU	1444	CA	PHE	A	210	3367	5028	4045	-77	-376	-936	C
	ATOM	1445	C	PHE	A	210	-26.910	-7.283	-3.086	1.00	32.60		C
55	ANISOU	1445	C	PHE	A	210	3263	5293	3831	-259	-452	-1003	C
	ATOM	1446	O	PHE	A	210	-26.121	-7.798	-2.305	1.00	36.73		O
	ANISOU	1446	O	PHE	A	210	3533	6203	4220	-183	-561	-917	O
	ATOM	1447	CB	PHE	A	210	-27.938	-9.198	-4.318	1.00	29.70		C
	ANISOU	1447	CB	PHE	A	210	3073	4461	3751	216	-391	-760	C

5	ATOM	1448	CG	PHE	A	210	-29.155	-9.070	-3.435	1.00	31.62	C	
	ANISOU	1448	CG	PHE	A	210	3493	4556	3965	198	-417	-737	C
	ATOM	1449	CD1	PHE	A	210	-30.369	-8.662	-3.962	1.00	30.28	C	
	ANISOU	1449	CD1	PHE	A	210	3548	4073	3883	139	-351	-776	C
	ATOM	1450	CD2	PHE	A	210	-29.080	-9.348	-2.074	1.00	31.17	C	
	ANISOU	1450	CD2	PHE	A	210	3355	4716	3773	249	-504	-657	C
10	ATOM	1451	CE1	PHE	A	210	-31.481	-8.527	-3.150	1.00	32.20	C	
	ANISOU	1451	CE1	PHE	A	210	3929	4198	4110	134	-353	-746	C
	ATOM	1452	CE2	PHE	A	210	-30.188	-9.219	-1.260	1.00	31.52	C	
	ANISOU	1452	CE2	PHE	A	210	3568	4621	3787	226	-505	-643	C
	ATOM	1453	CZ	PHE	A	210	-31.390	-8.807	-1.793	1.00	30.87	C	
	ANISOU	1453	CZ	PHE	A	210	3706	4202	3822	170	-422	-693	C
15	ATOM	1454	N	SER	A	211	-27.601	-6.186	-2.799	1.00	34.60	N	
	ANISOU	1454	N	SER	A	211	3724	5371	4052	-495	-374	-1145	N
	ATOM	1455	CA	SER	A	211	-27.527	-5.550	-1.482	1.00	36.30	C	
	ANISOU	1455	CA	SER	A	211	3922	5808	4062	-723	-401	-1258	C
	ATOM	1456	C	SER	A	211	-28.853	-5.702	-0.764	1.00	35.38	C	
	ANISOU	1456	C	SER	A	211	4028	5450	3965	-625	-388	-1188	C
20	ATOM	1457	O	SER	A	211	-29.871	-5.168	-1.212	1.00	36.18	O	
	ANISOU	1457	O	SER	A	211	4378	5171	4198	-633	-254	-1210	O
	ATOM	1458	CB	SER	A	211	-27.195	-4.064	-1.604	1.00	38.78	C	
	ANISOU	1458	CB	SER	A	211	4335	6084	4315	-1123	-236	-1518	C
	ATOM	1459	OG	SER	A	211	-25.950	-3.878	-2.246	1.00	47.85	O	
	ANISOU	1459	OG	SER	A	211	5265	7476	5439	-1255	-232	-1599	O
25	ATOM	1460	N	PRO	A	212	-28.849	-6.433	0.356	1.00	35.67	N	
	ANISOU	1460	N	PRO	A	212	3959	5733	3862	-512	-516	-1077	N
	ATOM	1461	CA	PRO	A	212	-30.066	-6.638	1.149	1.00	38.65	C	
	ANISOU	1461	CA	PRO	A	212	4532	5915	4239	-426	-497	-1008	C
	ATOM	1462	C	PRO	A	212	-30.695	-5.313	1.591	1.00	42.34	C	
	ANISOU	1462	C	PRO	A	212	5231	6201	4655	-714	-334	-1212	C
30	ATOM	1463	O	PRO	A	212	-31.908	-5.245	1.792	1.00	43.47	O	
	ANISOU	1463	O	PRO	A	212	5584	6044	4890	-631	-244	-1165	O
	ATOM	1464	CB	PRO	A	212	-29.560	-7.417	2.371	1.00	38.33	C	
	ANISOU	1464	CB	PRO	A	212	4292	6294	3976	-329	-652	-877	C
	ATOM	1465	CG	PRO	A	212	-28.306	-8.072	1.909	1.00	39.76	C	
	ANISOU	1465	CG	PRO	A	212	4171	6794	4142	-188	-751	-766	C
35	ATOM	1466	CD	PRO	A	212	-27.684	-7.130	0.926	1.00	36.53	C	
	ANISOU	1466	CD	PRO	A	212	3735	6351	3795	-432	-675	-973	C
	ATOM	1467	N	GLY	A	213	-29.879	-4.275	1.743	1.00	46.71	N	
	ANISOU	1467	N	GLY	A	213	5750	6929	5068	-1056	-260	-1441	N
	ATOM	1468	CA	GLY	A	213	-30.370	-3.002	2.237	1.00	57.26	C	
	ANISOU	1468	CA	GLY	A	213	7343	8066	6347	-1356	-32	-1660	C
40	ATOM	1469	C	GLY	A	213	-30.544	-3.012	3.746	1.00	67.77	C	
	ANISOU	1469	C	GLY	A	213	8691	9637	7422	-1495	-69	-1729	C
	ATOM	1470	O	GLY	A	213	-30.227	-2.029	4.418	1.00	75.51	O	
	ANISOU	1470	O	GLY	A	213	9759	10726	8207	-1886	73	-1996	O
	ATOM	1471	N	LEU	A	214	-31.050	-4.124	4.275	1.00	68.64	N	
	ANISOU	1471	N	LEU	A	214	8738	9824	7519	-1198	-230	-1500	N
45	ATOM	1472	CA	LEU	A	214	-31.171	-4.324	5.714	1.00	72.52	C	
	ANISOU	1472	CA	LEU	A	214	9215	10603	7737	-1281	-295	-1509	C
	ATOM	1473	C	LEU	A	214	-29.792	-4.237	6.377	1.00	76.52	C	
	ANISOU	1473	C	LEU	A	214	9425	11755	7893	-1547	-452	-1622	C
	ATOM	1474	O	LEU	A	214	-28.832	-4.836	5.891	1.00	80.57	O	
	ANISOU	1474	O	LEU	A	214	9640	12573	8401	-1419	-621	-1497	O
50	ATOM	1475	CB	LEU	A	214	-31.821	-5.679	6.001	1.00	72.73	C	
	ANISOU	1475	CB	LEU	A	214	9202	10599	7834	-876	-432	-1196	C
	ATOM	1476	CG	LEU	A	214	-32.829	-5.724	7.153	1.00	76.24	C	
	ANISOU	1476	CG	LEU	A	214	9833	10963	8172	-872	-363	-1174	C
	ATOM	1477	CD1	LEU	A	214	-34.023	-4.835	6.852	1.00	76.68	C	
													C

	ANISOU	1477	CD1	LEU	A	214	10202	10499	8434	-936	-97	-1291	C
	ATOM	1478	CD2	LEU	A	214	-33.282	-7.147	7.422	1.00	75.49		C
	ANISOU	1478	CD2	LEU	A	214	9677	10874	8132	-492	-485	-857	C
5	ATOM	1479	N	PRO	A	215	-29.693	-3.477	7.482	1.00	74.33		N
	ANISOU	1479	N	PRO	A	215	9217	11677	7349	-1900	-364	-1826	N
	ATOM	1480	CA	PRO	A	215	-28.445	-3.192	8.204	1.00	78.01		C
	ANISOU	1480	CA	PRO	A	215	9402	12670	7566	-2147	-429	-1867	C
	ATOM	1481	C	PRO	A	215	-27.568	-4.413	8.491	1.00	77.72		C
10	ANISOU	1481	C	PRO	A	215	8953	13227	7350	-1887	-739	-1586	C
	ATOM	1482	O	PRO	A	215	-28.050	-5.424	9.002	1.00	78.49		O
	ANISOU	1482	O	PRO	A	215	9018	13441	7363	-1582	-891	-1348	O
	ATOM	1483	CB	PRO	A	215	-28.940	-2.579	9.519	1.00	80.47		C
	ANISOU	1483	CB	PRO	A	215	9897	12988	7691	-2395	-281	-1997	C
15	ATOM	1484	CG	PRO	A	215	-30.209	-1.907	9.145	1.00	77.82		C
	ANISOU	1484	CG	PRO	A	215	9979	11985	7603	-2392	-2	-2112	C
	ATOM	1485	CD	PRO	A	215	-30.843	-2.780	8.085	1.00	72.72		C
	ANISOU	1485	CD	PRO	A	215	9376	11074	7181	-2013	-113	-1949	C
	ATOM	1486	N	ARG	A	216	-26.287	-4.294	8.149	1.00	77.20		N
20	ANISOU	1486	N	ARG	A	216	8583	13513	7238	-1983	-791	-1587	N
	ATOM	1487	CA	ARG	A	216	-25.263	-5.301	8.445	1.00	76.71		C
	ANISOU	1487	CA	ARG	A	216	8096	14039	7013	-1736	-1018	-1299	C
	ATOM	1488	C	ARG	A	216	-25.411	-6.641	7.724	1.00	70.33		C
	ANISOU	1488	C	ARG	A	216	7171	13170	6380	-1202	-1177	-966	C
25	ATOM	1489	O	ARG	A	216	-24.664	-7.578	8.000	1.00	73.22		O
	ANISOU	1489	O	ARG	A	216	7224	13942	6654	-903	-1308	-657	O
	ATOM	1490	CB	ARG	A	216	-25.120	-5.525	9.954	1.00	80.40		C
	ANISOU	1490	CB	ARG	A	216	8437	14963	7149	-1792	-1094	-1199	C
	ATOM	1491	CG	ARG	A	216	-24.344	-4.435	10.676	1.00	84.53		C
30	ANISOU	1491	CG	ARG	A	216	8861	15833	7424	-2302	-977	-1461	C
	ATOM	1492	CD	ARG	A	216	-24.271	-4.736	12.161	1.00	88.21		C
	ANISOU	1492	CD	ARG	A	216	9191	16777	7548	-2348	-1066	-1351	C
	ATOM	1493	NE	ARG	A	216	-25.573	-5.151	12.671	1.00	85.96		N
	ANISOU	1493	NE	ARG	A	216	9203	16160	7298	-2156	-1073	-1269	N
35	ATOM	1494	CZ	ARG	A	216	-26.495	-4.316	13.141	1.00	86.52		C
	ANISOU	1494	CZ	ARG	A	216	9631	15875	7366	-2441	-885	-1530	C
	ATOM	1495	NH1	ARG	A	216	-26.257	-3.010	13.180	1.00	88.78		N
	ANISOU	1495	NH1	ARG	A	216	10035	16062	7635	-2924	-654	-1878	N
	ATOM	1496	NH2	ARG	A	216	-27.654	-4.789	13.581	1.00	83.56		N
40	ANISOU	1496	NH2	ARG	A	216	9508	15233	7010	-2232	-891	-1429	N
	ATOM	1497	N	HIS	A	217	-26.363	-6.739	6.807	1.00	62.75		N
	ANISOU	1497	N	HIS	A	217	6465	11701	5676	-1068	-1129	-1012	N
	ATOM	1498	CA	HIS	A	217	-26.463	-7.942	5.987	1.00	62.50		C
	ANISOU	1498	CA	HIS	A	217	6373	11463	5912	-563	-1175	-698	C
45	ATOM	1499	C	HIS	A	217	-25.479	-7.823	4.828	1.00	65.03		C
	ANISOU	1499	C	HIS	A	217	6484	11851	6373	-573	-1168	-742	C
	ATOM	1500	O	HIS	A	217	-25.343	-6.758	4.226	1.00	66.55		O
	ANISOU	1500	O	HIS	A	217	6775	11887	6623	-924	-1059	-1042	O
	ATOM	1501	CB	HIS	A	217	-27.894	-8.171	5.487	1.00	52.53		C
50	ANISOU	1501	CB	HIS	A	217	5515	9462	4981	-377	-1018	-667	C
	ATOM	1502	CG	HIS	A	217	-28.839	-8.647	6.548	1.00	52.26		C
	ANISOU	1502	CG	HIS	A	217	5646	9355	4856	-247	-1019	-531	C
	ATOM	1503	ND1	HIS	A	217	-30.058	-9.218	6.256	1.00	50.41		N
	ANISOU	1503	ND1	HIS	A	217	5684	8584	4886	-8	-909	-415	N
55	ATOM	1504	CD2	HIS	A	217	-28.742	-8.637	7.898	1.00	56.92		C
	ANISOU	1504	CD2	HIS	A	217	6156	10374	5097	-345	-1110	-496	C
	ATOM	1505	CE1	HIS	A	217	-30.675	-9.539	7.381	1.00	47.98		C
	ANISOU	1505	CE1	HIS	A	217	5468	8338	4423	48	-917	-312	C
	ATOM	1506	NE2	HIS	A	217	-29.897	-9.198	8.389	1.00	54.70		N
	ANISOU	1506	NE2	HIS	A	217	6119	9766	4898	-143	-1039	-352	N

5	ATOM	1507	N	ARG	A	218	-24.781	-8.909	4.525	1.00	66.31	N	
	ANISOU	1507	N	ARG	A	218	6370	12232	6593	-178	-1247	-433	N
	ATOM	1508	CA	ARG	A	218	-23.716	-8.846	3.532	1.00	70.57	C	
	ANISOU	1508	CA	ARG	A	218	6657	12928	7228	-178	-1239	-457	C
	ATOM	1509	C	ARG	A	218	-24.202	-9.022	2.093	1.00	63.43	C	
	ANISOU	1509	C	ARG	A	218	6011	11367	6720	-26	-1070	-489	C
10	ATOM	1510	O	ARG	A	218	-25.203	-9.690	1.832	1.00	60.94	O	
	ANISOU	1510	O	ARG	A	218	5974	10562	6619	233	-987	-367	O
	ATOM	1511	CB	ARG	A	218	-22.596	-9.837	3.865	1.00	80.50	C	
	ANISOU	1511	CB	ARG	A	218	7547	14646	8394	169	-1298	-102	C
	ATOM	1512	CG	ARG	A	218	-23.058	-11.268	4.082	1.00	85.75	C	
	ANISOU	1512	CG	ARG	A	218	8253	15152	9175	729	-1282	299	C
15	ATOM	1513	CD	ARG	A	218	-22.727	-12.145	2.882	1.00	89.21	C	
	ANISOU	1513	CD	ARG	A	218	8640	15333	9924	1122	-1158	479	C
	ATOM	1514	NE	ARG	A	218	-21.956	-13.329	3.264	1.00	95.58	N	
	ANISOU	1514	NE	ARG	A	218	9282	16315	10719	1546	-1078	881	N
	ATOM	1515	CZ	ARG	A	218	-20.634	-13.434	3.161	1.00	98.38	C	
	ANISOU	1515	CZ	ARG	A	218	9329	17058	10991	1591	-1063	988	C
20	ATOM	1516	NH1	ARG	A	218	-19.917	-12.427	2.678	1.00	97.91	N	
	ANISOU	1516	NH1	ARG	A	218	9097	17244	10861	1222	-1120	716	N
	ATOM	1517	NH2	ARG	A	218	-20.027	-14.553	3.535	1.00	101.44	N	
	ANISOU	1517	NH2	ARG	A	218	9597	17580	11367	2002	-963	1373	N
	ATOM	1518	N	ALA	A	219	-23.477	-8.400	1.170	1.00	59.93	N	
	ANISOU	1518	N	ALA	A	219	5467	10959	6346	-225	-1015	-665	N
25	ATOM	1519	CA	ALA	A	219	-23.790	-8.469	-0.246	1.00	55.51	C	
	ANISOU	1519	CA	ALA	A	219	5115	9874	6103	-128	-863	-708	C
	ATOM	1520	C	ALA	A	219	-23.398	-9.815	-0.852	1.00	56.92	C	
	ANISOU	1520	C	ALA	A	219	5164	10009	6453	338	-827	-422	C
	ATOM	1521	O	ALA	A	219	-22.442	-10.451	-0.411	1.00	60.28	O	
	ANISOU	1521	O	ALA	A	219	5235	10907	6763	554	-901	-205	O
30	ATOM	1522	CB	ALA	A	219	-23.096	-7.331	-0.992	1.00	52.08	C	
	ANISOU	1522	CB	ALA	A	219	4624	9502	5663	-505	-787	-982	C
	ATOM	1523	N	LEU	A	220	-24.155	-10.241	-1.856	1.00	53.55	N	
	ANISOU	1523	N	LEU	A	220	5026	9029	6290	487	-688	-416	N
	ATOM	1524	CA	LEU	A	220	-23.800	-11.402	-2.657	1.00	57.04	C	
	ANISOU	1524	CA	LEU	A	220	5424	9328	6920	852	-571	-227	C
35	ATOM	1525	C	LEU	A	220	-23.313	-10.892	-4.013	1.00	56.16	C	
	ANISOU	1525	C	LEU	A	220	5315	9094	6929	700	-467	-403	C
	ATOM	1526	O	LEU	A	220	-23.816	-9.887	-4.511	1.00	50.84	O	
	ANISOU	1526	O	LEU	A	220	4839	8203	6274	395	-445	-629	O
	ATOM	1527	CB	LEU	A	220	-25.005	-12.329	-2.838	1.00	58.79	C	
	ANISOU	1527	CB	LEU	A	220	5979	9039	7318	1072	-460	-130	C
40	ATOM	1528	CG	LEU	A	220	-25.604	-13.054	-1.628	1.00	63.69	C	
	ANISOU	1528	CG	LEU	A	220	6658	9674	7868	1276	-500	78	C
	ATOM	1529	CD1	LEU	A	220	-26.574	-12.164	-0.864	1.00	61.78	C	
	ANISOU	1529	CD1	LEU	A	220	6586	9381	7505	992	-605	-74	C
	ATOM	1530	CD2	LEU	A	220	-26.295	-14.343	-2.062	1.00	64.98	C	
	ANISOU	1530	CD2	LEU	A	220	7067	9377	8244	1564	-303	218	C
45	ATOM	1531	N	ARG	A	221	-22.342	-11.579	-4.609	1.00	59.22	N	
	ANISOU	1531	N	ARG	A	221	5491	9613	7397	933	-376	-278	N
	ATOM	1532	CA	ARG	A	221	-21.719	-11.096	-5.840	1.00	61.34	C	
	ANISOU	1532	CA	ARG	A	221	5721	9836	7751	785	-271	-437	C
	ATOM	1533	C	ARG	A	221	-21.753	-12.146	-6.949	1.00	60.07	C	
	ANISOU	1533	C	ARG	A	221	5700	9320	7805	1067	-57	-356	C
50	ATOM	1534	O	ARG	A	221	-21.546	-13.332	-6.688	1.00	64.22	O	
	ANISOU	1534	O	ARG	A	221	6163	9834	8402	1443	39	-120	O
	ATOM	1535	CB	ARG	A	221	-20.273	-10.691	-5.557	1.00	69.15	C	
	ANISOU	1535	CB	ARG	A	221	6254	11427	8594	703	-339	-423	C
	ATOM	1536	CG	ARG	A	221	-19.622	-9.858	-6.643	1.00	74.50	C	
													C

	ANISOU	1536	CG	ARG	A	221	6883	12113	9312	431	-245	-637	C
	ATOM	1537	CD	ARG	A	221	-19.061	-8.571	-6.055	1.00	80.92		C
	ANISOU	1537	CD	ARG	A	221	7495	13342	9909	-16	-355	-841	C
5	ATOM	1538	NE	ARG	A	221	-18.220	-7.843	-7.002	1.00	86.78		N
	ANISOU	1538	NE	ARG	A	221	8126	14168	10677	-269	-239	-1018	N
	ATOM	1539	CZ	ARG	A	221	-17.605	-6.696	-6.728	1.00	91.22		C
	ANISOU	1539	CZ	ARG	A	221	8529	15054	11076	-718	-258	-1240	C
	ATOM	1540	NH1	ARG	A	221	-17.736	-6.138	-5.531	1.00	93.51		N
10	ANISOU	1540	NH1	ARG	A	221	8757	15625	11146	-980	-392	-1334	N
	ATOM	1541	NH2	ARG	A	221	-16.856	-6.106	-7.650	1.00	92.52		N
	ANISOU	1541	NH2	ARG	A	221	8613	15256	11286	-935	-116	-1389	N
	ATOM	1542	N	THR	A	222	-22.013	-11.718	-8.185	1.00	51.43		N
	ANISOU	1542	N	THR	A	222	4810	7932	6800	884	49	-546	N
15	ATOM	1543	CA	THR	A	222	-22.006	-12.648	-9.310	1.00	45.77		C
	ANISOU	1543	CA	THR	A	222	4239	6904	6247	1076	273	-525	C
	ATOM	1544	C	THR	A	222	-20.589	-12.935	-9.746	1.00	46.68		C
	ANISOU	1544	C	THR	A	222	4045	7290	6401	1235	397	-449	C
	ATOM	1545	O	THR	A	222	-19.659	-12.212	-9.393	1.00	49.01		O
20	ANISOU	1545	O	THR	A	222	4013	8023	6587	1111	290	-462	O
	ATOM	1546	CB	THR	A	222	-22.721	-12.100	-10.565	1.00	40.08		C
	ANISOU	1546	CB	THR	A	222	3814	5853	5560	820	342	-740	C
	ATOM	1547	OG1	THR	A	222	-21.934	-11.049	-11.149	1.00	39.50		O
	ANISOU	1547	OG1	THR	A	222	3603	5971	5433	588	341	-869	O
25	ATOM	1548	CG2	THR	A	222	-24.118	-11.610	-10.245	1.00	33.37		C
	ANISOU	1548	CG2	THR	A	222	3224	4792	4664	647	222	-806	C
	ATOM	1549	N	ALA	A	223	-20.436	-13.991	-10.534	1.00	48.38		N
	ANISOU	1549	N	ALA	A	223	4368	7247	6768	1486	651	-388	N
30	ATOM	1550	CA	ALA	A	223	-19.189	-14.242	-11.230	1.00	53.41		C
	ANISOU	1550	CA	ALA	A	223	4768	8054	7472	1631	835	-344	C
	ATOM	1551	C	ALA	A	223	-19.044	-13.175	-12.313	1.00	51.54		C
	ANISOU	1551	C	ALA	A	223	4592	7796	7194	1261	834	-604	C
	ATOM	1552	O	ALA	A	223	-20.034	-12.751	-12.903	1.00	50.26		O
	ANISOU	1552	O	ALA	A	223	4759	7326	7011	1020	812	-777	O
35	ATOM	1553	CB	ALA	A	223	-19.204	-15.632	-11.840	1.00	57.54		C
	ANISOU	1553	CB	ALA	A	223	5481	8207	8175	1967	1174	-248	C
	ATOM	1554	N	PRO	A	224	-17.810	-12.730	-12.573	1.00	54.63		N
	ANISOU	1554	N	PRO	A	224	4650	8546	7562	1222	869	-609	N
	ATOM	1555	CA	PRO	A	224	-17.577	-11.657	-13.548	1.00	55.86		C
40	ANISOU	1555	CA	PRO	A	224	4854	8697	7672	865	895	-837	C
	ATOM	1556	C	PRO	A	224	-17.873	-12.049	-15.000	1.00	54.73		C
	ANISOU	1556	C	PRO	A	224	5024	8158	7614	858	1138	-954	C
	ATOM	1557	O	PRO	A	224	-17.922	-13.229	-15.339	1.00	55.67		O
	ANISOU	1557	O	PRO	A	224	5256	8049	7845	1137	1348	-878	O
45	ATOM	1558	CB	PRO	A	224	-16.077	-11.385	-13.404	1.00	58.83		C
	ANISOU	1558	CB	PRO	A	224	4748	9587	8019	883	919	-778	C
	ATOM	1559	CG	PRO	A	224	-15.507	-12.691	-12.937	1.00	61.58		C
	ANISOU	1559	CG	PRO	A	224	4861	10075	8462	1376	1031	-493	C
50	ATOM	1560	CD	PRO	A	224	-16.550	-13.239	-11.999	1.00	58.87		C
	ANISOU	1560	CD	PRO	A	224	4723	9535	8109	1527	908	-375	C
	ATOM	1561	N	ILE	A	225	-18.074	-11.047	-15.846	1.00	51.61		N
	ANISOU	1561	N	ILE	A	225	4782	7680	7148	529	1137	-1137	N
	ATOM	1562	CA	ILE	A	225	-18.102	-11.260	-17.282	1.00	52.32		C
	ANISOU	1562	CA	ILE	A	225	5094	7527	7260	478	1363	-1251	C
55	ATOM	1563	C	ILE	A	225	-17.010	-10.414	-17.925	1.00	57.00		C
	ANISOU	1563	C	ILE	A	225	5484	8350	7822	296	1456	-1333	C
	ATOM	1564	O	ILE	A	225	-16.805	-9.259	-17.550	1.00	58.70		O
	ANISOU	1564	O	ILE	A	225	5584	8761	7959	38	1327	-1388	O
	ATOM	1565	CB	ILE	A	225	-19.468	-10.924	-17.890	1.00	49.00		C
	ANISOU	1565	CB	ILE	A	225	5071	6797	6749	272	1305	-1360	C

5	ATOM	1566	CG1	ILE	A	225	-19.898	-9.516	-17.485	1.00	45.86	C	
	ANISOU	1566	CG1	ILE	A	225	4694	6480	6252	1	1107	-1394	C
	ATOM	1567	CG2	ILE	A	225	-20.501	-11.963	-17.461	1.00	52.01	C	
	ANISOU	1567	CG2	ILE	A	225	5654	6937	7169	435	1281	-1308	C
	ATOM	1568	CD1	ILE	A	225	-21.317	-9.174	-17.860	1.00	43.20	C	
	ANISOU	1568	CD1	ILE	A	225	4685	5902	5828	-128	1028	-1421	C
10	ATOM	1569	N	GLN	A	226	-16.295	-11.001	-18.879	1.00	56.97	N	
	ANISOU	1569	N	GLN	A	226	5452	8310	7883	415	1720	-1355	N
	ATOM	1570	CA	GLN	A	226	-15.162	-10.327	-19.494	1.00	59.44	C	
	ANISOU	1570	CA	GLN	A	226	5542	8860	8183	267	1847	-1420	C
	ATOM	1571	C	GLN	A	226	-15.294	-10.303	-21.007	1.00	56.79	C	
	ANISOU	1571	C	GLN	A	226	5496	8276	7806	144	2076	-1557	C
15	ATOM	1572	O	GLN	A	226	-14.728	-11.147	-21.695	1.00	57.56	O	
	ANISOU	1572	O	GLN	A	226	5581	8309	7978	326	2344	-1561	O
	ATOM	1573	CB	GLN	A	226	-13.861	-11.025	-19.109	1.00	67.12	C	
	ANISOU	1573	CB	GLN	A	226	6078	10159	9268	565	1975	-1276	C
	ATOM	1574	CG	GLN	A	226	-13.774	-11.402	-17.644	1.00	71.54	C	
	ANISOU	1574	CG	GLN	A	226	6351	10987	9844	786	1774	-1081	C
20	ATOM	1575	CD	GLN	A	226	-12.366	-11.766	-17.230	1.00	80.11	C	
	ANISOU	1575	CD	GLN	A	226	6893	12559	10984	1034	1856	-902	C
	ATOM	1576	OE1	GLN	A	226	-11.413	-11.579	-17.992	1.00	82.14	O	
	ANISOU	1576	OE1	GLN	A	226	6959	12976	11273	991	2051	-951	O
	ATOM	1577	NE2	GLN	A	226	-12.225	-12.287	-16.015	1.00	83.78	N	
	ANISOU	1577	NE2	GLN	A	226	7082	13302	11446	1309	1713	-672	N
25	ATOM	1578	N	PRO	A	227	-16.050	-9.334	-21.532	1.00	53.08	N	
	ANISOU	1578	N	PRO	A	227	5293	7671	7202	-154	1994	-1652	N
	ATOM	1579	CA	PRO	A	227	-16.239	-9.248	-22.979	1.00	50.77	C	
	ANISOU	1579	CA	PRO	A	227	5273	7204	6811	-286	2187	-1757	C
	ATOM	1580	C	PRO	A	227	-15.030	-8.619	-23.640	1.00	53.77	C	
	ANISOU	1580	C	PRO	A	227	5468	7770	7193	-418	2379	-1810	C
30	ATOM	1581	O	PRO	A	227	-14.169	-8.066	-22.953	1.00	58.42	O	
	ANISOU	1581	O	PRO	A	227	5724	8633	7839	-474	2331	-1785	O
	ATOM	1582	CB	PRO	A	227	-17.443	-8.319	-23.111	1.00	50.03	C	
	ANISOU	1582	CB	PRO	A	227	5461	6980	6570	-509	2011	-1760	C
	ATOM	1583	CG	PRO	A	227	-17.346	-7.431	-21.915	1.00	50.06	C	
	ANISOU	1583	CG	PRO	A	227	5282	7126	6612	-595	1818	-1709	C
35	ATOM	1584	CD	PRO	A	227	-16.824	-8.312	-20.807	1.00	50.97	C	
	ANISOU	1584	CD	PRO	A	227	5104	7403	6859	-352	1747	-1642	C
	ATOM	1585	N	ARG	A	228	-14.973	-8.719	-24.963	1.00	50.72	N	
	ANISOU	1585	N	ARG	A	228	5287	7263	6720	-494	2602	-1896	N
	ATOM	1586	CA	ARG	A	228	-13.924	-8.096	-25.752	1.00	52.31	C	
	ANISOU	1586	CA	ARG	A	228	5368	7604	6902	-644	2819	-1953	C
40	ATOM	1587	C	ARG	A	228	-14.447	-6.739	-26.213	1.00	51.62	C	
	ANISOU	1587	C	ARG	A	228	5501	7457	6655	-952	2761	-1962	C
	ATOM	1588	O	ARG	A	228	-15.626	-6.612	-26.545	1.00	49.02	O	
	ANISOU	1588	O	ARG	A	228	5487	6952	6188	-999	2655	-1933	O
	ATOM	1589	CB	ARG	A	228	-13.594	-8.977	-26.962	1.00	54.23	C	
	ANISOU	1589	CB	ARG	A	228	5750	7736	7121	-553	3132	-2038	C
50	ATOM	1590	CG	ARG	A	228	-13.296	-10.431	-26.628	1.00	56.69	C	
	ANISOU	1590	CG	ARG	A	228	5963	7982	7596	-209	3274	-2014	C
	ATOM	1591	CD	ARG	A	228	-12.804	-11.215	-27.843	1.00	59.34	C	
	ANISOU	1591	CD	ARG	A	228	6473	8170	7904	-138	3551	-2057	C
	ATOM	1592	NE	ARG	A	228	-13.865	-11.513	-28.804	1.00	57.74	N	
	ANISOU	1592	NE	ARG	A	228	6718	7721	7499	-303	3565	-2172	N
55	ATOM	1593	CZ	ARG	A	228	-13.711	-12.295	-29.871	1.00	60.26	C	
	ANISOU	1593	CZ	ARG	A	228	7261	7881	7754	-302	3774	-2244	C
	ATOM	1594	NH1	ARG	A	228	-12.539	-12.863	-30.125	1.00	60.53	N	
	ANISOU	1594	NH1	ARG	A	228	7141	7930	7929	-105	4013	-2204	N
	ATOM	1595	NH2	ARG	A	228	-14.733	-12.510	-30.685	1.00	56.90	N	

	ANISOU	1595	NH2	ARG	A	228	7196	7316	7108	-509	3743	-2353	N
	ATOM	1596	N	VAL	A	229	-13.587	-5.725	-26.223	1.00	49.99		N
	ANISOU	1596	N	VAL	A	229	5123	7406	6465	-1159	2852	-1987	N
	ATOM	1597	CA	VAL	A	229	-14.010	-4.384	-26.630	1.00	53.15		C
5	ANISOU	1597	CA	VAL	A	229	5756	7699	6739	-1431	2875	-1969	C
	ATOM	1598	C	VAL	A	229	-13.345	-3.938	-27.927	1.00	54.39		C
	ANISOU	1598	C	VAL	A	229	5998	7860	6807	-1586	3174	-2012	C
	ATOM	1599	O	VAL	A	229	-12.123	-3.841	-28.005	1.00	54.21		O
	ANISOU	1599	O	VAL	A	229	5709	8016	6873	-1656	3332	-2076	O
10	ATOM	1600	CB	VAL	A	229	-13.733	-3.333	-25.522	1.00	55.30		C
	ANISOU	1600	CB	VAL	A	229	5858	8072	7081	-1634	2780	-1982	C
	ATOM	1601	CG1	VAL	A	229	-13.961	-1.924	-26.049	1.00	50.14		C
	ANISOU	1601	CG1	VAL	A	229	5467	7253	6331	-1911	2932	-1963	C
	ATOM	1602	CG2	VAL	A	229	-14.617	-3.592	-24.332	1.00	47.21		C
15	ANISOU	1602	CG2	VAL	A	229	4841	7005	6094	-1512	2490	-1926	C
	ATOM	1603	N	TRP	A	230	-14.151	-3.665	-28.948	1.00	56.90		N
	ANISOU	1603	N	TRP	A	230	6675	8012	6932	-1632	3229	-1951	N
	ATOM	1604	CA	TRP	A	230	-13.595	-3.259	-30.228	1.00	63.80		C
	ANISOU	1604	CA	TRP	A	230	7670	8884	7689	-1761	3490	-1958	C
20	ATOM	1605	C	TRP	A	230	-13.376	-1.754	-30.309	1.00	68.78		C
	ANISOU	1605	C	TRP	A	230	8391	9443	8300	-2000	3587	-1885	C
	ATOM	1606	O	TRP	A	230	-14.282	-0.969	-30.029	1.00	69.03		O
	ANISOU	1606	O	TRP	A	230	8625	9340	8262	-2058	3541	-1776	O
	ATOM	1607	CB	TRP	A	230	-14.455	-3.725	-31.404	1.00	66.99		C
25	ANISOU	1607	CB	TRP	A	230	8399	9208	7845	-1706	3510	-1913	C
	ATOM	1608	CG	TRP	A	230	-13.632	-3.814	-32.646	1.00	75.10		C
	ANISOU	1608	CG	TRP	A	230	9475	10261	8799	-1754	3711	-1940	C
	ATOM	1609	CD1	TRP	A	230	-13.215	-2.779	-33.436	1.00	77.56		C
	ANISOU	1609	CD1	TRP	A	230	9896	10551	9022	-1914	3865	-1860	C
30	ATOM	1610	CD2	TRP	A	230	-13.072	-5.001	-33.215	1.00	78.68		C
	ANISOU	1610	CD2	TRP	A	230	9877	10739	9279	-1635	3811	-2050	C
	ATOM	1611	NE1	TRP	A	230	-12.444	-3.253	-34.470	1.00	79.94		N
	ANISOU	1611	NE1	TRP	A	230	10201	10895	9277	-1910	4035	-1924	N
	ATOM	1612	CE2	TRP	A	230	-12.343	-4.615	-34.357	1.00	81.87		C
35	ANISOU	1612	CE2	TRP	A	230	10352	11162	9593	-1741	4013	-2043	C
	ATOM	1613	CE3	TRP	A	230	-13.133	-6.355	-32.878	1.00	79.91		C
	ANISOU	1613	CE3	TRP	A	230	9962	10866	9532	-1438	3780	-2141	C
	ATOM	1614	CZ2	TRP	A	230	-11.676	-5.535	-35.161	1.00	87.13		C
	ANISOU	1614	CZ2	TRP	A	230	11013	11835	10259	-1666	4180	-2138	C
40	ATOM	1615	CZ3	TRP	A	230	-12.468	-7.265	-33.669	1.00	83.48		C
	ANISOU	1615	CZ3	TRP	A	230	10429	11292	9999	-1355	3967	-2222	C
	ATOM	1616	CH2	TRP	A	230	-11.747	-6.851	-34.796	1.00	87.88		C
	ANISOU	1616	CH2	TRP	A	230	11048	11884	10460	-1473	4162	-2226	C
	ATOM	1617	N	GLU	A	231	-12.169	-1.364	-30.707	1.00	73.11		N
45	ANISOU	1617	N	GLU	A	231	8805	10058	8915	-2124	3747	-1937	N
	ATOM	1618	CA	GLU	A	231	-11.815	0.044	-30.834	1.00	79.06		C
	ANISOU	1618	CA	GLU	A	231	9665	10707	9668	-2370	3882	-1897	C
	ATOM	1619	C	GLU	A	231	-12.338	0.644	-32.132	1.00	85.07		C
	ANISOU	1619	C	GLU	A	231	10803	11296	10223	-2388	4035	-1737	C
50	ATOM	1620	O	GLU	A	231	-12.214	0.041	-33.199	1.00	88.23		O
	ANISOU	1620	O	GLU	A	231	11274	11752	10498	-2304	4106	-1727	O
	ATOM	1621	CB	GLU	A	231	-10.298	0.224	-30.743	1.00	82.18		C
	ANISOU	1621	CB	GLU	A	231	9752	11276	10197	-2515	3990	-2025	C
	ATOM	1622	CG	GLU	A	231	-9.744	-0.003	-29.349	1.00	83.11		C
55	ANISOU	1622	CG	GLU	A	231	9476	11627	10474	-2546	3827	-2136	C
	ATOM	1623	CD	GLU	A	231	-10.396	0.902	-28.320	1.00	83.46		C
	ANISOU	1623	CD	GLU	A	231	9624	11552	10533	-2713	3725	-2144	C
	ATOM	1624	OE1	GLU	A	231	-10.496	2.121	-28.582	1.00	84.72		O
	ANISOU	1624	OE1	GLU	A	231	10049	11489	10654	-2925	3876	-2124	O

5	ATOM	1625	OE2	GLU	A	231	-10.817	0.394	-27.256	1.00	81.52		O
	ANISOU	1625	OE2	GLU	A	231	9217	11413	10342	-2616	3518	-2165	O
	ATOM	1626	OXT	GLU	A	231	-12.891	1.747	-32.138	1.00	87.03		O
	ANISOU	1626	OXT	GLU	A	231	11295	11353	10420	-2472	4100	-1599	O
	TER	1627		GLU	A	231							
10	ATOM	1628	N	GLY	B	20	-16.985	-40.319	22.502	1.00	32.35		N
	ANISOU	1628	N	GLY	B	20	2569	3623	6100	1323	844	392	N
	ATOM	1629	CA	GLY	B	20	-18.030	-39.993	21.546	1.00	37.38		C
	ANISOU	1629	CA	GLY	B	20	3430	4198	6576	1304	964	308	C
	ATOM	1630	C	GLY	B	20	-17.464	-39.337	20.302	1.00	37.45		C
15	ANISOU	1630	C	GLY	B	20	3447	4228	6555	1294	1209	237	C
	ATOM	1631	O	GLY	B	20	-16.249	-39.284	20.112	1.00	39.46		O
	ANISOU	1631	O	GLY	B	20	3528	4532	6934	1304	1304	245	O
	ATOM	1632	N	ALA	B	21	-18.342	-38.836	19.444	1.00	37.99		N
	ANISOU	1632	N	ALA	B	21	3737	4272	6425	1257	1297	172	N
20	ATOM	1633	CA	ALA	B	21	-17.894	-38.158	18.233	1.00	39.03		C
	ANISOU	1633	CA	ALA	B	21	3920	4429	6480	1243	1540	127	C
	ATOM	1634	C	ALA	B	21	-17.697	-36.665	18.503	1.00	37.93		C
	ANISOU	1634	C	ALA	B	21	3726	4373	6313	1085	1536	196	C
	ATOM	1635	O	ALA	B	21	-18.095	-36.157	19.548	1.00	36.28		O
25	ANISOU	1635	O	ALA	B	21	3485	4197	6103	990	1336	245	O
	ATOM	1636	CB	ALA	B	21	-18.895	-38.373	17.106	1.00	36.37		C
	ANISOU	1636	CB	ALA	B	21	3881	4036	5901	1278	1608	28	C
	ATOM	1637	N	MET	B	22	-17.074	-35.976	17.559	1.00	32.84		N
	ANISOU	1637	N	MET	B	22	3080	3751	5648	1055	1771	196	N
30	ATOM	1638	CA	MET	B	22	-16.958	-34.529	17.617	1.00	35.34		C
	ANISOU	1638	CA	MET	B	22	3388	4105	5936	898	1800	259	C
	ATOM	1639	C	MET	B	22	-18.338	-33.887	17.627	1.00	36.06		C
	ANISOU	1639	C	MET	B	22	3739	4169	5792	836	1665	257	C
	ATOM	1640	O	MET	B	22	-19.195	-34.211	16.806	1.00	33.76		O
35	ANISOU	1640	O	MET	B	22	3682	3846	5300	904	1692	209	O
	ATOM	1641	CB	MET	B	22	-16.129	-34.014	16.438	1.00	35.98		C
	ANISOU	1641	CB	MET	B	22	3458	4197	6016	887	2118	275	C
	ATOM	1642	CG	MET	B	22	-14.625	-34.150	16.653	1.00	37.21		C
	ANISOU	1642	CG	MET	B	22	3276	4399	6463	886	2245	304	C
40	ATOM	1643	SD	MET	B	22	-14.032	-32.831	17.745	1.00	37.36		S
	ANISOU	1643	SD	MET	B	22	3052	4459	6683	669	2120	383	S
	ATOM	1644	CE	MET	B	22	-12.277	-33.187	17.753	1.00	40.63		C
	ANISOU	1644	CE	MET	B	22	3124	4939	7373	669	2209	394	C
	ATOM	1645	N	ALA	B	23	-18.557	-32.985	18.575	1.00	29.66		N
45	ANISOU	1645	N	ALA	B	23	2881	3374	5015	712	1510	299	N
	ATOM	1646	CA	ALA	B	23	-19.864	-32.380	18.722	1.00	30.86		C
	ANISOU	1646	CA	ALA	B	23	3246	3499	4982	670	1377	297	C
	ATOM	1647	C	ALA	B	23	-19.734	-30.906	19.036	1.00	28.06		C
	ANISOU	1647	C	ALA	B	23	2881	3128	4652	525	1378	343	C
50	ATOM	1648	O	ALA	B	23	-18.698	-30.449	19.510	1.00	31.77		O
	ANISOU	1648	O	ALA	B	23	3147	3617	5305	432	1408	365	O
	ATOM	1649	CB	ALA	B	23	-20.663	-33.090	19.823	1.00	26.26		C
	ANISOU	1649	CB	ALA	B	23	2656	2929	4393	699	1135	274	C
	ATOM	1650	N	GLN	B	24	-20.785	-30.159	18.748	1.00	27.16		N
55	ANISOU	1650	N	GLN	B	24	2980	2968	4370	507	1343	355	N
	ATOM	1651	CA	GLN	B	24	-20.867	-28.804	19.235	1.00	34.82		C
	ANISOU	1651	CA	GLN	B	24	3964	3891	5374	381	1306	384	C
	ATOM	1652	C	GLN	B	24	-21.427	-28.851	20.644	1.00	31.81		C
	ANISOU	1652	C	GLN	B	24	3530	3539	5017	352	1070	336	C
	ATOM	1653	O	GLN	B	24	-22.426	-29.533	20.903	1.00	24.39		O
	ANISOU	1653	O	GLN	B	24	2674	2622	3970	433	948	308	O
	ATOM	1654	CB	GLN	B	24	-21.754	-27.949	18.343	1.00	39.68		C
	ANISOU	1654	CB	GLN	B	24	4831	4434	5813	396	1369	429	C

	ATOM	1655	CG	GLN	B	24	-21.945	-26.551	18.882	1.00	45.38		C
	ANISOU	1655	CG	GLN	B	24	5586	5070	6585	282	1328	453	C
	ATOM	1656	CD	GLN	B	24	-22.740	-25.684	17.944	1.00	52.12		C
	ANISOU	1656	CD	GLN	B	24	6684	5836	7285	317	1397	527	C
5	ATOM	1657	OE1	GLN	B	24	-22.873	-25.995	16.757	1.00	58.87		O
	ANISOU	1657	OE1	GLN	B	24	7672	6705	7991	402	1513	576	O
	ATOM	1658	NE2	GLN	B	24	-23.278	-24.586	18.465	1.00	47.62		N
	ANISOU	1658	NE2	GLN	B	24	6183	5171	6739	262	1324	533	N
	ATOM	1659	N	ASN	B	25	-20.758	-28.150	21.554	1.00	31.66		N
10	ANISOU	1659	N	ASN	B	25	3369	3523	5138	228	1012	322	N
	ATOM	1660	CA	ASN	B	25	-21.174	-28.083	22.946	1.00	37.01		C
	ANISOU	1660	CA	ASN	B	25	4007	4241	5813	191	800	269	C
	ATOM	1661	C	ASN	B	25	-22.314	-27.084	23.121	1.00	37.69		C
	ANISOU	1661	C	ASN	B	25	4284	4254	5783	169	753	245	C
15	ATOM	1662	O	ASN	B	25	-22.223	-25.940	22.682	1.00	44.68		O
	ANISOU	1662	O	ASN	B	25	5244	5038	6695	97	847	261	O
	ATOM	1663	CB	ASN	B	25	-19.985	-27.693	23.820	1.00	49.28		C
	ANISOU	1663	CB	ASN	B	25	5341	5835	7547	64	737	242	C
	ATOM	1664	CG	ASN	B	25	-20.314	-27.716	25.297	1.00	59.39		C
20	ANISOU	1664	CG	ASN	B	25	6591	7184	8789	33	510	181	C
	ATOM	1665	OD1	ASN	B	25	-20.648	-28.766	25.850	1.00	63.19		O
	ANISOU	1665	OD1	ASN	B	25	7053	7748	9207	124	399	194	O
	ATOM	1666	ND2	ASN	B	25	-20.212	-26.559	25.950	1.00	61.01		N
	ANISOU	1666	ND2	ASN	B	25	6805	7350	9026	-100	448	113	N
25	ATOM	1667	N	ILE	B	26	-23.404	-27.533	23.728	1.00	31.52		N
	ANISOU	1667	N	ILE	B	26	3578	3511	4886	239	623	216	N
	ATOM	1668	CA	ILE	B	26	-24.544	-26.668	24.000	1.00	27.46		C
	ANISOU	1668	CA	ILE	B	26	3217	2939	4278	243	578	185	C
	ATOM	1669	C	ILE	B	26	-24.821	-26.665	25.497	1.00	27.12		C
30	ANISOU	1669	C	ILE	B	26	3126	2962	4215	208	424	115	C
	ATOM	1670	O	ILE	B	26	-24.969	-27.725	26.113	1.00	27.35		O
	ANISOU	1670	O	ILE	B	26	3093	3092	4208	255	334	122	O
	ATOM	1671	CB	ILE	B	26	-25.813	-27.172	23.285	1.00	27.13		C
	ANISOU	1671	CB	ILE	B	26	3314	2893	4101	369	579	213	C
35	ATOM	1672	CG1	ILE	B	26	-25.636	-27.150	21.763	1.00	27.67		C
	ANISOU	1672	CG1	ILE	B	26	3471	2910	4131	416	719	276	C
	ATOM	1673	CG2	ILE	B	26	-27.019	-26.353	23.711	1.00	30.34		C
	ANISOU	1673	CG2	ILE	B	26	3833	3254	4439	392	520	181	C
	ATOM	1674	CD1	ILE	B	26	-25.403	-25.757	21.165	1.00	23.84		C
40	ANISOU	1674	CD1	ILE	B	26	3083	2307	3667	359	832	322	C
	ATOM	1675	N	THR	B	27	-24.865	-25.483	26.092	1.00	31.81		N
	ANISOU	1675	N	THR	B	27	3763	3494	4829	124	401	47	N
	ATOM	1676	CA	THR	B	27	-25.283	-25.356	27.483	1.00	34.79		C
	ANISOU	1676	CA	THR	B	27	4143	3936	5140	102	271	-39	C
45	ATOM	1677	C	THR	B	27	-26.649	-24.682	27.513	1.00	36.84		C
	ANISOU	1677	C	THR	B	27	4563	4124	5309	169	293	-74	C
	ATOM	1678	O	THR	B	27	-26.809	-23.556	27.046	1.00	39.54		O
	ANISOU	1678	O	THR	B	27	5001	4326	5696	148	366	-91	O
	ATOM	1679	CB	THR	B	27	-24.294	-24.533	28.320	1.00	35.97		C
50	ANISOU	1679	CB	THR	B	27	4216	4075	5374	-46	206	-133	C
	ATOM	1680	OG1	THR	B	27	-24.386	-23.158	27.939	1.00	40.07		O
	ANISOU	1680	OG1	THR	B	27	4839	4425	5959	-111	290	-179	O
	ATOM	1681	CG2	THR	B	27	-22.872	-25.026	28.112	1.00	32.67		C
	ANISOU	1681	CG2	THR	B	27	3605	3713	5095	-114	199	-90	C
55	ATOM	1682	N	ALA	B	28	-27.635	-25.388	28.049	1.00	32.66		N
	ANISOU	1682	N	ALA	B	28	4054	3684	4671	254	239	-73	N
	ATOM	1683	CA	ALA	B	28	-29.008	-24.916	28.033	1.00	28.85		C
	ANISOU	1683	CA	ALA	B	28	3682	3156	4124	340	267	-96	C
	ATOM	1684	C	ALA	B	28	-29.495	-24.751	29.463	1.00	28.03		C

	ANISOU	1684	C	ALA	B	28	3592	3126	3932	330	209	-191	C
	ATOM	1685	O	ALA	B	28	-29.262	-25.611	30.301	1.00	27.41		O
	ANISOU	1685	O	ALA	B	28	3446	3180	3788	313	138	-181	O
	ATOM	1686	CB	ALA	B	28	-29.892	-25.907	27.278	1.00	25.85		C
5	ANISOU	1686	CB	ALA	B	28	3303	2816	3703	448	276	-11	C
	ATOM	1687	N	ARG	B	29	-30.179	-23.648	29.736	1.00	28.02		N
	ANISOU	1687	N	ARG	B	29	3689	3036	3923	354	249	-277	N
	ATOM	1688	CA	ARG	B	29	-30.663	-23.373	31.078	1.00	25.98		C
	ANISOU	1688	CA	ARG	B	29	3466	2842	3561	353	225	-390	C
10	ATOM	1689	C	ARG	B	29	-32.011	-24.042	31.305	1.00	27.50		C
	ANISOU	1689	C	ARG	B	29	3652	3124	3674	469	257	-349	C
	ATOM	1690	O	ARG	B	29	-32.918	-23.938	30.469	1.00	29.51		O
	ANISOU	1690	O	ARG	B	29	3919	3314	3979	565	309	-298	O
	ATOM	1691	CB	ARG	B	29	-30.765	-21.868	31.290	1.00	27.80		C
15	ANISOU	1691	CB	ARG	B	29	3808	2916	3839	332	270	-523	C
	ATOM	1692	CG	ARG	B	29	-31.155	-21.448	32.681	1.00	31.13		C
	ANISOU	1692	CG	ARG	B	29	4292	3394	4142	327	259	-680	C
	ATOM	1693	CD	ARG	B	29	-30.910	-19.962	32.853	1.00	33.36		C
	ANISOU	1693	CD	ARG	B	29	4686	3487	4503	273	289	-836	C
20	ATOM	1694	NE	ARG	B	29	-31.329	-19.492	34.165	1.00	39.57		N
	ANISOU	1694	NE	ARG	B	29	5559	4317	5160	280	292	-1020	N
	ATOM	1695	CZ	ARG	B	29	-31.214	-18.233	34.579	1.00	45.09		C
	ANISOU	1695	CZ	ARG	B	29	6375	4854	5902	236	316	-1204	C
	ATOM	1696	NH1	ARG	B	29	-30.696	-17.311	33.778	1.00	45.81		N
25	ANISOU	1696	NH1	ARG	B	29	6504	4717	6186	174	341	-1207	N
	ATOM	1697	NH2	ARG	B	29	-31.626	-17.896	35.793	1.00	47.43		N
	ANISOU	1697	NH2	ARG	B	29	6763	5210	6048	254	327	-1387	N
	ATOM	1698	N	ILE	B	30	-32.121	-24.745	32.429	1.00	23.88		N
	ANISOU	1698	N	ILE	B	30	3164	2818	3092	456	221	-360	N
30	ATOM	1699	CA	ILE	B	30	-33.352	-25.427	32.830	1.00	25.44		C
	ANISOU	1699	CA	ILE	B	30	3337	3109	3218	540	272	-315	C
	ATOM	1700	C	ILE	B	30	-34.565	-24.483	32.836	1.00	25.94		C
	ANISOU	1700	C	ILE	B	30	3454	3100	3302	637	372	-394	C
	ATOM	1701	O	ILE	B	30	-34.486	-23.369	33.344	1.00	24.98		O
35	ANISOU	1701	O	ILE	B	30	3421	2909	3161	631	403	-530	O
	ATOM	1702	CB	ILE	B	30	-33.178	-26.066	34.223	1.00	23.83		C
	ANISOU	1702	CB	ILE	B	30	3132	3072	2849	499	238	-320	C
	ATOM	1703	CG1	ILE	B	30	-32.192	-27.232	34.147	1.00	26.54		C
	ANISOU	1703	CG1	ILE	B	30	3397	3488	3200	444	137	-200	C
40	ATOM	1704	CG2	ILE	B	30	-34.517	-26.523	34.793	1.00	24.17		C
	ANISOU	1704	CG2	ILE	B	30	3163	3204	2817	575	335	-289	C
	ATOM	1705	CD1	ILE	B	30	-31.574	-27.595	35.493	1.00	28.02		C
	ANISOU	1705	CD1	ILE	B	30	3601	3823	3220	390	53	-207	C
	ATOM	1706	N	GLY	B	31	-35.679	-24.927	32.255	1.00	24.40		N
45	ANISOU	1706	N	GLY	B	31	3195	2912	3163	729	416	-317	N
	ATOM	1707	CA	GLY	B	31	-36.874	-24.103	32.183	1.00	24.66		C
	ANISOU	1707	CA	GLY	B	31	3240	2882	3247	844	503	-373	C
	ATOM	1708	C	GLY	B	31	-36.964	-23.247	30.922	1.00	27.42		C
	ANISOU	1708	C	GLY	B	31	3629	3061	3728	909	491	-356	C
50	ATOM	1709	O	GLY	B	31	-38.036	-22.739	30.566	1.00	29.12		O
	ANISOU	1709	O	GLY	B	31	3825	3221	4018	1032	535	-358	O
	ATOM	1710	N	GLU	B	32	-35.842	-23.083	30.234	1.00	25.27		N
	ANISOU	1710	N	GLU	B	32	3406	2708	3487	832	436	-325	N
	ATOM	1711	CA	GLU	B	32	-35.831	-22.280	29.018	1.00	32.69		C
55	ANISOU	1711	CA	GLU	B	32	4407	3485	4527	885	437	-280	C
	ATOM	1712	C	GLU	B	32	-35.918	-23.130	27.749	1.00	33.53		C
	ANISOU	1712	C	GLU	B	32	4467	3622	4652	911	381	-145	C
	ATOM	1713	O	GLU	B	32	-35.468	-24.274	27.732	1.00	34.64		O
	ANISOU	1713	O	GLU	B	32	4543	3868	4752	846	339	-99	O

5	ATOM	1714	CB	GLU	B	32	-34.603	-21.377	28.982	1.00	35.03	C	
	ANISOU	1714	CB	GLU	B	32	4799	3650	4860	783	445	-331	C
	ATOM	1715	CG	GLU	B	32	-34.735	-20.156	29.874	1.00	42.34	C	
	ANISOU	1715	CG	GLU	B	32	5815	4468	5805	788	500	-484	C
	ATOM	1716	CD	GLU	B	32	-33.589	-19.191	29.687	1.00	53.05	C	
	ANISOU	1716	CD	GLU	B	32	7260	5655	7242	672	505	-531	C
10	ATOM	1717	OE1	GLU	B	32	-32.870	-19.307	28.667	1.00	53.20	O	
	ANISOU	1717	OE1	GLU	B	32	7274	5622	7318	621	494	-418	O
	ATOM	1718	OE2	GLU	B	32	-33.399	-18.323	30.565	1.00	60.22	O	
	ANISOU	1718	OE2	GLU	B	32	8243	6480	8158	626	527	-690	O
	ATOM	1719	N	PRO	B	33	-36.515	-22.572	26.684	1.00	31.28	N	
	ANISOU	1719	N	PRO	B	33	4224	3239	4421	1016	374	-84	N
15	ATOM	1720	CA	PRO	B	33	-36.631	-23.318	25.432	1.00	25.38	C	
	ANISOU	1720	CA	PRO	B	33	3459	2527	3658	1045	308	24	C
	ATOM	1721	C	PRO	B	33	-35.270	-23.543	24.800	1.00	23.44	C	
	ANISOU	1721	C	PRO	B	33	3270	2251	3384	944	316	69	C
	ATOM	1722	O	PRO	B	33	-34.334	-22.804	25.066	1.00	23.95	O	
	ANISOU	1722	O	PRO	B	33	3394	2229	3478	867	370	39	O
20	ATOM	1723	CB	PRO	B	33	-37.459	-22.383	24.542	1.00	27.37	C	
	ANISOU	1723	CB	PRO	B	33	3775	2670	3955	1186	293	78	C
	ATOM	1724	CG	PRO	B	33	-37.191	-21.017	25.088	1.00	31.19	C	
	ANISOU	1724	CG	PRO	B	33	4354	2998	4501	1192	374	18	C
	ATOM	1725	CD	PRO	B	33	-37.095	-21.218	26.573	1.00	31.25	C	
	ANISOU	1725	CD	PRO	B	33	4300	3082	4490	1121	418	-111	C
25	ATOM	1726	N	LEU	B	34	-35.173	-24.565	23.961	1.00	23.84	N	
	ANISOU	1726	N	LEU	B	34	3295	2372	3392	943	270	130	N
	ATOM	1727	CA	LEU	B	34	-33.947	-24.852	23.245	1.00	25.44	C	
	ANISOU	1727	CA	LEU	B	34	3541	2555	3570	871	302	173	C
	ATOM	1728	C	LEU	B	34	-34.281	-25.225	21.804	1.00	29.90	C	
	ANISOU	1728	C	LEU	B	34	4169	3126	4067	944	265	247	C
30	ATOM	1729	O	LEU	B	34	-35.126	-26.084	21.560	1.00	29.86	O	
	ANISOU	1729	O	LEU	B	34	4110	3200	4033	992	181	240	O
	ATOM	1730	CB	LEU	B	34	-33.178	-25.990	23.930	1.00	21.76	C	
	ANISOU	1730	CB	LEU	B	34	2974	2188	3105	778	293	143	C
	ATOM	1731	CG	LEU	B	34	-31.923	-26.449	23.182	1.00	25.49	C	
	ANISOU	1731	CG	LEU	B	34	3456	2654	3575	722	338	182	C
35	ATOM	1732	CD1	LEU	B	34	-30.904	-25.308	23.075	1.00	23.06	C	
	ANISOU	1732	CD1	LEU	B	34	3200	2244	3317	653	424	191	C
	ATOM	1733	CD2	LEU	B	34	-31.302	-27.697	23.824	1.00	19.06	C	
	ANISOU	1733	CD2	LEU	B	34	2530	1932	2781	667	312	165	C
	ATOM	1734	N	VAL	B	35	-33.627	-24.560	20.857	1.00	31.49	N	
	ANISOU	1734	N	VAL	B	35	4488	3239	4236	945	330	315	N
40	ATOM	1735	CA	VAL	B	35	-33.768	-24.882	19.444	1.00	29.88	C	
	ANISOU	1735	CA	VAL	B	35	4380	3052	3921	1011	307	386	C
	ATOM	1736	C	VAL	B	35	-32.423	-25.385	18.924	1.00	29.36	C	
	ANISOU	1736	C	VAL	B	35	4337	2998	3822	930	410	402	C
	ATOM	1737	O	VAL	B	35	-31.403	-24.716	19.076	1.00	29.32	O	
	ANISOU	1737	O	VAL	B	35	4345	2918	3876	852	524	427	O
45	ATOM	1738	CB	VAL	B	35	-34.201	-23.643	18.618	1.00	28.02	C	
	ANISOU	1738	CB	VAL	B	35	4293	2709	3646	1105	316	486	C
	ATOM	1739	CG1	VAL	B	35	-34.316	-23.996	17.130	1.00	28.01	C	
	ANISOU	1739	CG1	VAL	B	35	4416	2749	3477	1177	282	564	C
	ATOM	1740	CG2	VAL	B	35	-35.513	-23.060	19.143	1.00	24.23	C	
	ANISOU	1740	CG2	VAL	B	35	3772	2205	3231	1208	226	470	C
50	ATOM	1741	N	LEU	B	36	-32.417	-26.575	18.333	1.00	28.66	N	
	ANISOU	1741	N	LEU	B	36	4237	2995	3657	947	375	377	N
	ATOM	1742	CA	LEU	B	36	-31.201	-27.142	17.753	1.00	26.20	C	
	ANISOU	1742	CA	LEU	B	36	3941	2698	3315	899	489	382	C
	ATOM	1743	C	LEU	B	36	-31.349	-27.195	16.239	1.00	29.38	C	
													C

	ANISOU	1743	C	LEU	B	36	4511	3112	3539	977	509	432	C
	ATOM	1744	O	LEU	B	36	-32.338	-27.719	15.727	1.00	30.56		O
	ANISOU	1744	O	LEU	B	36	4704	3318	3591	1051	377	402	O
	ATOM	1745	CB	LEU	B	36	-30.944	-28.546	18.311	1.00	23.66		C
5	ANISOU	1745	CB	LEU	B	36	3490	2450	3050	864	453	300	C
	ATOM	1746	CG	LEU	B	36	-30.644	-28.652	19.814	1.00	25.13		C
	ANISOU	1746	CG	LEU	B	36	3522	2649	3375	789	433	264	C
	ATOM	1747	CD1	LEU	B	36	-30.459	-30.102	20.230	1.00	25.68		C
	ANISOU	1747	CD1	LEU	B	36	3489	2777	3492	777	393	217	C
10	ATOM	1748	CD2	LEU	B	36	-29.406	-27.843	20.193	1.00	28.01		C
	ANISOU	1748	CD2	LEU	B	36	3851	2967	3823	705	542	289	C
	ATOM	1749	N	LYS	B	37	-30.385	-26.632	15.520	1.00	33.26		N
	ANISOU	1749	N	LYS	B	37	5098	3558	3983	954	671	509	N
	ATOM	1750	CA	LYS	B	37	-30.465	-26.584	14.069	1.00	35.73		C
15	ANISOU	1750	CA	LYS	B	37	5602	3890	4084	1031	712	573	C
	ATOM	1751	C	LYS	B	37	-30.124	-27.936	13.462	1.00	34.01		C
	ANISOU	1751	C	LYS	B	37	5391	3760	3771	1049	733	479	C
	ATOM	1752	O	LYS	B	37	-29.222	-28.630	13.934	1.00	37.34		O
	ANISOU	1752	O	LYS	B	37	5686	4192	4310	988	823	418	O
20	ATOM	1753	CB	LYS	B	37	-29.511	-25.533	13.511	1.00	45.08		C
	ANISOU	1753	CB	LYS	B	37	6890	4989	5249	992	917	704	C
	ATOM	1754	CG	LYS	B	37	-29.792	-24.115	13.961	1.00	53.11		C
	ANISOU	1754	CG	LYS	B	37	7938	5877	6366	976	915	800	C
	ATOM	1755	CD	LYS	B	37	-28.613	-23.202	13.631	1.00	58.34		C
25	ANISOU	1755	CD	LYS	B	37	8652	6430	7082	886	1146	916	C
	ATOM	1756	CE	LYS	B	37	-28.912	-21.756	13.975	1.00	61.19		C
	ANISOU	1756	CE	LYS	B	37	9077	6623	7550	872	1149	1010	C
	ATOM	1757	NZ	LYS	B	37	-29.940	-21.192	13.057	1.00	65.06		N
	ANISOU	1757	NZ	LYS	B	37	9776	7081	7864	1019	1068	1137	N
30	ATOM	1758	N	CYS	B	38	-30.857	-28.313	12.423	1.00	32.85		N
	ANISOU	1758	N	CYS	B	38	5395	3673	3416	1138	639	461	N
	ATOM	1759	CA	CYS	B	38	-30.484	-29.460	11.606	1.00	36.77		C
	ANISOU	1759	CA	CYS	B	38	5958	4233	3780	1165	684	361	C
	ATOM	1760	C	CYS	B	38	-29.811	-28.938	10.339	1.00	38.52		C
35	ANISOU	1760	C	CYS	B	38	6388	4466	3783	1204	869	455	C
	ATOM	1761	O	CYS	B	38	-30.484	-28.491	9.412	1.00	40.64		O
	ANISOU	1761	O	CYS	B	38	6850	4767	3823	1285	791	520	O
	ATOM	1762	CB	CYS	B	38	-31.711	-30.305	11.249	1.00	34.00		C
	ANISOU	1762	CB	CYS	B	38	5646	3947	3326	1223	450	249	C
40	ATOM	1763	SG	CYS	B	38	-31.344	-31.803	10.282	1.00	56.61		S
	ANISOU	1763	SG	CYS	B	38	8611	6864	6036	1252	486	77	S
	ATOM	1764	N	LYS	B	39	-28.483	-28.968	10.316	1.00	39.45		N
	ANISOU	1764	N	LYS	B	39	6458	4560	3970	1150	1115	476	N
	ATOM	1765	CA	LYS	B	39	-27.732	-28.443	9.176	1.00	44.29		C
45	ANISOU	1765	CA	LYS	B	39	7251	5182	4393	1173	1346	583	C
	ATOM	1766	C	LYS	B	39	-27.987	-29.264	7.910	1.00	44.82		C
	ANISOU	1766	C	LYS	B	39	7529	5347	4153	1272	1340	494	C
	ATOM	1767	O	LYS	B	39	-28.188	-30.480	7.976	1.00	43.44		O
	ANISOU	1767	O	LYS	B	39	7306	5211	3988	1294	1248	316	O
50	ATOM	1768	CB	LYS	B	39	-26.234	-28.414	9.490	1.00	48.90		C
	ANISOU	1768	CB	LYS	B	39	7686	5732	5163	1086	1619	606	C
	ATOM	1769	CG	LYS	B	39	-25.876	-27.626	10.747	1.00	52.32		C
	ANISOU	1769	CG	LYS	B	39	7912	6074	5892	971	1614	667	C
	ATOM	1770	CD	LYS	B	39	-24.388	-27.724	11.072	1.00	55.50		C
55	ANISOU	1770	CD	LYS	B	39	8126	6462	6500	880	1847	670	C
	ATOM	1771	CE	LYS	B	39	-23.954	-29.178	11.243	1.00	59.61		C
	ANISOU	1771	CE	LYS	B	39	8514	7049	7085	920	1853	515	C
	ATOM	1772	NZ	LYS	B	39	-22.558	-29.321	11.762	1.00	62.37		N
	ANISOU	1772	NZ	LYS	B	39	8621	7391	7686	845	2031	515	N

5	ATOM	1773	N	GLY	B	40	-27.993	-28.591	6.762	1.00	44.62		N
	ANISOU	1773	N	GLY	B	40	7752	5353	3847	1331	1433	619	N
	ATOM	1774	CA	GLY	B	40	-28.115	-29.267	5.483	1.00	49.70		C
	ANISOU	1774	CA	GLY	B	40	8633	6104	4148	1425	1453	536	C
	ATOM	1775	C	GLY	B	40	-29.502	-29.782	5.137	1.00	54.30		C
	ANISOU	1775	C	GLY	B	40	9321	6759	4552	1502	1116	423	C
	ATOM	1776	O	GLY	B	40	-29.647	-30.643	4.274	1.00	57.33		O
	ANISOU	1776	O	GLY	B	40	9861	7228	4693	1562	1082	276	O
10	ATOM	1777	N	ALA	B	41	-30.524	-29.268	5.815	1.00	54.87		N
	ANISOU	1777	N	ALA	B	41	9298	6796	4753	1498	868	477	N
	ATOM	1778	CA	ALA	B	41	-31.903	-29.631	5.500	1.00	53.61		C
	ANISOU	1778	CA	ALA	B	41	9200	6711	4458	1565	534	391	C
15	ATOM	1779	C	ALA	B	41	-32.573	-28.511	4.706	1.00	54.67		C
	ANISOU	1779	C	ALA	B	41	9545	6880	4347	1663	428	585	C
	ATOM	1780	O	ALA	B	41	-32.266	-27.335	4.908	1.00	54.22		O
	ANISOU	1780	O	ALA	B	41	9502	6737	4361	1659	553	793	O
	ATOM	1781	CB	ALA	B	41	-32.676	-29.912	6.773	1.00	50.45		C
	ANISOU	1781	CB	ALA	B	41	8531	6262	4374	1510	329	316	C
	ATOM	1782	N	PRO	B	42	-33.483	-28.872	3.789	1.00	54.02		N
	ANISOU	1782	N	PRO	B	42	9631	6915	3979	1752	188	518	N
20	ATOM	1783	CA	PRO	B	42	-34.238	-27.851	3.056	1.00	57.39		C
	ANISOU	1783	CA	PRO	B	42	10248	7385	4172	1868	33	714	C
	ATOM	1784	C	PRO	B	42	-35.009	-26.941	4.014	1.00	55.22		C
	ANISOU	1784	C	PRO	B	42	9783	7016	4184	1879	-114	842	C
	ATOM	1785	O	PRO	B	42	-35.309	-27.353	5.132	1.00	52.29		O
	ANISOU	1785	O	PRO	B	42	9144	6596	4129	1806	-188	724	O
	ATOM	1786	CB	PRO	B	42	-35.204	-28.679	2.204	1.00	60.08		C
	ANISOU	1786	CB	PRO	B	42	10709	7880	4238	1937	-277	547	C
30	ATOM	1787	CG	PRO	B	42	-34.518	-29.985	2.012	1.00	47.96		C
	ANISOU	1787	CG	PRO	B	42	9189	6375	2658	1871	-148	297	C
	ATOM	1788	CD	PRO	B	42	-33.794	-30.233	3.317	1.00	55.13		C
	ANISOU	1788	CD	PRO	B	42	9812	7148	3985	1753	48	258	C
35	ATOM	1789	N	LYS	B	43	-35.313	-25.722	3.574	1.00	58.30		N
	ANISOU	1789	N	LYS	B	43	10320	7371	4460	1978	-141	1083	N
	ATOM	1790	CA	LYS	B	43	-35.981	-24.724	4.411	1.00	57.09		C
	ANISOU	1790	CA	LYS	B	43	10008	7101	4581	2007	-242	1211	C
	ATOM	1791	C	LYS	B	43	-37.349	-25.159	4.935	1.00	56.86		C
	ANISOU	1791	C	LYS	B	43	9776	7134	4694	2053	-586	1087	C
	ATOM	1792	O	LYS	B	43	-37.739	-24.801	6.046	1.00	54.84		O
	ANISOU	1792	O	LYS	B	43	9293	6786	4758	2029	-614	1086	O
40	ATOM	1793	CB	LYS	B	43	-36.136	-23.413	3.640	1.00	57.98		C
	ANISOU	1793	CB	LYS	B	43	10239	7164	4627	2055	-217	1430	C
	ATOM	1794	CG	LYS	B	43	-34.834	-22.686	3.377	1.00	57.23		C
	ANISOU	1794	CG	LYS	B	43	10267	6958	4518	1981	140	1583	C
45	ATOM	1795	CD	LYS	B	43	-35.079	-21.439	2.543	1.00	58.86		C
	ANISOU	1795	CD	LYS	B	43	10606	7117	4641	2034	134	1804	C
	ATOM	1796	CE	LYS	B	43	-33.816	-20.613	2.403	1.00	59.74		C
	ANISOU	1796	CE	LYS	B	43	10803	7092	4804	1941	487	1963	C
50	ATOM	1797	NZ	LYS	B	43	-33.990	-19.524	1.411	1.00	66.27		N
	ANISOU	1797	NZ	LYS	B	43	11798	7888	5496	1993	488	2185	N
	ATOM	1798	N	LYS	B	44	-38.078	-25.920	4.128	1.00	60.60		N
	ANISOU	1798	N	LYS	B	44	10306	7765	4953	2097	-834	964	N
55	ATOM	1799	CA	LYS	B	44	-39.423	-26.348	4.486	1.00	63.61		C
	ANISOU	1799	CA	LYS	B	44	10480	8218	5470	2129	-1171	848	C
	ATOM	1800	C	LYS	B	44	-39.676	-27.754	3.948	1.00	67.53		C
	ANISOU	1800	C	LYS	B	44	11005	8856	5798	2085	-1344	600	C
	ATOM	1801	O	LYS	B	44	-38.952	-28.210	3.059	1.00	69.85		O
	ANISOU	1801	O	LYS	B	44	11526	9207	5807	2069	-1229	543	O
	ATOM	1802	CB	LYS	B	44	-40.458	-25.348	3.942	1.00	65.44		C

	ANISOU	1802	CB	LYS	B	44	10685	8474	5706	2218	-1359	994	C
	ATOM	1803	CG	LYS	B	44	-40.255	-24.974	2.490	1.00	71.56		C
	ANISOU	1803	CG	LYS	B	44	11722	9325	6143	2260	-1349	1100	C
	ATOM	1804	CD	LYS	B	44	-41.048	-23.731	2.096	1.00	76.20		C
5	ANISOU	1804	CD	LYS	B	44	12299	9890	6765	2358	-1470	1311	C
	ATOM	1805	CE	LYS	B	44	-42.529	-24.029	1.922	1.00	79.49		C
	ANISOU	1805	CE	LYS	B	44	12537	10435	7231	2413	-1846	1235	C
	ATOM	1806	NZ	LYS	B	44	-43.231	-22.921	1.211	1.00	85.20		N
	ANISOU	1806	NZ	LYS	B	44	13303	11170	7900	2522	-1976	1451	N
10	ATOM	1807	N	PRO	B	45	-40.683	-28.457	4.503	1.00	67.45		N
	ANISOU	1807	N	PRO	B	45	10739	8888	5999	2041	-1589	437	N
	ATOM	1808	CA	PRO	B	45	-41.078	-29.782	4.003	1.00	66.57		C
	ANISOU	1808	CA	PRO	B	45	10628	8886	5780	1976	-1787	183	C
	ATOM	1809	C	PRO	B	45	-41.346	-29.786	2.495	1.00	69.27		C
15	ANISOU	1809	C	PRO	B	45	11213	9363	5743	2039	-1941	174	C
	ATOM	1810	O	PRO	B	45	-41.711	-28.748	1.941	1.00	70.17		O
	ANISOU	1810	O	PRO	B	45	11380	9500	5782	2119	-1981	370	O
	ATOM	1811	CB	PRO	B	45	-42.367	-30.069	4.775	1.00	65.86		C
	ANISOU	1811	CB	PRO	B	45	10208	8815	6002	1946	-2052	102	C
20	ATOM	1812	CG	PRO	B	45	-42.167	-29.358	6.077	1.00	64.81		C
	ANISOU	1812	CG	PRO	B	45	9873	8547	6205	1927	-1848	230	C
	ATOM	1813	CD	PRO	B	45	-41.414	-28.096	5.736	1.00	64.16		C
	ANISOU	1813	CD	PRO	B	45	10010	8400	5968	2029	-1648	468	C
	ATOM	1814	N	PRO	B	46	-41.155	-30.942	1.834	1.00	69.37		N
25	ANISOU	1814	N	PRO	B	46	11344	9446	5567	1973	-1993	-60	N
	ATOM	1815	CA	PRO	B	46	-40.725	-32.218	2.426	1.00	66.04		C
	ANISOU	1815	CA	PRO	B	46	10848	8968	5275	1858	-1926	-308	C
	ATOM	1816	C	PRO	B	46	-39.221	-32.270	2.704	1.00	63.19		C
	ANISOU	1816	C	PRO	B	46	10577	8497	4935	1813	-1499	-277	C
30	ATOM	1817	O	PRO	B	46	-38.425	-31.767	1.913	1.00	68.27		O
	ANISOU	1817	O	PRO	B	46	11488	9171	5281	1885	-1310	-167	O
	ATOM	1818	CB	PRO	B	46	-41.089	-33.235	1.341	1.00	67.00		C
	ANISOU	1818	CB	PRO	B	46	11101	9193	5162	1816	-2123	-552	C
	ATOM	1819	CG	PRO	B	46	-40.954	-32.473	0.076	1.00	69.30		C
35	ANISOU	1819	CG	PRO	B	46	11628	9580	5124	1897	-2084	-400	C
	ATOM	1820	CD	PRO	B	46	-41.408	-31.069	0.387	1.00	70.36		C
	ANISOU	1820	CD	PRO	B	46	11668	9700	5366	1991	-2114	-103	C
	ATOM	1821	N	GLN	B	47	-38.843	-32.874	3.822	1.00	58.37		N
	ANISOU	1821	N	GLN	B	47	9736	7766	4677	1695	-1351	-363	N
40	ATOM	1822	CA	GLN	B	47	-37.435	-32.996	4.181	1.00	57.90		C
	ANISOU	1822	CA	GLN	B	47	9707	7607	4687	1650	-976	-343	C
	ATOM	1823	C	GLN	B	47	-37.087	-34.432	4.566	1.00	55.76		C
	ANISOU	1823	C	GLN	B	47	9338	7263	4584	1544	-920	-589	C
	ATOM	1824	O	GLN	B	47	-37.767	-35.045	5.392	1.00	52.21		O
45	ANISOU	1824	O	GLN	B	47	8654	6763	4419	1459	-1067	-682	O
	ATOM	1825	CB	GLN	B	47	-37.095	-32.070	5.355	1.00	55.23		C
	ANISOU	1825	CB	GLN	B	47	9177	7165	4642	1628	-806	-144	C
	ATOM	1826	CG	GLN	B	47	-37.294	-30.588	5.094	1.00	54.17		C
	ANISOU	1826	CG	GLN	B	47	9137	7045	4398	1731	-808	112	C
50	ATOM	1827	CD	GLN	B	47	-37.829	-29.871	6.320	1.00	49.84		C
	ANISOU	1827	CD	GLN	B	47	8336	6417	4183	1716	-850	223	C
	ATOM	1828	OE1	GLN	B	47	-38.621	-30.432	7.075	1.00	48.67		O
	ANISOU	1828	OE1	GLN	B	47	7958	6267	4265	1662	-1010	114	O
	ATOM	1829	NE2	GLN	B	47	-37.392	-28.632	6.530	1.00	46.60		N
55	ANISOU	1829	NE2	GLN	B	47	7972	5931	3805	1758	-689	434	N
	ATOM	1830	N	ARG	B	48	-36.030	-34.967	3.963	1.00	55.76		N
	ANISOU	1830	N	ARG	B	48	9517	7250	4418	1554	-694	-685	N
	ATOM	1831	CA	ARG	B	48	-35.488	-36.253	4.389	1.00	52.81		C
	ANISOU	1831	CA	ARG	B	48	9055	6772	4240	1475	-584	-889	C

5	ATOM	1832	C	ARG	B	48	-34.525	-36.042	5.556	1.00	46.33	C	
	ANISOU	1832	C	ARG	B	48	8035	5840	3730	1430	-314	-763	C
	ATOM	1833	O	ARG	B	48	-33.306	-36.020	5.373	1.00	43.62	O	
	ANISOU	1833	O	ARG	B	48	7762	5468	3342	1456	-23	-736	O
	ATOM	1834	CB	ARG	B	48	-34.782	-36.958	3.230	1.00	57.02	C	
	ANISOU	1834	CB	ARG	B	48	9861	7335	4470	1525	-451	-1068	C
10	ATOM	1835	CG	ARG	B	48	-35.737	-37.510	2.178	1.00	66.11	C	
	ANISOU	1835	CG	ARG	B	48	11199	8583	5336	1542	-753	-1273	C
	ATOM	1836	CD	ARG	B	48	-35.043	-37.769	0.845	1.00	73.59	C	
	ANISOU	1836	CD	ARG	B	48	12494	9609	5859	1628	-602	-1396	C
	ATOM	1837	NE	ARG	B	48	-34.631	-36.530	0.190	1.00	78.24	N	
	ANISOU	1837	NE	ARG	B	48	13236	10307	6185	1710	-451	-1137	N
15	ATOM	1838	CZ	ARG	B	48	-34.089	-36.469	-1.023	1.00	86.57	C	
	ANISOU	1838	CZ	ARG	B	48	14493	11446	6956	1739	-296	-1133	C
	ATOM	1839	NH1	ARG	B	48	-33.893	-37.581	-1.722	1.00	90.80	N	
	ANISOU	1839	NH1	ARG	B	48	15120	11982	7398	1708	-273	-1393	N
	ATOM	1840	NH2	ARG	B	48	-33.745	-35.297	-1.541	1.00	88.51	N	
	ANISOU	1840	NH2	ARG	B	48	14848	11765	7016	1796	-157	-870	N
20	ATOM	1841	N	LEU	B	49	-35.073	-35.861	6.752	1.00	37.63	N	
	ANISOU	1841	N	LEU	B	49	6676	4685	2936	1365	-412	-687	N
	ATOM	1842	CA	LEU	B	49	-34.227	-35.724	7.923	1.00	40.94	C	
	ANISOU	1842	CA	LEU	B	49	6907	5012	3638	1316	-200	-587	C
	ATOM	1843	C	LEU	B	49	-34.701	-36.579	9.092	1.00	38.78	C	
	ANISOU	1843	C	LEU	B	49	6392	4654	3690	1223	-301	-659	C
25	ATOM	1844	O	LEU	B	49	-35.870	-36.957	9.177	1.00	37.54	O	
	ANISOU	1844	O	LEU	B	49	6163	4511	3588	1185	-542	-734	O
	ATOM	1845	CB	LEU	B	49	-34.086	-34.257	8.348	1.00	41.03	C	
	ANISOU	1845	CB	LEU	B	49	6877	5038	3673	1339	-123	-351	C
	ATOM	1846	CG	LEU	B	49	-35.263	-33.557	9.033	1.00	41.43	C	
	ANISOU	1846	CG	LEU	B	49	6784	5105	3852	1331	-330	-257	C
30	ATOM	1847	CD1	LEU	B	49	-35.229	-33.724	10.543	1.00	35.82	C	
	ANISOU	1847	CD1	LEU	B	49	5816	4319	3474	1248	-293	-234	C
	ATOM	1848	CD2	LEU	B	49	-35.270	-32.086	8.663	1.00	42.48	C	
	ANISOU	1848	CD2	LEU	B	49	7028	5267	3846	1407	-292	-58	C
	ATOM	1849	N	GLU	B	50	-33.783	-36.849	10.007	1.00	36.88	N	
	ANISOU	1849	N	GLU	B	50	6017	4329	3666	1186	-115	-620	N
35	ATOM	1850	CA	GLU	B	50	-34.086	-37.675	11.152	1.00	36.77	C	
	ANISOU	1850	CA	GLU	B	50	5797	4231	3944	1105	-175	-657	C
	ATOM	1851	C	GLU	B	50	-33.296	-37.197	12.364	1.00	36.55	C	
	ANISOU	1851	C	GLU	B	50	5606	4169	4112	1079	-18	-507	C
	ATOM	1852	O	GLU	B	50	-32.087	-36.969	12.267	1.00	38.57	O	
	ANISOU	1852	O	GLU	B	50	5890	4413	4350	1110	186	-462	O
40	ATOM	1853	CB	GLU	B	50	-33.729	-39.116	10.827	1.00	38.57	C	
	ANISOU	1853	CB	GLU	B	50	6071	4363	4221	1093	-145	-843	C
	ATOM	1854	CG	GLU	B	50	-34.241	-40.109	11.829	1.00	44.68	C	
	ANISOU	1854	CG	GLU	B	50	6668	5032	5278	1004	-238	-885	C
	ATOM	1855	CD	GLU	B	50	-33.805	-41.515	11.500	1.00	48.27	C	
	ANISOU	1855	CD	GLU	B	50	7183	5351	5805	1002	-190	-1064	C
45	ATOM	1856	OE1	GLU	B	50	-34.621	-42.268	10.927	1.00	50.45	O	
	ANISOU	1856	OE1	GLU	B	50	7527	5587	6054	959	-356	-1236	O
	ATOM	1857	OE2	GLU	B	50	-32.642	-41.858	11.812	1.00	47.49	O	
	ANISOU	1857	OE2	GLU	B	50	7058	5180	5804	1045	9	-1038	O
	ATOM	1858	N	TRP	B	51	-33.973	-37.033	13.499	1.00	26.54	N	
	ANISOU	1858	N	TRP	B	51	4163	2894	3026	1021	-112	-436	N
50	ATOM	1859	CA	TRP	B	51	-33.283	-36.707	14.740	1.00	24.77	C	
	ANISOU	1859	CA	TRP	B	51	3791	2646	2976	989	5	-320	C
	ATOM	1860	C	TRP	B	51	-33.101	-37.944	15.614	1.00	30.91	C	
	ANISOU	1860	C	TRP	B	51	4442	3337	3964	938	10	-358	C
	ATOM	1861	O	TRP	B	51	-34.008	-38.766	15.754	1.00	30.78	O	
													O

	ANISOU	1861	O	TRP	B	51	4383	3281	4030	891	-119	-427	O
	ATOM	1862	CB	TRP	B	51	-34.021	-35.613	15.528	1.00	24.95		C
	ANISOU	1862	CB	TRP	B	51	3721	2718	3041	970	-64	-207	C
	ATOM	1863	CG	TRP	B	51	-33.777	-34.221	15.025	1.00	28.05		C
5	ANISOU	1863	CG	TRP	B	51	4214	3152	3291	1022	-5	-115	C
	ATOM	1864	CD1	TRP	B	51	-34.508	-33.549	14.092	1.00	30.41		C
	ANISOU	1864	CD1	TRP	B	51	4635	3498	3419	1082	-101	-99	C
	ATOM	1865	CD2	TRP	B	51	-32.730	-33.324	15.436	1.00	29.97		C
	ANISOU	1865	CD2	TRP	B	51	4444	3380	3563	1013	158	-16	C
10	ATOM	1866	NE1	TRP	B	51	-33.985	-32.288	13.890	1.00	30.03		N
	ANISOU	1866	NE1	TRP	B	51	4667	3449	3294	1117	9	19	N
	ATOM	1867	CE2	TRP	B	51	-32.893	-32.124	14.702	1.00	29.97		C
	ANISOU	1867	CE2	TRP	B	51	4573	3398	3415	1064	171	63	C
	ATOM	1868	CE3	TRP	B	51	-31.669	-33.421	16.351	1.00	24.27		C
15	ANISOU	1868	CE3	TRP	B	51	3609	2630	2985	964	279	17	C
	ATOM	1869	CZ2	TRP	B	51	-32.034	-31.032	14.844	1.00	29.21		C
	ANISOU	1869	CZ2	TRP	B	51	4498	3270	3329	1051	320	166	C
	ATOM	1870	CZ3	TRP	B	51	-30.819	-32.335	16.502	1.00	26.54		C
	ANISOU	1870	CZ3	TRP	B	51	3900	2907	3278	948	405	103	C
20	ATOM	1871	CH2	TRP	B	51	-31.007	-31.151	15.748	1.00	30.42		C
	ANISOU	1871	CH2	TRP	B	51	4524	3396	3639	982	434	174	C
	ATOM	1872	N	LYS	B	52	-31.917	-38.064	16.202	1.00	30.19		N
	ANISOU	1872	N	LYS	B	52	4286	3214	3973	945	155	-302	N
	ATOM	1873	CA	LYS	B	52	-31.611	-39.146	17.129	1.00	27.95		C
25	ANISOU	1873	CA	LYS	B	52	3884	2846	3890	916	165	-295	C
	ATOM	1874	C	LYS	B	52	-31.128	-38.543	18.434	1.00	26.53		C
	ANISOU	1874	C	LYS	B	52	3566	2706	3807	887	205	-155	C
	ATOM	1875	O	LYS	B	52	-30.221	-37.708	18.450	1.00	27.57		O
	ANISOU	1875	O	LYS	B	52	3688	2883	3903	906	305	-99	O
30	ATOM	1876	CB	LYS	B	52	-30.502	-40.046	16.572	1.00	28.93		C
	ANISOU	1876	CB	LYS	B	52	4053	2889	4051	978	291	-371	C
	ATOM	1877	CG	LYS	B	52	-30.956	-41.093	15.580	1.00	39.16		C
	ANISOU	1877	CG	LYS	B	52	5474	4100	5305	995	242	-543	C
	ATOM	1878	CD	LYS	B	52	-29.788	-42.003	15.171	1.00	45.75		C
35	ANISOU	1878	CD	LYS	B	52	6342	4835	6207	1075	396	-622	C
	ATOM	1879	CE	LYS	B	52	-30.250	-43.095	14.210	1.00	52.27		C
	ANISOU	1879	CE	LYS	B	52	7313	5553	6995	1089	347	-827	C
	ATOM	1880	NZ	LYS	B	52	-29.180	-43.583	13.274	1.00	55.28		N
	ANISOU	1880	NZ	LYS	B	52	7803	5883	7317	1198	531	-951	N
40	ATOM	1881	N	LEU	B	53	-31.706	-38.966	19.542	1.00	25.42		N
	ANISOU	1881	N	LEU	B	53	3320	2550	3787	834	130	-100	N
	ATOM	1882	CA	LEU	B	53	-31.220	-38.456	20.810	1.00	25.58		C
	ANISOU	1882	CA	LEU	B	53	3232	2621	3867	810	157	18	C
	ATOM	1883	C	LEU	B	53	-30.996	-39.554	21.825	1.00	24.92		C
45	ANISOU	1883	C	LEU	B	53	3057	2477	3933	794	143	82	C
	ATOM	1884	O	LEU	B	53	-31.659	-40.595	21.803	1.00	30.41		O
	ANISOU	1884	O	LEU	B	53	3758	3087	4711	771	94	54	O
	ATOM	1885	CB	LEU	B	53	-32.106	-37.329	21.360	1.00	29.74		C
	ANISOU	1885	CB	LEU	B	53	3737	3233	4329	772	104	63	C
50	ATOM	1886	CG	LEU	B	53	-33.507	-37.598	21.899	1.00	32.15		C
	ANISOU	1886	CG	LEU	B	53	3991	3549	4674	726	12	72	C
	ATOM	1887	CD1	LEU	B	53	-34.034	-36.343	22.557	1.00	29.74		C
	ANISOU	1887	CD1	LEU	B	53	3655	3330	4315	716	6	118	C
	ATOM	1888	CD2	LEU	B	53	-34.438	-38.021	20.787	1.00	36.31		C
55	ANISOU	1888	CD2	LEU	B	53	4578	4044	5176	729	-69	-27	C
	ATOM	1889	N	ASN	B	54	-30.008	-39.331	22.679	1.00	25.09		N
	ANISOU	1889	N	ASN	B	54	2998	2537	3997	805	180	170	N
	ATOM	1890	CA	ASN	B	54	-29.721	-40.227	23.793	1.00	27.99		C
	ANISOU	1890	CA	ASN	B	54	3283	2869	4483	802	153	270	C

5	ATOM	1891	C	ASN	B	54	-29.553	-39.355	25.029	1.00	25.61	C	
	ANISOU	1891	C	ASN	B	54	2915	2688	4127	765	123	364	C
	ATOM	1892	O	ASN	B	54	-28.541	-38.668	25.185	1.00	22.91	O	
	ANISOU	1892	O	ASN	B	54	2527	2407	3769	777	147	376	O
	ATOM	1893	CB	ASN	B	54	-28.452	-41.055	23.533	1.00	21.92	C	
	ANISOU	1893	CB	ASN	B	54	2477	2021	3830	883	211	274	C
10	ATOM	1894	CG	ASN	B	54	-28.213	-42.122	24.610	1.00	22.72	C	
	ANISOU	1894	CG	ASN	B	54	2508	2059	4065	902	167	398	C
	ATOM	1895	OD1	ASN	B	54	-28.890	-42.145	25.633	1.00	30.90	O	
	ANISOU	1895	OD1	ASN	B	54	3527	3134	5080	845	105	494	O
	ATOM	1896	ND2	ASN	B	54	-27.248	-42.999	24.379	1.00	23.94	N	
	ANISOU	1896	ND2	ASN	B	54	2626	2115	4355	992	209	406	N
15	ATOM	1897	N	THR	B	55	-30.567	-39.350	25.884	1.00	25.67	N	
	ANISOU	1897	N	THR	B	55	2916	2732	4106	711	77	417	N
	ATOM	1898	CA	THR	B	55	-30.569	-38.491	27.067	1.00	23.37	C	
	ANISOU	1898	CA	THR	B	55	2590	2561	3727	676	55	479	C
	ATOM	1899	C	THR	B	55	-31.046	-39.262	28.285	1.00	22.83	C	
	ANISOU	1899	C	THR	B	55	2495	2505	3674	650	27	599	C
20	ATOM	1900	O	THR	B	55	-31.299	-40.464	28.204	1.00	22.99	O	
	ANISOU	1900	O	THR	B	55	2514	2421	3801	654	26	647	O
	ATOM	1901	CB	THR	B	55	-31.497	-37.261	26.876	1.00	21.01	C	
	ANISOU	1901	CB	THR	B	55	2332	2324	3326	646	65	409	C
	ATOM	1902	OG1	THR	B	55	-32.863	-37.691	26.880	1.00	23.31	O	
	ANISOU	1902	OG1	THR	B	55	2624	2595	3636	619	53	409	O
25	ATOM	1903	CG2	THR	B	55	-31.208	-36.558	25.562	1.00	21.29	C	
	ANISOU	1903	CG2	THR	B	55	2422	2331	3334	674	97	317	C
	ATOM	1904	N	GLY	B	56	-31.198	-38.560	29.410	1.00	24.56	N	
	ANISOU	1904	N	GLY	B	56	2706	2844	3781	619	13	644	N
	ATOM	1905	CA	GLY	B	56	-31.761	-39.151	30.611	1.00	21.17	C	
	ANISOU	1905	CA	GLY	B	56	2273	2452	3317	591	11	769	C
30	ATOM	1906	C	GLY	B	56	-33.179	-39.676	30.419	1.00	25.86	C	
	ANISOU	1906	C	GLY	B	56	2867	2988	3969	546	58	775	C
	ATOM	1907	O	GLY	B	56	-33.664	-40.457	31.224	1.00	28.38	O	
	ANISOU	1907	O	GLY	B	56	3179	3298	4307	515	82	898	O
	ATOM	1908	N	ARG	B	57	-33.851	-39.254	29.352	1.00	26.26	N	
	ANISOU	1908	N	ARG	B	57	2921	3005	4052	539	68	652	N
35	ATOM	1909	CA	ARG	B	57	-35.204	-39.734	29.070	1.00	30.01	C	
	ANISOU	1909	CA	ARG	B	57	3364	3431	4609	489	87	641	C
	ATOM	1910	C	ARG	B	57	-35.233	-41.033	28.273	1.00	29.75	C	
	ANISOU	1910	C	ARG	B	57	3332	3235	4735	474	61	630	C
	ATOM	1911	O	ARG	B	57	-36.258	-41.705	28.231	1.00	33.92	O	
	ANISOU	1911	O	ARG	B	57	3819	3702	5368	408	68	642	O
40	ATOM	1912	CB	ARG	B	57	-36.007	-38.688	28.280	1.00	28.59	C	
	ANISOU	1912	CB	ARG	B	57	3178	3295	4392	499	78	515	C
	ATOM	1913	CG	ARG	B	57	-36.143	-37.333	28.949	1.00	25.67	C	
	ANISOU	1913	CG	ARG	B	57	2814	3049	3891	520	114	497	C
	ATOM	1914	CD	ARG	B	57	-37.114	-36.465	28.184	1.00	23.22	C	
	ANISOU	1914	CD	ARG	B	57	2485	2755	3583	545	103	401	C
45	ATOM	1915	NE	ARG	B	57	-37.126	-35.093	28.685	1.00	28.56	N	
	ANISOU	1915	NE	ARG	B	57	3188	3511	4154	582	142	365	N
	ATOM	1916	CZ	ARG	B	57	-37.863	-34.680	29.712	1.00	31.65	C	
	ANISOU	1916	CZ	ARG	B	57	3540	3983	4502	578	213	383	C
	ATOM	1917	NH1	ARG	B	57	-38.649	-35.533	30.355	1.00	29.14	N	
	ANISOU	1917	NH1	ARG	B	57	3147	3690	4236	531	263	459	N
50	ATOM	1918	NH2	ARG	B	57	-37.805	-33.417	30.102	1.00	36.99	N	
	ANISOU	1918	NH2	ARG	B	57	4260	4707	5089	619	249	323	N
	ATOM	1919	N	THR	B	58	-34.129	-41.374	27.618	1.00	27.33	N	
	ANISOU	1919	N	THR	B	58	3067	2854	4463	532	39	593	N
	ATOM	1920	CA	THR	B	58	-34.149	-42.476	26.662	1.00	28.28	C	

	ANISOU	1920	CA	THR	B	58	3214	2808	4723	531	20	529	C
	ATOM	1921	C	THR	B	58	-33.458	-43.755	27.122	1.00	23.57		C
	ANISOU	1921	C	THR	B	58	2622	2077	4258	554	33	637	C
	ATOM	1922	O	THR	B	58	-32.576	-43.738	27.968	1.00	23.69		O
5	ANISOU	1922	O	THR	B	58	2621	2139	4241	602	38	756	O
	ATOM	1923	CB	THR	B	58	-33.487	-42.080	25.327	1.00	26.94		C
	ANISOU	1923	CB	THR	B	58	3106	2621	4510	596	11	382	C
	ATOM	1924	OG1	THR	B	58	-32.063	-42.059	25.489	1.00	21.80		O
	ANISOU	1924	OG1	THR	B	58	2455	1974	3855	672	44	422	O
10	ATOM	1925	CG2	THR	B	58	-33.985	-40.720	24.846	1.00	22.60		C
	ANISOU	1925	CG2	THR	B	58	2572	2194	3822	597	-3	302	C
	ATOM	1926	N	GLU	B	59	-33.871	-44.868	26.537	1.00	24.73		N
	ANISOU	1926	N	GLU	B	59	2789	2047	4560	522	25	591	N
	ATOM	1927	CA	GLU	B	59	-33.089	-46.085	26.591	1.00	26.06		C
15	ANISOU	1927	CA	GLU	B	59	2984	2037	4882	574	40	650	C
	ATOM	1928	C	GLU	B	59	-32.211	-46.081	25.342	1.00	30.68		C
	ANISOU	1928	C	GLU	B	59	3623	2565	5469	666	48	485	C
	ATOM	1929	O	GLU	B	59	-32.699	-46.377	24.246	1.00	31.13		O
	ANISOU	1929	O	GLU	B	59	3737	2534	5558	641	32	318	O
20	ATOM	1930	CB	GLU	B	59	-34.012	-47.301	26.584	1.00	30.77		C
	ANISOU	1930	CB	GLU	B	59	3587	2437	5666	480	39	669	C
	ATOM	1931	CG	GLU	B	59	-33.273	-48.628	26.620	1.00	37.81		C
	ANISOU	1931	CG	GLU	B	59	4521	3096	6750	541	60	731	C
	ATOM	1932	CD	GLU	B	59	-32.670	-48.926	27.981	1.00	41.23		C
25	ANISOU	1932	CD	GLU	B	59	4929	3547	7190	590	80	990	C
	ATOM	1933	OE1	GLU	B	59	-33.227	-48.452	28.993	1.00	39.95		O
	ANISOU	1933	OE1	GLU	B	59	4731	3530	6919	526	90	1128	O
	ATOM	1934	OE2	GLU	B	59	-31.640	-49.630	28.039	1.00	45.79		O
	ANISOU	1934	OE2	GLU	B	59	5524	4000	7876	704	84	1054	O
30	ATOM	1935	N	ALA	B	60	-30.930	-45.734	25.504	1.00	27.54		N
	ANISOU	1935	N	ALA	B	60	3203	2230	5032	770	74	527	N
	ATOM	1936	CA	ALA	B	60	-30.017	-45.540	24.366	1.00	25.61		C
	ANISOU	1936	CA	ALA	B	60	2991	1970	4770	861	120	383	C
	ATOM	1937	C	ALA	B	60	-30.620	-44.550	23.361	1.00	24.83		C
35	ANISOU	1937	C	ALA	B	60	2950	1972	4512	820	115	227	C
	ATOM	1938	O	ALA	B	60	-31.191	-43.545	23.767	1.00	23.38		O
	ANISOU	1938	O	ALA	B	60	2741	1933	4209	763	84	262	O
	ATOM	1939	CB	ALA	B	60	-29.680	-46.867	23.696	1.00	27.40		C
	ANISOU	1939	CB	ALA	B	60	3271	1968	5172	923	156	306	C
40	ATOM	1940	N	TRP	B	61	-30.535	-44.846	22.063	1.00	25.43		N
	ANISOU	1940	N	TRP	B	61	3115	1969	4578	856	144	58	N
	ATOM	1941	CA	TRP	B	61	-31.066	-43.920	21.045	1.00	24.66		C
	ANISOU	1941	CA	TRP	B	61	3093	1972	4304	834	127	-71	C
	ATOM	1942	C	TRP	B	61	-32.562	-43.983	20.794	1.00	26.41		C
45	ANISOU	1942	C	TRP	B	61	3340	2189	4505	735	21	-137	C
	ATOM	1943	O	TRP	B	61	-33.158	-45.055	20.702	1.00	26.07		O
	ANISOU	1943	O	TRP	B	61	3311	2001	4592	684	-25	-189	O
	ATOM	1944	CB	TRP	B	61	-30.346	-44.076	19.711	1.00	27.35		C
	ANISOU	1944	CB	TRP	B	61	3539	2268	4585	919	206	-225	C
50	ATOM	1945	CG	TRP	B	61	-28.941	-43.710	19.810	1.00	38.79		C
	ANISOU	1945	CG	TRP	B	61	4933	3765	6040	1009	323	-168	C
	ATOM	1946	CD1	TRP	B	61	-27.901	-44.556	19.989	1.00	48.51		C
	ANISOU	1946	CD1	TRP	B	61	6112	4891	7427	1098	399	-145	C
	ATOM	1947	CD2	TRP	B	61	-28.391	-42.390	19.779	1.00	39.33		C
55	ANISOU	1947	CD2	TRP	B	61	4971	3989	5983	1016	376	-120	C
	ATOM	1948	NE1	TRP	B	61	-26.734	-43.854	20.061	1.00	49.66		N
	ANISOU	1948	NE1	TRP	B	61	6175	5138	7556	1158	492	-89	N
	ATOM	1949	CE2	TRP	B	61	-27.001	-42.521	19.929	1.00	46.97		C
	ANISOU	1949	CE2	TRP	B	61	5851	4951	7046	1097	483	-76	C

5	ATOM	1950	CE3	TRP	B	61	-28.934	-41.118	19.629	1.00	35.99	C	
	ANISOU	1950	CE3	TRP	B	61	4580	3695	5399	963	344	-108	C
	ATOM	1951	CZ2	TRP	B	61	-26.143	-41.424	19.934	1.00	44.52	C	
	ANISOU	1951	CZ2	TRP	B	61	5475	4761	6679	1102	559	-27	C
	ATOM	1952	CZ3	TRP	B	61	-28.081	-40.030	19.638	1.00	37.97	C	
	ANISOU	1952	CZ3	TRP	B	61	4793	4044	5590	976	426	-55	C
	ATOM	1953	CH2	TRP	B	61	-26.702	-40.190	19.786	1.00	37.99	C	
	ANISOU	1953	CH2	TRP	B	61	4699	4040	5694	1033	532	-19	C
10	ATOM	1954	N	LYS	B	62	-33.150	-42.798	20.661	1.00	26.23	N	
	ANISOU	1954	N	LYS	B	62	3315	2317	4336	711	-19	-136	N
	ATOM	1955	CA	LYS	B	62	-34.557	-42.649	20.332	1.00	24.04	C	
	ANISOU	1955	CA	LYS	B	62	3034	2069	4033	636	-130	-199	C
15	ATOM	1956	C	LYS	B	62	-34.668	-41.778	19.082	1.00	28.92	C	
	ANISOU	1956	C	LYS	B	62	3758	2775	4456	684	-164	-309	C
	ATOM	1957	O	LYS	B	62	-34.083	-40.694	19.022	1.00	26.21	O	
	ANISOU	1957	O	LYS	B	62	3438	2531	3990	739	-102	-257	O
20	ATOM	1958	CB	LYS	B	62	-35.294	-42.013	21.511	1.00	23.08	C	
	ANISOU	1958	CB	LYS	B	62	2793	2047	3930	580	-148	-66	C
	ATOM	1959	CG	LYS	B	62	-36.631	-41.376	21.165	1.00	23.66	C	
	ANISOU	1959	CG	LYS	B	62	2830	2205	3953	538	-246	-114	C
	ATOM	1960	CD	LYS	B	62	-37.658	-42.421	20.762	1.00	26.11	C	
	ANISOU	1960	CD	LYS	B	62	3108	2418	4395	450	-346	-205	C
	ATOM	1961	CE	LYS	B	62	-38.871	-41.749	20.128	1.00	30.17	C	
	ANISOU	1961	CE	LYS	B	62	3582	3033	4850	432	-475	-278	C
25	ATOM	1962	NZ	LYS	B	62	-39.895	-42.741	19.768	1.00	34.25	N	
	ANISOU	1962	NZ	LYS	B	62	4035	3462	5514	324	-593	-377	N
	ATOM	1963	N	VAL	B	63	-35.403	-42.263	18.084	1.00	32.33	N	
	ANISOU	1963	N	VAL	B	63	4261	3165	4859	659	-267	-456	N
30	ATOM	1964	CA	VAL	B	63	-35.596	-41.550	16.821	1.00	30.30	C	
	ANISOU	1964	CA	VAL	B	63	4130	2996	4388	711	-323	-556	C
	ATOM	1965	C	VAL	B	63	-36.828	-40.629	16.826	1.00	32.92	C	
	ANISOU	1965	C	VAL	B	63	4399	3449	4661	685	-456	-522	C
35	ATOM	1966	O	VAL	B	63	-37.930	-41.055	17.164	1.00	37.11	O	
	ANISOU	1966	O	VAL	B	63	4819	3964	5319	603	-569	-539	O
	ATOM	1967	CB	VAL	B	63	-35.738	-42.552	15.653	1.00	32.29	C	
	ANISOU	1967	CB	VAL	B	63	4513	3154	4603	707	-391	-758	C
40	ATOM	1968	CG1	VAL	B	63	-36.095	-41.829	14.354	1.00	30.92	C	
	ANISOU	1968	CG1	VAL	B	63	4485	3094	4169	758	-481	-852	C
	ATOM	1969	CG2	VAL	B	63	-34.460	-43.374	15.489	1.00	30.15	C	
	ANISOU	1969	CG2	VAL	B	63	4318	2758	4380	768	-237	-809	C
45	ATOM	1970	N	LEU	B	64	-36.632	-39.369	16.449	1.00	32.18	N	
	ANISOU	1970	N	LEU	B	64	4368	3465	4395	759	-433	-468	N
	ATOM	1971	CA	LEU	B	64	-37.730	-38.415	16.266	1.00	34.29	C	
	ANISOU	1971	CA	LEU	B	64	4597	3837	4594	774	-560	-437	C
50	ATOM	1972	C	LEU	B	64	-37.838	-37.972	14.799	1.00	39.93	C	
	ANISOU	1972	C	LEU	B	64	5487	4613	5073	848	-647	-514	C
	ATOM	1973	O	LEU	B	64	-36.836	-37.623	14.171	1.00	42.80	O	
	ANISOU	1973	O	LEU	B	64	6002	4981	5279	914	-530	-507	O
55	ATOM	1974	CB	LEU	B	64	-37.531	-37.186	17.153	1.00	29.86	C	
	ANISOU	1974	CB	LEU	B	64	3969	3337	4038	807	-468	-288	C
	ATOM	1975	CG	LEU	B	64	-37.603	-37.428	18.657	1.00	26.87	C	
	ANISOU	1975	CG	LEU	B	64	3430	2938	3840	742	-401	-203	C
60	ATOM	1976	CD1	LEU	B	64	-37.222	-36.169	19.412	1.00	24.66	C	
	ANISOU	1976	CD1	LEU	B	64	3130	2714	3526	780	-307	-94	C
	ATOM	1977	CD2	LEU	B	64	-38.994	-37.877	19.033	1.00	23.46	C	
	ANISOU	1977	CD2	LEU	B	64	2852	2519	3543	675	-516	-221	C
65	ATOM	1978	N	SER	B	65	-39.055	-37.983	14.262	1.00	41.92	N	
	ANISOU	1978	N	SER	B	65	5711	4919	5299	837	-851	-579	N
	ATOM	1979	CA	SER	B	65	-39.286	-37.665	12.854	1.00	43.73	C	

	ANISOU	1979	CA	SER	B	65	6116	5220	5278	908	-979	-654	C
	ATOM	1980	C	SER	B	65	-40.073	-36.366	12.708	1.00	42.83		C
	ANISOU	1980	C	SER	B	65	5972	5216	5085	988	-1086	-541	C
	ATOM	1981	O	SER	B	65	-40.719	-35.933	13.660	1.00	42.52		O
5	ANISOU	1981	O	SER	B	65	5745	5192	5220	971	-1098	-453	O
	ATOM	1982	CB	SER	B	65	-40.048	-38.811	12.186	1.00	46.84		C
	ANISOU	1982	CB	SER	B	65	6517	5590	5690	837	-1176	-847	C
	ATOM	1983	OG	SER	B	65	-41.318	-38.974	12.789	1.00	51.90		O
	ANISOU	1983	OG	SER	B	65	6931	6249	6539	759	-1334	-842	O
10	ATOM	1984	N	PRO	B	66	-40.027	-35.739	11.512	1.00	45.43		N
	ANISOU	1984	N	PRO	B	66	6496	5620	5147	1086	-1157	-536	N
	ATOM	1985	CA	PRO	B	66	-40.810	-34.519	11.263	1.00	43.23		C
	ANISOU	1985	CA	PRO	B	66	6204	5429	4790	1185	-1281	-415	C
	ATOM	1986	C	PRO	B	66	-42.309	-34.635	11.588	1.00	45.78		C
15	ANISOU	1986	C	PRO	B	66	6299	5807	5288	1160	-1515	-443	C
	ATOM	1987	O	PRO	B	66	-42.900	-33.649	12.033	1.00	47.61		O
	ANISOU	1987	O	PRO	B	66	6418	6073	5598	1230	-1541	-319	O
	ATOM	1988	CB	PRO	B	66	-40.606	-34.273	9.762	1.00	39.94		C
20	ANISOU	1988	CB	PRO	B	66	6057	5085	4035	1276	-1363	-441	C
	ATOM	1989	CG	PRO	B	66	-39.256	-34.820	9.493	1.00	43.28		C
	ANISOU	1989	CG	PRO	B	66	6643	5445	4357	1251	-1137	-499	C
	ATOM	1990	CD	PRO	B	66	-39.128	-36.045	10.379	1.00	42.94		C
	ANISOU	1990	CD	PRO	B	66	6435	5304	4575	1127	-1086	-616	C
	ATOM	1991	N	GLN	B	67	-42.911	-35.802	11.373	1.00	45.14		N
25	ANISOU	1991	N	GLN	B	67	6140	5724	5287	1060	-1674	-608	N
	ATOM	1992	CA	GLN	B	67	-44.339	-35.975	11.657	1.00	50.13		C
	ANISOU	1992	CA	GLN	B	67	6520	6410	6116	1016	-1893	-640	C
	ATOM	1993	C	GLN	B	67	-44.650	-36.052	13.157	1.00	48.56		C
	ANISOU	1993	C	GLN	B	67	6059	6160	6233	939	-1756	-565	C
30	ATOM	1994	O	GLN	B	67	-45.743	-35.699	13.589	1.00	49.73		O
	ANISOU	1994	O	GLN	B	67	5981	6368	6547	949	-1856	-521	O
	ATOM	1995	CB	GLN	B	67	-44.912	-37.190	10.918	1.00	58.94		C
	ANISOU	1995	CB	GLN	B	67	7630	7530	7233	910	-2119	-852	C
	ATOM	1996	CG	GLN	B	67	-44.116	-38.479	11.087	1.00	67.99		C
35	ANISOU	1996	CG	GLN	B	67	8852	8537	8445	787	-1984	-987	C
	ATOM	1997	CD	GLN	B	67	-42.937	-38.600	10.119	1.00	73.98		C
	ANISOU	1997	CD	GLN	B	67	9931	9274	8902	853	-1884	-1057	C
	ATOM	1998	OE1	GLN	B	67	-42.449	-37.606	9.579	1.00	75.49		O
40	ANISOU	1998	OE1	GLN	B	67	10293	9540	8850	984	-1827	-951	O
	ATOM	1999	NE2	GLN	B	67	-42.480	-39.830	9.899	1.00	75.11		N
	ANISOU	1999	NE2	GLN	B	67	10158	9304	9075	764	-1847	-1233	N
	ATOM	2000	N	GLY	B	68	-43.681	-36.505	13.947	1.00	46.58		N
	ANISOU	2000	N	GLY	B	68	5837	5806	6055	873	-1522	-546	N
	ATOM	2001	CA	GLY	B	68	-43.843	-36.571	15.388	1.00	42.58		C
45	ANISOU	2001	CA	GLY	B	68	5127	5259	5791	808	-1375	-463	C
	ATOM	2002	C	GLY	B	68	-44.948	-37.516	15.815	1.00	39.82		C
	ANISOU	2002	C	GLY	B	68	4540	4899	5690	677	-1482	-532	C
	ATOM	2003	O	GLY	B	68	-45.118	-38.585	15.235	1.00	40.70		O
	ANISOU	2003	O	GLY	B	68	4673	4961	5832	580	-1603	-672	O
50	ATOM	2004	N	GLY	B	69	-45.707	-37.113	16.828	1.00	38.68		N
	ANISOU	2004	N	GLY	B	69	4171	4796	5732	668	-1428	-439	N
	ATOM	2005	CA	GLY	B	69	-46.746	-37.956	17.391	1.00	39.37		C
	ANISOU	2005	CA	GLY	B	69	4003	4872	6085	531	-1478	-473	C
	ATOM	2006	C	GLY	B	69	-46.338	-38.512	18.748	1.00	40.74		C
55	ANISOU	2006	C	GLY	B	69	4109	4963	6407	435	-1240	-390	C
	ATOM	2007	O	GLY	B	69	-45.143	-38.666	19.035	1.00	35.38		O
	ANISOU	2007	O	GLY	B	69	3601	4210	5629	445	-1090	-356	O
	ATOM	2008	N	GLY	B	70	-47.331	-38.811	19.583	1.00	42.01		N
	ANISOU	2008	N	GLY	B	70	4014	5143	6804	346	-1205	-348	N

5	ATOM	2009	CA	GLY	B	70	-47.100	-39.458	20.863	1.00	39.23	C	
	ANISOU	2009	CA	GLY	B	70	3596	4720	6588	242	-992	-255	C
	ATOM	2010	C	GLY	B	70	-46.609	-38.524	21.953	1.00	37.49	C	
	ANISOU	2010	C	GLY	B	70	3407	4555	6282	336	-779	-122	C
	ATOM	2011	O	GLY	B	70	-46.567	-37.305	21.763	1.00	36.79	O	
	ANISOU	2011	O	GLY	B	70	3363	4547	6068	478	-788	-105	O
10	ATOM	2012	N	PRO	B	71	-46.221	-39.099	23.104	1.00	36.58	N	
	ANISOU	2012	N	PRO	B	71	3283	4387	6229	257	-592	-28	N
	ATOM	2013	CA	PRO	B	71	-45.774	-38.357	24.296	1.00	32.69	C	
	ANISOU	2013	CA	PRO	B	71	2820	3952	5649	322	-393	86	C
	ATOM	2014	C	PRO	B	71	-44.582	-37.446	24.001	1.00	29.02	C	
	ANISOU	2014	C	PRO	B	71	2573	3493	4959	447	-379	79	C
15	ATOM	2015	O	PRO	B	71	-44.428	-36.412	24.642	1.00	28.43	O	
	ANISOU	2015	O	PRO	B	71	2517	3484	4799	532	-278	124	O
	ATOM	2016	CB	PRO	B	71	-45.340	-39.468	25.265	1.00	33.53	C	
	ANISOU	2016	CB	PRO	B	71	2939	3975	5828	203	-255	179	C
	ATOM	2017	CG	PRO	B	71	-46.044	-40.706	24.786	1.00	38.48	C	
	ANISOU	2017	CG	PRO	B	71	3453	4503	6665	58	-351	130	C
20	ATOM	2018	CD	PRO	B	71	-46.180	-40.562	23.302	1.00	36.58	C	
	ANISOU	2018	CD	PRO	B	71	3260	4256	6384	97	-575	-27	C
	ATOM	2019	N	TRP	B	72	-43.740	-37.828	23.046	1.00	27.59	N	
	ANISOU	2019	N	TRP	B	72	2554	3238	4690	453	-468	13	N
	ATOM	2020	CA	TRP	B	72	-42.562	-37.024	22.738	1.00	25.22	C	
	ANISOU	2020	CA	TRP	B	72	2443	2938	4199	553	-434	15	C
25	ATOM	2021	C	TRP	B	72	-42.857	-35.609	22.227	1.00	26.06	C	
	ANISOU	2021	C	TRP	B	72	2579	3118	4205	679	-481	5	C
	ATOM	2022	O	TRP	B	72	-42.019	-34.726	22.372	1.00	29.14	O	
	ANISOU	2022	O	TRP	B	72	3088	3510	4475	748	-404	37	O
	ATOM	2023	CB	TRP	B	72	-41.620	-37.767	21.793	1.00	23.84	C	
	ANISOU	2023	CB	TRP	B	72	2425	2673	3959	540	-487	-53	C
30	ATOM	2024	CG	TRP	B	72	-40.722	-38.691	22.538	1.00	25.23	C	
	ANISOU	2024	CG	TRP	B	72	2635	2765	4184	479	-379	0	C
	ATOM	2025	CD1	TRP	B	72	-40.921	-40.027	22.774	1.00	24.23	C	
	ANISOU	2025	CD1	TRP	B	72	2458	2540	4209	376	-382	0	C
	ATOM	2026	CD2	TRP	B	72	-39.493	-38.346	23.190	1.00	21.96	C	
	ANISOU	2026	CD2	TRP	B	72	2305	2353	3684	519	-262	72	C
35	ATOM	2027	NE1	TRP	B	72	-39.882	-40.532	23.511	1.00	23.57	N	
	ANISOU	2027	NE1	TRP	B	72	2431	2395	4130	371	-274	82	N
	ATOM	2028	CE2	TRP	B	72	-38.992	-39.520	23.783	1.00	24.82	C	
	ANISOU	2028	CE2	TRP	B	72	2662	2628	4141	457	-209	123	C
	ATOM	2029	CE3	TRP	B	72	-38.765	-37.159	23.320	1.00	23.02	C	
	ANISOU	2029	CE3	TRP	B	72	2513	2547	3687	597	-205	98	C
45	ATOM	2030	CZ2	TRP	B	72	-37.796	-39.543	24.503	1.00	22.94	C	
	ANISOU	2030	CZ2	TRP	B	72	2476	2382	3859	483	-122	203	C
	ATOM	2031	CZ3	TRP	B	72	-37.572	-37.182	24.033	1.00	22.10	C	
	ANISOU	2031	CZ3	TRP	B	72	2442	2420	3536	600	-115	158	C
	ATOM	2032	CH2	TRP	B	72	-37.101	-38.367	24.613	1.00	20.73	C	
	ANISOU	2032	CH2	TRP	B	72	2248	2181	3447	550	-84	212	C
50	ATOM	2033	N	ASP	B	73	-44.037	-35.391	21.649	1.00	28.77	N	
	ANISOU	2033	N	ASP	B	73	2805	3512	4614	708	-614	-33	N
	ATOM	2034	CA	ASP	B	73	-44.409	-34.058	21.153	1.00	35.06	C	
	ANISOU	2034	CA	ASP	B	73	3623	4364	5334	848	-672	-22	C
	ATOM	2035	C	ASP	B	73	-44.390	-32.981	22.239	1.00	38.38	C	
	ANISOU	2035	C	ASP	B	73	4015	4810	5759	918	-513	44	C
55	ATOM	2036	O	ASP	B	73	-44.152	-31.815	21.947	1.00	39.56	O	
	ANISOU	2036	O	ASP	B	73	4262	4951	5817	1032	-507	64	O
	ATOM	2037	CB	ASP	B	73	-45.781	-34.077	20.473	1.00	36.24	C	
	ANISOU	2037	CB	ASP	B	73	3607	4576	5584	874	-860	-64	C
	ATOM	2038	CG	ASP	B	73	-45.740	-34.705	19.096	1.00	43.25	C	

	ANISOU	2038	CG	ASP	B	73	4593	5453	6389	852	-1063	-154	C
	ATOM	2039	OD1	ASP	B	73	-44.636	-34.814	18.527	1.00	43.35		O
	ANISOU	2039	OD1	ASP	B	73	4826	5412	6232	861	-1038	-174	O
	ATOM	2040	OD2	ASP	B	73	-46.812	-35.085	18.575	1.00	49.84		O
5	ANISOU	2040	OD2	ASP	B	73	5277	6336	7325	825	-1247	-213	O
	ATOM	2041	N	SER	B	74	-44.641	-33.384	23.483	1.00	39.98		N
	ANISOU	2041	N	SER	B	74	4097	5034	6061	846	-379	76	N
	ATOM	2042	CA	SER	B	74	-44.643	-32.463	24.616	1.00	41.32		C
	ANISOU	2042	CA	SER	B	74	4250	5236	6215	903	-217	113	C
10	ATOM	2043	C	SER	B	74	-43.236	-32.024	24.974	1.00	41.19		C
	ANISOU	2043	C	SER	B	74	4431	5172	6048	905	-126	127	C
	ATOM	2044	O	SER	B	74	-43.049	-30.979	25.599	1.00	47.98		O
	ANISOU	2044	O	SER	B	74	5337	6035	6857	970	-31	127	O
	ATOM	2045	CB	SER	B	74	-45.252	-33.130	25.849	1.00	40.53		C
15	ANISOU	2045	CB	SER	B	74	3988	5186	6225	816	-85	151	C
	ATOM	2046	OG	SER	B	74	-46.557	-33.596	25.591	1.00	46.93		O
	ANISOU	2046	OG	SER	B	74	4578	6040	7214	788	-153	141	O
	ATOM	2047	N	VAL	B	75	-42.252	-32.829	24.585	1.00	31.07		N
	ANISOU	2047	N	VAL	B	75	3254	3841	4710	834	-157	127	N
20	ATOM	2048	CA	VAL	B	75	-40.893	-32.671	25.082	1.00	29.87		C
	ANISOU	2048	CA	VAL	B	75	3236	3659	4455	811	-71	147	C
	ATOM	2049	C	VAL	B	75	-39.925	-32.157	24.029	1.00	33.24		C
	ANISOU	2049	C	VAL	B	75	3820	4029	4782	855	-114	128	C
	ATOM	2050	O	VAL	B	75	-39.150	-31.235	24.282	1.00	36.08		O
25	ANISOU	2050	O	VAL	B	75	4269	4366	5072	882	-49	134	O
	ATOM	2051	CB	VAL	B	75	-40.359	-34.014	25.598	1.00	29.30		C
	ANISOU	2051	CB	VAL	B	75	3150	3569	4415	707	-42	183	C
	ATOM	2052	CG1	VAL	B	75	-38.908	-33.875	26.048	1.00	25.00		C
	ANISOU	2052	CG1	VAL	B	75	2717	3005	3777	694	17	207	C
30	ATOM	2053	CG2	VAL	B	75	-41.251	-34.542	26.721	1.00	29.66		C
	ANISOU	2053	CG2	VAL	B	75	3055	3667	4546	651	33	233	C
	ATOM	2054	N	ALA	B	76	-39.952	-32.790	22.859	1.00	30.87		N
	ANISOU	2054	N	ALA	B	76	3556	3702	4471	852	-216	99	N
	ATOM	2055	CA	ALA	B	76	-39.090	-32.416	21.750	1.00	26.22		C
35	ANISOU	2055	CA	ALA	B	76	3123	3070	3768	894	-237	87	C
	ATOM	2056	C	ALA	B	76	-39.835	-32.639	20.444	1.00	31.37		C
	ANISOU	2056	C	ALA	B	76	3800	3734	4387	937	-383	45	C
	ATOM	2057	O	ALA	B	76	-40.345	-33.732	20.171	1.00	34.58		O
	ANISOU	2057	O	ALA	B	76	4142	4144	4853	882	-468	-6	O
40	ATOM	2058	CB	ALA	B	76	-37.796	-33.212	21.776	1.00	19.81		C
	ANISOU	2058	CB	ALA	B	76	2375	2217	2934	835	-175	84	C
	ATOM	2059	N	ARG	B	77	-39.886	-31.593	19.634	1.00	28.28		N
	ANISOU	2059	N	ARG	B	77	3508	3340	3895	1032	-420	69	N
	ATOM	2060	CA	ARG	B	77	-40.708	-31.586	18.445	1.00	29.11		C
45	ANISOU	2060	CA	ARG	B	77	3640	3480	3939	1095	-586	45	C
	ATOM	2061	C	ARG	B	77	-39.870	-31.055	17.290	1.00	31.18		C
	ANISOU	2061	C	ARG	B	77	4119	3715	4011	1156	-573	73	C
	ATOM	2062	O	ARG	B	77	-39.069	-30.132	17.473	1.00	26.55		O
	ANISOU	2062	O	ARG	B	77	3623	3080	3384	1181	-446	140	O
50	ATOM	2063	CB	ARG	B	77	-41.913	-30.675	18.686	1.00	32.47		C
	ANISOU	2063	CB	ARG	B	77	3952	3943	4441	1186	-654	84	C
	ATOM	2064	CG	ARG	B	77	-42.911	-30.619	17.564	1.00	40.52		C
	ANISOU	2064	CG	ARG	B	77	4958	5018	5417	1265	-864	71	C
	ATOM	2065	CD	ARG	B	77	-43.722	-31.909	17.448	1.00	46.23		C
55	ANISOU	2065	CD	ARG	B	77	5530	5794	6242	1173	-1002	-23	C
	ATOM	2066	NE	ARG	B	77	-44.693	-31.830	16.355	1.00	53.96		N
	ANISOU	2066	NE	ARG	B	77	6485	6843	7175	1245	-1242	-49	N
	ATOM	2067	CZ	ARG	B	77	-44.449	-32.228	15.109	1.00	59.43		C
	ANISOU	2067	CZ	ARG	B	77	7340	7555	7686	1251	-1378	-105	C

5	ATOM	2068	NH1	ARG	B	77	-43.264	-32.745	14.793	1.00	57.77	N	
	ANISOU	2068	NH1	ARG	B	77	7318	7290	7343	1195	-1269	-144	N
	ATOM	2069	NH2	ARG	B	77	-45.389	-32.116	14.179	1.00	64.34	N	
	ANISOU	2069	NH2	ARG	B	77	7933	8259	8253	1320	-1624	-128	N
	ATOM	2070	N	VAL	B	78	-40.046	-31.640	16.107	1.00	31.57	N	
	ANISOU	2070	N	VAL	B	78	4258	3796	3943	1170	-697	17	N
10	ATOM	2071	CA	VAL	B	78	-39.383	-31.147	14.905	1.00	30.04	C	
	ANISOU	2071	CA	VAL	B	78	4285	3596	3531	1238	-682	52	C
	ATOM	2072	C	VAL	B	78	-40.146	-29.962	14.286	1.00	27.69	C	
	ANISOU	2072	C	VAL	B	78	4046	3326	3148	1368	-793	146	C
	ATOM	2073	O	VAL	B	78	-41.329	-30.062	14.009	1.00	35.21	O	
	ANISOU	2073	O	VAL	B	78	4908	4344	4128	1415	-989	122	O
15	ATOM	2074	CB	VAL	B	78	-39.220	-32.277	13.872	1.00	30.83	C	
	ANISOU	2074	CB	VAL	B	78	4489	3725	3501	1209	-762	-63	C
	ATOM	2075	CG1	VAL	B	78	-38.590	-31.748	12.584	1.00	28.66	C	
	ANISOU	2075	CG1	VAL	B	78	4463	3466	2961	1289	-729	-21	C
	ATOM	2076	CG2	VAL	B	78	-38.390	-33.423	14.465	1.00	28.10	C	
	ANISOU	2076	CG2	VAL	B	78	4094	3321	3260	1103	-638	-142	C
20	ATOM	2077	N	LEU	B	79	-39.460	-28.843	14.074	1.00	27.87	N	
	ANISOU	2077	N	LEU	B	79	4212	3291	3087	1427	-671	261	N
	ATOM	2078	CA	LEU	B	79	-40.077	-27.632	13.512	1.00	29.32	C	
	ANISOU	2078	CA	LEU	B	79	4476	3466	3199	1566	-755	382	C
	ATOM	2079	C	LEU	B	79	-40.124	-27.686	11.975	1.00	31.49	C	
	ANISOU	2079	C	LEU	B	79	4959	3803	3203	1642	-875	413	C
25	ATOM	2080	O	LEU	B	79	-39.461	-28.532	11.372	1.00	33.97	O	
	ANISOU	2080	O	LEU	B	79	5380	4150	3376	1583	-837	334	O
	ATOM	2081	CB	LEU	B	79	-39.304	-26.394	13.989	1.00	32.57	C	
	ANISOU	2081	CB	LEU	B	79	4962	3755	3658	1580	-560	496	C
	ATOM	2082	CG	LEU	B	79	-39.272	-26.162	15.503	1.00	30.62	C	
	ANISOU	2082	CG	LEU	B	79	4544	3452	3638	1519	-453	459	C
30	ATOM	2083	CD1	LEU	B	79	-38.499	-24.902	15.822	1.00	30.98	C	
	ANISOU	2083	CD1	LEU	B	79	4688	3364	3718	1525	-285	550	C
	ATOM	2084	CD2	LEU	B	79	-40.689	-26.071	16.068	1.00	28.86	C	
	ANISOU	2084	CD2	LEU	B	79	4132	3272	3560	1589	-588	433	C
	ATOM	2085	N	PRO	B	80	-40.912	-26.799	11.339	1.00	33.47	N	
	ANISOU	2085	N	PRO	B	80	5274	4072	3373	1786	-1022	526	N
35	ATOM	2086	CA	PRO	B	80	-40.996	-26.807	9.873	1.00	35.94	C	
	ANISOU	2086	CA	PRO	B	80	5807	4463	3386	1871	-1156	571	C
	ATOM	2087	C	PRO	B	80	-39.644	-26.669	9.164	1.00	41.27	C	
	ANISOU	2087	C	PRO	B	80	6742	5100	3840	1843	-940	631	C
	ATOM	2088	O	PRO	B	80	-39.476	-27.239	8.089	1.00	40.03	O	
	ANISOU	2088	O	PRO	B	80	6756	5031	3422	1855	-1001	584	O
40	ATOM	2089	CB	PRO	B	80	-41.887	-25.594	9.565	1.00	37.91	C	
	ANISOU	2089	CB	PRO	B	80	6077	4697	3628	2046	-1299	738	C
	ATOM	2090	CG	PRO	B	80	-42.765	-25.478	10.752	1.00	36.82	C	
	ANISOU	2090	CG	PRO	B	80	5649	4536	3804	2049	-1346	693	C
	ATOM	2091	CD	PRO	B	80	-41.908	-25.881	11.930	1.00	33.92	C	
	ANISOU	2091	CD	PRO	B	80	5185	4094	3608	1891	-1103	604	C
45	ATOM	2092	N	ASN	B	81	-38.699	-25.940	9.747	1.00	34.91	N	
	ANISOU	2092	N	ASN	B	81	5962	4168	3137	1799	-688	722	N
	ATOM	2093	CA	ASN	B	81	-37.380	-25.815	9.134	1.00	37.02	C	
	ANISOU	2093	CA	ASN	B	81	6432	4397	3236	1756	-455	783	C
	ATOM	2094	C	ASN	B	81	-36.453	-26.988	9.497	1.00	35.22	C	
	ANISOU	2094	C	ASN	B	81	6130	4189	3062	1620	-311	621	C
50	ATOM	2095	O	ASN	B	81	-35.270	-26.987	9.170	1.00	33.80	O	
	ANISOU	2095	O	ASN	B	81	6059	3980	2804	1572	-87	650	O
	ATOM	2096	CB	ASN	B	81	-36.736	-24.459	9.475	1.00	35.29	C	
	ANISOU	2096	CB	ASN	B	81	6274	4023	3111	1760	-253	961	C
	ATOM	2097	CG	ASN	B	81	-36.164	-24.406	10.895	1.00	33.88	C	
													C

	ANISOU	2097	CG	ASN	B	81	5896	3748	3228	1636	-102	892	C
	ATOM	2098	OD1	ASN	B	81	-36.534	-25.196	11.772	1.00	31.01		O
	ANISOU	2098	OD1	ASN	B	81	5332	3431	3019	1579	-177	747	O
	ATOM	2099	ND2	ASN	B	81	-35.247	-23.470	11.120	1.00	32.81		N
5	ANISOU	2099	ND2	ASN	B	81	5822	3478	3164	1587	109	1001	N
	ATOM	2100	N	GLY	B	82	-36.997	-27.979	10.191	1.00	32.28		N
	ANISOU	2100	N	GLY	B	82	5561	3858	2844	1562	-432	462	N
	ATOM	2101	CA	GLY	B	82	-36.233	-29.168	10.523	1.00	31.01		C
	ANISOU	2101	CA	GLY	B	82	5332	3702	2748	1454	-325	316	C
10	ATOM	2102	C	GLY	B	82	-35.516	-29.127	11.861	1.00	33.08		C
	ANISOU	2102	C	GLY	B	82	5419	3882	3266	1357	-161	315	C
	ATOM	2103	O	GLY	B	82	-34.995	-30.136	12.317	1.00	36.34		O
	ANISOU	2103	O	GLY	B	82	5740	4294	3774	1279	-101	208	O
	ATOM	2104	N	SER	B	83	-35.484	-27.960	12.490	1.00	29.69		N
15	ANISOU	2104	N	SER	B	83	4954	3380	2947	1365	-98	430	N
	ATOM	2105	CA	SER	B	83	-34.879	-27.819	13.806	1.00	29.44		C
	ANISOU	2105	CA	SER	B	83	4766	3283	3137	1273	25	417	C
	ATOM	2106	C	SER	B	83	-35.660	-28.583	14.869	1.00	29.86		C
	ANISOU	2106	C	SER	B	83	4616	3372	3357	1234	-93	316	C
20	ATOM	2107	O	SER	B	83	-36.877	-28.749	14.768	1.00	31.77		O
	ANISOU	2107	O	SER	B	83	4806	3664	3603	1286	-268	290	O
	ATOM	2108	CB	SER	B	83	-34.789	-26.343	14.204	1.00	31.17		C
	ANISOU	2108	CB	SER	B	83	5013	3401	3430	1292	100	539	C
	ATOM	2109	OG	SER	B	83	-33.829	-25.652	13.422	1.00	32.53		O
25	ANISOU	2109	OG	SER	B	83	5351	3513	3497	1289	263	648	O
	ATOM	2110	N	LEU	B	84	-34.947	-29.044	15.891	1.00	24.12		N
	ANISOU	2110	N	LEU	B	84	3769	2625	2771	1140	5	272	N
	ATOM	2111	CA	LEU	B	84	-35.577	-29.705	17.018	1.00	24.29		C
	ANISOU	2111	CA	LEU	B	84	3612	2675	2944	1095	-69	206	C
30	ATOM	2112	C	LEU	B	84	-35.853	-28.669	18.092	1.00	27.71		C
	ANISOU	2112	C	LEU	B	84	3970	3072	3487	1096	-38	249	C
	ATOM	2113	O	LEU	B	84	-34.973	-27.872	18.442	1.00	28.60		O
	ANISOU	2113	O	LEU	B	84	4119	3123	3626	1063	83	290	O
	ATOM	2114	CB	LEU	B	84	-34.686	-30.816	17.576	1.00	24.18		C
35	ANISOU	2114	CB	LEU	B	84	3520	2660	3006	1010	6	149	C
	ATOM	2115	CG	LEU	B	84	-35.400	-31.759	18.561	1.00	24.88		C
	ANISOU	2115	CG	LEU	B	84	3452	2776	3225	963	-73	98	C
	ATOM	2116	CD1	LEU	B	84	-36.441	-32.609	17.826	1.00	21.65		C
	ANISOU	2116	CD1	LEU	B	84	3041	2398	2787	981	-221	29	C
40	ATOM	2117	CD2	LEU	B	84	-34.407	-32.656	19.322	1.00	21.43		C
	ANISOU	2117	CD2	LEU	B	84	2943	2322	2878	892	10	82	C
	ATOM	2118	N	PHE	B	85	-37.074	-28.689	18.612	1.00	24.30		N
	ANISOU	2118	N	PHE	B	85	3429	2674	3128	1129	-140	228	N
	ATOM	2119	CA	PHE	B	85	-37.514	-27.698	19.574	1.00	23.89		C
45	ANISOU	2119	CA	PHE	B	85	3317	2591	3170	1155	-107	248	C
	ATOM	2120	C	PHE	B	85	-37.937	-28.338	20.882	1.00	25.39		C
	ANISOU	2120	C	PHE	B	85	3342	2833	3472	1095	-100	194	C
	ATOM	2121	O	PHE	B	85	-38.822	-29.198	20.908	1.00	23.81		O
	ANISOU	2121	O	PHE	B	85	3036	2695	3316	1091	-187	163	O
50	ATOM	2122	CB	PHE	B	85	-38.680	-26.897	18.998	1.00	24.85		C
	ANISOU	2122	CB	PHE	B	85	3454	2705	3281	1283	-210	292	C
	ATOM	2123	CG	PHE	B	85	-39.308	-25.946	19.976	1.00	30.72		C
	ANISOU	2123	CG	PHE	B	85	4122	3409	4140	1335	-172	292	C
	ATOM	2124	CD1	PHE	B	85	-38.575	-24.901	20.521	1.00	31.10		C
55	ANISOU	2124	CD1	PHE	B	85	4248	3353	4217	1320	-46	306	C
	ATOM	2125	CD2	PHE	B	85	-40.642	-26.085	20.337	1.00	35.41		C
	ANISOU	2125	CD2	PHE	B	85	4562	4065	4828	1399	-255	267	C
	ATOM	2126	CE1	PHE	B	85	-39.157	-24.016	21.411	1.00	32.56		C
	ANISOU	2126	CE1	PHE	B	85	4384	3487	4501	1376	-2	279	C

	ATOM	2127	CE2	PHE	B	85	-41.233	-25.203	21.233	1.00	35.49		C
	ANISOU	2127	CE2	PHE	B	85	4503	4038	4944	1466	-193	254	C
	ATOM	2128	CZ	PHE	B	85	-40.491	-24.163	21.763	1.00	34.38		C
	ANISOU	2128	CZ	PHE	B	85	4468	3785	4811	1460	-66	253	C
5	ATOM	2129	N	LEU	B	86	-37.303	-27.906	21.965	1.00	27.36		N
	ANISOU	2129	N	LEU	B	86	3576	3058	3763	1043	3	184	N
	ATOM	2130	CA	LEU	B	86	-37.704	-28.296	23.315	1.00	25.51		C
	ANISOU	2130	CA	LEU	B	86	3217	2880	3597	1000	30	148	C
	ATOM	2131	C	LEU	B	86	-38.204	-27.043	24.038	1.00	26.05		C
10	ANISOU	2131	C	LEU	B	86	3284	2913	3700	1058	83	129	C
	ATOM	2132	O	LEU	B	86	-37.420	-26.144	24.338	1.00	27.38		O
	ANISOU	2132	O	LEU	B	86	3538	3011	3856	1039	152	116	O
	ATOM	2133	CB	LEU	B	86	-36.523	-28.902	24.083	1.00	19.08		C
	ANISOU	2133	CB	LEU	B	86	2393	2082	2774	896	90	140	C
15	ATOM	2134	CG	LEU	B	86	-35.988	-30.292	23.717	1.00	26.74		C
	ANISOU	2134	CG	LEU	B	86	3341	3075	3745	843	61	149	C
	ATOM	2135	CD1	LEU	B	86	-35.128	-30.257	22.468	1.00	18.72		C
	ANISOU	2135	CD1	LEU	B	86	2429	2010	2675	855	72	159	C
	ATOM	2136	CD2	LEU	B	86	-35.201	-30.905	24.887	1.00	22.00		C
20	ANISOU	2136	CD2	LEU	B	86	2685	2509	3165	766	102	159	C
	ATOM	2137	N	PRO	B	87	-39.511	-26.978	24.320	1.00	26.35		N
	ANISOU	2137	N	PRO	B	87	3217	2993	3800	1129	58	117	N
	ATOM	2138	CA	PRO	B	87	-40.114	-25.782	24.928	1.00	26.44		C
	ANISOU	2138	CA	PRO	B	87	3225	2962	3860	1216	120	86	C
25	ATOM	2139	C	PRO	B	87	-39.587	-25.449	26.331	1.00	28.14		C
	ANISOU	2139	C	PRO	B	87	3458	3182	4054	1154	235	19	C
	ATOM	2140	O	PRO	B	87	-39.549	-24.276	26.700	1.00	28.37		O
	ANISOU	2140	O	PRO	B	87	3557	3125	4098	1203	297	-29	O
	ATOM	2141	CB	PRO	B	87	-41.610	-26.128	24.985	1.00	25.15		C
30	ANISOU	2141	CB	PRO	B	87	2893	2876	3786	1291	76	87	C
	ATOM	2142	CG	PRO	B	87	-41.672	-27.618	24.924	1.00	25.30		C
	ANISOU	2142	CG	PRO	B	87	2820	2986	3808	1190	23	100	C
	ATOM	2143	CD	PRO	B	87	-40.502	-28.041	24.078	1.00	26.93		C
	ANISOU	2143	CD	PRO	B	87	3157	3151	3925	1127	-25	123	C
35	ATOM	2144	N	ALA	B	88	-39.183	-26.457	27.097	1.00	25.14		N
	ANISOU	2144	N	ALA	B	88	3027	2893	3633	1050	254	14	N
	ATOM	2145	CA	ALA	B	88	-38.705	-26.228	28.461	1.00	23.62		C
	ANISOU	2145	CA	ALA	B	88	2859	2735	3381	993	337	-47	C
	ATOM	2146	C	ALA	B	88	-37.728	-27.321	28.887	1.00	22.74		C
40	ANISOU	2146	C	ALA	B	88	2740	2693	3208	876	313	-12	C
	ATOM	2147	O	ALA	B	88	-38.135	-28.398	29.313	1.00	23.57		O
	ANISOU	2147	O	ALA	B	88	2759	2884	3311	844	314	33	O
	ATOM	2148	CB	ALA	B	88	-39.893	-26.140	29.443	1.00	22.61		C
	ANISOU	2148	CB	ALA	B	88	2640	2682	3268	1049	423	-86	C
45	ATOM	2149	N	VAL	B	89	-36.437	-27.028	28.760	1.00	23.18		N
	ANISOU	2149	N	VAL	B	89	2875	2699	3233	814	294	-23	N
	ATOM	2150	CA	VAL	B	89	-35.377	-27.974	29.063	1.00	25.37		C
	ANISOU	2150	CA	VAL	B	89	3133	3030	3475	724	258	16	C
	ATOM	2151	C	VAL	B	89	-35.377	-28.380	30.538	1.00	28.37		C
50	ANISOU	2151	C	VAL	B	89	3488	3520	3770	681	278	6	C
	ATOM	2152	O	VAL	B	89	-35.592	-27.536	31.425	1.00	28.84		O
	ANISOU	2152	O	VAL	B	89	3593	3599	3765	690	326	-76	O
	ATOM	2153	CB	VAL	B	89	-33.999	-27.388	28.685	1.00	29.04		C
	ANISOU	2153	CB	VAL	B	89	3660	3425	3950	668	243	-4	C
55	ATOM	2154	CG1	VAL	B	89	-32.884	-28.089	29.436	1.00	29.22		C
	ANISOU	2154	CG1	VAL	B	89	3641	3521	3939	585	203	14	C
	ATOM	2155	CG2	VAL	B	89	-33.775	-27.485	27.192	1.00	28.61		C
	ANISOU	2155	CG2	VAL	B	89	3630	3294	3945	696	233	48	C
	ATOM	2156	N	GLY	B	90	-35.151	-29.674	30.785	1.00	23.37		N

	ANISOU	2156	N	GLY	B	90	2798	2952	3129	642	247	91	N
	ATOM	2157	CA	GLY	B	90	-35.006	-30.199	32.131	1.00	23.19		C
	ANISOU	2157	CA	GLY	B	90	2769	3039	3003	602	255	122	C
	ATOM	2158	C	GLY	B	90	-33.710	-30.978	32.290	1.00	25.71		C
5	ANISOU	2158	C	GLY	B	90	3075	3380	3312	550	174	188	C
	ATOM	2159	O	GLY	B	90	-33.010	-31.256	31.306	1.00	23.76		O
	ANISOU	2159	O	GLY	B	90	2807	3062	3158	547	133	208	O
	ATOM	2160	N	ILE	B	91	-33.392	-31.330	33.533	1.00	25.79		N
	ANISOU	2160	N	ILE	B	91	3098	3496	3203	519	152	225	N
10	ATOM	2161	CA	ILE	B	91	-32.202	-32.116	33.843	1.00	26.03		C
	ANISOU	2161	CA	ILE	B	91	3101	3563	3226	488	56	307	C
	ATOM	2162	C	ILE	B	91	-32.080	-33.380	32.972	1.00	25.31		C
	ANISOU	2162	C	ILE	B	91	2945	3396	3276	509	42	414	C
	ATOM	2163	O	ILE	B	91	-30.996	-33.706	32.494	1.00	25.58		O
15	ANISOU	2163	O	ILE	B	91	2940	3392	3388	508	-17	436	O
	ATOM	2164	CB	ILE	B	91	-32.172	-32.501	35.342	1.00	27.67		C
	ANISOU	2164	CB	ILE	B	91	3345	3909	3258	472	33	369	C
	ATOM	2165	CG1	ILE	B	91	-32.028	-31.245	36.207	1.00	30.04		C
	ANISOU	2165	CG1	ILE	B	91	3728	4284	3401	446	24	227	C
20	ATOM	2166	CG2	ILE	B	91	-31.032	-33.498	35.642	1.00	23.62		C
	ANISOU	2166	CG2	ILE	B	91	2789	3431	2756	466	-84	494	C
	ATOM	2167	CD1	ILE	B	91	-32.113	-31.511	37.712	1.00	26.00		C
	ANISOU	2167	CD1	ILE	B	91	3288	3934	2657	437	10	269	C
	ATOM	2168	N	GLN	B	92	-33.194	-34.071	32.745	1.00	24.31		N
25	ANISOU	2168	N	GLN	B	92	2799	3240	3198	524	103	468	N
	ATOM	2169	CA	GLN	B	92	-33.159	-35.328	32.006	1.00	27.61		C
	ANISOU	2169	CA	GLN	B	92	3171	3570	3750	534	88	549	C
	ATOM	2170	C	GLN	B	92	-32.912	-35.155	30.500	1.00	27.45		C
	ANISOU	2170	C	GLN	B	92	3146	3446	3840	557	78	473	C
30	ATOM	2171	O	GLN	B	92	-32.804	-36.137	29.767	1.00	29.85		O
	ANISOU	2171	O	GLN	B	92	3429	3666	4248	570	66	504	O
	ATOM	2172	CB	GLN	B	92	-34.425	-36.154	32.262	1.00	31.06		C
	ANISOU	2172	CB	GLN	B	92	3579	3998	4224	517	150	624	C
	ATOM	2173	CG	GLN	B	92	-34.624	-36.565	33.723	1.00	41.18		C
35	ANISOU	2173	CG	GLN	B	92	4879	5380	5387	495	186	741	C
	ATOM	2174	CD	GLN	B	92	-33.405	-37.276	34.324	1.00	50.95		C
	ANISOU	2174	CD	GLN	B	92	6135	6635	6587	503	101	854	C
	ATOM	2175	OE1	GLN	B	92	-32.972	-36.959	35.436	1.00	53.45		O
	ANISOU	2175	OE1	GLN	B	92	6499	7074	6737	501	71	889	O
40	ATOM	2176	NE2	GLN	B	92	-32.857	-38.245	33.592	1.00	51.13		N
	ANISOU	2176	NE2	GLN	B	92	6122	6539	6764	522	56	907	N
	ATOM	2177	N	ASP	B	93	-32.811	-33.914	30.041	1.00	23.57		N
	ANISOU	2177	N	ASP	B	93	2689	2951	3318	566	90	374	N
	ATOM	2178	CA	ASP	B	93	-32.518	-33.667	28.639	1.00	21.10		C
45	ANISOU	2178	CA	ASP	B	93	2395	2552	3070	591	94	322	C
	ATOM	2179	C	ASP	B	93	-31.019	-33.584	28.362	1.00	19.93		C
	ANISOU	2179	C	ASP	B	93	2234	2387	2953	582	79	320	C
	ATOM	2180	O	ASP	B	93	-30.620	-33.348	27.227	1.00	21.00		O
	ANISOU	2180	O	ASP	B	93	2392	2460	3127	601	109	285	O
50	ATOM	2181	CB	ASP	B	93	-33.227	-32.402	28.149	1.00	24.61		C
	ANISOU	2181	CB	ASP	B	93	2889	2978	3483	614	123	245	C
	ATOM	2182	CG	ASP	B	93	-34.734	-32.529	28.199	1.00	26.79		C
	ANISOU	2182	CG	ASP	B	93	3140	3270	3768	638	136	244	C
	ATOM	2183	OD1	ASP	B	93	-35.261	-33.534	27.677	1.00	27.77		O
55	ANISOU	2183	OD1	ASP	B	93	3227	3366	3957	638	112	272	O
	ATOM	2184	OD2	ASP	B	93	-35.388	-31.632	28.771	1.00	27.99		O
	ANISOU	2184	OD2	ASP	B	93	3301	3457	3878	656	172	206	O
	ATOM	2185	N	GLU	B	94	-30.190	-33.773	29.389	1.00	21.50		N
	ANISOU	2185	N	GLU	B	94	2388	2649	3131	557	35	363	N

	ATOM	2186	CA	GLU	B	94	-28.750	-33.854	29.177	1.00	26.22		C
	ANISOU	2186	CA	GLU	B	94	2925	3241	3797	551	11	372	C
	ATOM	2187	C	GLU	B	94	-28.412	-35.065	28.329	1.00	25.99		C
	ANISOU	2187	C	GLU	B	94	2862	3136	3876	605	32	416	C
5	ATOM	2188	O	GLU	B	94	-28.973	-36.145	28.525	1.00	24.93		O
	ANISOU	2188	O	GLU	B	94	2731	2975	3768	629	18	476	O
	ATOM	2189	CB	GLU	B	94	-27.996	-33.946	30.499	1.00	35.68		C
	ANISOU	2189	CB	GLU	B	94	4069	4539	4951	523	-79	418	C
	ATOM	2190	CG	GLU	B	94	-28.083	-32.684	31.312	1.00	46.10		C
10	ANISOU	2190	CG	GLU	B	94	5431	5927	6159	463	-104	336	C
	ATOM	2191	CD	GLU	B	94	-26.981	-32.575	32.338	1.00	50.38		C
	ANISOU	2191	CD	GLU	B	94	5909	6568	6666	422	-221	345	C
	ATOM	2192	OE1	GLU	B	94	-27.004	-33.350	33.332	1.00	50.89		O
	ANISOU	2192	OE1	GLU	B	94	5968	6719	6648	443	-295	436	O
15	ATOM	2193	OE2	GLU	B	94	-26.097	-31.708	32.145	1.00	49.94		O
	ANISOU	2193	OE2	GLU	B	94	5808	6503	6664	364	-243	268	O
	ATOM	2194	N	GLY	B	95	-27.484	-34.894	27.394	1.00	23.52		N
	ANISOU	2194	N	GLY	B	95	2520	2779	3636	620	81	383	N
	ATOM	2195	CA	GLY	B	95	-27.091	-35.994	26.533	1.00	21.85		C
20	ANISOU	2195	CA	GLY	B	95	2288	2490	3522	684	123	397	C
	ATOM	2196	C	GLY	B	95	-26.732	-35.562	25.129	1.00	24.28		C
	ANISOU	2196	C	GLY	B	95	2638	2746	3843	704	227	328	C
	ATOM	2197	O	GLY	B	95	-26.223	-34.465	24.911	1.00	22.07		O
	ANISOU	2197	O	GLY	B	95	2353	2488	3546	663	271	302	O
25	ATOM	2198	N	ILE	B	96	-27.014	-36.430	24.165	1.00	28.15		N
	ANISOU	2198	N	ILE	B	96	3182	3159	4354	760	271	297	N
	ATOM	2199	CA	ILE	B	96	-26.562	-36.223	22.795	1.00	28.17		C
	ANISOU	2199	CA	ILE	B	96	3240	3121	4341	796	385	236	C
	ATOM	2200	C	ILE	B	96	-27.738	-36.140	21.824	1.00	30.03		C
30	ANISOU	2200	C	ILE	B	96	3623	3324	4463	808	382	173	C
	ATOM	2201	O	ILE	B	96	-28.679	-36.939	21.900	1.00	27.68		O
	ANISOU	2201	O	ILE	B	96	3357	2992	4169	815	310	154	O
	ATOM	2202	CB	ILE	B	96	-25.582	-37.342	22.384	1.00	32.90		C
	ANISOU	2202	CB	ILE	B	96	3775	3665	5060	872	452	230	C
35	ATOM	2203	CG1	ILE	B	96	-24.407	-37.380	23.365	1.00	34.58		C
	ANISOU	2203	CG1	ILE	B	96	3813	3927	5400	869	426	305	C
	ATOM	2204	CG2	ILE	B	96	-25.079	-37.136	20.962	1.00	31.51		C
	ANISOU	2204	CG2	ILE	B	96	3668	3462	4844	914	603	161	C
	ATOM	2205	CD1	ILE	B	96	-23.618	-38.655	23.315	1.00	41.56		C
40	ANISOU	2205	CD1	ILE	B	96	4608	4748	6436	967	453	325	C
	ATOM	2206	N	PHE	B	97	-27.682	-35.152	20.930	1.00	28.55		N
	ANISOU	2206	N	PHE	B	97	3521	3146	4180	807	453	149	N
	ATOM	2207	CA	PHE	B	97	-28.739	-34.903	19.954	1.00	24.79		C
	ANISOU	2207	CA	PHE	B	97	3188	2658	3572	831	429	103	C
45	ATOM	2208	C	PHE	B	97	-28.112	-34.883	18.568	1.00	28.16		C
	ANISOU	2208	C	PHE	B	97	3717	3066	3917	880	554	64	C
	ATOM	2209	O	PHE	B	97	-27.196	-34.100	18.309	1.00	29.45		O
	ANISOU	2209	O	PHE	B	97	3871	3241	4077	867	675	104	O
	ATOM	2210	CB	PHE	B	97	-29.424	-33.553	20.223	1.00	23.35		C
50	ANISOU	2210	CB	PHE	B	97	3044	2506	3321	798	390	138	C
	ATOM	2211	CG	PHE	B	97	-30.227	-33.501	21.510	1.00	26.03		C
	ANISOU	2211	CG	PHE	B	97	3308	2876	3706	761	288	159	C
	ATOM	2212	CD1	PHE	B	97	-31.606	-33.357	21.474	1.00	23.05		C
	ANISOU	2212	CD1	PHE	B	97	2966	2510	3283	774	203	143	C
55	ATOM	2213	CD2	PHE	B	97	-29.601	-33.578	22.753	1.00	26.13		C
	ANISOU	2213	CD2	PHE	B	97	3211	2919	3799	717	278	195	C
	ATOM	2214	CE1	PHE	B	97	-32.351	-33.291	22.640	1.00	21.67		C
	ANISOU	2214	CE1	PHE	B	97	2717	2370	3146	745	147	162	C
	ATOM	2215	CE2	PHE	B	97	-30.341	-33.519	23.931	1.00	25.86		C

	ANISOU	2215	CE2	PHE	B	97	3131	2926	3768	687	207	215	C
	ATOM	2216	CZ	PHE	B	97	-31.717	-33.375	23.876	1.00	23.36		C
	ANISOU	2216	CZ	PHE	B	97	2850	2616	3410	701	159	198	C
	ATOM	2217	N	ARG	B	98	-28.597	-35.742	17.676	1.00	29.16		N
5	ANISOU	2217	N	ARG	B	98	3943	3163	3973	930	533	-19	N
	ATOM	2218	CA	ARG	B	98	-28.032	-35.832	16.330	1.00	28.08		C
	ANISOU	2218	CA	ARG	B	98	3931	3020	3720	989	664	-72	C
	ATOM	2219	C	ARG	B	98	-29.087	-35.697	15.250	1.00	28.54		C
	ANISOU	2219	C	ARG	B	98	4172	3096	3576	1020	585	-132	C
10	ATOM	2220	O	ARG	B	98	-30.150	-36.321	15.316	1.00	27.92		O
	ANISOU	2220	O	ARG	B	98	4107	3003	3497	1013	429	-196	O
	ATOM	2221	CB	ARG	B	98	-27.325	-37.165	16.128	1.00	32.21		C
	ANISOU	2221	CB	ARG	B	98	4420	3483	4336	1041	737	-152	C
	ATOM	2222	CG	ARG	B	98	-26.080	-37.329	16.938	1.00	38.22		C
15	ANISOU	2222	CG	ARG	B	98	4999	4236	5287	1041	827	-90	C
	ATOM	2223	CD	ARG	B	98	-25.389	-38.617	16.584	1.00	42.08		C
	ANISOU	2223	CD	ARG	B	98	5465	4651	5874	1124	915	-169	C
	ATOM	2224	NE	ARG	B	98	-24.128	-38.755	17.296	1.00	42.40		N
	ANISOU	2224	NE	ARG	B	98	5307	4694	6110	1144	996	-99	N
20	ATOM	2225	CZ	ARG	B	98	-23.324	-39.802	17.171	1.00	44.04		C
	ANISOU	2225	CZ	ARG	B	98	5443	4833	6457	1236	1085	-142	C
	ATOM	2226	NH1	ARG	B	98	-23.661	-40.806	16.368	1.00	40.84		N
	ANISOU	2226	NH1	ARG	B	98	5171	4335	6012	1308	1115	-271	N
	ATOM	2227	NH2	ARG	B	98	-22.190	-39.847	17.851	1.00	50.58		N
25	ANISOU	2227	NH2	ARG	B	98	6063	5680	7474	1259	1134	-64	N
	ATOM	2228	N	CYS	B	99	-28.785	-34.890	14.245	1.00	28.99		N
	ANISOU	2228	N	CYS	B	99	4365	3187	3462	1052	689	-103	N
	ATOM	2229	CA	CYS	B	99	-29.644	-34.826	13.082	1.00	33.47		C
	ANISOU	2229	CA	CYS	B	99	5128	3787	3801	1101	610	-156	C
30	ATOM	2230	C	CYS	B	99	-28.902	-35.374	11.877	1.00	34.54		C
	ANISOU	2230	C	CYS	B	99	5409	3929	3787	1166	766	-241	C
	ATOM	2231	O	CYS	B	99	-27.685	-35.225	11.754	1.00	36.42		O
	ANISOU	2231	O	CYS	B	99	5612	4161	4064	1176	983	-203	O
	ATOM	2232	CB	CYS	B	99	-30.127	-33.396	12.810	1.00	26.57		C
35	ANISOU	2232	CB	CYS	B	99	4341	2952	2801	1106	581	-36	C
	ATOM	2233	SG	CYS	B	99	-31.501	-33.339	11.638	1.00	43.05		S
	ANISOU	2233	SG	CYS	B	99	6629	5098	4628	1175	384	-84	S
	ATOM	2234	N	GLN	B	100	-29.645	-36.027	10.997	1.00	33.84		N
	ANISOU	2234	N	GLN	B	100	5472	3854	3530	1207	656	-369	N
40	ATOM	2235	CA	GLN	B	100	-29.096	-36.485	9.740	1.00	36.91		C
	ANISOU	2235	CA	GLN	B	100	6048	4261	3714	1279	796	-473	C
	ATOM	2236	C	GLN	B	100	-30.098	-36.094	8.668	1.00	39.77		C
	ANISOU	2236	C	GLN	B	100	6634	4704	3772	1317	645	-501	C
	ATOM	2237	O	GLN	B	100	-31.275	-36.414	8.778	1.00	40.06		O
45	ANISOU	2237	O	GLN	B	100	6663	4747	3813	1294	394	-569	O
	ATOM	2238	CB	GLN	B	100	-28.891	-37.994	9.769	1.00	42.44		C
	ANISOU	2238	CB	GLN	B	100	6719	4878	4528	1297	800	-657	C
	ATOM	2239	CG	GLN	B	100	-28.176	-38.544	8.546	1.00	55.47		C
	ANISOU	2239	CG	GLN	B	100	8556	6536	5986	1384	988	-793	C
50	ATOM	2240	CD	GLN	B	100	-27.760	-39.988	8.725	1.00	63.60		C
	ANISOU	2240	CD	GLN	B	100	9529	7443	7193	1415	1036	-963	C
	ATOM	2241	OE1	GLN	B	100	-28.157	-40.646	9.689	1.00	65.36		O
	ANISOU	2241	OE1	GLN	B	100	9598	7573	7663	1364	896	-977	O
	ATOM	2242	NE2	GLN	B	100	-26.950	-40.489	7.800	1.00	68.55		N
55	ANISOU	2242	NE2	GLN	B	100	10287	8061	7699	1506	1249	-1088	N
	ATOM	2243	N	ALA	B	101	-29.629	-35.393	7.641	1.00	43.39		N
	ANISOU	2243	N	ALA	B	101	7284	5230	3972	1374	797	-435	N
	ATOM	2244	CA	ALA	B	101	-30.508	-34.843	6.614	1.00	42.31		C
	ANISOU	2244	CA	ALA	B	101	7376	5186	3516	1425	651	-414	C

5	ATOM	2245	C	ALA	B	101	-29.872	-34.920	5.241	1.00	43.06	C	
	ANISOU	2245	C	ALA	B	101	7737	5349	3277	1505	841	-461	C
	ATOM	2246	O	ALA	B	101	-28.654	-34.985	5.119	1.00	44.11	O	
	ANISOU	2246	O	ALA	B	101	7857	5461	3442	1518	1139	-443	O
	ATOM	2247	CB	ALA	B	101	-30.857	-33.393	6.940	1.00	36.27	C	
	ANISOU	2247	CB	ALA	B	101	6585	4436	2759	1416	610	-187	C
10	ATOM	2248	N	MET	B	102	-30.713	-34.913	4.213	1.00	49.54	N	
	ANISOU	2248	N	MET	B	102	8791	6262	3771	1562	663	-521	N
	ATOM	2249	CA	MET	B	102	-30.270	-34.765	2.831	1.00	56.42	C	
	ANISOU	2249	CA	MET	B	102	9967	7229	4240	1649	821	-532	C
	ATOM	2250	C	MET	B	102	-30.902	-33.522	2.219	1.00	60.34	C	
	ANISOU	2250	C	MET	B	102	10641	7817	4468	1698	709	-324	C
15	ATOM	2251	O	MET	B	102	-32.055	-33.204	2.508	1.00	59.19	O	
	ANISOU	2251	O	MET	B	102	10438	7688	4362	1694	400	-285	O
	ATOM	2252	CB	MET	B	102	-30.675	-35.982	2.008	1.00	62.67	C	
	ANISOU	2252	CB	MET	B	102	10934	8059	4819	1687	694	-819	C
	ATOM	2253	CG	MET	B	102	-29.734	-37.167	2.138	1.00	67.57	C	
	ANISOU	2253	CG	MET	B	102	11493	8587	5592	1688	915	-1021	C
20	ATOM	2254	SD	MET	B	102	-30.371	-38.617	1.279	1.00	138.04	S	
	ANISOU	2254	SD	MET	B	102	20578	17513	14358	1691	711	-1374	S
	ATOM	2255	CE	MET	B	102	-30.888	-37.879	-0.270	1.00	54.72	C	
	ANISOU	2255	CE	MET	B	102	10304	7157	3329	1723	598	-1299	C
	ATOM	2256	N	ASN	B	103	-30.156	-32.818	1.375	1.00	67.10	N	
	ANISOU	2256	N	ASN	B	103	11706	8729	5062	1753	968	-177	N
25	ATOM	2257	CA	ASN	B	103	-30.723	-31.684	0.649	1.00	73.20	C	
	ANISOU	2257	CA	ASN	B	103	12633	9568	5611	1791	854	39	C
	ATOM	2258	C	ASN	B	103	-31.358	-32.117	-0.675	1.00	80.24	C	
	ANISOU	2258	C	ASN	B	103	13732	10588	6169	1833	659	-81	C
	ATOM	2259	O	ASN	B	103	-31.434	-33.312	-0.969	1.00	80.37	O	
	ANISOU	2259	O	ASN	B	103	13772	10631	6134	1823	594	-346	O
30	ATOM	2260	CB	ASN	B	103	-29.677	-30.586	0.432	1.00	75.08	C	
	ANISOU	2260	CB	ASN	B	103	12888	9765	5874	1764	1186	294	C
	ATOM	2261	CG	ASN	B	103	-28.409	-31.102	-0.225	1.00	78.99	C	
	ANISOU	2261	CG	ASN	B	103	13410	10280	6324	1740	1522	218	C
	ATOM	2262	OD1	ASN	B	103	-28.414	-32.125	-0.914	1.00	82.02	O	
	ANISOU	2262	OD1	ASN	B	103	13881	10731	6550	1764	1494	0	O
35	ATOM	2263	ND2	ASN	B	103	-27.309	-30.392	-0.011	1.00	79.04	N	
	ANISOU	2263	ND2	ASN	B	103	13323	10220	6489	1684	1840	392	N
	ATOM	2264	N	ARG	B	104	-31.812	-31.148	-1.468	1.00	86.41	N	
	ANISOU	2264	N	ARG	B	104	14656	11438	6737	1875	565	112	N
	ATOM	2265	CA	ARG	B	104	-32.439	-31.441	-2.757	1.00	93.36	C	
	ANISOU	2265	CA	ARG	B	104	15734	12459	7278	1914	370	23	C
40	ATOM	2266	C	ARG	B	104	-31.443	-32.106	-3.707	1.00	96.10	C	
	ANISOU	2266	C	ARG	B	104	16222	12862	7430	1903	644	-107	C
	ATOM	2267	O	ARG	B	104	-31.834	-32.811	-4.640	1.00	99.80	O	
	ANISOU	2267	O	ARG	B	104	16835	13440	7644	1917	504	-290	O
	ATOM	2268	CB	ARG	B	104	-32.995	-30.165	-3.403	1.00	98.16	C	
	ANISOU	2268	CB	ARG	B	104	16462	13123	7714	1969	255	292	C
45	ATOM	2269	CG	ARG	B	104	-33.843	-29.278	-2.489	1.00	98.45	C	
	ANISOU	2269	CG	ARG	B	104	16347	13084	7977	1993	45	465	C
	ATOM	2270	CD	ARG	B	104	-35.099	-29.983	-1.986	1.00	98.94	C	
	ANISOU	2270	CD	ARG	B	104	16274	13181	8139	1999	-351	279	C
	ATOM	2271	NE	ARG	B	104	-35.968	-29.081	-1.229	1.00	98.23	N	
	ANISOU	2271	NE	ARG	B	104	16030	13035	8257	2036	-551	451	N
50	ATOM	2272	CZ	ARG	B	104	-37.003	-29.477	-0.492	1.00	98.26	C	
	ANISOU	2272	CZ	ARG	B	104	15844	13041	8449	2034	-854	340	C
	ATOM	2273	NH1	ARG	B	104	-37.300	-30.767	-0.395	1.00	97.93	N	
	ANISOU	2273	NH1	ARG	B	104	15748	13042	8417	1984	-1002	55	N
	ATOM	2274	NH2	ARG	B	104	-37.737	-28.584	0.163	1.00	97.55	N	
													N

	ANISOU	2274	NH2	ARG	B	104	15601	12898	8565	2076	-998	507	N
	ATOM	2275	N	ASN	B	105	-30.156	-31.878	-3.455	1.00	93.13		N
	ANISOU	2275	N	ASN	B	105	15783	12412	7189	1872	1033	-16	N
	ATOM	2276	CA	ASN	B	105	-29.086	-32.405	-4.298	1.00	92.78		C
5	ANISOU	2276	CA	ASN	B	105	15833	12417	7004	1867	1339	-112	C
	ATOM	2277	C	ASN	B	105	-28.664	-33.828	-3.940	1.00	85.79		C
	ANISOU	2277	C	ASN	B	105	14839	11485	6273	1845	1409	-418	C
	ATOM	2278	O	ASN	B	105	-27.911	-34.466	-4.679	1.00	86.95		O
	ANISOU	2278	O	ASN	B	105	15060	11677	6302	1854	1622	-554	O
10	ATOM	2279	CB	ASN	B	105	-27.872	-31.474	-4.258	1.00	94.27		C
	ANISOU	2279	CB	ASN	B	105	15971	12551	7295	1836	1726	133	C
	ATOM	2280	CG	ASN	B	105	-28.115	-30.167	-4.987	1.00	97.45		C
	ANISOU	2280	CG	ASN	B	105	16540	13002	7485	1858	1716	417	C
	ATOM	2281	OD1	ASN	B	105	-29.254	-29.816	-5.295	1.00	98.26		O
15	ANISOU	2281	OD1	ASN	B	105	16753	13163	7420	1905	1397	468	O
	ATOM	2282	ND2	ASN	B	105	-27.041	-29.440	-5.270	1.00	99.51		N
	ANISOU	2282	ND2	ASN	B	105	16803	13234	7773	1823	2062	608	N
	ATOM	2283	N	GLY	B	106	-29.145	-34.317	-2.802	1.00	78.83		N
	ANISOU	2283	N	GLY	B	106	13778	10507	5666	1822	1236	-523	N
20	ATOM	2284	CA	GLY	B	106	-28.832	-35.664	-2.361	1.00	76.70		C
	ANISOU	2284	CA	GLY	B	106	13392	10160	5589	1802	1275	-802	C
	ATOM	2285	C	GLY	B	106	-27.622	-35.747	-1.449	1.00	74.03		C
	ANISOU	2285	C	GLY	B	106	12826	9707	5596	1777	1596	-753	C
	ATOM	2286	O	GLY	B	106	-27.223	-36.833	-1.037	1.00	71.90		O
25	ANISOU	2286	O	GLY	B	106	12432	9356	5531	1770	1660	-956	O
	ATOM	2287	N	LYS	B	107	-27.031	-34.599	-1.136	1.00	75.49		N
	ANISOU	2287	N	LYS	B	107	12940	9875	5866	1758	1789	-482	N
	ATOM	2288	CA	LYS	B	107	-25.889	-34.561	-0.233	1.00	76.85		C
	ANISOU	2288	CA	LYS	B	107	12863	9950	6389	1718	2070	-417	C
30	ATOM	2289	C	LYS	B	107	-26.339	-34.763	1.213	1.00	70.53		C
	ANISOU	2289	C	LYS	B	107	11856	9043	5897	1693	1910	-445	C
	ATOM	2290	O	LYS	B	107	-27.364	-34.233	1.639	1.00	65.71		O
	ANISOU	2290	O	LYS	B	107	11282	8436	5250	1695	1661	-369	O
	ATOM	2291	CB	LYS	B	107	-25.127	-33.239	-0.364	1.00	81.47		C
35	ANISOU	2291	CB	LYS	B	107	13427	10540	6989	1679	2316	-126	C
	ATOM	2292	CG	LYS	B	107	-23.802	-33.218	0.394	1.00	81.92		C
	ANISOU	2292	CG	LYS	B	107	13207	10516	7404	1623	2616	-72	C
	ATOM	2293	CD	LYS	B	107	-23.240	-31.809	0.534	1.00	81.67		C
	ANISOU	2293	CD	LYS	B	107	13119	10454	7459	1551	2796	217	C
40	ATOM	2294	CE	LYS	B	107	-24.106	-30.950	1.447	1.00	76.65		C
	ANISOU	2294	CE	LYS	B	107	12454	9753	6917	1522	2587	362	C
	ATOM	2295	NZ	LYS	B	107	-23.452	-29.653	1.778	1.00	74.48		N
	ANISOU	2295	NZ	LYS	B	107	12078	9405	6816	1429	2770	615	N
	ATOM	2296	N	GLU	B	108	-25.559	-35.531	1.963	1.00	69.71		N
45	ANISOU	2296	N	GLU	B	108	11528	8851	6106	1677	2052	-547	N
	ATOM	2297	CA	GLU	B	108	-25.901	-35.847	3.338	1.00	66.17		C
	ANISOU	2297	CA	GLU	B	108	10877	8301	5965	1658	1919	-586	C
	ATOM	2298	C	GLU	B	108	-25.096	-34.993	4.319	1.00	63.34		C
	ANISOU	2298	C	GLU	B	108	10255	7892	5920	1581	2075	-372	C
50	ATOM	2299	O	GLU	B	108	-23.901	-34.774	4.128	1.00	67.05		O
	ANISOU	2299	O	GLU	B	108	10646	8367	6464	1574	2379	-300	O
	ATOM	2300	CB	GLU	B	108	-25.682	-37.331	3.602	1.00	69.10		C
	ANISOU	2300	CB	GLU	B	108	11140	8586	6530	1677	1900	-832	C
	ATOM	2301	CG	GLU	B	108	-26.367	-37.837	4.854	1.00	74.83		C
55	ANISOU	2301	CG	GLU	B	108	11652	9208	7572	1616	1636	-875	C
	ATOM	2302	CD	GLU	B	108	-26.900	-39.243	4.678	1.00	82.48		C
	ANISOU	2302	CD	GLU	B	108	12685	10101	8553	1642	1482	-1146	C
	ATOM	2303	OE1	GLU	B	108	-27.365	-39.562	3.559	1.00	86.36		O
	ANISOU	2303	OE1	GLU	B	108	13443	10651	8717	1691	1422	-1303	O

5	ATOM	2304	OE2	GLU	B	108	-26.847	-40.027	5.650	1.00	82.90	O	
	ANISOU	2304	OE2	GLU	B	108	12527	10031	8939	1609	1416	-1198	O
	ATOM	2305	N	THR	B	109	-25.767	-34.513	5.363	1.00	55.72	N	
	ANISOU	2305	N	THR	B	109	9125	6881	5166	1501	1837	-276	N
	ATOM	2306	CA	THR	B	109	-25.174	-33.593	6.324	1.00	39.63	C	
	ANISOU	2306	CA	THR	B	109	6862	4796	3402	1413	1926	-88	C
	ATOM	2307	C	THR	B	109	-25.570	-34.012	7.732	1.00	40.32	C	
	ANISOU	2307	C	THR	B	109	6693	4810	3816	1350	1706	-128	C
10	ATOM	2308	O	THR	B	109	-26.741	-34.262	8.003	1.00	39.39	O	
	ANISOU	2308	O	THR	B	109	6601	4688	3677	1346	1428	-186	O
	ATOM	2309	CB	THR	B	109	-25.664	-32.155	6.081	1.00	46.09	C	
	ANISOU	2309	CB	THR	B	109	7804	5634	4074	1384	1880	122	C
15	ATOM	2310	OG1	THR	B	109	-25.463	-31.801	4.704	1.00	53.13	O	
	ANISOU	2310	OG1	THR	B	109	8980	6603	4606	1453	2057	178	O
	ATOM	2311	CG2	THR	B	109	-24.926	-31.178	6.974	1.00	42.17	C	
	ANISOU	2311	CG2	THR	B	109	7096	5070	3856	1282	2005	292	C
20	ATOM	2312	N	LYS	B	110	-24.591	-34.103	8.624	1.00	39.70	N	
	ANISOU	2312	N	LYS	B	110	6363	4684	4036	1302	1831	-94	N
	ATOM	2313	CA	LYS	B	110	-24.832	-34.543	9.992	1.00	33.46	C	
	ANISOU	2313	CA	LYS	B	110	5340	3836	3535	1249	1646	-118	C
	ATOM	2314	C	LYS	B	110	-24.616	-33.399	10.968	1.00	33.50	C	
	ANISOU	2314	C	LYS	B	110	5186	3827	3717	1149	1628	42	C
	ATOM	2315	O	LYS	B	110	-23.727	-32.568	10.768	1.00	33.69	O	
	ANISOU	2315	O	LYS	B	110	5177	3855	3767	1109	1832	151	O
25	ATOM	2316	CB	LYS	B	110	-23.909	-35.702	10.354	1.00	34.11	C	
	ANISOU	2316	CB	LYS	B	110	5256	3875	3830	1288	1756	-220	C
	ATOM	2317	CG	LYS	B	110	-24.144	-36.980	9.556	1.00	41.57	C	
	ANISOU	2317	CG	LYS	B	110	6347	4796	4654	1385	1758	-416	C
30	ATOM	2318	CD	LYS	B	110	-23.062	-38.008	9.860	1.00	48.53	C	
	ANISOU	2318	CD	LYS	B	110	7057	5613	5769	1447	1915	-494	C
	ATOM	2319	CE	LYS	B	110	-23.357	-39.359	9.219	1.00	55.84	C	
	ANISOU	2319	CE	LYS	B	110	8124	6470	6622	1541	1898	-712	C
35	ATOM	2320	NZ	LYS	B	110	-24.589	-39.983	9.777	1.00	56.77	N	
	ANISOU	2320	NZ	LYS	B	110	8260	6520	6791	1497	1592	-782	N
	ATOM	2321	N	SER	B	111	-25.445	-33.358	12.013	1.00	29.64	N	
	ANISOU	2321	N	SER	B	111	4602	3314	3346	1102	1393	47	N
40	ATOM	2322	CA	SER	B	111	-25.316	-32.383	13.085	1.00	31.79	C	
	ANISOU	2322	CA	SER	B	111	4727	3565	3788	1010	1350	159	C
	ATOM	2323	C	SER	B	111	-25.214	-33.139	14.400	1.00	32.79	C	
	ANISOU	2323	C	SER	B	111	4638	3674	4147	979	1231	113	C
	ATOM	2324	O	SER	B	111	-25.991	-34.048	14.654	1.00	38.41	O	
	ANISOU	2324	O	SER	B	111	5356	4375	4861	1010	1078	33	O
	ATOM	2325	CB	SER	B	111	-26.526	-31.446	13.123	1.00	29.65	C	
	ANISOU	2325	CB	SER	B	111	4571	3289	3404	998	1186	221	C
45	ATOM	2326	OG	SER	B	111	-26.706	-30.780	11.885	1.00	36.48	O	
	ANISOU	2326	OG	SER	B	111	5658	4171	4031	1044	1268	285	O
	ATOM	2327	N	ASN	B	112	-24.257	-32.759	15.235	1.00	29.87	N	
	ANISOU	2327	N	ASN	B	112	4078	3300	3972	912	1295	171	N
50	ATOM	2328	CA	ASN	B	112	-23.974	-33.494	16.460	1.00	29.52	C	
	ANISOU	2328	CA	ASN	B	112	3833	3253	4130	894	1191	149	C
	ATOM	2329	C	ASN	B	112	-23.846	-32.528	17.630	1.00	29.49	C	
	ANISOU	2329	C	ASN	B	112	3705	3258	4241	791	1110	217	C
55	ATOM	2330	O	ASN	B	112	-22.952	-31.688	17.643	1.00	33.41	O	
	ANISOU	2330	O	ASN	B	112	4125	3754	4815	723	1225	270	O
	ATOM	2331	CB	ASN	B	112	-22.684	-34.310	16.297	1.00	31.68	C	
	ANISOU	2331	CB	ASN	B	112	3965	3526	4544	942	1345	123	C
	ATOM	2332	CG	ASN	B	112	-22.508	-35.358	17.387	1.00	37.33	C	
	ANISOU	2332	CG	ASN	B	112	4513	4230	5443	966	1219	104	C
	ATOM	2333	OD1	ASN	B	112	-23.481	-35.938	17.874	1.00	37.56	O	

	ANISOU	2333	OD1	ASN	B	112	4590	4235	5447	977	1052	78	O
	ATOM	2334	ND2	ASN	B	112	-21.263	-35.604	17.776	1.00	40.38		N
	ANISOU	2334	ND2	ASN	B	112	4691	4630	6021	977	1301	132	N
	ATOM	2335	N	TYR	B	113	-24.749	-32.638	18.600	1.00	27.85		N
5	ANISOU	2335	N	TYR	B	113	3482	3056	4043	772	922	208	N
	ATOM	2336	CA	TYR	B	113	-24.771	-31.720	19.732	1.00	28.35		C
	ANISOU	2336	CA	TYR	B	113	3464	3131	4176	682	838	245	C
	ATOM	2337	C	TYR	B	113	-24.615	-32.454	21.054	1.00	30.18		C
	ANISOU	2337	C	TYR	B	113	3543	3401	4522	669	709	240	C
10	ATOM	2338	O	TYR	B	113	-25.277	-33.471	21.294	1.00	29.49		O
	ANISOU	2338	O	TYR	B	113	3470	3314	4419	721	622	221	O
	ATOM	2339	CB	TYR	B	113	-26.089	-30.943	19.769	1.00	27.51		C
	ANISOU	2339	CB	TYR	B	113	3496	3006	3950	678	745	248	C
	ATOM	2340	CG	TYR	B	113	-26.365	-30.106	18.544	1.00	29.62		C
15	ANISOU	2340	CG	TYR	B	113	3933	3233	4087	703	838	283	C
	ATOM	2341	CD1	TYR	B	113	-25.838	-28.829	18.418	1.00	23.24		C
	ANISOU	2341	CD1	TYR	B	113	3147	2375	3307	636	936	343	C
	ATOM	2342	CD2	TYR	B	113	-27.166	-30.592	17.518	1.00	25.33		C
	ANISOU	2342	CD2	TYR	B	113	3536	2697	3390	788	817	259	C
20	ATOM	2343	CE1	TYR	B	113	-26.094	-28.061	17.297	1.00	25.57		C
	ANISOU	2343	CE1	TYR	B	113	3616	2623	3475	666	1027	406	C
	ATOM	2344	CE2	TYR	B	113	-27.428	-29.835	16.401	1.00	27.78		C
	ANISOU	2344	CE2	TYR	B	113	4020	2986	3551	823	884	309	C
	ATOM	2345	CZ	TYR	B	113	-26.894	-28.571	16.293	1.00	29.25		C
25	ANISOU	2345	CZ	TYR	B	113	4235	3117	3760	768	995	396	C
	ATOM	2346	OH	TYR	B	113	-27.172	-27.829	15.168	1.00	32.88		O
	ANISOU	2346	OH	TYR	B	113	4887	3548	4060	813	1065	475	O
	ATOM	2347	N	ARG	B	114	-23.746	-31.930	21.912	1.00	30.45		N
	ANISOU	2347	N	ARG	B	114	3435	3466	4668	593	691	262	N
30	ATOM	2348	CA	ARG	B	114	-23.633	-32.411	23.285	1.00	30.74		C
	ANISOU	2348	CA	ARG	B	114	3349	3559	4772	574	544	272	C
	ATOM	2349	C	ARG	B	114	-24.318	-31.359	24.167	1.00	29.39		C
	ANISOU	2349	C	ARG	B	114	3231	3403	4532	498	450	254	C
	ATOM	2350	O	ARG	B	114	-23.857	-30.226	24.271	1.00	32.64		O
35	ANISOU	2350	O	ARG	B	114	3627	3797	4976	412	480	239	O
	ATOM	2351	CB	ARG	B	114	-22.154	-32.626	23.658	1.00	31.78		C
	ANISOU	2351	CB	ARG	B	114	3273	3732	5071	552	560	295	C
	ATOM	2352	CG	ARG	B	114	-21.860	-33.034	25.114	1.00	33.10		C
	ANISOU	2352	CG	ARG	B	114	3307	3976	5292	536	384	323	C
40	ATOM	2353	CD	ARG	B	114	-22.474	-34.372	25.495	1.00	38.04		C
	ANISOU	2353	CD	ARG	B	114	3963	4600	5891	631	304	361	C
	ATOM	2354	NE	ARG	B	114	-22.184	-34.741	26.887	1.00	45.10		N
	ANISOU	2354	NE	ARG	B	114	4754	5574	6807	623	140	417	N
	ATOM	2355	CZ	ARG	B	114	-23.011	-34.539	27.918	1.00	43.19		C
45	ANISOU	2355	CZ	ARG	B	114	4589	5384	6439	585	25	427	C
	ATOM	2356	NH1	ARG	B	114	-24.201	-33.972	27.734	1.00	35.46		N
	ANISOU	2356	NH1	ARG	B	114	3762	4376	5334	557	58	381	N
	ATOM	2357	NH2	ARG	B	114	-22.650	-34.910	29.141	1.00	42.75		N
	ANISOU	2357	NH2	ARG	B	114	4453	5415	6375	586	-120	489	N
50	ATOM	2358	N	VAL	B	115	-25.447	-31.728	24.760	1.00	27.08		N
	ANISOU	2358	N	VAL	B	115	3004	3129	4154	527	352	250	N
	ATOM	2359	CA	VAL	B	115	-26.247	-30.794	25.544	1.00	24.78		C
	ANISOU	2359	CA	VAL	B	115	2778	2851	3787	480	289	220	C
	ATOM	2360	C	VAL	B	115	-26.034	-30.989	27.043	1.00	23.57		C
55	ANISOU	2360	C	VAL	B	115	2543	2785	3628	441	170	221	C
	ATOM	2361	O	VAL	B	115	-26.273	-32.072	27.577	1.00	23.93		O
	ANISOU	2361	O	VAL	B	115	2556	2876	3661	484	109	269	O
	ATOM	2362	CB	VAL	B	115	-27.757	-30.935	25.225	1.00	20.46		C
	ANISOU	2362	CB	VAL	B	115	2348	2281	3143	540	277	212	C

5	ATOM	2363	CG1	VAL	B	115	-28.590	-30.060	26.156	1.00	18.96		C
	ANISOU	2363	CG1	VAL	B	115	2203	2111	2891	513	229	177	C
	ATOM	2364	CG2	VAL	B	115	-28.029	-30.591	23.758	1.00	19.17		C
	ANISOU	2364	CG2	VAL	B	115	2290	2048	2944	582	363	211	C
	ATOM	2365	N	ARG	B	116	-25.583	-29.931	27.708	1.00	23.19		N
	ANISOU	2365	N	ARG	B	116	2476	2752	3583	355	137	170	N
10	ATOM	2366	CA	ARG	B	116	-25.419	-29.926	29.161	1.00	28.18		C
	ANISOU	2366	CA	ARG	B	116	3064	3483	4162	312	9	150	C
	ATOM	2367	C	ARG	B	116	-26.342	-28.860	29.725	1.00	29.27		C
	ANISOU	2367	C	ARG	B	116	3322	3605	4194	281	7	67	C
	ATOM	2368	O	ARG	B	116	-26.416	-27.748	29.186	1.00	28.21		O
	ANISOU	2368	O	ARG	B	116	3252	3374	4093	245	76	10	O
15	ATOM	2369	CB	ARG	B	116	-23.974	-29.609	29.546	1.00	33.07		C
	ANISOU	2369	CB	ARG	B	116	3540	4142	4882	227	-54	130	C
	ATOM	2370	CG	ARG	B	116	-22.942	-30.452	28.810	1.00	41.06		C
	ANISOU	2370	CG	ARG	B	116	4409	5152	6041	267	-12	201	C
	ATOM	2371	CD	ARG	B	116	-21.515	-29.946	29.020	1.00	43.67		C
	ANISOU	2371	CD	ARG	B	116	4563	5514	6515	172	-53	174	C
20	ATOM	2372	NE	ARG	B	116	-20.579	-30.581	28.089	1.00	45.41		N
	ANISOU	2372	NE	ARG	B	116	4642	5712	6897	219	47	232	N
	ATOM	2373	CZ	ARG	B	116	-20.024	-31.774	28.285	1.00	47.47		C
	ANISOU	2373	CZ	ARG	B	116	4773	6031	7232	309	-7	305	C
	ATOM	2374	NH1	ARG	B	116	-20.306	-32.463	29.382	1.00	48.61		N
	ANISOU	2374	NH1	ARG	B	116	4920	6258	7294	353	-170	350	N
25	ATOM	2375	NH2	ARG	B	116	-19.185	-32.277	27.391	1.00	47.60		N
	ANISOU	2375	NH2	ARG	B	116	4663	6017	7405	363	113	340	N
	ATOM	2376	N	VAL	B	117	-27.057	-29.190	30.796	1.00	27.40		N
	ANISOU	2376	N	VAL	B	117	3123	3453	3834	303	-56	65	N
	ATOM	2377	CA	VAL	B	117	-28.022	-28.247	31.338	1.00	28.00		C
	ANISOU	2377	CA	VAL	B	117	3311	3517	3810	297	-31	-24	C
30	ATOM	2378	C	VAL	B	117	-27.546	-27.647	32.637	1.00	23.28		C
	ANISOU	2378	C	VAL	B	117	2724	2998	3122	221	-124	-117	C
	ATOM	2379	O	VAL	B	117	-26.681	-28.196	33.303	1.00	25.81		O
	ANISOU	2379	O	VAL	B	117	2963	3420	3422	187	-236	-86	O
	ATOM	2380	CB	VAL	B	117	-29.414	-28.868	31.520	1.00	30.44		C
	ANISOU	2380	CB	VAL	B	117	3670	3859	4036	380	10	22	C
35	ATOM	2381	CG1	VAL	B	117	-29.796	-29.645	30.264	1.00	29.00		C
	ANISOU	2381	CG1	VAL	B	117	3467	3613	3940	443	62	101	C
	ATOM	2382	CG2	VAL	B	117	-29.448	-29.761	32.753	1.00	29.67		C
	ANISOU	2382	CG2	VAL	B	117	3549	3897	3826	381	-59	79	C
	ATOM	2383	N	TYR	B	118	-28.103	-26.500	32.993	1.00	24.24		N
	ANISOU	2383	N	TYR	B	118	2950	3068	3190	201	-87	-240	N
40	ATOM	2384	CA	TYR	B	118	-27.639	-25.817	34.186	1.00	26.34		C
	ANISOU	2384	CA	TYR	B	118	3253	3397	3360	118	-178	-370	C
	ATOM	2385	C	TYR	B	118	-28.728	-24.940	34.756	1.00	27.57		C
	ANISOU	2385	C	TYR	B	118	3549	3519	3406	152	-105	-494	C
	ATOM	2386	O	TYR	B	118	-29.716	-24.637	34.087	1.00	28.55		O
	ANISOU	2386	O	TYR	B	118	3724	3545	3578	232	14	-482	O
45	ATOM	2387	CB	TYR	B	118	-26.395	-24.975	33.878	1.00	28.29		C
	ANISOU	2387	CB	TYR	B	118	3440	3559	3749	-5	-228	-448	C
	ATOM	2388	CG	TYR	B	118	-26.689	-23.697	33.123	1.00	32.08		C
	ANISOU	2388	CG	TYR	B	118	4007	3841	4341	-29	-114	-529	C
	ATOM	2389	CD1	TYR	B	118	-26.839	-22.489	33.796	1.00	33.71		C
	ANISOU	2389	CD1	TYR	B	118	4323	3972	4515	-90	-121	-705	C
50	ATOM	2390	CD2	TYR	B	118	-26.831	-23.701	31.741	1.00	34.49		C
	ANISOU	2390	CD2	TYR	B	118	4304	4026	4774	18	1	-427	C
	ATOM	2391	CE1	TYR	B	118	-27.116	-21.320	33.113	1.00	34.52		C
	ANISOU	2391	CE1	TYR	B	118	4515	3862	4738	-100	-13	-762	C
	ATOM	2392	CE2	TYR	B	118	-27.102	-22.534	31.046	1.00	35.57		C
													C

	ANISOU	2392	CE2	TYR	B	118	4536	3975	5004	8	102	-468	C
	ATOM	2393	CZ	TYR	B	118	-27.243	-21.349	31.739	1.00	36.38		C
	ANISOU	2393	CZ	TYR	B	118	4738	3984	5101	-49	96	-628	C
	ATOM	2394	OH	TYR	B	118	-27.515	-20.189	31.054	1.00	38.00		O
5	ANISOU	2394	OH	TYR	B	118	5046	3972	5419	-49	199	-653	O
	ATOM	2395	N	GLN	B	119	-28.542	-24.537	36.002	1.00	26.53		N
	ANISOU	2395	N	GLN	B	119	4013	3168	2898	375	88	272	N
	ATOM	2396	CA	GLN	B	119	-29.395	-23.528	36.603	1.00	28.61		C
	ANISOU	2396	CA	GLN	B	119	4359	3233	3277	484	-18	344	C
10	ATOM	2397	C	GLN	B	119	-28.573	-22.678	37.561	1.00	28.60		C
	ANISOU	2397	C	GLN	B	119	4398	3151	3318	387	90	356	C
	ATOM	2398	O	GLN	B	119	-27.670	-23.172	38.245	1.00	27.66		O
	ANISOU	2398	O	GLN	B	119	4139	3141	3229	309	234	272	O
	ATOM	2399	CB	GLN	B	119	-30.593	-24.158	37.323	1.00	25.81		C
15	ANISOU	2399	CB	GLN	B	119	3809	2880	3119	671	-95	258	C
	ATOM	2400	CG	GLN	B	119	-31.604	-23.142	37.863	1.00	26.67		C
	ANISOU	2400	CG	GLN	B	119	3954	2830	3351	823	-218	269	C
	ATOM	2401	CD	GLN	B	119	-32.180	-22.252	36.772	1.00	31.75		C
	ANISOU	2401	CD	GLN	B	119	4826	3335	3904	896	-418	373	C
20	ATOM	2402	OE1	GLN	B	119	-31.591	-21.228	36.400	1.00	31.52		O
	ANISOU	2402	OE1	GLN	B	119	5051	3160	3764	802	-444	494	O
	ATOM	2403	NE2	GLN	B	119	-33.335	-22.642	36.247	1.00	32.33		N
	ANISOU	2403	NE2	GLN	B	119	4823	3445	4015	1052	-579	331	N
	ATOM	2404	N	ILE	B	120	-28.884	-21.392	37.592	1.00	29.72		N
25	ANISOU	2404	N	ILE	B	120	4741	3086	3465	402	-5	450	N
	ATOM	2405	CA	ILE	B	120	-28.157	-20.451	38.421	1.00	31.01		C
	ANISOU	2405	CA	ILE	B	120	4978	3139	3667	299	73	458	C
	ATOM	2406	C	ILE	B	120	-28.832	-20.331	39.782	1.00	29.54		C
	ANISOU	2406	C	ILE	B	120	4636	2891	3696	475	52	350	C
30	ATOM	2407	O	ILE	B	120	-30.012	-19.991	39.862	1.00	35.34		O
	ANISOU	2407	O	ILE	B	120	5374	3518	4534	672	-100	329	O
	ATOM	2408	CB	ILE	B	120	-28.117	-19.067	37.745	1.00	35.09		C
	ANISOU	2408	CB	ILE	B	120	5840	3417	4077	207	-45	616	C
	ATOM	2409	CG1	ILE	B	120	-27.485	-19.172	36.352	1.00	35.79		C
35	ANISOU	2409	CG1	ILE	B	120	6100	3604	3895	-16	-12	734	C
	ATOM	2410	CG2	ILE	B	120	-27.378	-18.057	38.612	1.00	33.60		C
	ANISOU	2410	CG2	ILE	B	120	5741	3084	3941	82	23	611	C
	ATOM	2411	CD1	ILE	B	120	-27.379	-17.826	35.625	1.00	37.29		C
	ANISOU	2411	CD1	ILE	B	120	6694	3544	3931	-172	-138	937	C
40	ATOM	2412	N	PRO	B	121	-28.089	-20.600	40.863	1.00	26.38		N
	ANISOU	2412	N	PRO	B	121	4088	2583	3352	406	200	261	N
	ATOM	2413	CA	PRO	B	121	-28.696	-20.444	42.190	1.00	25.87		C
	ANISOU	2413	CA	PRO	B	121	3889	2493	3448	539	197	154	C
	ATOM	2414	C	PRO	B	121	-28.972	-18.971	42.485	1.00	27.99		C
45	ANISOU	2414	C	PRO	B	121	4331	2523	3780	592	101	155	C
	ATOM	2415	O	PRO	B	121	-28.476	-18.087	41.784	1.00	30.12		O
	ANISOU	2415	O	PRO	B	121	4851	2626	3966	478	51	264	O
	ATOM	2416	CB	PRO	B	121	-27.608	-20.964	43.130	1.00	24.03		C
	ANISOU	2416	CB	PRO	B	121	3520	2402	3210	417	356	86	C
50	ATOM	2417	CG	PRO	B	121	-26.327	-20.654	42.407	1.00	25.51		C
	ANISOU	2417	CG	PRO	B	121	3827	2602	3263	211	430	144	C
	ATOM	2418	CD	PRO	B	121	-26.646	-20.893	40.946	1.00	28.69		C
	ANISOU	2418	CD	PRO	B	121	4338	3009	3552	201	362	239	C
	ATOM	2419	N	GLY	B	122	-29.772	-18.705	43.508	1.00	27.25		N
55	ANISOU	2419	N	GLY	B	122	4116	2411	3828	754	68	24	N
	ATOM	2420	CA	GLY	B	122	-29.954	-17.340	43.957	1.00	29.11		C
	ANISOU	2420	CA	GLY	B	122	4494	2417	4150	828	-26	-31	C
	ATOM	2421	C	GLY	B	122	-28.668	-16.883	44.622	1.00	36.40		C
	ANISOU	2421	C	GLY	B	122	5478	3317	5035	625	105	-38	C

5	ATOM	2422	O	GLY	B	122	-27.772	-17.691	44.875	1.00	35.17	O	
	ANISOU	2422	O	GLY	B	122	5201	3356	4804	473	261	-31	O
	ATOM	2423	N	LYS	B	123	-28.574	-15.589	44.894	1.00	39.54	N	
	ANISOU	2423	N	LYS	B	123	6064	3466	5496	632	19	-68	N
	ATOM	2424	CA	LYS	B	123	-27.410	-15.005	45.545	1.00	42.30	C	
	ANISOU	2424	CA	LYS	B	123	6478	3771	5822	430	123	-97	C
	ATOM	2425	C	LYS	B	123	-27.056	-15.789	46.807	1.00	40.33	C	
	ANISOU	2425	C	LYS	B	123	5946	3793	5584	414	289	-238	C
10	ATOM	2426	O	LYS	B	123	-27.937	-16.135	47.587	1.00	41.80	O	
	ANISOU	2426	O	LYS	B	123	5948	4091	5845	590	286	-368	O
	ATOM	2427	CB	LYS	B	123	-27.709	-13.547	45.893	1.00	48.31	C	
	ANISOU	2427	CB	LYS	B	123	7450	4205	6700	512	-31	-169	C
15	ATOM	2428	CG	LYS	B	123	-26.483	-12.687	46.056	1.00	55.49	C	
	ANISOU	2428	CG	LYS	B	123	8553	4966	7566	241	21	-134	C
	ATOM	2429	CD	LYS	B	123	-26.851	-11.248	46.346	1.00	62.46	C	
	ANISOU	2429	CD	LYS	B	123	9683	5466	8583	336	-172	-209	C
	ATOM	2430	CE	LYS	B	123	-25.600	-10.407	46.509	1.00	67.13	C	
	ANISOU	2430	CE	LYS	B	123	10475	5905	9128	16	-116	-173	C
	ATOM	2431	NZ	LYS	B	123	-24.646	-11.062	47.446	1.00	66.46	N	
	ANISOU	2431	NZ	LYS	B	123	10110	6150	8993	-138	120	-290	N
20	ATOM	2432	N	PRO	B	124	-25.764	-16.094	47.002	1.00	36.72	N	
	ANISOU	2432	N	PRO	B	124	5449	3464	5039	193	426	-219	N
	ATOM	2433	CA	PRO	B	124	-25.366	-16.835	48.204	1.00	33.34	C	
	ANISOU	2433	CA	PRO	B	124	4788	3274	4606	184	540	-336	C
	ATOM	2434	C	PRO	B	124	-25.493	-15.954	49.447	1.00	36.69	C	
	ANISOU	2434	C	PRO	B	124	5204	3629	5107	232	531	-502	C
	ATOM	2435	O	PRO	B	124	-25.411	-14.731	49.341	1.00	39.53	O	
	ANISOU	2435	O	PRO	B	124	5755	3743	5522	204	457	-526	O
30	ATOM	2436	CB	PRO	B	124	-23.901	-17.182	47.929	1.00	30.17	C	
	ANISOU	2436	CB	PRO	B	124	4364	2995	4103	-45	644	-297	C
	ATOM	2437	CG	PRO	B	124	-23.425	-16.091	47.013	1.00	31.35	C	
	ANISOU	2437	CG	PRO	B	124	4761	2936	4214	-218	616	-207	C
	ATOM	2438	CD	PRO	B	124	-24.609	-15.736	46.159	1.00	36.10	C	
	ANISOU	2438	CD	PRO	B	124	5532	3335	4850	-67	473	-106	C
	ATOM	2439	N	GLU	B	125	-25.713	-16.566	50.603	1.00	32.92	N	
	ANISOU	2439	N	GLU	B	125	4529	3358	4622	293	593	-616	N
35	ATOM	2440	CA	GLU	B	125	-25.909	-15.809	51.828	1.00	37.29	C	
	ANISOU	2440	CA	GLU	B	125	5049	3900	5221	345	596	-805	C
	ATOM	2441	C	GLU	B	125	-25.090	-16.400	52.959	1.00	38.32	C	
	ANISOU	2441	C	GLU	B	125	5038	4265	5257	237	693	-870	C
	ATOM	2442	O	GLU	B	125	-24.903	-17.616	53.042	1.00	35.87	O	
	ANISOU	2442	O	GLU	B	125	4611	4150	4867	208	735	-792	O
	ATOM	2443	CB	GLU	B	125	-27.383	-15.823	52.243	1.00	42.86	C	
	ANISOU	2443	CB	GLU	B	125	5642	4654	5989	563	557	-928	C
45	ATOM	2444	CG	GLU	B	125	-28.341	-15.224	51.236	1.00	51.47	C	
	ANISOU	2444	CG	GLU	B	125	6847	5520	7189	731	413	-904	C
	ATOM	2445	CD	GLU	B	125	-29.790	-15.327	51.687	1.00	59.70	C	
	ANISOU	2445	CD	GLU	B	125	7705	6679	8297	953	382	-1079	C
	ATOM	2446	OE1	GLU	B	125	-30.093	-14.922	52.832	1.00	61.48	O	
	ANISOU	2446	OE1	GLU	B	125	7815	7005	8541	1013	424	-1304	O
	ATOM	2447	OE2	GLU	B	125	-30.625	-15.820	50.898	1.00	62.95	O	
	ANISOU	2447	OE2	GLU	B	125	8069	7114	8735	1057	322	-1014	O
50	ATOM	2448	N	ILE	B	126	-24.617	-15.532	53.842	1.00	41.65	N	
	ANISOU	2448	N	ILE	B	126	5486	4649	5690	185	701	-1019	N
	ATOM	2449	CA	ILE	B	126	-23.949	-15.972	55.050	1.00	41.17	C	
	ANISOU	2449	CA	ILE	B	126	5299	4815	5529	105	763	-1107	C
	ATOM	2450	C	ILE	B	126	-24.932	-15.952	56.205	1.00	42.22	C	
	ANISOU	2450	C	ILE	B	126	5323	5089	5630	221	787	-1271	C
	ATOM	2451	O	ILE	B	126	-25.575	-14.939	56.463	1.00	46.58	O	
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	ANISOU	2451	O	ILE	B	126	5911	5520	6267	324	754	-1438	O
	ATOM	2452	CB	ILE	B	126	-22.737	-15.087	55.366	1.00	44.56		C
	ANISOU	2452	CB	ILE	B	126	5801	5166	5966	-55	764	-1195	C
	ATOM	2453	CG1	ILE	B	126	-21.614	-15.389	54.375	1.00	43.75		C
5	ANISOU	2453	CG1	ILE	B	126	5731	5052	5842	-221	783	-1057	C
	ATOM	2454	CG2	ILE	B	126	-22.257	-15.315	56.795	1.00	45.99		C
	ANISOU	2454	CG2	ILE	B	126	5859	5572	6045	-96	795	-1336	C
	ATOM	2455	CD1	ILE	B	126	-20.393	-14.525	54.549	1.00	48.50		C
	ANISOU	2455	CD1	ILE	B	126	6384	5598	6448	-428	797	-1146	C
10	ATOM	2456	N	VAL	B	127	-25.066	-17.090	56.878	1.00	43.40		N
	ANISOU	2456	N	VAL	B	127	5345	5498	5649	197	835	-1230	N
	ATOM	2457	CA	VAL	B	127	-25.905	-17.192	58.068	1.00	44.90		C
	ANISOU	2457	CA	VAL	B	127	5420	5897	5743	238	889	-1380	C
	ATOM	2458	C	VAL	B	127	-25.047	-17.568	59.283	1.00	47.40		C
15	ANISOU	2458	C	VAL	B	127	5703	6419	5889	110	911	-1416	C
	ATOM	2459	O	VAL	B	127	-23.910	-18.025	59.135	1.00	50.57		O
	ANISOU	2459	O	VAL	B	127	6138	6819	6259	21	868	-1305	O
	ATOM	2460	CB	VAL	B	127	-27.038	-18.221	57.859	1.00	44.50		C
	ANISOU	2460	CB	VAL	B	127	5271	5989	5649	282	922	-1290	C
20	ATOM	2461	CG1	VAL	B	127	-27.710	-17.997	56.503	1.00	43.41		C
	ANISOU	2461	CG1	VAL	B	127	5173	5649	5673	407	867	-1224	C
	ATOM	2462	CG2	VAL	B	127	-26.499	-19.635	57.925	1.00	41.73		C
	ANISOU	2462	CG2	VAL	B	127	4919	5765	5173	164	915	-1085	C
	ATOM	2463	N	ASP	B	128	-25.589	-17.358	60.477	1.00	50.26		N
25	ANISOU	2463	N	ASP	B	128	5988	6977	6133	107	967	-1592	N
	ATOM	2464	CA	ASP	B	128	-24.906	-17.682	61.732	1.00	54.14		C
	ANISOU	2464	CA	ASP	B	128	6463	7688	6421	-14	973	-1633	C
	ATOM	2465	C	ASP	B	128	-23.454	-17.217	61.787	1.00	53.29		C
	ANISOU	2465	C	ASP	B	128	6420	7483	6346	-82	901	-1655	C
30	ATOM	2466	O	ASP	B	128	-22.563	-17.993	62.137	1.00	59.22		O
	ANISOU	2466	O	ASP	B	128	7174	8343	6982	-164	842	-1551	O
	ATOM	2467	CB	ASP	B	128	-24.975	-19.186	62.015	1.00	57.16		C
	ANISOU	2467	CB	ASP	B	128	6837	8255	6625	-107	962	-1419	C
	ATOM	2468	CG	ASP	B	128	-26.400	-19.692	62.136	1.00	64.26		C
35	ANISOU	2468	CG	ASP	B	128	7655	9309	7453	-109	1053	-1413	C
	ATOM	2469	OD1	ASP	B	128	-27.213	-19.035	62.825	1.00	66.12		O
	ANISOU	2469	OD1	ASP	B	128	7794	9694	7633	-88	1147	-1642	O
	ATOM	2470	OD2	ASP	B	128	-26.709	-20.742	61.530	1.00	67.45		O
	ANISOU	2470	OD2	ASP	B	128	8076	9695	7859	-136	1031	-1207	O
40	ATOM	2471	N	SER	B	129	-23.214	-15.957	61.442	1.00	45.28		N
	ANISOU	2471	N	SER	B	129	5459	6257	5490	-52	890	-1800	N
	ATOM	2472	CA	SER	B	129	-21.859	-15.419	61.460	1.00	42.03		C
	ANISOU	2472	CA	SER	B	129	5093	5761	5114	-159	837	-1846	C
	ATOM	2473	C	SER	B	129	-21.473	-14.913	62.844	1.00	44.54		C
45	ANISOU	2473	C	SER	B	129	5377	6240	5305	-217	833	-2070	C
	ATOM	2474	O	SER	B	129	-22.298	-14.348	63.564	1.00	46.41		O
	ANISOU	2474	O	SER	B	129	5589	6539	5504	-152	877	-2268	O
	ATOM	2475	CB	SER	B	129	-21.707	-14.300	60.432	1.00	39.44		C
	ANISOU	2475	CB	SER	B	129	4882	5107	4996	-161	816	-1872	C
50	ATOM	2476	OG	SER	B	129	-22.579	-13.228	60.730	1.00	41.73		O
	ANISOU	2476	OG	SER	B	129	5217	5264	5372	-53	813	-2076	O
	ATOM	2477	N	ALA	B	130	-20.215	-15.126	63.213	1.00	43.46		N
	ANISOU	2477	N	ALA	B	130	5220	6195	5098	-330	772	-2066	N
	ATOM	2478	CA	ALA	B	130	-19.713	-14.647	64.491	1.00	45.56		C
55	ANISOU	2478	CA	ALA	B	130	5456	6621	5233	-397	745	-2281	C
	ATOM	2479	C	ALA	B	130	-19.422	-13.157	64.405	1.00	47.06		C
	ANISOU	2479	C	ALA	B	130	5707	6587	5585	-438	743	-2506	C
	ATOM	2480	O	ALA	B	130	-19.018	-12.656	63.358	1.00	49.87		O
	ANISOU	2480	O	ALA	B	130	6135	6691	6124	-490	732	-2444	O

5	ATOM	2481	CB	ALA	B	130	-18.463	-15.410	64.893	1.00	45.28	C	
	ANISOU	2481	CB	ALA	B	130	5366	6761	5076	-483	643	-2213	C
	ATOM	2482	N	SER	B	131	-19.640	-12.443	65.501	1.00	45.44	N	
	ANISOU	2482	N	SER	B	131	5492	6473	5302	-432	748	-2770	N
	ATOM	2483	CA	SER	B	131	-19.302	-11.029	65.541	1.00	46.03	C	
	ANISOU	2483	CA	SER	B	131	5645	6314	5531	-480	717	-3009	C
10	ATOM	2484	C	SER	B	131	-17.990	-10.791	66.297	1.00	43.75	C	
	ANISOU	2484	C	SER	B	131	5313	6153	5157	-646	652	-3145	C
	ATOM	2485	O	SER	B	131	-17.373	-9.733	66.164	1.00	45.99	O	
	ANISOU	2485	O	SER	B	131	5666	6229	5581	-759	613	-3298	O
	ATOM	2486	CB	SER	B	131	-20.446	-10.230	66.157	1.00	44.37	C	
	ANISOU	2486	CB	SER	B	131	5444	6075	5337	-335	748	-3280	C
15	ATOM	2487	OG	SER	B	131	-20.941	-10.893	67.299	1.00	46.84	O	
	ANISOU	2487	OG	SER	B	131	5639	6770	5389	-303	805	-3350	O
	ATOM	2488	N	GLU	B	132	-17.574	-11.774	67.093	1.00	45.83	N	
	ANISOU	2488	N	GLU	B	132	5475	6749	5188	-671	620	-3089	N
	ATOM	2489	CA	GLU	B	132	-16.271	-11.724	67.758	1.00	49.95	C	
	ANISOU	2489	CA	GLU	B	132	5930	7428	5621	-807	524	-3200	C
20	ATOM	2490	C	GLU	B	132	-15.462	-12.995	67.541	1.00	52.81	C	
	ANISOU	2490	C	GLU	B	132	6205	7967	5893	-822	443	-2976	C
	ATOM	2491	O	GLU	B	132	-15.979	-14.105	67.676	1.00	54.48	O	
	ANISOU	2491	O	GLU	B	132	6417	8320	5962	-730	433	-2783	O
	ATOM	2492	CB	GLU	B	132	-16.409	-11.479	69.258	1.00	52.48	C	
	ANISOU	2492	CB	GLU	B	132	6224	8002	5713	-807	499	-3446	C
25	ATOM	2493	CG	GLU	B	132	-16.694	-10.039	69.640	1.00	54.85	C	
	ANISOU	2493	CG	GLU	B	132	6577	8118	6147	-802	515	-3689	C
	ATOM	2494	CD	GLU	B	132	-18.162	-9.723	69.570	1.00	53.80	C	
	ANISOU	2494	CD	GLU	B	132	6485	7888	6068	-635	605	-3713	C
	ATOM	2495	OE1	GLU	B	132	-18.958	-10.666	69.396	1.00	50.31	O	
	ANISOU	2495	OE1	GLU	B	132	6012	7584	5518	-554	673	-3557	O
30	ATOM	2496	OE2	GLU	B	132	-18.521	-8.539	69.687	1.00	57.92	O	
	ANISOU	2496	OE2	GLU	B	132	7064	8198	6743	-581	592	-3893	O
	ATOM	2497	N	LEU	B	133	-14.190	-12.817	67.196	1.00	52.52	N	
	ANISOU	2497	N	LEU	B	133	6091	7918	5948	-945	376	-3021	N
	ATOM	2498	CA	LEU	B	133	-13.245	-13.923	67.135	1.00	49.57	C	
	ANISOU	2498	CA	LEU	B	133	5594	7740	5502	-934	256	-2902	C
35	ATOM	2499	C	LEU	B	133	-12.171	-13.734	68.198	1.00	53.49	C	
	ANISOU	2499	C	LEU	B	133	5985	8463	5874	-1013	116	-3121	C
	ATOM	2500	O	LEU	B	133	-11.856	-12.605	68.590	1.00	52.65	O	
	ANISOU	2500	O	LEU	B	133	5879	8310	5815	-1140	135	-3366	O
	ATOM	2501	CB	LEU	B	133	-12.591	-14.001	65.759	1.00	47.89	C	
	ANISOU	2501	CB	LEU	B	133	5313	7392	5489	-1003	293	-2805	C
40	ATOM	2502	CG	LEU	B	133	-13.515	-14.119	64.549	1.00	46.11	C	
	ANISOU	2502	CG	LEU	B	133	5193	6933	5393	-944	415	-2595	C
	ATOM	2503	CD1	LEU	B	133	-12.697	-14.473	63.328	1.00	44.34	C	
	ANISOU	2503	CD1	LEU	B	133	4872	6684	5291	-1017	431	-2505	C
	ATOM	2504	CD2	LEU	B	133	-14.609	-15.142	64.794	1.00	38.60	C	
	ANISOU	2504	CD2	LEU	B	133	4301	6045	4318	-762	411	-2406	C
45	ATOM	2505	N	THR	B	134	-11.613	-14.842	68.670	1.00	53.54	N	
	ANISOU	2505	N	THR	B	134	5915	8701	5727	-930	-52	-3038	N
	ATOM	2506	CA	THR	B	134	-10.487	-14.776	69.583	1.00	53.76	C	
	ANISOU	2506	CA	THR	B	134	5822	8961	5643	-981	-230	-3239	C
	ATOM	2507	C	THR	B	134	-9.250	-15.309	68.873	1.00	53.69	C	
	ANISOU	2507	C	THR	B	134	5611	9024	5764	-979	-342	-3244	C
50	ATOM	2508	O	THR	B	134	-9.252	-16.431	68.360	1.00	49.94	O	
	ANISOU	2508	O	THR	B	134	5117	8560	5297	-836	-416	-3045	O
	ATOM	2509	CB	THR	B	134	-10.747	-15.581	70.864	1.00	54.24	C	
	ANISOU	2509	CB	THR	B	134	5963	9258	5387	-880	-392	-3176	C
	ATOM	2510	OG1	THR	B	134	-12.066	-15.298	71.344	1.00	55.08	O	
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	ANISOU	2510	OG1	THR	B	134	6232	9334	5362	-877	-246	-3145	O
	ATOM	2511	CG2	THR	B	134	-9.726	-15.226	71.938	1.00	52.37		C
	ANISOU	2511	CG2	THR	B	134	5632	9241	5026	-937	-568	-3412	C
	ATOM	2512	N	ALA	B	135	-8.204	-14.489	68.831	1.00	56.47		N
5	ANISOU	2512	N	ALA	B	135	5802	9431	6222	-1147	-351	-3498	N
	ATOM	2513	CA	ALA	B	135	-6.963	-14.857	68.160	1.00	58.59		C
	ANISOU	2513	CA	ALA	B	135	5818	9826	6617	-1179	-431	-3580	C
	ATOM	2514	C	ALA	B	135	-6.286	-16.010	68.888	1.00	60.28		C
	ANISOU	2514	C	ALA	B	135	5925	10284	6695	-964	-714	-3554	C
10	ATOM	2515	O	ALA	B	135	-6.279	-16.050	70.121	1.00	58.42		O
	ANISOU	2515	O	ALA	B	135	5765	10157	6274	-902	-854	-3573	O
	ATOM	2516	CB	ALA	B	135	-6.025	-13.657	68.078	1.00	59.14		C
	ANISOU	2516	CB	ALA	B	135	5763	9873	6832	-1407	-335	-3770	C
	ATOM	2517	N	GLY	B	136	-5.731	-16.950	68.122	1.00	59.09		N
15	ANISOU	2517	N	GLY	B	136	5613	10202	6636	-842	-808	-3509	N
	ATOM	2518	CA	GLY	B	136	-4.973	-18.051	68.691	1.00	60.67		C
	ANISOU	2518	CA	GLY	B	136	5715	10576	6759	-602	-1110	-3491	C
	ATOM	2519	C	GLY	B	136	-5.769	-19.318	68.953	1.00	61.10		C
	ANISOU	2519	C	GLY	B	136	5970	10597	6648	-380	-1304	-3251	C
20	ATOM	2520	O	GLY	B	136	-5.200	-20.348	69.320	1.00	63.13		O
	ANISOU	2520	O	GLY	B	136	6196	10932	6857	-158	-1593	-3198	O
	ATOM	2521	N	VAL	B	137	-7.086	-19.248	68.772	1.00	57.70		N
	ANISOU	2521	N	VAL	B	137	5794	9958	6170	-416	-1103	-3010	N
	ATOM	2522	CA	VAL	B	137	-7.950	-20.410	68.968	1.00	57.42		C
25	ANISOU	2522	CA	VAL	B	137	5993	9829	5995	-249	-1211	-2701	C
	ATOM	2523	C	VAL	B	137	-8.903	-20.569	67.782	1.00	58.79		C
	ANISOU	2523	C	VAL	B	137	6252	9771	6315	-255	-972	-2498	C
	ATOM	2524	O	VAL	B	137	-9.127	-19.616	67.035	1.00	59.55		O
	ANISOU	2524	O	VAL	B	137	6298	9764	6564	-403	-711	-2571	O
30	ATOM	2525	CB	VAL	B	137	-8.759	-20.301	70.278	1.00	58.96		C
	ANISOU	2525	CB	VAL	B	137	6434	10080	5890	-301	-1239	-2608	C
	ATOM	2526	CG1	VAL	B	137	-7.830	-20.306	71.488	1.00	60.18		C
	ANISOU	2526	CG1	VAL	B	137	6536	10474	5856	-275	-1525	-2779	C
	ATOM	2527	CG2	VAL	B	137	-9.633	-19.056	70.266	1.00	59.28		C
35	ANISOU	2527	CG2	VAL	B	137	6538	10037	5948	-487	-918	-2682	C
	ATOM	2528	N	PRO	B	138	-9.454	-21.780	67.585	1.00	57.23		N
	ANISOU	2528	N	PRO	B	138	6200	9474	6071	-101	-1081	-2241	N
	ATOM	2529	CA	PRO	B	138	-10.368	-21.919	66.446	1.00	53.63		C
	ANISOU	2529	CA	PRO	B	138	5812	8813	5753	-111	-861	-2068	C
40	ATOM	2530	C	PRO	B	138	-11.669	-21.175	66.706	1.00	52.09		C
	ANISOU	2530	C	PRO	B	138	5791	8530	5472	-247	-614	-1983	C
	ATOM	2531	O	PRO	B	138	-12.166	-21.200	67.833	1.00	57.61		O
	ANISOU	2531	O	PRO	B	138	6634	9317	5940	-282	-661	-1938	O
	ATOM	2532	CB	PRO	B	138	-10.627	-23.429	66.379	1.00	52.85		C
45	ANISOU	2532	CB	PRO	B	138	5846	8633	5600	75	-1079	-1832	C
	ATOM	2533	CG	PRO	B	138	-9.491	-24.053	67.133	1.00	56.81		C
	ANISOU	2533	CG	PRO	B	138	6279	9281	6025	221	-1440	-1933	C
	ATOM	2534	CD	PRO	B	138	-9.166	-23.076	68.222	1.00	57.44		C
	ANISOU	2534	CD	PRO	B	138	6329	9542	5953	87	-1432	-2110	C
50	ATOM	2535	N	ASN	B	139	-12.191	-20.503	65.687	1.00	43.07		N
	ANISOU	2535	N	ASN	B	139	4628	7233	4503	-322	-366	-1981	N
	ATOM	2536	CA	ASN	B	139	-13.476	-19.830	65.790	1.00	42.43		C
	ANISOU	2536	CA	ASN	B	139	4686	7050	4384	-400	-156	-1927	C
	ATOM	2537	C	ASN	B	139	-14.353	-20.216	64.615	1.00	41.86		C
55	ANISOU	2537	C	ASN	B	139	4670	6793	4441	-352	-28	-1739	C
	ATOM	2538	O	ASN	B	139	-13.889	-20.238	63.475	1.00	40.30		O
	ANISOU	2538	O	ASN	B	139	4380	6510	4422	-342	10	-1742	O
	ATOM	2539	CB	ASN	B	139	-13.309	-18.312	65.766	1.00	38.73		C
	ANISOU	2539	CB	ASN	B	139	4167	6536	4014	-541	-2	-2153	C

5	ATOM	2540	CG	ASN	B	139	-12.437	-17.794	66.881	1.00	47.49	C	
	ANISOU	2540	CG	ASN	B	139	5206	7827	5011	-610	-116	-2378	C
	ATOM	2541	OD1	ASN	B	139	-12.934	-17.312	67.900	1.00	49.94	O	
	ANISOU	2541	OD1	ASN	B	139	5599	8212	5163	-651	-93	-2465	O
	ATOM	2542	ND2	ASN	B	139	-11.125	-17.870	66.688	1.00	47.01	N	
	ANISOU	2542	ND2	ASN	B	139	4970	7866	5028	-628	-237	-2506	N
10	ATOM	2543	N	LYS	B	140	-15.618	-20.512	64.887	1.00	42.07	N	
	ANISOU	2543	N	LYS	B	140	4835	6787	4364	-340	45	-1594	N
	ATOM	2544	CA	LYS	B	140	-16.584	-20.672	63.818	1.00	43.80	C	
	ANISOU	2544	CA	LYS	B	140	5097	6838	4707	-307	181	-1453	C
	ATOM	2545	C	LYS	B	140	-16.864	-19.274	63.261	1.00	44.54	C	
	ANISOU	2545	C	LYS	B	140	5170	6798	4954	-371	359	-1593	C
15	ATOM	2546	O	LYS	B	140	-17.357	-18.404	63.976	1.00	47.56	O	
	ANISOU	2546	O	LYS	B	140	5587	7203	5279	-416	434	-1727	O
	ATOM	2547	CB	LYS	B	140	-17.862	-21.331	64.342	1.00	48.00	C	
	ANISOU	2547	CB	LYS	B	140	5751	7410	5075	-305	212	-1294	C
	ATOM	2548	CG	LYS	B	140	-18.813	-21.836	63.242	1.00	54.31	C	
	ANISOU	2548	CG	LYS	B	140	6583	8061	5993	-257	299	-1128	C
20	ATOM	2549	CD	LYS	B	140	-20.051	-22.506	63.852	1.00	59.50	C	
	ANISOU	2549	CD	LYS	B	140	7336	8802	6470	-303	337	-992	C
	ATOM	2550	CE	LYS	B	140	-21.120	-22.822	62.805	1.00	62.27	C	
	ANISOU	2550	CE	LYS	B	140	7690	9026	6945	-269	440	-875	C
	ATOM	2551	NZ	LYS	B	140	-21.622	-21.603	62.098	1.00	62.91	N	
	ANISOU	2551	NZ	LYS	B	140	7703	8999	7200	-230	597	-1016	N
25	ATOM	2552	N	VAL	B	141	-16.515	-19.045	61.999	1.00	42.44	N	
	ANISOU	2552	N	VAL	B	141	4863	6390	4873	-381	412	-1574	N
	ATOM	2553	CA	VAL	B	141	-16.698	-17.727	61.399	1.00	39.81	C	
	ANISOU	2553	CA	VAL	B	141	4565	5882	4679	-463	540	-1672	C
	ATOM	2554	C	VAL	B	141	-18.116	-17.559	60.872	1.00	40.22	C	
	ANISOU	2554	C	VAL	B	141	4717	5778	4786	-389	638	-1573	C
30	ATOM	2555	O	VAL	B	141	-18.769	-16.548	61.128	1.00	41.72	O	
	ANISOU	2555	O	VAL	B	141	4970	5869	5013	-391	700	-1687	O
	ATOM	2556	CB	VAL	B	141	-15.710	-17.478	60.257	1.00	36.86	C	
	ANISOU	2556	CB	VAL	B	141	4125	5439	4440	-557	563	-1687	C
	ATOM	2557	CG1	VAL	B	141	-15.957	-16.117	59.628	1.00	37.57	C	
	ANISOU	2557	CG1	VAL	B	141	4321	5303	4652	-674	670	-1743	C
35	ATOM	2558	CG2	VAL	B	141	-14.303	-17.566	60.771	1.00	38.93	C	
	ANISOU	2558	CG2	VAL	B	141	4237	5889	4665	-629	468	-1839	C
	ATOM	2559	N	GLY	B	142	-18.594	-18.560	60.141	1.00	35.03	N	
	ANISOU	2559	N	GLY	B	142	4066	5101	4143	-310	631	-1387	N
	ATOM	2560	CA	GLY	B	142	-19.932	-18.497	59.600	1.00	30.63	C	
	ANISOU	2560	CA	GLY	B	142	3575	4426	3640	-234	705	-1303	C
45	ATOM	2561	C	GLY	B	142	-20.280	-19.622	58.651	1.00	27.98	C	
	ANISOU	2561	C	GLY	B	142	3236	4061	3332	-168	686	-1108	C
	ATOM	2562	O	GLY	B	142	-19.477	-20.513	58.379	1.00	27.77	O	
	ANISOU	2562	O	GLY	B	142	3163	4095	3292	-164	608	-1041	O
	ATOM	2563	N	THR	B	143	-21.505	-19.572	58.149	1.00	26.78	N	
	ANISOU	2563	N	THR	B	143	3125	3820	3230	-101	742	-1047	N
50	ATOM	2564	CA	THR	B	143	-22.020	-20.598	57.272	1.00	29.69	C	
	ANISOU	2564	CA	THR	B	143	3495	4159	3625	-43	724	-879	C
	ATOM	2565	C	THR	B	143	-22.528	-19.928	56.010	1.00	31.11	C	
	ANISOU	2565	C	THR	B	143	3729	4150	3941	-4	766	-853	C
	ATOM	2566	O	THR	B	143	-23.322	-18.993	56.075	1.00	33.33	O	
	ANISOU	2566	O	THR	B	143	4048	4340	4276	40	801	-934	O
55	ATOM	2567	CB	THR	B	143	-23.168	-21.365	57.940	1.00	35.12	C	
	ANISOU	2567	CB	THR	B	143	4173	4962	4211	-19	735	-820	C
	ATOM	2568	OG1	THR	B	143	-22.692	-21.993	59.137	1.00	40.79	O	
	ANISOU	2568	OG1	THR	B	143	4891	5845	4764	-81	674	-812	O
	ATOM	2569	CG2	THR	B	143	-23.709	-22.421	57.002	1.00	32.77	C	
													C

	ANISOU	2569	CG2	THR	B	143	3882	4614	3954	23	707	-657	C
	ATOM	2570	N	CYS	B	144	-22.036	-20.389	54.866	1.00	29.21		N
	ANISOU	2570	N	CYS	B	144	3495	3854	3748	-14	746	-755	N
	ATOM	2571	CA	CYS	B	144	-22.478	-19.883	53.585	1.00	31.21		C
5	ANISOU	2571	CA	CYS	B	144	3828	3941	4089	5	767	-696	C
	ATOM	2572	C	CYS	B	144	-23.475	-20.869	52.986	1.00	31.97		C
	ANISOU	2572	C	CYS	B	144	3908	4047	4194	101	744	-579	C
	ATOM	2573	O	CYS	B	144	-23.250	-22.076	53.017	1.00	28.57		O
	ANISOU	2573	O	CYS	B	144	3421	3713	3719	111	705	-515	O
10	ATOM	2574	CB	CYS	B	144	-21.284	-19.717	52.651	1.00	31.62		C
	ANISOU	2574	CB	CYS	B	144	3894	3968	4153	-107	781	-681	C
	ATOM	2575	SG	CYS	B	144	-21.658	-18.864	51.105	1.00	40.37		S
	ANISOU	2575	SG	CYS	B	144	5164	4863	5313	-150	798	-590	S
	ATOM	2576	N	VAL	B	145	-24.579	-20.348	52.458	1.00	32.99		N
15	ANISOU	2576	N	VAL	B	145	4087	4061	4385	180	744	-566	N
	ATOM	2577	CA	VAL	B	145	-25.605	-21.175	51.832	1.00	31.96		C
	ANISOU	2577	CA	VAL	B	145	3927	3945	4271	262	717	-479	C
	ATOM	2578	C	VAL	B	145	-25.924	-20.693	50.413	1.00	31.92		C
	ANISOU	2578	C	VAL	B	145	4021	3778	4328	305	680	-413	C
20	ATOM	2579	O	VAL	B	145	-26.057	-19.494	50.164	1.00	35.90		O
	ANISOU	2579	O	VAL	B	145	4633	4125	4884	324	657	-449	O
	ATOM	2580	CB	VAL	B	145	-26.914	-21.173	52.655	1.00	31.78		C
	ANISOU	2580	CB	VAL	B	145	3824	4006	4246	333	737	-553	C
	ATOM	2581	CG1	VAL	B	145	-27.913	-22.168	52.069	1.00	28.38		C
25	ANISOU	2581	CG1	VAL	B	145	3335	3622	3825	377	713	-471	C
	ATOM	2582	CG2	VAL	B	145	-26.633	-21.499	54.107	1.00	30.73		C
	ANISOU	2582	CG2	VAL	B	145	3628	4043	4005	258	778	-613	C
	ATOM	2583	N	SER	B	146	-26.045	-21.641	49.493	1.00	27.47		N
	ANISOU	2583	N	SER	B	146	3442	3242	3752	319	653	-316	N
30	ATOM	2584	CA	SER	B	146	-26.430	-21.370	48.121	1.00	27.81		C
	ANISOU	2584	CA	SER	B	146	3581	3169	3816	355	605	-242	C
	ATOM	2585	C	SER	B	146	-27.562	-22.320	47.712	1.00	27.43		C
	ANISOU	2585	C	SER	B	146	3459	3176	3789	450	556	-203	C
	ATOM	2586	O	SER	B	146	-27.427	-23.539	47.851	1.00	27.28		O
35	ANISOU	2586	O	SER	B	146	3359	3265	3743	424	561	-177	O
	ATOM	2587	CB	SER	B	146	-25.220	-21.566	47.205	1.00	27.55		C
	ANISOU	2587	CB	SER	B	146	3599	3153	3718	237	632	-190	C
	ATOM	2588	OG	SER	B	146	-25.606	-21.525	45.850	1.00	29.20		O
	ANISOU	2588	OG	SER	B	146	3903	3291	3900	252	586	-105	O
40	ATOM	2589	N	GLU	B	147	-28.674	-21.769	47.226	1.00	28.58		N
	ANISOU	2589	N	GLU	B	147	3635	3236	3991	563	488	-212	N
	ATOM	2590	CA	GLU	B	147	-29.835	-22.584	46.855	1.00	30.26		C
	ANISOU	2590	CA	GLU	B	147	3747	3519	4230	644	438	-205	C
	ATOM	2591	C	GLU	B	147	-30.188	-22.500	45.379	1.00	27.13		C
45	ANISOU	2591	C	GLU	B	147	3448	3031	3831	703	339	-130	C
	ATOM	2592	O	GLU	B	147	-30.343	-21.410	44.831	1.00	27.79		O
	ANISOU	2592	O	GLU	B	147	3670	2958	3930	765	260	-114	O
	ATOM	2593	CB	GLU	B	147	-31.069	-22.169	47.652	1.00	38.15		C
	ANISOU	2593	CB	GLU	B	147	4624	4572	5298	748	430	-334	C
50	ATOM	2594	CG	GLU	B	147	-30.939	-22.329	49.150	1.00	49.95		C
	ANISOU	2594	CG	GLU	B	147	6013	6209	6758	673	535	-420	C
	ATOM	2595	CD	GLU	B	147	-32.181	-21.859	49.882	1.00	61.20		C
	ANISOU	2595	CD	GLU	B	147	7285	7739	8231	768	549	-595	C
	ATOM	2596	OE1	GLU	B	147	-32.044	-21.131	50.892	1.00	65.00		O
55	ANISOU	2596	OE1	GLU	B	147	7740	8252	8704	773	602	-721	O
	ATOM	2597	OE2	GLU	B	147	-33.294	-22.215	49.439	1.00	65.10		O
	ANISOU	2597	OE2	GLU	B	147	7663	8304	8769	838	505	-634	O
	ATOM	2598	N	GLY	B	148	-30.329	-23.657	44.744	1.00	21.89		N
	ANISOU	2598	N	GLY	B	148	2732	2448	3139	682	321	-84	N

	ATOM	2599	CA	GLY	B	148	-30.978	-23.734	43.444	1.00	24.66		C
	ANISOU	2599	CA	GLY	B	148	3135	2757	3478	755	213	-40	C
	ATOM	2600	C	GLY	B	148	-30.049	-23.931	42.259	1.00	28.30		C
	ANISOU	2600	C	GLY	B	148	3725	3199	3828	672	211	45	C
5	ATOM	2601	O	GLY	B	148	-30.377	-23.544	41.136	1.00	32.22		O
	ANISOU	2601	O	GLY	B	148	4341	3631	4271	709	117	102	O
	ATOM	2602	N	SER	B	149	-28.885	-24.529	42.493	1.00	24.39		N
	ANISOU	2602	N	SER	B	149	3202	2779	3286	561	306	36	N
	ATOM	2603	CA	SER	B	149	-27.926	-24.697	41.410	1.00	28.04		C
10	ANISOU	2603	CA	SER	B	149	3741	3281	3630	470	332	64	C
	ATOM	2604	C	SER	B	149	-28.060	-26.042	40.703	1.00	24.13		C
	ANISOU	2604	C	SER	B	149	3167	2884	3117	496	294	28	C
	ATOM	2605	O	SER	B	149	-28.522	-27.022	41.282	1.00	21.74		O
	ANISOU	2605	O	SER	B	149	2751	2609	2900	543	265	-10	O
15	ATOM	2606	CB	SER	B	149	-26.494	-24.516	41.919	1.00	28.11		C
	ANISOU	2606	CB	SER	B	149	3734	3346	3600	347	445	22	C
	ATOM	2607	OG	SER	B	149	-26.145	-25.540	42.829	1.00	24.30		O
	ANISOU	2607	OG	SER	B	149	3106	2945	3181	371	464	-50	O
	ATOM	2608	N	TYR	B	150	-27.667	-26.058	39.436	1.00	26.38		N
20	ANISOU	2608	N	TYR	B	150	3531	3217	3275	446	289	40	N
	ATOM	2609	CA	TYR	B	150	-27.387	-27.290	38.719	1.00	23.22		C
	ANISOU	2609	CA	TYR	B	150	3054	2931	2837	454	273	-43	C
	ATOM	2610	C	TYR	B	150	-26.326	-26.969	37.678	1.00	26.00		C
	ANISOU	2610	C	TYR	B	150	3473	3399	3008	328	353	-69	C
25	ATOM	2611	O	TYR	B	150	-26.427	-25.949	37.000	1.00	26.65		O
	ANISOU	2611	O	TYR	B	150	3720	3442	2964	248	353	34	O
	ATOM	2612	CB	TYR	B	150	-28.627	-27.887	38.052	1.00	22.56		C
	ANISOU	2612	CB	TYR	B	150	2963	2831	2778	546	149	-35	C
	ATOM	2613	CG	TYR	B	150	-28.362	-29.283	37.542	1.00	22.59		C
30	ANISOU	2613	CG	TYR	B	150	2880	2921	2783	565	118	-152	C
	ATOM	2614	CD1	TYR	B	150	-27.816	-29.494	36.274	1.00	23.70		C
	ANISOU	2614	CD1	TYR	B	150	3055	3179	2770	525	130	-218	C
	ATOM	2615	CD2	TYR	B	150	-28.617	-30.393	38.344	1.00	26.08		C
	ANISOU	2615	CD2	TYR	B	150	3219	3322	3368	608	70	-204	C
35	ATOM	2616	CE1	TYR	B	150	-27.541	-30.780	35.811	1.00	24.04		C
	ANISOU	2616	CE1	TYR	B	150	3009	3295	2829	568	88	-372	C
	ATOM	2617	CE2	TYR	B	150	-28.355	-31.685	37.889	1.00	27.41		C
	ANISOU	2617	CE2	TYR	B	150	3336	3518	3561	639	5	-323	C
	ATOM	2618	CZ	TYR	B	150	-27.816	-31.866	36.624	1.00	29.45		C
40	ANISOU	2618	CZ	TYR	B	150	3608	3891	3692	638	12	-424	C
	ATOM	2619	OH	TYR	B	150	-27.553	-33.134	36.175	1.00	33.89		O
	ANISOU	2619	OH	TYR	B	150	4111	4473	4291	694	-65	-584	O
	ATOM	2620	N	PRO	B	151	-25.249	-27.781	37.613	1.00	28.83		N
	ANISOU	2620	N	PRO	B	151	3706	3902	3346	300	418	-217	N
45	ATOM	2621	CA	PRO	B	151	-24.857	-28.819	38.583	1.00	26.90		C
	ANISOU	2621	CA	PRO	B	151	3309	3661	3251	388	393	-328	C
	ATOM	2622	C	PRO	B	151	-24.525	-28.188	39.932	1.00	28.38		C
	ANISOU	2622	C	PRO	B	151	3482	3782	3518	363	439	-283	C
	ATOM	2623	O	PRO	B	151	-24.645	-26.973	40.057	1.00	29.20		O
50	ANISOU	2623	O	PRO	B	151	3687	3829	3580	285	491	-186	O
	ATOM	2624	CB	PRO	B	151	-23.575	-29.431	37.979	1.00	25.94		C
	ANISOU	2624	CB	PRO	B	151	3070	3732	3054	362	449	-525	C
	ATOM	2625	CG	PRO	B	151	-23.574	-29.010	36.541	1.00	28.95		C
	ANISOU	2625	CG	PRO	B	151	3533	4238	3230	255	505	-521	C
55	ATOM	2626	CD	PRO	B	151	-24.289	-27.681	36.499	1.00	31.20		C
	ANISOU	2626	CD	PRO	B	151	4013	4390	3450	169	512	-300	C
	ATOM	2627	N	ALA	B	152	-24.140	-28.990	40.920	1.00	30.01		N
	ANISOU	2627	N	ALA	B	152	3589	3980	3834	429	398	-352	N
	ATOM	2628	CA	ALA	B	152	-23.959	-28.491	42.282	1.00	30.11		C

	ANISOU	2628	CA	ALA	B	152	3593	3939	3908	411	421	-310	C
	ATOM	2629	C	ALA	B	152	-23.128	-27.204	42.356	1.00	29.67		C
	ANISOU	2629	C	ALA	B	152	3562	3934	3776	285	542	-313	C
	ATOM	2630	O	ALA	B	152	-23.542	-26.215	42.968	1.00	29.54		O
5	ANISOU	2630	O	ALA	B	152	3623	3825	3774	247	570	-227	O
	ATOM	2631	CB	ALA	B	152	-23.351	-29.576	43.169	1.00	20.75		C
	ANISOU	2631	CB	ALA	B	152	2318	2760	2806	486	337	-394	C
	ATOM	2632	N	GLY	B	153	-21.971	-27.213	41.709	1.00	27.65		N
	ANISOU	2632	N	GLY	B	153	3236	3834	3438	208	612	-434	N
10	ATOM	2633	CA	GLY	B	153	-21.029	-26.117	41.849	1.00	30.35		C
	ANISOU	2633	CA	GLY	B	153	3578	4246	3705	41	732	-460	C
	ATOM	2634	C	GLY	B	153	-20.344	-26.230	43.198	1.00	29.35		C
	ANISOU	2634	C	GLY	B	153	3341	4140	3670	77	713	-540	C
	ATOM	2635	O	GLY	B	153	-20.455	-27.260	43.856	1.00	31.19		O
15	ANISOU	2635	O	GLY	B	153	3504	4349	3996	225	601	-577	O
	ATOM	2636	N	THR	B	154	-19.640	-25.183	43.615	1.00	30.50		N
	ANISOU	2636	N	THR	B	154	3490	4318	3780	-72	804	-559	N
	ATOM	2637	CA	THR	B	154	-18.904	-25.202	44.881	1.00	31.33		C
	ANISOU	2637	CA	THR	B	154	3484	4469	3951	-51	779	-652	C
20	ATOM	2638	C	THR	B	154	-18.936	-23.839	45.590	1.00	31.95		C
	ANISOU	2638	C	THR	B	154	3666	4451	4024	-183	842	-588	C
	ATOM	2639	O	THR	B	154	-19.103	-22.792	44.955	1.00	31.01		O
	ANISOU	2639	O	THR	B	154	3687	4255	3839	-335	918	-508	O
	ATOM	2640	CB	THR	B	154	-17.424	-25.605	44.676	1.00	34.07		C
25	ANISOU	2640	CB	THR	B	154	3611	5061	4271	-90	813	-880	C
	ATOM	2641	OG1	THR	B	154	-16.851	-24.798	43.643	1.00	41.10		O
	ANISOU	2641	OG1	THR	B	154	4504	6080	5031	-322	971	-918	O
	ATOM	2642	CG2	THR	B	154	-17.293	-27.077	44.277	1.00	32.69		C
	ANISOU	2642	CG2	THR	B	154	3314	4960	4147	105	698	-1002	C
30	ATOM	2643	N	LEU	B	155	-18.775	-23.868	46.909	1.00	28.84		N
	ANISOU	2643	N	LEU	B	155	3222	4046	3691	-125	789	-626	N
	ATOM	2644	CA	LEU	B	155	-18.621	-22.655	47.700	1.00	34.53		C
	ANISOU	2644	CA	LEU	B	155	4007	4702	4414	-241	838	-626	C
	ATOM	2645	C	LEU	B	155	-17.165	-22.517	48.151	1.00	39.01		C
35	ANISOU	2645	C	LEU	B	155	4407	5450	4964	-346	869	-803	C
	ATOM	2646	O	LEU	B	155	-16.493	-23.515	48.397	1.00	37.52		O
	ANISOU	2646	O	LEU	B	155	4048	5412	4797	-239	795	-923	O
	ATOM	2647	CB	LEU	B	155	-19.539	-22.696	48.927	1.00	31.15		C
	ANISOU	2647	CB	LEU	B	155	3632	4167	4038	-119	766	-568	C
40	ATOM	2648	CG	LEU	B	155	-21.047	-22.696	48.663	1.00	29.11		C
	ANISOU	2648	CG	LEU	B	155	3494	3759	3806	-23	740	-435	C
	ATOM	2649	CD1	LEU	B	155	-21.827	-22.889	49.959	1.00	21.49		C
	ANISOU	2649	CD1	LEU	B	155	2524	2778	2864	65	694	-424	C
	ATOM	2650	CD2	LEU	B	155	-21.461	-21.405	47.977	1.00	23.60		C
45	ANISOU	2650	CD2	LEU	B	155	2954	2909	3104	-107	787	-377	C
	ATOM	2651	N	SER	B	156	-16.681	-21.282	48.256	1.00	41.60		N
	ANISOU	2651	N	SER	B	156	4786	5756	5263	-550	958	-833	N
	ATOM	2652	CA	SER	B	156	-15.348	-21.024	48.811	1.00	41.92		C
	ANISOU	2652	CA	SER	B	156	4653	5980	5294	-674	988	-1020	C
50	ATOM	2653	C	SER	B	156	-15.288	-19.697	49.585	1.00	37.30		C
	ANISOU	2653	C	SER	B	156	4180	5273	4721	-829	1022	-1025	C
	ATOM	2654	O	SER	B	156	-16.122	-18.815	49.394	1.00	37.36		O
	ANISOU	2654	O	SER	B	156	4411	5048	4736	-880	1042	-894	O
	ATOM	2655	CB	SER	B	156	-14.280	-21.063	47.712	1.00	41.80		C
55	ANISOU	2655	CB	SER	B	156	4493	6187	5203	-858	1100	-1146	C
	ATOM	2656	OG	SER	B	156	-14.571	-20.122	46.693	1.00	44.44		O
	ANISOU	2656	OG	SER	B	156	5024	6411	5451	-1087	1217	-1018	O
	ATOM	2657	N	TRP	B	157	-14.302	-19.558	50.461	1.00	36.51		N
	ANISOU	2657	N	TRP	B	157	3922	5321	4630	-888	1006	-1195	N

5	ATOM	2658	CA	TRP	B	157	-14.239	-18.376	51.319	1.00	38.26	C	
	ANISOU	2658	CA	TRP	B	157	4240	5429	4870	-1018	1018	-1232	C
	ATOM	2659	C	TRP	B	157	-13.085	-17.448	50.961	1.00	39.26	C	
	ANISOU	2659	C	TRP	B	157	4311	5648	4960	-1347	1129	-1356	C
	ATOM	2660	O	TRP	B	157	-12.064	-17.883	50.425	1.00	36.97	O	
	ANISOU	2660	O	TRP	B	157	3803	5618	4627	-1449	1187	-1490	O
	ATOM	2661	CB	TRP	B	157	-14.140	-18.778	52.790	1.00	30.03	C	
	ANISOU	2661	CB	TRP	B	157	3099	4463	3847	-857	900	-1326	C
10	ATOM	2662	CG	TRP	B	157	-15.367	-19.446	53.333	1.00	28.20	C	
	ANISOU	2662	CG	TRP	B	157	2965	4127	3624	-616	812	-1194	C
	ATOM	2663	CD1	TRP	B	157	-15.665	-20.769	53.278	1.00	28.85	C	
	ANISOU	2663	CD1	TRP	B	157	2989	4273	3701	-424	723	-1132	C
15	ATOM	2664	CD2	TRP	B	157	-16.448	-18.819	54.034	1.00	29.35	C	
	ANISOU	2664	CD2	TRP	B	157	3271	4099	3779	-563	806	-1133	C
	ATOM	2665	NE1	TRP	B	157	-16.867	-21.014	53.899	1.00	28.42	N	
	ANISOU	2665	NE1	TRP	B	157	3054	4109	3636	-296	679	-1014	N
	ATOM	2666	CE2	TRP	B	157	-17.371	-19.829	54.369	1.00	27.94	C	
	ANISOU	2666	CE2	TRP	B	157	3106	3928	3582	-369	737	-1030	C
	ATOM	2667	CE3	TRP	B	157	-16.730	-17.499	54.409	1.00	31.25	C	
	ANISOU	2667	CE3	TRP	B	157	3643	4182	4048	-663	845	-1178	C
20	ATOM	2668	CZ2	TRP	B	157	-18.551	-19.567	55.063	1.00	27.61	C	
	ANISOU	2668	CZ2	TRP	B	157	3164	3797	3530	-288	734	-987	C
	ATOM	2669	CZ3	TRP	B	157	-17.907	-17.238	55.099	1.00	31.17	C	
	ANISOU	2669	CZ3	TRP	B	157	3734	4061	4049	-534	820	-1155	C
25	ATOM	2670	CH2	TRP	B	157	-18.799	-18.267	55.420	1.00	29.47	C	
	ANISOU	2670	CH2	TRP	B	157	3490	3911	3796	-357	779	-1068	C
	ATOM	2671	N	HIS	B	158	-13.253	-16.164	51.267	1.00	39.07	N	
	ANISOU	2671	N	HIS	B	158	4477	5415	4954	-1520	1155	-1332	N
30	ATOM	2672	CA	HIS	B	158	-12.206	-15.188	51.018	1.00	42.14	C	
	ANISOU	2672	CA	HIS	B	158	4851	5854	5306	-1886	1255	-1437	C
	ATOM	2673	C	HIS	B	158	-11.960	-14.308	52.230	1.00	42.37	C	
	ANISOU	2673	C	HIS	B	158	4911	5798	5391	-1957	1205	-1564	C
35	ATOM	2674	O	HIS	B	158	-12.895	-13.949	52.942	1.00	42.00	O	
	ANISOU	2674	O	HIS	B	158	5032	5524	5402	-1789	1121	-1510	O
	ATOM	2675	CB	HIS	B	158	-12.564	-14.325	49.811	1.00	46.43	C	
	ANISOU	2675	CB	HIS	B	158	5679	6169	5792	-2130	1337	-1254	C
	ATOM	2676	CG	HIS	B	158	-12.889	-15.115	48.585	1.00	48.72	C	
	ANISOU	2676	CG	HIS	B	158	5967	6540	6004	-2069	1383	-1129	C
	ATOM	2677	ND1	HIS	B	158	-11.994	-15.293	47.552	1.00	52.48	N	
	ANISOU	2677	ND1	HIS	B	158	6318	7267	6354	-2328	1522	-1184	N
40	ATOM	2678	CD2	HIS	B	158	-14.013	-15.788	48.228	1.00	47.22	C	
	ANISOU	2678	CD2	HIS	B	158	5870	6238	5835	-1787	1311	-976	C
	ATOM	2679	CE1	HIS	B	158	-12.550	-16.032	46.609	1.00	53.05	C	
	ANISOU	2679	CE1	HIS	B	158	6421	7368	6369	-2196	1528	-1069	C
45	ATOM	2680	NE2	HIS	B	158	-13.777	-16.345	46.999	1.00	51.15	N	
	ANISOU	2680	NE2	HIS	B	158	6314	6897	6222	-1869	1394	-937	N
	ATOM	2681	N	LEU	B	159	-10.695	-13.971	52.459	1.00	45.44	N	
	ANISOU	2681	N	LEU	B	159	5111	6396	5757	-2209	1259	-1762	N
50	ATOM	2682	CA	LEU	B	159	-10.309	-13.086	53.552	1.00	48.15	C	
	ANISOU	2682	CA	LEU	B	159	5467	6681	6145	-2325	1214	-1916	C
	ATOM	2683	C	LEU	B	159	-9.562	-11.889	52.982	1.00	54.69	C	
	ANISOU	2683	C	LEU	B	159	6397	7435	6948	-2789	1328	-1953	C
55	ATOM	2684	O	LEU	B	159	-8.519	-12.049	52.340	1.00	54.90	O	
	ANISOU	2684	O	LEU	B	159	6215	7741	6903	-3050	1445	-2056	O
	ATOM	2685	CB	LEU	B	159	-9.424	-13.820	54.563	1.00	45.98	C	
	ANISOU	2685	CB	LEU	B	159	4853	6749	5868	-2201	1134	-2152	C
	ATOM	2686	CG	LEU	B	159	-8.773	-12.963	55.656	1.00	47.43	C	
	ANISOU	2686	CG	LEU	B	159	4987	6957	6076	-2360	1090	-2362	C
	ATOM	2687	CD1	LEU	B	159	-9.820	-12.382	56.590	1.00	45.12	C	

	ANISOU	2687	CD1	LEU	B	159	4945	6374	5825	-2200	1000	-2307	C
	ATOM	2688	CD2	LEU	B	159	-7.751	-13.758	56.442	1.00	44.20		C
	ANISOU	2688	CD2	LEU	B	159	4217	6931	5647	-2251	993	-2601	C
	ATOM	2689	N	ASP	B	160	-10.115	-10.700	53.214	1.00	58.38		N
5	ANISOU	2689	N	ASP	B	160	7186	7524	7471	-2898	1287	-1883	N
	ATOM	2690	CA	ASP	B	160	-9.558	-9.444	52.706	1.00	66.11		C
	ANISOU	2690	CA	ASP	B	160	8364	8324	8432	-3364	1360	-1874	C
	ATOM	2691	C	ASP	B	160	-9.283	-9.473	51.198	1.00	69.43		C
	ANISOU	2691	C	ASP	B	160	8863	8797	8721	-3630	1494	-1700	C
10	ATOM	2692	O	ASP	B	160	-8.257	-8.976	50.733	1.00	73.18		O
	ANISOU	2692	O	ASP	B	160	9298	9425	9080	-3908	1577	-1721	O
	ATOM	2693	CB	ASP	B	160	-8.304	-9.035	53.491	1.00	70.35		C
	ANISOU	2693	CB	ASP	B	160	8672	9092	8965	-3574	1377	-2131	C
	ATOM	2694	CG	ASP	B	160	-8.622	-8.620	54.927	1.00	72.77		C
15	ANISOU	2694	CG	ASP	B	160	9006	9260	9383	-3425	1241	-2304	C
	ATOM	2695	OD1	ASP	B	160	-9.810	-8.364	55.224	1.00	68.39		O
	ANISOU	2695	OD1	ASP	B	160	8708	8381	8898	-3167	1141	-2194	O
	ATOM	2696	OD2	ASP	B	160	-7.685	-8.542	55.755	1.00	76.47		O
	ANISOU	2696	OD2	ASP	B	160	9240	9973	9840	-3464	1218	-2516	O
20	ATOM	2697	N	GLY	B	161	-10.210	-10.064	50.449	1.00	67.16		N
	ANISOU	2697	N	GLY	B	161	8695	8415	8409	-3420	1483	-1497	N
	ATOM	2698	CA	GLY	B	161	-10.127	-10.099	49.001	1.00	70.85		C
	ANISOU	2698	CA	GLY	B	161	9281	8913	8727	-3645	1591	-1314	C
	ATOM	2699	C	GLY	B	161	-9.116	-11.079	48.434	1.00	70.73		C
25	ANISOU	2699	C	GLY	B	161	8886	9412	8578	-3666	1719	-1447	C
	ATOM	2700	O	GLY	B	161	-8.595	-10.880	47.336	1.00	74.80		O
	ANISOU	2700	O	GLY	B	161	9458	10046	8915	-3886	1809	-1373	O
	ATOM	2701	N	LYS	B	162	-8.829	-12.136	49.183	1.00	64.81		N
	ANISOU	2701	N	LYS	B	162	7755	8961	7907	-3419	1701	-1663	N
30	ATOM	2702	CA	LYS	B	162	-7.920	-13.178	48.720	1.00	60.67		C
	ANISOU	2702	CA	LYS	B	162	6867	8893	7291	-3336	1764	-1832	C
	ATOM	2703	C	LYS	B	162	-8.480	-14.543	49.100	1.00	55.40		C
	ANISOU	2703	C	LYS	B	162	5981	8342	6725	-2928	1682	-1879	C
	ATOM	2704	O	LYS	B	162	-9.132	-14.678	50.134	1.00	50.52		O
35	ANISOU	2704	O	LYS	B	162	5434	7546	6217	-2626	1529	-1846	O
	ATOM	2705	CB	LYS	B	162	-6.517	-12.977	49.304	1.00	63.79		C
	ANISOU	2705	CB	LYS	B	162	6989	9587	7660	-3448	1777	-2110	C
	ATOM	2706	CG	LYS	B	162	-5.855	-11.676	48.868	1.00	69.55		C
	ANISOU	2706	CG	LYS	B	162	7914	10242	8269	-3864	1868	-2069	C
40	ATOM	2707	CD	LYS	B	162	-4.363	-11.647	49.155	1.00	75.03		C
	ANISOU	2707	CD	LYS	B	162	8292	11317	8898	-3993	1919	-2365	C
	ATOM	2708	CE	LYS	B	162	-3.729	-10.382	48.577	1.00	81.55		C
	ANISOU	2708	CE	LYS	B	162	9323	12083	9581	-4447	2029	-2304	C
	ATOM	2709	NZ	LYS	B	162	-2.255	-10.303	48.808	1.00	86.08		N
45	ANISOU	2709	NZ	LYS	B	162	9583	13046	10079	-4610	2101	-2608	N
	ATOM	2710	N	PRO	B	163	-8.247	-15.557	48.253	1.00	56.06		N
	ANISOU	2710	N	PRO	B	163	5888	8679	6735	-2799	1717	-1921	N
	ATOM	2711	CA	PRO	B	163	-8.792	-16.896	48.513	1.00	50.87		C
	ANISOU	2711	CA	PRO	B	163	5085	8082	6161	-2364	1597	-1933	C
50	ATOM	2712	C	PRO	B	163	-8.294	-17.475	49.836	1.00	46.52		C
	ANISOU	2712	C	PRO	B	163	4279	7677	5719	-2109	1439	-2142	C
	ATOM	2713	O	PRO	B	163	-7.158	-17.247	50.232	1.00	47.74		O
	ANISOU	2713	O	PRO	B	163	4196	8074	5869	-2251	1452	-2383	O
	ATOM	2714	CB	PRO	B	163	-8.270	-17.724	47.334	1.00	51.99		C
55	ANISOU	2714	CB	PRO	B	163	5058	8499	6197	-2342	1655	-2022	C
	ATOM	2715	CG	PRO	B	163	-7.997	-16.721	46.260	1.00	55.77		C
	ANISOU	2715	CG	PRO	B	163	5751	8935	6502	-2733	1798	-1915	C
	ATOM	2716	CD	PRO	B	163	-7.518	-15.497	46.974	1.00	56.88		C
	ANISOU	2716	CD	PRO	B	163	5983	8974	6654	-3005	1823	-1943	C

5	ATOM	2717	N	LEU	B	164	-9.162	-18.212	50.512	1.00	45.09	N	
	ANISOU	2717	N	LEU	B	164	4183	7335	5614	-1730	1268	-2032	N
	ATOM	2718	CA	LEU	B	164	-8.851	-18.801	51.801	1.00	47.23	C	
	ANISOU	2718	CA	LEU	B	164	4292	7700	5955	-1480	1084	-2169	C
	ATOM	2719	C	LEU	B	164	-8.788	-20.319	51.626	1.00	50.95	C	
	ANISOU	2719	C	LEU	B	164	4585	8315	6458	-1147	949	-2230	C
10	ATOM	2720	O	LEU	B	164	-9.808	-20.971	51.403	1.00	50.78	O	
	ANISOU	2720	O	LEU	B	164	4734	8110	6450	-937	889	-2035	O
	ATOM	2721	CB	LEU	B	164	-9.935	-18.404	52.800	1.00	46.17	C	
	ANISOU	2721	CB	LEU	B	164	4432	7260	5851	-1351	992	-1988	C
	ATOM	2722	CG	LEU	B	164	-9.678	-18.434	54.303	1.00	47.94	C	
	ANISOU	2722	CG	LEU	B	164	4588	7532	6094	-1228	838	-2100	C
15	ATOM	2723	CD1	LEU	B	164	-8.375	-17.740	54.656	1.00	52.67	C	
	ANISOU	2723	CD1	LEU	B	164	4974	8348	6691	-1472	870	-2360	C
	ATOM	2724	CD2	LEU	B	164	-10.838	-17.770	55.017	1.00	43.85	C	
	ANISOU	2724	CD2	LEU	B	164	4358	6725	5577	-1186	822	-1936	C
	ATOM	2725	N	VAL	B	165	-7.581	-20.872	51.704	1.00	54.40	N	
	ANISOU	2725	N	VAL	B	165	4674	9079	6918	-1100	888	-2522	N
20	ATOM	2726	CA	VAL	B	165	-7.353	-22.292	51.434	1.00	55.61	C	
	ANISOU	2726	CA	VAL	B	165	4638	9369	7121	-781	735	-2638	C
	ATOM	2727	C	VAL	B	165	-7.559	-23.162	52.675	1.00	57.78	C	
	ANISOU	2727	C	VAL	B	165	4948	9546	7459	-432	439	-2610	C
	ATOM	2728	O	VAL	B	165	-6.897	-22.962	53.697	1.00	60.96	O	
	ANISOU	2728	O	VAL	B	165	5233	10056	7873	-414	317	-2752	O
25	ATOM	2729	CB	VAL	B	165	-5.928	-22.538	50.889	1.00	59.45	C	
	ANISOU	2729	CB	VAL	B	165	4859	10159	7569	-828	732	-2944	C
	ATOM	2730	CG1	VAL	B	165	-5.730	-24.006	50.561	1.00	56.72	C	
	ANISOU	2730	CG1	VAL	B	165	4405	9869	7277	-473	533	-3055	C
	ATOM	2731	CG2	VAL	B	165	-5.659	-21.677	49.663	1.00	60.41	C	
	ANISOU	2731	CG2	VAL	B	165	5051	10342	7562	-1200	988	-2923	C
30	ATOM	2732	N	PRO	B	166	-8.470	-24.143	52.583	1.00	57.43	N	
	ANISOU	2732	N	PRO	B	166	5078	9302	7440	-175	313	-2422	N
	ATOM	2733	CA	PRO	B	166	-8.755	-25.018	53.726	1.00	59.59	C	
	ANISOU	2733	CA	PRO	B	166	5448	9453	7739	111	27	-2343	C
	ATOM	2734	C	PRO	B	166	-7.540	-25.849	54.133	1.00	67.65	C	
	ANISOU	2734	C	PRO	B	166	6179	10698	8827	337	-226	-2637	C
35	ATOM	2735	O	PRO	B	166	-6.690	-26.130	53.286	1.00	68.24	O	
	ANISOU	2735	O	PRO	B	166	5964	11009	8954	357	-189	-2904	O
	ATOM	2736	CB	PRO	B	166	-9.869	-25.928	53.201	1.00	57.31	C	
	ANISOU	2736	CB	PRO	B	166	5370	8936	7468	276	-20	-2117	C
	ATOM	2737	CG	PRO	B	166	-10.471	-25.192	52.044	1.00	55.63	C	
	ANISOU	2737	CG	PRO	B	166	5249	8668	7220	54	258	-2007	C
40	ATOM	2738	CD	PRO	B	166	-9.324	-24.449	51.423	1.00	57.28	C	
	ANISOU	2738	CD	PRO	B	166	5201	9152	7409	-174	429	-2257	C
	ATOM	2739	N	ASN	B	167	-7.475	-26.213	55.415	1.00	74.34	N	
	ANISOU	2739	N	ASN	B	167	7104	11484	9658	502	-486	-2600	N
	ATOM	2740	CA	ASN	B	167	-6.454	-27.114	55.975	1.00	80.75	C	
	ANISOU	2740	CA	ASN	B	167	7706	12441	10534	785	-821	-2840	C
50	ATOM	2741	C	ASN	B	167	-5.066	-26.498	56.180	1.00	81.67	C	
	ANISOU	2741	C	ASN	B	167	7504	12868	10658	688	-794	-3179	C
	ATOM	2742	O	ASN	B	167	-4.167	-27.148	56.707	1.00	84.38	O	
	ANISOU	2742	O	ASN	B	167	7779	13258	11022	916	-1032	-3340	O
	ATOM	2743	CB	ASN	B	167	-6.354	-28.421	55.167	1.00	88.51	C	
	ANISOU	2743	CB	ASN	B	167	8616	13389	11626	1070	-985	-2928	C
55	ATOM	2744	CG	ASN	B	167	-7.656	-29.201	55.144	1.00	91.79	C	
	ANISOU	2744	CG	ASN	B	167	9397	13454	12025	1179	-1066	-2582	C
	ATOM	2745	OD1	ASN	B	167	-8.734	-28.631	54.982	1.00	90.42	O	
	ANISOU	2745	OD1	ASN	B	167	9457	13122	11776	977	-838	-2313	O
	ATOM	2746	ND2	ASN	B	167	-7.559	-30.515	55.322	1.00	96.12	N	

	ANISOU	2746	ND2	ASN	B	167	10002	13871	12650	1500	-1411	-2599	N
	ATOM	2747	N	GLU	B	168	-4.896	-25.248	55.769	1.00	82.00		N
	ANISOU	2747	N	GLU	B	168	7461	13038	10658	334	-478	-3235	N
	ATOM	2748	CA	GLU	B	168	-3.638	-24.543	55.988	1.00	87.31		C
5	ANISOU	2748	CA	GLU	B	168	7946	13934	11294	180	-400	-3493	C
	ATOM	2749	C	GLU	B	168	-3.872	-23.245	56.753	1.00	86.23		C
	ANISOU	2749	C	GLU	B	168	7867	13794	11102	-113	-282	-3430	C
	ATOM	2750	O	GLU	B	168	-4.935	-22.636	56.638	1.00	84.04		O
	ANISOU	2750	O	GLU	B	168	7793	13337	10800	-292	-131	-3204	O
10	ATOM	2751	CB	GLU	B	168	-2.963	-24.228	54.657	1.00	91.51		C
	ANISOU	2751	CB	GLU	B	168	8347	14631	11793	-25	-137	-3661	C
	ATOM	2752	CG	GLU	B	168	-3.428	-25.113	53.527	1.00	94.88		C
	ANISOU	2752	CG	GLU	B	168	8828	14979	12244	104	-122	-3599	C
	ATOM	2753	CD	GLU	B	168	-2.697	-24.850	52.233	1.00	99.40		C
15	ANISOU	2753	CD	GLU	B	168	9278	15752	12739	-112	99	-3782	C
	ATOM	2754	OE1	GLU	B	168	-2.341	-23.679	51.969	1.00	101.63		O
	ANISOU	2754	OE1	GLU	B	168	9536	16146	12931	-478	338	-3812	O
	ATOM	2755	OE2	GLU	B	168	-2.464	-25.828	51.490	1.00	100.41		O
	ANISOU	2755	OE2	GLU	B	168	9345	15920	12885	74	16	-3902	O
20	ATOM	2756	N	LYS	B	169	-2.873	-22.825	57.526	1.00	89.15		N
	ANISOU	2756	N	LYS	B	169	8110	14317	11446	-146	-344	-3624	N
	ATOM	2757	CA	LYS	B	169	-2.931	-21.563	58.273	1.00	88.62		C
	ANISOU	2757	CA	LYS	B	169	8100	14245	11325	-430	-242	-3612	C
	ATOM	2758	C	LYS	B	169	-4.073	-21.513	59.288	1.00	79.28		C
25	ANISOU	2758	C	LYS	B	169	7154	12875	10094	-382	-395	-3404	C
	ATOM	2759	O	LYS	B	169	-4.645	-20.450	59.530	1.00	80.82		O
	ANISOU	2759	O	LYS	B	169	7551	12918	10237	-624	-219	-3285	O
	ATOM	2760	CB	LYS	B	169	-3.009	-20.363	57.313	1.00	92.39		C
	ANISOU	2760	CB	LYS	B	169	8616	14706	11782	-847	117	-3590	C
30	ATOM	2761	CG	LYS	B	169	-1.775	-20.186	56.434	1.00	98.14		C
	ANISOU	2761	CG	LYS	B	169	9143	15664	12480	-984	277	-3821	C
	ATOM	2762	CD	LYS	B	169	-2.078	-19.381	55.174	1.00	99.32		C
	ANISOU	2762	CD	LYS	B	169	9414	15749	12574	-1346	588	-3712	C
	ATOM	2763	CE	LYS	B	169	-1.679	-17.919	55.315	1.00	101.24		C
35	ANISOU	2763	CE	LYS	B	169	9717	15986	12762	-1751	775	-3742	C
	ATOM	2764	NZ	LYS	B	169	-1.886	-17.177	54.038	1.00	101.10		N
	ANISOU	2764	NZ	LYS	B	169	9861	15889	12664	-2102	1040	-3614	N
	ATOM	2765	N	GLY	B	170	-4.388	-22.663	59.881	1.00	71.44		N
	ANISOU	2765	N	GLY	B	170	6270	11797	9077	-40	-685	-3290	N
40	ATOM	2766	CA	GLY	B	170	-5.443	-22.764	60.877	1.00	64.84		C
	ANISOU	2766	CA	GLY	B	170	5795	10724	8120	37	-780	-3003	C
	ATOM	2767	C	GLY	B	170	-6.844	-22.583	60.318	1.00	57.79		C
	ANISOU	2767	C	GLY	B	170	5206	9545	7205	-46	-556	-2690	C
	ATOM	2768	O	GLY	B	170	-7.763	-22.156	61.020	1.00	57.40		O
45	ANISOU	2768	O	GLY	B	170	5414	9341	7055	-108	-508	-2508	O
	ATOM	2769	N	VAL	B	171	-7.010	-22.914	59.044	1.00	53.14		N
	ANISOU	2769	N	VAL	B	171	4570	8914	6706	-41	-424	-2654	N
	ATOM	2770	CA	VAL	B	171	-8.292	-22.766	58.374	1.00	48.02		C
	ANISOU	2770	CA	VAL	B	171	4179	8016	6052	-108	-228	-2382	C
50	ATOM	2771	C	VAL	B	171	-8.917	-24.118	58.076	1.00	46.69		C
	ANISOU	2771	C	VAL	B	171	4126	7715	5900	150	-376	-2208	C
	ATOM	2772	O	VAL	B	171	-8.283	-24.976	57.482	1.00	49.40		O
	ANISOU	2772	O	VAL	B	171	4291	8155	6324	311	-493	-2339	O
	ATOM	2773	CB	VAL	B	171	-8.129	-22.030	57.048	1.00	45.14		C
55	ANISOU	2773	CB	VAL	B	171	3723	7678	5749	-342	49	-2440	C
	ATOM	2774	CG1	VAL	B	171	-9.470	-21.913	56.342	1.00	38.58		C
	ANISOU	2774	CG1	VAL	B	171	3163	6585	4911	-374	206	-2162	C
	ATOM	2775	CG2	VAL	B	171	-7.496	-20.666	57.281	1.00	39.56		C
	ANISOU	2775	CG2	VAL	B	171	2933	7067	5030	-646	194	-2602	C

5	ATOM	2776	N	SER B 172	-10.164	-24.307	58.483	1.00	44.15	N	
	ANISOU	2776	N	SER B 172	4092	7179	5505	180	-373	-1938	N
	ATOM	2777	CA	SER B 172	-10.859	-25.547	58.181	1.00	42.77	C	
	ANISOU	2777	CA	SER B 172	4056	6852	5342	370	-499	-1753	C
	ATOM	2778	C	SER B 172	-12.249	-25.256	57.630	1.00	37.75	C	
	ANISOU	2778	C	SER B 172	3628	6022	4694	270	-288	-1522	C
	ATOM	2779	O	SER B 172	-12.900	-24.288	58.025	1.00	33.80	O	
	ANISOU	2779	O	SER B 172	3241	5469	4135	120	-133	-1455	O
10	ATOM	2780	CB	SER B 172	-10.958	-26.426	59.427	1.00	46.51	C	
	ANISOU	2780	CB	SER B 172	4680	7281	5711	529	-795	-1647	C
	ATOM	2781	OG	SER B 172	-11.861	-25.860	60.363	1.00	48.82	O	
	ANISOU	2781	OG	SER B 172	5182	7513	5855	395	-712	-1486	O
15	ATOM	2782	N	VAL B 173	-12.699	-26.103	56.713	1.00	36.25	N	
	ANISOU	2782	N	VAL B 173	3477	5730	4568	373	-300	-1429	N
	ATOM	2783	CA	VAL B 173	-14.007	-25.935	56.104	1.00	36.16	C	
	ANISOU	2783	CA	VAL B 173	3634	5550	4554	303	-131	-1230	C
	ATOM	2784	C	VAL B 173	-14.736	-27.266	56.135	1.00	35.92	C	
	ANISOU	2784	C	VAL B 173	3751	5378	4518	451	-294	-1056	C
	ATOM	2785	O	VAL B 173	-14.118	-28.316	55.949	1.00	37.53	O	
	ANISOU	2785	O	VAL B 173	3895	5585	4780	621	-500	-1122	O
20	ATOM	2786	CB	VAL B 173	-13.881	-25.415	54.642	1.00	39.04	C	
	ANISOU	2786	CB	VAL B 173	3901	5934	4997	208	71	-1297	C
	ATOM	2787	CG1	VAL B 173	-15.227	-25.428	53.917	1.00	26.64	C	
	ANISOU	2787	CG1	VAL B 173	2501	4188	3433	186	188	-1097	C
25	ATOM	2788	CG2	VAL B 173	-13.294	-24.020	54.631	1.00	36.59	C	
	ANISOU	2788	CG2	VAL B 173	3509	5717	4677	-3	239	-1425	C
	ATOM	2789	N	LYS B 174	-16.039	-27.215	56.411	1.00	33.17	N	
	ANISOU	2789	N	LYS B 174	3590	4909	4104	382	-215	-854	N
30	ATOM	2790	CA	LYS B 174	-16.911	-28.372	56.265	1.00	29.56	C	
	ANISOU	2790	CA	LYS B 174	3283	4307	3642	453	-320	-674	C
	ATOM	2791	C	LYS B 174	-17.997	-28.026	55.262	1.00	27.28	C	
	ANISOU	2791	C	LYS B 174	3029	3936	3402	384	-118	-589	C
35	ATOM	2792	O	LYS B 174	-18.522	-26.903	55.257	1.00	25.77	O	
	ANISOU	2792	O	LYS B 174	2841	3760	3189	272	71	-590	O
	ATOM	2793	CB	LYS B 174	-17.536	-28.782	57.602	1.00	30.61	C	
	ANISOU	2793	CB	LYS B 174	3602	4409	3618	402	-427	-510	C
	ATOM	2794	CG	LYS B 174	-16.529	-29.230	58.650	1.00	36.03	C	
	ANISOU	2794	CG	LYS B 174	4304	5156	4228	482	-682	-559	C
	ATOM	2795	CD	LYS B 174	-15.786	-30.476	58.209	1.00	43.08	C	
	ANISOU	2795	CD	LYS B 174	5185	5957	5228	688	-959	-599	C
40	ATOM	2796	CE	LYS B 174	-14.587	-30.769	59.122	1.00	51.24	C	
	ANISOU	2796	CE	LYS B 174	6183	7067	6219	816	-1242	-710	C
	ATOM	2797	NZ	LYS B 174	-13.443	-29.815	58.924	1.00	51.24	N	
	ANISOU	2797	NZ	LYS B 174	5896	7281	6291	832	-1154	-994	N
45	ATOM	2798	N	GLU B 175	-18.333	-28.996	54.419	1.00	25.60	N	
	ANISOU	2798	N	GLU B 175	2847	3621	3257	467	-186	-531	N
	ATOM	2799	CA	GLU B 175	-19.253	-28.773	53.313	1.00	27.25	C	
	ANISOU	2799	CA	GLU B 175	3070	3765	3517	427	-31	-473	C
50	ATOM	2800	C	GLU B 175	-20.405	-29.755	53.350	1.00	25.74	C	
	ANISOU	2800	C	GLU B 175	3019	3447	3312	428	-102	-302	C
	ATOM	2801	O	GLU B 175	-20.299	-30.850	53.912	1.00	29.17	O	
	ANISOU	2801	O	GLU B 175	3550	3807	3725	477	-302	-232	O
55	ATOM	2802	CB	GLU B 175	-18.517	-28.896	51.973	1.00	29.68	C	
	ANISOU	2802	CB	GLU B 175	3248	4114	3916	494	-9	-612	C
	ATOM	2803	CG	GLU B 175	-17.294	-28.005	51.882	1.00	39.35	C	
	ANISOU	2803	CG	GLU B 175	4312	5497	5142	445	70	-798	C
	ATOM	2804	CD	GLU B 175	-16.556	-28.137	50.571	1.00	46.22	C	
	ANISOU	2804	CD	GLU B 175	5032	6468	6062	468	121	-956	C
	ATOM	2805	OE1	GLU B 175	-16.592	-29.226	49.953	1.00	46.05	O	

	ANISOU	2805	OE1	GLU	B	175	4994	6408	6094	602	10	-985	O
	ATOM	2806	OE2	GLU	B	175	-15.937	-27.137	50.156	1.00	51.65		O
	ANISOU	2806	OE2	GLU	B	175	5622	7278	6725	331	276	-1060	O
	ATOM	2807	N	GLN	B	176	-21.497	-29.362	52.715	1.00	24.99		N
5	ANISOU	2807	N	GLN	B	176	2944	3318	3234	368	43	-238	N
	ATOM	2808	CA	GLN	B	176	-22.714	-30.146	52.725	1.00	28.03		C
	ANISOU	2808	CA	GLN	B	176	3430	3618	3604	326	13	-96	C
	ATOM	2809	C	GLN	B	176	-23.480	-29.885	51.433	1.00	24.95		C
	ANISOU	2809	C	GLN	B	176	2999	3194	3286	336	121	-100	C
10	ATOM	2810	O	GLN	B	176	-23.576	-28.744	50.969	1.00	20.63		O
	ANISOU	2810	O	GLN	B	176	2399	2687	2750	322	260	-154	O
	ATOM	2811	CB	GLN	B	176	-23.562	-29.757	53.948	1.00	26.37		C
	ANISOU	2811	CB	GLN	B	176	3277	3473	3272	193	86	-14	C
	ATOM	2812	CG	GLN	B	176	-24.865	-30.516	54.074	1.00	31.21		C
15	ANISOU	2812	CG	GLN	B	176	3967	4049	3843	90	83	118	C
	ATOM	2813	CD	GLN	B	176	-25.573	-30.232	55.394	1.00	37.59		C
	ANISOU	2813	CD	GLN	B	176	4810	4984	4489	-69	162	169	C
	ATOM	2814	OE1	GLN	B	176	-25.707	-29.077	55.802	1.00	42.19		O
	ANISOU	2814	OE1	GLN	B	176	5310	5682	5037	-82	303	70	O
20	ATOM	2815	NE2	GLN	B	176	-26.011	-31.287	56.073	1.00	36.57		N
	ANISOU	2815	NE2	GLN	B	176	4814	4832	4248	-206	66	315	N
	ATOM	2816	N	THR	B	177	-24.019	-30.944	50.849	1.00	26.13		N
	ANISOU	2816	N	THR	B	177	3196	3252	3479	359	32	-42	N
	ATOM	2817	CA	THR	B	177	-24.816	-30.826	49.632	1.00	27.60		C
25	ANISOU	2817	CA	THR	B	177	3352	3415	3721	372	103	-45	C
	ATOM	2818	C	THR	B	177	-26.165	-31.503	49.825	1.00	26.41		C
	ANISOU	2818	C	THR	B	177	3256	3220	3560	285	82	65	C
	ATOM	2819	O	THR	B	177	-26.231	-32.635	50.307	1.00	27.22		O
	ANISOU	2819	O	THR	B	177	3451	3240	3651	241	-53	141	O
30	ATOM	2820	CB	THR	B	177	-24.103	-31.480	48.433	1.00	29.47		C
	ANISOU	2820	CB	THR	B	177	3555	3615	4026	481	22	-136	C
	ATOM	2821	OG1	THR	B	177	-22.922	-30.736	48.120	1.00	32.16		O
	ANISOU	2821	OG1	THR	B	177	3808	4053	4359	517	85	-262	O
	ATOM	2822	CG2	THR	B	177	-25.013	-31.494	47.217	1.00	27.02		C
35	ANISOU	2822	CG2	THR	B	177	3238	3284	3744	484	68	-126	C
	ATOM	2823	N	ARG	B	178	-27.239	-30.806	49.469	1.00	25.00		N
	ANISOU	2823	N	ARG	B	178	3022	3091	3385	253	199	66	N
	ATOM	2824	CA	ARG	B	178	-28.575	-31.396	49.530	1.00	25.88		C
	ANISOU	2824	CA	ARG	B	178	3132	3208	3495	156	197	129	C
40	ATOM	2825	C	ARG	B	178	-29.307	-31.170	48.222	1.00	23.89		C
	ANISOU	2825	C	ARG	B	178	2817	2948	3312	222	218	84	C
	ATOM	2826	O	ARG	B	178	-28.946	-30.286	47.442	1.00	22.05		O
	ANISOU	2826	O	ARG	B	178	2560	2718	3099	320	261	27	O
	ATOM	2827	CB	ARG	B	178	-29.389	-30.816	50.689	1.00	26.66		C
45	ANISOU	2827	CB	ARG	B	178	3184	3438	3509	39	310	138	C
	ATOM	2828	CG	ARG	B	178	-28.892	-31.206	52.071	1.00	36.46		C
	ANISOU	2828	CG	ARG	B	178	4512	4707	4633	-73	277	207	C
	ATOM	2829	CD	ARG	B	178	-29.777	-30.579	53.131	1.00	47.01		C
	ANISOU	2829	CD	ARG	B	178	5776	6226	5859	-202	418	178	C
50	ATOM	2830	NE	ARG	B	178	-29.939	-29.144	52.898	1.00	52.53		N
	ANISOU	2830	NE	ARG	B	178	6355	6994	6611	-82	535	36	N
	ATOM	2831	CZ	ARG	B	178	-29.430	-28.200	53.680	1.00	56.54		C
	ANISOU	2831	CZ	ARG	B	178	6850	7566	7066	-61	598	-40	C
	ATOM	2832	NH1	ARG	B	178	-28.743	-28.544	54.764	1.00	63.32		N
55	ANISOU	2832	NH1	ARG	B	178	7791	8466	7800	-152	563	12	N
	ATOM	2833	NH2	ARG	B	178	-29.616	-26.919	53.388	1.00	53.93		N
	ANISOU	2833	NH2	ARG	B	178	6444	7243	6805	51	672	-169	N
	ATOM	2834	N	ARG	B	179	-30.351	-31.955	47.996	1.00	25.65		N
	ANISOU	2834	N	ARG	B	179	3024	3164	3556	146	179	117	N

	ATOM	2835	CA	ARG	B	179	-31.051	-31.939	46.716	1.00	28.33		C
	ANISOU	2835	CA	ARG	B	179	3309	3499	3957	212	159	70	C
	ATOM	2836	C	ARG	B	179	-32.538	-31.702	46.952	1.00	28.13		C
	ANISOU	2836	C	ARG	B	179	3163	3589	3935	135	218	46	C
5	ATOM	2837	O	ARG	B	179	-33.134	-32.320	47.835	1.00	28.41		O
	ANISOU	2837	O	ARG	B	179	3182	3684	3930	-36	238	86	O
	ATOM	2838	CB	ARG	B	179	-30.827	-33.285	46.019	1.00	34.08		C
	ANISOU	2838	CB	ARG	B	179	4108	4110	4732	208	20	82	C
	ATOM	2839	CG	ARG	B	179	-30.768	-33.225	44.520	1.00	43.48		C
10	ANISOU	2839	CG	ARG	B	179	5280	5285	5957	328	-19	7	C
	ATOM	2840	CD	ARG	B	179	-29.575	-34.004	43.980	1.00	46.57		C
	ANISOU	2840	CD	ARG	B	179	5738	5588	6369	409	-118	-49	C
	ATOM	2841	NE	ARG	B	179	-29.663	-35.435	44.246	1.00	49.85		N
	ANISOU	2841	NE	ARG	B	179	6232	5867	6841	352	-266	-28	N
15	ATOM	2842	CZ	ARG	B	179	-30.321	-36.299	43.476	1.00	50.43		C
	ANISOU	2842	CZ	ARG	B	179	6319	5876	6968	330	-362	-63	C
	ATOM	2843	NH1	ARG	B	179	-30.962	-35.870	42.392	1.00	50.43		N
	ANISOU	2843	NH1	ARG	B	179	6240	5963	6956	371	-323	-122	N
	ATOM	2844	NH2	ARG	B	179	-30.346	-37.592	43.793	1.00	45.77		N
20	ANISOU	2844	NH2	ARG	B	179	5839	5114	6437	262	-519	-36	N
	ATOM	2845	N	HIS	B	180	-33.143	-30.801	46.186	1.00	26.57		N
	ANISOU	2845	N	HIS	B	180	2883	3439	3775	252	238	-28	N
	ATOM	2846	CA	HIS	B	180	-34.580	-30.580	46.312	1.00	25.78		C
	ANISOU	2846	CA	HIS	B	180	2621	3473	3700	220	269	-103	C
25	ATOM	2847	C	HIS	B	180	-35.281	-31.844	45.831	1.00	25.98		C
	ANISOU	2847	C	HIS	B	180	2618	3498	3753	103	193	-89	C
	ATOM	2848	O	HIS	B	180	-34.988	-32.339	44.745	1.00	23.63		O
	ANISOU	2848	O	HIS	B	180	2391	3098	3490	168	93	-77	O
	ATOM	2849	CB	HIS	B	180	-35.032	-29.362	45.501	1.00	25.40		C
30	ANISOU	2849	CB	HIS	B	180	2516	3433	3701	414	242	-190	C
	ATOM	2850	CG	HIS	B	180	-36.472	-28.998	45.708	1.00	29.63		C
	ANISOU	2850	CG	HIS	B	180	2846	4130	4283	435	255	-322	C
	ATOM	2851	ND1	HIS	B	180	-37.510	-29.740	45.184	1.00	30.87		N
	ANISOU	2851	ND1	HIS	B	180	2878	4374	4478	380	197	-373	N
35	ATOM	2852	CD2	HIS	B	180	-37.041	-27.972	46.384	1.00	25.90		C
	ANISOU	2852	CD2	HIS	B	180	2245	3764	3831	513	312	-451	C
	ATOM	2853	CE1	HIS	B	180	-38.660	-29.178	45.525	1.00	29.28		C
	ANISOU	2853	CE1	HIS	B	180	2456	4351	4318	423	224	-534	C
	ATOM	2854	NE2	HIS	B	180	-38.402	-28.111	46.255	1.00	27.66		N
40	ANISOU	2854	NE2	HIS	B	180	2245	4159	4106	516	291	-592	N
	ATOM	2855	N	PRO	B	181	-36.188	-32.389	46.651	1.00	25.50		N
	ANISOU	2855	N	PRO	B	181	2459	3565	3666	-98	248	-99	N
	ATOM	2856	CA	PRO	B	181	-36.808	-33.685	46.344	1.00	28.76		C
	ANISOU	2856	CA	PRO	B	181	2872	3956	4100	-275	176	-70	C
45	ATOM	2857	C	PRO	B	181	-37.610	-33.715	45.034	1.00	31.54		C
	ANISOU	2857	C	PRO	B	181	3113	4333	4536	-173	87	-171	C
	ATOM	2858	O	PRO	B	181	-37.796	-34.795	44.465	1.00	27.70		O
	ANISOU	2858	O	PRO	B	181	2676	3764	4084	-270	-11	-152	O
	ATOM	2859	CB	PRO	B	181	-37.719	-33.944	47.558	1.00	28.64		C
50	ANISOU	2859	CB	PRO	B	181	2739	4137	4005	-546	294	-80	C
	ATOM	2860	CG	PRO	B	181	-37.921	-32.612	48.185	1.00	28.58		C
	ANISOU	2860	CG	PRO	B	181	2584	4307	3968	-434	422	-193	C
	ATOM	2861	CD	PRO	B	181	-36.649	-31.847	47.936	1.00	26.48		C
	ANISOU	2861	CD	PRO	B	181	2470	3873	3719	-203	387	-147	C
55	ATOM	2862	N	GLU	B	182	-38.063	-32.560	44.553	1.00	33.93		N
	ANISOU	2862	N	GLU	B	182	3289	4731	4874	26	93	-280	N
	ATOM	2863	CA	GLU	B	182	-38.858	-32.529	43.325	1.00	35.92		C
	ANISOU	2863	CA	GLU	B	182	3442	5016	5188	140	-22	-375	C
	ATOM	2864	C	GLU	B	182	-38.085	-32.014	42.107	1.00	35.68		C

	ANISOU	2864	C	GLU	B	182	3563	4843	5150	364	-124	-342	C
	ATOM	2865	O	GLU	B	182	-38.174	-32.593	41.021	1.00	37.24		O
	ANISOU	2865	O	GLU	B	182	3799	4994	5355	391	-237	-355	O
	ATOM	2866	CB	GLU	B	182	-40.126	-31.703	43.523	1.00	41.89		C
5	ANISOU	2866	CB	GLU	B	182	3937	5991	5988	210	2	-545	C
	ATOM	2867	CG	GLU	B	182	-41.401	-32.412	43.095	1.00	54.93		C
	ANISOU	2867	CG	GLU	B	182	5381	7798	7691	99	-56	-666	C
	ATOM	2868	CD	GLU	B	182	-42.165	-33.036	44.266	1.00	66.04		C
	ANISOU	2868	CD	GLU	B	182	6611	9416	9067	-214	88	-719	C
10	ATOM	2869	OE1	GLU	B	182	-42.345	-32.365	45.311	1.00	67.82		O
	ANISOU	2869	OE1	GLU	B	182	6718	9798	9251	-235	226	-788	O
	ATOM	2870	OE2	GLU	B	182	-42.591	-34.204	44.137	1.00	71.61		O
	ANISOU	2870	OE2	GLU	B	182	7302	10133	9773	-460	65	-698	O
	ATOM	2871	N	THR	B	183	-37.329	-30.931	42.279	1.00	33.16		N
15	ANISOU	2871	N	THR	B	183	3336	4465	4799	497	-80	-304	N
	ATOM	2872	CA	THR	B	183	-36.691	-30.274	41.136	1.00	24.83		C
	ANISOU	2872	CA	THR	B	183	2427	3305	3703	663	-161	-268	C
	ATOM	2873	C	THR	B	183	-35.304	-30.806	40.854	1.00	26.67		C
	ANISOU	2873	C	THR	B	183	2832	3428	3875	620	-139	-185	C
20	ATOM	2874	O	THR	B	183	-34.787	-30.628	39.754	1.00	24.28		O
	ANISOU	2874	O	THR	B	183	2636	3081	3508	695	-196	-170	O
	ATOM	2875	CB	THR	B	183	-36.565	-28.758	41.339	1.00	29.97		C
	ANISOU	2875	CB	THR	B	183	3116	3922	4348	810	-146	-272	C
	ATOM	2876	OG1	THR	B	183	-35.707	-28.497	42.461	1.00	25.42		O
25	ANISOU	2876	OG1	THR	B	183	2588	3318	3753	739	-14	-229	O
	ATOM	2877	CG2	THR	B	183	-37.944	-28.121	41.558	1.00	26.63		C
	ANISOU	2877	CG2	THR	B	183	2499	3611	4007	918	-201	-408	C
	ATOM	2878	N	GLY	B	184	-34.696	-31.445	41.853	1.00	25.36		N
	ANISOU	2878	N	GLY	B	184	2688	3234	3715	500	-66	-145	N
30	ATOM	2879	CA	GLY	B	184	-33.348	-31.959	41.716	1.00	23.44		C
	ANISOU	2879	CA	GLY	B	184	2570	2899	3435	490	-65	-108	C
	ATOM	2880	C	GLY	B	184	-32.259	-30.912	41.896	1.00	25.01		C
	ANISOU	2880	C	GLY	B	184	2845	3080	3579	549	14	-80	C
	ATOM	2881	O	GLY	B	184	-31.079	-31.224	41.823	1.00	29.29		O
35	ANISOU	2881	O	GLY	B	184	3451	3588	4090	547	26	-84	O
	ATOM	2882	N	LEU	B	185	-32.640	-29.667	42.137	1.00	25.99		N
	ANISOU	2882	N	LEU	B	185	2953	3226	3698	603	57	-75	N
	ATOM	2883	CA	LEU	B	185	-31.647	-28.600	42.250	1.00	26.23		C
	ANISOU	2883	CA	LEU	B	185	3075	3215	3677	630	122	-48	C
40	ATOM	2884	C	LEU	B	185	-30.895	-28.677	43.579	1.00	27.01		C
	ANISOU	2884	C	LEU	B	185	3163	3320	3781	558	208	-40	C
	ATOM	2885	O	LEU	B	185	-31.464	-29.053	44.606	1.00	26.64		O
	ANISOU	2885	O	LEU	B	185	3041	3316	3763	500	231	-44	O
	ATOM	2886	CB	LEU	B	185	-32.314	-27.237	42.100	1.00	27.01		C
45	ANISOU	2886	CB	LEU	B	185	3196	3283	3786	723	100	-51	C
	ATOM	2887	CG	LEU	B	185	-33.042	-27.008	40.780	1.00	28.08		C
	ANISOU	2887	CG	LEU	B	185	3373	3398	3897	815	-25	-46	C
	ATOM	2888	CD1	LEU	B	185	-33.584	-25.581	40.721	1.00	23.88		C
	ANISOU	2888	CD1	LEU	B	185	2904	2783	3388	937	-94	-46	C
50	ATOM	2889	CD2	LEU	B	185	-32.116	-27.296	39.601	1.00	22.63		C
	ANISOU	2889	CD2	LEU	B	185	2811	2699	3089	772	-37	0	C
	ATOM	2890	N	PHE	B	186	-29.624	-28.296	43.553	1.00	25.59		N
	ANISOU	2890	N	PHE	B	186	3051	3119	3552	544	254	-36	N
	ATOM	2891	CA	PHE	B	186	-28.749	-28.453	44.709	1.00	26.98		C
55	ANISOU	2891	CA	PHE	B	186	3216	3309	3725	489	304	-42	C
	ATOM	2892	C	PHE	B	186	-28.755	-27.265	45.660	1.00	25.71		C
	ANISOU	2892	C	PHE	B	186	3057	3151	3561	478	379	-51	C
	ATOM	2893	O	PHE	B	186	-28.836	-26.114	45.244	1.00	28.58		O
	ANISOU	2893	O	PHE	B	186	3474	3467	3919	513	397	-55	O

5	ATOM	2894	CB	PHE	B	186	-27.311	-28.688	44.254	1.00	25.09		C
	ANISOU	2894	CB	PHE	B	186	3003	3085	3447	482	310	-82	C
	ATOM	2895	CG	PHE	B	186	-27.107	-29.967	43.510	1.00	26.87		C
	ANISOU	2895	CG	PHE	B	186	3212	3311	3685	514	225	-125	C
	ATOM	2896	CD1	PHE	B	186	-27.183	-29.999	42.127	1.00	26.98		C
	ANISOU	2896	CD1	PHE	B	186	3245	3352	3656	541	209	-158	C
	ATOM	2897	CD2	PHE	B	186	-26.803	-31.136	44.188	1.00	28.68		C
	ANISOU	2897	CD2	PHE	B	186	3430	3504	3965	520	140	-140	C
10	ATOM	2898	CE1	PHE	B	186	-26.964	-31.187	41.432	1.00	26.33		C
	ANISOU	2898	CE1	PHE	B	186	3139	3277	3588	582	126	-239	C
	ATOM	2899	CE2	PHE	B	186	-26.585	-32.330	43.502	1.00	27.80		C
	ANISOU	2899	CE2	PHE	B	186	3318	3356	3889	573	30	-208	C
15	ATOM	2900	CZ	PHE	B	186	-26.673	-32.352	42.123	1.00	24.97		C
	ANISOU	2900	CZ	PHE	B	186	2948	3042	3497	609	32	-274	C
	ATOM	2901	N	THR	B	187	-28.658	-27.566	46.947	1.00	25.54		N
	ANISOU	2901	N	THR	B	187	2998	3174	3533	423	406	-54	N
	ATOM	2902	CA	THR	B	187	-28.409	-26.552	47.961	1.00	26.79		C
	ANISOU	2902	CA	THR	B	187	3154	3353	3672	405	478	-93	C
	ATOM	2903	C	THR	B	187	-27.068	-26.869	48.607	1.00	26.92		C
	ANISOU	2903	C	THR	B	187	3189	3391	3647	355	478	-99	C
20	ATOM	2904	O	THR	B	187	-26.834	-28.000	49.040	1.00	26.60		O
	ANISOU	2904	O	THR	B	187	3149	3368	3590	326	415	-65	O
	ATOM	2905	CB	THR	B	187	-29.514	-26.540	49.022	1.00	25.75		C
	ANISOU	2905	CB	THR	B	187	2942	3309	3533	373	516	-123	C
25	ATOM	2906	OG1	THR	B	187	-30.733	-26.106	48.415	1.00	25.23		O
	ANISOU	2906	OG1	THR	B	187	2817	3244	3524	451	502	-166	O
	ATOM	2907	CG2	THR	B	187	-29.162	-25.600	50.181	1.00	27.63		C
	ANISOU	2907	CG2	THR	B	187	3174	3590	3735	352	588	-194	C
30	ATOM	2908	N	LEU	B	188	-26.179	-25.884	48.639	1.00	28.31		N
	ANISOU	2908	N	LEU	B	188	3391	3554	3810	343	526	-146	N
	ATOM	2909	CA	LEU	B	188	-24.833	-26.093	49.165	1.00	25.09		C
	ANISOU	2909	CA	LEU	B	188	2967	3194	3370	305	517	-188	C
35	ATOM	2910	C	LEU	B	188	-24.673	-25.328	50.458	1.00	26.21		C
	ANISOU	2910	C	LEU	B	188	3105	3375	3480	261	563	-234	C
	ATOM	2911	O	LEU	B	188	-25.210	-24.235	50.610	1.00	28.66		O
	ANISOU	2911	O	LEU	B	188	3437	3648	3806	262	621	-269	O
40	ATOM	2912	CB	LEU	B	188	-23.770	-25.618	48.172	1.00	23.09		C
	ANISOU	2912	CB	LEU	B	188	2719	2945	3111	278	551	-237	C
	ATOM	2913	CG	LEU	B	188	-23.722	-26.264	46.789	1.00	28.34		C
	ANISOU	2913	CG	LEU	B	188	3381	3612	3773	307	523	-228	C
45	ATOM	2914	CD1	LEU	B	188	-22.570	-25.664	45.996	1.00	30.99		C
	ANISOU	2914	CD1	LEU	B	188	3707	4013	4057	222	594	-298	C
	ATOM	2915	CD2	LEU	B	188	-23.570	-27.774	46.880	1.00	30.14		C
	ANISOU	2915	CD2	LEU	B	188	3557	3863	4030	377	417	-245	C
50	ATOM	2916	N	GLN	B	189	-23.915	-25.900	51.382	1.00	25.80		N
	ANISOU	2916	N	GLN	B	189	3030	3390	3382	238	512	-251	N
	ATOM	2917	CA	GLN	B	189	-23.678	-25.268	52.663	1.00	27.46		C
	ANISOU	2917	CA	GLN	B	189	3236	3663	3533	188	542	-306	C
55	ATOM	2918	C	GLN	B	189	-22.215	-25.458	53.042	1.00	33.37		C
	ANISOU	2918	C	GLN	B	189	3949	4472	4259	178	479	-372	C
	ATOM	2919	O	GLN	B	189	-21.638	-26.527	52.832	1.00	35.50		O
	ANISOU	2919	O	GLN	B	189	4201	4750	4539	229	367	-356	O
55	ATOM	2920	CB	GLN	B	189	-24.614	-25.866	53.708	1.00	26.75		C
	ANISOU	2920	CB	GLN	B	189	3161	3639	3364	151	528	-248	C
	ATOM	2921	CG	GLN	B	189	-24.868	-24.979	54.898	1.00	37.59		C
	ANISOU	2921	CG	GLN	B	189	4519	5101	4660	99	603	-332	C
	ATOM	2922	CD	GLN	B	189	-26.035	-25.461	55.750	1.00	43.02		C
	ANISOU	2922	CD	GLN	B	189	5199	5903	5245	26	637	-295	C
	ATOM	2923	OE1	GLN	B	189	-27.038	-25.949	55.228	1.00	47.76		O

	ANISOU	2923	OE1	GLN	B	189	5777	6493	5877	23	652	-240	O
	ATOM	2924	NE2	GLN	B	189	-25.905	-25.329	57.065	1.00	40.59		N
	ANISOU	2924	NE2	GLN	B	189	4900	5727	4795	-57	655	-334	N
	ATOM	2925	N	SER	B	190	-21.608	-24.408	53.579	1.00	35.71		N
5	ANISOU	2925	N	SER	B	190	4225	4805	4537	123	532	-471	N
	ATOM	2926	CA	SER	B	190	-20.186	-24.434	53.890	1.00	35.72		C
	ANISOU	2926	CA	SER	B	190	4155	4892	4525	104	477	-571	C
	ATOM	2927	C	SER	B	190	-19.894	-23.683	55.190	1.00	37.10		C
	ANISOU	2927	C	SER	B	190	4328	5137	4631	44	488	-656	C
10	ATOM	2928	O	SER	B	190	-20.259	-22.514	55.330	1.00	39.67		O
	ANISOU	2928	O	SER	B	190	4686	5417	4970	-13	587	-710	O
	ATOM	2929	CB	SER	B	190	-19.389	-23.841	52.722	1.00	31.70		C
	ANISOU	2929	CB	SER	B	190	3593	4379	4075	51	549	-647	C
	ATOM	2930	OG	SER	B	190	-18.017	-23.685	53.044	1.00	30.23		O
15	ANISOU	2930	OG	SER	B	190	3292	4315	3879	5	521	-789	O
	ATOM	2931	N	GLU	B	191	-19.249	-24.357	56.140	1.00	33.35		N
	ANISOU	2931	N	GLU	B	191	3830	4759	4082	67	361	-675	N
	ATOM	2932	CA	GLU	B	191	-18.911	-23.731	57.426	1.00	33.08		C
	ANISOU	2932	CA	GLU	B	191	3794	4821	3954	8	351	-765	C
20	ATOM	2933	C	GLU	B	191	-17.416	-23.460	57.569	1.00	32.29		C
	ANISOU	2933	C	GLU	B	191	3577	4817	3873	-10	286	-921	C
	ATOM	2934	O	GLU	B	191	-16.598	-24.370	57.458	1.00	27.05		O
	ANISOU	2934	O	GLU	B	191	2844	4210	3224	75	140	-943	O
	ATOM	2935	CB	GLU	B	191	-19.408	-24.582	58.594	1.00	38.25		C
25	ANISOU	2935	CB	GLU	B	191	4535	5540	4458	14	247	-665	C
	ATOM	2936	CG	GLU	B	191	-20.908	-24.775	58.577	1.00	48.12		C
	ANISOU	2936	CG	GLU	B	191	5861	6753	5670	-16	339	-548	C
	ATOM	2937	CD	GLU	B	191	-21.421	-25.583	59.749	1.00	53.44		C
	ANISOU	2937	CD	GLU	B	191	6634	7519	6152	-83	264	-439	C
30	ATOM	2938	OE1	GLU	B	191	-20.586	-26.069	60.544	1.00	54.03		O
	ANISOU	2938	OE1	GLU	B	191	6754	7653	6123	-82	103	-426	O
	ATOM	2939	OE2	GLU	B	191	-22.663	-25.717	59.869	1.00	52.43		O
	ANISOU	2939	OE2	GLU	B	191	6538	7417	5967	-149	360	-371	O
	ATOM	2940	N	LEU	B	192	-17.072	-22.199	57.811	1.00	27.10		N
35	ANISOU	2940	N	LEU	B	192	2891	4178	3227	-116	382	-1053	N
	ATOM	2941	CA	LEU	B	192	-15.684	-21.782	57.883	1.00	30.14		C
	ANISOU	2941	CA	LEU	B	192	3141	4673	3638	-180	349	-1228	C
	ATOM	2942	C	LEU	B	192	-15.238	-21.607	59.326	1.00	35.29		C
	ANISOU	2942	C	LEU	B	192	3778	5453	4179	-195	249	-1328	C
40	ATOM	2943	O	LEU	B	192	-15.911	-20.951	60.119	1.00	36.84		O
	ANISOU	2943	O	LEU	B	192	4064	5631	4301	-243	307	-1339	O
	ATOM	2944	CB	LEU	B	192	-15.489	-20.469	57.129	1.00	32.27		C
	ANISOU	2944	CB	LEU	B	192	3410	4862	3990	-339	510	-1308	C
	ATOM	2945	CG	LEU	B	192	-14.117	-19.798	57.237	1.00	36.08		C
45	ANISOU	2945	CG	LEU	B	192	3750	5467	4491	-484	517	-1509	C
	ATOM	2946	CD1	LEU	B	192	-13.040	-20.641	56.557	1.00	37.18		C
	ANISOU	2946	CD1	LEU	B	192	3692	5770	4663	-448	457	-1590	C
	ATOM	2947	CD2	LEU	B	192	-14.161	-18.398	56.639	1.00	34.99		C
	ANISOU	2947	CD2	LEU	B	192	3698	5185	4412	-688	669	-1544	C
50	ATOM	2948	N	MET	B	193	-14.098	-22.205	59.656	1.00	36.56		N
	ANISOU	2948	N	MET	B	193	3814	5756	4323	-138	85	-1425	N
	ATOM	2949	CA	MET	B	193	-13.459	-21.996	60.944	1.00	40.27		C
	ANISOU	2949	CA	MET	B	193	4249	6370	4683	-155	-38	-1547	C
	ATOM	2950	C	MET	B	193	-12.042	-21.485	60.740	1.00	43.76		C
55	ANISOU	2950	C	MET	B	193	4473	6953	5202	-226	-59	-1785	C
	ATOM	2951	O	MET	B	193	-11.298	-22.019	59.916	1.00	46.62		O
	ANISOU	2951	O	MET	B	193	4678	7379	5658	-170	-102	-1852	O
	ATOM	2952	CB	MET	B	193	-13.433	-23.288	61.757	1.00	41.42		C
	ANISOU	2952	CB	MET	B	193	4463	6569	4705	-5	-285	-1439	C

5	ATOM	2953	CG	MET	B	193	-14.792	-23.715	62.282	1.00	41.53	C	
	ANISOU	2953	CG	MET	B	193	4694	6503	4584	-11	-259	-1221	C
	ATOM	2954	SD	MET	B	193	-14.648	-25.051	63.480	1.00	64.61	S	
	ANISOU	2954	SD	MET	B	193	7765	9484	7298	81	-572	-1079	S
	ATOM	2955	CE	MET	B	193	-13.860	-24.190	64.846	1.00	47.98	C	
	ANISOU	2955	CE	MET	B	193	5609	7588	5035	6	-644	-1276	C
10	ATOM	2956	N	VAL	B	194	-11.669	-20.440	61.473	1.00	42.44	N	
	ANISOU	2956	N	VAL	B	194	4278	6853	4995	-362	-20	-1941	N
	ATOM	2957	CA	VAL	B	194	-10.307	-19.925	61.388	1.00	46.15	C	
	ANISOU	2957	CA	VAL	B	194	4523	7485	5528	-470	-40	-2189	C
	ATOM	2958	C	VAL	B	194	-9.668	-19.767	62.764	1.00	49.06	C	
	ANISOU	2958	C	VAL	B	194	4836	8024	5781	-464	-211	-2346	C
15	ATOM	2959	O	VAL	B	194	-10.348	-19.531	63.765	1.00	49.28	O	
	ANISOU	2959	O	VAL	B	194	5027	8023	5675	-463	-230	-2291	O
	ATOM	2960	CB	VAL	B	194	-10.225	-18.568	60.643	1.00	48.16	C	
	ANISOU	2960	CB	VAL	B	194	4775	7643	5879	-726	191	-2273	C
	ATOM	2961	CG1	VAL	B	194	-10.887	-18.650	59.282	1.00	35.71	C	
	ANISOU	2961	CG1	VAL	B	194	3284	5898	4385	-744	345	-2106	C
20	ATOM	2962	CG2	VAL	B	194	-10.846	-17.460	61.475	1.00	50.25	C	
	ANISOU	2962	CG2	VAL	B	194	5204	7792	6095	-830	258	-2302	C
	ATOM	2963	N	THR	B	195	-8.351	-19.918	62.804	1.00	50.66	N	
	ANISOU	2963	N	THR	B	195	4789	8435	6026	-459	-338	-2564	N
	ATOM	2964	CA	THR	B	195	-7.584	-19.595	63.993	1.00	52.38	C	
	ANISOU	2964	CA	THR	B	195	4915	8837	6150	-483	-499	-2761	C
25	ATOM	2965	C	THR	B	195	-6.752	-18.364	63.668	1.00	53.40	C	
	ANISOU	2965	C	THR	B	195	4863	9049	6378	-753	-346	-3014	C
	ATOM	2966	O	THR	B	195	-5.709	-18.471	63.026	1.00	55.80	O	
	ANISOU	2966	O	THR	B	195	4896	9523	6782	-803	-352	-3196	O
	ATOM	2967	CB	THR	B	195	-6.676	-20.758	64.428	1.00	52.52	C	
	ANISOU	2967	CB	THR	B	195	4774	9046	6135	-246	-825	-2845	C
30	ATOM	2968	OG1	THR	B	195	-7.488	-21.883	64.793	1.00	53.46	O	
	ANISOU	2968	OG1	THR	B	195	5124	9043	6145	-36	-986	-2579	O
	ATOM	2969	CG2	THR	B	195	-5.806	-20.353	65.624	1.00	49.95	C	
	ANISOU	2969	CG2	THR	B	195	4333	8936	5709	-277	-1010	-3074	C
	ATOM	2970	N	PRO	B	196	-7.233	-17.182	64.088	1.00	51.11	N	
	ANISOU	2970	N	PRO	B	196	4722	8637	6061	-942	-206	-3040	N
35	ATOM	2971	CA	PRO	B	196	-6.571	-15.912	63.773	1.00	50.24	C	
	ANISOU	2971	CA	PRO	B	196	4512	8530	6045	-1247	-58	-3249	C
	ATOM	2972	C	PRO	B	196	-5.204	-15.834	64.418	1.00	54.36	C	
	ANISOU	2972	C	PRO	B	196	4749	9354	6552	-1307	-216	-3552	C
	ATOM	2973	O	PRO	B	196	-5.059	-16.160	65.597	1.00	57.06	O	
	ANISOU	2973	O	PRO	B	196	5096	9817	6769	-1156	-420	-3599	O
40	ATOM	2974	CB	PRO	B	196	-7.502	-14.867	64.392	1.00	49.86	C	
	ANISOU	2974	CB	PRO	B	196	4724	8266	5955	-1342	36	-3220	C
	ATOM	2975	CG	PRO	B	196	-8.825	-15.559	64.531	1.00	47.13	C	
	ANISOU	2975	CG	PRO	B	196	4595	7785	5528	-1117	33	-2958	C
	ATOM	2976	CD	PRO	B	196	-8.485	-16.981	64.835	1.00	46.80	C	
	ANISOU	2976	CD	PRO	B	196	4453	7933	5396	-885	-177	-2885	C
45	ATOM	2977	N	ALA	B	197	-4.210	-15.417	63.643	1.00	57.64	N	
	ANISOU	2977	N	ALA	B	197	4959	9859	7081	-1490	-90	-3673	N
	ATOM	2978	CA	ALA	B	197	-2.864	-15.238	64.164	1.00	61.78	C	
	ANISOU	2978	CA	ALA	B	197	5247	10616	7613	-1505	-163	-3876	C
	ATOM	2979	C	ALA	B	197	-2.826	-14.038	65.108	1.00	66.47	C	
	ANISOU	2979	C	ALA	B	197	5950	11136	8170	-1685	-138	-3969	C
50	ATOM	2980	O	ALA	B	197	-3.584	-13.081	64.944	1.00	65.83	O	
	ANISOU	2980	O	ALA	B	197	6095	10803	8114	-1880	11	-3907	O
	ATOM	2981	CB	ALA	B	197	-1.876	-15.057	63.024	1.00	60.05	C	
	ANISOU	2981	CB	ALA	B	197	4808	10521	7487	-1676	15	-3979	C
	ATOM	2982	N	ARG	B	198	-1.948	-14.096	66.102	1.00	70.71	N	

	ANISOU	2982	N	ARG	B	198	6338	11875	8655	-1600	-303	-4127	N
	ATOM	2983	CA	ARG	B	198	-1.799	-12.989	67.034	1.00	73.44		C
	ANISOU	2983	CA	ARG	B	198	6759	12178	8966	-1762	-296	-4244	C
	ATOM	2984	C	ARG	B	198	-1.132	-11.819	66.325	1.00	74.94		C
5	ANISOU	2984	C	ARG	B	198	6889	12314	9272	-2114	-76	-4351	C
	ATOM	2985	O	ARG	B	198	-0.296	-12.015	65.442	1.00	75.92		O
	ANISOU	2985	O	ARG	B	198	6806	12584	9458	-2198	18	-4412	O
	ATOM	2986	CB	ARG	B	198	-1.000	-13.425	68.261	1.00	77.21		C
	ANISOU	2986	CB	ARG	B	198	7090	12899	9345	-1576	-549	-4380	C
10	ATOM	2987	CG	ARG	B	198	-1.529	-14.710	68.872	1.00	78.61		C
	ANISOU	2987	CG	ARG	B	198	7354	13131	9385	-1239	-796	-4237	C
	ATOM	2988	CD	ARG	B	198	-0.773	-15.131	70.118	1.00	83.27		C
	ANISOU	2988	CD	ARG	B	198	7857	13926	9856	-1061	-1077	-4339	C
	ATOM	2989	NE	ARG	B	198	-1.189	-16.464	70.547	1.00	84.85		N
15	ANISOU	2989	NE	ARG	B	198	8170	14149	9920	-754	-1336	-4163	N
	ATOM	2990	CZ	ARG	B	198	-2.273	-16.712	71.277	1.00	84.61		C
	ANISOU	2990	CZ	ARG	B	198	8425	14030	9692	-688	-1412	-3988	C
	ATOM	2991	NH1	ARG	B	198	-3.054	-15.715	71.671	1.00	85.21		N
	ANISOU	2991	NH1	ARG	B	198	8676	14000	9700	-872	-1241	-3998	N
20	ATOM	2992	NH2	ARG	B	198	-2.577	-17.959	71.616	1.00	83.18		N
	ANISOU	2992	NH2	ARG	B	198	8368	13861	9375	-441	-1657	-3805	N
	ATOM	2993	N	GLY	B	199	-1.521	-10.604	66.700	1.00	73.69		N
	ANISOU	2993	N	GLY	B	199	6931	11939	9127	-2321	2	-4374	N
	ATOM	2994	CA	GLY	B	199	-1.013	-9.407	66.057	1.00	74.81		C
25	ANISOU	2994	CA	GLY	B	199	7099	11958	9366	-2683	187	-4434	C
	ATOM	2995	C	GLY	B	199	-1.503	-9.249	64.630	1.00	75.21		C
	ANISOU	2995	C	GLY	B	199	7289	11802	9487	-2851	385	-4254	C
	ATOM	2996	O	GLY	B	199	-0.869	-8.569	63.824	1.00	79.71		O
	ANISOU	2996	O	GLY	B	199	7838	12346	10102	-3152	541	-4271	O
30	ATOM	2997	N	GLY	B	200	-2.628	-9.884	64.311	1.00	69.76		N
	ANISOU	2997	N	GLY	B	200	6749	10970	8785	-2669	377	-4075	N
	ATOM	2998	CA	GLY	B	200	-3.215	-9.770	62.990	1.00	67.35		C
	ANISOU	2998	CA	GLY	B	200	6603	10449	8536	-2804	545	-3888	C
	ATOM	2999	C	GLY	B	200	-4.216	-8.634	62.897	1.00	69.73		C
35	ANISOU	2999	C	GLY	B	200	7275	10320	8897	-2950	608	-3784	C
	ATOM	3000	O	GLY	B	200	-4.337	-7.827	63.817	1.00	71.97		O
	ANISOU	3000	O	GLY	B	200	7673	10482	9189	-2973	539	-3888	O
	ATOM	3001	N	ASP	B	201	-4.937	-8.572	61.780	1.00	71.33		N
	ANISOU	3001	N	ASP	B	201	7673	10285	9145	-3026	722	-3588	N
40	ATOM	3002	CA	ASP	B	201	-5.936	-7.530	61.554	1.00	72.25		C
	ANISOU	3002	CA	ASP	B	201	8170	9947	9337	-3121	752	-3474	C
	ATOM	3003	C	ASP	B	201	-7.079	-7.640	62.564	1.00	68.96		C
	ANISOU	3003	C	ASP	B	201	7890	9405	8908	-2829	638	-3517	C
	ATOM	3004	O	ASP	B	201	-7.736	-8.673	62.649	1.00	67.20		O
45	ANISOU	3004	O	ASP	B	201	7618	9289	8627	-2579	605	-3462	O
	ATOM	3005	CB	ASP	B	201	-6.473	-7.617	60.119	1.00	70.60		C
	ANISOU	3005	CB	ASP	B	201	8132	9536	9157	-3221	874	-3236	C
	ATOM	3006	CG	ASP	B	201	-7.365	-6.441	59.747	1.00	71.87		C
	ANISOU	3006	CG	ASP	B	201	8709	9190	9407	-3327	874	-3104	C
50	ATOM	3007	OD1	ASP	B	201	-7.366	-5.427	60.478	1.00	75.52		O
	ANISOU	3007	OD1	ASP	B	201	9312	9458	9925	-3380	794	-3213	O
	ATOM	3008	OD2	ASP	B	201	-8.057	-6.525	58.711	1.00	70.09		O
	ANISOU	3008	OD2	ASP	B	201	8678	8752	9201	-3341	931	-2893	O
	ATOM	3009	N	PRO	B	202	-7.305	-6.576	63.349	1.00	70.36		N
55	ANISOU	3009	N	PRO	B	202	8237	9373	9125	-2857	577	-3627	N
	ATOM	3010	CA	PRO	B	202	-8.403	-6.593	64.323	1.00	69.55		C
	ANISOU	3010	CA	PRO	B	202	8255	9184	8987	-2576	492	-3695	C
	ATOM	3011	C	PRO	B	202	-9.786	-6.559	63.675	1.00	66.97		C
	ANISOU	3011	C	PRO	B	202	8184	8536	8725	-2436	533	-3548	C

5	ATOM	3012	O	PRO	B	202	-10.772	-6.926	64.317	1.00	65.86	O	
	ANISOU	3012	O	PRO	B	202	8082	8417	8525	-2164	498	-3581	O
	ATOM	3013	CB	PRO	B	202	-8.161	-5.326	65.160	1.00	72.38	C	
	ANISOU	3013	CB	PRO	B	202	8722	9388	9393	-2676	423	-3871	C
	ATOM	3014	CG	PRO	B	202	-7.271	-4.461	64.322	1.00	75.30	C	
	ANISOU	3014	CG	PRO	B	202	9151	9597	9861	-3034	478	-3827	C
10	ATOM	3015	CD	PRO	B	202	-6.430	-5.401	63.514	1.00	74.15	C	
	ANISOU	3015	CD	PRO	B	202	8753	9760	9660	-3138	573	-3733	C
	ATOM	3016	N	ARG	B	203	-9.863	-6.133	62.421	1.00	66.14	N	
	ANISOU	3016	N	ARG	B	203	8252	8154	8722	-2619	606	-3379	N
	ATOM	3017	CA	ARG	B	203	-11.148	-6.098	61.733	1.00	65.72	C	
	ANISOU	3017	CA	ARG	B	203	8448	7783	8741	-2469	625	-3227	C
15	ATOM	3018	C	ARG	B	203	-11.124	-6.755	60.348	1.00	60.61	C	
	ANISOU	3018	C	ARG	B	203	7798	7146	8083	-2522	719	-2938	C
	ATOM	3019	O	ARG	B	203	-11.312	-6.080	59.337	1.00	60.77	O	
	ANISOU	3019	O	ARG	B	203	8068	6841	8182	-2697	745	-2790	O
	ATOM	3020	CB	ARG	B	203	-11.655	-4.660	61.631	1.00	71.04	C	
	ANISOU	3020	CB	ARG	B	203	9455	7981	9556	-2522	549	-3236	C
20	ATOM	3021	CG	ARG	B	203	-12.041	-4.048	62.962	1.00	77.03	C	
	ANISOU	3021	CG	ARG	B	203	10233	8710	10323	-2336	442	-3475	C
	ATOM	3022	CD	ARG	B	203	-13.235	-3.133	62.793	1.00	83.08	C	
	ANISOU	3022	CD	ARG	B	203	11312	9022	11232	-2159	345	-3476	C
	ATOM	3023	NE	ARG	B	203	-14.384	-3.857	62.256	1.00	84.67	N	
	ANISOU	3023	NE	ARG	B	203	11545	9185	11441	-1903	389	-3353	N
25	ATOM	3024	CZ	ARG	B	203	-15.454	-4.194	62.969	1.00	86.06	C	
	ANISOU	3024	CZ	ARG	B	203	11651	9465	11581	-1562	375	-3467	C
	ATOM	3025	NH1	ARG	B	203	-15.529	-3.860	64.251	1.00	89.91	N	
	ANISOU	3025	NH1	ARG	B	203	12051	10104	12006	-1442	323	-3697	N
	ATOM	3026	NH2	ARG	B	203	-16.453	-4.855	62.399	1.00	82.61	N	
	ANISOU	3026	NH2	ARG	B	203	11220	9022	11146	-1333	410	-3302	N
30	ATOM	3027	N	PRO	B	204	-10.913	-8.082	60.304	1.00	55.25	N	
	ANISOU	3027	N	PRO	B	204	6862	6830	7300	-2363	752	-2858	N
	ATOM	3028	CA	PRO	B	204	-10.790	-8.799	59.030	1.00	52.38	C	
	ANISOU	3028	CA	PRO	B	204	6454	6533	6916	-2405	841	-2634	C
	ATOM	3029	C	PRO	B	204	-12.109	-8.821	58.275	1.00	52.44	C	
	ANISOU	3029	C	PRO	B	204	6707	6248	6968	-2213	845	-2397	C
35	ATOM	3030	O	PRO	B	204	-13.169	-8.615	58.867	1.00	52.46	O	
	ANISOU	3030	O	PRO	B	204	6832	6094	7007	-1967	777	-2417	O
	ATOM	3031	CB	PRO	B	204	-10.421	-10.217	59.465	1.00	49.45	C	
	ANISOU	3031	CB	PRO	B	204	5770	6576	6442	-2192	814	-2657	C
	ATOM	3032	CG	PRO	B	204	-11.037	-10.353	60.816	1.00	48.80	C	
	ANISOU	3032	CG	PRO	B	204	5689	6541	6310	-1939	712	-2760	C
40	ATOM	3033	CD	PRO	B	204	-10.861	-9.002	61.453	1.00	51.75	C	
	ANISOU	3033	CD	PRO	B	204	6190	6728	6744	-2120	683	-2969	C
	ATOM	3034	N	THR	B	205	-12.037	-9.073	56.974	1.00	52.90	N	
	ANISOU	3034	N	THR	B	205	6818	6267	7015	-2327	923	-2197	N
	ATOM	3035	CA	THR	B	205	-13.224	-9.096	56.136	1.00	52.18	C	
	ANISOU	3035	CA	THR	B	205	6957	5909	6959	-2161	909	-1968	C
45	ATOM	3036	C	THR	B	205	-13.328	-10.446	55.443	1.00	49.35	C	
	ANISOU	3036	C	THR	B	205	6428	5798	6524	-2012	966	-1815	C
	ATOM	3037	O	THR	B	205	-12.475	-10.800	54.634	1.00	49.86	O	
	ANISOU	3037	O	THR	B	205	6375	6041	6527	-2215	1055	-1779	O
	ATOM	3038	CB	THR	B	205	-13.190	-7.968	55.087	1.00	57.91	C	
	ANISOU	3038	CB	THR	B	205	8006	6268	7730	-2458	917	-1840	C
50	ATOM	3039	OG1	THR	B	205	-12.922	-6.718	55.735	1.00	65.99	O	
	ANISOU	3039	OG1	THR	B	205	9191	7046	8836	-2638	849	-2004	O
	ATOM	3040	CG2	THR	B	205	-14.514	-7.868	54.372	1.00	56.55	C	
	ANISOU	3040	CG2	THR	B	205	8094	5784	7607	-2237	845	-1632	C
	ATOM	3041	N	PHE	B	206	-14.367	-11.203	55.780	1.00	46.86	N	
													N

	ANISOU	3041	N	PHE	B	206	6086	5509	6207	-1670	917	-1749	N
	ATOM	3042	CA	PHE	B	206	-14.598	-12.512	55.182	1.00	42.57		C
	ANISOU	3042	CA	PHE	B	206	5410	5156	5607	-1507	944	-1607	C
	ATOM	3043	C	PHE	B	206	-15.772	-12.461	54.220	1.00	44.88		C
5	ANISOU	3043	C	PHE	B	206	5913	5203	5935	-1387	934	-1402	C
	ATOM	3044	O	PHE	B	206	-16.736	-11.738	54.442	1.00	36.36		O
	ANISOU	3044	O	PHE	B	206	5023	3862	4931	-1273	868	-1396	O
	ATOM	3045	CB	PHE	B	206	-14.917	-13.555	56.248	1.00	37.27		C
	ANISOU	3045	CB	PHE	B	206	4563	4710	4889	-1239	883	-1662	C
10	ATOM	3046	CG	PHE	B	206	-13.827	-13.765	57.254	1.00	41.20		C
	ANISOU	3046	CG	PHE	B	206	4853	5468	5333	-1300	846	-1855	C
	ATOM	3047	CD1	PHE	B	206	-12.889	-14.767	57.076	1.00	41.50		C
	ANISOU	3047	CD1	PHE	B	206	4659	5786	5322	-1299	832	-1886	C
	ATOM	3048	CD2	PHE	B	206	-13.763	-12.984	58.405	1.00	42.31		C
15	ANISOU	3048	CD2	PHE	B	206	5022	5580	5473	-1331	801	-2030	C
	ATOM	3049	CE1	PHE	B	206	-11.898	-14.976	58.017	1.00	44.94		C
	ANISOU	3049	CE1	PHE	B	206	4898	6465	5714	-1321	757	-2077	C
	ATOM	3050	CE2	PHE	B	206	-12.779	-13.187	59.342	1.00	38.41		C
	ANISOU	3050	CE2	PHE	B	206	4340	5338	4916	-1378	744	-2211	C
20	ATOM	3051	CZ	PHE	B	206	-11.843	-14.183	59.153	1.00	38.17		C
	ANISOU	3051	CZ	PHE	B	206	4081	5582	4841	-1369	712	-2229	C
	ATOM	3052	N	SER	B	207	-15.701	-13.257	53.160	1.00	44.36		N
	ANISOU	3052	N	SER	B	207	5797	5240	5819	-1390	983	-1261	N
	ATOM	3053	CA	SER	B	207	-16.807	-13.353	52.221	1.00	42.13		C
25	ANISOU	3053	CA	SER	B	207	5689	4766	5554	-1261	958	-1069	C
	ATOM	3054	C	SER	B	207	-16.851	-14.744	51.599	1.00	42.48		C
	ANISOU	3054	C	SER	B	207	5568	5034	5536	-1139	988	-981	C
	ATOM	3055	O	SER	B	207	-15.854	-15.471	51.599	1.00	43.15		O
	ANISOU	3055	O	SER	B	207	5437	5390	5569	-1206	1034	-1062	O
30	ATOM	3056	CB	SER	B	207	-16.673	-12.294	51.130	1.00	39.75		C
	ANISOU	3056	CB	SER	B	207	5655	4202	5244	-1515	970	-952	C
	ATOM	3057	OG	SER	B	207	-15.614	-12.626	50.251	1.00	40.08		O
	ANISOU	3057	OG	SER	B	207	5602	4450	5178	-1776	1085	-924	O
	ATOM	3058	N	CYS	B	208	-18.015	-15.102	51.064	1.00	39.42		N
35	ANISOU	3058	N	CYS	B	208	5278	4532	5170	-949	944	-841	N
	ATOM	3059	CA	CYS	B	208	-18.214	-16.388	50.410	1.00	33.21		C
	ANISOU	3059	CA	CYS	B	208	4371	3909	4338	-827	955	-757	C
	ATOM	3060	C	CYS	B	208	-18.602	-16.175	48.955	1.00	35.17		C
	ANISOU	3060	C	CYS	B	208	4792	4023	4547	-896	966	-595	C
40	ATOM	3061	O	CYS	B	208	-19.238	-15.180	48.619	1.00	39.48		O
	ANISOU	3061	O	CYS	B	208	5578	4297	5126	-919	912	-512	O
	ATOM	3062	CB	CYS	B	208	-19.313	-17.179	51.130	1.00	30.13		C
	ANISOU	3062	CB	CYS	B	208	3918	3544	3985	-551	887	-741	C
	ATOM	3063	SG	CYS	B	208	-19.766	-18.751	50.343	1.00	41.74		S
45	ANISOU	3063	SG	CYS	B	208	5288	5146	5425	-398	868	-631	S
	ATOM	3064	N	SER	B	209	-18.230	-17.107	48.086	1.00	33.52		N
	ANISOU	3064	N	SER	B	209	4473	3999	4264	-916	1014	-561	N
	ATOM	3065	CA	SER	B	209	-18.644	-17.013	46.696	1.00	35.21		C
	ANISOU	3065	CA	SER	B	209	4848	4122	4406	-976	1020	-408	C
50	ATOM	3066	C	SER	B	209	-19.018	-18.367	46.105	1.00	35.05		C
	ANISOU	3066	C	SER	B	209	4698	4260	4360	-803	1007	-379	C
	ATOM	3067	O	SER	B	209	-18.466	-19.398	46.491	1.00	33.28		O
	ANISOU	3067	O	SER	B	209	4244	4255	4145	-725	1020	-493	O
	ATOM	3068	CB	SER	B	209	-17.558	-16.348	45.853	1.00	39.53		C
55	ANISOU	3068	CB	SER	B	209	5466	4725	4828	-1329	1129	-401	C
	ATOM	3069	OG	SER	B	209	-16.410	-17.165	45.798	1.00	43.67		O
	ANISOU	3069	OG	SER	B	209	5707	5591	5294	-1412	1230	-558	O
	ATOM	3070	N	PHE	B	210	-19.965	-18.352	45.167	1.00	36.60		N
	ANISOU	3070	N	PHE	B	210	5054	4324	4529	-735	953	-235	N

5	ATOM	3071	CA	PHE	B	210	-20.403	-19.567	44.484	1.00	33.92	C	
	ANISOU	3071	CA	PHE	B	210	4618	4106	4163	-588	930	-209	C
	ATOM	3072	C	PHE	B	210	-19.761	-19.672	43.111	1.00	34.01	C	
	ANISOU	3072	C	PHE	B	210	4659	4249	4014	-779	1010	-183	C
	ATOM	3073	O	PHE	B	210	-19.812	-18.730	42.328	1.00	36.58	O	
	ANISOU	3073	O	PHE	B	210	5214	4446	4238	-962	1020	-62	O
10	ATOM	3074	CB	PHE	B	210	-21.930	-19.607	44.344	1.00	31.29	C	
	ANISOU	3074	CB	PHE	B	210	4400	3591	3897	-376	809	-99	C
	ATOM	3075	CG	PHE	B	210	-22.425	-20.726	43.461	1.00	32.93	C	
	ANISOU	3075	CG	PHE	B	210	4548	3898	4068	-266	777	-63	C
	ATOM	3076	CD1	PHE	B	210	-22.675	-21.985	43.988	1.00	32.04	C	
	ANISOU	3076	CD1	PHE	B	210	4250	3899	4025	-105	748	-130	C
15	ATOM	3077	CD2	PHE	B	210	-22.630	-20.524	42.102	1.00	32.13	C	
	ANISOU	3077	CD2	PHE	B	210	4596	3765	3848	-342	761	40	C
	ATOM	3078	CE1	PHE	B	210	-23.113	-23.018	43.175	1.00	30.70	C	
	ANISOU	3078	CE1	PHE	B	210	4035	3797	3833	-16	705	-114	C
	ATOM	3079	CE2	PHE	B	210	-23.069	-21.550	41.285	1.00	29.98	C	
	ANISOU	3079	CE2	PHE	B	210	4262	3592	3536	-245	726	47	C
20	ATOM	3080	CZ	PHE	B	210	-23.309	-22.799	41.816	1.00	28.39	C	
	ANISOU	3080	CZ	PHE	B	210	3865	3491	3429	-78	698	-40	C
	ATOM	3081	N	SER	B	211	-19.161	-20.820	42.822	1.00	35.56	N	
	ANISOU	3081	N	SER	B	211	4635	4698	4177	-741	1056	-305	N
	ATOM	3082	CA	SER	B	211	-18.566	-21.072	41.510	1.00	36.57	C	
	ANISOU	3082	CA	SER	B	211	4740	5019	4135	-906	1149	-334	C
25	ATOM	3083	C	SER	B	211	-19.360	-22.147	40.794	1.00	36.64	C	
	ANISOU	3083	C	SER	B	211	4725	5056	4140	-706	1072	-311	C
	ATOM	3084	O	SER	B	211	-19.413	-23.293	41.249	1.00	36.12	O	
	ANISOU	3084	O	SER	B	211	4477	5067	4181	-499	1012	-419	O
	ATOM	3085	CB	SER	B	211	-17.114	-21.528	41.639	1.00	38.51	C	
	ANISOU	3085	CB	SER	B	211	4708	5580	4345	-1019	1263	-570	C
30	ATOM	3086	OG	SER	B	211	-16.326	-20.537	42.269	1.00	46.04	O	
	ANISOU	3086	OG	SER	B	211	5665	6533	5297	-1235	1338	-611	O
	ATOM	3087	N	PRO	B	212	-19.989	-21.780	39.671	1.00	35.98	N	
	ANISOU	3087	N	PRO	B	212	4848	4893	3928	-775	1051	-164	N
	ATOM	3088	CA	PRO	B	212	-20.778	-22.730	38.878	1.00	36.72	C	
	ANISOU	3088	CA	PRO	B	212	4932	5019	4002	-608	972	-148	C
35	ATOM	3089	C	PRO	B	212	-19.945	-23.936	38.436	1.00	39.59	C	
	ANISOU	3089	C	PRO	B	212	5045	5678	4321	-583	1038	-366	C
	ATOM	3090	O	PRO	B	212	-20.489	-25.024	38.235	1.00	41.56	O	
	ANISOU	3090	O	PRO	B	212	5213	5941	4635	-382	948	-418	O
	ATOM	3091	CB	PRO	B	212	-21.197	-21.902	37.658	1.00	37.24	C	
	ANISOU	3091	CB	PRO	B	212	5276	5002	3873	-771	958	31	C
40	ATOM	3092	CG	PRO	B	212	-21.136	-20.486	38.122	1.00	39.46	C	
	ANISOU	3092	CG	PRO	B	212	5771	5061	4161	-924	953	161	C
	ATOM	3093	CD	PRO	B	212	-20.004	-20.422	39.101	1.00	35.59	C	
	ANISOU	3093	CD	PRO	B	212	5085	4695	3742	-1022	1074	4	C
	ATOM	3094	N	GLY	B	213	-18.640	-23.747	38.285	1.00	42.34	N	
	ANISOU	3094	N	GLY	B	213	5259	6263	4566	-787	1185	-516	N
45	ATOM	3095	CA	GLY	B	213	-17.783	-24.808	37.791	1.00	54.35	C	
	ANISOU	3095	CA	GLY	B	213	6515	8094	6041	-753	1244	-778	C
	ATOM	3096	C	GLY	B	213	-17.875	-24.952	36.282	1.00	64.90	C	
	ANISOU	3096	C	GLY	B	213	7918	9596	7145	-877	1309	-784	C
	ATOM	3097	O	GLY	B	213	-16.866	-25.171	35.613	1.00	70.73	O	
	ANISOU	3097	O	GLY	B	213	8481	10665	7729	-1033	1452	-996	O
50	ATOM	3098	N	LEU	B	214	-19.091	-24.831	35.752	1.00	67.34	N	
	ANISOU	3098	N	LEU	B	214	8464	9703	7420	-808	1201	-573	N
	ATOM	3099	CA	LEU	B	214	-19.324	-24.839	34.315	1.00	70.24	C	
	ANISOU	3099	CA	LEU	B	214	8955	10197	7536	-936	1233	-533	C
	ATOM	3100	C	LEU	B	214	-18.559	-23.689	33.652	1.00	74.67	C	
													C

	ANISOU	3100	C	LEU	B	214	9661	10894	7815	-1343	1404	-454	C
	ATOM	3101	O	LEU	B	214	-18.599	-22.557	34.136	1.00	77.57		O
	ANISOU	3101	O	LEU	B	214	10225	11052	8195	-1491	1403	-266	O
	ATOM	3102	CB	LEU	B	214	-20.822	-24.722	34.031	1.00	69.63		C
5	ANISOU	3102	CB	LEU	B	214	9123	9840	7492	-783	1050	-299	C
	ATOM	3103	CG	LEU	B	214	-21.364	-25.572	32.880	1.00	73.09		C
	ANISOU	3103	CG	LEU	B	214	9564	10396	7811	-697	986	-355	C
	ATOM	3104	CD1	LEU	B	214	-21.193	-27.050	33.183	1.00	74.09		C
	ANISOU	3104	CD1	LEU	B	214	9404	10632	8116	-453	946	-619	C
10	ATOM	3105	CD2	LEU	B	214	-22.821	-25.250	32.613	1.00	72.90		C
	ANISOU	3105	CD2	LEU	B	214	9781	10105	7811	-572	795	-122	C
	ATOM	3106	N	PRO	B	215	-17.852	-23.984	32.547	1.00	74.94		N
	ANISOU	3106	N	PRO	B	215	9602	11285	7586	-1543	1553	-610	N
	ATOM	3107	CA	PRO	B	215	-16.978	-23.047	31.827	1.00	78.27		C
15	ANISOU	3107	CA	PRO	B	215	10123	11911	7705	-1988	1741	-571	C
	ATOM	3108	C	PRO	B	215	-17.594	-21.676	31.537	1.00	78.57		C
	ANISOU	3108	C	PRO	B	215	10622	11650	7580	-2234	1685	-187	C
	ATOM	3109	O	PRO	B	215	-18.708	-21.589	31.021	1.00	79.69		O
	ANISOU	3109	O	PRO	B	215	11029	11572	7675	-2114	1513	26	O
20	ATOM	3110	CB	PRO	B	215	-16.692	-23.782	30.515	1.00	79.87		C
	ANISOU	3110	CB	PRO	B	215	10206	12410	7732	-2011	1766	-740	C
	ATOM	3111	CG	PRO	B	215	-16.749	-25.215	30.889	1.00	77.73		C
	ANISOU	3111	CG	PRO	B	215	9617	12248	7669	-1640	1710	-1032	C
	ATOM	3112	CD	PRO	B	215	-17.823	-25.329	31.943	1.00	73.62		C
25	ANISOU	3112	CD	PRO	B	215	9204	11356	7412	-1346	1538	-870	C
	ATOM	3113	N	ARG	B	216	-16.853	-20.626	31.886	1.00	77.39		N
	ANISOU	3113	N	ARG	B	216	10542	11425	7438	-2497	1741	-121	N
	ATOM	3114	CA	ARG	B	216	-17.212	-19.236	31.589	1.00	76.48		C
	ANISOU	3114	CA	ARG	B	216	10867	10996	7198	-2747	1654	212	C
30	ATOM	3115	C	ARG	B	216	-18.446	-18.694	32.313	1.00	70.18		C
	ANISOU	3115	C	ARG	B	216	10382	9736	6548	-2556	1467	478	C
	ATOM	3116	O	ARG	B	216	-18.886	-17.577	32.040	1.00	72.89		O
	ANISOU	3116	O	ARG	B	216	11123	9759	6813	-2697	1332	754	O
	ATOM	3117	CB	ARG	B	216	-17.335	-18.999	30.079	1.00	79.70		C
35	ANISOU	3117	CB	ARG	B	216	11491	11483	7306	-2945	1619	337	C
	ATOM	3118	CG	ARG	B	216	-16.004	-18.873	29.356	1.00	83.19		C
	ANISOU	3118	CG	ARG	B	216	11756	12275	7577	-3277	1785	155	C
	ATOM	3119	CD	ARG	B	216	-16.228	-18.658	27.871	1.00	86.25		C
	ANISOU	3119	CD	ARG	B	216	12381	12739	7652	-3478	1750	292	C
40	ATOM	3120	NE	ARG	B	216	-17.238	-19.577	27.361	1.00	84.67		N
	ANISOU	3120	NE	ARG	B	216	12195	12560	7415	-3188	1653	307	N
	ATOM	3121	CZ	ARG	B	216	-16.977	-20.793	26.892	1.00	85.68		C
	ANISOU	3121	CZ	ARG	B	216	11997	13040	7516	-3052	1740	24	C
	ATOM	3122	NH1	ARG	B	216	-15.727	-21.241	26.853	1.00	88.14		N
45	ANISOU	3122	NH1	ARG	B	216	11935	13707	7847	-3162	1911	-298	N
	ATOM	3123	NH2	ARG	B	216	-17.967	-21.561	26.454	1.00	82.77		N
	ANISOU	3123	NH2	ARG	B	216	11679	12661	7109	-2797	1630	43	N
	ATOM	3124	N	HIS	B	217	-19.007	-19.473	33.228	1.00	62.72		N
	ANISOU	3124	N	HIS	B	217	9206	8698	5928	-2129	1359	354	N
50	ATOM	3125	CA	HIS	B	217	-20.098	-18.959	34.048	1.00	62.85		C
	ANISOU	3125	CA	HIS	B	217	9400	8284	6196	-1860	1136	517	C
	ATOM	3126	C	HIS	B	217	-19.505	-18.166	35.207	1.00	64.59		C
	ANISOU	3126	C	HIS	B	217	9601	8369	6573	-1961	1188	491	C
	ATOM	3127	O	HIS	B	217	-18.515	-18.581	35.807	1.00	65.71		O
55	ANISOU	3127	O	HIS	B	217	9436	8755	6776	-2018	1347	270	O
	ATOM	3128	CB	HIS	B	217	-21.012	-20.084	34.547	1.00	54.69		C
	ANISOU	3128	CB	HIS	B	217	8147	7223	5411	-1417	1010	409	C
	ATOM	3129	CG	HIS	B	217	-21.897	-20.661	33.485	1.00	53.17		C
	ANISOU	3129	CG	HIS	B	217	8039	7058	5104	-1287	893	472	C

5	ATOM	3130	ND1	HIS	B	217	-23.006	-21.428	33.775	1.00	51.38		N
	ANISOU	3130	ND1	HIS	B	217	7715	6730	5079	-931	734	442	N
	ATOM	3131	CD2	HIS	B	217	-21.838	-20.585	32.135	1.00	55.66		C
	ANISOU	3131	CD2	HIS	B	217	8527	7509	5109	-1486	911	555	C
	ATOM	3132	CE1	HIS	B	217	-23.591	-21.800	32.651	1.00	49.34		C
	ANISOU	3132	CE1	HIS	B	217	7553	6535	4660	-900	648	493	C
10	ATOM	3133	NE2	HIS	B	217	-22.902	-21.302	31.640	1.00	53.92		N
	ANISOU	3133	NE2	HIS	B	217	8306	7260	4922	-1224	749	565	N
	ATOM	3134	N	ARG	B	218	-20.097	-17.018	35.511	1.00	64.84		N
	ANISOU	3134	N	ARG	B	218	9957	8009	6670	-1971	1035	695	N
	ATOM	3135	CA	ARG	B	218	-19.509	-16.125	36.500	1.00	67.65		C
	ANISOU	3135	CA	ARG	B	218	10344	8216	7144	-2115	1077	672	C
15	ATOM	3136	C	ARG	B	218	-19.905	-16.458	37.937	1.00	62.28		C
	ANISOU	3136	C	ARG	B	218	9435	7441	6787	-1765	1011	527	C
	ATOM	3137	O	ARG	B	218	-20.988	-16.985	38.197	1.00	61.02		O
	ANISOU	3137	O	ARG	B	218	9225	7181	6780	-1411	869	530	O
	ATOM	3138	CB	ARG	B	218	-19.807	-14.658	36.164	1.00	76.43		C
	ANISOU	3138	CB	ARG	B	218	11939	8933	8169	-2329	936	935	C
20	ATOM	3139	CG	ARG	B	218	-21.276	-14.340	35.944	1.00	81.86		C
	ANISOU	3139	CG	ARG	B	218	12900	9251	8950	-2012	640	1112	C
	ATOM	3140	CD	ARG	B	218	-21.871	-13.614	37.143	1.00	86.34		C
	ANISOU	3140	CD	ARG	B	218	13529	9461	9815	-1771	478	1084	C
	ATOM	3141	NE	ARG	B	218	-22.510	-12.354	36.762	1.00	91.72		N
	ANISOU	3141	NE	ARG	B	218	14688	9684	10479	-1798	221	1310	N
25	ATOM	3142	CZ	ARG	B	218	-21.940	-11.156	36.870	1.00	94.42		C
	ANISOU	3142	CZ	ARG	B	218	15333	9764	10778	-2100	193	1412	C
	ATOM	3143	NH1	ARG	B	218	-20.711	-11.041	37.356	1.00	94.27		N
	ANISOU	3143	NH1	ARG	B	218	15149	9941	10727	-2412	428	1292	N
	ATOM	3144	NH2	ARG	B	218	-22.605	-10.071	36.496	1.00	96.54		N
	ANISOU	3144	NH2	ARG	B	218	15923	9674	11082	-2001	-96	1548	N
30	ATOM	3145	N	ALA	B	219	-19.003	-16.146	38.861	1.00	58.84		N
	ANISOU	3145	N	ALA	B	219	8857	7066	6433	-1896	1121	394	N
	ATOM	3146	CA	ALA	B	219	-19.222	-16.376	40.280	1.00	55.37		C
	ANISOU	3146	CA	ALA	B	219	8218	6567	6252	-1627	1074	256	C
	ATOM	3147	C	ALA	B	219	-20.190	-15.362	40.887	1.00	55.60		C
	ANISOU	3147	C	ALA	B	219	8503	6186	6435	-1479	890	364	C
35	ATOM	3148	O	ALA	B	219	-20.263	-14.215	40.449	1.00	58.83		O
	ANISOU	3148	O	ALA	B	219	9254	6325	6775	-1667	813	520	O
	ATOM	3149	CB	ALA	B	219	-17.893	-16.349	41.028	1.00	53.56		C
	ANISOU	3149	CB	ALA	B	219	7754	6558	6039	-1821	1234	62	C
	ATOM	3150	N	LEU	B	220	-20.937	-15.804	41.892	1.00	52.99		N
	ANISOU	3150	N	LEU	B	220	8014	5814	6307	-1146	811	269	N
40	ATOM	3151	CA	LEU	B	220	-21.768	-14.916	42.689	1.00	54.67		C
	ANISOU	3151	CA	LEU	B	220	8376	5709	6687	-977	660	279	C
	ATOM	3152	C	LEU	B	220	-21.084	-14.747	44.043	1.00	52.83		C
	ANISOU	3152	C	LEU	B	220	7968	5545	6562	-1008	741	102	C
	ATOM	3153	O	LEU	B	220	-20.457	-15.679	44.535	1.00	47.59		O
	ANISOU	3153	O	LEU	B	220	7015	5170	5896	-993	854	-28	O
45	ATOM	3154	CB	LEU	B	220	-23.173	-15.497	42.869	1.00	56.70		C
	ANISOU	3154	CB	LEU	B	220	8556	5919	7068	-604	527	270	C
	ATOM	3155	CG	LEU	B	220	-24.102	-15.650	41.659	1.00	61.01		C
	ANISOU	3155	CG	LEU	B	220	9259	6378	7544	-499	394	419	C
	ATOM	3156	CD1	LEU	B	220	-23.814	-16.935	40.893	1.00	59.99		C
	ANISOU	3156	CD1	LEU	B	220	8951	6554	7288	-531	498	417	C
50	ATOM	3157	CD2	LEU	B	220	-25.564	-15.603	42.093	1.00	60.66		C
	ANISOU	3157	CD2	LEU	B	220	9191	6184	7673	-149	218	377	C
	ATOM	3158	N	ARG	B	221	-21.199	-13.566	44.643	1.00	56.26		N
	ANISOU	3158	N	ARG	B	221	8585	5702	7087	-1039	660	85	N
	ATOM	3159	CA	ARG	B	221	-20.465	-13.268	45.872	1.00	58.50		C

	ANISOU	3159	CA	ARG	B	221	8732	6047	7447	-1112	731	-89	C
	ATOM	3160	C	ARG	B	221	-21.393	-12.775	46.980	1.00	57.11		C
	ANISOU	3160	C	ARG	B	221	8571	5681	7448	-844	609	-200	C
	ATOM	3161	O	ARG	B	221	-22.320	-12.007	46.717	1.00	61.80		O
5	ANISOU	3161	O	ARG	B	221	9397	5967	8118	-711	445	-141	O
	ATOM	3162	CB	ARG	B	221	-19.390	-12.219	45.586	1.00	66.18		C
	ANISOU	3162	CB	ARG	B	221	9896	6911	8338	-1506	786	-58	C
	ATOM	3163	CG	ARG	B	221	-18.341	-12.071	46.672	1.00	72.59		C
	ANISOU	3163	CG	ARG	B	221	10513	7878	9189	-1650	890	-255	C
10	ATOM	3164	CD	ARG	B	221	-16.946	-12.232	46.085	1.00	79.19		C
	ANISOU	3164	CD	ARG	B	221	11241	8983	9865	-2029	1066	-278	C
	ATOM	3165	NE	ARG	B	221	-15.896	-11.870	47.032	1.00	85.49		N
	ANISOU	3165	NE	ARG	B	221	11883	9900	10700	-2212	1141	-471	N
	ATOM	3166	CZ	ARG	B	221	-14.594	-11.911	46.759	1.00	90.06		C
15	ANISOU	3166	CZ	ARG	B	221	12304	10748	11165	-2551	1296	-564	C
	ATOM	3167	NH1	ARG	B	221	-14.175	-12.305	45.562	1.00	91.19		N
	ANISOU	3167	NH1	ARG	B	221	12424	11087	11138	-2751	1411	-487	N
	ATOM	3168	NH2	ARG	B	221	-13.708	-11.559	47.682	1.00	92.05		N
	ANISOU	3168	NH2	ARG	B	221	12403	11107	11466	-2695	1339	-759	N
20	ATOM	3169	N	THR	B	222	-21.151	-13.214	48.217	1.00	48.51		N
	ANISOU	3169	N	THR	B	222	7232	4785	6414	-757	674	-377	N
	ATOM	3170	CA	THR	B	222	-21.952	-12.742	49.342	1.00	44.76		C
	ANISOU	3170	CA	THR	B	222	6741	4193	6072	-537	590	-522	C
	ATOM	3171	C	THR	B	222	-21.494	-11.370	49.779	1.00	45.71		C
25	ANISOU	3171	C	THR	B	222	7056	4056	6254	-688	538	-606	C
	ATOM	3172	O	THR	B	222	-20.401	-10.926	49.431	1.00	48.49		O
	ANISOU	3172	O	THR	B	222	7501	4385	6537	-1000	600	-566	O
	ATOM	3173	CB	THR	B	222	-21.835	-13.636	50.597	1.00	41.71		C
	ANISOU	3173	CB	THR	B	222	6054	4110	5682	-428	671	-676	C
30	ATOM	3174	OG1	THR	B	222	-20.537	-13.474	51.187	1.00	40.18		O
	ANISOU	3174	OG1	THR	B	222	5780	4042	5445	-644	753	-775	O
	ATOM	3175	CG2	THR	B	222	-22.102	-15.099	50.274	1.00	37.54		C
	ANISOU	3175	CG2	THR	B	222	5340	3831	5094	-321	717	-599	C
	ATOM	3176	N	ALA	B	223	-22.335	-10.706	50.560	1.00	47.34		N
35	ANISOU	3176	N	ALA	B	223	7311	4086	6591	-474	427	-750	N
	ATOM	3177	CA	ALA	B	223	-21.926	-9.503	51.263	1.00	52.53		C
	ANISOU	3177	CA	ALA	B	223	8109	4521	7329	-576	371	-897	C
	ATOM	3178	C	ALA	B	223	-20.930	-9.912	52.347	1.00	51.25		C
	ANISOU	3178	C	ALA	B	223	7698	4667	7107	-707	514	-1054	C
40	ATOM	3179	O	ALA	B	223	-21.059	-10.984	52.938	1.00	47.48		O
	ANISOU	3179	O	ALA	B	223	6953	4512	6575	-579	596	-1106	O
	ATOM	3180	CB	ALA	B	223	-23.135	-8.818	51.872	1.00	55.89		C
	ANISOU	3180	CB	ALA	B	223	8593	4731	7912	-261	213	-1070	C
	ATOM	3181	N	PRO	B	224	-19.928	-9.065	52.608	1.00	54.52		N
45	ANISOU	3181	N	PRO	B	224	8214	4974	7525	-976	527	-1127	N
	ATOM	3182	CA	PRO	B	224	-18.878	-9.401	53.580	1.00	56.67		C
	ANISOU	3182	CA	PRO	B	224	8250	5545	7736	-1115	639	-1287	C
	ATOM	3183	C	PRO	B	224	-19.365	-9.461	55.031	1.00	55.72		C
	ANISOU	3183	C	PRO	B	224	7970	5550	7653	-889	617	-1521	C
50	ATOM	3184	O	PRO	B	224	-20.414	-8.917	55.367	1.00	56.83		O
	ANISOU	3184	O	PRO	B	224	8200	5502	7891	-666	520	-1619	O
	ATOM	3185	CB	PRO	B	224	-17.894	-8.238	53.434	1.00	59.68		C
	ANISOU	3185	CB	PRO	B	224	8826	5710	8138	-1463	627	-1321	C
	ATOM	3186	CG	PRO	B	224	-18.741	-7.092	52.974	1.00	61.03		C
55	ANISOU	3186	CG	PRO	B	224	9361	5396	8430	-1395	455	-1265	C
	ATOM	3187	CD	PRO	B	224	-19.737	-7.722	52.034	1.00	58.29		C
	ANISOU	3187	CD	PRO	B	224	9053	5028	8066	-1174	414	-1067	C
	ATOM	3188	N	ILE	B	225	-18.595	-10.134	55.879	1.00	51.63		N
	ANISOU	3188	N	ILE	B	225	7209	5367	7041	-947	699	-1625	N

5	ATOM	3189	CA	ILE	B	225	-18.797	-10.055	57.314	1.00	52.68	C	
	ANISOU	3189	CA	ILE	B	225	7219	5638	7159	-822	684	-1855	C
	ATOM	3190	C	ILE	B	225	-17.521	-9.534	57.959	1.00	57.22	C	
	ANISOU	3190	C	ILE	B	225	7749	6283	7709	-1068	698	-2016	C
	ATOM	3191	O	ILE	B	225	-16.418	-9.934	57.585	1.00	60.28	O	
	ANISOU	3191	O	ILE	B	225	8035	6833	8036	-1276	755	-1958	O
10	ATOM	3192	CB	ILE	B	225	-19.192	-11.408	57.922	1.00	48.96	C	
	ANISOU	3192	CB	ILE	B	225	6516	5518	6569	-643	731	-1832	C
	ATOM	3193	CG1	ILE	B	225	-18.186	-12.485	57.522	1.00	45.71	C	
	ANISOU	3193	CG1	ILE	B	225	5954	5350	6063	-762	783	-1705	C
	ATOM	3194	CG2	ILE	B	225	-20.610	-11.782	57.492	1.00	50.49	C	
	ANISOU	3194	CG2	ILE	B	225	6736	5649	6799	-404	715	-1737	C
15	ATOM	3195	CD1	ILE	B	225	-18.606	-13.881	57.899	1.00	45.38	C	
	ANISOU	3195	CD1	ILE	B	225	5753	5572	5919	-595	790	-1627	C
	ATOM	3196	N	GLN	B	226	-17.671	-8.621	58.912	1.00	57.38	N	
	ANISOU	3196	N	GLN	B	226	7827	6193	7780	-1043	640	-2248	N
	ATOM	3197	CA	GLN	B	226	-16.519	-7.977	59.528	1.00	59.43	C	
	ANISOU	3197	CA	GLN	B	226	8065	6485	8032	-1288	634	-2428	C
20	ATOM	3198	C	GLN	B	226	-16.566	-8.104	61.040	1.00	56.56	C	
	ANISOU	3198	C	GLN	B	226	7540	6369	7582	-1171	618	-2677	C
	ATOM	3199	O	GLN	B	226	-17.019	-7.195	61.726	1.00	56.02	O	
	ANISOU	3199	O	GLN	B	226	7567	6142	7578	-1100	557	-2897	O
	ATOM	3200	CB	GLN	B	226	-16.473	-6.500	59.145	1.00	66.29	C	
	ANISOU	3200	CB	GLN	B	226	9228	6907	9052	-1450	551	-2489	C
25	ATOM	3201	CG	GLN	B	226	-16.759	-6.236	57.681	1.00	70.55	C	
	ANISOU	3201	CG	GLN	B	226	10009	7137	9658	-1529	530	-2227	C
	ATOM	3202	CD	GLN	B	226	-16.369	-4.836	57.265	1.00	77.64	C	
	ANISOU	3202	CD	GLN	B	226	11232	7600	10669	-1799	438	-2244	C
	ATOM	3203	OE1	GLN	B	226	-15.730	-4.103	58.026	1.00	79.49	O	
	ANISOU	3203	OE1	GLN	B	226	11481	7782	10938	-1966	409	-2460	O
30	ATOM	3204	NE2	GLN	B	226	-16.749	-4.454	56.049	1.00	80.06	N	
	ANISOU	3204	NE2	GLN	B	226	11822	7575	11021	-1860	376	-2010	N
	ATOM	3205	N	PRO	B	227	-16.102	-9.242	61.565	1.00	54.25	N	
	ANISOU	3205	N	PRO	B	227	7016	6463	7133	-1143	656	-2651	N
	ATOM	3206	CA	PRO	B	227	-16.126	-9.451	63.012	1.00	52.76	C	
	ANISOU	3206	CA	PRO	B	227	6696	6540	6808	-1054	630	-2854	C
35	ATOM	3207	C	PRO	B	227	-14.976	-8.718	63.676	1.00	55.73	C	
	ANISOU	3207	C	PRO	B	227	7036	6958	7180	-1270	586	-3082	C
	ATOM	3208	O	PRO	B	227	-14.064	-8.247	62.993	1.00	60.75	O	
	ANISOU	3208	O	PRO	B	227	7707	7471	7905	-1512	592	-3061	O
	ATOM	3209	CB	PRO	B	227	-15.926	-10.958	63.143	1.00	51.32	C	
	ANISOU	3209	CB	PRO	B	227	6334	6697	6466	-975	643	-2691	C
40	ATOM	3210	CG	PRO	B	227	-15.108	-11.318	61.947	1.00	51.28	C	
	ANISOU	3210	CG	PRO	B	227	6298	6658	6529	-1113	667	-2518	C
	ATOM	3211	CD	PRO	B	227	-15.602	-10.423	60.840	1.00	51.89	C	
	ANISOU	3211	CD	PRO	B	227	6585	6364	6768	-1171	700	-2434	C
	ATOM	3212	N	ARG	B	228	-15.038	-8.618	64.998	1.00	52.17	N	
	ANISOU	3212	N	ARG	B	228	6513	6699	6610	-1205	547	-3307	N
45	ATOM	3213	CA	ARG	B	228	-13.975	-8.025	65.790	1.00	53.89	C	
	ANISOU	3213	CA	ARG	B	228	6668	7012	6796	-1391	488	-3552	C
	ATOM	3214	C	ARG	B	228	-13.057	-9.154	66.254	1.00	53.49	C	
	ANISOU	3214	C	ARG	B	228	6394	7361	6568	-1413	447	-3504	C
	ATOM	3215	O	ARG	B	228	-13.533	-10.236	66.600	1.00	50.38	O	
	ANISOU	3215	O	ARG	B	228	5935	7188	6021	-1235	439	-3374	O
50	ATOM	3216	CB	ARG	B	228	-14.576	-7.302	67.001	1.00	56.17	C	
	ANISOU	3216	CB	ARG	B	228	6998	7310	7033	-1271	447	-3790	C
	ATOM	3217	CG	ARG	B	228	-15.682	-6.314	66.664	1.00	57.74	C	
	ANISOU	3217	CG	ARG	B	228	7396	7139	7405	-1140	445	-3838	C
	ATOM	3218	CD	ARG	B	228	-16.114	-5.495	67.874	1.00	59.27	C	
													C

	ANISOU	3218	CD	ARG	B	228	7601	7359	7560	-1021	390	-4069	C
	ATOM	3219	NE	ARG	B	228	-16.900	-6.264	68.839	1.00	57.49		N
	ANISOU	3219	NE	ARG	B	228	7236	7492	7118	-833	439	-4100	N
	ATOM	3220	CZ	ARG	B	228	-17.502	-5.738	69.903	1.00	56.79		C
5	ANISOU	3220	CZ	ARG	B	228	7122	7499	6957	-710	426	-4293	C
	ATOM	3221	NH1	ARG	B	228	-17.415	-4.438	70.149	1.00	59.77		N
	ANISOU	3221	NH1	ARG	B	228	7612	7619	7478	-717	346	-4492	N
	ATOM	3222	NH2	ARG	B	228	-18.196	-6.513	70.722	1.00	56.44		N
	ANISOU	3222	NH2	ARG	B	228	6949	7807	6688	-598	490	-4287	N
10	ATOM	3223	N	VAL	B	229	-11.749	-8.916	66.255	1.00	49.88		N
	ANISOU	3223	N	VAL	B	229	5825	6992	6134	-1632	403	-3614	N
	ATOM	3224	CA	VAL	B	229	-10.800	-9.952	66.663	1.00	49.61		C
	ANISOU	3224	CA	VAL	B	229	5562	7328	5958	-1622	319	-3605	C
	ATOM	3225	C	VAL	B	229	-10.087	-9.599	67.963	1.00	52.12		C
15	ANISOU	3225	C	VAL	B	229	5783	7852	6169	-1657	210	-3814	C
	ATOM	3226	O	VAL	B	229	-9.388	-8.591	68.042	1.00	54.44		O
	ANISOU	3226	O	VAL	B	229	6072	8046	6567	-1837	209	-3941	O
	ATOM	3227	CB	VAL	B	229	-9.752	-10.240	65.555	1.00	49.39		C
20	ANISOU	3227	CB	VAL	B	229	5394	7334	6035	-1790	348	-3520	C
	ATOM	3228	CG1	VAL	B	229	-8.642	-11.135	66.083	1.00	50.03		C
	ANISOU	3228	CG1	VAL	B	229	5209	7795	6003	-1762	215	-3606	C
	ATOM	3229	CG2	VAL	B	229	-10.417	-10.885	64.367	1.00	46.81		C
	ANISOU	3229	CG2	VAL	B	229	5139	6876	5771	-1685	437	-3230	C
	ATOM	3230	N	TRP	B	230	-10.257	-10.434	68.982	1.00	63.04		N
25	ANISOU	3230	N	TRP	B	230	7109	9512	7332	-1489	112	-3807	N
	ATOM	3231	CA	TRP	B	230	-9.623	-10.160	70.263	1.00	65.59		C
	ANISOU	3231	CA	TRP	B	230	7356	10034	7529	-1499	-2	-3962	C
	ATOM	3232	C	TRP	B	230	-8.209	-10.722	70.343	1.00	67.60		C
	ANISOU	3232	C	TRP	B	230	7389	10534	7762	-1547	-137	-3992	C
30	ATOM	3233	O	TRP	B	230	-7.982	-11.900	70.064	1.00	66.18		O
	ANISOU	3233	O	TRP	B	230	7115	10517	7515	-1438	-223	-3869	O
	ATOM	3234	CB	TRP	B	230	-10.457	-10.673	71.438	1.00	68.17		C
	ANISOU	3234	CB	TRP	B	230	7756	10547	7597	-1327	-50	-3939	C
	ATOM	3235	CG	TRP	B	230	-10.121	-9.913	72.681	1.00	76.73		C
35	ANISOU	3235	CG	TRP	B	230	8831	11730	8591	-1365	-114	-4136	C
	ATOM	3236	CD1	TRP	B	230	-9.015	-10.070	73.471	1.00	78.54		C
	ANISOU	3236	CD1	TRP	B	230	8935	12190	8718	-1402	-269	-4225	C
	ATOM	3237	CD2	TRP	B	230	-10.869	-8.835	73.249	1.00	80.19		C
40	ANISOU	3237	CD2	TRP	B	230	9385	12032	9051	-1359	-38	-4290	C
	ATOM	3238	NE1	TRP	B	230	-9.040	-9.165	74.503	1.00	81.21		N
	ANISOU	3238	NE1	TRP	B	230	9313	12549	8996	-1438	-281	-4418	N
	ATOM	3239	CE2	TRP	B	230	-10.168	-8.397	74.392	1.00	83.15		C
	ANISOU	3239	CE2	TRP	B	230	9702	12573	9317	-1410	-141	-4468	C
	ATOM	3240	CE3	TRP	B	230	-12.072	-8.210	72.913	1.00	80.70		C
45	ANISOU	3240	CE3	TRP	B	230	9587	11855	9222	-1291	89	-4308	C
	ATOM	3241	CZ2	TRP	B	230	-10.632	-7.358	75.195	1.00	87.38		C
	ANISOU	3241	CZ2	TRP	B	230	10314	13043	9842	-1406	-111	-4669	C
	ATOM	3242	CZ3	TRP	B	230	-12.526	-7.177	73.705	1.00	83.43		C
	ANISOU	3242	CZ3	TRP	B	230	9998	12132	9571	-1265	104	-4513	C
50	ATOM	3243	CH2	TRP	B	230	-11.806	-6.760	74.830	1.00	87.74		C
	ANISOU	3243	CH2	TRP	B	230	10486	12848	10003	-1329	10	-4694	C
	ATOM	3244	N	GLU	B	231	-7.268	-9.872	70.741	1.00	72.61		N
	ANISOU	3244	N	GLU	B	231	7936	11192	8461	-1695	-170	-4170	N
	ATOM	3245	CA	GLU	B	231	-5.872	-10.270	70.870	1.00	78.73		C
55	ANISOU	3245	CA	GLU	B	231	8467	12211	9234	-1734	-293	-4242	C
	ATOM	3246	C	GLU	B	231	-5.617	-11.025	72.168	1.00	83.99		C
	ANISOU	3246	C	GLU	B	231	9084	13165	9665	-1557	-503	-4265	C
	ATOM	3247	O	GLU	B	231	-6.077	-10.617	73.236	1.00	86.28		O
	ANISOU	3247	O	GLU	B	231	9491	13480	9810	-1528	-532	-4336	O

5	ATOM	3248	CB	GLU	B	231	-4.957	-9.047	70.782	1.00	82.15	C	
	ANISOU	3248	CB	GLU	B	231	8829	12564	9818	-1984	-238	-4425	C
	ATOM	3249	CG	GLU	B	231	-4.876	-8.454	69.389	1.00	82.41	C	
	ANISOU	3249	CG	GLU	B	231	8900	12353	10060	-2203	-63	-4366	C
	ATOM	3250	CD	GLU	B	231	-4.420	-9.470	68.362	1.00	82.29	C	
	ANISOU	3250	CD	GLU	B	231	8707	12476	10082	-2173	-39	-4248	C
	ATOM	3251	OE1	GLU	B	231	-3.418	-10.171	68.628	1.00	82.58	O	
	ANISOU	3251	OE1	GLU	B	231	8495	12811	10072	-2097	-156	-4318	O
10	ATOM	3252	OE2	GLU	B	231	-5.068	-9.577	67.297	1.00	82.02	O	
	ANISOU	3252	OE2	GLU	B	231	8784	12253	10126	-2207	84	-4096	O
	ATOM	3253	OXT	GLU	B	231	-4.940	-12.056	72.173	1.00	85.86	O	
	ANISOU	3253	OXT	GLU	B	231	9173	13607	9846	-1436	-659	-4211	O
15	TER	3254		GLU	B	231							
	HETATM	3255	NA	NA	A	301	-43.298	0.548	19.243	1.00	41.75	NA	
	HETATM	3256	NA	NA	B	301	-30.560	-34.495	50.085	1.00	14.53	NA	
	HETATM	3257	NA	NA	B	302	-36.417	-44.625	24.437	1.00	16.80	NA	
	HETATM	3258	NA	NA	B	303	-21.173	-37.785	20.778	1.00	48.38	NA	
	HETATM	3259	O	HOH	A	401	-46.064	1.867	19.579	1.00	26.00	O	
	HETATM	3260	O	HOH	A	402	-39.244	-23.434	11.374	1.00	31.82	O	
	HETATM	3261	O	HOH	A	403	-52.071	-4.971	12.373	1.00	22.12	O	
20	HETATM	3262	O	HOH	A	404	-53.697	-3.033	12.172	1.00	32.82	O	
	HETATM	3263	O	HOH	A	405	-54.761	-11.978	9.458	1.00	26.16	O	
	HETATM	3264	O	HOH	A	406	-56.324	-15.719	21.473	1.00	41.89	O	
	HETATM	3265	O	HOH	A	407	-45.245	-19.277	13.428	1.00	28.27	O	
25	HETATM	3266	O	HOH	A	408	-39.041	-16.625	-5.601	1.00	37.81	O	
	HETATM	3267	O	HOH	A	409	-35.194	-2.876	-0.344	1.00	35.37	O	
	HETATM	3268	O	HOH	A	410	-39.992	-23.323	7.671	1.00	34.29	O	
	HETATM	3269	O	HOH	A	411	-35.876	-12.018	23.167	1.00	36.99	O	
30	HETATM	3270	O	HOH	A	412	-36.672	-17.699	26.517	1.00	35.08	O	
	HETATM	3271	O	HOH	A	413	-50.830	-4.011	10.832	1.00	46.10	O	
	HETATM	3272	O	HOH	A	414	-57.525	-7.808	18.479	1.00	34.19	O	
	HETATM	3273	O	HOH	A	415	-45.913	-17.399	11.467	0.97	28.62	O	
35	HETATM	3274	O	HOH	A	416	-44.040	-15.384	4.475	1.00	28.01	O	
	HETATM	3275	O	HOH	A	417	-48.128	-12.108	13.831	0.93	26.44	O	
	HETATM	3276	O	HOH	A	418	-30.879	-15.528	-7.410	1.00	32.43	O	
	HETATM	3277	O	HOH	A	419	-39.598	-14.025	-6.331	1.00	32.79	O	
40	HETATM	3278	O	HOH	A	420	-33.399	-7.557	1.102	1.00	22.65	O	
	HETATM	3279	O	HOH	A	421	-29.866	4.526	-15.956	1.00	39.64	O	
	HETATM	3280	O	HOH	A	422	-29.605	-1.982	-10.781	0.67	20.39	O	
	HETATM	3281	O	HOH	A	423	-33.944	-15.616	12.372	1.00	29.39	O	
45	HETATM	3282	O	HOH	A	424	-33.962	-10.918	-5.080	1.00	22.24	O	
	HETATM	3283	O	HOH	A	425	-30.315	-0.791	-19.805	1.00	37.52	O	
	HETATM	3284	O	HOH	A	426	-40.728	-3.569	-12.018	1.00	28.80	O	
	HETATM	3285	O	HOH	A	427	-41.984	-7.745	30.262	1.00	29.40	O	
50	HETATM	3286	O	HOH	A	428	-40.436	-18.005	-3.593	1.00	33.15	O	
	HETATM	3287	O	HOH	A	429	-42.457	-15.862	2.417	1.00	31.95	O	
	HETATM	3288	O	HOH	A	430	-28.941	-12.321	-5.040	1.00	37.52	O	
	HETATM	3289	O	HOH	A	431	-30.579	1.635	-20.030	1.00	31.88	O	
55	HETATM	3290	O	HOH	A	432	-56.794	-17.774	19.079	1.00	40.60	O	
	HETATM	3291	O	HOH	A	433	-38.601	-18.356	2.438	1.00	34.40	O	
	HETATM	3292	O	HOH	A	434	-32.291	-9.953	2.021	1.00	30.01	O	
	HETATM	3293	O	HOH	A	435	-42.095	-22.849	6.794	1.00	39.39	O	
55	HETATM	3294	O	HOH	A	436	-50.469	-18.514	24.015	1.00	30.10	O	
	HETATM	3295	O	HOH	A	437	-51.584	-18.667	21.473	1.00	31.63	O	
	HETATM	3296	O	HOH	A	438	-35.989	1.032	-9.828	1.00	42.49	O	
	HETATM	3297	O	HOH	A	439	-40.262	-13.627	-11.594	1.00	41.21	O	
	HETATM	3298	O	HOH	A	440	-44.195	-9.355	-0.579	1.00	35.93	O	
	HETATM	3299	O	HOH	A	441	-39.628	-15.431	29.085	1.00	32.80	O	
	HETATM	3300	O	HOH	A	442	-31.704	-18.431	38.416	1.00	41.48	O	

	HETATM	3301	O	HOH	A	443	-54.283	-17.755	21.578	1.00	46.05	O
	HETATM	3302	O	HOH	A	444	-46.598	-5.022	9.938	1.00	40.93	O
	HETATM	3303	O	HOH	A	445	-37.401	-16.144	12.374	1.00	44.34	O
	HETATM	3304	O	HOH	A	446	-36.294	-2.913	-9.480	1.00	49.06	O
5	HETATM	3305	O	HOH	A	447	-33.899	-4.240	-10.080	1.00	40.68	O
	HETATM	3306	O	HOH	A	448	-39.336	-16.120	32.724	1.00	36.49	O
	HETATM	3307	O	HOH	A	449	-45.402	5.302	22.028	1.00	50.95	O
	HETATM	3308	O	HOH	A	450	-54.405	-16.056	24.070	1.00	46.33	O
	HETATM	3309	O	HOH	A	451	-24.976	-0.131	-10.570	1.00	40.61	O
10	HETATM	3310	O	HOH	A	452	-42.817	-18.638	6.955	1.00	42.71	O
	HETATM	3311	O	HOH	A	453	-34.081	-12.899	15.131	1.00	52.67	O
	HETATM	3312	O	HOH	A	454	-38.544	-6.327	6.719	1.00	46.81	O
	HETATM	3313	O	HOH	A	455	-27.655	0.472	-10.750	1.00	43.94	O
	HETATM	3314	O	HOH	A	456	-39.436	-4.444	-0.043	1.00	35.40	O
15	HETATM	3315	O	HOH	A	457	-40.965	-20.816	-4.276	1.00	43.16	O
	HETATM	3316	O	HOH	A	458	-44.494	-17.754	5.441	1.00	40.91	O
	HETATM	3317	O	HOH	A	459	-35.014	-17.346	-0.957	1.00	44.72	O
	HETATM	3318	O	HOH	A	460	-48.356	-3.529	11.885	1.00	47.12	O
	HETATM	3319	O	HOH	A	461	-32.095	-2.943	-8.435	1.00	45.07	O
20	HETATM	3320	O	HOH	A	462	-46.314	-10.284	0.591	1.00	42.68	O
	HETATM	3321	O	HOH	A	463	-33.065	-1.429	-0.146	1.00	41.47	O
	HETATM	3322	O	HOH	A	464	-47.376	-2.952	13.774	1.00	37.81	O
	HETATM	3323	O	HOH	A	465	-38.068	-1.149	-10.822	1.00	43.07	O
	HETATM	3324	O	HOH	A	466	-28.293	-18.587	-8.127	1.00	49.73	O
25	HETATM	3325	O	HOH	A	467	-47.437	-12.075	2.511	1.00	47.30	O
	HETATM	3326	O	HOH	A	468	-38.568	-15.298	-10.082	1.00	45.25	O
	HETATM	3327	O	HOH	A	469	-38.089	-3.129	-5.895	1.00	35.96	O
	HETATM	3328	O	HOH	A	470	-27.142	-4.116	3.629	1.00	50.34	O
	HETATM	3329	O	HOH	A	471	-23.396	-15.742	-13.546	1.00	44.81	O
30	HETATM	3330	O	HOH	A	472	-41.047	-18.240	1.893	1.00	32.55	O
	HETATM	3331	O	HOH	A	473	-40.840	-4.743	9.488	1.00	42.30	O
	HETATM	3332	O	HOH	A	474	-47.233	-14.288	6.037	1.00	35.07	O
	HETATM	3333	O	HOH	A	475	-26.654	-3.412	-5.001	1.00	45.50	O
	HETATM	3334	O	HOH	A	476	-24.506	3.414	-22.744	1.00	51.47	O
35	HETATM	3335	O	HOH	A	477	-10.993	-9.172	-18.491	1.00	60.17	O
	HETATM	3336	O	HOH	A	478	-39.644	-17.435	-8.148	1.00	51.58	O
	HETATM	3337	O	HOH	A	479	-34.661	-1.926	-7.395	1.00	55.86	O
	HETATM	3338	O	HOH	A	480	-34.649	-22.328	39.391	1.00	57.18	O
	HETATM	3339	O	HOH	A	481	-17.618	-13.485	-19.919	1.00	49.03	O
40	HETATM	3340	O	HOH	A	482	-32.322	2.975	-13.703	1.00	43.85	O
	HETATM	3341	O	HOH	A	483	-33.542	-12.914	17.818	1.00	45.43	O
	HETATM	3342	O	HOH	A	484	-33.804	0.893	-7.005	1.00	60.63	O
	HETATM	3343	O	HOH	A	485	-45.239	-1.752	12.267	1.00	52.89	O
	HETATM	3344	O	HOH	A	486	-30.982	0.390	-7.337	1.00	49.56	O
45	HETATM	3345	O	HOH	A	487	-35.223	-16.464	28.778	1.00	50.05	O
	HETATM	3346	O	HOH	A	488	-48.727	-6.500	26.806	1.00	39.10	O
	HETATM	3347	O	HOH	A	489	-44.157	0.347	13.692	1.00	43.95	O
	HETATM	3348	O	HOH	A	490	-27.600	-18.584	5.912	1.00	44.63	O
	HETATM	3349	O	HOH	A	491	-21.409	-6.912	2.359	1.00	53.87	O
50	HETATM	3350	O	HOH	A	492	-40.486	-1.442	31.936	1.00	53.55	O
	HETATM	3351	O	HOH	A	493	-45.212	-3.035	10.094	1.00	52.80	O
	HETATM	3352	O	HOH	A	494	-34.867	-9.425	25.725	1.00	52.45	O
	HETATM	3353	O	HOH	A	495	-19.625	5.206	-12.967	1.00	47.67	O
	HETATM	3354	O	HOH	A	496	-46.307	-12.995	37.728	1.00	55.77	O
55	HETATM	3355	O	HOH	A	497	-36.046	-1.119	15.456	1.00	40.08	O
	HETATM	3356	O	HOH	A	498	-35.346	-16.397	18.397	1.00	36.02	O
	HETATM	3357	O	HOH	A	499	-50.747	-5.645	28.370	1.00	58.27	O
	HETATM	3358	O	HOH	A	500	-44.945	-7.404	6.391	1.00	38.66	O
	HETATM	3359	O	HOH	A	501	-46.160	-19.442	30.767	1.00	41.39	O

	HETATM	3360	O	HOH A 502	-44.892	-12.366	-10.523	1.00	35.65	O
	HETATM	3361	O	HOH A 503	-47.169	-16.511	2.173	1.00	58.80	O
	HETATM	3362	O	HOH A 504	-45.840	-18.556	1.997	1.00	56.64	O
5	HETATM	3363	O	HOH A 505	-43.180	-13.401	-11.997	1.00	47.47	O
	HETATM	3364	O	HOH A 506	-39.352	-3.190	8.609	1.00	52.21	O
	HETATM	3365	O	HOH A 507	-30.689	-2.395	-1.168	1.00	51.85	O
	HETATM	3366	O	HOH A 508	-41.411	-14.155	-9.099	1.00	45.41	O
	HETATM	3367	O	HOH A 509	-48.666	-18.337	33.871	1.00	52.58	O
10	HETATM	3368	O	HOH A 510	-22.567	-0.109	-8.028	1.00	51.88	O
	HETATM	3369	O	HOH A 511	-34.738	-17.845	24.471	1.00	48.23	O
	HETATM	3370	O	HOH A 512	-31.966	-9.596	25.123	1.00	54.46	O
	HETATM	3371	O	HOH A 513	-12.276	-0.299	-17.588	1.00	46.98	O
	HETATM	3372	O	HOH A 514	-51.996	-0.985	12.900	1.00	50.80	O
15	HETATM	3373	O	HOH A 515	-37.076	-14.822	29.978	1.00	55.04	O
	HETATM	3374	O	HOH A 516	-59.012	-16.409	18.102	1.00	47.52	O
	HETATM	3375	O	HOH A 517	-46.284	-14.645	3.452	1.00	45.66	O
	HETATM	3376	O	HOH A 518	-39.152	-17.161	39.218	1.00	46.23	O
	HETATM	3377	O	HOH A 519	-38.141	1.031	16.496	1.00	43.69	O
20	HETATM	3378	O	HOH A 520	-49.830	-8.102	33.217	1.00	53.54	O
	HETATM	3379	O	HOH A 521	-37.868	-3.840	26.055	1.00	35.17	O
	HETATM	3380	O	HOH A 522	-46.303	3.578	23.397	1.00	39.48	O
	HETATM	3381	O	HOH A 523	-40.325	-3.376	-3.518	1.00	55.32	O
	HETATM	3382	O	HOH A 524	-38.266	-13.193	32.769	1.00	59.70	O
25	HETATM	3383	O	HOH A 525	-36.542	-5.509	25.204	1.00	61.52	O
	HETATM	3384	O	HOH A 526	-41.084	-10.089	-16.186	1.00	50.03	O
	HETATM	3385	O	HOH A 527	-31.769	-2.903	-21.186	1.00	42.92	O
	HETATM	3386	O	HOH A 528	-35.889	-2.712	-5.507	1.00	39.37	O
	HETATM	3387	O	HOH B 401	-21.413	-40.861	20.429	1.00	24.68	O
30	HETATM	3388	O	HOH B 402	-31.969	-22.306	21.648	1.00	34.79	O
	HETATM	3389	O	HOH B 403	-30.374	-42.628	27.626	1.00	19.39	O
	HETATM	3390	O	HOH B 404	-37.783	-41.395	30.517	1.00	28.32	O
	HETATM	3391	O	HOH B 405	-41.721	-40.850	18.614	1.00	44.22	O
	HETATM	3392	O	HOH B 406	-33.765	-25.497	45.633	1.00	34.78	O
35	HETATM	3393	O	HOH B 407	-20.274	-29.050	40.327	1.00	35.17	O
	HETATM	3394	O	HOH B 408	-28.358	-25.042	16.827	1.00	38.14	O
	HETATM	3395	O	HOH B 409	-15.506	-42.319	21.526	1.00	29.46	O
	HETATM	3396	O	HOH B 410	-29.569	-45.077	27.889	1.00	28.23	O
	HETATM	3397	O	HOH B 411	-33.640	-22.944	13.484	1.00	34.10	O
40	HETATM	3398	O	HOH B 412	-34.660	-35.583	26.159	0.92	27.21	O
	HETATM	3399	O	HOH B 413	-28.953	-18.980	47.419	1.00	36.66	O
	HETATM	3400	O	HOH B 414	-23.308	-25.108	38.916	1.00	24.13	O
	HETATM	3401	O	HOH B 415	-10.913	-28.083	55.957	1.00	36.36	O
	HETATM	3402	O	HOH B 416	-31.962	-27.334	46.344	1.00	29.62	O
45	HETATM	3403	O	HOH B 417	-23.428	-33.534	52.016	1.00	29.42	O
	HETATM	3404	O	HOH B 418	-31.742	-18.247	1.604	1.00	44.69	O
	HETATM	3405	O	HOH B 419	-40.225	-23.035	32.351	1.00	33.46	O
	HETATM	3406	O	HOH B 420	-40.893	-25.162	33.124	1.00	37.92	O
	HETATM	3407	O	HOH B 421	-30.458	-21.554	27.688	1.00	30.00	O
50	HETATM	3408	O	HOH B 422	-26.397	-23.982	45.131	1.00	23.69	O
	HETATM	3409	O	HOH B 423	-40.031	-35.617	37.335	1.00	54.63	O
	HETATM	3410	O	HOH B 424	-35.342	-30.431	35.547	1.00	27.24	O
	HETATM	3411	O	HOH B 425	-27.726	-32.409	9.813	1.00	27.08	O
	HETATM	3412	O	HOH B 426	-24.761	-22.969	37.937	1.00	30.26	O
55	HETATM	3413	O	HOH B 427	-37.986	-31.100	28.462	1.00	34.23	O
	HETATM	3414	O	HOH B 428	-35.679	-25.937	43.607	1.00	31.74	O
	HETATM	3415	O	HOH B 429	-43.865	-40.245	21.052	1.00	42.09	O
	HETATM	3416	O	HOH B 430	-34.954	-28.772	37.613	1.00	28.41	O
	HETATM	3417	O	HOH B 431	-25.135	-18.947	44.996	1.00	38.53	O
	HETATM	3418	O	HOH B 432	-41.916	-35.302	18.540	1.00	33.74	O

	HETATM	3419	O	HOH	B	433	-16.386	-24.554	50.838	1.00	35.14	O
	HETATM	3420	O	HOH	B	434	-41.303	-34.444	16.097	1.00	29.18	O
	HETATM	3421	O	HOH	B	435	-42.465	-38.145	18.379	1.00	47.72	O
	HETATM	3422	O	HOH	B	436	-41.115	-38.954	15.882	1.00	41.22	O
5	HETATM	3423	O	HOH	B	437	-31.940	-28.100	51.646	1.00	47.68	O
	HETATM	3424	O	HOH	B	438	-16.310	-21.040	45.062	1.00	49.07	O
	HETATM	3425	O	HOH	B	439	-32.664	-24.173	27.608	1.00	42.74	O
	HETATM	3426	O	HOH	B	440	-30.026	-38.910	13.258	1.00	42.20	O
	HETATM	3427	O	HOH	B	441	-20.774	-30.147	49.489	1.00	48.20	O
10	HETATM	3428	O	HOH	B	442	-30.334	-33.617	40.677	1.00	35.39	O
	HETATM	3429	O	HOH	B	443	-39.721	-33.574	36.252	1.00	55.08	O
	HETATM	3430	O	HOH	B	444	-35.767	-32.854	36.462	1.00	48.40	O
	HETATM	3431	O	HOH	B	445	-13.892	-27.243	60.062	1.00	35.63	O
	HETATM	3432	O	HOH	B	446	-20.609	-27.309	50.091	1.00	40.42	O
15	HETATM	3433	O	HOH	B	447	-27.607	-37.933	29.925	1.00	39.60	O
	HETATM	3434	O	HOH	B	448	-33.122	-26.540	10.942	1.00	31.00	O
	HETATM	3435	O	HOH	B	449	-33.633	-25.954	7.322	1.00	41.54	O
	HETATM	3436	O	HOH	B	450	-23.570	-31.888	40.132	1.00	35.48	O
	HETATM	3437	O	HOH	B	451	-34.655	-25.495	0.726	1.00	42.09	O
20	HETATM	3438	O	HOH	B	452	-28.933	-35.325	33.591	1.00	34.70	O
	HETATM	3439	O	HOH	B	453	-30.058	-15.070	48.008	1.00	43.19	O
	HETATM	3440	O	HOH	B	454	-32.053	-35.052	39.294	1.00	46.08	O
	HETATM	3441	O	HOH	B	455	-37.795	-29.787	34.755	1.00	41.49	O
	HETATM	3442	O	HOH	B	456	-21.168	-31.671	39.359	1.00	50.32	O
25	HETATM	3443	O	HOH	B	457	-39.780	-30.305	9.259	1.00	40.93	O
	HETATM	3444	O	HOH	B	458	-37.740	-27.813	33.034	1.00	43.39	O
	HETATM	3445	O	HOH	B	459	-18.446	-26.397	48.386	1.00	41.77	O
	HETATM	3446	O	HOH	B	460	-32.574	-25.719	50.117	1.00	43.59	O
	HETATM	3447	O	HOH	B	461	-28.199	-23.000	24.936	1.00	49.25	O
30	HETATM	3448	O	HOH	B	462	-25.105	-11.854	51.085	1.00	51.76	O
	HETATM	3449	O	HOH	B	463	-16.654	-15.132	37.723	1.00	52.00	O
	HETATM	3450	O	HOH	B	464	-37.272	-23.382	35.850	1.00	39.85	O
	HETATM	3451	O	HOH	B	465	-39.905	-22.278	28.614	1.00	28.92	O
	HETATM	3452	O	HOH	B	466	-32.721	-46.364	17.967	1.00	49.77	O
35	HETATM	3453	O	HOH	B	467	-24.506	-32.969	30.490	1.00	46.28	O
	HETATM	3454	O	HOH	B	468	-15.934	-25.767	59.913	1.00	45.33	O
	HETATM	3455	O	HOH	B	469	-25.370	-12.375	53.529	1.00	40.76	O
	HETATM	3456	O	HOH	B	470	-34.266	-35.025	37.492	1.00	45.95	O
	HETATM	3457	O	HOH	B	471	-41.506	-37.147	38.183	1.00	56.46	O
40	HETATM	3458	O	HOH	B	472	-9.344	-22.989	62.755	1.00	51.28	O
	HETATM	3459	O	HOH	B	473	-27.776	-19.946	28.548	1.00	48.84	O
	HETATM	3460	O	HOH	B	474	-27.172	-40.285	28.103	1.00	52.54	O
	HETATM	3461	O	HOH	B	475	-38.319	-31.935	33.025	1.00	43.04	O
	HETATM	3462	O	HOH	B	476	-27.684	-22.576	22.310	1.00	46.34	O
45	HETATM	3463	O	HOH	B	477	-33.315	-30.827	51.832	1.00	45.20	O
	HETATM	3464	O	HOH	B	478	-32.885	-28.747	49.158	1.00	45.16	O
	HETATM	3465	O	HOH	B	479	-19.583	-14.115	67.667	1.00	53.69	O
	HETATM	3466	O	HOH	B	480	-5.156	-19.886	53.224	1.00	48.41	O
	HETATM	3467	O	HOH	B	481	-13.884	-29.305	53.585	1.00	44.52	O
50	HETATM	3468	O	HOH	B	482	-22.205	-30.729	13.958	1.00	39.84	O
	HETATM	3469	O	HOH	B	483	-23.208	-28.973	14.976	1.00	60.65	O
	HETATM	3470	O	HOH	B	484	-30.774	-46.306	16.557	1.00	40.99	O
	HETATM	3471	O	HOH	B	485	-22.432	-32.332	31.419	1.00	49.56	O
	HETATM	3472	O	HOH	B	486	-13.422	-24.222	50.675	1.00	39.66	O
55	HETATM	3473	O	HOH	B	487	-36.239	-26.505	38.139	1.00	33.60	O
	HETATM	3474	O	HOH	B	488	-30.255	-41.125	11.635	1.00	56.79	O
	HETATM	3475	O	HOH	B	489	-33.105	-32.942	50.457	1.00	43.29	O
	HETATM	3476	O	HOH	B	490	-12.624	-21.481	50.633	1.00	38.70	O
	HETATM	3477	O	HOH	B	491	-37.633	-32.712	37.791	1.00	61.43	O

	HETATM	3478	O	HOH	B	492	-36.098	-33.837	33.906	1.00	38.38	O		
	HETATM	3479	O	HOH	B	493	-17.871	-28.013	40.231	1.00	39.45	O		
	HETATM	3480	O	HOH	B	494	-26.218	-39.507	26.191	1.00	40.78	O		
	HETATM	3481	O	HOH	B	495	-14.464	-14.800	70.478	1.00	41.80	O		
5	HETATM	3482	O	HOH	B	496	-40.193	-32.994	6.211	1.00	52.52	O		
	HETATM	3483	O	HOH	B	497	-33.042	-21.220	15.369	1.00	44.55	O		
	HETATM	3484	O	HOH	B	498	-32.562	-21.608	40.973	1.00	38.87	O		
	HETATM	3485	O	HOH	B	499	-13.113	-4.900	58.296	1.00	60.72	O		
	HETATM	3486	O	HOH	B	500	-43.862	-42.913	21.833	1.00	45.27	O		
10	HETATM	3487	O	HOH	B	501	-31.378	-24.705	10.406	1.00	57.08	O		
	HETATM	3488	O	HOH	B	502	-24.221	-38.346	27.740	1.00	49.59	O		
	HETATM	3489	O	HOH	B	503	-35.252	-24.241	37.538	1.00	31.51	O		
	HETATM	3490	O	HOH	B	504	-31.960	-22.218	11.228	1.00	50.64	O		
	HETATM	3491	O	HOH	B	505	-29.273	-49.906	26.299	1.00	43.43	O		
15	HETATM	3492	O	HOH	B	506	-39.373	-29.480	26.607	1.00	29.39	O		
	HETATM	3493	O	HOH	B	507	-18.435	-26.028	61.171	1.00	40.05	O		
	HETATM	3494	O	HOH	B	508	-29.076	-42.101	29.396	1.00	46.31	O		
	HETATM	3495	O	HOH	B	509	-25.187	-37.622	29.831	1.00	53.44	O		
	HETATM	3496	O	HOH	B	510	-34.469	-33.591	2.208	1.00	56.76	O		
20	HETATM	3497	O	HOH	B	511	-33.177	-18.898	-1.538	1.00	59.02	O		
	HETATM	3498	O	HOH	B	512	-30.911	-46.038	30.038	1.00	55.03	O		
	HETATM	3499	O	HOH	B	513	-31.975	-39.052	6.784	1.00	51.49	O		
	HETATM	3500	O	HOH	B	514	-36.213	-37.145	38.091	1.00	48.14	O		
	HETATM	3501	O	HOH	B	515	-37.040	-38.370	36.426	1.00	47.36	O		
25	HETATM	3502	O	HOH	B	516	-38.830	-30.735	38.108	1.00	52.97	O		
	HETATM	3503	O	HOH	B	517	-30.384	-26.303	6.997	1.00	58.10	O		
	CONNECT	136	606											
	CONNECT	606	136											
	CONNECT	948	1436											
30	CONNECT	1436	948											
	CONNECT	1763	2233											
	CONNECT	2233	1763											
	CONNECT	2575	3063											
	CONNECT	3063	2575											
35	CONNECT	3255	3259											
	CONNECT	3256	3475											
	CONNECT	3258	3387											
	CONNECT	3259	3255											
	CONNECT	3387	3258											
40	CONNECT	3475	3256											
	MASTER		320	0	4	4	36	0	4	6	3501	2	14	34
	END													

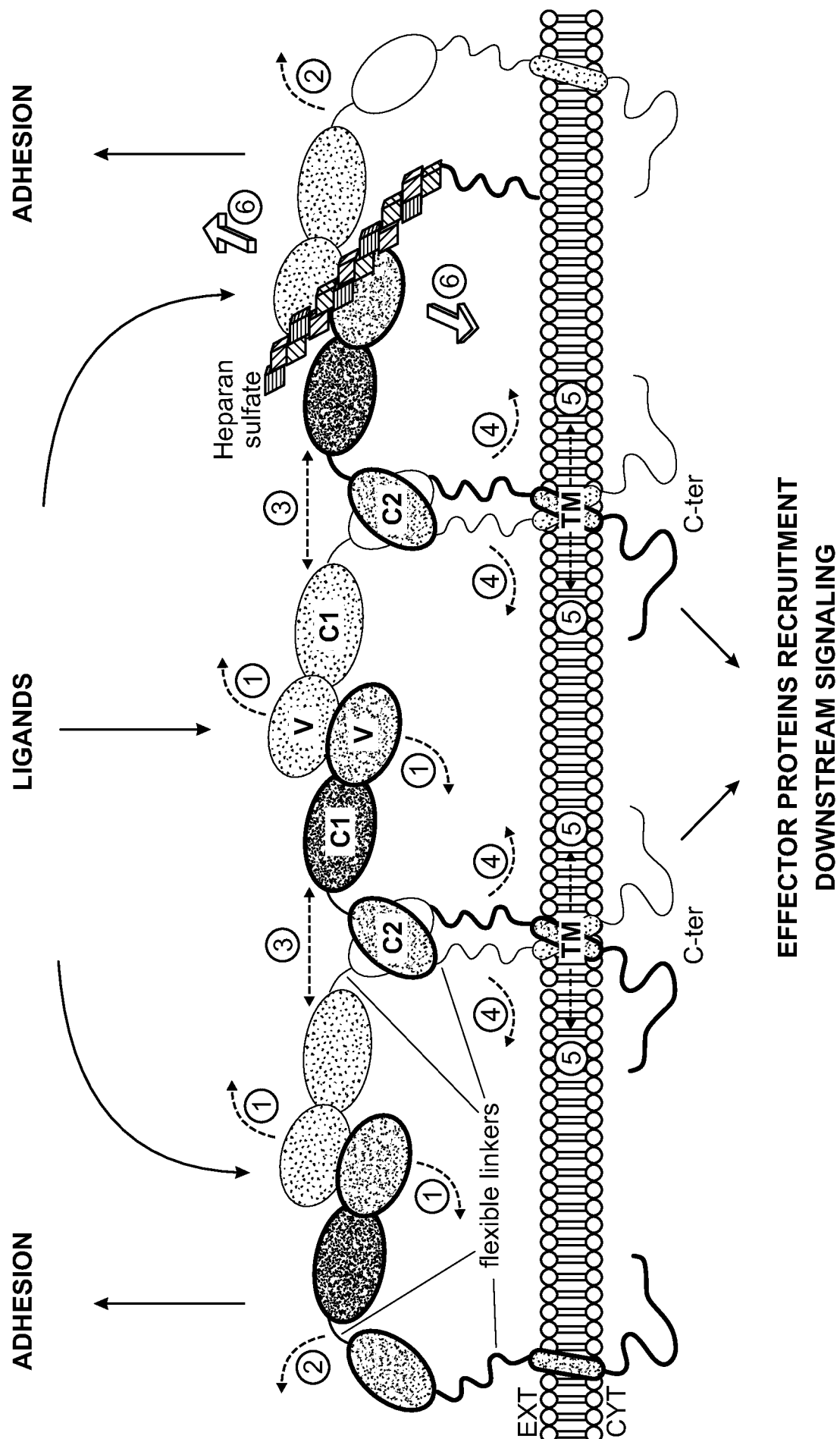


FIG. 1

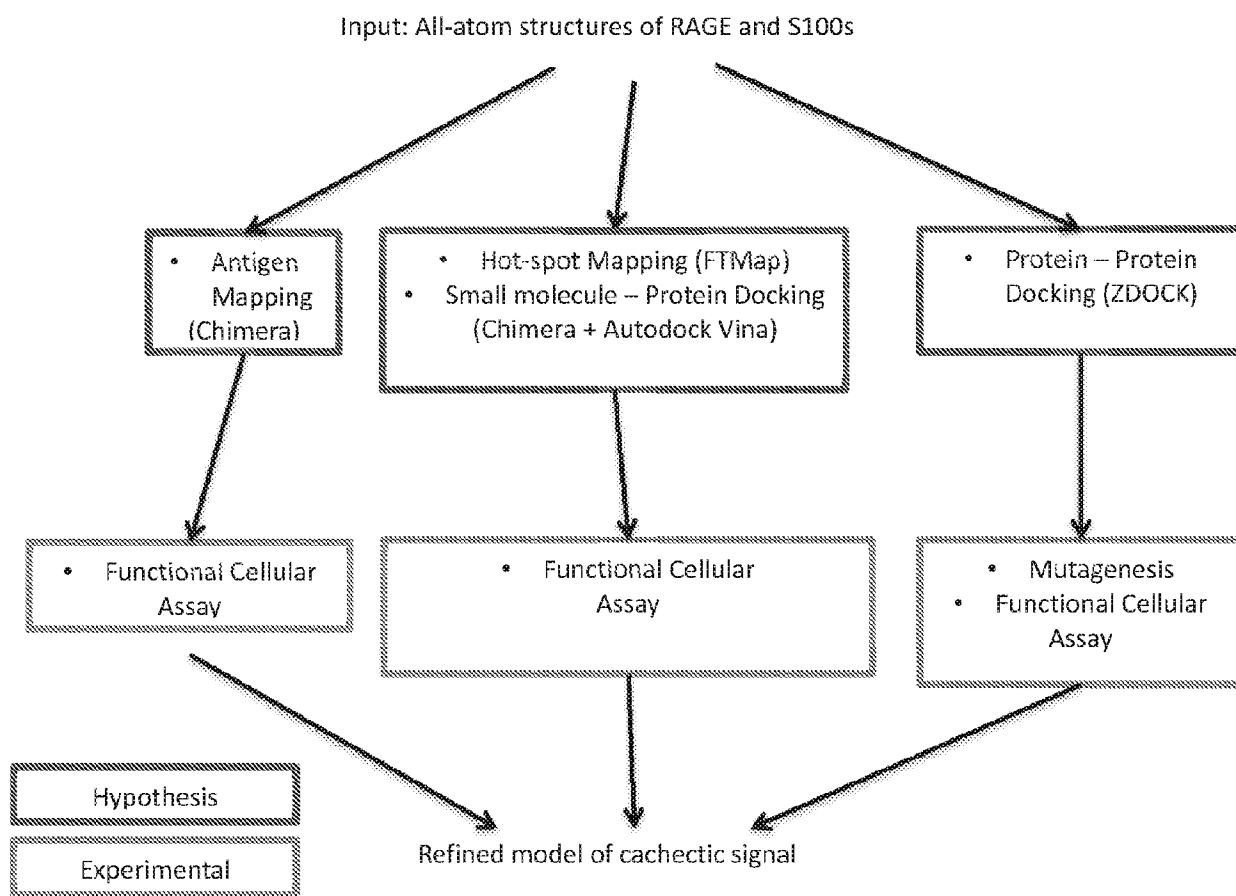


FIG. 2

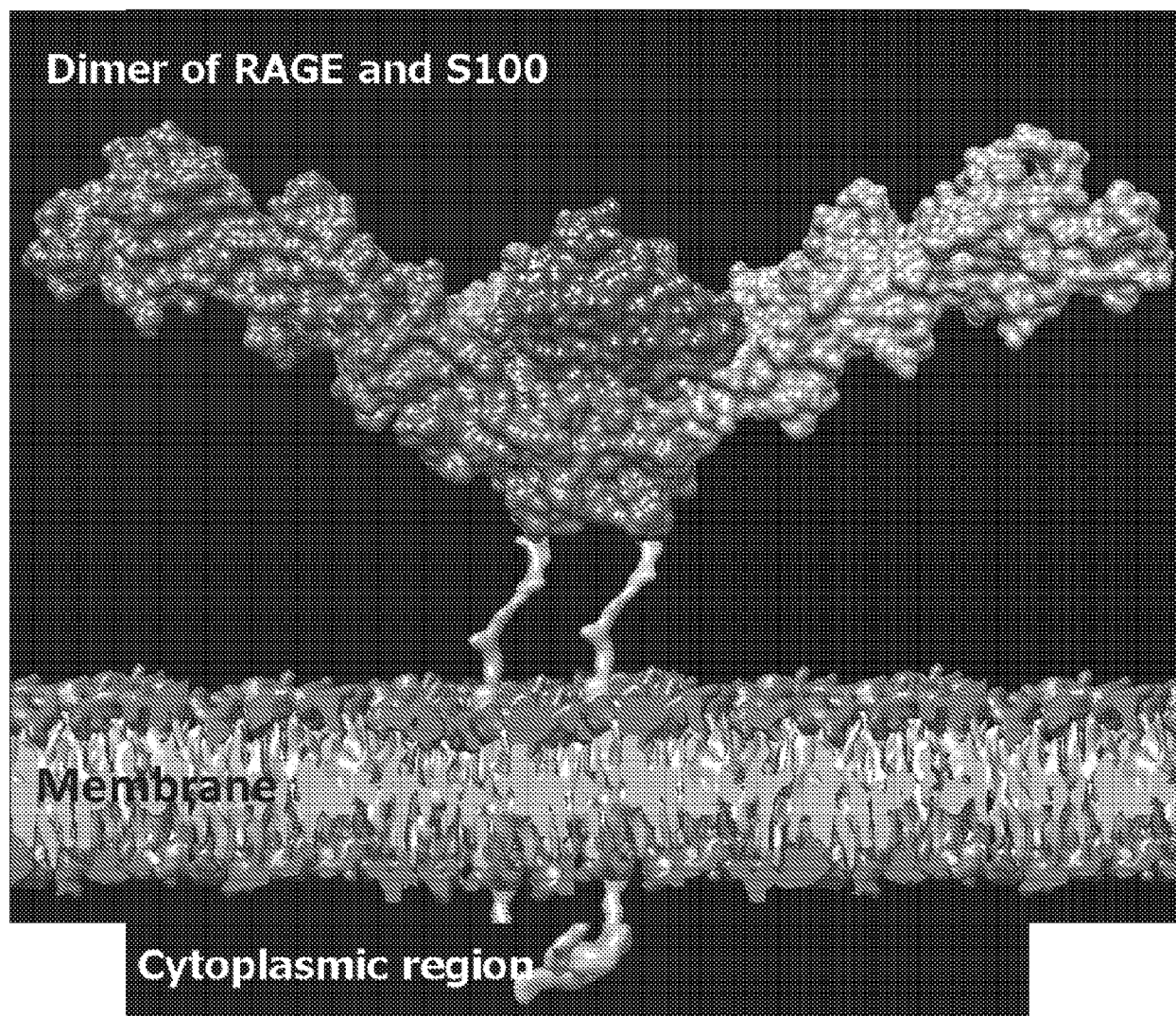


FIG. 3A

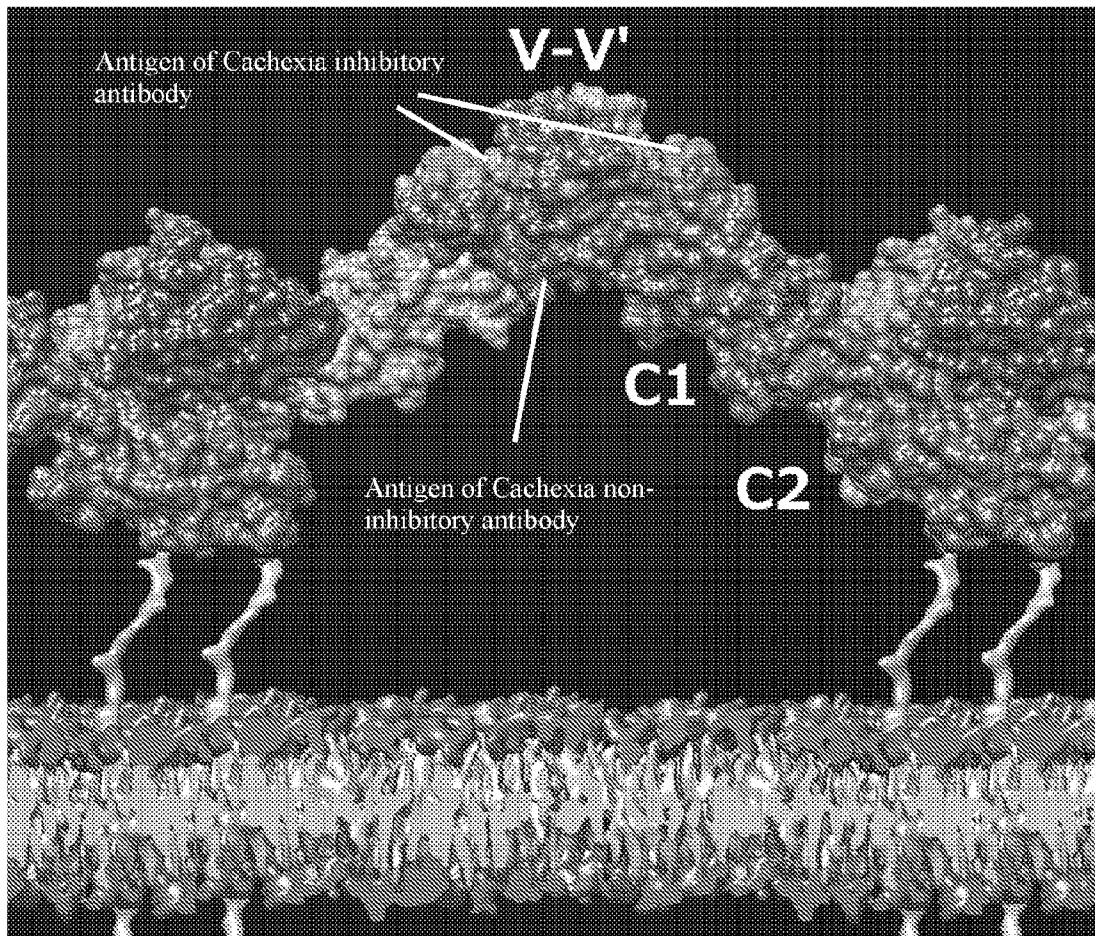
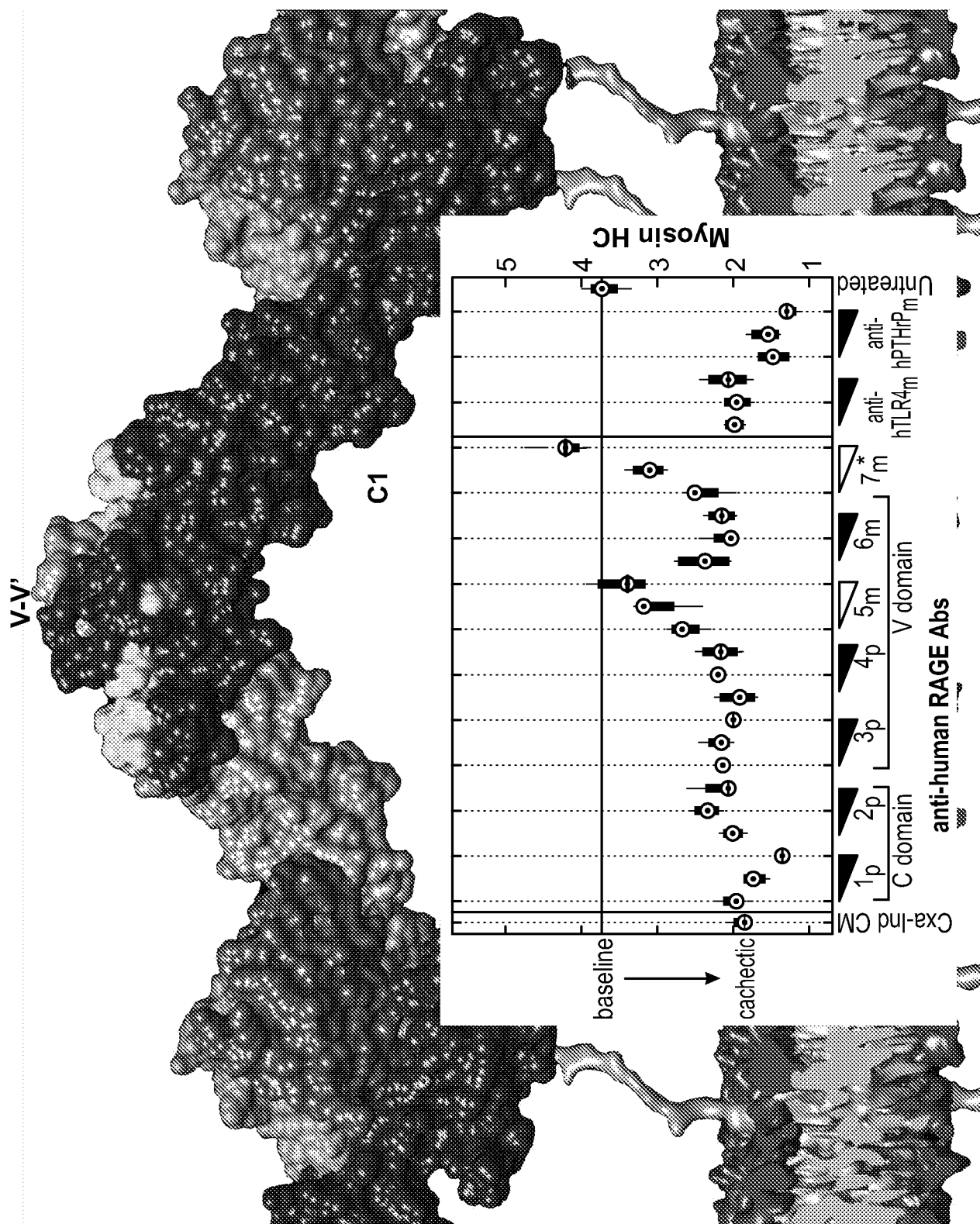


FIG. 3B

FIG. 4



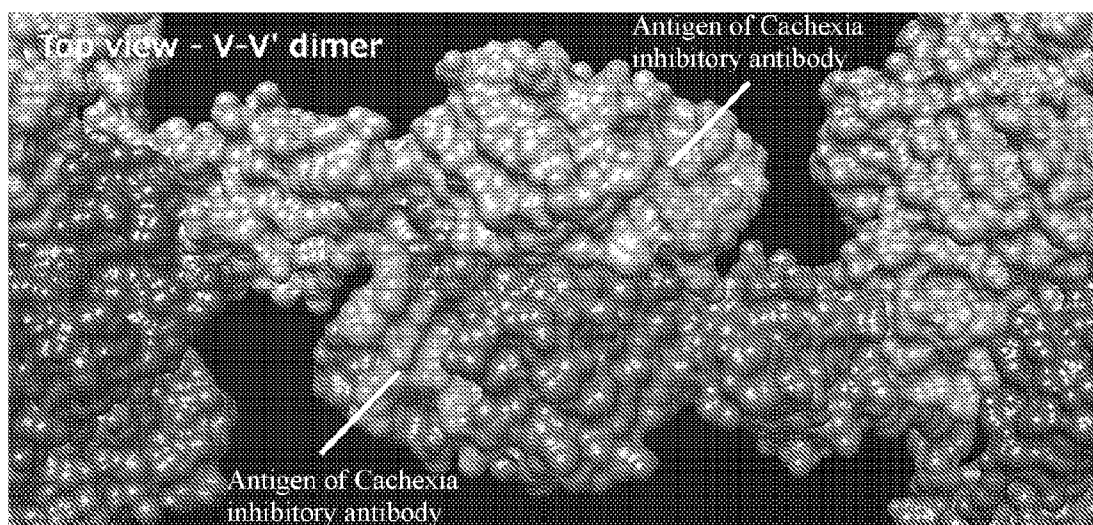


FIG. 5

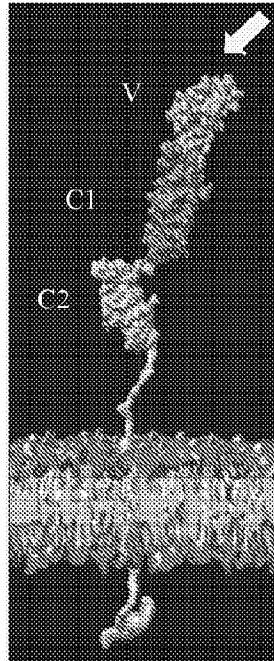


FIG. 6A

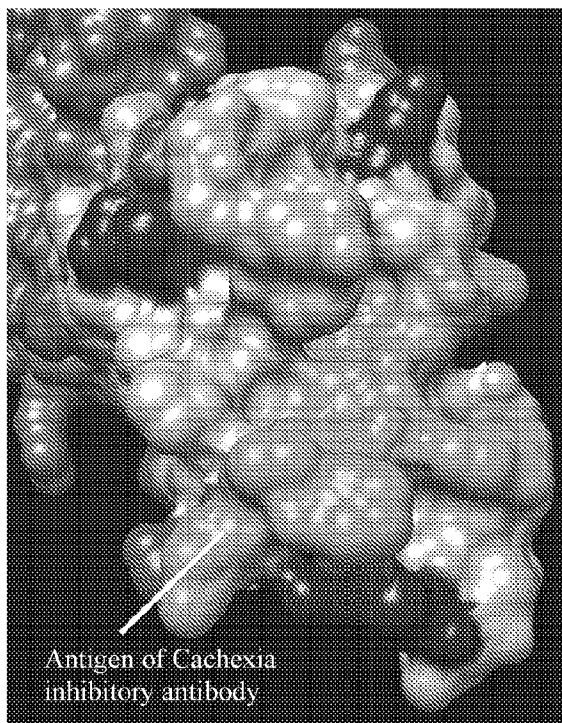


FIG. 6B

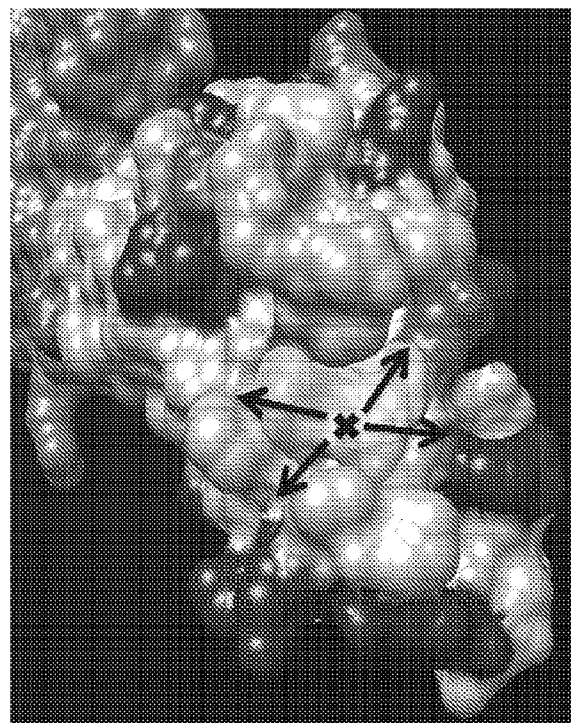


FIG. 6C

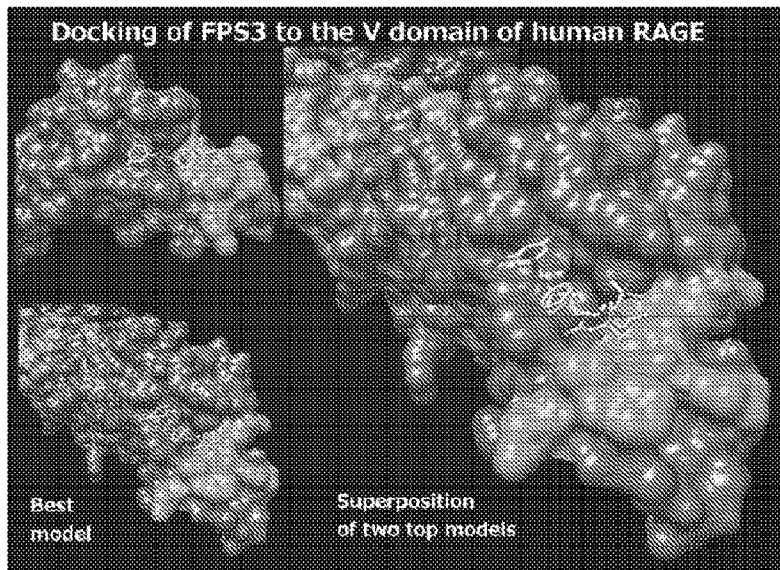


FIG. 7A

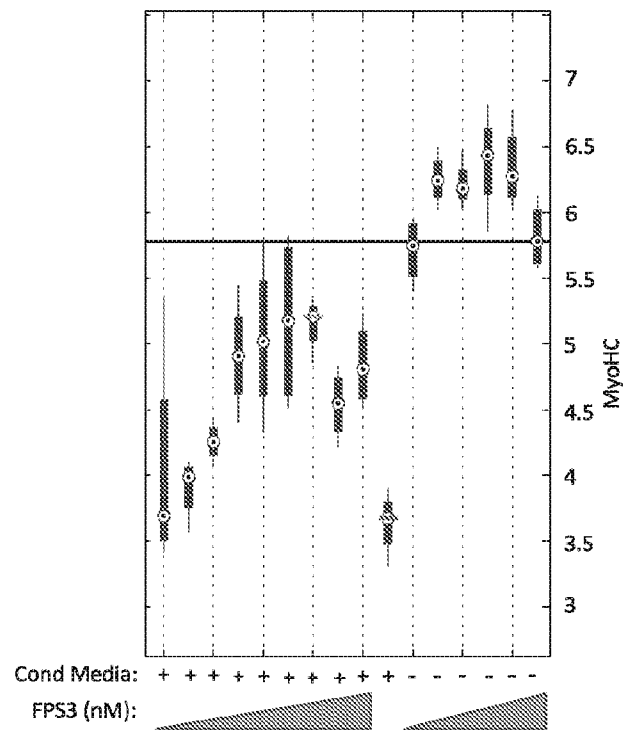


FIG. 7B

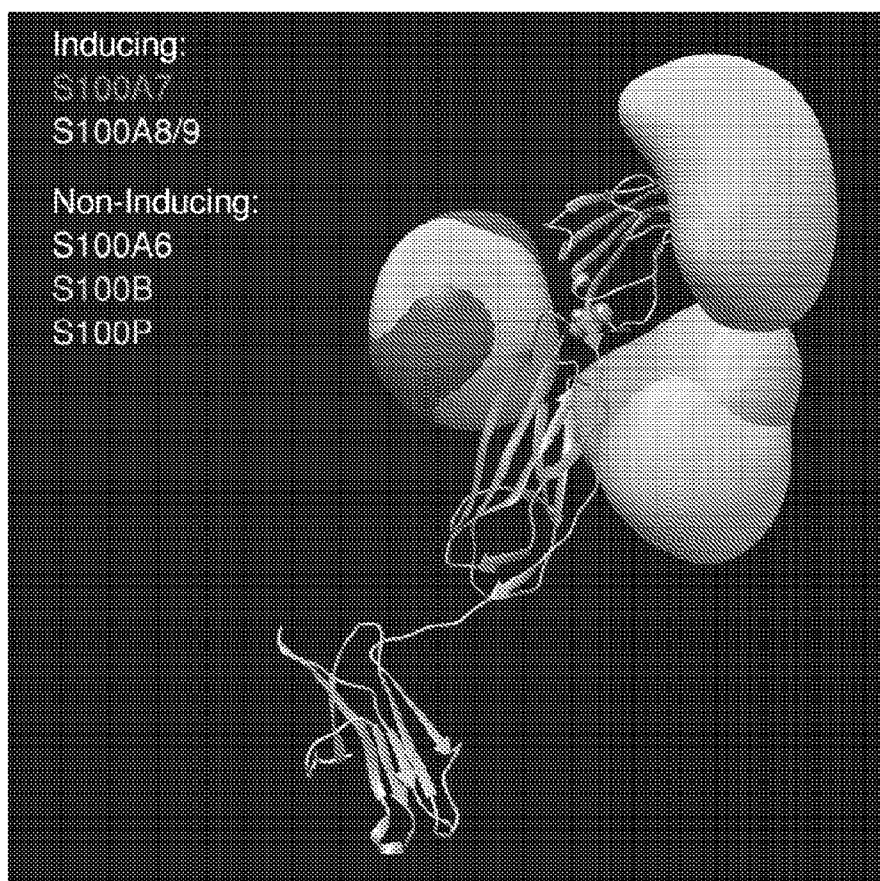
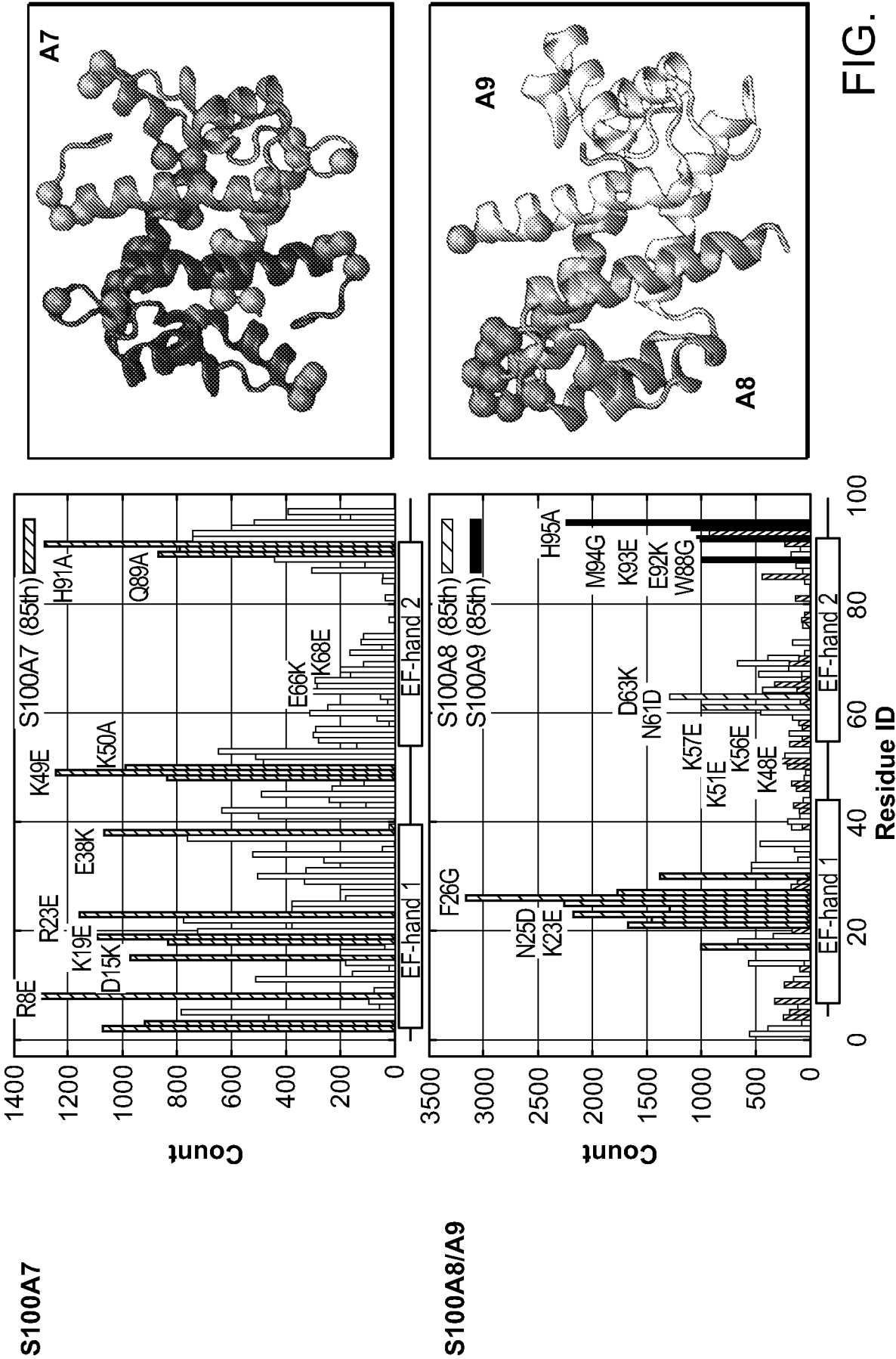


FIG. 8

Quantitative Approach to Identify S100s Contacts with RAGE



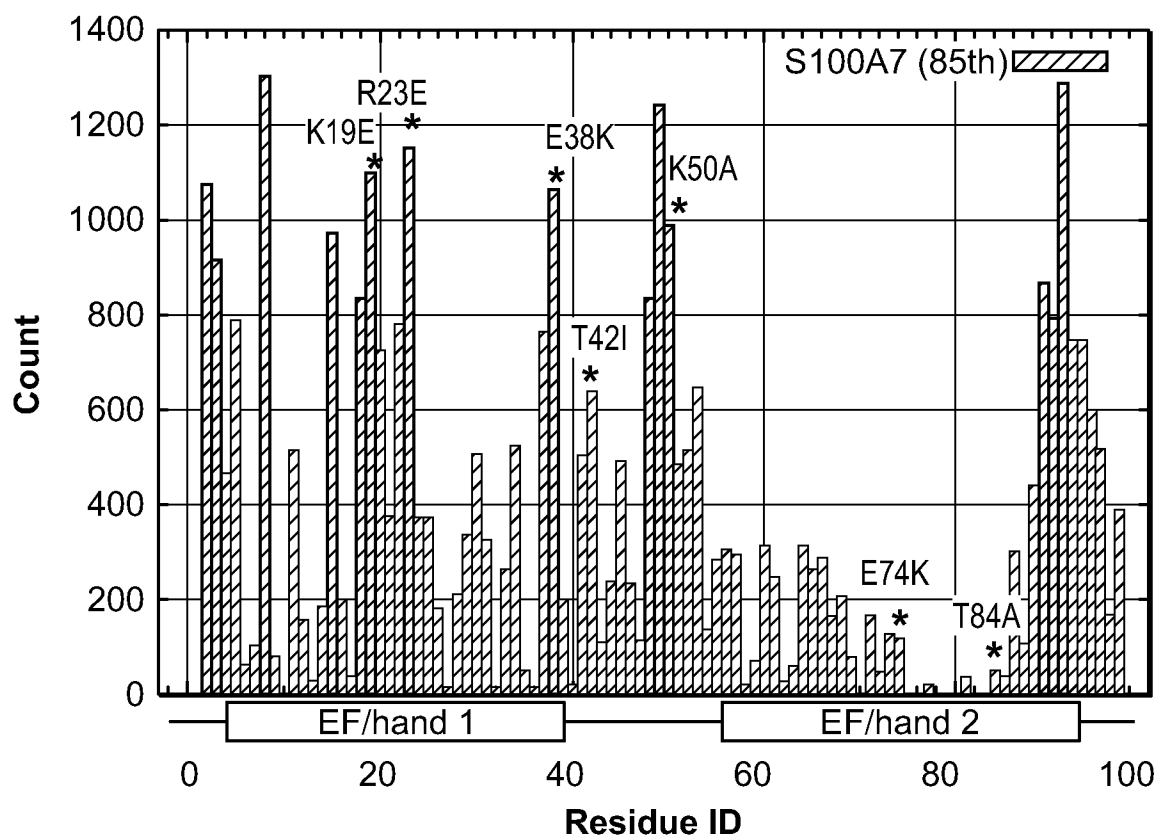
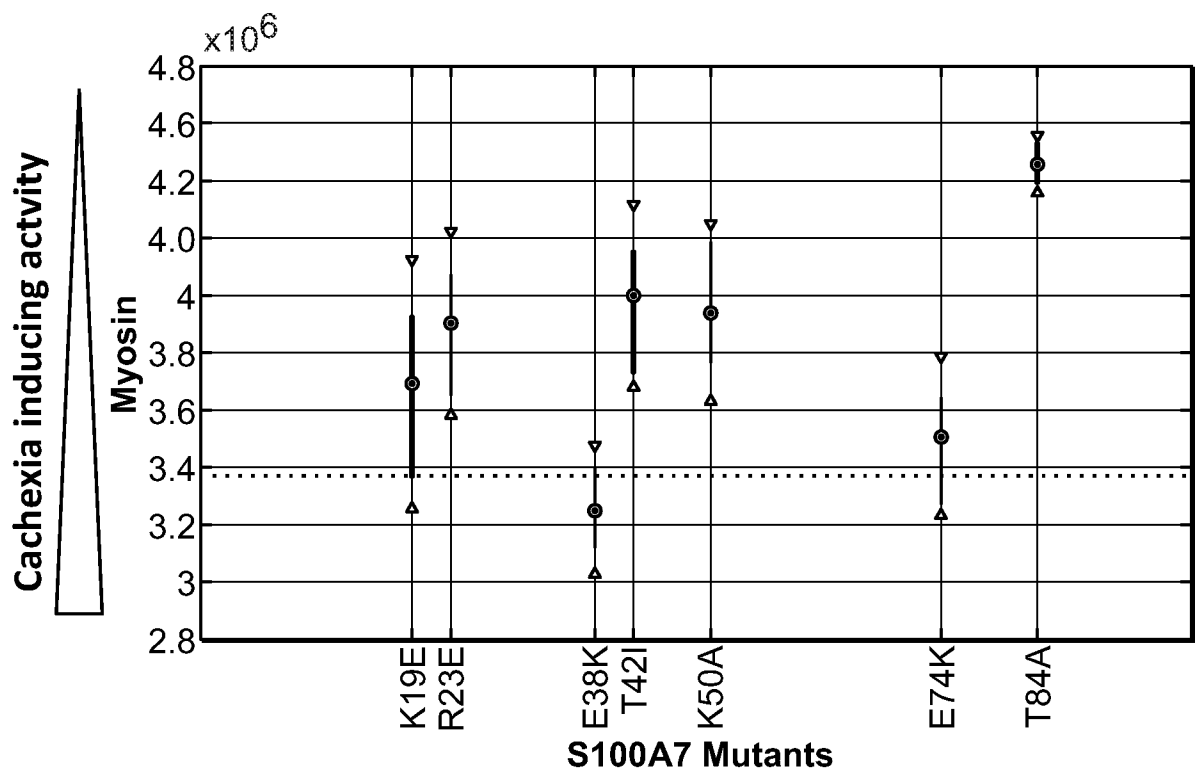
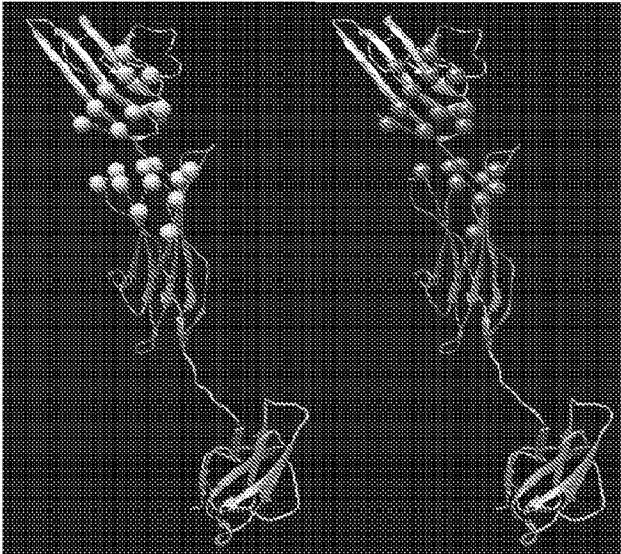
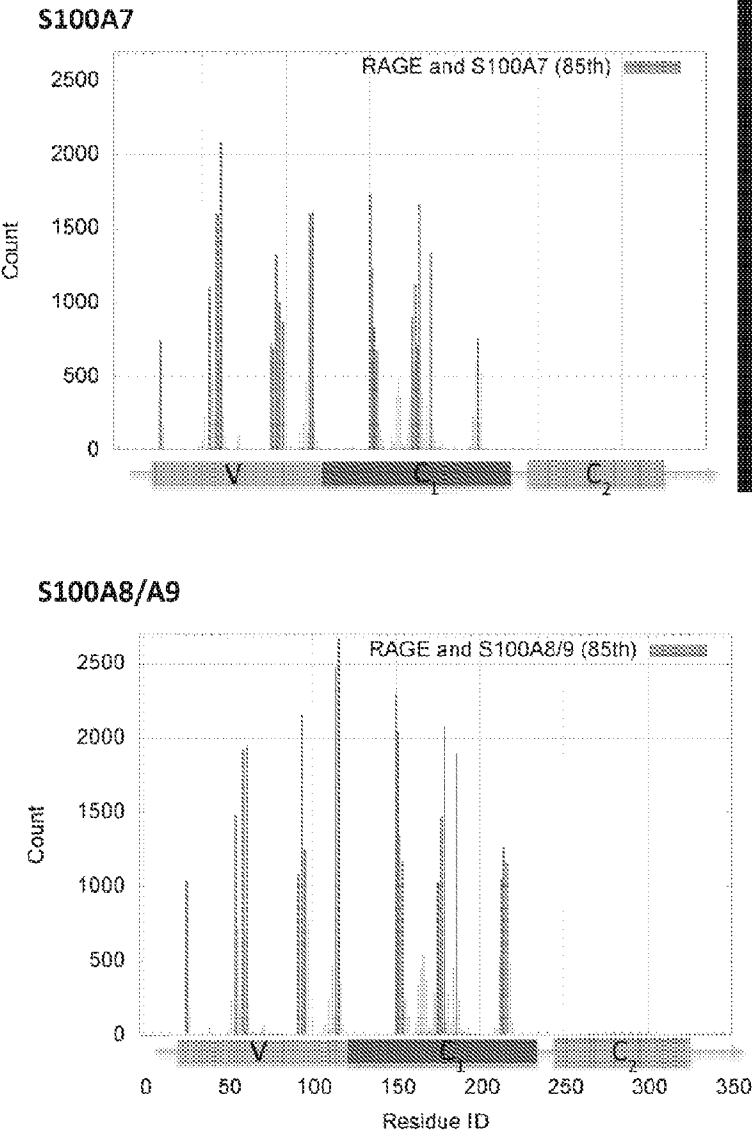


FIG. 10



Residues in contact with
S100A7 and S100A8/A9

A7	A8/9
25 54 59 61 91	25 54 59 61 92
92 94 96 98 114	94 96 114 116
116 150 151	150 151 152
152 175 177	154 175 177
178 179 186	179 186 213
214	214 216

FIG. 11

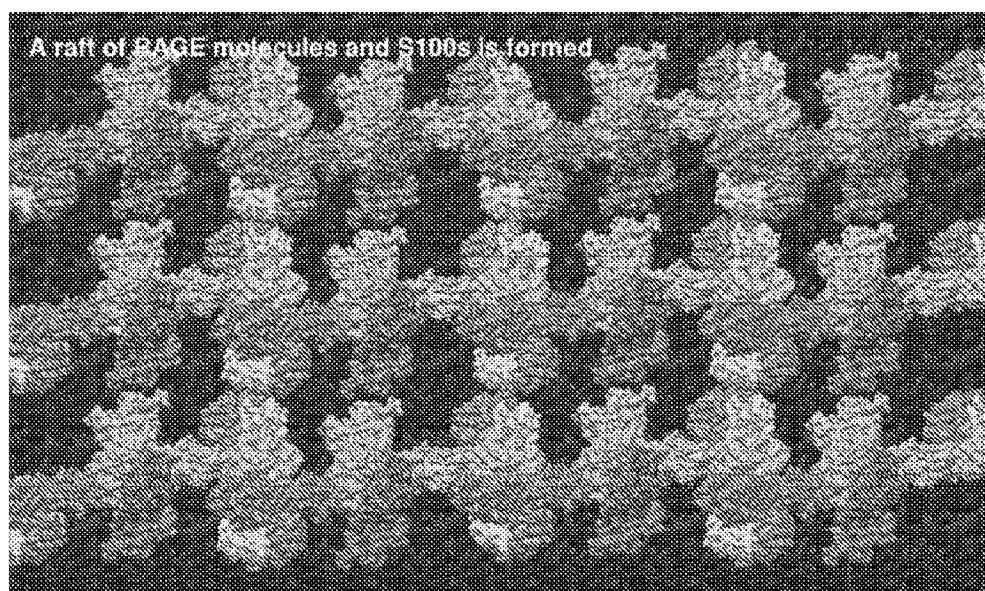
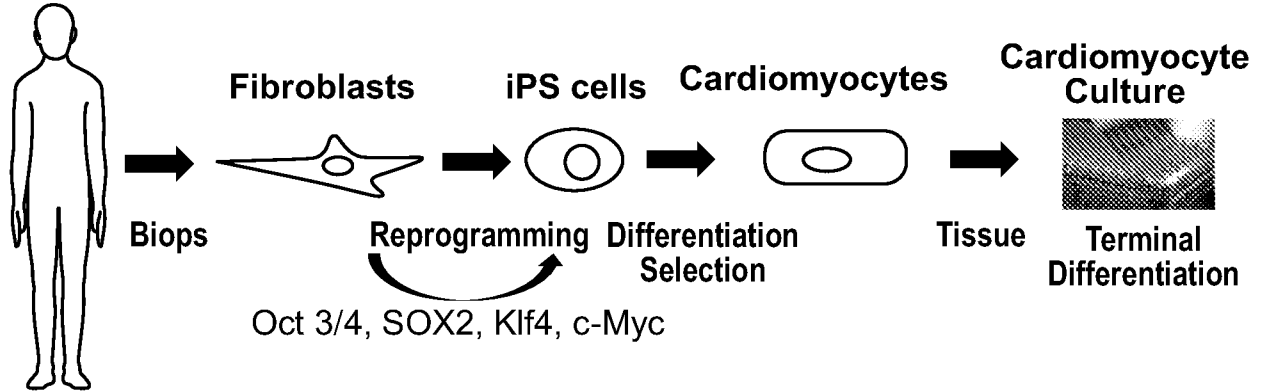
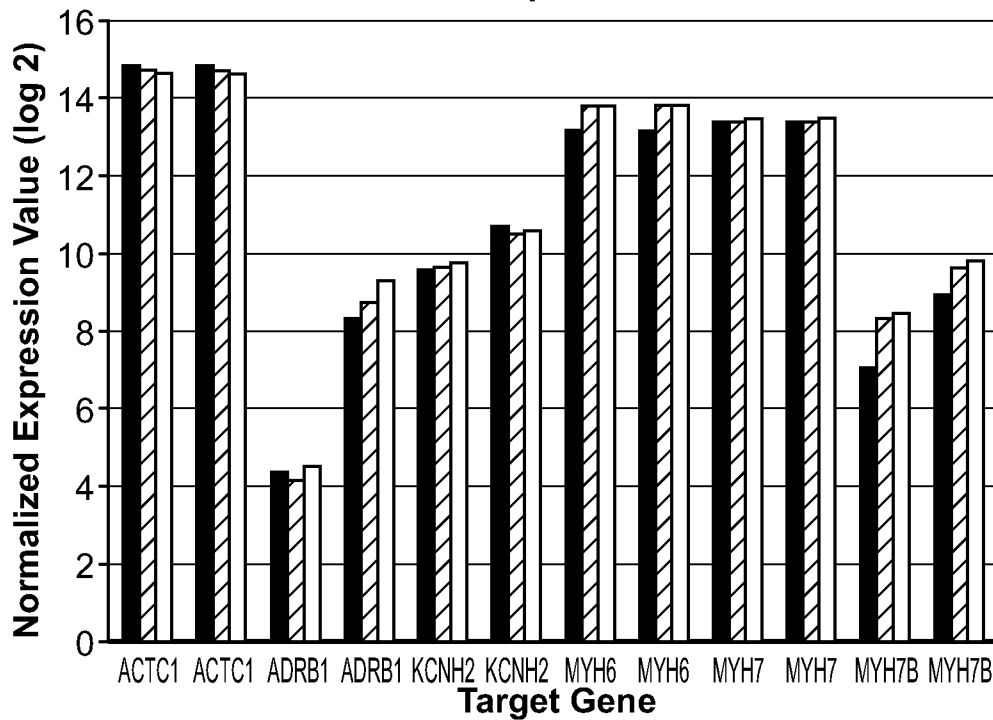
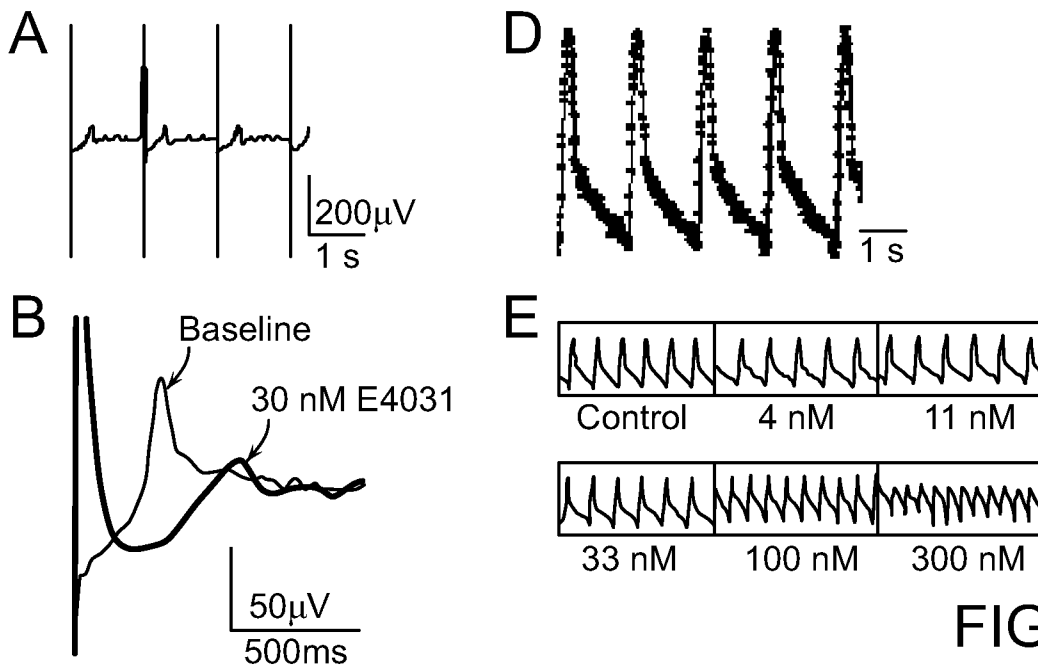


FIG. 12

Patient

**Gene Expression****Electrophysiology****FIG. 13**

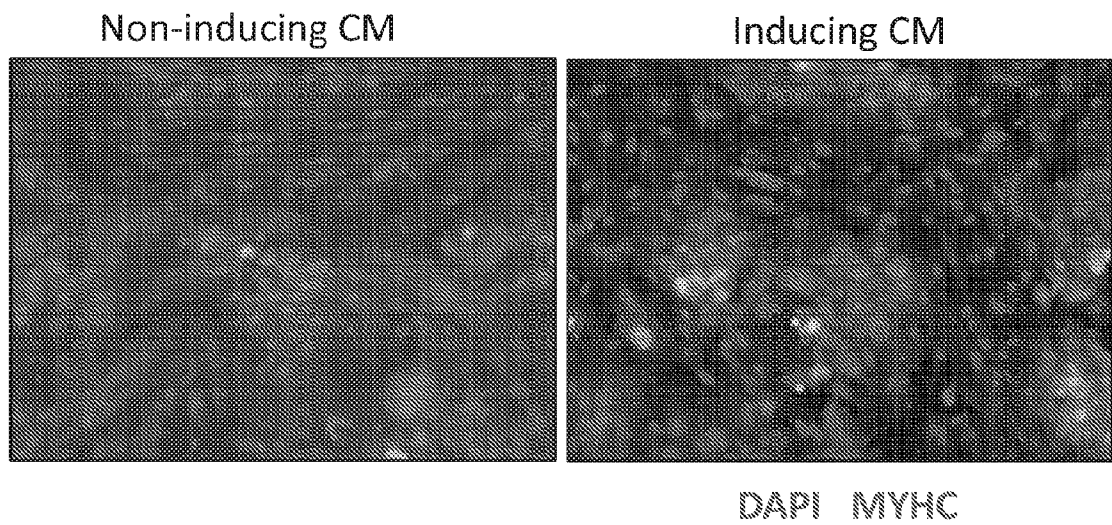


FIG. 14

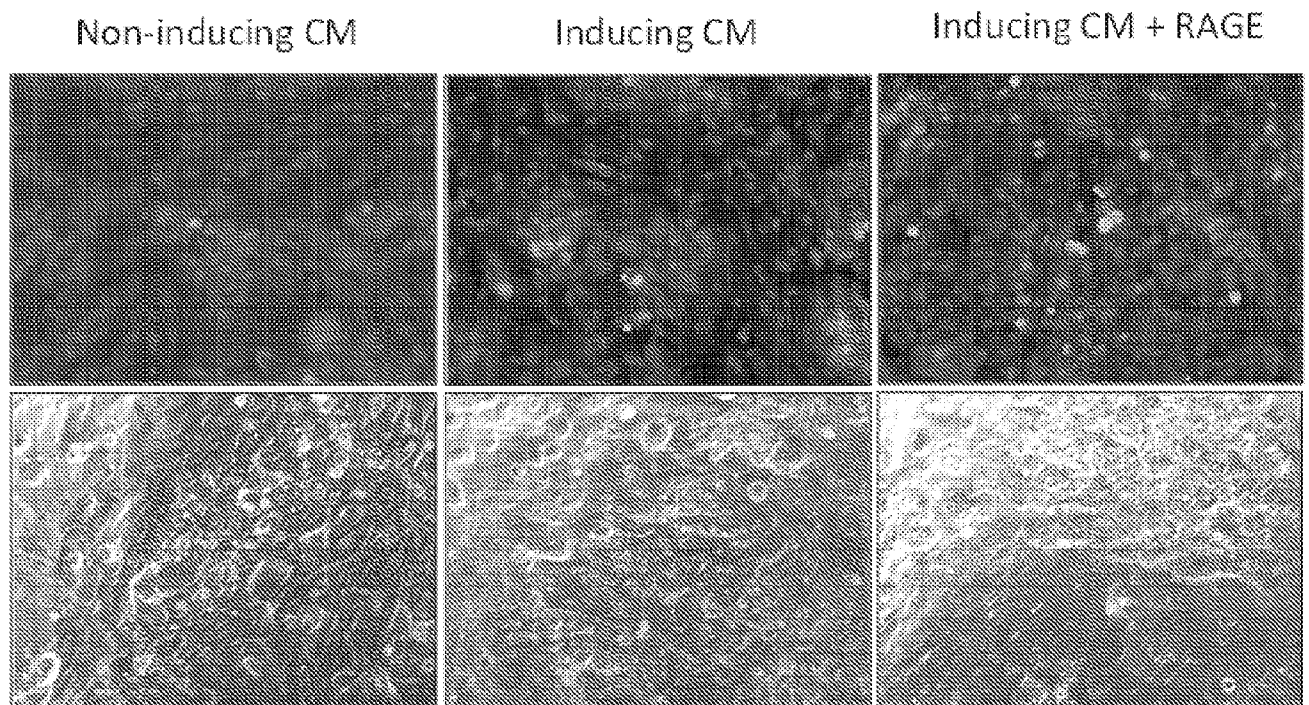
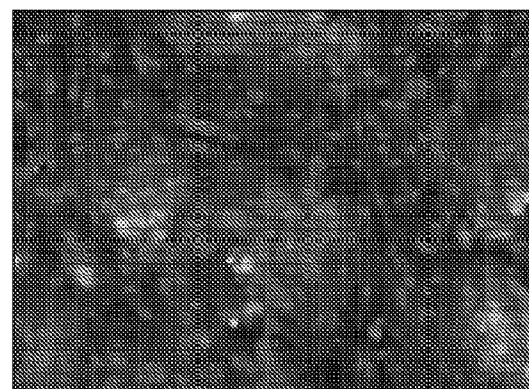
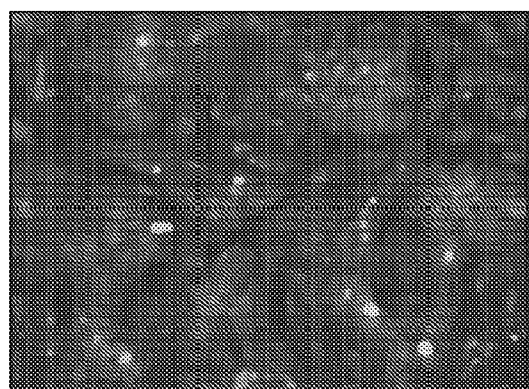


FIG. 15



Inducing CM + RAGE Ab *Rescue*



Rescue: 3D Inducing CM, followed by
3D Inducing CM + RAGE Ab

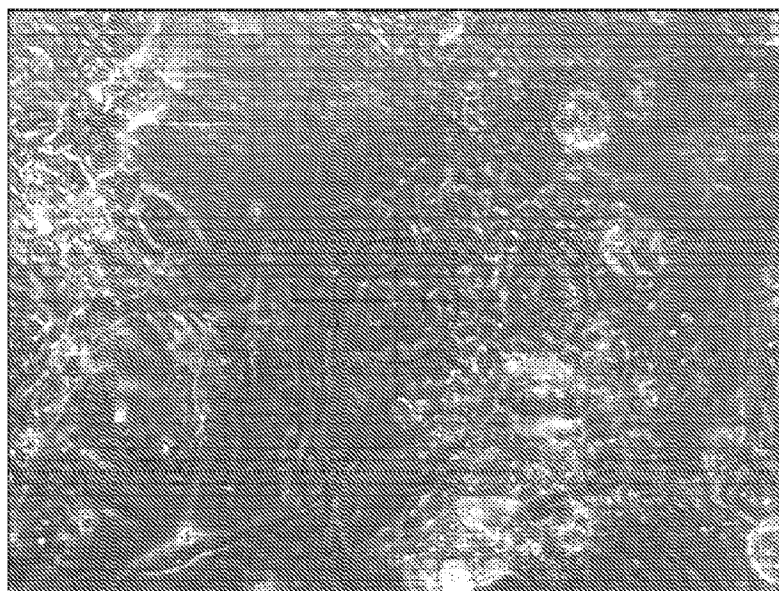


FIG. 16

Inhibiting Cachexia with Selective RAGE Antibodies

Primary Human Myocyte Functional Cachexia Assay

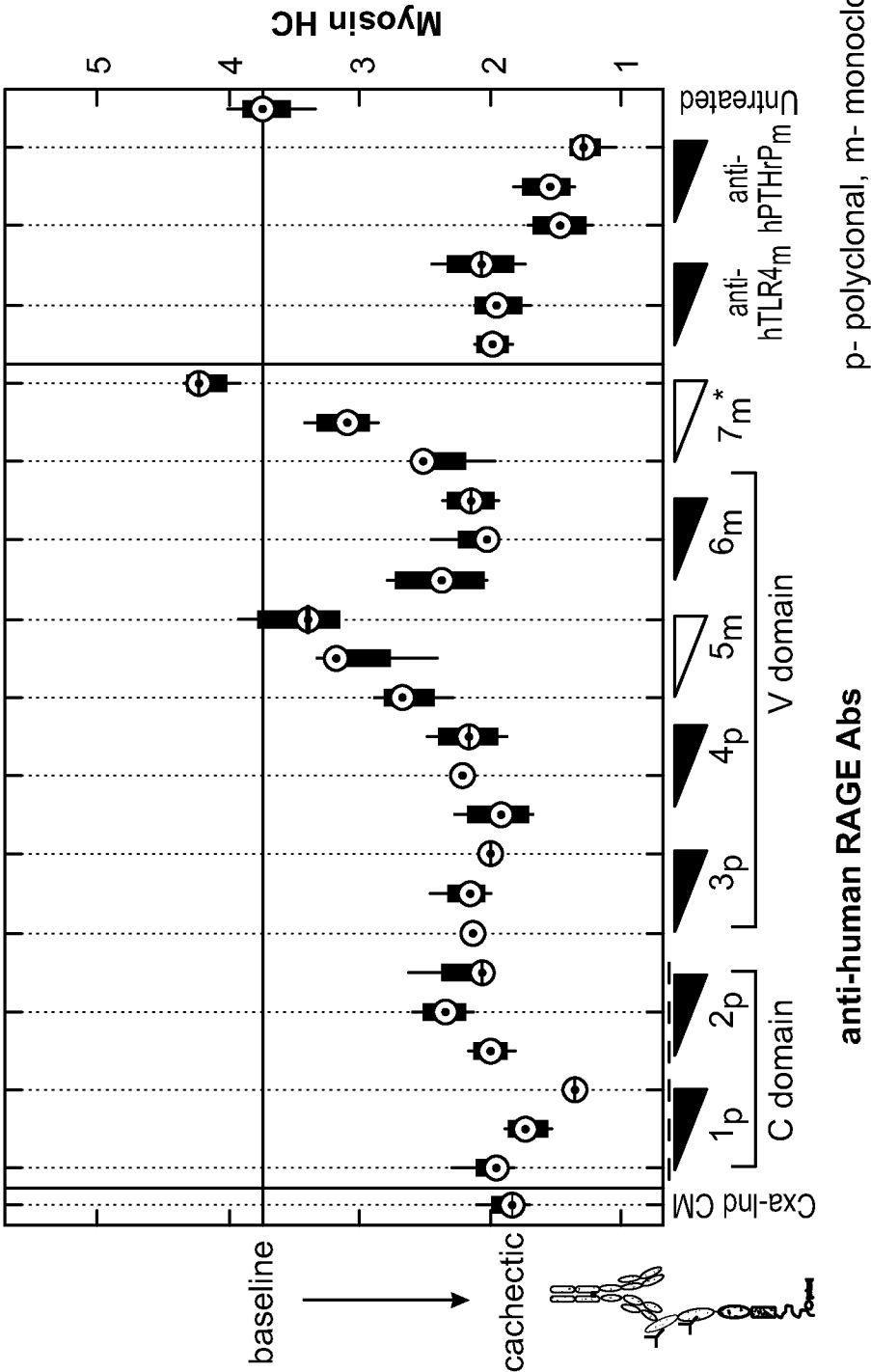


FIG. 17

Even closely targeted mAb's have strikingly different cachexia-inhibitory activity

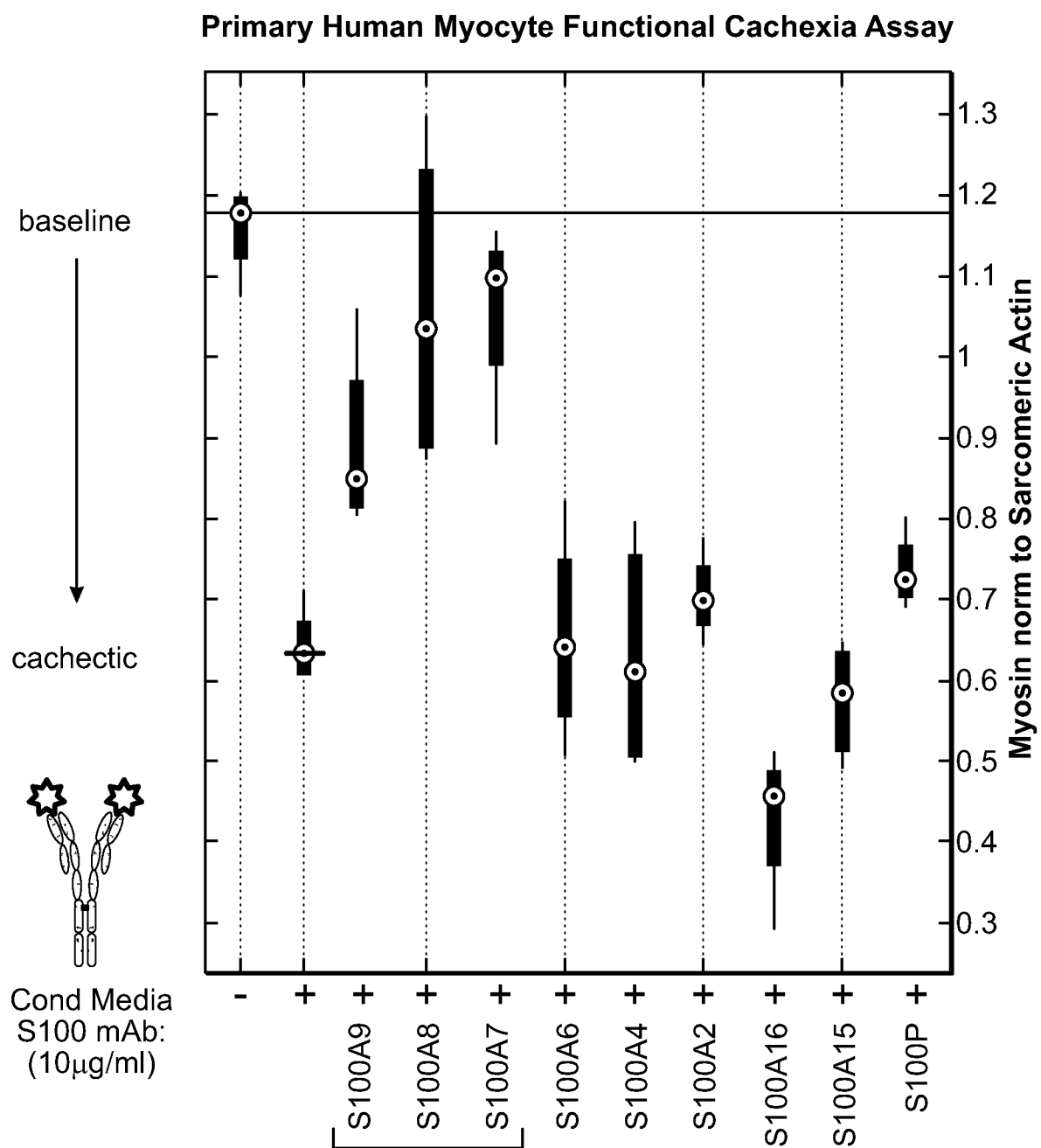


FIG. 18

16 of 22 anti-mouse RAGE Abs **cross react** with human $< 2e^{-07} = 73\%$

Anti-RAGE antibodies from Hock immunization

NB = no binding

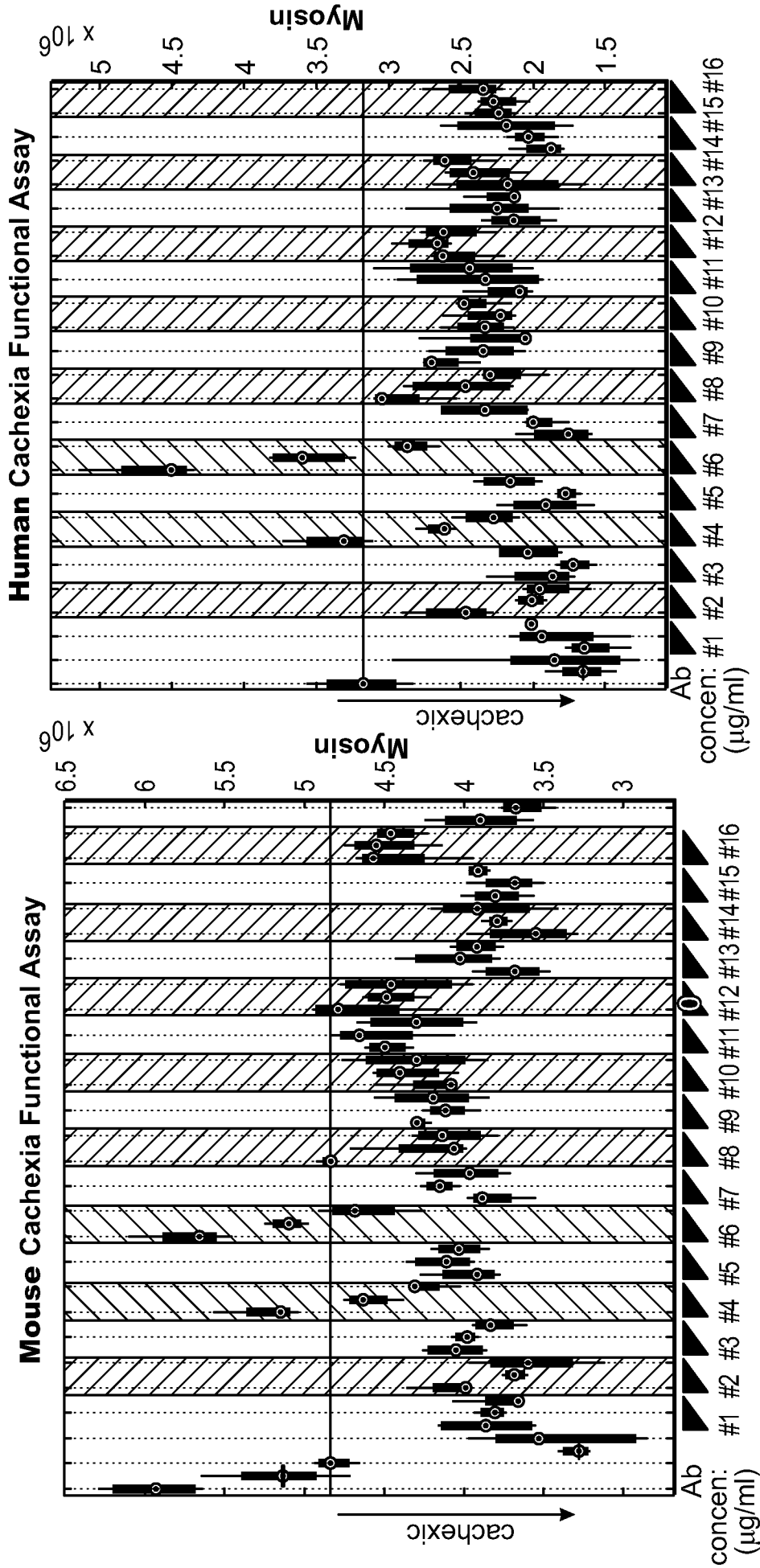
Antibody	mg/mL	% Monomer	Endotoxin EU/mg	Isotype	EC50 (nM) mRAGE (direct ELISA)	Kd (nM) mRAGE	Kd (nM) hRAGE	Binding site	Aliquot size
A	0.31	80.53	0.65	rat IgG1/K	0.95	1.3E-10	NB	V+C1 domain	100 ug
B	1.56	96.46	0.1	rat IgG1/K	0.58	1.8E-09	1.50E-09	V+C1 domain	1 mg
C	0.68	94.74	1.11	rat IgG1/K	1.01	7.6E-11	7.90E-09	V+C1 domain	100 ug
D	1.12	100	0.11	rat IgG2a/K	0.08	8.4E-10	1.90E-07	C2 domain	1 mg
E*	1.97	89.31	1.06	rat IgG2a/K	17.27	NB	NB	V+C1 domain	1 mg
F	2.06	91.8	0.66	rat IgG1/K	0.56	2.0E-10	NB	V+C1 domain	1 mg
G	1.97	90.72	0.63	rat IgG2a/K	0.09	4.4E-09	9.90E-09	C2 domain	1 mg
H	2.25	97.34	0.18	rat IgG1/K	0.45	1.4E-08	8.90E-09	C2 domain	1 mg

*Antibody E did not bind human and mouse RAGE in Biacore, but bound mRAGE in direct ELISA

Anti-RAGE antibodies from cDNA immunization

Antibody	mg/mL	% Monomer	Endotoxin EU/mg	Isotype	EC50 (nM) mRAGE (direct ELISA)	Kd (nM) mRAGE	Kd (nM) hRAGE	Binding site	Aliquot size
K	0.85	100	0.87	IgG2a/K	0.16	6.1E-11	2.3E-10	V+C1	100 ug
L	1.15	100	0.79	IgG2a/K	0.09	2.0E-10	8.6E-10	V+C1	100 ug
M	1.18	99.92	0.43	IgG2a/K	0.06	1.1E-10	5.1E-10	V+C1	100 ug
N	1.01	98.78	0.24	IgG2b/K	0.29	2.3E-10	3.8E-10	V+C1	1 mg
O	0.94	100	0.22	IgG2a/K	0.10	2.5E-11	NB	V+C1	100 ug
P	1.04	100	0.41	IgG2a/K	0.06	1.6E-10	7.1E-10	V+C1	1 mg
Q	0.83	98.86	1.14	IgG2a/K	0.10	2.0E-11	NB	V+C1	100 ug
R	1.81	99.98	0.79	IgG2a/K	0.06	1.6E-10	9.8E-10	V+C1	1 mg
S	0.8	100	0.31	IgG2a/K	0.07	1.1E-10	5.0E-10	V+C1	100 ug
T	1.26	99.73	0.12	IgG2a/K	0.03	1.8E-11	3.5E-07	V+C1	100 ug
U	1.56	97	0.05	IgG2a/K	0.10	9.1E-11	8.4E-10	V+C1	1 mg
V	1.15	94.68	0.29	IgG2a/K	0.11	1.8E-11	NB	V+C1	1 mg
W	2.02	100	0.22	IgG2a/K	0.05	5.5E-11	NB	V+C1	1 mg
X	1.08	97.97	0.51	IgG1/K	0.29	1.4E-10	1.8E-09	V+C1	1 mg

FIG. 19



Screened: 22 Ab candidates, Identified: 2 inhibitory Ab "hits" Highly specific activity, consistent across species supports WT Mouse as an appropriate Pre-clinical Model

FIG. 20



16 of 22 anti-mouse RAGE Abs cross react with human $< 2 \times 10^{-7} = 73\%$

Anti-RAGE antibodies from Hock immunization

NB = no binding

Antibody	mg/mL	% Monomer	Endotoxin EU/mg	Isotype	EC50 (nM) mRAGE (direct ELISA)	Kd (nM) mRAGE	Kd (nM) hRAGE	Binding site	Aliquot size	Inhibitory mouse Cxa Assay	Inhibitory human Cxa Assay
A	0.31	80.53	0.65	rat IgG1/K	0.95	1.3E-10	NB	V+C1 domain	100 µg	X	X
B	1.56	96.46	0.1	rat IgG1/K	0.58	1.8E-09	1.50E-09	V+C1 domain	1 mg	X	X
C	0.68	94.74	1.11	rat IgG1/K	1.01	7.6E-11	7.90E-09	V+C1 domain	100 µg	X	X
D	1.12	100	0.11	rat IgG2a/K	0.08	8.4E-10	1.90E-07	C2 domain	1 mg	++	++
E*	1.97	89.31	1.06	rat IgG2a/K	17.27	NB	NB	V+C1 domain	1 mg	X	X
F*	2.06	91.8	0.66	rat IgG1/K	0.56	2.0E-10	NB	V+C1 domain	1 mg	X	X
G	1.97	90.72	0.63	rat IgG2a/K	0.09	4.4E-09	9.90E-09	C2 domain	1 mg	X	X
H	2.25	97.34	0.18	rat IgG1/K	0.45	1.4E-08	8.90E-09	C2 domain	1 mg	X	X

*Antibody E did not bind human and mouse RAGE in Biacore, but bound mRAGE in direct ELISA

*Has limited inhibitory activity (HSkM > MskM)

Anti-RAGE antibodies from cDNA immunization

Antibody	mg/mL	% Monomer	Endotoxin EU/mg	Isotype	EC50 (nM) mRAGE (direct ELISA)	Kd (nM) mRAGE	Kd (nM) hRAGE	Binding site	Aliquot size	Inhibitory mouse Cxa Assay	Inhibitory human Cxa Assay
K	0.85	100	0.87	IgG2a/K	0.16	6.1E-11	2.3E-10	V+C1	100 µg	X	X
L	1.15	100	0.79	IgG2a/K	0.09	2.0E-10	8.6E-10	V+C1	100 µg	X	X
M	1.18	99.92	0.43	IgG2a/K	0.06	1.1E-10	5.1E-10	V+C1	100 µg	X	X
N	1.01	98.78	0.24	IgG2b/K	0.29	2.3E-10	3.8E-10	V+C1	1 mg	X	X
O	0.94	100	0.22	IgG2a/K	0.10	2.5E-11	NB	V+C1	100 µg	X	X
Q	1.04	100	0.41	IgG2a/K	0.06	1.6E-10	7.1E-10	V+C1	1 mg	X	X
R	0.83	98.86	1.14	IgG2a/K	0.10	2.0E-11	NB	V+C1	100 µg	X	X
S	1.81	99.98	0.79	IgG2a/K	0.06	1.6E-10	9.8E-10	V+C1	1 mg	X	X
T	0.8	100	0.31	IgG2a/K	0.07	1.1E-10	5.0E-10	V+C1	100 µg	X	X
U	1.26	99.73	0.12	IgG2a/K	0.03	1.8E-11	3.5E-07	V+C1	100 µg	X	X
V	1.56	97	0.05	IgG2a/K	0.10	9.1E-11	8.4E-10	V+C1	1 mg	X	X
	1.15	94.68	0.29	IgG2a/K	0.11	1.8E-11	NB	V+C1	1 mg	X	X
	2.02	100	0.22	IgG2a/K	0.05	5.5E-11	NB	V+C1	1 mg	X	X
X	1.08	97.97	0.51	IgG1/K	0.29	1.4E-10	1.8E-09	V+C1	1 mg	+++	+++

FIG. 22

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US16/66390

A. CLASSIFICATION OF SUBJECT MATTER

IPC - A61K 39/395; C07K 16/18, 16/28 (2017.01)

CPC - A61K 39/395; C07K 16/18, 16/28

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)

See Search History document

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

See Search History document

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

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	WO 2008/137552 A2 (MEDIMMUNE, LLC) November 13, 2008; abstract; paragraphs [0005], [0024], [0165], [0252]; claims 1, 9	1-2, 3/1-2, 4, 5/1-2, 6/1-2 — 7/1-2, 8/1-2
X — Y	WO 2015/085097 A1 (THE BROAD INSTITUTE, INC., et al.) June 11, 2015; page 22, lines 3-5; page 37, lines 30-32; page 35, lines 31-33; page 37, lines 30-32; claims 1; 52	9-14, 15/11-14, 21/9-10 — 7/1-2, 8/1-2
A	US 2003/0061198 A1 (ITAI, A, et al.) March 27, 2003; abstract; claim 1	22-24, 25/22-24, 27/23-24
A	YATIME, L et al. 'Structural Insights Into The Oligomerization Mode Of The Human Receptor For Advanced Glycation End-Products' Febs Journal , 2013, Vol. 280, No 24, pp 6556-6568; abstract; 6557, column 2, paragraph 3; page 6565, column 2, paragraph 2. DOI: 10.1111/febs.12556	22-24, 25/22-24, 27/23-24

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

21 February 2017 (21.02.2017)

Date of mailing of the international search report

17 MAR 2017

Name and mailing address of the ISA/

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-8300

Authorized officer

Shane Thomas

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US16/66390

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 16-20, 26
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.